

**FUNCTIONAL SERVICING AND PRELIMINARY
STORMWATER MANAGEMENT REPORT**

**9534 WELLINGTON ROAD 22
(HILLSBURGH RIDGE SUBDIVISION)**

TOWN OF ERIN

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1.0 Introduction

C.F. Crozier & Associates Inc. (Crozier) was retained by Thomasfield Homes Limited to prepare a Functional Servicing and Preliminary Stormwater Management Report in support of the Draft Plan of Subdivision (DPS) Approval and Zoning By-Law Amendment (ZBA) Application for the "Hillsburgh Ridge" development lands, referred to in this report as the Subject Lands. The Subject Lands cover an area of approximately 14 ha and are located at Lot 23, Concession 7 in the Town of Erin (Town), County of Wellington (County). A previous Draft Plan application submission was prepared by GEI in November 2024.

1.1 Subject Lands Description

The Subject Lands are currently a farmed agricultural field. The Subject Lands are bounded by future development lands to the north, agricultural land to the west, and Wellington Road 22 to the south. There is an existing woodlot to the east which is managed by the Credit Valley Conservation Authority (CVC) and is included in the West Credit River Wetland Complex and Erin Branch of the Credit River. According to the CVC regulation mapping, the Subject Lands are located within a CVC regulated area, specifically the easterly boundary.

According to the **Draft Plan of Subdivision** (GSP, August 19, 2025), the elements envisioned for the proposed development include:

- 214 residential units consisting of single and multiple detached residential, and townhouses.
- One (1) park block.
- One (1) stormwater management block.
- One (1) Municipal Pumping Station block.
- Associated open space.

1.2 Background Information

This document and all supporting engineering drawings and calculations have been prepared for a third submission to the agencies. A first submission in support of ZBA was prepared in March 2024 which was deemed incomplete by the Town. Comments were then provided with a ZBA resubmission provided back to the Town in November 2024 with a concurrent Draft Plan of Subdivision application also provided to the County of Wellington. A Public Meeting was held in April 2025 with staff comments received in May 2025. Additional comments were received from the County in July 2025.

The following drawings, design standards, and documents were referenced during the preparation of this report with relevant excerpts provided in Appendix A:

- Draft Plan of Subdivision (GSP Group, August 19, 2025)
- Credit Valley Conservation Authority online mapping (Accessed June 2, 2025)
- Hydrogeological Study for Hillsburgh Ridge Subdivision (GMBlueplan, November 7, 2024)
- 9534 Wellington Road 22 Hillsburgh Subdivision Environmental Impact Study (Natural Resource Solutions Inc., January 2026)
- Hillsburgh Residential Subdivision Transportation Impact Study (Salvini Consulting, April 2023)
- Geotechnical Investigation [V.A. Wood (Guelph) Inc., January 2015]
- County of Wellington Official Plan (May 2025)
- Town of Erin Servicing and Settlement Master Plan Final Report (Town of Erin, August 12, 2014)
- Town of Erin Engineering Design Standards Manual (2022)
- Credit Valley Conservation Stormwater Management Guideline (July 2022)
- TRCA and CVC Low Impact Development Stormwater Management Planning & Design Guide (2010)
- Stormwater Management Practices Planning and Design Manual (MECP, 1994)
- Design Guidelines for Drinking-Water Systems (MECP, 2008)
- Topographic Survey [GEI Consultants (previously GMBlueplan Engineering Ltd.), January 16, 2023]
- Stormwater Management Planning and Design Manual (MECP, 2003)

1.2.1 Soil Conditions

A Geotechnical Investigation was prepared by V.A. Wood (Guelph) Inc. in April 2015. The investigation consisted of six (6) boreholes across the Subject Lands to depths ranging from 4.9 m to 6.6 m below ground surface (bgs). Based on this investigation, the soils for the Subject Lands generally consist of approximately 300 mm thick topsoil, followed by sandy to clayey silt, and clayey silt tills. It should be noted the boreholes were dry upon the completion of the 2015 investigation.

A Hydrogeological Study was prepared by GM BluePlan Engineering Ltd. (GM BluePlan) in November 2024. The study initiated in 2016 with the drilling of six (6) boreholes and a collection of soil samples to categorize the stratigraphy of the underlying soils.

The study concludes that the soils are generally composed of the following:

- Topsoil (sandy silt to clayey silt texture), approximately 0.3 m thick
- Silt, approximately 2.5 m to 6 m thick
- Upper Till (sandy silt to clayey silt), approximately 4.5 m to 6 m thick
- Gravel, sand, and silt deposits
- Lower Till (clayey silt)

Please refer to Appendix A for the Geotechnical and Hydrogeological reports.

1.2.2 Groundwater Conditions

According to the Hydrogeological Study prepared by GM BluePlan in November 2024, groundwater monitoring results indicate the seasonal high groundwater levels vary from 3.6 m to 12.1 m bgs. The study recommends that the proposed stormwater management facility be lined with an impermeable liner (i.e. clay liner, geosynthetic membrane), to mitigate the passage of water between the stormwater management facility and the underlying aquifer. Confirmation that a liner is required as well as the design details such as liner thickness, material, and location are to be confirmed by the geotechnical engineer at the detail design stage.

According to the Geotechnical Report prepared by V.A Wood (January 2015), no major construction problems due to water are anticipated with excavations above an elevation of 435.2 m. Since the development is proposed to have excavations above this elevation, provisions will only be made for the control of any surface water runoff and minor seepage by pumping from local sumps on an as-required basis.

Please refer to Appendix A for the Hydrogeological and Geotechnical Reports.

2.0 Water Servicing

2.1 Existing Water Servicing

According to the Town of Erin, there are no water services fronting the Subject Lands. The Servicing and Master Plan Final Report prepared by the Town of Erin, dated 2014, however, illustrates that a future watermain will be extended south along Trafalgar Road to the Wellington Road 22 intersection. It is understood that this work has been or will be completed prior to connection of the Subject Lands.

See Appendix A for the communication with the Town of Erin.

2.2 Domestic Water Demand

The water demand for the proposed development was calculated with reference to the Ministry of Environment (MOE) Design Guidelines for Drinking-Water Systems (2008), and the Town of Erin Engineering Design Standards Manual (2022). Unit counts were obtained from the Draft Plan of Subdivision prepared by GSP Group, dated August 19, 2025. Additional Dwelling Units (ADU's) have been accounted for by assuming 20% of the units contain an ADU. ADU's are assumed to be apartments with a PPU of 2.65, per Town standards. Table 1 summarizes the overall water demand and the potential for development. Please refer to Appendix B for detailed water demand calculations.

Table 1: Domestic Water Demands

Average Daily Water Demand (L/s)	Maximum Daily Demand (L/s)	Peak Hourly Demand (L/s)
2.39	6.58	9.88

As shown in Table 1, the estimated peak hourly demand for the proposed development is 9.88 L/s.

2.3 Fire Flow Demand

As indicated by the Town of Erin Engineering Design Standards Manual (2022), the Fire Underwriters Survey (FUS) method (2020) is used to estimate the fire flow requirements for the various unit types of the proposed development. The fire flow determined from the FUS method is a conservative estimate for comparison purposes only.

The building types are assumed to be a limited-combustible construction type with protected vertical openings (C-value = 1.0), with no added sprinkler systems, and classified as residential occupancies (Group C).

The gross floor area for each building type was determined with reference to the Town of Erin Engineering Design Standards Manual (2022), where the largest block of each type was measured because they represent the highest-risk occupancies. Table 2 summarizes the estimated fire flow demand and duration necessary to meet fire protection for the governing fire flow requirements for the potential development.

Table 2: Estimated Fire Demand Flows

Building Type	Demand Flow (L/s)	Duration (h)
Single Detached Residential	133	2.00
Street Townhouse	200	2.50
Stacked Townhouses	217	2.75

Notes:

¹ FUS Calculations for each building type are calculated based on full build-out conditions.

² Stacked Townhouses are assumed to be used in the Multi-Residential block as a conservative assumption.

³ Maximum lot coverage is assumed to be 30% for each building type and each building is assumed to be three (3) storeys in height.

Based on the results from Table 3 the fire flows for each building type are:

- Single Detached Residential: 133 L/s for 2.00 hours.
- Street Townhouse: 200 L/s for 2.50 hours.
- Stacked Townhouses: 217 L/s for 2.75 hours.

Based on the estimated water demands for each property and fire flow demands summarized in Table 2, the total design flow for the internal water distribution system would be governed by the stacked townhouses, which results in a flow of 217 L/s.

2.4 Proposed Water Servicing

The proposed development will be serviced by extending a watermain along Wellington Road 22 from Trafalgar Road, in the westerly direction from the intersection to the frontage of the development. A local watermain will then be extended throughout the development via the internal road network. The proposed watermain sizing will be completed as part of the detailed design of the proposed development once the Draft Plan approval has been received.

3.0 Sanitary Servicing

3.1 Existing Sanitary Servicing

According to the Town of Erin and Wellington County, there are no sanitary services fronting the Subject Lands. The Servicing and Master Plan Final Report prepared by the Town of Erin, dated 2014, however, illustrates that a future sanitary trunk sewer will be extended southeast along the Elora Cataract Trail, approximately 600 m northeast from the Subject Lands. At the time of the writing of this report, the sanitary sewer had been constructed up to the crossing of County Road 22 and the Elora Cataract Trail. We understand the next phase extends the sewer from Wellington Road 22 to Erin which has been tendered and is anticipated to start construction early 2026. It is assumed construction will begin from Erin and go north to Wellington Road 22. It is anticipated the sanitary sewer will be installed and ready for connection well ahead of registration of the subdivision and is recommended that Crozier consult with the Town to ensure a connecting maintenance hole is in place for the subdivision connection.

3.2 Sanitary Demand

The sanitary demand for the proposed development was calculated with reference to the Town of Erin Engineering Design Standards Manual (2022). Unit counts were obtained from the Draft Plan of Subdivision prepared by GSP Group, dated August 19, 2025. Additional Dwelling Units (ADUs) have been accounted for by assuming 20% of the units contain an ADU. Similar to the water demand, ADUs are assumed to be apartments with a PPU of 2.65, per Town standards. Table 3 summarizes the overall sanitary demand and potential for development. Please refer to Appendix C for detailed sanitary demand calculations.

Table 3: Estimated Sanitary Design Flows

Average Daily Flow (L/s)	Infiltration Flow (L/s)	Total Peak Flow¹ (L/s)
2.39	4.10	13.41

Note: ¹ Total Peak Flow includes a peaking factor of 3.89 which was applied to the average daily demand.

As shown in Table 3, it is estimated that the peak sanitary flow for the development is 13.41 L/s.

3.3 Proposed Sanitary Servicing

3.3.1 External Sanitary Servicing

As noted previously, the Town of Erin is in the process of constructing a gravity sanitary sewer system along the Elora Cataract Trail (EC Trail) and extending south to Erin to service future developments. As part of the pre-consultation, it was determined that a gravity connection from the Subject Lands to the proposed sanitary sewer at the EC Trailway via Wellington Road 22 was not feasible due to the elevation of the Credit River culvert crossing and sag in the road downstream of the Subject Lands. This has since been confirmed through further analysis completed by Crozier. The Town of Erin provided an invert elevation of approximately 421.1 m to the previous engineer for the sanitary sewer at the EC Trail crossing and Wellington Road 22. Extending the sanitary sewer westerly along Wellington Road 22 at a minimum slope of 0.5% would produce an invert approximately 1.5 m higher than the existing road elevation at the sag location. To achieve standard sanitary sewer depth at the sag in the road, and avoid conflict with the culvert crossing, the sanitary sewer at the EC Trail would have to be lowered by approximately 4 m. It was concluded that lowering the sanitary sewer is not feasible and that the Subject Lands would need to be serviced by an on-site sanitary sewage pumping station and forcemain.

The sanitary sewage pumping station will pump sanitary flows from the proposed development via a proposed sewer Wellington Road 22. These flows will be pumped along Wellington Road 22 to the new trunk sewer at the EC Trail.

3.3.2 Internal Sanitary Servicing

The proposed development will be serviced by a 200 mm diameter gravity sanitary sewer extended along the internal streets which will connect to the proposed sanitary sewage pumping station. Each dwelling will be serviced via a proposed 125 mm diameter sanitary service lateral, per the Town of Erin Engineering Design Standards Manual (2022).

See for Appendix C for preliminary sanitary sewer design calculations.

3.4 Proposed Storm Servicing

The internal storm sewer is proposed to convey the 5-year design storm to the stormwater management facility, per the Town of Erin Design Standards. Storm events greater than the 5-year event are proposed to be conveyed overland through the municipal right-of-way to the stormwater management facility.

Stormwater controls within the stormwater management facility are proposed to attenuate the flows to pre-development conditions before discharging into the existing roadside ditch along Wellington Road 22.

An on-site meeting with County staff and Crozier occurred on September 12, 2025, to address County concerns related to site drainage being directed to the Wellington Road 22 roadside ditch. It is understood that during wet conditions in the spring and fall, significant runoff from the site flows to the roadside ditch and conveyance within the ditch is limited due to the state of the ditch and infrastructure. During the on-site meeting, it was agreed that the ditch can continue to be used as an outlet provided improvements to the ditch occur. As part of the detailed design of this project, ditch conveyance will be improved to accommodate the expected discharge from the proposed SWM facility. Similarly, a series of ditch inlet catchbasins (DICBs) and culverts/perforated pipes will be proposed within the ditch to further improve drainage to the satisfaction of the County.

County staff also noted that the retaining wall at the Creek crossing on Wellington Road 22 is in disrepair and that funds have been allocated to address this structural concern which is expected to require attention in the near future. County staff noted that the work to fix the wall would be paid for by the County but requested that, if possible, the work be done as part of the ditch improvements. Crozier and Thomasfield Homes will work with the County to coordinate this effort to the extent possible.

Ditch design drawings will be provided through detailed design following Draft Plan Approval of the subdivision. See for Appendix D for preliminary storm sewer design calculations.

Each lot will have a proposed 150 mm diameter storm service lateral connected to the proposed storm sewer system in the municipal right-of-way. Foundation drainage will be provided via sump pumps discharging into the storm service lateral.

4.0 Stormwater Management

4.1 Design Criteria

Stormwater management design criteria were established in accordance with the policies and standards of the Town of Erin, the Credit Valley Conservation Authority, and the Ministry of Environment, Conservation and Parks (MECP).

The stormwater management criteria applicable to the proposed development are as follows:

- Water Quantity Control
 - Control post development peak flows to pre-development levels for all storms up to and including the 100-year event.
 - The larger of the uncontrolled 100-year or the Regional Storm Events must be safely conveyed through the SWM Facility via an emergency flow route.
- Water Quality Control
 - 80% removal efficiency of Total Suspended Solids (TSS) per MECP 'Enhanced protection' requirements.
- Erosion Control
 - 24-48-hour extended detention of the 25 mm 4-hour Chicago storm event.
 - On site retention of the first 5mm of rainfall.
- Water Balance
 - Maintain pre-development annual average groundwater recharge rates

4.2 Existing Drainage Conditions

Based on the existing topography, the Subject Lands have been delineated into the following pre-development catchments and are illustrated in the Pre-Development Drainage Figure (**Figure 1**).

- Catchment 101 (6.87 ha) consists of existing agricultural area located at the northeastern portion of the site. Runoff drains overland towards the existing woodlot and ultimately to the West Credit River Wetland Complex and Erin Branch of the Credit River downstream.
- Catchment 102 (5.81 ha) consists of existing agricultural area located at the western portion of the Site. Runoff drains overland to the adjacent agricultural fields located west of the Subject Property.
- Catchment 103 (1.48 ha) consists of existing agricultural area located within the southeastern portion of the Site. Runoff drains overland to the existing roadside ditch along the north side of Wellington Road 22, and ultimately towards the West Credit River Wetland Complex and Erin Branch of the Credit River downstream.

Under existing conditions, each of the above catchments is mainly comprised of agricultural area. As such, drainage parameters for each of the above catchments were based on agricultural land use and the underlying silt soils across the site (Hydrologic Soil Group B). SCS Curve Numbers were assigned to each of the catchments based on MTO Design Chart 1.09 and converted to CN* values using Visual Otthymo software and the precipitation depth of the 100-year storm event (145mm). For the Regional (Hurricane Hazel) storm event, CN* values were converted to CN (AMC III) values to account for antecedent moisture conditions preceding this large storm event.

Runoff coefficients for each catchment were calculated based on land use, soil type, and topographic slope per Table 12 of the Town of Erin Design Criteria. Time to peak values were then calculated using the Airport method (for runoff coefficients <0.40) or the Bransby-Williams method (for runoff coefficients >0.40). Per Town criteria, a minimum 10 minute (0.17 hour) time of concentration was applied.

Detailed pre-development hydrologic parameter calculations are provided in Appendix D and a summary table is provided below in Table 4.

Table 4: Pre-Development Drainage Parameter Summary

Catchment ID	Area (ha)	CN Value	CN* Value	CN (AMC III) Value	Time to Peak (hour)	Initial Abstraction (mm)
101	6.87	74	75	87	0.17	7.0
102	5.81	74	75	87	0.25	7.0
103	1.48	74	75	87	0.19	7.0
Total	14.15	-	-	-	-	-

4.3 Proposed Drainage Conditions

Based on the proposed grading and servicing plan, the Subject Lands have been delineated into a total of seven (7) drainage catchments. Runoff from the majority of the development area will be directed via the internal storm sewer network while overland flow will be conveyed along municipal right-of-ways to the on-site stormwater management facility. Small areas along the property limits will drain uncontrolled as described below. The following pre-development catchments and are illustrated in the Post-Development Drainage Figure (**Figure 2**).

- Catchment 200 (9.56 ha) consists of the majority of the development area including residential lots (singles, townhouses), a multiple unit residential block, parkland, and internal right-of-ways. Minor system runoff from this area is captured and conveyed via the proposed internal site storm sewer network to the proposed stormwater management pond. Major flows from this area drain overland via the internal road network to the proposed stormwater management facility. Controlled flows from the stormwater management facility will outlet to the roadside ditch along Wellington Road 22, and ultimately outlet to the West Credit River Wetland Complex and Erin Branch of the Credit River downstream.
- Catchment 201 (1.34 ha) consists of the proposed stormwater management pond block located near the southeast corner of the site. Controlled flows from the stormwater management facility will outlet to the roadside ditch along Wellington Road 22, and ultimately outlet to the West Credit River Wetland Complex and Erin Branch of the Credit River downstream.
- Catchment 202 (1.81 ha) consists of the rear-roofs and rear-yards of residential lots as well as the 10 m open space buffer along the eastern property boundary. Runoff from this area drains uncontrolled via sheet flow towards the adjacent woodlot, similar to existing conditions.
- Catchment 203 (0.29 ha) consists of a portion of the park block which drains uncontrolled via sheet flow towards the adjacent property to the west.
- Catchment 204 (0.48 ha) consists of a small portion of the multiple residential block as well as the proposed sewage pumping station road right-of-way area near the southeast corner of the site. Runoff from this area drains uncontrolled to the roadside ditch along Wellington Road 22, and ultimately towards the West Credit River Wetland Complex and Erin Branch of the Credit River downstream.
- Catchment 205 (0.16 ha) consists of a portion of the multiple residential block fronting Wellington Road 22. Runoff from this area drains uncontrolled to the existing roadside ditch along the north side of Wellington Road 22, and ultimately towards the West Credit River Wetland Complex and Erin Branch of the Credit River downstream.
- Catchment 206 (0.52 ha) consists of a portion of the multiple residential block (Block 145) as well as the rear-roofs and rear-yards of single residential lots 61-69. Runoff from this area drains uncontrolled via sheet flow towards the adjacent property to the west.

For mainly pervious catchments (Catchments 203 & 205), drainage parameters (curve numbers, times to peak, initial abstraction values, etc.) were calculated using the same methodologies as described in Section 4.2, however based on the proposed land uses and proposed grades.

For mainly impervious catchments (Catchments 200, 201, 202, 204, & 206), percent impervious values were calculated for each catchment based on the land uses proposed. To determine the approximate percent imperviousness for residential (single and townhouse) lots, minimum setbacks were applied to determine the maximum possible roof area per lot type. Driveways for each lot were assumed to be a 3.0m width and equal in length to the front yard setback. It was assumed that 2/3 of the impervious area on each residential (single and townhouse) lot would be directly connected to the drainage system, with 1/3 of the impervious area per lot being disconnected.

Per Town standards, a multiple residential land use is represented by a runoff coefficient range of 0.55-0.75. A runoff coefficient of 0.80 was selected for conservatism and when converted to a percent imperviousness, results in an 80% imperviousness. For the 0.94 ha multiple residential block this results in approximately 0.75 ha of impervious area and 0.19 ha of pervious area. It was assumed that the portion of the multiple residential block fronting Wellington Road 22 (Catchment 205, 0.16 ha) will comprise mainly of landscaped area. As such, the remaining portions of the multiple residential block contained within Catchments 200, 204, and 206 were assumed to contain the remaining 0.04 ha of impervious area. As such, the remaining portions of the multiple residential block which are contained within catchments 200, 204, and 206 were calculated to have a higher percent imperviousness value of up to 98%. Refer to calculations provided in Appendix D. Within the road right-of-way, impervious areas (asphalt and sidewalk) were measured to scale in AutoCAD from the Draft Plan.

Each of the mainly impervious catchments will be modeled as STANDHYD commands within the Visual Otthymo model, therefore total directly connected and indirectly connected impervious values were calculated, as well as composite CN values for pervious areas, and composite initial abstraction values.

Detailed post-development hydrologic parameter calculations are provided in Appendix D and a summary table is provided below in Table 5.

Table 5: Post-Development Drainage Parameter Summary

Catchment ID	Area (ha)	TIMP (%)	XIMP (%)	CN Value	CN* Value	CN (AMC III) Value	Time to Peak (hour)	Initial Abstraction (mm)
200	9.56	0.60	0.50	65	62	79	-	5.0
201	1.34	0.50	0.50	50	51	71	-	10.0
202	1.81	0.37	0.26	61	61	78	-	6.5
203	0.29	-	-	65	62	79	0.17	5.0
204	0.48	0.72	0.72	65	62	79	-	5.0
205	0.16	-	-	65	62	79	0.17	5.0
206	0.52	0.63	0.49	65	62	79	-	5.0
Total	14.16	-	-	-	-	-	-	-

4.4 Stormwater Quantity Control

The stormwater management criteria applicable to the Site state that post development peak flows are to be controlled to the corresponding pre-development levels, for all storms up to and including the 100-year event. Visual Otthymo (v6.2) hydrologic models were prepared to model the pre- and post-development peak flow conditions associated with the site.

A 24-hour SCS Type II storm distribution was used to model for the 2, 5, 10, 25, 50, and 100-year design storm events. Town of Erin Intensity-Duration-Frequency data summarized below was used to generate the design storms in Visual Otthymo.

Table 6: Town of Erin IDF Constants

Storm Event	A	B	C
2-Year	566	1.77	0.730
5-Year	744	1.76	0.729
10-Year	869	1.79	0.730
25-Year	1011	1.75	0.728
50-Year	1126	1.76	0.729
100-Year	1248	1.83	0.732

Peak flows generated based on the existing condition hydrologic model are summarized in Table 7 below.

Table 7: Pre-Development Peak Flow Summary

Storm Event	Peak Flow Rates (m ³ /s)			
	East to Woodlot	West	East to Wellington 22 Ditch	Total
	Catchment 101	Catchment 102	Catchment 103	
2-Year	0.459	0.310	0.095	0.864
5-Year	0.744	0.510	0.154	1.408
10-Year	0.949	0.651	0.196	1.791
25-Year	1.233	0.845	0.254	2.319
50-Year	1.435	0.985	0.295	2.696
100-Year	1.618	1.110	0.332	2.024

Peak flows generated based on the proposed condition hydrology model are summarized in Table 8 below.

Table 8: Post-Development (Uncontrolled) Peak Flow Summary

Storm Event	Peak Flow Rates (m ³ /s)			
	West	East		Total
	Catchments 203 & 206	Catchment 202 (to Woodlot)	Catchments 200, 201, 204, 205 (to Ditch)	
2-Year	0.092	0.156	1.433	1.681
5-Year	0.138	0.255	2.025	2.417
10-Year	0.167	0.317	2.550	3.034
25-Year	0.208	0.404	3.190	3.802
50-Year	0.237	0.468	3.625	4.329
100-Year	0.263	0.525	4.009	4.797

As can be seen from Tables 7 & 8 above, the total post-development peak flow rates from the development exceed the pre-development peak flow rates, therefore on-site quantity controls are needed.

Runoff from the majority of the development area will be directed to a stormwater management wet pond located near the southeast corner of the property. The SWM pond will control peak flow rates and discharge to the roadside ditch along Wellington Road 22. Some perimeter areas of the site will drain uncontrolled as described in **Section 4.3**. Therefore, the SWM pond will be overcontrolled to compensate for uncontrolled areas leaving the site to ensure the total site discharge remains equal to or less than pre-development rates.

Catchments 203 & 206, comprising mainly of parkland, rear-yard and rear-roof drainage will drain uncontrolled towards the adjacent property to the west, similar to existing conditions. Based on the proposed grading plan for the development, the total area draining west from the site is reduced under proposed conditions compared to existing conditions. As summarized in Table 9 below, the post-development peak flow rates draining west are less than the peak flow rates draining west under existing conditions for the 2-100-year return period storm events. Therefore, no quantity controls are proposed for this area.

Table 9: Peak Flow Summary to West (Uncontrolled)

Storm Event	Peak Flow Rates (m ³ /s)		
	Pre-Development	Post-Development	% Difference
	Catchment 102	Catchments 203 & 206	
2-Year	0.310	0.092	-70.3%
5-Year	0.510	0.138	-72.9%
10-Year	0.651	0.167	-74.3%
25-Year	0.845	0.208	-75.4%
50-Year	0.985	0.237	-75.9%
100-Year	1.110	0.263	-76.3%

Catchment 202, comprising mainly of rear-roof, rear-yard, and open space area, will drain uncontrolled via sheet flow to the east to the adjacent woodlot and ultimately to the West Credit River Wetland Complex and Erin Branch of the Credit River downstream. Under existing conditions, a total 6.87 ha area of the site drained towards the adjacent woodlot via sheet flow. Based on the proposed grading plan for the development, the post-development area draining to the adjacent woodlot is 1.81 ha. A summary table is provided below in Table 10 demonstrating that the post-development peak flow rates draining to the adjacent woodlot are significantly reduced compared to existing conditions, therefore no quantity controls are proposed for this area.

Table 10: Peak Flow Summary to Woodlot East of Site (Uncontrolled)

Storm Event	Peak Flow Rates (m ³ /s)		
	Pre-Development	Post-Development	% Difference
	Catchment 101	Catchments 202	
2-Year	0.459	0.156	-66.0%
5-Year	0.744	0.255	-65.7%
10-Year	0.949	0.317	-66.6%
25-Year	1.233	0.404	-67.2%
50-Year	1.435	0.468	-67.4%
100-Year	1.618	0.525	-67.6%

The proposed stormwater management wet pond will outlet to the roadside ditch along Wellington Road 22. Since runoff from Catchments 204 & 205 will also drain uncontrolled to Wellington Road 22 (and ultimately to the West Credit River Wetland Complex and Erin Branch of the Credit River downstream), peak flow rates discharging from the wet pond will be overcontrolled to ensure total flow rates discharging from the site to the ditch along Wellington Road 22 do not exceed pre-development peak flow rates. Catchment 103 (1.48 ha) currently drains to the Wellington Road 22 ditch. Under post-development conditions, peak flow rates are increased, therefore quantity controls are required. Please refer to the peak flow rate summary provided in Table 11 below.

Table 11: Peak Flow Summary to Wellington Rd. 22

Storm Event	Peak Flow Rates (m ³ /s)	
	Pre-Development	Post-Development (Uncontrolled)
	Catchment 103	Catchments 201, 204 & 205
2-Year	0.095	1.433
5-Year	0.154	2.025
10-Year	0.196	2.550
25-Year	0.254	3.190
50-Year	0.295	3.625
100-Year	0.332	4.009

Details pertaining to the SWM pond design characteristics to meet all quantity, quality, and erosion requirements for the SWM pond are summarized in **Section 4.7** of this report. A Civil 3D surface of the pond was generated using AutoCAD software and a table of the elevations and corresponding storage volumes was generated. Preliminary orifice controls were sized to meet the target flow rates as well as extended detention criteria. A stage storage discharge table was prepared to represent the pond and coded into Visual Otthymo using the Route Reservoir command to represent the active storage component of the pond.

Low Impact Development (LID) measures are proposed on site to mitigate infiltration reduction due to the increased imperviousness of the site from pre-development conditions, thereby maintaining water balance on the site. More details are provided in **Section 4.8** of this report. LID storage nodes were coded into Visual Otthymo to capture the first 27mm of runoff from residential rooftops within the site. This will help reduce pond storage requirements as roof runoff from these storm events would be directed and infiltrated by these LIDs rather than enter the pond.

Results from the VO model determined that the largest storage volume requirement occurred during the 100-year design storm event, requiring a total 7,641 m³ of active storage volume. The proposed SWM pond provides a total active storage volume of 7,902 m³ up to elevation 438.70 within the pond. There is also an additional 0.3 m of freeboard to the top of pond above the 100-year water level. Therefore the pond is appropriately sized to meet quantity control requirements. Refer to Table 12 below summarizing the storage volumes and water levels during each of the 2 through 100-year storm events. Refer to Appendix D for SWM pond design calculations and post-development VO model outputs.

Table 12: SWM Pond Quantity Control Summary

Storm Event	Wellington Road 22 Target Flow (m ³ /s)	Wellington Road 22 Outflow (m ³ /s)	Pond Storage Volume (m ³)	Pond Water Level (masl)
2-Year	0.095	0.106	3,132	437.70
5-Year	0.154	0.150	4,794	438.10
10-Year	0.196	0.176	5,492	438.20
25-Year	0.254	0.211	6,322	438.40
50-Year	0.295	0.239	6,991	438.50
100-Year	0.332	0.266	7,692	438.70

As can be seen from the results summarized above, the proposed SWM pond and controls will sufficiently reduce post-development peak flow rates to the target peak flow rates for the 5-100 year storm events. The 2-year storm event increases flow rates by ~12% entering Wellington Road 22, however this is seen as a minimal increase for a minor storm event, in terms of conveyance of the flows through the ditch system and its capacity. Peak flow rates to Wellington Road 22 remain less than or equal to existing rates for all other storm events.

4.5 Stormwater Quality Control

Stormwater quality criteria require "Enhanced" Level Protection defined by the MECP as the removal of 80% total suspended solids (TSS) from 90% of the average annual runoff volume for the proposed development. To meet this requirement, runoff from most of the development is directed to the SWM wet pond to provide water quality treatment via a permanent pool.

The proposed SWM facility has been designed to remove along-term average of 80% of TSS from the contributing stormwater runoff. The required water quality volume is based on the overall imperviousness of the contributing area, which is 58% for the contributing 10.90 ha catchment area. Using Table 3.2 from the MECP SWM Planning and Design Manual, the total required water quality storage volume (permanent pool and extended detention) is equal to 191 m³/ha. A summary of the water quality calculations for the SWM pond is shown in Table 13. Refer to Appendix D for detailed pond sizing information.

Table 13: SWM Pond Water Quality Summary

Description	Value
Catchment Area	10.90 ha
Imperviousness	58%
MECP Total Water Quality Volume	197 m ³ /ha
MECP Permanent Pool Volume	157 m ³ /ha
Permanent Pool Volume Required	1,711 m ³
Permanent Pool Volume Provided	2,012 m ³

Runoff from Catchment 204, consisting of a portion of the multiple residential block, sewage pumping station, and internal road-right-of way at the entrance to the site, cannot be directed into the SWM pond inlet due to grading constraints. An Oil/Grit Separator (OGS) will be proposed to provide quality treatment of runoff from this area prior to discharging from the property. Sizing for an OGS unit to treat runoff from this catchment will be completed at the detailed design stage.

Remaining catchments which do not drain to the pond are comprised of residential roofs and landscaped areas, which are considered as inherently "clean" runoff. As such, no additional quality treatment is proposed for these uncontrolled areas draining via sheet flow.

4.6 Stormwater Erosion Control

The erosion control volume target according to the CVC SWM Guidelines is the extended detention of the runoff from the 25 mm design storm (4-hour, Chicago distribution) released over a period of 24-48 hours. Per MECP design criteria, the extended detention control volume target is calculated as 40 m³/ha based on the tributary drainage area. Table 14 below summarizes the erosion control volume targets applicable to the SWM pond.

Table 14: SWM Pond Erosion Control Summary

Description	Value
Catchment Area	10.90 ha
Imperviousness	58%
MECP Extended Detention Volume	40 m ³ /ha
MECP Extended Detention Volume	436 m ³
25 mm Design Storm Runoff Volume	7.26 mm
25 mm Design Storm Extended Detention Volume	712 m ³
Extended Detention Volume Provided	912 m ³

The erosion control volume target calculated using the 25 mm design storm event governs. The erosion control volume from the development will be detained within the proposed on-site SWM wet pond above the permanent pool, up to an elevation of 436.90 m. A 100 mm diameter orifice will control the detention time of the extended detention volume, achieving a drawdown period of 36.1 hours. Refer to Appendix D for preliminary erosion control volume and extended detention control calculations.

Per CVC Stormwater Management Guidelines, dated July 2022, on-site retention of the first 5 mm of rainfall is to be provided. Based on the 14.16 ha site area, a total 708 m³ is to be retained on site in order to meet this erosion control volume requirement. On-site retention will be provided via infiltration-based low impact development measures; refer to Section 4.8 for additional information.

4.7 Stormwater Management Pond Operating Characteristics

As outlined in the preceding sections of this report, the proposed stormwater management wet pond has been designed to provide quantity, quality, and erosion control. The wet pond was designed in accordance with Town of Erin, Credit Valley Conservation Authority, and Ministry of Environment, Conservation, and Parks stormwater management pond design criteria.

Design details of the proposed SWM wet pond are summarized in Tables 15, 16, and 17 below. Refer to Appendix D for design calculations and Drawings C701 & C702 for plan and profile views of the facility.

Table 15: SWM Pond Critical Elevations

Datum	Elevation (m)	Depth Above Permanent Pool (m)
Top of Pond	439.00	2.50
Emergency Event Water Level	438.80	2.30
100-Year High Water Level / Emergency Spillway	438.70	2.20
Extended Detention	436.90	0.40
Permanent Pool	436.50	-
Bottom of Pond	434.70	-
Bottom of Deep Pool in Main Cell	434.00	-

Table 16: SWM Pond Design Characteristics

	Required / Minimum Criteria	Provided
Drainage Area	5 - 10 ha	10.90 ha
Length to Width Ratio	3:1	4:1
Forebay Depth	1.0 – 2.5m	1.8 m
Pond Depth	Max. 5.0m	4.7m
Maximum Pond Side Slopes	5:1 for 3m on either side of permanent pool, 3:1 elsewhere (MECP minimum criteria)	
Extended Detention Drawdown Time	24-48 hours	36.1 hours
Permanent Pool Volume	1,711 m ³	2,012 m ³
Extended Detention Volume	712 m ³	912 m ³
Quantity Control Volume (100-Year)	7,693 m ³	8,153 m ³

Table 17: Preliminary SWM Pond Control Structures Summary

SWM Pond Control Structures	Control Type	Control Dimensions	Control Invert
Stage 1 (Extended Detention)	Circular Orifice Plate	100 mm Diameter	436.50
Stage 2 (Active Storage)	Circular Orifice Plate	250 mm Diameter	438.00
Stage 3 (Emergency Spillway)	Trapezoidal Weir	42.0 m Wide	438.70

The 100-year uncontrolled peak flow rate is larger than the regulatory storm (Hurricane Hazel) peak flow rate, therefore the emergency spillway of the SWM pond has been designed to accommodate uncontrolled peak flow runoff from the 100-year storm event based on contributing catchments with overland flow routes. A minimum of 0.30 m of freeboard has been provided above the emergency storm event water surface elevation.

Per the Hydrogeological Study (GM Blueplan, 2024) SWM pond liner is recommended to prevent transmission of pond water into the underlying aquifer. Detailed liner requirements for the pond will be specified by the Geotechnical Engineer at the detailed design stage.

4.8 Water Balance

A water balance assessment was completed for the subject 14.15 ha site using the Thornthwaite & Mather method. Historical climate normals data for the nearby Toronto Pearson Airport was obtained from Environment Canada for the years 1991-2020 and used for the analysis. Toronto Pearson was the closest geographical station to the Site with a complete set of available temperature, precipitation, and rainfall data.

As part of the Hydrogeological Assessment prepared for the Site by GM BluePlan Engineering (November 7, 2024) groundwater contours and groundwater flow direction through the site was interpreted based on monitoring data as shown on Figure 7 – Inferred Groundwater Contours and Flow Direction. Based on this plan and as described in the GM BluePlan report, groundwater flow is generally southwards, however a local groundwater divide bisects the Site directing a portion of groundwater towards the southwest and the remainder east towards the Credit River (Erin Branch).

Catchments used for the water balance assessment were therefore delineated based on the local groundwater divide so that the assessment of infiltration, evaporation and runoff could be completed for both the overall site as well as to the southwest and eastern groundwater systems. To assess existing water budget conditions, a total of four catchments were discretized as follows:

- Catchment 301 (4.41 ha) of existing agricultural area located along the northeastern side of the site. Surface runoff and groundwater flow east through the existing woodlot and ultimately to the West Credit River Wetland Complex and Erin Branch of the Credit River downstream.
- Catchment 302 (0.27 ha) of existing agricultural area located along the north side of the site. Surface runoff and groundwater flow in opposite directions from this catchment with surface runoff draining overland to the west and groundwater flow draining east to the West Credit River Wetland Complex and Erin Branch of the Credit River downstream.
- Catchment 303 (3.93 ha) of existing agricultural area located central to the site. Surface runoff and groundwater flow in opposite directions from this catchment with surface runoff draining overland to the east and groundwater flow draining towards the west property boundary.

- Catchment 304 (5.54 ha) of existing agricultural area located along the western portion of the site. Surface runoff and groundwater flow westwards towards the adjacent property.

Pre-development condition water balance catchments are shown on Figure 3.

For the purposes of the post-development water balance assessment, the Site was discretized into 2 catchments, as described below:

- Catchment 401 (4.68 ha) of proposed development area comprising of single residential lots, a portion of the stormwater management pond as well as internal roadways. Surface runoff and groundwater flow drains eastwards through the existing woodlot and ultimately to the West Credit River Wetland Complex and Erin Branch of the Credit River downstream.
- Catchment 402 (9.47 ha) of proposed development area comprising of single residential lots, townhouses, a multiple residential block, a portion of the stormwater management pond, a park, and internal roadways. Surface runoff from most of this area will be directed to the stormwater management pond. Surface runoff from some minor perimeter areas of this catchment drain overland to the west. Groundwater within this catchment flows towards the west property boundary.

Post-development condition water balance catchments are shown on Figure 4. Water budget calculations are provided in Appendix D and a summary of the unmitigated annual water balance assessment is provided in Table 18 below.

Table 18: Site Water Balance Summary (No Mitigation)

Scenario	Area (ha)	Evapotranspiration		Infiltration		Runoff	
		(m ³)	(mm)	(m ³)	(mm)	(m ³)	(mm)
Pre-Development	14.15	81,478	576	19,623	139	13,082	92
Post-Development	14.15	44,558	315	11,291	80	58,352	412
Difference	0.00	-36,920	-261	-8,332	-59	45,270	320
% Difference	0%	-45%	-45%	-42%	-42%	346%	346%

In general, the proposed development will increase the amount of impervious area across the site, thereby reducing infiltration and evaporation and increasing surface runoff. Increases in surface runoff will be mitigated by the proposed stormwater management pond, which provides quality and quantity control of runoff from the development.

Per CVC Stormwater Management Guidelines, dated July 2022, pre-development annual average groundwater recharge rates shall be maintained. Therefore, Low Impact Development measures are proposed on-site to mitigate the annual 8,332 m³ reduction in infiltration, compared to pre-development conditions.

Based on the shallow groundwater contours prepared by GM Blueplan (2024) there is more than 2.9m of vertical separation between the shallow groundwater elevations and the proposed grades across most of the site, particularly in rear-yards. As such, it is proposed that rear-yard infiltration galleries be installed in the rear-yards of single and townhouse lots, where feasible, to provide infiltration of roof runoff. These infiltration galleries will be designed to accommodate 27mm of runoff from the rear half of these residential rooftops via downspout connection. An overflow will be incorporated into the downspout design to allow roof runoff in excess of the infiltration gallery capacity to outlet at grade to a splash pad which directs flows to the rear-yard. Infiltration gallery design will be provided at detailed design.

A total of 166 rear-yard infiltration galleries are currently proposed and will collect 27 mm of runoff from the roof areas. 115 of these rear-yard infiltration galleries will be located on the west side of the local groundwater divide, while the remaining 51 rear-yard infiltration galleries will be located on the east side of the local groundwater divide.

In addition to the rear-yard LIDs, an infiltration gallery is proposed in the multiple residential block (Block 145) and will be sized to accommodate 27mm of runoff from roof areas. The assumption at this stage is that all roof drainage from the multiblock will be directed to a single, centralized gallery. The design of the gallery will be completed through the Site Plan Approval process.

The infiltration galleries described above will help to mitigate the infiltration deficit on site. An updated water balance assessment (with mitigation) was prepared accordingly to determine the post-development annual infiltration volume. Calculations are provided in Appendix D and a summary is provided as Table 19 below.

Table 19: Site Water Balance Summary (with Mitigation)

Scenario	Area (ha)	Evapotranspiration		Infiltration		Runoff	
		(m ³)	(mm)	(m ³)	(mm)	(m ³)	(mm)
Pre-Development	14.15	81,478	576	19,623	139	13,082	92
Post-Development	14.15	44,558	315	11,291	80	58,352	412
Mitigation (Total)	-	-	-	9,191	27	-	-
Post-Development (with Mitigation)	14.15	44,558	315	20,482	145	58,352	412
Difference	0.00	-36,920	-261	860	6	45,270	320
% Difference	0%	-45%	-45%	4%	4%	346%	346%

As can be seen from the summary Table above, the proposed LID measures appropriately mitigate the infiltration deficit on site, maintaining pre-development annual infiltration volumes. Therefore, an infiltration balance is achieved on-site.

The Environmental Impact Study prepared by Natural Resource Solutions Inc. (January 2026) notes the wetland complex located east of the Site is Provincially Significant and referred to as the West Credit River Provincially Significant Wetland Complex. The EIS included a Wetland Water Balance Risk Evaluation of the wetland complex and determined that both Wetland complex 1 (north of Wellington Road 22) and Wetland complex 2 (south of Wellington Road 22) were determined to have an overall 'Low' risk level. The wetland complex was also noted to be primarily groundwater and riverine-fed. Although the risk level to the wetland complex from the development was rated as 'Low', best efforts were made on-site to maintain pre-development groundwater contributions to the wetland complex.

A total of 4.68 ha area of the site is contained on the east side of the local groundwater drainage divide where groundwater will flow east towards the Wetland complex. The water balance assessment for the overall site discretized catchments based on the local groundwater divide such that the impacts to groundwater recharge on the eastern portion of the site could be assessed separately. A summary of the water balance results (with mitigation) for the eastern portion of the site is provided in Table 20 below.

Table 20: East Water Balance Summary (with Mitigation)

	Area	Evapotranspiration		Infiltration		Runoff	
Scenario	(ha)	(m ³)	(mm)	(m ³)	(mm)	(m ³)	(mm)
Pre-Development	4.68	26,964	576	6,494	139	4,329	92
Post-Development	4.68	14,884	318	3,794	81	19,111	408
Mitigation	-	-	-	2,191	27	-	-
Post-Development (with Mitigation)	4.68	14,884	318	5,985	128	19,111	408
Difference	0	-12,080	-258	-509	-11	14,782	316
% Difference	0%	-45%	-45%	-8%	-8%	341%	341%

As can be seen from the table above, the proposed mitigation measures reduce the infiltration deficit to within 8% of the annual pre-development infiltration volume. The receiving wetlands to the east of the subject property intersect a deeper aquifer and receive groundwater discharge inputs from this system. As stated in the Environmental Impact Study prepared by Natural Resource Solutions Inc. (January 2026), the relative contribution of infiltration from the subject property to the receiving wetlands is small in comparison to the contribution from other lands and the deeper aquifer within the larger catchment area. Therefore, there is not anticipated to be any impact due to the 8% infiltration deficit and recharge rates of the wetlands from pre-development site conditions.

In accordance with the TRCA's Erosion and Sediment Control Guide for Urban Construction (2019), areas designated for LID features shall be protected during construction. High visibility fencing shall be installed to prevent encroachment by equipment, stockpiling, or vehicular traffic. No construction activities or material storage will occur in these zones. Erosion and sediment control practices are implemented such that runoff from disturbed areas will not discharge into LID features, and soil compaction in this area shall be avoided. Inspections shall be conducted on a regular basis to maintain the effectiveness of these features as well.

5.0 Conclusions & Recommendations

Based on the findings of this report, the following conclusions are summarized for the Subject Development:

Water Servicing

The proposed development will be serviced by the watermain at Trafalgar Road. A proposed watermain will be extended from the intersection of Trafalgar Road and Wellington Road 22, west along Wellington Road 22 to the frontage of the development.

Sanitary Servicing

Sanitary servicing will be provided by extending a sewer from the proposed development to the future sanitary sewer in the Elora Cataract Trail. Given the connecting point at the Elora Cataract Trail, pumping will be required. The details of the pumping station will be completed through detailed design.

Storm Servicing and Stormwater Management

An internal storm sewer system is proposed to capture and convey minor system flows from the development to an on-site stormwater management wet pond. Storm sewers in the network range in size from 375 mm to 1200 mm with slopes ranging from 0.50% to 4.96%.

The stormwater management wet pond has been designed to meet quantity, quality, and erosion control for the proposed development. The stormwater management pond will discharge to the roadside ditch on Wellington Road 22. Some perimeter areas of the site will drain uncontrolled, including a portion of the site entrance and sewage pumping station at the southeast corner of the site which will require an oil/grit separator to provide quality control prior to discharging from the site. Infiltration galleries are proposed in the rear-yards of single and townhouse lots as well as an LID within the Multiple Residential Block (Block 145) to maintain pre-development annual infiltration volumes on-site.

Respectfully submitted,

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APPENDIX A

Background Information

APPENDIX B

Water Demand Calculations

Hillsburgh Water Demand

Number of Residential Units and Land Usage

1) Single Residential	148 Units
2) Townhouse	66 Units

Additional Dwelling Units

3) Apartment (ADU)*	42.8 Units
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*20% of the total units are assumed to contain additional dwelling units.

Person Per Residential Unit

1) Single Residential	2.8 persons/unit
2) Townhouse	2.8 persons/unit
3) Apartment	2.65 persons/unit

Total Residential Population	713 Persons
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Domestic Water Design Flows

Residential	290 L/C-day
Commercial	0.0028 L/ha-day

Total Domestic Water Design Flows

Average Daily Residential Flow	2.39 L/sec
Average Daily Commercial Flow	0.00 L/sec

Max Daily Demand Factor	2.75
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Max Daily Demand Flow	6.58 L/sec
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Peak Hour Demand Factor	4.13
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Peak Hour Demand Flow	9.88 L/sec
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Fire Flow Summary

Building	Base Fire Flow (L/min)	Building Occupancy Reduction (L/min)	Sprinkler Reduction (L/min)	Surcharge for Surrounding Infrastructure (L/min)	Total Required Fire Flow (L/min)	Total Required Fire Flow (L/s)	Duration (hours)
Single Detached Residential	4,000	-600	0	1,530	8,000	133	2.00
Street Townhouses	3,000	-450	0	1,913	12,000	200	2.50
Stacked Townhouses	14,000	-2,100	0	1,190	13,000	217	2.75

Notes:

- 1 – FUS Calculations for each building type are calculated based on full build-out conditions
- 2 – Stacked Townhouses are assumed to be used in the Multi-Residential block as a conservative assumption.
- 3 – Maximum lot coverage is assumed to be 30% for each building type and each building is assumed to be three (3) storeys in height.

Fire Flow Determination Per Fire Underwriters Survey (2020) - Single Detached Residential

STEP E: Automatic Sprinkler Protection

Sprinklers - The required fire flow may be reduced by up to 50% for complete automatic sprinkler protection depending upon adequacy of system.

	Yes/No/Unknown	*Possible Reduction Available	Actual Reduction Provided
Automatic sprinkler protection designed and installed in accordance with NFPA 13?	No	-30%	0%
Water supply is standard for both the system and Fire Department hose lines?	No	-10%	0%
Fully supervised system?	No	-10%	0%

*Reduction available assumes complete building coverage
 *30% reduction typical for building requiring sprinkler system

Total Reduction % 0% (reduction)
Total Reduced Flow 0 L/min (reduction, not rounded)

STEP F: Exposure Adjustment Charge

Exposure - A percentage of water for the exposures should be added to the required fire flow for the subject building to provide adequate flow rates for hose streams used to reduce the spreading of fire from the subject building to exposed risks. The required fire flow of a subject building may be increased depending on the severity of exposed risks to the subject building and the distance between the exposed risks and the subject building. This charge considers the usage of water supplies to prevent exposed risks from igniting or being damaged during a major fire incident in the subject building.

Separation Distance	Maximum Exposure Adjustment Charge
0 to 3m	25%
3.1 to 10m	20%
10.1 to 20m	15%
20.1 to 30m	10%
Greater than 30m	0%

*If a vertical fire wall is properly constructed and has a rating of no less than 2 hours, then the boundary can be treated as protected with no exposure charge
 *The maximum exposure adjustment charge to be applied to a subject building is 75%
 *The distance in metres from the subject building facing wall to the exposed building facing wall, measured to the nearest metre, between the nearest points of the buildings. Where either the subject building or the exposed building is at a diagonal to the other building, the shortest distance should be increased by 3 metres and this adjusted value used as exposure distance.

Exposed buildings	Distance	Surcharge Factor	Surcharge (L/min)	
Northwest	Adjacent Townhouse	5.7	20%	680
Northeast	Adjacent Single, Detached	14.0	15%	510
Southeast	Adjacent Single, Detached	1.8	25%	0
Southwest	Adjacent Single, Detached	28.0	10%	340

Total Reduced Flow 1,530 L/min Surcharge (not rounded)

STEP G: Final Required Fire Flow

Step D - Occupancy Adjusted Fire Flow Demand	3,400 L/min
Step E - Sprinkler (Reduction)	0 L/min
Step F - Exposure Charge	1,530 L/min
Calculated Fire Flow:	4,930 L/min
*Minimum Fire Flow:	7,980 L/min
or	133 L/s
Final Fire Flow:	8,000 L/min (rounded to nearest 1000L/min)
or	133 L/s
or	2,113 USGPM
Required duration:	2.00 hours
	*Refer to Table 1 for Duration

*Note: The Town of Erin requested a minimum fire flow of 133 L/s (7,980 L/min) to be used for single detached homes, per their Engineering Peer Review Comments dated May 9, 2025.

Table 1 - FUS 2020

Required Duration of Fire Flow	
Flow Required (L/min)	Duration (hours)
2,000 or less	1.00
3,000	1.25
4,000	1.50
5,000	1.75
6,000	2.00
8,000	2.00
10,000	2.00
12,000	2.50
14,000	3.00
16,000	3.50
18,000	4.00
20,000	4.50
22,000	5.00
24,000	5.50
26,000	6.00
28,000	6.50
30,000	7.00
32,000	7.50
34,000	8.00
36,000	8.50
38,000	9.00
40,000 and over	9.50

*Interpolate for intermediate figures

Fire Flow Determination Per Fire Underwriters Survey (2020) - Townhouses

STEP E: Automatic Sprinkler Protection
 Sprinklers - The required fire flow may be reduced by up to 50% for complete automatic sprinkler protection depending upon adequacy of system.

	Yes/No/Unknown	*Possible Reduction Available	Actual Reduction Provided
Automatic sprinkler protection designed and installed in accordance with NFPA 13?	No	-30%	0%
Water supply is standard for both the system and Fire Department hose lines?	No	-10%	0%
Fully supervised system?	No	-10%	0%

*Reduction available assumes complete building coverage
 *30% reduction typical for building requiring sprinkler system

Total Reduction % 0% (reduction)

Total Reduced Flow 0 L/min (reduction, not rounded)

STEP F: Exposure Adjustment Charge
 Exposure - A percentage of water for the exposures should be added to the required fire flow for the subject building to provide adequate flow rates for hose streams used to reduce the spreading of fire from the subject building to exposed risks. The required fire flow of a subject building may be increased depending on the severity of exposed risks to the subject building and the distance between the exposed risks and the subject building. This charge considers the usage of water supplies to prevent exposed risks from igniting or being damaged during a major fire incident in the subject building.

Separation Distance	Maximum Exposure Adjustment Charge
0 to 3m	25%
3.1 to 10m	20%
10.1 to 20m	15%
20.1 to 30m	10%
Greater than 30m	0%

*If a vertical fire wall is properly constructed and has a rating of no less than 2 hours, then the boundary can be treated as protected with no exposure charge
 *The maximum exposure adjustment charge to be applied to a subject building is 75%
 *The distance in metres from the subject building facing wall to the exposed building facing wall, measured to the nearest metre, between the nearest points of the buildings. Where either the subject building or the exposed building is at a diagonal to the other building, the shortest distance should be increased by 3 metres and this adjusted value used as exposure distance.

Exposed buildings	Distance	Surcharge Factor	Surcharge (L/min)
Northwest	23.49	10%	255
Northeast	0.0	25%	637.5
Southeast	5.7	20%	510
Southwest	0.0	25%	637.5

Total Reduced Flow 1,913 L/min Surcharge (not rounded)

STEP G: Final Required Fire Flow

Step D - Occupancy Adjusted Fire Flow Demand	2,550 L/min	
Step E - Sprinkler (Reduction)	0 L/min	
Step F - Exposure Charge	1,913 L/min	
Calculated Fire Flow:	4,463 L/min	
*Minimum Fire Flow:	12,000 L/min	
or	200 L/s	
Final Fire Flow:	12,000 L/min (rounded to nearest 1000L/min)	
or	200 L/s	
or	3,170 USGPM	
Required duration:	2.50 hours	

*Refer to Table 1 for Duration

*Note: The Town of Erin requested a minimum fire flow of 100 L/s (12,000 L/min) to be used for single detached homes, per their Engineering Peer Review Comments dated May 9, 2025.

Table 1 - FUS 2020

Required Duration of Fire Flow	
Flow Required (L/min)	Duration (hours)
2,000 or less	1.00
3,000	1.25
4,000	1.50
5,000	1.75
6,000	2.00
8,000	2.00
10,000	2.00
12,000	2.50
14,000	3.00
16,000	3.50
18,000	4.00
20,000	4.50
22,000	5.00
24,000	5.50
26,000	6.00
28,000	6.50
30,000	7.00
32,000	7.50
34,000	8.00
36,000	8.50
38,000	9.00
40,000 and over	9.50

*Interpolate for intermediate figures



Fire Flow Determination Per Fire Underwriters Survey (2020) - Multi-Residential

Water Supply for Public Fire Protection - 2020
Fire Underwriters Survey
Part II - Guide for Determination of Fire Flows for Public Fire Protection in Canada

An estimate of fire flow required for a given area may be determined by the formula:

$$RFF = 220 * C * \sqrt{A}$$

- where:
- RFF** = the required fire flow in litres per minute (L/min)
 - C** = the construction coefficient is related to the type of construction of the building
 - = 1.5 for Type V Wood Frame Construction
 - = 0.8 for Type IV-A Mass Timber Construction
 - = 0.9 for Type IV-B Mass Timber Construction
 - = 1.0 for Type IV-C Mass Timber Construction
 - = 1.5 for Type IV-D Mass Timber Construction
 - = 1.0 for Type III Ordinary Construction
 - = 0.8 for Type II Non-combustible Construction
 - = 0.6 for Type I Fire Resistive Construction
 - A** = the total effective floor area (effective building area) in square metres (excluding basements at least 50 percent below grade) in the building considered

STEP A: Construction Coefficient (C) 1 Type III Ordinary Construction

STEP B: Total Effective Floor Area Proposed Building Townhouse Block, per Site Plan by GM BluePlan Engineering (n.d.)

Yes/No/Unknown

Is basement at least 50% below grade? No If yes, basement floor area excluded
 Vertical openings protected? No *For consideration for effective area calculations

Calculate Effective Floor Area based on the highlighted cell

-C value from 1.0 to 1.5: 100% of all floor areas are used

-C value below 1 and vertical openings are not protected: Consider two largest floors plus 50% of all floor above to a max of eight

-C value below 1 and vertical openings are protected: Consider single largest floor plus 25% of the two immediately adjoining floors

*A building may be subdivided if there is a vertical firewall with a fire-resistance rating greater than 2 hours, and meets the requirements of the National Building Code.

Floors Above Grade	Total Floor Area (m ²)	% of Area Considered	Effective Floor Area (m ²)
Basement	1000	100%	1000.0
Ground Floor	1000	100%	1000.0
Level 2	1000	100%	1000.0
Level 3	1000	100%	1000.0
Total	4000		4000.0

Total Effective Floor Area 4000 m²

*This is a conservative estimate based on the existing draft plan to be refined during detailed design.

STEP C: Therefore RFF = 14,000 L/min (rounded to nearest 1000 L/min)

STEP D: Occupancy Contents Adjustment Factor

The required fire flow may be reduced by as much as -25% for occupancies having contents with very low fire hazard or may be increased by up to 25% surcharge for occupancies having a high fire hazard.

Occupancy and Contents Adjustment Factor	
Non-Combustible	-25%
Limited Combustible	-15%
Combustible	0%
Free Burning	15%
Rapid Burning	25%

*Refer to Table 3 for recommended Occupancy and Contents Charges by major occupancy examples.

Type of Occupancy	Adjustment Factor
Residential Occupancy	Limited Combustible -15%

Total Reduction % -2,100 L/min (reduction)

RFF = 11,900 L/min (not rounded)

Note: The RFF flow 11900 L/min is used in Step E and F.

Fire Flow Determination Per Fire Underwriters Survey (2020) - Multi-Residential

STEP E: Automatic Sprinkler Protection

Sprinklers - The required fire flow may be reduced by up to 50% for complete automatic sprinkler protection depending upon adequacy of system.

	Yes/No/Unknown	*Possible Reduction Available	Actual Reduction Provided
Automatic sprinkler protection designed and installed in accordance with NFPA 13?	No	-30%	0%
Water supply is standard for both the system and Fire Department hose lines?	No	-10%	0%
Fully supervised system?	No	-10%	0%

*Reduction available assumes complete building coverage
 *30% reduction typical for building requiring sprinkler system

Total Reduction % 0% (reduction)
Total Reduced Flow 0 L/min (reduction, not rounded)

STEP F: Exposure Adjustment Charge

Exposure - A percentage of water for the exposures should be added to the required fire flow for the subject building to provide adequate flow rates for hose streams used to reduce the spreading of fire from the subject building to exposed risks. The required fire flow of a subject building may be increased depending on the severity of exposed risks to the subject building and the distance between the exposed risks and the subject building. This charge considers the usage of water supplies to prevent exposed risks from igniting or being damaged during a major fire incident in the subject building.

Separation Distance	Maximum Exposure Adjustment Charge
0 to 3m	25%
3.1 to 10m	20%
10.1 to 20m	15%
20.1 to 30m	10%
Greater than 30m	0%

*If a vertical fire wall is properly constructed and has a rating of no less than 2 hours, then the boundary can be treated as protected with no exposure charge
 *The maximum exposure adjustment charge to be applied to a subject building is 75%
 *The distance in metres from the subject building facing wall to the exposed building facing wall, measured to the nearest metre, between the nearest points of the buildings. Where either the subject building or the exposed building is at a diagonal to the other building, the shortest distance should be increased by 3 metres and this adjusted value used as exposure distance.

Exposed buildings	Distance	Surcharge Factor	Surcharge (L/min)
Northwest	Adjacent Single, Detached	27.0	10% 1190
Northeast	Adjacent Pumping Station	>30	0%
Southwest	Adjacent Townhouses	>30	0%
West	Adjacent Dwelling	>30	0%

Total Reduced Flow 1,190 L/min Surcharge (not rounded)

STEP G: Final Required Fire Flow

Step D - Occupancy Adjusted Fire Flow Demand	11,900 L/min
Step E - Sprinkler (Reduction)	0 L/min
Step F - Exposure Charge	1,190 L/min
Final Fire Flow:	13,090 L/min
	13,000 L/min (rounded to nearest 1000L/min)
or	217 L/s
or	3,434 USGPM
Required duration:	2.75 hours
	*Refer to Table 1 for Duration

*Note: The Town of Erin requested a minimum fire flow of 100 L/s (12,000 L/min) to be used for single detached homes, per their Engineering Peer Review Comments dated May 9, 2025.

Table 1 - FUS 2020

Required Duration of Fire Flow	
Flow Required (L/min)	Duration (hours)
2,000 or less	1.00
3,000	1.25
4,000	1.50
5,000	1.75
6,000	2.00
8,000	2.00
10,000	2.00
12,000	2.50
14,000	3.00
16,000	3.50
18,000	4.00
20,000	4.50
22,000	5.00
24,000	5.50
26,000	6.00
28,000	6.50
30,000	7.00
32,000	7.50
34,000	8.00
36,000	8.50
38,000	9.00
40,000 and over	9.50

*Interpolate for intermediate figures

APPENDIX C

Sanitary Flow Calculations

Hillsburgh Sanitary Demand

Developed Site Area	14.15 ha
<u>Number of Residential Units and Land Usage</u>	
1) Single Residential	148 Units
2) Townhouse	66 Units
Additional Dwelling Units	
3) Apartment (ADU)*	42.8 Units
*20% of the total units are assumed to contain additional dwelling units.	
<u>Person Per Residential Unit</u>	
1) Single Residential	2.8 persons/unit
2) Townhouse	2.8 persons/unit
3) Apartment	2.65 persons/unit
Total Residential Population	713 Persons
<u>Unit Sewage Flows</u>	
Residential	290 L/C-day
Commercial	0 L/ha-day
Infiltration	0.29 L/s/ha
<u>Total Design Sewage Flows</u>	
Infiltration/Inflow Residential	4.10 L/sec
Average Daily Residential Flow	2.39 L/sec
Average Daily Commercial Flow	0.00 L/sec
Residential Peak Factor	3.8901
Commercial Peak Factor	1.00
Total Peak Daily Flow	13.41 L/sec
Sewage System Requirements	

HILLSBURGH TRAILS SUBDIVISION

1808-7463

SANITARY SEWER DESIGN SHEET



Unit Type	PPU
SINGLE DETACHED	2.8
SEMI DETACHED	2.8
TOWNHOUSE	2.8

DESIGN PARAMETERS	
Manning's "n":	0.013
Residential Peak Factor (M):	1+(14/[4+(P/1000)^0.5])
Residential Avg. Daily Flow:	290 L/cap/day
Inflow & Infiltration:	0.29 L/ha/s

DESIGNED BY: MPH
 CHECKED BY: JL
 DATE: 2025.07.21
 ISSUED FOR:

CATCHMENT I.D.	STREET	PHASE	FROM MH	TO MH	AREA ¹ (Ha)	RESIDENTIAL				RESIDENTIAL				MAX FLOW (L/s)	INFILT. (L/s)	TOTAL INFILT. (L/s)	TOTAL FLOW (L/s)	LENGTH (m)	PIPE DIA. (mm)	SLOPE (%)	UPPER INV. PIPE INV. ELEV.	LOWER INV. PIPE INV. ELEV.	UPPER INV. PIPE OBV ELEV.	LOWER INV. PIPE OBV ELEV.	CAP. (Q) (L/s)	CAP. (%)	FULL FLOW VELOCITY ³ (m/s)	q/Q	v/V (From Hyd. Elements)	ACT. VEL. (m/s)	UPPER ELEV. GROUND ELEV.	LOWER ELEV.	UPPER COVER	LOWER COVER
						SINGLE DETACHED	SEMI DETACHED	TOWNHOUSE	POP.	TOTAL TRIB. POP.	PEAK FACTOR	PEAK FACTOR ²	AVG. FLOW (L/s)																						MAX FLOW (L/s)
100	FUTURE DEVELOPMENT LANDS		EXT1	MH1A	8.20	25			70	70	4.28	4.00	0.23	0.94	2.38	2.38	3.32	370.0	200	0.50%	N/A	438.41	N/A	438.61	23.19	14.31%	0.74	0.14	0.71	0.52	0.00	443.60	N/A	4.99
101	STREET C		MH1A	MH2A	0.29	5			14	84	4.26	4.00	0.28	1.13	0.08	2.46	3.59	47.7	200	0.50%	441.14	440.90	441.34	441.10	23.19	15.48%	0.74	0.15	0.72	0.53	443.60	443.41	2.26	2.31
102	STREET D		MH9A	MH2A	0.89	14			39	39	4.33	4.00	0.13	0.53	0.26	0.26	0.78	93.7	200	0.50%	441.43	440.96	441.63	441.16	23.19	3.38%	0.74	0.03	0.43	0.32	443.54	443.41	1.90	2.25
103	STREET C		MH2A	MH3A	0.52	9			25	148	4.19	4.00	0.50	1.99	0.15	2.87	4.86	102.7	200	0.50%	440.88	440.37	441.08	440.57	23.19	20.97%	0.74	0.21	0.80	0.59	443.41	442.76	2.33	2.19
104	STREET E		MH8A	MH3A	0.71	12			34	34	4.35	4.00	0.11	0.45	0.21	0.21	0.66	85.2	200	0.50%	440.86	440.43	441.06	440.63	23.19	2.83%	0.74	0.03	0.43	0.32	443.06	442.76	2.00	2.13
105	STREET C		MH3A	MH4A	0.40	7			20	202	4.15	4.00	0.68	2.71	0.12	3.19	5.90	70.0	200	0.50%	440.35	440.00	440.55	440.20	23.19	25.44%	0.74	0.25	0.83	0.61	442.76	442.38	2.21	2.18
106	STREET C		MH4A	MH5A	0.18	2			6	207	4.14	4.00	0.70	2.78	0.05	3.25	6.03	14.1	200	0.50%	439.95	439.88	440.15	440.08	23.19	25.99%	0.74	0.26	0.84	0.62	442.38	442.30	2.23	2.22
107	STREET C		MH5A	MH6A	0.00	0			0	207	4.14	4.00	0.70	2.78	0.00	3.25	6.03	14.9	200	0.50%	439.83	439.76	440.03	439.96	23.19	25.99%	0.74	0.26	0.84	0.62	442.30	442.23	2.27	2.27
107	STREET C		MH6A	MH7A	0.37	4			11	218	4.13	4.00	0.73	2.93	0.11	3.35	6.28	36.0	200	0.50%	439.71	439.53	439.91	439.73	23.19	27.10%	0.74	0.27	0.85	0.63	442.23	442.03	2.32	2.30
108	STREET D		MH9A	MH10A	0.37	6			17	17	4.39	4.00	0.06	0.23	0.11	0.11	0.33	35.6	200	0.50%	441.37	441.19	441.57	441.39	23.19	1.44%	0.74	0.01	0.32	0.24	443.54	443.36	1.97	1.97
109	STREET D		MH10A	MH11A	0.23	2			6	22	4.37	4.00	0.08	0.30	0.07	0.17	0.47	15.6	200	0.50%	441.14	441.07	441.34	441.27	23.19	2.05%	0.74	0.02	0.40	0.30	443.36	443.27	2.02	2.00
110	STREET D		MH11A	MH12A	0.08	1			3	25	4.37	4.00	0.08	0.34	0.02	0.20	0.54	12.0	200	0.50%	441.02	440.96	441.22	441.16	23.19	2.31%	0.74	0.02	0.40	0.30	443.27	443.22	2.05	2.06
111	STREET D		MH12A	MH13A	0.39	6			17	42	4.33	4.00	0.14	0.56	0.11	0.31	0.87	72.1	200	0.50%	440.91	440.55	441.11	440.75	23.19	3.77%	0.74	0.04	0.49	0.36	443.22	442.86	2.11	2.11
112	STREET E		MH8A	MH13A	0.47	8			22	22	4.37	4.00	0.08	0.30	0.14	0.14	0.44	58.8	200	0.50%	440.90	440.61	441.10	440.81	23.19	1.88%	0.74	0.02	0.40	0.30	443.06	442.86	1.96	2.05
113	STREET D		MH13A	MH14A	0.39	6			17	81	4.27	4.00	0.27	1.09	0.11	0.56	1.65	70.6	200	0.50%	440.53	440.17	440.73	440.37	23.19	7.11%	0.74	0.07	0.58	0.42	442.86	442.51	2.13	2.13
114	STREET D		MH14A	MH15A	0.12	2			6	87	4.26	4.00	0.29	1.17	0.03	0.59	1.76	14.4	200	0.50%	440.12	440.05	440.32	440.25	23.19	7.59%	0.74	0.08	0.60	0.44	442.51	442.44	2.18	2.19
115	STREET D		MH15A	MH16A	0.00	0			0	87	4.26	4.00	0.29	1.17	0.00	0.59	1.76	16.8	200	0.50%	440.00	439.92	440.20	440.12	23.19	7.59%	0.74	0.08	0.60	0.44	442.44	442.36	2.24	2.24
115	STREET D		MH16A	MH7A	0.41	6			17	104	4.24	4.00	0.35	1.39	0.12	0.71	2.10	68.1	200	0.50%	439.87	439.53	440.07	439.73	23.19	9.07%	0.74	0.09	0.62	0.46	442.36	442.03	2.29	2.30
116	STREET B		MH7A	MH19A	0.49	4			31	353	4.05	4.00	1.18	4.74	0.14	4.21	8.94	63.1	200	0.50%	439.45	439.13	439.65	439.33	23.19	38.57%	0.74	0.39	0.94	0.69	442.03	441.64	2.38	2.31
117	STREET B		MH19A	MH17A	0.49	5			34	386	4.03	4.00	1.30	5.19	0.14	4.35	9.54	64.8	200	0.50%	439.11	438.79	439.31	438.99	23.19	41.13%	0.74	0.41	0.95	0.70	441.64	441.37	2.33	2.39
122	STREET A		MH35A	MH24A	0.11	2			6	6	4.44	4.00	0.02	0.08	0.03	0.03	0.11	11.9	200	0.50%	439.42	439.36	439.62	439.56	23.19	0.46%	0.74	0.01	0.32	0.24	441.79	441.74	2.17	2.19
123	STREET A		MH24A	MH30A	0.07				3	8	4.42	4.00	0.03	0.11	0.02	0.05	0.16	12.7	200	0.50%	439.31	439.24	439.51	439.44	23.19	0.71%	0.74	0.01	0.32	0.24	441.74	441.67	2.24	2.22
124	STREET A		MH30A	MH17A	0.31				8	31	4.35	4.00	0.10	0.41	0.09	0.14	0.56	69.5	200	0.50%	439.19	438.85	439.39	439.05	23.19	2.40%	0.74	0.02	0.40	0.30	441.67	441.37	2.27	2.33
125	STREET B		MH17A	MH20A	0.50	9			25	442	4.00	4.00	1.48	5.94	0.15	4.64	10.58	73.2	200	0.50%	438.77	438.40	438.97	438.60	23.19	45.61%	0.74	0.46	0.98	0.72	441.37	441.72	2.41	3.12
126	STREET B		MH20A	MH18A	0.57	10			28	470	3.99	3.99	1.58	6.30	0.17	4.80	11.10	75.9	200	0.50%	438.38	438.00	438.58	438.20	23.19	47.86%	0.74	0.48	0.99	0.73	441.72	442.21	3.14	4.01
118	STREET A		MH35A	MH34A	0.38	7			20	20	4.38	4.00	0.07	0.26	0.11	0.11	0.37	58.2	200	0.50%	439.23	438.94	439.43	439.14	23.19	1.61%	0.74	0.02	0.40	0.30	441.79	442.12	2.36	2.98
119	STREET A		MH34A	MH33A	0.24	3			8	28	4.36	4.00	0.09	0.38	0.07	0.18	0.56	61.2	200	0.50%	438.89	438.59	439.09	438.79	23.19	2.40%	0.74	0.02	0.40	0.30	442.12	442.46	3.03	3.68
120	STREET A		MH33A	MH32A	0.55	10			28	56	4.30	4.00	0.19	0.75	0.16	0.34	1.09	16.7	200	0.50%	438.54	438.45	438.74	438.65	23.19	4.70%	0.74	0.05	0.52	0.38	442.46	442.55	3.73	3.90
121	STREET A		MH32A	MH31A	0.16	2			6	62	4.30	4.00	0.21	0.83	0.05	0.39	1.21	13.3	200	0.50%	438.40	438.34	438.60	438.54	23.19	5.23%	0.74	0.05	0.52	0.38	442.55	442.53	3.95	3.99
127	STREET A		MH31A	MH18A	1.14				140	202	4.15	4.00	0.68	2.71	0.33	0.72	3.42	69.4	200	0.50%	438.29	437.94	438.49	438.14	23.19	14.76%	0.74	0.15	0.72	0.53	442.53	442.21	4.04	4.07
128	STREET A (TO PUMPING STATION)		MH18A	MH21A	0.36				0	672	3.90	3.90	2.26	8.81	0.10	5.62	14.43	20.4	200	2.00%	437.92	437.51	438.12	437.71	46.38	31.11%	1.48	0.31	0.88	1.30	442.21	442.25	4.09	4.54
128	STREET A (TO PUMPING STATION)		MH21A	MH22A	0.00				0	672	3.90	3.90	2.26	8.81	0.00	5.62	14.43	29.4	200	2.00%	437.46	436.87	437.66	437.07	46.38	31.11%	1.48	0.31	0.88	1.30	442.25	441.56	4.59	4.48
128	STREET A (TO PUMPING STATION)		MH22A	MH23A	0.00				0	672	3.90	3.90	2.26	8.81	0																			

APPENDIX D

Stormwater Management Calculations



Project: 9354 Wellington County Road 22
Project No.: 1808-7463
Created By: AJ
Checked By: TF
Date: Dec 3, 2025

NASHYD - CN & IA Values

Parameter	Hydrologic Soil Group	Soil Category	Landuse							
			Woodland	SWMF / Wetland	Meadow	Cultivated/ Crops	Lawn / Landscape	Gravel	Paved / Concrete	Building
CN Values	B	Loam Silt/clay	58	50	58	74	65	98	98	98
IA Values			10	10	8	7	5	2	2	2

*Note these values are taken from the MTO manual, check against municipal standards for CN values to be used

Catchment ID	Hydrologic Soil Group	Soil Category	Area (ha) for each land use and soil group							Subtotal Area (ha)	Weighted CN	Weighted IA	
			Woodland	SWMF / Wetland	Meadow	Cultivated/ Crops	Lawn / Landscape	Gravel	Paved / Concrete				Building
101	B	Loam Silt/clay				6.87					6.87	74.0	7.0
	Total		0.00	0.00	0.00	6.87	0.00	0.00	0.00	0.00	6.87		
102	B	Loam Silt/clay				5.81					5.81	74.0	7.0
	Total		0.00	0.00	0.00	5.81	0.00	0.00	0.00	0.00	5.81		
103	B	Loam Silt/clay				1.48					1.48	74.0	7.0
	Total		0.00	0.00	0.00	1.48	0.00	0.00	0.00	0.00	1.48		
203	B	Loam Silt/clay					0.29				0.29	65.0	5.0
	Total		0.00	0.00	0.00	0.00	0.29	0.00	0.00	0.00	0.29		
205	B	Loam Silt/clay					0.16				0.16	65.0	5.0
	Total		0.00	0.00	0.00	0.00	0.16	0.00	0.00	0.00	0.16		



Project: 9354 Wellington County
Road 22

Project No.: 1808-7463

Created By: AJ

Checked By: TF

Date: Dec 3, 2025

NASHYD Summary

Catchment ID	Area (ha)	DT (min)	CN Value	CN*	CN(III)	IA (mm)	N	Tp (hr)
101	6.87	5	74	75	87	7.0	3	0.17
102	5.81	5	74	75	87	7.0	3	0.25
103	1.48	5	74	75	87	7.0	3	0.19
203	0.2870	5	65	62	79	5.0	3	0.17
205	0.1579	5	65	62	79	5.0	3	0.17



STANDHYD - TIMP, XIMP & CN Values (Page 1 of 2)

Land Use Type	Average Percent Impervious (%)	Average Roof Percentage (%)	Average Driveway Percentage (%)	Average Landscaped Percentage (%)
Singles	55%	50%	5%	45%
Townhouses	65%	60%	5%	35%
	Town Std. Runoff Coeff	Percent Imperviousness	Assumed Building Percentage	Assumed Pavement Percentage
Multi-Residential	0.80	80%	60%	20%
				Average Landscaped Percentage (%)
				20%

Catchment	Area (ha)	Landscaped Area (ha)	Paved Area (ha)	Building Area (ha)	Percent Imperviousness
Catchment 200	0.63	0.025	0.154	0.462	98%
Catchment 204	0.05	0.002	0.012	0.035	90%
Catchment 205	0.16	0.158	0.000	0.000	0%
Catchment 206	0.10	0.004	0.022	0.067	90%
TOTAL	0.94	0.19	0.19	0.56	80%

Catchment ID	Land Use Areas (ha)			Pervious Areas						Impervious Areas (ha)						Total Subtotal Area (ha)		
	Singles	Townhouses	Multiple	Woodland	SWMF (Landscaped)	Meadow	Crops	Lawn / Landscape	Pervious Total Area (ha)	Gravel		Paved / Concrete		Building			SWMF (Permanent pool)	Impervious Total Area (ha)
				N/A	N/A	N/A	N/A	To Outlet		To Pervious	To Outlet	To Pervious	To Outlet	To Pervious				
200A	5.29	0.42	0.63					3.85	3.85			2.35					2.35	6.20
200B	5.29	0.42	0.63											2.39	0.97		3.36	3.36
201					0.67				0.67			0.00		0.00	0.00	0.67	0.67	1.34
202	1.23					0.58		0.55	1.13			0.06		0.41	0.21		0.68	1.81
203								0.29	0.29								0.00	0.29
204			0.05					0.13	0.13			0.26		0.08	0.00		0.34	0.47
205								0.16	0.16			0.00		0.00	0.00		0.00	0.16
206	0.42		0.10					0.19	0.19			0.04		0.21	0.07		0.32	0.52



Project: 9354 Wellington County
 Road 22
 Project No.: 1808-7463
 Created By: AJ
 Checked By: TF
 Date: Dec 3, 2025

STANDHYD - TIMP, XIMP & CN Values (Page 2 of 2)

Parameter	Hydrologic Soil Group	Landuse				
		Woodland	SWMF / Wetland	Meadow	Cultivated/ Crops	Lawn / Landscape
CN Values	B	58	50	58	74	65
IA Values		10	10	8	7	5

*Note these values are taken from the MTO manual, check against municipal standards for CN values to be used

Catchment ID	Hydrologic Soil Group	Pervious Areas (ha)						Impervious Areas (ha)								Results					
		Woodland	SWMF (Landscape)	Meadow	Crops	Lawn / Landscape	Pervious Total Area (ha)	Gravel		Paved / Concrete		Building		SWMF (Permanent pool)	Impervious Total Area (ha)	Subtotal Area (ha)	Hydrograph in VO Model	TIMP (Fraction)	XIMP (Fraction)	Weighted CN	Weighted IA
								To Outlet	To Pervious	To Outlet	To Pervious	To Outlet	To Pervious									To Outlet
200A	B	0.00	0.00	0.00	0.00	3.85	3.85	0.00	0.00	2.35	0.00	0.00	0.00	0.00	2.35	6.20	STANDHYD	0.38	0.38	65	5
	Total	0.00	0.00	0.00	0.00	3.85	3.85	0.00	0.00	2.35	0.00	0.00	0.00	0.00	2.35	6.20					
200B	B	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.39	0.97	0.00	3.36	3.36	STANDHYD	0.99	0.71	-	-
	Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.39	0.97	0.00	3.36	3.36					
201	B	0.00	0.67	0.00	0.00	0.00	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0.67	1.34	STANDHYD	0.50	0.50	50	10
	Total	0.00	0.67	0.00	0.00	0.00	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0.67	1.34					
202	B	0.00	0.00	0.58	0.00	0.55	1.13	0.00	0.00	0.06	0.00	0.41	0.21	0.00	0.68	1.81	STANDHYD	0.37	0.26	61	7
	Total	0.00	0.00	0.58	0.00	0.55	1.13	0.00	0.00	0.06	0.00	0.41	0.21	0.00	0.68	1.81					
203	B	0.00	0.00	0.00	0.00	0.29	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.29	NASHYD	0.00	N/A	65	5
	Total	0.00	0.00	0.00	0.00	0.29	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.29					
204	B	0.00	0.00	0.00	0.00	0.13	0.13	0.00	0.00	0.26	0.00	0.08	0.00	0.00	0.34	0.47	STANDHYD	0.72	0.72	65	5
	Total	0.00	0.00	0.00	0.00	0.13	0.13	0.00	0.00	0.26	0.00	0.08	0.00	0.00	0.34	0.47					
205	B	0.00	0.00	0.00	0.00	0.16	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	NASHYD	0.00	N/A	65	5
	Total	0.00	0.00	0.00	0.00	0.16	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16					
206	B	0.00	0.00	0.00	0.00	0.19	0.19	0.00	0.00	0.04	0.00	0.21	0.07	0.00	0.32	0.52	STANDHYD	0.62	0.49	65	5
	Total	0.00	0.00	0.00	0.00	0.19	0.19	0.00	0.00	0.04	0.00	0.21	0.07	0.00	0.32	0.52					



Project: 9354 Wellington
 County Road 22
Project No.: 1808-7463
Created By: AJ
Checked By: TF
Date: Dec 3, 2025

STANDHYD Summary

Catchment ID	Area (ha)	DT (min)	TIMP	XIMP	Pervious Area							Impervious Area			
					CN Value	CN*	CN(III)	IA (mm)	SLPP (%)	LGP (m)	MNI	DPSI	SLPI (%)	LGI (m)	MNI
200A	6.20	5	0.38	0.38	65	62	79	5	2.0	40	0.25	1.5	1	AUTO	0.013
200B	3.36	5	0.99	0.71	65	62	79	5	2.0	40	0.25	1.5	1	AUTO	0.013
201	1.34	5	0.50	0.50	50	51	71	10	2.0	40	0.25	1.5	1	AUTO	0.013
202	1.81	5	0.37	0.26	61	61	78	6.5	2.0	40	0.25	1.5	1	AUTO	0.013
203	0.29	5	-	-	65	62	79	5	2.0	40	0.25	1.5	1	AUTO	1.013
204	0.47	5	0.72	0.72	65	62	79	5	2.0	40	0.25	1.5	1	AUTO	0.013
205	0.16	5	-	-	65	62	79	5	2.0	40	0.25	1.5	1	AUTO	0.013
206	0.52	5	0.62	0.49	65	62	79	5	2.0	40	0.25	1.5	1	AUTO	0.013



Project: 9354 Wellington County Rd 22
 Hillsburgh, ON
Project No.: 1808-7463
Date: December 5, 2025
Prepared By: AJ

Water Quality Requirements

Areas Contributing	Area (ha)	% Imp	
200 & 201	10.90	58%	
MOE Total WQ Volume (m ³ /ha) ¹			197
MOE PP Volume (m ³ /ha)			157
MOE PP Volume (m ³) ¹			1,711
MOE ED Volume (m ³ /ha)			40
MOE ED Volume (m ³)			436
VO 6.2 ED Volume (mm) ²			7.26
VO 6.2 ED Volume (m ³)			712
Pond Required ED Volume (m³)			712
Pond Provided ED Volume (m³)			912
Pond Required PP Volume (m³)			1,711
Pond Provided PP Volume (m³)			2,012

1. Water quality volumes interpolated from Table 3.2, MOE SWM Design Manual, 2003.
 2. The 25 mm RV (mm) is obtained from the Visual OTTHYMO 6.2 Model for the site.

EXTENDED DETENTION SPECIFICATIONS - SWM POND DESIGN

Extended Detention Volume	712 m ³
Mimumum Drawdown time	24 hrs
Mimumum Drawdown time	86400 s

Calculation for minimum orifice size

$$t = \frac{0.66 C_2 h^{1.5} + 2 C_3 h^{0.5}}{2.75 A_o}$$

Equation 4.11
 MOE SWM Planning & Design Manual (2003)

A ₀	Cross sectional area of the orifice (m ²)	
h	Maximum water elevation above the orifice	0.40 m
C ₂	Slope coefficient for the area-depth Linear regression	1767.8
C ₃	Intercept for the area-depth linear regression	1985.4

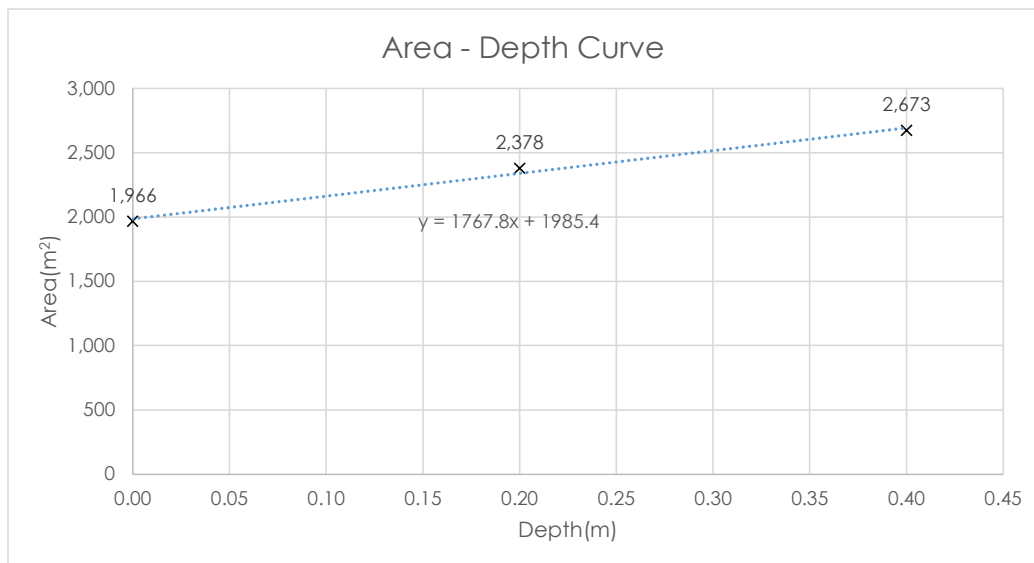
A_o = 0.0118 m² d_{max} = 123 mm

Extended Detention Orifice Diameter (as designed) d = **100** mm
 A_o = 0.007854

Calculated Drawdown time: **36.1 hrs**

EXTENDED DETENTION SPECIFICATIONS - SWM POND DESIGN

Elevation (m)	Depth (m)	Area (m ²)	Volume (m ³)
436.50	0.00	1,966	0
436.70	0.20	2,378	425
436.90	0.40	2,673	912



SWM Pond Stage Storage Discharge Table

Extended Detention Orifice
 ED Orifice Diameter: 0.100 m
 ED Orifice Invert Elevation: 436.50 m
 Orifice Coefficient: 0.62
 Orifice Centroid Elevation: 436.550 m

Active Storage Orifice
 AS Orifice Diameter: 0.250 m
 AS Orifice Invert: 438.00 m
 Orifice Coefficient: 0.62
 Orifice Centroid Elevation: 438.125 m

Emergency Spillway
 Spill Elevation: 438.70 m
 Emerg. Spill Bot. Width: 20.0 m
 Emerg. Spillway Side Slopes: 2.00%
 Emerg. Spillway Weir Coefficient: 1.68

Operating Level	Elev. (m)	Depth Above PP/Ext.Def. Orifice Invert (m)	Depth Above Act. Storage Orifice Invert (m)	Contour Area (m ²)	Total Cumulative Storage Volume above PP (m ³)	ED Orifice Discharge (m ³ /s)	Active Storage Orifice Discharge (m ³ /s)	Total Orifice Discharge (m ³ /s)	Top Width of Emergency Weir m	Average Width of Emergency Weir m	Emerg. Weir Discharge (m ³ /s)	Total Pond Discharge (m ³ /s)
Top of Permanent Pool	436.50	0.00	0.00	1,966	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	436.60	0.10	0.00	2,228	204	0.005	0.000	0.005	0.000	0.000	0.000	0.005
	436.70	0.20	0.00	2,378	425	0.008	0.000	0.008	0.000	0.000	0.000	0.008
	436.80	0.30	0.00	2,526	661	0.011	0.000	0.011	0.000	0.000	0.000	0.011
Extended Detention Water Level	436.90	0.40	0.00	2,673	912	0.013	0.000	0.013	0.000	0.000	0.000	0.013
	437.00	0.50	0.00	2,819	1,177	0.014	0.000	0.014	0.000	0.000	0.000	0.014
	437.10	0.60	0.00	2,964	1,457	0.016	0.000	0.016	0.000	0.000	0.000	0.016
	437.20	0.70	0.00	3,111	1,752	0.017	0.000	0.017	0.000	0.000	0.000	0.017
	437.30	0.80	0.00	3,259	2,061	0.019	0.000	0.019	0.000	0.000	0.000	0.019
	437.40	0.90	0.00	3,412	2,385	0.020	0.000	0.020	0.000	0.000	0.000	0.020
	437.50	1.00	0.00	3,568	2,725	0.021	0.000	0.021	0.000	0.000	0.000	0.021
	437.60	1.10	0.00	3,764	3,083	0.022	0.000	0.022	0.000	0.000	0.000	0.022
2-Year Water Level	437.70	1.20	0.00	3,928	3,458	0.023	0.000	0.023	0.000	0.000	0.000	0.023
	437.80	1.30	0.00	4,094	3,850	0.024	0.000	0.024	0.000	0.000	0.000	0.024
	437.90	1.40	0.00	4,263	4,259	0.025	0.000	0.025	0.000	0.000	0.000	0.025
	438.00	1.50	0.00	4,433	4,685	0.026	0.000	0.026	0.000	0.000	0.000	0.026
5-Year Water Level	438.10	1.60	0.10	4,607	5,128	0.027	0.000	0.027	0.000	0.000	0.000	0.027
10-Year Water Level	438.20	1.70	0.20	4,780	5,588	0.028	0.037	0.065	0.000	0.000	0.000	0.065
	438.30	1.80	0.30	4,954	6,065	0.029	0.056	0.085	0.000	0.000	0.000	0.085
25-Year Water Level	438.40	1.90	0.40	5,131	6,560	0.029	0.071	0.100	0.000	0.000	0.000	0.100
50-Year Water Level	438.50	2.00	0.50	5,310	7,073	0.030	0.083	0.113	0.000	0.000	0.000	0.113
	438.60	2.10	0.60	5,491	7,604	0.031	0.093	0.124	0.000	0.000	0.000	0.124
100-Year Water Level	438.70	2.20	0.70	5,673	8,153	0.032	0.102	0.134	20.000	20.000	0.000	0.134
Emergency Event Water Level	438.80	2.30	0.80	5,907	8,722	0.032	0.111	0.143	30.000	25.000	1.328	1.471
	438.90	2.40	0.90	6,122	9,315	0.033	0.119	0.152	40.000	30.000	4.508	4.660
Top of Pond	439.00	2.50	1.00	6,284	9,927	0.034	0.126	0.160	50.000	35.000	9.662	9.822

HILLSBURGH TRAILS SUBDIVISION
1808-7463
STORM SEWER DESIGN SHEET



FREQUENCY - 5 YEAR - TOWN OF ERIN			
Coef. A=	744	Coef. B=	1.76
		Coef. C=	0.729
FREQUENCY - 100 YEAR - TOWN OF ERIN			
Coef. A=	1248	Coef. B=	1.83
		Coef. C=	0.732

Foundation Services Flow	
Flow =	L/sec/unit

MATERIAL	MANNINGS "n"
PVC	0.013
CONC.	0.013
CSP	0.024

DESIGNED BY: AJ
 CHECKED BY: JL/TF
 DATE: 2025.12.05
 ISSUED FOR: Draft Plan, ZBA

INITIAL TIME OF CONCENTRATION 10.00

PHASE	CATCHMENT I.D.	STREET	FROM MH	TO MH	AREA (A) (Ha)	5 YEAR RUN-OFF COEFF (C _i)	DESIGN STORM	A x C	5 YEAR CUMUL A x C _i	100 YEAR CUMUL A x C ₁₀₀	TIME OF CONC. (min.)	5 YEAR I (mm/hr)	100 YEAR I (mm/hr)	CONTROLLED FLOW (L/sec)	CONTROLLED FLOW CUMUL (L/sec)	# OF UNITS	# OF UNITS CUMUL	FOUNDATION SERVICES FLOW (L/sec)	Q (RUNOFF) (L/sec)	DESIGN FLOW (L/sec)	SLOPE (%)	PIPE DIA. (mm)	MANNING'S "n"	VELOCITY (m/sec)	LENGTH (m)	TIME OF FLOW (min)	PIPE CAPACITY (L/sec)	CAPACITY (%)	UPPER INV.	LOWER INV.	UPPER OVB.	LOWER OVB.	UPPER ELEV.	LOWER ELEV.	UPPER END COVER	LOWER END COVER
																													PIPE INV ELEV.	PIPE OVB ELEV.	GROUND ELEV.	COVER				
201	201	A	MH63	MH27	0.20	0.80	5 year	0.16	0.16	0.00	10.00	123.38	204.55	0.00	0.00	0	0	0.00	54.88	54.88	0.50%	450	0.013	1.3	29.673	0.39	201.60	27%	439.463	439.315	439.91	439.77	441.53	442.29	1.62	2.52
201	201	A	MH27	MH28	0.21	0.80	5 year	0.17	0.33	0.00	10.39	120.48	199.74	0.00	0.00	0	0	0.00	109.86	109.86	0.50%	450	0.013	1.3	22.165	0.29	201.60	54%	439.265	439.154	439.72	439.60	442.29	442.51	2.57	2.91
203	203	A	MH33	MH32	0.08	0.80	5 year	0.06	0.06	0.00	10.00	123.38	204.55	0.00	0.00	0	0	0.00	21.95	21.95	3.63%	375	0.013	3.0	12.141	0.07	334.05	7%	440.543	440.103	440.92	440.48	442.65	442.58	1.73	2.10
203	203	A	MH32	MH29	0.08	0.80	5 year	0.06	0.13	0.00	10.07	122.87	203.70	0.00	0.00	0	0	0.00	43.72	43.72	2.50%	375	0.013	2.5	14.109	0.09	277.22	16%	440.053	439.700	440.43	440.08	442.58	442.50	2.15	2.43
203	203	A	MH29	MH28	0.63	0.80	5 year	0.50	0.63	0.00	10.16	122.17	202.54	0.00	0.00	0	0	0.00	214.64	214.64	0.73%	525	0.013	1.7	67.991	0.67	367.45	58%	439.650	439.154	440.18	439.68	442.50	442.51	2.33	2.83
202	202	B	MH28	MH38	0.41	0.50	5 year	0.21	1.17	0.00	10.83	117.41	194.66	0.00	0.00	0	0	0.00	380.25	380.25	0.50%	675	0.013	1.7	79.562	0.80	594.39	64%	439.074	438.676	439.75	439.35	442.51	441.52	2.76	2.17
202	202	B	MH38	MH1	0.29	0.50	5 year	0.15	1.31	0.00	11.63	112.26	186.14	0.00	0.00	0	0	0.00	408.84	408.84	0.50%	675	0.013	1.7	42.110	0.42	594.39	69%	438.626	438.415	439.30	439.09	441.52	441.29	2.22	2.20
202	202	B	MH79	MH1	0.30	0.50	5 year	0.15	3.72	0.00	14.98	95.39	158.17	0.00	0.00	0	0	0.00	985.64	985.64	0.85%	825	0.013	2.5	45.126	0.30	1323.41	74%	438.797	438.415	439.62	439.24	441.48	441.29	1.86	2.05
204	204	A	MH33	MH34	0.45	0.60	5 year	0.27	0.27	0.00	10.00	123.38	204.55	0.00	0.00	0	0	0.00	92.61	92.61	0.50%	450	0.013	1.3	81.337	1.07	201.60	46%	440.543	440.136	440.99	440.59	442.65	442.35	1.66	1.77
204	204	A	MH34	MH35	0.31	0.60	5 year	0.19	0.46	0.00	11.07	115.79	191.99	0.00	0.00	0	0	0.00	146.79	146.79	0.50%	525	0.013	1.4	36.528	0.43	304.10	48%	440.086	439.903	440.61	440.43	442.35	442.17	1.74	1.74
204	204	A	MH35	MH36	0.25	0.60	5 year	0.15	0.61	0.00	11.50	113.02	187.40	0.00	0.00	0	0	0.00	190.41	190.41	0.50%	525	0.013	1.4	33.157	0.39	304.10	63%	439.853	439.687	440.38	440.21	442.17	442.01	1.79	1.79
204	204	A	MH36	MH37	0.13	0.60	5 year	0.08	0.68	0.00	11.90	110.64	183.45	0.00	0.00	0	0	0.00	210.39	210.39	0.50%	600	0.013	1.5	13.437	0.15	434.17	48%	439.637	439.570	440.24	440.17	442.01	441.93	1.77	1.76
204	204	A	MH37	MH75	0.13	0.60	5 year	0.08	0.76	0.00	12.04	109.79	182.04	0.00	0.00	0	0	0.00	232.57	232.57	0.50%	675	0.013	1.7	13.170	0.13	594.39	39%	439.483	439.417	440.16	440.09	441.93	441.86	1.77	1.77
204	204	A	MH75	MH39	0.35	0.60	5 year	0.21	0.97	0.00	12.17	109.03	180.78	0.00	0.00	0	0	0.00	294.61	294.61	0.50%	675	0.013	1.7	69.003	0.69	594.39	50%	439.367	439.022	440.04	439.70	441.86	441.59	1.82	1.90
205	205	C	MH6	MH7	0.16	0.50	5 year	0.08	0.08	0.00	10.00	123.38	204.55	0.00	0.00	0	0	0.00	27.44	27.44	0.50%	375	0.013	1.1	42.598	0.63	123.98	22%	441.125	440.912	441.50	441.29	443.59	443.38	2.09	2.09
205	205	D	MH14	MH15	0.70	0.50	5 year	0.35	0.00	0.00	10.00	123.38	204.55	0.00	0.00	0	0	0.00	0.00	0.00	0.50%	450	0.013	1.3	85.592	1.13	201.60	0%	441.526	441.098	441.98	441.55	443.54	443.53	1.57	1.98
205	205	D	MH15	MH7	0.03	0.50	5 year	0.02	0.02	0.00	11.13	115.43	191.38	0.00	0.00	0	0	0.00	4.81	4.81	0.50%	400	0.013	1.2	11.773	0.17	147.26	3%	441.080	441.021	441.48	441.42	443.53	443.38	2.05	1.96
205	205	C	MH7	MH8	0.14	0.50	5 year	0.07	0.17	0.00	11.29	114.35	189.59	0.00	0.00	0	0	0.00	52.45	52.45	0.50%	525	0.013	1.4	52.109	0.62	304.10	17%	440.897	440.636	441.42	441.16	443.38	443.07	1.96	1.91
205	205	C	MH8	MH9	0.13	0.50	5 year	0.07	0.23	0.00	11.91	110.55	183.31	0.00	0.00	0	0	0.00	70.69	70.69	0.50%	525	0.013	1.4	50.356	0.60	304.10	23%	440.619	440.367	441.14	440.89	443.07	442.78	1.93	1.89
205	205	E	MH17	MH9	0.75	0.50	5 year	0.38	0.38	0.00	10.00	123.38	204.55	0.00	0.00	0	0	0.00	128.62	128.62	0.56%	450	0.013	1.3	83.931	1.04	213.35	60%	440.889	440.422	441.34	440.87	443.06	442.78	1.72	1.91
205	205	C	MH9	MH10	0.19	0.50	5 year	0.10	0.70	0.00	12.51	107.16	177.69	0.00	0.00	0	0	0.00	208.53	208.53	0.50%	600	0.013	1.5	73.331	0.80	434.17	48%	440.342	439.975	440.94	440.58	442.78	442.41	1.84	1.83
205	205	C	MH10	MH11	0.04	0.50	5 year	0.02	0.72	0.00	13.30	103.00	170.80	0.00	0.00	0	0	0.00	206.17	206.17	0.50%	600	0.013	1.5	14.990	0.16	434.17	47%	439.925	439.850	440.53	440.45	442.41	442.28	1.88	1.83
205	205	C	MH11	MH12	0.07	0.50	5 year	0.04	0.76	0.00	13.47	102.20	169.47	0.00	0.00	0	0	0.00	214.50	214.50	0.50%	675	0.013	1.7	13.597	0.14	594.39	36%	439.800	439.732	440.48	440.41	442.28	442.24	1.80	1.83
205	205	C	MH12	MH16	0.31	0.50	5 year	0.16	0.91	0.00	13.60	101.54	168.37	0.00	0.00	0	0	0.00	256.87	256.87	0.50%	675	0.013	1.7	34.231	0.34	594.39	43%	439.683	439.511	440.36	440.19	442.24	442.02	1.88	1.83
206	206	E	MH17	MH22	0.41	0.50	5 year	0.21	0.21	0.00	10.00	123.38	204.55	0.00	0.00	0	0	0.00	70.31	70.31	0.50%	375	0.013	1.1	58.587	0.87	123.98	57%	440.889	440.596	441.26	440.97	443.06	442.87	1.80	1.90
206	206	D	MH14	MH19	0.31	0.50	5 year	0.16	0.16	0.00	10.00	123.38	204.55	0.00	0.00	0	0	0.00	53.16	53.16	0.50%	525	0.013	1.4	33.911	0.40	304.10	17%	441.357	441.188	441.88	441.71	443.54	443.35	1.66	1.64
206	206	D	MH19	MH20	0.15	0.50	5 year	0.08	0.23	0.00	10.40	120.39	199.60	0.00	0.00	0	0	0.00	76.98	76.98	0.50%	525	0.013	1.4	10.182	0.12	304.10	25%	441.138	441.087	441.66	441.61	443.35	443.31	1.69	1.70
206	206	D	MH20	MH21	0.20	0.50	5 year	0.10	0.33	0.00	10.52	119.53	198.17	0.00	0.00	0	0	0.00	109.65	109.65	0.50%	525	0.013	1.4	13.829	0.16	304.10	36%	441.037	440.968	441.56	441.49	443.31	443.25	1.75	1.75
206	206	D	MH21	MH50	0.20	0.50	5 year	0.10	0.43	0.00	10.69	118.38	196.26	0.00	0.00	0	0	0.00																		



Project Information

Thornthwaite & Mather Method

Project: 9354 Wellington County Road 22

Project No.: 1808-7463

Created By: AJ

Checked By: TF

Date: Dec 3, 2025

Pre-Development Conditions

Catchment ID	301	302	303	304
Catchment Area (m ²)	44131	2705	39,308	55,382
Pervious Area (m ²)	44131	2705	39,308	55,382
Impervious Area (m ²)	0	0	0	0
Percent Imperviousness (%)	0%	0%	0%	0%
Infiltration Factors				
Topography - Description	Rolling	Rolling	Rolling	Rolling
Topography - Infiltration Factor	0.20	0.20	0.20	0.20
Soil - Description	Silt Loam	Silt Loam	Silt Loam	Silt Loam
Soil - Infiltration Factor	0.30	0.30	0.30	0.30
Cover - Description	Moderately Rooted Crops	Moderately Rooted Crops	Moderately Rooted Crops	Moderately Rooted Crops
Cover - Infiltration Factor	0.10	0.10	0.10	0.10
Total Infiltration Factor	0.60	0.60	0.60	0.60
Soil Moisture Capacity (mm)	200	200	200	200

Post-Development Conditions

Catchment ID	401	402		
Catchment Area (m ²)	46838	94710		
Pervious Area (m ²)	21341	42175		
Impervious Area (m ²)	25497	52535		
Percent Imperviousness (%)	54%	55%		
Infiltration Factors				
Topography - Description	Flat	Flat		
Topography - Infiltration Factor	0.30	0.30		
Soil - Description	Silt Loam	Silt Loam		
Soil - Infiltration Factor	0.30	0.30		
Cover - Description	Urban Lawns	Urban Lawns		
Cover - Infiltration Factor	0.10	0.10		
Total Infiltration Factor	0.70	0.70		
Soil Moisture Capacity (mm)	125	125		



Climate Parameters
Thornthwaite & Mather Method

Project: 9354 Wellington County Road 22
Project No.: 1808-7463
Created By: AJ
Checked By: TF
Date: Dec 3, 2025

PROJECT LOCATION 9354 Wellington County Road 22, Hillsburgh, ON
 PROJECT LATITUDE ° **43**

Month	Mean Temperature (C°) ¹	Heat Index [i = (t/5) ^{1.514}]	α	Potential Evapotranspiration (PET) (mm)	Correction Factor ²	Adjusted Potential Evapotranspiration (APET) (mm)	Precipitation (P) (mm) ¹
January	-5.0	0.00		0.0	1.37	0.0	61.6
February	-4.4	0.00		0.0	0.82	0.0	50.2
March	0.6	0.04		1.7	1.02	1.7	50.5
April	7.0	1.66		28.8	1.12	32.3	76.7
May	13.7	4.60		62.8	1.26	79.2	77.6
June	19.2	7.67		93.0	1.28	119.1	80.7
July	22.1	9.49		109.6	1.29	141.3	74.0
August	21.1	8.85		103.8	1.2	124.6	68.5
September	16.9	6.32		80.2	1.04	83.4	69.4
October	10.0	2.86		43.6	0.95	41.4	67.2
November	4.1	0.74		15.5	0.81	12.5	71.8
December	-1.6	0.00		0.0	0.77	0.0	58.6
TOTAL	8.6	42.2	1.2	539.0		635.5	806.8

NOTES: 1. Precipitation and temperature data referenced from the City of Guelph's Stormwater Management Master Plan, Appendix F.
 2. Latitude adjustment/correction factors determined based on site location assuming 12 hours of sunlight per day for 30 days



Pre-Development Water Balance
Thornthwaite & Mather Method

Project: 9354 Wellington County Road 22
Project No.: 1808-7463
Created By: AJ
Checked By: TF
Date: Dec 3, 2025

Catchment ID													
301													
Catchment Parameters	Pervious Area			4.41 ha	Impervious Area			0.00 ha	Total Area			4.41 ha	
	Soil Moisture Holding Capacity			200 mm	Infiltration Factor			0.60	% Impervious Evaporation			15%	
Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
Precipitation	62	50	51	77	78	81	74	69	69	67	72	59	807
<i>Pervious Area Water Balance</i>													
Evapotranspiration (mm)	0	0	2	32	79	115	121	97	75	41	13	0	576
Water Surplus (mm)	62	50	49	44	0	0	0	0	0	0	0	26	231
Infiltration (mm)	37	30	29	27	0	0	0	0	0	0	0	16	139
Surface Water Runoff (mm)	25	20	20	18	0	0	0	0	0	0	0	10	92
<i>Impervious Area Water Balance</i>													
Evaporation (mm)	9	8	8	12	12	12	11	10	10	10	11	9	121
Surface Water Runoff (mm)	52	43	43	65	66	69	63	58	59	57	61	50	686
<i>Combined Water Balance</i>													
Pervious ET (m³)	0	0	75	1423	3494	5091	5332	4285	3327	1827	553	0	25407
Impervious ET (m³)	0	0	0	0	0	0	0	0	0	0	0	0	0
Pervious Infiltration (m³)	1631	1329	1292	1177	0	0	0	0	0	0	0	689	6119
Impervious Infiltration (m³)	0	0	0	0	0	0	0	0	0	0	0	0	0
Pervious Runoff (m³)	1087	886	862	785	0	0	0	0	0	0	0	459	4079
Impervious Runoff (m³)	0	0	0	0	0	0	0	0	0	0	0	0	0

Pre-Development Water Balance Summary: Catchment 301				
Pre-Development Evapotranspiration	25407	m ³ /yr	576	mm/yr
Pre-Development Infiltration	6119	m ³ /yr	139	mm/yr
Pre-Development Runoff	4079	m ³ /yr	92	mm/yr

NOTES: 1.The infiltration factor is determined using the MECP methodology outlined in the Stormwater Management Planning and Design Manual 2003.

2. Assumptions:

- Evapotranspiration does not occur when average temperature is below zero.
- Infiltration does not occur when average temperature is below zero.
- Approximately 15% of the precipitation on impervious surfaces will evaporate.



Pre-Development Water Balance
Thornthwaite & Mather Method

Project: 9354 Wellington County Road 22
Project No.: 1808-7463
Created By: AJ
Checked By: TF
Date: Dec 3, 2025

Catchment ID	302												
Catchment Parameters	Pervious Area			0.27 ha	Impervious Area			0.00 ha	Total Area			0.27 ha	
	Soil Moisture Holding Capacity			200 mm	Infiltration Factor			0.60	% Impervious Evaporation			15%	
Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
Precipitation	62	50	51	77	78	81	74	69	69	67	72	59	807
<i>Pervious Area Water Balance</i>													
Evapotranspiration (mm)	0	0	2	32	79	115	121	97	75	41	13	0	576
Water Surplus (mm)	62	50	49	44	0	0	0	0	0	0	0	26	231
Infiltration (mm)	37	30	29	27	0	0	0	0	0	0	0	16	139
Surface Water Runoff (mm)	25	20	20	18	0	0	0	0	0	0	0	10	92
<i>Impervious Area Water Balance</i>													
Evaporation (mm)	9	8	8	12	12	12	11	10	10	10	11	9	121
Surface Water Runoff (mm)	52	43	43	65	66	69	63	58	59	57	61	50	686
<i>Combined Water Balance</i>													
Pervious ET (m ³)	0	0	5	87	214	312	327	263	204	112	34	0	1557
Impervious ET (m ³)	0	0	0	0	0	0	0	0	0	0	0	0	0
Pervious Infiltration (m ³)	100	81	79	72	0	0	0	0	0	0	0	42	375
Impervious Infiltration (m ³)	0	0	0	0	0	0	0	0	0	0	0	0	0
Pervious Runoff (m ³)	67	54	53	48	0	0	0	0	0	0	0	28	250
Impervious Runoff (m ³)	0	0	0	0	0	0	0	0	0	0	0	0	0

Pre-Development Water Balance Summary: Catchment 302				
Pre-Development Evapotranspiration	1557.1	m ³ /yr	575.7	mm/yr
Pre-Development Infiltration	375.0	m ³ /yr	138.7	mm/yr
Pre-Development Runoff	250.0	m ³ /yr	92.4	mm/yr

NOTES: 1. The infiltration factor is determined using the MECP methodology outlined in the Stormwater Management Planning and Design Manual 2003.

2. Assumptions:

- Surplus water is unavailable for runoff and recharge in months where water losses from APET exceed precipitation inputs.
- Evapotranspiration does not occur when average temperature is below zero.
- Approximately 15% of the precipitation on impervious surfaces will evaporate.



Pre-Development Water Balance
Thornthwaite & Mather Method

Project: 9354 Wellington County Road 22
Project No.: 1808-7463
Created By: AJ
Checked By: TF
Date: Dec 3, 2025

Catchment ID	303												
Catchment Parameters	Pervious Area			3.93 ha	Impervious Area			0.00 ha	Total Area			3.93 ha	
	Soil Moisture Holding Capacity			200 mm	Infiltration Factor			0.60	% Impervious Evaporation			15%	
Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
Precipitation	62	50	51	77	78	81	74	69	69	67	72	59	807
<i>Pervious Area Water Balance</i>													
Evapotranspiration (mm)	0	0	2	32	79	115	121	97	75	41	13	0	576
Water Surplus (mm)	62	50	49	44	0	0	0	0	0	0	0	26	231
Infiltration (mm)	37	30	29	27	0	0	0	0	0	0	0	16	139
Surface Water Runoff (mm)	25	20	20	18	0	0	0	0	0	0	0	10	92
<i>Impervious Area Water Balance</i>													
Evaporation (mm)	9	8	8	12	12	12	11	10	10	10	11	9	121
Surface Water Runoff (mm)	52	43	43	65	66	69	63	58	59	57	61	50	686
<i>Combined Water Balance</i>													
Pervious ET (m ³)	0	0	66	1268	3113	4534	4749	3817	2963	1628	492	0	22630
Impervious ET (m ³)	0	0	0	0	0	0	0	0	0	0	0	0	0
Pervious Infiltration (m ³)	1453	1184	1151	1048	0	0	0	0	0	0	0	614	5450
Impervious Infiltration (m ³)	0	0	0	0	0	0	0	0	0	0	0	0	0
Pervious Runoff (m ³)	969	789	767	699	0	0	0	0	0	0	0	409	3633
Impervious Runoff (m ³)	0	0	0	0	0	0	0	0	0	0	0	0	0

Pre-Development Water Balance Summary: Catchment 303				
Pre-Development Evapotranspiration	22630.2	m ³ /yr	575.7	mm/yr
Pre-Development Infiltration	5450.1	m ³ /yr	138.7	mm/yr
Pre-Development Runoff	3633.4	m ³ /yr	92.4	mm/yr

NOTES: 1. The infiltration factor is determined using the MECP methodology outlined in the Stormwater Management Planning and Design Manual 2003.

2. Assumptions:

- Surplus water is unavailable for runoff and recharge in months where water losses from APET exceed precipitation inputs.
- Evapotranspiration does not occur when average temperature is below zero.
- Approximately 15% of the precipitation on impervious surfaces will evaporate.



Pre-Development Water Balance
Thornthwaite & Mather Method

Project: 9354 Wellington County Road 22
Project No.: 1808-7463
Created By: AJ
Checked By: TF
Date: Dec 3, 2025

Catchment ID	304												
Catchment Parameters	Pervious Area			5.54 ha	Impervious Area			0.00 ha	Total Area			5.54 ha	
	Soil Moisture Holding Capacity			200 mm	Infiltration Factor			0.60	% Impervious Evaporation			15%	
Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
Precipitation	62	50	51	77	78	81	74	69	69	67	72	59	807
<i>Pervious Area Water Balance</i>													
Evapotranspiration (mm)	0	0	2	32	79	115	121	97	75	41	13	0	576
Water Surplus (mm)	62	50	49	44	0	0	0	0	0	0	0	26	231
Infiltration (mm)	37	30	29	27	0	0	0	0	0	0	0	16	139
Surface Water Runoff (mm)	25	20	20	18	0	0	0	0	0	0	0	10	92
<i>Impervious Area Water Balance</i>													
Evaporation (mm)	9	8	8	12	12	12	11	10	10	10	11	9	121
Surface Water Runoff (mm)	52	43	43	65	66	69	63	58	59	57	61	50	686
<i>Combined Water Balance</i>													
Pervious ET (m ³)	0	0	94	1786	4385	6389	6691	5378	4175	2293	694	0	31884
Impervious ET (m ³)	0	0	0	0	0	0	0	0	0	0	0	0	0
Pervious Infiltration (m ³)	2047	1668	1622	1477	0	0	0	0	0	0	0	865	7679
Impervious Infiltration (m ³)	0	0	0	0	0	0	0	0	0	0	0	0	0
Pervious Runoff (m ³)	1365	1112	1081	985	0	0	0	0	0	0	0	577	5119
Impervious Runoff (m ³)	0	0	0	0	0	0	0	0	0	0	0	0	0

Pre-Development Water Balance Summary: Catchment 304				
Pre-Development Evapotranspiration	31884.2	m ³ /yr	575.7	mm/yr
Pre-Development Infiltration	7678.7	m ³ /yr	138.7	mm/yr
Pre-Development Runoff	5119.2	m ³ /yr	92.4	mm/yr

- NOTES: 1. The infiltration factor is determined using the MECP methodology outlined in the Stormwater Management Planning and Design Manual 2003.
2. Assumptions:
- Surplus water is unavailable for runoff and recharge in months where water losses from APET exceed precipitation inputs.
 - Evapotranspiration does not occur when average temperature is below zero.
 - Approximately 15% of the precipitation on impervious surfaces will evaporate.



Post-Development Water Balance
Thornthwaite & Mather Method

Project: 9354 Wellington County Road 22
Project No.: 1808-7463
Created By: AJ
Checked By: TF
Date: Dec 3, 2025

Catchment ID	401												
Catchment Parameters	Pervious Area	2.13 ha			Impervious Area	2.55 ha			Total Area	4.68 ha			
	Soil Moisture Holding Capacity	125 mm			Infiltration Factor	0.70			% Impervious Evaporation	15%			
Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
Precipitation	62	50	51	77	78	81	74	69	69	67	72	59	807
<i>Pervious Area Water Balance</i>													
Evapotranspiration (mm)	0	0	2	32	79	113	112	88	73	41	13	0	553
Water Surplus (mm)	62	50	49	44	0	0	0	0	0	0	0	49	254
Infiltration (mm)	43	35	34	31	0	0	0	0	0	0	0	34	178
Surface Water Runoff (mm)	18	15	15	13	0	0	0	0	0	0	0	15	76
<i>Impervious Area Water Balance</i>													
Evaporation (mm)	9	8	8	12	12	12	11	10	10	10	11	9	121
Surface Water Runoff (mm)	52	43	43	65	66	69	63	58	59	57	61	50	686
<i>Combined Water Balance</i>													
Pervious ET (m ³)	0	0	36	688	1690	2419	2386	1871	1558	884	267	0	11798
Impervious ET (m ³)	236	192	193	293	297	309	283	262	265	257	275	224	3086
Pervious Infiltration (m ³)	920	750	729	664	0	0	0	0	0	0	0	730	3794
Impervious Infiltration (m ³)	0	0	0	0	0	0	0	0	0	0	0	0	0
Pervious Runoff (m ³)	394	321	313	285	0	0	0	0	0	0	0	313	1626
Impervious Runoff (m ³)	1335	1088	1094	1662	1682	1749	1604	1485	1504	1456	1556	1270	17485

Post-Development Water Balance Summary: Catchment 401				
Post-Development Evapotranspiration	14883.9	m ³ /yr	317.8	mm/yr
Post-Development Infiltration	3793.7	m ³ /yr	81.0	mm/yr
Post-Development Runoff	19111.2	m ³ /yr	408.0	mm/yr

- NOTES: 1. The infiltration factor is determined using the MECP methodology outlined in the Stormwater Management Planning and Design Manual 2003.
2. Assumptions:
- Surplus water is unavailable for runoff and recharge in months where water losses from APET exceed precipitation inputs.
 - Evapotranspiration does not occur when average temperature is below zero.
 - Approximately 15% of the precipitation on impervious surfaces will evaporate.



Post-Development Water Balance
Thornthwaite & Mather Method

Project: 9354 Wellington County Road 22
Project No.: 1808-7463
Created By: AJ
Checked By: TF
Date: Dec 3, 2025

Project Name:
Location:

Catchment ID	402												
Catchment Parameters	Pervious Area	4.22 ha			Impervious Area	5.25 ha			Total Area	9.47 ha			
	Soil Moisture Holding Capacity	125 mm			Infiltration Factor	0.70			% Impervious Evaporation	15%			
Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
Precipitation	62	50	51	77	78	81	74	69	69	67	72	59	807
<i>Pervious Area Water Balance</i>													
Evapotranspiration (mm)	0	0	2	32	79	113	112	88	73	41	13	0	553
Water Surplus (mm)	62	50	49	44	0	0	0	0	0	0	0	49	254
Infiltration (mm)	43	35	34	31	0	0	0	0	0	0	0	34	178
Surface Water Runoff (mm)	18	15	15	13	0	0	0	0	0	0	0	15	76
<i>Impervious Area Water Balance</i>													
Evaporation (mm)	9	8	8	12	12	12	11	10	10	10	11	9	121
Surface Water Runoff (mm)	52	43	43	65	66	69	63	58	59	57	61	50	686
<i>Combined Water Balance</i>													
Pervious ET (m ³)	0	0	71	1360	3339	4780	4716	3697	3078	1746	528	0	23316
Impervious ET (m ³)	485	396	398	604	612	636	583	540	547	530	566	462	6358
Pervious Infiltration (m ³)	1819	1482	1441	1312	0	0	0	0	0	0	0	1443	7497
Impervious Infiltration (m ³)	0	0	0	0	0	0	0	0	0	0	0	0	0
Pervious Runoff (m ³)	779	635	618	562	0	0	0	0	0	0	0	619	3213
Impervious Runoff (m ³)	2751	2242	2255	3425	3465	3604	3304	3059	3099	3001	3206	2617	36027

Post-Development Water Balance Summary: Catchment 402				
Post-Development Evapotranspiration	29674.1	m ³ /yr	313.3	mm/yr
Post-Development Infiltration	7497.3	m ³ /yr	79.2	mm/yr
Post-Development Runoff	39240.6	m ³ /yr	414.3	mm/yr

- NOTES: 1. The infiltration factor is determined using the MECP methodology outlined in the Stormwater Management Planning and Design Manual 2003.
2. Assumptions:
- Surplus water is unavailable for runoff and recharge in months where water losses from APET exceed precipitation inputs.
 - Evapotranspiration does not occur when average temperature is below zero.
 - Approximately 15% of the precipitation on impervious surfaces will evaporate.



Project: 9354 Wellington County Rc

Project No.: 1808-7463

Created By: AJ

Checked By: TF

Date: Dec 3, 2025

Site Water Balance Summary

Thornthwaite & Mather Method

Pre-Development Water Balance								
Catchment ID	Groundwater Direction	Area	Evapotranspiration		Infiltration		Runoff	
		(ha)	(m ³ /yr)	(mm/yr)	(m ³ /yr)	(mm/yr)	(m ³ /yr)	(mm/yr)
301	East	4.41	25407	576	6119	139	4079	92
302	East	0.27	1557	576	375	139	250	92
303	West	3.93	22630	576	5450	139	3633	92
304	West	5.54	31884	576	7679	139	5119	92
Total	-	14.15	81478	576	19623	139	13082	92

Post-Development Water Balance								
Catchment ID	Groundwater Direction	Area	Evapotranspiration		Infiltration		Runoff	
		(ha)	(m ³ /yr)	(mm/yr)	(m ³ /yr)	(mm/yr)	(m ³ /yr)	(mm/yr)
401	East	4.68	14884	318	3794	81	19111	408
402	West	9.47	29674	313	7497	79	39241	414
Total	-	14.15	44558	315	11291	80	58352	412

Site Water Balance Summary							
Scenario	Area	Evapotranspiration		Infiltration		Runoff	
	(ha)	(m ³)	(mm)	(m ³)	(mm)	(m ³)	(mm)
Pre-Dev.	14.15	81478	576	19623	139	13082	92
Post-Dev.	14.15	44558	315	11291	80	58352	412
Difference	0.00	-36920	-261	-8332	-59	45270	320
% Difference	0%	-45%	-45%	-42%	-42%	346%	346%

Annual Infiltration Deficit

8332 m³

Site Water Balance Summary (With Mitigation)							
Scenario	Area	Evapotranspiration		Infiltration		Runoff	
	(ha)	(m ³)	(mm)	(m ³)	(mm)	(m ³)	(mm)
Pre-Dev.	14.15	81478	576	19623	139	13082	92
Post-Dev.	14.15	44558	315	11291	80	58352	412
Mitigation (East)				2191	27		
Mitigation (West)				4528	27		
Mitigation (Multi)				2472	27		
Post-Dev. + Mit.	14.15	44558	315	20482	145	58352	412
Difference	0	-36920	-261	860	6	45270	320
% Difference	0%	-45%	-45%	4%	4%	346%	346%



Project: 9354 Wellington County Rc

Project No.: 1808-7463

Created By: AJ

Checked By: TF

Date: Dec 3, 2025

Site Water Balance Summary

Thornthwaite & Mather Method

East Water Balance Summary

Scenario	Area	Evapotranspiration		Infiltration		Runoff	
	(ha)	(m ³)	(mm)	(m ³)	(mm)	(m ³)	(mm)
Pre-Dev.	4.68	26964	576	6494	139	4329	92
Post-Dev.	4.68	14884	318	3794	81	19111	408
Difference	0.00	-12080	-258	-2700	-58	14782	316
% Difference	0%	-45%	-45%	-42%	-42%	341%	341%

Annual Infiltration Deficit

2700 m³

East Water Balance Summary (With Mitigation)

Scenario	Area	Evapotranspiration		Infiltration		Runoff	
	(ha)	(m ³)	(mm)	(m ³)	(mm)	(m ³)	(mm)
Pre-Dev.	4.68	26964	576	6494	139	4329	92
Post-Dev.	4.68	14884	318	3794	81	19111	408
Mitigation (East)				2191	27		
Post-Dev. + Mit.	4.68	14884	318	5985	128	19111	408
Difference	0	-12080	-258	-509	-11	14782	316
% Difference	0%	-45%	-45%	-7.8%	-8%	341%	341%

West Water Balance Summary

Scenario	Area	Evapotranspiration		Infiltration		Runoff	
	(ha)	(m ³)	(mm)	(m ³)	(mm)	(m ³)	(mm)
Pre-Dev.	9.47	54514	576	13129	139	8753	92
Post-Dev.	9.47	29674	313	7497	79	39241	414
Difference	0.00	-24840	-262	-5631	-59	30488	322
% Difference	0%	-46%	-46%	-43%	-43%	348%	348%

Annual Infiltration Deficit

5631 m³

West Water Balance Summary (With Mitigation)

Scenario	Area	Evapotranspiration		Infiltration		Runoff	
	(ha)	(m ³)	(mm)	(m ³)	(mm)	(m ³)	(mm)
Pre-Dev.	9.47	54514	576	13129	139	8753	92
Post-Dev.	9.47	29674	313	7497	79	39241	414
Mitigation (West)				4528	27		
Mitigation (Multi)				2472	27		
Post-Dev. + Mit.	9.47	29674	313	14498	153	39241	414
Difference	0	-24840	-262	1369	14	30488	322
% Difference	0%	-46%	-46%	10%	10%	348%	348%

ESC Swales

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.035	
Channel Slope	0.00500	m/m
Left Side Slope	3.00	m/m (H:V)
Right Side Slope	3.00	m/m (H:V)
Bottom Width	0.00	m
Discharge	0.07	m ³ /s

Results

Normal Depth	0.23	m
Flow Area	0.15	m ²
Wetted Perimeter	1.43	m
Hydraulic Radius	0.11	m
Top Width	1.36	m
Critical Depth	0.16	m
Critical Slope	0.02980	m/m
Velocity	0.46	m/s
Velocity Head	0.01	m
Specific Energy	0.24	m
Froude Number	0.43	
Flow Type	Subcritical	

GVF Input Data

Downstream Depth	0.00	m
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

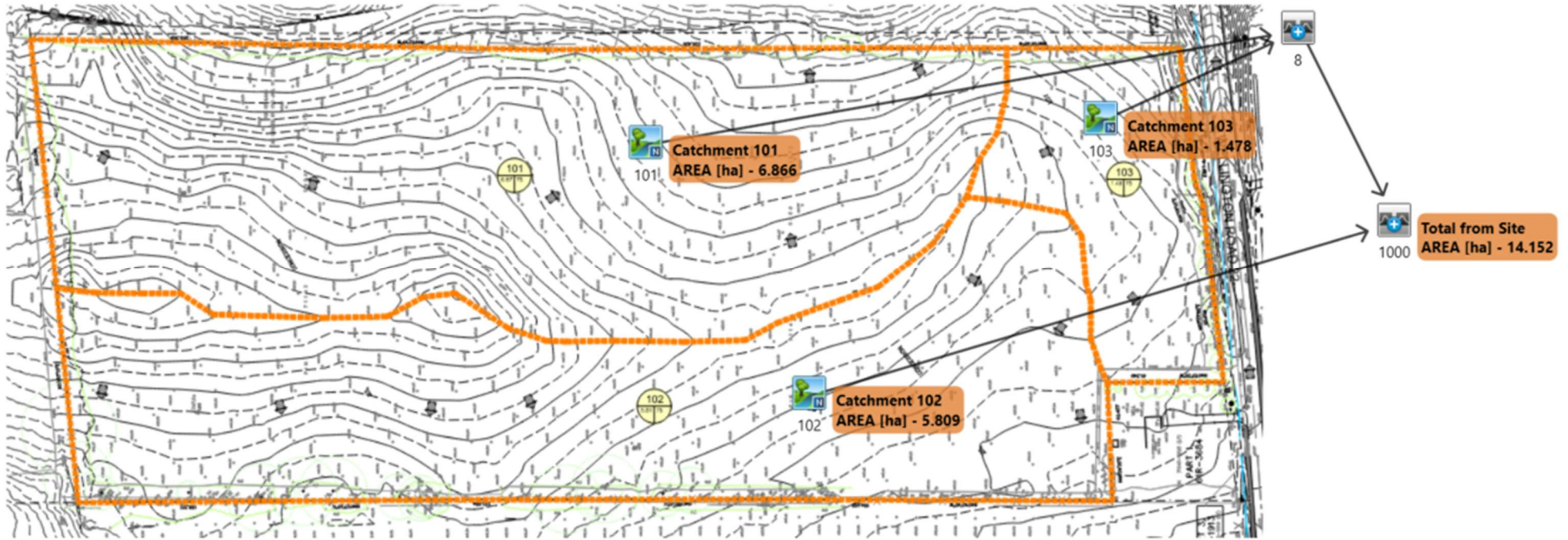
Upstream Depth	0.00	m
Profile Description		
Profile Headloss	0.00	ft
Downstream Velocity	Infinity	m/s
Upstream Velocity	Infinity	m/s
Normal Depth	0.23	m
Critical Depth	0.16	m
Channel Slope	0.00500	m/m

ESC Swales

GVF Output Data

Critical Slope 0.02980 m/m

VO Pre-Development Conditions Schematic



VO Pre-Development Conditions Results

V V I SSSSS U U A L (v 6.2.2015)
V V I SS U U AA L
V V I SS U U AAAAA L
V V I SS U U A A L
V V I SSSSS UUUUU A A LLLLL

OOO TTTT TTTT H H Y Y M M OOO TM
O O T T H H Y Y M M M M O O
O O T T H H Y Y M M O O
OOO T T H H Y Y M M OOO

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***** DETAILED OUTPUT *****

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voinput.dat
Output filename: C:\Users\ajoshi\AppData\Local\Civica\5\191a91e0-1a14-44fd-bc00-4941023c7dee\c4698c26-5599-472f-9bfd-3d6bd2acdaa3\scena
Summary filename: C:\Users\ajoshi\AppData\Local\Civica\5\191a91e0-1a14-44fd-bc00-4941023c7dee\c4698c26-5599-472f-9bfd-3d6bd2acdaa3\scena

DATE: 12-03-2025 TIME: 02:39:25

USER:

COMMENTS: _____

** SIMULATION : 1_2yr 24hr 10min SCS Type II **

| READ STORM | Filename: C:\Users\ajoshi\AppData
| | ata\Local\Temp\
| | 5145f062-a365-46cb-ac24-6d39e4c26712\6dcf778f
| Ptotal= 67.15 mm | Comments: 2yr 24hr 10min SCS Type II

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	9.67	18.50	1.21
0.17	0.74	6.33	1.21	12.50	9.67	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	2.01	20.33	0.81
2.00	0.74	8.17	1.75	14.33	2.01	20.50	0.81
2.17	0.87	8.33	1.75	14.50	2.01	20.67	0.81
2.33	0.87	8.50	1.75	14.67	2.01	20.83	0.81
2.50	0.87	8.67	1.88	14.83	2.01	21.00	0.81
2.67	0.87	8.83	1.88	15.00	2.01	21.17	0.81
2.83	0.87	9.00	1.88	15.17	2.01	21.33	0.81
3.00	0.87	9.17	2.15	15.33	2.01	21.50	0.81
3.17	0.87	9.33	2.15	15.50	2.01	21.67	0.81
3.33	0.87	9.50	2.15	15.67	2.01	21.83	0.81
3.50	0.87	9.67	2.42	15.83	2.01	22.00	0.81

3.67	0.87	9.83	2.42	16.00	2.01	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	1.07	10.33	3.09	16.50	1.21	22.67	0.81
4.33	1.07	10.50	3.09	16.67	1.21	22.83	0.81
4.50	1.07	10.67	4.16	16.83	1.21	23.00	0.81
4.67	1.07	10.83	4.16	17.00	1.21	23.17	0.81
4.83	1.07	11.00	4.16	17.17	1.21	23.33	0.81
5.00	1.07	11.17	6.45	17.33	1.21	23.50	0.81
5.17	1.07	11.33	6.45	17.50	1.21	23.67	0.81
5.33	1.07	11.50	6.45	17.67	1.21	23.83	0.81
5.50	1.07	11.67	19.88	17.83	1.21	24.00	0.81
5.67	1.07	11.83	51.03	18.00	1.21		
5.83	1.07	12.00	82.19	18.17	1.21		
6.00	1.07	12.17	9.67	18.33	1.21		

| CALIB |
| NASHYD (0101) | Area (ha)= 6.87 Curve Number (CN)= 75.0
| ID= 1 DT= 5.0 min | la (mm)= 7.00 # of Linear Res.(N)= 3.00
----- U.H. Tp(hrs)= 0.17

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.07	12.250	9.68	18.33	1.21
0.167	0.00	6.250	1.21	12.333	9.67	18.42	1.21
0.250	0.74	6.333	1.21	12.417	9.67	18.50	1.21
0.333	0.74	6.417	1.21	12.500	9.67	18.58	1.21
0.417	0.74	6.500	1.21	12.583	9.67	18.67	1.21
0.500	0.74	6.583	1.21	12.667	9.67	18.75	1.21
0.583	0.74	6.667	1.21	12.750	4.97	18.83	1.21
0.667	0.74	6.750	1.21	12.833	4.97	18.92	1.21
0.750	0.74	6.833	1.21	12.917	4.97	19.00	1.21
0.833	0.74	6.917	1.21	13.000	4.97	19.08	1.21
0.917	0.74	7.000	1.21	13.083	4.97	19.17	1.21
1.000	0.74	7.083	1.21	13.167	4.97	19.25	1.21
1.083	0.74	7.167	1.21	13.250	3.63	19.33	1.21
1.167	0.74	7.250	1.48	13.333	3.63	19.42	1.21
1.250	0.74	7.333	1.48	13.417	3.63	19.50	1.21
1.333	0.74	7.417	1.48	13.500	3.63	19.58	1.21
1.417	0.74	7.500	1.48	13.583	3.63	19.67	1.21
1.500	0.74	7.583	1.48	13.667	3.63	19.75	1.21
1.583	0.74	7.667	1.48	13.750	2.82	19.83	1.21
1.667	0.74	7.750	1.48	13.833	2.82	19.92	1.21
1.750	0.74	7.833	1.48	13.917	2.82	20.00	1.21
1.833	0.74	7.917	1.48	14.000	2.82	20.08	1.21
1.917	0.74	8.000	1.48	14.083	2.82	20.17	1.21
2.000	0.74	8.083	1.48	14.167	2.82	20.25	0.81
2.083	0.74	8.167	1.48	14.250	2.01	20.33	0.81
2.167	0.74	8.250	1.75	14.333	2.01	20.42	0.81
2.250	0.87	8.333	1.75	14.417	2.01	20.50	0.81
2.333	0.87	8.417	1.75	14.500	2.01	20.58	0.81
2.417	0.87	8.500	1.75	14.583	2.01	20.67	0.81
2.500	0.87	8.583	1.75	14.667	2.01	20.75	0.81
2.583	0.87	8.667	1.75	14.750	2.01	20.83	0.81
2.667	0.87	8.750	1.88	14.833	2.01	20.92	0.81
2.750	0.87	8.833	1.88	14.917	2.01	21.00	0.81
2.833	0.87	8.917	1.88	15.000	2.01	21.08	0.81
2.917	0.87	9.000	1.88	15.083	2.01	21.17	0.81
3.000	0.87	9.083	1.88	15.167	2.01	21.25	0.81
3.083	0.87	9.167	1.88	15.250	2.01	21.33	0.81
3.167	0.87	9.250	2.15	15.333	2.01	21.42	0.81
3.250	0.87	9.333	2.15	15.417	2.01	21.50	0.81
3.333	0.87	9.417	2.15	15.500	2.01	21.58	0.81
3.417	0.87	9.500	2.15	15.583	2.01	21.67	0.81
3.500	0.87	9.583	2.15	15.667	2.01	21.75	0.81
3.583	0.87	9.667	2.15	15.750	2.01	21.83	0.81

3.667	0.87	|9.750	2.42	|15.833	2.01	|21.92	0.81
3.750	0.87	|9.833	2.42	|15.917	2.01	|22.00	0.81
3.833	0.87	|9.917	2.42	|16.000	2.01	|22.08	0.81
3.917	0.87	|10.000	2.42	|16.083	2.01	|22.17	0.81
4.000	0.87	|10.083	2.42	|16.167	2.01	|22.25	0.81
4.083	0.87	|10.167	2.42	|16.250	1.21	|22.33	0.81
4.167	0.87	|10.250	3.09	|16.333	1.21	|22.42	0.81
4.250	1.07	|10.333	3.09	|16.417	1.21	|22.50	0.81
4.333	1.07	|10.417	3.09	|16.500	1.21	|22.58	0.81
4.417	1.07	|10.500	3.09	|16.583	1.21	|22.67	0.81
4.500	1.07	|10.583	3.09	|16.667	1.21	|22.75	0.81
4.583	1.07	|10.667	3.09	|16.750	1.21	|22.83	0.81
4.667	1.07	|10.750	4.16	|16.833	1.21	|22.92	0.81
4.750	1.07	|10.833	4.16	|16.917	1.21	|23.00	0.81
4.833	1.07	|10.917	4.16	|17.000	1.21	|23.08	0.81
4.917	1.07	|11.000	4.16	|17.083	1.21	|23.17	0.81
5.000	1.07	|11.083	4.16	|17.167	1.21	|23.25	0.81
5.083	1.07	|11.167	4.16	|17.250	1.21	|23.33	0.81
5.167	1.07	|11.250	6.45	|17.333	1.21	|23.42	0.81
5.250	1.07	|11.333	6.45	|17.417	1.21	|23.50	0.81
5.333	1.07	|11.417	6.45	|17.500	1.21	|23.58	0.81
5.417	1.07	|11.500	6.45	|17.583	1.21	|23.67	0.81
5.500	1.07	|11.583	6.45	|17.667	1.21	|23.75	0.81
5.583	1.07	|11.667	6.45	|17.750	1.21	|23.83	0.81
5.667	1.07	|11.750	19.87	|17.833	1.21	|23.92	0.81
5.750	1.07	|11.833	19.88	|17.917	1.21	|24.00	0.81
5.833	1.07	|11.917	51.03	|18.000	1.21	|24.08	0.81
5.917	1.07	|12.000	51.03	|18.083	1.21	|24.17	0.81
6.000	1.07	|12.083	82.19	|18.167	1.21	|	
6.083	1.07	|12.167	82.19	|18.250	1.21	|	

Unit Hyd Qpeak (cms)= 1.543

PEAK FLOW (cms)= 0.459 (i)

TIME TO PEAK (hrs)= 12.250

RUNOFF VOLUME (mm)= 24.894

TOTAL RAINFALL (mm)= 67.150

RUNOFF COEFFICIENT = 0.371

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

 | CALIB |
 | NASHYD (0103) | Area (ha)= 1.48 Curve Number (CN)= 75.0
 | ID= 1 DT= 5.0 min | Ia (mm)= 7.00 # of Linear Res.(N)= 3.00
 ----- U.H. Tp(hrs)= 0.19

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	|6.167	1.07	|12.250	9.68	|18.33	1.21
0.167	0.00	|6.250	1.21	|12.333	9.67	|18.42	1.21
0.250	0.74	|6.333	1.21	|12.417	9.67	|18.50	1.21
0.333	0.74	|6.417	1.21	|12.500	9.67	|18.58	1.21
0.417	0.74	|6.500	1.21	|12.583	9.67	|18.67	1.21
0.500	0.74	|6.583	1.21	|12.667	9.67	|18.75	1.21
0.583	0.74	|6.667	1.21	|12.750	4.97	|18.83	1.21
0.667	0.74	|6.750	1.21	|12.833	4.97	|18.92	1.21
0.750	0.74	|6.833	1.21	|12.917	4.97	|19.00	1.21
0.833	0.74	|6.917	1.21	|13.000	4.97	|19.08	1.21
0.917	0.74	|7.000	1.21	|13.083	4.97	|19.17	1.21
1.000	0.74	|7.083	1.21	|13.167	4.97	|19.25	1.21
1.083	0.74	|7.167	1.21	|13.250	3.63	|19.33	1.21
1.167	0.74	|7.250	1.48	|13.333	3.63	|19.42	1.21
1.250	0.74	|7.333	1.48	|13.417	3.63	|19.50	1.21
1.333	0.74	|7.417	1.48	|13.500	3.63	|19.58	1.21
1.417	0.74	|7.500	1.48	|13.583	3.63	|19.67	1.21
1.500	0.74	|7.583	1.48	|13.667	3.63	|19.75	1.21
1.583	0.74	|7.667	1.48	|13.750	2.82	|19.83	1.21

1.667	0.74	7.750	1.48	13.833	2.82	19.92	1.21
1.750	0.74	7.833	1.48	13.917	2.82	20.00	1.21
1.833	0.74	7.917	1.48	14.000	2.82	20.08	1.21
1.917	0.74	8.000	1.48	14.083	2.82	20.17	1.21
2.000	0.74	8.083	1.48	14.167	2.82	20.25	0.81
2.083	0.74	8.167	1.48	14.250	2.01	20.33	0.81
2.167	0.74	8.250	1.75	14.333	2.01	20.42	0.81
2.250	0.87	8.333	1.75	14.417	2.01	20.50	0.81
2.333	0.87	8.417	1.75	14.500	2.01	20.58	0.81
2.417	0.87	8.500	1.75	14.583	2.01	20.67	0.81
2.500	0.87	8.583	1.75	14.667	2.01	20.75	0.81
2.583	0.87	8.667	1.75	14.750	2.01	20.83	0.81
2.667	0.87	8.750	1.88	14.833	2.01	20.92	0.81
2.750	0.87	8.833	1.88	14.917	2.01	21.00	0.81
2.833	0.87	8.917	1.88	15.000	2.01	21.08	0.81
2.917	0.87	9.000	1.88	15.083	2.01	21.17	0.81
3.000	0.87	9.083	1.88	15.167	2.01	21.25	0.81
3.083	0.87	9.167	1.88	15.250	2.01	21.33	0.81
3.167	0.87	9.250	2.15	15.333	2.01	21.42	0.81
3.250	0.87	9.333	2.15	15.417	2.01	21.50	0.81
3.333	0.87	9.417	2.15	15.500	2.01	21.58	0.81
3.417	0.87	9.500	2.15	15.583	2.01	21.67	0.81
3.500	0.87	9.583	2.15	15.667	2.01	21.75	0.81
3.583	0.87	9.667	2.15	15.750	2.01	21.83	0.81
3.667	0.87	9.750	2.42	15.833	2.01	21.92	0.81
3.750	0.87	9.833	2.42	15.917	2.01	22.00	0.81
3.833	0.87	9.917	2.42	16.000	2.01	22.08	0.81
3.917	0.87	10.000	2.42	16.083	2.01	22.17	0.81
4.000	0.87	10.083	2.42	16.167	2.01	22.25	0.81
4.083	0.87	10.167	2.42	16.250	1.21	22.33	0.81
4.167	0.87	10.250	3.09	16.333	1.21	22.42	0.81
4.250	1.07	10.333	3.09	16.417	1.21	22.50	0.81
4.333	1.07	10.417	3.09	16.500	1.21	22.58	0.81
4.417	1.07	10.500	3.09	16.583	1.21	22.67	0.81
4.500	1.07	10.583	3.09	16.667	1.21	22.75	0.81
4.583	1.07	10.667	3.09	16.750	1.21	22.83	0.81
4.667	1.07	10.750	4.16	16.833	1.21	22.92	0.81
4.750	1.07	10.833	4.16	16.917	1.21	23.00	0.81
4.833	1.07	10.917	4.16	17.000	1.21	23.08	0.81
4.917	1.07	11.000	4.16	17.083	1.21	23.17	0.81
5.000	1.07	11.083	4.16	17.167	1.21	23.25	0.81
5.083	1.07	11.167	4.16	17.250	1.21	23.33	0.81
5.167	1.07	11.250	6.45	17.333	1.21	23.42	0.81
5.250	1.07	11.333	6.45	17.417	1.21	23.50	0.81
5.333	1.07	11.417	6.45	17.500	1.21	23.58	0.81
5.417	1.07	11.500	6.45	17.583	1.21	23.67	0.81
5.500	1.07	11.583	6.45	17.667	1.21	23.75	0.81
5.583	1.07	11.667	6.45	17.750	1.21	23.83	0.81
5.667	1.07	11.750	19.87	17.833	1.21	23.92	0.81
5.750	1.07	11.833	19.88	17.917	1.21	24.00	0.81
5.833	1.07	11.917	51.03	18.000	1.21	24.08	0.81
5.917	1.07	12.000	51.03	18.083	1.21	24.17	0.81
6.000	1.07	12.083	82.19	18.167	1.21		
6.083	1.07	12.167	82.19	18.250	1.21		

Unit Hyd Qpeak (cms)= 0.297

PEAK FLOW (cms)= 0.095 (i)

TIME TO PEAK (hrs)= 12.250

RUNOFF VOLUME (mm)= 24.925

TOTAL RAINFALL (mm)= 67.150

RUNOFF COEFFICIENT = 0.371

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

 | ADD HYD (0008) |

| 1 + 2 = 3 | AREA QPEAK TPEAK R.V.

----- (ha) (cms) (hrs) (mm)

ID1= 1 (0101): 6.87 0.459 12.25 24.89

+ ID2= 2 (0103): 1.48 0.095 12.25 24.93

=====
ID = 3 (0008): 8.34 0.554 12.25 24.90

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| CALIB |
| NASHYD (0102) | Area (ha)= 5.81 Curve Number (CN)= 75.0
| ID= 1 DT= 5.0 min | Ia (mm)= 7.00 # of Linear Res.(N)= 3.00
----- U.H. Tp(hrs)= 0.25

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.07	12.250	9.68	18.33	1.21
0.167	0.00	6.250	1.21	12.333	9.67	18.42	1.21
0.250	0.74	6.333	1.21	12.417	9.67	18.50	1.21
0.333	0.74	6.417	1.21	12.500	9.67	18.58	1.21
0.417	0.74	6.500	1.21	12.583	9.67	18.67	1.21
0.500	0.74	6.583	1.21	12.667	9.67	18.75	1.21
0.583	0.74	6.667	1.21	12.750	4.97	18.83	1.21
0.667	0.74	6.750	1.21	12.833	4.97	18.92	1.21
0.750	0.74	6.833	1.21	12.917	4.97	19.00	1.21
0.833	0.74	6.917	1.21	13.000	4.97	19.08	1.21
0.917	0.74	7.000	1.21	13.083	4.97	19.17	1.21
1.000	0.74	7.083	1.21	13.167	4.97	19.25	1.21
1.083	0.74	7.167	1.21	13.250	3.63	19.33	1.21
1.167	0.74	7.250	1.48	13.333	3.63	19.42	1.21
1.250	0.74	7.333	1.48	13.417	3.63	19.50	1.21
1.333	0.74	7.417	1.48	13.500	3.63	19.58	1.21
1.417	0.74	7.500	1.48	13.583	3.63	19.67	1.21
1.500	0.74	7.583	1.48	13.667	3.63	19.75	1.21
1.583	0.74	7.667	1.48	13.750	2.82	19.83	1.21
1.667	0.74	7.750	1.48	13.833	2.82	19.92	1.21
1.750	0.74	7.833	1.48	13.917	2.82	20.00	1.21
1.833	0.74	7.917	1.48	14.000	2.82	20.08	1.21
1.917	0.74	8.000	1.48	14.083	2.82	20.17	1.21
2.000	0.74	8.083	1.48	14.167	2.82	20.25	0.81
2.083	0.74	8.167	1.48	14.250	2.01	20.33	0.81
2.167	0.74	8.250	1.75	14.333	2.01	20.42	0.81
2.250	0.87	8.333	1.75	14.417	2.01	20.50	0.81
2.333	0.87	8.417	1.75	14.500	2.01	20.58	0.81
2.417	0.87	8.500	1.75	14.583	2.01	20.67	0.81
2.500	0.87	8.583	1.75	14.667	2.01	20.75	0.81
2.583	0.87	8.667	1.75	14.750	2.01	20.83	0.81
2.667	0.87	8.750	1.88	14.833	2.01	20.92	0.81
2.750	0.87	8.833	1.88	14.917	2.01	21.00	0.81
2.833	0.87	8.917	1.88	15.000	2.01	21.08	0.81
2.917	0.87	9.000	1.88	15.083	2.01	21.17	0.81
3.000	0.87	9.083	1.88	15.167	2.01	21.25	0.81
3.083	0.87	9.167	1.88	15.250	2.01	21.33	0.81
3.167	0.87	9.250	2.15	15.333	2.01	21.42	0.81
3.250	0.87	9.333	2.15	15.417	2.01	21.50	0.81
3.333	0.87	9.417	2.15	15.500	2.01	21.58	0.81
3.417	0.87	9.500	2.15	15.583	2.01	21.67	0.81
3.500	0.87	9.583	2.15	15.667	2.01	21.75	0.81
3.583	0.87	9.667	2.15	15.750	2.01	21.83	0.81
3.667	0.87	9.750	2.42	15.833	2.01	21.92	0.81
3.750	0.87	9.833	2.42	15.917	2.01	22.00	0.81
3.833	0.87	9.917	2.42	16.000	2.01	22.08	0.81
3.917	0.87	10.000	2.42	16.083	2.01	22.17	0.81
4.000	0.87	10.083	2.42	16.167	2.01	22.25	0.81
4.083	0.87	10.167	2.42	16.250	1.21	22.33	0.81
4.167	0.87	10.250	3.09	16.333	1.21	22.42	0.81
4.250	1.07	10.333	3.09	16.417	1.21	22.50	0.81
4.333	1.07	10.417	3.09	16.500	1.21	22.58	0.81
4.417	1.07	10.500	3.09	16.583	1.21	22.67	0.81
4.500	1.07	10.583	3.09	16.667	1.21	22.75	0.81
4.583	1.07	10.667	3.09	16.750	1.21	22.83	0.81
4.667	1.07	10.750	4.16	16.833	1.21	22.92	0.81

4.750	1.07	|10.833	4.16	|16.917	1.21	|23.00	0.81
4.833	1.07	|10.917	4.16	|17.000	1.21	|23.08	0.81
4.917	1.07	|11.000	4.16	|17.083	1.21	|23.17	0.81
5.000	1.07	|11.083	4.16	|17.167	1.21	|23.25	0.81
5.083	1.07	|11.167	4.16	|17.250	1.21	|23.33	0.81
5.167	1.07	|11.250	6.45	|17.333	1.21	|23.42	0.81
5.250	1.07	|11.333	6.45	|17.417	1.21	|23.50	0.81
5.333	1.07	|11.417	6.45	|17.500	1.21	|23.58	0.81
5.417	1.07	|11.500	6.45	|17.583	1.21	|23.67	0.81
5.500	1.07	|11.583	6.45	|17.667	1.21	|23.75	0.81
5.583	1.07	|11.667	6.45	|17.750	1.21	|23.83	0.81
5.667	1.07	|11.750	19.87	|17.833	1.21	|23.92	0.81
5.750	1.07	|11.833	19.88	|17.917	1.21	|24.00	0.81
5.833	1.07	|11.917	51.03	|18.000	1.21	|24.08	0.81
5.917	1.07	|12.000	51.03	|18.083	1.21	|24.17	0.81
6.000	1.07	|12.083	82.19	|18.167	1.21	|	
6.083	1.07	|12.167	82.19	|18.250	1.21	|	

Unit Hyd Qpeak (cms)= 0.887

PEAK FLOW (cms)= 0.310 (i)

TIME TO PEAK (hrs)= 12.250

RUNOFF VOLUME (mm)= 24.964

TOTAL RAINFALL (mm)= 67.150

RUNOFF COEFFICIENT = 0.372

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

 |ADD HYD (1000)|

| 1 + 2 = 3 | AREA QPEAK TPEAK R.V.

----- (ha) (cms) (hrs) (mm)

ID1= 1 (0102): 5.81 0.310 12.25 24.96

+ ID2= 2 (0008): 8.34 0.554 12.25 24.90

=====

ID = 3 (1000): 14.15 0.864 12.25 24.93

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

V V I SSSSS U U A L (v6.2.2015)
V V I SS U U AA L
V V I SS U U AAAAA L
V V I SS U U A A L
W I SSSSS UUUUU A A LLLLL

OOO TTTT TTTT H H Y Y M M OOO TM
O O T T H H Y Y M M M M O O
O O T T H H Y M M O O
OOO T T H H Y M M OOO

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***** DETAILED OUTPUT *****

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voain.dat
Output filename: C:\Users\ajoshi\AppData\Local\Civica\XH5\191a91e0-1a14-44fd-bc00-4941023c7dee\28c7ba63-7e34-4560-94e1-4718cb568c75\scena
Summary filename: C:\Users\ajoshi\AppData\Local\Civica\XH5\191a91e0-1a14-44fd-bc00-4941023c7dee\28c7ba63-7e34-4560-94e1-4718cb568c75\scena

DATE: 12-03-2025 TIME: 02:39:25

USER:

COMMENTS: _____

** SIMULATION : 2_5yr 24hr 10min SCS Type II **

| READ STORM | Filename: C:\Users\ajoshi\AppData
| | ata\Local\Temp\
| | 5145f062-a365-46cb-ac24-6d39e4c26712\0156f81c
| Ptotal= 88.91 mm | Comments: 5yr 24hr 10min SCS Type II

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	1.60	12.33	12.80	18.50	1.60
0.17	0.98	6.33	1.60	12.50	12.80	18.67	1.60
0.33	0.98	6.50	1.60	12.67	6.58	18.83	1.60
0.50	0.98	6.67	1.60	12.83	6.58	19.00	1.60
0.67	0.98	6.83	1.60	13.00	6.58	19.17	1.60
0.83	0.98	7.00	1.60	13.17	4.80	19.33	1.60
1.00	0.98	7.17	1.96	13.33	4.80	19.50	1.60
1.17	0.98	7.33	1.96	13.50	4.80	19.67	1.60
1.33	0.98	7.50	1.96	13.67	3.73	19.83	1.60
1.50	0.98	7.67	1.96	13.83	3.73	20.00	1.60
1.67	0.98	7.83	1.96	14.00	3.73	20.17	1.07
1.83	0.98	8.00	1.96	14.17	2.67	20.33	1.07
2.00	0.98	8.17	2.31	14.33	2.67	20.50	1.07
2.17	1.16	8.33	2.31	14.50	2.67	20.67	1.07
2.33	1.16	8.50	2.31	14.67	2.67	20.83	1.07
2.50	1.16	8.67	2.49	14.83	2.67	21.00	1.07
2.67	1.16	8.83	2.49	15.00	2.67	21.17	1.07
2.83	1.16	9.00	2.49	15.17	2.67	21.33	1.07
3.00	1.16	9.17	2.85	15.33	2.67	21.50	1.07
3.17	1.16	9.33	2.85	15.50	2.67	21.67	1.07
3.33	1.16	9.50	2.85	15.67	2.67	21.83	1.07
3.50	1.16	9.67	3.20	15.83	2.67	22.00	1.07
3.67	1.16	9.83	3.20	16.00	2.67	22.17	1.07
3.83	1.16	10.00	3.20	16.17	1.60	22.33	1.07

4.00 1.16 | 10.17 4.09 | 16.33 1.60 | 22.50 1.07
 4.17 1.42 | 10.33 4.09 | 16.50 1.60 | 22.67 1.07
 4.33 1.42 | 10.50 4.09 | 16.67 1.60 | 22.83 1.07
 4.50 1.42 | 10.67 5.51 | 16.83 1.60 | 23.00 1.07
 4.67 1.42 | 10.83 5.51 | 17.00 1.60 | 23.17 1.07
 4.83 1.42 | 11.00 5.51 | 17.17 1.60 | 23.33 1.07
 5.00 1.42 | 11.17 8.54 | 17.33 1.60 | 23.50 1.07
 5.17 1.42 | 11.33 8.54 | 17.50 1.60 | 23.67 1.07
 5.33 1.42 | 11.50 8.54 | 17.67 1.60 | 23.83 1.07
 5.50 1.42 | 11.67 26.32 | 17.83 1.60 | 24.00 1.07
 5.67 1.42 | 11.83 67.57 | 18.00 1.60 |
 5.83 1.42 | 12.00 108.83 | 18.17 1.60 |
 6.00 1.42 | 12.17 12.80 | 18.33 1.60 |

 | CALIB |
 | NASHYD (0101) | Area (ha)= 6.87 Curve Number (CN)= 75.0
 | ID= 1 DT= 5.0 min | Ia (mm)= 7.00 # of Linear Res.(N)= 3.00
 ----- U.H. Tp(hrs)= 0.17

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----
 TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
 hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr
 0.083 0.00 | 6.167 1.42 | 12.250 12.82 | 18.33 1.60
 0.167 0.00 | 6.250 1.60 | 12.333 12.80 | 18.42 1.60
 0.250 0.98 | 6.333 1.60 | 12.417 12.80 | 18.50 1.60
 0.333 0.98 | 6.417 1.60 | 12.500 12.80 | 18.58 1.60
 0.417 0.98 | 6.500 1.60 | 12.583 12.80 | 18.67 1.60
 0.500 0.98 | 6.583 1.60 | 12.667 12.80 | 18.75 1.60
 0.583 0.98 | 6.667 1.60 | 12.750 6.58 | 18.83 1.60
 0.667 0.98 | 6.750 1.60 | 12.833 6.58 | 18.92 1.60
 0.750 0.98 | 6.833 1.60 | 12.917 6.58 | 19.00 1.60
 0.833 0.98 | 6.917 1.60 | 13.000 6.58 | 19.08 1.60
 0.917 0.98 | 7.000 1.60 | 13.083 6.58 | 19.17 1.60
 1.000 0.98 | 7.083 1.60 | 13.167 6.58 | 19.25 1.60
 1.083 0.98 | 7.167 1.60 | 13.250 4.80 | 19.33 1.60
 1.167 0.98 | 7.250 1.96 | 13.333 4.80 | 19.42 1.60
 1.250 0.98 | 7.333 1.96 | 13.417 4.80 | 19.50 1.60
 1.333 0.98 | 7.417 1.96 | 13.500 4.80 | 19.58 1.60
 1.417 0.98 | 7.500 1.96 | 13.583 4.80 | 19.67 1.60
 1.500 0.98 | 7.583 1.96 | 13.667 4.80 | 19.75 1.60
 1.583 0.98 | 7.667 1.96 | 13.750 3.73 | 19.83 1.60
 1.667 0.98 | 7.750 1.96 | 13.833 3.73 | 19.92 1.60
 1.750 0.98 | 7.833 1.96 | 13.917 3.73 | 20.00 1.60
 1.833 0.98 | 7.917 1.96 | 14.000 3.73 | 20.08 1.60
 1.917 0.98 | 8.000 1.96 | 14.083 3.73 | 20.17 1.60
 2.000 0.98 | 8.083 1.96 | 14.167 3.73 | 20.25 1.07
 2.083 0.98 | 8.167 1.96 | 14.250 2.67 | 20.33 1.07
 2.167 0.98 | 8.250 2.31 | 14.333 2.67 | 20.42 1.07
 2.250 1.16 | 8.333 2.31 | 14.417 2.67 | 20.50 1.07
 2.333 1.16 | 8.417 2.31 | 14.500 2.67 | 20.58 1.07
 2.417 1.16 | 8.500 2.31 | 14.583 2.67 | 20.67 1.07
 2.500 1.16 | 8.583 2.31 | 14.667 2.67 | 20.75 1.07
 2.583 1.16 | 8.667 2.31 | 14.750 2.67 | 20.83 1.07
 2.667 1.16 | 8.750 2.49 | 14.833 2.67 | 20.92 1.07
 2.750 1.16 | 8.833 2.49 | 14.917 2.67 | 21.00 1.07
 2.833 1.16 | 8.917 2.49 | 15.000 2.67 | 21.08 1.07
 2.917 1.16 | 9.000 2.49 | 15.083 2.67 | 21.17 1.07
 3.000 1.16 | 9.083 2.49 | 15.167 2.67 | 21.25 1.07
 3.083 1.16 | 9.167 2.49 | 15.250 2.67 | 21.33 1.07
 3.167 1.16 | 9.250 2.85 | 15.333 2.67 | 21.42 1.07
 3.250 1.16 | 9.333 2.85 | 15.417 2.67 | 21.50 1.07
 3.333 1.16 | 9.417 2.85 | 15.500 2.67 | 21.58 1.07
 3.417 1.16 | 9.500 2.85 | 15.583 2.67 | 21.67 1.07
 3.500 1.16 | 9.583 2.85 | 15.667 2.67 | 21.75 1.07
 3.583 1.16 | 9.667 2.85 | 15.750 2.67 | 21.83 1.07
 3.667 1.16 | 9.750 3.20 | 15.833 2.67 | 21.92 1.07
 3.750 1.16 | 9.833 3.20 | 15.917 2.67 | 22.00 1.07

3.833	1.16	|9.917	3.20	|16.000	2.67	|22.08	1.07
3.917	1.16	|10.000	3.20	|16.083	2.67	|22.17	1.07
4.000	1.16	|10.083	3.20	|16.167	2.67	|22.25	1.07
4.083	1.16	|10.167	3.20	|16.250	1.60	|22.33	1.07
4.167	1.16	|10.250	4.09	|16.333	1.60	|22.42	1.07
4.250	1.42	|10.333	4.09	|16.417	1.60	|22.50	1.07
4.333	1.42	|10.417	4.09	|16.500	1.60	|22.58	1.07
4.417	1.42	|10.500	4.09	|16.583	1.60	|22.67	1.07
4.500	1.42	|10.583	4.09	|16.667	1.60	|22.75	1.07
4.583	1.42	|10.667	4.09	|16.750	1.60	|22.83	1.07
4.667	1.42	|10.750	5.51	|16.833	1.60	|22.92	1.07
4.750	1.42	|10.833	5.51	|16.917	1.60	|23.00	1.07
4.833	1.42	|10.917	5.51	|17.000	1.60	|23.08	1.07
4.917	1.42	|11.000	5.51	|17.083	1.60	|23.17	1.07
5.000	1.42	|11.083	5.51	|17.167	1.60	|23.25	1.07
5.083	1.42	|11.167	5.51	|17.250	1.60	|23.33	1.07
5.167	1.42	|11.250	8.54	|17.333	1.60	|23.42	1.07
5.250	1.42	|11.333	8.54	|17.417	1.60	|23.50	1.07
5.333	1.42	|11.417	8.54	|17.500	1.60	|23.58	1.07
5.417	1.42	|11.500	8.54	|17.583	1.60	|23.67	1.07
5.500	1.42	|11.583	8.54	|17.667	1.60	|23.75	1.07
5.583	1.42	|11.667	8.54	|17.750	1.60	|23.83	1.07
5.667	1.42	|11.750	26.32	|17.833	1.60	|23.92	1.07
5.750	1.42	|11.833	26.32	|17.917	1.60	|24.00	1.07
5.833	1.42	|11.917	67.57	|18.000	1.60	|24.08	1.07
5.917	1.42	|12.000	67.57	|18.083	1.60	|24.17	1.07
6.000	1.42	|12.083	108.82	|18.167	1.60	|	
6.083	1.42	|12.167	108.83	|18.250	1.60	|	

Unit Hyd Qpeak (cms)= 1.543

PEAK FLOW (cms)= 0.744 (i)

TIME TO PEAK (hrs)= 12.250

RUNOFF VOLUME (mm)= 40.134

TOTAL RAINFALL (mm)= 88.910

RUNOFF COEFFICIENT = 0.451

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

 | CALIB |
 | NASHYD (0103) | Area (ha)= 1.48 Curve Number (CN)= 75.0
 | ID= 1 DT= 5.0 min | Ia (mm)= 7.00 # of Linear Res.(N)= 3.00
 ----- U.H. Tp(hrs)= 0.19

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	|6.167	1.42	|12.250	12.82	|18.33	1.60
0.167	0.00	|6.250	1.60	|12.333	12.80	|18.42	1.60
0.250	0.98	|6.333	1.60	|12.417	12.80	|18.50	1.60
0.333	0.98	|6.417	1.60	|12.500	12.80	|18.58	1.60
0.417	0.98	|6.500	1.60	|12.583	12.80	|18.67	1.60
0.500	0.98	|6.583	1.60	|12.667	12.80	|18.75	1.60
0.583	0.98	|6.667	1.60	|12.750	6.58	|18.83	1.60
0.667	0.98	|6.750	1.60	|12.833	6.58	|18.92	1.60
0.750	0.98	|6.833	1.60	|12.917	6.58	|19.00	1.60
0.833	0.98	|6.917	1.60	|13.000	6.58	|19.08	1.60
0.917	0.98	|7.000	1.60	|13.083	6.58	|19.17	1.60
1.000	0.98	|7.083	1.60	|13.167	6.58	|19.25	1.60
1.083	0.98	|7.167	1.60	|13.250	4.80	|19.33	1.60
1.167	0.98	|7.250	1.96	|13.333	4.80	|19.42	1.60
1.250	0.98	|7.333	1.96	|13.417	4.80	|19.50	1.60
1.333	0.98	|7.417	1.96	|13.500	4.80	|19.58	1.60
1.417	0.98	|7.500	1.96	|13.583	4.80	|19.67	1.60
1.500	0.98	|7.583	1.96	|13.667	4.80	|19.75	1.60
1.583	0.98	|7.667	1.96	|13.750	3.73	|19.83	1.60
1.667	0.98	|7.750	1.96	|13.833	3.73	|19.92	1.60
1.750	0.98	|7.833	1.96	|13.917	3.73	|20.00	1.60

1.833	0.98	|7.917	1.96	|14.000	3.73	|20.08	1.60
1.917	0.98	|8.000	1.96	|14.083	3.73	|20.17	1.60
2.000	0.98	|8.083	1.96	|14.167	3.73	|20.25	1.07
2.083	0.98	|8.167	1.96	|14.250	2.67	|20.33	1.07
2.167	0.98	|8.250	2.31	|14.333	2.67	|20.42	1.07
2.250	1.16	|8.333	2.31	|14.417	2.67	|20.50	1.07
2.333	1.16	|8.417	2.31	|14.500	2.67	|20.58	1.07
2.417	1.16	|8.500	2.31	|14.583	2.67	|20.67	1.07
2.500	1.16	|8.583	2.31	|14.667	2.67	|20.75	1.07
2.583	1.16	|8.667	2.31	|14.750	2.67	|20.83	1.07
2.667	1.16	|8.750	2.49	|14.833	2.67	|20.92	1.07
2.750	1.16	|8.833	2.49	|14.917	2.67	|21.00	1.07
2.833	1.16	|8.917	2.49	|15.000	2.67	|21.08	1.07
2.917	1.16	|9.000	2.49	|15.083	2.67	|21.17	1.07
3.000	1.16	|9.083	2.49	|15.167	2.67	|21.25	1.07
3.083	1.16	|9.167	2.49	|15.250	2.67	|21.33	1.07
3.167	1.16	|9.250	2.85	|15.333	2.67	|21.42	1.07
3.250	1.16	|9.333	2.85	|15.417	2.67	|21.50	1.07
3.333	1.16	|9.417	2.85	|15.500	2.67	|21.58	1.07
3.417	1.16	|9.500	2.85	|15.583	2.67	|21.67	1.07
3.500	1.16	|9.583	2.85	|15.667	2.67	|21.75	1.07
3.583	1.16	|9.667	2.85	|15.750	2.67	|21.83	1.07
3.667	1.16	|9.750	3.20	|15.833	2.67	|21.92	1.07
3.750	1.16	|9.833	3.20	|15.917	2.67	|22.00	1.07
3.833	1.16	|9.917	3.20	|16.000	2.67	|22.08	1.07
3.917	1.16	|10.000	3.20	|16.083	2.67	|22.17	1.07
4.000	1.16	|10.083	3.20	|16.167	2.67	|22.25	1.07
4.083	1.16	|10.167	3.20	|16.250	1.60	|22.33	1.07
4.167	1.16	|10.250	4.09	|16.333	1.60	|22.42	1.07
4.250	1.42	|10.333	4.09	|16.417	1.60	|22.50	1.07
4.333	1.42	|10.417	4.09	|16.500	1.60	|22.58	1.07
4.417	1.42	|10.500	4.09	|16.583	1.60	|22.67	1.07
4.500	1.42	|10.583	4.09	|16.667	1.60	|22.75	1.07
4.583	1.42	|10.667	4.09	|16.750	1.60	|22.83	1.07
4.667	1.42	|10.750	5.51	|16.833	1.60	|22.92	1.07
4.750	1.42	|10.833	5.51	|16.917	1.60	|23.00	1.07
4.833	1.42	|10.917	5.51	|17.000	1.60	|23.08	1.07
4.917	1.42	|11.000	5.51	|17.083	1.60	|23.17	1.07
5.000	1.42	|11.083	5.51	|17.167	1.60	|23.25	1.07
5.083	1.42	|11.167	5.51	|17.250	1.60	|23.33	1.07
5.167	1.42	|11.250	8.54	|17.333	1.60	|23.42	1.07
5.250	1.42	|11.333	8.54	|17.417	1.60	|23.50	1.07
5.333	1.42	|11.417	8.54	|17.500	1.60	|23.58	1.07
5.417	1.42	|11.500	8.54	|17.583	1.60	|23.67	1.07
5.500	1.42	|11.583	8.54	|17.667	1.60	|23.75	1.07
5.583	1.42	|11.667	8.54	|17.750	1.60	|23.83	1.07
5.667	1.42	|11.750	26.32	|17.833	1.60	|23.92	1.07
5.750	1.42	|11.833	26.32	|17.917	1.60	|24.00	1.07
5.833	1.42	|11.917	67.57	|18.000	1.60	|24.08	1.07
5.917	1.42	|12.000	67.57	|18.083	1.60	|24.17	1.07
6.000	1.42	|12.083	108.82	|18.167	1.60	|	
6.083	1.42	|12.167	108.83	|18.250	1.60	|	

Unit Hyd Qpeak (cms)= 0.297

PEAK FLOW (cms)= 0.154 (i)

TIME TO PEAK (hrs)= 12.250

RUNOFF VOLUME (mm)= 40.184

TOTAL RAINFALL (mm)= 88.910

RUNOFF COEFFICIENT = 0.452

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

 |ADD HYD (0008)|

| 1 + 2 = 3 | AREA QPEAK TPEAK R.V.

----- (ha) (cms) (hrs) (mm)

ID1= 1 (0101): 6.87 0.744 12.25 40.13

+ ID2= 2 (0103): 1.48 0.154 12.25 40.18

=====

ID = 3 (0008): 8.34 0.898 12.25 40.14

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| CALIB |
| NASHYD (0102) | Area (ha)= 5.81 Curve Number (CN)= 75.0
| ID= 1 DT= 5.0 min | la (mm)= 7.00 # of Linear Res.(N)= 3.00
----- U.H. Tp(hrs)= 0.25

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.42	12.250	12.82	18.33	1.60
0.167	0.00	6.250	1.60	12.333	12.80	18.42	1.60
0.250	0.98	6.333	1.60	12.417	12.80	18.50	1.60
0.333	0.98	6.417	1.60	12.500	12.80	18.58	1.60
0.417	0.98	6.500	1.60	12.583	12.80	18.67	1.60
0.500	0.98	6.583	1.60	12.667	12.80	18.75	1.60
0.583	0.98	6.667	1.60	12.750	6.58	18.83	1.60
0.667	0.98	6.750	1.60	12.833	6.58	18.92	1.60
0.750	0.98	6.833	1.60	12.917	6.58	19.00	1.60
0.833	0.98	6.917	1.60	13.000	6.58	19.08	1.60
0.917	0.98	7.000	1.60	13.083	6.58	19.17	1.60
1.000	0.98	7.083	1.60	13.167	6.58	19.25	1.60
1.083	0.98	7.167	1.60	13.250	4.80	19.33	1.60
1.167	0.98	7.250	1.96	13.333	4.80	19.42	1.60
1.250	0.98	7.333	1.96	13.417	4.80	19.50	1.60
1.333	0.98	7.417	1.96	13.500	4.80	19.58	1.60
1.417	0.98	7.500	1.96	13.583	4.80	19.67	1.60
1.500	0.98	7.583	1.96	13.667	4.80	19.75	1.60
1.583	0.98	7.667	1.96	13.750	3.73	19.83	1.60
1.667	0.98	7.750	1.96	13.833	3.73	19.92	1.60
1.750	0.98	7.833	1.96	13.917	3.73	20.00	1.60
1.833	0.98	7.917	1.96	14.000	3.73	20.08	1.60
1.917	0.98	8.000	1.96	14.083	3.73	20.17	1.60
2.000	0.98	8.083	1.96	14.167	3.73	20.25	1.07
2.083	0.98	8.167	1.96	14.250	2.67	20.33	1.07
2.167	0.98	8.250	2.31	14.333	2.67	20.42	1.07
2.250	1.16	8.333	2.31	14.417	2.67	20.50	1.07
2.333	1.16	8.417	2.31	14.500	2.67	20.58	1.07
2.417	1.16	8.500	2.31	14.583	2.67	20.67	1.07
2.500	1.16	8.583	2.31	14.667	2.67	20.75	1.07
2.583	1.16	8.667	2.31	14.750	2.67	20.83	1.07
2.667	1.16	8.750	2.49	14.833	2.67	20.92	1.07
2.750	1.16	8.833	2.49	14.917	2.67	21.00	1.07
2.833	1.16	8.917	2.49	15.000	2.67	21.08	1.07
2.917	1.16	9.000	2.49	15.083	2.67	21.17	1.07
3.000	1.16	9.083	2.49	15.167	2.67	21.25	1.07
3.083	1.16	9.167	2.49	15.250	2.67	21.33	1.07
3.167	1.16	9.250	2.85	15.333	2.67	21.42	1.07
3.250	1.16	9.333	2.85	15.417	2.67	21.50	1.07
3.333	1.16	9.417	2.85	15.500	2.67	21.58	1.07
3.417	1.16	9.500	2.85	15.583	2.67	21.67	1.07
3.500	1.16	9.583	2.85	15.667	2.67	21.75	1.07
3.583	1.16	9.667	2.85	15.750	2.67	21.83	1.07
3.667	1.16	9.750	3.20	15.833	2.67	21.92	1.07
3.750	1.16	9.833	3.20	15.917	2.67	22.00	1.07
3.833	1.16	9.917	3.20	16.000	2.67	22.08	1.07
3.917	1.16	10.000	3.20	16.083	2.67	22.17	1.07
4.000	1.16	10.083	3.20	16.167	2.67	22.25	1.07
4.083	1.16	10.167	3.20	16.250	1.60	22.33	1.07
4.167	1.16	10.250	4.09	16.333	1.60	22.42	1.07
4.250	1.42	10.333	4.09	16.417	1.60	22.50	1.07
4.333	1.42	10.417	4.09	16.500	1.60	22.58	1.07
4.417	1.42	10.500	4.09	16.583	1.60	22.67	1.07
4.500	1.42	10.583	4.09	16.667	1.60	22.75	1.07
4.583	1.42	10.667	4.09	16.750	1.60	22.83	1.07
4.667	1.42	10.750	5.51	16.833	1.60	22.92	1.07
4.750	1.42	10.833	5.51	16.917	1.60	23.00	1.07
4.833	1.42	10.917	5.51	17.000	1.60	23.08	1.07

4.917	1.42	|11.000	5.51	|17.083	1.60	|23.17	1.07
5.000	1.42	|11.083	5.51	|17.167	1.60	|23.25	1.07
5.083	1.42	|11.167	5.51	|17.250	1.60	|23.33	1.07
5.167	1.42	|11.250	8.54	|17.333	1.60	|23.42	1.07
5.250	1.42	|11.333	8.54	|17.417	1.60	|23.50	1.07
5.333	1.42	|11.417	8.54	|17.500	1.60	|23.58	1.07
5.417	1.42	|11.500	8.54	|17.583	1.60	|23.67	1.07
5.500	1.42	|11.583	8.54	|17.667	1.60	|23.75	1.07
5.583	1.42	|11.667	8.54	|17.750	1.60	|23.83	1.07
5.667	1.42	|11.750	26.32	|17.833	1.60	|23.92	1.07
5.750	1.42	|11.833	26.32	|17.917	1.60	|24.00	1.07
5.833	1.42	|11.917	67.57	|18.000	1.60	|24.08	1.07
5.917	1.42	|12.000	67.57	|18.083	1.60	|24.17	1.07
6.000	1.42	|12.083	108.82	|18.167	1.60	|	
6.083	1.42	|12.167	108.83	|18.250	1.60	|	

Unit Hyd Qpeak (cms)= 0.887

PEAK FLOW (cms)= 0.510 (i)

TIME TO PEAK (hrs)= 12.250

RUNOFF VOLUME (mm)= 40.245

TOTAL RAINFALL (mm)= 88.910

RUNOFF COEFFICIENT = 0.453

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

|ADD HYD (1000)|

| 1 + 2 = 3 |	AREA	QPEAK	TPEAK	R.V.
-----	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0102):	5.81	0.510	12.25	40.25
+ ID2= 2 (0008):	8.34	0.898	12.25	40.14
=====				
ID = 3 (1000):	14.15	1.408	12.25	40.18

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

V V I SSSSS U U A L (v6.2.2015)
V V I SS U U AA L
V V I SS U U AAAAA L
V V I SS U U A A L
W V I SSSSS UUUUU A A LLLLL

OOO TTTT TTTT H H Y Y M M OOO TM
O O T T H H Y Y M M M M O O
O O T T H H Y M M O O
OOO T T H H Y M M OOO

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***** DETAILED OUTPUT *****

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voain.dat
Output filename: C:\Users\ajoshi\AppData\Local\Civica\XH5\191a91e0-1a14-44fd-bc00-4941023c7dee\beea9a98-444f-4665-8ab5-ba9bc5d0b86c\scena
Summary filename: C:\Users\ajoshi\AppData\Local\Civica\XH5\191a91e0-1a14-44fd-bc00-4941023c7dee\beea9a98-444f-4665-8ab5-ba9bc5d0b86c\scena

DATE: 12-03-2025 TIME: 02:39:25

USER:

COMMENTS: _____

** SIMULATION : 3_10yr 24hr 10min SCS Type II **

| READ STORM | Filename: C:\Users\ajoshi\AppData
| | ata\Local\Temp\
| | 5145f062-a365-46cb-ac24-6d39e4c26712\4d30c99e
| Ptotal=103.09 mm | Comments: 10yr 24hr 10min SCS Type II

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	1.86	12.33	14.84	18.50	1.86
0.17	1.13	6.33	1.86	12.50	14.84	18.67	1.86
0.33	1.13	6.50	1.86	12.67	7.63	18.83	1.86
0.50	1.13	6.67	1.86	12.83	7.63	19.00	1.86
0.67	1.13	6.83	1.86	13.00	7.63	19.17	1.86
0.83	1.13	7.00	1.86	13.17	5.57	19.33	1.86
1.00	1.13	7.17	2.27	13.33	5.57	19.50	1.86
1.17	1.13	7.33	2.27	13.50	5.57	19.67	1.86
1.33	1.13	7.50	2.27	13.67	4.33	19.83	1.86
1.50	1.13	7.67	2.27	13.83	4.33	20.00	1.86
1.67	1.13	7.83	2.27	14.00	4.33	20.17	1.24
1.83	1.13	8.00	2.27	14.17	3.09	20.33	1.24
2.00	1.13	8.17	2.68	14.33	3.09	20.50	1.24
2.17	1.34	8.33	2.68	14.50	3.09	20.67	1.24
2.33	1.34	8.50	2.68	14.67	3.09	20.83	1.24
2.50	1.34	8.67	2.89	14.83	3.09	21.00	1.24
2.67	1.34	8.83	2.89	15.00	3.09	21.17	1.24
2.83	1.34	9.00	2.89	15.17	3.09	21.33	1.24
3.00	1.34	9.17	3.30	15.33	3.09	21.50	1.24
3.17	1.34	9.33	3.30	15.50	3.09	21.67	1.24
3.33	1.34	9.50	3.30	15.67	3.09	21.83	1.24
3.50	1.34	9.67	3.71	15.83	3.09	22.00	1.24
3.67	1.34	9.83	3.71	16.00	3.09	22.17	1.24
3.83	1.34	10.00	3.71	16.17	1.86	22.33	1.24

4.00	1.34	10.17	4.74	16.33	1.86	22.50	1.24
4.17	1.65	10.33	4.74	16.50	1.86	22.67	1.24
4.33	1.65	10.50	4.74	16.67	1.86	22.83	1.24
4.50	1.65	10.67	6.39	16.83	1.86	23.00	1.24
4.67	1.65	10.83	6.39	17.00	1.86	23.17	1.24
4.83	1.65	11.00	6.39	17.17	1.86	23.33	1.24
5.00	1.65	11.17	9.90	17.33	1.86	23.50	1.24
5.17	1.65	11.33	9.90	17.50	1.86	23.67	1.24
5.33	1.65	11.50	9.90	17.67	1.86	23.83	1.24
5.50	1.65	11.67	30.51	17.83	1.86	24.00	1.24
5.67	1.65	11.83	78.35	18.00	1.86		
5.83	1.65	12.00	126.18	18.17	1.86		
6.00	1.65	12.17	14.84	18.33	1.86		

 | CALIB |
 | NASHYD (0101) | Area (ha)= 6.87 Curve Number (CN)= 75.0
 | ID= 1 DT= 5.0 min | Ia (mm)= 7.00 # of Linear Res.(N)= 3.00
 ----- U.H. Tp(hrs)= 0.17

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.65	12.250	14.86	18.33	1.86
0.167	0.00	6.250	1.86	12.333	14.84	18.42	1.86
0.250	1.13	6.333	1.86	12.417	14.84	18.50	1.86
0.333	1.13	6.417	1.86	12.500	14.84	18.58	1.86
0.417	1.13	6.500	1.86	12.583	14.84	18.67	1.86
0.500	1.13	6.583	1.86	12.667	14.84	18.75	1.86
0.583	1.13	6.667	1.86	12.750	7.63	18.83	1.86
0.667	1.13	6.750	1.86	12.833	7.63	18.92	1.86
0.750	1.13	6.833	1.86	12.917	7.63	19.00	1.86
0.833	1.13	6.917	1.86	13.000	7.63	19.08	1.86
0.917	1.13	7.000	1.86	13.083	7.63	19.17	1.86
1.000	1.13	7.083	1.86	13.167	7.63	19.25	1.86
1.083	1.13	7.167	1.86	13.250	5.57	19.33	1.86
1.167	1.13	7.250	2.27	13.333	5.57	19.42	1.86
1.250	1.13	7.333	2.27	13.417	5.57	19.50	1.86
1.333	1.13	7.417	2.27	13.500	5.57	19.58	1.86
1.417	1.13	7.500	2.27	13.583	5.57	19.67	1.86
1.500	1.13	7.583	2.27	13.667	5.57	19.75	1.86
1.583	1.13	7.667	2.27	13.750	4.33	19.83	1.86
1.667	1.13	7.750	2.27	13.833	4.33	19.92	1.86
1.750	1.13	7.833	2.27	13.917	4.33	20.00	1.86
1.833	1.13	7.917	2.27	14.000	4.33	20.08	1.86
1.917	1.13	8.000	2.27	14.083	4.33	20.17	1.86
2.000	1.13	8.083	2.27	14.167	4.33	20.25	1.24
2.083	1.13	8.167	2.27	14.250	3.09	20.33	1.24
2.167	1.13	8.250	2.68	14.333	3.09	20.42	1.24
2.250	1.34	8.333	2.68	14.417	3.09	20.50	1.24
2.333	1.34	8.417	2.68	14.500	3.09	20.58	1.24
2.417	1.34	8.500	2.68	14.583	3.09	20.67	1.24
2.500	1.34	8.583	2.68	14.667	3.09	20.75	1.24
2.583	1.34	8.667	2.68	14.750	3.09	20.83	1.24
2.667	1.34	8.750	2.89	14.833	3.09	20.92	1.24
2.750	1.34	8.833	2.89	14.917	3.09	21.00	1.24
2.833	1.34	8.917	2.89	15.000	3.09	21.08	1.24
2.917	1.34	9.000	2.89	15.083	3.09	21.17	1.24
3.000	1.34	9.083	2.89	15.167	3.09	21.25	1.24
3.083	1.34	9.167	2.89	15.250	3.09	21.33	1.24
3.167	1.34	9.250	3.30	15.333	3.09	21.42	1.24
3.250	1.34	9.333	3.30	15.417	3.09	21.50	1.24
3.333	1.34	9.417	3.30	15.500	3.09	21.58	1.24
3.417	1.34	9.500	3.30	15.583	3.09	21.67	1.24
3.500	1.34	9.583	3.30	15.667	3.09	21.75	1.24
3.583	1.34	9.667	3.30	15.750	3.09	21.83	1.24
3.667	1.34	9.750	3.71	15.833	3.09	21.92	1.24
3.750	1.34	9.833	3.71	15.917	3.09	22.00	1.24

3.833	1.34	|9.917	3.71	|16.000	3.09	|22.08	1.24
3.917	1.34	|10.000	3.71	|16.083	3.09	|22.17	1.24
4.000	1.34	|10.083	3.71	|16.167	3.09	|22.25	1.24
4.083	1.34	|10.167	3.71	|16.250	1.86	|22.33	1.24
4.167	1.34	|10.250	4.74	|16.333	1.86	|22.42	1.24
4.250	1.65	|10.333	4.74	|16.417	1.86	|22.50	1.24
4.333	1.65	|10.417	4.74	|16.500	1.86	|22.58	1.24
4.417	1.65	|10.500	4.74	|16.583	1.86	|22.67	1.24
4.500	1.65	|10.583	4.74	|16.667	1.86	|22.75	1.24
4.583	1.65	|10.667	4.74	|16.750	1.86	|22.83	1.24
4.667	1.65	|10.750	6.39	|16.833	1.86	|22.92	1.24
4.750	1.65	|10.833	6.39	|16.917	1.86	|23.00	1.24
4.833	1.65	|10.917	6.39	|17.000	1.86	|23.08	1.24
4.917	1.65	|11.000	6.39	|17.083	1.86	|23.17	1.24
5.000	1.65	|11.083	6.39	|17.167	1.86	|23.25	1.24
5.083	1.65	|11.167	6.39	|17.250	1.86	|23.33	1.24
5.167	1.65	|11.250	9.90	|17.333	1.86	|23.42	1.24
5.250	1.65	|11.333	9.90	|17.417	1.86	|23.50	1.24
5.333	1.65	|11.417	9.90	|17.500	1.86	|23.58	1.24
5.417	1.65	|11.500	9.90	|17.583	1.86	|23.67	1.24
5.500	1.65	|11.583	9.90	|17.667	1.86	|23.75	1.24
5.583	1.65	|11.667	9.90	|17.750	1.86	|23.83	1.24
5.667	1.65	|11.750	30.51	|17.833	1.86	|23.92	1.24
5.750	1.65	|11.833	30.51	|17.917	1.86	|24.00	1.24
5.833	1.65	|11.917	78.34	|18.000	1.86	|24.08	1.24
5.917	1.65	|12.000	78.35	|18.083	1.86	|24.17	1.24
6.000	1.65	|12.083	126.18	|18.167	1.86	|	
6.083	1.65	|12.167	126.18	|18.250	1.86	|	

Unit Hyd Qpeak (cms)= 1.543

PEAK FLOW (cms)= 0.949 (i)

TIME TO PEAK (hrs)= 12.167

RUNOFF VOLUME (mm)= 50.899

TOTAL RAINFALL (mm)= 103.090

RUNOFF COEFFICIENT = 0.494

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

 | CALIB |
 | NASHYD (0103) | Area (ha)= 1.48 Curve Number (CN)= 75.0
 | ID= 1 DT= 5.0 min | la (mm)= 7.00 # of Linear Res.(N)= 3.00
 ----- U.H. Tp(hrs)= 0.19

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	|6.167	1.65	|12.250	14.86	|18.33	1.86
0.167	0.00	|6.250	1.86	|12.333	14.84	|18.42	1.86
0.250	1.13	|6.333	1.86	|12.417	14.84	|18.50	1.86
0.333	1.13	|6.417	1.86	|12.500	14.84	|18.58	1.86
0.417	1.13	|6.500	1.86	|12.583	14.84	|18.67	1.86
0.500	1.13	|6.583	1.86	|12.667	14.84	|18.75	1.86
0.583	1.13	|6.667	1.86	|12.750	7.63	|18.83	1.86
0.667	1.13	|6.750	1.86	|12.833	7.63	|18.92	1.86
0.750	1.13	|6.833	1.86	|12.917	7.63	|19.00	1.86
0.833	1.13	|6.917	1.86	|13.000	7.63	|19.08	1.86
0.917	1.13	|7.000	1.86	|13.083	7.63	|19.17	1.86
1.000	1.13	|7.083	1.86	|13.167	7.63	|19.25	1.86
1.083	1.13	|7.167	1.86	|13.250	5.57	|19.33	1.86
1.167	1.13	|7.250	2.27	|13.333	5.57	|19.42	1.86
1.250	1.13	|7.333	2.27	|13.417	5.57	|19.50	1.86
1.333	1.13	|7.417	2.27	|13.500	5.57	|19.58	1.86
1.417	1.13	|7.500	2.27	|13.583	5.57	|19.67	1.86
1.500	1.13	|7.583	2.27	|13.667	5.57	|19.75	1.86
1.583	1.13	|7.667	2.27	|13.750	4.33	|19.83	1.86
1.667	1.13	|7.750	2.27	|13.833	4.33	|19.92	1.86
1.750	1.13	|7.833	2.27	|13.917	4.33	|20.00	1.86

1.833	1.13	7.917	2.27	14.000	4.33	20.08	1.86
1.917	1.13	8.000	2.27	14.083	4.33	20.17	1.86
2.000	1.13	8.083	2.27	14.167	4.33	20.25	1.24
2.083	1.13	8.167	2.27	14.250	3.09	20.33	1.24
2.167	1.13	8.250	2.68	14.333	3.09	20.42	1.24
2.250	1.34	8.333	2.68	14.417	3.09	20.50	1.24
2.333	1.34	8.417	2.68	14.500	3.09	20.58	1.24
2.417	1.34	8.500	2.68	14.583	3.09	20.67	1.24
2.500	1.34	8.583	2.68	14.667	3.09	20.75	1.24
2.583	1.34	8.667	2.68	14.750	3.09	20.83	1.24
2.667	1.34	8.750	2.89	14.833	3.09	20.92	1.24
2.750	1.34	8.833	2.89	14.917	3.09	21.00	1.24
2.833	1.34	8.917	2.89	15.000	3.09	21.08	1.24
2.917	1.34	9.000	2.89	15.083	3.09	21.17	1.24
3.000	1.34	9.083	2.89	15.167	3.09	21.25	1.24
3.083	1.34	9.167	2.89	15.250	3.09	21.33	1.24
3.167	1.34	9.250	3.30	15.333	3.09	21.42	1.24
3.250	1.34	9.333	3.30	15.417	3.09	21.50	1.24
3.333	1.34	9.417	3.30	15.500	3.09	21.58	1.24
3.417	1.34	9.500	3.30	15.583	3.09	21.67	1.24
3.500	1.34	9.583	3.30	15.667	3.09	21.75	1.24
3.583	1.34	9.667	3.30	15.750	3.09	21.83	1.24
3.667	1.34	9.750	3.71	15.833	3.09	21.92	1.24
3.750	1.34	9.833	3.71	15.917	3.09	22.00	1.24
3.833	1.34	9.917	3.71	16.000	3.09	22.08	1.24
3.917	1.34	10.000	3.71	16.083	3.09	22.17	1.24
4.000	1.34	10.083	3.71	16.167	3.09	22.25	1.24
4.083	1.34	10.167	3.71	16.250	1.86	22.33	1.24
4.167	1.34	10.250	4.74	16.333	1.86	22.42	1.24
4.250	1.65	10.333	4.74	16.417	1.86	22.50	1.24
4.333	1.65	10.417	4.74	16.500	1.86	22.58	1.24
4.417	1.65	10.500	4.74	16.583	1.86	22.67	1.24
4.500	1.65	10.583	4.74	16.667	1.86	22.75	1.24
4.583	1.65	10.667	4.74	16.750	1.86	22.83	1.24
4.667	1.65	10.750	6.39	16.833	1.86	22.92	1.24
4.750	1.65	10.833	6.39	16.917	1.86	23.00	1.24
4.833	1.65	10.917	6.39	17.000	1.86	23.08	1.24
4.917	1.65	11.000	6.39	17.083	1.86	23.17	1.24
5.000	1.65	11.083	6.39	17.167	1.86	23.25	1.24
5.083	1.65	11.167	6.39	17.250	1.86	23.33	1.24
5.167	1.65	11.250	9.90	17.333	1.86	23.42	1.24
5.250	1.65	11.333	9.90	17.417	1.86	23.50	1.24
5.333	1.65	11.417	9.90	17.500	1.86	23.58	1.24
5.417	1.65	11.500	9.90	17.583	1.86	23.67	1.24
5.500	1.65	11.583	9.90	17.667	1.86	23.75	1.24
5.583	1.65	11.667	9.90	17.750	1.86	23.83	1.24
5.667	1.65	11.750	30.51	17.833	1.86	23.92	1.24
5.750	1.65	11.833	30.51	17.917	1.86	24.00	1.24
5.833	1.65	11.917	78.34	18.000	1.86	24.08	1.24
5.917	1.65	12.000	78.35	18.083	1.86	24.17	1.24
6.000	1.65	12.083	126.18	18.167	1.86		
6.083	1.65	12.167	126.18	18.250	1.86		

Unit Hyd Qpeak (cms)= 0.297

PEAK FLOW (cms)= 0.196 (i)

TIME TO PEAK (hrs)= 12.250

RUNOFF VOLUME (mm)= 50.963

TOTAL RAINFALL (mm)= 103.090

RUNOFF COEFFICIENT = 0.494

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

| ADD HYD (0008)|

| 1 + 2 = 3 | AREA QPEAK TPEAK R.V.

----- (ha) (cms) (hrs) (mm)

ID1= 1 (0101): 6.87 0.949 12.17 50.90

+ ID2= 2 (0103): 1.48 0.196 12.25 50.96

=====

ID = 3 (0008): 8.34 1.141 12.25 50.91

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| CALIB |
| NASHYD (0102) | Area (ha)= 5.81 Curve Number (CN)= 75.0
| ID= 1 DT= 5.0 min | la (mm)= 7.00 # of Linear Res.(N)= 3.00
----- U.H. Tp(hrs)= 0.25

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.65	12.250	14.86	18.33	1.86
0.167	0.00	6.250	1.86	12.333	14.84	18.42	1.86
0.250	1.13	6.333	1.86	12.417	14.84	18.50	1.86
0.333	1.13	6.417	1.86	12.500	14.84	18.58	1.86
0.417	1.13	6.500	1.86	12.583	14.84	18.67	1.86
0.500	1.13	6.583	1.86	12.667	14.84	18.75	1.86
0.583	1.13	6.667	1.86	12.750	7.63	18.83	1.86
0.667	1.13	6.750	1.86	12.833	7.63	18.92	1.86
0.750	1.13	6.833	1.86	12.917	7.63	19.00	1.86
0.833	1.13	6.917	1.86	13.000	7.63	19.08	1.86
0.917	1.13	7.000	1.86	13.083	7.63	19.17	1.86
1.000	1.13	7.083	1.86	13.167	7.63	19.25	1.86
1.083	1.13	7.167	1.86	13.250	5.57	19.33	1.86
1.167	1.13	7.250	2.27	13.333	5.57	19.42	1.86
1.250	1.13	7.333	2.27	13.417	5.57	19.50	1.86
1.333	1.13	7.417	2.27	13.500	5.57	19.58	1.86
1.417	1.13	7.500	2.27	13.583	5.57	19.67	1.86
1.500	1.13	7.583	2.27	13.667	5.57	19.75	1.86
1.583	1.13	7.667	2.27	13.750	4.33	19.83	1.86
1.667	1.13	7.750	2.27	13.833	4.33	19.92	1.86
1.750	1.13	7.833	2.27	13.917	4.33	20.00	1.86
1.833	1.13	7.917	2.27	14.000	4.33	20.08	1.86
1.917	1.13	8.000	2.27	14.083	4.33	20.17	1.86
2.000	1.13	8.083	2.27	14.167	4.33	20.25	1.24
2.083	1.13	8.167	2.27	14.250	3.09	20.33	1.24
2.167	1.13	8.250	2.68	14.333	3.09	20.42	1.24
2.250	1.34	8.333	2.68	14.417	3.09	20.50	1.24
2.333	1.34	8.417	2.68	14.500	3.09	20.58	1.24
2.417	1.34	8.500	2.68	14.583	3.09	20.67	1.24
2.500	1.34	8.583	2.68	14.667	3.09	20.75	1.24
2.583	1.34	8.667	2.68	14.750	3.09	20.83	1.24
2.667	1.34	8.750	2.89	14.833	3.09	20.92	1.24
2.750	1.34	8.833	2.89	14.917	3.09	21.00	1.24
2.833	1.34	8.917	2.89	15.000	3.09	21.08	1.24
2.917	1.34	9.000	2.89	15.083	3.09	21.17	1.24
3.000	1.34	9.083	2.89	15.167	3.09	21.25	1.24
3.083	1.34	9.167	2.89	15.250	3.09	21.33	1.24
3.167	1.34	9.250	3.30	15.333	3.09	21.42	1.24
3.250	1.34	9.333	3.30	15.417	3.09	21.50	1.24
3.333	1.34	9.417	3.30	15.500	3.09	21.58	1.24
3.417	1.34	9.500	3.30	15.583	3.09	21.67	1.24
3.500	1.34	9.583	3.30	15.667	3.09	21.75	1.24
3.583	1.34	9.667	3.30	15.750	3.09	21.83	1.24
3.667	1.34	9.750	3.71	15.833	3.09	21.92	1.24
3.750	1.34	9.833	3.71	15.917	3.09	22.00	1.24
3.833	1.34	9.917	3.71	16.000	3.09	22.08	1.24
3.917	1.34	10.000	3.71	16.083	3.09	22.17	1.24
4.000	1.34	10.083	3.71	16.167	3.09	22.25	1.24
4.083	1.34	10.167	3.71	16.250	1.86	22.33	1.24
4.167	1.34	10.250	4.74	16.333	1.86	22.42	1.24
4.250	1.65	10.333	4.74	16.417	1.86	22.50	1.24
4.333	1.65	10.417	4.74	16.500	1.86	22.58	1.24
4.417	1.65	10.500	4.74	16.583	1.86	22.67	1.24
4.500	1.65	10.583	4.74	16.667	1.86	22.75	1.24
4.583	1.65	10.667	4.74	16.750	1.86	22.83	1.24
4.667	1.65	10.750	6.39	16.833	1.86	22.92	1.24
4.750	1.65	10.833	6.39	16.917	1.86	23.00	1.24
4.833	1.65	10.917	6.39	17.000	1.86	23.08	1.24

4.917	1.65	|11.000	6.39	|17.083	1.86	|23.17	1.24
5.000	1.65	|11.083	6.39	|17.167	1.86	|23.25	1.24
5.083	1.65	|11.167	6.39	|17.250	1.86	|23.33	1.24
5.167	1.65	|11.250	9.90	|17.333	1.86	|23.42	1.24
5.250	1.65	|11.333	9.90	|17.417	1.86	|23.50	1.24
5.333	1.65	|11.417	9.90	|17.500	1.86	|23.58	1.24
5.417	1.65	|11.500	9.90	|17.583	1.86	|23.67	1.24
5.500	1.65	|11.583	9.90	|17.667	1.86	|23.75	1.24
5.583	1.65	|11.667	9.90	|17.750	1.86	|23.83	1.24
5.667	1.65	|11.750	30.51	|17.833	1.86	|23.92	1.24
5.750	1.65	|11.833	30.51	|17.917	1.86	|24.00	1.24
5.833	1.65	|11.917	78.34	|18.000	1.86	|24.08	1.24
5.917	1.65	|12.000	78.35	|18.083	1.86	|24.17	1.24
6.000	1.65	|12.083	126.18	|18.167	1.86	|	
6.083	1.65	|12.167	126.18	|18.250	1.86	|	

Unit Hyd Qpeak (cms)= 0.887

PEAK FLOW (cms)= 0.651 (i)

TIME TO PEAK (hrs)= 12.250

RUNOFF VOLUME (mm)= 51.041

TOTAL RAINFALL (mm)= 103.090

RUNOFF COEFFICIENT = 0.495

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

| ADD HYD (1000) |							
| 1 +	2 =	3 |	AREA	QPEAK	TPEAK	R.V.	
-----			(ha)	(cms)	(hrs)	(mm)	
ID1=	1 (	0102):	5.81	0.651	12.25	51.04	
+ ID2=	2 (	0008):	8.34	1.141	12.25	50.91	
=====							
ID =	3 (	1000):	14.15	1.791	12.25	50.96	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

V V I SSSSS U U A L (v6.2.2015)
V V I SS U U AA L
V V I SS U U AAAAA L
V V I SS U U A A L
W V I SSSSS UUUUU A A LLLLL

OOO TTTT TTTT H H Y Y M M OOO TM
O O T T H H Y Y M M M M O O
O O T T H H Y M M O O
OOO T T H H Y M M OOO

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***** DETAILED OUTPUT *****

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voain.dat
Output filename: C:\Users\ajoshi\AppData\Local\Civica\XH5\191a91e0-1a14-44fd-bc00-4941023c7dee\d29f2f97-29f6-44c7-8c26-a0f7cea6dcce\scena
Summary filename: C:\Users\ajoshi\AppData\Local\Civica\XH5\191a91e0-1a14-44fd-bc00-4941023c7dee\d29f2f97-29f6-44c7-8c26-a0f7cea6dcce\scena

DATE: 12-03-2025 TIME: 02:39:25

USER:

COMMENTS: _____

** SIMULATION : 4_25yr 24hr 10min SCS Type II **

| READ STORM | Filename: C:\Users\ajoshi\AppData
| | ata\Local\Temp\
| | 5145f062-a365-46cb-ac24-6d39e4c26712\2a2f42d0e
| Ptotal=121.70 mm | Comments: 25yr 24hr 10min SCS Type II

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	2.19	12.33	17.52	18.50	2.19
0.17	1.34	6.33	2.19	12.50	17.52	18.67	2.19
0.33	1.34	6.50	2.19	12.67	9.01	18.83	2.19
0.50	1.34	6.67	2.19	12.83	9.01	19.00	2.19
0.67	1.34	6.83	2.19	13.00	9.01	19.17	2.19
0.83	1.34	7.00	2.19	13.17	6.57	19.33	2.19
1.00	1.34	7.17	2.68	13.33	6.57	19.50	2.19
1.17	1.34	7.33	2.68	13.50	6.57	19.67	2.19
1.33	1.34	7.50	2.68	13.67	5.11	19.83	2.19
1.50	1.34	7.67	2.68	13.83	5.11	20.00	2.19
1.67	1.34	7.83	2.68	14.00	5.11	20.17	1.46
1.83	1.34	8.00	2.68	14.17	3.65	20.33	1.46
2.00	1.34	8.17	3.16	14.33	3.65	20.50	1.46
2.17	1.58	8.33	3.16	14.50	3.65	20.67	1.46
2.33	1.58	8.50	3.16	14.67	3.65	20.83	1.46
2.50	1.58	8.67	3.41	14.83	3.65	21.00	1.46
2.67	1.58	8.83	3.41	15.00	3.65	21.17	1.46
2.83	1.58	9.00	3.41	15.17	3.65	21.33	1.46
3.00	1.58	9.17	3.89	15.33	3.65	21.50	1.46
3.17	1.58	9.33	3.89	15.50	3.65	21.67	1.46
3.33	1.58	9.50	3.89	15.67	3.65	21.83	1.46
3.50	1.58	9.67	4.38	15.83	3.65	22.00	1.46
3.67	1.58	9.83	4.38	16.00	3.65	22.17	1.46
3.83	1.58	10.00	4.38	16.17	2.19	22.33	1.46
4.00	1.58	10.17	5.60	16.33	2.19	22.50	1.46

4.17 1.95 | 10.33 5.60 | 16.50 2.19 | 22.67 1.46
 4.33 1.95 | 10.50 5.60 | 16.67 2.19 | 22.83 1.46
 4.50 1.95 | 10.67 7.55 | 16.83 2.19 | 23.00 1.46
 4.67 1.95 | 10.83 7.55 | 17.00 2.19 | 23.17 1.46
 4.83 1.95 | 11.00 7.55 | 17.17 2.19 | 23.33 1.46
 5.00 1.95 | 11.17 11.68 | 17.33 2.19 | 23.50 1.46
 5.17 1.95 | 11.33 11.68 | 17.50 2.19 | 23.67 1.46
 5.33 1.95 | 11.50 11.68 | 17.67 2.19 | 23.83 1.46
 5.50 1.95 | 11.67 36.02 | 17.83 2.19 | 24.00 1.46
 5.67 1.95 | 11.83 92.49 | 18.00 2.19 |
 5.83 1.95 | 12.00 148.96 | 18.17 2.19 |
 6.00 1.95 | 12.17 17.52 | 18.33 2.19 |

 | CALIB |
 | NASHYD (0101) | Area (ha)= 6.87 Curve Number (CN)= 75.0
 | ID= 1 DT= 5.0 min | Ia (mm)= 7.00 # of Linear Res.(N)= 3.00
 ----- U.H. Tp(hrs)= 0.17

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----
 TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
 hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr
 0.083 0.00 | 6.167 1.95 | 12.250 17.54 | 18.33 2.19
 0.167 0.00 | 6.250 2.19 | 12.333 17.52 | 18.42 2.19
 0.250 1.34 | 6.333 2.19 | 12.417 17.52 | 18.50 2.19
 0.333 1.34 | 6.417 2.19 | 12.500 17.52 | 18.58 2.19
 0.417 1.34 | 6.500 2.19 | 12.583 17.52 | 18.67 2.19
 0.500 1.34 | 6.583 2.19 | 12.667 17.52 | 18.75 2.19
 0.583 1.34 | 6.667 2.19 | 12.750 9.01 | 18.83 2.19
 0.667 1.34 | 6.750 2.19 | 12.833 9.01 | 18.92 2.19
 0.750 1.34 | 6.833 2.19 | 12.917 9.01 | 19.00 2.19
 0.833 1.34 | 6.917 2.19 | 13.000 9.01 | 19.08 2.19
 0.917 1.34 | 7.000 2.19 | 13.083 9.01 | 19.17 2.19
 1.000 1.34 | 7.083 2.19 | 13.167 9.01 | 19.25 2.19
 1.083 1.34 | 7.167 2.19 | 13.250 6.57 | 19.33 2.19
 1.167 1.34 | 7.250 2.68 | 13.333 6.57 | 19.42 2.19
 1.250 1.34 | 7.333 2.68 | 13.417 6.57 | 19.50 2.19
 1.333 1.34 | 7.417 2.68 | 13.500 6.57 | 19.58 2.19
 1.417 1.34 | 7.500 2.68 | 13.583 6.57 | 19.67 2.19
 1.500 1.34 | 7.583 2.68 | 13.667 6.57 | 19.75 2.19
 1.583 1.34 | 7.667 2.68 | 13.750 5.11 | 19.83 2.19
 1.667 1.34 | 7.750 2.68 | 13.833 5.11 | 19.92 2.19
 1.750 1.34 | 7.833 2.68 | 13.917 5.11 | 20.00 2.19
 1.833 1.34 | 7.917 2.68 | 14.000 5.11 | 20.08 2.19
 1.917 1.34 | 8.000 2.68 | 14.083 5.11 | 20.17 2.19
 2.000 1.34 | 8.083 2.68 | 14.167 5.11 | 20.25 1.46
 2.083 1.34 | 8.167 2.68 | 14.250 3.65 | 20.33 1.46
 2.167 1.34 | 8.250 3.16 | 14.333 3.65 | 20.42 1.46
 2.250 1.58 | 8.333 3.16 | 14.417 3.65 | 20.50 1.46
 2.333 1.58 | 8.417 3.16 | 14.500 3.65 | 20.58 1.46
 2.417 1.58 | 8.500 3.16 | 14.583 3.65 | 20.67 1.46
 2.500 1.58 | 8.583 3.16 | 14.667 3.65 | 20.75 1.46
 2.583 1.58 | 8.667 3.16 | 14.750 3.65 | 20.83 1.46
 2.667 1.58 | 8.750 3.41 | 14.833 3.65 | 20.92 1.46
 2.750 1.58 | 8.833 3.41 | 14.917 3.65 | 21.00 1.46
 2.833 1.58 | 8.917 3.41 | 15.000 3.65 | 21.08 1.46
 2.917 1.58 | 9.000 3.41 | 15.083 3.65 | 21.17 1.46
 3.000 1.58 | 9.083 3.41 | 15.167 3.65 | 21.25 1.46
 3.083 1.58 | 9.167 3.41 | 15.250 3.65 | 21.33 1.46
 3.167 1.58 | 9.250 3.89 | 15.333 3.65 | 21.42 1.46
 3.250 1.58 | 9.333 3.89 | 15.417 3.65 | 21.50 1.46
 3.333 1.58 | 9.417 3.89 | 15.500 3.65 | 21.58 1.46
 3.417 1.58 | 9.500 3.89 | 15.583 3.65 | 21.67 1.46
 3.500 1.58 | 9.583 3.89 | 15.667 3.65 | 21.75 1.46
 3.583 1.58 | 9.667 3.89 | 15.750 3.65 | 21.83 1.46
 3.667 1.58 | 9.750 4.38 | 15.833 3.65 | 21.92 1.46
 3.750 1.58 | 9.833 4.38 | 15.917 3.65 | 22.00 1.46
 3.833 1.58 | 9.917 4.38 | 16.000 3.65 | 22.08 1.46

3.917	1.58	|10.000	4.38	|16.083	3.65	|22.17	1.46
4.000	1.58	|10.083	4.38	|16.167	3.65	|22.25	1.46
4.083	1.58	|10.167	4.38	|16.250	2.19	|22.33	1.46
4.167	1.58	|10.250	5.60	|16.333	2.19	|22.42	1.46
4.250	1.95	|10.333	5.60	|16.417	2.19	|22.50	1.46
4.333	1.95	|10.417	5.60	|16.500	2.19	|22.58	1.46
4.417	1.95	|10.500	5.60	|16.583	2.19	|22.67	1.46
4.500	1.95	|10.583	5.60	|16.667	2.19	|22.75	1.46
4.583	1.95	|10.667	5.60	|16.750	2.19	|22.83	1.46
4.667	1.95	|10.750	7.55	|16.833	2.19	|22.92	1.46
4.750	1.95	|10.833	7.55	|16.917	2.19	|23.00	1.46
4.833	1.95	|10.917	7.55	|17.000	2.19	|23.08	1.46
4.917	1.95	|11.000	7.55	|17.083	2.19	|23.17	1.46
5.000	1.95	|11.083	7.55	|17.167	2.19	|23.25	1.46
5.083	1.95	|11.167	7.55	|17.250	2.19	|23.33	1.46
5.167	1.95	|11.250	11.68	|17.333	2.19	|23.42	1.46
5.250	1.95	|11.333	11.68	|17.417	2.19	|23.50	1.46
5.333	1.95	|11.417	11.68	|17.500	2.19	|23.58	1.46
5.417	1.95	|11.500	11.68	|17.583	2.19	|23.67	1.46
5.500	1.95	|11.583	11.68	|17.667	2.19	|23.75	1.46
5.583	1.95	|11.667	11.68	|17.750	2.19	|23.83	1.46
5.667	1.95	|11.750	36.02	|17.833	2.19	|23.92	1.46
5.750	1.95	|11.833	36.02	|17.917	2.19	|24.00	1.46
5.833	1.95	|11.917	92.49	|18.000	2.19	|24.08	1.46
5.917	1.95	|12.000	92.49	|18.083	2.19	|24.17	1.46
6.000	1.95	|12.083	148.95	|18.167	2.19	|	
6.083	1.95	|12.167	148.96	|18.250	2.19	|	

Unit Hyd Qpeak (cms)= 1.543

PEAK FLOW (cms)= 1.233 (i)
 TIME TO PEAK (hrs)= 12.167
 RUNOFF VOLUME (mm)= 65.754
 TOTAL RAINFALL (mm)= 121.700
 RUNOFF COEFFICIENT = 0.540

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

 | CALIB |
 | NASHYD (0103) | Area (ha)= 1.48 Curve Number (CN)= 75.0
 | ID= 1 DT= 5.0 min | Ia (mm)= 7.00 # of Linear Res.(N)= 3.00
 ----- U.H. Tp(hrs)= 0.19

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	|6.167	1.95	|12.250	17.54	|18.33	2.19
0.167	0.00	|6.250	2.19	|12.333	17.52	|18.42	2.19
0.250	1.34	|6.333	2.19	|12.417	17.52	|18.50	2.19
0.333	1.34	|6.417	2.19	|12.500	17.52	|18.58	2.19
0.417	1.34	|6.500	2.19	|12.583	17.52	|18.67	2.19
0.500	1.34	|6.583	2.19	|12.667	17.52	|18.75	2.19
0.583	1.34	|6.667	2.19	|12.750	9.01	|18.83	2.19
0.667	1.34	|6.750	2.19	|12.833	9.01	|18.92	2.19
0.750	1.34	|6.833	2.19	|12.917	9.01	|19.00	2.19
0.833	1.34	|6.917	2.19	|13.000	9.01	|19.08	2.19
0.917	1.34	|7.000	2.19	|13.083	9.01	|19.17	2.19
1.000	1.34	|7.083	2.19	|13.167	9.01	|19.25	2.19
1.083	1.34	|7.167	2.19	|13.250	6.57	|19.33	2.19
1.167	1.34	|7.250	2.68	|13.333	6.57	|19.42	2.19
1.250	1.34	|7.333	2.68	|13.417	6.57	|19.50	2.19
1.333	1.34	|7.417	2.68	|13.500	6.57	|19.58	2.19
1.417	1.34	|7.500	2.68	|13.583	6.57	|19.67	2.19
1.500	1.34	|7.583	2.68	|13.667	6.57	|19.75	2.19
1.583	1.34	|7.667	2.68	|13.750	5.11	|19.83	2.19
1.667	1.34	|7.750	2.68	|13.833	5.11	|19.92	2.19
1.750	1.34	|7.833	2.68	|13.917	5.11	|20.00	2.19
1.833	1.34	|7.917	2.68	|14.000	5.11	|20.08	2.19

1.917	1.34	8.000	2.68	14.083	5.11	20.17	2.19
2.000	1.34	8.083	2.68	14.167	5.11	20.25	1.46
2.083	1.34	8.167	2.68	14.250	3.65	20.33	1.46
2.167	1.34	8.250	3.16	14.333	3.65	20.42	1.46
2.250	1.58	8.333	3.16	14.417	3.65	20.50	1.46
2.333	1.58	8.417	3.16	14.500	3.65	20.58	1.46
2.417	1.58	8.500	3.16	14.583	3.65	20.67	1.46
2.500	1.58	8.583	3.16	14.667	3.65	20.75	1.46
2.583	1.58	8.667	3.16	14.750	3.65	20.83	1.46
2.667	1.58	8.750	3.41	14.833	3.65	20.92	1.46
2.750	1.58	8.833	3.41	14.917	3.65	21.00	1.46
2.833	1.58	8.917	3.41	15.000	3.65	21.08	1.46
2.917	1.58	9.000	3.41	15.083	3.65	21.17	1.46
3.000	1.58	9.083	3.41	15.167	3.65	21.25	1.46
3.083	1.58	9.167	3.41	15.250	3.65	21.33	1.46
3.167	1.58	9.250	3.89	15.333	3.65	21.42	1.46
3.250	1.58	9.333	3.89	15.417	3.65	21.50	1.46
3.333	1.58	9.417	3.89	15.500	3.65	21.58	1.46
3.417	1.58	9.500	3.89	15.583	3.65	21.67	1.46
3.500	1.58	9.583	3.89	15.667	3.65	21.75	1.46
3.583	1.58	9.667	3.89	15.750	3.65	21.83	1.46
3.667	1.58	9.750	4.38	15.833	3.65	21.92	1.46
3.750	1.58	9.833	4.38	15.917	3.65	22.00	1.46
3.833	1.58	9.917	4.38	16.000	3.65	22.08	1.46
3.917	1.58	10.000	4.38	16.083	3.65	22.17	1.46
4.000	1.58	10.083	4.38	16.167	3.65	22.25	1.46
4.083	1.58	10.167	4.38	16.250	2.19	22.33	1.46
4.167	1.58	10.250	5.60	16.333	2.19	22.42	1.46
4.250	1.95	10.333	5.60	16.417	2.19	22.50	1.46
4.333	1.95	10.417	5.60	16.500	2.19	22.58	1.46
4.417	1.95	10.500	5.60	16.583	2.19	22.67	1.46
4.500	1.95	10.583	5.60	16.667	2.19	22.75	1.46
4.583	1.95	10.667	5.60	16.750	2.19	22.83	1.46
4.667	1.95	10.750	7.55	16.833	2.19	22.92	1.46
4.750	1.95	10.833	7.55	16.917	2.19	23.00	1.46
4.833	1.95	10.917	7.55	17.000	2.19	23.08	1.46
4.917	1.95	11.000	7.55	17.083	2.19	23.17	1.46
5.000	1.95	11.083	7.55	17.167	2.19	23.25	1.46
5.083	1.95	11.167	7.55	17.250	2.19	23.33	1.46
5.167	1.95	11.250	11.68	17.333	2.19	23.42	1.46
5.250	1.95	11.333	11.68	17.417	2.19	23.50	1.46
5.333	1.95	11.417	11.68	17.500	2.19	23.58	1.46
5.417	1.95	11.500	11.68	17.583	2.19	23.67	1.46
5.500	1.95	11.583	11.68	17.667	2.19	23.75	1.46
5.583	1.95	11.667	11.68	17.750	2.19	23.83	1.46
5.667	1.95	11.750	36.02	17.833	2.19	23.92	1.46
5.750	1.95	11.833	36.02	17.917	2.19	24.00	1.46
5.833	1.95	11.917	92.49	18.000	2.19	24.08	1.46
5.917	1.95	12.000	92.49	18.083	2.19	24.17	1.46
6.000	1.95	12.083	148.95	18.167	2.19		
6.083	1.95	12.167	148.96	18.250	2.19		

Unit Hyd Qpeak (cms)= 0.297

PEAK FLOW (cms)= 0.254 (i)

TIME TO PEAK (hrs)= 12.250

RUNOFF VOLUME (mm)= 65.836

TOTAL RAINFALL (mm)= 121.700

RUNOFF COEFFICIENT = 0.541

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

 | ADD HYD (0008)|

| 1 + 2 = 3 | AREA QPEAK TPEAK R.V.

----- (ha) (cms) (hrs) (mm)

ID1= 1 (0101): 6.87 1.233 12.17 65.75

+ ID2= 2 (0103): 1.48 0.254 12.25 65.84

=====

ID = 3 (0008): 8.34 1.475 12.17 65.77

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| CALIB |
| NASHYD (0102) | Area (ha)= 5.81 Curve Number (CN)= 75.0
| ID= 1 DT= 5.0 min | la (mm)= 7.00 # of Linear Res.(N)= 3.00
----- U.H. Tp(hrs)= 0.25

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.95	12.250	17.54	18.33	2.19
0.167	0.00	6.250	2.19	12.333	17.52	18.42	2.19
0.250	1.34	6.333	2.19	12.417	17.52	18.50	2.19
0.333	1.34	6.417	2.19	12.500	17.52	18.58	2.19
0.417	1.34	6.500	2.19	12.583	17.52	18.67	2.19
0.500	1.34	6.583	2.19	12.667	17.52	18.75	2.19
0.583	1.34	6.667	2.19	12.750	9.01	18.83	2.19
0.667	1.34	6.750	2.19	12.833	9.01	18.92	2.19
0.750	1.34	6.833	2.19	12.917	9.01	19.00	2.19
0.833	1.34	6.917	2.19	13.000	9.01	19.08	2.19
0.917	1.34	7.000	2.19	13.083	9.01	19.17	2.19
1.000	1.34	7.083	2.19	13.167	9.01	19.25	2.19
1.083	1.34	7.167	2.19	13.250	6.57	19.33	2.19
1.167	1.34	7.250	2.68	13.333	6.57	19.42	2.19
1.250	1.34	7.333	2.68	13.417	6.57	19.50	2.19
1.333	1.34	7.417	2.68	13.500	6.57	19.58	2.19
1.417	1.34	7.500	2.68	13.583	6.57	19.67	2.19
1.500	1.34	7.583	2.68	13.667	6.57	19.75	2.19
1.583	1.34	7.667	2.68	13.750	5.11	19.83	2.19
1.667	1.34	7.750	2.68	13.833	5.11	19.92	2.19
1.750	1.34	7.833	2.68	13.917	5.11	20.00	2.19
1.833	1.34	7.917	2.68	14.000	5.11	20.08	2.19
1.917	1.34	8.000	2.68	14.083	5.11	20.17	2.19
2.000	1.34	8.083	2.68	14.167	5.11	20.25	1.46
2.083	1.34	8.167	2.68	14.250	3.65	20.33	1.46
2.167	1.34	8.250	3.16	14.333	3.65	20.42	1.46
2.250	1.58	8.333	3.16	14.417	3.65	20.50	1.46
2.333	1.58	8.417	3.16	14.500	3.65	20.58	1.46
2.417	1.58	8.500	3.16	14.583	3.65	20.67	1.46
2.500	1.58	8.583	3.16	14.667	3.65	20.75	1.46
2.583	1.58	8.667	3.16	14.750	3.65	20.83	1.46
2.667	1.58	8.750	3.41	14.833	3.65	20.92	1.46
2.750	1.58	8.833	3.41	14.917	3.65	21.00	1.46
2.833	1.58	8.917	3.41	15.000	3.65	21.08	1.46
2.917	1.58	9.000	3.41	15.083	3.65	21.17	1.46
3.000	1.58	9.083	3.41	15.167	3.65	21.25	1.46
3.083	1.58	9.167	3.41	15.250	3.65	21.33	1.46
3.167	1.58	9.250	3.89	15.333	3.65	21.42	1.46
3.250	1.58	9.333	3.89	15.417	3.65	21.50	1.46
3.333	1.58	9.417	3.89	15.500	3.65	21.58	1.46
3.417	1.58	9.500	3.89	15.583	3.65	21.67	1.46
3.500	1.58	9.583	3.89	15.667	3.65	21.75	1.46
3.583	1.58	9.667	3.89	15.750	3.65	21.83	1.46
3.667	1.58	9.750	4.38	15.833	3.65	21.92	1.46
3.750	1.58	9.833	4.38	15.917	3.65	22.00	1.46
3.833	1.58	9.917	4.38	16.000	3.65	22.08	1.46
3.917	1.58	10.000	4.38	16.083	3.65	22.17	1.46
4.000	1.58	10.083	4.38	16.167	3.65	22.25	1.46
4.083	1.58	10.167	4.38	16.250	2.19	22.33	1.46
4.167	1.58	10.250	5.60	16.333	2.19	22.42	1.46
4.250	1.95	10.333	5.60	16.417	2.19	22.50	1.46
4.333	1.95	10.417	5.60	16.500	2.19	22.58	1.46
4.417	1.95	10.500	5.60	16.583	2.19	22.67	1.46
4.500	1.95	10.583	5.60	16.667	2.19	22.75	1.46
4.583	1.95	10.667	5.60	16.750	2.19	22.83	1.46
4.667	1.95	10.750	7.55	16.833	2.19	22.92	1.46
4.750	1.95	10.833	7.55	16.917	2.19	23.00	1.46
4.833	1.95	10.917	7.55	17.000	2.19	23.08	1.46
4.917	1.95	11.000	7.55	17.083	2.19	23.17	1.46

5.000	1.95	|11.083	7.55	|17.167	2.19	|23.25	1.46
5.083	1.95	|11.167	7.55	|17.250	2.19	|23.33	1.46
5.167	1.95	|11.250	11.68	|17.333	2.19	|23.42	1.46
5.250	1.95	|11.333	11.68	|17.417	2.19	|23.50	1.46
5.333	1.95	|11.417	11.68	|17.500	2.19	|23.58	1.46
5.417	1.95	|11.500	11.68	|17.583	2.19	|23.67	1.46
5.500	1.95	|11.583	11.68	|17.667	2.19	|23.75	1.46
5.583	1.95	|11.667	11.68	|17.750	2.19	|23.83	1.46
5.667	1.95	|11.750	36.02	|17.833	2.19	|23.92	1.46
5.750	1.95	|11.833	36.02	|17.917	2.19	|24.00	1.46
5.833	1.95	|11.917	92.49	|18.000	2.19	|24.08	1.46
5.917	1.95	|12.000	92.49	|18.083	2.19	|24.17	1.46
6.000	1.95	|12.083	148.95	|18.167	2.19	|	
6.083	1.95	|12.167	148.96	|18.250	2.19	|	

Unit Hyd Qpeak (cms)= 0.887

PEAK FLOW (cms)= 0.845 (i)

TIME TO PEAK (hrs)= 12.250

RUNOFF VOLUME (mm)= 65.937

TOTAL RAINFALL (mm)= 121.700

RUNOFF COEFFICIENT = 0.542

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

 | ADD HYD (1000)|

| 1 + 2 = 3 |	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0102):	5.81	0.845	12.25	65.94
+ ID2= 2 (0008):	8.34	1.475	12.17	65.77
=====				
ID = 3 (1000):	14.15	2.319	12.25	65.84

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 FINISH

V V I SSSSS U U A L (v6.2.2015)
V V I SS U U AA L
V V I SS U U AAAAA L
V V I SS U U A A L
W V I SSSSS UUUUU A A LLLLL

OOO TTTT TTTT 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

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***** DETAILED OUTPUT *****

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voain.dat
Output filename: C:\Users\ajoshi\AppData\Local\Civica\XH5\191a91e0-1a14-44fd-bc00-4941023c7dee\49323d07-c7aa-4973-a72f-b85f46811d65\scena
Summary filename: C:\Users\ajoshi\AppData\Local\Civica\XH5\191a91e0-1a14-44fd-bc00-4941023c7dee\49323d07-c7aa-4973-a72f-b85f46811d65\scena

DATE: 12-03-2025 TIME: 02:39:25

USER:

COMMENTS: _____

** SIMULATION : 5_50yr 24hr 10min SCS Type II **

| READ STORM | Filename: C:\Users\ajoshi\AppData
| | ata\Local\Temp\
| | 5145f062-a365-46cb-ac24-6d39e4c26712\eb01ca32
| Ptotal=134.56 mm | Comments: 50yr 24hr 10min SCS Type II

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	2.42	12.33	19.38	18.50	2.42
0.17	1.48	6.33	2.42	12.50	19.38	18.67	2.42
0.33	1.48	6.50	2.42	12.67	9.96	18.83	2.42
0.50	1.48	6.67	2.42	12.83	9.96	19.00	2.42
0.67	1.48	6.83	2.42	13.00	9.96	19.17	2.42
0.83	1.48	7.00	2.42	13.17	7.27	19.33	2.42
1.00	1.48	7.17	2.96	13.33	7.27	19.50	2.42
1.17	1.48	7.33	2.96	13.50	7.27	19.67	2.42
1.33	1.48	7.50	2.96	13.67	5.65	19.83	2.42
1.50	1.48	7.67	2.96	13.83	5.65	20.00	2.42
1.67	1.48	7.83	2.96	14.00	5.65	20.17	1.61
1.83	1.48	8.00	2.96	14.17	4.04	20.33	1.61
2.00	1.48	8.17	3.50	14.33	4.04	20.50	1.61
2.17	1.75	8.33	3.50	14.50	4.04	20.67	1.61
2.33	1.75	8.50	3.50	14.67	4.04	20.83	1.61
2.50	1.75	8.67	3.77	14.83	4.04	21.00	1.61
2.67	1.75	8.83	3.77	15.00	4.04	21.17	1.61
2.83	1.75	9.00	3.77	15.17	4.04	21.33	1.61
3.00	1.75	9.17	4.31	15.33	4.04	21.50	1.61
3.17	1.75	9.33	4.31	15.50	4.04	21.67	1.61
3.33	1.75	9.50	4.31	15.67	4.04	21.83	1.61
3.50	1.75	9.67	4.84	15.83	4.04	22.00	1.61
3.67	1.75	9.83	4.84	16.00	4.04	22.17	1.61
3.83	1.75	10.00	4.84	16.17	2.42	22.33	1.61
4.00	1.75	10.17	6.19	16.33	2.42	22.50	1.61

4.17 2.15 | 10.33 6.19 | 16.50 2.42 | 22.67 1.61
 4.33 2.15 | 10.50 6.19 | 16.67 2.42 | 22.83 1.61
 4.50 2.15 | 10.67 8.34 | 16.83 2.42 | 23.00 1.61
 4.67 2.15 | 10.83 8.34 | 17.00 2.42 | 23.17 1.61
 4.83 2.15 | 11.00 8.34 | 17.17 2.42 | 23.33 1.61
 5.00 2.15 | 11.17 12.92 | 17.33 2.42 | 23.50 1.61
 5.17 2.15 | 11.33 12.92 | 17.50 2.42 | 23.67 1.61
 5.33 2.15 | 11.50 12.92 | 17.67 2.42 | 23.83 1.61
 5.50 2.15 | 11.67 39.83 | 17.83 2.42 | 24.00 1.61
 5.67 2.15 | 11.83 102.27 | 18.00 2.42 |
 5.83 2.15 | 12.00 164.70 | 18.17 2.42 |
 6.00 2.15 | 12.17 19.38 | 18.33 2.42 |

 | CALIB |
 | NASHYD (0101) | Area (ha)= 6.87 Curve Number (CN)= 75.0
 | ID= 1 DT= 5.0 min | Ia (mm)= 7.00 # of Linear Res.(N)= 3.00
 ----- U.H. Tp(hrs)= 0.17

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----
 TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
 hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr
 0.083 0.00 | 6.167 2.15 | 12.250 19.39 | 18.33 2.42
 0.167 0.00 | 6.250 2.42 | 12.333 19.38 | 18.42 2.42
 0.250 1.48 | 6.333 2.42 | 12.417 19.38 | 18.50 2.42
 0.333 1.48 | 6.417 2.42 | 12.500 19.38 | 18.58 2.42
 0.417 1.48 | 6.500 2.42 | 12.583 19.38 | 18.67 2.42
 0.500 1.48 | 6.583 2.42 | 12.667 19.38 | 18.75 2.42
 0.583 1.48 | 6.667 2.42 | 12.750 9.96 | 18.83 2.42
 0.667 1.48 | 6.750 2.42 | 12.833 9.96 | 18.92 2.42
 0.750 1.48 | 6.833 2.42 | 12.917 9.96 | 19.00 2.42
 0.833 1.48 | 6.917 2.42 | 13.000 9.96 | 19.08 2.42
 0.917 1.48 | 7.000 2.42 | 13.083 9.96 | 19.17 2.42
 1.000 1.48 | 7.083 2.42 | 13.167 9.96 | 19.25 2.42
 1.083 1.48 | 7.167 2.42 | 13.250 7.27 | 19.33 2.42
 1.167 1.48 | 7.250 2.96 | 13.333 7.27 | 19.42 2.42
 1.250 1.48 | 7.333 2.96 | 13.417 7.27 | 19.50 2.42
 1.333 1.48 | 7.417 2.96 | 13.500 7.27 | 19.58 2.42
 1.417 1.48 | 7.500 2.96 | 13.583 7.27 | 19.67 2.42
 1.500 1.48 | 7.583 2.96 | 13.667 7.27 | 19.75 2.42
 1.583 1.48 | 7.667 2.96 | 13.750 5.65 | 19.83 2.42
 1.667 1.48 | 7.750 2.96 | 13.833 5.65 | 19.92 2.42
 1.750 1.48 | 7.833 2.96 | 13.917 5.65 | 20.00 2.42
 1.833 1.48 | 7.917 2.96 | 14.000 5.65 | 20.08 2.42
 1.917 1.48 | 8.000 2.96 | 14.083 5.65 | 20.17 2.42
 2.000 1.48 | 8.083 2.96 | 14.167 5.65 | 20.25 1.61
 2.083 1.48 | 8.167 2.96 | 14.250 4.04 | 20.33 1.61
 2.167 1.48 | 8.250 3.50 | 14.333 4.04 | 20.42 1.61
 2.250 1.75 | 8.333 3.50 | 14.417 4.04 | 20.50 1.61
 2.333 1.75 | 8.417 3.50 | 14.500 4.04 | 20.58 1.61
 2.417 1.75 | 8.500 3.50 | 14.583 4.04 | 20.67 1.61
 2.500 1.75 | 8.583 3.50 | 14.667 4.04 | 20.75 1.61
 2.583 1.75 | 8.667 3.50 | 14.750 4.04 | 20.83 1.61
 2.667 1.75 | 8.750 3.77 | 14.833 4.04 | 20.92 1.61
 2.750 1.75 | 8.833 3.77 | 14.917 4.04 | 21.00 1.61
 2.833 1.75 | 8.917 3.77 | 15.000 4.04 | 21.08 1.61
 2.917 1.75 | 9.000 3.77 | 15.083 4.04 | 21.17 1.61
 3.000 1.75 | 9.083 3.77 | 15.167 4.04 | 21.25 1.61
 3.083 1.75 | 9.167 3.77 | 15.250 4.04 | 21.33 1.61
 3.167 1.75 | 9.250 4.31 | 15.333 4.04 | 21.42 1.61
 3.250 1.75 | 9.333 4.31 | 15.417 4.04 | 21.50 1.61
 3.333 1.75 | 9.417 4.31 | 15.500 4.04 | 21.58 1.61
 3.417 1.75 | 9.500 4.31 | 15.583 4.04 | 21.67 1.61
 3.500 1.75 | 9.583 4.31 | 15.667 4.04 | 21.75 1.61
 3.583 1.75 | 9.667 4.31 | 15.750 4.04 | 21.83 1.61
 3.667 1.75 | 9.750 4.84 | 15.833 4.04 | 21.92 1.61
 3.750 1.75 | 9.833 4.84 | 15.917 4.04 | 22.00 1.61
 3.833 1.75 | 9.917 4.84 | 16.000 4.04 | 22.08 1.61

3.917	1.75	|10.000	4.84	|16.083	4.04	|22.17	1.61
4.000	1.75	|10.083	4.84	|16.167	4.04	|22.25	1.61
4.083	1.75	|10.167	4.84	|16.250	2.42	|22.33	1.61
4.167	1.75	|10.250	6.19	|16.333	2.42	|22.42	1.61
4.250	2.15	|10.333	6.19	|16.417	2.42	|22.50	1.61
4.333	2.15	|10.417	6.19	|16.500	2.42	|22.58	1.61
4.417	2.15	|10.500	6.19	|16.583	2.42	|22.67	1.61
4.500	2.15	|10.583	6.19	|16.667	2.42	|22.75	1.61
4.583	2.15	|10.667	6.19	|16.750	2.42	|22.83	1.61
4.667	2.15	|10.750	8.34	|16.833	2.42	|22.92	1.61
4.750	2.15	|10.833	8.34	|16.917	2.42	|23.00	1.61
4.833	2.15	|10.917	8.34	|17.000	2.42	|23.08	1.61
4.917	2.15	|11.000	8.34	|17.083	2.42	|23.17	1.61
5.000	2.15	|11.083	8.34	|17.167	2.42	|23.25	1.61
5.083	2.15	|11.167	8.34	|17.250	2.42	|23.33	1.61
5.167	2.15	|11.250	12.92	|17.333	2.42	|23.42	1.61
5.250	2.15	|11.333	12.92	|17.417	2.42	|23.50	1.61
5.333	2.15	|11.417	12.92	|17.500	2.42	|23.58	1.61
5.417	2.15	|11.500	12.92	|17.583	2.42	|23.67	1.61
5.500	2.15	|11.583	12.92	|17.667	2.42	|23.75	1.61
5.583	2.15	|11.667	12.92	|17.750	2.42	|23.83	1.61
5.667	2.15	|11.750	39.83	|17.833	2.42	|23.92	1.61
5.750	2.15	|11.833	39.83	|17.917	2.42	|24.00	1.61
5.833	2.15	|11.917	102.26	|18.000	2.42	|24.08	1.61
5.917	2.15	|12.000	102.27	|18.083	2.42	|24.17	1.61
6.000	2.15	|12.083	164.69	|18.167	2.42	|	
6.083	2.15	|12.167	164.70	|18.250	2.42	|	

Unit Hyd Qpeak (cms)= 1.543

PEAK FLOW (cms)= 1.435 (i)
 TIME TO PEAK (hrs)= 12.167
 RUNOFF VOLUME (mm)= 76.397
 TOTAL RAINFALL (mm)= 134.560
 RUNOFF COEFFICIENT = 0.568

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

 | CALIB |
 | NASHYD (0103) | Area (ha)= 1.48 Curve Number (CN)= 75.0
 | ID= 1 DT= 5.0 min | Ia (mm)= 7.00 # of Linear Res.(N)= 3.00
 ----- U.H. Tp(hrs)= 0.19

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	|6.167	2.15	|12.250	19.39	|18.33	2.42
0.167	0.00	|6.250	2.42	|12.333	19.38	|18.42	2.42
0.250	1.48	|6.333	2.42	|12.417	19.38	|18.50	2.42
0.333	1.48	|6.417	2.42	|12.500	19.38	|18.58	2.42
0.417	1.48	|6.500	2.42	|12.583	19.38	|18.67	2.42
0.500	1.48	|6.583	2.42	|12.667	19.38	|18.75	2.42
0.583	1.48	|6.667	2.42	|12.750	9.96	|18.83	2.42
0.667	1.48	|6.750	2.42	|12.833	9.96	|18.92	2.42
0.750	1.48	|6.833	2.42	|12.917	9.96	|19.00	2.42
0.833	1.48	|6.917	2.42	|13.000	9.96	|19.08	2.42
0.917	1.48	|7.000	2.42	|13.083	9.96	|19.17	2.42
1.000	1.48	|7.083	2.42	|13.167	9.96	|19.25	2.42
1.083	1.48	|7.167	2.42	|13.250	7.27	|19.33	2.42
1.167	1.48	|7.250	2.96	|13.333	7.27	|19.42	2.42
1.250	1.48	|7.333	2.96	|13.417	7.27	|19.50	2.42
1.333	1.48	|7.417	2.96	|13.500	7.27	|19.58	2.42
1.417	1.48	|7.500	2.96	|13.583	7.27	|19.67	2.42
1.500	1.48	|7.583	2.96	|13.667	7.27	|19.75	2.42
1.583	1.48	|7.667	2.96	|13.750	5.65	|19.83	2.42
1.667	1.48	|7.750	2.96	|13.833	5.65	|19.92	2.42
1.750	1.48	|7.833	2.96	|13.917	5.65	|20.00	2.42
1.833	1.48	|7.917	2.96	|14.000	5.65	|20.08	2.42

1.917	1.48	8.000	2.96	14.083	5.65	20.17	2.42
2.000	1.48	8.083	2.96	14.167	5.65	20.25	1.61
2.083	1.48	8.167	2.96	14.250	4.04	20.33	1.61
2.167	1.48	8.250	3.50	14.333	4.04	20.42	1.61
2.250	1.75	8.333	3.50	14.417	4.04	20.50	1.61
2.333	1.75	8.417	3.50	14.500	4.04	20.58	1.61
2.417	1.75	8.500	3.50	14.583	4.04	20.67	1.61
2.500	1.75	8.583	3.50	14.667	4.04	20.75	1.61
2.583	1.75	8.667	3.50	14.750	4.04	20.83	1.61
2.667	1.75	8.750	3.77	14.833	4.04	20.92	1.61
2.750	1.75	8.833	3.77	14.917	4.04	21.00	1.61
2.833	1.75	8.917	3.77	15.000	4.04	21.08	1.61
2.917	1.75	9.000	3.77	15.083	4.04	21.17	1.61
3.000	1.75	9.083	3.77	15.167	4.04	21.25	1.61
3.083	1.75	9.167	3.77	15.250	4.04	21.33	1.61
3.167	1.75	9.250	4.31	15.333	4.04	21.42	1.61
3.250	1.75	9.333	4.31	15.417	4.04	21.50	1.61
3.333	1.75	9.417	4.31	15.500	4.04	21.58	1.61
3.417	1.75	9.500	4.31	15.583	4.04	21.67	1.61
3.500	1.75	9.583	4.31	15.667	4.04	21.75	1.61
3.583	1.75	9.667	4.31	15.750	4.04	21.83	1.61
3.667	1.75	9.750	4.84	15.833	4.04	21.92	1.61
3.750	1.75	9.833	4.84	15.917	4.04	22.00	1.61
3.833	1.75	9.917	4.84	16.000	4.04	22.08	1.61
3.917	1.75	10.000	4.84	16.083	4.04	22.17	1.61
4.000	1.75	10.083	4.84	16.167	4.04	22.25	1.61
4.083	1.75	10.167	4.84	16.250	2.42	22.33	1.61
4.167	1.75	10.250	6.19	16.333	2.42	22.42	1.61
4.250	2.15	10.333	6.19	16.417	2.42	22.50	1.61
4.333	2.15	10.417	6.19	16.500	2.42	22.58	1.61
4.417	2.15	10.500	6.19	16.583	2.42	22.67	1.61
4.500	2.15	10.583	6.19	16.667	2.42	22.75	1.61
4.583	2.15	10.667	6.19	16.750	2.42	22.83	1.61
4.667	2.15	10.750	8.34	16.833	2.42	22.92	1.61
4.750	2.15	10.833	8.34	16.917	2.42	23.00	1.61
4.833	2.15	10.917	8.34	17.000	2.42	23.08	1.61
4.917	2.15	11.000	8.34	17.083	2.42	23.17	1.61
5.000	2.15	11.083	8.34	17.167	2.42	23.25	1.61
5.083	2.15	11.167	8.34	17.250	2.42	23.33	1.61
5.167	2.15	11.250	12.92	17.333	2.42	23.42	1.61
5.250	2.15	11.333	12.92	17.417	2.42	23.50	1.61
5.333	2.15	11.417	12.92	17.500	2.42	23.58	1.61
5.417	2.15	11.500	12.92	17.583	2.42	23.67	1.61
5.500	2.15	11.583	12.92	17.667	2.42	23.75	1.61
5.583	2.15	11.667	12.92	17.750	2.42	23.83	1.61
5.667	2.15	11.750	39.83	17.833	2.42	23.92	1.61
5.750	2.15	11.833	39.83	17.917	2.42	24.00	1.61
5.833	2.15	11.917	102.26	18.000	2.42	24.08	1.61
5.917	2.15	12.000	102.27	18.083	2.42	24.17	1.61
6.000	2.15	12.083	164.69	18.167	2.42		
6.083	2.15	12.167	164.70	18.250	2.42		

Unit Hyd Qpeak (cms)= 0.297

PEAK FLOW (cms)= 0.295 (i)

TIME TO PEAK (hrs)= 12.250

RUNOFF VOLUME (mm)= 76.492

TOTAL RAINFALL (mm)= 134.560

RUNOFF COEFFICIENT = 0.568

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

 | ADD HYD (0008) |

| 1 + 2 = 3 | AREA QPEAK TPEAK R.V.

----- (ha) (cms) (hrs) (mm)

ID1= 1 (0101): 6.87 1.435 12.17 76.40

+ ID2= 2 (0103): 1.48 0.295 12.25 76.49

=====

ID = 3 (0008): 8.34 1.717 12.17 76.41

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| CALIB |
| NASHYD (0102) | Area (ha)= 5.81 Curve Number (CN)= 75.0
| ID= 1 DT= 5.0 min | la (mm)= 7.00 # of Linear Res.(N)= 3.00
----- U.H. Tp(hrs)= 0.25

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	2.15	12.250	19.39	18.33	2.42
0.167	0.00	6.250	2.42	12.333	19.38	18.42	2.42
0.250	1.48	6.333	2.42	12.417	19.38	18.50	2.42
0.333	1.48	6.417	2.42	12.500	19.38	18.58	2.42
0.417	1.48	6.500	2.42	12.583	19.38	18.67	2.42
0.500	1.48	6.583	2.42	12.667	19.38	18.75	2.42
0.583	1.48	6.667	2.42	12.750	9.96	18.83	2.42
0.667	1.48	6.750	2.42	12.833	9.96	18.92	2.42
0.750	1.48	6.833	2.42	12.917	9.96	19.00	2.42
0.833	1.48	6.917	2.42	13.000	9.96	19.08	2.42
0.917	1.48	7.000	2.42	13.083	9.96	19.17	2.42
1.000	1.48	7.083	2.42	13.167	9.96	19.25	2.42
1.083	1.48	7.167	2.42	13.250	7.27	19.33	2.42
1.167	1.48	7.250	2.96	13.333	7.27	19.42	2.42
1.250	1.48	7.333	2.96	13.417	7.27	19.50	2.42
1.333	1.48	7.417	2.96	13.500	7.27	19.58	2.42
1.417	1.48	7.500	2.96	13.583	7.27	19.67	2.42
1.500	1.48	7.583	2.96	13.667	7.27	19.75	2.42
1.583	1.48	7.667	2.96	13.750	5.65	19.83	2.42
1.667	1.48	7.750	2.96	13.833	5.65	19.92	2.42
1.750	1.48	7.833	2.96	13.917	5.65	20.00	2.42
1.833	1.48	7.917	2.96	14.000	5.65	20.08	2.42
1.917	1.48	8.000	2.96	14.083	5.65	20.17	2.42
2.000	1.48	8.083	2.96	14.167	5.65	20.25	1.61
2.083	1.48	8.167	2.96	14.250	4.04	20.33	1.61
2.167	1.48	8.250	3.50	14.333	4.04	20.42	1.61
2.250	1.75	8.333	3.50	14.417	4.04	20.50	1.61
2.333	1.75	8.417	3.50	14.500	4.04	20.58	1.61
2.417	1.75	8.500	3.50	14.583	4.04	20.67	1.61
2.500	1.75	8.583	3.50	14.667	4.04	20.75	1.61
2.583	1.75	8.667	3.50	14.750	4.04	20.83	1.61
2.667	1.75	8.750	3.77	14.833	4.04	20.92	1.61
2.750	1.75	8.833	3.77	14.917	4.04	21.00	1.61
2.833	1.75	8.917	3.77	15.000	4.04	21.08	1.61
2.917	1.75	9.000	3.77	15.083	4.04	21.17	1.61
3.000	1.75	9.083	3.77	15.167	4.04	21.25	1.61
3.083	1.75	9.167	3.77	15.250	4.04	21.33	1.61
3.167	1.75	9.250	4.31	15.333	4.04	21.42	1.61
3.250	1.75	9.333	4.31	15.417	4.04	21.50	1.61
3.333	1.75	9.417	4.31	15.500	4.04	21.58	1.61
3.417	1.75	9.500	4.31	15.583	4.04	21.67	1.61
3.500	1.75	9.583	4.31	15.667	4.04	21.75	1.61
3.583	1.75	9.667	4.31	15.750	4.04	21.83	1.61
3.667	1.75	9.750	4.84	15.833	4.04	21.92	1.61
3.750	1.75	9.833	4.84	15.917	4.04	22.00	1.61
3.833	1.75	9.917	4.84	16.000	4.04	22.08	1.61
3.917	1.75	10.000	4.84	16.083	4.04	22.17	1.61
4.000	1.75	10.083	4.84	16.167	4.04	22.25	1.61
4.083	1.75	10.167	4.84	16.250	2.42	22.33	1.61
4.167	1.75	10.250	6.19	16.333	2.42	22.42	1.61
4.250	2.15	10.333	6.19	16.417	2.42	22.50	1.61
4.333	2.15	10.417	6.19	16.500	2.42	22.58	1.61
4.417	2.15	10.500	6.19	16.583	2.42	22.67	1.61
4.500	2.15	10.583	6.19	16.667	2.42	22.75	1.61
4.583	2.15	10.667	6.19	16.750	2.42	22.83	1.61
4.667	2.15	10.750	8.34	16.833	2.42	22.92	1.61
4.750	2.15	10.833	8.34	16.917	2.42	23.00	1.61
4.833	2.15	10.917	8.34	17.000	2.42	23.08	1.61
4.917	2.15	11.000	8.34	17.083	2.42	23.17	1.61

5.000	2.15	|11.083	8.34	|17.167	2.42	|23.25	1.61
5.083	2.15	|11.167	8.34	|17.250	2.42	|23.33	1.61
5.167	2.15	|11.250	12.92	|17.333	2.42	|23.42	1.61
5.250	2.15	|11.333	12.92	|17.417	2.42	|23.50	1.61
5.333	2.15	|11.417	12.92	|17.500	2.42	|23.58	1.61
5.417	2.15	|11.500	12.92	|17.583	2.42	|23.67	1.61
5.500	2.15	|11.583	12.92	|17.667	2.42	|23.75	1.61
5.583	2.15	|11.667	12.92	|17.750	2.42	|23.83	1.61
5.667	2.15	|11.750	39.83	|17.833	2.42	|23.92	1.61
5.750	2.15	|11.833	39.83	|17.917	2.42	|24.00	1.61
5.833	2.15	|11.917	102.26	|18.000	2.42	|24.08	1.61
5.917	2.15	|12.000	102.27	|18.083	2.42	|24.17	1.61
6.000	2.15	|12.083	164.69	|18.167	2.42	|	
6.083	2.15	|12.167	164.70	|18.250	2.42	|	

Unit Hyd Qpeak (cms)= 0.887

PEAK FLOW (cms)= 0.985 (i)

TIME TO PEAK (hrs)= 12.250

RUNOFF VOLUME (mm)= 76.610

TOTAL RAINFALL (mm)= 134.560

RUNOFF COEFFICIENT = 0.569

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

 | ADD HYD (1000)|

| 1 + 2 = 3 | AREA QPEAK TPEAK R.V.

----- (ha) (cms) (hrs) (mm)

ID1= 1 (0102): 5.81 0.985 12.25 76.61

+ ID2= 2 (0008): 8.34 1.717 12.17 76.41

=====

ID = 3 (1000): 14.15 2.696 12.25 76.49

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

V V I SSSSS U U A L (v6.2.2015)
V V I SS U U AA L
V V I SS U U AAAAA L
V V I SS U U A A L
W V I SSSSS UUUUU A A LLLLL

OOO TTTT TTTT 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

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***** DETAILED OUTPUT *****

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voain.dat
Output filename: C:\Users\ajoshi\AppData\Local\Civica\XH5\191a91e0-1a14-44fd-bc00-4941023c7dee\51b3e62b-7d35-4cc8-8cd3-ee47c5708fec\scena
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USER:

COMMENTS: _____

** SIMULATION : 6_100yr 24hr 10min SCS Type I **

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| | ata\Local\Temp\
| | 5145f062-a365-46cb-ac24-6d39e4c26712\1118027b
| Ptotal=145.92 mm | Comments: 100yr 24hr 10min SCS Type II

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	2.63	12.33	21.01	18.50	2.63
0.17	1.61	6.33	2.63	12.50	21.01	18.67	2.63
0.33	1.61	6.50	2.63	12.67	10.80	18.83	2.63
0.50	1.61	6.67	2.63	12.83	10.80	19.00	2.63
0.67	1.61	6.83	2.63	13.00	10.80	19.17	2.63
0.83	1.61	7.00	2.63	13.17	7.88	19.33	2.63
1.00	1.61	7.17	3.21	13.33	7.88	19.50	2.63
1.17	1.61	7.33	3.21	13.50	7.88	19.67	2.63
1.33	1.61	7.50	3.21	13.67	6.13	19.83	2.63
1.50	1.61	7.67	3.21	13.83	6.13	20.00	2.63
1.67	1.61	7.83	3.21	14.00	6.13	20.17	1.75
1.83	1.61	8.00	3.21	14.17	4.38	20.33	1.75
2.00	1.61	8.17	3.79	14.33	4.38	20.50	1.75
2.17	1.90	8.33	3.79	14.50	4.38	20.67	1.75
2.33	1.90	8.50	3.79	14.67	4.38	20.83	1.75
2.50	1.90	8.67	4.09	14.83	4.38	21.00	1.75
2.67	1.90	8.83	4.09	15.00	4.38	21.17	1.75
2.83	1.90	9.00	4.09	15.17	4.38	21.33	1.75
3.00	1.90	9.17	4.67	15.33	4.38	21.50	1.75
3.17	1.90	9.33	4.67	15.50	4.38	21.67	1.75
3.33	1.90	9.50	4.67	15.67	4.38	21.83	1.75
3.50	1.90	9.67	5.25	15.83	4.38	22.00	1.75
3.67	1.90	9.83	5.25	16.00	4.38	22.17	1.75
3.83	1.90	10.00	5.25	16.17	2.63	22.33	1.75

4.00 1.90 | 10.17 6.71 | 16.33 2.63 | 22.50 1.75
 4.17 2.33 | 10.33 6.71 | 16.50 2.63 | 22.67 1.75
 4.33 2.33 | 10.50 6.71 | 16.67 2.63 | 22.83 1.75
 4.50 2.33 | 10.67 9.05 | 16.83 2.63 | 23.00 1.75
 4.67 2.33 | 10.83 9.05 | 17.00 2.63 | 23.17 1.75
 4.83 2.33 | 11.00 9.05 | 17.17 2.63 | 23.33 1.75
 5.00 2.33 | 11.17 14.01 | 17.33 2.63 | 23.50 1.75
 5.17 2.33 | 11.33 14.01 | 17.50 2.63 | 23.67 1.75
 5.33 2.33 | 11.50 14.01 | 17.67 2.63 | 23.83 1.75
 5.50 2.33 | 11.67 43.19 | 17.83 2.63 | 24.00 1.75
 5.67 2.33 | 11.83 110.90 | 18.00 2.63 |
 5.83 2.33 | 12.00 178.61 | 18.17 2.63 |
 6.00 2.33 | 12.17 21.01 | 18.33 2.63 |

 | CALIB |
 | NASHYD (0101) | Area (ha)= 6.87 Curve Number (CN)= 75.0
 | ID= 1 DT= 5.0 min | Ia (mm)= 7.00 # of Linear Res.(N)= 3.00
 ----- U.H. Tp(hrs)= 0.17

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----
 TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
 hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr
 0.083 0.00 | 6.167 2.33 | 12.250 21.03 | 18.33 2.63
 0.167 0.00 | 6.250 2.63 | 12.333 21.01 | 18.42 2.63
 0.250 1.61 | 6.333 2.63 | 12.417 21.01 | 18.50 2.63
 0.333 1.61 | 6.417 2.63 | 12.500 21.01 | 18.58 2.63
 0.417 1.61 | 6.500 2.63 | 12.583 21.01 | 18.67 2.63
 0.500 1.61 | 6.583 2.63 | 12.667 21.01 | 18.75 2.63
 0.583 1.61 | 6.667 2.63 | 12.750 10.80 | 18.83 2.63
 0.667 1.61 | 6.750 2.63 | 12.833 10.80 | 18.92 2.63
 0.750 1.61 | 6.833 2.63 | 12.917 10.80 | 19.00 2.63
 0.833 1.61 | 6.917 2.63 | 13.000 10.80 | 19.08 2.63
 0.917 1.61 | 7.000 2.63 | 13.083 10.80 | 19.17 2.63
 1.000 1.61 | 7.083 2.63 | 13.167 10.80 | 19.25 2.63
 1.083 1.61 | 7.167 2.63 | 13.250 7.88 | 19.33 2.63
 1.167 1.61 | 7.250 3.21 | 13.333 7.88 | 19.42 2.63
 1.250 1.61 | 7.333 3.21 | 13.417 7.88 | 19.50 2.63
 1.333 1.61 | 7.417 3.21 | 13.500 7.88 | 19.58 2.63
 1.417 1.61 | 7.500 3.21 | 13.583 7.88 | 19.67 2.63
 1.500 1.61 | 7.583 3.21 | 13.667 7.88 | 19.75 2.63
 1.583 1.61 | 7.667 3.21 | 13.750 6.13 | 19.83 2.63
 1.667 1.61 | 7.750 3.21 | 13.833 6.13 | 19.92 2.63
 1.750 1.61 | 7.833 3.21 | 13.917 6.13 | 20.00 2.63
 1.833 1.61 | 7.917 3.21 | 14.000 6.13 | 20.08 2.63
 1.917 1.61 | 8.000 3.21 | 14.083 6.13 | 20.17 2.63
 2.000 1.61 | 8.083 3.21 | 14.167 6.13 | 20.25 1.75
 2.083 1.61 | 8.167 3.21 | 14.250 4.38 | 20.33 1.75
 2.167 1.61 | 8.250 3.79 | 14.333 4.38 | 20.42 1.75
 2.250 1.90 | 8.333 3.79 | 14.417 4.38 | 20.50 1.75
 2.333 1.90 | 8.417 3.79 | 14.500 4.38 | 20.58 1.75
 2.417 1.90 | 8.500 3.79 | 14.583 4.38 | 20.67 1.75
 2.500 1.90 | 8.583 3.79 | 14.667 4.38 | 20.75 1.75
 2.583 1.90 | 8.667 3.79 | 14.750 4.38 | 20.83 1.75
 2.667 1.90 | 8.750 4.09 | 14.833 4.38 | 20.92 1.75
 2.750 1.90 | 8.833 4.09 | 14.917 4.38 | 21.00 1.75
 2.833 1.90 | 8.917 4.09 | 15.000 4.38 | 21.08 1.75
 2.917 1.90 | 9.000 4.09 | 15.083 4.38 | 21.17 1.75
 3.000 1.90 | 9.083 4.09 | 15.167 4.38 | 21.25 1.75
 3.083 1.90 | 9.167 4.09 | 15.250 4.38 | 21.33 1.75
 3.167 1.90 | 9.250 4.67 | 15.333 4.38 | 21.42 1.75
 3.250 1.90 | 9.333 4.67 | 15.417 4.38 | 21.50 1.75
 3.333 1.90 | 9.417 4.67 | 15.500 4.38 | 21.58 1.75
 3.417 1.90 | 9.500 4.67 | 15.583 4.38 | 21.67 1.75
 3.500 1.90 | 9.583 4.67 | 15.667 4.38 | 21.75 1.75
 3.583 1.90 | 9.667 4.67 | 15.750 4.38 | 21.83 1.75
 3.667 1.90 | 9.750 5.25 | 15.833 4.38 | 21.92 1.75
 3.750 1.90 | 9.833 5.25 | 15.917 4.38 | 22.00 1.75

3.833	1.90	|9.917	5.25	|16.000	4.38	|22.08	1.75
3.917	1.90	|10.000	5.25	|16.083	4.38	|22.17	1.75
4.000	1.90	|10.083	5.25	|16.167	4.38	|22.25	1.75
4.083	1.90	|10.167	5.25	|16.250	2.63	|22.33	1.75
4.167	1.90	|10.250	6.71	|16.333	2.63	|22.42	1.75
4.250	2.33	|10.333	6.71	|16.417	2.63	|22.50	1.75
4.333	2.33	|10.417	6.71	|16.500	2.63	|22.58	1.75
4.417	2.33	|10.500	6.71	|16.583	2.63	|22.67	1.75
4.500	2.33	|10.583	6.71	|16.667	2.63	|22.75	1.75
4.583	2.33	|10.667	6.71	|16.750	2.63	|22.83	1.75
4.667	2.33	|10.750	9.05	|16.833	2.63	|22.92	1.75
4.750	2.33	|10.833	9.05	|16.917	2.63	|23.00	1.75
4.833	2.33	|10.917	9.05	|17.000	2.63	|23.08	1.75
4.917	2.33	|11.000	9.05	|17.083	2.63	|23.17	1.75
5.000	2.33	|11.083	9.05	|17.167	2.63	|23.25	1.75
5.083	2.33	|11.167	9.05	|17.250	2.63	|23.33	1.75
5.167	2.33	|11.250	14.01	|17.333	2.63	|23.42	1.75
5.250	2.33	|11.333	14.01	|17.417	2.63	|23.50	1.75
5.333	2.33	|11.417	14.01	|17.500	2.63	|23.58	1.75
5.417	2.33	|11.500	14.01	|17.583	2.63	|23.67	1.75
5.500	2.33	|11.583	14.01	|17.667	2.63	|23.75	1.75
5.583	2.33	|11.667	14.01	|17.750	2.63	|23.83	1.75
5.667	2.33	|11.750	43.19	|17.833	2.63	|23.92	1.75
5.750	2.33	|11.833	43.19	|17.917	2.63	|24.00	1.75
5.833	2.33	|11.917	110.89	|18.000	2.63	|24.08	1.75
5.917	2.33	|12.000	110.90	|18.083	2.63	|24.17	1.75
6.000	2.33	|12.083	178.60	|18.167	2.63	|	
6.083	2.33	|12.167	178.61	|18.250	2.63	|	

Unit Hyd Qpeak (cms)= 1.543

PEAK FLOW (cms)= 1.618 (i)

TIME TO PEAK (hrs)= 12.167

RUNOFF VOLUME (mm)= 86.007

TOTAL RAINFALL (mm)= 145.920

RUNOFF COEFFICIENT = 0.589

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

 | CALIB |
 | NASHYD (0103) | Area (ha)= 1.48 Curve Number (CN)= 75.0
 | ID= 1 DT= 5.0 min | Ia (mm)= 7.00 # of Linear Res.(N)= 3.00
 ----- U.H. Tp(hrs)= 0.19

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	|6.167	2.33	|12.250	21.03	|18.33	2.63
0.167	0.00	|6.250	2.63	|12.333	21.01	|18.42	2.63
0.250	1.61	|6.333	2.63	|12.417	21.01	|18.50	2.63
0.333	1.61	|6.417	2.63	|12.500	21.01	|18.58	2.63
0.417	1.61	|6.500	2.63	|12.583	21.01	|18.67	2.63
0.500	1.61	|6.583	2.63	|12.667	21.01	|18.75	2.63
0.583	1.61	|6.667	2.63	|12.750	10.80	|18.83	2.63
0.667	1.61	|6.750	2.63	|12.833	10.80	|18.92	2.63
0.750	1.61	|6.833	2.63	|12.917	10.80	|19.00	2.63
0.833	1.61	|6.917	2.63	|13.000	10.80	|19.08	2.63
0.917	1.61	|7.000	2.63	|13.083	10.80	|19.17	2.63
1.000	1.61	|7.083	2.63	|13.167	10.80	|19.25	2.63
1.083	1.61	|7.167	2.63	|13.250	7.88	|19.33	2.63
1.167	1.61	|7.250	3.21	|13.333	7.88	|19.42	2.63
1.250	1.61	|7.333	3.21	|13.417	7.88	|19.50	2.63
1.333	1.61	|7.417	3.21	|13.500	7.88	|19.58	2.63
1.417	1.61	|7.500	3.21	|13.583	7.88	|19.67	2.63
1.500	1.61	|7.583	3.21	|13.667	7.88	|19.75	2.63
1.583	1.61	|7.667	3.21	|13.750	6.13	|19.83	2.63
1.667	1.61	|7.750	3.21	|13.833	6.13	|19.92	2.63
1.750	1.61	|7.833	3.21	|13.917	6.13	|20.00	2.63

1.833	1.61	7.917	3.21	14.000	6.13	20.08	2.63
1.917	1.61	8.000	3.21	14.083	6.13	20.17	2.63
2.000	1.61	8.083	3.21	14.167	6.13	20.25	1.75
2.083	1.61	8.167	3.21	14.250	4.38	20.33	1.75
2.167	1.61	8.250	3.79	14.333	4.38	20.42	1.75
2.250	1.90	8.333	3.79	14.417	4.38	20.50	1.75
2.333	1.90	8.417	3.79	14.500	4.38	20.58	1.75
2.417	1.90	8.500	3.79	14.583	4.38	20.67	1.75
2.500	1.90	8.583	3.79	14.667	4.38	20.75	1.75
2.583	1.90	8.667	3.79	14.750	4.38	20.83	1.75
2.667	1.90	8.750	4.09	14.833	4.38	20.92	1.75
2.750	1.90	8.833	4.09	14.917	4.38	21.00	1.75
2.833	1.90	8.917	4.09	15.000	4.38	21.08	1.75
2.917	1.90	9.000	4.09	15.083	4.38	21.17	1.75
3.000	1.90	9.083	4.09	15.167	4.38	21.25	1.75
3.083	1.90	9.167	4.09	15.250	4.38	21.33	1.75
3.167	1.90	9.250	4.67	15.333	4.38	21.42	1.75
3.250	1.90	9.333	4.67	15.417	4.38	21.50	1.75
3.333	1.90	9.417	4.67	15.500	4.38	21.58	1.75
3.417	1.90	9.500	4.67	15.583	4.38	21.67	1.75
3.500	1.90	9.583	4.67	15.667	4.38	21.75	1.75
3.583	1.90	9.667	4.67	15.750	4.38	21.83	1.75
3.667	1.90	9.750	5.25	15.833	4.38	21.92	1.75
3.750	1.90	9.833	5.25	15.917	4.38	22.00	1.75
3.833	1.90	9.917	5.25	16.000	4.38	22.08	1.75
3.917	1.90	10.000	5.25	16.083	4.38	22.17	1.75
4.000	1.90	10.083	5.25	16.167	4.38	22.25	1.75
4.083	1.90	10.167	5.25	16.250	2.63	22.33	1.75
4.167	1.90	10.250	6.71	16.333	2.63	22.42	1.75
4.250	2.33	10.333	6.71	16.417	2.63	22.50	1.75
4.333	2.33	10.417	6.71	16.500	2.63	22.58	1.75
4.417	2.33	10.500	6.71	16.583	2.63	22.67	1.75
4.500	2.33	10.583	6.71	16.667	2.63	22.75	1.75
4.583	2.33	10.667	6.71	16.750	2.63	22.83	1.75
4.667	2.33	10.750	9.05	16.833	2.63	22.92	1.75
4.750	2.33	10.833	9.05	16.917	2.63	23.00	1.75
4.833	2.33	10.917	9.05	17.000	2.63	23.08	1.75
4.917	2.33	11.000	9.05	17.083	2.63	23.17	1.75
5.000	2.33	11.083	9.05	17.167	2.63	23.25	1.75
5.083	2.33	11.167	9.05	17.250	2.63	23.33	1.75
5.167	2.33	11.250	14.01	17.333	2.63	23.42	1.75
5.250	2.33	11.333	14.01	17.417	2.63	23.50	1.75
5.333	2.33	11.417	14.01	17.500	2.63	23.58	1.75
5.417	2.33	11.500	14.01	17.583	2.63	23.67	1.75
5.500	2.33	11.583	14.01	17.667	2.63	23.75	1.75
5.583	2.33	11.667	14.01	17.750	2.63	23.83	1.75
5.667	2.33	11.750	43.19	17.833	2.63	23.92	1.75
5.750	2.33	11.833	43.19	17.917	2.63	24.00	1.75
5.833	2.33	11.917	110.89	18.000	2.63	24.08	1.75
5.917	2.33	12.000	110.90	18.083	2.63	24.17	1.75
6.000	2.33	12.083	178.60	18.167	2.63		
6.083	2.33	12.167	178.61	18.250	2.63		

Unit Hyd Qpeak (cms)= 0.297

PEAK FLOW (cms)= 0.332 (i)

TIME TO PEAK (hrs)= 12.250

RUNOFF VOLUME (mm)= 86.114

TOTAL RAINFALL (mm)= 145.920

RUNOFF COEFFICIENT = 0.590

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

 | ADD HYD (0008) |

| 1 + 2 = 3 | AREA QPEAK TPEAK R.V.

----- (ha) (cms) (hrs) (mm)

ID1= 1 (0101): 6.87 1.618 12.17 86.01

+ ID2= 2 (0103): 1.48 0.332 12.25 86.11

=====

ID = 3 (0008): 8.34 1.936 12.17 86.03

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| CALIB |
| NASHYD (0102) | Area (ha)= 5.81 Curve Number (CN)= 75.0
| ID= 1 DT= 5.0 min | la (mm)= 7.00 # of Linear Res.(N)= 3.00
----- U.H. Tp(hrs)= 0.25

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	2.33	12.250	21.03	18.33	2.63
0.167	0.00	6.250	2.63	12.333	21.01	18.42	2.63
0.250	1.61	6.333	2.63	12.417	21.01	18.50	2.63
0.333	1.61	6.417	2.63	12.500	21.01	18.58	2.63
0.417	1.61	6.500	2.63	12.583	21.01	18.67	2.63
0.500	1.61	6.583	2.63	12.667	21.01	18.75	2.63
0.583	1.61	6.667	2.63	12.750	10.80	18.83	2.63
0.667	1.61	6.750	2.63	12.833	10.80	18.92	2.63
0.750	1.61	6.833	2.63	12.917	10.80	19.00	2.63
0.833	1.61	6.917	2.63	13.000	10.80	19.08	2.63
0.917	1.61	7.000	2.63	13.083	10.80	19.17	2.63
1.000	1.61	7.083	2.63	13.167	10.80	19.25	2.63
1.083	1.61	7.167	2.63	13.250	7.88	19.33	2.63
1.167	1.61	7.250	3.21	13.333	7.88	19.42	2.63
1.250	1.61	7.333	3.21	13.417	7.88	19.50	2.63
1.333	1.61	7.417	3.21	13.500	7.88	19.58	2.63
1.417	1.61	7.500	3.21	13.583	7.88	19.67	2.63
1.500	1.61	7.583	3.21	13.667	7.88	19.75	2.63
1.583	1.61	7.667	3.21	13.750	6.13	19.83	2.63
1.667	1.61	7.750	3.21	13.833	6.13	19.92	2.63
1.750	1.61	7.833	3.21	13.917	6.13	20.00	2.63
1.833	1.61	7.917	3.21	14.000	6.13	20.08	2.63
1.917	1.61	8.000	3.21	14.083	6.13	20.17	2.63
2.000	1.61	8.083	3.21	14.167	6.13	20.25	1.75
2.083	1.61	8.167	3.21	14.250	4.38	20.33	1.75
2.167	1.61	8.250	3.79	14.333	4.38	20.42	1.75
2.250	1.90	8.333	3.79	14.417	4.38	20.50	1.75
2.333	1.90	8.417	3.79	14.500	4.38	20.58	1.75
2.417	1.90	8.500	3.79	14.583	4.38	20.67	1.75
2.500	1.90	8.583	3.79	14.667	4.38	20.75	1.75
2.583	1.90	8.667	3.79	14.750	4.38	20.83	1.75
2.667	1.90	8.750	4.09	14.833	4.38	20.92	1.75
2.750	1.90	8.833	4.09	14.917	4.38	21.00	1.75
2.833	1.90	8.917	4.09	15.000	4.38	21.08	1.75
2.917	1.90	9.000	4.09	15.083	4.38	21.17	1.75
3.000	1.90	9.083	4.09	15.167	4.38	21.25	1.75
3.083	1.90	9.167	4.09	15.250	4.38	21.33	1.75
3.167	1.90	9.250	4.67	15.333	4.38	21.42	1.75
3.250	1.90	9.333	4.67	15.417	4.38	21.50	1.75
3.333	1.90	9.417	4.67	15.500	4.38	21.58	1.75
3.417	1.90	9.500	4.67	15.583	4.38	21.67	1.75
3.500	1.90	9.583	4.67	15.667	4.38	21.75	1.75
3.583	1.90	9.667	4.67	15.750	4.38	21.83	1.75
3.667	1.90	9.750	5.25	15.833	4.38	21.92	1.75
3.750	1.90	9.833	5.25	15.917	4.38	22.00	1.75
3.833	1.90	9.917	5.25	16.000	4.38	22.08	1.75
3.917	1.90	10.000	5.25	16.083	4.38	22.17	1.75
4.000	1.90	10.083	5.25	16.167	4.38	22.25	1.75
4.083	1.90	10.167	5.25	16.250	2.63	22.33	1.75
4.167	1.90	10.250	6.71	16.333	2.63	22.42	1.75
4.250	2.33	10.333	6.71	16.417	2.63	22.50	1.75
4.333	2.33	10.417	6.71	16.500	2.63	22.58	1.75
4.417	2.33	10.500	6.71	16.583	2.63	22.67	1.75
4.500	2.33	10.583	6.71	16.667	2.63	22.75	1.75
4.583	2.33	10.667	6.71	16.750	2.63	22.83	1.75
4.667	2.33	10.750	9.05	16.833	2.63	22.92	1.75
4.750	2.33	10.833	9.05	16.917	2.63	23.00	1.75
4.833	2.33	10.917	9.05	17.000	2.63	23.08	1.75

4.917	2.33	11.000	9.05	17.083	2.63	23.17	1.75
5.000	2.33	11.083	9.05	17.167	2.63	23.25	1.75
5.083	2.33	11.167	9.05	17.250	2.63	23.33	1.75
5.167	2.33	11.250	14.01	17.333	2.63	23.42	1.75
5.250	2.33	11.333	14.01	17.417	2.63	23.50	1.75
5.333	2.33	11.417	14.01	17.500	2.63	23.58	1.75
5.417	2.33	11.500	14.01	17.583	2.63	23.67	1.75
5.500	2.33	11.583	14.01	17.667	2.63	23.75	1.75
5.583	2.33	11.667	14.01	17.750	2.63	23.83	1.75
5.667	2.33	11.750	43.19	17.833	2.63	23.92	1.75
5.750	2.33	11.833	43.19	17.917	2.63	24.00	1.75
5.833	2.33	11.917	110.89	18.000	2.63	24.08	1.75
5.917	2.33	12.000	110.90	18.083	2.63	24.17	1.75
6.000	2.33	12.083	178.60	18.167	2.63		
6.083	2.33	12.167	178.61	18.250	2.63		

Unit Hyd Qpeak (cms)= 0.887

PEAK FLOW (cms)= 1.110 (i)

TIME TO PEAK (hrs)= 12.250

RUNOFF VOLUME (mm)= 86.246

TOTAL RAINFALL (mm)= 145.920

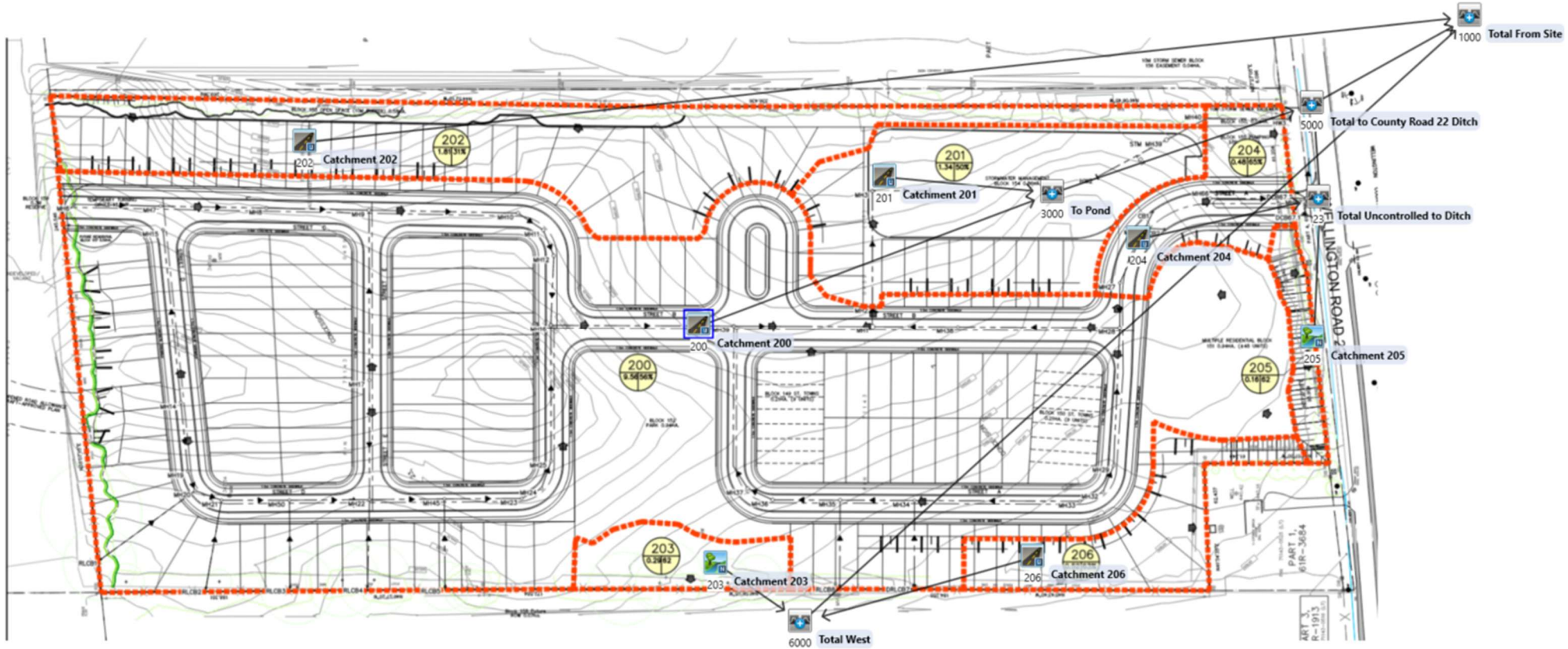
RUNOFF COEFFICIENT = 0.591

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

| ADD HYD (1000)|				
| 1 + 2 = 3 |	AREA	QPEAK	TPEAK	R.V.
-----	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0102):	5.81	1.110	12.25	86.25
+ ID2= 2 (0008):	8.34	1.936	12.17	86.03
=====				
ID = 3 (1000):	14.15	3.034	12.25	86.12

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

VO Post-Development Conditions (Uncontrolled) Schematic



VO Post-Development Conditions (Uncontrolled) Results

V V I SSSSS U U A L (v 6.2.2015)
V V I SS U U AA L
V V I SS U U AAAAA L
V V I SS U U A A L
V V I SSSSS UUUUU A A LLLLL

OOO TTTT TTTT H H Y Y M M OOO TM
O O T T H H Y Y M M M M O O
O O T T H H Y M M O O
OOO T T H H Y M M OOO

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***** DETAILED OUTPUT *****

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voain.dat
Output filename: C:\Users\ajoshi\AppData\Local\Civica\XH5\191a91e0-1a14-44fd-bc00-4941023c7dee\347df97a-c346-40ee-bd09-45000a5e976e\scena
Summary filename: C:\Users\ajoshi\AppData\Local\Civica\XH5\191a91e0-1a14-44fd-bc00-4941023c7dee\347df97a-c346-40ee-bd09-45000a5e976e\scena

DATE: 12-03-2025 TIME: 03:06:32

USER:

COMMENTS: _____

** SIMULATION : 2_2yr 24hr 10min SCS Type II **

| READ STORM | Filename: C:\Users\ajoshi\AppData
| | ata\Local\Temp\
| | 2fba504a-caba-47c3-acc7-4c3af63c1cb9\6dcf778f
| Ptotal= 67.15 mm | Comments: 2yr 24hr 10min SCS Type II

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	9.67	18.50	1.21
0.17	0.74	6.33	1.21	12.50	9.67	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	2.01	20.33	0.81
2.00	0.74	8.17	1.75	14.33	2.01	20.50	0.81
2.17	0.87	8.33	1.75	14.50	2.01	20.67	0.81
2.33	0.87	8.50	1.75	14.67	2.01	20.83	0.81
2.50	0.87	8.67	1.88	14.83	2.01	21.00	0.81
2.67	0.87	8.83	1.88	15.00	2.01	21.17	0.81
2.83	0.87	9.00	1.88	15.17	2.01	21.33	0.81
3.00	0.87	9.17	2.15	15.33	2.01	21.50	0.81
3.17	0.87	9.33	2.15	15.50	2.01	21.67	0.81

3.33	0.87	9.50	2.15	15.67	2.01	21.83	0.81
3.50	0.87	9.67	2.42	15.83	2.01	22.00	0.81
3.67	0.87	9.83	2.42	16.00	2.01	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	1.07	10.33	3.09	16.50	1.21	22.67	0.81
4.33	1.07	10.50	3.09	16.67	1.21	22.83	0.81
4.50	1.07	10.67	4.16	16.83	1.21	23.00	0.81
4.67	1.07	10.83	4.16	17.00	1.21	23.17	0.81
4.83	1.07	11.00	4.16	17.17	1.21	23.33	0.81
5.00	1.07	11.17	6.45	17.33	1.21	23.50	0.81
5.17	1.07	11.33	6.45	17.50	1.21	23.67	0.81
5.33	1.07	11.50	6.45	17.67	1.21	23.83	0.81
5.50	1.07	11.67	19.88	17.83	1.21	24.00	0.81
5.67	1.07	11.83	51.03	18.00	1.21		
5.83	1.07	12.00	82.19	18.17	1.21		
6.00	1.07	12.17	9.67	18.33	1.21		

| CALIB |
| NASHYD (0203) | Area (ha)= 0.29 Curve Number (CN)= 62.0
| ID= 1 DT= 5.0 min | Ia (mm)= 5.00 # of Linear Res.(N)= 3.00
----- U.H. Tp(hrs)= 0.17

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.07	12.250	9.68	18.33	1.21
0.167	0.00	6.250	1.21	12.333	9.67	18.42	1.21
0.250	0.74	6.333	1.21	12.417	9.67	18.50	1.21
0.333	0.74	6.417	1.21	12.500	9.67	18.58	1.21
0.417	0.74	6.500	1.21	12.583	9.67	18.67	1.21
0.500	0.74	6.583	1.21	12.667	9.67	18.75	1.21
0.583	0.74	6.667	1.21	12.750	4.97	18.83	1.21
0.667	0.74	6.750	1.21	12.833	4.97	18.92	1.21
0.750	0.74	6.833	1.21	12.917	4.97	19.00	1.21
0.833	0.74	6.917	1.21	13.000	4.97	19.08	1.21
0.917	0.74	7.000	1.21	13.083	4.97	19.17	1.21
1.000	0.74	7.083	1.21	13.167	4.97	19.25	1.21
1.083	0.74	7.167	1.21	13.250	3.63	19.33	1.21
1.167	0.74	7.250	1.48	13.333	3.63	19.42	1.21
1.250	0.74	7.333	1.48	13.417	3.63	19.50	1.21
1.333	0.74	7.417	1.48	13.500	3.63	19.58	1.21
1.417	0.74	7.500	1.48	13.583	3.63	19.67	1.21
1.500	0.74	7.583	1.48	13.667	3.63	19.75	1.21
1.583	0.74	7.667	1.48	13.750	2.82	19.83	1.21
1.667	0.74	7.750	1.48	13.833	2.82	19.92	1.21
1.750	0.74	7.833	1.48	13.917	2.82	20.00	1.21
1.833	0.74	7.917	1.48	14.000	2.82	20.08	1.21
1.917	0.74	8.000	1.48	14.083	2.82	20.17	1.21
2.000	0.74	8.083	1.48	14.167	2.82	20.25	0.81
2.083	0.74	8.167	1.48	14.250	2.01	20.33	0.81
2.167	0.74	8.250	1.75	14.333	2.01	20.42	0.81
2.250	0.87	8.333	1.75	14.417	2.01	20.50	0.81
2.333	0.87	8.417	1.75	14.500	2.01	20.58	0.81
2.417	0.87	8.500	1.75	14.583	2.01	20.67	0.81
2.500	0.87	8.583	1.75	14.667	2.01	20.75	0.81
2.583	0.87	8.667	1.75	14.750	2.01	20.83	0.81
2.667	0.87	8.750	1.88	14.833	2.01	20.92	0.81
2.750	0.87	8.833	1.88	14.917	2.01	21.00	0.81
2.833	0.87	8.917	1.88	15.000	2.01	21.08	0.81
2.917	0.87	9.000	1.88	15.083	2.01	21.17	0.81
3.000	0.87	9.083	1.88	15.167	2.01	21.25	0.81
3.083	0.87	9.167	1.88	15.250	2.01	21.33	0.81
3.167	0.87	9.250	2.15	15.333	2.01	21.42	0.81
3.250	0.87	9.333	2.15	15.417	2.01	21.50	0.81
3.333	0.87	9.417	2.15	15.500	2.01	21.58	0.81
3.417	0.87	9.500	2.15	15.583	2.01	21.67	0.81

3.500	0.87	|9.583	2.15	|15.667	2.01	|21.75	0.81
3.583	0.87	|9.667	2.15	|15.750	2.01	|21.83	0.81
3.667	0.87	|9.750	2.42	|15.833	2.01	|21.92	0.81
3.750	0.87	|9.833	2.42	|15.917	2.01	|22.00	0.81
3.833	0.87	|9.917	2.42	|16.000	2.01	|22.08	0.81
3.917	0.87	|10.000	2.42	|16.083	2.01	|22.17	0.81
4.000	0.87	|10.083	2.42	|16.167	2.01	|22.25	0.81
4.083	0.87	|10.167	2.42	|16.250	1.21	|22.33	0.81
4.167	0.87	|10.250	3.09	|16.333	1.21	|22.42	0.81
4.250	1.07	|10.333	3.09	|16.417	1.21	|22.50	0.81
4.333	1.07	|10.417	3.09	|16.500	1.21	|22.58	0.81
4.417	1.07	|10.500	3.09	|16.583	1.21	|22.67	0.81
4.500	1.07	|10.583	3.09	|16.667	1.21	|22.75	0.81
4.583	1.07	|10.667	3.09	|16.750	1.21	|22.83	0.81
4.667	1.07	|10.750	4.16	|16.833	1.21	|22.92	0.81
4.750	1.07	|10.833	4.16	|16.917	1.21	|23.00	0.81
4.833	1.07	|10.917	4.16	|17.000	1.21	|23.08	0.81
4.917	1.07	|11.000	4.16	|17.083	1.21	|23.17	0.81
5.000	1.07	|11.083	4.16	|17.167	1.21	|23.25	0.81
5.083	1.07	|11.167	4.16	|17.250	1.21	|23.33	0.81
5.167	1.07	|11.250	6.45	|17.333	1.21	|23.42	0.81
5.250	1.07	|11.333	6.45	|17.417	1.21	|23.50	0.81
5.333	1.07	|11.417	6.45	|17.500	1.21	|23.58	0.81
5.417	1.07	|11.500	6.45	|17.583	1.21	|23.67	0.81
5.500	1.07	|11.583	6.45	|17.667	1.21	|23.75	0.81
5.583	1.07	|11.667	6.45	|17.750	1.21	|23.83	0.81
5.667	1.07	|11.750	19.87	|17.833	1.21	|23.92	0.81
5.750	1.07	|11.833	19.88	|17.917	1.21	|24.00	0.81
5.833	1.07	|11.917	51.03	|18.000	1.21	|24.08	0.81
5.917	1.07	|12.000	51.03	|18.083	1.21	|24.17	0.81
6.000	1.07	|12.083	82.19	|18.167	1.21	|	
6.083	1.07	|12.167	82.19	|18.250	1.21	|	

Unit Hyd Qpeak (cms)= 0.064

PEAK FLOW (cms)= 0.013 (i)
 TIME TO PEAK (hrs)= 12.250
 RUNOFF VOLUME (mm)= 17.668
 TOTAL RAINFALL (mm)= 67.150
 RUNOFF COEFFICIENT = 0.263

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

 | CALIB |
 | STANDHYD (0206) | Area (ha)= 0.52
 | ID= 1 DT= 5.0 min | Total Imp(%)= 63.00 Dir. Conn.(%)= 49.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.33	0.19
Dep. Storage (mm)=	1.50	5.00
Average Slope (%)=	2.00	2.00
Length (m)=	59.10	15.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	|6.167	1.07	|12.250	9.68	|18.33	1.21
0.167	0.00	|6.250	1.21	|12.333	9.67	|18.42	1.21
0.250	0.74	|6.333	1.21	|12.417	9.67	|18.50	1.21
0.333	0.74	|6.417	1.21	|12.500	9.67	|18.58	1.21
0.417	0.74	|6.500	1.21	|12.583	9.67	|18.67	1.21
0.500	0.74	|6.583	1.21	|12.667	9.67	|18.75	1.21
0.583	0.74	|6.667	1.21	|12.750	4.97	|18.83	1.21
0.667	0.74	|6.750	1.21	|12.833	4.97	|18.92	1.21
0.750	0.74	|6.833	1.21	|12.917	4.97	|19.00	1.21
0.833	0.74	|6.917	1.21	|13.000	4.97	|19.08	1.21
0.917	0.74	|7.000	1.21	|13.083	4.97	|19.17	1.21

1.000	0.74	| 7.083	1.21	| 13.167	4.97	| 19.25	1.21
1.083	0.74	| 7.167	1.21	| 13.250	3.63	| 19.33	1.21
1.167	0.74	| 7.250	1.48	| 13.333	3.63	| 19.42	1.21
1.250	0.74	| 7.333	1.48	| 13.417	3.63	| 19.50	1.21
1.333	0.74	| 7.417	1.48	| 13.500	3.63	| 19.58	1.21
1.417	0.74	| 7.500	1.48	| 13.583	3.63	| 19.67	1.21
1.500	0.74	| 7.583	1.48	| 13.667	3.63	| 19.75	1.21
1.583	0.74	| 7.667	1.48	| 13.750	2.82	| 19.83	1.21
1.667	0.74	| 7.750	1.48	| 13.833	2.82	| 19.92	1.21
1.750	0.74	| 7.833	1.48	| 13.917	2.82	| 20.00	1.21
1.833	0.74	| 7.917	1.48	| 14.000	2.82	| 20.08	1.21
1.917	0.74	| 8.000	1.48	| 14.083	2.82	| 20.17	1.21
2.000	0.74	| 8.083	1.48	| 14.167	2.82	| 20.25	0.81
2.083	0.74	| 8.167	1.48	| 14.250	2.01	| 20.33	0.81
2.167	0.74	| 8.250	1.75	| 14.333	2.01	| 20.42	0.81
2.250	0.87	| 8.333	1.75	| 14.417	2.01	| 20.50	0.81
2.333	0.87	| 8.417	1.75	| 14.500	2.01	| 20.58	0.81
2.417	0.87	| 8.500	1.75	| 14.583	2.01	| 20.67	0.81
2.500	0.87	| 8.583	1.75	| 14.667	2.01	| 20.75	0.81
2.583	0.87	| 8.667	1.75	| 14.750	2.01	| 20.83	0.81
2.667	0.87	| 8.750	1.88	| 14.833	2.01	| 20.92	0.81
2.750	0.87	| 8.833	1.88	| 14.917	2.01	| 21.00	0.81
2.833	0.87	| 8.917	1.88	| 15.000	2.01	| 21.08	0.81
2.917	0.87	| 9.000	1.88	| 15.083	2.01	| 21.17	0.81
3.000	0.87	| 9.083	1.88	| 15.167	2.01	| 21.25	0.81
3.083	0.87	| 9.167	1.88	| 15.250	2.01	| 21.33	0.81
3.167	0.87	| 9.250	2.15	| 15.333	2.01	| 21.42	0.81
3.250	0.87	| 9.333	2.15	| 15.417	2.01	| 21.50	0.81
3.333	0.87	| 9.417	2.15	| 15.500	2.01	| 21.58	0.81
3.417	0.87	| 9.500	2.15	| 15.583	2.01	| 21.67	0.81
3.500	0.87	| 9.583	2.15	| 15.667	2.01	| 21.75	0.81
3.583	0.87	| 9.667	2.15	| 15.750	2.01	| 21.83	0.81
3.667	0.87	| 9.750	2.42	| 15.833	2.01	| 21.92	0.81
3.750	0.87	| 9.833	2.42	| 15.917	2.01	| 22.00	0.81
3.833	0.87	| 9.917	2.42	| 16.000	2.01	| 22.08	0.81
3.917	0.87	| 10.000	2.42	| 16.083	2.01	| 22.17	0.81
4.000	0.87	| 10.083	2.42	| 16.167	2.01	| 22.25	0.81
4.083	0.87	| 10.167	2.42	| 16.250	1.21	| 22.33	0.81
4.167	0.87	| 10.250	3.09	| 16.333	1.21	| 22.42	0.81
4.250	1.07	| 10.333	3.09	| 16.417	1.21	| 22.50	0.81
4.333	1.07	| 10.417	3.09	| 16.500	1.21	| 22.58	0.81
4.417	1.07	| 10.500	3.09	| 16.583	1.21	| 22.67	0.81
4.500	1.07	| 10.583	3.09	| 16.667	1.21	| 22.75	0.81
4.583	1.07	| 10.667	3.09	| 16.750	1.21	| 22.83	0.81
4.667	1.07	| 10.750	4.16	| 16.833	1.21	| 22.92	0.81
4.750	1.07	| 10.833	4.16	| 16.917	1.21	| 23.00	0.81
4.833	1.07	| 10.917	4.16	| 17.000	1.21	| 23.08	0.81
4.917	1.07	| 11.000	4.16	| 17.083	1.21	| 23.17	0.81
5.000	1.07	| 11.083	4.16	| 17.167	1.21	| 23.25	0.81
5.083	1.07	| 11.167	4.16	| 17.250	1.21	| 23.33	0.81
5.167	1.07	| 11.250	6.45	| 17.333	1.21	| 23.42	0.81
5.250	1.07	| 11.333	6.45	| 17.417	1.21	| 23.50	0.81
5.333	1.07	| 11.417	6.45	| 17.500	1.21	| 23.58	0.81
5.417	1.07	| 11.500	6.45	| 17.583	1.21	| 23.67	0.81
5.500	1.07	| 11.583	6.45	| 17.667	1.21	| 23.75	0.81
5.583	1.07	| 11.667	6.45	| 17.750	1.21	| 23.83	0.81
5.667	1.07	| 11.750	19.87	| 17.833	1.21	| 23.92	0.81
5.750	1.07	| 11.833	19.88	| 17.917	1.21	| 24.00	0.81
5.833	1.07	| 11.917	51.03	| 18.000	1.21	| 24.08	0.81
5.917	1.07	| 12.000	51.03	| 18.083	1.21	| 24.17	0.81
6.000	1.07	| 12.083	82.19	| 18.167	1.21	|	
6.083	1.07	| 12.167	82.19	| 18.250	1.21	|	

Max.Eff.Inten.(mm/hr)= 82.19 46.25
over (min) 5.00 10.00

Storage Coeff. (min)= 1.64 (ii) 5.42 (ii)

Unit Hyd. Tpeak (min)= 5.00 10.00

Unit Hyd. peak (cms)= 0.32 0.16

TOTALS

PEAK FLOW (cms)= 0.06 0.02 0.079 (iii)

TIME TO PEAK (hrs)= 12.17 12.17 12.17

RUNOFF VOLUME (mm)= 65.65 22.87 43.83

TOTAL RAINFALL (mm)= 67.15 67.15 67.15

RUNOFF COEFFICIENT = 0.98 0.34 0.65

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 62.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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-----
|ADD HYD ( 6000)|
| 1+ 2= 3 | AREA QPEAK TPEAK R.V.
----- (ha) (cms) (hrs) (mm)
ID1= 1 ( 0203): 0.29 0.013 12.25 17.67
+ ID2= 2 ( 0206): 0.52 0.079 12.17 43.83
=====
ID = 3 ( 6000): 0.81 0.092 12.17 34.57

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NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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| CALIB |
| NASHYD ( 0205) | Area (ha)= 0.16 Curve Number (CN)= 62.0
| ID= 1 DT= 5.0 min | Ia (mm)= 5.00 # of Linear Res.(N)= 3.00
----- U.H. Tp(hrs)= 0.17

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NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.07	12.250	9.68	18.33	1.21
0.167	0.00	6.250	1.21	12.333	9.67	18.42	1.21
0.250	0.74	6.333	1.21	12.417	9.67	18.50	1.21
0.333	0.74	6.417	1.21	12.500	9.67	18.58	1.21
0.417	0.74	6.500	1.21	12.583	9.67	18.67	1.21
0.500	0.74	6.583	1.21	12.667	9.67	18.75	1.21
0.583	0.74	6.667	1.21	12.750	4.97	18.83	1.21
0.667	0.74	6.750	1.21	12.833	4.97	18.92	1.21
0.750	0.74	6.833	1.21	12.917	4.97	19.00	1.21
0.833	0.74	6.917	1.21	13.000	4.97	19.08	1.21
0.917	0.74	7.000	1.21	13.083	4.97	19.17	1.21
1.000	0.74	7.083	1.21	13.167	4.97	19.25	1.21
1.083	0.74	7.167	1.21	13.250	3.63	19.33	1.21
1.167	0.74	7.250	1.48	13.333	3.63	19.42	1.21
1.250	0.74	7.333	1.48	13.417	3.63	19.50	1.21
1.333	0.74	7.417	1.48	13.500	3.63	19.58	1.21
1.417	0.74	7.500	1.48	13.583	3.63	19.67	1.21
1.500	0.74	7.583	1.48	13.667	3.63	19.75	1.21
1.583	0.74	7.667	1.48	13.750	2.82	19.83	1.21
1.667	0.74	7.750	1.48	13.833	2.82	19.92	1.21
1.750	0.74	7.833	1.48	13.917	2.82	20.00	1.21
1.833	0.74	7.917	1.48	14.000	2.82	20.08	1.21
1.917	0.74	8.000	1.48	14.083	2.82	20.17	1.21
2.000	0.74	8.083	1.48	14.167	2.82	20.25	0.81
2.083	0.74	8.167	1.48	14.250	2.01	20.33	0.81
2.167	0.74	8.250	1.75	14.333	2.01	20.42	0.81
2.250	0.87	8.333	1.75	14.417	2.01	20.50	0.81
2.333	0.87	8.417	1.75	14.500	2.01	20.58	0.81
2.417	0.87	8.500	1.75	14.583	2.01	20.67	0.81
2.500	0.87	8.583	1.75	14.667	2.01	20.75	0.81
2.583	0.87	8.667	1.75	14.750	2.01	20.83	0.81
2.667	0.87	8.750	1.88	14.833	2.01	20.92	0.81
2.750	0.87	8.833	1.88	14.917	2.01	21.00	0.81
2.833	0.87	8.917	1.88	15.000	2.01	21.08	0.81
2.917	0.87	9.000	1.88	15.083	2.01	21.17	0.81
3.000	0.87	9.083	1.88	15.167	2.01	21.25	0.81
3.083	0.87	9.167	1.88	15.250	2.01	21.33	0.81
3.167	0.87	9.250	2.15	15.333	2.01	21.42	0.81

3.250	0.87	9.333	2.15	15.417	2.01	21.50	0.81
3.333	0.87	9.417	2.15	15.500	2.01	21.58	0.81
3.417	0.87	9.500	2.15	15.583	2.01	21.67	0.81
3.500	0.87	9.583	2.15	15.667	2.01	21.75	0.81
3.583	0.87	9.667	2.15	15.750	2.01	21.83	0.81
3.667	0.87	9.750	2.42	15.833	2.01	21.92	0.81
3.750	0.87	9.833	2.42	15.917	2.01	22.00	0.81
3.833	0.87	9.917	2.42	16.000	2.01	22.08	0.81
3.917	0.87	10.000	2.42	16.083	2.01	22.17	0.81
4.000	0.87	10.083	2.42	16.167	2.01	22.25	0.81
4.083	0.87	10.167	2.42	16.250	1.21	22.33	0.81
4.167	0.87	10.250	3.09	16.333	1.21	22.42	0.81
4.250	1.07	10.333	3.09	16.417	1.21	22.50	0.81
4.333	1.07	10.417	3.09	16.500	1.21	22.58	0.81
4.417	1.07	10.500	3.09	16.583	1.21	22.67	0.81
4.500	1.07	10.583	3.09	16.667	1.21	22.75	0.81
4.583	1.07	10.667	3.09	16.750	1.21	22.83	0.81
4.667	1.07	10.750	4.16	16.833	1.21	22.92	0.81
4.750	1.07	10.833	4.16	16.917	1.21	23.00	0.81
4.833	1.07	10.917	4.16	17.000	1.21	23.08	0.81
4.917	1.07	11.000	4.16	17.083	1.21	23.17	0.81
5.000	1.07	11.083	4.16	17.167	1.21	23.25	0.81
5.083	1.07	11.167	4.16	17.250	1.21	23.33	0.81
5.167	1.07	11.250	6.45	17.333	1.21	23.42	0.81
5.250	1.07	11.333	6.45	17.417	1.21	23.50	0.81
5.333	1.07	11.417	6.45	17.500	1.21	23.58	0.81
5.417	1.07	11.500	6.45	17.583	1.21	23.67	0.81
5.500	1.07	11.583	6.45	17.667	1.21	23.75	0.81
5.583	1.07	11.667	6.45	17.750	1.21	23.83	0.81
5.667	1.07	11.750	19.87	17.833	1.21	23.92	0.81
5.750	1.07	11.833	19.88	17.917	1.21	24.00	0.81
5.833	1.07	11.917	51.03	18.000	1.21	24.08	0.81
5.917	1.07	12.000	51.03	18.083	1.21	24.17	0.81
6.000	1.07	12.083	82.19	18.167	1.21		
6.083	1.07	12.167	82.19	18.250	1.21		

Unit Hyd Qpeak (cms)= 0.035

PEAK FLOW (cms)= 0.007 (i)
 TIME TO PEAK (hrs)= 12.250
 RUNOFF VOLUME (mm)= 17.666
 TOTAL RAINFALL (mm)= 67.150
 RUNOFF COEFFICIENT = 0.263

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

 | CALIB |
 | STANDHYD (0204) | Area (ha)= 0.48
 | ID= 1 DT= 5.0 min | Total Imp(%)= 73.00 Dir. Conn.(%)= 73.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.35	0.13
Dep. Storage (mm)=	1.50	5.00
Average Slope (%)=	5.00	5.00
Length (m)=	56.57	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.07	12.250	9.68	18.33	1.21
0.167	0.00	6.250	1.21	12.333	9.67	18.42	1.21
0.250	0.74	6.333	1.21	12.417	9.67	18.50	1.21
0.333	0.74	6.417	1.21	12.500	9.67	18.58	1.21
0.417	0.74	6.500	1.21	12.583	9.67	18.67	1.21
0.500	0.74	6.583	1.21	12.667	9.67	18.75	1.21
0.583	0.74	6.667	1.21	12.750	4.97	18.83	1.21
0.667	0.74	6.750	1.21	12.833	4.97	18.92	1.21

0.750	0.74	6.833	1.21	12.917	4.97	19.00	1.21
0.833	0.74	6.917	1.21	13.000	4.97	19.08	1.21
0.917	0.74	7.000	1.21	13.083	4.97	19.17	1.21
1.000	0.74	7.083	1.21	13.167	4.97	19.25	1.21
1.083	0.74	7.167	1.21	13.250	3.63	19.33	1.21
1.167	0.74	7.250	1.48	13.333	3.63	19.42	1.21
1.250	0.74	7.333	1.48	13.417	3.63	19.50	1.21
1.333	0.74	7.417	1.48	13.500	3.63	19.58	1.21
1.417	0.74	7.500	1.48	13.583	3.63	19.67	1.21
1.500	0.74	7.583	1.48	13.667	3.63	19.75	1.21
1.583	0.74	7.667	1.48	13.750	2.82	19.83	1.21
1.667	0.74	7.750	1.48	13.833	2.82	19.92	1.21
1.750	0.74	7.833	1.48	13.917	2.82	20.00	1.21
1.833	0.74	7.917	1.48	14.000	2.82	20.08	1.21
1.917	0.74	8.000	1.48	14.083	2.82	20.17	1.21
2.000	0.74	8.083	1.48	14.167	2.82	20.25	0.81
2.083	0.74	8.167	1.48	14.250	2.01	20.33	0.81
2.167	0.74	8.250	1.75	14.333	2.01	20.42	0.81
2.250	0.87	8.333	1.75	14.417	2.01	20.50	0.81
2.333	0.87	8.417	1.75	14.500	2.01	20.58	0.81
2.417	0.87	8.500	1.75	14.583	2.01	20.67	0.81
2.500	0.87	8.583	1.75	14.667	2.01	20.75	0.81
2.583	0.87	8.667	1.75	14.750	2.01	20.83	0.81
2.667	0.87	8.750	1.88	14.833	2.01	20.92	0.81
2.750	0.87	8.833	1.88	14.917	2.01	21.00	0.81
2.833	0.87	8.917	1.88	15.000	2.01	21.08	0.81
2.917	0.87	9.000	1.88	15.083	2.01	21.17	0.81
3.000	0.87	9.083	1.88	15.167	2.01	21.25	0.81
3.083	0.87	9.167	1.88	15.250	2.01	21.33	0.81
3.167	0.87	9.250	2.15	15.333	2.01	21.42	0.81
3.250	0.87	9.333	2.15	15.417	2.01	21.50	0.81
3.333	0.87	9.417	2.15	15.500	2.01	21.58	0.81
3.417	0.87	9.500	2.15	15.583	2.01	21.67	0.81
3.500	0.87	9.583	2.15	15.667	2.01	21.75	0.81
3.583	0.87	9.667	2.15	15.750	2.01	21.83	0.81
3.667	0.87	9.750	2.42	15.833	2.01	21.92	0.81
3.750	0.87	9.833	2.42	15.917	2.01	22.00	0.81
3.833	0.87	9.917	2.42	16.000	2.01	22.08	0.81
3.917	0.87	10.000	2.42	16.083	2.01	22.17	0.81
4.000	0.87	10.083	2.42	16.167	2.01	22.25	0.81
4.083	0.87	10.167	2.42	16.250	1.21	22.33	0.81
4.167	0.87	10.250	3.09	16.333	1.21	22.42	0.81
4.250	1.07	10.333	3.09	16.417	1.21	22.50	0.81
4.333	1.07	10.417	3.09	16.500	1.21	22.58	0.81
4.417	1.07	10.500	3.09	16.583	1.21	22.67	0.81
4.500	1.07	10.583	3.09	16.667	1.21	22.75	0.81
4.583	1.07	10.667	3.09	16.750	1.21	22.83	0.81
4.667	1.07	10.750	4.16	16.833	1.21	22.92	0.81
4.750	1.07	10.833	4.16	16.917	1.21	23.00	0.81
4.833	1.07	10.917	4.16	17.000	1.21	23.08	0.81
4.917	1.07	11.000	4.16	17.083	1.21	23.17	0.81
5.000	1.07	11.083	4.16	17.167	1.21	23.25	0.81
5.083	1.07	11.167	4.16	17.250	1.21	23.33	0.81
5.167	1.07	11.250	6.45	17.333	1.21	23.42	0.81
5.250	1.07	11.333	6.45	17.417	1.21	23.50	0.81
5.333	1.07	11.417	6.45	17.500	1.21	23.58	0.81
5.417	1.07	11.500	6.45	17.583	1.21	23.67	0.81
5.500	1.07	11.583	6.45	17.667	1.21	23.75	0.81
5.583	1.07	11.667	6.45	17.750	1.21	23.83	0.81
5.667	1.07	11.750	19.87	17.833	1.21	23.92	0.81
5.750	1.07	11.833	19.88	17.917	1.21	24.00	0.81
5.833	1.07	11.917	51.03	18.000	1.21	24.08	0.81
5.917	1.07	12.000	51.03	18.083	1.21	24.17	0.81
6.000	1.07	12.083	82.19	18.167	1.21		
6.083	1.07	12.167	82.19	18.250	1.21		

Max.Eff.Inten.(mm/hr)= 82.19 25.97
over (min) 5.00 10.00

Storage Coeff. (min)= 1.21 (ii) 5.11 (ii)

Unit Hyd. Tpeak (min)= 5.00 10.00

Unit Hyd. peak (cms)= 0.33 0.16

TOTALS

PEAK FLOW (cms)= 0.08 0.01 0.088 (iii)

TIME TO PEAK (hrs)= 12.17 12.17 12.17
 RUNOFF VOLUME (mm)= 65.65 17.73 52.71
 TOTAL RAINFALL (mm)= 67.15 67.15 67.15
 RUNOFF COEFFICIENT = 0.98 0.26 0.78

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 62.0 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 (0023)|
 | 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
 ----- (ha) (cms) (hrs) (mm)
 ID1= 1 (0204): 0.48 0.088 12.17 52.71
 + ID2= 2 (0205): 0.16 0.007 12.25 17.67
 =====
 ID = 3 (0023): 0.64 0.095 12.17 44.03

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | CALIB |
 | STANDHYD (0200)| Area (ha)= 9.56
 | ID= 1 DT= 5.0 min | Total Imp(%)= 56.00 Dir. Conn.(%)= 46.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 5.35 4.21
 Dep. Storage (mm)= 1.50 5.00
 Average Slope (%)= 2.00 2.00
 Length (m)= 252.45 30.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.07	12.250	9.68	18.33	1.21
0.167	0.00	6.250	1.21	12.333	9.67	18.42	1.21
0.250	0.74	6.333	1.21	12.417	9.67	18.50	1.21
0.333	0.74	6.417	1.21	12.500	9.67	18.58	1.21
0.417	0.74	6.500	1.21	12.583	9.67	18.67	1.21
0.500	0.74	6.583	1.21	12.667	9.67	18.75	1.21
0.583	0.74	6.667	1.21	12.750	4.97	18.83	1.21
0.667	0.74	6.750	1.21	12.833	4.97	18.92	1.21
0.750	0.74	6.833	1.21	12.917	4.97	19.00	1.21
0.833	0.74	6.917	1.21	13.000	4.97	19.08	1.21
0.917	0.74	7.000	1.21	13.083	4.97	19.17	1.21
1.000	0.74	7.083	1.21	13.167	4.97	19.25	1.21
1.083	0.74	7.167	1.21	13.250	3.63	19.33	1.21
1.167	0.74	7.250	1.48	13.333	3.63	19.42	1.21
1.250	0.74	7.333	1.48	13.417	3.63	19.50	1.21
1.333	0.74	7.417	1.48	13.500	3.63	19.58	1.21
1.417	0.74	7.500	1.48	13.583	3.63	19.67	1.21
1.500	0.74	7.583	1.48	13.667	3.63	19.75	1.21
1.583	0.74	7.667	1.48	13.750	2.82	19.83	1.21
1.667	0.74	7.750	1.48	13.833	2.82	19.92	1.21
1.750	0.74	7.833	1.48	13.917	2.82	20.00	1.21
1.833	0.74	7.917	1.48	14.000	2.82	20.08	1.21
1.917	0.74	8.000	1.48	14.083	2.82	20.17	1.21
2.000	0.74	8.083	1.48	14.167	2.82	20.25	0.81
2.083	0.74	8.167	1.48	14.250	2.01	20.33	0.81
2.167	0.74	8.250	1.75	14.333	2.01	20.42	0.81
2.250	0.87	8.333	1.75	14.417	2.01	20.50	0.81
2.333	0.87	8.417	1.75	14.500	2.01	20.58	0.81
2.417	0.87	8.500	1.75	14.583	2.01	20.67	0.81

2.500	0.87	8.583	1.75	14.667	2.01	20.75	0.81
2.583	0.87	8.667	1.75	14.750	2.01	20.83	0.81
2.667	0.87	8.750	1.88	14.833	2.01	20.92	0.81
2.750	0.87	8.833	1.88	14.917	2.01	21.00	0.81
2.833	0.87	8.917	1.88	15.000	2.01	21.08	0.81
2.917	0.87	9.000	1.88	15.083	2.01	21.17	0.81
3.000	0.87	9.083	1.88	15.167	2.01	21.25	0.81
3.083	0.87	9.167	1.88	15.250	2.01	21.33	0.81
3.167	0.87	9.250	2.15	15.333	2.01	21.42	0.81
3.250	0.87	9.333	2.15	15.417	2.01	21.50	0.81
3.333	0.87	9.417	2.15	15.500	2.01	21.58	0.81
3.417	0.87	9.500	2.15	15.583	2.01	21.67	0.81
3.500	0.87	9.583	2.15	15.667	2.01	21.75	0.81
3.583	0.87	9.667	2.15	15.750	2.01	21.83	0.81
3.667	0.87	9.750	2.42	15.833	2.01	21.92	0.81
3.750	0.87	9.833	2.42	15.917	2.01	22.00	0.81
3.833	0.87	9.917	2.42	16.000	2.01	22.08	0.81
3.917	0.87	10.000	2.42	16.083	2.01	22.17	0.81
4.000	0.87	10.083	2.42	16.167	2.01	22.25	0.81
4.083	0.87	10.167	2.42	16.250	1.21	22.33	0.81
4.167	0.87	10.250	3.09	16.333	1.21	22.42	0.81
4.250	1.07	10.333	3.09	16.417	1.21	22.50	0.81
4.333	1.07	10.417	3.09	16.500	1.21	22.58	0.81
4.417	1.07	10.500	3.09	16.583	1.21	22.67	0.81
4.500	1.07	10.583	3.09	16.667	1.21	22.75	0.81
4.583	1.07	10.667	3.09	16.750	1.21	22.83	0.81
4.667	1.07	10.750	4.16	16.833	1.21	22.92	0.81
4.750	1.07	10.833	4.16	16.917	1.21	23.00	0.81
4.833	1.07	10.917	4.16	17.000	1.21	23.08	0.81
4.917	1.07	11.000	4.16	17.083	1.21	23.17	0.81
5.000	1.07	11.083	4.16	17.167	1.21	23.25	0.81
5.083	1.07	11.167	4.16	17.250	1.21	23.33	0.81
5.167	1.07	11.250	6.45	17.333	1.21	23.42	0.81
5.250	1.07	11.333	6.45	17.417	1.21	23.50	0.81
5.333	1.07	11.417	6.45	17.500	1.21	23.58	0.81
5.417	1.07	11.500	6.45	17.583	1.21	23.67	0.81
5.500	1.07	11.583	6.45	17.667	1.21	23.75	0.81
5.583	1.07	11.667	6.45	17.750	1.21	23.83	0.81
5.667	1.07	11.750	19.87	17.833	1.21	23.92	0.81
5.750	1.07	11.833	19.88	17.917	1.21	24.00	0.81
5.833	1.07	11.917	51.03	18.000	1.21	24.08	0.81
5.917	1.07	12.000	51.03	18.083	1.21	24.17	0.81
6.000	1.07	12.083	82.19	18.167	1.21		
6.083	1.07	12.167	82.19	18.250	1.21		

Max.Eff.Inten.(mm/hr)= 82.19 37.71
over (min) 5.00 15.00

Storage Coeff. (min)= 3.91 (ii) 12.68 (ii)

Unit Hyd. Tpeak (min)= 5.00 15.00

Unit Hyd. peak (cms)= 0.25 0.08

TOTALS

PEAK FLOW (cms)= 0.97 0.25 1.177 (iii)

TIME TO PEAK (hrs)= 12.17 12.25 12.17

RUNOFF VOLUME (mm)= 65.65 20.95 41.51

TOTAL RAINFALL (mm)= 67.15 67.15 67.15

RUNOFF COEFFICIENT = 0.98 0.31 0.62

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

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:

CN* = 62.0 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 |

| STANDHYD (0201) | Area (ha)= 1.34

| ID= 1 DT= 5.0 min | Total Imp(%)= 50.00 Dir. Conn.(%)= 50.00

IMPERVIOUS PERVIOUS (i)

Surface Area (ha)= 0.67 0.67

Dep. Storage (mm)= 1.50 10.00
 Average Slope (%)= 2.00 2.00
 Length (m)= 94.52 30.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.07	12.250	9.68	18.33	1.21
0.167	0.00	6.250	1.21	12.333	9.67	18.42	1.21
0.250	0.74	6.333	1.21	12.417	9.67	18.50	1.21
0.333	0.74	6.417	1.21	12.500	9.67	18.58	1.21
0.417	0.74	6.500	1.21	12.583	9.67	18.67	1.21
0.500	0.74	6.583	1.21	12.667	9.67	18.75	1.21
0.583	0.74	6.667	1.21	12.750	4.97	18.83	1.21
0.667	0.74	6.750	1.21	12.833	4.97	18.92	1.21
0.750	0.74	6.833	1.21	12.917	4.97	19.00	1.21
0.833	0.74	6.917	1.21	13.000	4.97	19.08	1.21
0.917	0.74	7.000	1.21	13.083	4.97	19.17	1.21
1.000	0.74	7.083	1.21	13.167	4.97	19.25	1.21
1.083	0.74	7.167	1.21	13.250	3.63	19.33	1.21
1.167	0.74	7.250	1.48	13.333	3.63	19.42	1.21
1.250	0.74	7.333	1.48	13.417	3.63	19.50	1.21
1.333	0.74	7.417	1.48	13.500	3.63	19.58	1.21
1.417	0.74	7.500	1.48	13.583	3.63	19.67	1.21
1.500	0.74	7.583	1.48	13.667	3.63	19.75	1.21
1.583	0.74	7.667	1.48	13.750	2.82	19.83	1.21
1.667	0.74	7.750	1.48	13.833	2.82	19.92	1.21
1.750	0.74	7.833	1.48	13.917	2.82	20.00	1.21
1.833	0.74	7.917	1.48	14.000	2.82	20.08	1.21
1.917	0.74	8.000	1.48	14.083	2.82	20.17	1.21
2.000	0.74	8.083	1.48	14.167	2.82	20.25	0.81
2.083	0.74	8.167	1.48	14.250	2.01	20.33	0.81
2.167	0.74	8.250	1.75	14.333	2.01	20.42	0.81
2.250	0.87	8.333	1.75	14.417	2.01	20.50	0.81
2.333	0.87	8.417	1.75	14.500	2.01	20.58	0.81
2.417	0.87	8.500	1.75	14.583	2.01	20.67	0.81
2.500	0.87	8.583	1.75	14.667	2.01	20.75	0.81
2.583	0.87	8.667	1.75	14.750	2.01	20.83	0.81
2.667	0.87	8.750	1.88	14.833	2.01	20.92	0.81
2.750	0.87	8.833	1.88	14.917	2.01	21.00	0.81
2.833	0.87	8.917	1.88	15.000	2.01	21.08	0.81
2.917	0.87	9.000	1.88	15.083	2.01	21.17	0.81
3.000	0.87	9.083	1.88	15.167	2.01	21.25	0.81
3.083	0.87	9.167	1.88	15.250	2.01	21.33	0.81
3.167	0.87	9.250	2.15	15.333	2.01	21.42	0.81
3.250	0.87	9.333	2.15	15.417	2.01	21.50	0.81
3.333	0.87	9.417	2.15	15.500	2.01	21.58	0.81
3.417	0.87	9.500	2.15	15.583	2.01	21.67	0.81
3.500	0.87	9.583	2.15	15.667	2.01	21.75	0.81
3.583	0.87	9.667	2.15	15.750	2.01	21.83	0.81
3.667	0.87	9.750	2.42	15.833	2.01	21.92	0.81
3.750	0.87	9.833	2.42	15.917	2.01	22.00	0.81
3.833	0.87	9.917	2.42	16.000	2.01	22.08	0.81
3.917	0.87	10.000	2.42	16.083	2.01	22.17	0.81
4.000	0.87	10.083	2.42	16.167	2.01	22.25	0.81
4.083	0.87	10.167	2.42	16.250	1.21	22.33	0.81
4.167	0.87	10.250	3.09	16.333	1.21	22.42	0.81
4.250	1.07	10.333	3.09	16.417	1.21	22.50	0.81
4.333	1.07	10.417	3.09	16.500	1.21	22.58	0.81
4.417	1.07	10.500	3.09	16.583	1.21	22.67	0.81
4.500	1.07	10.583	3.09	16.667	1.21	22.75	0.81
4.583	1.07	10.667	3.09	16.750	1.21	22.83	0.81
4.667	1.07	10.750	4.16	16.833	1.21	22.92	0.81
4.750	1.07	10.833	4.16	16.917	1.21	23.00	0.81
4.833	1.07	10.917	4.16	17.000	1.21	23.08	0.81
4.917	1.07	11.000	4.16	17.083	1.21	23.17	0.81
5.000	1.07	11.083	4.16	17.167	1.21	23.25	0.81
5.083	1.07	11.167	4.16	17.250	1.21	23.33	0.81
5.167	1.07	11.250	6.45	17.333	1.21	23.42	0.81

5.250	1.07	|11.333	6.45	|17.417	1.21	|23.50	0.81
5.333	1.07	|11.417	6.45	|17.500	1.21	|23.58	0.81
5.417	1.07	|11.500	6.45	|17.583	1.21	|23.67	0.81
5.500	1.07	|11.583	6.45	|17.667	1.21	|23.75	0.81
5.583	1.07	|11.667	6.45	|17.750	1.21	|23.83	0.81
5.667	1.07	|11.750	19.87	|17.833	1.21	|23.92	0.81
5.750	1.07	|11.833	19.88	|17.917	1.21	|24.00	0.81
5.833	1.07	|11.917	51.03	|18.000	1.21	|24.08	0.81
5.917	1.07	|12.000	51.03	|18.083	1.21	|24.17	0.81
6.000	1.07	|12.083	82.19	|18.167	1.21	|	
6.083	1.07	|12.167	82.19	|18.250	1.21	|	

Max.Eff.Inten.(mm/hr)= 82.19 12.90
over (min) 5.00 20.00

Storage Coeff. (min)= 2.17 (ii) 15.64 (ii)

Unit Hyd. Tpeak (min)= 5.00 20.00

Unit Hyd. peak (cms)= 0.31 0.07

TOTALS

PEAK FLOW (cms)= 0.15 0.01 0.161 (iii)

TIME TO PEAK (hrs)= 12.17 12.33 12.17

RUNOFF VOLUME (mm)= 65.65 10.84 38.24

TOTAL RAINFALL (mm)= 67.15 67.15 67.15

RUNOFF COEFFICIENT = 0.98 0.16 0.57

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

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:

CN* = 51.0 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 (3000)|

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

ID1= 1 (0200): 9.56 1.177 12.17 41.51

+ ID2= 2 (0201): 1.34 0.161 12.17 38.24

=====

ID = 3 (3000): 10.90 1.338 12.17 41.11

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| ADD HYD (5000)|

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

ID1= 1 (0023): 0.64 0.095 12.17 44.03

+ ID2= 2 (3000): 10.90 1.338 12.17 41.11

=====

ID = 3 (5000): 11.54 1.433 12.17 41.27

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| CALIB |

| STANDHYD (0202)| Area (ha)= 1.81

| ID= 1 DT= 5.0 min | Total Imp(%)= 37.00 Dir. Conn.(%)= 26.00

IMPERVIOUS PERVIOUS (i)

Surface Area (ha)= 0.67 1.14

Dep. Storage (mm)= 1.50 6.90

Average Slope (%)= 2.00 2.00

Length (m)= 109.85 30.00

Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.07	12.250	9.68	18.33	1.21
0.167	0.00	6.250	1.21	12.333	9.67	18.42	1.21
0.250	0.74	6.333	1.21	12.417	9.67	18.50	1.21
0.333	0.74	6.417	1.21	12.500	9.67	18.58	1.21
0.417	0.74	6.500	1.21	12.583	9.67	18.67	1.21
0.500	0.74	6.583	1.21	12.667	9.67	18.75	1.21
0.583	0.74	6.667	1.21	12.750	4.97	18.83	1.21
0.667	0.74	6.750	1.21	12.833	4.97	18.92	1.21
0.750	0.74	6.833	1.21	12.917	4.97	19.00	1.21
0.833	0.74	6.917	1.21	13.000	4.97	19.08	1.21
0.917	0.74	7.000	1.21	13.083	4.97	19.17	1.21
1.000	0.74	7.083	1.21	13.167	4.97	19.25	1.21
1.083	0.74	7.167	1.21	13.250	3.63	19.33	1.21
1.167	0.74	7.250	1.48	13.333	3.63	19.42	1.21
1.250	0.74	7.333	1.48	13.417	3.63	19.50	1.21
1.333	0.74	7.417	1.48	13.500	3.63	19.58	1.21
1.417	0.74	7.500	1.48	13.583	3.63	19.67	1.21
1.500	0.74	7.583	1.48	13.667	3.63	19.75	1.21
1.583	0.74	7.667	1.48	13.750	2.82	19.83	1.21
1.667	0.74	7.750	1.48	13.833	2.82	19.92	1.21
1.750	0.74	7.833	1.48	13.917	2.82	20.00	1.21
1.833	0.74	7.917	1.48	14.000	2.82	20.08	1.21
1.917	0.74	8.000	1.48	14.083	2.82	20.17	1.21
2.000	0.74	8.083	1.48	14.167	2.82	20.25	0.81
2.083	0.74	8.167	1.48	14.250	2.01	20.33	0.81
2.167	0.74	8.250	1.75	14.333	2.01	20.42	0.81
2.250	0.87	8.333	1.75	14.417	2.01	20.50	0.81
2.333	0.87	8.417	1.75	14.500	2.01	20.58	0.81
2.417	0.87	8.500	1.75	14.583	2.01	20.67	0.81
2.500	0.87	8.583	1.75	14.667	2.01	20.75	0.81
2.583	0.87	8.667	1.75	14.750	2.01	20.83	0.81
2.667	0.87	8.750	1.88	14.833	2.01	20.92	0.81
2.750	0.87	8.833	1.88	14.917	2.01	21.00	0.81
2.833	0.87	8.917	1.88	15.000	2.01	21.08	0.81
2.917	0.87	9.000	1.88	15.083	2.01	21.17	0.81
3.000	0.87	9.083	1.88	15.167	2.01	21.25	0.81
3.083	0.87	9.167	1.88	15.250	2.01	21.33	0.81
3.167	0.87	9.250	2.15	15.333	2.01	21.42	0.81
3.250	0.87	9.333	2.15	15.417	2.01	21.50	0.81
3.333	0.87	9.417	2.15	15.500	2.01	21.58	0.81
3.417	0.87	9.500	2.15	15.583	2.01	21.67	0.81
3.500	0.87	9.583	2.15	15.667	2.01	21.75	0.81
3.583	0.87	9.667	2.15	15.750	2.01	21.83	0.81
3.667	0.87	9.750	2.42	15.833	2.01	21.92	0.81
3.750	0.87	9.833	2.42	15.917	2.01	22.00	0.81
3.833	0.87	9.917	2.42	16.000	2.01	22.08	0.81
3.917	0.87	10.000	2.42	16.083	2.01	22.17	0.81
4.000	0.87	10.083	2.42	16.167	2.01	22.25	0.81
4.083	0.87	10.167	2.42	16.250	1.21	22.33	0.81
4.167	0.87	10.250	3.09	16.333	1.21	22.42	0.81
4.250	1.07	10.333	3.09	16.417	1.21	22.50	0.81
4.333	1.07	10.417	3.09	16.500	1.21	22.58	0.81
4.417	1.07	10.500	3.09	16.583	1.21	22.67	0.81
4.500	1.07	10.583	3.09	16.667	1.21	22.75	0.81
4.583	1.07	10.667	3.09	16.750	1.21	22.83	0.81
4.667	1.07	10.750	4.16	16.833	1.21	22.92	0.81
4.750	1.07	10.833	4.16	16.917	1.21	23.00	0.81
4.833	1.07	10.917	4.16	17.000	1.21	23.08	0.81
4.917	1.07	11.000	4.16	17.083	1.21	23.17	0.81
5.000	1.07	11.083	4.16	17.167	1.21	23.25	0.81
5.083	1.07	11.167	4.16	17.250	1.21	23.33	0.81
5.167	1.07	11.250	6.45	17.333	1.21	23.42	0.81
5.250	1.07	11.333	6.45	17.417	1.21	23.50	0.81
5.333	1.07	11.417	6.45	17.500	1.21	23.58	0.81
5.417	1.07	11.500	6.45	17.583	1.21	23.67	0.81
5.500	1.07	11.583	6.45	17.667	1.21	23.75	0.81
5.583	1.07	11.667	6.45	17.750	1.21	23.83	0.81
5.667	1.07	11.750	19.87	17.833	1.21	23.92	0.81
5.750	1.07	11.833	19.88	17.917	1.21	24.00	0.81
5.833	1.07	11.917	51.03	18.000	1.21	24.08	0.81
5.917	1.07	12.000	51.03	18.083	1.21	24.17	0.81

6.000 1.07 |12.083 82.19|18.167 1.21|
6.083 1.07 |12.167 82.19|18.250 1.21|

Max.Eff.Inten.(mm/hr)= 82.19 32.62
over (min) 5.00 15.00
Storage Coeff. (min)= 2.37 (ii) 11.67 (ii)
Unit Hyd. Tpeak (min)= 5.00 15.00
Unit Hyd. peak (cms)= 0.30 0.09
TOTALS
PEAK FLOW (cms)= 0.11 0.06 0.156 (iii)
TIME TO PEAK (hrs)= 12.17 12.25 12.17
RUNOFF VOLUME (mm)= 65.65 18.82 30.99
TOTAL RAINFALL (mm)= 67.15 67.15 67.15
RUNOFF COEFFICIENT = 0.98 0.28 0.46

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 61.0 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 (1000)|
| 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
----- (ha) (cms) (hrs) (mm)
ID1= 1 (0202): 1.81 0.156 12.17 30.99
+ ID2= 2 (5000): 11.54 1.433 12.17 41.27
=====

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| ADD HYD (1000)|
| 3 + 2 = 1 | AREA QPEAK TPEAK R.V.
----- (ha) (cms) (hrs) (mm)
ID1= 3 (1000): 13.35 1.589 12.17 39.88
+ ID2= 2 (6000): 0.81 0.092 12.17 34.57
=====

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

V V I SSSSS U U A L (v6.2.2015)
V V I SS U U AA L
V V I SS U U AAAAA L
V V I SS U U A A L
W V I SSSSS UUUUU A A LLLLL

OOO TTTT TTTT H H Y Y M M OOO TM
O O T T H H Y Y M M M M O O
O O T T H H Y M M O O
OOO T T H H Y M M OOO

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***** DETAILED OUTPUT *****

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voain.dat
Output filename: C:\Users\ajoshi\AppData\Local\Civica\XH5\191a91e0-1a14-44fd-bc00-4941023c7dee\980814f9-7f57-4964-bffa-7c2202173668\scena
Summary filename: C:\Users\ajoshi\AppData\Local\Civica\XH5\191a91e0-1a14-44fd-bc00-4941023c7dee\980814f9-7f57-4964-bffa-7c2202173668\scena

DATE: 12-03-2025 TIME: 03:06:32

USER:

COMMENTS: _____

** SIMULATION : 3_5yr 24hr 10min SCS Type II **

| READ STORM | Filename: C:\Users\ajoshi\AppData
| | ata\Local\Temp\
| | 2fba504a-caba-47c3-acc7-4c3af63c1cb9\0156f81c
| Ptotal= 88.91 mm | Comments: 5yr 24hr 10min SCS Type II

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	1.60	12.33	12.80	18.50	1.60
0.17	0.98	6.33	1.60	12.50	12.80	18.67	1.60
0.33	0.98	6.50	1.60	12.67	6.58	18.83	1.60
0.50	0.98	6.67	1.60	12.83	6.58	19.00	1.60
0.67	0.98	6.83	1.60	13.00	6.58	19.17	1.60
0.83	0.98	7.00	1.60	13.17	4.80	19.33	1.60
1.00	0.98	7.17	1.96	13.33	4.80	19.50	1.60
1.17	0.98	7.33	1.96	13.50	4.80	19.67	1.60
1.33	0.98	7.50	1.96	13.67	3.73	19.83	1.60
1.50	0.98	7.67	1.96	13.83	3.73	20.00	1.60
1.67	0.98	7.83	1.96	14.00	3.73	20.17	1.07
1.83	0.98	8.00	1.96	14.17	2.67	20.33	1.07
2.00	0.98	8.17	2.31	14.33	2.67	20.50	1.07
2.17	1.16	8.33	2.31	14.50	2.67	20.67	1.07
2.33	1.16	8.50	2.31	14.67	2.67	20.83	1.07
2.50	1.16	8.67	2.49	14.83	2.67	21.00	1.07
2.67	1.16	8.83	2.49	15.00	2.67	21.17	1.07
2.83	1.16	9.00	2.49	15.17	2.67	21.33	1.07
3.00	1.16	9.17	2.85	15.33	2.67	21.50	1.07
3.17	1.16	9.33	2.85	15.50	2.67	21.67	1.07
3.33	1.16	9.50	2.85	15.67	2.67	21.83	1.07
3.50	1.16	9.67	3.20	15.83	2.67	22.00	1.07
3.67	1.16	9.83	3.20	16.00	2.67	22.17	1.07
3.83	1.16	10.00	3.20	16.17	1.60	22.33	1.07
4.00	1.16	10.17	4.09	16.33	1.60	22.50	1.07

4.17	1.42	10.33	4.09	16.50	1.60	22.67	1.07
4.33	1.42	10.50	4.09	16.67	1.60	22.83	1.07
4.50	1.42	10.67	5.51	16.83	1.60	23.00	1.07
4.67	1.42	10.83	5.51	17.00	1.60	23.17	1.07
4.83	1.42	11.00	5.51	17.17	1.60	23.33	1.07
5.00	1.42	11.17	8.54	17.33	1.60	23.50	1.07
5.17	1.42	11.33	8.54	17.50	1.60	23.67	1.07
5.33	1.42	11.50	8.54	17.67	1.60	23.83	1.07
5.50	1.42	11.67	26.32	17.83	1.60	24.00	1.07
5.67	1.42	11.83	67.57	18.00	1.60		
5.83	1.42	12.00	108.83	18.17	1.60		
6.00	1.42	12.17	12.80	18.33	1.60		

| CALIB |
| NASHYD (0203) | Area (ha)= 0.29 Curve Number (CN)= 62.0
| ID= 1 DT= 5.0 min | Ia (mm)= 5.00 # of Linear Res.(N)= 3.00
----- U.H. Tp(hrs)= 0.17

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.42	12.250	12.82	18.33	1.60
0.167	0.00	6.250	1.60	12.333	12.80	18.42	1.60
0.250	0.98	6.333	1.60	12.417	12.80	18.50	1.60
0.333	0.98	6.417	1.60	12.500	12.80	18.58	1.60
0.417	0.98	6.500	1.60	12.583	12.80	18.67	1.60
0.500	0.98	6.583	1.60	12.667	12.80	18.75	1.60
0.583	0.98	6.667	1.60	12.750	6.58	18.83	1.60
0.667	0.98	6.750	1.60	12.833	6.58	18.92	1.60
0.750	0.98	6.833	1.60	12.917	6.58	19.00	1.60
0.833	0.98	6.917	1.60	13.000	6.58	19.08	1.60
0.917	0.98	7.000	1.60	13.083	6.58	19.17	1.60
1.000	0.98	7.083	1.60	13.167	6.58	19.25	1.60
1.083	0.98	7.167	1.60	13.250	4.80	19.33	1.60
1.167	0.98	7.250	1.96	13.333	4.80	19.42	1.60
1.250	0.98	7.333	1.96	13.417	4.80	19.50	1.60
1.333	0.98	7.417	1.96	13.500	4.80	19.58	1.60
1.417	0.98	7.500	1.96	13.583	4.80	19.67	1.60
1.500	0.98	7.583	1.96	13.667	4.80	19.75	1.60
1.583	0.98	7.667	1.96	13.750	3.73	19.83	1.60
1.667	0.98	7.750	1.96	13.833	3.73	19.92	1.60
1.750	0.98	7.833	1.96	13.917	3.73	20.00	1.60
1.833	0.98	7.917	1.96	14.000	3.73	20.08	1.60
1.917	0.98	8.000	1.96	14.083	3.73	20.17	1.60
2.000	0.98	8.083	1.96	14.167	3.73	20.25	1.07
2.083	0.98	8.167	1.96	14.250	2.67	20.33	1.07
2.167	0.98	8.250	2.31	14.333	2.67	20.42	1.07
2.250	1.16	8.333	2.31	14.417	2.67	20.50	1.07
2.333	1.16	8.417	2.31	14.500	2.67	20.58	1.07
2.417	1.16	8.500	2.31	14.583	2.67	20.67	1.07
2.500	1.16	8.583	2.31	14.667	2.67	20.75	1.07
2.583	1.16	8.667	2.31	14.750	2.67	20.83	1.07
2.667	1.16	8.750	2.49	14.833	2.67	20.92	1.07
2.750	1.16	8.833	2.49	14.917	2.67	21.00	1.07
2.833	1.16	8.917	2.49	15.000	2.67	21.08	1.07
2.917	1.16	9.000	2.49	15.083	2.67	21.17	1.07
3.000	1.16	9.083	2.49	15.167	2.67	21.25	1.07
3.083	1.16	9.167	2.49	15.250	2.67	21.33	1.07
3.167	1.16	9.250	2.85	15.333	2.67	21.42	1.07
3.250	1.16	9.333	2.85	15.417	2.67	21.50	1.07
3.333	1.16	9.417	2.85	15.500	2.67	21.58	1.07
3.417	1.16	9.500	2.85	15.583	2.67	21.67	1.07
3.500	1.16	9.583	2.85	15.667	2.67	21.75	1.07
3.583	1.16	9.667	2.85	15.750	2.67	21.83	1.07
3.667	1.16	9.750	3.20	15.833	2.67	21.92	1.07
3.750	1.16	9.833	3.20	15.917	2.67	22.00	1.07
3.833	1.16	9.917	3.20	16.000	2.67	22.08	1.07

3.917	1.16	|10.000	3.20	|16.083	2.67	|22.17	1.07
4.000	1.16	|10.083	3.20	|16.167	2.67	|22.25	1.07
4.083	1.16	|10.167	3.20	|16.250	1.60	|22.33	1.07
4.167	1.16	|10.250	4.09	|16.333	1.60	|22.42	1.07
4.250	1.42	|10.333	4.09	|16.417	1.60	|22.50	1.07
4.333	1.42	|10.417	4.09	|16.500	1.60	|22.58	1.07
4.417	1.42	|10.500	4.09	|16.583	1.60	|22.67	1.07
4.500	1.42	|10.583	4.09	|16.667	1.60	|22.75	1.07
4.583	1.42	|10.667	4.09	|16.750	1.60	|22.83	1.07
4.667	1.42	|10.750	5.51	|16.833	1.60	|22.92	1.07
4.750	1.42	|10.833	5.51	|16.917	1.60	|23.00	1.07
4.833	1.42	|10.917	5.51	|17.000	1.60	|23.08	1.07
4.917	1.42	|11.000	5.51	|17.083	1.60	|23.17	1.07
5.000	1.42	|11.083	5.51	|17.167	1.60	|23.25	1.07
5.083	1.42	|11.167	5.51	|17.250	1.60	|23.33	1.07
5.167	1.42	|11.250	8.54	|17.333	1.60	|23.42	1.07
5.250	1.42	|11.333	8.54	|17.417	1.60	|23.50	1.07
5.333	1.42	|11.417	8.54	|17.500	1.60	|23.58	1.07
5.417	1.42	|11.500	8.54	|17.583	1.60	|23.67	1.07
5.500	1.42	|11.583	8.54	|17.667	1.60	|23.75	1.07
5.583	1.42	|11.667	8.54	|17.750	1.60	|23.83	1.07
5.667	1.42	|11.750	26.32	|17.833	1.60	|23.92	1.07
5.750	1.42	|11.833	26.32	|17.917	1.60	|24.00	1.07
5.833	1.42	|11.917	67.57	|18.000	1.60	|24.08	1.07
5.917	1.42	|12.000	67.57	|18.083	1.60	|24.17	1.07
6.000	1.42	|12.083	108.82	|18.167	1.60	|	
6.083	1.42	|12.167	108.83	|18.250	1.60	|	

Unit Hyd Qpeak (cms)= 0.064

PEAK FLOW (cms)= 0.022 (i)
 TIME TO PEAK (hrs)= 12.250
 RUNOFF VOLUME (mm)= 29.282
 TOTAL RAINFALL (mm)= 88.910
 RUNOFF COEFFICIENT = 0.329

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

 | CALIB |
 | STANDHYD (0206) | Area (ha)= 0.52
 | ID= 1 DT= 5.0 min | Total Imp(%)= 63.00 Dir. Conn.(%)= 49.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 0.33 0.19
 Dep. Storage (mm)= 1.50 5.00
 Average Slope (%)= 2.00 2.00
 Length (m)= 59.10 15.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	|6.167	1.42	|12.250	12.82	|18.33	1.60
0.167	0.00	|6.250	1.60	|12.333	12.80	|18.42	1.60
0.250	0.98	|6.333	1.60	|12.417	12.80	|18.50	1.60
0.333	0.98	|6.417	1.60	|12.500	12.80	|18.58	1.60
0.417	0.98	|6.500	1.60	|12.583	12.80	|18.67	1.60
0.500	0.98	|6.583	1.60	|12.667	12.80	|18.75	1.60
0.583	0.98	|6.667	1.60	|12.750	6.58	|18.83	1.60
0.667	0.98	|6.750	1.60	|12.833	6.58	|18.92	1.60
0.750	0.98	|6.833	1.60	|12.917	6.58	|19.00	1.60
0.833	0.98	|6.917	1.60	|13.000	6.58	|19.08	1.60
0.917	0.98	|7.000	1.60	|13.083	6.58	|19.17	1.60
1.000	0.98	|7.083	1.60	|13.167	6.58	|19.25	1.60
1.083	0.98	|7.167	1.60	|13.250	4.80	|19.33	1.60
1.167	0.98	|7.250	1.96	|13.333	4.80	|19.42	1.60
1.250	0.98	|7.333	1.96	|13.417	4.80	|19.50	1.60
1.333	0.98	|7.417	1.96	|13.500	4.80	|19.58	1.60

1.417	0.98	7.500	1.96	13.583	4.80	19.67	1.60
1.500	0.98	7.583	1.96	13.667	4.80	19.75	1.60
1.583	0.98	7.667	1.96	13.750	3.73	19.83	1.60
1.667	0.98	7.750	1.96	13.833	3.73	19.92	1.60
1.750	0.98	7.833	1.96	13.917	3.73	20.00	1.60
1.833	0.98	7.917	1.96	14.000	3.73	20.08	1.60
1.917	0.98	8.000	1.96	14.083	3.73	20.17	1.60
2.000	0.98	8.083	1.96	14.167	3.73	20.25	1.07
2.083	0.98	8.167	1.96	14.250	2.67	20.33	1.07
2.167	0.98	8.250	2.31	14.333	2.67	20.42	1.07
2.250	1.16	8.333	2.31	14.417	2.67	20.50	1.07
2.333	1.16	8.417	2.31	14.500	2.67	20.58	1.07
2.417	1.16	8.500	2.31	14.583	2.67	20.67	1.07
2.500	1.16	8.583	2.31	14.667	2.67	20.75	1.07
2.583	1.16	8.667	2.31	14.750	2.67	20.83	1.07
2.667	1.16	8.750	2.49	14.833	2.67	20.92	1.07
2.750	1.16	8.833	2.49	14.917	2.67	21.00	1.07
2.833	1.16	8.917	2.49	15.000	2.67	21.08	1.07
2.917	1.16	9.000	2.49	15.083	2.67	21.17	1.07
3.000	1.16	9.083	2.49	15.167	2.67	21.25	1.07
3.083	1.16	9.167	2.49	15.250	2.67	21.33	1.07
3.167	1.16	9.250	2.85	15.333	2.67	21.42	1.07
3.250	1.16	9.333	2.85	15.417	2.67	21.50	1.07
3.333	1.16	9.417	2.85	15.500	2.67	21.58	1.07
3.417	1.16	9.500	2.85	15.583	2.67	21.67	1.07
3.500	1.16	9.583	2.85	15.667	2.67	21.75	1.07
3.583	1.16	9.667	2.85	15.750	2.67	21.83	1.07
3.667	1.16	9.750	3.20	15.833	2.67	21.92	1.07
3.750	1.16	9.833	3.20	15.917	2.67	22.00	1.07
3.833	1.16	9.917	3.20	16.000	2.67	22.08	1.07
3.917	1.16	10.000	3.20	16.083	2.67	22.17	1.07
4.000	1.16	10.083	3.20	16.167	2.67	22.25	1.07
4.083	1.16	10.167	3.20	16.250	1.60	22.33	1.07
4.167	1.16	10.250	4.09	16.333	1.60	22.42	1.07
4.250	1.42	10.333	4.09	16.417	1.60	22.50	1.07
4.333	1.42	10.417	4.09	16.500	1.60	22.58	1.07
4.417	1.42	10.500	4.09	16.583	1.60	22.67	1.07
4.500	1.42	10.583	4.09	16.667	1.60	22.75	1.07
4.583	1.42	10.667	4.09	16.750	1.60	22.83	1.07
4.667	1.42	10.750	5.51	16.833	1.60	22.92	1.07
4.750	1.42	10.833	5.51	16.917	1.60	23.00	1.07
4.833	1.42	10.917	5.51	17.000	1.60	23.08	1.07
4.917	1.42	11.000	5.51	17.083	1.60	23.17	1.07
5.000	1.42	11.083	5.51	17.167	1.60	23.25	1.07
5.083	1.42	11.167	5.51	17.250	1.60	23.33	1.07
5.167	1.42	11.250	8.54	17.333	1.60	23.42	1.07
5.250	1.42	11.333	8.54	17.417	1.60	23.50	1.07
5.333	1.42	11.417	8.54	17.500	1.60	23.58	1.07
5.417	1.42	11.500	8.54	17.583	1.60	23.67	1.07
5.500	1.42	11.583	8.54	17.667	1.60	23.75	1.07
5.583	1.42	11.667	8.54	17.750	1.60	23.83	1.07
5.667	1.42	11.750	26.32	17.833	1.60	23.92	1.07
5.750	1.42	11.833	26.32	17.917	1.60	24.00	1.07
5.833	1.42	11.917	67.57	18.000	1.60	24.08	1.07
5.917	1.42	12.000	67.57	18.083	1.60	24.17	1.07
6.000	1.42	12.083	108.82	18.167	1.60		
6.083	1.42	12.167	108.83	18.250	1.60		

Max.Eff.Inten.(mm/hr)= 108.83 74.25
over (min) 5.00 5.00

Storage Coeff. (min)= 1.46 (ii) 4.85 (ii)

Unit Hyd. Tpeak (min)= 5.00 5.00

Unit Hyd. peak (cms)= 0.33 0.22

TOTALS

PEAK FLOW (cms)= 0.08 0.04 0.116 (iii)

TIME TO PEAK (hrs)= 12.17 12.17 12.17

RUNOFF VOLUME (mm)= 87.41 36.69 61.54

TOTAL RAINFALL (mm)= 88.91 88.91 88.91

RUNOFF COEFFICIENT = 0.98 0.41 0.69

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

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:

CN* = 62.0 la = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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| ADD HYD ( 6000)|
| 1+ 2= 3 | AREA QPEAK TPEAK R.V.
----- (ha) (cms) (hrs) (mm)
ID1= 1 ( 0203): 0.29 0.022 12.25 29.28
+ ID2= 2 ( 0206): 0.52 0.116 12.17 61.54
=====
ID = 3 ( 6000): 0.81 0.138 12.17 50.12

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NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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| CALIB |
| NASHYD ( 0205)| Area (ha)= 0.16 Curve Number (CN)= 62.0
| ID= 1 DT= 5.0 min | la (mm)= 5.00 # of Linear Res.(N)= 3.00
----- U.H. Tp(hrs)= 0.17

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NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.42	12.250	12.82	18.33	1.60
0.167	0.00	6.250	1.60	12.333	12.80	18.42	1.60
0.250	0.98	6.333	1.60	12.417	12.80	18.50	1.60
0.333	0.98	6.417	1.60	12.500	12.80	18.58	1.60
0.417	0.98	6.500	1.60	12.583	12.80	18.67	1.60
0.500	0.98	6.583	1.60	12.667	12.80	18.75	1.60
0.583	0.98	6.667	1.60	12.750	6.58	18.83	1.60
0.667	0.98	6.750	1.60	12.833	6.58	18.92	1.60
0.750	0.98	6.833	1.60	12.917	6.58	19.00	1.60
0.833	0.98	6.917	1.60	13.000	6.58	19.08	1.60
0.917	0.98	7.000	1.60	13.083	6.58	19.17	1.60
1.000	0.98	7.083	1.60	13.167	6.58	19.25	1.60
1.083	0.98	7.167	1.60	13.250	4.80	19.33	1.60
1.167	0.98	7.250	1.96	13.333	4.80	19.42	1.60
1.250	0.98	7.333	1.96	13.417	4.80	19.50	1.60
1.333	0.98	7.417	1.96	13.500	4.80	19.58	1.60
1.417	0.98	7.500	1.96	13.583	4.80	19.67	1.60
1.500	0.98	7.583	1.96	13.667	4.80	19.75	1.60
1.583	0.98	7.667	1.96	13.750	3.73	19.83	1.60
1.667	0.98	7.750	1.96	13.833	3.73	19.92	1.60
1.750	0.98	7.833	1.96	13.917	3.73	20.00	1.60
1.833	0.98	7.917	1.96	14.000	3.73	20.08	1.60
1.917	0.98	8.000	1.96	14.083	3.73	20.17	1.60
2.000	0.98	8.083	1.96	14.167	3.73	20.25	1.07
2.083	0.98	8.167	1.96	14.250	2.67	20.33	1.07
2.167	0.98	8.250	2.31	14.333	2.67	20.42	1.07
2.250	1.16	8.333	2.31	14.417	2.67	20.50	1.07
2.333	1.16	8.417	2.31	14.500	2.67	20.58	1.07
2.417	1.16	8.500	2.31	14.583	2.67	20.67	1.07
2.500	1.16	8.583	2.31	14.667	2.67	20.75	1.07
2.583	1.16	8.667	2.31	14.750	2.67	20.83	1.07
2.667	1.16	8.750	2.49	14.833	2.67	20.92	1.07
2.750	1.16	8.833	2.49	14.917	2.67	21.00	1.07
2.833	1.16	8.917	2.49	15.000	2.67	21.08	1.07
2.917	1.16	9.000	2.49	15.083	2.67	21.17	1.07
3.000	1.16	9.083	2.49	15.167	2.67	21.25	1.07
3.083	1.16	9.167	2.49	15.250	2.67	21.33	1.07
3.167	1.16	9.250	2.85	15.333	2.67	21.42	1.07
3.250	1.16	9.333	2.85	15.417	2.67	21.50	1.07
3.333	1.16	9.417	2.85	15.500	2.67	21.58	1.07
3.417	1.16	9.500	2.85	15.583	2.67	21.67	1.07
3.500	1.16	9.583	2.85	15.667	2.67	21.75	1.07
3.583	1.16	9.667	2.85	15.750	2.67	21.83	1.07

3.667	1.16	|9.750	3.20	|15.833	2.67	|21.92	1.07
3.750	1.16	|9.833	3.20	|15.917	2.67	|22.00	1.07
3.833	1.16	|9.917	3.20	|16.000	2.67	|22.08	1.07
3.917	1.16	|10.000	3.20	|16.083	2.67	|22.17	1.07
4.000	1.16	|10.083	3.20	|16.167	2.67	|22.25	1.07
4.083	1.16	|10.167	3.20	|16.250	1.60	|22.33	1.07
4.167	1.16	|10.250	4.09	|16.333	1.60	|22.42	1.07
4.250	1.42	|10.333	4.09	|16.417	1.60	|22.50	1.07
4.333	1.42	|10.417	4.09	|16.500	1.60	|22.58	1.07
4.417	1.42	|10.500	4.09	|16.583	1.60	|22.67	1.07
4.500	1.42	|10.583	4.09	|16.667	1.60	|22.75	1.07
4.583	1.42	|10.667	4.09	|16.750	1.60	|22.83	1.07
4.667	1.42	|10.750	5.51	|16.833	1.60	|22.92	1.07
4.750	1.42	|10.833	5.51	|16.917	1.60	|23.00	1.07
4.833	1.42	|10.917	5.51	|17.000	1.60	|23.08	1.07
4.917	1.42	|11.000	5.51	|17.083	1.60	|23.17	1.07
5.000	1.42	|11.083	5.51	|17.167	1.60	|23.25	1.07
5.083	1.42	|11.167	5.51	|17.250	1.60	|23.33	1.07
5.167	1.42	|11.250	8.54	|17.333	1.60	|23.42	1.07
5.250	1.42	|11.333	8.54	|17.417	1.60	|23.50	1.07
5.333	1.42	|11.417	8.54	|17.500	1.60	|23.58	1.07
5.417	1.42	|11.500	8.54	|17.583	1.60	|23.67	1.07
5.500	1.42	|11.583	8.54	|17.667	1.60	|23.75	1.07
5.583	1.42	|11.667	8.54	|17.750	1.60	|23.83	1.07
5.667	1.42	|11.750	26.32	|17.833	1.60	|23.92	1.07
5.750	1.42	|11.833	26.32	|17.917	1.60	|24.00	1.07
5.833	1.42	|11.917	67.57	|18.000	1.60	|24.08	1.07
5.917	1.42	|12.000	67.57	|18.083	1.60	|24.17	1.07
6.000	1.42	|12.083	108.82	|18.167	1.60	|	
6.083	1.42	|12.167	108.83	|18.250	1.60	|	

Unit Hyd Qpeak (cms)= 0.035

PEAK FLOW (cms)= 0.012 (i)

TIME TO PEAK (hrs)= 12.250

RUNOFF VOLUME (mm)= 29.281

TOTAL RAINFALL (mm)= 88.910

RUNOFF COEFFICIENT = 0.329

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

 | CALIB |
 | STANDHYD (0204) | Area (ha)= 0.48
 | ID= 1 DT= 5.0 min | Total Imp(%)= 73.00 Dir. Conn.(%)= 73.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.35	0.13
Dep. Storage (mm)=	1.50	5.00
Average Slope (°)=	5.00	5.00
Length (m)=	56.57	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	|6.167	1.42	|12.250	12.82	|18.33	1.60
0.167	0.00	|6.250	1.60	|12.333	12.80	|18.42	1.60
0.250	0.98	|6.333	1.60	|12.417	12.80	|18.50	1.60
0.333	0.98	|6.417	1.60	|12.500	12.80	|18.58	1.60
0.417	0.98	|6.500	1.60	|12.583	12.80	|18.67	1.60
0.500	0.98	|6.583	1.60	|12.667	12.80	|18.75	1.60
0.583	0.98	|6.667	1.60	|12.750	6.58	|18.83	1.60
0.667	0.98	|6.750	1.60	|12.833	6.58	|18.92	1.60
0.750	0.98	|6.833	1.60	|12.917	6.58	|19.00	1.60
0.833	0.98	|6.917	1.60	|13.000	6.58	|19.08	1.60
0.917	0.98	|7.000	1.60	|13.083	6.58	|19.17	1.60
1.000	0.98	|7.083	1.60	|13.167	6.58	|19.25	1.60
1.083	0.98	|7.167	1.60	|13.250	4.80	|19.33	1.60

1.167	0.98	| 7.250	1.96	|13.333	4.80	| 19.42	1.60
1.250	0.98	| 7.333	1.96	|13.417	4.80	| 19.50	1.60
1.333	0.98	| 7.417	1.96	|13.500	4.80	| 19.58	1.60
1.417	0.98	| 7.500	1.96	|13.583	4.80	| 19.67	1.60
1.500	0.98	| 7.583	1.96	|13.667	4.80	| 19.75	1.60
1.583	0.98	| 7.667	1.96	|13.750	3.73	| 19.83	1.60
1.667	0.98	| 7.750	1.96	|13.833	3.73	| 19.92	1.60
1.750	0.98	| 7.833	1.96	|13.917	3.73	| 20.00	1.60
1.833	0.98	| 7.917	1.96	|14.000	3.73	| 20.08	1.60
1.917	0.98	| 8.000	1.96	|14.083	3.73	| 20.17	1.60
2.000	0.98	| 8.083	1.96	|14.167	3.73	| 20.25	1.07
2.083	0.98	| 8.167	1.96	|14.250	2.67	| 20.33	1.07
2.167	0.98	| 8.250	2.31	|14.333	2.67	| 20.42	1.07
2.250	1.16	| 8.333	2.31	|14.417	2.67	| 20.50	1.07
2.333	1.16	| 8.417	2.31	|14.500	2.67	| 20.58	1.07
2.417	1.16	| 8.500	2.31	|14.583	2.67	| 20.67	1.07
2.500	1.16	| 8.583	2.31	|14.667	2.67	| 20.75	1.07
2.583	1.16	| 8.667	2.31	|14.750	2.67	| 20.83	1.07
2.667	1.16	| 8.750	2.49	|14.833	2.67	| 20.92	1.07
2.750	1.16	| 8.833	2.49	|14.917	2.67	| 21.00	1.07
2.833	1.16	| 8.917	2.49	|15.000	2.67	| 21.08	1.07
2.917	1.16	| 9.000	2.49	|15.083	2.67	| 21.17	1.07
3.000	1.16	| 9.083	2.49	|15.167	2.67	| 21.25	1.07
3.083	1.16	| 9.167	2.49	|15.250	2.67	| 21.33	1.07
3.167	1.16	| 9.250	2.85	|15.333	2.67	| 21.42	1.07
3.250	1.16	| 9.333	2.85	|15.417	2.67	| 21.50	1.07
3.333	1.16	| 9.417	2.85	|15.500	2.67	| 21.58	1.07
3.417	1.16	| 9.500	2.85	|15.583	2.67	| 21.67	1.07
3.500	1.16	| 9.583	2.85	|15.667	2.67	| 21.75	1.07
3.583	1.16	| 9.667	2.85	|15.750	2.67	| 21.83	1.07
3.667	1.16	| 9.750	3.20	|15.833	2.67	| 21.92	1.07
3.750	1.16	| 9.833	3.20	|15.917	2.67	| 22.00	1.07
3.833	1.16	| 9.917	3.20	|16.000	2.67	| 22.08	1.07
3.917	1.16	| 10.000	3.20	|16.083	2.67	| 22.17	1.07
4.000	1.16	| 10.083	3.20	|16.167	2.67	| 22.25	1.07
4.083	1.16	| 10.167	3.20	|16.250	1.60	| 22.33	1.07
4.167	1.16	| 10.250	4.09	|16.333	1.60	| 22.42	1.07
4.250	1.42	| 10.333	4.09	|16.417	1.60	| 22.50	1.07
4.333	1.42	| 10.417	4.09	|16.500	1.60	| 22.58	1.07
4.417	1.42	| 10.500	4.09	|16.583	1.60	| 22.67	1.07
4.500	1.42	| 10.583	4.09	|16.667	1.60	| 22.75	1.07
4.583	1.42	| 10.667	4.09	|16.750	1.60	| 22.83	1.07
4.667	1.42	| 10.750	5.51	|16.833	1.60	| 22.92	1.07
4.750	1.42	| 10.833	5.51	|16.917	1.60	| 23.00	1.07
4.833	1.42	| 10.917	5.51	|17.000	1.60	| 23.08	1.07
4.917	1.42	| 11.000	5.51	|17.083	1.60	| 23.17	1.07
5.000	1.42	| 11.083	5.51	|17.167	1.60	| 23.25	1.07
5.083	1.42	| 11.167	5.51	|17.250	1.60	| 23.33	1.07
5.167	1.42	| 11.250	8.54	|17.333	1.60	| 23.42	1.07
5.250	1.42	| 11.333	8.54	|17.417	1.60	| 23.50	1.07
5.333	1.42	| 11.417	8.54	|17.500	1.60	| 23.58	1.07
5.417	1.42	| 11.500	8.54	|17.583	1.60	| 23.67	1.07
5.500	1.42	| 11.583	8.54	|17.667	1.60	| 23.75	1.07
5.583	1.42	| 11.667	8.54	|17.750	1.60	| 23.83	1.07
5.667	1.42	| 11.750	26.32	|17.833	1.60	| 23.92	1.07
5.750	1.42	| 11.833	26.32	|17.917	1.60	| 24.00	1.07
5.833	1.42	| 11.917	67.57	|18.000	1.60	| 24.08	1.07
5.917	1.42	| 12.000	67.57	|18.083	1.60	| 24.17	1.07
6.000	1.42	| 12.083	108.82	|18.167	1.60	|	
6.083	1.42	| 12.167	108.83	|18.250	1.60	|	

Max.Eff.Inten.(mm/hr)= 108.83 43.12
over (min) 5.00 5.00

Storage Coeff. (min)= 1.08 (ii) 4.56 (ii)

Unit Hyd. Tpeak (min)= 5.00 5.00

Unit Hyd. peak (cms)= 0.34 0.23

TOTALS

PEAK FLOW (cms)= 0.11 0.02 0.121 (iii)

TIME TO PEAK (hrs)= 12.17 12.17 12.17

RUNOFF VOLUME (mm)= 87.41 29.39 71.74

TOTAL RAINFALL (mm)= 88.91 88.91 88.91

RUNOFF COEFFICIENT = 0.98 0.33 0.81

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 62.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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-----
| ADD HYD ( 0023)|
| 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
----- (ha) (cms) (hrs) (mm)
ID1= 1 ( 0204): 0.48 0.121 12.17 71.74
+ ID2= 2 ( 0205): 0.16 0.012 12.25 29.28
=====
ID = 3 ( 0023): 0.64 0.133 12.17 61.23

```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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-----
| CALIB |
| STANDHYD ( 0200)| Area (ha)= 9.56
| ID= 1 DT= 5.0 min | Total Imp(%)= 56.00 Dir. Conn.(%)= 46.00
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      IMPERVIOUS  PERVIOUS (i)
Surface Area (ha)= 5.35  4.21
Dep. Storage (mm)= 1.50  5.00
Average Slope (%)= 2.00  2.00
Length (m)= 252.45  30.00
Mannings n = 0.013  0.250

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

---- TRANSFORMED HYETOGRAPH ----
TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr
0.083 0.00 | 6.167 1.42 | 12.250 12.82 | 18.33 1.60
0.167 0.00 | 6.250 1.60 | 12.333 12.80 | 18.42 1.60
0.250 0.98 | 6.333 1.60 | 12.417 12.80 | 18.50 1.60
0.333 0.98 | 6.417 1.60 | 12.500 12.80 | 18.58 1.60
0.417 0.98 | 6.500 1.60 | 12.583 12.80 | 18.67 1.60
0.500 0.98 | 6.583 1.60 | 12.667 12.80 | 18.75 1.60
0.583 0.98 | 6.667 1.60 | 12.750 6.58 | 18.83 1.60
0.667 0.98 | 6.750 1.60 | 12.833 6.58 | 18.92 1.60
0.750 0.98 | 6.833 1.60 | 12.917 6.58 | 19.00 1.60
0.833 0.98 | 6.917 1.60 | 13.000 6.58 | 19.08 1.60
0.917 0.98 | 7.000 1.60 | 13.083 6.58 | 19.17 1.60
1.000 0.98 | 7.083 1.60 | 13.167 6.58 | 19.25 1.60
1.083 0.98 | 7.167 1.60 | 13.250 4.80 | 19.33 1.60
1.167 0.98 | 7.250 1.96 | 13.333 4.80 | 19.42 1.60
1.250 0.98 | 7.333 1.96 | 13.417 4.80 | 19.50 1.60
1.333 0.98 | 7.417 1.96 | 13.500 4.80 | 19.58 1.60
1.417 0.98 | 7.500 1.96 | 13.583 4.80 | 19.67 1.60
1.500 0.98 | 7.583 1.96 | 13.667 4.80 | 19.75 1.60
1.583 0.98 | 7.667 1.96 | 13.750 3.73 | 19.83 1.60
1.667 0.98 | 7.750 1.96 | 13.833 3.73 | 19.92 1.60
1.750 0.98 | 7.833 1.96 | 13.917 3.73 | 20.00 1.60
1.833 0.98 | 7.917 1.96 | 14.000 3.73 | 20.08 1.60
1.917 0.98 | 8.000 1.96 | 14.083 3.73 | 20.17 1.60
2.000 0.98 | 8.083 1.96 | 14.167 3.73 | 20.25 1.07
2.083 0.98 | 8.167 1.96 | 14.250 2.67 | 20.33 1.07
2.167 0.98 | 8.250 2.31 | 14.333 2.67 | 20.42 1.07
2.250 1.16 | 8.333 2.31 | 14.417 2.67 | 20.50 1.07
2.333 1.16 | 8.417 2.31 | 14.500 2.67 | 20.58 1.07
2.417 1.16 | 8.500 2.31 | 14.583 2.67 | 20.67 1.07
2.500 1.16 | 8.583 2.31 | 14.667 2.67 | 20.75 1.07
2.583 1.16 | 8.667 2.31 | 14.750 2.67 | 20.83 1.07
2.667 1.16 | 8.750 2.49 | 14.833 2.67 | 20.92 1.07
2.750 1.16 | 8.833 2.49 | 14.917 2.67 | 21.00 1.07
2.833 1.16 | 8.917 2.49 | 15.000 2.67 | 21.08 1.07

```

2.917	1.16	|9.000	2.49	|15.083	2.67	|21.17	1.07
3.000	1.16	|9.083	2.49	|15.167	2.67	|21.25	1.07
3.083	1.16	|9.167	2.49	|15.250	2.67	|21.33	1.07
3.167	1.16	|9.250	2.85	|15.333	2.67	|21.42	1.07
3.250	1.16	|9.333	2.85	|15.417	2.67	|21.50	1.07
3.333	1.16	|9.417	2.85	|15.500	2.67	|21.58	1.07
3.417	1.16	|9.500	2.85	|15.583	2.67	|21.67	1.07
3.500	1.16	|9.583	2.85	|15.667	2.67	|21.75	1.07
3.583	1.16	|9.667	2.85	|15.750	2.67	|21.83	1.07
3.667	1.16	|9.750	3.20	|15.833	2.67	|21.92	1.07
3.750	1.16	|9.833	3.20	|15.917	2.67	|22.00	1.07
3.833	1.16	|9.917	3.20	|16.000	2.67	|22.08	1.07
3.917	1.16	|10.000	3.20	|16.083	2.67	|22.17	1.07
4.000	1.16	|10.083	3.20	|16.167	2.67	|22.25	1.07
4.083	1.16	|10.167	3.20	|16.250	1.60	|22.33	1.07
4.167	1.16	|10.250	4.09	|16.333	1.60	|22.42	1.07
4.250	1.42	|10.333	4.09	|16.417	1.60	|22.50	1.07
4.333	1.42	|10.417	4.09	|16.500	1.60	|22.58	1.07
4.417	1.42	|10.500	4.09	|16.583	1.60	|22.67	1.07
4.500	1.42	|10.583	4.09	|16.667	1.60	|22.75	1.07
4.583	1.42	|10.667	4.09	|16.750	1.60	|22.83	1.07
4.667	1.42	|10.750	5.51	|16.833	1.60	|22.92	1.07
4.750	1.42	|10.833	5.51	|16.917	1.60	|23.00	1.07
4.833	1.42	|10.917	5.51	|17.000	1.60	|23.08	1.07
4.917	1.42	|11.000	5.51	|17.083	1.60	|23.17	1.07
5.000	1.42	|11.083	5.51	|17.167	1.60	|23.25	1.07
5.083	1.42	|11.167	5.51	|17.250	1.60	|23.33	1.07
5.167	1.42	|11.250	8.54	|17.333	1.60	|23.42	1.07
5.250	1.42	|11.333	8.54	|17.417	1.60	|23.50	1.07
5.333	1.42	|11.417	8.54	|17.500	1.60	|23.58	1.07
5.417	1.42	|11.500	8.54	|17.583	1.60	|23.67	1.07
5.500	1.42	|11.583	8.54	|17.667	1.60	|23.75	1.07
5.583	1.42	|11.667	8.54	|17.750	1.60	|23.83	1.07
5.667	1.42	|11.750	26.32	|17.833	1.60	|23.92	1.07
5.750	1.42	|11.833	26.32	|17.917	1.60	|24.00	1.07
5.833	1.42	|11.917	67.57	|18.000	1.60	|24.08	1.07
5.917	1.42	|12.000	67.57	|18.083	1.60	|24.17	1.07
6.000	1.42	|12.083	108.82	|18.167	1.60	|	
6.083	1.42	|12.167	108.83	|18.250	1.60	|	

Max.Eff.Inten.(mm/hr)= 108.83 61.26
over (min) 5.00 15.00

Storage Coeff. (min)= 3.50 (ii) 10.72 (ii)

Unit Hyd. Tpeak (min)= 5.00 15.00

Unit Hyd. peak (cms)= 0.26 0.09

TOTALS

PEAK FLOW (cms)= 1.30 0.44 1.665 (iii)

TIME TO PEAK (hrs)= 12.17 12.25 12.17

RUNOFF VOLUME (mm)= 87.41 34.00 58.57

TOTAL RAINFALL (mm)= 88.91 88.91 88.91

RUNOFF COEFFICIENT = 0.98 0.38 0.66

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

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:

CN* = 62.0 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 |
| STANDHYD (0201) | Area (ha)= 1.34
| ID= 1 DT= 5.0 min | Total Imp(%)= 50.00 Dir. Conn.(%)= 50.00

IMPERVIOUS PERVIOUS (i)

Surface Area (ha)= 0.67 0.67

Dep. Storage (mm)= 1.50 10.00

Average Slope (%)= 2.00 2.00

Length (m)= 94.52 30.00

Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.42	12.250	12.82	18.33	1.60
0.167	0.00	6.250	1.60	12.333	12.80	18.42	1.60
0.250	0.98	6.333	1.60	12.417	12.80	18.50	1.60
0.333	0.98	6.417	1.60	12.500	12.80	18.58	1.60
0.417	0.98	6.500	1.60	12.583	12.80	18.67	1.60
0.500	0.98	6.583	1.60	12.667	12.80	18.75	1.60
0.583	0.98	6.667	1.60	12.750	6.58	18.83	1.60
0.667	0.98	6.750	1.60	12.833	6.58	18.92	1.60
0.750	0.98	6.833	1.60	12.917	6.58	19.00	1.60
0.833	0.98	6.917	1.60	13.000	6.58	19.08	1.60
0.917	0.98	7.000	1.60	13.083	6.58	19.17	1.60
1.000	0.98	7.083	1.60	13.167	6.58	19.25	1.60
1.083	0.98	7.167	1.60	13.250	4.80	19.33	1.60
1.167	0.98	7.250	1.96	13.333	4.80	19.42	1.60
1.250	0.98	7.333	1.96	13.417	4.80	19.50	1.60
1.333	0.98	7.417	1.96	13.500	4.80	19.58	1.60
1.417	0.98	7.500	1.96	13.583	4.80	19.67	1.60
1.500	0.98	7.583	1.96	13.667	4.80	19.75	1.60
1.583	0.98	7.667	1.96	13.750	3.73	19.83	1.60
1.667	0.98	7.750	1.96	13.833	3.73	19.92	1.60
1.750	0.98	7.833	1.96	13.917	3.73	20.00	1.60
1.833	0.98	7.917	1.96	14.000	3.73	20.08	1.60
1.917	0.98	8.000	1.96	14.083	3.73	20.17	1.60
2.000	0.98	8.083	1.96	14.167	3.73	20.25	1.07
2.083	0.98	8.167	1.96	14.250	2.67	20.33	1.07
2.167	0.98	8.250	2.31	14.333	2.67	20.42	1.07
2.250	1.16	8.333	2.31	14.417	2.67	20.50	1.07
2.333	1.16	8.417	2.31	14.500	2.67	20.58	1.07
2.417	1.16	8.500	2.31	14.583	2.67	20.67	1.07
2.500	1.16	8.583	2.31	14.667	2.67	20.75	1.07
2.583	1.16	8.667	2.31	14.750	2.67	20.83	1.07
2.667	1.16	8.750	2.49	14.833	2.67	20.92	1.07
2.750	1.16	8.833	2.49	14.917	2.67	21.00	1.07
2.833	1.16	8.917	2.49	15.000	2.67	21.08	1.07
2.917	1.16	9.000	2.49	15.083	2.67	21.17	1.07
3.000	1.16	9.083	2.49	15.167	2.67	21.25	1.07
3.083	1.16	9.167	2.49	15.250	2.67	21.33	1.07
3.167	1.16	9.250	2.85	15.333	2.67	21.42	1.07
3.250	1.16	9.333	2.85	15.417	2.67	21.50	1.07
3.333	1.16	9.417	2.85	15.500	2.67	21.58	1.07
3.417	1.16	9.500	2.85	15.583	2.67	21.67	1.07
3.500	1.16	9.583	2.85	15.667	2.67	21.75	1.07
3.583	1.16	9.667	2.85	15.750	2.67	21.83	1.07
3.667	1.16	9.750	3.20	15.833	2.67	21.92	1.07
3.750	1.16	9.833	3.20	15.917	2.67	22.00	1.07
3.833	1.16	9.917	3.20	16.000	2.67	22.08	1.07
3.917	1.16	10.000	3.20	16.083	2.67	22.17	1.07
4.000	1.16	10.083	3.20	16.167	2.67	22.25	1.07
4.083	1.16	10.167	3.20	16.250	1.60	22.33	1.07
4.167	1.16	10.250	4.09	16.333	1.60	22.42	1.07
4.250	1.42	10.333	4.09	16.417	1.60	22.50	1.07
4.333	1.42	10.417	4.09	16.500	1.60	22.58	1.07
4.417	1.42	10.500	4.09	16.583	1.60	22.67	1.07
4.500	1.42	10.583	4.09	16.667	1.60	22.75	1.07
4.583	1.42	10.667	4.09	16.750	1.60	22.83	1.07
4.667	1.42	10.750	5.51	16.833	1.60	22.92	1.07
4.750	1.42	10.833	5.51	16.917	1.60	23.00	1.07
4.833	1.42	10.917	5.51	17.000	1.60	23.08	1.07
4.917	1.42	11.000	5.51	17.083	1.60	23.17	1.07
5.000	1.42	11.083	5.51	17.167	1.60	23.25	1.07
5.083	1.42	11.167	5.51	17.250	1.60	23.33	1.07
5.167	1.42	11.250	8.54	17.333	1.60	23.42	1.07
5.250	1.42	11.333	8.54	17.417	1.60	23.50	1.07
5.333	1.42	11.417	8.54	17.500	1.60	23.58	1.07
5.417	1.42	11.500	8.54	17.583	1.60	23.67	1.07
5.500	1.42	11.583	8.54	17.667	1.60	23.75	1.07
5.583	1.42	11.667	8.54	17.750	1.60	23.83	1.07

5.667 1.42 |11.750 26.32 |17.833 1.60 |23.92 1.07
 5.750 1.42 |11.833 26.32 |17.917 1.60 |24.00 1.07
 5.833 1.42 |11.917 67.57 |18.000 1.60 |24.08 1.07
 5.917 1.42 |12.000 67.57 |18.083 1.60 |24.17 1.07
 6.000 1.42 |12.083 108.82 |18.167 1.60 |
 6.083 1.42 |12.167 108.83 |18.250 1.60 |

Max.Eff.Inten.(mm/hr)= 108.83 28.34
 over (min) 5.00 15.00

Storage Coeff. (min)= 1.94 (ii) 11.77 (ii)
 Unit Hyd. Tpeak (min)= 5.00 15.00
 Unit Hyd. peak (cms)= 0.31 0.09

TOTALS

PEAK FLOW (cms)= 0.20 0.03 0.226 (iii)
 TIME TO PEAK (hrs)= 12.17 12.25 12.17
 RUNOFF VOLUME (mm)= 87.41 19.28 53.34
 TOTAL RAINFALL (mm)= 88.91 88.91 88.91
 RUNOFF COEFFICIENT = 0.98 0.22 0.60

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

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:

CN* = 51.0 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 (3000)|

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

ID1= 1 (0200): 9.56 1.665 12.17 58.57

+ ID2= 2 (0201): 1.34 0.226 12.17 53.34

=====

ID = 3 (3000): 10.90 1.892 12.17 57.93

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | ADD HYD (5000)|

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

ID1= 1 (0023): 0.64 0.133 12.17 61.23

+ ID2= 2 (3000): 10.90 1.892 12.17 57.93

=====

ID = 3 (5000): 11.54 2.025 12.17 58.11

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | CALIB |

| STANDHYD (0202)| Area (ha)= 1.81

| ID= 1 DT= 5.0 min | Total Imp(%)= 37.00 Dir. Conn.(%)= 26.00

 IMPERVIOUS PERVIOUS (i)

Surface Area (ha)= 0.67 1.14

Dep. Storage (mm)= 1.50 6.90

Average Slope (%)= 2.00 2.00

Length (m)= 109.85 30.00

Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.42	12.250	12.82	18.33	1.60
0.167	0.00	6.250	1.60	12.333	12.80	18.42	1.60
0.250	0.98	6.333	1.60	12.417	12.80	18.50	1.60

0.333	0.98	6.417	1.60	12.500	12.80	18.58	1.60
0.417	0.98	6.500	1.60	12.583	12.80	18.67	1.60
0.500	0.98	6.583	1.60	12.667	12.80	18.75	1.60
0.583	0.98	6.667	1.60	12.750	6.58	18.83	1.60
0.667	0.98	6.750	1.60	12.833	6.58	18.92	1.60
0.750	0.98	6.833	1.60	12.917	6.58	19.00	1.60
0.833	0.98	6.917	1.60	13.000	6.58	19.08	1.60
0.917	0.98	7.000	1.60	13.083	6.58	19.17	1.60
1.000	0.98	7.083	1.60	13.167	6.58	19.25	1.60
1.083	0.98	7.167	1.60	13.250	4.80	19.33	1.60
1.167	0.98	7.250	1.96	13.333	4.80	19.42	1.60
1.250	0.98	7.333	1.96	13.417	4.80	19.50	1.60
1.333	0.98	7.417	1.96	13.500	4.80	19.58	1.60
1.417	0.98	7.500	1.96	13.583	4.80	19.67	1.60
1.500	0.98	7.583	1.96	13.667	4.80	19.75	1.60
1.583	0.98	7.667	1.96	13.750	3.73	19.83	1.60
1.667	0.98	7.750	1.96	13.833	3.73	19.92	1.60
1.750	0.98	7.833	1.96	13.917	3.73	20.00	1.60
1.833	0.98	7.917	1.96	14.000	3.73	20.08	1.60
1.917	0.98	8.000	1.96	14.083	3.73	20.17	1.60
2.000	0.98	8.083	1.96	14.167	3.73	20.25	1.07
2.083	0.98	8.167	1.96	14.250	2.67	20.33	1.07
2.167	0.98	8.250	2.31	14.333	2.67	20.42	1.07
2.250	1.16	8.333	2.31	14.417	2.67	20.50	1.07
2.333	1.16	8.417	2.31	14.500	2.67	20.58	1.07
2.417	1.16	8.500	2.31	14.583	2.67	20.67	1.07
2.500	1.16	8.583	2.31	14.667	2.67	20.75	1.07
2.583	1.16	8.667	2.31	14.750	2.67	20.83	1.07
2.667	1.16	8.750	2.49	14.833	2.67	20.92	1.07
2.750	1.16	8.833	2.49	14.917	2.67	21.00	1.07
2.833	1.16	8.917	2.49	15.000	2.67	21.08	1.07
2.917	1.16	9.000	2.49	15.083	2.67	21.17	1.07
3.000	1.16	9.083	2.49	15.167	2.67	21.25	1.07
3.083	1.16	9.167	2.49	15.250	2.67	21.33	1.07
3.167	1.16	9.250	2.85	15.333	2.67	21.42	1.07
3.250	1.16	9.333	2.85	15.417	2.67	21.50	1.07
3.333	1.16	9.417	2.85	15.500	2.67	21.58	1.07
3.417	1.16	9.500	2.85	15.583	2.67	21.67	1.07
3.500	1.16	9.583	2.85	15.667	2.67	21.75	1.07
3.583	1.16	9.667	2.85	15.750	2.67	21.83	1.07
3.667	1.16	9.750	3.20	15.833	2.67	21.92	1.07
3.750	1.16	9.833	3.20	15.917	2.67	22.00	1.07
3.833	1.16	9.917	3.20	16.000	2.67	22.08	1.07
3.917	1.16	10.000	3.20	16.083	2.67	22.17	1.07
4.000	1.16	10.083	3.20	16.167	2.67	22.25	1.07
4.083	1.16	10.167	3.20	16.250	1.60	22.33	1.07
4.167	1.16	10.250	4.09	16.333	1.60	22.42	1.07
4.250	1.42	10.333	4.09	16.417	1.60	22.50	1.07
4.333	1.42	10.417	4.09	16.500	1.60	22.58	1.07
4.417	1.42	10.500	4.09	16.583	1.60	22.67	1.07
4.500	1.42	10.583	4.09	16.667	1.60	22.75	1.07
4.583	1.42	10.667	4.09	16.750	1.60	22.83	1.07
4.667	1.42	10.750	5.51	16.833	1.60	22.92	1.07
4.750	1.42	10.833	5.51	16.917	1.60	23.00	1.07
4.833	1.42	10.917	5.51	17.000	1.60	23.08	1.07
4.917	1.42	11.000	5.51	17.083	1.60	23.17	1.07
5.000	1.42	11.083	5.51	17.167	1.60	23.25	1.07
5.083	1.42	11.167	5.51	17.250	1.60	23.33	1.07
5.167	1.42	11.250	8.54	17.333	1.60	23.42	1.07
5.250	1.42	11.333	8.54	17.417	1.60	23.50	1.07
5.333	1.42	11.417	8.54	17.500	1.60	23.58	1.07
5.417	1.42	11.500	8.54	17.583	1.60	23.67	1.07
5.500	1.42	11.583	8.54	17.667	1.60	23.75	1.07
5.583	1.42	11.667	8.54	17.750	1.60	23.83	1.07
5.667	1.42	11.750	26.32	17.833	1.60	23.92	1.07
5.750	1.42	11.833	26.32	17.917	1.60	24.00	1.07
5.833	1.42	11.917	67.57	18.000	1.60	24.08	1.07
5.917	1.42	12.000	67.57	18.083	1.60	24.17	1.07
6.000	1.42	12.083	108.82	18.167	1.60		
6.083	1.42	12.167	108.83	18.250	1.60		

Max.Eff.Inten.(mm/hr)= 108.83 54.09
over (min) 5.00 10.00

Storage Coeff. (min)= 2.12 (ii) 9.72 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.31 0.11
 TOTALS
 PEAK FLOW (cms)= 0.14 0.11 0.255 (iii)
 TIME TO PEAK (hrs)= 12.17 12.25 12.17
 RUNOFF VOLUME (mm)= 87.41 31.16 45.78
 TOTAL RAINFALL (mm)= 88.91 88.91 88.91
 RUNOFF COEFFICIENT = 0.98 0.35 0.51

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 61.0 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 (1000)|
 | 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
 ----- (ha) (cms) (hrs) (mm)
 ID1= 1 (0202): 1.81 0.255 12.17 45.78
 + ID2= 2 (5000): 11.54 2.025 12.17 58.11
 =====
 ID = 3 (1000): 13.35 2.280 12.17 56.44

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | ADD HYD (1000)|
 | 3 + 2 = 1 | AREA QPEAK TPEAK R.V.
 ----- (ha) (cms) (hrs) (mm)
 ID1= 3 (1000): 13.35 2.280 12.17 56.44
 + ID2= 2 (6000): 0.81 0.138 12.17 50.12
 =====
 ID = 1 (1000): 14.16 2.417 12.17 56.07

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

FINISH
 =====

V V I SSSSS U U A L (v6.2.2015)
V V I SS U U AA L
V V I SS U U AAAAA L
V V I SS U U A A L
W V I SSSSS UUUUU A A LLLLL

OOO TTTT TTTT 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

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***** DETAILED OUTPUT *****

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voain.dat
Output filename: C:\Users\ajoshi\AppData\Local\Civica\XH5\191a91e0-1a14-44fd-bc00-4941023c7dee\5db8b5b4-41ac-43cb-bf2c-4ebc29f09a3f\scena
Summary filename: C:\Users\ajoshi\AppData\Local\Civica\XH5\191a91e0-1a14-44fd-bc00-4941023c7dee\5db8b5b4-41ac-43cb-bf2c-4ebc29f09a3f\scena

DATE: 12-03-2025 TIME: 03:06:32

USER:

COMMENTS: _____

** SIMULATION : 4_10yr 24hr 10min SCS Type II **

| READ STORM | Filename: C:\Users\ajoshi\AppData
| | ata\Local\Temp\
| | 2fba504a-caba-47c3-acc7-4c3af63c1cb9\4d30c99e
| Ptotal=103.09 mm | Comments: 10yr 24hr 10min SCS Type II

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	1.86	12.33	14.84	18.50	1.86
0.17	1.13	6.33	1.86	12.50	14.84	18.67	1.86
0.33	1.13	6.50	1.86	12.67	7.63	18.83	1.86
0.50	1.13	6.67	1.86	12.83	7.63	19.00	1.86
0.67	1.13	6.83	1.86	13.00	7.63	19.17	1.86
0.83	1.13	7.00	1.86	13.17	5.57	19.33	1.86
1.00	1.13	7.17	2.27	13.33	5.57	19.50	1.86
1.17	1.13	7.33	2.27	13.50	5.57	19.67	1.86
1.33	1.13	7.50	2.27	13.67	4.33	19.83	1.86
1.50	1.13	7.67	2.27	13.83	4.33	20.00	1.86
1.67	1.13	7.83	2.27	14.00	4.33	20.17	1.24
1.83	1.13	8.00	2.27	14.17	3.09	20.33	1.24
2.00	1.13	8.17	2.68	14.33	3.09	20.50	1.24
2.17	1.34	8.33	2.68	14.50	3.09	20.67	1.24
2.33	1.34	8.50	2.68	14.67	3.09	20.83	1.24
2.50	1.34	8.67	2.89	14.83	3.09	21.00	1.24
2.67	1.34	8.83	2.89	15.00	3.09	21.17	1.24
2.83	1.34	9.00	2.89	15.17	3.09	21.33	1.24
3.00	1.34	9.17	3.30	15.33	3.09	21.50	1.24
3.17	1.34	9.33	3.30	15.50	3.09	21.67	1.24
3.33	1.34	9.50	3.30	15.67	3.09	21.83	1.24
3.50	1.34	9.67	3.71	15.83	3.09	22.00	1.24
3.67	1.34	9.83	3.71	16.00	3.09	22.17	1.24
3.83	1.34	10.00	3.71	16.17	1.86	22.33	1.24
4.00	1.34	10.17	4.74	16.33	1.86	22.50	1.24

4.17 1.65 | 10.33 4.74 | 16.50 1.86 | 22.67 1.24
 4.33 1.65 | 10.50 4.74 | 16.67 1.86 | 22.83 1.24
 4.50 1.65 | 10.67 6.39 | 16.83 1.86 | 23.00 1.24
 4.67 1.65 | 10.83 6.39 | 17.00 1.86 | 23.17 1.24
 4.83 1.65 | 11.00 6.39 | 17.17 1.86 | 23.33 1.24
 5.00 1.65 | 11.17 9.90 | 17.33 1.86 | 23.50 1.24
 5.17 1.65 | 11.33 9.90 | 17.50 1.86 | 23.67 1.24
 5.33 1.65 | 11.50 9.90 | 17.67 1.86 | 23.83 1.24
 5.50 1.65 | 11.67 30.51 | 17.83 1.86 | 24.00 1.24
 5.67 1.65 | 11.83 78.35 | 18.00 1.86 |
 5.83 1.65 | 12.00 126.18 | 18.17 1.86 |
 6.00 1.65 | 12.17 14.84 | 18.33 1.86 |

 | CALIB |
 | NASHYD (0203) | Area (ha)= 0.29 Curve Number (CN)= 62.0
 | ID= 1 DT= 5.0 min | Ia (mm)= 5.00 # of Linear Res.(N)= 3.00
 ----- U.H. Tp(hrs)= 0.17

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.65	12.250	14.86	18.33	1.86
0.167	0.00	6.250	1.86	12.333	14.84	18.42	1.86
0.250	1.13	6.333	1.86	12.417	14.84	18.50	1.86
0.333	1.13	6.417	1.86	12.500	14.84	18.58	1.86
0.417	1.13	6.500	1.86	12.583	14.84	18.67	1.86
0.500	1.13	6.583	1.86	12.667	14.84	18.75	1.86
0.583	1.13	6.667	1.86	12.750	7.63	18.83	1.86
0.667	1.13	6.750	1.86	12.833	7.63	18.92	1.86
0.750	1.13	6.833	1.86	12.917	7.63	19.00	1.86
0.833	1.13	6.917	1.86	13.000	7.63	19.08	1.86
0.917	1.13	7.000	1.86	13.083	7.63	19.17	1.86
1.000	1.13	7.083	1.86	13.167	7.63	19.25	1.86
1.083	1.13	7.167	1.86	13.250	5.57	19.33	1.86
1.167	1.13	7.250	2.27	13.333	5.57	19.42	1.86
1.250	1.13	7.333	2.27	13.417	5.57	19.50	1.86
1.333	1.13	7.417	2.27	13.500	5.57	19.58	1.86
1.417	1.13	7.500	2.27	13.583	5.57	19.67	1.86
1.500	1.13	7.583	2.27	13.667	5.57	19.75	1.86
1.583	1.13	7.667	2.27	13.750	4.33	19.83	1.86
1.667	1.13	7.750	2.27	13.833	4.33	19.92	1.86
1.750	1.13	7.833	2.27	13.917	4.33	20.00	1.86
1.833	1.13	7.917	2.27	14.000	4.33	20.08	1.86
1.917	1.13	8.000	2.27	14.083	4.33	20.17	1.86
2.000	1.13	8.083	2.27	14.167	4.33	20.25	1.24
2.083	1.13	8.167	2.27	14.250	3.09	20.33	1.24
2.167	1.13	8.250	2.68	14.333	3.09	20.42	1.24
2.250	1.34	8.333	2.68	14.417	3.09	20.50	1.24
2.333	1.34	8.417	2.68	14.500	3.09	20.58	1.24
2.417	1.34	8.500	2.68	14.583	3.09	20.67	1.24
2.500	1.34	8.583	2.68	14.667	3.09	20.75	1.24
2.583	1.34	8.667	2.68	14.750	3.09	20.83	1.24
2.667	1.34	8.750	2.89	14.833	3.09	20.92	1.24
2.750	1.34	8.833	2.89	14.917	3.09	21.00	1.24
2.833	1.34	8.917	2.89	15.000	3.09	21.08	1.24
2.917	1.34	9.000	2.89	15.083	3.09	21.17	1.24
3.000	1.34	9.083	2.89	15.167	3.09	21.25	1.24
3.083	1.34	9.167	2.89	15.250	3.09	21.33	1.24
3.167	1.34	9.250	3.30	15.333	3.09	21.42	1.24
3.250	1.34	9.333	3.30	15.417	3.09	21.50	1.24
3.333	1.34	9.417	3.30	15.500	3.09	21.58	1.24
3.417	1.34	9.500	3.30	15.583	3.09	21.67	1.24
3.500	1.34	9.583	3.30	15.667	3.09	21.75	1.24
3.583	1.34	9.667	3.30	15.750	3.09	21.83	1.24
3.667	1.34	9.750	3.71	15.833	3.09	21.92	1.24
3.750	1.34	9.833	3.71	15.917	3.09	22.00	1.24
3.833	1.34	9.917	3.71	16.000	3.09	22.08	1.24

3.917	1.34	|10.000	3.71	|16.083	3.09	|22.17	1.24
4.000	1.34	|10.083	3.71	|16.167	3.09	|22.25	1.24
4.083	1.34	|10.167	3.71	|16.250	1.86	|22.33	1.24
4.167	1.34	|10.250	4.74	|16.333	1.86	|22.42	1.24
4.250	1.65	|10.333	4.74	|16.417	1.86	|22.50	1.24
4.333	1.65	|10.417	4.74	|16.500	1.86	|22.58	1.24
4.417	1.65	|10.500	4.74	|16.583	1.86	|22.67	1.24
4.500	1.65	|10.583	4.74	|16.667	1.86	|22.75	1.24
4.583	1.65	|10.667	4.74	|16.750	1.86	|22.83	1.24
4.667	1.65	|10.750	6.39	|16.833	1.86	|22.92	1.24
4.750	1.65	|10.833	6.39	|16.917	1.86	|23.00	1.24
4.833	1.65	|10.917	6.39	|17.000	1.86	|23.08	1.24
4.917	1.65	|11.000	6.39	|17.083	1.86	|23.17	1.24
5.000	1.65	|11.083	6.39	|17.167	1.86	|23.25	1.24
5.083	1.65	|11.167	6.39	|17.250	1.86	|23.33	1.24
5.167	1.65	|11.250	9.90	|17.333	1.86	|23.42	1.24
5.250	1.65	|11.333	9.90	|17.417	1.86	|23.50	1.24
5.333	1.65	|11.417	9.90	|17.500	1.86	|23.58	1.24
5.417	1.65	|11.500	9.90	|17.583	1.86	|23.67	1.24
5.500	1.65	|11.583	9.90	|17.667	1.86	|23.75	1.24
5.583	1.65	|11.667	9.90	|17.750	1.86	|23.83	1.24
5.667	1.65	|11.750	30.51	|17.833	1.86	|23.92	1.24
5.750	1.65	|11.833	30.51	|17.917	1.86	|24.00	1.24
5.833	1.65	|11.917	78.34	|18.000	1.86	|24.08	1.24
5.917	1.65	|12.000	78.35	|18.083	1.86	|24.17	1.24
6.000	1.65	|12.083	126.18	|18.167	1.86	|	
6.083	1.65	|12.167	126.18	|18.250	1.86	|	

Unit Hyd Qpeak (cms)= 0.064

PEAK FLOW (cms)= 0.028 (i)
 TIME TO PEAK (hrs)= 12.250
 RUNOFF VOLUME (mm)= 37.779
 TOTAL RAINFALL (mm)= 103.090
 RUNOFF COEFFICIENT = 0.366

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

 | CALIB |
 | STANDHYD (0206) | Area (ha)= 0.52
 | ID= 1 DT= 5.0 min | Total Imp(%)= 63.00 Dir. Conn.(%)= 49.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 0.33 0.19
 Dep. Storage (mm)= 1.50 5.00
 Average Slope (%)= 2.00 2.00
 Length (m)= 59.10 15.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	|6.167	1.65	|12.250	14.86	|18.33	1.86
0.167	0.00	|6.250	1.86	|12.333	14.84	|18.42	1.86
0.250	1.13	|6.333	1.86	|12.417	14.84	|18.50	1.86
0.333	1.13	|6.417	1.86	|12.500	14.84	|18.58	1.86
0.417	1.13	|6.500	1.86	|12.583	14.84	|18.67	1.86
0.500	1.13	|6.583	1.86	|12.667	14.84	|18.75	1.86
0.583	1.13	|6.667	1.86	|12.750	7.63	|18.83	1.86
0.667	1.13	|6.750	1.86	|12.833	7.63	|18.92	1.86
0.750	1.13	|6.833	1.86	|12.917	7.63	|19.00	1.86
0.833	1.13	|6.917	1.86	|13.000	7.63	|19.08	1.86
0.917	1.13	|7.000	1.86	|13.083	7.63	|19.17	1.86
1.000	1.13	|7.083	1.86	|13.167	7.63	|19.25	1.86
1.083	1.13	|7.167	1.86	|13.250	5.57	|19.33	1.86
1.167	1.13	|7.250	2.27	|13.333	5.57	|19.42	1.86
1.250	1.13	|7.333	2.27	|13.417	5.57	|19.50	1.86
1.333	1.13	|7.417	2.27	|13.500	5.57	|19.58	1.86

1.417	1.13	7.500	2.27	13.583	5.57	19.67	1.86
1.500	1.13	7.583	2.27	13.667	5.57	19.75	1.86
1.583	1.13	7.667	2.27	13.750	4.33	19.83	1.86
1.667	1.13	7.750	2.27	13.833	4.33	19.92	1.86
1.750	1.13	7.833	2.27	13.917	4.33	20.00	1.86
1.833	1.13	7.917	2.27	14.000	4.33	20.08	1.86
1.917	1.13	8.000	2.27	14.083	4.33	20.17	1.86
2.000	1.13	8.083	2.27	14.167	4.33	20.25	1.24
2.083	1.13	8.167	2.27	14.250	3.09	20.33	1.24
2.167	1.13	8.250	2.68	14.333	3.09	20.42	1.24
2.250	1.34	8.333	2.68	14.417	3.09	20.50	1.24
2.333	1.34	8.417	2.68	14.500	3.09	20.58	1.24
2.417	1.34	8.500	2.68	14.583	3.09	20.67	1.24
2.500	1.34	8.583	2.68	14.667	3.09	20.75	1.24
2.583	1.34	8.667	2.68	14.750	3.09	20.83	1.24
2.667	1.34	8.750	2.89	14.833	3.09	20.92	1.24
2.750	1.34	8.833	2.89	14.917	3.09	21.00	1.24
2.833	1.34	8.917	2.89	15.000	3.09	21.08	1.24
2.917	1.34	9.000	2.89	15.083	3.09	21.17	1.24
3.000	1.34	9.083	2.89	15.167	3.09	21.25	1.24
3.083	1.34	9.167	2.89	15.250	3.09	21.33	1.24
3.167	1.34	9.250	3.30	15.333	3.09	21.42	1.24
3.250	1.34	9.333	3.30	15.417	3.09	21.50	1.24
3.333	1.34	9.417	3.30	15.500	3.09	21.58	1.24
3.417	1.34	9.500	3.30	15.583	3.09	21.67	1.24
3.500	1.34	9.583	3.30	15.667	3.09	21.75	1.24
3.583	1.34	9.667	3.30	15.750	3.09	21.83	1.24
3.667	1.34	9.750	3.71	15.833	3.09	21.92	1.24
3.750	1.34	9.833	3.71	15.917	3.09	22.00	1.24
3.833	1.34	9.917	3.71	16.000	3.09	22.08	1.24
3.917	1.34	10.000	3.71	16.083	3.09	22.17	1.24
4.000	1.34	10.083	3.71	16.167	3.09	22.25	1.24
4.083	1.34	10.167	3.71	16.250	1.86	22.33	1.24
4.167	1.34	10.250	4.74	16.333	1.86	22.42	1.24
4.250	1.65	10.333	4.74	16.417	1.86	22.50	1.24
4.333	1.65	10.417	4.74	16.500	1.86	22.58	1.24
4.417	1.65	10.500	4.74	16.583	1.86	22.67	1.24
4.500	1.65	10.583	4.74	16.667	1.86	22.75	1.24
4.583	1.65	10.667	4.74	16.750	1.86	22.83	1.24
4.667	1.65	10.750	6.39	16.833	1.86	22.92	1.24
4.750	1.65	10.833	6.39	16.917	1.86	23.00	1.24
4.833	1.65	10.917	6.39	17.000	1.86	23.08	1.24
4.917	1.65	11.000	6.39	17.083	1.86	23.17	1.24
5.000	1.65	11.083	6.39	17.167	1.86	23.25	1.24
5.083	1.65	11.167	6.39	17.250	1.86	23.33	1.24
5.167	1.65	11.250	9.90	17.333	1.86	23.42	1.24
5.250	1.65	11.333	9.90	17.417	1.86	23.50	1.24
5.333	1.65	11.417	9.90	17.500	1.86	23.58	1.24
5.417	1.65	11.500	9.90	17.583	1.86	23.67	1.24
5.500	1.65	11.583	9.90	17.667	1.86	23.75	1.24
5.583	1.65	11.667	9.90	17.750	1.86	23.83	1.24
5.667	1.65	11.750	30.51	17.833	1.86	23.92	1.24
5.750	1.65	11.833	30.51	17.917	1.86	24.00	1.24
5.833	1.65	11.917	78.34	18.000	1.86	24.08	1.24
5.917	1.65	12.000	78.35	18.083	1.86	24.17	1.24
6.000	1.65	12.083	126.18	18.167	1.86		
6.083	1.65	12.167	126.18	18.250	1.86		

Max.Eff.Inten.(mm/hr)= 126.18 94.20
over (min) 5.00 5.00

Storage Coeff. (min)= 1.38 (ii) 4.57 (ii)

Unit Hyd. Tpeak (min)= 5.00 5.00

Unit Hyd. peak (cms)= 0.33 0.23

TOTALS

PEAK FLOW (cms)= 0.09 0.05 0.139 (iii)

TIME TO PEAK (hrs)= 12.17 12.17 12.17

RUNOFF VOLUME (mm)= 101.59 46.58 73.53

TOTAL RAINFALL (mm)= 103.09 103.09 103.09

RUNOFF COEFFICIENT = 0.99 0.45 0.71

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

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:

- CN* = 62.0 la = 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 ( 6000)|
| 1+ 2= 3 | AREA QPEAK TPEAK R.V.
----- (ha) (cms) (hrs) (mm)
ID1= 1 ( 0203): 0.29 0.028 12.25 37.78
+ ID2= 2 ( 0206): 0.52 0.139 12.17 73.53
=====
ID = 3 ( 6000): 0.81 0.167 12.17 60.88

```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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-----
| CALIB |
| NASHYD ( 0205)| Area (ha)= 0.16 Curve Number (CN)= 62.0
| ID= 1 DT= 5.0 min | la (mm)= 5.00 # of Linear Res.(N)= 3.00
----- U.H. Tp(hrs)= 0.17

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

---- TRANSFORMED HYETOGRAPH ----
TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr
0.083 0.00 | 6.167 1.65 | 12.250 14.86 | 18.33 1.86
0.167 0.00 | 6.250 1.86 | 12.333 14.84 | 18.42 1.86
0.250 1.13 | 6.333 1.86 | 12.417 14.84 | 18.50 1.86
0.333 1.13 | 6.417 1.86 | 12.500 14.84 | 18.58 1.86
0.417 1.13 | 6.500 1.86 | 12.583 14.84 | 18.67 1.86
0.500 1.13 | 6.583 1.86 | 12.667 14.84 | 18.75 1.86
0.583 1.13 | 6.667 1.86 | 12.750 7.63 | 18.83 1.86
0.667 1.13 | 6.750 1.86 | 12.833 7.63 | 18.92 1.86
0.750 1.13 | 6.833 1.86 | 12.917 7.63 | 19.00 1.86
0.833 1.13 | 6.917 1.86 | 13.000 7.63 | 19.08 1.86
0.917 1.13 | 7.000 1.86 | 13.083 7.63 | 19.17 1.86
1.000 1.13 | 7.083 1.86 | 13.167 7.63 | 19.25 1.86
1.083 1.13 | 7.167 1.86 | 13.250 5.57 | 19.33 1.86
1.167 1.13 | 7.250 2.27 | 13.333 5.57 | 19.42 1.86
1.250 1.13 | 7.333 2.27 | 13.417 5.57 | 19.50 1.86
1.333 1.13 | 7.417 2.27 | 13.500 5.57 | 19.58 1.86
1.417 1.13 | 7.500 2.27 | 13.583 5.57 | 19.67 1.86
1.500 1.13 | 7.583 2.27 | 13.667 5.57 | 19.75 1.86
1.583 1.13 | 7.667 2.27 | 13.750 4.33 | 19.83 1.86
1.667 1.13 | 7.750 2.27 | 13.833 4.33 | 19.92 1.86
1.750 1.13 | 7.833 2.27 | 13.917 4.33 | 20.00 1.86
1.833 1.13 | 7.917 2.27 | 14.000 4.33 | 20.08 1.86
1.917 1.13 | 8.000 2.27 | 14.083 4.33 | 20.17 1.86
2.000 1.13 | 8.083 2.27 | 14.167 4.33 | 20.25 1.24
2.083 1.13 | 8.167 2.27 | 14.250 3.09 | 20.33 1.24
2.167 1.13 | 8.250 2.68 | 14.333 3.09 | 20.42 1.24
2.250 1.34 | 8.333 2.68 | 14.417 3.09 | 20.50 1.24
2.333 1.34 | 8.417 2.68 | 14.500 3.09 | 20.58 1.24
2.417 1.34 | 8.500 2.68 | 14.583 3.09 | 20.67 1.24
2.500 1.34 | 8.583 2.68 | 14.667 3.09 | 20.75 1.24
2.583 1.34 | 8.667 2.68 | 14.750 3.09 | 20.83 1.24
2.667 1.34 | 8.750 2.89 | 14.833 3.09 | 20.92 1.24
2.750 1.34 | 8.833 2.89 | 14.917 3.09 | 21.00 1.24
2.833 1.34 | 8.917 2.89 | 15.000 3.09 | 21.08 1.24
2.917 1.34 | 9.000 2.89 | 15.083 3.09 | 21.17 1.24
3.000 1.34 | 9.083 2.89 | 15.167 3.09 | 21.25 1.24
3.083 1.34 | 9.167 2.89 | 15.250 3.09 | 21.33 1.24
3.167 1.34 | 9.250 3.30 | 15.333 3.09 | 21.42 1.24
3.250 1.34 | 9.333 3.30 | 15.417 3.09 | 21.50 1.24
3.333 1.34 | 9.417 3.30 | 15.500 3.09 | 21.58 1.24
3.417 1.34 | 9.500 3.30 | 15.583 3.09 | 21.67 1.24
3.500 1.34 | 9.583 3.30 | 15.667 3.09 | 21.75 1.24
3.583 1.34 | 9.667 3.30 | 15.750 3.09 | 21.83 1.24

```

3.667	1.34	|9.750	3.71	|15.833	3.09	|21.92	1.24
3.750	1.34	|9.833	3.71	|15.917	3.09	|22.00	1.24
3.833	1.34	|9.917	3.71	|16.000	3.09	|22.08	1.24
3.917	1.34	|10.000	3.71	|16.083	3.09	|22.17	1.24
4.000	1.34	|10.083	3.71	|16.167	3.09	|22.25	1.24
4.083	1.34	|10.167	3.71	|16.250	1.86	|22.33	1.24
4.167	1.34	|10.250	4.74	|16.333	1.86	|22.42	1.24
4.250	1.65	|10.333	4.74	|16.417	1.86	|22.50	1.24
4.333	1.65	|10.417	4.74	|16.500	1.86	|22.58	1.24
4.417	1.65	|10.500	4.74	|16.583	1.86	|22.67	1.24
4.500	1.65	|10.583	4.74	|16.667	1.86	|22.75	1.24
4.583	1.65	|10.667	4.74	|16.750	1.86	|22.83	1.24
4.667	1.65	|10.750	6.39	|16.833	1.86	|22.92	1.24
4.750	1.65	|10.833	6.39	|16.917	1.86	|23.00	1.24
4.833	1.65	|10.917	6.39	|17.000	1.86	|23.08	1.24
4.917	1.65	|11.000	6.39	|17.083	1.86	|23.17	1.24
5.000	1.65	|11.083	6.39	|17.167	1.86	|23.25	1.24
5.083	1.65	|11.167	6.39	|17.250	1.86	|23.33	1.24
5.167	1.65	|11.250	9.90	|17.333	1.86	|23.42	1.24
5.250	1.65	|11.333	9.90	|17.417	1.86	|23.50	1.24
5.333	1.65	|11.417	9.90	|17.500	1.86	|23.58	1.24
5.417	1.65	|11.500	9.90	|17.583	1.86	|23.67	1.24
5.500	1.65	|11.583	9.90	|17.667	1.86	|23.75	1.24
5.583	1.65	|11.667	9.90	|17.750	1.86	|23.83	1.24
5.667	1.65	|11.750	30.51	|17.833	1.86	|23.92	1.24
5.750	1.65	|11.833	30.51	|17.917	1.86	|24.00	1.24
5.833	1.65	|11.917	78.34	|18.000	1.86	|24.08	1.24
5.917	1.65	|12.000	78.35	|18.083	1.86	|24.17	1.24
6.000	1.65	|12.083	126.18	|18.167	1.86	|	
6.083	1.65	|12.167	126.18	|18.250	1.86	|	

Unit Hyd Qpeak (cms)= 0.035

PEAK FLOW (cms)= 0.016 (i)

TIME TO PEAK (hrs)= 12.250

RUNOFF VOLUME (mm)= 37.777

TOTAL RAINFALL (mm)= 103.090

RUNOFF COEFFICIENT = 0.366

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

 | CALIB |
 | STANDHYD (0204) | Area (ha)= 0.48
 | ID= 1 DT= 5.0 min | Total Imp(%)= 73.00 Dir. Conn.(%)= 73.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.35	0.13
Dep. Storage (mm)=	1.50	5.00
Average Slope (%)=	5.00	5.00
Length (m)=	56.57	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	|6.167	1.65	|12.250	14.86	|18.33	1.86
0.167	0.00	|6.250	1.86	|12.333	14.84	|18.42	1.86
0.250	1.13	|6.333	1.86	|12.417	14.84	|18.50	1.86
0.333	1.13	|6.417	1.86	|12.500	14.84	|18.58	1.86
0.417	1.13	|6.500	1.86	|12.583	14.84	|18.67	1.86
0.500	1.13	|6.583	1.86	|12.667	14.84	|18.75	1.86
0.583	1.13	|6.667	1.86	|12.750	7.63	|18.83	1.86
0.667	1.13	|6.750	1.86	|12.833	7.63	|18.92	1.86
0.750	1.13	|6.833	1.86	|12.917	7.63	|19.00	1.86
0.833	1.13	|6.917	1.86	|13.000	7.63	|19.08	1.86
0.917	1.13	|7.000	1.86	|13.083	7.63	|19.17	1.86
1.000	1.13	|7.083	1.86	|13.167	7.63	|19.25	1.86
1.083	1.13	|7.167	1.86	|13.250	5.57	|19.33	1.86

1.167	1.13	7.250	2.27	13.333	5.57	19.42	1.86
1.250	1.13	7.333	2.27	13.417	5.57	19.50	1.86
1.333	1.13	7.417	2.27	13.500	5.57	19.58	1.86
1.417	1.13	7.500	2.27	13.583	5.57	19.67	1.86
1.500	1.13	7.583	2.27	13.667	5.57	19.75	1.86
1.583	1.13	7.667	2.27	13.750	4.33	19.83	1.86
1.667	1.13	7.750	2.27	13.833	4.33	19.92	1.86
1.750	1.13	7.833	2.27	13.917	4.33	20.00	1.86
1.833	1.13	7.917	2.27	14.000	4.33	20.08	1.86
1.917	1.13	8.000	2.27	14.083	4.33	20.17	1.86
2.000	1.13	8.083	2.27	14.167	4.33	20.25	1.24
2.083	1.13	8.167	2.27	14.250	3.09	20.33	1.24
2.167	1.13	8.250	2.68	14.333	3.09	20.42	1.24
2.250	1.34	8.333	2.68	14.417	3.09	20.50	1.24
2.333	1.34	8.417	2.68	14.500	3.09	20.58	1.24
2.417	1.34	8.500	2.68	14.583	3.09	20.67	1.24
2.500	1.34	8.583	2.68	14.667	3.09	20.75	1.24
2.583	1.34	8.667	2.68	14.750	3.09	20.83	1.24
2.667	1.34	8.750	2.89	14.833	3.09	20.92	1.24
2.750	1.34	8.833	2.89	14.917	3.09	21.00	1.24
2.833	1.34	8.917	2.89	15.000	3.09	21.08	1.24
2.917	1.34	9.000	2.89	15.083	3.09	21.17	1.24
3.000	1.34	9.083	2.89	15.167	3.09	21.25	1.24
3.083	1.34	9.167	2.89	15.250	3.09	21.33	1.24
3.167	1.34	9.250	3.30	15.333	3.09	21.42	1.24
3.250	1.34	9.333	3.30	15.417	3.09	21.50	1.24
3.333	1.34	9.417	3.30	15.500	3.09	21.58	1.24
3.417	1.34	9.500	3.30	15.583	3.09	21.67	1.24
3.500	1.34	9.583	3.30	15.667	3.09	21.75	1.24
3.583	1.34	9.667	3.30	15.750	3.09	21.83	1.24
3.667	1.34	9.750	3.71	15.833	3.09	21.92	1.24
3.750	1.34	9.833	3.71	15.917	3.09	22.00	1.24
3.833	1.34	9.917	3.71	16.000	3.09	22.08	1.24
3.917	1.34	10.000	3.71	16.083	3.09	22.17	1.24
4.000	1.34	10.083	3.71	16.167	3.09	22.25	1.24
4.083	1.34	10.167	3.71	16.250	1.86	22.33	1.24
4.167	1.34	10.250	4.74	16.333	1.86	22.42	1.24
4.250	1.65	10.333	4.74	16.417	1.86	22.50	1.24
4.333	1.65	10.417	4.74	16.500	1.86	22.58	1.24
4.417	1.65	10.500	4.74	16.583	1.86	22.67	1.24
4.500	1.65	10.583	4.74	16.667	1.86	22.75	1.24
4.583	1.65	10.667	4.74	16.750	1.86	22.83	1.24
4.667	1.65	10.750	6.39	16.833	1.86	22.92	1.24
4.750	1.65	10.833	6.39	16.917	1.86	23.00	1.24
4.833	1.65	10.917	6.39	17.000	1.86	23.08	1.24
4.917	1.65	11.000	6.39	17.083	1.86	23.17	1.24
5.000	1.65	11.083	6.39	17.167	1.86	23.25	1.24
5.083	1.65	11.167	6.39	17.250	1.86	23.33	1.24
5.167	1.65	11.250	9.90	17.333	1.86	23.42	1.24
5.250	1.65	11.333	9.90	17.417	1.86	23.50	1.24
5.333	1.65	11.417	9.90	17.500	1.86	23.58	1.24
5.417	1.65	11.500	9.90	17.583	1.86	23.67	1.24
5.500	1.65	11.583	9.90	17.667	1.86	23.75	1.24
5.583	1.65	11.667	9.90	17.750	1.86	23.83	1.24
5.667	1.65	11.750	30.51	17.833	1.86	23.92	1.24
5.750	1.65	11.833	30.51	17.917	1.86	24.00	1.24
5.833	1.65	11.917	78.34	18.000	1.86	24.08	1.24
5.917	1.65	12.000	78.35	18.083	1.86	24.17	1.24
6.000	1.65	12.083	126.18	18.167	1.86		
6.083	1.65	12.167	126.18	18.250	1.86		

Max.Eff.Inten.(mm/hr)= 126.18 55.66
over (min) 5.00 5.00

Storage Coeff. (min)= 1.02 (ii) 4.30 (ii)

Unit Hyd. Tpeak (min)= 5.00 5.00

Unit Hyd. peak (cms)= 0.34 0.23

TOTALS

PEAK FLOW (cms)= 0.12 0.02 0.142 (iii)

TIME TO PEAK (hrs)= 12.17 12.17 12.17

RUNOFF VOLUME (mm)= 101.59 37.92 84.39

TOTAL RAINFALL (mm)= 103.09 103.09 103.09

RUNOFF COEFFICIENT = 0.99 0.37 0.82

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 62.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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-----
| ADD HYD ( 0023)|
| 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
----- (ha) (cms) (hrs) (mm)
ID1= 1 ( 0204): 0.48 0.142 12.17 84.39
+ ID2= 2 ( 0205): 0.16 0.016 12.25 37.78
=====
ID = 3 ( 0023): 0.64 0.158 12.17 72.85

```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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-----
| CALIB |
| STANDHYD ( 0200)| Area (ha)= 9.56
| ID= 1 DT= 5.0 min | Total Imp(%)= 56.00 Dir. Conn.(%)= 46.00
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      IMPERVIOUS  PERVIOUS (i)
Surface Area (ha)= 5.35  4.21
Dep. Storage (mm)= 1.50  5.00
Average Slope (%)= 2.00  2.00
Length (m)= 252.45  30.00
Mannings n = 0.013  0.250

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

---- TRANSFORMED HYETOGRAPH ----
TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr
0.083 0.00 | 6.167 1.65 | 12.250 14.86 | 18.33 1.86
0.167 0.00 | 6.250 1.86 | 12.333 14.84 | 18.42 1.86
0.250 1.13 | 6.333 1.86 | 12.417 14.84 | 18.50 1.86
0.333 1.13 | 6.417 1.86 | 12.500 14.84 | 18.58 1.86
0.417 1.13 | 6.500 1.86 | 12.583 14.84 | 18.67 1.86
0.500 1.13 | 6.583 1.86 | 12.667 14.84 | 18.75 1.86
0.583 1.13 | 6.667 1.86 | 12.750 7.63 | 18.83 1.86
0.667 1.13 | 6.750 1.86 | 12.833 7.63 | 18.92 1.86
0.750 1.13 | 6.833 1.86 | 12.917 7.63 | 19.00 1.86
0.833 1.13 | 6.917 1.86 | 13.000 7.63 | 19.08 1.86
0.917 1.13 | 7.000 1.86 | 13.083 7.63 | 19.17 1.86
1.000 1.13 | 7.083 1.86 | 13.167 7.63 | 19.25 1.86
1.083 1.13 | 7.167 1.86 | 13.250 5.57 | 19.33 1.86
1.167 1.13 | 7.250 2.27 | 13.333 5.57 | 19.42 1.86
1.250 1.13 | 7.333 2.27 | 13.417 5.57 | 19.50 1.86
1.333 1.13 | 7.417 2.27 | 13.500 5.57 | 19.58 1.86
1.417 1.13 | 7.500 2.27 | 13.583 5.57 | 19.67 1.86
1.500 1.13 | 7.583 2.27 | 13.667 5.57 | 19.75 1.86
1.583 1.13 | 7.667 2.27 | 13.750 4.33 | 19.83 1.86
1.667 1.13 | 7.750 2.27 | 13.833 4.33 | 19.92 1.86
1.750 1.13 | 7.833 2.27 | 13.917 4.33 | 20.00 1.86
1.833 1.13 | 7.917 2.27 | 14.000 4.33 | 20.08 1.86
1.917 1.13 | 8.000 2.27 | 14.083 4.33 | 20.17 1.86
2.000 1.13 | 8.083 2.27 | 14.167 4.33 | 20.25 1.24
2.083 1.13 | 8.167 2.27 | 14.250 3.09 | 20.33 1.24
2.167 1.13 | 8.250 2.68 | 14.333 3.09 | 20.42 1.24
2.250 1.34 | 8.333 2.68 | 14.417 3.09 | 20.50 1.24
2.333 1.34 | 8.417 2.68 | 14.500 3.09 | 20.58 1.24
2.417 1.34 | 8.500 2.68 | 14.583 3.09 | 20.67 1.24
2.500 1.34 | 8.583 2.68 | 14.667 3.09 | 20.75 1.24
2.583 1.34 | 8.667 2.68 | 14.750 3.09 | 20.83 1.24
2.667 1.34 | 8.750 2.89 | 14.833 3.09 | 20.92 1.24
2.750 1.34 | 8.833 2.89 | 14.917 3.09 | 21.00 1.24
2.833 1.34 | 8.917 2.89 | 15.000 3.09 | 21.08 1.24

```

2.917	1.34	9.000	2.89	15.083	3.09	21.17	1.24
3.000	1.34	9.083	2.89	15.167	3.09	21.25	1.24
3.083	1.34	9.167	2.89	15.250	3.09	21.33	1.24
3.167	1.34	9.250	3.30	15.333	3.09	21.42	1.24
3.250	1.34	9.333	3.30	15.417	3.09	21.50	1.24
3.333	1.34	9.417	3.30	15.500	3.09	21.58	1.24
3.417	1.34	9.500	3.30	15.583	3.09	21.67	1.24
3.500	1.34	9.583	3.30	15.667	3.09	21.75	1.24
3.583	1.34	9.667	3.30	15.750	3.09	21.83	1.24
3.667	1.34	9.750	3.71	15.833	3.09	21.92	1.24
3.750	1.34	9.833	3.71	15.917	3.09	22.00	1.24
3.833	1.34	9.917	3.71	16.000	3.09	22.08	1.24
3.917	1.34	10.000	3.71	16.083	3.09	22.17	1.24
4.000	1.34	10.083	3.71	16.167	3.09	22.25	1.24
4.083	1.34	10.167	3.71	16.250	1.86	22.33	1.24
4.167	1.34	10.250	4.74	16.333	1.86	22.42	1.24
4.250	1.65	10.333	4.74	16.417	1.86	22.50	1.24
4.333	1.65	10.417	4.74	16.500	1.86	22.58	1.24
4.417	1.65	10.500	4.74	16.583	1.86	22.67	1.24
4.500	1.65	10.583	4.74	16.667	1.86	22.75	1.24
4.583	1.65	10.667	4.74	16.750	1.86	22.83	1.24
4.667	1.65	10.750	6.39	16.833	1.86	22.92	1.24
4.750	1.65	10.833	6.39	16.917	1.86	23.00	1.24
4.833	1.65	10.917	6.39	17.000	1.86	23.08	1.24
4.917	1.65	11.000	6.39	17.083	1.86	23.17	1.24
5.000	1.65	11.083	6.39	17.167	1.86	23.25	1.24
5.083	1.65	11.167	6.39	17.250	1.86	23.33	1.24
5.167	1.65	11.250	9.90	17.333	1.86	23.42	1.24
5.250	1.65	11.333	9.90	17.417	1.86	23.50	1.24
5.333	1.65	11.417	9.90	17.500	1.86	23.58	1.24
5.417	1.65	11.500	9.90	17.583	1.86	23.67	1.24
5.500	1.65	11.583	9.90	17.667	1.86	23.75	1.24
5.583	1.65	11.667	9.90	17.750	1.86	23.83	1.24
5.667	1.65	11.750	30.51	17.833	1.86	23.92	1.24
5.750	1.65	11.833	30.51	17.917	1.86	24.00	1.24
5.833	1.65	11.917	78.34	18.000	1.86	24.08	1.24
5.917	1.65	12.000	78.35	18.083	1.86	24.17	1.24
6.000	1.65	12.083	126.18	18.167	1.86		
6.083	1.65	12.167	126.18	18.250	1.86		

Max.Eff.Inten.(mm/hr)= 126.18 78.21
over (min) 5.00 10.00

Storage Coeff. (min)= 3.30 (ii) 9.85 (ii)

Unit Hyd. Tpeak (min)= 5.00 10.00

Unit Hyd. peak (cms)= 0.27 0.11

TOTALS

PEAK FLOW (cms)= 1.51 0.61 2.123 (iii)

TIME TO PEAK (hrs)= 12.17 12.25 12.17

RUNOFF VOLUME (mm)= 101.59 43.41 70.17

TOTAL RAINFALL (mm)= 103.09 103.09 103.09

RUNOFF COEFFICIENT = 0.99 0.42 0.68

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

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:

CN* = 62.0 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 |
| STANDHYD (0201) | Area (ha)= 1.34
| ID= 1 DT= 5.0 min | Total Imp(%)= 50.00 Dir. Conn.(%)= 50.00

IMPERVIOUS PERVIOUS (i)

Surface Area (ha)= 0.67 0.67

Dep. Storage (mm)= 1.50 10.00

Average Slope (%)= 2.00 2.00

Length (m)= 94.52 30.00

Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.65	12.250	14.86	18.33	1.86
0.167	0.00	6.250	1.86	12.333	14.84	18.42	1.86
0.250	1.13	6.333	1.86	12.417	14.84	18.50	1.86
0.333	1.13	6.417	1.86	12.500	14.84	18.58	1.86
0.417	1.13	6.500	1.86	12.583	14.84	18.67	1.86
0.500	1.13	6.583	1.86	12.667	14.84	18.75	1.86
0.583	1.13	6.667	1.86	12.750	7.63	18.83	1.86
0.667	1.13	6.750	1.86	12.833	7.63	18.92	1.86
0.750	1.13	6.833	1.86	12.917	7.63	19.00	1.86
0.833	1.13	6.917	1.86	13.000	7.63	19.08	1.86
0.917	1.13	7.000	1.86	13.083	7.63	19.17	1.86
1.000	1.13	7.083	1.86	13.167	7.63	19.25	1.86
1.083	1.13	7.167	1.86	13.250	5.57	19.33	1.86
1.167	1.13	7.250	2.27	13.333	5.57	19.42	1.86
1.250	1.13	7.333	2.27	13.417	5.57	19.50	1.86
1.333	1.13	7.417	2.27	13.500	5.57	19.58	1.86
1.417	1.13	7.500	2.27	13.583	5.57	19.67	1.86
1.500	1.13	7.583	2.27	13.667	5.57	19.75	1.86
1.583	1.13	7.667	2.27	13.750	4.33	19.83	1.86
1.667	1.13	7.750	2.27	13.833	4.33	19.92	1.86
1.750	1.13	7.833	2.27	13.917	4.33	20.00	1.86
1.833	1.13	7.917	2.27	14.000	4.33	20.08	1.86
1.917	1.13	8.000	2.27	14.083	4.33	20.17	1.86
2.000	1.13	8.083	2.27	14.167	4.33	20.25	1.24
2.083	1.13	8.167	2.27	14.250	3.09	20.33	1.24
2.167	1.13	8.250	2.68	14.333	3.09	20.42	1.24
2.250	1.34	8.333	2.68	14.417	3.09	20.50	1.24
2.333	1.34	8.417	2.68	14.500	3.09	20.58	1.24
2.417	1.34	8.500	2.68	14.583	3.09	20.67	1.24
2.500	1.34	8.583	2.68	14.667	3.09	20.75	1.24
2.583	1.34	8.667	2.68	14.750	3.09	20.83	1.24
2.667	1.34	8.750	2.89	14.833	3.09	20.92	1.24
2.750	1.34	8.833	2.89	14.917	3.09	21.00	1.24
2.833	1.34	8.917	2.89	15.000	3.09	21.08	1.24
2.917	1.34	9.000	2.89	15.083	3.09	21.17	1.24
3.000	1.34	9.083	2.89	15.167	3.09	21.25	1.24
3.083	1.34	9.167	2.89	15.250	3.09	21.33	1.24
3.167	1.34	9.250	3.30	15.333	3.09	21.42	1.24
3.250	1.34	9.333	3.30	15.417	3.09	21.50	1.24
3.333	1.34	9.417	3.30	15.500	3.09	21.58	1.24
3.417	1.34	9.500	3.30	15.583	3.09	21.67	1.24
3.500	1.34	9.583	3.30	15.667	3.09	21.75	1.24
3.583	1.34	9.667	3.30	15.750	3.09	21.83	1.24
3.667	1.34	9.750	3.71	15.833	3.09	21.92	1.24
3.750	1.34	9.833	3.71	15.917	3.09	22.00	1.24
3.833	1.34	9.917	3.71	16.000	3.09	22.08	1.24
3.917	1.34	10.000	3.71	16.083	3.09	22.17	1.24
4.000	1.34	10.083	3.71	16.167	3.09	22.25	1.24
4.083	1.34	10.167	3.71	16.250	1.86	22.33	1.24
4.167	1.34	10.250	4.74	16.333	1.86	22.42	1.24
4.250	1.65	10.333	4.74	16.417	1.86	22.50	1.24
4.333	1.65	10.417	4.74	16.500	1.86	22.58	1.24
4.417	1.65	10.500	4.74	16.583	1.86	22.67	1.24
4.500	1.65	10.583	4.74	16.667	1.86	22.75	1.24
4.583	1.65	10.667	4.74	16.750	1.86	22.83	1.24
4.667	1.65	10.750	6.39	16.833	1.86	22.92	1.24
4.750	1.65	10.833	6.39	16.917	1.86	23.00	1.24
4.833	1.65	10.917	6.39	17.000	1.86	23.08	1.24
4.917	1.65	11.000	6.39	17.083	1.86	23.17	1.24
5.000	1.65	11.083	6.39	17.167	1.86	23.25	1.24
5.083	1.65	11.167	6.39	17.250	1.86	23.33	1.24
5.167	1.65	11.250	9.90	17.333	1.86	23.42	1.24
5.250	1.65	11.333	9.90	17.417	1.86	23.50	1.24
5.333	1.65	11.417	9.90	17.500	1.86	23.58	1.24
5.417	1.65	11.500	9.90	17.583	1.86	23.67	1.24
5.500	1.65	11.583	9.90	17.667	1.86	23.75	1.24
5.583	1.65	11.667	9.90	17.750	1.86	23.83	1.24

5.667 1.65 |11.750 30.51 |17.833 1.86 |23.92 1.24
 5.750 1.65 |11.833 30.51 |17.917 1.86 |24.00 1.24
 5.833 1.65 |11.917 78.34 |18.000 1.86 |24.08 1.24
 5.917 1.65 |12.000 78.35 |18.083 1.86 |24.17 1.24
 6.000 1.65 |12.083 126.18 |18.167 1.86 |
 6.083 1.65 |12.167 126.18 |18.250 1.86 |

Max.Eff.Inten.(mm/hr)= 126.18 37.85
 over (min) 5.00 15.00

Storage Coeff. (min)= 1.83 (ii) 10.59 (ii)
 Unit Hyd. Tpeak (min)= 5.00 15.00
 Unit Hyd. peak (cms)= 0.32 0.09

TOTALS

PEAK FLOW (cms)= 0.23 0.04 0.269 (iii)
 TIME TO PEAK (hrs)= 12.17 12.25 12.17
 RUNOFF VOLUME (mm)= 101.59 25.70 63.64
 TOTAL RAINFALL (mm)= 103.09 103.09 103.09
 RUNOFF COEFFICIENT = 0.99 0.25 0.62

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

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:

CN* = 51.0 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 (3000)|

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

ID1= 1 (0200): 9.56 2.123 12.17 70.17

+ ID2= 2 (0201): 1.34 0.269 12.17 63.64

=====

ID = 3 (3000): 10.90 2.392 12.17 69.37

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | ADD HYD (5000)|

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

ID1= 1 (0023): 0.64 0.158 12.17 72.85

+ ID2= 2 (3000): 10.90 2.392 12.17 69.37

=====

ID = 3 (5000): 11.54 2.550 12.17 69.56

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | CALIB |

| STANDHYD (0202)| Area (ha)= 1.81

| ID= 1 DT= 5.0 min | Total Imp(%)= 37.00 Dir. Conn.(%)= 26.00

 IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 0.67 1.14
 Dep. Storage (mm)= 1.50 6.90
 Average Slope (%)= 2.00 2.00
 Length (m)= 109.85 30.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.65	12.250	14.86	18.33	1.86
0.167	0.00	6.250	1.86	12.333	14.84	18.42	1.86
0.250	1.13	6.333	1.86	12.417	14.84	18.50	1.86

0.333	1.13	6.417	1.86	12.500	14.84	18.58	1.86
0.417	1.13	6.500	1.86	12.583	14.84	18.67	1.86
0.500	1.13	6.583	1.86	12.667	14.84	18.75	1.86
0.583	1.13	6.667	1.86	12.750	7.63	18.83	1.86
0.667	1.13	6.750	1.86	12.833	7.63	18.92	1.86
0.750	1.13	6.833	1.86	12.917	7.63	19.00	1.86
0.833	1.13	6.917	1.86	13.000	7.63	19.08	1.86
0.917	1.13	7.000	1.86	13.083	7.63	19.17	1.86
1.000	1.13	7.083	1.86	13.167	7.63	19.25	1.86
1.083	1.13	7.167	1.86	13.250	5.57	19.33	1.86
1.167	1.13	7.250	2.27	13.333	5.57	19.42	1.86
1.250	1.13	7.333	2.27	13.417	5.57	19.50	1.86
1.333	1.13	7.417	2.27	13.500	5.57	19.58	1.86
1.417	1.13	7.500	2.27	13.583	5.57	19.67	1.86
1.500	1.13	7.583	2.27	13.667	5.57	19.75	1.86
1.583	1.13	7.667	2.27	13.750	4.33	19.83	1.86
1.667	1.13	7.750	2.27	13.833	4.33	19.92	1.86
1.750	1.13	7.833	2.27	13.917	4.33	20.00	1.86
1.833	1.13	7.917	2.27	14.000	4.33	20.08	1.86
1.917	1.13	8.000	2.27	14.083	4.33	20.17	1.86
2.000	1.13	8.083	2.27	14.167	4.33	20.25	1.24
2.083	1.13	8.167	2.27	14.250	3.09	20.33	1.24
2.167	1.13	8.250	2.68	14.333	3.09	20.42	1.24
2.250	1.34	8.333	2.68	14.417	3.09	20.50	1.24
2.333	1.34	8.417	2.68	14.500	3.09	20.58	1.24
2.417	1.34	8.500	2.68	14.583	3.09	20.67	1.24
2.500	1.34	8.583	2.68	14.667	3.09	20.75	1.24
2.583	1.34	8.667	2.68	14.750	3.09	20.83	1.24
2.667	1.34	8.750	2.89	14.833	3.09	20.92	1.24
2.750	1.34	8.833	2.89	14.917	3.09	21.00	1.24
2.833	1.34	8.917	2.89	15.000	3.09	21.08	1.24
2.917	1.34	9.000	2.89	15.083	3.09	21.17	1.24
3.000	1.34	9.083	2.89	15.167	3.09	21.25	1.24
3.083	1.34	9.167	2.89	15.250	3.09	21.33	1.24
3.167	1.34	9.250	3.30	15.333	3.09	21.42	1.24
3.250	1.34	9.333	3.30	15.417	3.09	21.50	1.24
3.333	1.34	9.417	3.30	15.500	3.09	21.58	1.24
3.417	1.34	9.500	3.30	15.583	3.09	21.67	1.24
3.500	1.34	9.583	3.30	15.667	3.09	21.75	1.24
3.583	1.34	9.667	3.30	15.750	3.09	21.83	1.24
3.667	1.34	9.750	3.71	15.833	3.09	21.92	1.24
3.750	1.34	9.833	3.71	15.917	3.09	22.00	1.24
3.833	1.34	9.917	3.71	16.000	3.09	22.08	1.24
3.917	1.34	10.000	3.71	16.083	3.09	22.17	1.24
4.000	1.34	10.083	3.71	16.167	3.09	22.25	1.24
4.083	1.34	10.167	3.71	16.250	1.86	22.33	1.24
4.167	1.34	10.250	4.74	16.333	1.86	22.42	1.24
4.250	1.65	10.333	4.74	16.417	1.86	22.50	1.24
4.333	1.65	10.417	4.74	16.500	1.86	22.58	1.24
4.417	1.65	10.500	4.74	16.583	1.86	22.67	1.24
4.500	1.65	10.583	4.74	16.667	1.86	22.75	1.24
4.583	1.65	10.667	4.74	16.750	1.86	22.83	1.24
4.667	1.65	10.750	6.39	16.833	1.86	22.92	1.24
4.750	1.65	10.833	6.39	16.917	1.86	23.00	1.24
4.833	1.65	10.917	6.39	17.000	1.86	23.08	1.24
4.917	1.65	11.000	6.39	17.083	1.86	23.17	1.24
5.000	1.65	11.083	6.39	17.167	1.86	23.25	1.24
5.083	1.65	11.167	6.39	17.250	1.86	23.33	1.24
5.167	1.65	11.250	9.90	17.333	1.86	23.42	1.24
5.250	1.65	11.333	9.90	17.417	1.86	23.50	1.24
5.333	1.65	11.417	9.90	17.500	1.86	23.58	1.24
5.417	1.65	11.500	9.90	17.583	1.86	23.67	1.24
5.500	1.65	11.583	9.90	17.667	1.86	23.75	1.24
5.583	1.65	11.667	9.90	17.750	1.86	23.83	1.24
5.667	1.65	11.750	30.51	17.833	1.86	23.92	1.24
5.750	1.65	11.833	30.51	17.917	1.86	24.00	1.24
5.833	1.65	11.917	78.34	18.000	1.86	24.08	1.24
5.917	1.65	12.000	78.35	18.083	1.86	24.17	1.24
6.000	1.65	12.083	126.18	18.167	1.86		
6.083	1.65	12.167	126.18	18.250	1.86		

Max.Eff.Inten.(mm/hr)= 126.18 69.67
over (min) 5.00 10.00

Storage Coeff. (min)= 2.00 (ii) 8.86 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.31 0.12
 TOTALS
 PEAK FLOW (cms)= 0.16 0.15 0.317 (iii)
 TIME TO PEAK (hrs)= 12.17 12.17 12.17
 RUNOFF VOLUME (mm)= 101.59 40.14 56.11
 TOTAL RAINFALL (mm)= 103.09 103.09 103.09
 RUNOFF COEFFICIENT = 0.99 0.39 0.54

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 61.0 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 (1000)|

	1	2	3	AREA	QPEAK	TPEAK	R.V.
				(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0202):	1.81	0.317	12.17	56.11			
+ ID2= 2 (5000):	11.54	2.550	12.17	69.56			
=====							
ID = 3 (1000):	13.35	2.867	12.17	67.74			

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| ADD HYD (1000)|

	3	2	1	AREA	QPEAK	TPEAK	R.V.
				(ha)	(cms)	(hrs)	(mm)
ID1= 3 (1000):	13.35	2.867	12.17	67.74			
+ ID2= 2 (6000):	0.81	0.167	12.17	60.88			
=====							
ID = 1 (1000):	14.16	3.034	12.17	67.34			

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

V V I SSSSS U U A L (v6.2.2015)
V V I SS U U AA L
V V I SS U U AAAAA L
V V I SS U U A A L
W V I SSSSS UUUUU A A LLLLL

OOO TTTT TTTT H H Y Y M M OOO TM
O O T T H H Y Y M M M M O O
O O T T H H Y M M O O
OOO T T H H Y M M OOO

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***** DETAILED OUTPUT *****

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voain.dat
Output filename: C:\Users\ajoshi\AppData\Local\Civica\XH5\191a91e0-1a14-44fd-bc00-4941023c7dee\06610aeb-a434-4e39-b4de-23cd704e099f\scena
Summary filename: C:\Users\ajoshi\AppData\Local\Civica\XH5\191a91e0-1a14-44fd-bc00-4941023c7dee\06610aeb-a434-4e39-b4de-23cd704e099f\scena

DATE: 12-03-2025 TIME: 03:06:32

USER:

COMMENTS: _____

** SIMULATION : 5_25yr 24 hr 10min SCS Type I **

| READ STORM | Filename: C:\Users\ajoshi\AppData
| | ata\Local\Temp\
| | 2fba504a-caba-47c3-acc7-4c3af63c1cb9\2f42d0e
| Ptotal=121.70 mm | Comments: 25yr 24hr 10min SCS Type II

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	2.19	12.33	17.52	18.50	2.19
0.17	1.34	6.33	2.19	12.50	17.52	18.67	2.19
0.33	1.34	6.50	2.19	12.67	9.01	18.83	2.19
0.50	1.34	6.67	2.19	12.83	9.01	19.00	2.19
0.67	1.34	6.83	2.19	13.00	9.01	19.17	2.19
0.83	1.34	7.00	2.19	13.17	6.57	19.33	2.19
1.00	1.34	7.17	2.68	13.33	6.57	19.50	2.19
1.17	1.34	7.33	2.68	13.50	6.57	19.67	2.19
1.33	1.34	7.50	2.68	13.67	5.11	19.83	2.19
1.50	1.34	7.67	2.68	13.83	5.11	20.00	2.19
1.67	1.34	7.83	2.68	14.00	5.11	20.17	1.46
1.83	1.34	8.00	2.68	14.17	3.65	20.33	1.46
2.00	1.34	8.17	3.16	14.33	3.65	20.50	1.46
2.17	1.58	8.33	3.16	14.50	3.65	20.67	1.46
2.33	1.58	8.50	3.16	14.67	3.65	20.83	1.46
2.50	1.58	8.67	3.41	14.83	3.65	21.00	1.46
2.67	1.58	8.83	3.41	15.00	3.65	21.17	1.46
2.83	1.58	9.00	3.41	15.17	3.65	21.33	1.46
3.00	1.58	9.17	3.89	15.33	3.65	21.50	1.46
3.17	1.58	9.33	3.89	15.50	3.65	21.67	1.46
3.33	1.58	9.50	3.89	15.67	3.65	21.83	1.46
3.50	1.58	9.67	4.38	15.83	3.65	22.00	1.46
3.67	1.58	9.83	4.38	16.00	3.65	22.17	1.46
3.83	1.58	10.00	4.38	16.17	2.19	22.33	1.46

4.00	1.58	10.17	5.60	16.33	2.19	22.50	1.46
4.17	1.95	10.33	5.60	16.50	2.19	22.67	1.46
4.33	1.95	10.50	5.60	16.67	2.19	22.83	1.46
4.50	1.95	10.67	7.55	16.83	2.19	23.00	1.46
4.67	1.95	10.83	7.55	17.00	2.19	23.17	1.46
4.83	1.95	11.00	7.55	17.17	2.19	23.33	1.46
5.00	1.95	11.17	11.68	17.33	2.19	23.50	1.46
5.17	1.95	11.33	11.68	17.50	2.19	23.67	1.46
5.33	1.95	11.50	11.68	17.67	2.19	23.83	1.46
5.50	1.95	11.67	36.02	17.83	2.19	24.00	1.46
5.67	1.95	11.83	92.49	18.00	2.19		
5.83	1.95	12.00	148.96	18.17	2.19		
6.00	1.95	12.17	17.52	18.33	2.19		

 | CALIB |
 | NASHYD (0203) | Area (ha)= 0.29 Curve Number (CN)= 62.0
 | ID= 1 DT= 5.0 min | Ia (mm)= 5.00 # of Linear Res.(N)= 3.00
 ----- U.H. Tp(hrs)= 0.17

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.95	12.250	17.54	18.33	2.19
0.167	0.00	6.250	2.19	12.333	17.52	18.42	2.19
0.250	1.34	6.333	2.19	12.417	17.52	18.50	2.19
0.333	1.34	6.417	2.19	12.500	17.52	18.58	2.19
0.417	1.34	6.500	2.19	12.583	17.52	18.67	2.19
0.500	1.34	6.583	2.19	12.667	17.52	18.75	2.19
0.583	1.34	6.667	2.19	12.750	9.01	18.83	2.19
0.667	1.34	6.750	2.19	12.833	9.01	18.92	2.19
0.750	1.34	6.833	2.19	12.917	9.01	19.00	2.19
0.833	1.34	6.917	2.19	13.000	9.01	19.08	2.19
0.917	1.34	7.000	2.19	13.083	9.01	19.17	2.19
1.000	1.34	7.083	2.19	13.167	9.01	19.25	2.19
1.083	1.34	7.167	2.19	13.250	6.57	19.33	2.19
1.167	1.34	7.250	2.68	13.333	6.57	19.42	2.19
1.250	1.34	7.333	2.68	13.417	6.57	19.50	2.19
1.333	1.34	7.417	2.68	13.500	6.57	19.58	2.19
1.417	1.34	7.500	2.68	13.583	6.57	19.67	2.19
1.500	1.34	7.583	2.68	13.667	6.57	19.75	2.19
1.583	1.34	7.667	2.68	13.750	5.11	19.83	2.19
1.667	1.34	7.750	2.68	13.833	5.11	19.92	2.19
1.750	1.34	7.833	2.68	13.917	5.11	20.00	2.19
1.833	1.34	7.917	2.68	14.000	5.11	20.08	2.19
1.917	1.34	8.000	2.68	14.083	5.11	20.17	2.19
2.000	1.34	8.083	2.68	14.167	5.11	20.25	1.46
2.083	1.34	8.167	2.68	14.250	3.65	20.33	1.46
2.167	1.34	8.250	3.16	14.333	3.65	20.42	1.46
2.250	1.58	8.333	3.16	14.417	3.65	20.50	1.46
2.333	1.58	8.417	3.16	14.500	3.65	20.58	1.46
2.417	1.58	8.500	3.16	14.583	3.65	20.67	1.46
2.500	1.58	8.583	3.16	14.667	3.65	20.75	1.46
2.583	1.58	8.667	3.16	14.750	3.65	20.83	1.46
2.667	1.58	8.750	3.41	14.833	3.65	20.92	1.46
2.750	1.58	8.833	3.41	14.917	3.65	21.00	1.46
2.833	1.58	8.917	3.41	15.000	3.65	21.08	1.46
2.917	1.58	9.000	3.41	15.083	3.65	21.17	1.46
3.000	1.58	9.083	3.41	15.167	3.65	21.25	1.46
3.083	1.58	9.167	3.41	15.250	3.65	21.33	1.46
3.167	1.58	9.250	3.89	15.333	3.65	21.42	1.46
3.250	1.58	9.333	3.89	15.417	3.65	21.50	1.46
3.333	1.58	9.417	3.89	15.500	3.65	21.58	1.46
3.417	1.58	9.500	3.89	15.583	3.65	21.67	1.46
3.500	1.58	9.583	3.89	15.667	3.65	21.75	1.46
3.583	1.58	9.667	3.89	15.750	3.65	21.83	1.46
3.667	1.58	9.750	4.38	15.833	3.65	21.92	1.46
3.750	1.58	9.833	4.38	15.917	3.65	22.00	1.46

3.833	1.58	|9.917	4.38	|16.000	3.65	|22.08	1.46
3.917	1.58	|10.000	4.38	|16.083	3.65	|22.17	1.46
4.000	1.58	|10.083	4.38	|16.167	3.65	|22.25	1.46
4.083	1.58	|10.167	4.38	|16.250	2.19	|22.33	1.46
4.167	1.58	|10.250	5.60	|16.333	2.19	|22.42	1.46
4.250	1.95	|10.333	5.60	|16.417	2.19	|22.50	1.46
4.333	1.95	|10.417	5.60	|16.500	2.19	|22.58	1.46
4.417	1.95	|10.500	5.60	|16.583	2.19	|22.67	1.46
4.500	1.95	|10.583	5.60	|16.667	2.19	|22.75	1.46
4.583	1.95	|10.667	5.60	|16.750	2.19	|22.83	1.46
4.667	1.95	|10.750	7.55	|16.833	2.19	|22.92	1.46
4.750	1.95	|10.833	7.55	|16.917	2.19	|23.00	1.46
4.833	1.95	|10.917	7.55	|17.000	2.19	|23.08	1.46
4.917	1.95	|11.000	7.55	|17.083	2.19	|23.17	1.46
5.000	1.95	|11.083	7.55	|17.167	2.19	|23.25	1.46
5.083	1.95	|11.167	7.55	|17.250	2.19	|23.33	1.46
5.167	1.95	|11.250	11.68	|17.333	2.19	|23.42	1.46
5.250	1.95	|11.333	11.68	|17.417	2.19	|23.50	1.46
5.333	1.95	|11.417	11.68	|17.500	2.19	|23.58	1.46
5.417	1.95	|11.500	11.68	|17.583	2.19	|23.67	1.46
5.500	1.95	|11.583	11.68	|17.667	2.19	|23.75	1.46
5.583	1.95	|11.667	11.68	|17.750	2.19	|23.83	1.46
5.667	1.95	|11.750	36.02	|17.833	2.19	|23.92	1.46
5.750	1.95	|11.833	36.02	|17.917	2.19	|24.00	1.46
5.833	1.95	|11.917	92.49	|18.000	2.19	|24.08	1.46
5.917	1.95	|12.000	92.49	|18.083	2.19	|24.17	1.46
6.000	1.95	|12.083	148.95	|18.167	2.19	|	
6.083	1.95	|12.167	148.96	|18.250	2.19	|	

Unit Hyd Qpeak (cms)= 0.064

PEAK FLOW (cms)= 0.038 (i)
 TIME TO PEAK (hrs)= 12.250
 RUNOFF VOLUME (mm)= 49.820
 TOTAL RAINFALL (mm)= 121.700
 RUNOFF COEFFICIENT = 0.409

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

 | CALIB |
 | STANDHYD (0206) | Area (ha)= 0.52
 | ID= 1 DT= 5.0 min | Total Imp(%)= 63.00 Dir. Conn.(%)= 49.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 0.33 0.19
 Dep. Storage (mm)= 1.50 5.00
 Average Slope (%)= 2.00 2.00
 Length (m)= 59.10 15.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	|6.167	1.95	|12.250	17.54	|18.33	2.19
0.167	0.00	|6.250	2.19	|12.333	17.52	|18.42	2.19
0.250	1.34	|6.333	2.19	|12.417	17.52	|18.50	2.19
0.333	1.34	|6.417	2.19	|12.500	17.52	|18.58	2.19
0.417	1.34	|6.500	2.19	|12.583	17.52	|18.67	2.19
0.500	1.34	|6.583	2.19	|12.667	17.52	|18.75	2.19
0.583	1.34	|6.667	2.19	|12.750	9.01	|18.83	2.19
0.667	1.34	|6.750	2.19	|12.833	9.01	|18.92	2.19
0.750	1.34	|6.833	2.19	|12.917	9.01	|19.00	2.19
0.833	1.34	|6.917	2.19	|13.000	9.01	|19.08	2.19
0.917	1.34	|7.000	2.19	|13.083	9.01	|19.17	2.19
1.000	1.34	|7.083	2.19	|13.167	9.01	|19.25	2.19
1.083	1.34	|7.167	2.19	|13.250	6.57	|19.33	2.19
1.167	1.34	|7.250	2.68	|13.333	6.57	|19.42	2.19
1.250	1.34	|7.333	2.68	|13.417	6.57	|19.50	2.19

1.333	1.34	|	7.417	2.68	|	13.500	6.57	|	19.58	2.19
1.417	1.34	|	7.500	2.68	|	13.583	6.57	|	19.67	2.19
1.500	1.34	|	7.583	2.68	|	13.667	6.57	|	19.75	2.19
1.583	1.34	|	7.667	2.68	|	13.750	5.11	|	19.83	2.19
1.667	1.34	|	7.750	2.68	|	13.833	5.11	|	19.92	2.19
1.750	1.34	|	7.833	2.68	|	13.917	5.11	|	20.00	2.19
1.833	1.34	|	7.917	2.68	|	14.000	5.11	|	20.08	2.19
1.917	1.34	|	8.000	2.68	|	14.083	5.11	|	20.17	2.19
2.000	1.34	|	8.083	2.68	|	14.167	5.11	|	20.25	1.46
2.083	1.34	|	8.167	2.68	|	14.250	3.65	|	20.33	1.46
2.167	1.34	|	8.250	3.16	|	14.333	3.65	|	20.42	1.46
2.250	1.58	|	8.333	3.16	|	14.417	3.65	|	20.50	1.46
2.333	1.58	|	8.417	3.16	|	14.500	3.65	|	20.58	1.46
2.417	1.58	|	8.500	3.16	|	14.583	3.65	|	20.67	1.46
2.500	1.58	|	8.583	3.16	|	14.667	3.65	|	20.75	1.46
2.583	1.58	|	8.667	3.16	|	14.750	3.65	|	20.83	1.46
2.667	1.58	|	8.750	3.41	|	14.833	3.65	|	20.92	1.46
2.750	1.58	|	8.833	3.41	|	14.917	3.65	|	21.00	1.46
2.833	1.58	|	8.917	3.41	|	15.000	3.65	|	21.08	1.46
2.917	1.58	|	9.000	3.41	|	15.083	3.65	|	21.17	1.46
3.000	1.58	|	9.083	3.41	|	15.167	3.65	|	21.25	1.46
3.083	1.58	|	9.167	3.41	|	15.250	3.65	|	21.33	1.46
3.167	1.58	|	9.250	3.89	|	15.333	3.65	|	21.42	1.46
3.250	1.58	|	9.333	3.89	|	15.417	3.65	|	21.50	1.46
3.333	1.58	|	9.417	3.89	|	15.500	3.65	|	21.58	1.46
3.417	1.58	|	9.500	3.89	|	15.583	3.65	|	21.67	1.46
3.500	1.58	|	9.583	3.89	|	15.667	3.65	|	21.75	1.46
3.583	1.58	|	9.667	3.89	|	15.750	3.65	|	21.83	1.46
3.667	1.58	|	9.750	4.38	|	15.833	3.65	|	21.92	1.46
3.750	1.58	|	9.833	4.38	|	15.917	3.65	|	22.00	1.46
3.833	1.58	|	9.917	4.38	|	16.000	3.65	|	22.08	1.46
3.917	1.58	|	10.000	4.38	|	16.083	3.65	|	22.17	1.46
4.000	1.58	|	10.083	4.38	|	16.167	3.65	|	22.25	1.46
4.083	1.58	|	10.167	4.38	|	16.250	2.19	|	22.33	1.46
4.167	1.58	|	10.250	5.60	|	16.333	2.19	|	22.42	1.46
4.250	1.95	|	10.333	5.60	|	16.417	2.19	|	22.50	1.46
4.333	1.95	|	10.417	5.60	|	16.500	2.19	|	22.58	1.46
4.417	1.95	|	10.500	5.60	|	16.583	2.19	|	22.67	1.46
4.500	1.95	|	10.583	5.60	|	16.667	2.19	|	22.75	1.46
4.583	1.95	|	10.667	5.60	|	16.750	2.19	|	22.83	1.46
4.667	1.95	|	10.750	7.55	|	16.833	2.19	|	22.92	1.46
4.750	1.95	|	10.833	7.55	|	16.917	2.19	|	23.00	1.46
4.833	1.95	|	10.917	7.55	|	17.000	2.19	|	23.08	1.46
4.917	1.95	|	11.000	7.55	|	17.083	2.19	|	23.17	1.46
5.000	1.95	|	11.083	7.55	|	17.167	2.19	|	23.25	1.46
5.083	1.95	|	11.167	7.55	|	17.250	2.19	|	23.33	1.46
5.167	1.95	|	11.250	11.68	|	17.333	2.19	|	23.42	1.46
5.250	1.95	|	11.333	11.68	|	17.417	2.19	|	23.50	1.46
5.333	1.95	|	11.417	11.68	|	17.500	2.19	|	23.58	1.46
5.417	1.95	|	11.500	11.68	|	17.583	2.19	|	23.67	1.46
5.500	1.95	|	11.583	11.68	|	17.667	2.19	|	23.75	1.46
5.583	1.95	|	11.667	11.68	|	17.750	2.19	|	23.83	1.46
5.667	1.95	|	11.750	36.02	|	17.833	2.19	|	23.92	1.46
5.750	1.95	|	11.833	36.02	|	17.917	2.19	|	24.00	1.46
5.833	1.95	|	11.917	92.49	|	18.000	2.19	|	24.08	1.46
5.917	1.95	|	12.000	92.49	|	18.083	2.19	|	24.17	1.46
6.000	1.95	|	12.083	148.95	|	18.167	2.19	|		
6.083	1.95	|	12.167	148.96	|	18.250	2.19	|		

Max.Eff.Inten.(mm/hr)= 148.96 121.87
over (min) 5.00 5.00

Storage Coeff. (min)= 1.29 (ii) 4.28 (ii)

Unit Hyd. Tpeak (min)= 5.00 5.00

Unit Hyd. peak (cms)= 0.33 0.23

TOTALS

PEAK FLOW (cms)= 0.11 0.06 0.170 (iii)

TIME TO PEAK (hrs)= 12.17 12.17 12.17

RUNOFF VOLUME (mm)= 120.20 60.35 89.67

TOTAL RAINFALL (mm)= 121.70 121.70 121.70

RUNOFF COEFFICIENT = 0.99 0.50 0.74

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

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:

CN* = 62.0 la = 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 (6000)|

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

ID1= 1 (0203): 0.29 0.038 12.25 49.82

+ ID2= 2 (0206): 0.52 0.170 12.17 89.67

=====

ID = 3 (6000): 0.81 0.208 12.17 75.57

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| CALIB |

| NASHYD (0205)| Area (ha)= 0.16 Curve Number (CN)= 62.0

| ID= 1 DT= 5.0 min | la (mm)= 5.00 # of Linear Res.(N)= 3.00

----- U.H. Tp(hrs)= 0.17

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.95	12.250	17.54	18.33	2.19
0.167	0.00	6.250	2.19	12.333	17.52	18.42	2.19
0.250	1.34	6.333	2.19	12.417	17.52	18.50	2.19
0.333	1.34	6.417	2.19	12.500	17.52	18.58	2.19
0.417	1.34	6.500	2.19	12.583	17.52	18.67	2.19
0.500	1.34	6.583	2.19	12.667	17.52	18.75	2.19
0.583	1.34	6.667	2.19	12.750	9.01	18.83	2.19
0.667	1.34	6.750	2.19	12.833	9.01	18.92	2.19
0.750	1.34	6.833	2.19	12.917	9.01	19.00	2.19
0.833	1.34	6.917	2.19	13.000	9.01	19.08	2.19
0.917	1.34	7.000	2.19	13.083	9.01	19.17	2.19
1.000	1.34	7.083	2.19	13.167	9.01	19.25	2.19
1.083	1.34	7.167	2.19	13.250	6.57	19.33	2.19
1.167	1.34	7.250	2.68	13.333	6.57	19.42	2.19
1.250	1.34	7.333	2.68	13.417	6.57	19.50	2.19
1.333	1.34	7.417	2.68	13.500	6.57	19.58	2.19
1.417	1.34	7.500	2.68	13.583	6.57	19.67	2.19
1.500	1.34	7.583	2.68	13.667	6.57	19.75	2.19
1.583	1.34	7.667	2.68	13.750	5.11	19.83	2.19
1.667	1.34	7.750	2.68	13.833	5.11	19.92	2.19
1.750	1.34	7.833	2.68	13.917	5.11	20.00	2.19
1.833	1.34	7.917	2.68	14.000	5.11	20.08	2.19
1.917	1.34	8.000	2.68	14.083	5.11	20.17	2.19
2.000	1.34	8.083	2.68	14.167	5.11	20.25	1.46
2.083	1.34	8.167	2.68	14.250	3.65	20.33	1.46
2.167	1.34	8.250	3.16	14.333	3.65	20.42	1.46
2.250	1.58	8.333	3.16	14.417	3.65	20.50	1.46
2.333	1.58	8.417	3.16	14.500	3.65	20.58	1.46
2.417	1.58	8.500	3.16	14.583	3.65	20.67	1.46
2.500	1.58	8.583	3.16	14.667	3.65	20.75	1.46
2.583	1.58	8.667	3.16	14.750	3.65	20.83	1.46
2.667	1.58	8.750	3.41	14.833	3.65	20.92	1.46
2.750	1.58	8.833	3.41	14.917	3.65	21.00	1.46
2.833	1.58	8.917	3.41	15.000	3.65	21.08	1.46
2.917	1.58	9.000	3.41	15.083	3.65	21.17	1.46
3.000	1.58	9.083	3.41	15.167	3.65	21.25	1.46
3.083	1.58	9.167	3.41	15.250	3.65	21.33	1.46
3.167	1.58	9.250	3.89	15.333	3.65	21.42	1.46
3.250	1.58	9.333	3.89	15.417	3.65	21.50	1.46
3.333	1.58	9.417	3.89	15.500	3.65	21.58	1.46
3.417	1.58	9.500	3.89	15.583	3.65	21.67	1.46
3.500	1.58	9.583	3.89	15.667	3.65	21.75	1.46

3.583	1.58	|9.667	3.89	|15.750	3.65	|21.83	1.46
3.667	1.58	|9.750	4.38	|15.833	3.65	|21.92	1.46
3.750	1.58	|9.833	4.38	|15.917	3.65	|22.00	1.46
3.833	1.58	|9.917	4.38	|16.000	3.65	|22.08	1.46
3.917	1.58	|10.000	4.38	|16.083	3.65	|22.17	1.46
4.000	1.58	|10.083	4.38	|16.167	3.65	|22.25	1.46
4.083	1.58	|10.167	4.38	|16.250	2.19	|22.33	1.46
4.167	1.58	|10.250	5.60	|16.333	2.19	|22.42	1.46
4.250	1.95	|10.333	5.60	|16.417	2.19	|22.50	1.46
4.333	1.95	|10.417	5.60	|16.500	2.19	|22.58	1.46
4.417	1.95	|10.500	5.60	|16.583	2.19	|22.67	1.46
4.500	1.95	|10.583	5.60	|16.667	2.19	|22.75	1.46
4.583	1.95	|10.667	5.60	|16.750	2.19	|22.83	1.46
4.667	1.95	|10.750	7.55	|16.833	2.19	|22.92	1.46
4.750	1.95	|10.833	7.55	|16.917	2.19	|23.00	1.46
4.833	1.95	|10.917	7.55	|17.000	2.19	|23.08	1.46
4.917	1.95	|11.000	7.55	|17.083	2.19	|23.17	1.46
5.000	1.95	|11.083	7.55	|17.167	2.19	|23.25	1.46
5.083	1.95	|11.167	7.55	|17.250	2.19	|23.33	1.46
5.167	1.95	|11.250	11.68	|17.333	2.19	|23.42	1.46
5.250	1.95	|11.333	11.68	|17.417	2.19	|23.50	1.46
5.333	1.95	|11.417	11.68	|17.500	2.19	|23.58	1.46
5.417	1.95	|11.500	11.68	|17.583	2.19	|23.67	1.46
5.500	1.95	|11.583	11.68	|17.667	2.19	|23.75	1.46
5.583	1.95	|11.667	11.68	|17.750	2.19	|23.83	1.46
5.667	1.95	|11.750	36.02	|17.833	2.19	|23.92	1.46
5.750	1.95	|11.833	36.02	|17.917	2.19	|24.00	1.46
5.833	1.95	|11.917	92.49	|18.000	2.19	|24.08	1.46
5.917	1.95	|12.000	92.49	|18.083	2.19	|24.17	1.46
6.000	1.95	|12.083	148.95	|18.167	2.19	|	
6.083	1.95	|12.167	148.96	|18.250	2.19	|	

Unit Hyd Qpeak (cms)= 0.035

PEAK FLOW (cms)= 0.021 (i)

TIME TO PEAK (hrs)= 12.250

RUNOFF VOLUME (mm)= 49.818

TOTAL RAINFALL (mm)= 121.700

RUNOFF COEFFICIENT = 0.409

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

 | CALIB |
 | STANDHYD (0204) | Area (ha)= 0.48
 | ID= 1 DT= 5.0 min | Total Imp(%)= 73.00 Dir. Conn.(%)= 73.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.35	0.13
Dep. Storage (mm)=	1.50	5.00
Average Slope (%)=	5.00	5.00
Length (m)=	56.57	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	|6.167	1.95	|12.250	17.54	|18.33	2.19
0.167	0.00	|6.250	2.19	|12.333	17.52	|18.42	2.19
0.250	1.34	|6.333	2.19	|12.417	17.52	|18.50	2.19
0.333	1.34	|6.417	2.19	|12.500	17.52	|18.58	2.19
0.417	1.34	|6.500	2.19	|12.583	17.52	|18.67	2.19
0.500	1.34	|6.583	2.19	|12.667	17.52	|18.75	2.19
0.583	1.34	|6.667	2.19	|12.750	9.01	|18.83	2.19
0.667	1.34	|6.750	2.19	|12.833	9.01	|18.92	2.19
0.750	1.34	|6.833	2.19	|12.917	9.01	|19.00	2.19
0.833	1.34	|6.917	2.19	|13.000	9.01	|19.08	2.19
0.917	1.34	|7.000	2.19	|13.083	9.01	|19.17	2.19
1.000	1.34	|7.083	2.19	|13.167	9.01	|19.25	2.19

1.083	1.34	7.167	2.19	13.250	6.57	19.33	2.19
1.167	1.34	7.250	2.68	13.333	6.57	19.42	2.19
1.250	1.34	7.333	2.68	13.417	6.57	19.50	2.19
1.333	1.34	7.417	2.68	13.500	6.57	19.58	2.19
1.417	1.34	7.500	2.68	13.583	6.57	19.67	2.19
1.500	1.34	7.583	2.68	13.667	6.57	19.75	2.19
1.583	1.34	7.667	2.68	13.750	5.11	19.83	2.19
1.667	1.34	7.750	2.68	13.833	5.11	19.92	2.19
1.750	1.34	7.833	2.68	13.917	5.11	20.00	2.19
1.833	1.34	7.917	2.68	14.000	5.11	20.08	2.19
1.917	1.34	8.000	2.68	14.083	5.11	20.17	2.19
2.000	1.34	8.083	2.68	14.167	5.11	20.25	1.46
2.083	1.34	8.167	2.68	14.250	3.65	20.33	1.46
2.167	1.34	8.250	3.16	14.333	3.65	20.42	1.46
2.250	1.58	8.333	3.16	14.417	3.65	20.50	1.46
2.333	1.58	8.417	3.16	14.500	3.65	20.58	1.46
2.417	1.58	8.500	3.16	14.583	3.65	20.67	1.46
2.500	1.58	8.583	3.16	14.667	3.65	20.75	1.46
2.583	1.58	8.667	3.16	14.750	3.65	20.83	1.46
2.667	1.58	8.750	3.41	14.833	3.65	20.92	1.46
2.750	1.58	8.833	3.41	14.917	3.65	21.00	1.46
2.833	1.58	8.917	3.41	15.000	3.65	21.08	1.46
2.917	1.58	9.000	3.41	15.083	3.65	21.17	1.46
3.000	1.58	9.083	3.41	15.167	3.65	21.25	1.46
3.083	1.58	9.167	3.41	15.250	3.65	21.33	1.46
3.167	1.58	9.250	3.89	15.333	3.65	21.42	1.46
3.250	1.58	9.333	3.89	15.417	3.65	21.50	1.46
3.333	1.58	9.417	3.89	15.500	3.65	21.58	1.46
3.417	1.58	9.500	3.89	15.583	3.65	21.67	1.46
3.500	1.58	9.583	3.89	15.667	3.65	21.75	1.46
3.583	1.58	9.667	3.89	15.750	3.65	21.83	1.46
3.667	1.58	9.750	4.38	15.833	3.65	21.92	1.46
3.750	1.58	9.833	4.38	15.917	3.65	22.00	1.46
3.833	1.58	9.917	4.38	16.000	3.65	22.08	1.46
3.917	1.58	10.000	4.38	16.083	3.65	22.17	1.46
4.000	1.58	10.083	4.38	16.167	3.65	22.25	1.46
4.083	1.58	10.167	4.38	16.250	2.19	22.33	1.46
4.167	1.58	10.250	5.60	16.333	2.19	22.42	1.46
4.250	1.95	10.333	5.60	16.417	2.19	22.50	1.46
4.333	1.95	10.417	5.60	16.500	2.19	22.58	1.46
4.417	1.95	10.500	5.60	16.583	2.19	22.67	1.46
4.500	1.95	10.583	5.60	16.667	2.19	22.75	1.46
4.583	1.95	10.667	5.60	16.750	2.19	22.83	1.46
4.667	1.95	10.750	7.55	16.833	2.19	22.92	1.46
4.750	1.95	10.833	7.55	16.917	2.19	23.00	1.46
4.833	1.95	10.917	7.55	17.000	2.19	23.08	1.46
4.917	1.95	11.000	7.55	17.083	2.19	23.17	1.46
5.000	1.95	11.083	7.55	17.167	2.19	23.25	1.46
5.083	1.95	11.167	7.55	17.250	2.19	23.33	1.46
5.167	1.95	11.250	11.68	17.333	2.19	23.42	1.46
5.250	1.95	11.333	11.68	17.417	2.19	23.50	1.46
5.333	1.95	11.417	11.68	17.500	2.19	23.58	1.46
5.417	1.95	11.500	11.68	17.583	2.19	23.67	1.46
5.500	1.95	11.583	11.68	17.667	2.19	23.75	1.46
5.583	1.95	11.667	11.68	17.750	2.19	23.83	1.46
5.667	1.95	11.750	36.02	17.833	2.19	23.92	1.46
5.750	1.95	11.833	36.02	17.917	2.19	24.00	1.46
5.833	1.95	11.917	92.49	18.000	2.19	24.08	1.46
5.917	1.95	12.000	92.49	18.083	2.19	24.17	1.46
6.000	1.95	12.083	148.95	18.167	2.19		
6.083	1.95	12.167	148.96	18.250	2.19		

Max.Eff.Inten.(mm/hr)= 148.96 73.41
over (min) 5.00 5.00

Storage Coeff. (min)= 0.95 (ii) 4.03 (ii)

Unit Hyd. Tpeak (min)= 5.00 5.00

Unit Hyd. peak (cms)= 0.34 0.24

TOTALS

PEAK FLOW (cms)= 0.14 0.03 0.171 (iii)

TIME TO PEAK (hrs)= 12.17 12.17 12.17

RUNOFF VOLUME (mm)= 120.20 50.00 101.24

TOTAL RAINFALL (mm)= 121.70 121.70 121.70

RUNOFF COEFFICIENT = 0.99 0.41 0.83

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 62.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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-----
| ADD HYD ( 0023)|
| 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
----- (ha) (cms) (hrs) (mm)
ID1= 1 ( 0204): 0.48 0.171 12.17 101.24
+ ID2= 2 ( 0205): 0.16 0.021 12.25 49.82
=====
ID = 3 ( 0023): 0.64 0.192 12.17 88.51

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NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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| CALIB |
| STANDHYD ( 0200)| Area (ha)= 9.56
| ID= 1 DT= 5.0 min | Total Imp(%)= 56.00 Dir. Conn.(%)= 46.00
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IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 5.35 4.21
Dep. Storage (mm)= 1.50 5.00
Average Slope (%)= 2.00 2.00
Length (m)= 252.45 30.00
Mannings n = 0.013 0.250

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NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

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---- TRANSFORMED HYETOGRAPH ----
TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr
0.083 0.00 | 6.167 1.95 | 12.250 17.54 | 18.33 2.19
0.167 0.00 | 6.250 2.19 | 12.333 17.52 | 18.42 2.19
0.250 1.34 | 6.333 2.19 | 12.417 17.52 | 18.50 2.19
0.333 1.34 | 6.417 2.19 | 12.500 17.52 | 18.58 2.19
0.417 1.34 | 6.500 2.19 | 12.583 17.52 | 18.67 2.19
0.500 1.34 | 6.583 2.19 | 12.667 17.52 | 18.75 2.19
0.583 1.34 | 6.667 2.19 | 12.750 9.01 | 18.83 2.19
0.667 1.34 | 6.750 2.19 | 12.833 9.01 | 18.92 2.19
0.750 1.34 | 6.833 2.19 | 12.917 9.01 | 19.00 2.19
0.833 1.34 | 6.917 2.19 | 13.000 9.01 | 19.08 2.19
0.917 1.34 | 7.000 2.19 | 13.083 9.01 | 19.17 2.19
1.000 1.34 | 7.083 2.19 | 13.167 9.01 | 19.25 2.19
1.083 1.34 | 7.167 2.19 | 13.250 6.57 | 19.33 2.19
1.167 1.34 | 7.250 2.68 | 13.333 6.57 | 19.42 2.19
1.250 1.34 | 7.333 2.68 | 13.417 6.57 | 19.50 2.19
1.333 1.34 | 7.417 2.68 | 13.500 6.57 | 19.58 2.19
1.417 1.34 | 7.500 2.68 | 13.583 6.57 | 19.67 2.19
1.500 1.34 | 7.583 2.68 | 13.667 6.57 | 19.75 2.19
1.583 1.34 | 7.667 2.68 | 13.750 5.11 | 19.83 2.19
1.667 1.34 | 7.750 2.68 | 13.833 5.11 | 19.92 2.19
1.750 1.34 | 7.833 2.68 | 13.917 5.11 | 20.00 2.19
1.833 1.34 | 7.917 2.68 | 14.000 5.11 | 20.08 2.19
1.917 1.34 | 8.000 2.68 | 14.083 5.11 | 20.17 2.19
2.000 1.34 | 8.083 2.68 | 14.167 5.11 | 20.25 1.46
2.083 1.34 | 8.167 2.68 | 14.250 3.65 | 20.33 1.46
2.167 1.34 | 8.250 3.16 | 14.333 3.65 | 20.42 1.46
2.250 1.58 | 8.333 3.16 | 14.417 3.65 | 20.50 1.46
2.333 1.58 | 8.417 3.16 | 14.500 3.65 | 20.58 1.46
2.417 1.58 | 8.500 3.16 | 14.583 3.65 | 20.67 1.46
2.500 1.58 | 8.583 3.16 | 14.667 3.65 | 20.75 1.46
2.583 1.58 | 8.667 3.16 | 14.750 3.65 | 20.83 1.46
2.667 1.58 | 8.750 3.41 | 14.833 3.65 | 20.92 1.46
2.750 1.58 | 8.833 3.41 | 14.917 3.65 | 21.00 1.46

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2.833	1.58	8.917	3.41	15.000	3.65	21.08	1.46
2.917	1.58	9.000	3.41	15.083	3.65	21.17	1.46
3.000	1.58	9.083	3.41	15.167	3.65	21.25	1.46
3.083	1.58	|9.167	3.41	|15.250	3.65	|21.33	1.46
3.167	1.58	|9.250	3.89	|15.333	3.65	|21.42	1.46
3.250	1.58	|9.333	3.89	|15.417	3.65	|21.50	1.46
3.333	1.58	|9.417	3.89	|15.500	3.65	|21.58	1.46
3.417	1.58	|9.500	3.89	|15.583	3.65	|21.67	1.46
3.500	1.58	|9.583	3.89	|15.667	3.65	|21.75	1.46
3.583	1.58	|9.667	3.89	|15.750	3.65	|21.83	1.46
3.667	1.58	|9.750	4.38	|15.833	3.65	|21.92	1.46
3.750	1.58	|9.833	4.38	|15.917	3.65	|22.00	1.46
3.833	1.58	|9.917	4.38	|16.000	3.65	|22.08	1.46
3.917	1.58	|10.000	4.38	|16.083	3.65	|22.17	1.46
4.000	1.58	|10.083	4.38	|16.167	3.65	|22.25	1.46
4.083	1.58	|10.167	4.38	|16.250	2.19	|22.33	1.46
4.167	1.58	|10.250	5.60	|16.333	2.19	|22.42	1.46
4.250	1.95	|10.333	5.60	|16.417	2.19	|22.50	1.46
4.333	1.95	|10.417	5.60	|16.500	2.19	|22.58	1.46
4.417	1.95	|10.500	5.60	|16.583	2.19	|22.67	1.46
4.500	1.95	|10.583	5.60	|16.667	2.19	|22.75	1.46
4.583	1.95	|10.667	5.60	|16.750	2.19	|22.83	1.46
4.667	1.95	|10.750	7.55	|16.833	2.19	|22.92	1.46
4.750	1.95	|10.833	7.55	|16.917	2.19	|23.00	1.46
4.833	1.95	|10.917	7.55	|17.000	2.19	|23.08	1.46
4.917	1.95	|11.000	7.55	|17.083	2.19	|23.17	1.46
5.000	1.95	|11.083	7.55	|17.167	2.19	|23.25	1.46
5.083	1.95	|11.167	7.55	|17.250	2.19	|23.33	1.46
5.167	1.95	|11.250	11.68	|17.333	2.19	|23.42	1.46
5.250	1.95	|11.333	11.68	|17.417	2.19	|23.50	1.46
5.333	1.95	|11.417	11.68	|17.500	2.19	|23.58	1.46
5.417	1.95	|11.500	11.68	|17.583	2.19	|23.67	1.46
5.500	1.95	|11.583	11.68	|17.667	2.19	|23.75	1.46
5.583	1.95	|11.667	11.68	|17.750	2.19	|23.83	1.46
5.667	1.95	|11.750	36.02	|17.833	2.19	|23.92	1.46
5.750	1.95	|11.833	36.02	|17.917	2.19	|24.00	1.46
5.833	1.95	|11.917	92.49	|18.000	2.19	|24.08	1.46
5.917	1.95	|12.000	92.49	|18.083	2.19	|24.17	1.46
6.000	1.95	|12.083	148.95	|18.167	2.19	|	
6.083	1.95	|12.167	148.96	|18.250	2.19	|	

Max.Eff.Inten.(mm/hr)= 148.96 101.88
over (min) 5.00 10.00

Storage Coeff. (min)= 3.08 (ii) 8.06 (ii)

Unit Hyd. Tpeak (min)= 5.00 10.00

Unit Hyd. peak (cms)= 0.27 0.13

TOTALS

PEAK FLOW (cms)= 1.79 0.87 2.658 (iii)

TIME TO PEAK (hrs)= 12.17 12.17 12.17

RUNOFF VOLUME (mm)= 120.20 56.59 85.85

TOTAL RAINFALL (mm)= 121.70 121.70 121.70

RUNOFF COEFFICIENT = 0.99 0.47 0.71

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

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:

CN* = 62.0 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 |

| STANDHYD (0201) | Area (ha)= 1.34

| ID= 1 DT= 5.0 min | Total Imp(%)= 50.00 Dir. Conn.(%)= 50.00

IMPERVIOUS PERVIOUS (i)

Surface Area (ha)= 0.67 0.67

Dep. Storage (mm)= 1.50 10.00

Average Slope (%)= 2.00 2.00

Length (m)= 94.52 30.00

Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.95	12.250	17.54	18.33	2.19
0.167	0.00	6.250	2.19	12.333	17.52	18.42	2.19
0.250	1.34	6.333	2.19	12.417	17.52	18.50	2.19
0.333	1.34	6.417	2.19	12.500	17.52	18.58	2.19
0.417	1.34	6.500	2.19	12.583	17.52	18.67	2.19
0.500	1.34	6.583	2.19	12.667	17.52	18.75	2.19
0.583	1.34	6.667	2.19	12.750	9.01	18.83	2.19
0.667	1.34	6.750	2.19	12.833	9.01	18.92	2.19
0.750	1.34	6.833	2.19	12.917	9.01	19.00	2.19
0.833	1.34	6.917	2.19	13.000	9.01	19.08	2.19
0.917	1.34	7.000	2.19	13.083	9.01	19.17	2.19
1.000	1.34	7.083	2.19	13.167	9.01	19.25	2.19
1.083	1.34	7.167	2.19	13.250	6.57	19.33	2.19
1.167	1.34	7.250	2.68	13.333	6.57	19.42	2.19
1.250	1.34	7.333	2.68	13.417	6.57	19.50	2.19
1.333	1.34	7.417	2.68	13.500	6.57	19.58	2.19
1.417	1.34	7.500	2.68	13.583	6.57	19.67	2.19
1.500	1.34	7.583	2.68	13.667	6.57	19.75	2.19
1.583	1.34	7.667	2.68	13.750	5.11	19.83	2.19
1.667	1.34	7.750	2.68	13.833	5.11	19.92	2.19
1.750	1.34	7.833	2.68	13.917	5.11	20.00	2.19
1.833	1.34	7.917	2.68	14.000	5.11	20.08	2.19
1.917	1.34	8.000	2.68	14.083	5.11	20.17	2.19
2.000	1.34	8.083	2.68	14.167	5.11	20.25	1.46
2.083	1.34	8.167	2.68	14.250	3.65	20.33	1.46
2.167	1.34	8.250	3.16	14.333	3.65	20.42	1.46
2.250	1.58	8.333	3.16	14.417	3.65	20.50	1.46
2.333	1.58	8.417	3.16	14.500	3.65	20.58	1.46
2.417	1.58	8.500	3.16	14.583	3.65	20.67	1.46
2.500	1.58	8.583	3.16	14.667	3.65	20.75	1.46
2.583	1.58	8.667	3.16	14.750	3.65	20.83	1.46
2.667	1.58	8.750	3.41	14.833	3.65	20.92	1.46
2.750	1.58	8.833	3.41	14.917	3.65	21.00	1.46
2.833	1.58	8.917	3.41	15.000	3.65	21.08	1.46
2.917	1.58	9.000	3.41	15.083	3.65	21.17	1.46
3.000	1.58	9.083	3.41	15.167	3.65	21.25	1.46
3.083	1.58	9.167	3.41	15.250	3.65	21.33	1.46
3.167	1.58	9.250	3.89	15.333	3.65	21.42	1.46
3.250	1.58	9.333	3.89	15.417	3.65	21.50	1.46
3.333	1.58	9.417	3.89	15.500	3.65	21.58	1.46
3.417	1.58	9.500	3.89	15.583	3.65	21.67	1.46
3.500	1.58	9.583	3.89	15.667	3.65	21.75	1.46
3.583	1.58	9.667	3.89	15.750	3.65	21.83	1.46
3.667	1.58	9.750	4.38	15.833	3.65	21.92	1.46
3.750	1.58	9.833	4.38	15.917	3.65	22.00	1.46
3.833	1.58	9.917	4.38	16.000	3.65	22.08	1.46
3.917	1.58	10.000	4.38	16.083	3.65	22.17	1.46
4.000	1.58	10.083	4.38	16.167	3.65	22.25	1.46
4.083	1.58	10.167	4.38	16.250	2.19	22.33	1.46
4.167	1.58	10.250	5.60	16.333	2.19	22.42	1.46
4.250	1.95	10.333	5.60	16.417	2.19	22.50	1.46
4.333	1.95	10.417	5.60	16.500	2.19	22.58	1.46
4.417	1.95	10.500	5.60	16.583	2.19	22.67	1.46
4.500	1.95	10.583	5.60	16.667	2.19	22.75	1.46
4.583	1.95	10.667	5.60	16.750	2.19	22.83	1.46
4.667	1.95	10.750	7.55	16.833	2.19	22.92	1.46
4.750	1.95	10.833	7.55	16.917	2.19	23.00	1.46
4.833	1.95	10.917	7.55	17.000	2.19	23.08	1.46
4.917	1.95	11.000	7.55	17.083	2.19	23.17	1.46
5.000	1.95	11.083	7.55	17.167	2.19	23.25	1.46
5.083	1.95	11.167	7.55	17.250	2.19	23.33	1.46
5.167	1.95	11.250	11.68	17.333	2.19	23.42	1.46
5.250	1.95	11.333	11.68	17.417	2.19	23.50	1.46
5.333	1.95	11.417	11.68	17.500	2.19	23.58	1.46
5.417	1.95	11.500	11.68	17.583	2.19	23.67	1.46
5.500	1.95	11.583	11.68	17.667	2.19	23.75	1.46

5.583	1.95	|11.667	11.68	|17.750	2.19	|23.83	1.46
5.667	1.95	|11.750	36.02	|17.833	2.19	|23.92	1.46
5.750	1.95	|11.833	36.02	|17.917	2.19	|24.00	1.46
5.833	1.95	|11.917	92.49	|18.000	2.19	|24.08	1.46
5.917	1.95	|12.000	92.49	|18.083	2.19	|24.17	1.46
6.000	1.95	|12.083	148.95	|18.167	2.19	|	
6.083	1.95	|12.167	148.96	|18.250	2.19	|	

Max.Eff.Inten.(mm/hr)= 148.96 51.73
over (min) 5.00 10.00

Storage Coeff. (min)= 1.71 (ii) 9.44 (ii)

Unit Hyd. Tpeak (min)= 5.00 10.00

Unit Hyd. peak (cms)= 0.32 0.12

TOTALS

PEAK FLOW (cms)= 0.28 0.06 0.341 (iii)

TIME TO PEAK (hrs)= 12.17 12.25 12.17

RUNOFF VOLUME (mm)= 120.20 35.07 77.63

TOTAL RAINFALL (mm)= 121.70 121.70 121.70

RUNOFF COEFFICIENT = 0.99 0.29 0.64

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

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:

CN* = 51.0 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 (3000)|

| 1 + 2 = 3 | AREA QPEAK TPEAK R.V.

(ha) (cms) (hrs) (mm)

ID1= 1 (0200): 9.56 2.658 12.17 85.85

+ ID2= 2 (0201): 1.34 0.341 12.17 77.63

=====
ID = 3 (3000): 10.90 2.998 12.17 84.84

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| ADD HYD (5000)|

| 1 + 2 = 3 | AREA QPEAK TPEAK R.V.

(ha) (cms) (hrs) (mm)

ID1= 1 (0023): 0.64 0.192 12.17 88.51

+ ID2= 2 (3000): 10.90 2.998 12.17 84.84

=====
ID = 3 (5000): 11.54 3.190 12.17 85.04

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| CALIB |

| STANDHYD (0202)| Area (ha)= 1.81

| ID= 1 DT= 5.0 min | Total Imp(%)= 37.00 Dir. Conn.(%)= 26.00

IMPERVIOUS PERVIOUS (i)

Surface Area (ha)= 0.67 1.14

Dep. Storage (mm)= 1.50 6.90

Average Slope (%)= 2.00 2.00

Length (m)= 109.85 30.00

Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME RAIN | TIME RAIN |' TIME RAIN | TIME RAIN

hrs mm/hr | hrs mm/hr |' hrs mm/hr | hrs mm/hr

0.083 0.00 | 6.167 1.95 | 12.250 17.54 | 18.33 2.19

0.167 0.00 | 6.250 2.19 | 12.333 17.52 | 18.42 2.19

0.250	1.34	6.333	2.19	12.417	17.52	18.50	2.19
0.333	1.34	6.417	2.19	12.500	17.52	18.58	2.19
0.417	1.34	6.500	2.19	12.583	17.52	18.67	2.19
0.500	1.34	6.583	2.19	12.667	17.52	18.75	2.19
0.583	1.34	6.667	2.19	12.750	9.01	18.83	2.19
0.667	1.34	6.750	2.19	12.833	9.01	18.92	2.19
0.750	1.34	6.833	2.19	12.917	9.01	19.00	2.19
0.833	1.34	6.917	2.19	13.000	9.01	19.08	2.19
0.917	1.34	7.000	2.19	13.083	9.01	19.17	2.19
1.000	1.34	7.083	2.19	13.167	9.01	19.25	2.19
1.083	1.34	7.167	2.19	13.250	6.57	19.33	2.19
1.167	1.34	7.250	2.68	13.333	6.57	19.42	2.19
1.250	1.34	7.333	2.68	13.417	6.57	19.50	2.19
1.333	1.34	7.417	2.68	13.500	6.57	19.58	2.19
1.417	1.34	7.500	2.68	13.583	6.57	19.67	2.19
1.500	1.34	7.583	2.68	13.667	6.57	19.75	2.19
1.583	1.34	7.667	2.68	13.750	5.11	19.83	2.19
1.667	1.34	7.750	2.68	13.833	5.11	19.92	2.19
1.750	1.34	7.833	2.68	13.917	5.11	20.00	2.19
1.833	1.34	7.917	2.68	14.000	5.11	20.08	2.19
1.917	1.34	8.000	2.68	14.083	5.11	20.17	2.19
2.000	1.34	8.083	2.68	14.167	5.11	20.25	1.46
2.083	1.34	8.167	2.68	14.250	3.65	20.33	1.46
2.167	1.34	8.250	3.16	14.333	3.65	20.42	1.46
2.250	1.58	8.333	3.16	14.417	3.65	20.50	1.46
2.333	1.58	8.417	3.16	14.500	3.65	20.58	1.46
2.417	1.58	8.500	3.16	14.583	3.65	20.67	1.46
2.500	1.58	8.583	3.16	14.667	3.65	20.75	1.46
2.583	1.58	8.667	3.16	14.750	3.65	20.83	1.46
2.667	1.58	8.750	3.41	14.833	3.65	20.92	1.46
2.750	1.58	8.833	3.41	14.917	3.65	21.00	1.46
2.833	1.58	8.917	3.41	15.000	3.65	21.08	1.46
2.917	1.58	9.000	3.41	15.083	3.65	21.17	1.46
3.000	1.58	9.083	3.41	15.167	3.65	21.25	1.46
3.083	1.58	9.167	3.41	15.250	3.65	21.33	1.46
3.167	1.58	9.250	3.89	15.333	3.65	21.42	1.46
3.250	1.58	9.333	3.89	15.417	3.65	21.50	1.46
3.333	1.58	9.417	3.89	15.500	3.65	21.58	1.46
3.417	1.58	9.500	3.89	15.583	3.65	21.67	1.46
3.500	1.58	9.583	3.89	15.667	3.65	21.75	1.46
3.583	1.58	9.667	3.89	15.750	3.65	21.83	1.46
3.667	1.58	9.750	4.38	15.833	3.65	21.92	1.46
3.750	1.58	9.833	4.38	15.917	3.65	22.00	1.46
3.833	1.58	9.917	4.38	16.000	3.65	22.08	1.46
3.917	1.58	10.000	4.38	16.083	3.65	22.17	1.46
4.000	1.58	10.083	4.38	16.167	3.65	22.25	1.46
4.083	1.58	10.167	4.38	16.250	2.19	22.33	1.46
4.167	1.58	10.250	5.60	16.333	2.19	22.42	1.46
4.250	1.95	10.333	5.60	16.417	2.19	22.50	1.46
4.333	1.95	10.417	5.60	16.500	2.19	22.58	1.46
4.417	1.95	10.500	5.60	16.583	2.19	22.67	1.46
4.500	1.95	10.583	5.60	16.667	2.19	22.75	1.46
4.583	1.95	10.667	5.60	16.750	2.19	22.83	1.46
4.667	1.95	10.750	7.55	16.833	2.19	22.92	1.46
4.750	1.95	10.833	7.55	16.917	2.19	23.00	1.46
4.833	1.95	10.917	7.55	17.000	2.19	23.08	1.46
4.917	1.95	11.000	7.55	17.083	2.19	23.17	1.46
5.000	1.95	11.083	7.55	17.167	2.19	23.25	1.46
5.083	1.95	11.167	7.55	17.250	2.19	23.33	1.46
5.167	1.95	11.250	11.68	17.333	2.19	23.42	1.46
5.250	1.95	11.333	11.68	17.417	2.19	23.50	1.46
5.333	1.95	11.417	11.68	17.500	2.19	23.58	1.46
5.417	1.95	11.500	11.68	17.583	2.19	23.67	1.46
5.500	1.95	11.583	11.68	17.667	2.19	23.75	1.46
5.583	1.95	11.667	11.68	17.750	2.19	23.83	1.46
5.667	1.95	11.750	36.02	17.833	2.19	23.92	1.46
5.750	1.95	11.833	36.02	17.917	2.19	24.00	1.46
5.833	1.95	11.917	92.49	18.000	2.19	24.08	1.46
5.917	1.95	12.000	92.49	18.083	2.19	24.17	1.46
6.000	1.95	12.083	148.95	18.167	2.19		
6.083	1.95	12.167	148.96	18.250	2.19		

Max.Eff.Inten.(mm/hr)= 148.96 91.58

over (min) 5.00 10.00
 Storage Coeff. (min)= 1.87 (ii) 8.02 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.32 0.13
 TOTALS
 PEAK FLOW (cms)= 0.19 0.21 0.404 (iii)
 TIME TO PEAK (hrs)= 12.17 12.17 12.17
 RUNOFF VOLUME (mm)= 120.20 52.80 70.32
 TOTAL RAINFALL (mm)= 121.70 121.70 121.70
 RUNOFF COEFFICIENT = 0.99 0.43 0.58

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 61.0 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 (1000)|

	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0202):	1.81	0.404	12.17	70.32
+ ID2= 2 (5000):	11.54	3.190	12.17	85.04
=====				
ID = 3 (1000):	13.35	3.595	12.17	83.05

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| ADD HYD (1000)|

	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (1000):	13.35	3.595	12.17	83.05
+ ID2= 2 (6000):	0.81	0.208	12.17	75.57
=====				
ID = 1 (1000):	14.16	3.802	12.17	82.62

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

V V I SSSSS U U A L (v6.2.2015)
V V I SS U U AA L
V V I SS U U AAAAA L
V V I SS U U A A L
W V I SSSSS UUUUU A A LLLLL

OOO TTTT TTTT H H Y Y M M OOO TM
O O T T H H Y Y M M M M O O
O O T T H H Y M M O O
OOO T T H H Y M M OOO

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***** DETAILED OUTPUT *****

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voain.dat
Output filename: C:\Users\ajoshi\AppData\Local\Civica\XH5\191a91e0-1a14-44fd-bc00-4941023c7dee\93bea645-612e-43a7-9e09-d19063399d4c\scena
Summary filename: C:\Users\ajoshi\AppData\Local\Civica\XH5\191a91e0-1a14-44fd-bc00-4941023c7dee\93bea645-612e-43a7-9e09-d19063399d4c\scena

DATE: 12-03-2025 TIME: 03:06:32

USER:

COMMENTS: _____

** SIMULATION : 6_50yr 24hr 10min SCS Type II **

| READ STORM | Filename: C:\Users\ajoshi\AppData
| | ata\Local\Temp\
| | 2fba504a-caba-47c3-acc7-4c3af63c1cb9\eb01ca32
| Ptotal=134.56 mm | Comments: 50yr 24hr 10min SCS Type II

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	2.42	12.33	19.38	18.50	2.42
0.17	1.48	6.33	2.42	12.50	19.38	18.67	2.42
0.33	1.48	6.50	2.42	12.67	9.96	18.83	2.42
0.50	1.48	6.67	2.42	12.83	9.96	19.00	2.42
0.67	1.48	6.83	2.42	13.00	9.96	19.17	2.42
0.83	1.48	7.00	2.42	13.17	7.27	19.33	2.42
1.00	1.48	7.17	2.96	13.33	7.27	19.50	2.42
1.17	1.48	7.33	2.96	13.50	7.27	19.67	2.42
1.33	1.48	7.50	2.96	13.67	5.65	19.83	2.42
1.50	1.48	7.67	2.96	13.83	5.65	20.00	2.42
1.67	1.48	7.83	2.96	14.00	5.65	20.17	1.61
1.83	1.48	8.00	2.96	14.17	4.04	20.33	1.61
2.00	1.48	8.17	3.50	14.33	4.04	20.50	1.61
2.17	1.75	8.33	3.50	14.50	4.04	20.67	1.61
2.33	1.75	8.50	3.50	14.67	4.04	20.83	1.61
2.50	1.75	8.67	3.77	14.83	4.04	21.00	1.61
2.67	1.75	8.83	3.77	15.00	4.04	21.17	1.61
2.83	1.75	9.00	3.77	15.17	4.04	21.33	1.61
3.00	1.75	9.17	4.31	15.33	4.04	21.50	1.61
3.17	1.75	9.33	4.31	15.50	4.04	21.67	1.61
3.33	1.75	9.50	4.31	15.67	4.04	21.83	1.61
3.50	1.75	9.67	4.84	15.83	4.04	22.00	1.61
3.67	1.75	9.83	4.84	16.00	4.04	22.17	1.61
3.83	1.75	10.00	4.84	16.17	2.42	22.33	1.61

4.00	1.75	10.17	6.19	16.33	2.42	22.50	1.61
4.17	2.15	10.33	6.19	16.50	2.42	22.67	1.61
4.33	2.15	10.50	6.19	16.67	2.42	22.83	1.61
4.50	2.15	10.67	8.34	16.83	2.42	23.00	1.61
4.67	2.15	10.83	8.34	17.00	2.42	23.17	1.61
4.83	2.15	11.00	8.34	17.17	2.42	23.33	1.61
5.00	2.15	11.17	12.92	17.33	2.42	23.50	1.61
5.17	2.15	11.33	12.92	17.50	2.42	23.67	1.61
5.33	2.15	11.50	12.92	17.67	2.42	23.83	1.61
5.50	2.15	11.67	39.83	17.83	2.42	24.00	1.61
5.67	2.15	11.83	102.27	18.00	2.42		
5.83	2.15	12.00	164.70	18.17	2.42		
6.00	2.15	12.17	19.38	18.33	2.42		

 | CALIB |
 | NASHYD (0203) | Area (ha)= 0.29 Curve Number (CN)= 62.0
 | ID= 1 DT= 5.0 min | Ia (mm)= 5.00 # of Linear Res.(N)= 3.00
 ----- U.H. Tp(hrs)= 0.17

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	2.15	12.250	19.39	18.33	2.42
0.167	0.00	6.250	2.42	12.333	19.38	18.42	2.42
0.250	1.48	6.333	2.42	12.417	19.38	18.50	2.42
0.333	1.48	6.417	2.42	12.500	19.38	18.58	2.42
0.417	1.48	6.500	2.42	12.583	19.38	18.67	2.42
0.500	1.48	6.583	2.42	12.667	19.38	18.75	2.42
0.583	1.48	6.667	2.42	12.750	9.96	18.83	2.42
0.667	1.48	6.750	2.42	12.833	9.96	18.92	2.42
0.750	1.48	6.833	2.42	12.917	9.96	19.00	2.42
0.833	1.48	6.917	2.42	13.000	9.96	19.08	2.42
0.917	1.48	7.000	2.42	13.083	9.96	19.17	2.42
1.000	1.48	7.083	2.42	13.167	9.96	19.25	2.42
1.083	1.48	7.167	2.42	13.250	7.27	19.33	2.42
1.167	1.48	7.250	2.96	13.333	7.27	19.42	2.42
1.250	1.48	7.333	2.96	13.417	7.27	19.50	2.42
1.333	1.48	7.417	2.96	13.500	7.27	19.58	2.42
1.417	1.48	7.500	2.96	13.583	7.27	19.67	2.42
1.500	1.48	7.583	2.96	13.667	7.27	19.75	2.42
1.583	1.48	7.667	2.96	13.750	5.65	19.83	2.42
1.667	1.48	7.750	2.96	13.833	5.65	19.92	2.42
1.750	1.48	7.833	2.96	13.917	5.65	20.00	2.42
1.833	1.48	7.917	2.96	14.000	5.65	20.08	2.42
1.917	1.48	8.000	2.96	14.083	5.65	20.17	2.42
2.000	1.48	8.083	2.96	14.167	5.65	20.25	1.61
2.083	1.48	8.167	2.96	14.250	4.04	20.33	1.61
2.167	1.48	8.250	3.50	14.333	4.04	20.42	1.61
2.250	1.75	8.333	3.50	14.417	4.04	20.50	1.61
2.333	1.75	8.417	3.50	14.500	4.04	20.58	1.61
2.417	1.75	8.500	3.50	14.583	4.04	20.67	1.61
2.500	1.75	8.583	3.50	14.667	4.04	20.75	1.61
2.583	1.75	8.667	3.50	14.750	4.04	20.83	1.61
2.667	1.75	8.750	3.77	14.833	4.04	20.92	1.61
2.750	1.75	8.833	3.77	14.917	4.04	21.00	1.61
2.833	1.75	8.917	3.77	15.000	4.04	21.08	1.61
2.917	1.75	9.000	3.77	15.083	4.04	21.17	1.61
3.000	1.75	9.083	3.77	15.167	4.04	21.25	1.61
3.083	1.75	9.167	3.77	15.250	4.04	21.33	1.61
3.167	1.75	9.250	4.31	15.333	4.04	21.42	1.61
3.250	1.75	9.333	4.31	15.417	4.04	21.50	1.61
3.333	1.75	9.417	4.31	15.500	4.04	21.58	1.61
3.417	1.75	9.500	4.31	15.583	4.04	21.67	1.61
3.500	1.75	9.583	4.31	15.667	4.04	21.75	1.61
3.583	1.75	9.667	4.31	15.750	4.04	21.83	1.61
3.667	1.75	9.750	4.84	15.833	4.04	21.92	1.61
3.750	1.75	9.833	4.84	15.917	4.04	22.00	1.61

3.833	1.75	|9.917	4.84	|16.000	4.04	|22.08	1.61
3.917	1.75	|10.000	4.84	|16.083	4.04	|22.17	1.61
4.000	1.75	|10.083	4.84	|16.167	4.04	|22.25	1.61
4.083	1.75	|10.167	4.84	|16.250	2.42	|22.33	1.61
4.167	1.75	|10.250	6.19	|16.333	2.42	|22.42	1.61
4.250	2.15	|10.333	6.19	|16.417	2.42	|22.50	1.61
4.333	2.15	|10.417	6.19	|16.500	2.42	|22.58	1.61
4.417	2.15	|10.500	6.19	|16.583	2.42	|22.67	1.61
4.500	2.15	|10.583	6.19	|16.667	2.42	|22.75	1.61
4.583	2.15	|10.667	6.19	|16.750	2.42	|22.83	1.61
4.667	2.15	|10.750	8.34	|16.833	2.42	|22.92	1.61
4.750	2.15	|10.833	8.34	|16.917	2.42	|23.00	1.61
4.833	2.15	|10.917	8.34	|17.000	2.42	|23.08	1.61
4.917	2.15	|11.000	8.34	|17.083	2.42	|23.17	1.61
5.000	2.15	|11.083	8.34	|17.167	2.42	|23.25	1.61
5.083	2.15	|11.167	8.34	|17.250	2.42	|23.33	1.61
5.167	2.15	|11.250	12.92	|17.333	2.42	|23.42	1.61
5.250	2.15	|11.333	12.92	|17.417	2.42	|23.50	1.61
5.333	2.15	|11.417	12.92	|17.500	2.42	|23.58	1.61
5.417	2.15	|11.500	12.92	|17.583	2.42	|23.67	1.61
5.500	2.15	|11.583	12.92	|17.667	2.42	|23.75	1.61
5.583	2.15	|11.667	12.92	|17.750	2.42	|23.83	1.61
5.667	2.15	|11.750	39.83	|17.833	2.42	|23.92	1.61
5.750	2.15	|11.833	39.83	|17.917	2.42	|24.00	1.61
5.833	2.15	|11.917	102.26	|18.000	2.42	|24.08	1.61
5.917	2.15	|12.000	102.27	|18.083	2.42	|24.17	1.61
6.000	2.15	|12.083	164.69	|18.167	2.42	|	
6.083	2.15	|12.167	164.70	|18.250	2.42	|	

Unit Hyd Qpeak (cms)= 0.064

PEAK FLOW (cms)= 0.045 (i)

TIME TO PEAK (hrs)= 12.167

RUNOFF VOLUME (mm)= 58.637

TOTAL RAINFALL (mm)= 134.560

RUNOFF COEFFICIENT = 0.436

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

| CALIB |
| STANDHYD (0206) | Area (ha)= 0.52
| ID= 1 DT= 5.0 min | Total Imp(%)= 63.00 Dir. Conn.(%)= 49.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.33	0.19
Dep. Storage (mm)=	1.50	5.00
Average Slope (%)=	2.00	2.00
Length (m)=	59.10	15.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME RAIN |	TIME RAIN |	TIME RAIN |	TIME RAIN |
hrs mm/hr |	hrs mm/hr |	hrs mm/hr |	hrs mm/hr
0.083	0.00 | 6.167	2.15 | 12.250	19.39 | 18.33 2.42
0.167	0.00 | 6.250	2.42 | 12.333	19.38 | 18.42 2.42
0.250	1.48 | 6.333	2.42 | 12.417	19.38 | 18.50 2.42
0.333	1.48 | 6.417	2.42 | 12.500	19.38 | 18.58 2.42
0.417	1.48 | 6.500	2.42 | 12.583	19.38 | 18.67 2.42
0.500	1.48 | 6.583	2.42 | 12.667	19.38 | 18.75 2.42
0.583	1.48 | 6.667	2.42 | 12.750	9.96 | 18.83 2.42
0.667	1.48 | 6.750	2.42 | 12.833	9.96 | 18.92 2.42
0.750	1.48 | 6.833	2.42 | 12.917	9.96 | 19.00 2.42
0.833	1.48 | 6.917	2.42 | 13.000	9.96 | 19.08 2.42
0.917	1.48 | 7.000	2.42 | 13.083	9.96 | 19.17 2.42
1.000	1.48 | 7.083	2.42 | 13.167	9.96 | 19.25 2.42
1.083	1.48 | 7.167	2.42 | 13.250	7.27 | 19.33 2.42
1.167	1.48 | 7.250	2.96 | 13.333	7.27 | 19.42 2.42
1.250	1.48 | 7.333	2.96 | 13.417	7.27 | 19.50 2.42

1.333	1.48	|	7.417	2.96	|	13.500	7.27	|	19.58	2.42
1.417	1.48	|	7.500	2.96	|	13.583	7.27	|	19.67	2.42
1.500	1.48	|	7.583	2.96	|	13.667	7.27	|	19.75	2.42
1.583	1.48	|	7.667	2.96	|	13.750	5.65	|	19.83	2.42
1.667	1.48	|	7.750	2.96	|	13.833	5.65	|	19.92	2.42
1.750	1.48	|	7.833	2.96	|	13.917	5.65	|	20.00	2.42
1.833	1.48	|	7.917	2.96	|	14.000	5.65	|	20.08	2.42
1.917	1.48	|	8.000	2.96	|	14.083	5.65	|	20.17	2.42
2.000	1.48	|	8.083	2.96	|	14.167	5.65	|	20.25	1.61
2.083	1.48	|	8.167	2.96	|	14.250	4.04	|	20.33	1.61
2.167	1.48	|	8.250	3.50	|	14.333	4.04	|	20.42	1.61
2.250	1.75	|	8.333	3.50	|	14.417	4.04	|	20.50	1.61
2.333	1.75	|	8.417	3.50	|	14.500	4.04	|	20.58	1.61
2.417	1.75	|	8.500	3.50	|	14.583	4.04	|	20.67	1.61
2.500	1.75	|	8.583	3.50	|	14.667	4.04	|	20.75	1.61
2.583	1.75	|	8.667	3.50	|	14.750	4.04	|	20.83	1.61
2.667	1.75	|	8.750	3.77	|	14.833	4.04	|	20.92	1.61
2.750	1.75	|	8.833	3.77	|	14.917	4.04	|	21.00	1.61
2.833	1.75	|	8.917	3.77	|	15.000	4.04	|	21.08	1.61
2.917	1.75	|	9.000	3.77	|	15.083	4.04	|	21.17	1.61
3.000	1.75	|	9.083	3.77	|	15.167	4.04	|	21.25	1.61
3.083	1.75	|	9.167	3.77	|	15.250	4.04	|	21.33	1.61
3.167	1.75	|	9.250	4.31	|	15.333	4.04	|	21.42	1.61
3.250	1.75	|	9.333	4.31	|	15.417	4.04	|	21.50	1.61
3.333	1.75	|	9.417	4.31	|	15.500	4.04	|	21.58	1.61
3.417	1.75	|	9.500	4.31	|	15.583	4.04	|	21.67	1.61
3.500	1.75	|	9.583	4.31	|	15.667	4.04	|	21.75	1.61
3.583	1.75	|	9.667	4.31	|	15.750	4.04	|	21.83	1.61
3.667	1.75	|	9.750	4.84	|	15.833	4.04	|	21.92	1.61
3.750	1.75	|	9.833	4.84	|	15.917	4.04	|	22.00	1.61
3.833	1.75	|	9.917	4.84	|	16.000	4.04	|	22.08	1.61
3.917	1.75	|	10.000	4.84	|	16.083	4.04	|	22.17	1.61
4.000	1.75	|	10.083	4.84	|	16.167	4.04	|	22.25	1.61
4.083	1.75	|	10.167	4.84	|	16.250	2.42	|	22.33	1.61
4.167	1.75	|	10.250	6.19	|	16.333	2.42	|	22.42	1.61
4.250	2.15	|	10.333	6.19	|	16.417	2.42	|	22.50	1.61
4.333	2.15	|	10.417	6.19	|	16.500	2.42	|	22.58	1.61
4.417	2.15	|	10.500	6.19	|	16.583	2.42	|	22.67	1.61
4.500	2.15	|	10.583	6.19	|	16.667	2.42	|	22.75	1.61
4.583	2.15	|	10.667	6.19	|	16.750	2.42	|	22.83	1.61
4.667	2.15	|	10.750	8.34	|	16.833	2.42	|	22.92	1.61
4.750	2.15	|	10.833	8.34	|	16.917	2.42	|	23.00	1.61
4.833	2.15	|	10.917	8.34	|	17.000	2.42	|	23.08	1.61
4.917	2.15	|	11.000	8.34	|	17.083	2.42	|	23.17	1.61
5.000	2.15	|	11.083	8.34	|	17.167	2.42	|	23.25	1.61
5.083	2.15	|	11.167	8.34	|	17.250	2.42	|	23.33	1.61
5.167	2.15	|	11.250	12.92	|	17.333	2.42	|	23.42	1.61
5.250	2.15	|	11.333	12.92	|	17.417	2.42	|	23.50	1.61
5.333	2.15	|	11.417	12.92	|	17.500	2.42	|	23.58	1.61
5.417	2.15	|	11.500	12.92	|	17.583	2.42	|	23.67	1.61
5.500	2.15	|	11.583	12.92	|	17.667	2.42	|	23.75	1.61
5.583	2.15	|	11.667	12.92	|	17.750	2.42	|	23.83	1.61
5.667	2.15	|	11.750	39.83	|	17.833	2.42	|	23.92	1.61
5.750	2.15	|	11.833	39.83	|	17.917	2.42	|	24.00	1.61
5.833	2.15	|	11.917	102.26	|	18.000	2.42	|	24.08	1.61
5.917	2.15	|	12.000	102.27	|	18.083	2.42	|	24.17	1.61
6.000	2.15	|	12.083	164.69	|	18.167	2.42	|		
6.083	2.15	|	12.167	164.70	|	18.250	2.42	|		

Max.Eff.Inten.(mm/hr)= 164.70 141.75
over (min) 5.00 5.00

Storage Coeff. (min)= 1.24 (ii) 4.11 (ii)

Unit Hyd. Tpeak (min)= 5.00 5.00

Unit Hyd. peak (cms)= 0.33 0.24

TOTALS

PEAK FLOW (cms)= 0.12 0.07 0.192 (iii)

TIME TO PEAK (hrs)= 12.17 12.17 12.17

RUNOFF VOLUME (mm)= 133.06 70.30 101.04

TOTAL RAINFALL (mm)= 134.56 134.56 134.56

RUNOFF COEFFICIENT = 0.99 0.52 0.75

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 62.0 la = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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| ADD HYD ( 6000)|
| 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
----- (ha) (cms) (hrs) (mm)
ID1= 1 ( 0203): 0.29 0.045 12.17 58.64
+ ID2= 2 ( 0206): 0.52 0.192 12.17 101.04
=====
ID = 3 ( 6000): 0.81 0.237 12.17 86.04

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NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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| CALIB |
| NASHYD ( 0205)| Area (ha)= 0.16 Curve Number (CN)= 62.0
| ID= 1 DT= 5.0 min | la (mm)= 5.00 # of Linear Res.(N)= 3.00
----- U.H. Tp(hrs)= 0.17

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NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	2.15	12.250	19.39	18.33	2.42
0.167	0.00	6.250	2.42	12.333	19.38	18.42	2.42
0.250	1.48	6.333	2.42	12.417	19.38	18.50	2.42
0.333	1.48	6.417	2.42	12.500	19.38	18.58	2.42
0.417	1.48	6.500	2.42	12.583	19.38	18.67	2.42
0.500	1.48	6.583	2.42	12.667	19.38	18.75	2.42
0.583	1.48	6.667	2.42	12.750	9.96	18.83	2.42
0.667	1.48	6.750	2.42	12.833	9.96	18.92	2.42
0.750	1.48	6.833	2.42	12.917	9.96	19.00	2.42
0.833	1.48	6.917	2.42	13.000	9.96	19.08	2.42
0.917	1.48	7.000	2.42	13.083	9.96	19.17	2.42
1.000	1.48	7.083	2.42	13.167	9.96	19.25	2.42
1.083	1.48	7.167	2.42	13.250	7.27	19.33	2.42
1.167	1.48	7.250	2.96	13.333	7.27	19.42	2.42
1.250	1.48	7.333	2.96	13.417	7.27	19.50	2.42
1.333	1.48	7.417	2.96	13.500	7.27	19.58	2.42
1.417	1.48	7.500	2.96	13.583	7.27	19.67	2.42
1.500	1.48	7.583	2.96	13.667	7.27	19.75	2.42
1.583	1.48	7.667	2.96	13.750	5.65	19.83	2.42
1.667	1.48	7.750	2.96	13.833	5.65	19.92	2.42
1.750	1.48	7.833	2.96	13.917	5.65	20.00	2.42
1.833	1.48	7.917	2.96	14.000	5.65	20.08	2.42
1.917	1.48	8.000	2.96	14.083	5.65	20.17	2.42
2.000	1.48	8.083	2.96	14.167	5.65	20.25	1.61
2.083	1.48	8.167	2.96	14.250	4.04	20.33	1.61
2.167	1.48	8.250	3.50	14.333	4.04	20.42	1.61
2.250	1.75	8.333	3.50	14.417	4.04	20.50	1.61
2.333	1.75	8.417	3.50	14.500	4.04	20.58	1.61
2.417	1.75	8.500	3.50	14.583	4.04	20.67	1.61
2.500	1.75	8.583	3.50	14.667	4.04	20.75	1.61
2.583	1.75	8.667	3.50	14.750	4.04	20.83	1.61
2.667	1.75	8.750	3.77	14.833	4.04	20.92	1.61
2.750	1.75	8.833	3.77	14.917	4.04	21.00	1.61
2.833	1.75	8.917	3.77	15.000	4.04	21.08	1.61
2.917	1.75	9.000	3.77	15.083	4.04	21.17	1.61
3.000	1.75	9.083	3.77	15.167	4.04	21.25	1.61
3.083	1.75	9.167	3.77	15.250	4.04	21.33	1.61
3.167	1.75	9.250	4.31	15.333	4.04	21.42	1.61
3.250	1.75	9.333	4.31	15.417	4.04	21.50	1.61
3.333	1.75	9.417	4.31	15.500	4.04	21.58	1.61
3.417	1.75	9.500	4.31	15.583	4.04	21.67	1.61
3.500	1.75	9.583	4.31	15.667	4.04	21.75	1.61

3.583	1.75	|	9.667	4.31	|	15.750	4.04	|	21.83	1.61
3.667	1.75	|	9.750	4.84	|	15.833	4.04	|	21.92	1.61
3.750	1.75	|	9.833	4.84	|	15.917	4.04	|	22.00	1.61
3.833	1.75	|	9.917	4.84	|	16.000	4.04	|	22.08	1.61
3.917	1.75	|	10.000	4.84	|	16.083	4.04	|	22.17	1.61
4.000	1.75	|	10.083	4.84	|	16.167	4.04	|	22.25	1.61
4.083	1.75	|	10.167	4.84	|	16.250	2.42	|	22.33	1.61
4.167	1.75	|	10.250	6.19	|	16.333	2.42	|	22.42	1.61
4.250	2.15	|	10.333	6.19	|	16.417	2.42	|	22.50	1.61
4.333	2.15	|	10.417	6.19	|	16.500	2.42	|	22.58	1.61
4.417	2.15	|	10.500	6.19	|	16.583	2.42	|	22.67	1.61
4.500	2.15	|	10.583	6.19	|	16.667	2.42	|	22.75	1.61
4.583	2.15	|	10.667	6.19	|	16.750	2.42	|	22.83	1.61
4.667	2.15	|	10.750	8.34	|	16.833	2.42	|	22.92	1.61
4.750	2.15	|	10.833	8.34	|	16.917	2.42	|	23.00	1.61
4.833	2.15	|	10.917	8.34	|	17.000	2.42	|	23.08	1.61
4.917	2.15	|	11.000	8.34	|	17.083	2.42	|	23.17	1.61
5.000	2.15	|	11.083	8.34	|	17.167	2.42	|	23.25	1.61
5.083	2.15	|	11.167	8.34	|	17.250	2.42	|	23.33	1.61
5.167	2.15	|	11.250	12.92	|	17.333	2.42	|	23.42	1.61
5.250	2.15	|	11.333	12.92	|	17.417	2.42	|	23.50	1.61
5.333	2.15	|	11.417	12.92	|	17.500	2.42	|	23.58	1.61
5.417	2.15	|	11.500	12.92	|	17.583	2.42	|	23.67	1.61
5.500	2.15	|	11.583	12.92	|	17.667	2.42	|	23.75	1.61
5.583	2.15	|	11.667	12.92	|	17.750	2.42	|	23.83	1.61
5.667	2.15	|	11.750	39.83	|	17.833	2.42	|	23.92	1.61
5.750	2.15	|	11.833	39.83	|	17.917	2.42	|	24.00	1.61
5.833	2.15	|	11.917	102.26	|	18.000	2.42	|	24.08	1.61
5.917	2.15	|	12.000	102.27	|	18.083	2.42	|	24.17	1.61
6.000	2.15	|	12.083	164.69	|	18.167	2.42	|		
6.083	2.15	|	12.167	164.70	|	18.250	2.42	|		

Unit Hyd Qpeak (cms)= 0.035

PEAK FLOW (cms)= 0.025 (i)

TIME TO PEAK (hrs)= 12.167

RUNOFF VOLUME (mm)= 58.637

TOTAL RAINFALL (mm)= 134.560

RUNOFF COEFFICIENT = 0.436

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

 | CALIB |
 | STANDHYD (0204) | Area (ha)= 0.48
 | ID= 1 DT= 5.0 min | Total Imp(%)= 73.00 Dir. Conn.(%)= 73.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.35	0.13
Dep. Storage (mm)=	1.50	5.00
Average Slope (%)=	5.00	5.00
Length (m)=	56.57	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN			
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr			
0.083	0.00	|	6.167	2.15	|	12.250	19.39	|	18.33	2.42
0.167	0.00	|	6.250	2.42	|	12.333	19.38	|	18.42	2.42
0.250	1.48	|	6.333	2.42	|	12.417	19.38	|	18.50	2.42
0.333	1.48	|	6.417	2.42	|	12.500	19.38	|	18.58	2.42
0.417	1.48	|	6.500	2.42	|	12.583	19.38	|	18.67	2.42
0.500	1.48	|	6.583	2.42	|	12.667	19.38	|	18.75	2.42
0.583	1.48	|	6.667	2.42	|	12.750	9.96	|	18.83	2.42
0.667	1.48	|	6.750	2.42	|	12.833	9.96	|	18.92	2.42
0.750	1.48	|	6.833	2.42	|	12.917	9.96	|	19.00	2.42
0.833	1.48	|	6.917	2.42	|	13.000	9.96	|	19.08	2.42
0.917	1.48	|	7.000	2.42	|	13.083	9.96	|	19.17	2.42
1.000	1.48	|	7.083	2.42	|	13.167	9.96	|	19.25	2.42

1.083	1.48	|	7.167	2.42	|	13.250	7.27	|	19.33	2.42
1.167	1.48	|	7.250	2.96	|	13.333	7.27	|	19.42	2.42
1.250	1.48	|	7.333	2.96	|	13.417	7.27	|	19.50	2.42
1.333	1.48	|	7.417	2.96	|	13.500	7.27	|	19.58	2.42
1.417	1.48	|	7.500	2.96	|	13.583	7.27	|	19.67	2.42
1.500	1.48	|	7.583	2.96	|	13.667	7.27	|	19.75	2.42
1.583	1.48	|	7.667	2.96	|	13.750	5.65	|	19.83	2.42
1.667	1.48	|	7.750	2.96	|	13.833	5.65	|	19.92	2.42
1.750	1.48	|	7.833	2.96	|	13.917	5.65	|	20.00	2.42
1.833	1.48	|	7.917	2.96	|	14.000	5.65	|	20.08	2.42
1.917	1.48	|	8.000	2.96	|	14.083	5.65	|	20.17	2.42
2.000	1.48	|	8.083	2.96	|	14.167	5.65	|	20.25	1.61
2.083	1.48	|	8.167	2.96	|	14.250	4.04	|	20.33	1.61
2.167	1.48	|	8.250	3.50	|	14.333	4.04	|	20.42	1.61
2.250	1.75	|	8.333	3.50	|	14.417	4.04	|	20.50	1.61
2.333	1.75	|	8.417	3.50	|	14.500	4.04	|	20.58	1.61
2.417	1.75	|	8.500	3.50	|	14.583	4.04	|	20.67	1.61
2.500	1.75	|	8.583	3.50	|	14.667	4.04	|	20.75	1.61
2.583	1.75	|	8.667	3.50	|	14.750	4.04	|	20.83	1.61
2.667	1.75	|	8.750	3.77	|	14.833	4.04	|	20.92	1.61
2.750	1.75	|	8.833	3.77	|	14.917	4.04	|	21.00	1.61
2.833	1.75	|	8.917	3.77	|	15.000	4.04	|	21.08	1.61
2.917	1.75	|	9.000	3.77	|	15.083	4.04	|	21.17	1.61
3.000	1.75	|	9.083	3.77	|	15.167	4.04	|	21.25	1.61
3.083	1.75	|	9.167	3.77	|	15.250	4.04	|	21.33	1.61
3.167	1.75	|	9.250	4.31	|	15.333	4.04	|	21.42	1.61
3.250	1.75	|	9.333	4.31	|	15.417	4.04	|	21.50	1.61
3.333	1.75	|	9.417	4.31	|	15.500	4.04	|	21.58	1.61
3.417	1.75	|	9.500	4.31	|	15.583	4.04	|	21.67	1.61
3.500	1.75	|	9.583	4.31	|	15.667	4.04	|	21.75	1.61
3.583	1.75	|	9.667	4.31	|	15.750	4.04	|	21.83	1.61
3.667	1.75	|	9.750	4.84	|	15.833	4.04	|	21.92	1.61
3.750	1.75	|	9.833	4.84	|	15.917	4.04	|	22.00	1.61
3.833	1.75	|	9.917	4.84	|	16.000	4.04	|	22.08	1.61
3.917	1.75	|	10.000	4.84	|	16.083	4.04	|	22.17	1.61
4.000	1.75	|	10.083	4.84	|	16.167	4.04	|	22.25	1.61
4.083	1.75	|	10.167	4.84	|	16.250	2.42	|	22.33	1.61
4.167	1.75	|	10.250	6.19	|	16.333	2.42	|	22.42	1.61
4.250	2.15	|	10.333	6.19	|	16.417	2.42	|	22.50	1.61
4.333	2.15	|	10.417	6.19	|	16.500	2.42	|	22.58	1.61
4.417	2.15	|	10.500	6.19	|	16.583	2.42	|	22.67	1.61
4.500	2.15	|	10.583	6.19	|	16.667	2.42	|	22.75	1.61
4.583	2.15	|	10.667	6.19	|	16.750	2.42	|	22.83	1.61
4.667	2.15	|	10.750	8.34	|	16.833	2.42	|	22.92	1.61
4.750	2.15	|	10.833	8.34	|	16.917	2.42	|	23.00	1.61
4.833	2.15	|	10.917	8.34	|	17.000	2.42	|	23.08	1.61
4.917	2.15	|	11.000	8.34	|	17.083	2.42	|	23.17	1.61
5.000	2.15	|	11.083	8.34	|	17.167	2.42	|	23.25	1.61
5.083	2.15	|	11.167	8.34	|	17.250	2.42	|	23.33	1.61
5.167	2.15	|	11.250	12.92	|	17.333	2.42	|	23.42	1.61
5.250	2.15	|	11.333	12.92	|	17.417	2.42	|	23.50	1.61
5.333	2.15	|	11.417	12.92	|	17.500	2.42	|	23.58	1.61
5.417	2.15	|	11.500	12.92	|	17.583	2.42	|	23.67	1.61
5.500	2.15	|	11.583	12.92	|	17.667	2.42	|	23.75	1.61
5.583	2.15	|	11.667	12.92	|	17.750	2.42	|	23.83	1.61
5.667	2.15	|	11.750	39.83	|	17.833	2.42	|	23.92	1.61
5.750	2.15	|	11.833	39.83	|	17.917	2.42	|	24.00	1.61
5.833	2.15	|	11.917	102.26	|	18.000	2.42	|	24.08	1.61
5.917	2.15	|	12.000	102.27	|	18.083	2.42	|	24.17	1.61
6.000	2.15	|	12.083	164.69	|	18.167	2.42	|		
6.083	2.15	|	12.167	164.70	|	18.250	2.42	|		

Max.Eff.Inten.(mm/hr)= 164.70 86.37
over (min) 5.00 5.00

Storage Coeff. (min)= 0.92 (ii) 3.87 (ii)

Unit Hyd. Tpeak (min)= 5.00 5.00

Unit Hyd. peak (cms)= 0.34 0.25

TOTALS

PEAK FLOW (cms)= 0.16 0.03 0.191 (iii)

TIME TO PEAK (hrs)= 12.17 12.17 12.17

RUNOFF VOLUME (mm)= 133.06 58.85 113.02

TOTAL RAINFALL (mm)= 134.56 134.56 134.56

RUNOFF COEFFICIENT = 0.99 0.44 0.84

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 62.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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-----
| ADD HYD ( 0023)|
| 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
----- (ha) (cms) (hrs) (mm)
ID1= 1 ( 0204): 0.48 0.191 12.17 113.02
+ ID2= 2 ( 0205): 0.16 0.025 12.17 58.64
=====
ID = 3 ( 0023): 0.64 0.216 12.17 99.56

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NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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| CALIB |
| STANDHYD ( 0200)| Area (ha)= 9.56
| ID= 1 DT= 5.0 min | Total Imp(%)= 56.00 Dir. Conn.(%)= 46.00
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IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 5.35 4.21
Dep. Storage (mm)= 1.50 5.00
Average Slope (%)= 2.00 2.00
Length (m)= 252.45 30.00
Mannings n = 0.013 0.250

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NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

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---- TRANSFORMED HYETOGRAPH ----
TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr
0.083 0.00 | 6.167 2.15 | 12.250 19.39 | 18.33 2.42
0.167 0.00 | 6.250 2.42 | 12.333 19.38 | 18.42 2.42
0.250 1.48 | 6.333 2.42 | 12.417 19.38 | 18.50 2.42
0.333 1.48 | 6.417 2.42 | 12.500 19.38 | 18.58 2.42
0.417 1.48 | 6.500 2.42 | 12.583 19.38 | 18.67 2.42
0.500 1.48 | 6.583 2.42 | 12.667 19.38 | 18.75 2.42
0.583 1.48 | 6.667 2.42 | 12.750 9.96 | 18.83 2.42
0.667 1.48 | 6.750 2.42 | 12.833 9.96 | 18.92 2.42
0.750 1.48 | 6.833 2.42 | 12.917 9.96 | 19.00 2.42
0.833 1.48 | 6.917 2.42 | 13.000 9.96 | 19.08 2.42
0.917 1.48 | 7.000 2.42 | 13.083 9.96 | 19.17 2.42
1.000 1.48 | 7.083 2.42 | 13.167 9.96 | 19.25 2.42
1.083 1.48 | 7.167 2.42 | 13.250 7.27 | 19.33 2.42
1.167 1.48 | 7.250 2.96 | 13.333 7.27 | 19.42 2.42
1.250 1.48 | 7.333 2.96 | 13.417 7.27 | 19.50 2.42
1.333 1.48 | 7.417 2.96 | 13.500 7.27 | 19.58 2.42
1.417 1.48 | 7.500 2.96 | 13.583 7.27 | 19.67 2.42
1.500 1.48 | 7.583 2.96 | 13.667 7.27 | 19.75 2.42
1.583 1.48 | 7.667 2.96 | 13.750 5.65 | 19.83 2.42
1.667 1.48 | 7.750 2.96 | 13.833 5.65 | 19.92 2.42
1.750 1.48 | 7.833 2.96 | 13.917 5.65 | 20.00 2.42
1.833 1.48 | 7.917 2.96 | 14.000 5.65 | 20.08 2.42
1.917 1.48 | 8.000 2.96 | 14.083 5.65 | 20.17 2.42
2.000 1.48 | 8.083 2.96 | 14.167 5.65 | 20.25 1.61
2.083 1.48 | 8.167 2.96 | 14.250 4.04 | 20.33 1.61
2.167 1.48 | 8.250 3.50 | 14.333 4.04 | 20.42 1.61
2.250 1.75 | 8.333 3.50 | 14.417 4.04 | 20.50 1.61
2.333 1.75 | 8.417 3.50 | 14.500 4.04 | 20.58 1.61
2.417 1.75 | 8.500 3.50 | 14.583 4.04 | 20.67 1.61
2.500 1.75 | 8.583 3.50 | 14.667 4.04 | 20.75 1.61
2.583 1.75 | 8.667 3.50 | 14.750 4.04 | 20.83 1.61
2.667 1.75 | 8.750 3.77 | 14.833 4.04 | 20.92 1.61
2.750 1.75 | 8.833 3.77 | 14.917 4.04 | 21.00 1.61

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2.833	1.75	8.917	3.77	15.000	4.04	21.08	1.61
2.917	1.75	9.000	3.77	15.083	4.04	21.17	1.61
3.000	1.75	9.083	3.77	15.167	4.04	21.25	1.61
3.083	1.75	|9.167	3.77	|15.250	4.04	|21.33	1.61
3.167	1.75	|9.250	4.31	|15.333	4.04	|21.42	1.61
3.250	1.75	|9.333	4.31	|15.417	4.04	|21.50	1.61
3.333	1.75	|9.417	4.31	|15.500	4.04	|21.58	1.61
3.417	1.75	|9.500	4.31	|15.583	4.04	|21.67	1.61
3.500	1.75	|9.583	4.31	|15.667	4.04	|21.75	1.61
3.583	1.75	|9.667	4.31	|15.750	4.04	|21.83	1.61
3.667	1.75	|9.750	4.84	|15.833	4.04	|21.92	1.61
3.750	1.75	|9.833	4.84	|15.917	4.04	|22.00	1.61
3.833	1.75	|9.917	4.84	|16.000	4.04	|22.08	1.61
3.917	1.75	|10.000	4.84	|16.083	4.04	|22.17	1.61
4.000	1.75	|10.083	4.84	|16.167	4.04	|22.25	1.61
4.083	1.75	|10.167	4.84	|16.250	2.42	|22.33	1.61
4.167	1.75	|10.250	6.19	|16.333	2.42	|22.42	1.61
4.250	2.15	|10.333	6.19	|16.417	2.42	|22.50	1.61
4.333	2.15	|10.417	6.19	|16.500	2.42	|22.58	1.61
4.417	2.15	|10.500	6.19	|16.583	2.42	|22.67	1.61
4.500	2.15	|10.583	6.19	|16.667	2.42	|22.75	1.61
4.583	2.15	|10.667	6.19	|16.750	2.42	|22.83	1.61
4.667	2.15	|10.750	8.34	|16.833	2.42	|22.92	1.61
4.750	2.15	|10.833	8.34	|16.917	2.42	|23.00	1.61
4.833	2.15	|10.917	8.34	|17.000	2.42	|23.08	1.61
4.917	2.15	|11.000	8.34	|17.083	2.42	|23.17	1.61
5.000	2.15	|11.083	8.34	|17.167	2.42	|23.25	1.61
5.083	2.15	|11.167	8.34	|17.250	2.42	|23.33	1.61
5.167	2.15	|11.250	12.92	|17.333	2.42	|23.42	1.61
5.250	2.15	|11.333	12.92	|17.417	2.42	|23.50	1.61
5.333	2.15	|11.417	12.92	|17.500	2.42	|23.58	1.61
5.417	2.15	|11.500	12.92	|17.583	2.42	|23.67	1.61
5.500	2.15	|11.583	12.92	|17.667	2.42	|23.75	1.61
5.583	2.15	|11.667	12.92	|17.750	2.42	|23.83	1.61
5.667	2.15	|11.750	39.83	|17.833	2.42	|23.92	1.61
5.750	2.15	|11.833	39.83	|17.917	2.42	|24.00	1.61
5.833	2.15	|11.917	102.26	|18.000	2.42	|24.08	1.61
5.917	2.15	|12.000	102.27	|18.083	2.42	|24.17	1.61
6.000	2.15	|12.083	164.69	|18.167	2.42	|	
6.083	2.15	|12.167	164.70	|18.250	2.42	|	

Max.Eff.Inten.(mm/hr)= 164.70 118.99
over (min) 5.00 10.00

Storage Coeff. (min)= 2.96 (ii) 7.74 (ii)

Unit Hyd. Tpeak (min)= 5.00 10.00

Unit Hyd. peak (cms)= 0.28 0.13

TOTALS

PEAK FLOW (cms)= 1.98 1.03 3.015 (iii)

TIME TO PEAK (hrs)= 12.17 12.17 12.17

RUNOFF VOLUME (mm)= 133.06 66.16 96.94

TOTAL RAINFALL (mm)= 134.56 134.56 134.56

RUNOFF COEFFICIENT = 0.99 0.49 0.72

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

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:

CN* = 62.0 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 |

| STANDHYD (0201) | Area (ha)= 1.34

| ID= 1 DT= 5.0 min | Total Imp(%)= 50.00 Dir. Conn.(%)= 50.00

IMPERVIOUS PERVIOUS (i)

Surface Area (ha)= 0.67 0.67

Dep. Storage (mm)= 1.50 10.00

Average Slope (%)= 2.00 2.00

Length (m)= 94.52 30.00

Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	2.15	12.250	19.39	18.33	2.42
0.167	0.00	6.250	2.42	12.333	19.38	18.42	2.42
0.250	1.48	6.333	2.42	12.417	19.38	18.50	2.42
0.333	1.48	6.417	2.42	12.500	19.38	18.58	2.42
0.417	1.48	6.500	2.42	12.583	19.38	18.67	2.42
0.500	1.48	6.583	2.42	12.667	19.38	18.75	2.42
0.583	1.48	6.667	2.42	12.750	9.96	18.83	2.42
0.667	1.48	6.750	2.42	12.833	9.96	18.92	2.42
0.750	1.48	6.833	2.42	12.917	9.96	19.00	2.42
0.833	1.48	6.917	2.42	13.000	9.96	19.08	2.42
0.917	1.48	7.000	2.42	13.083	9.96	19.17	2.42
1.000	1.48	7.083	2.42	13.167	9.96	19.25	2.42
1.083	1.48	7.167	2.42	13.250	7.27	19.33	2.42
1.167	1.48	7.250	2.96	13.333	7.27	19.42	2.42
1.250	1.48	7.333	2.96	13.417	7.27	19.50	2.42
1.333	1.48	7.417	2.96	13.500	7.27	19.58	2.42
1.417	1.48	7.500	2.96	13.583	7.27	19.67	2.42
1.500	1.48	7.583	2.96	13.667	7.27	19.75	2.42
1.583	1.48	7.667	2.96	13.750	5.65	19.83	2.42
1.667	1.48	7.750	2.96	13.833	5.65	19.92	2.42
1.750	1.48	7.833	2.96	13.917	5.65	20.00	2.42
1.833	1.48	7.917	2.96	14.000	5.65	20.08	2.42
1.917	1.48	8.000	2.96	14.083	5.65	20.17	2.42
2.000	1.48	8.083	2.96	14.167	5.65	20.25	1.61
2.083	1.48	8.167	2.96	14.250	4.04	20.33	1.61
2.167	1.48	8.250	3.50	14.333	4.04	20.42	1.61
2.250	1.75	8.333	3.50	14.417	4.04	20.50	1.61
2.333	1.75	8.417	3.50	14.500	4.04	20.58	1.61
2.417	1.75	8.500	3.50	14.583	4.04	20.67	1.61
2.500	1.75	8.583	3.50	14.667	4.04	20.75	1.61
2.583	1.75	8.667	3.50	14.750	4.04	20.83	1.61
2.667	1.75	8.750	3.77	14.833	4.04	20.92	1.61
2.750	1.75	8.833	3.77	14.917	4.04	21.00	1.61
2.833	1.75	8.917	3.77	15.000	4.04	21.08	1.61
2.917	1.75	9.000	3.77	15.083	4.04	21.17	1.61
3.000	1.75	9.083	3.77	15.167	4.04	21.25	1.61
3.083	1.75	9.167	3.77	15.250	4.04	21.33	1.61
3.167	1.75	9.250	4.31	15.333	4.04	21.42	1.61
3.250	1.75	9.333	4.31	15.417	4.04	21.50	1.61
3.333	1.75	9.417	4.31	15.500	4.04	21.58	1.61
3.417	1.75	9.500	4.31	15.583	4.04	21.67	1.61
3.500	1.75	9.583	4.31	15.667	4.04	21.75	1.61
3.583	1.75	9.667	4.31	15.750	4.04	21.83	1.61
3.667	1.75	9.750	4.84	15.833	4.04	21.92	1.61
3.750	1.75	9.833	4.84	15.917	4.04	22.00	1.61
3.833	1.75	9.917	4.84	16.000	4.04	22.08	1.61
3.917	1.75	10.000	4.84	16.083	4.04	22.17	1.61
4.000	1.75	10.083	4.84	16.167	4.04	22.25	1.61
4.083	1.75	10.167	4.84	16.250	2.42	22.33	1.61
4.167	1.75	10.250	6.19	16.333	2.42	22.42	1.61
4.250	2.15	10.333	6.19	16.417	2.42	22.50	1.61
4.333	2.15	10.417	6.19	16.500	2.42	22.58	1.61
4.417	2.15	10.500	6.19	16.583	2.42	22.67	1.61
4.500	2.15	10.583	6.19	16.667	2.42	22.75	1.61
4.583	2.15	10.667	6.19	16.750	2.42	22.83	1.61
4.667	2.15	10.750	8.34	16.833	2.42	22.92	1.61
4.750	2.15	10.833	8.34	16.917	2.42	23.00	1.61
4.833	2.15	10.917	8.34	17.000	2.42	23.08	1.61
4.917	2.15	11.000	8.34	17.083	2.42	23.17	1.61
5.000	2.15	11.083	8.34	17.167	2.42	23.25	1.61
5.083	2.15	11.167	8.34	17.250	2.42	23.33	1.61
5.167	2.15	11.250	12.92	17.333	2.42	23.42	1.61
5.250	2.15	11.333	12.92	17.417	2.42	23.50	1.61
5.333	2.15	11.417	12.92	17.500	2.42	23.58	1.61
5.417	2.15	11.500	12.92	17.583	2.42	23.67	1.61
5.500	2.15	11.583	12.92	17.667	2.42	23.75	1.61

5.583	2.15	|11.667	12.92	|17.750	2.42	|23.83	1.61
5.667	2.15	|11.750	39.83	|17.833	2.42	|23.92	1.61
5.750	2.15	|11.833	39.83	|17.917	2.42	|24.00	1.61
5.833	2.15	|11.917	102.26	|18.000	2.42	|24.08	1.61
5.917	2.15	|12.000	102.27	|18.083	2.42	|24.17	1.61
6.000	2.15	|12.083	164.69	|18.167	2.42	|	
6.083	2.15	|12.167	164.70	|18.250	2.42	|	

Max.Eff.Inten.(mm/hr)= 164.70 62.12
over (min) 5.00 10.00

Storage Coeff. (min)= 1.64 (ii) 6.51 (ii)

Unit Hyd. Tpeak (min)= 5.00 10.00

Unit Hyd. peak (cms)= 0.32 0.14

TOTALS

PEAK FLOW (cms)= 0.31 0.09 0.394 (iii)

TIME TO PEAK (hrs)= 12.17 12.17 12.17

RUNOFF VOLUME (mm)= 133.06 42.09 87.57

TOTAL RAINFALL (mm)= 134.56 134.56 134.56

RUNOFF COEFFICIENT = 0.99 0.31 0.65

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

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:

CN* = 51.0 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 (3000)|

| 1 + 2 = 3 | AREA QPEAK TPEAK R.V.

(ha) (cms) (hrs) (mm)

ID1= 1 (0200): 9.56 3.015 12.17 96.94

+ ID2= 2 (0201): 1.34 0.394 12.17 87.57

=====
ID = 3 (3000): 10.90 3.409 12.17 95.79

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| ADD HYD (5000)|

| 1 + 2 = 3 | AREA QPEAK TPEAK R.V.

(ha) (cms) (hrs) (mm)

ID1= 1 (0023): 0.64 0.216 12.17 99.56

+ ID2= 2 (3000): 10.90 3.409 12.17 95.79

=====
ID = 3 (5000): 11.54 3.625 12.17 95.99

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| CALIB |

| STANDHYD (0202)| Area (ha)= 1.81

| ID= 1 DT= 5.0 min | Total Imp(%)= 37.00 Dir. Conn.(%)= 26.00

IMPERVIOUS PERVIOUS (i)

Surface Area (ha)= 0.67 1.14

Dep. Storage (mm)= 1.50 6.90

Average Slope (%)= 2.00 2.00

Length (m)= 109.85 30.00

Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN

hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr

0.083 0.00 | 6.167 2.15 | 12.250 19.39 | 18.33 2.42

0.167 0.00 | 6.250 2.42 | 12.333 19.38 | 18.42 2.42

0.250	1.48	6.333	2.42	12.417	19.38	18.50	2.42
0.333	1.48	6.417	2.42	12.500	19.38	18.58	2.42
0.417	1.48	6.500	2.42	12.583	19.38	18.67	2.42
0.500	1.48	6.583	2.42	12.667	19.38	18.75	2.42
0.583	1.48	6.667	2.42	12.750	9.96	18.83	2.42
0.667	1.48	6.750	2.42	12.833	9.96	18.92	2.42
0.750	1.48	6.833	2.42	12.917	9.96	19.00	2.42
0.833	1.48	6.917	2.42	13.000	9.96	19.08	2.42
0.917	1.48	7.000	2.42	13.083	9.96	19.17	2.42
1.000	1.48	7.083	2.42	13.167	9.96	19.25	2.42
1.083	1.48	7.167	2.42	13.250	7.27	19.33	2.42
1.167	1.48	7.250	2.96	13.333	7.27	19.42	2.42
1.250	1.48	7.333	2.96	13.417	7.27	19.50	2.42
1.333	1.48	7.417	2.96	13.500	7.27	19.58	2.42
1.417	1.48	7.500	2.96	13.583	7.27	19.67	2.42
1.500	1.48	7.583	2.96	13.667	7.27	19.75	2.42
1.583	1.48	7.667	2.96	13.750	5.65	19.83	2.42
1.667	1.48	7.750	2.96	13.833	5.65	19.92	2.42
1.750	1.48	7.833	2.96	13.917	5.65	20.00	2.42
1.833	1.48	7.917	2.96	14.000	5.65	20.08	2.42
1.917	1.48	8.000	2.96	14.083	5.65	20.17	2.42
2.000	1.48	8.083	2.96	14.167	5.65	20.25	1.61
2.083	1.48	8.167	2.96	14.250	4.04	20.33	1.61
2.167	1.48	8.250	3.50	14.333	4.04	20.42	1.61
2.250	1.75	8.333	3.50	14.417	4.04	20.50	1.61
2.333	1.75	8.417	3.50	14.500	4.04	20.58	1.61
2.417	1.75	8.500	3.50	14.583	4.04	20.67	1.61
2.500	1.75	8.583	3.50	14.667	4.04	20.75	1.61
2.583	1.75	8.667	3.50	14.750	4.04	20.83	1.61
2.667	1.75	8.750	3.77	14.833	4.04	20.92	1.61
2.750	1.75	8.833	3.77	14.917	4.04	21.00	1.61
2.833	1.75	8.917	3.77	15.000	4.04	21.08	1.61
2.917	1.75	9.000	3.77	15.083	4.04	21.17	1.61
3.000	1.75	9.083	3.77	15.167	4.04	21.25	1.61
3.083	1.75	9.167	3.77	15.250	4.04	21.33	1.61
3.167	1.75	9.250	4.31	15.333	4.04	21.42	1.61
3.250	1.75	9.333	4.31	15.417	4.04	21.50	1.61
3.333	1.75	9.417	4.31	15.500	4.04	21.58	1.61
3.417	1.75	9.500	4.31	15.583	4.04	21.67	1.61
3.500	1.75	9.583	4.31	15.667	4.04	21.75	1.61
3.583	1.75	9.667	4.31	15.750	4.04	21.83	1.61
3.667	1.75	9.750	4.84	15.833	4.04	21.92	1.61
3.750	1.75	9.833	4.84	15.917	4.04	22.00	1.61
3.833	1.75	9.917	4.84	16.000	4.04	22.08	1.61
3.917	1.75	10.000	4.84	16.083	4.04	22.17	1.61
4.000	1.75	10.083	4.84	16.167	4.04	22.25	1.61
4.083	1.75	10.167	4.84	16.250	2.42	22.33	1.61
4.167	1.75	10.250	6.19	16.333	2.42	22.42	1.61
4.250	2.15	10.333	6.19	16.417	2.42	22.50	1.61
4.333	2.15	10.417	6.19	16.500	2.42	22.58	1.61
4.417	2.15	10.500	6.19	16.583	2.42	22.67	1.61
4.500	2.15	10.583	6.19	16.667	2.42	22.75	1.61
4.583	2.15	10.667	6.19	16.750	2.42	22.83	1.61
4.667	2.15	10.750	8.34	16.833	2.42	22.92	1.61
4.750	2.15	10.833	8.34	16.917	2.42	23.00	1.61
4.833	2.15	10.917	8.34	17.000	2.42	23.08	1.61
4.917	2.15	11.000	8.34	17.083	2.42	23.17	1.61
5.000	2.15	11.083	8.34	17.167	2.42	23.25	1.61
5.083	2.15	11.167	8.34	17.250	2.42	23.33	1.61
5.167	2.15	11.250	12.92	17.333	2.42	23.42	1.61
5.250	2.15	11.333	12.92	17.417	2.42	23.50	1.61
5.333	2.15	11.417	12.92	17.500	2.42	23.58	1.61
5.417	2.15	11.500	12.92	17.583	2.42	23.67	1.61
5.500	2.15	11.583	12.92	17.667	2.42	23.75	1.61
5.583	2.15	11.667	12.92	17.750	2.42	23.83	1.61
5.667	2.15	11.750	39.83	17.833	2.42	23.92	1.61
5.750	2.15	11.833	39.83	17.917	2.42	24.00	1.61
5.833	2.15	11.917	102.26	18.000	2.42	24.08	1.61
5.917	2.15	12.000	102.27	18.083	2.42	24.17	1.61
6.000	2.15	12.083	164.69	18.167	2.42		
6.083	2.15	12.167	164.70	18.250	2.42		

Max.Eff.Inten.(mm/hr)= 164.70 107.50

over (min) 5.00 10.00
 Storage Coeff. (min)= 1.80 (ii) 7.57 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.32 0.13
 TOTALS
 PEAK FLOW (cms)= 0.21 0.25 0.468 (iii)
 TIME TO PEAK (hrs)= 12.17 12.17 12.17
 RUNOFF VOLUME (mm)= 133.06 62.04 80.50
 TOTAL RAINFALL (mm)= 134.56 134.56 134.56
 RUNOFF COEFFICIENT = 0.99 0.46 0.60

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 61.0 la = 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 (1000)|
 | 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
 ----- (ha) (cms) (hrs) (mm)
 ID1= 1 (0202): 1.81 0.468 12.17 80.50
 + ID2= 2 (5000): 11.54 3.625 12.17 95.99
 =====
 ID = 3 (1000): 13.35 4.093 12.17 93.89

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | ADD HYD (1000)|
 | 3 + 2 = 1 | AREA QPEAK TPEAK R.V.
 ----- (ha) (cms) (hrs) (mm)
 ID1= 3 (1000): 13.35 4.093 12.17 93.89
 + ID2= 2 (6000): 0.81 0.237 12.17 86.04
 =====
 ID = 1 (1000): 14.16 4.329 12.17 93.44

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

V V I SSSSS U U A L (v6.2.2015)
V V I SS U U AA L
V V I SS U U AAAAA L
V V I SS U U A A L
W V I SSSSS UUUUU A A LLLLL

OOO TTTT TTTT H H Y Y M M OOO TM
O O T T H H Y Y M M M M O O
O O T T H H Y M M O O
OOO T T H H Y M M OOO

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***** DETAILED OUTPUT *****

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voain.dat
Output filename: C:\Users\ajoshi\AppData\Local\Civica\XH5\191a91e0-1a14-44fd-bc00-4941023c7dee\941c75c7-7d82-43a6-917d-4ce8d727e5c2\scena
Summary filename: C:\Users\ajoshi\AppData\Local\Civica\XH5\191a91e0-1a14-44fd-bc00-4941023c7dee\941c75c7-7d82-43a6-917d-4ce8d727e5c2\scena

DATE: 12-03-2025 TIME: 03:06:32

USER:

COMMENTS: _____

** SIMULATION : 7_100yr 24hr 10min SCS Type I **

| READ STORM | Filename: C:\Users\ajoshi\AppData
| | ata\Local\Temp\
| | 2fba504a-caba-47c3-acc7-4c3af63c1cb9\1118027b
| Ptotal=145.92 mm | Comments: 100yr 24hr 10min SCS Type II

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	2.63	12.33	21.01	18.50	2.63
0.17	1.61	6.33	2.63	12.50	21.01	18.67	2.63
0.33	1.61	6.50	2.63	12.67	10.80	18.83	2.63
0.50	1.61	6.67	2.63	12.83	10.80	19.00	2.63
0.67	1.61	6.83	2.63	13.00	10.80	19.17	2.63
0.83	1.61	7.00	2.63	13.17	7.88	19.33	2.63
1.00	1.61	7.17	3.21	13.33	7.88	19.50	2.63
1.17	1.61	7.33	3.21	13.50	7.88	19.67	2.63
1.33	1.61	7.50	3.21	13.67	6.13	19.83	2.63
1.50	1.61	7.67	3.21	13.83	6.13	20.00	2.63
1.67	1.61	7.83	3.21	14.00	6.13	20.17	1.75
1.83	1.61	8.00	3.21	14.17	4.38	20.33	1.75
2.00	1.61	8.17	3.79	14.33	4.38	20.50	1.75
2.17	1.90	8.33	3.79	14.50	4.38	20.67	1.75
2.33	1.90	8.50	3.79	14.67	4.38	20.83	1.75
2.50	1.90	8.67	4.09	14.83	4.38	21.00	1.75
2.67	1.90	8.83	4.09	15.00	4.38	21.17	1.75
2.83	1.90	9.00	4.09	15.17	4.38	21.33	1.75
3.00	1.90	9.17	4.67	15.33	4.38	21.50	1.75
3.17	1.90	9.33	4.67	15.50	4.38	21.67	1.75
3.33	1.90	9.50	4.67	15.67	4.38	21.83	1.75
3.50	1.90	9.67	5.25	15.83	4.38	22.00	1.75
3.67	1.90	9.83	5.25	16.00	4.38	22.17	1.75
3.83	1.90	10.00	5.25	16.17	2.63	22.33	1.75

4.00 1.90 | 10.17 6.71 | 16.33 2.63 | 22.50 1.75
 4.17 2.33 | 10.33 6.71 | 16.50 2.63 | 22.67 1.75
 4.33 2.33 | 10.50 6.71 | 16.67 2.63 | 22.83 1.75
 4.50 2.33 | 10.67 9.05 | 16.83 2.63 | 23.00 1.75
 4.67 2.33 | 10.83 9.05 | 17.00 2.63 | 23.17 1.75
 4.83 2.33 | 11.00 9.05 | 17.17 2.63 | 23.33 1.75
 5.00 2.33 | 11.17 14.01 | 17.33 2.63 | 23.50 1.75
 5.17 2.33 | 11.33 14.01 | 17.50 2.63 | 23.67 1.75
 5.33 2.33 | 11.50 14.01 | 17.67 2.63 | 23.83 1.75
 5.50 2.33 | 11.67 43.19 | 17.83 2.63 | 24.00 1.75
 5.67 2.33 | 11.83 110.90 | 18.00 2.63 |
 5.83 2.33 | 12.00 178.61 | 18.17 2.63 |
 6.00 2.33 | 12.17 21.01 | 18.33 2.63 |

 | CALIB |
 | NASHYD (0203) | Area (ha)= 0.29 Curve Number (CN)= 62.0
 | ID= 1 DT= 5.0 min | Ia (mm)= 5.00 # of Linear Res.(N)= 3.00
 ----- U.H. Tp(hrs)= 0.17

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----
 TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
 hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr
 0.083 0.00 | 6.167 2.33 | 12.250 21.03 | 18.33 2.63
 0.167 0.00 | 6.250 2.63 | 12.333 21.01 | 18.42 2.63
 0.250 1.61 | 6.333 2.63 | 12.417 21.01 | 18.50 2.63
 0.333 1.61 | 6.417 2.63 | 12.500 21.01 | 18.58 2.63
 0.417 1.61 | 6.500 2.63 | 12.583 21.01 | 18.67 2.63
 0.500 1.61 | 6.583 2.63 | 12.667 21.01 | 18.75 2.63
 0.583 1.61 | 6.667 2.63 | 12.750 10.80 | 18.83 2.63
 0.667 1.61 | 6.750 2.63 | 12.833 10.80 | 18.92 2.63
 0.750 1.61 | 6.833 2.63 | 12.917 10.80 | 19.00 2.63
 0.833 1.61 | 6.917 2.63 | 13.000 10.80 | 19.08 2.63
 0.917 1.61 | 7.000 2.63 | 13.083 10.80 | 19.17 2.63
 1.000 1.61 | 7.083 2.63 | 13.167 10.80 | 19.25 2.63
 1.083 1.61 | 7.167 2.63 | 13.250 7.88 | 19.33 2.63
 1.167 1.61 | 7.250 3.21 | 13.333 7.88 | 19.42 2.63
 1.250 1.61 | 7.333 3.21 | 13.417 7.88 | 19.50 2.63
 1.333 1.61 | 7.417 3.21 | 13.500 7.88 | 19.58 2.63
 1.417 1.61 | 7.500 3.21 | 13.583 7.88 | 19.67 2.63
 1.500 1.61 | 7.583 3.21 | 13.667 7.88 | 19.75 2.63
 1.583 1.61 | 7.667 3.21 | 13.750 6.13 | 19.83 2.63
 1.667 1.61 | 7.750 3.21 | 13.833 6.13 | 19.92 2.63
 1.750 1.61 | 7.833 3.21 | 13.917 6.13 | 20.00 2.63
 1.833 1.61 | 7.917 3.21 | 14.000 6.13 | 20.08 2.63
 1.917 1.61 | 8.000 3.21 | 14.083 6.13 | 20.17 2.63
 2.000 1.61 | 8.083 3.21 | 14.167 6.13 | 20.25 1.75
 2.083 1.61 | 8.167 3.21 | 14.250 4.38 | 20.33 1.75
 2.167 1.61 | 8.250 3.79 | 14.333 4.38 | 20.42 1.75
 2.250 1.90 | 8.333 3.79 | 14.417 4.38 | 20.50 1.75
 2.333 1.90 | 8.417 3.79 | 14.500 4.38 | 20.58 1.75
 2.417 1.90 | 8.500 3.79 | 14.583 4.38 | 20.67 1.75
 2.500 1.90 | 8.583 3.79 | 14.667 4.38 | 20.75 1.75
 2.583 1.90 | 8.667 3.79 | 14.750 4.38 | 20.83 1.75
 2.667 1.90 | 8.750 4.09 | 14.833 4.38 | 20.92 1.75
 2.750 1.90 | 8.833 4.09 | 14.917 4.38 | 21.00 1.75
 2.833 1.90 | 8.917 4.09 | 15.000 4.38 | 21.08 1.75
 2.917 1.90 | 9.000 4.09 | 15.083 4.38 | 21.17 1.75
 3.000 1.90 | 9.083 4.09 | 15.167 4.38 | 21.25 1.75
 3.083 1.90 | 9.167 4.09 | 15.250 4.38 | 21.33 1.75
 3.167 1.90 | 9.250 4.67 | 15.333 4.38 | 21.42 1.75
 3.250 1.90 | 9.333 4.67 | 15.417 4.38 | 21.50 1.75
 3.333 1.90 | 9.417 4.67 | 15.500 4.38 | 21.58 1.75
 3.417 1.90 | 9.500 4.67 | 15.583 4.38 | 21.67 1.75
 3.500 1.90 | 9.583 4.67 | 15.667 4.38 | 21.75 1.75
 3.583 1.90 | 9.667 4.67 | 15.750 4.38 | 21.83 1.75
 3.667 1.90 | 9.750 5.25 | 15.833 4.38 | 21.92 1.75
 3.750 1.90 | 9.833 5.25 | 15.917 4.38 | 22.00 1.75

3.833	1.90	|9.917	5.25	|16.000	4.38	|22.08	1.75
3.917	1.90	|10.000	5.25	|16.083	4.38	|22.17	1.75
4.000	1.90	|10.083	5.25	|16.167	4.38	|22.25	1.75
4.083	1.90	|10.167	5.25	|16.250	2.63	|22.33	1.75
4.167	1.90	|10.250	6.71	|16.333	2.63	|22.42	1.75
4.250	2.33	|10.333	6.71	|16.417	2.63	|22.50	1.75
4.333	2.33	|10.417	6.71	|16.500	2.63	|22.58	1.75
4.417	2.33	|10.500	6.71	|16.583	2.63	|22.67	1.75
4.500	2.33	|10.583	6.71	|16.667	2.63	|22.75	1.75
4.583	2.33	|10.667	6.71	|16.750	2.63	|22.83	1.75
4.667	2.33	|10.750	9.05	|16.833	2.63	|22.92	1.75
4.750	2.33	|10.833	9.05	|16.917	2.63	|23.00	1.75
4.833	2.33	|10.917	9.05	|17.000	2.63	|23.08	1.75
4.917	2.33	|11.000	9.05	|17.083	2.63	|23.17	1.75
5.000	2.33	|11.083	9.05	|17.167	2.63	|23.25	1.75
5.083	2.33	|11.167	9.05	|17.250	2.63	|23.33	1.75
5.167	2.33	|11.250	14.01	|17.333	2.63	|23.42	1.75
5.250	2.33	|11.333	14.01	|17.417	2.63	|23.50	1.75
5.333	2.33	|11.417	14.01	|17.500	2.63	|23.58	1.75
5.417	2.33	|11.500	14.01	|17.583	2.63	|23.67	1.75
5.500	2.33	|11.583	14.01	|17.667	2.63	|23.75	1.75
5.583	2.33	|11.667	14.01	|17.750	2.63	|23.83	1.75
5.667	2.33	|11.750	43.19	|17.833	2.63	|23.92	1.75
5.750	2.33	|11.833	43.19	|17.917	2.63	|24.00	1.75
5.833	2.33	|11.917	110.89	|18.000	2.63	|24.08	1.75
5.917	2.33	|12.000	110.90	|18.083	2.63	|24.17	1.75
6.000	2.33	|12.083	178.60	|18.167	2.63	|	
6.083	2.33	|12.167	178.61	|18.250	2.63	|	

Unit Hyd Qpeak (cms)= 0.064

PEAK FLOW (cms)= 0.051 (i)

TIME TO PEAK (hrs)= 12.167

RUNOFF VOLUME (mm)= 66.715

TOTAL RAINFALL (mm)= 145.920

RUNOFF COEFFICIENT = 0.457

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

 | CALIB |
 | STANDHYD (0206) | Area (ha)= 0.52
 | ID= 1 DT= 5.0 min | Total Imp(%)= 63.00 Dir. Conn.(%)= 49.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 0.33 0.19
 Dep. Storage (mm)= 1.50 5.00
 Average Slope (%)= 2.00 2.00
 Length (m)= 59.10 15.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	|6.167	2.33	|12.250	21.03	|18.33	2.63
0.167	0.00	|6.250	2.63	|12.333	21.01	|18.42	2.63
0.250	1.61	|6.333	2.63	|12.417	21.01	|18.50	2.63
0.333	1.61	|6.417	2.63	|12.500	21.01	|18.58	2.63
0.417	1.61	|6.500	2.63	|12.583	21.01	|18.67	2.63
0.500	1.61	|6.583	2.63	|12.667	21.01	|18.75	2.63
0.583	1.61	|6.667	2.63	|12.750	10.80	|18.83	2.63
0.667	1.61	|6.750	2.63	|12.833	10.80	|18.92	2.63
0.750	1.61	|6.833	2.63	|12.917	10.80	|19.00	2.63
0.833	1.61	|6.917	2.63	|13.000	10.80	|19.08	2.63
0.917	1.61	|7.000	2.63	|13.083	10.80	|19.17	2.63
1.000	1.61	|7.083	2.63	|13.167	10.80	|19.25	2.63
1.083	1.61	|7.167	2.63	|13.250	7.88	|19.33	2.63
1.167	1.61	|7.250	3.21	|13.333	7.88	|19.42	2.63
1.250	1.61	|7.333	3.21	|13.417	7.88	|19.50	2.63

1.333	1.61	|	7.417	3.21	|	13.500	7.88	|	19.58	2.63
1.417	1.61	|	7.500	3.21	|	13.583	7.88	|	19.67	2.63
1.500	1.61	|	7.583	3.21	|	13.667	7.88	|	19.75	2.63
1.583	1.61	|	7.667	3.21	|	13.750	6.13	|	19.83	2.63
1.667	1.61	|	7.750	3.21	|	13.833	6.13	|	19.92	2.63
1.750	1.61	|	7.833	3.21	|	13.917	6.13	|	20.00	2.63
1.833	1.61	|	7.917	3.21	|	14.000	6.13	|	20.08	2.63
1.917	1.61	|	8.000	3.21	|	14.083	6.13	|	20.17	2.63
2.000	1.61	|	8.083	3.21	|	14.167	6.13	|	20.25	1.75
2.083	1.61	|	8.167	3.21	|	14.250	4.38	|	20.33	1.75
2.167	1.61	|	8.250	3.79	|	14.333	4.38	|	20.42	1.75
2.250	1.90	|	8.333	3.79	|	14.417	4.38	|	20.50	1.75
2.333	1.90	|	8.417	3.79	|	14.500	4.38	|	20.58	1.75
2.417	1.90	|	8.500	3.79	|	14.583	4.38	|	20.67	1.75
2.500	1.90	|	8.583	3.79	|	14.667	4.38	|	20.75	1.75
2.583	1.90	|	8.667	3.79	|	14.750	4.38	|	20.83	1.75
2.667	1.90	|	8.750	4.09	|	14.833	4.38	|	20.92	1.75
2.750	1.90	|	8.833	4.09	|	14.917	4.38	|	21.00	1.75
2.833	1.90	|	8.917	4.09	|	15.000	4.38	|	21.08	1.75
2.917	1.90	|	9.000	4.09	|	15.083	4.38	|	21.17	1.75
3.000	1.90	|	9.083	4.09	|	15.167	4.38	|	21.25	1.75
3.083	1.90	|	9.167	4.09	|	15.250	4.38	|	21.33	1.75
3.167	1.90	|	9.250	4.67	|	15.333	4.38	|	21.42	1.75
3.250	1.90	|	9.333	4.67	|	15.417	4.38	|	21.50	1.75
3.333	1.90	|	9.417	4.67	|	15.500	4.38	|	21.58	1.75
3.417	1.90	|	9.500	4.67	|	15.583	4.38	|	21.67	1.75
3.500	1.90	|	9.583	4.67	|	15.667	4.38	|	21.75	1.75
3.583	1.90	|	9.667	4.67	|	15.750	4.38	|	21.83	1.75
3.667	1.90	|	9.750	5.25	|	15.833	4.38	|	21.92	1.75
3.750	1.90	|	9.833	5.25	|	15.917	4.38	|	22.00	1.75
3.833	1.90	|	9.917	5.25	|	16.000	4.38	|	22.08	1.75
3.917	1.90	|	10.000	5.25	|	16.083	4.38	|	22.17	1.75
4.000	1.90	|	10.083	5.25	|	16.167	4.38	|	22.25	1.75
4.083	1.90	|	10.167	5.25	|	16.250	2.63	|	22.33	1.75
4.167	1.90	|	10.250	6.71	|	16.333	2.63	|	22.42	1.75
4.250	2.33	|	10.333	6.71	|	16.417	2.63	|	22.50	1.75
4.333	2.33	|	10.417	6.71	|	16.500	2.63	|	22.58	1.75
4.417	2.33	|	10.500	6.71	|	16.583	2.63	|	22.67	1.75
4.500	2.33	|	10.583	6.71	|	16.667	2.63	|	22.75	1.75
4.583	2.33	|	10.667	6.71	|	16.750	2.63	|	22.83	1.75
4.667	2.33	|	10.750	9.05	|	16.833	2.63	|	22.92	1.75
4.750	2.33	|	10.833	9.05	|	16.917	2.63	|	23.00	1.75
4.833	2.33	|	10.917	9.05	|	17.000	2.63	|	23.08	1.75
4.917	2.33	|	11.000	9.05	|	17.083	2.63	|	23.17	1.75
5.000	2.33	|	11.083	9.05	|	17.167	2.63	|	23.25	1.75
5.083	2.33	|	11.167	9.05	|	17.250	2.63	|	23.33	1.75
5.167	2.33	|	11.250	14.01	|	17.333	2.63	|	23.42	1.75
5.250	2.33	|	11.333	14.01	|	17.417	2.63	|	23.50	1.75
5.333	2.33	|	11.417	14.01	|	17.500	2.63	|	23.58	1.75
5.417	2.33	|	11.500	14.01	|	17.583	2.63	|	23.67	1.75
5.500	2.33	|	11.583	14.01	|	17.667	2.63	|	23.75	1.75
5.583	2.33	|	11.667	14.01	|	17.750	2.63	|	23.83	1.75
5.667	2.33	|	11.750	43.19	|	17.833	2.63	|	23.92	1.75
5.750	2.33	|	11.833	43.19	|	17.917	2.63	|	24.00	1.75
5.833	2.33	|	11.917	110.89	|	18.000	2.63	|	24.08	1.75
5.917	2.33	|	12.000	110.90	|	18.083	2.63	|	24.17	1.75
6.000	2.33	|	12.083	178.60	|	18.167	2.63	|		
6.083	2.33	|	12.167	178.61	|	18.250	2.63	|		

Max.Eff.Inten.(mm/hr)= 178.61 159.73
over (min) 5.00 5.00

Storage Coeff. (min)= 1.20 (ii) 3.98 (ii)

Unit Hyd. Tpeak (min)= 5.00 5.00

Unit Hyd. peak (cms)= 0.33 0.24

TOTALS

PEAK FLOW (cms)= 0.13 0.08 0.212 (iii)

TIME TO PEAK (hrs)= 12.17 12.17 12.17

RUNOFF VOLUME (mm)= 144.42 79.33 111.22

TOTAL RAINFALL (mm)= 145.92 145.92 145.92

RUNOFF COEFFICIENT = 0.99 0.54 0.76

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 62.0 la = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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| ADD HYD ( 6000)|
| 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
----- (ha) (cms) (hrs) (mm)
ID1= 1 ( 0203): 0.29 0.051 12.17 66.71
+ ID2= 2 ( 0206): 0.52 0.212 12.17 111.22
=====
ID = 3 ( 6000): 0.81 0.263 12.17 95.47

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NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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| CALIB |
| NASHYD ( 0205)| Area (ha)= 0.16 Curve Number (CN)= 62.0
| ID= 1 DT= 5.0 min | la (mm)= 5.00 # of Linear Res.(N)= 3.00
----- U.H. Tp(hrs)= 0.17

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NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	2.33	12.250	21.03	18.33	2.63
0.167	0.00	6.250	2.63	12.333	21.01	18.42	2.63
0.250	1.61	6.333	2.63	12.417	21.01	18.50	2.63
0.333	1.61	6.417	2.63	12.500	21.01	18.58	2.63
0.417	1.61	6.500	2.63	12.583	21.01	18.67	2.63
0.500	1.61	6.583	2.63	12.667	21.01	18.75	2.63
0.583	1.61	6.667	2.63	12.750	10.80	18.83	2.63
0.667	1.61	6.750	2.63	12.833	10.80	18.92	2.63
0.750	1.61	6.833	2.63	12.917	10.80	19.00	2.63
0.833	1.61	6.917	2.63	13.000	10.80	19.08	2.63
0.917	1.61	7.000	2.63	13.083	10.80	19.17	2.63
1.000	1.61	7.083	2.63	13.167	10.80	19.25	2.63
1.083	1.61	7.167	2.63	13.250	7.88	19.33	2.63
1.167	1.61	7.250	3.21	13.333	7.88	19.42	2.63
1.250	1.61	7.333	3.21	13.417	7.88	19.50	2.63
1.333	1.61	7.417	3.21	13.500	7.88	19.58	2.63
1.417	1.61	7.500	3.21	13.583	7.88	19.67	2.63
1.500	1.61	7.583	3.21	13.667	7.88	19.75	2.63
1.583	1.61	7.667	3.21	13.750	6.13	19.83	2.63
1.667	1.61	7.750	3.21	13.833	6.13	19.92	2.63
1.750	1.61	7.833	3.21	13.917	6.13	20.00	2.63
1.833	1.61	7.917	3.21	14.000	6.13	20.08	2.63
1.917	1.61	8.000	3.21	14.083	6.13	20.17	2.63
2.000	1.61	8.083	3.21	14.167	6.13	20.25	1.75
2.083	1.61	8.167	3.21	14.250	4.38	20.33	1.75
2.167	1.61	8.250	3.79	14.333	4.38	20.42	1.75
2.250	1.90	8.333	3.79	14.417	4.38	20.50	1.75
2.333	1.90	8.417	3.79	14.500	4.38	20.58	1.75
2.417	1.90	8.500	3.79	14.583	4.38	20.67	1.75
2.500	1.90	8.583	3.79	14.667	4.38	20.75	1.75
2.583	1.90	8.667	3.79	14.750	4.38	20.83	1.75
2.667	1.90	8.750	4.09	14.833	4.38	20.92	1.75
2.750	1.90	8.833	4.09	14.917	4.38	21.00	1.75
2.833	1.90	8.917	4.09	15.000	4.38	21.08	1.75
2.917	1.90	9.000	4.09	15.083	4.38	21.17	1.75
3.000	1.90	9.083	4.09	15.167	4.38	21.25	1.75
3.083	1.90	9.167	4.09	15.250	4.38	21.33	1.75
3.167	1.90	9.250	4.67	15.333	4.38	21.42	1.75
3.250	1.90	9.333	4.67	15.417	4.38	21.50	1.75
3.333	1.90	9.417	4.67	15.500	4.38	21.58	1.75
3.417	1.90	9.500	4.67	15.583	4.38	21.67	1.75
3.500	1.90	9.583	4.67	15.667	4.38	21.75	1.75

3.583	1.90	9.667	4.67	15.750	4.38	21.83	1.75
3.667	1.90	9.750	5.25	15.833	4.38	21.92	1.75
3.750	1.90	9.833	5.25	15.917	4.38	22.00	1.75
3.833	1.90	9.917	5.25	16.000	4.38	22.08	1.75
3.917	1.90	10.000	5.25	16.083	4.38	22.17	1.75
4.000	1.90	10.083	5.25	16.167	4.38	22.25	1.75
4.083	1.90	10.167	5.25	16.250	2.63	22.33	1.75
4.167	1.90	10.250	6.71	16.333	2.63	22.42	1.75
4.250	2.33	10.333	6.71	16.417	2.63	22.50	1.75
4.333	2.33	10.417	6.71	16.500	2.63	22.58	1.75
4.417	2.33	10.500	6.71	16.583	2.63	22.67	1.75
4.500	2.33	10.583	6.71	16.667	2.63	22.75	1.75
4.583	2.33	10.667	6.71	16.750	2.63	22.83	1.75
4.667	2.33	10.750	9.05	16.833	2.63	22.92	1.75
4.750	2.33	10.833	9.05	16.917	2.63	23.00	1.75
4.833	2.33	10.917	9.05	17.000	2.63	23.08	1.75
4.917	2.33	11.000	9.05	17.083	2.63	23.17	1.75
5.000	2.33	11.083	9.05	17.167	2.63	23.25	1.75
5.083	2.33	11.167	9.05	17.250	2.63	23.33	1.75
5.167	2.33	11.250	14.01	17.333	2.63	23.42	1.75
5.250	2.33	11.333	14.01	17.417	2.63	23.50	1.75
5.333	2.33	11.417	14.01	17.500	2.63	23.58	1.75
5.417	2.33	11.500	14.01	17.583	2.63	23.67	1.75
5.500	2.33	11.583	14.01	17.667	2.63	23.75	1.75
5.583	2.33	11.667	14.01	17.750	2.63	23.83	1.75
5.667	2.33	11.750	43.19	17.833	2.63	23.92	1.75
5.750	2.33	11.833	43.19	17.917	2.63	24.00	1.75
5.833	2.33	11.917	110.89	18.000	2.63	24.08	1.75
5.917	2.33	12.000	110.90	18.083	2.63	24.17	1.75
6.000	2.33	12.083	178.60	18.167	2.63		
6.083	2.33	12.167	178.61	18.250	2.63		

Unit Hyd Qpeak (cms)= 0.035

PEAK FLOW (cms)= 0.028 (i)

TIME TO PEAK (hrs)= 12.167

RUNOFF VOLUME (mm)= 66.713

TOTAL RAINFALL (mm)= 145.920

RUNOFF COEFFICIENT = 0.457

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

 | CALIB |
 | STANDHYD (0204) | Area (ha)= 0.48
 | ID= 1 DT= 5.0 min | Total Imp(%)= 73.00 Dir. Conn.(%)= 73.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.35	0.13
Dep. Storage (mm)=	1.50	5.00
Average Slope (%)=	5.00	5.00
Length (m)=	56.57	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	2.33	12.250	21.03	18.33	2.63
0.167	0.00	6.250	2.63	12.333	21.01	18.42	2.63
0.250	1.61	6.333	2.63	12.417	21.01	18.50	2.63
0.333	1.61	6.417	2.63	12.500	21.01	18.58	2.63
0.417	1.61	6.500	2.63	12.583	21.01	18.67	2.63
0.500	1.61	6.583	2.63	12.667	21.01	18.75	2.63
0.583	1.61	6.667	2.63	12.750	10.80	18.83	2.63
0.667	1.61	6.750	2.63	12.833	10.80	18.92	2.63
0.750	1.61	6.833	2.63	12.917	10.80	19.00	2.63
0.833	1.61	6.917	2.63	13.000	10.80	19.08	2.63
0.917	1.61	7.000	2.63	13.083	10.80	19.17	2.63
1.000	1.61	7.083	2.63	13.167	10.80	19.25	2.63

1.083	1.61	|	7.167	2.63	|	13.250	7.88	|	19.33	2.63
1.167	1.61	|	7.250	3.21	|	13.333	7.88	|	19.42	2.63
1.250	1.61	|	7.333	3.21	|	13.417	7.88	|	19.50	2.63
1.333	1.61	|	7.417	3.21	|	13.500	7.88	|	19.58	2.63
1.417	1.61	|	7.500	3.21	|	13.583	7.88	|	19.67	2.63
1.500	1.61	|	7.583	3.21	|	13.667	7.88	|	19.75	2.63
1.583	1.61	|	7.667	3.21	|	13.750	6.13	|	19.83	2.63
1.667	1.61	|	7.750	3.21	|	13.833	6.13	|	19.92	2.63
1.750	1.61	|	7.833	3.21	|	13.917	6.13	|	20.00	2.63
1.833	1.61	|	7.917	3.21	|	14.000	6.13	|	20.08	2.63
1.917	1.61	|	8.000	3.21	|	14.083	6.13	|	20.17	2.63
2.000	1.61	|	8.083	3.21	|	14.167	6.13	|	20.25	1.75
2.083	1.61	|	8.167	3.21	|	14.250	4.38	|	20.33	1.75
2.167	1.61	|	8.250	3.79	|	14.333	4.38	|	20.42	1.75
2.250	1.90	|	8.333	3.79	|	14.417	4.38	|	20.50	1.75
2.333	1.90	|	8.417	3.79	|	14.500	4.38	|	20.58	1.75
2.417	1.90	|	8.500	3.79	|	14.583	4.38	|	20.67	1.75
2.500	1.90	|	8.583	3.79	|	14.667	4.38	|	20.75	1.75
2.583	1.90	|	8.667	3.79	|	14.750	4.38	|	20.83	1.75
2.667	1.90	|	8.750	4.09	|	14.833	4.38	|	20.92	1.75
2.750	1.90	|	8.833	4.09	|	14.917	4.38	|	21.00	1.75
2.833	1.90	|	8.917	4.09	|	15.000	4.38	|	21.08	1.75
2.917	1.90	|	9.000	4.09	|	15.083	4.38	|	21.17	1.75
3.000	1.90	|	9.083	4.09	|	15.167	4.38	|	21.25	1.75
3.083	1.90	|	9.167	4.09	|	15.250	4.38	|	21.33	1.75
3.167	1.90	|	9.250	4.67	|	15.333	4.38	|	21.42	1.75
3.250	1.90	|	9.333	4.67	|	15.417	4.38	|	21.50	1.75
3.333	1.90	|	9.417	4.67	|	15.500	4.38	|	21.58	1.75
3.417	1.90	|	9.500	4.67	|	15.583	4.38	|	21.67	1.75
3.500	1.90	|	9.583	4.67	|	15.667	4.38	|	21.75	1.75
3.583	1.90	|	9.667	4.67	|	15.750	4.38	|	21.83	1.75
3.667	1.90	|	9.750	5.25	|	15.833	4.38	|	21.92	1.75
3.750	1.90	|	9.833	5.25	|	15.917	4.38	|	22.00	1.75
3.833	1.90	|	9.917	5.25	|	16.000	4.38	|	22.08	1.75
3.917	1.90	|	10.000	5.25	|	16.083	4.38	|	22.17	1.75
4.000	1.90	|	10.083	5.25	|	16.167	4.38	|	22.25	1.75
4.083	1.90	|	10.167	5.25	|	16.250	2.63	|	22.33	1.75
4.167	1.90	|	10.250	6.71	|	16.333	2.63	|	22.42	1.75
4.250	2.33	|	10.333	6.71	|	16.417	2.63	|	22.50	1.75
4.333	2.33	|	10.417	6.71	|	16.500	2.63	|	22.58	1.75
4.417	2.33	|	10.500	6.71	|	16.583	2.63	|	22.67	1.75
4.500	2.33	|	10.583	6.71	|	16.667	2.63	|	22.75	1.75
4.583	2.33	|	10.667	6.71	|	16.750	2.63	|	22.83	1.75
4.667	2.33	|	10.750	9.05	|	16.833	2.63	|	22.92	1.75
4.750	2.33	|	10.833	9.05	|	16.917	2.63	|	23.00	1.75
4.833	2.33	|	10.917	9.05	|	17.000	2.63	|	23.08	1.75
4.917	2.33	|	11.000	9.05	|	17.083	2.63	|	23.17	1.75
5.000	2.33	|	11.083	9.05	|	17.167	2.63	|	23.25	1.75
5.083	2.33	|	11.167	9.05	|	17.250	2.63	|	23.33	1.75
5.167	2.33	|	11.250	14.01	|	17.333	2.63	|	23.42	1.75
5.250	2.33	|	11.333	14.01	|	17.417	2.63	|	23.50	1.75
5.333	2.33	|	11.417	14.01	|	17.500	2.63	|	23.58	1.75
5.417	2.33	|	11.500	14.01	|	17.583	2.63	|	23.67	1.75
5.500	2.33	|	11.583	14.01	|	17.667	2.63	|	23.75	1.75
5.583	2.33	|	11.667	14.01	|	17.750	2.63	|	23.83	1.75
5.667	2.33	|	11.750	43.19	|	17.833	2.63	|	23.92	1.75
5.750	2.33	|	11.833	43.19	|	17.917	2.63	|	24.00	1.75
5.833	2.33	|	11.917	110.89	|	18.000	2.63	|	24.08	1.75
5.917	2.33	|	12.000	110.90	|	18.083	2.63	|	24.17	1.75
6.000	2.33	|	12.083	178.60	|	18.167	2.63	|		
6.083	2.33	|	12.167	178.61	|	18.250	2.63	|		

Max.Eff.Inten.(mm/hr)= 178.61 98.22
over (min) 5.00 5.00

Storage Coeff. (min)= 0.89 (ii) 3.74 (ii)

Unit Hyd. Tpeak (min)= 5.00 5.00

Unit Hyd. peak (cms)= 0.34 0.25

TOTALS

PEAK FLOW (cms)= 0.17 0.04 0.209 (iii)

TIME TO PEAK (hrs)= 12.17 12.17 12.17

RUNOFF VOLUME (mm)= 144.42 66.95 123.50

TOTAL RAINFALL (mm)= 145.92 145.92 145.92

RUNOFF COEFFICIENT = 0.99 0.46 0.85

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 62.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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-----
| ADD HYD ( 0023) |
| 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
----- (ha) (cms) (hrs) (mm)
ID1= 1 ( 0204): 0.48 0.209 12.17 123.50
+ ID2= 2 ( 0205): 0.16 0.028 12.17 66.71
=====
ID = 3 ( 0023): 0.64 0.237 12.17 109.44

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NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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| CALIB |
| STANDHYD ( 0200) | Area (ha)= 9.56
| ID= 1 DT= 5.0 min | Total Imp(%)= 56.00 Dir. Conn.(%)= 46.00
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IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 5.35 4.21
Dep. Storage (mm)= 1.50 5.00
Average Slope (%)= 2.00 2.00
Length (m)= 252.45 30.00
Mannings n = 0.013 0.250

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NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

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---- TRANSFORMED HYETOGRAPH ----
TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr
0.083 0.00 | 6.167 2.33 | 12.250 21.03 | 18.33 2.63
0.167 0.00 | 6.250 2.63 | 12.333 21.01 | 18.42 2.63
0.250 1.61 | 6.333 2.63 | 12.417 21.01 | 18.50 2.63
0.333 1.61 | 6.417 2.63 | 12.500 21.01 | 18.58 2.63
0.417 1.61 | 6.500 2.63 | 12.583 21.01 | 18.67 2.63
0.500 1.61 | 6.583 2.63 | 12.667 21.01 | 18.75 2.63
0.583 1.61 | 6.667 2.63 | 12.750 10.80 | 18.83 2.63
0.667 1.61 | 6.750 2.63 | 12.833 10.80 | 18.92 2.63
0.750 1.61 | 6.833 2.63 | 12.917 10.80 | 19.00 2.63
0.833 1.61 | 6.917 2.63 | 13.000 10.80 | 19.08 2.63
0.917 1.61 | 7.000 2.63 | 13.083 10.80 | 19.17 2.63
1.000 1.61 | 7.083 2.63 | 13.167 10.80 | 19.25 2.63
1.083 1.61 | 7.167 2.63 | 13.250 7.88 | 19.33 2.63
1.167 1.61 | 7.250 3.21 | 13.333 7.88 | 19.42 2.63
1.250 1.61 | 7.333 3.21 | 13.417 7.88 | 19.50 2.63
1.333 1.61 | 7.417 3.21 | 13.500 7.88 | 19.58 2.63
1.417 1.61 | 7.500 3.21 | 13.583 7.88 | 19.67 2.63
1.500 1.61 | 7.583 3.21 | 13.667 7.88 | 19.75 2.63
1.583 1.61 | 7.667 3.21 | 13.750 6.13 | 19.83 2.63
1.667 1.61 | 7.750 3.21 | 13.833 6.13 | 19.92 2.63
1.750 1.61 | 7.833 3.21 | 13.917 6.13 | 20.00 2.63
1.833 1.61 | 7.917 3.21 | 14.000 6.13 | 20.08 2.63
1.917 1.61 | 8.000 3.21 | 14.083 6.13 | 20.17 2.63
2.000 1.61 | 8.083 3.21 | 14.167 6.13 | 20.25 1.75
2.083 1.61 | 8.167 3.21 | 14.250 4.38 | 20.33 1.75
2.167 1.61 | 8.250 3.79 | 14.333 4.38 | 20.42 1.75
2.250 1.90 | 8.333 3.79 | 14.417 4.38 | 20.50 1.75
2.333 1.90 | 8.417 3.79 | 14.500 4.38 | 20.58 1.75
2.417 1.90 | 8.500 3.79 | 14.583 4.38 | 20.67 1.75
2.500 1.90 | 8.583 3.79 | 14.667 4.38 | 20.75 1.75
2.583 1.90 | 8.667 3.79 | 14.750 4.38 | 20.83 1.75
2.667 1.90 | 8.750 4.09 | 14.833 4.38 | 20.92 1.75
2.750 1.90 | 8.833 4.09 | 14.917 4.38 | 21.00 1.75

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2.833	1.90	8.917	4.09	15.000	4.38	21.08	1.75
2.917	1.90	9.000	4.09	15.083	4.38	21.17	1.75
3.000	1.90	9.083	4.09	15.167	4.38	21.25	1.75
3.083	1.90	9.167	4.09	15.250	4.38	21.33	1.75
3.167	1.90	9.250	4.67	15.333	4.38	21.42	1.75
3.250	1.90	9.333	4.67	15.417	4.38	21.50	1.75
3.333	1.90	9.417	4.67	15.500	4.38	21.58	1.75
3.417	1.90	9.500	4.67	15.583	4.38	21.67	1.75
3.500	1.90	9.583	4.67	15.667	4.38	21.75	1.75
3.583	1.90	9.667	4.67	15.750	4.38	21.83	1.75
3.667	1.90	9.750	5.25	15.833	4.38	21.92	1.75
3.750	1.90	9.833	5.25	15.917	4.38	22.00	1.75
3.833	1.90	9.917	5.25	16.000	4.38	22.08	1.75
3.917	1.90	10.000	5.25	16.083	4.38	22.17	1.75
4.000	1.90	10.083	5.25	16.167	4.38	22.25	1.75
4.083	1.90	10.167	5.25	16.250	2.63	22.33	1.75
4.167	1.90	10.250	6.71	16.333	2.63	22.42	1.75
4.250	2.33	10.333	6.71	16.417	2.63	22.50	1.75
4.333	2.33	10.417	6.71	16.500	2.63	22.58	1.75
4.417	2.33	10.500	6.71	16.583	2.63	22.67	1.75
4.500	2.33	10.583	6.71	16.667	2.63	22.75	1.75
4.583	2.33	10.667	6.71	16.750	2.63	22.83	1.75
4.667	2.33	10.750	9.05	16.833	2.63	22.92	1.75
4.750	2.33	10.833	9.05	16.917	2.63	23.00	1.75
4.833	2.33	10.917	9.05	17.000	2.63	23.08	1.75
4.917	2.33	11.000	9.05	17.083	2.63	23.17	1.75
5.000	2.33	11.083	9.05	17.167	2.63	23.25	1.75
5.083	2.33	11.167	9.05	17.250	2.63	23.33	1.75
5.167	2.33	11.250	14.01	17.333	2.63	23.42	1.75
5.250	2.33	11.333	14.01	17.417	2.63	23.50	1.75
5.333	2.33	11.417	14.01	17.500	2.63	23.58	1.75
5.417	2.33	11.500	14.01	17.583	2.63	23.67	1.75
5.500	2.33	11.583	14.01	17.667	2.63	23.75	1.75
5.583	2.33	11.667	14.01	17.750	2.63	23.83	1.75
5.667	2.33	11.750	43.19	17.833	2.63	23.92	1.75
5.750	2.33	11.833	43.19	17.917	2.63	24.00	1.75
5.833	2.33	11.917	110.89	18.000	2.63	24.08	1.75
5.917	2.33	12.000	110.90	18.083	2.63	24.17	1.75
6.000	2.33	12.083	178.60	18.167	2.63		
6.083	2.33	12.167	178.61	18.250	2.63		

Max.Eff.Inten.(mm/hr)= 178.61 134.52
over (min) 5.00 10.00

Storage Coeff. (min)= 2.87 (ii) 7.49 (ii)

Unit Hyd. Tpeak (min)= 5.00 10.00

Unit Hyd. peak (cms)= 0.28 0.13

TOTALS

PEAK FLOW (cms)= 2.16 1.18 3.336 (iii)

TIME TO PEAK (hrs)= 12.17 12.17 12.17

RUNOFF VOLUME (mm)= 144.42 74.88 106.87

TOTAL RAINFALL (mm)= 145.92 145.92 145.92

RUNOFF COEFFICIENT = 0.99 0.51 0.73

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

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:

CN* = 62.0 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 |

| STANDHYD (0201) | Area (ha)= 1.34

| ID= 1 DT= 5.0 min | Total Imp(%)= 50.00 Dir. Conn.(%)= 50.00

IMPERVIOUS PERVIOUS (i)

Surface Area (ha)= 0.67 0.67

Dep. Storage (mm)= 1.50 10.00

Average Slope (%)= 2.00 2.00

Length (m)= 94.52 30.00

Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	2.33	12.250	21.03	18.33	2.63
0.167	0.00	6.250	2.63	12.333	21.01	18.42	2.63
0.250	1.61	6.333	2.63	12.417	21.01	18.50	2.63
0.333	1.61	6.417	2.63	12.500	21.01	18.58	2.63
0.417	1.61	6.500	2.63	12.583	21.01	18.67	2.63
0.500	1.61	6.583	2.63	12.667	21.01	18.75	2.63
0.583	1.61	6.667	2.63	12.750	10.80	18.83	2.63
0.667	1.61	6.750	2.63	12.833	10.80	18.92	2.63
0.750	1.61	6.833	2.63	12.917	10.80	19.00	2.63
0.833	1.61	6.917	2.63	13.000	10.80	19.08	2.63
0.917	1.61	7.000	2.63	13.083	10.80	19.17	2.63
1.000	1.61	7.083	2.63	13.167	10.80	19.25	2.63
1.083	1.61	7.167	2.63	13.250	7.88	19.33	2.63
1.167	1.61	7.250	3.21	13.333	7.88	19.42	2.63
1.250	1.61	7.333	3.21	13.417	7.88	19.50	2.63
1.333	1.61	7.417	3.21	13.500	7.88	19.58	2.63
1.417	1.61	7.500	3.21	13.583	7.88	19.67	2.63
1.500	1.61	7.583	3.21	13.667	7.88	19.75	2.63
1.583	1.61	7.667	3.21	13.750	6.13	19.83	2.63
1.667	1.61	7.750	3.21	13.833	6.13	19.92	2.63
1.750	1.61	7.833	3.21	13.917	6.13	20.00	2.63
1.833	1.61	7.917	3.21	14.000	6.13	20.08	2.63
1.917	1.61	8.000	3.21	14.083	6.13	20.17	2.63
2.000	1.61	8.083	3.21	14.167	6.13	20.25	1.75
2.083	1.61	8.167	3.21	14.250	4.38	20.33	1.75
2.167	1.61	8.250	3.79	14.333	4.38	20.42	1.75
2.250	1.90	8.333	3.79	14.417	4.38	20.50	1.75
2.333	1.90	8.417	3.79	14.500	4.38	20.58	1.75
2.417	1.90	8.500	3.79	14.583	4.38	20.67	1.75
2.500	1.90	8.583	3.79	14.667	4.38	20.75	1.75
2.583	1.90	8.667	3.79	14.750	4.38	20.83	1.75
2.667	1.90	8.750	4.09	14.833	4.38	20.92	1.75
2.750	1.90	8.833	4.09	14.917	4.38	21.00	1.75
2.833	1.90	8.917	4.09	15.000	4.38	21.08	1.75
2.917	1.90	9.000	4.09	15.083	4.38	21.17	1.75
3.000	1.90	9.083	4.09	15.167	4.38	21.25	1.75
3.083	1.90	9.167	4.09	15.250	4.38	21.33	1.75
3.167	1.90	9.250	4.67	15.333	4.38	21.42	1.75
3.250	1.90	9.333	4.67	15.417	4.38	21.50	1.75
3.333	1.90	9.417	4.67	15.500	4.38	21.58	1.75
3.417	1.90	9.500	4.67	15.583	4.38	21.67	1.75
3.500	1.90	9.583	4.67	15.667	4.38	21.75	1.75
3.583	1.90	9.667	4.67	15.750	4.38	21.83	1.75
3.667	1.90	9.750	5.25	15.833	4.38	21.92	1.75
3.750	1.90	9.833	5.25	15.917	4.38	22.00	1.75
3.833	1.90	9.917	5.25	16.000	4.38	22.08	1.75
3.917	1.90	10.000	5.25	16.083	4.38	22.17	1.75
4.000	1.90	10.083	5.25	16.167	4.38	22.25	1.75
4.083	1.90	10.167	5.25	16.250	2.63	22.33	1.75
4.167	1.90	10.250	6.71	16.333	2.63	22.42	1.75
4.250	2.33	10.333	6.71	16.417	2.63	22.50	1.75
4.333	2.33	10.417	6.71	16.500	2.63	22.58	1.75
4.417	2.33	10.500	6.71	16.583	2.63	22.67	1.75
4.500	2.33	10.583	6.71	16.667	2.63	22.75	1.75
4.583	2.33	10.667	6.71	16.750	2.63	22.83	1.75
4.667	2.33	10.750	9.05	16.833	2.63	22.92	1.75
4.750	2.33	10.833	9.05	16.917	2.63	23.00	1.75
4.833	2.33	10.917	9.05	17.000	2.63	23.08	1.75
4.917	2.33	11.000	9.05	17.083	2.63	23.17	1.75
5.000	2.33	11.083	9.05	17.167	2.63	23.25	1.75
5.083	2.33	11.167	9.05	17.250	2.63	23.33	1.75
5.167	2.33	11.250	14.01	17.333	2.63	23.42	1.75
5.250	2.33	11.333	14.01	17.417	2.63	23.50	1.75
5.333	2.33	11.417	14.01	17.500	2.63	23.58	1.75
5.417	2.33	11.500	14.01	17.583	2.63	23.67	1.75
5.500	2.33	11.583	14.01	17.667	2.63	23.75	1.75

5.583 2.33 |11.667 14.01 |17.750 2.63 |23.83 1.75
 5.667 2.33 |11.750 43.19 |17.833 2.63 |23.92 1.75
 5.750 2.33 |11.833 43.19 |17.917 2.63 |24.00 1.75
 5.833 2.33 |11.917 110.89 |18.000 2.63 |24.08 1.75
 5.917 2.33 |12.000 110.90 |18.083 2.63 |24.17 1.75
 6.000 2.33 |12.083 178.60 |18.167 2.63 |
 6.083 2.33 |12.167 178.61 |18.250 2.63 |

Max.Eff.Inten.(mm/hr)= 178.61 71.78
 over (min) 5.00 10.00

Storage Coeff. (min)= 1.59 (ii) 6.30 (ii)

Unit Hyd. Tpeak (min)= 5.00 10.00

Unit Hyd. peak (cms)= 0.33 0.15

TOTALS

PEAK FLOW (cms)= 0.33 0.10 0.435 (iii)

TIME TO PEAK (hrs)= 12.17 12.17 12.17

RUNOFF VOLUME (mm)= 144.42 48.62 96.52

TOTAL RAINFALL (mm)= 145.92 145.92 145.92

RUNOFF COEFFICIENT = 0.99 0.33 0.66

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

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:

CN* = 51.0 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 (3000)|

| 1 + 2 = 3 | AREA QPEAK TPEAK R.V.

(ha) (cms) (hrs) (mm)

ID1= 1 (0200): 9.56 3.336 12.17 106.87

+ ID2= 2 (0201): 1.34 0.435 12.17 96.52

=====
 ID = 3 (3000): 10.90 3.772 12.17 105.60

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| ADD HYD (5000)|

| 1 + 2 = 3 | AREA QPEAK TPEAK R.V.

(ha) (cms) (hrs) (mm)

ID1= 1 (0023): 0.64 0.237 12.17 109.44

+ ID2= 2 (3000): 10.90 3.772 12.17 105.60

=====
 ID = 3 (5000): 11.54 4.009 12.17 105.81

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| CALIB |

| STANDHYD (0202)| Area (ha)= 1.81

| ID= 1 DT= 5.0 min | Total Imp(%)= 37.00 Dir. Conn.(%)= 26.00

IMPERVIOUS PERVIOUS (i)

Surface Area (ha)= 0.67 1.14

Dep. Storage (mm)= 1.50 6.90

Average Slope (%)= 2.00 2.00

Length (m)= 109.85 30.00

Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN

hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr

0.083 0.00 | 6.167 2.33 | 12.250 21.03 | 18.33 2.63

0.167 0.00 | 6.250 2.63 | 12.333 21.01 | 18.42 2.63

0.250	1.61	6.333	2.63	12.417	21.01	18.50	2.63
0.333	1.61	6.417	2.63	12.500	21.01	18.58	2.63
0.417	1.61	6.500	2.63	12.583	21.01	18.67	2.63
0.500	1.61	6.583	2.63	12.667	21.01	18.75	2.63
0.583	1.61	6.667	2.63	12.750	10.80	18.83	2.63
0.667	1.61	6.750	2.63	12.833	10.80	18.92	2.63
0.750	1.61	6.833	2.63	12.917	10.80	19.00	2.63
0.833	1.61	6.917	2.63	13.000	10.80	19.08	2.63
0.917	1.61	7.000	2.63	13.083	10.80	19.17	2.63
1.000	1.61	7.083	2.63	13.167	10.80	19.25	2.63
1.083	1.61	7.167	2.63	13.250	7.88	19.33	2.63
1.167	1.61	7.250	3.21	13.333	7.88	19.42	2.63
1.250	1.61	7.333	3.21	13.417	7.88	19.50	2.63
1.333	1.61	7.417	3.21	13.500	7.88	19.58	2.63
1.417	1.61	7.500	3.21	13.583	7.88	19.67	2.63
1.500	1.61	7.583	3.21	13.667	7.88	19.75	2.63
1.583	1.61	7.667	3.21	13.750	6.13	19.83	2.63
1.667	1.61	7.750	3.21	13.833	6.13	19.92	2.63
1.750	1.61	7.833	3.21	13.917	6.13	20.00	2.63
1.833	1.61	7.917	3.21	14.000	6.13	20.08	2.63
1.917	1.61	8.000	3.21	14.083	6.13	20.17	2.63
2.000	1.61	8.083	3.21	14.167	6.13	20.25	1.75
2.083	1.61	8.167	3.21	14.250	4.38	20.33	1.75
2.167	1.61	8.250	3.79	14.333	4.38	20.42	1.75
2.250	1.90	8.333	3.79	14.417	4.38	20.50	1.75
2.333	1.90	8.417	3.79	14.500	4.38	20.58	1.75
2.417	1.90	8.500	3.79	14.583	4.38	20.67	1.75
2.500	1.90	8.583	3.79	14.667	4.38	20.75	1.75
2.583	1.90	8.667	3.79	14.750	4.38	20.83	1.75
2.667	1.90	8.750	4.09	14.833	4.38	20.92	1.75
2.750	1.90	8.833	4.09	14.917	4.38	21.00	1.75
2.833	1.90	8.917	4.09	15.000	4.38	21.08	1.75
2.917	1.90	9.000	4.09	15.083	4.38	21.17	1.75
3.000	1.90	9.083	4.09	15.167	4.38	21.25	1.75
3.083	1.90	9.167	4.09	15.250	4.38	21.33	1.75
3.167	1.90	9.250	4.67	15.333	4.38	21.42	1.75
3.250	1.90	9.333	4.67	15.417	4.38	21.50	1.75
3.333	1.90	9.417	4.67	15.500	4.38	21.58	1.75
3.417	1.90	9.500	4.67	15.583	4.38	21.67	1.75
3.500	1.90	9.583	4.67	15.667	4.38	21.75	1.75
3.583	1.90	9.667	4.67	15.750	4.38	21.83	1.75
3.667	1.90	9.750	5.25	15.833	4.38	21.92	1.75
3.750	1.90	9.833	5.25	15.917	4.38	22.00	1.75
3.833	1.90	9.917	5.25	16.000	4.38	22.08	1.75
3.917	1.90	10.000	5.25	16.083	4.38	22.17	1.75
4.000	1.90	10.083	5.25	16.167	4.38	22.25	1.75
4.083	1.90	10.167	5.25	16.250	2.63	22.33	1.75
4.167	1.90	10.250	6.71	16.333	2.63	22.42	1.75
4.250	2.33	10.333	6.71	16.417	2.63	22.50	1.75
4.333	2.33	10.417	6.71	16.500	2.63	22.58	1.75
4.417	2.33	10.500	6.71	16.583	2.63	22.67	1.75
4.500	2.33	10.583	6.71	16.667	2.63	22.75	1.75
4.583	2.33	10.667	6.71	16.750	2.63	22.83	1.75
4.667	2.33	10.750	9.05	16.833	2.63	22.92	1.75
4.750	2.33	10.833	9.05	16.917	2.63	23.00	1.75
4.833	2.33	10.917	9.05	17.000	2.63	23.08	1.75
4.917	2.33	11.000	9.05	17.083	2.63	23.17	1.75
5.000	2.33	11.083	9.05	17.167	2.63	23.25	1.75
5.083	2.33	11.167	9.05	17.250	2.63	23.33	1.75
5.167	2.33	11.250	14.01	17.333	2.63	23.42	1.75
5.250	2.33	11.333	14.01	17.417	2.63	23.50	1.75
5.333	2.33	11.417	14.01	17.500	2.63	23.58	1.75
5.417	2.33	11.500	14.01	17.583	2.63	23.67	1.75
5.500	2.33	11.583	14.01	17.667	2.63	23.75	1.75
5.583	2.33	11.667	14.01	17.750	2.63	23.83	1.75
5.667	2.33	11.750	43.19	17.833	2.63	23.92	1.75
5.750	2.33	11.833	43.19	17.917	2.63	24.00	1.75
5.833	2.33	11.917	110.89	18.000	2.63	24.08	1.75
5.917	2.33	12.000	110.90	18.083	2.63	24.17	1.75
6.000	2.33	12.083	178.60	18.167	2.63		
6.083	2.33	12.167	178.61	18.250	2.63		

Max.Eff.Inten.(mm/hr)= 178.61 122.00

over (min) 5.00 10.00
 Storage Coeff. (min)= 1.74 (ii) 7.23 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.32 0.14
 TOTALS
 PEAK FLOW (cms)= 0.23 0.29 0.525 (iii)
 TIME TO PEAK (hrs)= 12.17 12.17 12.17
 RUNOFF VOLUME (mm)= 144.42 70.47 89.70
 TOTAL RAINFALL (mm)= 145.92 145.92 145.92
 RUNOFF COEFFICIENT = 0.99 0.48 0.61

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 61.0 la = 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 (1000)|

	1	2	3	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)			
ID1= 1 (0202):	1.81	0.525	12.17	89.70			
+ ID2= 2 (5000):	11.54	4.009	12.17	105.81			
=====							
ID = 3 (1000):	13.35	4.534	12.17	103.62			

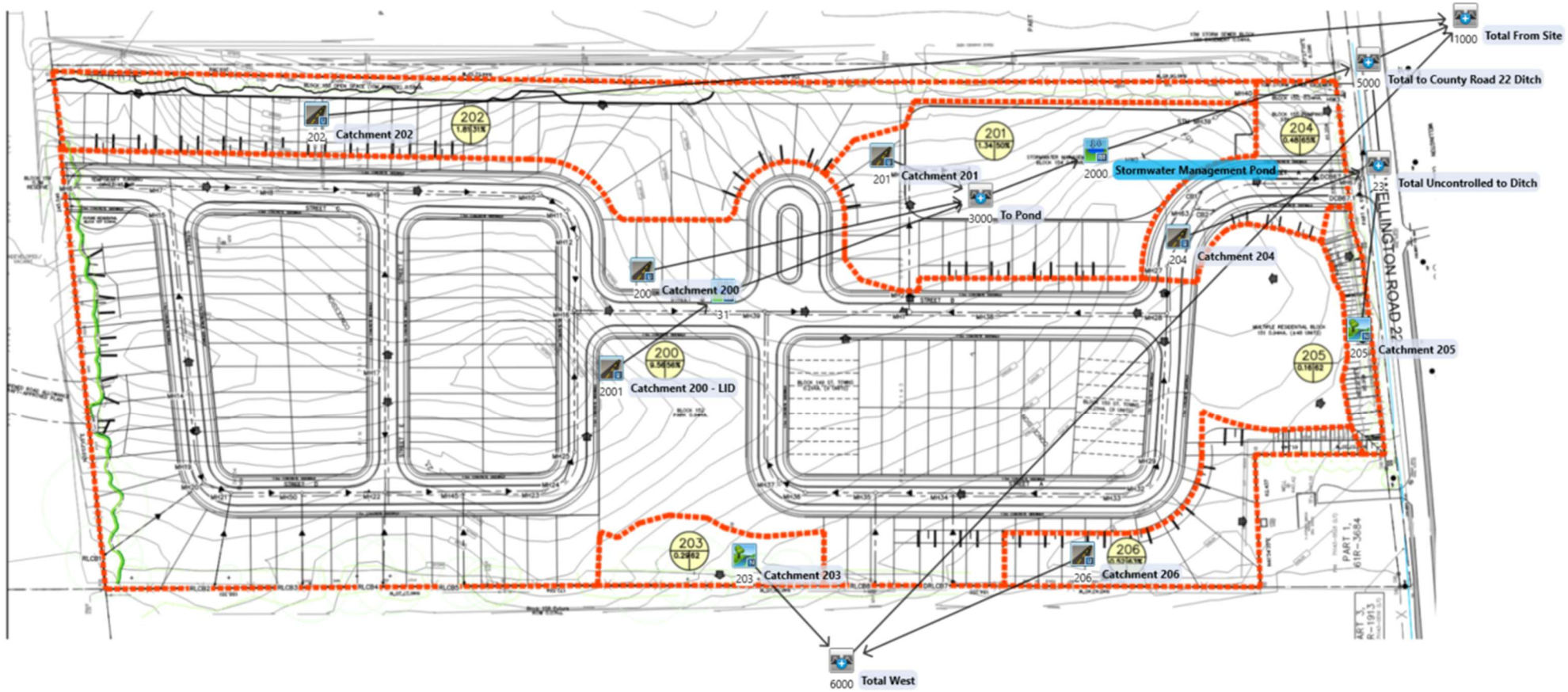
NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| ADD HYD (1000)|

	3	2	1	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)			
ID1= 3 (1000):	13.35	4.534	12.17	103.62			
+ ID2= 2 (6000):	0.81	0.263	12.17	95.47			
=====							
ID = 1 (1000):	14.16	4.797	12.17	103.16			

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

VO Post-Development Conditions Schematic



VO Post-Development Conditions Results

V V I SSSSS U U A L (v 6.2.2015)
V V I SS U U AA L
V V I SS U U AAAAA L
V V I SS U U A A L
V V I SSSSS UUUUU A A LLLLL

OOO TTTT TTTT H H Y Y M M OOO TM
O O T T H H Y Y M M M M O O
O O T T H H Y M M O O
OOO T T H H Y M M OOO

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***** DETAILED OUTPUT *****

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Output filename: C:\Users\ajoshi\AppData\Local\Civica\XH5\191a91e0-1a14-44fd-bc00-4941023c7dee\627eae2-2f2e-4633-9e90-ac0964dba808\scena
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DATE: 12-05-2025 TIME: 11:20:16

USER:

COMMENTS: _____

** SIMULATION : 1_25mm Storm **

| CHICAGO STORM | IDF curve parameters: A=1581.200
| Ptotal= 25.00 mm | B= 13.000
----- C= 1.000

used in: INTENSITY = $A / (t + B)^C$

Duration of storm = 4.00 hrs
Storm time step = 10.00 min
Time to peak ratio = 0.40

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.00	0.37	1.00	2.87	2.00	5.00	3.00	0.76
0.17	0.47	1.17	5.87	2.17	3.14	3.17	0.63
0.33	0.60	1.33	18.62	2.33	2.16	3.33	0.53
0.50	0.80	1.50	68.75	2.50	1.57	3.50	0.45
0.67	1.13	1.67	22.53	2.67	1.20	3.67	0.38
0.83	1.71	1.83	9.20	2.83	0.94	3.83	0.33

| CALIB |
| NASHYD (0203) | Area (ha)= 0.29 Curve Number (CN)= 62.0
| ID= 1 DT= 5.0 min | Ia (mm)= 5.00 # of Linear Res.(N)= 3.00
----- U.H. Tp(hrs)= 0.17

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.37	1.083	2.87	2.083	5.00	3.08	0.76
0.167	0.37	1.167	2.87	2.167	5.00	3.17	0.76
0.250	0.47	1.250	5.87	2.250	3.14	3.25	0.63
0.333	0.47	1.333	5.87	2.333	3.14	3.33	0.63
0.417	0.60	1.417	18.62	2.417	2.16	3.42	0.53
0.500	0.60	1.500	18.62	2.500	2.16	3.50	0.53
0.583	0.80	1.583	68.75	2.583	1.57	3.58	0.45
0.667	0.80	1.667	68.75	2.667	1.57	3.67	0.45
0.750	1.13	1.750	22.53	2.750	1.20	3.75	0.38
0.833	1.13	1.833	22.53	2.833	1.20	3.83	0.38
0.917	1.71	1.917	9.20	2.917	0.94	3.92	0.33
1.000	1.71	2.000	9.20	3.000	0.94	4.00	0.33

Unit Hyd Qpeak (cms)= 0.064

PEAK FLOW (cms)= 0.003 (i)

TIME TO PEAK (hrs)= 1.833

RUNOFF VOLUME (mm)= 2.267

TOTAL RAINFALL (mm)= 24.999

RUNOFF COEFFICIENT = 0.091

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

 | CALIB |
 | STANDHYD (0206) | Area (ha)= 0.52
 | ID= 1 DT= 5.0 min | Total Imp(%)= 63.00 Dir. Conn.(%)= 49.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 0.33 0.19
 Dep. Storage (mm)= 1.50 5.00
 Average Slope (%)= 2.00 2.00
 Length (m)= 59.10 15.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.37	1.083	2.87	2.083	5.00	3.08	0.76
0.167	0.37	1.167	2.87	2.167	5.00	3.17	0.76
0.250	0.47	1.250	5.87	2.250	3.14	3.25	0.63
0.333	0.47	1.333	5.87	2.333	3.14	3.33	0.63
0.417	0.60	1.417	18.62	2.417	2.16	3.42	0.53
0.500	0.60	1.500	18.62	2.500	2.16	3.50	0.53
0.583	0.80	1.583	68.75	2.583	1.57	3.58	0.45
0.667	0.80	1.667	68.75	2.667	1.57	3.67	0.45
0.750	1.13	1.750	22.53	2.750	1.20	3.75	0.38
0.833	1.13	1.833	22.53	2.833	1.20	3.83	0.38
0.917	1.71	1.917	9.20	2.917	0.94	3.92	0.33
1.000	1.71	2.000	9.20	3.000	0.94	4.00	0.33

Max.Eff.Inten.(mm/hr)= 68.75 11.26
 over (min) 5.00 10.00

Storage Coeff. (min)= 1.76 (ii) 5.83 (ii)

Unit Hyd. Tpeak (min)= 5.00 10.00

Unit Hyd. peak (cms)= 0.32 0.15

TOTALS

PEAK FLOW (cms)= 0.05 0.01 0.053 (iii)

TIME TO PEAK (hrs)= 1.67 1.75 1.67

RUNOFF VOLUME (mm)= 23.50 3.40 13.24

TOTAL RAINFALL (mm)= 25.00 25.00 25.00

RUNOFF COEFFICIENT = 0.94 0.14 0.53

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

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:

CN* = 62.0 la = 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 ( 6000) |
| 1+ 2= 3 | AREA QPEAK TPEAK R.V.
----- (ha) (cms) (hrs) (mm)
ID1= 1 ( 0203): 0.29 0.003 1.83 2.27
+ ID2= 2 ( 0206): 0.52 0.053 1.67 13.24
=====
ID = 3 ( 6000): 0.81 0.054 1.67 9.36

```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

| CALIB |
| NASHYD ( 0205) | Area (ha)= 0.16 Curve Number (CN)= 62.0
| ID= 1 DT= 5.0 min | la (mm)= 5.00 # of Linear Res.(N)= 3.00
----- U.H. Tp(hrs)= 0.17

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

---- TRANSFORMED HYETOGRAPH ----
TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr
0.083 0.37 | 1.083 2.87 | 2.083 5.00 | 3.08 0.76
0.167 0.37 | 1.167 2.87 | 2.167 5.00 | 3.17 0.76
0.250 0.47 | 1.250 5.87 | 2.250 3.14 | 3.25 0.63
0.333 0.47 | 1.333 5.87 | 2.333 3.14 | 3.33 0.63
0.417 0.60 | 1.417 18.62 | 2.417 2.16 | 3.42 0.53
0.500 0.60 | 1.500 18.62 | 2.500 2.16 | 3.50 0.53
0.583 0.80 | 1.583 68.75 | 2.583 1.57 | 3.58 0.45
0.667 0.80 | 1.667 68.75 | 2.667 1.57 | 3.67 0.45
0.750 1.13 | 1.750 22.53 | 2.750 1.20 | 3.75 0.38
0.833 1.13 | 1.833 22.53 | 2.833 1.20 | 3.83 0.38
0.917 1.71 | 1.917 9.20 | 2.917 0.94 | 3.92 0.33
1.000 1.71 | 2.000 9.20 | 3.000 0.94 | 4.00 0.33

```

Unit Hyd Qpeak (cms)= 0.035

PEAK FLOW (cms)= 0.002 (i)
TIME TO PEAK (hrs)= 1.833
RUNOFF VOLUME (mm)= 2.266
TOTAL RAINFALL (mm)= 24.999
RUNOFF COEFFICIENT = 0.091

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

```

| CALIB |
| STANDHYD ( 0204) | Area (ha)= 0.48
| ID= 1 DT= 5.0 min | Total Imp(%)= 72.00 Dir. Conn.(%)= 72.00
-----

```

```

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.35 0.13
Dep. Storage (mm)= 1.50 5.00
Average Slope (%)= 5.00 2.00
Length (m)= 56.57 40.00
Mannings n = 0.013 0.250

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

---- TRANSFORMED HYETOGRAPH ----
TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr
0.083 0.37 | 1.083 2.87 | 2.083 5.00 | 3.08 0.76

```

0.167	0.37	1.167	2.87	2.167	5.00	3.17	0.76
0.250	0.47	1.250	5.87	2.250	3.14	3.25	0.63
0.333	0.47	1.333	5.87	2.333	3.14	3.33	0.63
0.417	0.60	1.417	18.62	2.417	2.16	3.42	0.53
0.500	0.60	1.500	18.62	2.500	2.16	3.50	0.53
0.583	0.80	1.583	68.75	2.583	1.57	3.58	0.45
0.667	0.80	1.667	68.75	2.667	1.57	3.67	0.45
0.750	1.13	1.750	22.53	2.750	1.20	3.75	0.38
0.833	1.13	1.833	22.53	2.833	1.20	3.83	0.38
0.917	1.71	1.917	9.20	2.917	0.94	3.92	0.33
1.000	1.71	2.000	9.20	3.000	0.94	4.00	0.33

Max.Eff.Inten.(mm/hr)= 68.75 3.40
over (min) 5.00 30.00

Storage Coeff. (min)= 1.30 (ii) 28.59 (ii)

Unit Hyd. Tpeak (min)= 5.00 30.00

Unit Hyd. peak (cms)= 0.33 0.04

TOTALS

PEAK FLOW (cms)= 0.07 0.00 0.066 (iii)

TIME TO PEAK (hrs)= 1.67 2.17 1.67

RUNOFF VOLUME (mm)= 23.50 2.28 17.53

TOTAL RAINFALL (mm)= 25.00 25.00 25.00

RUNOFF COEFFICIENT = 0.94 0.09 0.70

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

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:

CN* = 62.0 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 (0023)|

| 1 + 2 = 3 | AREA QPEAK TPEAK R.V.

(ha) (cms) (hrs) (mm)

ID1= 1 (0204): 0.48 0.066 1.67 17.53

+ ID2= 2 (0205): 0.16 0.002 1.83 2.27

ID = 3 (0023): 0.64 0.067 1.67 13.75

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| CALIB |

| STANDHYD (2001)| Area (ha)= 3.38

| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 71.00

IMPERVIOUS PERVIOUS (i)

Surface Area (ha)= 3.35 0.03

Dep. Storage (mm)= 1.50 5.00

Average Slope (%)= 2.00 2.00

Length (m)= 150.11 30.00

Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME RAIN	TIME RAIN	TIME RAIN	TIME RAIN
hrs mm/hr	hrs mm/hr	hrs mm/hr	hrs mm/hr
0.083	0.37	1.083	2.87
0.167	0.37	1.167	2.87
0.250	0.47	1.250	5.87
0.333	0.47	1.333	5.87
0.417	0.60	1.417	18.62
0.500	0.60	1.500	18.62
0.583	0.80	1.583	68.75
0.667	0.80	1.667	68.75
0.750	1.13	1.750	22.53
0.833	1.13	1.833	22.53

0.917 1.71 | 1.917 9.20 | 2.917 0.94 | 3.92 0.33
1.000 1.71 | 2.000 9.20 | 3.000 0.94 | 4.00 0.33

Max.Eff.Inten.(mm/hr)= 68.75 1748.02
over (min) 5.00 5.00

Storage Coeff. (min)= 3.08 (ii) 4.33 (ii)

Unit Hyd. Tpeak (min)= 5.00 5.00

Unit Hyd. peak (cms)= 0.27 0.23

TOTALS

PEAK FLOW (cms)= 0.45 0.15 0.600 (iii)

TIME TO PEAK (hrs)= 1.67 1.67 1.67

RUNOFF VOLUME (mm)= 23.50 20.41 22.60

TOTAL RAINFALL (mm)= 25.00 25.00 25.00

RUNOFF COEFFICIENT = 0.94 0.82 0.90

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

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:

CN* = 62.0 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(0031)| 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 | 10.0000 0.0780
0.0000 0.0770 | 0.0000 0.0000

AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
INFLOW: ID= 2 (2001) 3.380 0.600 1.67 22.60
OUTFLOW: ID= 1 (0031) 3.380 0.000 0.00 0.00

PEAK FLOW REDUCTION [Qout/Qin](%)= 0.00
TIME SHIFT OF PEAK FLOW (min)=*****
MAXIMUM STORAGE USED (ha.m.)= 0.0764

| CALIB |
| STANDHYD (0201)| Area (ha)= 1.34
| ID= 1 DT= 5.0 min | Total Imp(%)= 50.00 Dir. Conn.(%)= 50.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.67 0.67
Dep. Storage (mm)= 1.50 10.00
Average Slope (°)= 2.00 2.00
Length (m)= 94.52 30.00
Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----
TIME RAIN | TIME RAIN |' TIME RAIN | TIME RAIN
hrs mm/hr | hrs mm/hr |' hrs mm/hr | hrs mm/hr
0.083 0.37 | 1.083 2.87 | 2.083 5.00 | 3.08 0.76
0.167 0.37 | 1.167 2.87 | 2.167 5.00 | 3.17 0.76
0.250 0.47 | 1.250 5.87 | 2.250 3.14 | 3.25 0.63
0.333 0.47 | 1.333 5.87 | 2.333 3.14 | 3.33 0.63
0.417 0.60 | 1.417 18.62 | 2.417 2.16 | 3.42 0.53
0.500 0.60 | 1.500 18.62 | 2.500 2.16 | 3.50 0.53
0.583 0.80 | 1.583 68.75 | 2.583 1.57 | 3.58 0.45
0.667 0.80 | 1.667 68.75 | 2.667 1.57 | 3.67 0.45
0.750 1.13 | 1.750 22.53 | 2.750 1.20 | 3.75 0.38
0.833 1.13 | 1.833 22.53 | 2.833 1.20 | 3.83 0.38
0.917 1.71 | 1.917 9.20 | 2.917 0.94 | 3.92 0.33
1.000 1.71 | 2.000 9.20 | 3.000 0.94 | 4.00 0.33

Max.Eff.Inten.(mm/hr)= 68.75 1.02
 over (min) 5.00 40.00
 Storage Coeff. (min)= 2.33 (ii) 39.58 (ii)
 Unit Hyd. Tpeak (min)= 5.00 40.00
 Unit Hyd. peak (cms)= 0.30 0.03
 TOTALS
 PEAK FLOW (cms)= 0.13 0.00 0.127 (iii)
 TIME TO PEAK (hrs)= 1.67 2.42 1.67
 RUNOFF VOLUME (mm)= 23.50 0.87 12.17
 TOTAL RAINFALL (mm)= 25.00 25.00 25.00
 RUNOFF COEFFICIENT = 0.94 0.03 0.49

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 51.0 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 |
 | STANDHYD (0200) | Area (ha)= 6.18
 | ID= 1 DT= 5.0 min | Total Imp(%)= 38.00 Dir. Conn.(%)= 38.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 2.35 3.83
 Dep. Storage (mm)= 1.50 5.00
 Average Slope (%)= 2.00 2.00
 Length (m)= 202.98 30.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----
 TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
 hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr
 0.083 0.37 | 1.083 2.87 | 2.083 5.00 | 3.08 0.76
 0.167 0.37 | 1.167 2.87 | 2.167 5.00 | 3.17 0.76
 0.250 0.47 | 1.250 5.87 | 2.250 3.14 | 3.25 0.63
 0.333 0.47 | 1.333 5.87 | 2.333 3.14 | 3.33 0.63
 0.417 0.60 | 1.417 18.62 | 2.417 2.16 | 3.42 0.53
 0.500 0.60 | 1.500 18.62 | 2.500 2.16 | 3.50 0.53
 0.583 0.80 | 1.583 68.75 | 2.583 1.57 | 3.58 0.45
 0.667 0.80 | 1.667 68.75 | 2.667 1.57 | 3.67 0.45
 0.750 1.13 | 1.750 22.53 | 2.750 1.20 | 3.75 0.38
 0.833 1.13 | 1.833 22.53 | 2.833 1.20 | 3.83 0.38
 0.917 1.71 | 1.917 9.20 | 2.917 0.94 | 3.92 0.33
 1.000 1.71 | 2.000 9.20 | 3.000 0.94 | 4.00 0.33

Max.Eff.Inten.(mm/hr)= 68.75 3.74
 over (min) 5.00 30.00
 Storage Coeff. (min)= 3.69 (ii) 25.79 (ii)
 Unit Hyd. Tpeak (min)= 5.00 30.00
 Unit Hyd. peak (cms)= 0.25 0.04
 TOTALS
 PEAK FLOW (cms)= 0.43 0.02 0.429 (iii)
 TIME TO PEAK (hrs)= 1.67 2.17 1.67
 RUNOFF VOLUME (mm)= 23.50 2.28 10.34
 TOTAL RAINFALL (mm)= 25.00 25.00 25.00
 RUNOFF COEFFICIENT = 0.94 0.09 0.41

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 62.0 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 ( 3000)|
| 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
----- (ha) (cms) (hrs) (mm)
  ID1= 1 ( 0200): 6.18 0.429 1.67 10.34
+ ID2= 2 ( 0201): 1.34 0.127 1.67 12.17
=====
  ID = 3 ( 3000): 7.52 0.556 1.67 10.66

```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

-----
| ADD HYD ( 3000)|
| 3 + 2 = 1 | AREA QPEAK TPEAK R.V.
----- (ha) (cms) (hrs) (mm)
  ID1= 3 ( 3000): 7.52 0.556 1.67 10.66
+ ID2= 2 ( 0031): 3.38 0.000 0.00 0.00
=====
  ID = 1 ( 3000): 10.90 0.556 1.67 7.36

```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

-----
| RESERVOIR( 2000)| 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 | 0.0250 0.4259
  0.0050 0.0204 | 0.0260 0.4685
  0.0110 0.0661 | 0.0270 0.5128
  0.0130 0.0912 | 0.0850 0.6065
  0.0140 0.1177 | 0.1130 0.7073
  0.0170 0.1752 | 0.1240 0.7604
  0.0190 0.2061 | 0.1340 0.8153
  0.0210 0.2725 | 1.4710 0.8722
  0.0220 0.3083 | 4.6600 0.9315
  0.0240 0.3850 | 0.0000 0.0000

```

```

      AREA QPEAK TPEAK R.V.
      (ha) (cms) (hrs) (mm)
INFLOW: ID= 2 ( 3000) 10.900 0.556 1.67 7.36
OUTFLOW: ID= 1 ( 2000) 10.900 0.011 3.25 7.26

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PEAK FLOW REDUCTION [Qout/Qin](%)= 2.05
TIME SHIFT OF PEAK FLOW (min)= 95.00
MAXIMUM STORAGE USED (ha.m.)= 0.0712

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-----
| ADD HYD ( 5000)|
| 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
----- (ha) (cms) (hrs) (mm)
  ID1= 1 ( 2000): 10.90 0.011 3.25 7.26
+ ID2= 2 ( 0023): 0.64 0.067 1.67 13.75
=====
  ID = 3 ( 5000): 11.54 0.074 1.67 7.62

```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

-----
| CALIB |
| STANDHYD ( 0202)| Area (ha)= 1.81
| ID= 1 DT= 5.0 min | Total Imp(%)= 37.00 Dir. Conn.(%)= 26.00
-----

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```

      IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.67 1.14
Dep. Storage (mm)= 1.50 6.90
Average Slope (%)= 2.00 2.00
Length (m)= 109.85 30.00
Mannings n = 0.013 0.250

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.37	1.083	2.87	2.083	5.00	3.08	0.76
0.167	0.37	1.167	2.87	2.167	5.00	3.17	0.76
0.250	0.47	1.250	5.87	2.250	3.14	3.25	0.63
0.333	0.47	1.333	5.87	2.333	3.14	3.33	0.63
0.417	0.60	1.417	18.62	2.417	2.16	3.42	0.53
0.500	0.60	1.500	18.62	2.500	2.16	3.50	0.53
0.583	0.80	1.583	68.75	2.583	1.57	3.58	0.45
0.667	0.80	1.667	68.75	2.667	1.57	3.67	0.45
0.750	1.13	1.750	22.53	2.750	1.20	3.75	0.38
0.833	1.13	1.833	22.53	2.833	1.20	3.83	0.38
0.917	1.71	1.917	9.20	2.917	0.94	3.92	0.33
1.000	1.71	2.000	9.20	3.000	0.94	4.00	0.33

Max.Eff.Inten.(mm/hr)= 68.75 5.01
over (min) 5.00 25.00

Storage Coeff. (min)= 2.55 (ii) 22.22 (ii)

Unit Hyd. Tpeak (min)= 5.00 25.00

Unit Hyd. peak (cms)= 0.29 0.05

TOTALS

PEAK FLOW (cms)= 0.09 0.01 0.090 (iii)

TIME TO PEAK (hrs)= 1.67 2.08 1.67

RUNOFF VOLUME (mm)= 23.50 2.32 7.82

TOTAL RAINFALL (mm)= 25.00 25.00 25.00

RUNOFF COEFFICIENT = 0.94 0.09 0.31

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

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:

CN* = 61.0 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 (1000)|

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

ID1= 1 (0202): 1.81 0.090 1.67 7.82

+ ID2= 2 (5000): 11.54 0.074 1.67 7.62

=====

ID = 3 (1000): 13.35 0.163 1.67 7.65

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| ADD HYD (1000)|

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

ID1= 3 (1000): 13.35 0.163 1.67 7.65

+ ID2= 2 (6000): 0.81 0.054 1.67 9.36

=====

ID = 1 (1000): 14.16 0.218 1.67 7.75

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

V V I SSSSS U U A L (v6.2.2015)
V V I SS U U AA L
V V I SS U U AAAAA L
V V I SS U U A A L
W V I SSSSS UUUUU A A LLLLL

OOO TTTT TTTT 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

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***** DETAILED OUTPUT *****

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voain.dat
Output filename: C:\Users\ajoshi\AppData\Local\Civica\XH5\191a91e0-1a14-44fd-bc00-4941023c7dee\c22a58c0-4821-4b9f-981c-2f60223953fa\scena
Summary filename: C:\Users\ajoshi\AppData\Local\Civica\XH5\191a91e0-1a14-44fd-bc00-4941023c7dee\c22a58c0-4821-4b9f-981c-2f60223953fa\scena

DATE: 12-05-2025 TIME: 11:20:15

USER:

COMMENTS: _____

** SIMULATION : 2_2yr 24hr 10min SCS Type II **

| READ STORM | Filename: C:\Users\ajoshi\AppData
| | ata\Local\Temp\
| | a0c73555-1204-4f79-8531-cc8963073e72\6dcf778f
| Ptotal= 67.15 mm | Comments: 2yr 24hr 10min SCS Type II

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	9.67	18.50	1.21
0.17	0.74	6.33	1.21	12.50	9.67	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	2.01	20.33	0.81
2.00	0.74	8.17	1.75	14.33	2.01	20.50	0.81
2.17	0.87	8.33	1.75	14.50	2.01	20.67	0.81
2.33	0.87	8.50	1.75	14.67	2.01	20.83	0.81
2.50	0.87	8.67	1.88	14.83	2.01	21.00	0.81
2.67	0.87	8.83	1.88	15.00	2.01	21.17	0.81
2.83	0.87	9.00	1.88	15.17	2.01	21.33	0.81
3.00	0.87	9.17	2.15	15.33	2.01	21.50	0.81
3.17	0.87	9.33	2.15	15.50	2.01	21.67	0.81
3.33	0.87	9.50	2.15	15.67	2.01	21.83	0.81
3.50	0.87	9.67	2.42	15.83	2.01	22.00	0.81
3.67	0.87	9.83	2.42	16.00	2.01	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	1.07	10.33	3.09	16.50	1.21	22.67	0.81
4.33	1.07	10.50	3.09	16.67	1.21	22.83	0.81
4.50	1.07	10.67	4.16	16.83	1.21	23.00	0.81
4.67	1.07	10.83	4.16	17.00	1.21	23.17	0.81
4.83	1.07	11.00	4.16	17.17	1.21	23.33	0.81
5.00	1.07	11.17	6.45	17.33	1.21	23.50	0.81
5.17	1.07	11.33	6.45	17.50	1.21	23.67	0.81
5.33	1.07	11.50	6.45	17.67	1.21	23.83	0.81
5.50	1.07	11.67	19.88	17.83	1.21	24.00	0.81
5.67	1.07	11.83	51.03	18.00	1.21		
5.83	1.07	12.00	82.19	18.17	1.21		
6.00	1.07	12.17	9.67	18.33	1.21		

| CALIB |
| NASHYD (0203) | Area (ha)= 0.29 Curve Number (CN)= 62.0
| ID= 1 DT= 5.0 min | Ia (mm)= 5.00 # of Linear Res.(N)= 3.00
----- U.H. Tp(hrs)= 0.17

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.07	12.250	9.68	18.33	1.21
0.167	0.00	6.250	1.21	12.333	9.67	18.42	1.21
0.250	0.74	6.333	1.21	12.417	9.67	18.50	1.21
0.333	0.74	6.417	1.21	12.500	9.67	18.58	1.21
0.417	0.74	6.500	1.21	12.583	9.67	18.67	1.21
0.500	0.74	6.583	1.21	12.667	9.67	18.75	1.21
0.583	0.74	6.667	1.21	12.750	4.97	18.83	1.21
0.667	0.74	6.750	1.21	12.833	4.97	18.92	1.21
0.750	0.74	6.833	1.21	12.917	4.97	19.00	1.21
0.833	0.74	6.917	1.21	13.000	4.97	19.08	1.21
0.917	0.74	7.000	1.21	13.083	4.97	19.17	1.21
1.000	0.74	7.083	1.21	13.167	4.97	19.25	1.21
1.083	0.74	7.167	1.21	13.250	3.63	19.33	1.21
1.167	0.74	7.250	1.48	13.333	3.63	19.42	1.21
1.250	0.74	7.333	1.48	13.417	3.63	19.50	1.21
1.333	0.74	7.417	1.48	13.500	3.63	19.58	1.21
1.417	0.74	7.500	1.48	13.583	3.63	19.67	1.21
1.500	0.74	7.583	1.48	13.667	3.63	19.75	1.21
1.583	0.74	7.667	1.48	13.750	2.82	19.83	1.21
1.667	0.74	7.750	1.48	13.833	2.82	19.92	1.21
1.750	0.74	7.833	1.48	13.917	2.82	20.00	1.21
1.833	0.74	7.917	1.48	14.000	2.82	20.08	1.21
1.917	0.74	8.000	1.48	14.083	2.82	20.17	1.21
2.000	0.74	8.083	1.48	14.167	2.82	20.25	0.81
2.083	0.74	8.167	1.48	14.250	2.01	20.33	0.81
2.167	0.74	8.250	1.75	14.333	2.01	20.42	0.81
2.250	0.87	8.333	1.75	14.417	2.01	20.50	0.81
2.333	0.87	8.417	1.75	14.500	2.01	20.58	0.81
2.417	0.87	8.500	1.75	14.583	2.01	20.67	0.81
2.500	0.87	8.583	1.75	14.667	2.01	20.75	0.81
2.583	0.87	8.667	1.75	14.750	2.01	20.83	0.81
2.667	0.87	8.750	1.88	14.833	2.01	20.92	0.81
2.750	0.87	8.833	1.88	14.917	2.01	21.00	0.81
2.833	0.87	8.917	1.88	15.000	2.01	21.08	0.81
2.917	0.87	9.000	1.88	15.083	2.01	21.17	0.81
3.000	0.87	9.083	1.88	15.167	2.01	21.25	0.81
3.083	0.87	9.167	1.88	15.250	2.01	21.33	0.81
3.167	0.87	9.250	2.15	15.333	2.01	21.42	0.81
3.250	0.87	9.333	2.15	15.417	2.01	21.50	0.81
3.333	0.87	9.417	2.15	15.500	2.01	21.58	0.81
3.417	0.87	9.500	2.15	15.583	2.01	21.67	0.81
3.500	0.87	9.583	2.15	15.667	2.01	21.75	0.81
3.583	0.87	9.667	2.15	15.750	2.01	21.83	0.81
3.667	0.87	9.750	2.42	15.833	2.01	21.92	0.81
3.750	0.87	9.833	2.42	15.917	2.01	22.00	0.81
3.833	0.87	9.917	2.42	16.000	2.01	22.08	0.81

3.917	0.87	|10.000	2.42	|16.083	2.01	|22.17	0.81
4.000	0.87	|10.083	2.42	|16.167	2.01	|22.25	0.81
4.083	0.87	|10.167	2.42	|16.250	1.21	|22.33	0.81
4.167	0.87	|10.250	3.09	|16.333	1.21	|22.42	0.81
4.250	1.07	|10.333	3.09	|16.417	1.21	|22.50	0.81
4.333	1.07	|10.417	3.09	|16.500	1.21	|22.58	0.81
4.417	1.07	|10.500	3.09	|16.583	1.21	|22.67	0.81
4.500	1.07	|10.583	3.09	|16.667	1.21	|22.75	0.81
4.583	1.07	|10.667	3.09	|16.750	1.21	|22.83	0.81
4.667	1.07	|10.750	4.16	|16.833	1.21	|22.92	0.81
4.750	1.07	|10.833	4.16	|16.917	1.21	|23.00	0.81
4.833	1.07	|10.917	4.16	|17.000	1.21	|23.08	0.81
4.917	1.07	|11.000	4.16	|17.083	1.21	|23.17	0.81
5.000	1.07	|11.083	4.16	|17.167	1.21	|23.25	0.81
5.083	1.07	|11.167	4.16	|17.250	1.21	|23.33	0.81
5.167	1.07	|11.250	6.45	|17.333	1.21	|23.42	0.81
5.250	1.07	|11.333	6.45	|17.417	1.21	|23.50	0.81
5.333	1.07	|11.417	6.45	|17.500	1.21	|23.58	0.81
5.417	1.07	|11.500	6.45	|17.583	1.21	|23.67	0.81
5.500	1.07	|11.583	6.45	|17.667	1.21	|23.75	0.81
5.583	1.07	|11.667	6.45	|17.750	1.21	|23.83	0.81
5.667	1.07	|11.750	19.87	|17.833	1.21	|23.92	0.81
5.750	1.07	|11.833	19.88	|17.917	1.21	|24.00	0.81
5.833	1.07	|11.917	51.03	|18.000	1.21	|24.08	0.81
5.917	1.07	|12.000	51.03	|18.083	1.21	|24.17	0.81
6.000	1.07	|12.083	82.19	|18.167	1.21	|	
6.083	1.07	|12.167	82.19	|18.250	1.21	|	

Unit Hyd Qpeak (cms)= 0.064

PEAK FLOW (cms)= 0.013 (i)
 TIME TO PEAK (hrs)= 12.250
 RUNOFF VOLUME (mm)= 17.668
 TOTAL RAINFALL (mm)= 67.150
 RUNOFF COEFFICIENT = 0.263

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

 | CALIB |
 | STANDHYD (0206) | Area (ha)= 0.52
 | ID= 1 DT= 5.0 min | Total Imp(%)= 63.00 Dir. Conn.(%)= 49.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 0.33 0.19
 Dep. Storage (mm)= 1.50 5.00
 Average Slope (%)= 2.00 2.00
 Length (m)= 59.10 15.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	|6.167	1.07	|12.250	9.68	|18.33	1.21
0.167	0.00	|6.250	1.21	|12.333	9.67	|18.42	1.21
0.250	0.74	|6.333	1.21	|12.417	9.67	|18.50	1.21
0.333	0.74	|6.417	1.21	|12.500	9.67	|18.58	1.21
0.417	0.74	|6.500	1.21	|12.583	9.67	|18.67	1.21
0.500	0.74	|6.583	1.21	|12.667	9.67	|18.75	1.21
0.583	0.74	|6.667	1.21	|12.750	4.97	|18.83	1.21
0.667	0.74	|6.750	1.21	|12.833	4.97	|18.92	1.21
0.750	0.74	|6.833	1.21	|12.917	4.97	|19.00	1.21
0.833	0.74	|6.917	1.21	|13.000	4.97	|19.08	1.21
0.917	0.74	|7.000	1.21	|13.083	4.97	|19.17	1.21
1.000	0.74	|7.083	1.21	|13.167	4.97	|19.25	1.21
1.083	0.74	|7.167	1.21	|13.250	3.63	|19.33	1.21
1.167	0.74	|7.250	1.48	|13.333	3.63	|19.42	1.21
1.250	0.74	|7.333	1.48	|13.417	3.63	|19.50	1.21
1.333	0.74	|7.417	1.48	|13.500	3.63	|19.58	1.21

1.417	0.74	7.500	1.48	13.583	3.63	19.67	1.21
1.500	0.74	7.583	1.48	13.667	3.63	19.75	1.21
1.583	0.74	7.667	1.48	13.750	2.82	19.83	1.21
1.667	0.74	7.750	1.48	13.833	2.82	19.92	1.21
1.750	0.74	7.833	1.48	13.917	2.82	20.00	1.21
1.833	0.74	7.917	1.48	14.000	2.82	20.08	1.21
1.917	0.74	8.000	1.48	14.083	2.82	20.17	1.21
2.000	0.74	8.083	1.48	14.167	2.82	20.25	0.81
2.083	0.74	8.167	1.48	14.250	2.01	20.33	0.81
2.167	0.74	8.250	1.75	14.333	2.01	20.42	0.81
2.250	0.87	8.333	1.75	14.417	2.01	20.50	0.81
2.333	0.87	8.417	1.75	14.500	2.01	20.58	0.81
2.417	0.87	8.500	1.75	14.583	2.01	20.67	0.81
2.500	0.87	8.583	1.75	14.667	2.01	20.75	0.81
2.583	0.87	8.667	1.75	14.750	2.01	20.83	0.81
2.667	0.87	8.750	1.88	14.833	2.01	20.92	0.81
2.750	0.87	8.833	1.88	14.917	2.01	21.00	0.81
2.833	0.87	8.917	1.88	15.000	2.01	21.08	0.81
2.917	0.87	9.000	1.88	15.083	2.01	21.17	0.81
3.000	0.87	9.083	1.88	15.167	2.01	21.25	0.81
3.083	0.87	9.167	1.88	15.250	2.01	21.33	0.81
3.167	0.87	9.250	2.15	15.333	2.01	21.42	0.81
3.250	0.87	9.333	2.15	15.417	2.01	21.50	0.81
3.333	0.87	9.417	2.15	15.500	2.01	21.58	0.81
3.417	0.87	9.500	2.15	15.583	2.01	21.67	0.81
3.500	0.87	9.583	2.15	15.667	2.01	21.75	0.81
3.583	0.87	9.667	2.15	15.750	2.01	21.83	0.81
3.667	0.87	9.750	2.42	15.833	2.01	21.92	0.81
3.750	0.87	9.833	2.42	15.917	2.01	22.00	0.81
3.833	0.87	9.917	2.42	16.000	2.01	22.08	0.81
3.917	0.87	10.000	2.42	16.083	2.01	22.17	0.81
4.000	0.87	10.083	2.42	16.167	2.01	22.25	0.81
4.083	0.87	10.167	2.42	16.250	1.21	22.33	0.81
4.167	0.87	10.250	3.09	16.333	1.21	22.42	0.81
4.250	1.07	10.333	3.09	16.417	1.21	22.50	0.81
4.333	1.07	10.417	3.09	16.500	1.21	22.58	0.81
4.417	1.07	10.500	3.09	16.583	1.21	22.67	0.81
4.500	1.07	10.583	3.09	16.667	1.21	22.75	0.81
4.583	1.07	10.667	3.09	16.750	1.21	22.83	0.81
4.667	1.07	10.750	4.16	16.833	1.21	22.92	0.81
4.750	1.07	10.833	4.16	16.917	1.21	23.00	0.81
4.833	1.07	10.917	4.16	17.000	1.21	23.08	0.81
4.917	1.07	11.000	4.16	17.083	1.21	23.17	0.81
5.000	1.07	11.083	4.16	17.167	1.21	23.25	0.81
5.083	1.07	11.167	4.16	17.250	1.21	23.33	0.81
5.167	1.07	11.250	6.45	17.333	1.21	23.42	0.81
5.250	1.07	11.333	6.45	17.417	1.21	23.50	0.81
5.333	1.07	11.417	6.45	17.500	1.21	23.58	0.81
5.417	1.07	11.500	6.45	17.583	1.21	23.67	0.81
5.500	1.07	11.583	6.45	17.667	1.21	23.75	0.81
5.583	1.07	11.667	6.45	17.750	1.21	23.83	0.81
5.667	1.07	11.750	19.87	17.833	1.21	23.92	0.81
5.750	1.07	11.833	19.88	17.917	1.21	24.00	0.81
5.833	1.07	11.917	51.03	18.000	1.21	24.08	0.81
5.917	1.07	12.000	51.03	18.083	1.21	24.17	0.81
6.000	1.07	12.083	82.19	18.167	1.21		
6.083	1.07	12.167	82.19	18.250	1.21		

Max.Eff.Inten.(mm/hr)= 82.19 46.25
over (min) 5.00 10.00

Storage Coeff. (min)= 1.64 (ii) 5.42 (ii)

Unit Hyd. Tpeak (min)= 5.00 10.00

Unit Hyd. peak (cms)= 0.32 0.16

TOTALS

PEAK FLOW (cms)= 0.06 0.02 0.079 (iii)

TIME TO PEAK (hrs)= 12.17 12.17 12.17

RUNOFF VOLUME (mm)= 65.65 22.87 43.83

TOTAL RAINFALL (mm)= 67.15 67.15 67.15

RUNOFF COEFFICIENT = 0.98 0.34 0.65

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

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:

- CN* = 62.0 la = 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 (6000) |

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

ID1= 1 (0203): 0.29 0.013 12.25 17.67

+ ID2= 2 (0206): 0.52 0.079 12.17 43.83

=====

ID = 3 (6000): 0.81 0.092 12.17 34.57

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | CALIB |

| NASHYD (0205) | Area (ha)= 0.16 Curve Number (CN)= 62.0

| ID= 1 DT= 5.0 min | la (mm)= 5.00 # of Linear Res.(N)= 3.00

----- U.H. Tp(hrs)= 0.17

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.07	12.250	9.68	18.33	1.21
0.167	0.00	6.250	1.21	12.333	9.67	18.42	1.21
0.250	0.74	6.333	1.21	12.417	9.67	18.50	1.21
0.333	0.74	6.417	1.21	12.500	9.67	18.58	1.21
0.417	0.74	6.500	1.21	12.583	9.67	18.67	1.21
0.500	0.74	6.583	1.21	12.667	9.67	18.75	1.21
0.583	0.74	6.667	1.21	12.750	4.97	18.83	1.21
0.667	0.74	6.750	1.21	12.833	4.97	18.92	1.21
0.750	0.74	6.833	1.21	12.917	4.97	19.00	1.21
0.833	0.74	6.917	1.21	13.000	4.97	19.08	1.21
0.917	0.74	7.000	1.21	13.083	4.97	19.17	1.21
1.000	0.74	7.083	1.21	13.167	4.97	19.25	1.21
1.083	0.74	7.167	1.21	13.250	3.63	19.33	1.21
1.167	0.74	7.250	1.48	13.333	3.63	19.42	1.21
1.250	0.74	7.333	1.48	13.417	3.63	19.50	1.21
1.333	0.74	7.417	1.48	13.500	3.63	19.58	1.21
1.417	0.74	7.500	1.48	13.583	3.63	19.67	1.21
1.500	0.74	7.583	1.48	13.667	3.63	19.75	1.21
1.583	0.74	7.667	1.48	13.750	2.82	19.83	1.21
1.667	0.74	7.750	1.48	13.833	2.82	19.92	1.21
1.750	0.74	7.833	1.48	13.917	2.82	20.00	1.21
1.833	0.74	7.917	1.48	14.000	2.82	20.08	1.21
1.917	0.74	8.000	1.48	14.083	2.82	20.17	1.21
2.000	0.74	8.083	1.48	14.167	2.82	20.25	0.81
2.083	0.74	8.167	1.48	14.250	2.01	20.33	0.81
2.167	0.74	8.250	1.75	14.333	2.01	20.42	0.81
2.250	0.87	8.333	1.75	14.417	2.01	20.50	0.81
2.333	0.87	8.417	1.75	14.500	2.01	20.58	0.81
2.417	0.87	8.500	1.75	14.583	2.01	20.67	0.81
2.500	0.87	8.583	1.75	14.667	2.01	20.75	0.81
2.583	0.87	8.667	1.75	14.750	2.01	20.83	0.81
2.667	0.87	8.750	1.88	14.833	2.01	20.92	0.81
2.750	0.87	8.833	1.88	14.917	2.01	21.00	0.81
2.833	0.87	8.917	1.88	15.000	2.01	21.08	0.81
2.917	0.87	9.000	1.88	15.083	2.01	21.17	0.81
3.000	0.87	9.083	1.88	15.167	2.01	21.25	0.81
3.083	0.87	9.167	1.88	15.250	2.01	21.33	0.81
3.167	0.87	9.250	2.15	15.333	2.01	21.42	0.81
3.250	0.87	9.333	2.15	15.417	2.01	21.50	0.81
3.333	0.87	9.417	2.15	15.500	2.01	21.58	0.81
3.417	0.87	9.500	2.15	15.583	2.01	21.67	0.81
3.500	0.87	9.583	2.15	15.667	2.01	21.75	0.81
3.583	0.87	9.667	2.15	15.750	2.01	21.83	0.81

3.667	0.87	|	9.750	2.42	|	15.833	2.01	|	21.92	0.81
3.750	0.87	|	9.833	2.42	|	15.917	2.01	|	22.00	0.81
3.833	0.87	|	9.917	2.42	|	16.000	2.01	|	22.08	0.81
3.917	0.87	|	10.000	2.42	|	16.083	2.01	|	22.17	0.81
4.000	0.87	|	10.083	2.42	|	16.167	2.01	|	22.25	0.81
4.083	0.87	|	10.167	2.42	|	16.250	1.21	|	22.33	0.81
4.167	0.87	|	10.250	3.09	|	16.333	1.21	|	22.42	0.81
4.250	1.07	|	10.333	3.09	|	16.417	1.21	|	22.50	0.81
4.333	1.07	|	10.417	3.09	|	16.500	1.21	|	22.58	0.81
4.417	1.07	|	10.500	3.09	|	16.583	1.21	|	22.67	0.81
4.500	1.07	|	10.583	3.09	|	16.667	1.21	|	22.75	0.81
4.583	1.07	|	10.667	3.09	|	16.750	1.21	|	22.83	0.81
4.667	1.07	|	10.750	4.16	|	16.833	1.21	|	22.92	0.81
4.750	1.07	|	10.833	4.16	|	16.917	1.21	|	23.00	0.81
4.833	1.07	|	10.917	4.16	|	17.000	1.21	|	23.08	0.81
4.917	1.07	|	11.000	4.16	|	17.083	1.21	|	23.17	0.81
5.000	1.07	|	11.083	4.16	|	17.167	1.21	|	23.25	0.81
5.083	1.07	|	11.167	4.16	|	17.250	1.21	|	23.33	0.81
5.167	1.07	|	11.250	6.45	|	17.333	1.21	|	23.42	0.81
5.250	1.07	|	11.333	6.45	|	17.417	1.21	|	23.50	0.81
5.333	1.07	|	11.417	6.45	|	17.500	1.21	|	23.58	0.81
5.417	1.07	|	11.500	6.45	|	17.583	1.21	|	23.67	0.81
5.500	1.07	|	11.583	6.45	|	17.667	1.21	|	23.75	0.81
5.583	1.07	|	11.667	6.45	|	17.750	1.21	|	23.83	0.81
5.667	1.07	|	11.750	19.87	|	17.833	1.21	|	23.92	0.81
5.750	1.07	|	11.833	19.88	|	17.917	1.21	|	24.00	0.81
5.833	1.07	|	11.917	51.03	|	18.000	1.21	|	24.08	0.81
5.917	1.07	|	12.000	51.03	|	18.083	1.21	|	24.17	0.81
6.000	1.07	|	12.083	82.19	|	18.167	1.21	|		
6.083	1.07	|	12.167	82.19	|	18.250	1.21	|		

Unit Hyd Qpeak (cms)= 0.035

PEAK FLOW (cms)= 0.007 (i)

TIME TO PEAK (hrs)= 12.250

RUNOFF VOLUME (mm)= 17.666

TOTAL RAINFALL (mm)= 67.150

RUNOFF COEFFICIENT = 0.263

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

 | CALIB |
 | STANDHYD (0204) | Area (ha)= 0.48
 | ID= 1 DT= 5.0 min | Total Imp(%)= 72.00 Dir. Conn.(%)= 72.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.35	0.13
Dep. Storage (mm)=	1.50	5.00
Average Slope (%)=	5.00	2.00
Length (m)=	56.57	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN			
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr			
0.083	0.00	|	6.167	1.07	|	12.250	9.68	|	18.33	1.21
0.167	0.00	|	6.250	1.21	|	12.333	9.67	|	18.42	1.21
0.250	0.74	|	6.333	1.21	|	12.417	9.67	|	18.50	1.21
0.333	0.74	|	6.417	1.21	|	12.500	9.67	|	18.58	1.21
0.417	0.74	|	6.500	1.21	|	12.583	9.67	|	18.67	1.21
0.500	0.74	|	6.583	1.21	|	12.667	9.67	|	18.75	1.21
0.583	0.74	|	6.667	1.21	|	12.750	4.97	|	18.83	1.21
0.667	0.74	|	6.750	1.21	|	12.833	4.97	|	18.92	1.21
0.750	0.74	|	6.833	1.21	|	12.917	4.97	|	19.00	1.21
0.833	0.74	|	6.917	1.21	|	13.000	4.97	|	19.08	1.21
0.917	0.74	|	7.000	1.21	|	13.083	4.97	|	19.17	1.21
1.000	0.74	|	7.083	1.21	|	13.167	4.97	|	19.25	1.21
1.083	0.74	|	7.167	1.21	|	13.250	3.63	|	19.33	1.21

1.167	0.74	7.250	1.48	13.333	3.63	19.42	1.21
1.250	0.74	7.333	1.48	13.417	3.63	19.50	1.21
1.333	0.74	7.417	1.48	13.500	3.63	19.58	1.21
1.417	0.74	7.500	1.48	13.583	3.63	19.67	1.21
1.500	0.74	7.583	1.48	13.667	3.63	19.75	1.21
1.583	0.74	7.667	1.48	13.750	2.82	19.83	1.21
1.667	0.74	7.750	1.48	13.833	2.82	19.92	1.21
1.750	0.74	7.833	1.48	13.917	2.82	20.00	1.21
1.833	0.74	7.917	1.48	14.000	2.82	20.08	1.21
1.917	0.74	8.000	1.48	14.083	2.82	20.17	1.21
2.000	0.74	8.083	1.48	14.167	2.82	20.25	0.81
2.083	0.74	8.167	1.48	14.250	2.01	20.33	0.81
2.167	0.74	8.250	1.75	14.333	2.01	20.42	0.81
2.250	0.87	8.333	1.75	14.417	2.01	20.50	0.81
2.333	0.87	8.417	1.75	14.500	2.01	20.58	0.81
2.417	0.87	8.500	1.75	14.583	2.01	20.67	0.81
2.500	0.87	8.583	1.75	14.667	2.01	20.75	0.81
2.583	0.87	8.667	1.75	14.750	2.01	20.83	0.81
2.667	0.87	8.750	1.88	14.833	2.01	20.92	0.81
2.750	0.87	8.833	1.88	14.917	2.01	21.00	0.81
2.833	0.87	8.917	1.88	15.000	2.01	21.08	0.81
2.917	0.87	9.000	1.88	15.083	2.01	21.17	0.81
3.000	0.87	9.083	1.88	15.167	2.01	21.25	0.81
3.083	0.87	9.167	1.88	15.250	2.01	21.33	0.81
3.167	0.87	9.250	2.15	15.333	2.01	21.42	0.81
3.250	0.87	9.333	2.15	15.417	2.01	21.50	0.81
3.333	0.87	9.417	2.15	15.500	2.01	21.58	0.81
3.417	0.87	9.500	2.15	15.583	2.01	21.67	0.81
3.500	0.87	9.583	2.15	15.667	2.01	21.75	0.81
3.583	0.87	9.667	2.15	15.750	2.01	21.83	0.81
3.667	0.87	9.750	2.42	15.833	2.01	21.92	0.81
3.750	0.87	9.833	2.42	15.917	2.01	22.00	0.81
3.833	0.87	9.917	2.42	16.000	2.01	22.08	0.81
3.917	0.87	10.000	2.42	16.083	2.01	22.17	0.81
4.000	0.87	10.083	2.42	16.167	2.01	22.25	0.81
4.083	0.87	10.167	2.42	16.250	1.21	22.33	0.81
4.167	0.87	10.250	3.09	16.333	1.21	22.42	0.81
4.250	1.07	10.333	3.09	16.417	1.21	22.50	0.81
4.333	1.07	10.417	3.09	16.500	1.21	22.58	0.81
4.417	1.07	10.500	3.09	16.583	1.21	22.67	0.81
4.500	1.07	10.583	3.09	16.667	1.21	22.75	0.81
4.583	1.07	10.667	3.09	16.750	1.21	22.83	0.81
4.667	1.07	10.750	4.16	16.833	1.21	22.92	0.81
4.750	1.07	10.833	4.16	16.917	1.21	23.00	0.81
4.833	1.07	10.917	4.16	17.000	1.21	23.08	0.81
4.917	1.07	11.000	4.16	17.083	1.21	23.17	0.81
5.000	1.07	11.083	4.16	17.167	1.21	23.25	0.81
5.083	1.07	11.167	4.16	17.250	1.21	23.33	0.81
5.167	1.07	11.250	6.45	17.333	1.21	23.42	0.81
5.250	1.07	11.333	6.45	17.417	1.21	23.50	0.81
5.333	1.07	11.417	6.45	17.500	1.21	23.58	0.81
5.417	1.07	11.500	6.45	17.583	1.21	23.67	0.81
5.500	1.07	11.583	6.45	17.667	1.21	23.75	0.81
5.583	1.07	11.667	6.45	17.750	1.21	23.83	0.81
5.667	1.07	11.750	19.87	17.833	1.21	23.92	0.81
5.750	1.07	11.833	19.88	17.917	1.21	24.00	0.81
5.833	1.07	11.917	51.03	18.000	1.21	24.08	0.81
5.917	1.07	12.000	51.03	18.083	1.21	24.17	0.81
6.000	1.07	12.083	82.19	18.167	1.21		
6.083	1.07	12.167	82.19	18.250	1.21		

Max.Eff.Inten.(mm/hr)= 82.19 21.51
over (min) 5.00 15.00

Storage Coeff. (min)= 1.21 (ii) 14.26 (ii)

Unit Hyd. Tpeak (min)= 5.00 15.00

Unit Hyd. peak (cms)= 0.33 0.08

TOTALS

PEAK FLOW (cms)= 0.08 0.01 0.083 (iii)

TIME TO PEAK (hrs)= 12.17 12.25 12.17

RUNOFF VOLUME (mm)= 65.65 17.73 52.22

TOTAL RAINFALL (mm)= 67.15 67.15 67.15

RUNOFF COEFFICIENT = 0.98 0.26 0.78

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 62.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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-----
| ADD HYD ( 0023)|
| 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
----- (ha) (cms) (hrs) (mm)
ID1= 1 ( 0204): 0.48 0.083 12.17 52.22
+ ID2= 2 ( 0205): 0.16 0.007 12.25 17.67
=====
ID = 3 ( 0023): 0.64 0.090 12.17 43.66

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NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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| CALIB |
| STANDHYD ( 2001)| Area (ha)= 3.38
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 71.00
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      IMPERVIOUS  PERVIOUS (i)
Surface Area (ha)= 3.35  0.03
Dep. Storage (mm)= 1.50  5.00
Average Slope (%)= 2.00  2.00
Length (m)= 150.11  30.00
Mannings n = 0.013  0.250

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NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

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---- TRANSFORMED HYETOGRAPH ----
TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr
0.083 0.00 | 6.167 1.07 | 12.250 9.68 | 18.33 1.21
0.167 0.00 | 6.250 1.21 | 12.333 9.67 | 18.42 1.21
0.250 0.74 | 6.333 1.21 | 12.417 9.67 | 18.50 1.21
0.333 0.74 | 6.417 1.21 | 12.500 9.67 | 18.58 1.21
0.417 0.74 | 6.500 1.21 | 12.583 9.67 | 18.67 1.21
0.500 0.74 | 6.583 1.21 | 12.667 9.67 | 18.75 1.21
0.583 0.74 | 6.667 1.21 | 12.750 4.97 | 18.83 1.21
0.667 0.74 | 6.750 1.21 | 12.833 4.97 | 18.92 1.21
0.750 0.74 | 6.833 1.21 | 12.917 4.97 | 19.00 1.21
0.833 0.74 | 6.917 1.21 | 13.000 4.97 | 19.08 1.21
0.917 0.74 | 7.000 1.21 | 13.083 4.97 | 19.17 1.21
1.000 0.74 | 7.083 1.21 | 13.167 4.97 | 19.25 1.21
1.083 0.74 | 7.167 1.21 | 13.250 3.63 | 19.33 1.21
1.167 0.74 | 7.250 1.48 | 13.333 3.63 | 19.42 1.21
1.250 0.74 | 7.333 1.48 | 13.417 3.63 | 19.50 1.21
1.333 0.74 | 7.417 1.48 | 13.500 3.63 | 19.58 1.21
1.417 0.74 | 7.500 1.48 | 13.583 3.63 | 19.67 1.21
1.500 0.74 | 7.583 1.48 | 13.667 3.63 | 19.75 1.21
1.583 0.74 | 7.667 1.48 | 13.750 2.82 | 19.83 1.21
1.667 0.74 | 7.750 1.48 | 13.833 2.82 | 19.92 1.21
1.750 0.74 | 7.833 1.48 | 13.917 2.82 | 20.00 1.21
1.833 0.74 | 7.917 1.48 | 14.000 2.82 | 20.08 1.21
1.917 0.74 | 8.000 1.48 | 14.083 2.82 | 20.17 1.21
2.000 0.74 | 8.083 1.48 | 14.167 2.82 | 20.25 0.81
2.083 0.74 | 8.167 1.48 | 14.250 2.01 | 20.33 0.81
2.167 0.74 | 8.250 1.75 | 14.333 2.01 | 20.42 0.81
2.250 0.87 | 8.333 1.75 | 14.417 2.01 | 20.50 0.81
2.333 0.87 | 8.417 1.75 | 14.500 2.01 | 20.58 0.81
2.417 0.87 | 8.500 1.75 | 14.583 2.01 | 20.67 0.81
2.500 0.87 | 8.583 1.75 | 14.667 2.01 | 20.75 0.81
2.583 0.87 | 8.667 1.75 | 14.750 2.01 | 20.83 0.81
2.667 0.87 | 8.750 1.88 | 14.833 2.01 | 20.92 0.81
2.750 0.87 | 8.833 1.88 | 14.917 2.01 | 21.00 0.81
2.833 0.87 | 8.917 1.88 | 15.000 2.01 | 21.08 0.81

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2.917	0.87	9.000	1.88	15.083	2.01	21.17	0.81
3.000	0.87	9.083	1.88	15.167	2.01	21.25	0.81
3.083	0.87	9.167	1.88	15.250	2.01	21.33	0.81
3.167	0.87	9.250	2.15	15.333	2.01	21.42	0.81
3.250	0.87	9.333	2.15	15.417	2.01	21.50	0.81
3.333	0.87	9.417	2.15	15.500	2.01	21.58	0.81
3.417	0.87	9.500	2.15	15.583	2.01	21.67	0.81
3.500	0.87	9.583	2.15	15.667	2.01	21.75	0.81
3.583	0.87	9.667	2.15	15.750	2.01	21.83	0.81
3.667	0.87	9.750	2.42	15.833	2.01	21.92	0.81
3.750	0.87	9.833	2.42	15.917	2.01	22.00	0.81
3.833	0.87	9.917	2.42	16.000	2.01	22.08	0.81
3.917	0.87	10.000	2.42	16.083	2.01	22.17	0.81
4.000	0.87	10.083	2.42	16.167	2.01	22.25	0.81
4.083	0.87	10.167	2.42	16.250	1.21	22.33	0.81
4.167	0.87	10.250	3.09	16.333	1.21	22.42	0.81
4.250	1.07	10.333	3.09	16.417	1.21	22.50	0.81
4.333	1.07	10.417	3.09	16.500	1.21	22.58	0.81
4.417	1.07	10.500	3.09	16.583	1.21	22.67	0.81
4.500	1.07	10.583	3.09	16.667	1.21	22.75	0.81
4.583	1.07	10.667	3.09	16.750	1.21	22.83	0.81
4.667	1.07	10.750	4.16	16.833	1.21	22.92	0.81
4.750	1.07	10.833	4.16	16.917	1.21	23.00	0.81
4.833	1.07	10.917	4.16	17.000	1.21	23.08	0.81
4.917	1.07	11.000	4.16	17.083	1.21	23.17	0.81
5.000	1.07	11.083	4.16	17.167	1.21	23.25	0.81
5.083	1.07	11.167	4.16	17.250	1.21	23.33	0.81
5.167	1.07	11.250	6.45	17.333	1.21	23.42	0.81
5.250	1.07	11.333	6.45	17.417	1.21	23.50	0.81
5.333	1.07	11.417	6.45	17.500	1.21	23.58	0.81
5.417	1.07	11.500	6.45	17.583	1.21	23.67	0.81
5.500	1.07	11.583	6.45	17.667	1.21	23.75	0.81
5.583	1.07	11.667	6.45	17.750	1.21	23.83	0.81
5.667	1.07	11.750	19.87	17.833	1.21	23.92	0.81
5.750	1.07	11.833	19.88	17.917	1.21	24.00	0.81
5.833	1.07	11.917	51.03	18.000	1.21	24.08	0.81
5.917	1.07	12.000	51.03	18.083	1.21	24.17	0.81
6.000	1.07	12.083	82.19	18.167	1.21		
6.083	1.07	12.167	82.19	18.250	1.21		

Max.Eff.Inten.(mm/hr)= 82.19 2345.14
over (min) 5.00 5.00

Storage Coeff. (min)= 2.86 (ii) 4.03 (ii)

Unit Hyd. Tpeak (min)= 5.00 5.00

Unit Hyd. peak (cms)= 0.28 0.24

TOTALS

PEAK FLOW (cms)= 0.54 0.21 0.754 (iii)

TIME TO PEAK (hrs)= 12.17 12.17 12.17

RUNOFF VOLUME (mm)= 65.65 62.01 64.59

TOTAL RAINFALL (mm)= 67.15 67.15 67.15

RUNOFF COEFFICIENT = 0.98 0.92 0.96

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

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:

CN* = 62.0 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(0031)| 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 | 10.0000 0.0780
0.0000 0.0770 | 0.0000 0.0000

AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
INFLOW: ID= 2 (2001) 3.380 0.754 12.17 64.59
OUTFLOW: ID= 1 (0031) 3.380 0.843 12.17 41.81

PEAK FLOW REDUCTION [Qout/Qin](%)=111.73
 TIME SHIFT OF PEAK FLOW (min)= 0.00
 MAXIMUM STORAGE USED (ha.m.)= 0.0758

**** WARNING : HYDROGRAPH PEAK WAS NOT REDUCED.
 CHECK OUTFLOW/STORAGE TABLE OR REDUCE DT.

 | CALIB |
 | STANDHYD (0201) | Area (ha)= 1.34
 | ID= 1 DT= 5.0 min | Total Imp(%)= 50.00 Dir.Conn.(%)= 50.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 0.67 0.67
 Dep. Storage (mm)= 1.50 10.00
 Average Slope (%)= 2.00 2.00
 Length (m)= 94.52 30.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.07	12.250	9.68	18.33	1.21
0.167	0.00	6.250	1.21	12.333	9.67	18.42	1.21
0.250	0.74	6.333	1.21	12.417	9.67	18.50	1.21
0.333	0.74	6.417	1.21	12.500	9.67	18.58	1.21
0.417	0.74	6.500	1.21	12.583	9.67	18.67	1.21
0.500	0.74	6.583	1.21	12.667	9.67	18.75	1.21
0.583	0.74	6.667	1.21	12.750	4.97	18.83	1.21
0.667	0.74	6.750	1.21	12.833	4.97	18.92	1.21
0.750	0.74	6.833	1.21	12.917	4.97	19.00	1.21
0.833	0.74	6.917	1.21	13.000	4.97	19.08	1.21
0.917	0.74	7.000	1.21	13.083	4.97	19.17	1.21
1.000	0.74	7.083	1.21	13.167	4.97	19.25	1.21
1.083	0.74	7.167	1.21	13.250	3.63	19.33	1.21
1.167	0.74	7.250	1.48	13.333	3.63	19.42	1.21
1.250	0.74	7.333	1.48	13.417	3.63	19.50	1.21
1.333	0.74	7.417	1.48	13.500	3.63	19.58	1.21
1.417	0.74	7.500	1.48	13.583	3.63	19.67	1.21
1.500	0.74	7.583	1.48	13.667	3.63	19.75	1.21
1.583	0.74	7.667	1.48	13.750	2.82	19.83	1.21
1.667	0.74	7.750	1.48	13.833	2.82	19.92	1.21
1.750	0.74	7.833	1.48	13.917	2.82	20.00	1.21
1.833	0.74	7.917	1.48	14.000	2.82	20.08	1.21
1.917	0.74	8.000	1.48	14.083	2.82	20.17	1.21
2.000	0.74	8.083	1.48	14.167	2.82	20.25	0.81
2.083	0.74	8.167	1.48	14.250	2.01	20.33	0.81
2.167	0.74	8.250	1.75	14.333	2.01	20.42	0.81
2.250	0.87	8.333	1.75	14.417	2.01	20.50	0.81
2.333	0.87	8.417	1.75	14.500	2.01	20.58	0.81
2.417	0.87	8.500	1.75	14.583	2.01	20.67	0.81
2.500	0.87	8.583	1.75	14.667	2.01	20.75	0.81
2.583	0.87	8.667	1.75	14.750	2.01	20.83	0.81
2.667	0.87	8.750	1.88	14.833	2.01	20.92	0.81
2.750	0.87	8.833	1.88	14.917	2.01	21.00	0.81
2.833	0.87	8.917	1.88	15.000	2.01	21.08	0.81
2.917	0.87	9.000	1.88	15.083	2.01	21.17	0.81
3.000	0.87	9.083	1.88	15.167	2.01	21.25	0.81
3.083	0.87	9.167	1.88	15.250	2.01	21.33	0.81
3.167	0.87	9.250	2.15	15.333	2.01	21.42	0.81
3.250	0.87	9.333	2.15	15.417	2.01	21.50	0.81
3.333	0.87	9.417	2.15	15.500	2.01	21.58	0.81
3.417	0.87	9.500	2.15	15.583	2.01	21.67	0.81
3.500	0.87	9.583	2.15	15.667	2.01	21.75	0.81
3.583	0.87	9.667	2.15	15.750	2.01	21.83	0.81
3.667	0.87	9.750	2.42	15.833	2.01	21.92	0.81
3.750	0.87	9.833	2.42	15.917	2.01	22.00	0.81
3.833	0.87	9.917	2.42	16.000	2.01	22.08	0.81
3.917	0.87	10.000	2.42	16.083	2.01	22.17	0.81

4.000	0.87	|10.083	2.42	|16.167	2.01	|22.25	0.81
4.083	0.87	|10.167	2.42	|16.250	1.21	|22.33	0.81
4.167	0.87	|10.250	3.09	|16.333	1.21	|22.42	0.81
4.250	1.07	|10.333	3.09	|16.417	1.21	|22.50	0.81
4.333	1.07	|10.417	3.09	|16.500	1.21	|22.58	0.81
4.417	1.07	|10.500	3.09	|16.583	1.21	|22.67	0.81
4.500	1.07	|10.583	3.09	|16.667	1.21	|22.75	0.81
4.583	1.07	|10.667	3.09	|16.750	1.21	|22.83	0.81
4.667	1.07	|10.750	4.16	|16.833	1.21	|22.92	0.81
4.750	1.07	|10.833	4.16	|16.917	1.21	|23.00	0.81
4.833	1.07	|10.917	4.16	|17.000	1.21	|23.08	0.81
4.917	1.07	|11.000	4.16	|17.083	1.21	|23.17	0.81
5.000	1.07	|11.083	4.16	|17.167	1.21	|23.25	0.81
5.083	1.07	|11.167	4.16	|17.250	1.21	|23.33	0.81
5.167	1.07	|11.250	6.45	|17.333	1.21	|23.42	0.81
5.250	1.07	|11.333	6.45	|17.417	1.21	|23.50	0.81
5.333	1.07	|11.417	6.45	|17.500	1.21	|23.58	0.81
5.417	1.07	|11.500	6.45	|17.583	1.21	|23.67	0.81
5.500	1.07	|11.583	6.45	|17.667	1.21	|23.75	0.81
5.583	1.07	|11.667	6.45	|17.750	1.21	|23.83	0.81
5.667	1.07	|11.750	19.87	|17.833	1.21	|23.92	0.81
5.750	1.07	|11.833	19.88	|17.917	1.21	|24.00	0.81
5.833	1.07	|11.917	51.03	|18.000	1.21	|24.08	0.81
5.917	1.07	|12.000	51.03	|18.083	1.21	|24.17	0.81
6.000	1.07	|12.083	82.19	|18.167	1.21	|	
6.083	1.07	|12.167	82.19	|18.250	1.21	|	

Max.Eff.Inten.(mm/hr)= 82.19 12.90
over (min) 5.00 20.00

Storage Coeff. (min)= 2.17 (ii) 15.64 (ii)

Unit Hyd. Tpeak (min)= 5.00 20.00

Unit Hyd. peak (cms)= 0.31 0.07

TOTALS

PEAK FLOW (cms)= 0.15 0.01 0.161 (iii)

TIME TO PEAK (hrs)= 12.17 12.33 12.17

RUNOFF VOLUME (mm)= 65.65 10.84 38.24

TOTAL RAINFALL (mm)= 67.15 67.15 67.15

RUNOFF COEFFICIENT = 0.98 0.16 0.57

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

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:

CN* = 51.0 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 |
| STANDHYD (0200) | Area (ha)= 6.18
| ID= 1 DT= 5.0 min | Total Imp(%)= 38.00 Dir. Conn.(%)= 38.00

IMPERVIOUS PERVIOUS (i)

Surface Area (ha)= 2.35 3.83

Dep. Storage (mm)= 1.50 5.00

Average Slope (%)= 2.00 2.00

Length (m)= 202.98 30.00

Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	|6.167	1.07	|12.250	9.68	|18.33	1.21
0.167	0.00	|6.250	1.21	|12.333	9.67	|18.42	1.21
0.250	0.74	|6.333	1.21	|12.417	9.67	|18.50	1.21
0.333	0.74	|6.417	1.21	|12.500	9.67	|18.58	1.21
0.417	0.74	|6.500	1.21	|12.583	9.67	|18.67	1.21
0.500	0.74	|6.583	1.21	|12.667	9.67	|18.75	1.21
0.583	0.74	|6.667	1.21	|12.750	4.97	|18.83	1.21

0.667	0.74	6.750	1.21	12.833	4.97	18.92	1.21
0.750	0.74	6.833	1.21	12.917	4.97	19.00	1.21
0.833	0.74	6.917	1.21	13.000	4.97	19.08	1.21
0.917	0.74	7.000	1.21	13.083	4.97	19.17	1.21
1.000	0.74	7.083	1.21	13.167	4.97	19.25	1.21
1.083	0.74	7.167	1.21	13.250	3.63	19.33	1.21
1.167	0.74	7.250	1.48	13.333	3.63	19.42	1.21
1.250	0.74	7.333	1.48	13.417	3.63	19.50	1.21
1.333	0.74	7.417	1.48	13.500	3.63	19.58	1.21
1.417	0.74	7.500	1.48	13.583	3.63	19.67	1.21
1.500	0.74	7.583	1.48	13.667	3.63	19.75	1.21
1.583	0.74	7.667	1.48	13.750	2.82	19.83	1.21
1.667	0.74	7.750	1.48	13.833	2.82	19.92	1.21
1.750	0.74	7.833	1.48	13.917	2.82	20.00	1.21
1.833	0.74	7.917	1.48	14.000	2.82	20.08	1.21
1.917	0.74	8.000	1.48	14.083	2.82	20.17	1.21
2.000	0.74	8.083	1.48	14.167	2.82	20.25	0.81
2.083	0.74	8.167	1.48	14.250	2.01	20.33	0.81
2.167	0.74	8.250	1.75	14.333	2.01	20.42	0.81
2.250	0.87	8.333	1.75	14.417	2.01	20.50	0.81
2.333	0.87	8.417	1.75	14.500	2.01	20.58	0.81
2.417	0.87	8.500	1.75	14.583	2.01	20.67	0.81
2.500	0.87	8.583	1.75	14.667	2.01	20.75	0.81
2.583	0.87	8.667	1.75	14.750	2.01	20.83	0.81
2.667	0.87	8.750	1.88	14.833	2.01	20.92	0.81
2.750	0.87	8.833	1.88	14.917	2.01	21.00	0.81
2.833	0.87	8.917	1.88	15.000	2.01	21.08	0.81
2.917	0.87	9.000	1.88	15.083	2.01	21.17	0.81
3.000	0.87	9.083	1.88	15.167	2.01	21.25	0.81
3.083	0.87	9.167	1.88	15.250	2.01	21.33	0.81
3.167	0.87	9.250	2.15	15.333	2.01	21.42	0.81
3.250	0.87	9.333	2.15	15.417	2.01	21.50	0.81
3.333	0.87	9.417	2.15	15.500	2.01	21.58	0.81
3.417	0.87	9.500	2.15	15.583	2.01	21.67	0.81
3.500	0.87	9.583	2.15	15.667	2.01	21.75	0.81
3.583	0.87	9.667	2.15	15.750	2.01	21.83	0.81
3.667	0.87	9.750	2.42	15.833	2.01	21.92	0.81
3.750	0.87	9.833	2.42	15.917	2.01	22.00	0.81
3.833	0.87	9.917	2.42	16.000	2.01	22.08	0.81
3.917	0.87	10.000	2.42	16.083	2.01	22.17	0.81
4.000	0.87	10.083	2.42	16.167	2.01	22.25	0.81
4.083	0.87	10.167	2.42	16.250	1.21	22.33	0.81
4.167	0.87	10.250	3.09	16.333	1.21	22.42	0.81
4.250	1.07	10.333	3.09	16.417	1.21	22.50	0.81
4.333	1.07	10.417	3.09	16.500	1.21	22.58	0.81
4.417	1.07	10.500	3.09	16.583	1.21	22.67	0.81
4.500	1.07	10.583	3.09	16.667	1.21	22.75	0.81
4.583	1.07	10.667	3.09	16.750	1.21	22.83	0.81
4.667	1.07	10.750	4.16	16.833	1.21	22.92	0.81
4.750	1.07	10.833	4.16	16.917	1.21	23.00	0.81
4.833	1.07	10.917	4.16	17.000	1.21	23.08	0.81
4.917	1.07	11.000	4.16	17.083	1.21	23.17	0.81
5.000	1.07	11.083	4.16	17.167	1.21	23.25	0.81
5.083	1.07	11.167	4.16	17.250	1.21	23.33	0.81
5.167	1.07	11.250	6.45	17.333	1.21	23.42	0.81
5.250	1.07	11.333	6.45	17.417	1.21	23.50	0.81
5.333	1.07	11.417	6.45	17.500	1.21	23.58	0.81
5.417	1.07	11.500	6.45	17.583	1.21	23.67	0.81
5.500	1.07	11.583	6.45	17.667	1.21	23.75	0.81
5.583	1.07	11.667	6.45	17.750	1.21	23.83	0.81
5.667	1.07	11.750	19.87	17.833	1.21	23.92	0.81
5.750	1.07	11.833	19.88	17.917	1.21	24.00	0.81
5.833	1.07	11.917	51.03	18.000	1.21	24.08	0.81
5.917	1.07	12.000	51.03	18.083	1.21	24.17	0.81
6.000	1.07	12.083	82.19	18.167	1.21		
6.083	1.07	12.167	82.19	18.250	1.21		

Max.Eff.Inten.(mm/hr)= 82.19 21.51
over (min) 5.00 15.00

Storage Coeff. (min)= 3.43 (ii) 14.41 (ii)

Unit Hyd. Tpeak (min)= 5.00 15.00

Unit Hyd. peak (cms)= 0.26 0.08

TOTALS

PEAK FLOW (cms)= 0.52 0.15 0.643 (iii)
 TIME TO PEAK (hrs)= 12.17 12.25 12.17
 RUNOFF VOLUME (mm)= 65.65 17.73 35.94
 TOTAL RAINFALL (mm)= 67.15 67.15 67.15
 RUNOFF COEFFICIENT = 0.98 0.26 0.54

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 62.0 la = 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 (3000)|
 | 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
 ----- (ha) (cms) (hrs) (mm)
 ID1= 1 (0200): 6.18 0.643 12.17 35.94
 + ID2= 2 (0201): 1.34 0.161 12.17 38.24
 =====
 ID = 3 (3000): 7.52 0.804 12.17 36.35

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | ADD HYD (3000)|
 | 3 + 2 = 1 | AREA QPEAK TPEAK R.V.
 ----- (ha) (cms) (hrs) (mm)
 ID1= 3 (3000): 7.52 0.804 12.17 36.35
 + ID2= 2 (0031): 3.38 0.843 12.17 41.81
 =====
 ID = 1 (3000): 10.90 1.647 12.17 38.04

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | RESERVOIR(2000)| 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 | 0.0250 0.4259
 0.0050 0.0204 | 0.0260 0.4685
 0.0110 0.0661 | 0.0270 0.5128
 0.0130 0.0912 | 0.0850 0.6065
 0.0140 0.1177 | 0.1130 0.7073
 0.0170 0.1752 | 0.1240 0.7604
 0.0190 0.2061 | 0.1340 0.8153
 0.0210 0.2725 | 1.4710 0.8722
 0.0220 0.3083 | 4.6600 0.9315
 0.0240 0.3850 | 0.0000 0.0000

AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 INFLOW: ID= 2 (3000) 10.900 1.647 12.17 38.04
 OUTFLOW: ID= 1 (2000) 10.900 0.022 20.25 37.95

PEAK FLOW REDUCTION [Qout/Qin](%)= 1.34
 TIME SHIFT OF PEAK FLOW (min)=485.00
 MAXIMUM STORAGE USED (ha.m.)= 0.3132

 | ADD HYD (5000)|
 | 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
 ----- (ha) (cms) (hrs) (mm)
 ID1= 1 (2000): 10.90 0.022 20.25 37.95
 + ID2= 2 (0023): 0.64 0.090 12.17 43.66
 =====

ID = 3 (5000): 11.54 0.106 12.17 38.26

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| CALIB |
| STANDHYD (0202) | Area (ha)= 1.81
| ID= 1 DT= 5.0 min | Total Imp(%)= 37.00 Dir. Conn.(%)= 26.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.67 1.14
Dep. Storage (mm)= 1.50 6.90
Average Slope (°)= 2.00 2.00
Length (m)= 109.85 30.00
Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.07	12.250	9.68	18.33	1.21
0.167	0.00	6.250	1.21	12.333	9.67	18.42	1.21
0.250	0.74	6.333	1.21	12.417	9.67	18.50	1.21
0.333	0.74	6.417	1.21	12.500	9.67	18.58	1.21
0.417	0.74	6.500	1.21	12.583	9.67	18.67	1.21
0.500	0.74	6.583	1.21	12.667	9.67	18.75	1.21
0.583	0.74	6.667	1.21	12.750	4.97	18.83	1.21
0.667	0.74	6.750	1.21	12.833	4.97	18.92	1.21
0.750	0.74	6.833	1.21	12.917	4.97	19.00	1.21
0.833	0.74	6.917	1.21	13.000	4.97	19.08	1.21
0.917	0.74	7.000	1.21	13.083	4.97	19.17	1.21
1.000	0.74	7.083	1.21	13.167	4.97	19.25	1.21
1.083	0.74	7.167	1.21	13.250	3.63	19.33	1.21
1.167	0.74	7.250	1.48	13.333	3.63	19.42	1.21
1.250	0.74	7.333	1.48	13.417	3.63	19.50	1.21
1.333	0.74	7.417	1.48	13.500	3.63	19.58	1.21
1.417	0.74	7.500	1.48	13.583	3.63	19.67	1.21
1.500	0.74	7.583	1.48	13.667	3.63	19.75	1.21
1.583	0.74	7.667	1.48	13.750	2.82	19.83	1.21
1.667	0.74	7.750	1.48	13.833	2.82	19.92	1.21
1.750	0.74	7.833	1.48	13.917	2.82	20.00	1.21
1.833	0.74	7.917	1.48	14.000	2.82	20.08	1.21
1.917	0.74	8.000	1.48	14.083	2.82	20.17	1.21
2.000	0.74	8.083	1.48	14.167	2.82	20.25	0.81
2.083	0.74	8.167	1.48	14.250	2.01	20.33	0.81
2.167	0.74	8.250	1.75	14.333	2.01	20.42	0.81
2.250	0.87	8.333	1.75	14.417	2.01	20.50	0.81
2.333	0.87	8.417	1.75	14.500	2.01	20.58	0.81
2.417	0.87	8.500	1.75	14.583	2.01	20.67	0.81
2.500	0.87	8.583	1.75	14.667	2.01	20.75	0.81
2.583	0.87	8.667	1.75	14.750	2.01	20.83	0.81
2.667	0.87	8.750	1.88	14.833	2.01	20.92	0.81
2.750	0.87	8.833	1.88	14.917	2.01	21.00	0.81
2.833	0.87	8.917	1.88	15.000	2.01	21.08	0.81
2.917	0.87	9.000	1.88	15.083	2.01	21.17	0.81
3.000	0.87	9.083	1.88	15.167	2.01	21.25	0.81
3.083	0.87	9.167	1.88	15.250	2.01	21.33	0.81
3.167	0.87	9.250	2.15	15.333	2.01	21.42	0.81
3.250	0.87	9.333	2.15	15.417	2.01	21.50	0.81
3.333	0.87	9.417	2.15	15.500	2.01	21.58	0.81
3.417	0.87	9.500	2.15	15.583	2.01	21.67	0.81
3.500	0.87	9.583	2.15	15.667	2.01	21.75	0.81
3.583	0.87	9.667	2.15	15.750	2.01	21.83	0.81
3.667	0.87	9.750	2.42	15.833	2.01	21.92	0.81
3.750	0.87	9.833	2.42	15.917	2.01	22.00	0.81
3.833	0.87	9.917	2.42	16.000	2.01	22.08	0.81
3.917	0.87	10.000	2.42	16.083	2.01	22.17	0.81
4.000	0.87	10.083	2.42	16.167	2.01	22.25	0.81
4.083	0.87	10.167	2.42	16.250	1.21	22.33	0.81
4.167	0.87	10.250	3.09	16.333	1.21	22.42	0.81
4.250	1.07	10.333	3.09	16.417	1.21	22.50	0.81

4.333	1.07	10.417	3.09	16.500	1.21	22.58	0.81
4.417	1.07	10.500	3.09	16.583	1.21	22.67	0.81
4.500	1.07	10.583	3.09	16.667	1.21	22.75	0.81
4.583	1.07	10.667	3.09	16.750	1.21	22.83	0.81
4.667	1.07	10.750	4.16	16.833	1.21	22.92	0.81
4.750	1.07	10.833	4.16	16.917	1.21	23.00	0.81
4.833	1.07	10.917	4.16	17.000	1.21	23.08	0.81
4.917	1.07	11.000	4.16	17.083	1.21	23.17	0.81
5.000	1.07	11.083	4.16	17.167	1.21	23.25	0.81
5.083	1.07	11.167	4.16	17.250	1.21	23.33	0.81
5.167	1.07	11.250	6.45	17.333	1.21	23.42	0.81
5.250	1.07	11.333	6.45	17.417	1.21	23.50	0.81
5.333	1.07	11.417	6.45	17.500	1.21	23.58	0.81
5.417	1.07	11.500	6.45	17.583	1.21	23.67	0.81
5.500	1.07	11.583	6.45	17.667	1.21	23.75	0.81
5.583	1.07	11.667	6.45	17.750	1.21	23.83	0.81
5.667	1.07	11.750	19.87	17.833	1.21	23.92	0.81
5.750	1.07	11.833	19.88	17.917	1.21	24.00	0.81
5.833	1.07	11.917	51.03	18.000	1.21	24.08	0.81
5.917	1.07	12.000	51.03	18.083	1.21	24.17	0.81
6.000	1.07	12.083	82.19	18.167	1.21		
6.083	1.07	12.167	82.19	18.250	1.21		

Max.Eff.Inten.(mm/hr)= 82.19 32.62
over (min) 5.00 15.00

Storage Coeff. (min)= 2.37 (ii) 11.67 (ii)

Unit Hyd. Tpeak (min)= 5.00 15.00

Unit Hyd. peak (cms)= 0.30 0.09

TOTALS

PEAK FLOW (cms)= 0.11 0.06 0.156 (iii)

TIME TO PEAK (hrs)= 12.17 12.25 12.17

RUNOFF VOLUME (mm)= 65.65 18.82 30.99

TOTAL RAINFALL (mm)= 67.15 67.15 67.15

RUNOFF COEFFICIENT = 0.98 0.28 0.46

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

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:

CN* = 61.0 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 (1000)|

| 1 + 2 = 3 | AREA QPEAK TPEAK R.V.

----- (ha) (cms) (hrs) (mm)

ID1= 1 (0202): 1.81 0.156 12.17 30.99

+ ID2= 2 (5000): 11.54 0.106 12.17 38.26

=====

ID = 3 (1000): 13.35 0.262 12.17 37.28

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| ADD HYD (1000)|

| 3 + 2 = 1 | AREA QPEAK TPEAK R.V.

----- (ha) (cms) (hrs) (mm)

ID1= 3 (1000): 13.35 0.262 12.17 37.28

+ ID2= 2 (6000): 0.81 0.092 12.17 34.57

=====

ID = 1 (1000): 14.16 0.354 12.17 37.12

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

V V I SSSSS U U A L (v6.2.2015)
V V I SS U U AA L
V V I SS U U AAAAA L
V V I SS U U A A L
W I SSSSS UUUUU A A LLLLL

OOO TTTT TTTT H H Y Y M M OOO TM
O O T T H H Y Y M M M M O O
O O T T H H Y M M O O
OOO T T H H Y M M OOO

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***** DETAILED OUTPUT *****

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voain.dat
Output filename: C:\Users\ajoshi\AppData\Local\Civica\XH5\191a91e0-1a14-44fd-bc00-4941023c7dee\13985137-e958-4b8d-a213-46c365fa9802\scena
Summary filename: C:\Users\ajoshi\AppData\Local\Civica\XH5\191a91e0-1a14-44fd-bc00-4941023c7dee\13985137-e958-4b8d-a213-46c365fa9802\scena

DATE: 12-05-2025 TIME: 11:20:14

USER:

COMMENTS: _____

** SIMULATION : 3_5yr 24hr 10min SCS Type II **

| READ STORM | Filename: C:\Users\ajoshi\AppData
| | ata\Local\Temp\
| | a0c73555-1204-4f79-8531-cc8963073e72\0156f81c
| Ptotal= 88.91 mm | Comments: 5yr 24hr 10min SCS Type II

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	1.60	12.33	12.80	18.50	1.60
0.17	0.98	6.33	1.60	12.50	12.80	18.67	1.60
0.33	0.98	6.50	1.60	12.67	6.58	18.83	1.60
0.50	0.98	6.67	1.60	12.83	6.58	19.00	1.60
0.67	0.98	6.83	1.60	13.00	6.58	19.17	1.60
0.83	0.98	7.00	1.60	13.17	4.80	19.33	1.60
1.00	0.98	7.17	1.96	13.33	4.80	19.50	1.60
1.17	0.98	7.33	1.96	13.50	4.80	19.67	1.60
1.33	0.98	7.50	1.96	13.67	3.73	19.83	1.60
1.50	0.98	7.67	1.96	13.83	3.73	20.00	1.60
1.67	0.98	7.83	1.96	14.00	3.73	20.17	1.07
1.83	0.98	8.00	1.96	14.17	2.67	20.33	1.07
2.00	0.98	8.17	2.31	14.33	2.67	20.50	1.07
2.17	1.16	8.33	2.31	14.50	2.67	20.67	1.07
2.33	1.16	8.50	2.31	14.67	2.67	20.83	1.07
2.50	1.16	8.67	2.49	14.83	2.67	21.00	1.07
2.67	1.16	8.83	2.49	15.00	2.67	21.17	1.07
2.83	1.16	9.00	2.49	15.17	2.67	21.33	1.07
3.00	1.16	9.17	2.85	15.33	2.67	21.50	1.07
3.17	1.16	9.33	2.85	15.50	2.67	21.67	1.07
3.33	1.16	9.50	2.85	15.67	2.67	21.83	1.07
3.50	1.16	9.67	3.20	15.83	2.67	22.00	1.07
3.67	1.16	9.83	3.20	16.00	2.67	22.17	1.07
3.83	1.16	10.00	3.20	16.17	1.60	22.33	1.07

4.00 1.16 | 10.17 4.09 | 16.33 1.60 | 22.50 1.07
 4.17 1.42 | 10.33 4.09 | 16.50 1.60 | 22.67 1.07
 4.33 1.42 | 10.50 4.09 | 16.67 1.60 | 22.83 1.07
 4.50 1.42 | 10.67 5.51 | 16.83 1.60 | 23.00 1.07
 4.67 1.42 | 10.83 5.51 | 17.00 1.60 | 23.17 1.07
 4.83 1.42 | 11.00 5.51 | 17.17 1.60 | 23.33 1.07
 5.00 1.42 | 11.17 8.54 | 17.33 1.60 | 23.50 1.07
 5.17 1.42 | 11.33 8.54 | 17.50 1.60 | 23.67 1.07
 5.33 1.42 | 11.50 8.54 | 17.67 1.60 | 23.83 1.07
 5.50 1.42 | 11.67 26.32 | 17.83 1.60 | 24.00 1.07
 5.67 1.42 | 11.83 67.57 | 18.00 1.60 |
 5.83 1.42 | 12.00 108.83 | 18.17 1.60 |
 6.00 1.42 | 12.17 12.80 | 18.33 1.60 |

 | CALIB |
 | NASHYD (0203) | Area (ha)= 0.29 Curve Number (CN)= 62.0
 | ID= 1 DT= 5.0 min | Ia (mm)= 5.00 # of Linear Res.(N)= 3.00
 ----- U.H. Tp(hrs)= 0.17

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----
 TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
 hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr
 0.083 0.00 | 6.167 1.42 | 12.250 12.82 | 18.33 1.60
 0.167 0.00 | 6.250 1.60 | 12.333 12.80 | 18.42 1.60
 0.250 0.98 | 6.333 1.60 | 12.417 12.80 | 18.50 1.60
 0.333 0.98 | 6.417 1.60 | 12.500 12.80 | 18.58 1.60
 0.417 0.98 | 6.500 1.60 | 12.583 12.80 | 18.67 1.60
 0.500 0.98 | 6.583 1.60 | 12.667 12.80 | 18.75 1.60
 0.583 0.98 | 6.667 1.60 | 12.750 6.58 | 18.83 1.60
 0.667 0.98 | 6.750 1.60 | 12.833 6.58 | 18.92 1.60
 0.750 0.98 | 6.833 1.60 | 12.917 6.58 | 19.00 1.60
 0.833 0.98 | 6.917 1.60 | 13.000 6.58 | 19.08 1.60
 0.917 0.98 | 7.000 1.60 | 13.083 6.58 | 19.17 1.60
 1.000 0.98 | 7.083 1.60 | 13.167 6.58 | 19.25 1.60
 1.083 0.98 | 7.167 1.60 | 13.250 4.80 | 19.33 1.60
 1.167 0.98 | 7.250 1.96 | 13.333 4.80 | 19.42 1.60
 1.250 0.98 | 7.333 1.96 | 13.417 4.80 | 19.50 1.60
 1.333 0.98 | 7.417 1.96 | 13.500 4.80 | 19.58 1.60
 1.417 0.98 | 7.500 1.96 | 13.583 4.80 | 19.67 1.60
 1.500 0.98 | 7.583 1.96 | 13.667 4.80 | 19.75 1.60
 1.583 0.98 | 7.667 1.96 | 13.750 3.73 | 19.83 1.60
 1.667 0.98 | 7.750 1.96 | 13.833 3.73 | 19.92 1.60
 1.750 0.98 | 7.833 1.96 | 13.917 3.73 | 20.00 1.60
 1.833 0.98 | 7.917 1.96 | 14.000 3.73 | 20.08 1.60
 1.917 0.98 | 8.000 1.96 | 14.083 3.73 | 20.17 1.60
 2.000 0.98 | 8.083 1.96 | 14.167 3.73 | 20.25 1.07
 2.083 0.98 | 8.167 1.96 | 14.250 2.67 | 20.33 1.07
 2.167 0.98 | 8.250 2.31 | 14.333 2.67 | 20.42 1.07
 2.250 1.16 | 8.333 2.31 | 14.417 2.67 | 20.50 1.07
 2.333 1.16 | 8.417 2.31 | 14.500 2.67 | 20.58 1.07
 2.417 1.16 | 8.500 2.31 | 14.583 2.67 | 20.67 1.07
 2.500 1.16 | 8.583 2.31 | 14.667 2.67 | 20.75 1.07
 2.583 1.16 | 8.667 2.31 | 14.750 2.67 | 20.83 1.07
 2.667 1.16 | 8.750 2.49 | 14.833 2.67 | 20.92 1.07
 2.750 1.16 | 8.833 2.49 | 14.917 2.67 | 21.00 1.07
 2.833 1.16 | 8.917 2.49 | 15.000 2.67 | 21.08 1.07
 2.917 1.16 | 9.000 2.49 | 15.083 2.67 | 21.17 1.07
 3.000 1.16 | 9.083 2.49 | 15.167 2.67 | 21.25 1.07
 3.083 1.16 | 9.167 2.49 | 15.250 2.67 | 21.33 1.07
 3.167 1.16 | 9.250 2.85 | 15.333 2.67 | 21.42 1.07
 3.250 1.16 | 9.333 2.85 | 15.417 2.67 | 21.50 1.07
 3.333 1.16 | 9.417 2.85 | 15.500 2.67 | 21.58 1.07
 3.417 1.16 | 9.500 2.85 | 15.583 2.67 | 21.67 1.07
 3.500 1.16 | 9.583 2.85 | 15.667 2.67 | 21.75 1.07
 3.583 1.16 | 9.667 2.85 | 15.750 2.67 | 21.83 1.07
 3.667 1.16 | 9.750 3.20 | 15.833 2.67 | 21.92 1.07
 3.750 1.16 | 9.833 3.20 | 15.917 2.67 | 22.00 1.07

3.833	1.16	|9.917	3.20	|16.000	2.67	|22.08	1.07
3.917	1.16	|10.000	3.20	|16.083	2.67	|22.17	1.07
4.000	1.16	|10.083	3.20	|16.167	2.67	|22.25	1.07
4.083	1.16	|10.167	3.20	|16.250	1.60	|22.33	1.07
4.167	1.16	|10.250	4.09	|16.333	1.60	|22.42	1.07
4.250	1.42	|10.333	4.09	|16.417	1.60	|22.50	1.07
4.333	1.42	|10.417	4.09	|16.500	1.60	|22.58	1.07
4.417	1.42	|10.500	4.09	|16.583	1.60	|22.67	1.07
4.500	1.42	|10.583	4.09	|16.667	1.60	|22.75	1.07
4.583	1.42	|10.667	4.09	|16.750	1.60	|22.83	1.07
4.667	1.42	|10.750	5.51	|16.833	1.60	|22.92	1.07
4.750	1.42	|10.833	5.51	|16.917	1.60	|23.00	1.07
4.833	1.42	|10.917	5.51	|17.000	1.60	|23.08	1.07
4.917	1.42	|11.000	5.51	|17.083	1.60	|23.17	1.07
5.000	1.42	|11.083	5.51	|17.167	1.60	|23.25	1.07
5.083	1.42	|11.167	5.51	|17.250	1.60	|23.33	1.07
5.167	1.42	|11.250	8.54	|17.333	1.60	|23.42	1.07
5.250	1.42	|11.333	8.54	|17.417	1.60	|23.50	1.07
5.333	1.42	|11.417	8.54	|17.500	1.60	|23.58	1.07
5.417	1.42	|11.500	8.54	|17.583	1.60	|23.67	1.07
5.500	1.42	|11.583	8.54	|17.667	1.60	|23.75	1.07
5.583	1.42	|11.667	8.54	|17.750	1.60	|23.83	1.07
5.667	1.42	|11.750	26.32	|17.833	1.60	|23.92	1.07
5.750	1.42	|11.833	26.32	|17.917	1.60	|24.00	1.07
5.833	1.42	|11.917	67.57	|18.000	1.60	|24.08	1.07
5.917	1.42	|12.000	67.57	|18.083	1.60	|24.17	1.07
6.000	1.42	|12.083	108.82	|18.167	1.60	|	
6.083	1.42	|12.167	108.83	|18.250	1.60	|	

Unit Hyd Qpeak (cms)= 0.064

PEAK FLOW (cms)= 0.022 (i)
 TIME TO PEAK (hrs)= 12.250
 RUNOFF VOLUME (mm)= 29.282
 TOTAL RAINFALL (mm)= 88.910
 RUNOFF COEFFICIENT = 0.329

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

 | CALIB |
 | STANDHYD (0206) | Area (ha)= 0.52
 | ID= 1 DT= 5.0 min | Total Imp(%)= 63.00 Dir. Conn.(%)= 49.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 0.33 0.19
 Dep. Storage (mm)= 1.50 5.00
 Average Slope (%)= 2.00 2.00
 Length (m)= 59.10 15.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	|6.167	1.42	|12.250	12.82	|18.33	1.60
0.167	0.00	|6.250	1.60	|12.333	12.80	|18.42	1.60
0.250	0.98	|6.333	1.60	|12.417	12.80	|18.50	1.60
0.333	0.98	|6.417	1.60	|12.500	12.80	|18.58	1.60
0.417	0.98	|6.500	1.60	|12.583	12.80	|18.67	1.60
0.500	0.98	|6.583	1.60	|12.667	12.80	|18.75	1.60
0.583	0.98	|6.667	1.60	|12.750	6.58	|18.83	1.60
0.667	0.98	|6.750	1.60	|12.833	6.58	|18.92	1.60
0.750	0.98	|6.833	1.60	|12.917	6.58	|19.00	1.60
0.833	0.98	|6.917	1.60	|13.000	6.58	|19.08	1.60
0.917	0.98	|7.000	1.60	|13.083	6.58	|19.17	1.60
1.000	0.98	|7.083	1.60	|13.167	6.58	|19.25	1.60
1.083	0.98	|7.167	1.60	|13.250	4.80	|19.33	1.60
1.167	0.98	|7.250	1.96	|13.333	4.80	|19.42	1.60
1.250	0.98	|7.333	1.96	|13.417	4.80	|19.50	1.60

1.333	0.98	| 7.417	1.96	|13.500	4.80	| 19.58	1.60
1.417	0.98	| 7.500	1.96	|13.583	4.80	| 19.67	1.60
1.500	0.98	| 7.583	1.96	|13.667	4.80	| 19.75	1.60
1.583	0.98	| 7.667	1.96	|13.750	3.73	| 19.83	1.60
1.667	0.98	| 7.750	1.96	|13.833	3.73	| 19.92	1.60
1.750	0.98	| 7.833	1.96	|13.917	3.73	| 20.00	1.60
1.833	0.98	| 7.917	1.96	|14.000	3.73	| 20.08	1.60
1.917	0.98	| 8.000	1.96	|14.083	3.73	| 20.17	1.60
2.000	0.98	| 8.083	1.96	|14.167	3.73	| 20.25	1.07
2.083	0.98	| 8.167	1.96	|14.250	2.67	| 20.33	1.07
2.167	0.98	| 8.250	2.31	|14.333	2.67	| 20.42	1.07
2.250	1.16	| 8.333	2.31	|14.417	2.67	| 20.50	1.07
2.333	1.16	| 8.417	2.31	|14.500	2.67	| 20.58	1.07
2.417	1.16	| 8.500	2.31	|14.583	2.67	| 20.67	1.07
2.500	1.16	| 8.583	2.31	|14.667	2.67	| 20.75	1.07
2.583	1.16	| 8.667	2.31	|14.750	2.67	| 20.83	1.07
2.667	1.16	| 8.750	2.49	|14.833	2.67	| 20.92	1.07
2.750	1.16	| 8.833	2.49	|14.917	2.67	| 21.00	1.07
2.833	1.16	| 8.917	2.49	|15.000	2.67	| 21.08	1.07
2.917	1.16	| 9.000	2.49	|15.083	2.67	| 21.17	1.07
3.000	1.16	| 9.083	2.49	|15.167	2.67	| 21.25	1.07
3.083	1.16	| 9.167	2.49	|15.250	2.67	| 21.33	1.07
3.167	1.16	| 9.250	2.85	|15.333	2.67	| 21.42	1.07
3.250	1.16	| 9.333	2.85	|15.417	2.67	| 21.50	1.07
3.333	1.16	| 9.417	2.85	|15.500	2.67	| 21.58	1.07
3.417	1.16	| 9.500	2.85	|15.583	2.67	| 21.67	1.07
3.500	1.16	| 9.583	2.85	|15.667	2.67	| 21.75	1.07
3.583	1.16	| 9.667	2.85	|15.750	2.67	| 21.83	1.07
3.667	1.16	| 9.750	3.20	|15.833	2.67	| 21.92	1.07
3.750	1.16	| 9.833	3.20	|15.917	2.67	| 22.00	1.07
3.833	1.16	| 9.917	3.20	|16.000	2.67	| 22.08	1.07
3.917	1.16	|10.000	3.20	|16.083	2.67	| 22.17	1.07
4.000	1.16	|10.083	3.20	|16.167	2.67	| 22.25	1.07
4.083	1.16	|10.167	3.20	|16.250	1.60	| 22.33	1.07
4.167	1.16	|10.250	4.09	|16.333	1.60	| 22.42	1.07
4.250	1.42	|10.333	4.09	|16.417	1.60	| 22.50	1.07
4.333	1.42	|10.417	4.09	|16.500	1.60	| 22.58	1.07
4.417	1.42	|10.500	4.09	|16.583	1.60	| 22.67	1.07
4.500	1.42	|10.583	4.09	|16.667	1.60	| 22.75	1.07
4.583	1.42	|10.667	4.09	|16.750	1.60	| 22.83	1.07
4.667	1.42	|10.750	5.51	|16.833	1.60	| 22.92	1.07
4.750	1.42	|10.833	5.51	|16.917	1.60	| 23.00	1.07
4.833	1.42	|10.917	5.51	|17.000	1.60	| 23.08	1.07
4.917	1.42	|11.000	5.51	|17.083	1.60	| 23.17	1.07
5.000	1.42	|11.083	5.51	|17.167	1.60	| 23.25	1.07
5.083	1.42	|11.167	5.51	|17.250	1.60	| 23.33	1.07
5.167	1.42	|11.250	8.54	|17.333	1.60	| 23.42	1.07
5.250	1.42	|11.333	8.54	|17.417	1.60	| 23.50	1.07
5.333	1.42	|11.417	8.54	|17.500	1.60	| 23.58	1.07
5.417	1.42	|11.500	8.54	|17.583	1.60	| 23.67	1.07
5.500	1.42	|11.583	8.54	|17.667	1.60	| 23.75	1.07
5.583	1.42	|11.667	8.54	|17.750	1.60	| 23.83	1.07
5.667	1.42	|11.750	26.32	|17.833	1.60	| 23.92	1.07
5.750	1.42	|11.833	26.32	|17.917	1.60	| 24.00	1.07
5.833	1.42	|11.917	67.57	|18.000	1.60	| 24.08	1.07
5.917	1.42	|12.000	67.57	|18.083	1.60	| 24.17	1.07
6.000	1.42	|12.083	108.82	|18.167	1.60	|	
6.083	1.42	|12.167	108.83	|18.250	1.60	|	

Max.Eff.Inten.(mm/hr)= 108.83 74.25
over (min) 5.00 5.00

Storage Coeff. (min)= 1.46 (ii) 4.85 (ii)

Unit Hyd. Tpeak (min)= 5.00 5.00

Unit Hyd. peak (cms)= 0.33 0.22

TOTALS

PEAK FLOW (cms)= 0.08 0.04 0.116 (iii)

TIME TO PEAK (hrs)= 12.17 12.17 12.17

RUNOFF VOLUME (mm)= 87.41 36.69 61.54

TOTAL RAINFALL (mm)= 88.91 88.91 88.91

RUNOFF COEFFICIENT = 0.98 0.41 0.69

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

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:

CN* = 62.0 la = 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 (6000)|

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

ID1= 1 (0203): 0.29 0.022 12.25 29.28

+ ID2= 2 (0206): 0.52 0.116 12.17 61.54

=====

ID = 3 (6000): 0.81 0.138 12.17 50.12

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| CALIB |

| NASHYD (0205)| Area (ha)= 0.16 Curve Number (CN)= 62.0

| ID= 1 DT= 5.0 min | la (mm)= 5.00 # of Linear Res.(N)= 3.00

----- U.H. Tp(hrs)= 0.17

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.42	12.250	12.82	18.33	1.60
0.167	0.00	6.250	1.60	12.333	12.80	18.42	1.60
0.250	0.98	6.333	1.60	12.417	12.80	18.50	1.60
0.333	0.98	6.417	1.60	12.500	12.80	18.58	1.60
0.417	0.98	6.500	1.60	12.583	12.80	18.67	1.60
0.500	0.98	6.583	1.60	12.667	12.80	18.75	1.60
0.583	0.98	6.667	1.60	12.750	6.58	18.83	1.60
0.667	0.98	6.750	1.60	12.833	6.58	18.92	1.60
0.750	0.98	6.833	1.60	12.917	6.58	19.00	1.60
0.833	0.98	6.917	1.60	13.000	6.58	19.08	1.60
0.917	0.98	7.000	1.60	13.083	6.58	19.17	1.60
1.000	0.98	7.083	1.60	13.167	6.58	19.25	1.60
1.083	0.98	7.167	1.60	13.250	4.80	19.33	1.60
1.167	0.98	7.250	1.96	13.333	4.80	19.42	1.60
1.250	0.98	7.333	1.96	13.417	4.80	19.50	1.60
1.333	0.98	7.417	1.96	13.500	4.80	19.58	1.60
1.417	0.98	7.500	1.96	13.583	4.80	19.67	1.60
1.500	0.98	7.583	1.96	13.667	4.80	19.75	1.60
1.583	0.98	7.667	1.96	13.750	3.73	19.83	1.60
1.667	0.98	7.750	1.96	13.833	3.73	19.92	1.60
1.750	0.98	7.833	1.96	13.917	3.73	20.00	1.60
1.833	0.98	7.917	1.96	14.000	3.73	20.08	1.60
1.917	0.98	8.000	1.96	14.083	3.73	20.17	1.60
2.000	0.98	8.083	1.96	14.167	3.73	20.25	1.07
2.083	0.98	8.167	1.96	14.250	2.67	20.33	1.07
2.167	0.98	8.250	2.31	14.333	2.67	20.42	1.07
2.250	1.16	8.333	2.31	14.417	2.67	20.50	1.07
2.333	1.16	8.417	2.31	14.500	2.67	20.58	1.07
2.417	1.16	8.500	2.31	14.583	2.67	20.67	1.07
2.500	1.16	8.583	2.31	14.667	2.67	20.75	1.07
2.583	1.16	8.667	2.31	14.750	2.67	20.83	1.07
2.667	1.16	8.750	2.49	14.833	2.67	20.92	1.07
2.750	1.16	8.833	2.49	14.917	2.67	21.00	1.07
2.833	1.16	8.917	2.49	15.000	2.67	21.08	1.07
2.917	1.16	9.000	2.49	15.083	2.67	21.17	1.07
3.000	1.16	9.083	2.49	15.167	2.67	21.25	1.07
3.083	1.16	9.167	2.49	15.250	2.67	21.33	1.07
3.167	1.16	9.250	2.85	15.333	2.67	21.42	1.07
3.250	1.16	9.333	2.85	15.417	2.67	21.50	1.07
3.333	1.16	9.417	2.85	15.500	2.67	21.58	1.07
3.417	1.16	9.500	2.85	15.583	2.67	21.67	1.07
3.500	1.16	9.583	2.85	15.667	2.67	21.75	1.07

3.583	1.16	9.667	2.85	15.750	2.67	21.83	1.07
3.667	1.16	9.750	3.20	15.833	2.67	21.92	1.07
3.750	1.16	9.833	3.20	15.917	2.67	22.00	1.07
3.833	1.16	9.917	3.20	16.000	2.67	22.08	1.07
3.917	1.16	10.000	3.20	16.083	2.67	22.17	1.07
4.000	1.16	10.083	3.20	16.167	2.67	22.25	1.07
4.083	1.16	10.167	3.20	16.250	1.60	22.33	1.07
4.167	1.16	10.250	4.09	16.333	1.60	22.42	1.07
4.250	1.42	10.333	4.09	16.417	1.60	22.50	1.07
4.333	1.42	10.417	4.09	16.500	1.60	22.58	1.07
4.417	1.42	10.500	4.09	16.583	1.60	22.67	1.07
4.500	1.42	10.583	4.09	16.667	1.60	22.75	1.07
4.583	1.42	10.667	4.09	16.750	1.60	22.83	1.07
4.667	1.42	10.750	5.51	16.833	1.60	22.92	1.07
4.750	1.42	10.833	5.51	16.917	1.60	23.00	1.07
4.833	1.42	10.917	5.51	17.000	1.60	23.08	1.07
4.917	1.42	11.000	5.51	17.083	1.60	23.17	1.07
5.000	1.42	11.083	5.51	17.167	1.60	23.25	1.07
5.083	1.42	11.167	5.51	17.250	1.60	23.33	1.07
5.167	1.42	11.250	8.54	17.333	1.60	23.42	1.07
5.250	1.42	11.333	8.54	17.417	1.60	23.50	1.07
5.333	1.42	11.417	8.54	17.500	1.60	23.58	1.07
5.417	1.42	11.500	8.54	17.583	1.60	23.67	1.07
5.500	1.42	11.583	8.54	17.667	1.60	23.75	1.07
5.583	1.42	11.667	8.54	17.750	1.60	23.83	1.07
5.667	1.42	11.750	26.32	17.833	1.60	23.92	1.07
5.750	1.42	11.833	26.32	17.917	1.60	24.00	1.07
5.833	1.42	11.917	67.57	18.000	1.60	24.08	1.07
5.917	1.42	12.000	67.57	18.083	1.60	24.17	1.07
6.000	1.42	12.083	108.82	18.167	1.60		
6.083	1.42	12.167	108.83	18.250	1.60		

Unit Hyd Qpeak (cms)= 0.035

PEAK FLOW (cms)= 0.012 (i)

TIME TO PEAK (hrs)= 12.250

RUNOFF VOLUME (mm)= 29.281

TOTAL RAINFALL (mm)= 88.910

RUNOFF COEFFICIENT = 0.329

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

 | CALIB |
 | STANDHYD (0204) | Area (ha)= 0.48
 | ID= 1 DT= 5.0 min | Total Imp(%)= 72.00 Dir. Conn.(%)= 72.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.35	0.13
Dep. Storage (mm)=	1.50	5.00
Average Slope (%)=	5.00	2.00
Length (m)=	56.57	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.42	12.250	12.82	18.33	1.60
0.167	0.00	6.250	1.60	12.333	12.80	18.42	1.60
0.250	0.98	6.333	1.60	12.417	12.80	18.50	1.60
0.333	0.98	6.417	1.60	12.500	12.80	18.58	1.60
0.417	0.98	6.500	1.60	12.583	12.80	18.67	1.60
0.500	0.98	6.583	1.60	12.667	12.80	18.75	1.60
0.583	0.98	6.667	1.60	12.750	6.58	18.83	1.60
0.667	0.98	6.750	1.60	12.833	6.58	18.92	1.60
0.750	0.98	6.833	1.60	12.917	6.58	19.00	1.60
0.833	0.98	6.917	1.60	13.000	6.58	19.08	1.60
0.917	0.98	7.000	1.60	13.083	6.58	19.17	1.60
1.000	0.98	7.083	1.60	13.167	6.58	19.25	1.60

1.083	0.98	| 7.167	1.60	|13.250	4.80	| 19.33	1.60
1.167	0.98	| 7.250	1.96	|13.333	4.80	| 19.42	1.60
1.250	0.98	| 7.333	1.96	|13.417	4.80	| 19.50	1.60
1.333	0.98	| 7.417	1.96	|13.500	4.80	| 19.58	1.60
1.417	0.98	| 7.500	1.96	|13.583	4.80	| 19.67	1.60
1.500	0.98	| 7.583	1.96	|13.667	4.80	| 19.75	1.60
1.583	0.98	| 7.667	1.96	|13.750	3.73	| 19.83	1.60
1.667	0.98	| 7.750	1.96	|13.833	3.73	| 19.92	1.60
1.750	0.98	| 7.833	1.96	|13.917	3.73	| 20.00	1.60
1.833	0.98	| 7.917	1.96	|14.000	3.73	| 20.08	1.60
1.917	0.98	| 8.000	1.96	|14.083	3.73	| 20.17	1.60
2.000	0.98	| 8.083	1.96	|14.167	3.73	| 20.25	1.07
2.083	0.98	| 8.167	1.96	|14.250	2.67	| 20.33	1.07
2.167	0.98	| 8.250	2.31	|14.333	2.67	| 20.42	1.07
2.250	1.16	| 8.333	2.31	|14.417	2.67	| 20.50	1.07
2.333	1.16	| 8.417	2.31	|14.500	2.67	| 20.58	1.07
2.417	1.16	| 8.500	2.31	|14.583	2.67	| 20.67	1.07
2.500	1.16	| 8.583	2.31	|14.667	2.67	| 20.75	1.07
2.583	1.16	| 8.667	2.31	|14.750	2.67	| 20.83	1.07
2.667	1.16	| 8.750	2.49	|14.833	2.67	| 20.92	1.07
2.750	1.16	| 8.833	2.49	|14.917	2.67	| 21.00	1.07
2.833	1.16	| 8.917	2.49	|15.000	2.67	| 21.08	1.07
2.917	1.16	| 9.000	2.49	|15.083	2.67	| 21.17	1.07
3.000	1.16	| 9.083	2.49	|15.167	2.67	| 21.25	1.07
3.083	1.16	| 9.167	2.49	|15.250	2.67	| 21.33	1.07
3.167	1.16	| 9.250	2.85	|15.333	2.67	| 21.42	1.07
3.250	1.16	| 9.333	2.85	|15.417	2.67	| 21.50	1.07
3.333	1.16	| 9.417	2.85	|15.500	2.67	| 21.58	1.07
3.417	1.16	| 9.500	2.85	|15.583	2.67	| 21.67	1.07
3.500	1.16	| 9.583	2.85	|15.667	2.67	| 21.75	1.07
3.583	1.16	| 9.667	2.85	|15.750	2.67	| 21.83	1.07
3.667	1.16	| 9.750	3.20	|15.833	2.67	| 21.92	1.07
3.750	1.16	| 9.833	3.20	|15.917	2.67	| 22.00	1.07
3.833	1.16	| 9.917	3.20	|16.000	2.67	| 22.08	1.07
3.917	1.16	|10.000	3.20	|16.083	2.67	| 22.17	1.07
4.000	1.16	|10.083	3.20	|16.167	2.67	| 22.25	1.07
4.083	1.16	|10.167	3.20	|16.250	1.60	| 22.33	1.07
4.167	1.16	|10.250	4.09	|16.333	1.60	| 22.42	1.07
4.250	1.42	|10.333	4.09	|16.417	1.60	| 22.50	1.07
4.333	1.42	|10.417	4.09	|16.500	1.60	| 22.58	1.07
4.417	1.42	|10.500	4.09	|16.583	1.60	| 22.67	1.07
4.500	1.42	|10.583	4.09	|16.667	1.60	| 22.75	1.07
4.583	1.42	|10.667	4.09	|16.750	1.60	| 22.83	1.07
4.667	1.42	|10.750	5.51	|16.833	1.60	| 22.92	1.07
4.750	1.42	|10.833	5.51	|16.917	1.60	| 23.00	1.07
4.833	1.42	|10.917	5.51	|17.000	1.60	| 23.08	1.07
4.917	1.42	|11.000	5.51	|17.083	1.60	| 23.17	1.07
5.000	1.42	|11.083	5.51	|17.167	1.60	| 23.25	1.07
5.083	1.42	|11.167	5.51	|17.250	1.60	| 23.33	1.07
5.167	1.42	|11.250	8.54	|17.333	1.60	| 23.42	1.07
5.250	1.42	|11.333	8.54	|17.417	1.60	| 23.50	1.07
5.333	1.42	|11.417	8.54	|17.500	1.60	| 23.58	1.07
5.417	1.42	|11.500	8.54	|17.583	1.60	| 23.67	1.07
5.500	1.42	|11.583	8.54	|17.667	1.60	| 23.75	1.07
5.583	1.42	|11.667	8.54	|17.750	1.60	| 23.83	1.07
5.667	1.42	|11.750	26.32	|17.833	1.60	| 23.92	1.07
5.750	1.42	|11.833	26.32	|17.917	1.60	| 24.00	1.07
5.833	1.42	|11.917	67.57	|18.000	1.60	| 24.08	1.07
5.917	1.42	|12.000	67.57	|18.083	1.60	| 24.17	1.07
6.000	1.42	|12.083	108.82	|18.167	1.60	|	
6.083	1.42	|12.167	108.83	|18.250	1.60	|	

Max.Eff.Inten.(mm/hr)= 108.83 43.12
over (min) 5.00 10.00

Storage Coeff. (min)= 1.08 (ii) 5.76 (ii)

Unit Hyd. Tpeak (min)= 5.00 10.00

Unit Hyd. peak (cms)= 0.34 0.15

TOTALS

PEAK FLOW (cms)= 0.10 0.01 0.117 (iii)

TIME TO PEAK (hrs)= 12.17 12.17 12.17

RUNOFF VOLUME (mm)= 87.41 29.39 71.16

TOTAL RAINFALL (mm)= 88.91 88.91 88.91

RUNOFF COEFFICIENT = 0.98 0.33 0.80

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 62.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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-----
| ADD HYD ( 0023)|
| 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
----- (ha) (cms) (hrs) (mm)
ID1= 1 ( 0204): 0.48 0.117 12.17 71.16
+ ID2= 2 ( 0205): 0.16 0.012 12.25 29.28
=====
ID = 3 ( 0023): 0.64 0.129 12.17 60.79

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NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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| CALIB |
| STANDHYD ( 2001)| Area (ha)= 3.38
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 71.00
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IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 3.35 0.03
Dep. Storage (mm)= 1.50 5.00
Average Slope (%)= 2.00 2.00
Length (m)= 150.11 30.00
Mannings n = 0.013 0.250

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NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

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---- TRANSFORMED HYETOGRAPH ----
TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr
0.083 0.00 | 6.167 1.42 | 12.250 12.82 | 18.33 1.60
0.167 0.00 | 6.250 1.60 | 12.333 12.80 | 18.42 1.60
0.250 0.98 | 6.333 1.60 | 12.417 12.80 | 18.50 1.60
0.333 0.98 | 6.417 1.60 | 12.500 12.80 | 18.58 1.60
0.417 0.98 | 6.500 1.60 | 12.583 12.80 | 18.67 1.60
0.500 0.98 | 6.583 1.60 | 12.667 12.80 | 18.75 1.60
0.583 0.98 | 6.667 1.60 | 12.750 6.58 | 18.83 1.60
0.667 0.98 | 6.750 1.60 | 12.833 6.58 | 18.92 1.60
0.750 0.98 | 6.833 1.60 | 12.917 6.58 | 19.00 1.60
0.833 0.98 | 6.917 1.60 | 13.000 6.58 | 19.08 1.60
0.917 0.98 | 7.000 1.60 | 13.083 6.58 | 19.17 1.60
1.000 0.98 | 7.083 1.60 | 13.167 6.58 | 19.25 1.60
1.083 0.98 | 7.167 1.60 | 13.250 4.80 | 19.33 1.60
1.167 0.98 | 7.250 1.96 | 13.333 4.80 | 19.42 1.60
1.250 0.98 | 7.333 1.96 | 13.417 4.80 | 19.50 1.60
1.333 0.98 | 7.417 1.96 | 13.500 4.80 | 19.58 1.60
1.417 0.98 | 7.500 1.96 | 13.583 4.80 | 19.67 1.60
1.500 0.98 | 7.583 1.96 | 13.667 4.80 | 19.75 1.60
1.583 0.98 | 7.667 1.96 | 13.750 3.73 | 19.83 1.60
1.667 0.98 | 7.750 1.96 | 13.833 3.73 | 19.92 1.60
1.750 0.98 | 7.833 1.96 | 13.917 3.73 | 20.00 1.60
1.833 0.98 | 7.917 1.96 | 14.000 3.73 | 20.08 1.60
1.917 0.98 | 8.000 1.96 | 14.083 3.73 | 20.17 1.60
2.000 0.98 | 8.083 1.96 | 14.167 3.73 | 20.25 1.07
2.083 0.98 | 8.167 1.96 | 14.250 2.67 | 20.33 1.07
2.167 0.98 | 8.250 2.31 | 14.333 2.67 | 20.42 1.07
2.250 1.16 | 8.333 2.31 | 14.417 2.67 | 20.50 1.07
2.333 1.16 | 8.417 2.31 | 14.500 2.67 | 20.58 1.07
2.417 1.16 | 8.500 2.31 | 14.583 2.67 | 20.67 1.07
2.500 1.16 | 8.583 2.31 | 14.667 2.67 | 20.75 1.07
2.583 1.16 | 8.667 2.31 | 14.750 2.67 | 20.83 1.07
2.667 1.16 | 8.750 2.49 | 14.833 2.67 | 20.92 1.07
2.750 1.16 | 8.833 2.49 | 14.917 2.67 | 21.00 1.07

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2.833	1.16	8.917	2.49	15.000	2.67	21.08	1.07
2.917	1.16	9.000	2.49	15.083	2.67	21.17	1.07
3.000	1.16	9.083	2.49	15.167	2.67	21.25	1.07
3.083	1.16	|9.167	2.49	|15.250	2.67	|21.33	1.07
3.167	1.16	|9.250	2.85	|15.333	2.67	|21.42	1.07
3.250	1.16	|9.333	2.85	|15.417	2.67	|21.50	1.07
3.333	1.16	|9.417	2.85	|15.500	2.67	|21.58	1.07
3.417	1.16	|9.500	2.85	|15.583	2.67	|21.67	1.07
3.500	1.16	|9.583	2.85	|15.667	2.67	|21.75	1.07
3.583	1.16	|9.667	2.85	|15.750	2.67	|21.83	1.07
3.667	1.16	|9.750	3.20	|15.833	2.67	|21.92	1.07
3.750	1.16	|9.833	3.20	|15.917	2.67	|22.00	1.07
3.833	1.16	|9.917	3.20	|16.000	2.67	|22.08	1.07
3.917	1.16	|10.000	3.20	|16.083	2.67	|22.17	1.07
4.000	1.16	|10.083	3.20	|16.167	2.67	|22.25	1.07
4.083	1.16	|10.167	3.20	|16.250	1.60	|22.33	1.07
4.167	1.16	|10.250	4.09	|16.333	1.60	|22.42	1.07
4.250	1.42	|10.333	4.09	|16.417	1.60	|22.50	1.07
4.333	1.42	|10.417	4.09	|16.500	1.60	|22.58	1.07
4.417	1.42	|10.500	4.09	|16.583	1.60	|22.67	1.07
4.500	1.42	|10.583	4.09	|16.667	1.60	|22.75	1.07
4.583	1.42	|10.667	4.09	|16.750	1.60	|22.83	1.07
4.667	1.42	|10.750	5.51	|16.833	1.60	|22.92	1.07
4.750	1.42	|10.833	5.51	|16.917	1.60	|23.00	1.07
4.833	1.42	|10.917	5.51	|17.000	1.60	|23.08	1.07
4.917	1.42	|11.000	5.51	|17.083	1.60	|23.17	1.07
5.000	1.42	|11.083	5.51	|17.167	1.60	|23.25	1.07
5.083	1.42	|11.167	5.51	|17.250	1.60	|23.33	1.07
5.167	1.42	|11.250	8.54	|17.333	1.60	|23.42	1.07
5.250	1.42	|11.333	8.54	|17.417	1.60	|23.50	1.07
5.333	1.42	|11.417	8.54	|17.500	1.60	|23.58	1.07
5.417	1.42	|11.500	8.54	|17.583	1.60	|23.67	1.07
5.500	1.42	|11.583	8.54	|17.667	1.60	|23.75	1.07
5.583	1.42	|11.667	8.54	|17.750	1.60	|23.83	1.07
5.667	1.42	|11.750	26.32	|17.833	1.60	|23.92	1.07
5.750	1.42	|11.833	26.32	|17.917	1.60	|24.00	1.07
5.833	1.42	|11.917	67.57	|18.000	1.60	|24.08	1.07
5.917	1.42	|12.000	67.57	|18.083	1.60	|24.17	1.07
6.000	1.42	|12.083	108.82	|18.167	1.60	|	
6.083	1.42	|12.167	108.83	|18.250	1.60	|	

Max.Eff.Inten.(mm/hr)= 108.83 3125.06
over (min) 5.00 5.00

Storage Coeff. (min)= 2.56 (ii) 3.60 (ii)

Unit Hyd. Tpeak (min)= 5.00 5.00

Unit Hyd. peak (cms)= 0.29 0.25

TOTALS

PEAK FLOW (cms)= 0.72 0.29 1.006 (iii)

TIME TO PEAK (hrs)= 12.17 12.17 12.17

RUNOFF VOLUME (mm)= 87.41 83.68 86.33

TOTAL RAINFALL (mm)= 88.91 88.91 88.91

RUNOFF COEFFICIENT = 0.98 0.94 0.97

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

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:

CN* = 62.0 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(0031) | 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 | 10.0000 0.0780

0.0000 0.0770 | 0.0000 0.0000

AREA QPEAK TPEAK R.V.

(ha) (cms) (hrs) (mm)

INFLOW : ID= 2 (2001) 3.380 1.006 12.17 86.33

OUTFLOW: ID= 1 (0031) 3.380 1.045 12.17 63.55

PEAK FLOW REDUCTION [Qout/Qin](%)=103.91
TIME SHIFT OF PEAK FLOW (min)= 0.00
MAXIMUM STORAGE USED (ha.m.)= 0.0765

**** WARNING : HYDROGRAPH PEAK WAS NOT REDUCED.
CHECK OUTFLOW/STORAGE TABLE OR REDUCE DT.

| CALIB |
| STANDHYD (0201) | Area (ha)= 1.34
| ID= 1 DT= 5.0 min | Total Imp(%)= 50.00 Dir. Conn.(%)= 50.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.67 0.67
Dep. Storage (mm)= 1.50 10.00
Average Slope (%)= 2.00 2.00
Length (m)= 94.52 30.00
Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.42	12.250	12.82
0.167	0.00	6.250	1.60	12.333	12.80
0.250	0.98	6.333	1.60	12.417	12.80
0.333	0.98	6.417	1.60	12.500	12.80
0.417	0.98	6.500	1.60	12.583	12.80
0.500	0.98	6.583	1.60	12.667	12.80
0.583	0.98	6.667	1.60	12.750	6.58
0.667	0.98	6.750	1.60	12.833	6.58
0.750	0.98	6.833	1.60	12.917	6.58
0.833	0.98	6.917	1.60	13.000	6.58
0.917	0.98	7.000	1.60	13.083	6.58
1.000	0.98	7.083	1.60	13.167	6.58
1.083	0.98	7.167	1.60	13.250	4.80
1.167	0.98	7.250	1.96	13.333	4.80
1.250	0.98	7.333	1.96	13.417	4.80
1.333	0.98	7.417	1.96	13.500	4.80
1.417	0.98	7.500	1.96	13.583	4.80
1.500	0.98	7.583	1.96	13.667	4.80
1.583	0.98	7.667	1.96	13.750	3.73
1.667	0.98	7.750	1.96	13.833	3.73
1.750	0.98	7.833	1.96	13.917	3.73
1.833	0.98	7.917	1.96	14.000	3.73
1.917	0.98	8.000	1.96	14.083	3.73
2.000	0.98	8.083	1.96	14.167	3.73
2.083	0.98	8.167	1.96	14.250	2.67
2.167	0.98	8.250	2.31	14.333	2.67
2.250	1.16	8.333	2.31	14.417	2.67
2.333	1.16	8.417	2.31	14.500	2.67
2.417	1.16	8.500	2.31	14.583	2.67
2.500	1.16	8.583	2.31	14.667	2.67
2.583	1.16	8.667	2.31	14.750	2.67
2.667	1.16	8.750	2.49	14.833	2.67
2.750	1.16	8.833	2.49	14.917	2.67
2.833	1.16	8.917	2.49	15.000	2.67
2.917	1.16	9.000	2.49	15.083	2.67
3.000	1.16	9.083	2.49	15.167	2.67
3.083	1.16	9.167	2.49	15.250	2.67
3.167	1.16	9.250	2.85	15.333	2.67
3.250	1.16	9.333	2.85	15.417	2.67
3.333	1.16	9.417	2.85	15.500	2.67
3.417	1.16	9.500	2.85	15.583	2.67
3.500	1.16	9.583	2.85	15.667	2.67
3.583	1.16	9.667	2.85	15.750	2.67
3.667	1.16	9.750	3.20	15.833	2.67
3.750	1.16	9.833	3.20	15.917	2.67
3.833	1.16	9.917	3.20	16.000	2.67

3.917	1.16	|10.000	3.20	|16.083	2.67	|22.17	1.07
4.000	1.16	|10.083	3.20	|16.167	2.67	|22.25	1.07
4.083	1.16	|10.167	3.20	|16.250	1.60	|22.33	1.07
4.167	1.16	|10.250	4.09	|16.333	1.60	|22.42	1.07
4.250	1.42	|10.333	4.09	|16.417	1.60	|22.50	1.07
4.333	1.42	|10.417	4.09	|16.500	1.60	|22.58	1.07
4.417	1.42	|10.500	4.09	|16.583	1.60	|22.67	1.07
4.500	1.42	|10.583	4.09	|16.667	1.60	|22.75	1.07
4.583	1.42	|10.667	4.09	|16.750	1.60	|22.83	1.07
4.667	1.42	|10.750	5.51	|16.833	1.60	|22.92	1.07
4.750	1.42	|10.833	5.51	|16.917	1.60	|23.00	1.07
4.833	1.42	|10.917	5.51	|17.000	1.60	|23.08	1.07
4.917	1.42	|11.000	5.51	|17.083	1.60	|23.17	1.07
5.000	1.42	|11.083	5.51	|17.167	1.60	|23.25	1.07
5.083	1.42	|11.167	5.51	|17.250	1.60	|23.33	1.07
5.167	1.42	|11.250	8.54	|17.333	1.60	|23.42	1.07
5.250	1.42	|11.333	8.54	|17.417	1.60	|23.50	1.07
5.333	1.42	|11.417	8.54	|17.500	1.60	|23.58	1.07
5.417	1.42	|11.500	8.54	|17.583	1.60	|23.67	1.07
5.500	1.42	|11.583	8.54	|17.667	1.60	|23.75	1.07
5.583	1.42	|11.667	8.54	|17.750	1.60	|23.83	1.07
5.667	1.42	|11.750	26.32	|17.833	1.60	|23.92	1.07
5.750	1.42	|11.833	26.32	|17.917	1.60	|24.00	1.07
5.833	1.42	|11.917	67.57	|18.000	1.60	|24.08	1.07
5.917	1.42	|12.000	67.57	|18.083	1.60	|24.17	1.07
6.000	1.42	|12.083	108.82	|18.167	1.60	|	
6.083	1.42	|12.167	108.83	|18.250	1.60	|	

Max.Eff.Inten.(mm/hr)= 108.83 28.34
over (min) 5.00 15.00
Storage Coeff. (min)= 1.94 (ii) 11.77 (ii)
Unit Hyd. Tpeak (min)= 5.00 15.00
Unit Hyd. peak (cms)= 0.31 0.09
TOTALS
PEAK FLOW (cms)= 0.20 0.03 0.226 (iii)
TIME TO PEAK (hrs)= 12.17 12.25 12.17
RUNOFF VOLUME (mm)= 87.41 19.28 53.34
TOTAL RAINFALL (mm)= 88.91 88.91 88.91
RUNOFF COEFFICIENT = 0.98 0.22 0.60

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 51.0 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 |
| STANDHYD (0200) | Area (ha)= 6.18
| ID= 1 DT= 5.0 min | Total Imp(%)= 38.00 Dir. Conn.(%)= 38.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 2.35 3.83
Dep. Storage (mm)= 1.50 5.00
Average Slope (%)= 2.00 2.00
Length (m)= 202.98 30.00
Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---
TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr
0.083 0.00 | 6.167 1.42 | 12.250 12.82 | 18.33 1.60
0.167 0.00 | 6.250 1.60 | 12.333 12.80 | 18.42 1.60
0.250 0.98 | 6.333 1.60 | 12.417 12.80 | 18.50 1.60
0.333 0.98 | 6.417 1.60 | 12.500 12.80 | 18.58 1.60
0.417 0.98 | 6.500 1.60 | 12.583 12.80 | 18.67 1.60
0.500 0.98 | 6.583 1.60 | 12.667 12.80 | 18.75 1.60

0.583	0.98	6.667	1.60	12.750	6.58	18.83	1.60
0.667	0.98	6.750	1.60	12.833	6.58	18.92	1.60
0.750	0.98	6.833	1.60	12.917	6.58	19.00	1.60
0.833	0.98	6.917	1.60	13.000	6.58	19.08	1.60
0.917	0.98	7.000	1.60	13.083	6.58	19.17	1.60
1.000	0.98	7.083	1.60	13.167	6.58	19.25	1.60
1.083	0.98	7.167	1.60	13.250	4.80	19.33	1.60
1.167	0.98	7.250	1.96	13.333	4.80	19.42	1.60
1.250	0.98	7.333	1.96	13.417	4.80	19.50	1.60
1.333	0.98	7.417	1.96	13.500	4.80	19.58	1.60
1.417	0.98	7.500	1.96	13.583	4.80	19.67	1.60
1.500	0.98	7.583	1.96	13.667	4.80	19.75	1.60
1.583	0.98	7.667	1.96	13.750	3.73	19.83	1.60
1.667	0.98	7.750	1.96	13.833	3.73	19.92	1.60
1.750	0.98	7.833	1.96	13.917	3.73	20.00	1.60
1.833	0.98	7.917	1.96	14.000	3.73	20.08	1.60
1.917	0.98	8.000	1.96	14.083	3.73	20.17	1.60
2.000	0.98	8.083	1.96	14.167	3.73	20.25	1.07
2.083	0.98	8.167	1.96	14.250	2.67	20.33	1.07
2.167	0.98	8.250	2.31	14.333	2.67	20.42	1.07
2.250	1.16	8.333	2.31	14.417	2.67	20.50	1.07
2.333	1.16	8.417	2.31	14.500	2.67	20.58	1.07
2.417	1.16	8.500	2.31	14.583	2.67	20.67	1.07
2.500	1.16	8.583	2.31	14.667	2.67	20.75	1.07
2.583	1.16	8.667	2.31	14.750	2.67	20.83	1.07
2.667	1.16	8.750	2.49	14.833	2.67	20.92	1.07
2.750	1.16	8.833	2.49	14.917	2.67	21.00	1.07
2.833	1.16	8.917	2.49	15.000	2.67	21.08	1.07
2.917	1.16	9.000	2.49	15.083	2.67	21.17	1.07
3.000	1.16	9.083	2.49	15.167	2.67	21.25	1.07
3.083	1.16	9.167	2.49	15.250	2.67	21.33	1.07
3.167	1.16	9.250	2.85	15.333	2.67	21.42	1.07
3.250	1.16	9.333	2.85	15.417	2.67	21.50	1.07
3.333	1.16	9.417	2.85	15.500	2.67	21.58	1.07
3.417	1.16	9.500	2.85	15.583	2.67	21.67	1.07
3.500	1.16	9.583	2.85	15.667	2.67	21.75	1.07
3.583	1.16	9.667	2.85	15.750	2.67	21.83	1.07
3.667	1.16	9.750	3.20	15.833	2.67	21.92	1.07
3.750	1.16	9.833	3.20	15.917	2.67	22.00	1.07
3.833	1.16	9.917	3.20	16.000	2.67	22.08	1.07
3.917	1.16	10.000	3.20	16.083	2.67	22.17	1.07
4.000	1.16	10.083	3.20	16.167	2.67	22.25	1.07
4.083	1.16	10.167	3.20	16.250	1.60	22.33	1.07
4.167	1.16	10.250	4.09	16.333	1.60	22.42	1.07
4.250	1.42	10.333	4.09	16.417	1.60	22.50	1.07
4.333	1.42	10.417	4.09	16.500	1.60	22.58	1.07
4.417	1.42	10.500	4.09	16.583	1.60	22.67	1.07
4.500	1.42	10.583	4.09	16.667	1.60	22.75	1.07
4.583	1.42	10.667	4.09	16.750	1.60	22.83	1.07
4.667	1.42	10.750	5.51	16.833	1.60	22.92	1.07
4.750	1.42	10.833	5.51	16.917	1.60	23.00	1.07
4.833	1.42	10.917	5.51	17.000	1.60	23.08	1.07
4.917	1.42	11.000	5.51	17.083	1.60	23.17	1.07
5.000	1.42	11.083	5.51	17.167	1.60	23.25	1.07
5.083	1.42	11.167	5.51	17.250	1.60	23.33	1.07
5.167	1.42	11.250	8.54	17.333	1.60	23.42	1.07
5.250	1.42	11.333	8.54	17.417	1.60	23.50	1.07
5.333	1.42	11.417	8.54	17.500	1.60	23.58	1.07
5.417	1.42	11.500	8.54	17.583	1.60	23.67	1.07
5.500	1.42	11.583	8.54	17.667	1.60	23.75	1.07
5.583	1.42	11.667	8.54	17.750	1.60	23.83	1.07
5.667	1.42	11.750	26.32	17.833	1.60	23.92	1.07
5.750	1.42	11.833	26.32	17.917	1.60	24.00	1.07
5.833	1.42	11.917	67.57	18.000	1.60	24.08	1.07
5.917	1.42	12.000	67.57	18.083	1.60	24.17	1.07
6.000	1.42	12.083	108.82	18.167	1.60		
6.083	1.42	12.167	108.83	18.250	1.60		

Max.Eff.Inten.(mm/hr)= 108.83 43.12
 over (min) 5.00 15.00
 Storage Coeff. (min)= 3.07 (ii) 11.38 (ii)
 Unit Hyd. Tpeak (min)= 5.00 15.00
 Unit Hyd. peak (cms)= 0.27 0.09

TOTALS

PEAK FLOW (cms)= 0.70 0.27 0.925 (iii)
 TIME TO PEAK (hrs)= 12.17 12.25 12.17
 RUNOFF VOLUME (mm)= 87.41 29.39 51.43
 TOTAL RAINFALL (mm)= 88.91 88.91 88.91
 RUNOFF COEFFICIENT = 0.98 0.33 0.58

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 62.0 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 (3000) |
 | 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
 ----- (ha) (cms) (hrs) (mm)
 ID1= 1 (0200): 6.18 0.925 12.17 51.43
 + ID2= 2 (0201): 1.34 0.226 12.17 53.34
 =====
 ID = 3 (3000): 7.52 1.151 12.17 51.77

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | ADD HYD (3000) |
 | 3 + 2 = 1 | AREA QPEAK TPEAK R.V.
 ----- (ha) (cms) (hrs) (mm)
 ID1= 3 (3000): 7.52 1.151 12.17 51.77
 + ID2= 2 (0031): 3.38 1.045 12.17 63.55
 =====
 ID = 1 (3000): 10.90 2.196 12.17 55.42

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | RESERVOIR(2000) | 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 | 0.0250 0.4259
 0.0050 0.0204 | 0.0260 0.4685
 0.0110 0.0661 | 0.0270 0.5128
 0.0130 0.0912 | 0.0850 0.6065
 0.0140 0.1177 | 0.1130 0.7073
 0.0170 0.1752 | 0.1240 0.7604
 0.0190 0.2061 | 0.1340 0.8153
 0.0210 0.2725 | 1.4710 0.8722
 0.0220 0.3083 | 4.6600 0.9315
 0.0240 0.3850 | 0.0000 0.0000

AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 INFLOW: ID= 2 (3000) 10.900 2.196 12.17 55.42
 OUTFLOW: ID= 1 (2000) 10.900 0.026 24.17 55.33

PEAK FLOW REDUCTION [Qout/Qin](%)= 1.19
 TIME SHIFT OF PEAK FLOW (min)=720.00
 MAXIMUM STORAGE USED (ha.m.)= 0.4794

 | ADD HYD (5000) |
 | 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
 ----- (ha) (cms) (hrs) (mm)
 ID1= 1 (2000): 10.90 0.026 24.17 55.33
 + ID2= 2 (0023): 0.64 0.129 12.17 60.79

=====

ID = 3 (5000): 11.54 0.150 12.17 55.63

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| CALIB |
| STANDHYD (0202) | Area (ha)= 1.81
| ID= 1 DT= 5.0 min | Total Imp(%)= 37.00 Dir. Conn.(%)= 26.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.67 1.14
Dep. Storage (mm)= 1.50 6.90
Average Slope (%)= 2.00 2.00
Length (m)= 109.85 30.00
Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.42	12.250	12.82	18.33	1.60
0.167	0.00	6.250	1.60	12.333	12.80	18.42	1.60
0.250	0.98	6.333	1.60	12.417	12.80	18.50	1.60
0.333	0.98	6.417	1.60	12.500	12.80	18.58	1.60
0.417	0.98	6.500	1.60	12.583	12.80	18.67	1.60
0.500	0.98	6.583	1.60	12.667	12.80	18.75	1.60
0.583	0.98	6.667	1.60	12.750	6.58	18.83	1.60
0.667	0.98	6.750	1.60	12.833	6.58	18.92	1.60
0.750	0.98	6.833	1.60	12.917	6.58	19.00	1.60
0.833	0.98	6.917	1.60	13.000	6.58	19.08	1.60
0.917	0.98	7.000	1.60	13.083	6.58	19.17	1.60
1.000	0.98	7.083	1.60	13.167	6.58	19.25	1.60
1.083	0.98	7.167	1.60	13.250	4.80	19.33	1.60
1.167	0.98	7.250	1.96	13.333	4.80	19.42	1.60
1.250	0.98	7.333	1.96	13.417	4.80	19.50	1.60
1.333	0.98	7.417	1.96	13.500	4.80	19.58	1.60
1.417	0.98	7.500	1.96	13.583	4.80	19.67	1.60
1.500	0.98	7.583	1.96	13.667	4.80	19.75	1.60
1.583	0.98	7.667	1.96	13.750	3.73	19.83	1.60
1.667	0.98	7.750	1.96	13.833	3.73	19.92	1.60
1.750	0.98	7.833	1.96	13.917	3.73	20.00	1.60
1.833	0.98	7.917	1.96	14.000	3.73	20.08	1.60
1.917	0.98	8.000	1.96	14.083	3.73	20.17	1.60
2.000	0.98	8.083	1.96	14.167	3.73	20.25	1.07
2.083	0.98	8.167	1.96	14.250	2.67	20.33	1.07
2.167	0.98	8.250	2.31	14.333	2.67	20.42	1.07
2.250	1.16	8.333	2.31	14.417	2.67	20.50	1.07
2.333	1.16	8.417	2.31	14.500	2.67	20.58	1.07
2.417	1.16	8.500	2.31	14.583	2.67	20.67	1.07
2.500	1.16	8.583	2.31	14.667	2.67	20.75	1.07
2.583	1.16	8.667	2.31	14.750	2.67	20.83	1.07
2.667	1.16	8.750	2.49	14.833	2.67	20.92	1.07
2.750	1.16	8.833	2.49	14.917	2.67	21.00	1.07
2.833	1.16	8.917	2.49	15.000	2.67	21.08	1.07
2.917	1.16	9.000	2.49	15.083	2.67	21.17	1.07
3.000	1.16	9.083	2.49	15.167	2.67	21.25	1.07
3.083	1.16	9.167	2.49	15.250	2.67	21.33	1.07
3.167	1.16	9.250	2.85	15.333	2.67	21.42	1.07
3.250	1.16	9.333	2.85	15.417	2.67	21.50	1.07
3.333	1.16	9.417	2.85	15.500	2.67	21.58	1.07
3.417	1.16	9.500	2.85	15.583	2.67	21.67	1.07
3.500	1.16	9.583	2.85	15.667	2.67	21.75	1.07
3.583	1.16	9.667	2.85	15.750	2.67	21.83	1.07
3.667	1.16	9.750	3.20	15.833	2.67	21.92	1.07
3.750	1.16	9.833	3.20	15.917	2.67	22.00	1.07
3.833	1.16	9.917	3.20	16.000	2.67	22.08	1.07
3.917	1.16	10.000	3.20	16.083	2.67	22.17	1.07
4.000	1.16	10.083	3.20	16.167	2.67	22.25	1.07
4.083	1.16	10.167	3.20	16.250	1.60	22.33	1.07
4.167	1.16	10.250	4.09	16.333	1.60	22.42	1.07

4.250	1.42	|10.333	4.09	|16.417	1.60	|22.50	1.07
4.333	1.42	|10.417	4.09	|16.500	1.60	|22.58	1.07
4.417	1.42	|10.500	4.09	|16.583	1.60	|22.67	1.07
4.500	1.42	|10.583	4.09	|16.667	1.60	|22.75	1.07
4.583	1.42	|10.667	4.09	|16.750	1.60	|22.83	1.07
4.667	1.42	|10.750	5.51	|16.833	1.60	|22.92	1.07
4.750	1.42	|10.833	5.51	|16.917	1.60	|23.00	1.07
4.833	1.42	|10.917	5.51	|17.000	1.60	|23.08	1.07
4.917	1.42	|11.000	5.51	|17.083	1.60	|23.17	1.07
5.000	1.42	|11.083	5.51	|17.167	1.60	|23.25	1.07
5.083	1.42	|11.167	5.51	|17.250	1.60	|23.33	1.07
5.167	1.42	|11.250	8.54	|17.333	1.60	|23.42	1.07
5.250	1.42	|11.333	8.54	|17.417	1.60	|23.50	1.07
5.333	1.42	|11.417	8.54	|17.500	1.60	|23.58	1.07
5.417	1.42	|11.500	8.54	|17.583	1.60	|23.67	1.07
5.500	1.42	|11.583	8.54	|17.667	1.60	|23.75	1.07
5.583	1.42	|11.667	8.54	|17.750	1.60	|23.83	1.07
5.667	1.42	|11.750	26.32	|17.833	1.60	|23.92	1.07
5.750	1.42	|11.833	26.32	|17.917	1.60	|24.00	1.07
5.833	1.42	|11.917	67.57	|18.000	1.60	|24.08	1.07
5.917	1.42	|12.000	67.57	|18.083	1.60	|24.17	1.07
6.000	1.42	|12.083	108.82	|18.167	1.60	|	
6.083	1.42	|12.167	108.83	|18.250	1.60	|	

Max.Eff.Inten.(mm/hr)= 108.83 54.09
over (min) 5.00 10.00

Storage Coeff. (min)= 2.12 (ii) 9.72 (ii)

Unit Hyd. Tpeak (min)= 5.00 10.00

Unit Hyd. peak (cms)= 0.31 0.11

TOTALS

PEAK FLOW (cms)= 0.14 0.11 0.255 (iii)

TIME TO PEAK (hrs)= 12.17 12.25 12.17

RUNOFF VOLUME (mm)= 87.41 31.16 45.78

TOTAL RAINFALL (mm)= 88.91 88.91 88.91

RUNOFF COEFFICIENT = 0.98 0.35 0.51

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

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:

CN* = 61.0 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 (1000)|

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

ID1= 1 (0202): 1.81 0.255 12.17 45.78

+ ID2= 2 (5000): 11.54 0.150 12.17 55.63

=====

ID = 3 (1000): 13.35 0.405 12.17 54.30

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| ADD HYD (1000)|

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

ID1= 3 (1000): 13.35 0.405 12.17 54.30

+ ID2= 2 (6000): 0.81 0.138 12.17 50.12

=====

ID = 1 (1000): 14.16 0.542 12.17 54.06

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

V V I SSSSS U U A L (v6.2.2015)
V V I SS U U AA L
V V I SS U U AAAAA L
V V I SS U U A A L
W V I SSSSS UUUUU A A LLLLL

OOO TTTT TTTT 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

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***** DETAILED OUTPUT *****

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voain.dat
Output filename: C:\Users\ajoshi\AppData\Local\Civica\XH5\191a91e0-1a14-44fd-bc00-4941023c7dee\73d5b5cf-9116-43a9-ae5b-9dfaa1b1dfca\scena
Summary filename: C:\Users\ajoshi\AppData\Local\Civica\XH5\191a91e0-1a14-44fd-bc00-4941023c7dee\73d5b5cf-9116-43a9-ae5b-9dfaa1b1dfca\scena

DATE: 12-05-2025 TIME: 11:20:15

USER:

COMMENTS: _____

** SIMULATION : 4_10yr 24hr 10min SCS Type II **

| READ STORM | Filename: C:\Users\ajoshi\AppData
| | ata\Local\Temp\
| | a0c73555-1204-4f79-8531-cc8963073e72\4d30c99e
| Ptotal=103.09 mm | Comments: 10yr 24hr 10min SCS Type II

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	1.86	12.33	14.84	18.50	1.86
0.17	1.13	6.33	1.86	12.50	14.84	18.67	1.86
0.33	1.13	6.50	1.86	12.67	7.63	18.83	1.86
0.50	1.13	6.67	1.86	12.83	7.63	19.00	1.86
0.67	1.13	6.83	1.86	13.00	7.63	19.17	1.86
0.83	1.13	7.00	1.86	13.17	5.57	19.33	1.86
1.00	1.13	7.17	2.27	13.33	5.57	19.50	1.86
1.17	1.13	7.33	2.27	13.50	5.57	19.67	1.86
1.33	1.13	7.50	2.27	13.67	4.33	19.83	1.86
1.50	1.13	7.67	2.27	13.83	4.33	20.00	1.86
1.67	1.13	7.83	2.27	14.00	4.33	20.17	1.24
1.83	1.13	8.00	2.27	14.17	3.09	20.33	1.24
2.00	1.13	8.17	2.68	14.33	3.09	20.50	1.24
2.17	1.34	8.33	2.68	14.50	3.09	20.67	1.24
2.33	1.34	8.50	2.68	14.67	3.09	20.83	1.24
2.50	1.34	8.67	2.89	14.83	3.09	21.00	1.24
2.67	1.34	8.83	2.89	15.00	3.09	21.17	1.24
2.83	1.34	9.00	2.89	15.17	3.09	21.33	1.24
3.00	1.34	9.17	3.30	15.33	3.09	21.50	1.24
3.17	1.34	9.33	3.30	15.50	3.09	21.67	1.24
3.33	1.34	9.50	3.30	15.67	3.09	21.83	1.24
3.50	1.34	9.67	3.71	15.83	3.09	22.00	1.24
3.67	1.34	9.83	3.71	16.00	3.09	22.17	1.24
3.83	1.34	10.00	3.71	16.17	1.86	22.33	1.24
4.00	1.34	10.17	4.74	16.33	1.86	22.50	1.24

4.17 1.65 | 10.33 4.74 | 16.50 1.86 | 22.67 1.24
 4.33 1.65 | 10.50 4.74 | 16.67 1.86 | 22.83 1.24
 4.50 1.65 | 10.67 6.39 | 16.83 1.86 | 23.00 1.24
 4.67 1.65 | 10.83 6.39 | 17.00 1.86 | 23.17 1.24
 4.83 1.65 | 11.00 6.39 | 17.17 1.86 | 23.33 1.24
 5.00 1.65 | 11.17 9.90 | 17.33 1.86 | 23.50 1.24
 5.17 1.65 | 11.33 9.90 | 17.50 1.86 | 23.67 1.24
 5.33 1.65 | 11.50 9.90 | 17.67 1.86 | 23.83 1.24
 5.50 1.65 | 11.67 30.51 | 17.83 1.86 | 24.00 1.24
 5.67 1.65 | 11.83 78.35 | 18.00 1.86 |
 5.83 1.65 | 12.00 126.18 | 18.17 1.86 |
 6.00 1.65 | 12.17 14.84 | 18.33 1.86 |

 | CALIB |
 | NASHYD (0203) | Area (ha)= 0.29 Curve Number (CN)= 62.0
 | ID= 1 DT= 5.0 min | Ia (mm)= 5.00 # of Linear Res.(N)= 3.00
 ----- U.H. Tp(hrs)= 0.17

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.65	12.250	14.86	18.33	1.86
0.167	0.00	6.250	1.86	12.333	14.84	18.42	1.86
0.250	1.13	6.333	1.86	12.417	14.84	18.50	1.86
0.333	1.13	6.417	1.86	12.500	14.84	18.58	1.86
0.417	1.13	6.500	1.86	12.583	14.84	18.67	1.86
0.500	1.13	6.583	1.86	12.667	14.84	18.75	1.86
0.583	1.13	6.667	1.86	12.750	7.63	18.83	1.86
0.667	1.13	6.750	1.86	12.833	7.63	18.92	1.86
0.750	1.13	6.833	1.86	12.917	7.63	19.00	1.86
0.833	1.13	6.917	1.86	13.000	7.63	19.08	1.86
0.917	1.13	7.000	1.86	13.083	7.63	19.17	1.86
1.000	1.13	7.083	1.86	13.167	7.63	19.25	1.86
1.083	1.13	7.167	1.86	13.250	5.57	19.33	1.86
1.167	1.13	7.250	2.27	13.333	5.57	19.42	1.86
1.250	1.13	7.333	2.27	13.417	5.57	19.50	1.86
1.333	1.13	7.417	2.27	13.500	5.57	19.58	1.86
1.417	1.13	7.500	2.27	13.583	5.57	19.67	1.86
1.500	1.13	7.583	2.27	13.667	5.57	19.75	1.86
1.583	1.13	7.667	2.27	13.750	4.33	19.83	1.86
1.667	1.13	7.750	2.27	13.833	4.33	19.92	1.86
1.750	1.13	7.833	2.27	13.917	4.33	20.00	1.86
1.833	1.13	7.917	2.27	14.000	4.33	20.08	1.86
1.917	1.13	8.000	2.27	14.083	4.33	20.17	1.86
2.000	1.13	8.083	2.27	14.167	4.33	20.25	1.24
2.083	1.13	8.167	2.27	14.250	3.09	20.33	1.24
2.167	1.13	8.250	2.68	14.333	3.09	20.42	1.24
2.250	1.34	8.333	2.68	14.417	3.09	20.50	1.24
2.333	1.34	8.417	2.68	14.500	3.09	20.58	1.24
2.417	1.34	8.500	2.68	14.583	3.09	20.67	1.24
2.500	1.34	8.583	2.68	14.667	3.09	20.75	1.24
2.583	1.34	8.667	2.68	14.750	3.09	20.83	1.24
2.667	1.34	8.750	2.89	14.833	3.09	20.92	1.24
2.750	1.34	8.833	2.89	14.917	3.09	21.00	1.24
2.833	1.34	8.917	2.89	15.000	3.09	21.08	1.24
2.917	1.34	9.000	2.89	15.083	3.09	21.17	1.24
3.000	1.34	9.083	2.89	15.167	3.09	21.25	1.24
3.083	1.34	9.167	2.89	15.250	3.09	21.33	1.24
3.167	1.34	9.250	3.30	15.333	3.09	21.42	1.24
3.250	1.34	9.333	3.30	15.417	3.09	21.50	1.24
3.333	1.34	9.417	3.30	15.500	3.09	21.58	1.24
3.417	1.34	9.500	3.30	15.583	3.09	21.67	1.24
3.500	1.34	9.583	3.30	15.667	3.09	21.75	1.24
3.583	1.34	9.667	3.30	15.750	3.09	21.83	1.24
3.667	1.34	9.750	3.71	15.833	3.09	21.92	1.24
3.750	1.34	9.833	3.71	15.917	3.09	22.00	1.24
3.833	1.34	9.917	3.71	16.000	3.09	22.08	1.24

3.917	1.34	|10.000	3.71	|16.083	3.09	|22.17	1.24
4.000	1.34	|10.083	3.71	|16.167	3.09	|22.25	1.24
4.083	1.34	|10.167	3.71	|16.250	1.86	|22.33	1.24
4.167	1.34	|10.250	4.74	|16.333	1.86	|22.42	1.24
4.250	1.65	|10.333	4.74	|16.417	1.86	|22.50	1.24
4.333	1.65	|10.417	4.74	|16.500	1.86	|22.58	1.24
4.417	1.65	|10.500	4.74	|16.583	1.86	|22.67	1.24
4.500	1.65	|10.583	4.74	|16.667	1.86	|22.75	1.24
4.583	1.65	|10.667	4.74	|16.750	1.86	|22.83	1.24
4.667	1.65	|10.750	6.39	|16.833	1.86	|22.92	1.24
4.750	1.65	|10.833	6.39	|16.917	1.86	|23.00	1.24
4.833	1.65	|10.917	6.39	|17.000	1.86	|23.08	1.24
4.917	1.65	|11.000	6.39	|17.083	1.86	|23.17	1.24
5.000	1.65	|11.083	6.39	|17.167	1.86	|23.25	1.24
5.083	1.65	|11.167	6.39	|17.250	1.86	|23.33	1.24
5.167	1.65	|11.250	9.90	|17.333	1.86	|23.42	1.24
5.250	1.65	|11.333	9.90	|17.417	1.86	|23.50	1.24
5.333	1.65	|11.417	9.90	|17.500	1.86	|23.58	1.24
5.417	1.65	|11.500	9.90	|17.583	1.86	|23.67	1.24
5.500	1.65	|11.583	9.90	|17.667	1.86	|23.75	1.24
5.583	1.65	|11.667	9.90	|17.750	1.86	|23.83	1.24
5.667	1.65	|11.750	30.51	|17.833	1.86	|23.92	1.24
5.750	1.65	|11.833	30.51	|17.917	1.86	|24.00	1.24
5.833	1.65	|11.917	78.34	|18.000	1.86	|24.08	1.24
5.917	1.65	|12.000	78.35	|18.083	1.86	|24.17	1.24
6.000	1.65	|12.083	126.18	|18.167	1.86	|	
6.083	1.65	|12.167	126.18	|18.250	1.86	|	

Unit Hyd Qpeak (cms)= 0.064

PEAK FLOW (cms)= 0.028 (i)
 TIME TO PEAK (hrs)= 12.250
 RUNOFF VOLUME (mm)= 37.779
 TOTAL RAINFALL (mm)= 103.090
 RUNOFF COEFFICIENT = 0.366

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

 | CALIB |
 | STANDHYD (0206) | Area (ha)= 0.52
 | ID= 1 DT= 5.0 min | Total Imp(%)= 63.00 Dir. Conn.(%)= 49.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 0.33 0.19
 Dep. Storage (mm)= 1.50 5.00
 Average Slope (%)= 2.00 2.00
 Length (m)= 59.10 15.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	|6.167	1.65	|12.250	14.86	|18.33	1.86
0.167	0.00	|6.250	1.86	|12.333	14.84	|18.42	1.86
0.250	1.13	|6.333	1.86	|12.417	14.84	|18.50	1.86
0.333	1.13	|6.417	1.86	|12.500	14.84	|18.58	1.86
0.417	1.13	|6.500	1.86	|12.583	14.84	|18.67	1.86
0.500	1.13	|6.583	1.86	|12.667	14.84	|18.75	1.86
0.583	1.13	|6.667	1.86	|12.750	7.63	|18.83	1.86
0.667	1.13	|6.750	1.86	|12.833	7.63	|18.92	1.86
0.750	1.13	|6.833	1.86	|12.917	7.63	|19.00	1.86
0.833	1.13	|6.917	1.86	|13.000	7.63	|19.08	1.86
0.917	1.13	|7.000	1.86	|13.083	7.63	|19.17	1.86
1.000	1.13	|7.083	1.86	|13.167	7.63	|19.25	1.86
1.083	1.13	|7.167	1.86	|13.250	5.57	|19.33	1.86
1.167	1.13	|7.250	2.27	|13.333	5.57	|19.42	1.86
1.250	1.13	|7.333	2.27	|13.417	5.57	|19.50	1.86
1.333	1.13	|7.417	2.27	|13.500	5.57	|19.58	1.86

1.417	1.13	7.500	2.27	13.583	5.57	19.67	1.86
1.500	1.13	7.583	2.27	13.667	5.57	19.75	1.86
1.583	1.13	7.667	2.27	13.750	4.33	19.83	1.86
1.667	1.13	7.750	2.27	13.833	4.33	19.92	1.86
1.750	1.13	7.833	2.27	13.917	4.33	20.00	1.86
1.833	1.13	7.917	2.27	14.000	4.33	20.08	1.86
1.917	1.13	8.000	2.27	14.083	4.33	20.17	1.86
2.000	1.13	8.083	2.27	14.167	4.33	20.25	1.24
2.083	1.13	8.167	2.27	14.250	3.09	20.33	1.24
2.167	1.13	8.250	2.68	14.333	3.09	20.42	1.24
2.250	1.34	8.333	2.68	14.417	3.09	20.50	1.24
2.333	1.34	8.417	2.68	14.500	3.09	20.58	1.24
2.417	1.34	8.500	2.68	14.583	3.09	20.67	1.24
2.500	1.34	8.583	2.68	14.667	3.09	20.75	1.24
2.583	1.34	8.667	2.68	14.750	3.09	20.83	1.24
2.667	1.34	8.750	2.89	14.833	3.09	20.92	1.24
2.750	1.34	8.833	2.89	14.917	3.09	21.00	1.24
2.833	1.34	8.917	2.89	15.000	3.09	21.08	1.24
2.917	1.34	9.000	2.89	15.083	3.09	21.17	1.24
3.000	1.34	9.083	2.89	15.167	3.09	21.25	1.24
3.083	1.34	9.167	2.89	15.250	3.09	21.33	1.24
3.167	1.34	9.250	3.30	15.333	3.09	21.42	1.24
3.250	1.34	9.333	3.30	15.417	3.09	21.50	1.24
3.333	1.34	9.417	3.30	15.500	3.09	21.58	1.24
3.417	1.34	9.500	3.30	15.583	3.09	21.67	1.24
3.500	1.34	9.583	3.30	15.667	3.09	21.75	1.24
3.583	1.34	9.667	3.30	15.750	3.09	21.83	1.24
3.667	1.34	9.750	3.71	15.833	3.09	21.92	1.24
3.750	1.34	9.833	3.71	15.917	3.09	22.00	1.24
3.833	1.34	9.917	3.71	16.000	3.09	22.08	1.24
3.917	1.34	10.000	3.71	16.083	3.09	22.17	1.24
4.000	1.34	10.083	3.71	16.167	3.09	22.25	1.24
4.083	1.34	10.167	3.71	16.250	1.86	22.33	1.24
4.167	1.34	10.250	4.74	16.333	1.86	22.42	1.24
4.250	1.65	10.333	4.74	16.417	1.86	22.50	1.24
4.333	1.65	10.417	4.74	16.500	1.86	22.58	1.24
4.417	1.65	10.500	4.74	16.583	1.86	22.67	1.24
4.500	1.65	10.583	4.74	16.667	1.86	22.75	1.24
4.583	1.65	10.667	4.74	16.750	1.86	22.83	1.24
4.667	1.65	10.750	6.39	16.833	1.86	22.92	1.24
4.750	1.65	10.833	6.39	16.917	1.86	23.00	1.24
4.833	1.65	10.917	6.39	17.000	1.86	23.08	1.24
4.917	1.65	11.000	6.39	17.083	1.86	23.17	1.24
5.000	1.65	11.083	6.39	17.167	1.86	23.25	1.24
5.083	1.65	11.167	6.39	17.250	1.86	23.33	1.24
5.167	1.65	11.250	9.90	17.333	1.86	23.42	1.24
5.250	1.65	11.333	9.90	17.417	1.86	23.50	1.24
5.333	1.65	11.417	9.90	17.500	1.86	23.58	1.24
5.417	1.65	11.500	9.90	17.583	1.86	23.67	1.24
5.500	1.65	11.583	9.90	17.667	1.86	23.75	1.24
5.583	1.65	11.667	9.90	17.750	1.86	23.83	1.24
5.667	1.65	11.750	30.51	17.833	1.86	23.92	1.24
5.750	1.65	11.833	30.51	17.917	1.86	24.00	1.24
5.833	1.65	11.917	78.34	18.000	1.86	24.08	1.24
5.917	1.65	12.000	78.35	18.083	1.86	24.17	1.24
6.000	1.65	12.083	126.18	18.167	1.86		
6.083	1.65	12.167	126.18	18.250	1.86		

Max.Eff.Inten.(mm/hr)= 126.18 94.20
over (min) 5.00 5.00

Storage Coeff. (min)= 1.38 (ii) 4.57 (ii)

Unit Hyd. Tpeak (min)= 5.00 5.00

Unit Hyd. peak (cms)= 0.33 0.23

TOTALS

PEAK FLOW (cms)= 0.09 0.05 0.139 (iii)

TIME TO PEAK (hrs)= 12.17 12.17 12.17

RUNOFF VOLUME (mm)= 101.59 46.58 73.53

TOTAL RAINFALL (mm)= 103.09 103.09 103.09

RUNOFF COEFFICIENT = 0.99 0.45 0.71

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

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:

- CN* = 62.0 la = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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-----
| ADD HYD ( 6000)|
| 1+ 2= 3 | AREA QPEAK TPEAK R.V.
----- (ha) (cms) (hrs) (mm)
ID1= 1 ( 0203): 0.29 0.028 12.25 37.78
+ ID2= 2 ( 0206): 0.52 0.139 12.17 73.53
=====
ID = 3 ( 6000): 0.81 0.167 12.17 60.88

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NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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| CALIB |
| NASHYD ( 0205)| Area (ha)= 0.16 Curve Number (CN)= 62.0
| ID= 1 DT= 5.0 min | la (mm)= 5.00 # of Linear Res.(N)= 3.00
----- U.H. Tp(hrs)= 0.17

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NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

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---- TRANSFORMED HYETOGRAPH ----
TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr
0.083 0.00 | 6.167 1.65 | 12.250 14.86 | 18.33 1.86
0.167 0.00 | 6.250 1.86 | 12.333 14.84 | 18.42 1.86
0.250 1.13 | 6.333 1.86 | 12.417 14.84 | 18.50 1.86
0.333 1.13 | 6.417 1.86 | 12.500 14.84 | 18.58 1.86
0.417 1.13 | 6.500 1.86 | 12.583 14.84 | 18.67 1.86
0.500 1.13 | 6.583 1.86 | 12.667 14.84 | 18.75 1.86
0.583 1.13 | 6.667 1.86 | 12.750 7.63 | 18.83 1.86
0.667 1.13 | 6.750 1.86 | 12.833 7.63 | 18.92 1.86
0.750 1.13 | 6.833 1.86 | 12.917 7.63 | 19.00 1.86
0.833 1.13 | 6.917 1.86 | 13.000 7.63 | 19.08 1.86
0.917 1.13 | 7.000 1.86 | 13.083 7.63 | 19.17 1.86
1.000 1.13 | 7.083 1.86 | 13.167 7.63 | 19.25 1.86
1.083 1.13 | 7.167 1.86 | 13.250 5.57 | 19.33 1.86
1.167 1.13 | 7.250 2.27 | 13.333 5.57 | 19.42 1.86
1.250 1.13 | 7.333 2.27 | 13.417 5.57 | 19.50 1.86
1.333 1.13 | 7.417 2.27 | 13.500 5.57 | 19.58 1.86
1.417 1.13 | 7.500 2.27 | 13.583 5.57 | 19.67 1.86
1.500 1.13 | 7.583 2.27 | 13.667 5.57 | 19.75 1.86
1.583 1.13 | 7.667 2.27 | 13.750 4.33 | 19.83 1.86
1.667 1.13 | 7.750 2.27 | 13.833 4.33 | 19.92 1.86
1.750 1.13 | 7.833 2.27 | 13.917 4.33 | 20.00 1.86
1.833 1.13 | 7.917 2.27 | 14.000 4.33 | 20.08 1.86
1.917 1.13 | 8.000 2.27 | 14.083 4.33 | 20.17 1.86
2.000 1.13 | 8.083 2.27 | 14.167 4.33 | 20.25 1.24
2.083 1.13 | 8.167 2.27 | 14.250 3.09 | 20.33 1.24
2.167 1.13 | 8.250 2.68 | 14.333 3.09 | 20.42 1.24
2.250 1.34 | 8.333 2.68 | 14.417 3.09 | 20.50 1.24
2.333 1.34 | 8.417 2.68 | 14.500 3.09 | 20.58 1.24
2.417 1.34 | 8.500 2.68 | 14.583 3.09 | 20.67 1.24
2.500 1.34 | 8.583 2.68 | 14.667 3.09 | 20.75 1.24
2.583 1.34 | 8.667 2.68 | 14.750 3.09 | 20.83 1.24
2.667 1.34 | 8.750 2.89 | 14.833 3.09 | 20.92 1.24
2.750 1.34 | 8.833 2.89 | 14.917 3.09 | 21.00 1.24
2.833 1.34 | 8.917 2.89 | 15.000 3.09 | 21.08 1.24
2.917 1.34 | 9.000 2.89 | 15.083 3.09 | 21.17 1.24
3.000 1.34 | 9.083 2.89 | 15.167 3.09 | 21.25 1.24
3.083 1.34 | 9.167 2.89 | 15.250 3.09 | 21.33 1.24
3.167 1.34 | 9.250 3.30 | 15.333 3.09 | 21.42 1.24
3.250 1.34 | 9.333 3.30 | 15.417 3.09 | 21.50 1.24
3.333 1.34 | 9.417 3.30 | 15.500 3.09 | 21.58 1.24
3.417 1.34 | 9.500 3.30 | 15.583 3.09 | 21.67 1.24
3.500 1.34 | 9.583 3.30 | 15.667 3.09 | 21.75 1.24
3.583 1.34 | 9.667 3.30 | 15.750 3.09 | 21.83 1.24

```

3.667	1.34	|9.750	3.71	|15.833	3.09	|21.92	1.24
3.750	1.34	|9.833	3.71	|15.917	3.09	|22.00	1.24
3.833	1.34	|9.917	3.71	|16.000	3.09	|22.08	1.24
3.917	1.34	|10.000	3.71	|16.083	3.09	|22.17	1.24
4.000	1.34	|10.083	3.71	|16.167	3.09	|22.25	1.24
4.083	1.34	|10.167	3.71	|16.250	1.86	|22.33	1.24
4.167	1.34	|10.250	4.74	|16.333	1.86	|22.42	1.24
4.250	1.65	|10.333	4.74	|16.417	1.86	|22.50	1.24
4.333	1.65	|10.417	4.74	|16.500	1.86	|22.58	1.24
4.417	1.65	|10.500	4.74	|16.583	1.86	|22.67	1.24
4.500	1.65	|10.583	4.74	|16.667	1.86	|22.75	1.24
4.583	1.65	|10.667	4.74	|16.750	1.86	|22.83	1.24
4.667	1.65	|10.750	6.39	|16.833	1.86	|22.92	1.24
4.750	1.65	|10.833	6.39	|16.917	1.86	|23.00	1.24
4.833	1.65	|10.917	6.39	|17.000	1.86	|23.08	1.24
4.917	1.65	|11.000	6.39	|17.083	1.86	|23.17	1.24
5.000	1.65	|11.083	6.39	|17.167	1.86	|23.25	1.24
5.083	1.65	|11.167	6.39	|17.250	1.86	|23.33	1.24
5.167	1.65	|11.250	9.90	|17.333	1.86	|23.42	1.24
5.250	1.65	|11.333	9.90	|17.417	1.86	|23.50	1.24
5.333	1.65	|11.417	9.90	|17.500	1.86	|23.58	1.24
5.417	1.65	|11.500	9.90	|17.583	1.86	|23.67	1.24
5.500	1.65	|11.583	9.90	|17.667	1.86	|23.75	1.24
5.583	1.65	|11.667	9.90	|17.750	1.86	|23.83	1.24
5.667	1.65	|11.750	30.51	|17.833	1.86	|23.92	1.24
5.750	1.65	|11.833	30.51	|17.917	1.86	|24.00	1.24
5.833	1.65	|11.917	78.34	|18.000	1.86	|24.08	1.24
5.917	1.65	|12.000	78.35	|18.083	1.86	|24.17	1.24
6.000	1.65	|12.083	126.18	|18.167	1.86	|	
6.083	1.65	|12.167	126.18	|18.250	1.86	|	

Unit Hyd Qpeak (cms)= 0.035

PEAK FLOW (cms)= 0.016 (i)

TIME TO PEAK (hrs)= 12.250

RUNOFF VOLUME (mm)= 37.777

TOTAL RAINFALL (mm)= 103.090

RUNOFF COEFFICIENT = 0.366

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

 | CALIB |
 | STANDHYD (0204) | Area (ha)= 0.48
 | ID= 1 DT= 5.0 min | Total Imp(%)= 72.00 Dir. Conn.(%)= 72.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.35	0.13
Dep. Storage (mm)=	1.50	5.00
Average Slope (%)=	5.00	2.00
Length (m)=	56.57	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	|6.167	1.65	|12.250	14.86	|18.33	1.86
0.167	0.00	|6.250	1.86	|12.333	14.84	|18.42	1.86
0.250	1.13	|6.333	1.86	|12.417	14.84	|18.50	1.86
0.333	1.13	|6.417	1.86	|12.500	14.84	|18.58	1.86
0.417	1.13	|6.500	1.86	|12.583	14.84	|18.67	1.86
0.500	1.13	|6.583	1.86	|12.667	14.84	|18.75	1.86
0.583	1.13	|6.667	1.86	|12.750	7.63	|18.83	1.86
0.667	1.13	|6.750	1.86	|12.833	7.63	|18.92	1.86
0.750	1.13	|6.833	1.86	|12.917	7.63	|19.00	1.86
0.833	1.13	|6.917	1.86	|13.000	7.63	|19.08	1.86
0.917	1.13	|7.000	1.86	|13.083	7.63	|19.17	1.86
1.000	1.13	|7.083	1.86	|13.167	7.63	|19.25	1.86
1.083	1.13	|7.167	1.86	|13.250	5.57	|19.33	1.86

1.167	1.13	7.250	2.27	13.333	5.57	19.42	1.86
1.250	1.13	7.333	2.27	13.417	5.57	19.50	1.86
1.333	1.13	7.417	2.27	13.500	5.57	19.58	1.86
1.417	1.13	7.500	2.27	13.583	5.57	19.67	1.86
1.500	1.13	7.583	2.27	13.667	5.57	19.75	1.86
1.583	1.13	7.667	2.27	13.750	4.33	19.83	1.86
1.667	1.13	7.750	2.27	13.833	4.33	19.92	1.86
1.750	1.13	7.833	2.27	13.917	4.33	20.00	1.86
1.833	1.13	7.917	2.27	14.000	4.33	20.08	1.86
1.917	1.13	8.000	2.27	14.083	4.33	20.17	1.86
2.000	1.13	8.083	2.27	14.167	4.33	20.25	1.24
2.083	1.13	8.167	2.27	14.250	3.09	20.33	1.24
2.167	1.13	8.250	2.68	14.333	3.09	20.42	1.24
2.250	1.34	8.333	2.68	14.417	3.09	20.50	1.24
2.333	1.34	8.417	2.68	14.500	3.09	20.58	1.24
2.417	1.34	8.500	2.68	14.583	3.09	20.67	1.24
2.500	1.34	8.583	2.68	14.667	3.09	20.75	1.24
2.583	1.34	8.667	2.68	14.750	3.09	20.83	1.24
2.667	1.34	8.750	2.89	14.833	3.09	20.92	1.24
2.750	1.34	8.833	2.89	14.917	3.09	21.00	1.24
2.833	1.34	8.917	2.89	15.000	3.09	21.08	1.24
2.917	1.34	9.000	2.89	15.083	3.09	21.17	1.24
3.000	1.34	9.083	2.89	15.167	3.09	21.25	1.24
3.083	1.34	9.167	2.89	15.250	3.09	21.33	1.24
3.167	1.34	9.250	3.30	15.333	3.09	21.42	1.24
3.250	1.34	9.333	3.30	15.417	3.09	21.50	1.24
3.333	1.34	9.417	3.30	15.500	3.09	21.58	1.24
3.417	1.34	9.500	3.30	15.583	3.09	21.67	1.24
3.500	1.34	9.583	3.30	15.667	3.09	21.75	1.24
3.583	1.34	9.667	3.30	15.750	3.09	21.83	1.24
3.667	1.34	9.750	3.71	15.833	3.09	21.92	1.24
3.750	1.34	9.833	3.71	15.917	3.09	22.00	1.24
3.833	1.34	9.917	3.71	16.000	3.09	22.08	1.24
3.917	1.34	10.000	3.71	16.083	3.09	22.17	1.24
4.000	1.34	10.083	3.71	16.167	3.09	22.25	1.24
4.083	1.34	10.167	3.71	16.250	1.86	22.33	1.24
4.167	1.34	10.250	4.74	16.333	1.86	22.42	1.24
4.250	1.65	10.333	4.74	16.417	1.86	22.50	1.24
4.333	1.65	10.417	4.74	16.500	1.86	22.58	1.24
4.417	1.65	10.500	4.74	16.583	1.86	22.67	1.24
4.500	1.65	10.583	4.74	16.667	1.86	22.75	1.24
4.583	1.65	10.667	4.74	16.750	1.86	22.83	1.24
4.667	1.65	10.750	6.39	16.833	1.86	22.92	1.24
4.750	1.65	10.833	6.39	16.917	1.86	23.00	1.24
4.833	1.65	10.917	6.39	17.000	1.86	23.08	1.24
4.917	1.65	11.000	6.39	17.083	1.86	23.17	1.24
5.000	1.65	11.083	6.39	17.167	1.86	23.25	1.24
5.083	1.65	11.167	6.39	17.250	1.86	23.33	1.24
5.167	1.65	11.250	9.90	17.333	1.86	23.42	1.24
5.250	1.65	11.333	9.90	17.417	1.86	23.50	1.24
5.333	1.65	11.417	9.90	17.500	1.86	23.58	1.24
5.417	1.65	11.500	9.90	17.583	1.86	23.67	1.24
5.500	1.65	11.583	9.90	17.667	1.86	23.75	1.24
5.583	1.65	11.667	9.90	17.750	1.86	23.83	1.24
5.667	1.65	11.750	30.51	17.833	1.86	23.92	1.24
5.750	1.65	11.833	30.51	17.917	1.86	24.00	1.24
5.833	1.65	11.917	78.34	18.000	1.86	24.08	1.24
5.917	1.65	12.000	78.35	18.083	1.86	24.17	1.24
6.000	1.65	12.083	126.18	18.167	1.86		
6.083	1.65	12.167	126.18	18.250	1.86		

Max.Eff.Inten.(mm/hr)= 126.18 55.66
over (min) 5.00 10.00

Storage Coeff. (min)= 1.02 (ii) 5.43 (ii)

Unit Hyd. Tpeak (min)= 5.00 10.00

Unit Hyd. peak (cms)= 0.34 0.16

TOTALS

PEAK FLOW (cms)= 0.12 0.02 0.138 (iii)

TIME TO PEAK (hrs)= 12.17 12.17 12.17

RUNOFF VOLUME (mm)= 101.59 37.92 83.75

TOTAL RAINFALL (mm)= 103.09 103.09 103.09

RUNOFF COEFFICIENT = 0.99 0.37 0.81

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 62.0 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 ( 0023)|
| 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
----- (ha) (cms) (hrs) (mm)
ID1= 1 ( 0204): 0.48 0.138 12.17 83.75
+ ID2= 2 ( 0205): 0.16 0.016 12.25 37.78
=====
ID = 3 ( 0023): 0.64 0.154 12.17 72.37
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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-----
| CALIB |
| STANDHYD ( 2001)| Area (ha)= 3.38
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 71.00
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```
IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 3.35 0.03
Dep. Storage (mm)= 1.50 5.00
Average Slope (%)= 2.00 2.00
Length (m)= 150.11 30.00
Mannings n = 0.013 0.250
```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```
---- TRANSFORMED HYETOGRAPH ----
TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr
0.083 0.00 | 6.167 1.65 | 12.250 14.86 | 18.33 1.86
0.167 0.00 | 6.250 1.86 | 12.333 14.84 | 18.42 1.86
0.250 1.13 | 6.333 1.86 | 12.417 14.84 | 18.50 1.86
0.333 1.13 | 6.417 1.86 | 12.500 14.84 | 18.58 1.86
0.417 1.13 | 6.500 1.86 | 12.583 14.84 | 18.67 1.86
0.500 1.13 | 6.583 1.86 | 12.667 14.84 | 18.75 1.86
0.583 1.13 | 6.667 1.86 | 12.750 7.63 | 18.83 1.86
0.667 1.13 | 6.750 1.86 | 12.833 7.63 | 18.92 1.86
0.750 1.13 | 6.833 1.86 | 12.917 7.63 | 19.00 1.86
0.833 1.13 | 6.917 1.86 | 13.000 7.63 | 19.08 1.86
0.917 1.13 | 7.000 1.86 | 13.083 7.63 | 19.17 1.86
1.000 1.13 | 7.083 1.86 | 13.167 7.63 | 19.25 1.86
1.083 1.13 | 7.167 1.86 | 13.250 5.57 | 19.33 1.86
1.167 1.13 | 7.250 2.27 | 13.333 5.57 | 19.42 1.86
1.250 1.13 | 7.333 2.27 | 13.417 5.57 | 19.50 1.86
1.333 1.13 | 7.417 2.27 | 13.500 5.57 | 19.58 1.86
1.417 1.13 | 7.500 2.27 | 13.583 5.57 | 19.67 1.86
1.500 1.13 | 7.583 2.27 | 13.667 5.57 | 19.75 1.86
1.583 1.13 | 7.667 2.27 | 13.750 4.33 | 19.83 1.86
1.667 1.13 | 7.750 2.27 | 13.833 4.33 | 19.92 1.86
1.750 1.13 | 7.833 2.27 | 13.917 4.33 | 20.00 1.86
1.833 1.13 | 7.917 2.27 | 14.000 4.33 | 20.08 1.86
1.917 1.13 | 8.000 2.27 | 14.083 4.33 | 20.17 1.86
2.000 1.13 | 8.083 2.27 | 14.167 4.33 | 20.25 1.24
2.083 1.13 | 8.167 2.27 | 14.250 3.09 | 20.33 1.24
2.167 1.13 | 8.250 2.68 | 14.333 3.09 | 20.42 1.24
2.250 1.34 | 8.333 2.68 | 14.417 3.09 | 20.50 1.24
2.333 1.34 | 8.417 2.68 | 14.500 3.09 | 20.58 1.24
2.417 1.34 | 8.500 2.68 | 14.583 3.09 | 20.67 1.24
2.500 1.34 | 8.583 2.68 | 14.667 3.09 | 20.75 1.24
2.583 1.34 | 8.667 2.68 | 14.750 3.09 | 20.83 1.24
2.667 1.34 | 8.750 2.89 | 14.833 3.09 | 20.92 1.24
2.750 1.34 | 8.833 2.89 | 14.917 3.09 | 21.00 1.24
2.833 1.34 | 8.917 2.89 | 15.000 3.09 | 21.08 1.24
```

2.917	1.34	9.000	2.89	15.083	3.09	21.17	1.24
3.000	1.34	9.083	2.89	15.167	3.09	21.25	1.24
3.083	1.34	9.167	2.89	15.250	3.09	21.33	1.24
3.167	1.34	9.250	3.30	15.333	3.09	21.42	1.24
3.250	1.34	9.333	3.30	15.417	3.09	21.50	1.24
3.333	1.34	9.417	3.30	15.500	3.09	21.58	1.24
3.417	1.34	9.500	3.30	15.583	3.09	21.67	1.24
3.500	1.34	9.583	3.30	15.667	3.09	21.75	1.24
3.583	1.34	9.667	3.30	15.750	3.09	21.83	1.24
3.667	1.34	9.750	3.71	15.833	3.09	21.92	1.24
3.750	1.34	9.833	3.71	15.917	3.09	22.00	1.24
3.833	1.34	9.917	3.71	16.000	3.09	22.08	1.24
3.917	1.34	10.000	3.71	16.083	3.09	22.17	1.24
4.000	1.34	10.083	3.71	16.167	3.09	22.25	1.24
4.083	1.34	10.167	3.71	16.250	1.86	22.33	1.24
4.167	1.34	10.250	4.74	16.333	1.86	22.42	1.24
4.250	1.65	10.333	4.74	16.417	1.86	22.50	1.24
4.333	1.65	10.417	4.74	16.500	1.86	22.58	1.24
4.417	1.65	10.500	4.74	16.583	1.86	22.67	1.24
4.500	1.65	10.583	4.74	16.667	1.86	22.75	1.24
4.583	1.65	10.667	4.74	16.750	1.86	22.83	1.24
4.667	1.65	10.750	6.39	16.833	1.86	22.92	1.24
4.750	1.65	10.833	6.39	16.917	1.86	23.00	1.24
4.833	1.65	10.917	6.39	17.000	1.86	23.08	1.24
4.917	1.65	11.000	6.39	17.083	1.86	23.17	1.24
5.000	1.65	11.083	6.39	17.167	1.86	23.25	1.24
5.083	1.65	11.167	6.39	17.250	1.86	23.33	1.24
5.167	1.65	11.250	9.90	17.333	1.86	23.42	1.24
5.250	1.65	11.333	9.90	17.417	1.86	23.50	1.24
5.333	1.65	11.417	9.90	17.500	1.86	23.58	1.24
5.417	1.65	11.500	9.90	17.583	1.86	23.67	1.24
5.500	1.65	11.583	9.90	17.667	1.86	23.75	1.24
5.583	1.65	11.667	9.90	17.750	1.86	23.83	1.24
5.667	1.65	11.750	30.51	17.833	1.86	23.92	1.24
5.750	1.65	11.833	30.51	17.917	1.86	24.00	1.24
5.833	1.65	11.917	78.34	18.000	1.86	24.08	1.24
5.917	1.65	12.000	78.35	18.083	1.86	24.17	1.24
6.000	1.65	12.083	126.18	18.167	1.86		
6.083	1.65	12.167	126.18	18.250	1.86		

Max.Eff.Inten.(mm/hr)= 126.18 3631.89
over (min) 5.00 5.00

Storage Coeff. (min)= 2.41 (ii) 3.40 (ii)

Unit Hyd. Tpeak (min)= 5.00 5.00

Unit Hyd. peak (cms)= 0.30 0.26

TOTALS

PEAK FLOW (cms)= 0.84 0.33 1.170 (iii)

TIME TO PEAK (hrs)= 12.17 12.17 12.17

RUNOFF VOLUME (mm)= 101.59 97.82 100.49

TOTAL RAINFALL (mm)= 103.09 103.09 103.09

RUNOFF COEFFICIENT = 0.99 0.95 0.97

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

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:

CN* = 62.0 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(0031) | 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 | 10.0000 0.0780
0.0000 0.0770 | 0.0000 0.0000

AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
INFLOW: ID= 2 (2001) 3.380 1.170 12.17 100.49
OUTFLOW: ID= 1 (0031) 3.380 1.158 12.08 77.73

PEAK FLOW REDUCTION [Qout/Qin](%)= 98.97
 TIME SHIFT OF PEAK FLOW (min)= -5.00
 MAXIMUM STORAGE USED (ha.m.)= 0.0778

 | CALIB |
 | STANDHYD (0201) | Area (ha)= 1.34
 | ID= 1 DT= 5.0 min | Total Imp(%)= 50.00 Dir. Conn.(%)= 50.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 0.67 0.67
 Dep. Storage (mm)= 1.50 10.00
 Average Slope (%)= 2.00 2.00
 Length (m)= 94.52 30.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.65	12.250	14.86	18.33	1.86
0.167	0.00	6.250	1.86	12.333	14.84	18.42	1.86
0.250	1.13	6.333	1.86	12.417	14.84	18.50	1.86
0.333	1.13	6.417	1.86	12.500	14.84	18.58	1.86
0.417	1.13	6.500	1.86	12.583	14.84	18.67	1.86
0.500	1.13	6.583	1.86	12.667	14.84	18.75	1.86
0.583	1.13	6.667	1.86	12.750	7.63	18.83	1.86
0.667	1.13	6.750	1.86	12.833	7.63	18.92	1.86
0.750	1.13	6.833	1.86	12.917	7.63	19.00	1.86
0.833	1.13	6.917	1.86	13.000	7.63	19.08	1.86
0.917	1.13	7.000	1.86	13.083	7.63	19.17	1.86
1.000	1.13	7.083	1.86	13.167	7.63	19.25	1.86
1.083	1.13	7.167	1.86	13.250	5.57	19.33	1.86
1.167	1.13	7.250	2.27	13.333	5.57	19.42	1.86
1.250	1.13	7.333	2.27	13.417	5.57	19.50	1.86
1.333	1.13	7.417	2.27	13.500	5.57	19.58	1.86
1.417	1.13	7.500	2.27	13.583	5.57	19.67	1.86
1.500	1.13	7.583	2.27	13.667	5.57	19.75	1.86
1.583	1.13	7.667	2.27	13.750	4.33	19.83	1.86
1.667	1.13	7.750	2.27	13.833	4.33	19.92	1.86
1.750	1.13	7.833	2.27	13.917	4.33	20.00	1.86
1.833	1.13	7.917	2.27	14.000	4.33	20.08	1.86
1.917	1.13	8.000	2.27	14.083	4.33	20.17	1.86
2.000	1.13	8.083	2.27	14.167	4.33	20.25	1.24
2.083	1.13	8.167	2.27	14.250	3.09	20.33	1.24
2.167	1.13	8.250	2.68	14.333	3.09	20.42	1.24
2.250	1.34	8.333	2.68	14.417	3.09	20.50	1.24
2.333	1.34	8.417	2.68	14.500	3.09	20.58	1.24
2.417	1.34	8.500	2.68	14.583	3.09	20.67	1.24
2.500	1.34	8.583	2.68	14.667	3.09	20.75	1.24
2.583	1.34	8.667	2.68	14.750	3.09	20.83	1.24
2.667	1.34	8.750	2.89	14.833	3.09	20.92	1.24
2.750	1.34	8.833	2.89	14.917	3.09	21.00	1.24
2.833	1.34	8.917	2.89	15.000	3.09	21.08	1.24
2.917	1.34	9.000	2.89	15.083	3.09	21.17	1.24
3.000	1.34	9.083	2.89	15.167	3.09	21.25	1.24
3.083	1.34	9.167	2.89	15.250	3.09	21.33	1.24
3.167	1.34	9.250	3.30	15.333	3.09	21.42	1.24
3.250	1.34	9.333	3.30	15.417	3.09	21.50	1.24
3.333	1.34	9.417	3.30	15.500	3.09	21.58	1.24
3.417	1.34	9.500	3.30	15.583	3.09	21.67	1.24
3.500	1.34	9.583	3.30	15.667	3.09	21.75	1.24
3.583	1.34	9.667	3.30	15.750	3.09	21.83	1.24
3.667	1.34	9.750	3.71	15.833	3.09	21.92	1.24
3.750	1.34	9.833	3.71	15.917	3.09	22.00	1.24
3.833	1.34	9.917	3.71	16.000	3.09	22.08	1.24
3.917	1.34	10.000	3.71	16.083	3.09	22.17	1.24
4.000	1.34	10.083	3.71	16.167	3.09	22.25	1.24
4.083	1.34	10.167	3.71	16.250	1.86	22.33	1.24

4.167	1.34	|10.250	4.74	|16.333	1.86	|22.42	1.24
4.250	1.65	|10.333	4.74	|16.417	1.86	|22.50	1.24
4.333	1.65	|10.417	4.74	|16.500	1.86	|22.58	1.24
4.417	1.65	|10.500	4.74	|16.583	1.86	|22.67	1.24
4.500	1.65	|10.583	4.74	|16.667	1.86	|22.75	1.24
4.583	1.65	|10.667	4.74	|16.750	1.86	|22.83	1.24
4.667	1.65	|10.750	6.39	|16.833	1.86	|22.92	1.24
4.750	1.65	|10.833	6.39	|16.917	1.86	|23.00	1.24
4.833	1.65	|10.917	6.39	|17.000	1.86	|23.08	1.24
4.917	1.65	|11.000	6.39	|17.083	1.86	|23.17	1.24
5.000	1.65	|11.083	6.39	|17.167	1.86	|23.25	1.24
5.083	1.65	|11.167	6.39	|17.250	1.86	|23.33	1.24
5.167	1.65	|11.250	9.90	|17.333	1.86	|23.42	1.24
5.250	1.65	|11.333	9.90	|17.417	1.86	|23.50	1.24
5.333	1.65	|11.417	9.90	|17.500	1.86	|23.58	1.24
5.417	1.65	|11.500	9.90	|17.583	1.86	|23.67	1.24
5.500	1.65	|11.583	9.90	|17.667	1.86	|23.75	1.24
5.583	1.65	|11.667	9.90	|17.750	1.86	|23.83	1.24
5.667	1.65	|11.750	30.51	|17.833	1.86	|23.92	1.24
5.750	1.65	|11.833	30.51	|17.917	1.86	|24.00	1.24
5.833	1.65	|11.917	78.34	|18.000	1.86	|24.08	1.24
5.917	1.65	|12.000	78.35	|18.083	1.86	|24.17	1.24
6.000	1.65	|12.083	126.18	|18.167	1.86	|	
6.083	1.65	|12.167	126.18	|18.250	1.86	|	

Max.Eff.Inten.(mm/hr)= 126.18 37.85
over (min) 5.00 15.00

Storage Coeff. (min)= 1.83 (ii) 10.59 (ii)

Unit Hyd. Tpeak (min)= 5.00 15.00

Unit Hyd. peak (cms)= 0.32 0.09

TOTALS

PEAK FLOW (cms)= 0.23 0.04 0.269 (iii)

TIME TO PEAK (hrs)= 12.17 12.25 12.17

RUNOFF VOLUME (mm)= 101.59 25.70 63.64

TOTAL RAINFALL (mm)= 103.09 103.09 103.09

RUNOFF COEFFICIENT = 0.99 0.25 0.62

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

(i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:

CN* = 51.0 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 |
| STANDHYD (0200) | Area (ha)= 6.18
| ID= 1 DT= 5.0 min | Total Imp(%)= 38.00 Dir. Conn.(%)= 38.00

IMPERVIOUS PVIOUS (i)
Surface Area (ha)= 2.35 3.83
Dep. Storage (mm)= 1.50 5.00
Average Slope (%)= 2.00 2.00
Length (m)= 202.98 30.00
Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	|	TIME	RAIN	|	TIME	RAIN	|	TIME	RAIN
hrs	mm/hr	|	hrs	mm/hr	|	hrs	mm/hr	|	hrs	mm/hr
0.083	0.00	|	6.167	1.65	|	12.250	14.86	|	18.33	1.86
0.167	0.00	|	6.250	1.86	|	12.333	14.84	|	18.42	1.86
0.250	1.13	|	6.333	1.86	|	12.417	14.84	|	18.50	1.86
0.333	1.13	|	6.417	1.86	|	12.500	14.84	|	18.58	1.86
0.417	1.13	|	6.500	1.86	|	12.583	14.84	|	18.67	1.86
0.500	1.13	|	6.583	1.86	|	12.667	14.84	|	18.75	1.86
0.583	1.13	|	6.667	1.86	|	12.750	7.63	|	18.83	1.86
0.667	1.13	|	6.750	1.86	|	12.833	7.63	|	18.92	1.86
0.750	1.13	|	6.833	1.86	|	12.917	7.63	|	19.00	1.86

0.833	1.13	|6.917	1.86	|13.000	7.63	|19.08	1.86
0.917	1.13	|7.000	1.86	|13.083	7.63	|19.17	1.86
1.000	1.13	|7.083	1.86	|13.167	7.63	|19.25	1.86
1.083	1.13	|7.167	1.86	|13.250	5.57	|19.33	1.86
1.167	1.13	|7.250	2.27	|13.333	5.57	|19.42	1.86
1.250	1.13	|7.333	2.27	|13.417	5.57	|19.50	1.86
1.333	1.13	|7.417	2.27	|13.500	5.57	|19.58	1.86
1.417	1.13	|7.500	2.27	|13.583	5.57	|19.67	1.86
1.500	1.13	|7.583	2.27	|13.667	5.57	|19.75	1.86
1.583	1.13	|7.667	2.27	|13.750	4.33	|19.83	1.86
1.667	1.13	|7.750	2.27	|13.833	4.33	|19.92	1.86
1.750	1.13	|7.833	2.27	|13.917	4.33	|20.00	1.86
1.833	1.13	|7.917	2.27	|14.000	4.33	|20.08	1.86
1.917	1.13	|8.000	2.27	|14.083	4.33	|20.17	1.86
2.000	1.13	|8.083	2.27	|14.167	4.33	|20.25	1.24
2.083	1.13	|8.167	2.27	|14.250	3.09	|20.33	1.24
2.167	1.13	|8.250	2.68	|14.333	3.09	|20.42	1.24
2.250	1.34	|8.333	2.68	|14.417	3.09	|20.50	1.24
2.333	1.34	|8.417	2.68	|14.500	3.09	|20.58	1.24
2.417	1.34	|8.500	2.68	|14.583	3.09	|20.67	1.24
2.500	1.34	|8.583	2.68	|14.667	3.09	|20.75	1.24
2.583	1.34	|8.667	2.68	|14.750	3.09	|20.83	1.24
2.667	1.34	|8.750	2.89	|14.833	3.09	|20.92	1.24
2.750	1.34	|8.833	2.89	|14.917	3.09	|21.00	1.24
2.833	1.34	|8.917	2.89	|15.000	3.09	|21.08	1.24
2.917	1.34	|9.000	2.89	|15.083	3.09	|21.17	1.24
3.000	1.34	|9.083	2.89	|15.167	3.09	|21.25	1.24
3.083	1.34	|9.167	2.89	|15.250	3.09	|21.33	1.24
3.167	1.34	|9.250	3.30	|15.333	3.09	|21.42	1.24
3.250	1.34	|9.333	3.30	|15.417	3.09	|21.50	1.24
3.333	1.34	|9.417	3.30	|15.500	3.09	|21.58	1.24
3.417	1.34	|9.500	3.30	|15.583	3.09	|21.67	1.24
3.500	1.34	|9.583	3.30	|15.667	3.09	|21.75	1.24
3.583	1.34	|9.667	3.30	|15.750	3.09	|21.83	1.24
3.667	1.34	|9.750	3.71	|15.833	3.09	|21.92	1.24
3.750	1.34	|9.833	3.71	|15.917	3.09	|22.00	1.24
3.833	1.34	|9.917	3.71	|16.000	3.09	|22.08	1.24
3.917	1.34	|10.000	3.71	|16.083	3.09	|22.17	1.24
4.000	1.34	|10.083	3.71	|16.167	3.09	|22.25	1.24
4.083	1.34	|10.167	3.71	|16.250	1.86	|22.33	1.24
4.167	1.34	|10.250	4.74	|16.333	1.86	|22.42	1.24
4.250	1.65	|10.333	4.74	|16.417	1.86	|22.50	1.24
4.333	1.65	|10.417	4.74	|16.500	1.86	|22.58	1.24
4.417	1.65	|10.500	4.74	|16.583	1.86	|22.67	1.24
4.500	1.65	|10.583	4.74	|16.667	1.86	|22.75	1.24
4.583	1.65	|10.667	4.74	|16.750	1.86	|22.83	1.24
4.667	1.65	|10.750	6.39	|16.833	1.86	|22.92	1.24
4.750	1.65	|10.833	6.39	|16.917	1.86	|23.00	1.24
4.833	1.65	|10.917	6.39	|17.000	1.86	|23.08	1.24
4.917	1.65	|11.000	6.39	|17.083	1.86	|23.17	1.24
5.000	1.65	|11.083	6.39	|17.167	1.86	|23.25	1.24
5.083	1.65	|11.167	6.39	|17.250	1.86	|23.33	1.24
5.167	1.65	|11.250	9.90	|17.333	1.86	|23.42	1.24
5.250	1.65	|11.333	9.90	|17.417	1.86	|23.50	1.24
5.333	1.65	|11.417	9.90	|17.500	1.86	|23.58	1.24
5.417	1.65	|11.500	9.90	|17.583	1.86	|23.67	1.24
5.500	1.65	|11.583	9.90	|17.667	1.86	|23.75	1.24
5.583	1.65	|11.667	9.90	|17.750	1.86	|23.83	1.24
5.667	1.65	|11.750	30.51	|17.833	1.86	|23.92	1.24
5.750	1.65	|11.833	30.51	|17.917	1.86	|24.00	1.24
5.833	1.65	|11.917	78.34	|18.000	1.86	|24.08	1.24
5.917	1.65	|12.000	78.35	|18.083	1.86	|24.17	1.24
6.000	1.65	|12.083	126.18	|18.167	1.86	|	
6.083	1.65	|12.167	126.18	|18.250	1.86	|	

Max.Eff.Inten.(mm/hr)= 126.18 55.66
over (min) 5.00 15.00

Storage Coeff. (min)= 2.89 (ii) 10.40 (ii)

Unit Hyd. Tpeak (min)= 5.00 15.00

Unit Hyd. peak (cms)= 0.28 0.09

TOTALS

PEAK FLOW (cms)= 0.81 0.37 1.119 (iii)

TIME TO PEAK (hrs)= 12.17 12.25 12.17

RUNOFF VOLUME (mm)= 101.59 37.91 62.11
 TOTAL RAINFALL (mm)= 103.09 103.09 103.09
 RUNOFF COEFFICIENT = 0.99 0.37 0.60

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 62.0 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 (3000)|
 | 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
 ----- (ha) (cms) (hrs) (mm)
 ID1= 1 (0200): 6.18 1.119 12.17 62.11
 + ID2= 2 (0201): 1.34 0.269 12.17 63.64
 =====
 ID = 3 (3000): 7.52 1.388 12.17 62.38

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | ADD HYD (3000)|
 | 3 + 2 = 1 | AREA QPEAK TPEAK R.V.
 ----- (ha) (cms) (hrs) (mm)
 ID1= 3 (3000): 7.52 1.388 12.17 62.38
 + ID2= 2 (0031): 3.38 1.158 12.08 77.73
 =====
 ID = 1 (3000): 10.90 2.510 12.17 67.14

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | RESERVOIR(2000)| 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 | 0.0250 0.4259
 0.0050 0.0204 | 0.0260 0.4685
 0.0110 0.0661 | 0.0270 0.5128
 0.0130 0.0912 | 0.0850 0.6065
 0.0140 0.1177 | 0.1130 0.7073
 0.0170 0.1752 | 0.1240 0.7604
 0.0190 0.2061 | 0.1340 0.8153
 0.0210 0.2725 | 1.4710 0.8722
 0.0220 0.3083 | 4.6600 0.9315
 0.0240 0.3850 | 0.0000 0.0000

AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 INFLOW: ID= 2 (3000) 10.900 2.510 12.17 67.14
 OUTFLOW: ID= 1 (2000) 10.900 0.049 16.50 67.05

PEAK FLOW REDUCTION [Qout/Qin](%)= 1.96
 TIME SHIFT OF PEAK FLOW (min)=260.00
 MAXIMUM STORAGE USED (ha.m.)= 0.5493

 | ADD HYD (5000)|
 | 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
 ----- (ha) (cms) (hrs) (mm)
 ID1= 1 (2000): 10.90 0.049 16.50 67.05
 + ID2= 2 (0023): 0.64 0.154 12.17 72.37
 =====
 ID = 3 (5000): 11.54 0.176 12.17 67.34

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| CALIB |
| STANDHYD (0202) | Area (ha)= 1.81
| ID= 1 DT= 5.0 min | Total Imp(%)= 37.00 Dir. Conn.(%)= 26.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.67 1.14
Dep. Storage (mm)= 1.50 6.90
Average Slope (%)= 2.00 2.00
Length (m)= 109.85 30.00
Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.65	12.250	14.86	18.33	1.86
0.167	0.00	6.250	1.86	12.333	14.84	18.42	1.86
0.250	1.13	6.333	1.86	12.417	14.84	18.50	1.86
0.333	1.13	6.417	1.86	12.500	14.84	18.58	1.86
0.417	1.13	6.500	1.86	12.583	14.84	18.67	1.86
0.500	1.13	6.583	1.86	12.667	14.84	18.75	1.86
0.583	1.13	6.667	1.86	12.750	7.63	18.83	1.86
0.667	1.13	6.750	1.86	12.833	7.63	18.92	1.86
0.750	1.13	6.833	1.86	12.917	7.63	19.00	1.86
0.833	1.13	6.917	1.86	13.000	7.63	19.08	1.86
0.917	1.13	7.000	1.86	13.083	7.63	19.17	1.86
1.000	1.13	7.083	1.86	13.167	7.63	19.25	1.86
1.083	1.13	7.167	1.86	13.250	5.57	19.33	1.86
1.167	1.13	7.250	2.27	13.333	5.57	19.42	1.86
1.250	1.13	7.333	2.27	13.417	5.57	19.50	1.86
1.333	1.13	7.417	2.27	13.500	5.57	19.58	1.86
1.417	1.13	7.500	2.27	13.583	5.57	19.67	1.86
1.500	1.13	7.583	2.27	13.667	5.57	19.75	1.86
1.583	1.13	7.667	2.27	13.750	4.33	19.83	1.86
1.667	1.13	7.750	2.27	13.833	4.33	19.92	1.86
1.750	1.13	7.833	2.27	13.917	4.33	20.00	1.86
1.833	1.13	7.917	2.27	14.000	4.33	20.08	1.86
1.917	1.13	8.000	2.27	14.083	4.33	20.17	1.86
2.000	1.13	8.083	2.27	14.167	4.33	20.25	1.24
2.083	1.13	8.167	2.27	14.250	3.09	20.33	1.24
2.167	1.13	8.250	2.68	14.333	3.09	20.42	1.24
2.250	1.34	8.333	2.68	14.417	3.09	20.50	1.24
2.333	1.34	8.417	2.68	14.500	3.09	20.58	1.24
2.417	1.34	8.500	2.68	14.583	3.09	20.67	1.24
2.500	1.34	8.583	2.68	14.667	3.09	20.75	1.24
2.583	1.34	8.667	2.68	14.750	3.09	20.83	1.24
2.667	1.34	8.750	2.89	14.833	3.09	20.92	1.24
2.750	1.34	8.833	2.89	14.917	3.09	21.00	1.24
2.833	1.34	8.917	2.89	15.000	3.09	21.08	1.24
2.917	1.34	9.000	2.89	15.083	3.09	21.17	1.24
3.000	1.34	9.083	2.89	15.167	3.09	21.25	1.24
3.083	1.34	9.167	2.89	15.250	3.09	21.33	1.24
3.167	1.34	9.250	3.30	15.333	3.09	21.42	1.24
3.250	1.34	9.333	3.30	15.417	3.09	21.50	1.24
3.333	1.34	9.417	3.30	15.500	3.09	21.58	1.24
3.417	1.34	9.500	3.30	15.583	3.09	21.67	1.24
3.500	1.34	9.583	3.30	15.667	3.09	21.75	1.24
3.583	1.34	9.667	3.30	15.750	3.09	21.83	1.24
3.667	1.34	9.750	3.71	15.833	3.09	21.92	1.24
3.750	1.34	9.833	3.71	15.917	3.09	22.00	1.24
3.833	1.34	9.917	3.71	16.000	3.09	22.08	1.24
3.917	1.34	10.000	3.71	16.083	3.09	22.17	1.24
4.000	1.34	10.083	3.71	16.167	3.09	22.25	1.24
4.083	1.34	10.167	3.71	16.250	1.86	22.33	1.24
4.167	1.34	10.250	4.74	16.333	1.86	22.42	1.24
4.250	1.65	10.333	4.74	16.417	1.86	22.50	1.24
4.333	1.65	10.417	4.74	16.500	1.86	22.58	1.24
4.417	1.65	10.500	4.74	16.583	1.86	22.67	1.24

4.500	1.65	|10.583	4.74	|16.667	1.86	|22.75	1.24
4.583	1.65	|10.667	4.74	|16.750	1.86	|22.83	1.24
4.667	1.65	|10.750	6.39	|16.833	1.86	|22.92	1.24
4.750	1.65	|10.833	6.39	|16.917	1.86	|23.00	1.24
4.833	1.65	|10.917	6.39	|17.000	1.86	|23.08	1.24
4.917	1.65	|11.000	6.39	|17.083	1.86	|23.17	1.24
5.000	1.65	|11.083	6.39	|17.167	1.86	|23.25	1.24
5.083	1.65	|11.167	6.39	|17.250	1.86	|23.33	1.24
5.167	1.65	|11.250	9.90	|17.333	1.86	|23.42	1.24
5.250	1.65	|11.333	9.90	|17.417	1.86	|23.50	1.24
5.333	1.65	|11.417	9.90	|17.500	1.86	|23.58	1.24
5.417	1.65	|11.500	9.90	|17.583	1.86	|23.67	1.24
5.500	1.65	|11.583	9.90	|17.667	1.86	|23.75	1.24
5.583	1.65	|11.667	9.90	|17.750	1.86	|23.83	1.24
5.667	1.65	|11.750	30.51	|17.833	1.86	|23.92	1.24
5.750	1.65	|11.833	30.51	|17.917	1.86	|24.00	1.24
5.833	1.65	|11.917	78.34	|18.000	1.86	|24.08	1.24
5.917	1.65	|12.000	78.35	|18.083	1.86	|24.17	1.24
6.000	1.65	|12.083	126.18	|18.167	1.86	|	
6.083	1.65	|12.167	126.18	|18.250	1.86	|	

Max.Eff.Inten.(mm/hr)= 126.18 69.67
over (min) 5.00 10.00

Storage Coeff. (min)= 2.00 (ii) 8.86 (ii)

Unit Hyd. Tpeak (min)= 5.00 10.00

Unit Hyd. peak (cms)= 0.31 0.12

TOTALS

PEAK FLOW (cms)= 0.16 0.15 0.317 (iii)

TIME TO PEAK (hrs)= 12.17 12.17 12.17

RUNOFF VOLUME (mm)= 101.59 40.14 56.11

TOTAL RAINFALL (mm)= 103.09 103.09 103.09

RUNOFF COEFFICIENT = 0.99 0.39 0.54

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

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:

CN* = 61.0 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 (1000)|

| 1 + 2 = 3 | AREA QPEAK TPEAK R.V.

----- (ha) (cms) (hrs) (mm)

ID1= 1 (0202): 1.81 0.317 12.17 56.11

+ ID2= 2 (5000): 11.54 0.176 12.17 67.34

=====

ID = 3 (1000): 13.35 0.493 12.17 65.82

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| ADD HYD (1000)|

| 3 + 2 = 1 | AREA QPEAK TPEAK R.V.

----- (ha) (cms) (hrs) (mm)

ID1= 3 (1000): 13.35 0.493 12.17 65.82

+ ID2= 2 (6000): 0.81 0.167 12.17 60.88

=====

ID = 1 (1000): 14.16 0.660 12.17 65.54

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

V V I SSSSS U U A L (v6.2.2015)
V V I SS U U AA L
V V I SS U U AAAAA L
V V I SS U U A A L
W V I SSSSS UUUUU A A LLLLL

OOO TTTT TTTT H H Y Y M M OOO TM
O O T T H H Y Y M M M M O O
O O T T H H Y M M O O
OOO T T H H Y M M OOO

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***** DETAILED OUTPUT *****

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voain.dat
Output filename: C:\Users\ajoshi\AppData\Local\Civica\XH5\191a91e0-1a14-44fd-bc00-4941023c7dee\6691e13b-2c70-493a-a24c-e382fa88f1a7\scena
Summary filename: C:\Users\ajoshi\AppData\Local\Civica\XH5\191a91e0-1a14-44fd-bc00-4941023c7dee\6691e13b-2c70-493a-a24c-e382fa88f1a7\scena

DATE: 12-05-2025 TIME: 11:20:15

USER:

COMMENTS: _____

** SIMULATION : 5_25yr 24 hr 10min SCS Type I **

| READ STORM | Filename: C:\Users\ajoshi\AppData
| | ata\Local\Temp\
| | a0c73555-1204-4f79-8531-cc8963073e72\2f42d0e
| Ptotal=121.70 mm | Comments: 25yr 24hr 10min SCS Type II

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	2.19	12.33	17.52	18.50	2.19
0.17	1.34	6.33	2.19	12.50	17.52	18.67	2.19
0.33	1.34	6.50	2.19	12.67	9.01	18.83	2.19
0.50	1.34	6.67	2.19	12.83	9.01	19.00	2.19
0.67	1.34	6.83	2.19	13.00	9.01	19.17	2.19
0.83	1.34	7.00	2.19	13.17	6.57	19.33	2.19
1.00	1.34	7.17	2.68	13.33	6.57	19.50	2.19
1.17	1.34	7.33	2.68	13.50	6.57	19.67	2.19
1.33	1.34	7.50	2.68	13.67	5.11	19.83	2.19
1.50	1.34	7.67	2.68	13.83	5.11	20.00	2.19
1.67	1.34	7.83	2.68	14.00	5.11	20.17	1.46
1.83	1.34	8.00	2.68	14.17	3.65	20.33	1.46
2.00	1.34	8.17	3.16	14.33	3.65	20.50	1.46
2.17	1.58	8.33	3.16	14.50	3.65	20.67	1.46
2.33	1.58	8.50	3.16	14.67	3.65	20.83	1.46
2.50	1.58	8.67	3.41	14.83	3.65	21.00	1.46
2.67	1.58	8.83	3.41	15.00	3.65	21.17	1.46
2.83	1.58	9.00	3.41	15.17	3.65	21.33	1.46
3.00	1.58	9.17	3.89	15.33	3.65	21.50	1.46
3.17	1.58	9.33	3.89	15.50	3.65	21.67	1.46
3.33	1.58	9.50	3.89	15.67	3.65	21.83	1.46
3.50	1.58	9.67	4.38	15.83	3.65	22.00	1.46
3.67	1.58	9.83	4.38	16.00	3.65	22.17	1.46
3.83	1.58	10.00	4.38	16.17	2.19	22.33	1.46
4.00	1.58	10.17	5.60	16.33	2.19	22.50	1.46

4.17	1.95	10.33	5.60	16.50	2.19	22.67	1.46
4.33	1.95	10.50	5.60	16.67	2.19	22.83	1.46
4.50	1.95	10.67	7.55	16.83	2.19	23.00	1.46
4.67	1.95	10.83	7.55	17.00	2.19	23.17	1.46
4.83	1.95	11.00	7.55	17.17	2.19	23.33	1.46
5.00	1.95	11.17	11.68	17.33	2.19	23.50	1.46
5.17	1.95	11.33	11.68	17.50	2.19	23.67	1.46
5.33	1.95	11.50	11.68	17.67	2.19	23.83	1.46
5.50	1.95	11.67	36.02	17.83	2.19	24.00	1.46
5.67	1.95	11.83	92.49	18.00	2.19		
5.83	1.95	12.00	148.96	18.17	2.19		
6.00	1.95	12.17	17.52	18.33	2.19		

| CALIB |
| NASHYD (0203) | Area (ha)= 0.29 Curve Number (CN)= 62.0
| ID= 1 DT= 5.0 min | Ia (mm)= 5.00 # of Linear Res.(N)= 3.00
----- U.H. Tp(hrs)= 0.17

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.95	12.250	17.54	18.33	2.19
0.167	0.00	6.250	2.19	12.333	17.52	18.42	2.19
0.250	1.34	6.333	2.19	12.417	17.52	18.50	2.19
0.333	1.34	6.417	2.19	12.500	17.52	18.58	2.19
0.417	1.34	6.500	2.19	12.583	17.52	18.67	2.19
0.500	1.34	6.583	2.19	12.667	17.52	18.75	2.19
0.583	1.34	6.667	2.19	12.750	9.01	18.83	2.19
0.667	1.34	6.750	2.19	12.833	9.01	18.92	2.19
0.750	1.34	6.833	2.19	12.917	9.01	19.00	2.19
0.833	1.34	6.917	2.19	13.000	9.01	19.08	2.19
0.917	1.34	7.000	2.19	13.083	9.01	19.17	2.19
1.000	1.34	7.083	2.19	13.167	9.01	19.25	2.19
1.083	1.34	7.167	2.19	13.250	6.57	19.33	2.19
1.167	1.34	7.250	2.68	13.333	6.57	19.42	2.19
1.250	1.34	7.333	2.68	13.417	6.57	19.50	2.19
1.333	1.34	7.417	2.68	13.500	6.57	19.58	2.19
1.417	1.34	7.500	2.68	13.583	6.57	19.67	2.19
1.500	1.34	7.583	2.68	13.667	6.57	19.75	2.19
1.583	1.34	7.667	2.68	13.750	5.11	19.83	2.19
1.667	1.34	7.750	2.68	13.833	5.11	19.92	2.19
1.750	1.34	7.833	2.68	13.917	5.11	20.00	2.19
1.833	1.34	7.917	2.68	14.000	5.11	20.08	2.19
1.917	1.34	8.000	2.68	14.083	5.11	20.17	2.19
2.000	1.34	8.083	2.68	14.167	5.11	20.25	1.46
2.083	1.34	8.167	2.68	14.250	3.65	20.33	1.46
2.167	1.34	8.250	3.16	14.333	3.65	20.42	1.46
2.250	1.58	8.333	3.16	14.417	3.65	20.50	1.46
2.333	1.58	8.417	3.16	14.500	3.65	20.58	1.46
2.417	1.58	8.500	3.16	14.583	3.65	20.67	1.46
2.500	1.58	8.583	3.16	14.667	3.65	20.75	1.46
2.583	1.58	8.667	3.16	14.750	3.65	20.83	1.46
2.667	1.58	8.750	3.41	14.833	3.65	20.92	1.46
2.750	1.58	8.833	3.41	14.917	3.65	21.00	1.46
2.833	1.58	8.917	3.41	15.000	3.65	21.08	1.46
2.917	1.58	9.000	3.41	15.083	3.65	21.17	1.46
3.000	1.58	9.083	3.41	15.167	3.65	21.25	1.46
3.083	1.58	9.167	3.41	15.250	3.65	21.33	1.46
3.167	1.58	9.250	3.89	15.333	3.65	21.42	1.46
3.250	1.58	9.333	3.89	15.417	3.65	21.50	1.46
3.333	1.58	9.417	3.89	15.500	3.65	21.58	1.46
3.417	1.58	9.500	3.89	15.583	3.65	21.67	1.46
3.500	1.58	9.583	3.89	15.667	3.65	21.75	1.46
3.583	1.58	9.667	3.89	15.750	3.65	21.83	1.46
3.667	1.58	9.750	4.38	15.833	3.65	21.92	1.46
3.750	1.58	9.833	4.38	15.917	3.65	22.00	1.46
3.833	1.58	9.917	4.38	16.000	3.65	22.08	1.46

3.917	1.58	|10.000	4.38	|16.083	3.65	|22.17	1.46
4.000	1.58	|10.083	4.38	|16.167	3.65	|22.25	1.46
4.083	1.58	|10.167	4.38	|16.250	2.19	|22.33	1.46
4.167	1.58	|10.250	5.60	|16.333	2.19	|22.42	1.46
4.250	1.95	|10.333	5.60	|16.417	2.19	|22.50	1.46
4.333	1.95	|10.417	5.60	|16.500	2.19	|22.58	1.46
4.417	1.95	|10.500	5.60	|16.583	2.19	|22.67	1.46
4.500	1.95	|10.583	5.60	|16.667	2.19	|22.75	1.46
4.583	1.95	|10.667	5.60	|16.750	2.19	|22.83	1.46
4.667	1.95	|10.750	7.55	|16.833	2.19	|22.92	1.46
4.750	1.95	|10.833	7.55	|16.917	2.19	|23.00	1.46
4.833	1.95	|10.917	7.55	|17.000	2.19	|23.08	1.46
4.917	1.95	|11.000	7.55	|17.083	2.19	|23.17	1.46
5.000	1.95	|11.083	7.55	|17.167	2.19	|23.25	1.46
5.083	1.95	|11.167	7.55	|17.250	2.19	|23.33	1.46
5.167	1.95	|11.250	11.68	|17.333	2.19	|23.42	1.46
5.250	1.95	|11.333	11.68	|17.417	2.19	|23.50	1.46
5.333	1.95	|11.417	11.68	|17.500	2.19	|23.58	1.46
5.417	1.95	|11.500	11.68	|17.583	2.19	|23.67	1.46
5.500	1.95	|11.583	11.68	|17.667	2.19	|23.75	1.46
5.583	1.95	|11.667	11.68	|17.750	2.19	|23.83	1.46
5.667	1.95	|11.750	36.02	|17.833	2.19	|23.92	1.46
5.750	1.95	|11.833	36.02	|17.917	2.19	|24.00	1.46
5.833	1.95	|11.917	92.49	|18.000	2.19	|24.08	1.46
5.917	1.95	|12.000	92.49	|18.083	2.19	|24.17	1.46
6.000	1.95	|12.083	148.95	|18.167	2.19	|	
6.083	1.95	|12.167	148.96	|18.250	2.19	|	

Unit Hyd Qpeak (cms)= 0.064

PEAK FLOW (cms)= 0.038 (i)
 TIME TO PEAK (hrs)= 12.250
 RUNOFF VOLUME (mm)= 49.820
 TOTAL RAINFALL (mm)= 121.700
 RUNOFF COEFFICIENT = 0.409

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

 | CALIB |
 | STANDHYD (0206) | Area (ha)= 0.52
 | ID= 1 DT= 5.0 min | Total Imp(%)= 63.00 Dir. Conn.(%)= 49.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 0.33 0.19
 Dep. Storage (mm)= 1.50 5.00
 Average Slope (%)= 2.00 2.00
 Length (m)= 59.10 15.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	|6.167	1.95	|12.250	17.54	|18.33	2.19
0.167	0.00	|6.250	2.19	|12.333	17.52	|18.42	2.19
0.250	1.34	|6.333	2.19	|12.417	17.52	|18.50	2.19
0.333	1.34	|6.417	2.19	|12.500	17.52	|18.58	2.19
0.417	1.34	|6.500	2.19	|12.583	17.52	|18.67	2.19
0.500	1.34	|6.583	2.19	|12.667	17.52	|18.75	2.19
0.583	1.34	|6.667	2.19	|12.750	9.01	|18.83	2.19
0.667	1.34	|6.750	2.19	|12.833	9.01	|18.92	2.19
0.750	1.34	|6.833	2.19	|12.917	9.01	|19.00	2.19
0.833	1.34	|6.917	2.19	|13.000	9.01	|19.08	2.19
0.917	1.34	|7.000	2.19	|13.083	9.01	|19.17	2.19
1.000	1.34	|7.083	2.19	|13.167	9.01	|19.25	2.19
1.083	1.34	|7.167	2.19	|13.250	6.57	|19.33	2.19
1.167	1.34	|7.250	2.68	|13.333	6.57	|19.42	2.19
1.250	1.34	|7.333	2.68	|13.417	6.57	|19.50	2.19
1.333	1.34	|7.417	2.68	|13.500	6.57	|19.58	2.19

1.417	1.34	7.500	2.68	13.583	6.57	19.67	2.19
1.500	1.34	7.583	2.68	13.667	6.57	19.75	2.19
1.583	1.34	7.667	2.68	13.750	5.11	19.83	2.19
1.667	1.34	7.750	2.68	13.833	5.11	19.92	2.19
1.750	1.34	7.833	2.68	13.917	5.11	20.00	2.19
1.833	1.34	7.917	2.68	14.000	5.11	20.08	2.19
1.917	1.34	8.000	2.68	14.083	5.11	20.17	2.19
2.000	1.34	8.083	2.68	14.167	5.11	20.25	1.46
2.083	1.34	8.167	2.68	14.250	3.65	20.33	1.46
2.167	1.34	8.250	3.16	14.333	3.65	20.42	1.46
2.250	1.58	8.333	3.16	14.417	3.65	20.50	1.46
2.333	1.58	8.417	3.16	14.500	3.65	20.58	1.46
2.417	1.58	8.500	3.16	14.583	3.65	20.67	1.46
2.500	1.58	8.583	3.16	14.667	3.65	20.75	1.46
2.583	1.58	8.667	3.16	14.750	3.65	20.83	1.46
2.667	1.58	8.750	3.41	14.833	3.65	20.92	1.46
2.750	1.58	8.833	3.41	14.917	3.65	21.00	1.46
2.833	1.58	8.917	3.41	15.000	3.65	21.08	1.46
2.917	1.58	9.000	3.41	15.083	3.65	21.17	1.46
3.000	1.58	9.083	3.41	15.167	3.65	21.25	1.46
3.083	1.58	9.167	3.41	15.250	3.65	21.33	1.46
3.167	1.58	9.250	3.89	15.333	3.65	21.42	1.46
3.250	1.58	9.333	3.89	15.417	3.65	21.50	1.46
3.333	1.58	9.417	3.89	15.500	3.65	21.58	1.46
3.417	1.58	9.500	3.89	15.583	3.65	21.67	1.46
3.500	1.58	9.583	3.89	15.667	3.65	21.75	1.46
3.583	1.58	9.667	3.89	15.750	3.65	21.83	1.46
3.667	1.58	9.750	4.38	15.833	3.65	21.92	1.46
3.750	1.58	9.833	4.38	15.917	3.65	22.00	1.46
3.833	1.58	9.917	4.38	16.000	3.65	22.08	1.46
3.917	1.58	10.000	4.38	16.083	3.65	22.17	1.46
4.000	1.58	10.083	4.38	16.167	3.65	22.25	1.46
4.083	1.58	10.167	4.38	16.250	2.19	22.33	1.46
4.167	1.58	10.250	5.60	16.333	2.19	22.42	1.46
4.250	1.95	10.333	5.60	16.417	2.19	22.50	1.46
4.333	1.95	10.417	5.60	16.500	2.19	22.58	1.46
4.417	1.95	10.500	5.60	16.583	2.19	22.67	1.46
4.500	1.95	10.583	5.60	16.667	2.19	22.75	1.46
4.583	1.95	10.667	5.60	16.750	2.19	22.83	1.46
4.667	1.95	10.750	7.55	16.833	2.19	22.92	1.46
4.750	1.95	10.833	7.55	16.917	2.19	23.00	1.46
4.833	1.95	10.917	7.55	17.000	2.19	23.08	1.46
4.917	1.95	11.000	7.55	17.083	2.19	23.17	1.46
5.000	1.95	11.083	7.55	17.167	2.19	23.25	1.46
5.083	1.95	11.167	7.55	17.250	2.19	23.33	1.46
5.167	1.95	11.250	11.68	17.333	2.19	23.42	1.46
5.250	1.95	11.333	11.68	17.417	2.19	23.50	1.46
5.333	1.95	11.417	11.68	17.500	2.19	23.58	1.46
5.417	1.95	11.500	11.68	17.583	2.19	23.67	1.46
5.500	1.95	11.583	11.68	17.667	2.19	23.75	1.46
5.583	1.95	11.667	11.68	17.750	2.19	23.83	1.46
5.667	1.95	11.750	36.02	17.833	2.19	23.92	1.46
5.750	1.95	11.833	36.02	17.917	2.19	24.00	1.46
5.833	1.95	11.917	92.49	18.000	2.19	24.08	1.46
5.917	1.95	12.000	92.49	18.083	2.19	24.17	1.46
6.000	1.95	12.083	148.95	18.167	2.19		
6.083	1.95	12.167	148.96	18.250	2.19		

Max.Eff.Inten.(mm/hr)= 148.96 121.87
over (min) 5.00 5.00

Storage Coeff. (min)= 1.29 (ii) 4.28 (ii)

Unit Hyd. Tpeak (min)= 5.00 5.00

Unit Hyd. peak (cms)= 0.33 0.23

TOTALS

PEAK FLOW (cms)= 0.11 0.06 0.170 (iii)

TIME TO PEAK (hrs)= 12.17 12.17 12.17

RUNOFF VOLUME (mm)= 120.20 60.35 89.67

TOTAL RAINFALL (mm)= 121.70 121.70 121.70

RUNOFF COEFFICIENT = 0.99 0.50 0.74

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

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:

- CN* = 62.0 la = 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 (6000) |

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

ID1= 1 (0203): 0.29 0.038 12.25 49.82

+ ID2= 2 (0206): 0.52 0.170 12.17 89.67

=====

ID = 3 (6000): 0.81 0.208 12.17 75.57

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | CALIB |

| NASHYD (0205) | Area (ha)= 0.16 Curve Number (CN)= 62.0

| ID= 1 DT= 5.0 min | la (mm)= 5.00 # of Linear Res.(N)= 3.00

----- U.H. Tp(hrs)= 0.17

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.95	12.250	17.54	18.33	2.19
0.167	0.00	6.250	2.19	12.333	17.52	18.42	2.19
0.250	1.34	6.333	2.19	12.417	17.52	18.50	2.19
0.333	1.34	6.417	2.19	12.500	17.52	18.58	2.19
0.417	1.34	6.500	2.19	12.583	17.52	18.67	2.19
0.500	1.34	6.583	2.19	12.667	17.52	18.75	2.19
0.583	1.34	6.667	2.19	12.750	9.01	18.83	2.19
0.667	1.34	6.750	2.19	12.833	9.01	18.92	2.19
0.750	1.34	6.833	2.19	12.917	9.01	19.00	2.19
0.833	1.34	6.917	2.19	13.000	9.01	19.08	2.19
0.917	1.34	7.000	2.19	13.083	9.01	19.17	2.19
1.000	1.34	7.083	2.19	13.167	9.01	19.25	2.19
1.083	1.34	7.167	2.19	13.250	6.57	19.33	2.19
1.167	1.34	7.250	2.68	13.333	6.57	19.42	2.19
1.250	1.34	7.333	2.68	13.417	6.57	19.50	2.19
1.333	1.34	7.417	2.68	13.500	6.57	19.58	2.19
1.417	1.34	7.500	2.68	13.583	6.57	19.67	2.19
1.500	1.34	7.583	2.68	13.667	6.57	19.75	2.19
1.583	1.34	7.667	2.68	13.750	5.11	19.83	2.19
1.667	1.34	7.750	2.68	13.833	5.11	19.92	2.19
1.750	1.34	7.833	2.68	13.917	5.11	20.00	2.19
1.833	1.34	7.917	2.68	14.000	5.11	20.08	2.19
1.917	1.34	8.000	2.68	14.083	5.11	20.17	2.19
2.000	1.34	8.083	2.68	14.167	5.11	20.25	1.46
2.083	1.34	8.167	2.68	14.250	3.65	20.33	1.46
2.167	1.34	8.250	3.16	14.333	3.65	20.42	1.46
2.250	1.58	8.333	3.16	14.417	3.65	20.50	1.46
2.333	1.58	8.417	3.16	14.500	3.65	20.58	1.46
2.417	1.58	8.500	3.16	14.583	3.65	20.67	1.46
2.500	1.58	8.583	3.16	14.667	3.65	20.75	1.46
2.583	1.58	8.667	3.16	14.750	3.65	20.83	1.46
2.667	1.58	8.750	3.41	14.833	3.65	20.92	1.46
2.750	1.58	8.833	3.41	14.917	3.65	21.00	1.46
2.833	1.58	8.917	3.41	15.000	3.65	21.08	1.46
2.917	1.58	9.000	3.41	15.083	3.65	21.17	1.46
3.000	1.58	9.083	3.41	15.167	3.65	21.25	1.46
3.083	1.58	9.167	3.41	15.250	3.65	21.33	1.46
3.167	1.58	9.250	3.89	15.333	3.65	21.42	1.46
3.250	1.58	9.333	3.89	15.417	3.65	21.50	1.46
3.333	1.58	9.417	3.89	15.500	3.65	21.58	1.46
3.417	1.58	9.500	3.89	15.583	3.65	21.67	1.46
3.500	1.58	9.583	3.89	15.667	3.65	21.75	1.46
3.583	1.58	9.667	3.89	15.750	3.65	21.83	1.46

3.667	1.58	|9.750	4.38	|15.833	3.65	|21.92	1.46
3.750	1.58	|9.833	4.38	|15.917	3.65	|22.00	1.46
3.833	1.58	|9.917	4.38	|16.000	3.65	|22.08	1.46
3.917	1.58	|10.000	4.38	|16.083	3.65	|22.17	1.46
4.000	1.58	|10.083	4.38	|16.167	3.65	|22.25	1.46
4.083	1.58	|10.167	4.38	|16.250	2.19	|22.33	1.46
4.167	1.58	|10.250	5.60	|16.333	2.19	|22.42	1.46
4.250	1.95	|10.333	5.60	|16.417	2.19	|22.50	1.46
4.333	1.95	|10.417	5.60	|16.500	2.19	|22.58	1.46
4.417	1.95	|10.500	5.60	|16.583	2.19	|22.67	1.46
4.500	1.95	|10.583	5.60	|16.667	2.19	|22.75	1.46
4.583	1.95	|10.667	5.60	|16.750	2.19	|22.83	1.46
4.667	1.95	|10.750	7.55	|16.833	2.19	|22.92	1.46
4.750	1.95	|10.833	7.55	|16.917	2.19	|23.00	1.46
4.833	1.95	|10.917	7.55	|17.000	2.19	|23.08	1.46
4.917	1.95	|11.000	7.55	|17.083	2.19	|23.17	1.46
5.000	1.95	|11.083	7.55	|17.167	2.19	|23.25	1.46
5.083	1.95	|11.167	7.55	|17.250	2.19	|23.33	1.46
5.167	1.95	|11.250	11.68	|17.333	2.19	|23.42	1.46
5.250	1.95	|11.333	11.68	|17.417	2.19	|23.50	1.46
5.333	1.95	|11.417	11.68	|17.500	2.19	|23.58	1.46
5.417	1.95	|11.500	11.68	|17.583	2.19	|23.67	1.46
5.500	1.95	|11.583	11.68	|17.667	2.19	|23.75	1.46
5.583	1.95	|11.667	11.68	|17.750	2.19	|23.83	1.46
5.667	1.95	|11.750	36.02	|17.833	2.19	|23.92	1.46
5.750	1.95	|11.833	36.02	|17.917	2.19	|24.00	1.46
5.833	1.95	|11.917	92.49	|18.000	2.19	|24.08	1.46
5.917	1.95	|12.000	92.49	|18.083	2.19	|24.17	1.46
6.000	1.95	|12.083	148.95	|18.167	2.19	|	
6.083	1.95	|12.167	148.96	|18.250	2.19	|	

Unit Hyd Qpeak (cms)= 0.035

PEAK FLOW (cms)= 0.021 (i)

TIME TO PEAK (hrs)= 12.250

RUNOFF VOLUME (mm)= 49.818

TOTAL RAINFALL (mm)= 121.700

RUNOFF COEFFICIENT = 0.409

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

 | CALIB |
 | STANDHYD (0204) | Area (ha)= 0.48
 | ID= 1 DT= 5.0 min | Total Imp(%)= 72.00 Dir. Conn.(%)= 72.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.35	0.13
Dep. Storage (mm)=	1.50	5.00
Average Slope (%)=	5.00	2.00
Length (m)=	56.57	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	|6.167	1.95	|12.250	17.54	|18.33	2.19
0.167	0.00	|6.250	2.19	|12.333	17.52	|18.42	2.19
0.250	1.34	|6.333	2.19	|12.417	17.52	|18.50	2.19
0.333	1.34	|6.417	2.19	|12.500	17.52	|18.58	2.19
0.417	1.34	|6.500	2.19	|12.583	17.52	|18.67	2.19
0.500	1.34	|6.583	2.19	|12.667	17.52	|18.75	2.19
0.583	1.34	|6.667	2.19	|12.750	9.01	|18.83	2.19
0.667	1.34	|6.750	2.19	|12.833	9.01	|18.92	2.19
0.750	1.34	|6.833	2.19	|12.917	9.01	|19.00	2.19
0.833	1.34	|6.917	2.19	|13.000	9.01	|19.08	2.19
0.917	1.34	|7.000	2.19	|13.083	9.01	|19.17	2.19
1.000	1.34	|7.083	2.19	|13.167	9.01	|19.25	2.19
1.083	1.34	|7.167	2.19	|13.250	6.57	|19.33	2.19

1.167	1.34	7.250	2.68	13.333	6.57	19.42	2.19
1.250	1.34	7.333	2.68	13.417	6.57	19.50	2.19
1.333	1.34	7.417	2.68	13.500	6.57	19.58	2.19
1.417	1.34	7.500	2.68	13.583	6.57	19.67	2.19
1.500	1.34	7.583	2.68	13.667	6.57	19.75	2.19
1.583	1.34	7.667	2.68	13.750	5.11	19.83	2.19
1.667	1.34	7.750	2.68	13.833	5.11	19.92	2.19
1.750	1.34	7.833	2.68	13.917	5.11	20.00	2.19
1.833	1.34	7.917	2.68	14.000	5.11	20.08	2.19
1.917	1.34	8.000	2.68	14.083	5.11	20.17	2.19
2.000	1.34	8.083	2.68	14.167	5.11	20.25	1.46
2.083	1.34	8.167	2.68	14.250	3.65	20.33	1.46
2.167	1.34	8.250	3.16	14.333	3.65	20.42	1.46
2.250	1.58	8.333	3.16	14.417	3.65	20.50	1.46
2.333	1.58	8.417	3.16	14.500	3.65	20.58	1.46
2.417	1.58	8.500	3.16	14.583	3.65	20.67	1.46
2.500	1.58	8.583	3.16	14.667	3.65	20.75	1.46
2.583	1.58	8.667	3.16	14.750	3.65	20.83	1.46
2.667	1.58	8.750	3.41	14.833	3.65	20.92	1.46
2.750	1.58	8.833	3.41	14.917	3.65	21.00	1.46
2.833	1.58	8.917	3.41	15.000	3.65	21.08	1.46
2.917	1.58	9.000	3.41	15.083	3.65	21.17	1.46
3.000	1.58	9.083	3.41	15.167	3.65	21.25	1.46
3.083	1.58	9.167	3.41	15.250	3.65	21.33	1.46
3.167	1.58	9.250	3.89	15.333	3.65	21.42	1.46
3.250	1.58	9.333	3.89	15.417	3.65	21.50	1.46
3.333	1.58	9.417	3.89	15.500	3.65	21.58	1.46
3.417	1.58	9.500	3.89	15.583	3.65	21.67	1.46
3.500	1.58	9.583	3.89	15.667	3.65	21.75	1.46
3.583	1.58	9.667	3.89	15.750	3.65	21.83	1.46
3.667	1.58	9.750	4.38	15.833	3.65	21.92	1.46
3.750	1.58	9.833	4.38	15.917	3.65	22.00	1.46
3.833	1.58	9.917	4.38	16.000	3.65	22.08	1.46
3.917	1.58	10.000	4.38	16.083	3.65	22.17	1.46
4.000	1.58	10.083	4.38	16.167	3.65	22.25	1.46
4.083	1.58	10.167	4.38	16.250	2.19	22.33	1.46
4.167	1.58	10.250	5.60	16.333	2.19	22.42	1.46
4.250	1.95	10.333	5.60	16.417	2.19	22.50	1.46
4.333	1.95	10.417	5.60	16.500	2.19	22.58	1.46
4.417	1.95	10.500	5.60	16.583	2.19	22.67	1.46
4.500	1.95	10.583	5.60	16.667	2.19	22.75	1.46
4.583	1.95	10.667	5.60	16.750	2.19	22.83	1.46
4.667	1.95	10.750	7.55	16.833	2.19	22.92	1.46
4.750	1.95	10.833	7.55	16.917	2.19	23.00	1.46
4.833	1.95	10.917	7.55	17.000	2.19	23.08	1.46
4.917	1.95	11.000	7.55	17.083	2.19	23.17	1.46
5.000	1.95	11.083	7.55	17.167	2.19	23.25	1.46
5.083	1.95	11.167	7.55	17.250	2.19	23.33	1.46
5.167	1.95	11.250	11.68	17.333	2.19	23.42	1.46
5.250	1.95	11.333	11.68	17.417	2.19	23.50	1.46
5.333	1.95	11.417	11.68	17.500	2.19	23.58	1.46
5.417	1.95	11.500	11.68	17.583	2.19	23.67	1.46
5.500	1.95	11.583	11.68	17.667	2.19	23.75	1.46
5.583	1.95	11.667	11.68	17.750	2.19	23.83	1.46
5.667	1.95	11.750	36.02	17.833	2.19	23.92	1.46
5.750	1.95	11.833	36.02	17.917	2.19	24.00	1.46
5.833	1.95	11.917	92.49	18.000	2.19	24.08	1.46
5.917	1.95	12.000	92.49	18.083	2.19	24.17	1.46
6.000	1.95	12.083	148.95	18.167	2.19		
6.083	1.95	12.167	148.96	18.250	2.19		

Max.Eff.Inten.(mm/hr)= 148.96 73.41
over (min) 5.00 10.00

Storage Coeff. (min)= 0.95 (ii) 5.08 (ii)

Unit Hyd. Tpeak (min)= 5.00 10.00

Unit Hyd. peak (cms)= 0.34 0.16

TOTALS

PEAK FLOW (cms)= 0.14 0.02 0.166 (iii)

TIME TO PEAK (hrs)= 12.17 12.17 12.17

RUNOFF VOLUME (mm)= 120.20 50.00 100.54

TOTAL RAINFALL (mm)= 121.70 121.70 121.70

RUNOFF COEFFICIENT = 0.99 0.41 0.83

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 62.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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-----
| ADD HYD ( 0023)|
| 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
----- (ha) (cms) (hrs) (mm)
ID1= 1 ( 0204): 0.48 0.166 12.17 100.54
+ ID2= 2 ( 0205): 0.16 0.021 12.25 49.82
=====
ID = 3 ( 0023): 0.64 0.186 12.17 87.98

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NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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| CALIB |
| STANDHYD ( 2001)| Area (ha)= 3.38
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 71.00
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IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 3.35 0.03
Dep. Storage (mm)= 1.50 5.00
Average Slope (%)= 2.00 2.00
Length (m)= 150.11 30.00
Mannings n = 0.013 0.250

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NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

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---- TRANSFORMED HYETOGRAPH ----
TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr
0.083 0.00 | 6.167 1.95 | 12.250 17.54 | 18.33 2.19
0.167 0.00 | 6.250 2.19 | 12.333 17.52 | 18.42 2.19
0.250 1.34 | 6.333 2.19 | 12.417 17.52 | 18.50 2.19
0.333 1.34 | 6.417 2.19 | 12.500 17.52 | 18.58 2.19
0.417 1.34 | 6.500 2.19 | 12.583 17.52 | 18.67 2.19
0.500 1.34 | 6.583 2.19 | 12.667 17.52 | 18.75 2.19
0.583 1.34 | 6.667 2.19 | 12.750 9.01 | 18.83 2.19
0.667 1.34 | 6.750 2.19 | 12.833 9.01 | 18.92 2.19
0.750 1.34 | 6.833 2.19 | 12.917 9.01 | 19.00 2.19
0.833 1.34 | 6.917 2.19 | 13.000 9.01 | 19.08 2.19
0.917 1.34 | 7.000 2.19 | 13.083 9.01 | 19.17 2.19
1.000 1.34 | 7.083 2.19 | 13.167 9.01 | 19.25 2.19
1.083 1.34 | 7.167 2.19 | 13.250 6.57 | 19.33 2.19
1.167 1.34 | 7.250 2.68 | 13.333 6.57 | 19.42 2.19
1.250 1.34 | 7.333 2.68 | 13.417 6.57 | 19.50 2.19
1.333 1.34 | 7.417 2.68 | 13.500 6.57 | 19.58 2.19
1.417 1.34 | 7.500 2.68 | 13.583 6.57 | 19.67 2.19
1.500 1.34 | 7.583 2.68 | 13.667 6.57 | 19.75 2.19
1.583 1.34 | 7.667 2.68 | 13.750 5.11 | 19.83 2.19
1.667 1.34 | 7.750 2.68 | 13.833 5.11 | 19.92 2.19
1.750 1.34 | 7.833 2.68 | 13.917 5.11 | 20.00 2.19
1.833 1.34 | 7.917 2.68 | 14.000 5.11 | 20.08 2.19
1.917 1.34 | 8.000 2.68 | 14.083 5.11 | 20.17 2.19
2.000 1.34 | 8.083 2.68 | 14.167 5.11 | 20.25 1.46
2.083 1.34 | 8.167 2.68 | 14.250 3.65 | 20.33 1.46
2.167 1.34 | 8.250 3.16 | 14.333 3.65 | 20.42 1.46
2.250 1.58 | 8.333 3.16 | 14.417 3.65 | 20.50 1.46
2.333 1.58 | 8.417 3.16 | 14.500 3.65 | 20.58 1.46
2.417 1.58 | 8.500 3.16 | 14.583 3.65 | 20.67 1.46
2.500 1.58 | 8.583 3.16 | 14.667 3.65 | 20.75 1.46
2.583 1.58 | 8.667 3.16 | 14.750 3.65 | 20.83 1.46
2.667 1.58 | 8.750 3.41 | 14.833 3.65 | 20.92 1.46
2.750 1.58 | 8.833 3.41 | 14.917 3.65 | 21.00 1.46
2.833 1.58 | 8.917 3.41 | 15.000 3.65 | 21.08 1.46

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2.917	1.58	9.000	3.41	15.083	3.65	21.17	1.46
3.000	1.58	9.083	3.41	15.167	3.65	21.25	1.46
3.083	1.58	9.167	3.41	15.250	3.65	21.33	1.46
3.167	1.58	9.250	3.89	15.333	3.65	21.42	1.46
3.250	1.58	9.333	3.89	15.417	3.65	21.50	1.46
3.333	1.58	9.417	3.89	15.500	3.65	21.58	1.46
3.417	1.58	9.500	3.89	15.583	3.65	21.67	1.46
3.500	1.58	9.583	3.89	15.667	3.65	21.75	1.46
3.583	1.58	9.667	3.89	15.750	3.65	21.83	1.46
3.667	1.58	9.750	4.38	15.833	3.65	21.92	1.46
3.750	1.58	9.833	4.38	15.917	3.65	22.00	1.46
3.833	1.58	9.917	4.38	16.000	3.65	22.08	1.46
3.917	1.58	10.000	4.38	16.083	3.65	22.17	1.46
4.000	1.58	10.083	4.38	16.167	3.65	22.25	1.46
4.083	1.58	10.167	4.38	16.250	2.19	22.33	1.46
4.167	1.58	10.250	5.60	16.333	2.19	22.42	1.46
4.250	1.95	10.333	5.60	16.417	2.19	22.50	1.46
4.333	1.95	10.417	5.60	16.500	2.19	22.58	1.46
4.417	1.95	10.500	5.60	16.583	2.19	22.67	1.46
4.500	1.95	10.583	5.60	16.667	2.19	22.75	1.46
4.583	1.95	10.667	5.60	16.750	2.19	22.83	1.46
4.667	1.95	10.750	7.55	16.833	2.19	22.92	1.46
4.750	1.95	10.833	7.55	16.917	2.19	23.00	1.46
4.833	1.95	10.917	7.55	17.000	2.19	23.08	1.46
4.917	1.95	11.000	7.55	17.083	2.19	23.17	1.46
5.000	1.95	11.083	7.55	17.167	2.19	23.25	1.46
5.083	1.95	11.167	7.55	17.250	2.19	23.33	1.46
5.167	1.95	11.250	11.68	17.333	2.19	23.42	1.46
5.250	1.95	11.333	11.68	17.417	2.19	23.50	1.46
5.333	1.95	11.417	11.68	17.500	2.19	23.58	1.46
5.417	1.95	11.500	11.68	17.583	2.19	23.67	1.46
5.500	1.95	11.583	11.68	17.667	2.19	23.75	1.46
5.583	1.95	11.667	11.68	17.750	2.19	23.83	1.46
5.667	1.95	11.750	36.02	17.833	2.19	23.92	1.46
5.750	1.95	11.833	36.02	17.917	2.19	24.00	1.46
5.833	1.95	11.917	92.49	18.000	2.19	24.08	1.46
5.917	1.95	12.000	92.49	18.083	2.19	24.17	1.46
6.000	1.95	12.083	148.95	18.167	2.19		
6.083	1.95	12.167	148.96	18.250	2.19		

Max.Eff.Inten.(mm/hr)= 148.96 4296.03
over (min) 5.00 5.00

Storage Coeff. (min)= 2.26 (ii) 3.18 (ii)

Unit Hyd. Tpeak (min)= 5.00 5.00

Unit Hyd. peak (cms)= 0.30 0.27

TOTALS

PEAK FLOW (cms)= 0.99 0.40 1.385 (iii)

TIME TO PEAK (hrs)= 12.17 12.17 12.17

RUNOFF VOLUME (mm)= 120.20 116.39 119.09

TOTAL RAINFALL (mm)= 121.70 121.70 121.70

RUNOFF COEFFICIENT = 0.99 0.96 0.98

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

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:

CN* = 62.0 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(0031)| 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 | 10.0000 0.0780
0.0000 0.0770 | 0.0000 0.0000

AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
INFLOW: ID= 2 (2001) 3.380 1.385 12.17 119.09
OUTFLOW: ID= 1 (0031) 3.380 1.423 12.17 96.31

PEAK FLOW REDUCTION [Qout/Qin](%)=102.77
 TIME SHIFT OF PEAK FLOW (min)= 0.00
 MAXIMUM STORAGE USED (ha.m.)= 0.0766

**** WARNING : HYDROGRAPH PEAK WAS NOT REDUCED.
 CHECK OUTFLOW/STORAGE TABLE OR REDUCE DT.

 | CALIB |
 | STANDHYD (0201) | Area (ha)= 1.34
 | ID= 1 DT= 5.0 min | Total Imp(%)= 50.00 Dir.Conn.(%)= 50.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 0.67 0.67
 Dep. Storage (mm)= 1.50 10.00
 Average Slope (%)= 2.00 2.00
 Length (m)= 94.52 30.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.95	12.250	17.54	18.33	2.19
0.167	0.00	6.250	2.19	12.333	17.52	18.42	2.19
0.250	1.34	6.333	2.19	12.417	17.52	18.50	2.19
0.333	1.34	6.417	2.19	12.500	17.52	18.58	2.19
0.417	1.34	6.500	2.19	12.583	17.52	18.67	2.19
0.500	1.34	6.583	2.19	12.667	17.52	18.75	2.19
0.583	1.34	6.667	2.19	12.750	9.01	18.83	2.19
0.667	1.34	6.750	2.19	12.833	9.01	18.92	2.19
0.750	1.34	6.833	2.19	12.917	9.01	19.00	2.19
0.833	1.34	6.917	2.19	13.000	9.01	19.08	2.19
0.917	1.34	7.000	2.19	13.083	9.01	19.17	2.19
1.000	1.34	7.083	2.19	13.167	9.01	19.25	2.19
1.083	1.34	7.167	2.19	13.250	6.57	19.33	2.19
1.167	1.34	7.250	2.68	13.333	6.57	19.42	2.19
1.250	1.34	7.333	2.68	13.417	6.57	19.50	2.19
1.333	1.34	7.417	2.68	13.500	6.57	19.58	2.19
1.417	1.34	7.500	2.68	13.583	6.57	19.67	2.19
1.500	1.34	7.583	2.68	13.667	6.57	19.75	2.19
1.583	1.34	7.667	2.68	13.750	5.11	19.83	2.19
1.667	1.34	7.750	2.68	13.833	5.11	19.92	2.19
1.750	1.34	7.833	2.68	13.917	5.11	20.00	2.19
1.833	1.34	7.917	2.68	14.000	5.11	20.08	2.19
1.917	1.34	8.000	2.68	14.083	5.11	20.17	2.19
2.000	1.34	8.083	2.68	14.167	5.11	20.25	1.46
2.083	1.34	8.167	2.68	14.250	3.65	20.33	1.46
2.167	1.34	8.250	3.16	14.333	3.65	20.42	1.46
2.250	1.58	8.333	3.16	14.417	3.65	20.50	1.46
2.333	1.58	8.417	3.16	14.500	3.65	20.58	1.46
2.417	1.58	8.500	3.16	14.583	3.65	20.67	1.46
2.500	1.58	8.583	3.16	14.667	3.65	20.75	1.46
2.583	1.58	8.667	3.16	14.750	3.65	20.83	1.46
2.667	1.58	8.750	3.41	14.833	3.65	20.92	1.46
2.750	1.58	8.833	3.41	14.917	3.65	21.00	1.46
2.833	1.58	8.917	3.41	15.000	3.65	21.08	1.46
2.917	1.58	9.000	3.41	15.083	3.65	21.17	1.46
3.000	1.58	9.083	3.41	15.167	3.65	21.25	1.46
3.083	1.58	9.167	3.41	15.250	3.65	21.33	1.46
3.167	1.58	9.250	3.89	15.333	3.65	21.42	1.46
3.250	1.58	9.333	3.89	15.417	3.65	21.50	1.46
3.333	1.58	9.417	3.89	15.500	3.65	21.58	1.46
3.417	1.58	9.500	3.89	15.583	3.65	21.67	1.46
3.500	1.58	9.583	3.89	15.667	3.65	21.75	1.46
3.583	1.58	9.667	3.89	15.750	3.65	21.83	1.46
3.667	1.58	9.750	4.38	15.833	3.65	21.92	1.46
3.750	1.58	9.833	4.38	15.917	3.65	22.00	1.46
3.833	1.58	9.917	4.38	16.000	3.65	22.08	1.46
3.917	1.58	10.000	4.38	16.083	3.65	22.17	1.46

4.000	1.58	|10.083	4.38	|16.167	3.65	|22.25	1.46
4.083	1.58	|10.167	4.38	|16.250	2.19	|22.33	1.46
4.167	1.58	|10.250	5.60	|16.333	2.19	|22.42	1.46
4.250	1.95	|10.333	5.60	|16.417	2.19	|22.50	1.46
4.333	1.95	|10.417	5.60	|16.500	2.19	|22.58	1.46
4.417	1.95	|10.500	5.60	|16.583	2.19	|22.67	1.46
4.500	1.95	|10.583	5.60	|16.667	2.19	|22.75	1.46
4.583	1.95	|10.667	5.60	|16.750	2.19	|22.83	1.46
4.667	1.95	|10.750	7.55	|16.833	2.19	|22.92	1.46
4.750	1.95	|10.833	7.55	|16.917	2.19	|23.00	1.46
4.833	1.95	|10.917	7.55	|17.000	2.19	|23.08	1.46
4.917	1.95	|11.000	7.55	|17.083	2.19	|23.17	1.46
5.000	1.95	|11.083	7.55	|17.167	2.19	|23.25	1.46
5.083	1.95	|11.167	7.55	|17.250	2.19	|23.33	1.46
5.167	1.95	|11.250	11.68	|17.333	2.19	|23.42	1.46
5.250	1.95	|11.333	11.68	|17.417	2.19	|23.50	1.46
5.333	1.95	|11.417	11.68	|17.500	2.19	|23.58	1.46
5.417	1.95	|11.500	11.68	|17.583	2.19	|23.67	1.46
5.500	1.95	|11.583	11.68	|17.667	2.19	|23.75	1.46
5.583	1.95	|11.667	11.68	|17.750	2.19	|23.83	1.46
5.667	1.95	|11.750	36.02	|17.833	2.19	|23.92	1.46
5.750	1.95	|11.833	36.02	|17.917	2.19	|24.00	1.46
5.833	1.95	|11.917	92.49	|18.000	2.19	|24.08	1.46
5.917	1.95	|12.000	92.49	|18.083	2.19	|24.17	1.46
6.000	1.95	|12.083	148.95	|18.167	2.19	|	
6.083	1.95	|12.167	148.96	|18.250	2.19	|	

Max.Eff.Inten.(mm/hr)= 148.96 51.73
over (min) 5.00 10.00

Storage Coeff. (min)= 1.71 (ii) 9.44 (ii)

Unit Hyd. Tpeak (min)= 5.00 10.00

Unit Hyd. peak (cms)= 0.32 0.12

TOTALS

PEAK FLOW (cms)= 0.28 0.06 0.341 (iii)

TIME TO PEAK (hrs)= 12.17 12.25 12.17

RUNOFF VOLUME (mm)= 120.20 35.07 77.63

TOTAL RAINFALL (mm)= 121.70 121.70 121.70

RUNOFF COEFFICIENT = 0.99 0.29 0.64

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

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:

CN* = 51.0 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 |
| STANDHYD (0200) | Area (ha)= 6.18
| ID= 1 DT= 5.0 min | Total Imp(%)= 38.00 Dir. Conn.(%)= 38.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.35	3.83
Dep. Storage (mm)=	1.50	5.00
Average Slope (%)=	2.00	2.00
Length (m)=	202.98	30.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	|6.167	1.95	|12.250	17.54	|18.33	2.19
0.167	0.00	|6.250	2.19	|12.333	17.52	|18.42	2.19
0.250	1.34	|6.333	2.19	|12.417	17.52	|18.50	2.19
0.333	1.34	|6.417	2.19	|12.500	17.52	|18.58	2.19
0.417	1.34	|6.500	2.19	|12.583	17.52	|18.67	2.19
0.500	1.34	|6.583	2.19	|12.667	17.52	|18.75	2.19
0.583	1.34	|6.667	2.19	|12.750	9.01	|18.83	2.19

0.667	1.34	6.750	2.19	12.833	9.01	18.92	2.19
0.750	1.34	6.833	2.19	12.917	9.01	19.00	2.19
0.833	1.34	6.917	2.19	13.000	9.01	19.08	2.19
0.917	1.34	7.000	2.19	13.083	9.01	19.17	2.19
1.000	1.34	7.083	2.19	13.167	9.01	19.25	2.19
1.083	1.34	7.167	2.19	13.250	6.57	19.33	2.19
1.167	1.34	7.250	2.68	13.333	6.57	19.42	2.19
1.250	1.34	7.333	2.68	13.417	6.57	19.50	2.19
1.333	1.34	7.417	2.68	13.500	6.57	19.58	2.19
1.417	1.34	7.500	2.68	13.583	6.57	19.67	2.19
1.500	1.34	7.583	2.68	13.667	6.57	19.75	2.19
1.583	1.34	7.667	2.68	13.750	5.11	19.83	2.19
1.667	1.34	7.750	2.68	13.833	5.11	19.92	2.19
1.750	1.34	7.833	2.68	13.917	5.11	20.00	2.19
1.833	1.34	7.917	2.68	14.000	5.11	20.08	2.19
1.917	1.34	8.000	2.68	14.083	5.11	20.17	2.19
2.000	1.34	8.083	2.68	14.167	5.11	20.25	1.46
2.083	1.34	8.167	2.68	14.250	3.65	20.33	1.46
2.167	1.34	8.250	3.16	14.333	3.65	20.42	1.46
2.250	1.58	8.333	3.16	14.417	3.65	20.50	1.46
2.333	1.58	8.417	3.16	14.500	3.65	20.58	1.46
2.417	1.58	8.500	3.16	14.583	3.65	20.67	1.46
2.500	1.58	8.583	3.16	14.667	3.65	20.75	1.46
2.583	1.58	8.667	3.16	14.750	3.65	20.83	1.46
2.667	1.58	8.750	3.41	14.833	3.65	20.92	1.46
2.750	1.58	8.833	3.41	14.917	3.65	21.00	1.46
2.833	1.58	8.917	3.41	15.000	3.65	21.08	1.46
2.917	1.58	9.000	3.41	15.083	3.65	21.17	1.46
3.000	1.58	9.083	3.41	15.167	3.65	21.25	1.46
3.083	1.58	9.167	3.41	15.250	3.65	21.33	1.46
3.167	1.58	9.250	3.89	15.333	3.65	21.42	1.46
3.250	1.58	9.333	3.89	15.417	3.65	21.50	1.46
3.333	1.58	9.417	3.89	15.500	3.65	21.58	1.46
3.417	1.58	9.500	3.89	15.583	3.65	21.67	1.46
3.500	1.58	9.583	3.89	15.667	3.65	21.75	1.46
3.583	1.58	9.667	3.89	15.750	3.65	21.83	1.46
3.667	1.58	9.750	4.38	15.833	3.65	21.92	1.46
3.750	1.58	9.833	4.38	15.917	3.65	22.00	1.46
3.833	1.58	9.917	4.38	16.000	3.65	22.08	1.46
3.917	1.58	10.000	4.38	16.083	3.65	22.17	1.46
4.000	1.58	10.083	4.38	16.167	3.65	22.25	1.46
4.083	1.58	10.167	4.38	16.250	2.19	22.33	1.46
4.167	1.58	10.250	5.60	16.333	2.19	22.42	1.46
4.250	1.95	10.333	5.60	16.417	2.19	22.50	1.46
4.333	1.95	10.417	5.60	16.500	2.19	22.58	1.46
4.417	1.95	10.500	5.60	16.583	2.19	22.67	1.46
4.500	1.95	10.583	5.60	16.667	2.19	22.75	1.46
4.583	1.95	10.667	5.60	16.750	2.19	22.83	1.46
4.667	1.95	10.750	7.55	16.833	2.19	22.92	1.46
4.750	1.95	10.833	7.55	16.917	2.19	23.00	1.46
4.833	1.95	10.917	7.55	17.000	2.19	23.08	1.46
4.917	1.95	11.000	7.55	17.083	2.19	23.17	1.46
5.000	1.95	11.083	7.55	17.167	2.19	23.25	1.46
5.083	1.95	11.167	7.55	17.250	2.19	23.33	1.46
5.167	1.95	11.250	11.68	17.333	2.19	23.42	1.46
5.250	1.95	11.333	11.68	17.417	2.19	23.50	1.46
5.333	1.95	11.417	11.68	17.500	2.19	23.58	1.46
5.417	1.95	11.500	11.68	17.583	2.19	23.67	1.46
5.500	1.95	11.583	11.68	17.667	2.19	23.75	1.46
5.583	1.95	11.667	11.68	17.750	2.19	23.83	1.46
5.667	1.95	11.750	36.02	17.833	2.19	23.92	1.46
5.750	1.95	11.833	36.02	17.917	2.19	24.00	1.46
5.833	1.95	11.917	92.49	18.000	2.19	24.08	1.46
5.917	1.95	12.000	92.49	18.083	2.19	24.17	1.46
6.000	1.95	12.083	148.95	18.167	2.19		
6.083	1.95	12.167	148.96	18.250	2.19		

Max.Eff.Inten.(mm/hr)= 148.96 73.41
 over (min) 5.00 10.00
 Storage Coeff. (min)= 2.71 (ii) 9.43 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.29 0.12
 TOTALS

PEAK FLOW (cms)= 0.96 0.53 1.493 (iii)
 TIME TO PEAK (hrs)= 12.17 12.17 12.17
 RUNOFF VOLUME (mm)= 120.20 50.00 76.68
 TOTAL RAINFALL (mm)= 121.70 121.70 121.70
 RUNOFF COEFFICIENT = 0.99 0.41 0.63

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 62.0 la = 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 (3000)|
 | 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
 ----- (ha) (cms) (hrs) (mm)
 ID1= 1 (0200): 6.18 1.493 12.17 76.68
 + ID2= 2 (0201): 1.34 0.341 12.17 77.63
 =====
 ID = 3 (3000): 7.52 1.834 12.17 76.85

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | ADD HYD (3000)|
 | 3 + 2 = 1 | AREA QPEAK TPEAK R.V.
 ----- (ha) (cms) (hrs) (mm)
 ID1= 3 (3000): 7.52 1.834 12.17 76.85
 + ID2= 2 (0031): 3.38 1.423 12.17 96.31
 =====
 ID = 1 (3000): 10.90 3.257 12.17 82.88

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | RESERVOIR(2000)| 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 | 0.0250 0.4259
 0.0050 0.0204 | 0.0260 0.4685
 0.0110 0.0661 | 0.0270 0.5128
 0.0130 0.0912 | 0.0850 0.6065
 0.0140 0.1177 | 0.1130 0.7073
 0.0170 0.1752 | 0.1240 0.7604
 0.0190 0.2061 | 0.1340 0.8153
 0.0210 0.2725 | 1.4710 0.8722
 0.0220 0.3083 | 4.6600 0.9315
 0.0240 0.3850 | 0.0000 0.0000

AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 INFLOW: ID= 2 (3000) 10.900 3.257 12.17 82.88
 OUTFLOW: ID= 1 (2000) 10.900 0.090 16.17 82.79

PEAK FLOW REDUCTION [Qout/Qin](%)= 2.78
 TIME SHIFT OF PEAK FLOW (min)=240.00
 MAXIMUM STORAGE USED (ha.m.)= 0.6322

 | ADD HYD (5000)|
 | 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
 ----- (ha) (cms) (hrs) (mm)
 ID1= 1 (2000): 10.90 0.090 16.17 82.79
 + ID2= 2 (0023): 0.64 0.186 12.17 87.98
 =====

ID = 3 (5000): 11.54 0.211 12.17 83.08

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| CALIB |
| STANDHYD (0202) | Area (ha)= 1.81
| ID= 1 DT= 5.0 min | Total Imp(%)= 37.00 Dir. Conn.(%)= 26.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.67 1.14
Dep. Storage (mm)= 1.50 6.90
Average Slope (°)= 2.00 2.00
Length (m)= 109.85 30.00
Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.95	12.250	17.54	18.33	2.19
0.167	0.00	6.250	2.19	12.333	17.52	18.42	2.19
0.250	1.34	6.333	2.19	12.417	17.52	18.50	2.19
0.333	1.34	6.417	2.19	12.500	17.52	18.58	2.19
0.417	1.34	6.500	2.19	12.583	17.52	18.67	2.19
0.500	1.34	6.583	2.19	12.667	17.52	18.75	2.19
0.583	1.34	6.667	2.19	12.750	9.01	18.83	2.19
0.667	1.34	6.750	2.19	12.833	9.01	18.92	2.19
0.750	1.34	6.833	2.19	12.917	9.01	19.00	2.19
0.833	1.34	6.917	2.19	13.000	9.01	19.08	2.19
0.917	1.34	7.000	2.19	13.083	9.01	19.17	2.19
1.000	1.34	7.083	2.19	13.167	9.01	19.25	2.19
1.083	1.34	7.167	2.19	13.250	6.57	19.33	2.19
1.167	1.34	7.250	2.68	13.333	6.57	19.42	2.19
1.250	1.34	7.333	2.68	13.417	6.57	19.50	2.19
1.333	1.34	7.417	2.68	13.500	6.57	19.58	2.19
1.417	1.34	7.500	2.68	13.583	6.57	19.67	2.19
1.500	1.34	7.583	2.68	13.667	6.57	19.75	2.19
1.583	1.34	7.667	2.68	13.750	5.11	19.83	2.19
1.667	1.34	7.750	2.68	13.833	5.11	19.92	2.19
1.750	1.34	7.833	2.68	13.917	5.11	20.00	2.19
1.833	1.34	7.917	2.68	14.000	5.11	20.08	2.19
1.917	1.34	8.000	2.68	14.083	5.11	20.17	2.19
2.000	1.34	8.083	2.68	14.167	5.11	20.25	1.46
2.083	1.34	8.167	2.68	14.250	3.65	20.33	1.46
2.167	1.34	8.250	3.16	14.333	3.65	20.42	1.46
2.250	1.58	8.333	3.16	14.417	3.65	20.50	1.46
2.333	1.58	8.417	3.16	14.500	3.65	20.58	1.46
2.417	1.58	8.500	3.16	14.583	3.65	20.67	1.46
2.500	1.58	8.583	3.16	14.667	3.65	20.75	1.46
2.583	1.58	8.667	3.16	14.750	3.65	20.83	1.46
2.667	1.58	8.750	3.41	14.833	3.65	20.92	1.46
2.750	1.58	8.833	3.41	14.917	3.65	21.00	1.46
2.833	1.58	8.917	3.41	15.000	3.65	21.08	1.46
2.917	1.58	9.000	3.41	15.083	3.65	21.17	1.46
3.000	1.58	9.083	3.41	15.167	3.65	21.25	1.46
3.083	1.58	9.167	3.41	15.250	3.65	21.33	1.46
3.167	1.58	9.250	3.89	15.333	3.65	21.42	1.46
3.250	1.58	9.333	3.89	15.417	3.65	21.50	1.46
3.333	1.58	9.417	3.89	15.500	3.65	21.58	1.46
3.417	1.58	9.500	3.89	15.583	3.65	21.67	1.46
3.500	1.58	9.583	3.89	15.667	3.65	21.75	1.46
3.583	1.58	9.667	3.89	15.750	3.65	21.83	1.46
3.667	1.58	9.750	4.38	15.833	3.65	21.92	1.46
3.750	1.58	9.833	4.38	15.917	3.65	22.00	1.46
3.833	1.58	9.917	4.38	16.000	3.65	22.08	1.46
3.917	1.58	10.000	4.38	16.083	3.65	22.17	1.46
4.000	1.58	10.083	4.38	16.167	3.65	22.25	1.46
4.083	1.58	10.167	4.38	16.250	2.19	22.33	1.46
4.167	1.58	10.250	5.60	16.333	2.19	22.42	1.46
4.250	1.95	10.333	5.60	16.417	2.19	22.50	1.46

4.333	1.95	|10.417	5.60	|16.500	2.19	|22.58	1.46
4.417	1.95	|10.500	5.60	|16.583	2.19	|22.67	1.46
4.500	1.95	|10.583	5.60	|16.667	2.19	|22.75	1.46
4.583	1.95	|10.667	5.60	|16.750	2.19	|22.83	1.46
4.667	1.95	|10.750	7.55	|16.833	2.19	|22.92	1.46
4.750	1.95	|10.833	7.55	|16.917	2.19	|23.00	1.46
4.833	1.95	|10.917	7.55	|17.000	2.19	|23.08	1.46
4.917	1.95	|11.000	7.55	|17.083	2.19	|23.17	1.46
5.000	1.95	|11.083	7.55	|17.167	2.19	|23.25	1.46
5.083	1.95	|11.167	7.55	|17.250	2.19	|23.33	1.46
5.167	1.95	|11.250	11.68	|17.333	2.19	|23.42	1.46
5.250	1.95	|11.333	11.68	|17.417	2.19	|23.50	1.46
5.333	1.95	|11.417	11.68	|17.500	2.19	|23.58	1.46
5.417	1.95	|11.500	11.68	|17.583	2.19	|23.67	1.46
5.500	1.95	|11.583	11.68	|17.667	2.19	|23.75	1.46
5.583	1.95	|11.667	11.68	|17.750	2.19	|23.83	1.46
5.667	1.95	|11.750	36.02	|17.833	2.19	|23.92	1.46
5.750	1.95	|11.833	36.02	|17.917	2.19	|24.00	1.46
5.833	1.95	|11.917	92.49	|18.000	2.19	|24.08	1.46
5.917	1.95	|12.000	92.49	|18.083	2.19	|24.17	1.46
6.000	1.95	|12.083	148.95	|18.167	2.19	|	
6.083	1.95	|12.167	148.96	|18.250	2.19	|	

Max.Eff.Inten.(mm/hr)= 148.96 91.58
over (min) 5.00 10.00

Storage Coeff. (min)= 1.87 (ii) 8.02 (ii)

Unit Hyd. Tpeak (min)= 5.00 10.00

Unit Hyd. peak (cms)= 0.32 0.13

TOTALS

PEAK FLOW (cms)= 0.19 0.21 0.404 (iii)

TIME TO PEAK (hrs)= 12.17 12.17 12.17

RUNOFF VOLUME (mm)= 120.20 52.80 70.32

TOTAL RAINFALL (mm)= 121.70 121.70 121.70

RUNOFF COEFFICIENT = 0.99 0.43 0.58

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

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:

CN* = 61.0 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 (1000)|

| 1 + 2 = 3 | AREA QPEAK TPEAK R.V.

----- (ha) (cms) (hrs) (mm)

ID1= 1 (0202): 1.81 0.404 12.17 70.32

+ ID2= 2 (5000): 11.54 0.211 12.17 83.08

=====

ID = 3 (1000): 13.35 0.615 12.17 81.35

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

|ADD HYD (1000)|

| 3 + 2 = 1 | AREA QPEAK TPEAK R.V.

----- (ha) (cms) (hrs) (mm)

ID1= 3 (1000): 13.35 0.615 12.17 81.35

+ ID2= 2 (6000): 0.81 0.208 12.17 75.57

=====

ID = 1 (1000): 14.16 0.823 12.17 81.01

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

V V I SSSSS U U A L (v6.2.2015)
V V I SS U U AA L
V V I SS U U AAAAA L
V V I SS U U A A L
W V I SSSSS UUUUU A A LLLLL

OOO TTTT TTTT H H Y Y M M OOO TM
O O T T H H Y Y M M M M O O
O O T T H H Y M M O O
OOO T T H H Y M M OOO

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***** DETAILED OUTPUT *****

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voain.dat
Output filename: C:\Users\ajoshi\AppData\Local\Civica\XH5\191a91e0-1a14-44fd-bc00-4941023c7dee\d6224a44-9759-4734-aa75-7fda5ebe93fb\scena
Summary filename: C:\Users\ajoshi\AppData\Local\Civica\XH5\191a91e0-1a14-44fd-bc00-4941023c7dee\d6224a44-9759-4734-aa75-7fda5ebe93fb\scena

DATE: 12-05-2025 TIME: 11:20:15

USER:

COMMENTS: _____

** SIMULATION : 6_50yr 24hr 10min SCS Type II **

| READ STORM | Filename: C:\Users\ajoshi\AppData
| | ata\Local\Temp\
| | a0c73555-1204-4f79-8531-cc8963073e72\eb01ca32
| Ptotal=134.56 mm | Comments: 50yr 24hr 10min SCS Type II

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	2.42	12.33	19.38	18.50	2.42
0.17	1.48	6.33	2.42	12.50	19.38	18.67	2.42
0.33	1.48	6.50	2.42	12.67	9.96	18.83	2.42
0.50	1.48	6.67	2.42	12.83	9.96	19.00	2.42
0.67	1.48	6.83	2.42	13.00	9.96	19.17	2.42
0.83	1.48	7.00	2.42	13.17	7.27	19.33	2.42
1.00	1.48	7.17	2.96	13.33	7.27	19.50	2.42
1.17	1.48	7.33	2.96	13.50	7.27	19.67	2.42
1.33	1.48	7.50	2.96	13.67	5.65	19.83	2.42
1.50	1.48	7.67	2.96	13.83	5.65	20.00	2.42
1.67	1.48	7.83	2.96	14.00	5.65	20.17	1.61
1.83	1.48	8.00	2.96	14.17	4.04	20.33	1.61
2.00	1.48	8.17	3.50	14.33	4.04	20.50	1.61
2.17	1.75	8.33	3.50	14.50	4.04	20.67	1.61
2.33	1.75	8.50	3.50	14.67	4.04	20.83	1.61
2.50	1.75	8.67	3.77	14.83	4.04	21.00	1.61
2.67	1.75	8.83	3.77	15.00	4.04	21.17	1.61
2.83	1.75	9.00	3.77	15.17	4.04	21.33	1.61
3.00	1.75	9.17	4.31	15.33	4.04	21.50	1.61
3.17	1.75	9.33	4.31	15.50	4.04	21.67	1.61
3.33	1.75	9.50	4.31	15.67	4.04	21.83	1.61
3.50	1.75	9.67	4.84	15.83	4.04	22.00	1.61
3.67	1.75	9.83	4.84	16.00	4.04	22.17	1.61
3.83	1.75	10.00	4.84	16.17	2.42	22.33	1.61
4.00	1.75	10.17	6.19	16.33	2.42	22.50	1.61

4.17 2.15 | 10.33 6.19 | 16.50 2.42 | 22.67 1.61
 4.33 2.15 | 10.50 6.19 | 16.67 2.42 | 22.83 1.61
 4.50 2.15 | 10.67 8.34 | 16.83 2.42 | 23.00 1.61
 4.67 2.15 | 10.83 8.34 | 17.00 2.42 | 23.17 1.61
 4.83 2.15 | 11.00 8.34 | 17.17 2.42 | 23.33 1.61
 5.00 2.15 | 11.17 12.92 | 17.33 2.42 | 23.50 1.61
 5.17 2.15 | 11.33 12.92 | 17.50 2.42 | 23.67 1.61
 5.33 2.15 | 11.50 12.92 | 17.67 2.42 | 23.83 1.61
 5.50 2.15 | 11.67 39.83 | 17.83 2.42 | 24.00 1.61
 5.67 2.15 | 11.83 102.27 | 18.00 2.42 |
 5.83 2.15 | 12.00 164.70 | 18.17 2.42 |
 6.00 2.15 | 12.17 19.38 | 18.33 2.42 |

 | CALIB |
 | NASHYD (0203) | Area (ha)= 0.29 Curve Number (CN)= 62.0
 | ID= 1 DT= 5.0 min | Ia (mm)= 5.00 # of Linear Res.(N)= 3.00
 ----- U.H. Tp(hrs)= 0.17

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----
 TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
 hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr
 0.083 0.00 | 6.167 2.15 | 12.250 19.39 | 18.33 2.42
 0.167 0.00 | 6.250 2.42 | 12.333 19.38 | 18.42 2.42
 0.250 1.48 | 6.333 2.42 | 12.417 19.38 | 18.50 2.42
 0.333 1.48 | 6.417 2.42 | 12.500 19.38 | 18.58 2.42
 0.417 1.48 | 6.500 2.42 | 12.583 19.38 | 18.67 2.42
 0.500 1.48 | 6.583 2.42 | 12.667 19.38 | 18.75 2.42
 0.583 1.48 | 6.667 2.42 | 12.750 9.96 | 18.83 2.42
 0.667 1.48 | 6.750 2.42 | 12.833 9.96 | 18.92 2.42
 0.750 1.48 | 6.833 2.42 | 12.917 9.96 | 19.00 2.42
 0.833 1.48 | 6.917 2.42 | 13.000 9.96 | 19.08 2.42
 0.917 1.48 | 7.000 2.42 | 13.083 9.96 | 19.17 2.42
 1.000 1.48 | 7.083 2.42 | 13.167 9.96 | 19.25 2.42
 1.083 1.48 | 7.167 2.42 | 13.250 7.27 | 19.33 2.42
 1.167 1.48 | 7.250 2.96 | 13.333 7.27 | 19.42 2.42
 1.250 1.48 | 7.333 2.96 | 13.417 7.27 | 19.50 2.42
 1.333 1.48 | 7.417 2.96 | 13.500 7.27 | 19.58 2.42
 1.417 1.48 | 7.500 2.96 | 13.583 7.27 | 19.67 2.42
 1.500 1.48 | 7.583 2.96 | 13.667 7.27 | 19.75 2.42
 1.583 1.48 | 7.667 2.96 | 13.750 5.65 | 19.83 2.42
 1.667 1.48 | 7.750 2.96 | 13.833 5.65 | 19.92 2.42
 1.750 1.48 | 7.833 2.96 | 13.917 5.65 | 20.00 2.42
 1.833 1.48 | 7.917 2.96 | 14.000 5.65 | 20.08 2.42
 1.917 1.48 | 8.000 2.96 | 14.083 5.65 | 20.17 2.42
 2.000 1.48 | 8.083 2.96 | 14.167 5.65 | 20.25 1.61
 2.083 1.48 | 8.167 2.96 | 14.250 4.04 | 20.33 1.61
 2.167 1.48 | 8.250 3.50 | 14.333 4.04 | 20.42 1.61
 2.250 1.75 | 8.333 3.50 | 14.417 4.04 | 20.50 1.61
 2.333 1.75 | 8.417 3.50 | 14.500 4.04 | 20.58 1.61
 2.417 1.75 | 8.500 3.50 | 14.583 4.04 | 20.67 1.61
 2.500 1.75 | 8.583 3.50 | 14.667 4.04 | 20.75 1.61
 2.583 1.75 | 8.667 3.50 | 14.750 4.04 | 20.83 1.61
 2.667 1.75 | 8.750 3.77 | 14.833 4.04 | 20.92 1.61
 2.750 1.75 | 8.833 3.77 | 14.917 4.04 | 21.00 1.61
 2.833 1.75 | 8.917 3.77 | 15.000 4.04 | 21.08 1.61
 2.917 1.75 | 9.000 3.77 | 15.083 4.04 | 21.17 1.61
 3.000 1.75 | 9.083 3.77 | 15.167 4.04 | 21.25 1.61
 3.083 1.75 | 9.167 3.77 | 15.250 4.04 | 21.33 1.61
 3.167 1.75 | 9.250 4.31 | 15.333 4.04 | 21.42 1.61
 3.250 1.75 | 9.333 4.31 | 15.417 4.04 | 21.50 1.61
 3.333 1.75 | 9.417 4.31 | 15.500 4.04 | 21.58 1.61
 3.417 1.75 | 9.500 4.31 | 15.583 4.04 | 21.67 1.61
 3.500 1.75 | 9.583 4.31 | 15.667 4.04 | 21.75 1.61
 3.583 1.75 | 9.667 4.31 | 15.750 4.04 | 21.83 1.61
 3.667 1.75 | 9.750 4.84 | 15.833 4.04 | 21.92 1.61
 3.750 1.75 | 9.833 4.84 | 15.917 4.04 | 22.00 1.61
 3.833 1.75 | 9.917 4.84 | 16.000 4.04 | 22.08 1.61

3.917	1.75	|10.000	4.84	|16.083	4.04	|22.17	1.61
4.000	1.75	|10.083	4.84	|16.167	4.04	|22.25	1.61
4.083	1.75	|10.167	4.84	|16.250	2.42	|22.33	1.61
4.167	1.75	|10.250	6.19	|16.333	2.42	|22.42	1.61
4.250	2.15	|10.333	6.19	|16.417	2.42	|22.50	1.61
4.333	2.15	|10.417	6.19	|16.500	2.42	|22.58	1.61
4.417	2.15	|10.500	6.19	|16.583	2.42	|22.67	1.61
4.500	2.15	|10.583	6.19	|16.667	2.42	|22.75	1.61
4.583	2.15	|10.667	6.19	|16.750	2.42	|22.83	1.61
4.667	2.15	|10.750	8.34	|16.833	2.42	|22.92	1.61
4.750	2.15	|10.833	8.34	|16.917	2.42	|23.00	1.61
4.833	2.15	|10.917	8.34	|17.000	2.42	|23.08	1.61
4.917	2.15	|11.000	8.34	|17.083	2.42	|23.17	1.61
5.000	2.15	|11.083	8.34	|17.167	2.42	|23.25	1.61
5.083	2.15	|11.167	8.34	|17.250	2.42	|23.33	1.61
5.167	2.15	|11.250	12.92	|17.333	2.42	|23.42	1.61
5.250	2.15	|11.333	12.92	|17.417	2.42	|23.50	1.61
5.333	2.15	|11.417	12.92	|17.500	2.42	|23.58	1.61
5.417	2.15	|11.500	12.92	|17.583	2.42	|23.67	1.61
5.500	2.15	|11.583	12.92	|17.667	2.42	|23.75	1.61
5.583	2.15	|11.667	12.92	|17.750	2.42	|23.83	1.61
5.667	2.15	|11.750	39.83	|17.833	2.42	|23.92	1.61
5.750	2.15	|11.833	39.83	|17.917	2.42	|24.00	1.61
5.833	2.15	|11.917	102.26	|18.000	2.42	|24.08	1.61
5.917	2.15	|12.000	102.27	|18.083	2.42	|24.17	1.61
6.000	2.15	|12.083	164.69	|18.167	2.42	|	
6.083	2.15	|12.167	164.70	|18.250	2.42	|	

Unit Hyd Qpeak (cms)= 0.064

PEAK FLOW (cms)= 0.045 (i)
 TIME TO PEAK (hrs)= 12.167
 RUNOFF VOLUME (mm)= 58.637
 TOTAL RAINFALL (mm)= 134.560
 RUNOFF COEFFICIENT = 0.436

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

 | CALIB |
 | STANDHYD (0206) | Area (ha)= 0.52
 | ID= 1 DT= 5.0 min | Total Imp(%)= 63.00 Dir. Conn.(%)= 49.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 0.33 0.19
 Dep. Storage (mm)= 1.50 5.00
 Average Slope (%)= 2.00 2.00
 Length (m)= 59.10 15.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	|6.167	2.15	|12.250	19.39	|18.33	2.42
0.167	0.00	|6.250	2.42	|12.333	19.38	|18.42	2.42
0.250	1.48	|6.333	2.42	|12.417	19.38	|18.50	2.42
0.333	1.48	|6.417	2.42	|12.500	19.38	|18.58	2.42
0.417	1.48	|6.500	2.42	|12.583	19.38	|18.67	2.42
0.500	1.48	|6.583	2.42	|12.667	19.38	|18.75	2.42
0.583	1.48	|6.667	2.42	|12.750	9.96	|18.83	2.42
0.667	1.48	|6.750	2.42	|12.833	9.96	|18.92	2.42
0.750	1.48	|6.833	2.42	|12.917	9.96	|19.00	2.42
0.833	1.48	|6.917	2.42	|13.000	9.96	|19.08	2.42
0.917	1.48	|7.000	2.42	|13.083	9.96	|19.17	2.42
1.000	1.48	|7.083	2.42	|13.167	9.96	|19.25	2.42
1.083	1.48	|7.167	2.42	|13.250	7.27	|19.33	2.42
1.167	1.48	|7.250	2.96	|13.333	7.27	|19.42	2.42
1.250	1.48	|7.333	2.96	|13.417	7.27	|19.50	2.42
1.333	1.48	|7.417	2.96	|13.500	7.27	|19.58	2.42

1.417	1.48	7.500	2.96	13.583	7.27	19.67	2.42
1.500	1.48	7.583	2.96	13.667	7.27	19.75	2.42
1.583	1.48	7.667	2.96	13.750	5.65	19.83	2.42
1.667	1.48	7.750	2.96	13.833	5.65	19.92	2.42
1.750	1.48	7.833	2.96	13.917	5.65	20.00	2.42
1.833	1.48	7.917	2.96	14.000	5.65	20.08	2.42
1.917	1.48	8.000	2.96	14.083	5.65	20.17	2.42
2.000	1.48	8.083	2.96	14.167	5.65	20.25	1.61
2.083	1.48	8.167	2.96	14.250	4.04	20.33	1.61
2.167	1.48	8.250	3.50	14.333	4.04	20.42	1.61
2.250	1.75	8.333	3.50	14.417	4.04	20.50	1.61
2.333	1.75	8.417	3.50	14.500	4.04	20.58	1.61
2.417	1.75	8.500	3.50	14.583	4.04	20.67	1.61
2.500	1.75	8.583	3.50	14.667	4.04	20.75	1.61
2.583	1.75	8.667	3.50	14.750	4.04	20.83	1.61
2.667	1.75	8.750	3.77	14.833	4.04	20.92	1.61
2.750	1.75	8.833	3.77	14.917	4.04	21.00	1.61
2.833	1.75	8.917	3.77	15.000	4.04	21.08	1.61
2.917	1.75	9.000	3.77	15.083	4.04	21.17	1.61
3.000	1.75	9.083	3.77	15.167	4.04	21.25	1.61
3.083	1.75	9.167	3.77	15.250	4.04	21.33	1.61
3.167	1.75	9.250	4.31	15.333	4.04	21.42	1.61
3.250	1.75	9.333	4.31	15.417	4.04	21.50	1.61
3.333	1.75	9.417	4.31	15.500	4.04	21.58	1.61
3.417	1.75	9.500	4.31	15.583	4.04	21.67	1.61
3.500	1.75	9.583	4.31	15.667	4.04	21.75	1.61
3.583	1.75	9.667	4.31	15.750	4.04	21.83	1.61
3.667	1.75	9.750	4.84	15.833	4.04	21.92	1.61
3.750	1.75	9.833	4.84	15.917	4.04	22.00	1.61
3.833	1.75	9.917	4.84	16.000	4.04	22.08	1.61
3.917	1.75	10.000	4.84	16.083	4.04	22.17	1.61
4.000	1.75	10.083	4.84	16.167	4.04	22.25	1.61
4.083	1.75	10.167	4.84	16.250	2.42	22.33	1.61
4.167	1.75	10.250	6.19	16.333	2.42	22.42	1.61
4.250	2.15	10.333	6.19	16.417	2.42	22.50	1.61
4.333	2.15	10.417	6.19	16.500	2.42	22.58	1.61
4.417	2.15	10.500	6.19	16.583	2.42	22.67	1.61
4.500	2.15	10.583	6.19	16.667	2.42	22.75	1.61
4.583	2.15	10.667	6.19	16.750	2.42	22.83	1.61
4.667	2.15	10.750	8.34	16.833	2.42	22.92	1.61
4.750	2.15	10.833	8.34	16.917	2.42	23.00	1.61
4.833	2.15	10.917	8.34	17.000	2.42	23.08	1.61
4.917	2.15	11.000	8.34	17.083	2.42	23.17	1.61
5.000	2.15	11.083	8.34	17.167	2.42	23.25	1.61
5.083	2.15	11.167	8.34	17.250	2.42	23.33	1.61
5.167	2.15	11.250	12.92	17.333	2.42	23.42	1.61
5.250	2.15	11.333	12.92	17.417	2.42	23.50	1.61
5.333	2.15	11.417	12.92	17.500	2.42	23.58	1.61
5.417	2.15	11.500	12.92	17.583	2.42	23.67	1.61
5.500	2.15	11.583	12.92	17.667	2.42	23.75	1.61
5.583	2.15	11.667	12.92	17.750	2.42	23.83	1.61
5.667	2.15	11.750	39.83	17.833	2.42	23.92	1.61
5.750	2.15	11.833	39.83	17.917	2.42	24.00	1.61
5.833	2.15	11.917	102.26	18.000	2.42	24.08	1.61
5.917	2.15	12.000	102.27	18.083	2.42	24.17	1.61
6.000	2.15	12.083	164.69	18.167	2.42		
6.083	2.15	12.167	164.70	18.250	2.42		

Max.Eff.Inten.(mm/hr)= 164.70 141.75
over (min) 5.00 5.00

Storage Coeff. (min)= 1.24 (ii) 4.11 (ii)

Unit Hyd. Tpeak (min)= 5.00 5.00

Unit Hyd. peak (cms)= 0.33 0.24

TOTALS

PEAK FLOW (cms)= 0.12 0.07 0.192 (iii)

TIME TO PEAK (hrs)= 12.17 12.17 12.17

RUNOFF VOLUME (mm)= 133.06 70.30 101.04

TOTAL RAINFALL (mm)= 134.56 134.56 134.56

RUNOFF COEFFICIENT = 0.99 0.52 0.75

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

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:

- CN* = 62.0 la = 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 (6000)|

| 1+ 2= 3 | AREA QPEAK TPEAK R.V.

(ha) (cms) (hrs) (mm)

ID1= 1 (0203): 0.29 0.045 12.17 58.64

+ ID2= 2 (0206): 0.52 0.192 12.17 101.04

=====

ID = 3 (6000): 0.81 0.237 12.17 86.04

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | CALIB |

| NASHYD (0205)| Area (ha)= 0.16 Curve Number (CN)= 62.0

| ID= 1 DT= 5.0 min | la (mm)= 5.00 # of Linear Res.(N)= 3.00

----- U.H. Tp(hrs)= 0.17

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	2.15	12.250	19.39	18.33	2.42
0.167	0.00	6.250	2.42	12.333	19.38	18.42	2.42
0.250	1.48	6.333	2.42	12.417	19.38	18.50	2.42
0.333	1.48	6.417	2.42	12.500	19.38	18.58	2.42
0.417	1.48	6.500	2.42	12.583	19.38	18.67	2.42
0.500	1.48	6.583	2.42	12.667	19.38	18.75	2.42
0.583	1.48	6.667	2.42	12.750	9.96	18.83	2.42
0.667	1.48	6.750	2.42	12.833	9.96	18.92	2.42
0.750	1.48	6.833	2.42	12.917	9.96	19.00	2.42
0.833	1.48	6.917	2.42	13.000	9.96	19.08	2.42
0.917	1.48	7.000	2.42	13.083	9.96	19.17	2.42
1.000	1.48	7.083	2.42	13.167	9.96	19.25	2.42
1.083	1.48	7.167	2.42	13.250	7.27	19.33	2.42
1.167	1.48	7.250	2.96	13.333	7.27	19.42	2.42
1.250	1.48	7.333	2.96	13.417	7.27	19.50	2.42
1.333	1.48	7.417	2.96	13.500	7.27	19.58	2.42
1.417	1.48	7.500	2.96	13.583	7.27	19.67	2.42
1.500	1.48	7.583	2.96	13.667	7.27	19.75	2.42
1.583	1.48	7.667	2.96	13.750	5.65	19.83	2.42
1.667	1.48	7.750	2.96	13.833	5.65	19.92	2.42
1.750	1.48	7.833	2.96	13.917	5.65	20.00	2.42
1.833	1.48	7.917	2.96	14.000	5.65	20.08	2.42
1.917	1.48	8.000	2.96	14.083	5.65	20.17	2.42
2.000	1.48	8.083	2.96	14.167	5.65	20.25	1.61
2.083	1.48	8.167	2.96	14.250	4.04	20.33	1.61
2.167	1.48	8.250	3.50	14.333	4.04	20.42	1.61
2.250	1.75	8.333	3.50	14.417	4.04	20.50	1.61
2.333	1.75	8.417	3.50	14.500	4.04	20.58	1.61
2.417	1.75	8.500	3.50	14.583	4.04	20.67	1.61
2.500	1.75	8.583	3.50	14.667	4.04	20.75	1.61
2.583	1.75	8.667	3.50	14.750	4.04	20.83	1.61
2.667	1.75	8.750	3.77	14.833	4.04	20.92	1.61
2.750	1.75	8.833	3.77	14.917	4.04	21.00	1.61
2.833	1.75	8.917	3.77	15.000	4.04	21.08	1.61
2.917	1.75	9.000	3.77	15.083	4.04	21.17	1.61
3.000	1.75	9.083	3.77	15.167	4.04	21.25	1.61
3.083	1.75	9.167	3.77	15.250	4.04	21.33	1.61
3.167	1.75	9.250	4.31	15.333	4.04	21.42	1.61
3.250	1.75	9.333	4.31	15.417	4.04	21.50	1.61
3.333	1.75	9.417	4.31	15.500	4.04	21.58	1.61
3.417	1.75	9.500	4.31	15.583	4.04	21.67	1.61
3.500	1.75	9.583	4.31	15.667	4.04	21.75	1.61
3.583	1.75	9.667	4.31	15.750	4.04	21.83	1.61

3.667	1.75	|9.750	4.84	|15.833	4.04	|21.92	1.61
3.750	1.75	|9.833	4.84	|15.917	4.04	|22.00	1.61
3.833	1.75	|9.917	4.84	|16.000	4.04	|22.08	1.61
3.917	1.75	|10.000	4.84	|16.083	4.04	|22.17	1.61
4.000	1.75	|10.083	4.84	|16.167	4.04	|22.25	1.61
4.083	1.75	|10.167	4.84	|16.250	2.42	|22.33	1.61
4.167	1.75	|10.250	6.19	|16.333	2.42	|22.42	1.61
4.250	2.15	|10.333	6.19	|16.417	2.42	|22.50	1.61
4.333	2.15	|10.417	6.19	|16.500	2.42	|22.58	1.61
4.417	2.15	|10.500	6.19	|16.583	2.42	|22.67	1.61
4.500	2.15	|10.583	6.19	|16.667	2.42	|22.75	1.61
4.583	2.15	|10.667	6.19	|16.750	2.42	|22.83	1.61
4.667	2.15	|10.750	8.34	|16.833	2.42	|22.92	1.61
4.750	2.15	|10.833	8.34	|16.917	2.42	|23.00	1.61
4.833	2.15	|10.917	8.34	|17.000	2.42	|23.08	1.61
4.917	2.15	|11.000	8.34	|17.083	2.42	|23.17	1.61
5.000	2.15	|11.083	8.34	|17.167	2.42	|23.25	1.61
5.083	2.15	|11.167	8.34	|17.250	2.42	|23.33	1.61
5.167	2.15	|11.250	12.92	|17.333	2.42	|23.42	1.61
5.250	2.15	|11.333	12.92	|17.417	2.42	|23.50	1.61
5.333	2.15	|11.417	12.92	|17.500	2.42	|23.58	1.61
5.417	2.15	|11.500	12.92	|17.583	2.42	|23.67	1.61
5.500	2.15	|11.583	12.92	|17.667	2.42	|23.75	1.61
5.583	2.15	|11.667	12.92	|17.750	2.42	|23.83	1.61
5.667	2.15	|11.750	39.83	|17.833	2.42	|23.92	1.61
5.750	2.15	|11.833	39.83	|17.917	2.42	|24.00	1.61
5.833	2.15	|11.917	102.26	|18.000	2.42	|24.08	1.61
5.917	2.15	|12.000	102.27	|18.083	2.42	|24.17	1.61
6.000	2.15	|12.083	164.69	|18.167	2.42	|	
6.083	2.15	|12.167	164.70	|18.250	2.42	|	

Unit Hyd Qpeak (cms)= 0.035

PEAK FLOW (cms)= 0.025 (i)

TIME TO PEAK (hrs)= 12.167

RUNOFF VOLUME (mm)= 58.637

TOTAL RAINFALL (mm)= 134.560

RUNOFF COEFFICIENT = 0.436

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

 | CALIB |
 | STANDHYD (0204) | Area (ha)= 0.48
 | ID= 1 DT= 5.0 min | Total Imp(%)= 72.00 Dir. Conn.(%)= 72.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.35	0.13
Dep. Storage (mm)=	1.50	5.00
Average Slope (°)=	5.00	2.00
Length (m)=	56.57	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	|6.167	2.15	|12.250	19.39	|18.33	2.42
0.167	0.00	|6.250	2.42	|12.333	19.38	|18.42	2.42
0.250	1.48	|6.333	2.42	|12.417	19.38	|18.50	2.42
0.333	1.48	|6.417	2.42	|12.500	19.38	|18.58	2.42
0.417	1.48	|6.500	2.42	|12.583	19.38	|18.67	2.42
0.500	1.48	|6.583	2.42	|12.667	19.38	|18.75	2.42
0.583	1.48	|6.667	2.42	|12.750	9.96	|18.83	2.42
0.667	1.48	|6.750	2.42	|12.833	9.96	|18.92	2.42
0.750	1.48	|6.833	2.42	|12.917	9.96	|19.00	2.42
0.833	1.48	|6.917	2.42	|13.000	9.96	|19.08	2.42
0.917	1.48	|7.000	2.42	|13.083	9.96	|19.17	2.42
1.000	1.48	|7.083	2.42	|13.167	9.96	|19.25	2.42
1.083	1.48	|7.167	2.42	|13.250	7.27	|19.33	2.42

1.167	1.48	|	7.250	2.96	|	13.333	7.27	|	19.42	2.42
1.250	1.48	|	7.333	2.96	|	13.417	7.27	|	19.50	2.42
1.333	1.48	|	7.417	2.96	|	13.500	7.27	|	19.58	2.42
1.417	1.48	|	7.500	2.96	|	13.583	7.27	|	19.67	2.42
1.500	1.48	|	7.583	2.96	|	13.667	7.27	|	19.75	2.42
1.583	1.48	|	7.667	2.96	|	13.750	5.65	|	19.83	2.42
1.667	1.48	|	7.750	2.96	|	13.833	5.65	|	19.92	2.42
1.750	1.48	|	7.833	2.96	|	13.917	5.65	|	20.00	2.42
1.833	1.48	|	7.917	2.96	|	14.000	5.65	|	20.08	2.42
1.917	1.48	|	8.000	2.96	|	14.083	5.65	|	20.17	2.42
2.000	1.48	|	8.083	2.96	|	14.167	5.65	|	20.25	1.61
2.083	1.48	|	8.167	2.96	|	14.250	4.04	|	20.33	1.61
2.167	1.48	|	8.250	3.50	|	14.333	4.04	|	20.42	1.61
2.250	1.75	|	8.333	3.50	|	14.417	4.04	|	20.50	1.61
2.333	1.75	|	8.417	3.50	|	14.500	4.04	|	20.58	1.61
2.417	1.75	|	8.500	3.50	|	14.583	4.04	|	20.67	1.61
2.500	1.75	|	8.583	3.50	|	14.667	4.04	|	20.75	1.61
2.583	1.75	|	8.667	3.50	|	14.750	4.04	|	20.83	1.61
2.667	1.75	|	8.750	3.77	|	14.833	4.04	|	20.92	1.61
2.750	1.75	|	8.833	3.77	|	14.917	4.04	|	21.00	1.61
2.833	1.75	|	8.917	3.77	|	15.000	4.04	|	21.08	1.61
2.917	1.75	|	9.000	3.77	|	15.083	4.04	|	21.17	1.61
3.000	1.75	|	9.083	3.77	|	15.167	4.04	|	21.25	1.61
3.083	1.75	|	9.167	3.77	|	15.250	4.04	|	21.33	1.61
3.167	1.75	|	9.250	4.31	|	15.333	4.04	|	21.42	1.61
3.250	1.75	|	9.333	4.31	|	15.417	4.04	|	21.50	1.61
3.333	1.75	|	9.417	4.31	|	15.500	4.04	|	21.58	1.61
3.417	1.75	|	9.500	4.31	|	15.583	4.04	|	21.67	1.61
3.500	1.75	|	9.583	4.31	|	15.667	4.04	|	21.75	1.61
3.583	1.75	|	9.667	4.31	|	15.750	4.04	|	21.83	1.61
3.667	1.75	|	9.750	4.84	|	15.833	4.04	|	21.92	1.61
3.750	1.75	|	9.833	4.84	|	15.917	4.04	|	22.00	1.61
3.833	1.75	|	9.917	4.84	|	16.000	4.04	|	22.08	1.61
3.917	1.75	|	10.000	4.84	|	16.083	4.04	|	22.17	1.61
4.000	1.75	|	10.083	4.84	|	16.167	4.04	|	22.25	1.61
4.083	1.75	|	10.167	4.84	|	16.250	2.42	|	22.33	1.61
4.167	1.75	|	10.250	6.19	|	16.333	2.42	|	22.42	1.61
4.250	2.15	|	10.333	6.19	|	16.417	2.42	|	22.50	1.61
4.333	2.15	|	10.417	6.19	|	16.500	2.42	|	22.58	1.61
4.417	2.15	|	10.500	6.19	|	16.583	2.42	|	22.67	1.61
4.500	2.15	|	10.583	6.19	|	16.667	2.42	|	22.75	1.61
4.583	2.15	|	10.667	6.19	|	16.750	2.42	|	22.83	1.61
4.667	2.15	|	10.750	8.34	|	16.833	2.42	|	22.92	1.61
4.750	2.15	|	10.833	8.34	|	16.917	2.42	|	23.00	1.61
4.833	2.15	|	10.917	8.34	|	17.000	2.42	|	23.08	1.61
4.917	2.15	|	11.000	8.34	|	17.083	2.42	|	23.17	1.61
5.000	2.15	|	11.083	8.34	|	17.167	2.42	|	23.25	1.61
5.083	2.15	|	11.167	8.34	|	17.250	2.42	|	23.33	1.61
5.167	2.15	|	11.250	12.92	|	17.333	2.42	|	23.42	1.61
5.250	2.15	|	11.333	12.92	|	17.417	2.42	|	23.50	1.61
5.333	2.15	|	11.417	12.92	|	17.500	2.42	|	23.58	1.61
5.417	2.15	|	11.500	12.92	|	17.583	2.42	|	23.67	1.61
5.500	2.15	|	11.583	12.92	|	17.667	2.42	|	23.75	1.61
5.583	2.15	|	11.667	12.92	|	17.750	2.42	|	23.83	1.61
5.667	2.15	|	11.750	39.83	|	17.833	2.42	|	23.92	1.61
5.750	2.15	|	11.833	39.83	|	17.917	2.42	|	24.00	1.61
5.833	2.15	|	11.917	102.26	|	18.000	2.42	|	24.08	1.61
5.917	2.15	|	12.000	102.27	|	18.083	2.42	|	24.17	1.61
6.000	2.15	|	12.083	164.69	|	18.167	2.42	|		
6.083	2.15	|	12.167	164.70	|	18.250	2.42	|		

Max.Eff.Inten.(mm/hr)= 164.70 86.37
over (min) 5.00 5.00

Storage Coeff. (min)= 0.92 (ii) 4.88 (ii)

Unit Hyd. Tpeak (min)= 5.00 5.00

Unit Hyd. peak (cms)= 0.34 0.22

TOTALS

PEAK FLOW (cms)= 0.16 0.03 0.189 (iii)

TIME TO PEAK (hrs)= 12.17 12.17 12.17

RUNOFF VOLUME (mm)= 133.06 58.85 112.28

TOTAL RAINFALL (mm)= 134.56 134.56 134.56

RUNOFF COEFFICIENT = 0.99 0.44 0.83

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 62.0 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 (0023) |
 | 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
 ----- (ha) (cms) (hrs) (mm)
 ID1= 1 (0204): 0.48 0.189 12.17 112.28
 + ID2= 2 (0205): 0.16 0.025 12.17 58.64
 =====
 ID = 3 (0023): 0.64 0.213 12.17 99.00

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | CALIB |
 | STANDHYD (2001) | Area (ha)= 3.38
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 71.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 3.35 0.03
 Dep. Storage (mm)= 1.50 5.00
 Average Slope (%)= 2.00 2.00
 Length (m)= 150.11 30.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----
 TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
 hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr
 0.083 0.00 | 6.167 2.15 | 12.250 19.39 | 18.33 2.42
 0.167 0.00 | 6.250 2.42 | 12.333 19.38 | 18.42 2.42
 0.250 1.48 | 6.333 2.42 | 12.417 19.38 | 18.50 2.42
 0.333 1.48 | 6.417 2.42 | 12.500 19.38 | 18.58 2.42
 0.417 1.48 | 6.500 2.42 | 12.583 19.38 | 18.67 2.42
 0.500 1.48 | 6.583 2.42 | 12.667 19.38 | 18.75 2.42
 0.583 1.48 | 6.667 2.42 | 12.750 9.96 | 18.83 2.42
 0.667 1.48 | 6.750 2.42 | 12.833 9.96 | 18.92 2.42
 0.750 1.48 | 6.833 2.42 | 12.917 9.96 | 19.00 2.42
 0.833 1.48 | 6.917 2.42 | 13.000 9.96 | 19.08 2.42
 0.917 1.48 | 7.000 2.42 | 13.083 9.96 | 19.17 2.42
 1.000 1.48 | 7.083 2.42 | 13.167 9.96 | 19.25 2.42
 1.083 1.48 | 7.167 2.42 | 13.250 7.27 | 19.33 2.42
 1.167 1.48 | 7.250 2.96 | 13.333 7.27 | 19.42 2.42
 1.250 1.48 | 7.333 2.96 | 13.417 7.27 | 19.50 2.42
 1.333 1.48 | 7.417 2.96 | 13.500 7.27 | 19.58 2.42
 1.417 1.48 | 7.500 2.96 | 13.583 7.27 | 19.67 2.42
 1.500 1.48 | 7.583 2.96 | 13.667 7.27 | 19.75 2.42
 1.583 1.48 | 7.667 2.96 | 13.750 5.65 | 19.83 2.42
 1.667 1.48 | 7.750 2.96 | 13.833 5.65 | 19.92 2.42
 1.750 1.48 | 7.833 2.96 | 13.917 5.65 | 20.00 2.42
 1.833 1.48 | 7.917 2.96 | 14.000 5.65 | 20.08 2.42
 1.917 1.48 | 8.000 2.96 | 14.083 5.65 | 20.17 2.42
 2.000 1.48 | 8.083 2.96 | 14.167 5.65 | 20.25 1.61
 2.083 1.48 | 8.167 2.96 | 14.250 4.04 | 20.33 1.61
 2.167 1.48 | 8.250 3.50 | 14.333 4.04 | 20.42 1.61
 2.250 1.75 | 8.333 3.50 | 14.417 4.04 | 20.50 1.61
 2.333 1.75 | 8.417 3.50 | 14.500 4.04 | 20.58 1.61
 2.417 1.75 | 8.500 3.50 | 14.583 4.04 | 20.67 1.61
 2.500 1.75 | 8.583 3.50 | 14.667 4.04 | 20.75 1.61
 2.583 1.75 | 8.667 3.50 | 14.750 4.04 | 20.83 1.61
 2.667 1.75 | 8.750 3.77 | 14.833 4.04 | 20.92 1.61
 2.750 1.75 | 8.833 3.77 | 14.917 4.04 | 21.00 1.61
 2.833 1.75 | 8.917 3.77 | 15.000 4.04 | 21.08 1.61

2.917	1.75	|9.000	3.77	|15.083	4.04	|21.17	1.61
3.000	1.75	|9.083	3.77	|15.167	4.04	|21.25	1.61
3.083	1.75	|9.167	3.77	|15.250	4.04	|21.33	1.61
3.167	1.75	|9.250	4.31	|15.333	4.04	|21.42	1.61
3.250	1.75	|9.333	4.31	|15.417	4.04	|21.50	1.61
3.333	1.75	|9.417	4.31	|15.500	4.04	|21.58	1.61
3.417	1.75	|9.500	4.31	|15.583	4.04	|21.67	1.61
3.500	1.75	|9.583	4.31	|15.667	4.04	|21.75	1.61
3.583	1.75	|9.667	4.31	|15.750	4.04	|21.83	1.61
3.667	1.75	|9.750	4.84	|15.833	4.04	|21.92	1.61
3.750	1.75	|9.833	4.84	|15.917	4.04	|22.00	1.61
3.833	1.75	|9.917	4.84	|16.000	4.04	|22.08	1.61
3.917	1.75	|10.000	4.84	|16.083	4.04	|22.17	1.61
4.000	1.75	|10.083	4.84	|16.167	4.04	|22.25	1.61
4.083	1.75	|10.167	4.84	|16.250	2.42	|22.33	1.61
4.167	1.75	|10.250	6.19	|16.333	2.42	|22.42	1.61
4.250	2.15	|10.333	6.19	|16.417	2.42	|22.50	1.61
4.333	2.15	|10.417	6.19	|16.500	2.42	|22.58	1.61
4.417	2.15	|10.500	6.19	|16.583	2.42	|22.67	1.61
4.500	2.15	|10.583	6.19	|16.667	2.42	|22.75	1.61
4.583	2.15	|10.667	6.19	|16.750	2.42	|22.83	1.61
4.667	2.15	|10.750	8.34	|16.833	2.42	|22.92	1.61
4.750	2.15	|10.833	8.34	|16.917	2.42	|23.00	1.61
4.833	2.15	|10.917	8.34	|17.000	2.42	|23.08	1.61
4.917	2.15	|11.000	8.34	|17.083	2.42	|23.17	1.61
5.000	2.15	|11.083	8.34	|17.167	2.42	|23.25	1.61
5.083	2.15	|11.167	8.34	|17.250	2.42	|23.33	1.61
5.167	2.15	|11.250	12.92	|17.333	2.42	|23.42	1.61
5.250	2.15	|11.333	12.92	|17.417	2.42	|23.50	1.61
5.333	2.15	|11.417	12.92	|17.500	2.42	|23.58	1.61
5.417	2.15	|11.500	12.92	|17.583	2.42	|23.67	1.61
5.500	2.15	|11.583	12.92	|17.667	2.42	|23.75	1.61
5.583	2.15	|11.667	12.92	|17.750	2.42	|23.83	1.61
5.667	2.15	|11.750	39.83	|17.833	2.42	|23.92	1.61
5.750	2.15	|11.833	39.83	|17.917	2.42	|24.00	1.61
5.833	2.15	|11.917	102.26	|18.000	2.42	|24.08	1.61
5.917	2.15	|12.000	102.27	|18.083	2.42	|24.17	1.61
6.000	2.15	|12.083	164.69	|18.167	2.42	|	
6.083	2.15	|12.167	164.70	|18.250	2.42	|	

Max.Eff.Inten.(mm/hr)= 164.70 4754.46
over (min) 5.00 5.00

Storage Coeff. (min)= 2.17 (ii) 3.05 (ii)

Unit Hyd. Tpeak (min)= 5.00 5.00

Unit Hyd. peak (cms)= 0.31 0.27

TOTALS

PEAK FLOW (cms)= 1.09 0.44 1.534 (iii)

TIME TO PEAK (hrs)= 12.17 12.17 12.17

RUNOFF VOLUME (mm)= 133.06 129.23 131.95

TOTAL RAINFALL (mm)= 134.56 134.56 134.56

RUNOFF COEFFICIENT = 0.99 0.96 0.98

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

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:

CN* = 62.0 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(0031)| 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 | 10.0000 0.0780
0.0000 0.0770 | 0.0000 0.0000

AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
INFLOW: ID= 2 (2001) 3.380 1.534 12.17 131.95
OUTFLOW: ID= 1 (0031) 3.380 1.519 12.17 109.18

PEAK FLOW REDUCTION [Qout/Qin](%)= 99.03
 TIME SHIFT OF PEAK FLOW (min)= 0.00
 MAXIMUM STORAGE USED (ha.m.)= 0.0774

 | CALIB |
 | STANDHYD (0201) | Area (ha)= 1.34
 | ID= 1 DT= 5.0 min | Total Imp(%)= 50.00 Dir. Conn.(%)= 50.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 0.67 0.67
 Dep. Storage (mm)= 1.50 10.00
 Average Slope (%)= 2.00 2.00
 Length (m)= 94.52 30.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	2.15	12.250	19.39	18.33	2.42
0.167	0.00	6.250	2.42	12.333	19.38	18.42	2.42
0.250	1.48	6.333	2.42	12.417	19.38	18.50	2.42
0.333	1.48	6.417	2.42	12.500	19.38	18.58	2.42
0.417	1.48	6.500	2.42	12.583	19.38	18.67	2.42
0.500	1.48	6.583	2.42	12.667	19.38	18.75	2.42
0.583	1.48	6.667	2.42	12.750	9.96	18.83	2.42
0.667	1.48	6.750	2.42	12.833	9.96	18.92	2.42
0.750	1.48	6.833	2.42	12.917	9.96	19.00	2.42
0.833	1.48	6.917	2.42	13.000	9.96	19.08	2.42
0.917	1.48	7.000	2.42	13.083	9.96	19.17	2.42
1.000	1.48	7.083	2.42	13.167	9.96	19.25	2.42
1.083	1.48	7.167	2.42	13.250	7.27	19.33	2.42
1.167	1.48	7.250	2.96	13.333	7.27	19.42	2.42
1.250	1.48	7.333	2.96	13.417	7.27	19.50	2.42
1.333	1.48	7.417	2.96	13.500	7.27	19.58	2.42
1.417	1.48	7.500	2.96	13.583	7.27	19.67	2.42
1.500	1.48	7.583	2.96	13.667	7.27	19.75	2.42
1.583	1.48	7.667	2.96	13.750	5.65	19.83	2.42
1.667	1.48	7.750	2.96	13.833	5.65	19.92	2.42
1.750	1.48	7.833	2.96	13.917	5.65	20.00	2.42
1.833	1.48	7.917	2.96	14.000	5.65	20.08	2.42
1.917	1.48	8.000	2.96	14.083	5.65	20.17	2.42
2.000	1.48	8.083	2.96	14.167	5.65	20.25	1.61
2.083	1.48	8.167	2.96	14.250	4.04	20.33	1.61
2.167	1.48	8.250	3.50	14.333	4.04	20.42	1.61
2.250	1.75	8.333	3.50	14.417	4.04	20.50	1.61
2.333	1.75	8.417	3.50	14.500	4.04	20.58	1.61
2.417	1.75	8.500	3.50	14.583	4.04	20.67	1.61
2.500	1.75	8.583	3.50	14.667	4.04	20.75	1.61
2.583	1.75	8.667	3.50	14.750	4.04	20.83	1.61
2.667	1.75	8.750	3.77	14.833	4.04	20.92	1.61
2.750	1.75	8.833	3.77	14.917	4.04	21.00	1.61
2.833	1.75	8.917	3.77	15.000	4.04	21.08	1.61
2.917	1.75	9.000	3.77	15.083	4.04	21.17	1.61
3.000	1.75	9.083	3.77	15.167	4.04	21.25	1.61
3.083	1.75	9.167	3.77	15.250	4.04	21.33	1.61
3.167	1.75	9.250	4.31	15.333	4.04	21.42	1.61
3.250	1.75	9.333	4.31	15.417	4.04	21.50	1.61
3.333	1.75	9.417	4.31	15.500	4.04	21.58	1.61
3.417	1.75	9.500	4.31	15.583	4.04	21.67	1.61
3.500	1.75	9.583	4.31	15.667	4.04	21.75	1.61
3.583	1.75	9.667	4.31	15.750	4.04	21.83	1.61
3.667	1.75	9.750	4.84	15.833	4.04	21.92	1.61
3.750	1.75	9.833	4.84	15.917	4.04	22.00	1.61
3.833	1.75	9.917	4.84	16.000	4.04	22.08	1.61
3.917	1.75	10.000	4.84	16.083	4.04	22.17	1.61
4.000	1.75	10.083	4.84	16.167	4.04	22.25	1.61
4.083	1.75	10.167	4.84	16.250	2.42	22.33	1.61

4.167	1.75	|10.250	6.19	|16.333	2.42	|22.42	1.61
4.250	2.15	|10.333	6.19	|16.417	2.42	|22.50	1.61
4.333	2.15	|10.417	6.19	|16.500	2.42	|22.58	1.61
4.417	2.15	|10.500	6.19	|16.583	2.42	|22.67	1.61
4.500	2.15	|10.583	6.19	|16.667	2.42	|22.75	1.61
4.583	2.15	|10.667	6.19	|16.750	2.42	|22.83	1.61
4.667	2.15	|10.750	8.34	|16.833	2.42	|22.92	1.61
4.750	2.15	|10.833	8.34	|16.917	2.42	|23.00	1.61
4.833	2.15	|10.917	8.34	|17.000	2.42	|23.08	1.61
4.917	2.15	|11.000	8.34	|17.083	2.42	|23.17	1.61
5.000	2.15	|11.083	8.34	|17.167	2.42	|23.25	1.61
5.083	2.15	|11.167	8.34	|17.250	2.42	|23.33	1.61
5.167	2.15	|11.250	12.92	|17.333	2.42	|23.42	1.61
5.250	2.15	|11.333	12.92	|17.417	2.42	|23.50	1.61
5.333	2.15	|11.417	12.92	|17.500	2.42	|23.58	1.61
5.417	2.15	|11.500	12.92	|17.583	2.42	|23.67	1.61
5.500	2.15	|11.583	12.92	|17.667	2.42	|23.75	1.61
5.583	2.15	|11.667	12.92	|17.750	2.42	|23.83	1.61
5.667	2.15	|11.750	39.83	|17.833	2.42	|23.92	1.61
5.750	2.15	|11.833	39.83	|17.917	2.42	|24.00	1.61
5.833	2.15	|11.917	102.26	|18.000	2.42	|24.08	1.61
5.917	2.15	|12.000	102.27	|18.083	2.42	|24.17	1.61
6.000	2.15	|12.083	164.69	|18.167	2.42	|	
6.083	2.15	|12.167	164.70	|18.250	2.42	|	

Max.Eff.Inten.(mm/hr)= 164.70 62.12
over (min) 5.00 10.00

Storage Coeff. (min)= 1.64 (ii) 6.51 (ii)

Unit Hyd. Tpeak (min)= 5.00 10.00

Unit Hyd. peak (cms)= 0.32 0.14

TOTALS

PEAK FLOW (cms)= 0.31 0.09 0.394 (iii)

TIME TO PEAK (hrs)= 12.17 12.17 12.17

RUNOFF VOLUME (mm)= 133.06 42.09 87.57

TOTAL RAINFALL (mm)= 134.56 134.56 134.56

RUNOFF COEFFICIENT = 0.99 0.31 0.65

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

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:

CN* = 51.0 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 |
| STANDHYD (0200) | Area (ha)= 6.18
| ID= 1 DT= 5.0 min | Total Imp(%)= 38.00 Dir. Conn.(%)= 38.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 2.35 3.83
Dep. Storage (mm)= 1.50 5.00
Average Slope (%)= 2.00 2.00
Length (m)= 202.98 30.00
Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	|	TIME	RAIN	|	TIME	RAIN	|	TIME	RAIN
hrs	mm/hr	|	hrs	mm/hr	|	hrs	mm/hr	|	hrs	mm/hr
0.083	0.00	|	6.167	2.15	|	12.250	19.39	|	18.33	2.42
0.167	0.00	|	6.250	2.42	|	12.333	19.38	|	18.42	2.42
0.250	1.48	|	6.333	2.42	|	12.417	19.38	|	18.50	2.42
0.333	1.48	|	6.417	2.42	|	12.500	19.38	|	18.58	2.42
0.417	1.48	|	6.500	2.42	|	12.583	19.38	|	18.67	2.42
0.500	1.48	|	6.583	2.42	|	12.667	19.38	|	18.75	2.42
0.583	1.48	|	6.667	2.42	|	12.750	9.96	|	18.83	2.42
0.667	1.48	|	6.750	2.42	|	12.833	9.96	|	18.92	2.42
0.750	1.48	|	6.833	2.42	|	12.917	9.96	|	19.00	2.42

0.833	1.48	|	6.917	2.42	|	13.000	9.96	|	19.08	2.42
0.917	1.48	|	7.000	2.42	|	13.083	9.96	|	19.17	2.42
1.000	1.48	|	7.083	2.42	|	13.167	9.96	|	19.25	2.42
1.083	1.48	|	7.167	2.42	|	13.250	7.27	|	19.33	2.42
1.167	1.48	|	7.250	2.96	|	13.333	7.27	|	19.42	2.42
1.250	1.48	|	7.333	2.96	|	13.417	7.27	|	19.50	2.42
1.333	1.48	|	7.417	2.96	|	13.500	7.27	|	19.58	2.42
1.417	1.48	|	7.500	2.96	|	13.583	7.27	|	19.67	2.42
1.500	1.48	|	7.583	2.96	|	13.667	7.27	|	19.75	2.42
1.583	1.48	|	7.667	2.96	|	13.750	5.65	|	19.83	2.42
1.667	1.48	|	7.750	2.96	|	13.833	5.65	|	19.92	2.42
1.750	1.48	|	7.833	2.96	|	13.917	5.65	|	20.00	2.42
1.833	1.48	|	7.917	2.96	|	14.000	5.65	|	20.08	2.42
1.917	1.48	|	8.000	2.96	|	14.083	5.65	|	20.17	2.42
2.000	1.48	|	8.083	2.96	|	14.167	5.65	|	20.25	1.61
2.083	1.48	|	8.167	2.96	|	14.250	4.04	|	20.33	1.61
2.167	1.48	|	8.250	3.50	|	14.333	4.04	|	20.42	1.61
2.250	1.75	|	8.333	3.50	|	14.417	4.04	|	20.50	1.61
2.333	1.75	|	8.417	3.50	|	14.500	4.04	|	20.58	1.61
2.417	1.75	|	8.500	3.50	|	14.583	4.04	|	20.67	1.61
2.500	1.75	|	8.583	3.50	|	14.667	4.04	|	20.75	1.61
2.583	1.75	|	8.667	3.50	|	14.750	4.04	|	20.83	1.61
2.667	1.75	|	8.750	3.77	|	14.833	4.04	|	20.92	1.61
2.750	1.75	|	8.833	3.77	|	14.917	4.04	|	21.00	1.61
2.833	1.75	|	8.917	3.77	|	15.000	4.04	|	21.08	1.61
2.917	1.75	|	9.000	3.77	|	15.083	4.04	|	21.17	1.61
3.000	1.75	|	9.083	3.77	|	15.167	4.04	|	21.25	1.61
3.083	1.75	|	9.167	3.77	|	15.250	4.04	|	21.33	1.61
3.167	1.75	|	9.250	4.31	|	15.333	4.04	|	21.42	1.61
3.250	1.75	|	9.333	4.31	|	15.417	4.04	|	21.50	1.61
3.333	1.75	|	9.417	4.31	|	15.500	4.04	|	21.58	1.61
3.417	1.75	|	9.500	4.31	|	15.583	4.04	|	21.67	1.61
3.500	1.75	|	9.583	4.31	|	15.667	4.04	|	21.75	1.61
3.583	1.75	|	9.667	4.31	|	15.750	4.04	|	21.83	1.61
3.667	1.75	|	9.750	4.84	|	15.833	4.04	|	21.92	1.61
3.750	1.75	|	9.833	4.84	|	15.917	4.04	|	22.00	1.61
3.833	1.75	|	9.917	4.84	|	16.000	4.04	|	22.08	1.61
3.917	1.75	|	10.000	4.84	|	16.083	4.04	|	22.17	1.61
4.000	1.75	|	10.083	4.84	|	16.167	4.04	|	22.25	1.61
4.083	1.75	|	10.167	4.84	|	16.250	2.42	|	22.33	1.61
4.167	1.75	|	10.250	6.19	|	16.333	2.42	|	22.42	1.61
4.250	2.15	|	10.333	6.19	|	16.417	2.42	|	22.50	1.61
4.333	2.15	|	10.417	6.19	|	16.500	2.42	|	22.58	1.61
4.417	2.15	|	10.500	6.19	|	16.583	2.42	|	22.67	1.61
4.500	2.15	|	10.583	6.19	|	16.667	2.42	|	22.75	1.61
4.583	2.15	|	10.667	6.19	|	16.750	2.42	|	22.83	1.61
4.667	2.15	|	10.750	8.34	|	16.833	2.42	|	22.92	1.61
4.750	2.15	|	10.833	8.34	|	16.917	2.42	|	23.00	1.61
4.833	2.15	|	10.917	8.34	|	17.000	2.42	|	23.08	1.61
4.917	2.15	|	11.000	8.34	|	17.083	2.42	|	23.17	1.61
5.000	2.15	|	11.083	8.34	|	17.167	2.42	|	23.25	1.61
5.083	2.15	|	11.167	8.34	|	17.250	2.42	|	23.33	1.61
5.167	2.15	|	11.250	12.92	|	17.333	2.42	|	23.42	1.61
5.250	2.15	|	11.333	12.92	|	17.417	2.42	|	23.50	1.61
5.333	2.15	|	11.417	12.92	|	17.500	2.42	|	23.58	1.61
5.417	2.15	|	11.500	12.92	|	17.583	2.42	|	23.67	1.61
5.500	2.15	|	11.583	12.92	|	17.667	2.42	|	23.75	1.61
5.583	2.15	|	11.667	12.92	|	17.750	2.42	|	23.83	1.61
5.667	2.15	|	11.750	39.83	|	17.833	2.42	|	23.92	1.61
5.750	2.15	|	11.833	39.83	|	17.917	2.42	|	24.00	1.61
5.833	2.15	|	11.917	102.26	|	18.000	2.42	|	24.08	1.61
5.917	2.15	|	12.000	102.27	|	18.083	2.42	|	24.17	1.61
6.000	2.15	|	12.083	164.69	|	18.167	2.42	|		
6.083	2.15	|	12.167	164.70	|	18.250	2.42	|		

Max.Eff.Inten.(mm/hr)= 164.70 86.37
over (min) 5.00 10.00

Storage Coeff. (min)= 2.60 (ii) 8.90 (ii)

Unit Hyd. Tpeak (min)= 5.00 10.00

Unit Hyd. peak (cms)= 0.29 0.12

TOTALS

PEAK FLOW (cms)= 1.07 0.64 1.707 (iii)

TIME TO PEAK (hrs)= 12.17 12.17 12.17

RUNOFF VOLUME (mm)= 133.06 58.85 87.05
 TOTAL RAINFALL (mm)= 134.56 134.56 134.56
 RUNOFF COEFFICIENT = 0.99 0.44 0.65

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 62.0 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 (3000)|
 | 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
 ----- (ha) (cms) (hrs) (mm)
 ID1= 1 (0200): 6.18 1.707 12.17 87.05
 + ID2= 2 (0201): 1.34 0.394 12.17 87.57
 =====
 ID = 3 (3000): 7.52 2.102 12.17 87.14

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | ADD HYD (3000)|
 | 3 + 2 = 1 | AREA QPEAK TPEAK R.V.
 ----- (ha) (cms) (hrs) (mm)
 ID1= 3 (3000): 7.52 2.102 12.17 87.14
 + ID2= 2 (0031): 3.38 1.519 12.17 109.18
 =====
 ID = 1 (3000): 10.90 3.621 12.17 93.98

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | RESERVOIR(2000)| 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 | 0.0250 0.4259
 0.0050 0.0204 | 0.0260 0.4685
 0.0110 0.0661 | 0.0270 0.5128
 0.0130 0.0912 | 0.0850 0.6065
 0.0140 0.1177 | 0.1130 0.7073
 0.0170 0.1752 | 0.1240 0.7604
 0.0190 0.2061 | 0.1340 0.8153
 0.0210 0.2725 | 1.4710 0.8722
 0.0220 0.3083 | 4.6600 0.9315
 0.0240 0.3850 | 0.0000 0.0000

AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 INFLOW : ID= 2 (3000) 10.900 3.621 12.17 93.98
 OUTFLOW: ID= 1 (2000) 10.900 0.111 14.33 93.88

PEAK FLOW REDUCTION [Qout/Qin](%)= 3.05
 TIME SHIFT OF PEAK FLOW (min)=130.00
 MAXIMUM STORAGE USED (ha.m.)= 0.6991

 | ADD HYD (5000)|
 | 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
 ----- (ha) (cms) (hrs) (mm)
 ID1= 1 (2000): 10.90 0.111 14.33 93.88
 + ID2= 2 (0023): 0.64 0.213 12.17 99.00
 =====
 ID = 3 (5000): 11.54 0.239 12.17 94.16

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | CALIB |
 | STANDHYD (0202) | Area (ha)= 1.81
 | ID= 1 DT= 5.0 min | Total Imp(%)= 37.00 Dir. Conn.(%)= 26.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 0.67 1.14
 Dep. Storage (mm)= 1.50 6.90
 Average Slope (%)= 2.00 2.00
 Length (m)= 109.85 30.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	2.15	12.250	19.39	18.33	2.42
0.167	0.00	6.250	2.42	12.333	19.38	18.42	2.42
0.250	1.48	6.333	2.42	12.417	19.38	18.50	2.42
0.333	1.48	6.417	2.42	12.500	19.38	18.58	2.42
0.417	1.48	6.500	2.42	12.583	19.38	18.67	2.42
0.500	1.48	6.583	2.42	12.667	19.38	18.75	2.42
0.583	1.48	6.667	2.42	12.750	9.96	18.83	2.42
0.667	1.48	6.750	2.42	12.833	9.96	18.92	2.42
0.750	1.48	6.833	2.42	12.917	9.96	19.00	2.42
0.833	1.48	6.917	2.42	13.000	9.96	19.08	2.42
0.917	1.48	7.000	2.42	13.083	9.96	19.17	2.42
1.000	1.48	7.083	2.42	13.167	9.96	19.25	2.42
1.083	1.48	7.167	2.42	13.250	7.27	19.33	2.42
1.167	1.48	7.250	2.96	13.333	7.27	19.42	2.42
1.250	1.48	7.333	2.96	13.417	7.27	19.50	2.42
1.333	1.48	7.417	2.96	13.500	7.27	19.58	2.42
1.417	1.48	7.500	2.96	13.583	7.27	19.67	2.42
1.500	1.48	7.583	2.96	13.667	7.27	19.75	2.42
1.583	1.48	7.667	2.96	13.750	5.65	19.83	2.42
1.667	1.48	7.750	2.96	13.833	5.65	19.92	2.42
1.750	1.48	7.833	2.96	13.917	5.65	20.00	2.42
1.833	1.48	7.917	2.96	14.000	5.65	20.08	2.42
1.917	1.48	8.000	2.96	14.083	5.65	20.17	2.42
2.000	1.48	8.083	2.96	14.167	5.65	20.25	1.61
2.083	1.48	8.167	2.96	14.250	4.04	20.33	1.61
2.167	1.48	8.250	3.50	14.333	4.04	20.42	1.61
2.250	1.75	8.333	3.50	14.417	4.04	20.50	1.61
2.333	1.75	8.417	3.50	14.500	4.04	20.58	1.61
2.417	1.75	8.500	3.50	14.583	4.04	20.67	1.61
2.500	1.75	8.583	3.50	14.667	4.04	20.75	1.61
2.583	1.75	8.667	3.50	14.750	4.04	20.83	1.61
2.667	1.75	8.750	3.77	14.833	4.04	20.92	1.61
2.750	1.75	8.833	3.77	14.917	4.04	21.00	1.61
2.833	1.75	8.917	3.77	15.000	4.04	21.08	1.61
2.917	1.75	9.000	3.77	15.083	4.04	21.17	1.61
3.000	1.75	9.083	3.77	15.167	4.04	21.25	1.61
3.083	1.75	9.167	3.77	15.250	4.04	21.33	1.61
3.167	1.75	9.250	4.31	15.333	4.04	21.42	1.61
3.250	1.75	9.333	4.31	15.417	4.04	21.50	1.61
3.333	1.75	9.417	4.31	15.500	4.04	21.58	1.61
3.417	1.75	9.500	4.31	15.583	4.04	21.67	1.61
3.500	1.75	9.583	4.31	15.667	4.04	21.75	1.61
3.583	1.75	9.667	4.31	15.750	4.04	21.83	1.61
3.667	1.75	9.750	4.84	15.833	4.04	21.92	1.61
3.750	1.75	9.833	4.84	15.917	4.04	22.00	1.61
3.833	1.75	9.917	4.84	16.000	4.04	22.08	1.61
3.917	1.75	10.000	4.84	16.083	4.04	22.17	1.61
4.000	1.75	10.083	4.84	16.167	4.04	22.25	1.61
4.083	1.75	10.167	4.84	16.250	2.42	22.33	1.61
4.167	1.75	10.250	6.19	16.333	2.42	22.42	1.61
4.250	2.15	10.333	6.19	16.417	2.42	22.50	1.61
4.333	2.15	10.417	6.19	16.500	2.42	22.58	1.61
4.417	2.15	10.500	6.19	16.583	2.42	22.67	1.61

4.500	2.15	|10.583	6.19	|16.667	2.42	|22.75	1.61
4.583	2.15	|10.667	6.19	|16.750	2.42	|22.83	1.61
4.667	2.15	|10.750	8.34	|16.833	2.42	|22.92	1.61
4.750	2.15	|10.833	8.34	|16.917	2.42	|23.00	1.61
4.833	2.15	|10.917	8.34	|17.000	2.42	|23.08	1.61
4.917	2.15	|11.000	8.34	|17.083	2.42	|23.17	1.61
5.000	2.15	|11.083	8.34	|17.167	2.42	|23.25	1.61
5.083	2.15	|11.167	8.34	|17.250	2.42	|23.33	1.61
5.167	2.15	|11.250	12.92	|17.333	2.42	|23.42	1.61
5.250	2.15	|11.333	12.92	|17.417	2.42	|23.50	1.61
5.333	2.15	|11.417	12.92	|17.500	2.42	|23.58	1.61
5.417	2.15	|11.500	12.92	|17.583	2.42	|23.67	1.61
5.500	2.15	|11.583	12.92	|17.667	2.42	|23.75	1.61
5.583	2.15	|11.667	12.92	|17.750	2.42	|23.83	1.61
5.667	2.15	|11.750	39.83	|17.833	2.42	|23.92	1.61
5.750	2.15	|11.833	39.83	|17.917	2.42	|24.00	1.61
5.833	2.15	|11.917	102.26	|18.000	2.42	|24.08	1.61
5.917	2.15	|12.000	102.27	|18.083	2.42	|24.17	1.61
6.000	2.15	|12.083	164.69	|18.167	2.42	|	
6.083	2.15	|12.167	164.70	|18.250	2.42	|	

Max.Eff.Inten.(mm/hr)= 164.70 107.50
over (min) 5.00 10.00

Storage Coeff. (min)= 1.80 (ii) 7.57 (ii)

Unit Hyd. Tpeak (min)= 5.00 10.00

Unit Hyd. peak (cms)= 0.32 0.13

TOTALS

PEAK FLOW (cms)= 0.21 0.25 0.468 (iii)

TIME TO PEAK (hrs)= 12.17 12.17 12.17

RUNOFF VOLUME (mm)= 133.06 62.04 80.50

TOTAL RAINFALL (mm)= 134.56 134.56 134.56

RUNOFF COEFFICIENT = 0.99 0.46 0.60

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

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:

CN* = 61.0 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 (1000)|

| 1 + 2 = 3 | AREA QPEAK TPEAK R.V.

----- (ha) (cms) (hrs) (mm)

ID1= 1 (0202): 1.81 0.468 12.17 80.50

+ ID2= 2 (5000): 11.54 0.239 12.17 94.16

=====

ID = 3 (1000): 13.35 0.707 12.17 92.31

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| ADD HYD (1000)|

| 3 + 2 = 1 | AREA QPEAK TPEAK R.V.

----- (ha) (cms) (hrs) (mm)

ID1= 3 (1000): 13.35 0.707 12.17 92.31

+ ID2= 2 (6000): 0.81 0.237 12.17 86.04

=====

ID = 1 (1000): 14.16 0.944 12.17 91.95

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

V V I SSSSS U U A L (v6.2.2015)
V V I SS U U AA L
V V I SS U U AAAAA L
V V I SS U U A A L
W V I SSSSS UUUUU A A LLLLL

OOO TTTT TTTT H H Y Y M M OOO TM
O O T T H H Y Y M M M M O O
O O T T H H Y M M O O
OOO T T H H Y M M OOO

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***** DETAILED OUTPUT *****

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voain.dat
Output filename: C:\Users\ajoshi\AppData\Local\Civica\XH5\191a91e0-1a14-44fd-bc00-4941023c7dee\29516f6e-7feb-4e56-a1fd-b237c13f236e\scena
Summary filename: C:\Users\ajoshi\AppData\Local\Civica\XH5\191a91e0-1a14-44fd-bc00-4941023c7dee\29516f6e-7feb-4e56-a1fd-b237c13f236e\scena

DATE: 12-05-2025 TIME: 11:20:15

USER:

COMMENTS: _____

** SIMULATION : 7_100yr 24hr 10min SCS Type I **

| READ STORM | Filename: C:\Users\ajoshi\AppData
| | ata\Local\Temp\
| | a0c73555-1204-4f79-8531-cc8963073e72\1118027b
| Ptotal=145.92 mm | Comments: 100yr 24hr 10min SCS Type II

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	2.63	12.33	21.01	18.50	2.63
0.17	1.61	6.33	2.63	12.50	21.01	18.67	2.63
0.33	1.61	6.50	2.63	12.67	10.80	18.83	2.63
0.50	1.61	6.67	2.63	12.83	10.80	19.00	2.63
0.67	1.61	6.83	2.63	13.00	10.80	19.17	2.63
0.83	1.61	7.00	2.63	13.17	7.88	19.33	2.63
1.00	1.61	7.17	3.21	13.33	7.88	19.50	2.63
1.17	1.61	7.33	3.21	13.50	7.88	19.67	2.63
1.33	1.61	7.50	3.21	13.67	6.13	19.83	2.63
1.50	1.61	7.67	3.21	13.83	6.13	20.00	2.63
1.67	1.61	7.83	3.21	14.00	6.13	20.17	1.75
1.83	1.61	8.00	3.21	14.17	4.38	20.33	1.75
2.00	1.61	8.17	3.79	14.33	4.38	20.50	1.75
2.17	1.90	8.33	3.79	14.50	4.38	20.67	1.75
2.33	1.90	8.50	3.79	14.67	4.38	20.83	1.75
2.50	1.90	8.67	4.09	14.83	4.38	21.00	1.75
2.67	1.90	8.83	4.09	15.00	4.38	21.17	1.75
2.83	1.90	9.00	4.09	15.17	4.38	21.33	1.75
3.00	1.90	9.17	4.67	15.33	4.38	21.50	1.75
3.17	1.90	9.33	4.67	15.50	4.38	21.67	1.75
3.33	1.90	9.50	4.67	15.67	4.38	21.83	1.75
3.50	1.90	9.67	5.25	15.83	4.38	22.00	1.75
3.67	1.90	9.83	5.25	16.00	4.38	22.17	1.75
3.83	1.90	10.00	5.25	16.17	2.63	22.33	1.75
4.00	1.90	10.17	6.71	16.33	2.63	22.50	1.75

4.17 2.33 | 10.33 6.71 | 16.50 2.63 | 22.67 1.75
 4.33 2.33 | 10.50 6.71 | 16.67 2.63 | 22.83 1.75
 4.50 2.33 | 10.67 9.05 | 16.83 2.63 | 23.00 1.75
 4.67 2.33 | 10.83 9.05 | 17.00 2.63 | 23.17 1.75
 4.83 2.33 | 11.00 9.05 | 17.17 2.63 | 23.33 1.75
 5.00 2.33 | 11.17 14.01 | 17.33 2.63 | 23.50 1.75
 5.17 2.33 | 11.33 14.01 | 17.50 2.63 | 23.67 1.75
 5.33 2.33 | 11.50 14.01 | 17.67 2.63 | 23.83 1.75
 5.50 2.33 | 11.67 43.19 | 17.83 2.63 | 24.00 1.75
 5.67 2.33 | 11.83 110.90 | 18.00 2.63 |
 5.83 2.33 | 12.00 178.61 | 18.17 2.63 |
 6.00 2.33 | 12.17 21.01 | 18.33 2.63 |

 | CALIB |
 | NASHYD (0203) | Area (ha)= 0.29 Curve Number (CN)= 62.0
 | ID= 1 DT= 5.0 min | Ia (mm)= 5.00 # of Linear Res.(N)= 3.00
 ----- U.H. Tp(hrs)= 0.17

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----
 TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
 hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr
 0.083 0.00 | 6.167 2.33 | 12.250 21.03 | 18.33 2.63
 0.167 0.00 | 6.250 2.63 | 12.333 21.01 | 18.42 2.63
 0.250 1.61 | 6.333 2.63 | 12.417 21.01 | 18.50 2.63
 0.333 1.61 | 6.417 2.63 | 12.500 21.01 | 18.58 2.63
 0.417 1.61 | 6.500 2.63 | 12.583 21.01 | 18.67 2.63
 0.500 1.61 | 6.583 2.63 | 12.667 21.01 | 18.75 2.63
 0.583 1.61 | 6.667 2.63 | 12.750 10.80 | 18.83 2.63
 0.667 1.61 | 6.750 2.63 | 12.833 10.80 | 18.92 2.63
 0.750 1.61 | 6.833 2.63 | 12.917 10.80 | 19.00 2.63
 0.833 1.61 | 6.917 2.63 | 13.000 10.80 | 19.08 2.63
 0.917 1.61 | 7.000 2.63 | 13.083 10.80 | 19.17 2.63
 1.000 1.61 | 7.083 2.63 | 13.167 10.80 | 19.25 2.63
 1.083 1.61 | 7.167 2.63 | 13.250 7.88 | 19.33 2.63
 1.167 1.61 | 7.250 3.21 | 13.333 7.88 | 19.42 2.63
 1.250 1.61 | 7.333 3.21 | 13.417 7.88 | 19.50 2.63
 1.333 1.61 | 7.417 3.21 | 13.500 7.88 | 19.58 2.63
 1.417 1.61 | 7.500 3.21 | 13.583 7.88 | 19.67 2.63
 1.500 1.61 | 7.583 3.21 | 13.667 7.88 | 19.75 2.63
 1.583 1.61 | 7.667 3.21 | 13.750 6.13 | 19.83 2.63
 1.667 1.61 | 7.750 3.21 | 13.833 6.13 | 19.92 2.63
 1.750 1.61 | 7.833 3.21 | 13.917 6.13 | 20.00 2.63
 1.833 1.61 | 7.917 3.21 | 14.000 6.13 | 20.08 2.63
 1.917 1.61 | 8.000 3.21 | 14.083 6.13 | 20.17 2.63
 2.000 1.61 | 8.083 3.21 | 14.167 6.13 | 20.25 1.75
 2.083 1.61 | 8.167 3.21 | 14.250 4.38 | 20.33 1.75
 2.167 1.61 | 8.250 3.79 | 14.333 4.38 | 20.42 1.75
 2.250 1.90 | 8.333 3.79 | 14.417 4.38 | 20.50 1.75
 2.333 1.90 | 8.417 3.79 | 14.500 4.38 | 20.58 1.75
 2.417 1.90 | 8.500 3.79 | 14.583 4.38 | 20.67 1.75
 2.500 1.90 | 8.583 3.79 | 14.667 4.38 | 20.75 1.75
 2.583 1.90 | 8.667 3.79 | 14.750 4.38 | 20.83 1.75
 2.667 1.90 | 8.750 4.09 | 14.833 4.38 | 20.92 1.75
 2.750 1.90 | 8.833 4.09 | 14.917 4.38 | 21.00 1.75
 2.833 1.90 | 8.917 4.09 | 15.000 4.38 | 21.08 1.75
 2.917 1.90 | 9.000 4.09 | 15.083 4.38 | 21.17 1.75
 3.000 1.90 | 9.083 4.09 | 15.167 4.38 | 21.25 1.75
 3.083 1.90 | 9.167 4.09 | 15.250 4.38 | 21.33 1.75
 3.167 1.90 | 9.250 4.67 | 15.333 4.38 | 21.42 1.75
 3.250 1.90 | 9.333 4.67 | 15.417 4.38 | 21.50 1.75
 3.333 1.90 | 9.417 4.67 | 15.500 4.38 | 21.58 1.75
 3.417 1.90 | 9.500 4.67 | 15.583 4.38 | 21.67 1.75
 3.500 1.90 | 9.583 4.67 | 15.667 4.38 | 21.75 1.75
 3.583 1.90 | 9.667 4.67 | 15.750 4.38 | 21.83 1.75
 3.667 1.90 | 9.750 5.25 | 15.833 4.38 | 21.92 1.75
 3.750 1.90 | 9.833 5.25 | 15.917 4.38 | 22.00 1.75
 3.833 1.90 | 9.917 5.25 | 16.000 4.38 | 22.08 1.75

3.917	1.90	|10.000	5.25	|16.083	4.38	|22.17	1.75
4.000	1.90	|10.083	5.25	|16.167	4.38	|22.25	1.75
4.083	1.90	|10.167	5.25	|16.250	2.63	|22.33	1.75
4.167	1.90	|10.250	6.71	|16.333	2.63	|22.42	1.75
4.250	2.33	|10.333	6.71	|16.417	2.63	|22.50	1.75
4.333	2.33	|10.417	6.71	|16.500	2.63	|22.58	1.75
4.417	2.33	|10.500	6.71	|16.583	2.63	|22.67	1.75
4.500	2.33	|10.583	6.71	|16.667	2.63	|22.75	1.75
4.583	2.33	|10.667	6.71	|16.750	2.63	|22.83	1.75
4.667	2.33	|10.750	9.05	|16.833	2.63	|22.92	1.75
4.750	2.33	|10.833	9.05	|16.917	2.63	|23.00	1.75
4.833	2.33	|10.917	9.05	|17.000	2.63	|23.08	1.75
4.917	2.33	|11.000	9.05	|17.083	2.63	|23.17	1.75
5.000	2.33	|11.083	9.05	|17.167	2.63	|23.25	1.75
5.083	2.33	|11.167	9.05	|17.250	2.63	|23.33	1.75
5.167	2.33	|11.250	14.01	|17.333	2.63	|23.42	1.75
5.250	2.33	|11.333	14.01	|17.417	2.63	|23.50	1.75
5.333	2.33	|11.417	14.01	|17.500	2.63	|23.58	1.75
5.417	2.33	|11.500	14.01	|17.583	2.63	|23.67	1.75
5.500	2.33	|11.583	14.01	|17.667	2.63	|23.75	1.75
5.583	2.33	|11.667	14.01	|17.750	2.63	|23.83	1.75
5.667	2.33	|11.750	43.19	|17.833	2.63	|23.92	1.75
5.750	2.33	|11.833	43.19	|17.917	2.63	|24.00	1.75
5.833	2.33	|11.917	110.89	|18.000	2.63	|24.08	1.75
5.917	2.33	|12.000	110.90	|18.083	2.63	|24.17	1.75
6.000	2.33	|12.083	178.60	|18.167	2.63	|	
6.083	2.33	|12.167	178.61	|18.250	2.63	|	

Unit Hyd Qpeak (cms)= 0.064

PEAK FLOW (cms)= 0.051 (i)
 TIME TO PEAK (hrs)= 12.167
 RUNOFF VOLUME (mm)= 66.715
 TOTAL RAINFALL (mm)= 145.920
 RUNOFF COEFFICIENT = 0.457

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

 | CALIB |
 | STANDHYD (0206) | Area (ha)= 0.52
 | ID= 1 DT= 5.0 min | Total Imp(%)= 63.00 Dir. Conn.(%)= 49.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 0.33 0.19
 Dep. Storage (mm)= 1.50 5.00
 Average Slope (%)= 2.00 2.00
 Length (m)= 59.10 15.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	|6.167	2.33	|12.250	21.03	|18.33	2.63
0.167	0.00	|6.250	2.63	|12.333	21.01	|18.42	2.63
0.250	1.61	|6.333	2.63	|12.417	21.01	|18.50	2.63
0.333	1.61	|6.417	2.63	|12.500	21.01	|18.58	2.63
0.417	1.61	|6.500	2.63	|12.583	21.01	|18.67	2.63
0.500	1.61	|6.583	2.63	|12.667	21.01	|18.75	2.63
0.583	1.61	|6.667	2.63	|12.750	10.80	|18.83	2.63
0.667	1.61	|6.750	2.63	|12.833	10.80	|18.92	2.63
0.750	1.61	|6.833	2.63	|12.917	10.80	|19.00	2.63
0.833	1.61	|6.917	2.63	|13.000	10.80	|19.08	2.63
0.917	1.61	|7.000	2.63	|13.083	10.80	|19.17	2.63
1.000	1.61	|7.083	2.63	|13.167	10.80	|19.25	2.63
1.083	1.61	|7.167	2.63	|13.250	7.88	|19.33	2.63
1.167	1.61	|7.250	3.21	|13.333	7.88	|19.42	2.63
1.250	1.61	|7.333	3.21	|13.417	7.88	|19.50	2.63
1.333	1.61	|7.417	3.21	|13.500	7.88	|19.58	2.63

1.417	1.61	7.500	3.21	13.583	7.88	19.67	2.63
1.500	1.61	7.583	3.21	13.667	7.88	19.75	2.63
1.583	1.61	7.667	3.21	13.750	6.13	19.83	2.63
1.667	1.61	7.750	3.21	13.833	6.13	19.92	2.63
1.750	1.61	7.833	3.21	13.917	6.13	20.00	2.63
1.833	1.61	7.917	3.21	14.000	6.13	20.08	2.63
1.917	1.61	8.000	3.21	14.083	6.13	20.17	2.63
2.000	1.61	8.083	3.21	14.167	6.13	20.25	1.75
2.083	1.61	8.167	3.21	14.250	4.38	20.33	1.75
2.167	1.61	8.250	3.79	14.333	4.38	20.42	1.75
2.250	1.90	8.333	3.79	14.417	4.38	20.50	1.75
2.333	1.90	8.417	3.79	14.500	4.38	20.58	1.75
2.417	1.90	8.500	3.79	14.583	4.38	20.67	1.75
2.500	1.90	8.583	3.79	14.667	4.38	20.75	1.75
2.583	1.90	8.667	3.79	14.750	4.38	20.83	1.75
2.667	1.90	8.750	4.09	14.833	4.38	20.92	1.75
2.750	1.90	8.833	4.09	14.917	4.38	21.00	1.75
2.833	1.90	8.917	4.09	15.000	4.38	21.08	1.75
2.917	1.90	9.000	4.09	15.083	4.38	21.17	1.75
3.000	1.90	9.083	4.09	15.167	4.38	21.25	1.75
3.083	1.90	9.167	4.09	15.250	4.38	21.33	1.75
3.167	1.90	9.250	4.67	15.333	4.38	21.42	1.75
3.250	1.90	9.333	4.67	15.417	4.38	21.50	1.75
3.333	1.90	9.417	4.67	15.500	4.38	21.58	1.75
3.417	1.90	9.500	4.67	15.583	4.38	21.67	1.75
3.500	1.90	9.583	4.67	15.667	4.38	21.75	1.75
3.583	1.90	9.667	4.67	15.750	4.38	21.83	1.75
3.667	1.90	9.750	5.25	15.833	4.38	21.92	1.75
3.750	1.90	9.833	5.25	15.917	4.38	22.00	1.75
3.833	1.90	9.917	5.25	16.000	4.38	22.08	1.75
3.917	1.90	10.000	5.25	16.083	4.38	22.17	1.75
4.000	1.90	10.083	5.25	16.167	4.38	22.25	1.75
4.083	1.90	10.167	5.25	16.250	2.63	22.33	1.75
4.167	1.90	10.250	6.71	16.333	2.63	22.42	1.75
4.250	2.33	10.333	6.71	16.417	2.63	22.50	1.75
4.333	2.33	10.417	6.71	16.500	2.63	22.58	1.75
4.417	2.33	10.500	6.71	16.583	2.63	22.67	1.75
4.500	2.33	10.583	6.71	16.667	2.63	22.75	1.75
4.583	2.33	10.667	6.71	16.750	2.63	22.83	1.75
4.667	2.33	10.750	9.05	16.833	2.63	22.92	1.75
4.750	2.33	10.833	9.05	16.917	2.63	23.00	1.75
4.833	2.33	10.917	9.05	17.000	2.63	23.08	1.75
4.917	2.33	11.000	9.05	17.083	2.63	23.17	1.75
5.000	2.33	11.083	9.05	17.167	2.63	23.25	1.75
5.083	2.33	11.167	9.05	17.250	2.63	23.33	1.75
5.167	2.33	11.250	14.01	17.333	2.63	23.42	1.75
5.250	2.33	11.333	14.01	17.417	2.63	23.50	1.75
5.333	2.33	11.417	14.01	17.500	2.63	23.58	1.75
5.417	2.33	11.500	14.01	17.583	2.63	23.67	1.75
5.500	2.33	11.583	14.01	17.667	2.63	23.75	1.75
5.583	2.33	11.667	14.01	17.750	2.63	23.83	1.75
5.667	2.33	11.750	43.19	17.833	2.63	23.92	1.75
5.750	2.33	11.833	43.19	17.917	2.63	24.00	1.75
5.833	2.33	11.917	110.89	18.000	2.63	24.08	1.75
5.917	2.33	12.000	110.90	18.083	2.63	24.17	1.75
6.000	2.33	12.083	178.60	18.167	2.63		
6.083	2.33	12.167	178.61	18.250	2.63		

Max.Eff.Inten.(mm/hr)= 178.61 159.73
over (min) 5.00 5.00

Storage Coeff. (min)= 1.20 (ii) 3.98 (ii)

Unit Hyd. Tpeak (min)= 5.00 5.00

Unit Hyd. peak (cms)= 0.33 0.24

TOTALS

PEAK FLOW (cms)= 0.13 0.08 0.212 (iii)

TIME TO PEAK (hrs)= 12.17 12.17 12.17

RUNOFF VOLUME (mm)= 144.42 79.33 111.22

TOTAL RAINFALL (mm)= 145.92 145.92 145.92

RUNOFF COEFFICIENT = 0.99 0.54 0.76

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

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:

- CN* = 62.0 la = 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 (6000) |

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

ID1= 1 (0203): 0.29 0.051 12.17 66.71

+ ID2= 2 (0206): 0.52 0.212 12.17 111.22

=====

ID = 3 (6000): 0.81 0.263 12.17 95.47

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | CALIB |

| NASHYD (0205) | Area (ha)= 0.16 Curve Number (CN)= 62.0

| ID= 1 DT= 5.0 min | la (mm)= 5.00 # of Linear Res.(N)= 3.00

----- U.H. Tp(hrs)= 0.17

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	2.33	12.250	21.03	18.33	2.63
0.167	0.00	6.250	2.63	12.333	21.01	18.42	2.63
0.250	1.61	6.333	2.63	12.417	21.01	18.50	2.63
0.333	1.61	6.417	2.63	12.500	21.01	18.58	2.63
0.417	1.61	6.500	2.63	12.583	21.01	18.67	2.63
0.500	1.61	6.583	2.63	12.667	21.01	18.75	2.63
0.583	1.61	6.667	2.63	12.750	10.80	18.83	2.63
0.667	1.61	6.750	2.63	12.833	10.80	18.92	2.63
0.750	1.61	6.833	2.63	12.917	10.80	19.00	2.63
0.833	1.61	6.917	2.63	13.000	10.80	19.08	2.63
0.917	1.61	7.000	2.63	13.083	10.80	19.17	2.63
1.000	1.61	7.083	2.63	13.167	10.80	19.25	2.63
1.083	1.61	7.167	2.63	13.250	7.88	19.33	2.63
1.167	1.61	7.250	3.21	13.333	7.88	19.42	2.63
1.250	1.61	7.333	3.21	13.417	7.88	19.50	2.63
1.333	1.61	7.417	3.21	13.500	7.88	19.58	2.63
1.417	1.61	7.500	3.21	13.583	7.88	19.67	2.63
1.500	1.61	7.583	3.21	13.667	7.88	19.75	2.63
1.583	1.61	7.667	3.21	13.750	6.13	19.83	2.63
1.667	1.61	7.750	3.21	13.833	6.13	19.92	2.63
1.750	1.61	7.833	3.21	13.917	6.13	20.00	2.63
1.833	1.61	7.917	3.21	14.000	6.13	20.08	2.63
1.917	1.61	8.000	3.21	14.083	6.13	20.17	2.63
2.000	1.61	8.083	3.21	14.167	6.13	20.25	1.75
2.083	1.61	8.167	3.21	14.250	4.38	20.33	1.75
2.167	1.61	8.250	3.79	14.333	4.38	20.42	1.75
2.250	1.90	8.333	3.79	14.417	4.38	20.50	1.75
2.333	1.90	8.417	3.79	14.500	4.38	20.58	1.75
2.417	1.90	8.500	3.79	14.583	4.38	20.67	1.75
2.500	1.90	8.583	3.79	14.667	4.38	20.75	1.75
2.583	1.90	8.667	3.79	14.750	4.38	20.83	1.75
2.667	1.90	8.750	4.09	14.833	4.38	20.92	1.75
2.750	1.90	8.833	4.09	14.917	4.38	21.00	1.75
2.833	1.90	8.917	4.09	15.000	4.38	21.08	1.75
2.917	1.90	9.000	4.09	15.083	4.38	21.17	1.75
3.000	1.90	9.083	4.09	15.167	4.38	21.25	1.75
3.083	1.90	9.167	4.09	15.250	4.38	21.33	1.75
3.167	1.90	9.250	4.67	15.333	4.38	21.42	1.75
3.250	1.90	9.333	4.67	15.417	4.38	21.50	1.75
3.333	1.90	9.417	4.67	15.500	4.38	21.58	1.75
3.417	1.90	9.500	4.67	15.583	4.38	21.67	1.75
3.500	1.90	9.583	4.67	15.667	4.38	21.75	1.75
3.583	1.90	9.667	4.67	15.750	4.38	21.83	1.75

3.667	1.90	|9.750	5.25	|15.833	4.38	|21.92	1.75
3.750	1.90	|9.833	5.25	|15.917	4.38	|22.00	1.75
3.833	1.90	|9.917	5.25	|16.000	4.38	|22.08	1.75
3.917	1.90	|10.000	5.25	|16.083	4.38	|22.17	1.75
4.000	1.90	|10.083	5.25	|16.167	4.38	|22.25	1.75
4.083	1.90	|10.167	5.25	|16.250	2.63	|22.33	1.75
4.167	1.90	|10.250	6.71	|16.333	2.63	|22.42	1.75
4.250	2.33	|10.333	6.71	|16.417	2.63	|22.50	1.75
4.333	2.33	|10.417	6.71	|16.500	2.63	|22.58	1.75
4.417	2.33	|10.500	6.71	|16.583	2.63	|22.67	1.75
4.500	2.33	|10.583	6.71	|16.667	2.63	|22.75	1.75
4.583	2.33	|10.667	6.71	|16.750	2.63	|22.83	1.75
4.667	2.33	|10.750	9.05	|16.833	2.63	|22.92	1.75
4.750	2.33	|10.833	9.05	|16.917	2.63	|23.00	1.75
4.833	2.33	|10.917	9.05	|17.000	2.63	|23.08	1.75
4.917	2.33	|11.000	9.05	|17.083	2.63	|23.17	1.75
5.000	2.33	|11.083	9.05	|17.167	2.63	|23.25	1.75
5.083	2.33	|11.167	9.05	|17.250	2.63	|23.33	1.75
5.167	2.33	|11.250	14.01	|17.333	2.63	|23.42	1.75
5.250	2.33	|11.333	14.01	|17.417	2.63	|23.50	1.75
5.333	2.33	|11.417	14.01	|17.500	2.63	|23.58	1.75
5.417	2.33	|11.500	14.01	|17.583	2.63	|23.67	1.75
5.500	2.33	|11.583	14.01	|17.667	2.63	|23.75	1.75
5.583	2.33	|11.667	14.01	|17.750	2.63	|23.83	1.75
5.667	2.33	|11.750	43.19	|17.833	2.63	|23.92	1.75
5.750	2.33	|11.833	43.19	|17.917	2.63	|24.00	1.75
5.833	2.33	|11.917	110.89	|18.000	2.63	|24.08	1.75
5.917	2.33	|12.000	110.90	|18.083	2.63	|24.17	1.75
6.000	2.33	|12.083	178.60	|18.167	2.63	|	
6.083	2.33	|12.167	178.61	|18.250	2.63	|	

Unit Hyd Qpeak (cms)= 0.035

PEAK FLOW (cms)= 0.028 (i)

TIME TO PEAK (hrs)= 12.167

RUNOFF VOLUME (mm)= 66.713

TOTAL RAINFALL (mm)= 145.920

RUNOFF COEFFICIENT = 0.457

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

 | CALIB |
 | STANDHYD (0204) | Area (ha)= 0.48
 | ID= 1 DT= 5.0 min | Total Imp(%)= 72.00 Dir. Conn.(%)= 72.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.35	0.13
Dep. Storage (mm)=	1.50	5.00
Average Slope (°)=	5.00	2.00
Length (m)=	56.57	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	|6.167	2.33	|12.250	21.03	|18.33	2.63
0.167	0.00	|6.250	2.63	|12.333	21.01	|18.42	2.63
0.250	1.61	|6.333	2.63	|12.417	21.01	|18.50	2.63
0.333	1.61	|6.417	2.63	|12.500	21.01	|18.58	2.63
0.417	1.61	|6.500	2.63	|12.583	21.01	|18.67	2.63
0.500	1.61	|6.583	2.63	|12.667	21.01	|18.75	2.63
0.583	1.61	|6.667	2.63	|12.750	10.80	|18.83	2.63
0.667	1.61	|6.750	2.63	|12.833	10.80	|18.92	2.63
0.750	1.61	|6.833	2.63	|12.917	10.80	|19.00	2.63
0.833	1.61	|6.917	2.63	|13.000	10.80	|19.08	2.63
0.917	1.61	|7.000	2.63	|13.083	10.80	|19.17	2.63
1.000	1.61	|7.083	2.63	|13.167	10.80	|19.25	2.63
1.083	1.61	|7.167	2.63	|13.250	7.88	|19.33	2.63

1.167	1.61	| 7.250	3.21	|13.333	7.88	| 19.42	2.63
1.250	1.61	| 7.333	3.21	|13.417	7.88	| 19.50	2.63
1.333	1.61	| 7.417	3.21	|13.500	7.88	| 19.58	2.63
1.417	1.61	| 7.500	3.21	|13.583	7.88	| 19.67	2.63
1.500	1.61	| 7.583	3.21	|13.667	7.88	| 19.75	2.63
1.583	1.61	| 7.667	3.21	|13.750	6.13	| 19.83	2.63
1.667	1.61	| 7.750	3.21	|13.833	6.13	| 19.92	2.63
1.750	1.61	| 7.833	3.21	|13.917	6.13	| 20.00	2.63
1.833	1.61	| 7.917	3.21	|14.000	6.13	| 20.08	2.63
1.917	1.61	| 8.000	3.21	|14.083	6.13	| 20.17	2.63
2.000	1.61	| 8.083	3.21	|14.167	6.13	| 20.25	1.75
2.083	1.61	| 8.167	3.21	|14.250	4.38	| 20.33	1.75
2.167	1.61	| 8.250	3.79	|14.333	4.38	| 20.42	1.75
2.250	1.90	| 8.333	3.79	|14.417	4.38	| 20.50	1.75
2.333	1.90	| 8.417	3.79	|14.500	4.38	| 20.58	1.75
2.417	1.90	| 8.500	3.79	|14.583	4.38	| 20.67	1.75
2.500	1.90	| 8.583	3.79	|14.667	4.38	| 20.75	1.75
2.583	1.90	| 8.667	3.79	|14.750	4.38	| 20.83	1.75
2.667	1.90	| 8.750	4.09	|14.833	4.38	| 20.92	1.75
2.750	1.90	| 8.833	4.09	|14.917	4.38	| 21.00	1.75
2.833	1.90	| 8.917	4.09	|15.000	4.38	| 21.08	1.75
2.917	1.90	| 9.000	4.09	|15.083	4.38	| 21.17	1.75
3.000	1.90	| 9.083	4.09	|15.167	4.38	| 21.25	1.75
3.083	1.90	| 9.167	4.09	|15.250	4.38	| 21.33	1.75
3.167	1.90	| 9.250	4.67	|15.333	4.38	| 21.42	1.75
3.250	1.90	| 9.333	4.67	|15.417	4.38	| 21.50	1.75
3.333	1.90	| 9.417	4.67	|15.500	4.38	| 21.58	1.75
3.417	1.90	| 9.500	4.67	|15.583	4.38	| 21.67	1.75
3.500	1.90	| 9.583	4.67	|15.667	4.38	| 21.75	1.75
3.583	1.90	| 9.667	4.67	|15.750	4.38	| 21.83	1.75
3.667	1.90	| 9.750	5.25	|15.833	4.38	| 21.92	1.75
3.750	1.90	| 9.833	5.25	|15.917	4.38	| 22.00	1.75
3.833	1.90	| 9.917	5.25	|16.000	4.38	| 22.08	1.75
3.917	1.90	| 10.000	5.25	|16.083	4.38	| 22.17	1.75
4.000	1.90	| 10.083	5.25	|16.167	4.38	| 22.25	1.75
4.083	1.90	| 10.167	5.25	|16.250	2.63	| 22.33	1.75
4.167	1.90	| 10.250	6.71	|16.333	2.63	| 22.42	1.75
4.250	2.33	| 10.333	6.71	|16.417	2.63	| 22.50	1.75
4.333	2.33	| 10.417	6.71	|16.500	2.63	| 22.58	1.75
4.417	2.33	| 10.500	6.71	|16.583	2.63	| 22.67	1.75
4.500	2.33	| 10.583	6.71	|16.667	2.63	| 22.75	1.75
4.583	2.33	| 10.667	6.71	|16.750	2.63	| 22.83	1.75
4.667	2.33	| 10.750	9.05	|16.833	2.63	| 22.92	1.75
4.750	2.33	| 10.833	9.05	|16.917	2.63	| 23.00	1.75
4.833	2.33	| 10.917	9.05	|17.000	2.63	| 23.08	1.75
4.917	2.33	| 11.000	9.05	|17.083	2.63	| 23.17	1.75
5.000	2.33	| 11.083	9.05	|17.167	2.63	| 23.25	1.75
5.083	2.33	| 11.167	9.05	|17.250	2.63	| 23.33	1.75
5.167	2.33	| 11.250	14.01	|17.333	2.63	| 23.42	1.75
5.250	2.33	| 11.333	14.01	|17.417	2.63	| 23.50	1.75
5.333	2.33	| 11.417	14.01	|17.500	2.63	| 23.58	1.75
5.417	2.33	| 11.500	14.01	|17.583	2.63	| 23.67	1.75
5.500	2.33	| 11.583	14.01	|17.667	2.63	| 23.75	1.75
5.583	2.33	| 11.667	14.01	|17.750	2.63	| 23.83	1.75
5.667	2.33	| 11.750	43.19	|17.833	2.63	| 23.92	1.75
5.750	2.33	| 11.833	43.19	|17.917	2.63	| 24.00	1.75
5.833	2.33	| 11.917	110.89	|18.000	2.63	| 24.08	1.75
5.917	2.33	| 12.000	110.90	|18.083	2.63	| 24.17	1.75
6.000	2.33	| 12.083	178.60	|18.167	2.63	|	
6.083	2.33	| 12.167	178.61	|18.250	2.63	|	

Max.Eff.Inten.(mm/hr)= 178.61 98.22
over (min) 5.00 5.00

Storage Coeff. (min)= 0.89 (ii) 4.72 (ii)

Unit Hyd. Tpeak (min)= 5.00 5.00

Unit Hyd. peak (cms)= 0.34 0.22

TOTALS

PEAK FLOW (cms)= 0.17 0.04 0.207 (iii)

TIME TO PEAK (hrs)= 12.17 12.17 12.17

RUNOFF VOLUME (mm)= 144.42 66.95 122.72

TOTAL RAINFALL (mm)= 145.92 145.92 145.92

RUNOFF COEFFICIENT = 0.99 0.46 0.84

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 62.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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-----
| ADD HYD ( 0023)|
| 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
----- (ha) (cms) (hrs) (mm)
ID1= 1 ( 0204): 0.48 0.207 12.17 122.72
+ ID2= 2 ( 0205): 0.16 0.028 12.17 66.71
=====
ID = 3 ( 0023): 0.64 0.235 12.17 108.86

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NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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| CALIB |
| STANDHYD ( 2001)| Area (ha)= 3.38
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 71.00
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IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 3.35 0.03
Dep. Storage (mm)= 1.50 5.00
Average Slope (%)= 2.00 2.00
Length (m)= 150.11 30.00
Mannings n = 0.013 0.250

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NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

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---- TRANSFORMED HYETOGRAPH ----
TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr
0.083 0.00 | 6.167 2.33 | 12.250 21.03 | 18.33 2.63
0.167 0.00 | 6.250 2.63 | 12.333 21.01 | 18.42 2.63
0.250 1.61 | 6.333 2.63 | 12.417 21.01 | 18.50 2.63
0.333 1.61 | 6.417 2.63 | 12.500 21.01 | 18.58 2.63
0.417 1.61 | 6.500 2.63 | 12.583 21.01 | 18.67 2.63
0.500 1.61 | 6.583 2.63 | 12.667 21.01 | 18.75 2.63
0.583 1.61 | 6.667 2.63 | 12.750 10.80 | 18.83 2.63
0.667 1.61 | 6.750 2.63 | 12.833 10.80 | 18.92 2.63
0.750 1.61 | 6.833 2.63 | 12.917 10.80 | 19.00 2.63
0.833 1.61 | 6.917 2.63 | 13.000 10.80 | 19.08 2.63
0.917 1.61 | 7.000 2.63 | 13.083 10.80 | 19.17 2.63
1.000 1.61 | 7.083 2.63 | 13.167 10.80 | 19.25 2.63
1.083 1.61 | 7.167 2.63 | 13.250 7.88 | 19.33 2.63
1.167 1.61 | 7.250 3.21 | 13.333 7.88 | 19.42 2.63
1.250 1.61 | 7.333 3.21 | 13.417 7.88 | 19.50 2.63
1.333 1.61 | 7.417 3.21 | 13.500 7.88 | 19.58 2.63
1.417 1.61 | 7.500 3.21 | 13.583 7.88 | 19.67 2.63
1.500 1.61 | 7.583 3.21 | 13.667 7.88 | 19.75 2.63
1.583 1.61 | 7.667 3.21 | 13.750 6.13 | 19.83 2.63
1.667 1.61 | 7.750 3.21 | 13.833 6.13 | 19.92 2.63
1.750 1.61 | 7.833 3.21 | 13.917 6.13 | 20.00 2.63
1.833 1.61 | 7.917 3.21 | 14.000 6.13 | 20.08 2.63
1.917 1.61 | 8.000 3.21 | 14.083 6.13 | 20.17 2.63
2.000 1.61 | 8.083 3.21 | 14.167 6.13 | 20.25 1.75
2.083 1.61 | 8.167 3.21 | 14.250 4.38 | 20.33 1.75
2.167 1.61 | 8.250 3.79 | 14.333 4.38 | 20.42 1.75
2.250 1.90 | 8.333 3.79 | 14.417 4.38 | 20.50 1.75
2.333 1.90 | 8.417 3.79 | 14.500 4.38 | 20.58 1.75
2.417 1.90 | 8.500 3.79 | 14.583 4.38 | 20.67 1.75
2.500 1.90 | 8.583 3.79 | 14.667 4.38 | 20.75 1.75
2.583 1.90 | 8.667 3.79 | 14.750 4.38 | 20.83 1.75
2.667 1.90 | 8.750 4.09 | 14.833 4.38 | 20.92 1.75
2.750 1.90 | 8.833 4.09 | 14.917 4.38 | 21.00 1.75
2.833 1.90 | 8.917 4.09 | 15.000 4.38 | 21.08 1.75

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2.917	1.90	9.000	4.09	15.083	4.38	21.17	1.75
3.000	1.90	9.083	4.09	15.167	4.38	21.25	1.75
3.083	1.90	9.167	4.09	15.250	4.38	21.33	1.75
3.167	1.90	9.250	4.67	15.333	4.38	21.42	1.75
3.250	1.90	9.333	4.67	15.417	4.38	21.50	1.75
3.333	1.90	9.417	4.67	15.500	4.38	21.58	1.75
3.417	1.90	9.500	4.67	15.583	4.38	21.67	1.75
3.500	1.90	9.583	4.67	15.667	4.38	21.75	1.75
3.583	1.90	9.667	4.67	15.750	4.38	21.83	1.75
3.667	1.90	9.750	5.25	15.833	4.38	21.92	1.75
3.750	1.90	9.833	5.25	15.917	4.38	22.00	1.75
3.833	1.90	9.917	5.25	16.000	4.38	22.08	1.75
3.917	1.90	10.000	5.25	16.083	4.38	22.17	1.75
4.000	1.90	10.083	5.25	16.167	4.38	22.25	1.75
4.083	1.90	10.167	5.25	16.250	2.63	22.33	1.75
4.167	1.90	10.250	6.71	16.333	2.63	22.42	1.75
4.250	2.33	10.333	6.71	16.417	2.63	22.50	1.75
4.333	2.33	10.417	6.71	16.500	2.63	22.58	1.75
4.417	2.33	10.500	6.71	16.583	2.63	22.67	1.75
4.500	2.33	10.583	6.71	16.667	2.63	22.75	1.75
4.583	2.33	10.667	6.71	16.750	2.63	22.83	1.75
4.667	2.33	10.750	9.05	16.833	2.63	22.92	1.75
4.750	2.33	10.833	9.05	16.917	2.63	23.00	1.75
4.833	2.33	10.917	9.05	17.000	2.63	23.08	1.75
4.917	2.33	11.000	9.05	17.083	2.63	23.17	1.75
5.000	2.33	11.083	9.05	17.167	2.63	23.25	1.75
5.083	2.33	11.167	9.05	17.250	2.63	23.33	1.75
5.167	2.33	11.250	14.01	17.333	2.63	23.42	1.75
5.250	2.33	11.333	14.01	17.417	2.63	23.50	1.75
5.333	2.33	11.417	14.01	17.500	2.63	23.58	1.75
5.417	2.33	11.500	14.01	17.583	2.63	23.67	1.75
5.500	2.33	11.583	14.01	17.667	2.63	23.75	1.75
5.583	2.33	11.667	14.01	17.750	2.63	23.83	1.75
5.667	2.33	11.750	43.19	17.833	2.63	23.92	1.75
5.750	2.33	11.833	43.19	17.917	2.63	24.00	1.75
5.833	2.33	11.917	110.89	18.000	2.63	24.08	1.75
5.917	2.33	12.000	110.90	18.083	2.63	24.17	1.75
6.000	2.33	12.083	178.60	18.167	2.63		
6.083	2.33	12.167	178.61	18.250	2.63		

Max.Eff.Inten.(mm/hr)= 178.61 5159.17
over (min) 5.00 5.00

Storage Coeff. (min)= 2.10 (ii) 2.96 (ii)

Unit Hyd. Tpeak (min)= 5.00 5.00

Unit Hyd. peak (cms)= 0.31 0.28

TOTALS

PEAK FLOW (cms)= 1.19 0.48 1.665 (iii)

TIME TO PEAK (hrs)= 12.17 12.17 12.17

RUNOFF VOLUME (mm)= 144.42 140.57 143.30

TOTAL RAINFALL (mm)= 145.92 145.92 145.92

RUNOFF COEFFICIENT = 0.99 0.96 0.98

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

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:

CN* = 62.0 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(0031)| 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 | 10.0000 0.0780
0.0000 0.0770 | 0.0000 0.0000

AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
INFLOW: ID= 2 (2001) 3.380 1.665 12.17 143.30
OUTFLOW: ID= 1 (0031) 3.380 1.651 12.17 120.53

PEAK FLOW REDUCTION [Qout/Qin](%)= 99.16
 TIME SHIFT OF PEAK FLOW (min)= 0.00
 MAXIMUM STORAGE USED (ha.m.)= 0.0774

 | CALIB |
 | STANDHYD (0201) | Area (ha)= 1.34
 | ID= 1 DT= 5.0 min | Total Imp(%)= 50.00 Dir. Conn.(%)= 50.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 0.67 0.67
 Dep. Storage (mm)= 1.50 10.00
 Average Slope (%)= 2.00 2.00
 Length (m)= 94.52 30.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	2.33	12.250	21.03	18.33	2.63
0.167	0.00	6.250	2.63	12.333	21.01	18.42	2.63
0.250	1.61	6.333	2.63	12.417	21.01	18.50	2.63
0.333	1.61	6.417	2.63	12.500	21.01	18.58	2.63
0.417	1.61	6.500	2.63	12.583	21.01	18.67	2.63
0.500	1.61	6.583	2.63	12.667	21.01	18.75	2.63
0.583	1.61	6.667	2.63	12.750	10.80	18.83	2.63
0.667	1.61	6.750	2.63	12.833	10.80	18.92	2.63
0.750	1.61	6.833	2.63	12.917	10.80	19.00	2.63
0.833	1.61	6.917	2.63	13.000	10.80	19.08	2.63
0.917	1.61	7.000	2.63	13.083	10.80	19.17	2.63
1.000	1.61	7.083	2.63	13.167	10.80	19.25	2.63
1.083	1.61	7.167	2.63	13.250	7.88	19.33	2.63
1.167	1.61	7.250	3.21	13.333	7.88	19.42	2.63
1.250	1.61	7.333	3.21	13.417	7.88	19.50	2.63
1.333	1.61	7.417	3.21	13.500	7.88	19.58	2.63
1.417	1.61	7.500	3.21	13.583	7.88	19.67	2.63
1.500	1.61	7.583	3.21	13.667	7.88	19.75	2.63
1.583	1.61	7.667	3.21	13.750	6.13	19.83	2.63
1.667	1.61	7.750	3.21	13.833	6.13	19.92	2.63
1.750	1.61	7.833	3.21	13.917	6.13	20.00	2.63
1.833	1.61	7.917	3.21	14.000	6.13	20.08	2.63
1.917	1.61	8.000	3.21	14.083	6.13	20.17	2.63
2.000	1.61	8.083	3.21	14.167	6.13	20.25	1.75
2.083	1.61	8.167	3.21	14.250	4.38	20.33	1.75
2.167	1.61	8.250	3.79	14.333	4.38	20.42	1.75
2.250	1.90	8.333	3.79	14.417	4.38	20.50	1.75
2.333	1.90	8.417	3.79	14.500	4.38	20.58	1.75
2.417	1.90	8.500	3.79	14.583	4.38	20.67	1.75
2.500	1.90	8.583	3.79	14.667	4.38	20.75	1.75
2.583	1.90	8.667	3.79	14.750	4.38	20.83	1.75
2.667	1.90	8.750	4.09	14.833	4.38	20.92	1.75
2.750	1.90	8.833	4.09	14.917	4.38	21.00	1.75
2.833	1.90	8.917	4.09	15.000	4.38	21.08	1.75
2.917	1.90	9.000	4.09	15.083	4.38	21.17	1.75
3.000	1.90	9.083	4.09	15.167	4.38	21.25	1.75
3.083	1.90	9.167	4.09	15.250	4.38	21.33	1.75
3.167	1.90	9.250	4.67	15.333	4.38	21.42	1.75
3.250	1.90	9.333	4.67	15.417	4.38	21.50	1.75
3.333	1.90	9.417	4.67	15.500	4.38	21.58	1.75
3.417	1.90	9.500	4.67	15.583	4.38	21.67	1.75
3.500	1.90	9.583	4.67	15.667	4.38	21.75	1.75
3.583	1.90	9.667	4.67	15.750	4.38	21.83	1.75
3.667	1.90	9.750	5.25	15.833	4.38	21.92	1.75
3.750	1.90	9.833	5.25	15.917	4.38	22.00	1.75
3.833	1.90	9.917	5.25	16.000	4.38	22.08	1.75
3.917	1.90	10.000	5.25	16.083	4.38	22.17	1.75
4.000	1.90	10.083	5.25	16.167	4.38	22.25	1.75
4.083	1.90	10.167	5.25	16.250	2.63	22.33	1.75

4.167	1.90	|10.250	6.71	|16.333	2.63	|22.42	1.75
4.250	2.33	|10.333	6.71	|16.417	2.63	|22.50	1.75
4.333	2.33	|10.417	6.71	|16.500	2.63	|22.58	1.75
4.417	2.33	|10.500	6.71	|16.583	2.63	|22.67	1.75
4.500	2.33	|10.583	6.71	|16.667	2.63	|22.75	1.75
4.583	2.33	|10.667	6.71	|16.750	2.63	|22.83	1.75
4.667	2.33	|10.750	9.05	|16.833	2.63	|22.92	1.75
4.750	2.33	|10.833	9.05	|16.917	2.63	|23.00	1.75
4.833	2.33	|10.917	9.05	|17.000	2.63	|23.08	1.75
4.917	2.33	|11.000	9.05	|17.083	2.63	|23.17	1.75
5.000	2.33	|11.083	9.05	|17.167	2.63	|23.25	1.75
5.083	2.33	|11.167	9.05	|17.250	2.63	|23.33	1.75
5.167	2.33	|11.250	14.01	|17.333	2.63	|23.42	1.75
5.250	2.33	|11.333	14.01	|17.417	2.63	|23.50	1.75
5.333	2.33	|11.417	14.01	|17.500	2.63	|23.58	1.75
5.417	2.33	|11.500	14.01	|17.583	2.63	|23.67	1.75
5.500	2.33	|11.583	14.01	|17.667	2.63	|23.75	1.75
5.583	2.33	|11.667	14.01	|17.750	2.63	|23.83	1.75
5.667	2.33	|11.750	43.19	|17.833	2.63	|23.92	1.75
5.750	2.33	|11.833	43.19	|17.917	2.63	|24.00	1.75
5.833	2.33	|11.917	110.89	|18.000	2.63	|24.08	1.75
5.917	2.33	|12.000	110.90	|18.083	2.63	|24.17	1.75
6.000	2.33	|12.083	178.60	|18.167	2.63	|	
6.083	2.33	|12.167	178.61	|18.250	2.63	|	

Max.Eff.Inten.(mm/hr)= 178.61 71.78
over (min) 5.00 10.00

Storage Coeff. (min)= 1.59 (ii) 6.30 (ii)

Unit Hyd. Tpeak (min)= 5.00 10.00

Unit Hyd. peak (cms)= 0.33 0.15

TOTALS

PEAK FLOW (cms)= 0.33 0.10 0.435 (iii)

TIME TO PEAK (hrs)= 12.17 12.17 12.17

RUNOFF VOLUME (mm)= 144.42 48.62 96.52

TOTAL RAINFALL (mm)= 145.92 145.92 145.92

RUNOFF COEFFICIENT = 0.99 0.33 0.66

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

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:

CN* = 51.0 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 |
| STANDHYD (0200) | Area (ha)= 6.18
| ID= 1 DT= 5.0 min | Total Imp(%)= 38.00 Dir. Conn.(%)= 38.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 2.35 3.83
Dep. Storage (mm)= 1.50 5.00
Average Slope (%)= 2.00 2.00
Length (m)= 202.98 30.00
Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	|	TIME	RAIN	|	TIME	RAIN	|	TIME	RAIN
hrs	mm/hr	|	hrs	mm/hr	|	hrs	mm/hr	|	hrs	mm/hr
0.083	0.00	|	6.167	2.33	|	12.250	21.03	|	18.33	2.63
0.167	0.00	|	6.250	2.63	|	12.333	21.01	|	18.42	2.63
0.250	1.61	|	6.333	2.63	|	12.417	21.01	|	18.50	2.63
0.333	1.61	|	6.417	2.63	|	12.500	21.01	|	18.58	2.63
0.417	1.61	|	6.500	2.63	|	12.583	21.01	|	18.67	2.63
0.500	1.61	|	6.583	2.63	|	12.667	21.01	|	18.75	2.63
0.583	1.61	|	6.667	2.63	|	12.750	10.80	|	18.83	2.63
0.667	1.61	|	6.750	2.63	|	12.833	10.80	|	18.92	2.63
0.750	1.61	|	6.833	2.63	|	12.917	10.80	|	19.00	2.63

0.833	1.61	6.917	2.63	13.000	10.80	19.08	2.63
0.917	1.61	7.000	2.63	13.083	10.80	19.17	2.63
1.000	1.61	7.083	2.63	13.167	10.80	19.25	2.63
1.083	1.61	7.167	2.63	13.250	7.88	19.33	2.63
1.167	1.61	7.250	3.21	13.333	7.88	19.42	2.63
1.250	1.61	7.333	3.21	13.417	7.88	19.50	2.63
1.333	1.61	7.417	3.21	13.500	7.88	19.58	2.63
1.417	1.61	7.500	3.21	13.583	7.88	19.67	2.63
1.500	1.61	7.583	3.21	13.667	7.88	19.75	2.63
1.583	1.61	7.667	3.21	13.750	6.13	19.83	2.63
1.667	1.61	7.750	3.21	13.833	6.13	19.92	2.63
1.750	1.61	7.833	3.21	13.917	6.13	20.00	2.63
1.833	1.61	7.917	3.21	14.000	6.13	20.08	2.63
1.917	1.61	8.000	3.21	14.083	6.13	20.17	2.63
2.000	1.61	8.083	3.21	14.167	6.13	20.25	1.75
2.083	1.61	8.167	3.21	14.250	4.38	20.33	1.75
2.167	1.61	8.250	3.79	14.333	4.38	20.42	1.75
2.250	1.90	8.333	3.79	14.417	4.38	20.50	1.75
2.333	1.90	8.417	3.79	14.500	4.38	20.58	1.75
2.417	1.90	8.500	3.79	14.583	4.38	20.67	1.75
2.500	1.90	8.583	3.79	14.667	4.38	20.75	1.75
2.583	1.90	8.667	3.79	14.750	4.38	20.83	1.75
2.667	1.90	8.750	4.09	14.833	4.38	20.92	1.75
2.750	1.90	8.833	4.09	14.917	4.38	21.00	1.75
2.833	1.90	8.917	4.09	15.000	4.38	21.08	1.75
2.917	1.90	9.000	4.09	15.083	4.38	21.17	1.75
3.000	1.90	9.083	4.09	15.167	4.38	21.25	1.75
3.083	1.90	9.167	4.09	15.250	4.38	21.33	1.75
3.167	1.90	9.250	4.67	15.333	4.38	21.42	1.75
3.250	1.90	9.333	4.67	15.417	4.38	21.50	1.75
3.333	1.90	9.417	4.67	15.500	4.38	21.58	1.75
3.417	1.90	9.500	4.67	15.583	4.38	21.67	1.75
3.500	1.90	9.583	4.67	15.667	4.38	21.75	1.75
3.583	1.90	9.667	4.67	15.750	4.38	21.83	1.75
3.667	1.90	9.750	5.25	15.833	4.38	21.92	1.75
3.750	1.90	9.833	5.25	15.917	4.38	22.00	1.75
3.833	1.90	9.917	5.25	16.000	4.38	22.08	1.75
3.917	1.90	10.000	5.25	16.083	4.38	22.17	1.75
4.000	1.90	10.083	5.25	16.167	4.38	22.25	1.75
4.083	1.90	10.167	5.25	16.250	2.63	22.33	1.75
4.167	1.90	10.250	6.71	16.333	2.63	22.42	1.75
4.250	2.33	10.333	6.71	16.417	2.63	22.50	1.75
4.333	2.33	10.417	6.71	16.500	2.63	22.58	1.75
4.417	2.33	10.500	6.71	16.583	2.63	22.67	1.75
4.500	2.33	10.583	6.71	16.667	2.63	22.75	1.75
4.583	2.33	10.667	6.71	16.750	2.63	22.83	1.75
4.667	2.33	10.750	9.05	16.833	2.63	22.92	1.75
4.750	2.33	10.833	9.05	16.917	2.63	23.00	1.75
4.833	2.33	10.917	9.05	17.000	2.63	23.08	1.75
4.917	2.33	11.000	9.05	17.083	2.63	23.17	1.75
5.000	2.33	11.083	9.05	17.167	2.63	23.25	1.75
5.083	2.33	11.167	9.05	17.250	2.63	23.33	1.75
5.167	2.33	11.250	14.01	17.333	2.63	23.42	1.75
5.250	2.33	11.333	14.01	17.417	2.63	23.50	1.75
5.333	2.33	11.417	14.01	17.500	2.63	23.58	1.75
5.417	2.33	11.500	14.01	17.583	2.63	23.67	1.75
5.500	2.33	11.583	14.01	17.667	2.63	23.75	1.75
5.583	2.33	11.667	14.01	17.750	2.63	23.83	1.75
5.667	2.33	11.750	43.19	17.833	2.63	23.92	1.75
5.750	2.33	11.833	43.19	17.917	2.63	24.00	1.75
5.833	2.33	11.917	110.89	18.000	2.63	24.08	1.75
5.917	2.33	12.000	110.90	18.083	2.63	24.17	1.75
6.000	2.33	12.083	178.60	18.167	2.63		
6.083	2.33	12.167	178.61	18.250	2.63		

Max.Eff.Inten.(mm/hr)= 178.61 98.22
over (min) 5.00 10.00

Storage Coeff. (min)= 2.52 (ii) 8.50 (ii)

Unit Hyd. Tpeak (min)= 5.00 10.00

Unit Hyd. peak (cms)= 0.29 0.12

TOTALS

PEAK FLOW (cms)= 1.16 0.75 1.902 (iii)

TIME TO PEAK (hrs)= 12.17 12.17 12.17

RUNOFF VOLUME (mm)= 144.42 66.95 96.39
 TOTAL RAINFALL (mm)= 145.92 145.92 145.92
 RUNOFF COEFFICIENT = 0.99 0.46 0.66

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 62.0 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 ( 3000)|
| 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
----- (ha) (cms) (hrs) (mm)
ID1= 1 ( 0200): 6.18 1.902 12.17 96.39
+ ID2= 2 ( 0201): 1.34 0.435 12.17 96.52
=====
ID = 3 ( 3000): 7.52 2.337 12.17 96.41
  
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

-----
| ADD HYD ( 3000)|
| 3 + 2 = 1 | AREA QPEAK TPEAK R.V.
----- (ha) (cms) (hrs) (mm)
ID1= 3 ( 3000): 7.52 2.337 12.17 96.41
+ ID2= 2 ( 0031): 3.38 1.651 12.17 120.53
=====
ID = 1 ( 3000): 10.90 3.988 12.17 103.89
  
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

-----
| RESERVOIR( 2000)| 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 | 0.0250 0.4259
0.0050 0.0204 | 0.0260 0.4685
0.0110 0.0661 | 0.0270 0.5128
0.0130 0.0912 | 0.0850 0.6065
0.0140 0.1177 | 0.1130 0.7073
0.0170 0.1752 | 0.1240 0.7604
0.0190 0.2061 | 0.1340 0.8153
0.0210 0.2725 | 1.4710 0.8722
0.0220 0.3083 | 4.6600 0.9315
0.0240 0.3850 | 0.0000 0.0000
  
```

```

          AREA QPEAK TPEAK R.V.
          (ha) (cms) (hrs) (mm)
INFLOW : ID= 2 ( 3000) 10.900 3.988 12.17 103.89
OUTFLOW: ID= 1 ( 2000) 10.900 0.126 14.25 103.80
  
```

PEAK FLOW REDUCTION [Qout/Qin](%)= 3.15
 TIME SHIFT OF PEAK FLOW (min)=125.00
 MAXIMUM STORAGE USED (ha.m.)= 0.7692

```

-----
| ADD HYD ( 5000)|
| 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
----- (ha) (cms) (hrs) (mm)
ID1= 1 ( 2000): 10.90 0.126 14.25 103.80
+ ID2= 2 ( 0023): 0.64 0.235 12.17 108.86
=====
ID = 3 ( 5000): 11.54 0.266 12.17 104.08
  
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| CALIB |
| STANDHYD (0202) | Area (ha)= 1.81
| ID= 1 DT= 5.0 min | Total Imp(%)= 37.00 Dir. Conn.(%)= 26.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.67 1.14
Dep. Storage (mm)= 1.50 6.90
Average Slope (%)= 2.00 2.00
Length (m)= 109.85 30.00
Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	2.33	12.250	21.03	18.33	2.63
0.167	0.00	6.250	2.63	12.333	21.01	18.42	2.63
0.250	1.61	6.333	2.63	12.417	21.01	18.50	2.63
0.333	1.61	6.417	2.63	12.500	21.01	18.58	2.63
0.417	1.61	6.500	2.63	12.583	21.01	18.67	2.63
0.500	1.61	6.583	2.63	12.667	21.01	18.75	2.63
0.583	1.61	6.667	2.63	12.750	10.80	18.83	2.63
0.667	1.61	6.750	2.63	12.833	10.80	18.92	2.63
0.750	1.61	6.833	2.63	12.917	10.80	19.00	2.63
0.833	1.61	6.917	2.63	13.000	10.80	19.08	2.63
0.917	1.61	7.000	2.63	13.083	10.80	19.17	2.63
1.000	1.61	7.083	2.63	13.167	10.80	19.25	2.63
1.083	1.61	7.167	2.63	13.250	7.88	19.33	2.63
1.167	1.61	7.250	3.21	13.333	7.88	19.42	2.63
1.250	1.61	7.333	3.21	13.417	7.88	19.50	2.63
1.333	1.61	7.417	3.21	13.500	7.88	19.58	2.63
1.417	1.61	7.500	3.21	13.583	7.88	19.67	2.63
1.500	1.61	7.583	3.21	13.667	7.88	19.75	2.63
1.583	1.61	7.667	3.21	13.750	6.13	19.83	2.63
1.667	1.61	7.750	3.21	13.833	6.13	19.92	2.63
1.750	1.61	7.833	3.21	13.917	6.13	20.00	2.63
1.833	1.61	7.917	3.21	14.000	6.13	20.08	2.63
1.917	1.61	8.000	3.21	14.083	6.13	20.17	2.63
2.000	1.61	8.083	3.21	14.167	6.13	20.25	1.75
2.083	1.61	8.167	3.21	14.250	4.38	20.33	1.75
2.167	1.61	8.250	3.79	14.333	4.38	20.42	1.75
2.250	1.90	8.333	3.79	14.417	4.38	20.50	1.75
2.333	1.90	8.417	3.79	14.500	4.38	20.58	1.75
2.417	1.90	8.500	3.79	14.583	4.38	20.67	1.75
2.500	1.90	8.583	3.79	14.667	4.38	20.75	1.75
2.583	1.90	8.667	3.79	14.750	4.38	20.83	1.75
2.667	1.90	8.750	4.09	14.833	4.38	20.92	1.75
2.750	1.90	8.833	4.09	14.917	4.38	21.00	1.75
2.833	1.90	8.917	4.09	15.000	4.38	21.08	1.75
2.917	1.90	9.000	4.09	15.083	4.38	21.17	1.75
3.000	1.90	9.083	4.09	15.167	4.38	21.25	1.75
3.083	1.90	9.167	4.09	15.250	4.38	21.33	1.75
3.167	1.90	9.250	4.67	15.333	4.38	21.42	1.75
3.250	1.90	9.333	4.67	15.417	4.38	21.50	1.75
3.333	1.90	9.417	4.67	15.500	4.38	21.58	1.75
3.417	1.90	9.500	4.67	15.583	4.38	21.67	1.75
3.500	1.90	9.583	4.67	15.667	4.38	21.75	1.75
3.583	1.90	9.667	4.67	15.750	4.38	21.83	1.75
3.667	1.90	9.750	5.25	15.833	4.38	21.92	1.75
3.750	1.90	9.833	5.25	15.917	4.38	22.00	1.75
3.833	1.90	9.917	5.25	16.000	4.38	22.08	1.75
3.917	1.90	10.000	5.25	16.083	4.38	22.17	1.75
4.000	1.90	10.083	5.25	16.167	4.38	22.25	1.75
4.083	1.90	10.167	5.25	16.250	2.63	22.33	1.75
4.167	1.90	10.250	6.71	16.333	2.63	22.42	1.75
4.250	2.33	10.333	6.71	16.417	2.63	22.50	1.75
4.333	2.33	10.417	6.71	16.500	2.63	22.58	1.75
4.417	2.33	10.500	6.71	16.583	2.63	22.67	1.75

4.500	2.33	|10.583	6.71	|16.667	2.63	|22.75	1.75
4.583	2.33	|10.667	6.71	|16.750	2.63	|22.83	1.75
4.667	2.33	|10.750	9.05	|16.833	2.63	|22.92	1.75
4.750	2.33	|10.833	9.05	|16.917	2.63	|23.00	1.75
4.833	2.33	|10.917	9.05	|17.000	2.63	|23.08	1.75
4.917	2.33	|11.000	9.05	|17.083	2.63	|23.17	1.75
5.000	2.33	|11.083	9.05	|17.167	2.63	|23.25	1.75
5.083	2.33	|11.167	9.05	|17.250	2.63	|23.33	1.75
5.167	2.33	|11.250	14.01	|17.333	2.63	|23.42	1.75
5.250	2.33	|11.333	14.01	|17.417	2.63	|23.50	1.75
5.333	2.33	|11.417	14.01	|17.500	2.63	|23.58	1.75
5.417	2.33	|11.500	14.01	|17.583	2.63	|23.67	1.75
5.500	2.33	|11.583	14.01	|17.667	2.63	|23.75	1.75
5.583	2.33	|11.667	14.01	|17.750	2.63	|23.83	1.75
5.667	2.33	|11.750	43.19	|17.833	2.63	|23.92	1.75
5.750	2.33	|11.833	43.19	|17.917	2.63	|24.00	1.75
5.833	2.33	|11.917	110.89	|18.000	2.63	|24.08	1.75
5.917	2.33	|12.000	110.90	|18.083	2.63	|24.17	1.75
6.000	2.33	|12.083	178.60	|18.167	2.63	|	
6.083	2.33	|12.167	178.61	|18.250	2.63	|	

Max.Eff.Inten.(mm/hr)= 178.61 122.00
over (min) 5.00 10.00

Storage Coeff. (min)= 1.74 (ii) 7.23 (ii)

Unit Hyd. Tpeak (min)= 5.00 10.00

Unit Hyd. peak (cms)= 0.32 0.14

TOTALS

PEAK FLOW (cms)= 0.23 0.29 0.525 (iii)

TIME TO PEAK (hrs)= 12.17 12.17 12.17

RUNOFF VOLUME (mm)= 144.42 70.47 89.70

TOTAL RAINFALL (mm)= 145.92 145.92 145.92

RUNOFF COEFFICIENT = 0.99 0.48 0.61

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

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:

CN* = 61.0 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 (1000)|

| 1 + 2 = 3 | AREA QPEAK TPEAK R.V.

----- (ha) (cms) (hrs) (mm)

ID1= 1 (0202): 1.81 0.525 12.17 89.70

+ ID2= 2 (5000): 11.54 0.266 12.17 104.08

=====

ID = 3 (1000): 13.35 0.792 12.17 102.13

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| ADD HYD (1000)|

| 3 + 2 = 1 | AREA QPEAK TPEAK R.V.

----- (ha) (cms) (hrs) (mm)

ID1= 3 (1000): 13.35 0.792 12.17 102.13

+ ID2= 2 (6000): 0.81 0.263 12.17 95.47

=====

ID = 1 (1000): 14.16 1.055 12.17 101.75

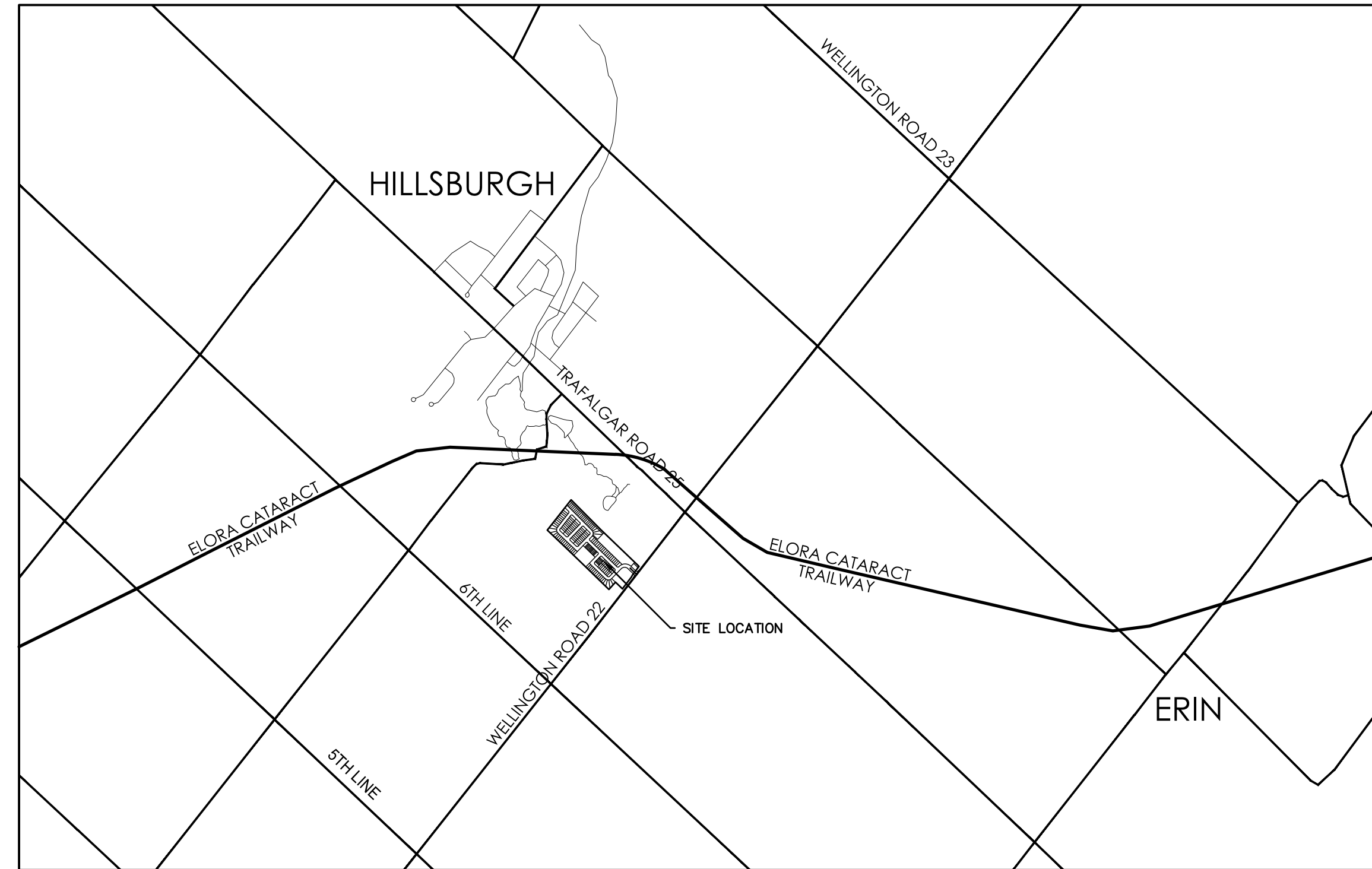
NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

DRAWINGS

C100:	Title Page
C201:	Constraints and Erosion & Sediment Control Plan
C301:	Overall Servicing Plan 1
C302:	Overall Servicing Plan 2
C303:	Sanitary Sewer Catchment Areas
C304:	Sewage Pumping Station
C305:	Storm Sewer Catchment Areas
C401:	Grading Plan 1
C402:	Grading Plan 2
C403:	Grading Plan 3
C404:	Grading Plan 4
C701:	SWM Plan & Profile
C702:	SWM Sections & Details

HILLSBURGH RIDGE SUBDIVISION

TOWN of ERIN, WELLINGTON COUNTY



MASTER LEGEND	
EXISTING FEATURES (EX.)	
	EX. CONTOUR
	EX. GRADE
	EX. TREELINE
	EX. WATERCOURSE
	EX. DITCH
	EX. WATERMAIN
	EX. WATER SERVICE
	EX. FIRE HYDRANT & VALVE
	EX. SANITARY SEWER & MANHOLE
	EX. SANITARY FORCEMAIN
	EX. SANITARY SERVICE
	EX. STORM SEWER & MANHOLE
	EX. STORM CATCHBASIN
	EX. STORM DOUBLE CATCHBASIN
	EX. STORM CATCHBASIN MANHOLE
	EX. STORM DOUBLE CATCHBASIN MANHOLE
	EX. GAS MAIN
	EX. BELL LINE
	EX. BELL PEDESTAL
	EX. CABLE TELEVISION PEDESTAL
	EX. HYDRO POLE
	EX. LIGHT STANDARD
	EX. SIGN
	EX. BUILDING
	EX. BENCHMARK NUMBER & LOCATION
	EX. BOREHOLE NUMBER & LOCATION
PROPOSED FEATURES (PR.)	
	PR. PROPERTY LIMITS
	PR. ELEVATION
	PR. ELEVATION (MATCH EX. ELEVATION)
	PR. SWALE & SLOPE
	PR. DITCH DRAINAGE
	PR. WATERMAIN & VALVE
	PR. WATER SERVICE
	PR. FIRE HYDRANT & VALVE
	PR. WATER VALVE CHAMBER
	PR. WATER QUALITY TESTING STATION
	PR. SANITARY SEWER & MANHOLE
	PR. SANITARY FORCEMAIN
	PR. SANITARY SERVICE
	PR. SANITARY CATCHMENT
	PR. CATCHMENT AREA ID
	PR. AREA (ha)
	PR. POPULATION (3.5 p.p.u.)
	PR. STORM SEWER & MANHOLE
	PR. CATCHBASIN
	PR. CATCHBASIN MANHOLE
	PR. DOUBLE CATCHBASIN MANHOLE
	PR. STORM CATCHMENT
	PR. CATCHMENT AREA ID
	PR. RUNOFF COEFFICIENT
	PR. DRAINAGE AREA (ha)
	PR. CURB CUT
	PR. CANADA POST COMMUNITY MAIL BOX
	PR. TRANSFORMER
	PR. STOP SIGN
	PR. NAME SIGN
	PR. NO PARKING SIGN
	PR. FENCE
	PR. BUILDING ENVELOPE
	PR. LIGHT DUTY SILT FENCE
	PR. HEAVY DUTY SILT FENCE
	PR. STRAW BALE CHECK FLOW
	PR. ROCK CHECK DAM
	PR. SLOPE (3:1 MAX.)
	PR. TREE PRESERVATION AREA
	PR. TOPSOIL STOCKPILE LOCATION

DRAWING	TITLE
C100	TITLE
C201	CONSTRAINTS AND EROSION & SEDIMENT CONTROL PLAN
C301	OVERALL SERVICING PLAN 1
C302	OVERALL SERVICING PLAN 2
C303	SANITARY SEWER CATCHMENT AREAS
C304	SEWAGE PUMPING STATION
C305	STORM SEWER CATCHMENT AREAS
C401	GRADING PLAN 1
C402	GRADING PLAN 2
C403	GRADING PLAN 3
C404	GRADING PLAN 4
C701	SWM PLAN & PROFILE
C702	SWM SECTIONS & DETAILS
FIG1	PRE-DEVELOPMENT DRAINAGE PLAN
FIG2	POST-DEVELOPMENT DRAINAGE PLAN
FIG3	PRE-DEVELOPMENT WATER BALANCE CATCHMENTS
FIG4	POST-DEVELOPMENT WATER BALANCE CATCHMENTS

MUNICIPALITY

TOWN OF ERIN
5684 TRAFALGAR ROAD,
HILLSBURGH, ONTARIO, N0B 1Z0

DEVELOPER



THOMASFIELD HOMES Ltd.
PO Box 1112
295 SOUTHGATE DRIVE, UNIT 1
GUELPH, ONTARIO

DEVELOPER'S ENGINEER



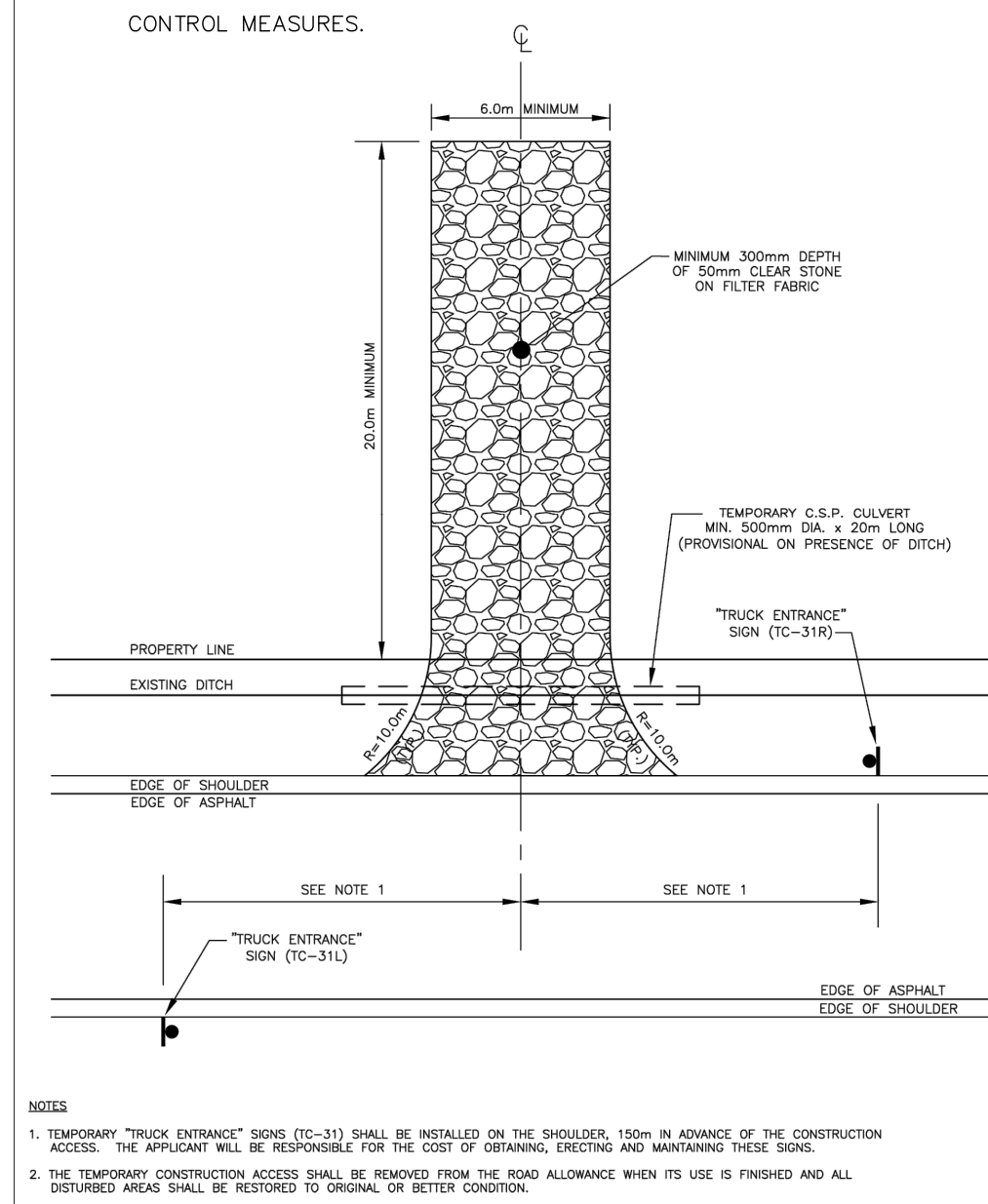
CROZIER
CONSULTING ENGINEERS

55 WYNDHAM ST N #215
GUELPH, ON, N1H 7T8
548-708-0022 T
WWW.CFCROZIER.CA
INFO@CFCROZIER.CA

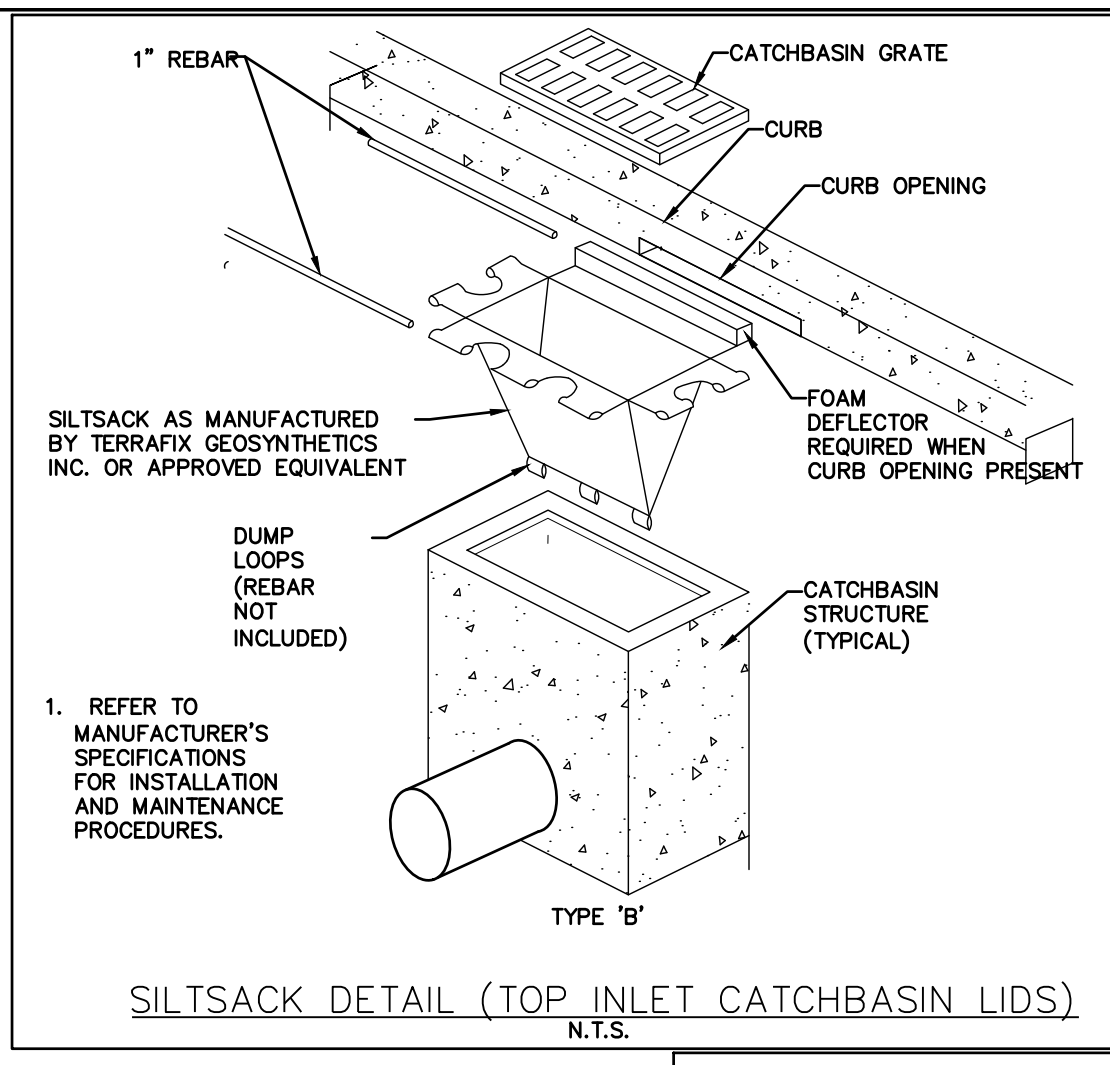
**PROJECT No.: 1808-7463
Issued For Draft Plan Approval**

EROSION AND SEDIMENT CONTROL NOTES

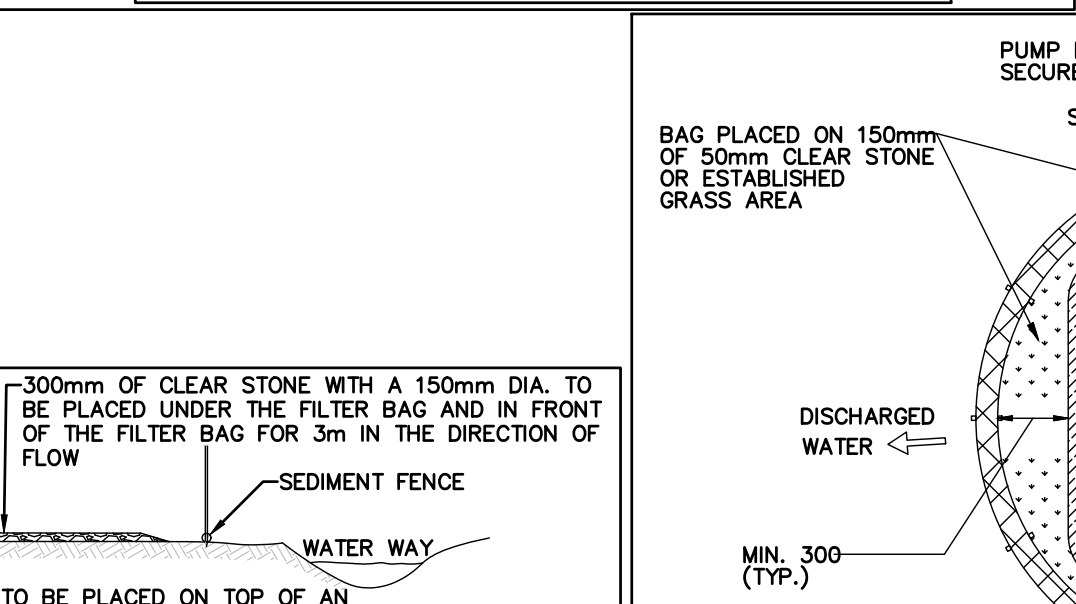
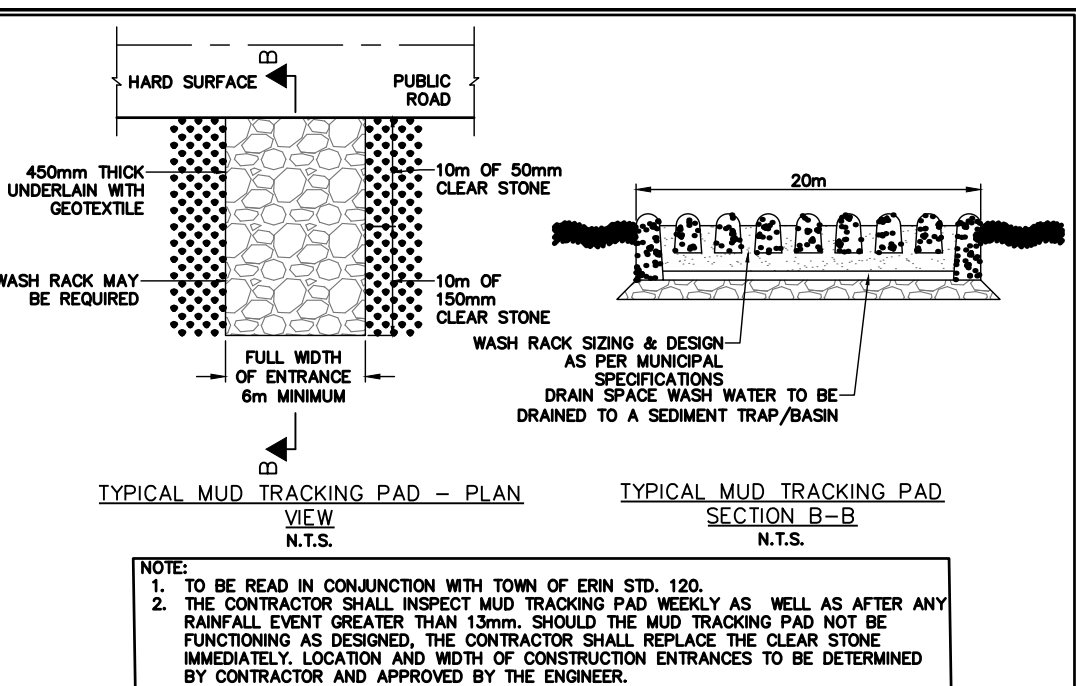
1. SITE WORKS ARE TO BE STAGED IN SUCH A MANNER THAT EROSION WILL BE MINIMIZED AND THAT BARRIERS AND SEDIMENTATION FACILITIES WITHIN THE SITE ARE PROVIDED TO CONTROL ANY EROSION THAT DOES OCCUR.
2. PRIOR TO THE ISSUANCE OF A BUILDING PERMIT, A SEDIMENT POND MUST BE ESTABLISHED TO COLLECT SURFACE DRAINAGE FROM ALL AREAS THAT WILL BE DISTURBED. WATER PUMPED FROM EXCAVATION OR DEWATERING OPERATIONS MUST BE DIRECTED TO THE SEDIMENT POND.
3. ALL SILT FENCING TO BE INSTALLED PRIOR TO THE COMMENCEMENT OF ANY GRADING EXCAVATION OR DEMOLITION.
4. INSTALL SILT SOCK IN ALL TOP INLET CATCHBASIN AND CATCHBASIN MAINTENANCE HOLES UPON INSTALLATION.
5. INSTALL FILTER FABRIC BENEATH LID OF ALL MAINTENANCE HOLES UPON INSTALLATION.
6. INSTALL SILT SOCK AT THE CURB INLET FOR ALL SIDE INLET CATCHBASIN AND SIDE INLET CATCHBASIN MAINTENANCE HOLES. INSTALL FILTER FABRIC BENEATH MAINTENANCE LID ACCESS IN ALL SIDE INLET CATCHBASIN AND CATCHBASIN MAINTENANCE HOLES.
7. CLEARING AND GRUBBING OF THE SITE SHOULD BE KEPT TO A MINIMUM AND VEGETATION REMOVED ONLY IN ADVANCE OF IMMEDIATE CONSTRUCTION.
8. STOCKPILES OF EARTH OR TOPSOIL ARE TO BE LOCATED AND PROTECTED TO MINIMIZE ENVIRONMENTAL INTERFERENCE. STOCKPILES SHOULD NOT BE LOCATED IMMEDIATELY ADJACENT TO DITCHES OR ROAD ALLOWANCES. EROSION CONTROL FENCING IS TO BE INSTALLED AROUND THE BASE OF ALL STOCKPILES. A PERIMETER DITCH LEADING TO A SETTLING AREA OR SEDIMENTATION TRAP SHOULD BE INSTALLED AROUND THE STOCKPILE.
9. EROSION PROTECTION TO BE PROVIDED AROUND ALL STORM AND SANITARY MANHOLES CATCH BASINS, DITCHES SWALES AND WATERCOURSES.
10. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED AS SITE DEVELOPMENT PROGRESSES. THE CONTRACTOR IS TO PROVIDE ALL ADDITIONAL EROSION CONTROL STRUCTURES.
11. THE DESIGN CONSULTANT IS TO MONITOR EROSION CONTROL STRUCTURES TO ENSURE FENCING IS INSTALLED AND MAINTENANCE IS PERFORMED TO COUNTY REQUIREMENTS.
12. EROSION CONTROL STRUCTURES ARE TO BE MONITORED REGULARLY AND ANY DAMAGE TO STRUCTURES REPAIRED IMMEDIATELY. SEDIMENTS ARE TO BE REMOVED WHEN ACCUMULATIONS REACH A MAXIMUM OF 50% OF THE FENCE. CLOGGED FILTER MATERIALS SUCH AS CRUSHED STONE, STRAW BALES OR FILTER CLOTH MUST BE REPLACED AS REQUIRED.
13. ALL EROSION CONTROL STRUCTURES ARE TO REMAIN IN PLACE UNTIL ALL DISTURBED SURFACES HAVE BEEN STABILIZED EITHER BY PAVING OR RESTORATION OF VEGETATIVE GROUND COVER.
14. NO ALTERNATIVE METHODS OF EROSION PROTECTION SHALL BE PERMITTED UNLESS APPROVED BY THE DESIGN CONSULTANT AND THE COUNTY.
15. THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT MUNICIPAL ROADWAYS AND SIDEWALKS AREA CLEANED OF ALL SEDIMENTS FROM VEHICULAR TRACKING ETC. TO AND FROM THE SITE AT THE END OF EACH WORK DAY. ALL DISTURBED AREAS NOT INCLUDED IN CONSTRUCTION TO BE RE-TOPSOILED AND RE-SEEDED IMMEDIATELY AFTER COMPLETION OF AREA GRADING.
17. THE OWNER SHALL INSTALL AND MAINTAIN TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES DURING CONSTRUCTION AND CONDUCT WEEKLY INSPECTIONS AND AFTER EACH SIGNIFICANT STORM EVENT (A SIGNIFICANT STORM EVENT IS DEFINED AS A MINIMUM OF 13mm OF RAIN IN ANY 24 HOURS PERIOD). THE INSPECTIONS AND MAINTENANCE OF THE TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SHALL CONTINUE UNTIL THEY ARE NO LONGER REQUIRED AND AT WHICH POINT THEY SHALL BE REMOVED AND ALL DISTURBED AREAS REINSTATED PROPERLY.
18. THE OWNER SHALL MAINTAIN RECORDS OF INSPECTIONS AND MAINTENANCE WHICH SHALL BE MADE AVAILABLE FOR INSPECTION BY THE MINISTRY AND TOWN, UPON REQUEST. THE RECORD SHALL INCLUDE THE NAME OF THE INSPECTOR, DATE OF INSPECTION, AND THE REMEDIAL MEASURES, IF ANY, UNDERTAKEN TO MAINTAIN THE TEMPORARY SEDIMENT AND EROSION



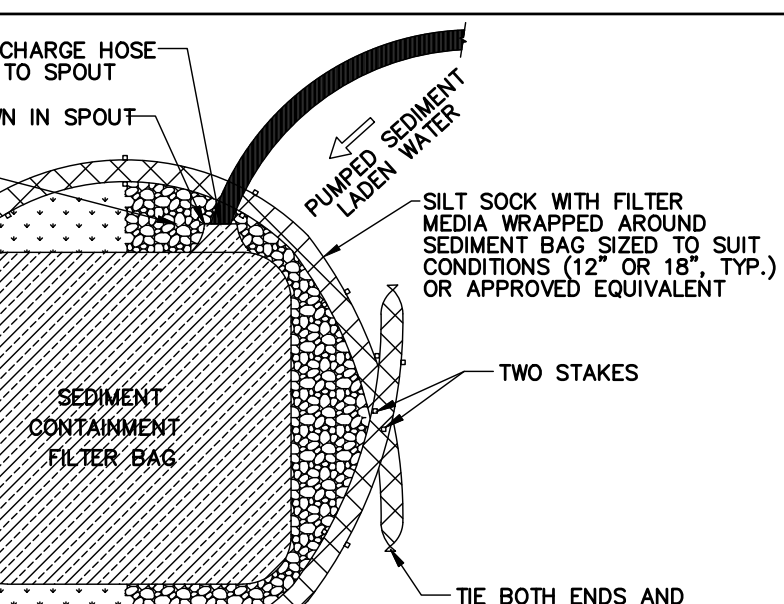
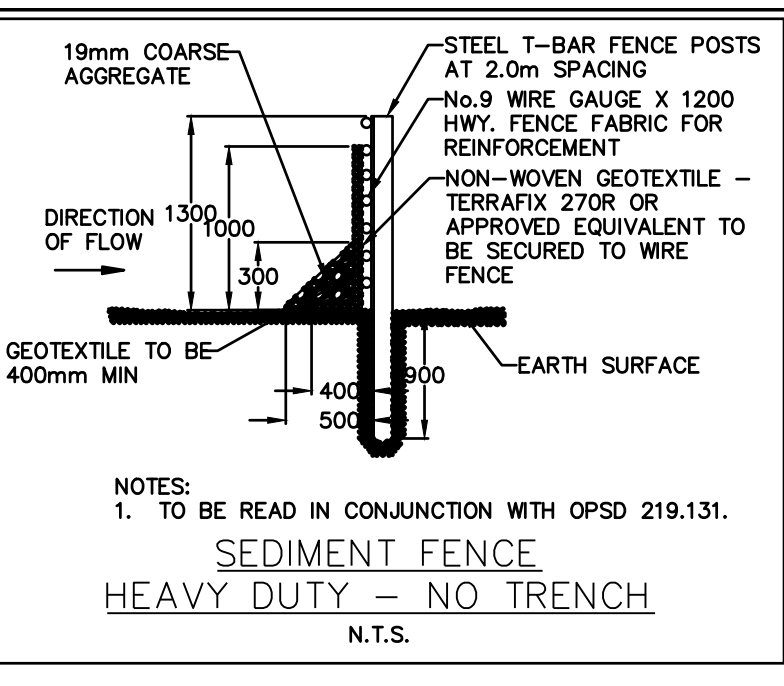
ERIN		TEMPORARY CONSTRUCTION ACCESS DETAIL	
NO.	REVISIONS	DATE	APP'D
		NOV. 2021	ERIN SD.
			120



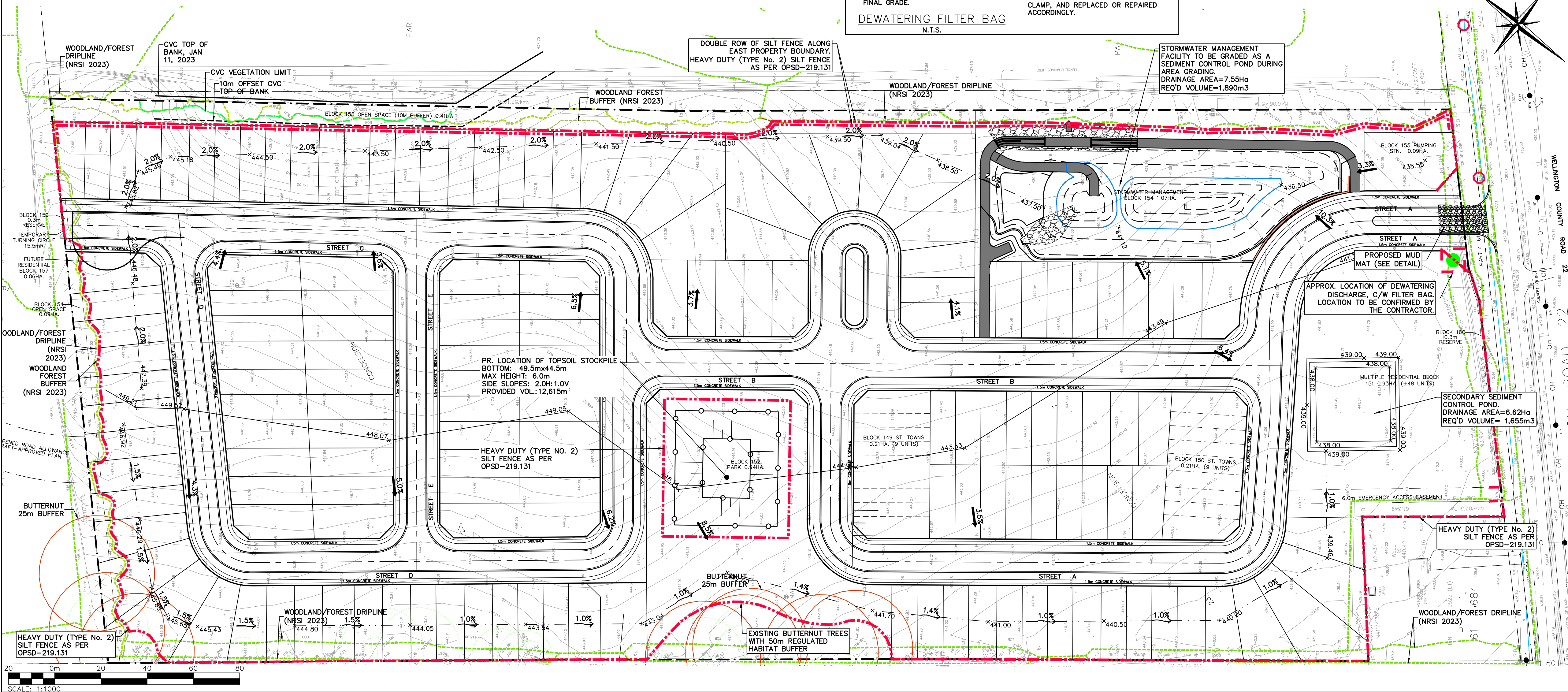
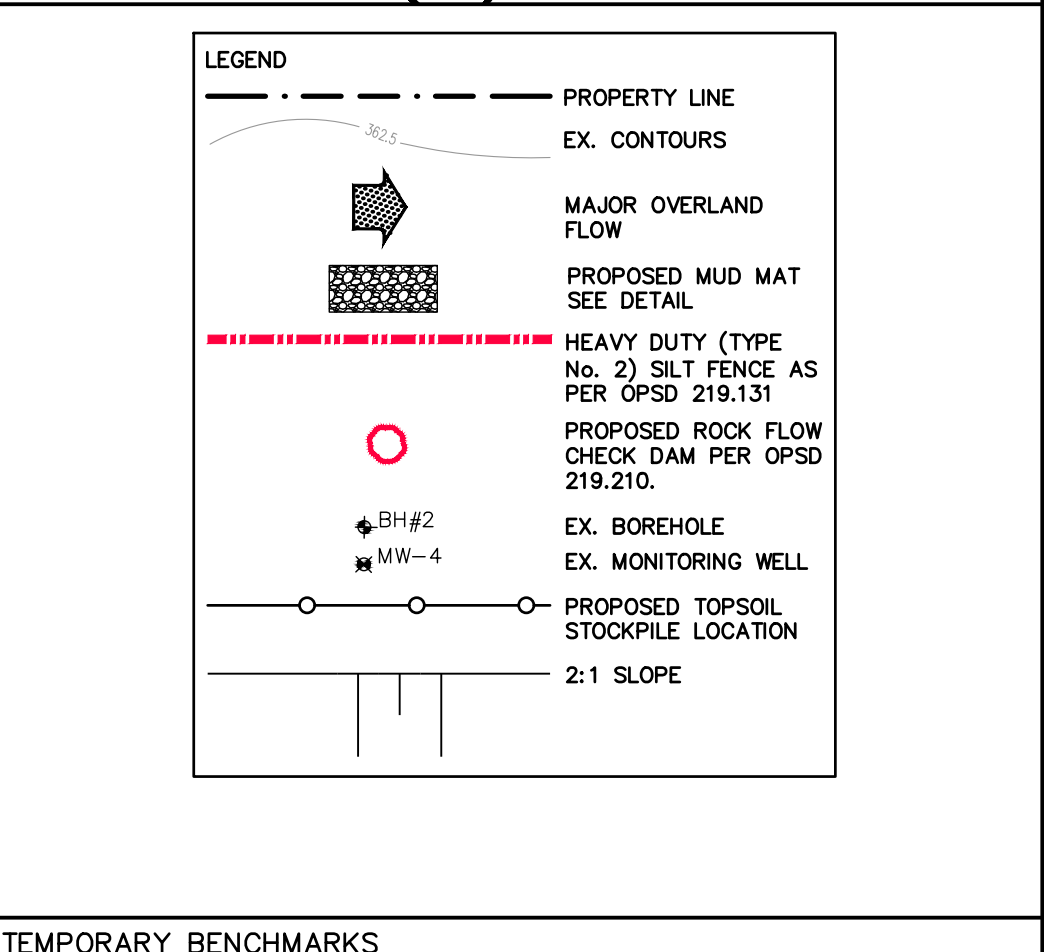
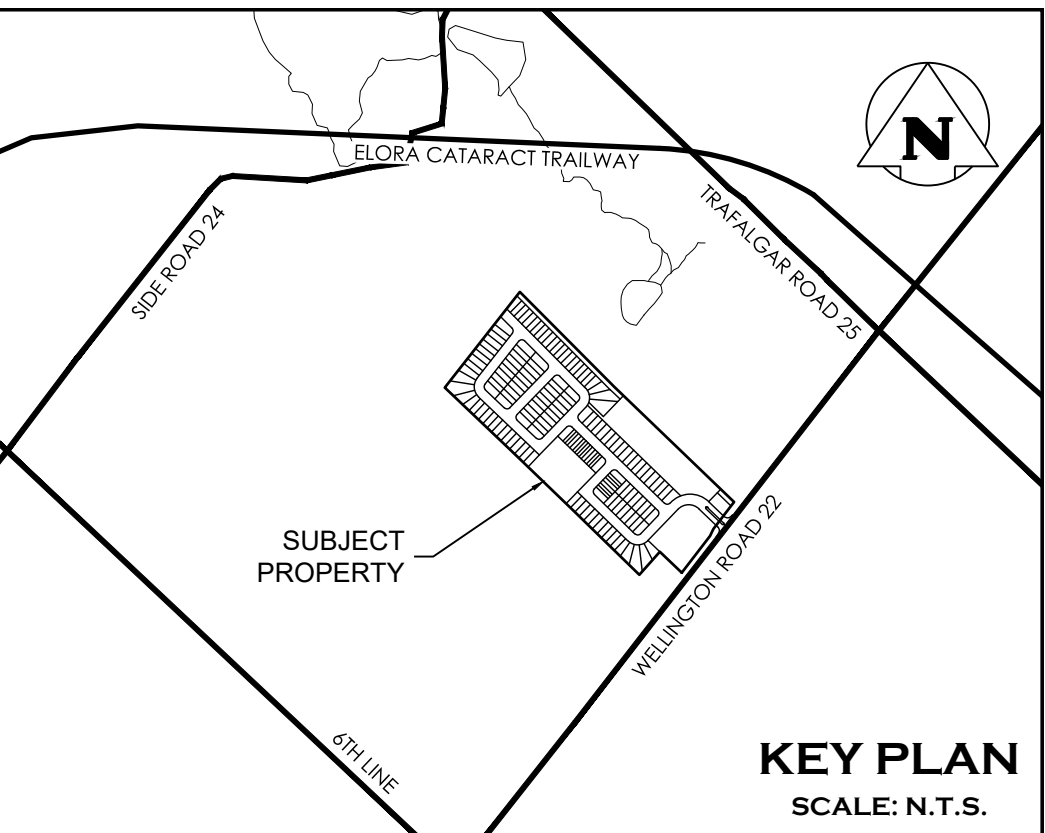
- NOTES:**
1. SEE PLAN FOR LOCATION OF DEWATERING EQUIPMENT.
 2. THE OWNER OR OPERATOR SHALL PROVIDE, OPERATE, AND MAINTAIN DEWATERING SYSTEMS OF SUFFICIENT SIZE AND CAPACITY TO PERMIT EXCAVATION AND SUBSEQUENT CONSTRUCTION IN DRY CONDITIONS AND TO LOWER AND MAINTAIN THE GROUNDWATER LEVEL A MINIMUM OF 0.6m BELOW THE LOWEST POINT OF EXCAVATION AND CONTINUOUSLY MAINTAIN EXCAVATIONS FREE OF WATER UNTIL BACK-FILLED TO FINAL GRADE.
 3. FILTER BAG TO BE A MINIMUM OF 30m AWAY FROM THE RECEIVING WATER BODY.
 4. REFER TO MANUFACTURER'S SPECIFICATIONS FOR CAPACITY AND SIZING DETAILS AS WELL AS PROPER INSTALLATION (I.E. CLAMPING PROCEDURE). THE SEDIMENT BAG MUST BE SECURELY CLAMPED TO THE OUTSIDE OF THE DISCHARGE HOSE TO FORM A SECURE SEAL.
 5. THE BAG MUST BE ROUTINELY MONITORED FOR EFFICIENCY (I.E. OUTFLOW) AND DEFECTS IN THE BAG AND HOSE CLAMP, AND REPLACED OR REPAIRED ACCORDINGLY.



- NOTES:**
1. TO BE READ IN CONJUNCTION WITH TOWN OF ERIN SD. 120.
 2. THE CONTRACTOR SHALL INSPECT MUD TRACKING PAD WEEKLY AS WELL AS AFTER ANY FUNCTIONING IS GREATER THAN 15mm. SHOULD THE MUD TRACKING PAD NOT BE FUNCTIONING AS DESIGNED, THE CONTRACTOR SHALL REPLACE THE CLEAR STONE IMMEDIATELY. LOCATION AND WIDTH OF CONSTRUCTION ENTRANCES TO BE DETERMINED BY CONTRACTOR AND APPROVED BY THE ENGINEER.



- NOTES:**
1. ALL MATERIAL TO MEET SILT SOCK WITH FILTER MEDIA SPECIFICATIONS. CONTRACTOR IS REQUIRED TO BE AN INSTALLER CERTIFIED BY THE MANUFACTURER.
 2. REFER TO MANUFACTURER'S SPECIFICATIONS FOR SIZING DETAILS AS WELL AS PROPER INSTALLATIONS.
 3. STAKE (TYP.) EVERY 1.2m ALL AROUND.



TEMPORARY BENCHMARKS

SITE BENCHMARK#1: MAGNETIC NAIL IN ASPHALT APPROX. 18m SOUTH OF SOUTH-WEST CORNER OF THE SUBJECT PROPERTY. ELEV=439.18m

SITE BENCHMARK#2: MAGNETIC NAIL IN ASPHALT APPROX 100m EAST OF SOUTH-WEST CORNER OF THE SUBJECT PROPERTY. ELEV=438.51m

LEGAL SURVEY PREPARED BY VAN HARTEN SURVEYING INC. PROJECT No:23602-16 DATED: JAN. 16, 2023 TOPOGRAPHIC SURVEY PREPARED BY HAMILTON CONSTRUCTION DATED: NOV. 06, 2025

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6. DO NOT SCALE DRAWINGS.

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4	ISSUED FOR DRAFT PLAN APPROVAL	2026/FEB/13

Engineer

Project

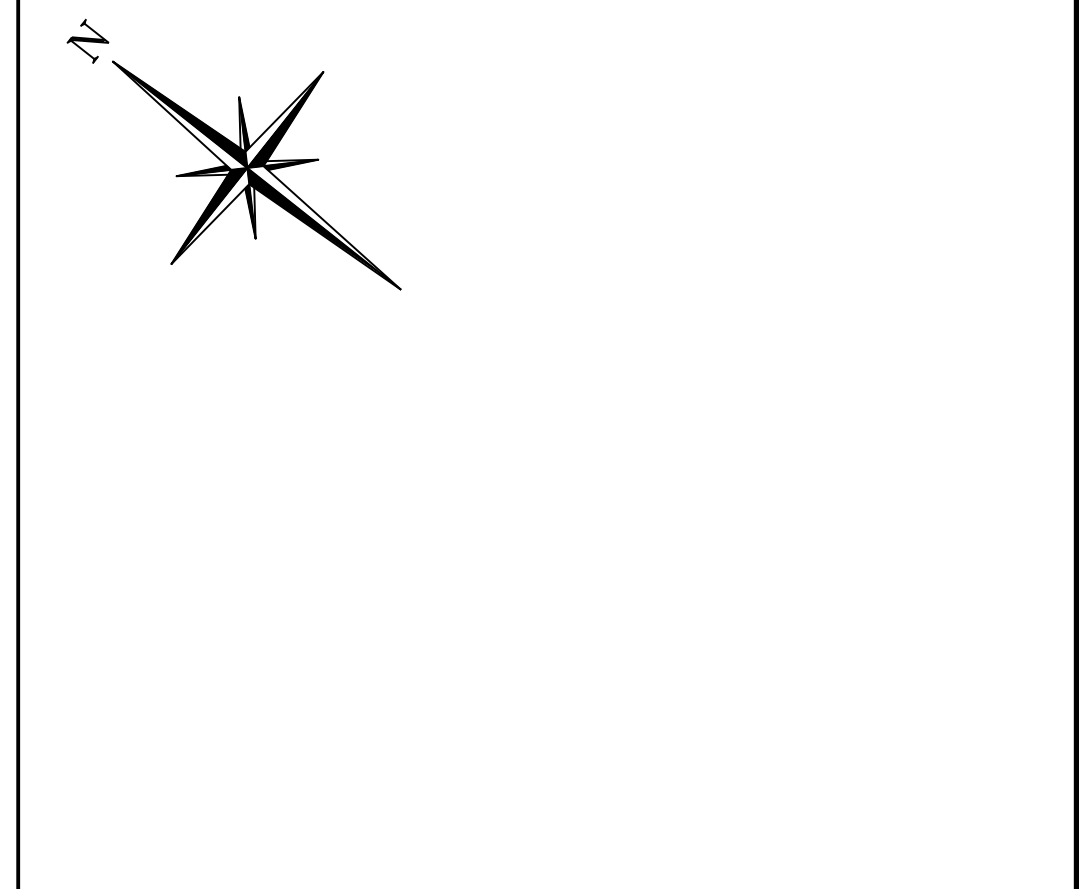
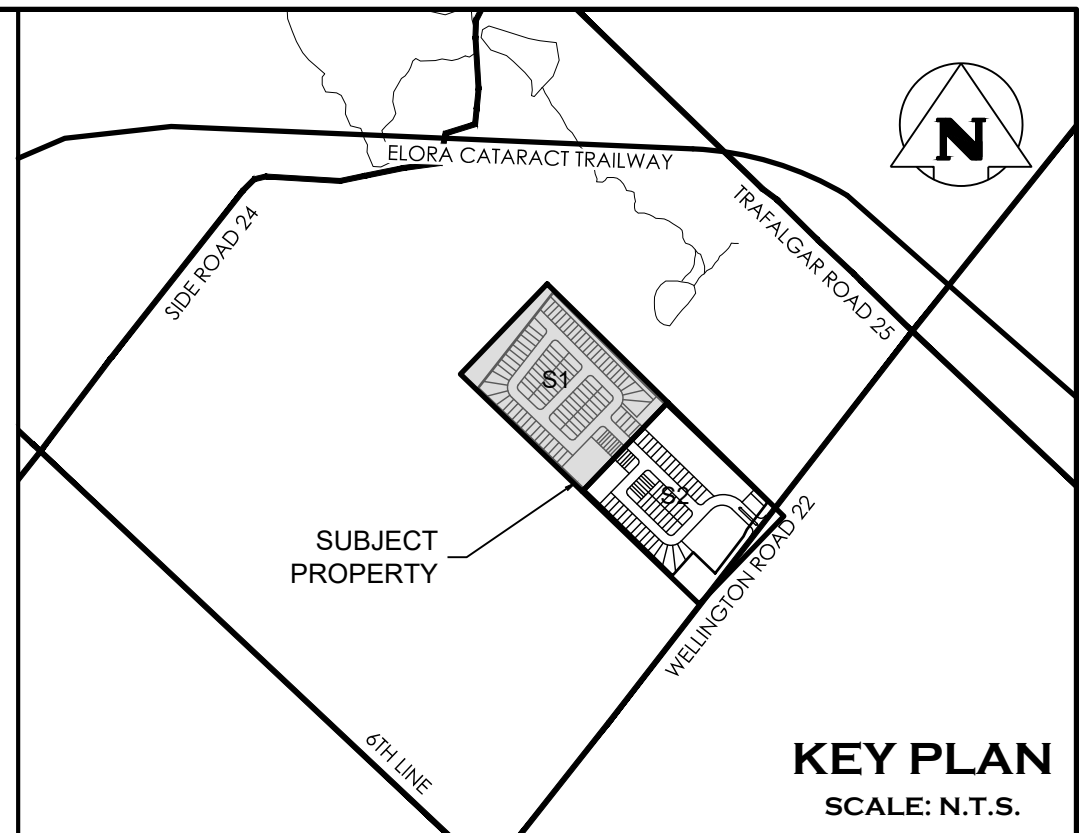
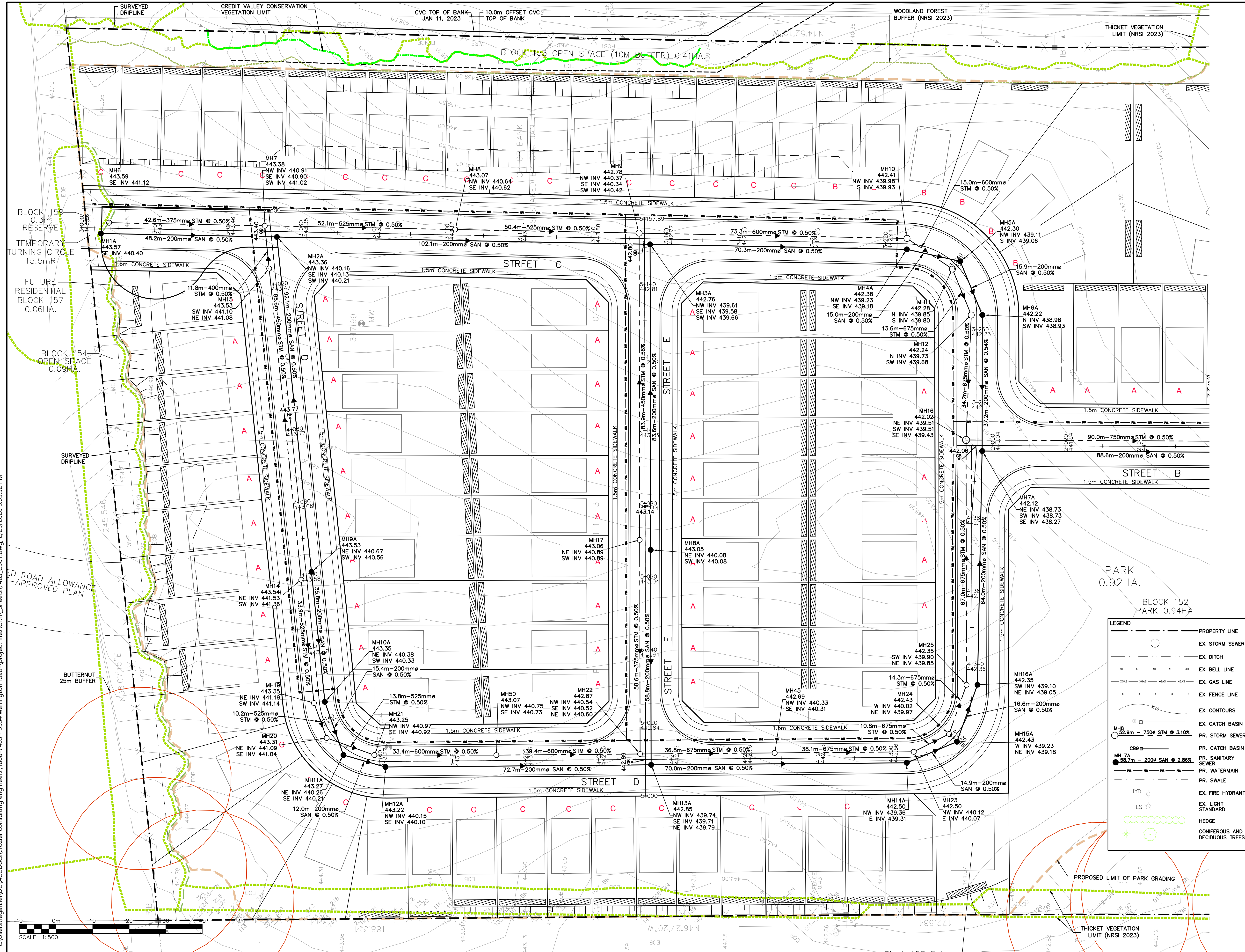
HILLSBURGH RIDGE SUBDIVISION
9354 WELLINGTON ROAD 22,
TOWN OF ERIN, WELLINGTON COUNTY

Drawing

CONSTRAINTS AND EROSION & SEDIMENT CONTROL PLAN

Drawn By: S.C. Design By: S.C./J.L. Project: 1808-7463
Check By: J.L. Check By: T.F. Drawing: C201

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Engineer

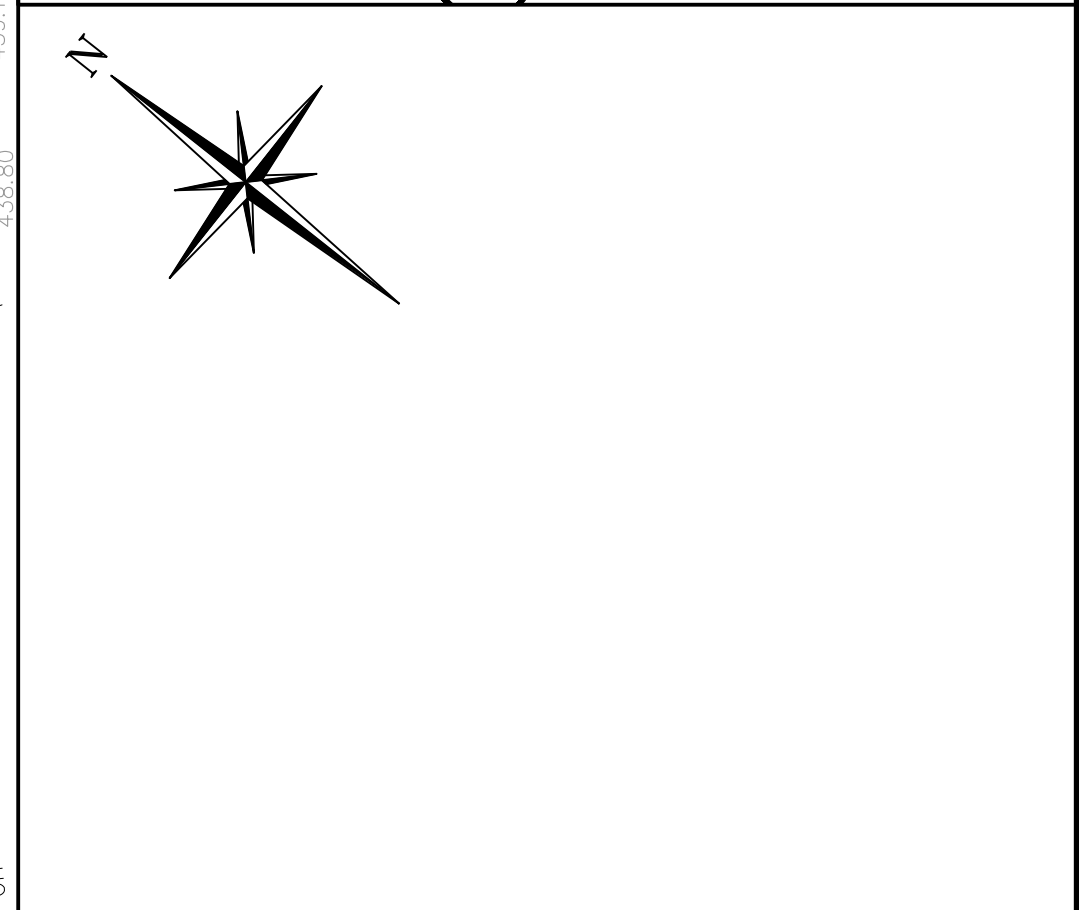
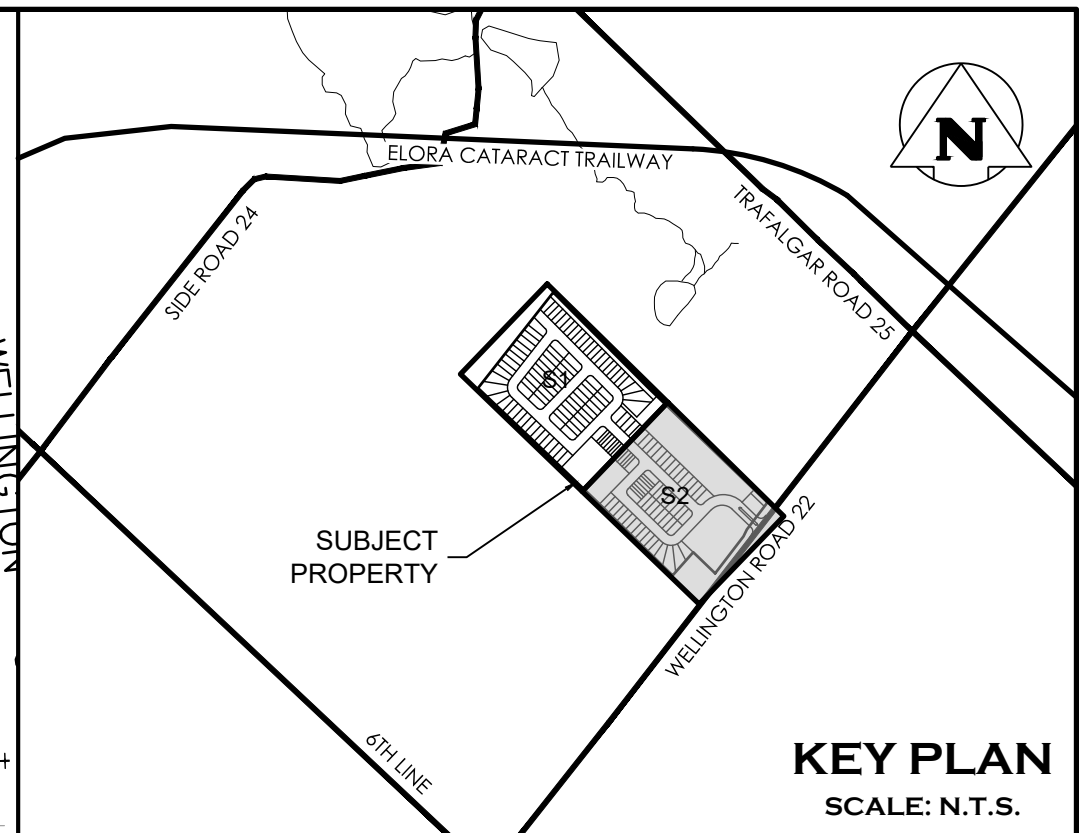
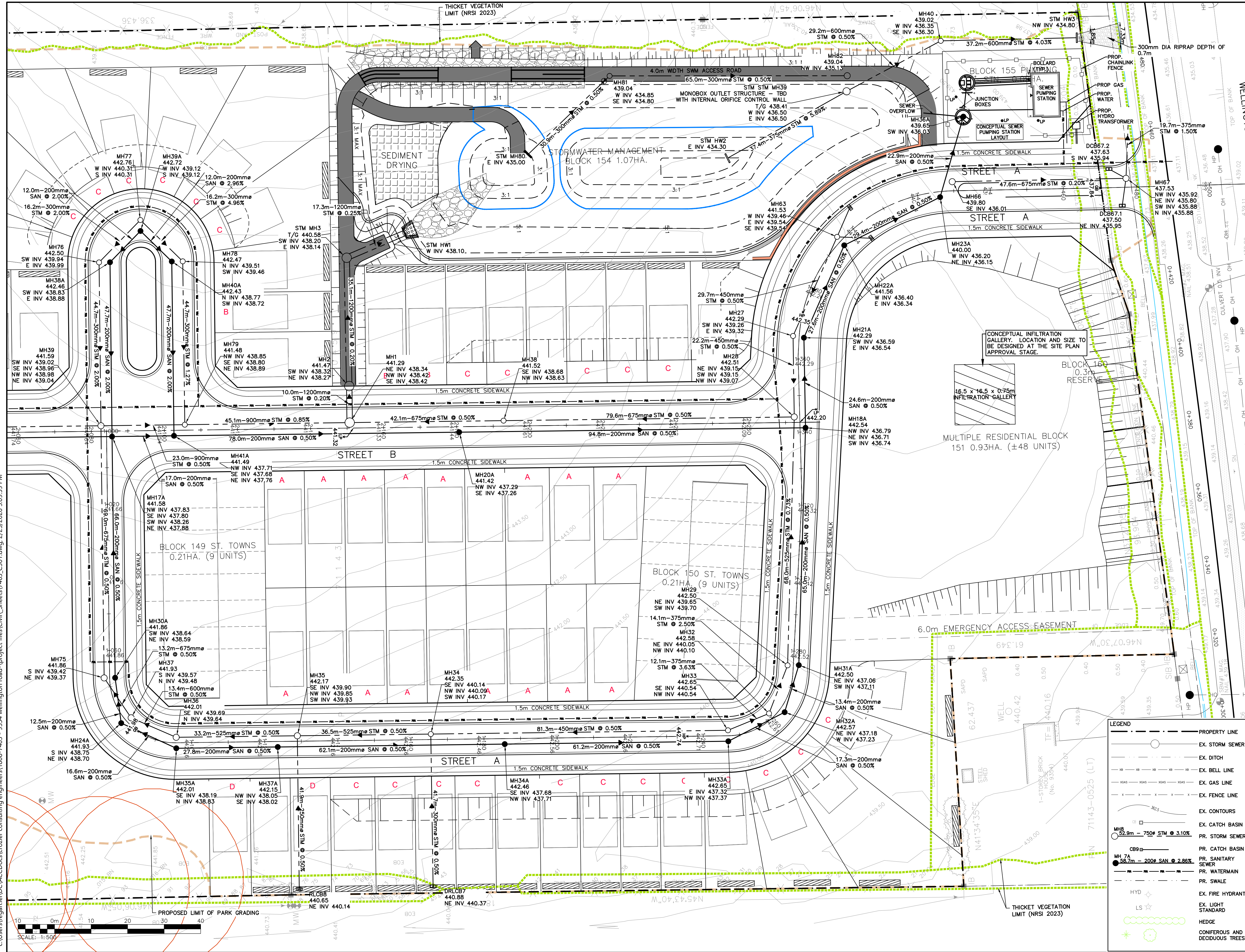
Engineer

Project
HILLSBURGH RIDGE SUBDIVISION
 9354 WELLINGTON ROAD 22,
 TOWN OF ERIN, WELLINGTON COUNTY

Drawing
OVERALL SERVICING PLAN 1

Drawn By: S.C. Design By: S.C./J.L. Project: 1808-7463
 Check By: J.L. Check By: T.F. Drawing: C301

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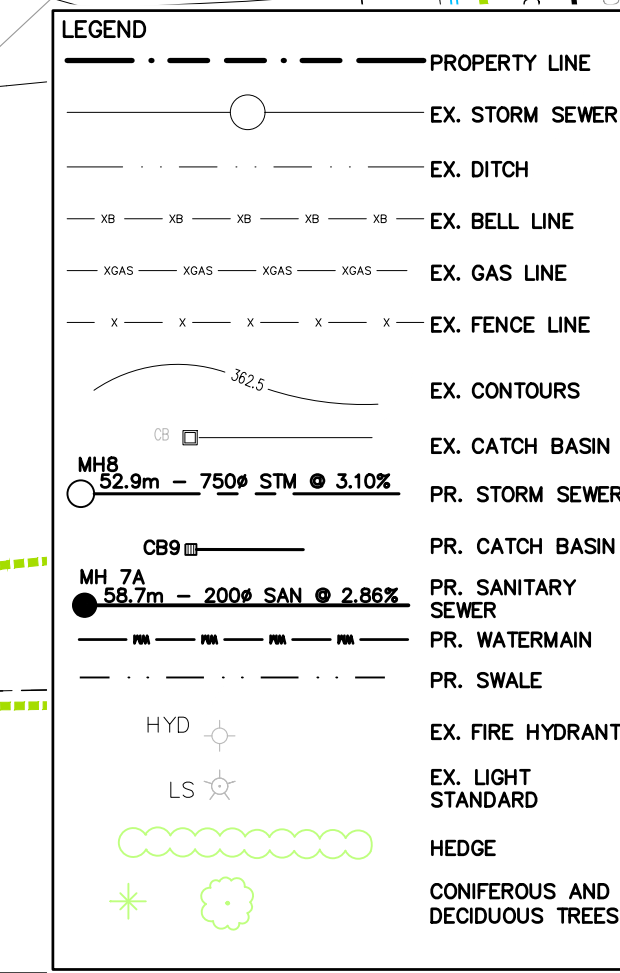
Project: **HILLSBURGH RIDGE SUBDIVISION**
9354 WELLINGTON ROAD 22,
TOWN OF ERIN, WELLINGTON COUNTY

Drawing: **OVERALL SERVICING PLAN 2**

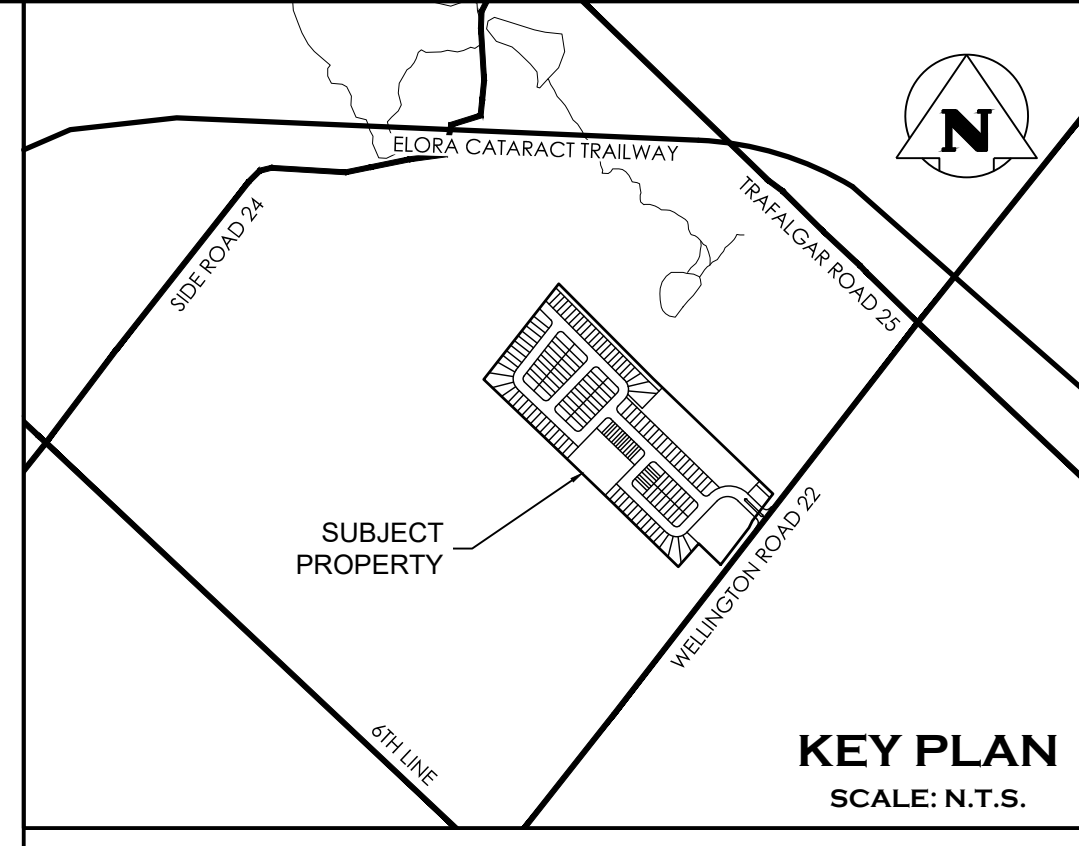
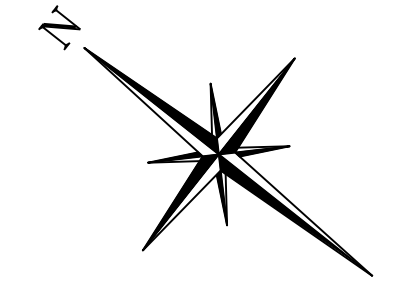
CROZIER CONSULTING ENGINEERS

1808-7463
C302

Drawn By: S.C. Design By: S.C./J.L. Project: 1808-7463
Check By: J.L. Check By: T.F. Drawing: C302



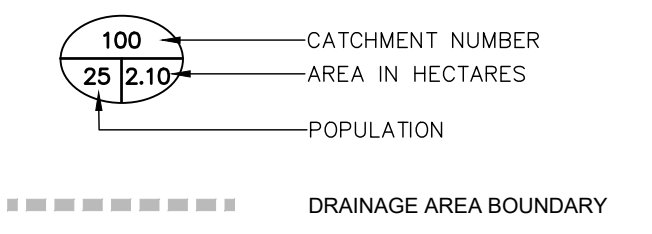
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KEY PLAN
SCALE: N.T.S.

TYPICAL LOT DRAINAGE TYPE
 LOT TYPE 'A' FRONT LOT DRAINAGE (ERIN SD 801)
 LOT TYPE 'B' SPLIT LOT DRAINAGE
 LOT TYPE 'C' REAR LOT DRAINAGE FOR WALKOUT OR BACKSPLIT HOUSE (ERIN SD 803)
 LOT TYPE 'D' REAR LOT DRAINAGE (ERIN SD 802)
 LOT TYPE 'E' FRONT LOT DRAINAGE FOR FRONT SPLIT HOUSE (ERIN SD 804)

LEGEND



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Engineer

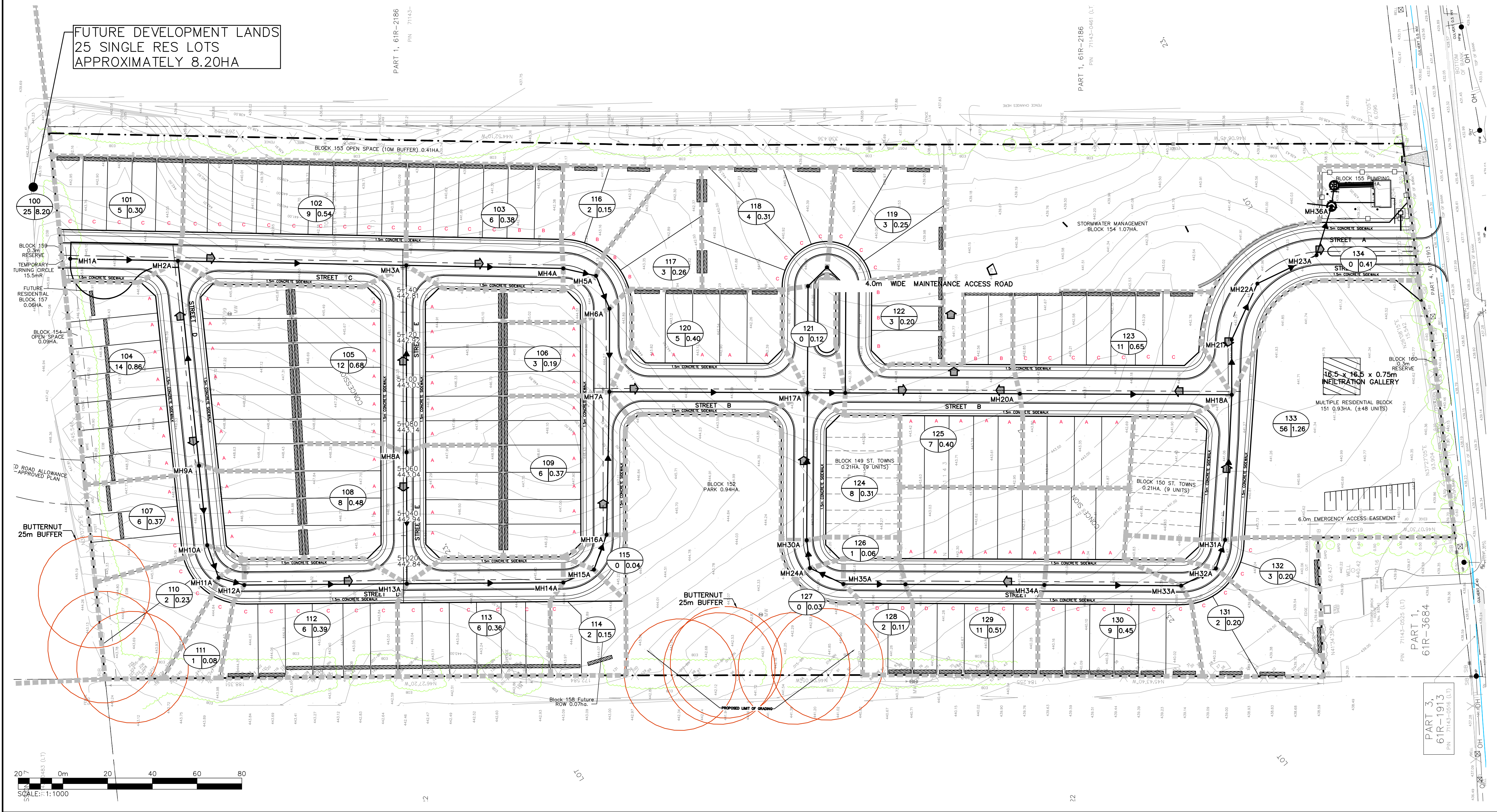
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Project **HILLSBURGH RIDGE SUBDIVISION**
9354 WELLINGTON ROAD 22,
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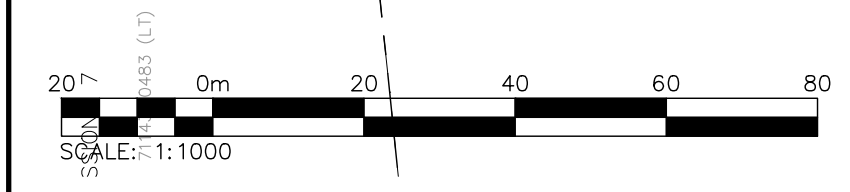
Drawing **SANITARY SEWER CATCHMENT AREAS**



Drawn By S.C. Design By S.C./J.L. Project **1808-7463**
 Check By J.L. Check By T.F. Drawing **C303**

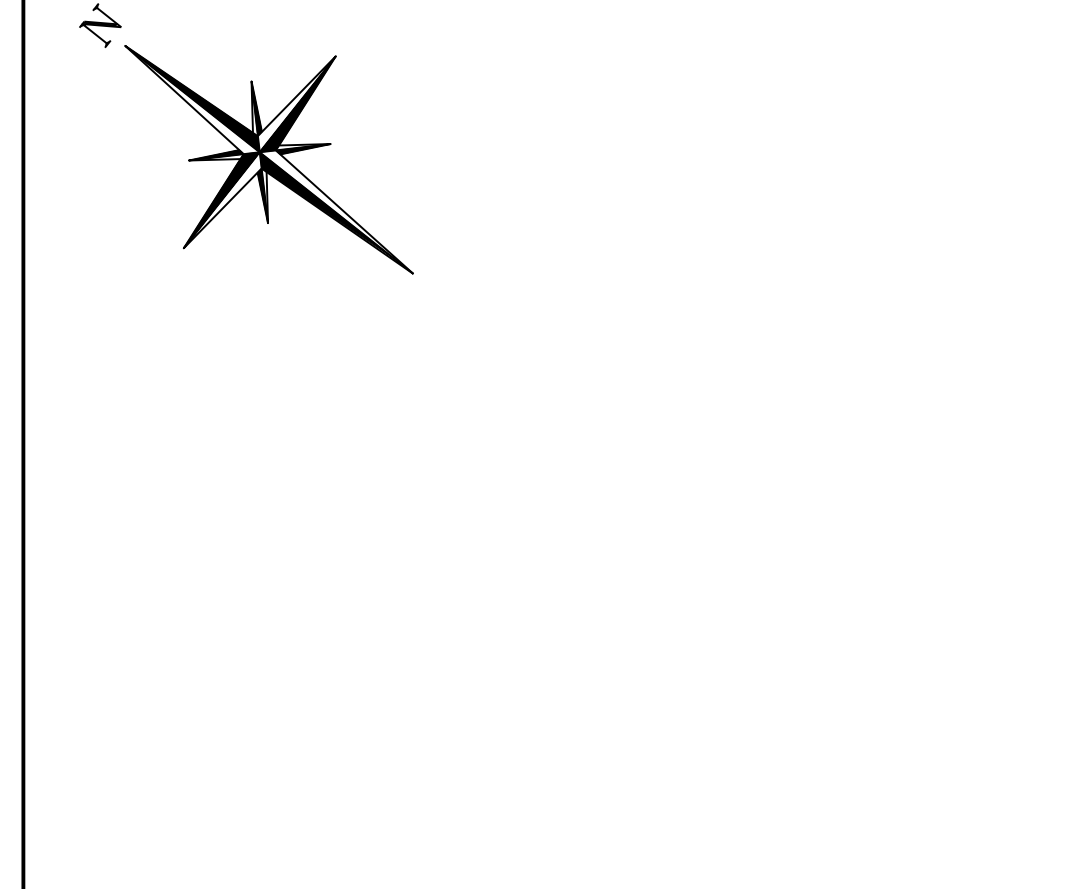
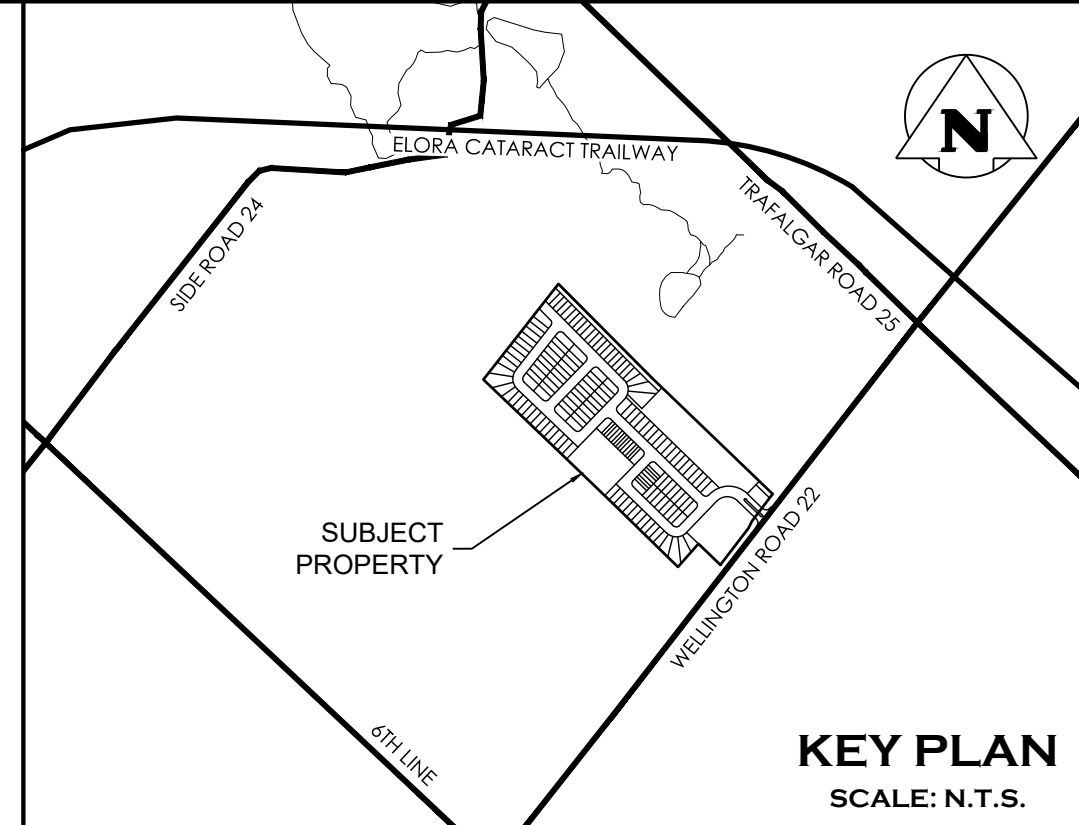
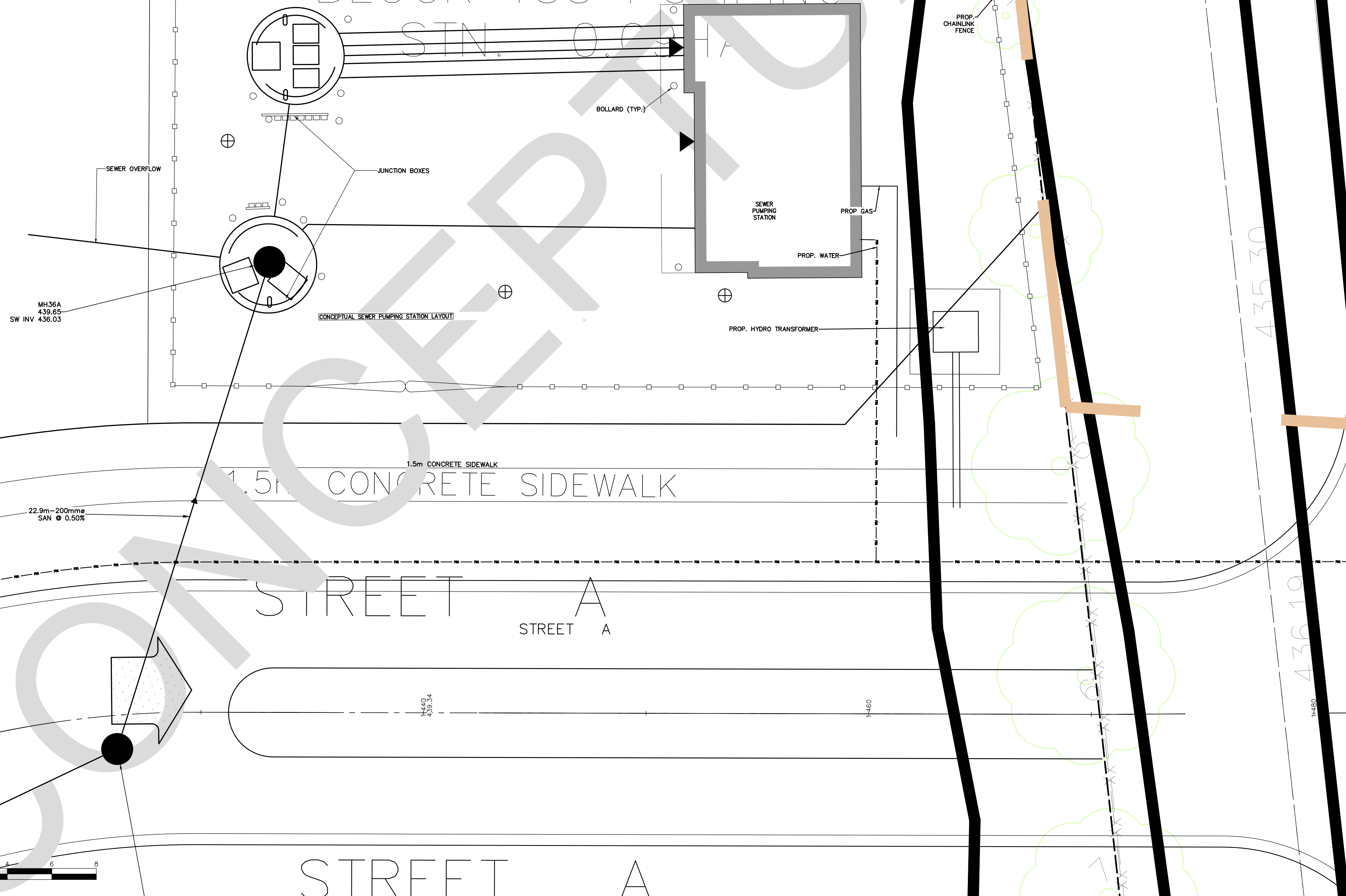


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FURTHER DETAILS OF THE SPS TO BE PROVIDED AS PART OF THE DETAILED ENGINEERING DESIGN AND APPROVAL.

BLOCK 155 PUMPING STN.



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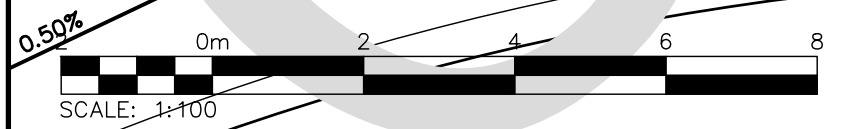
Engineer

Project
 HILLSBURGH RIDGE SUBDIVISION
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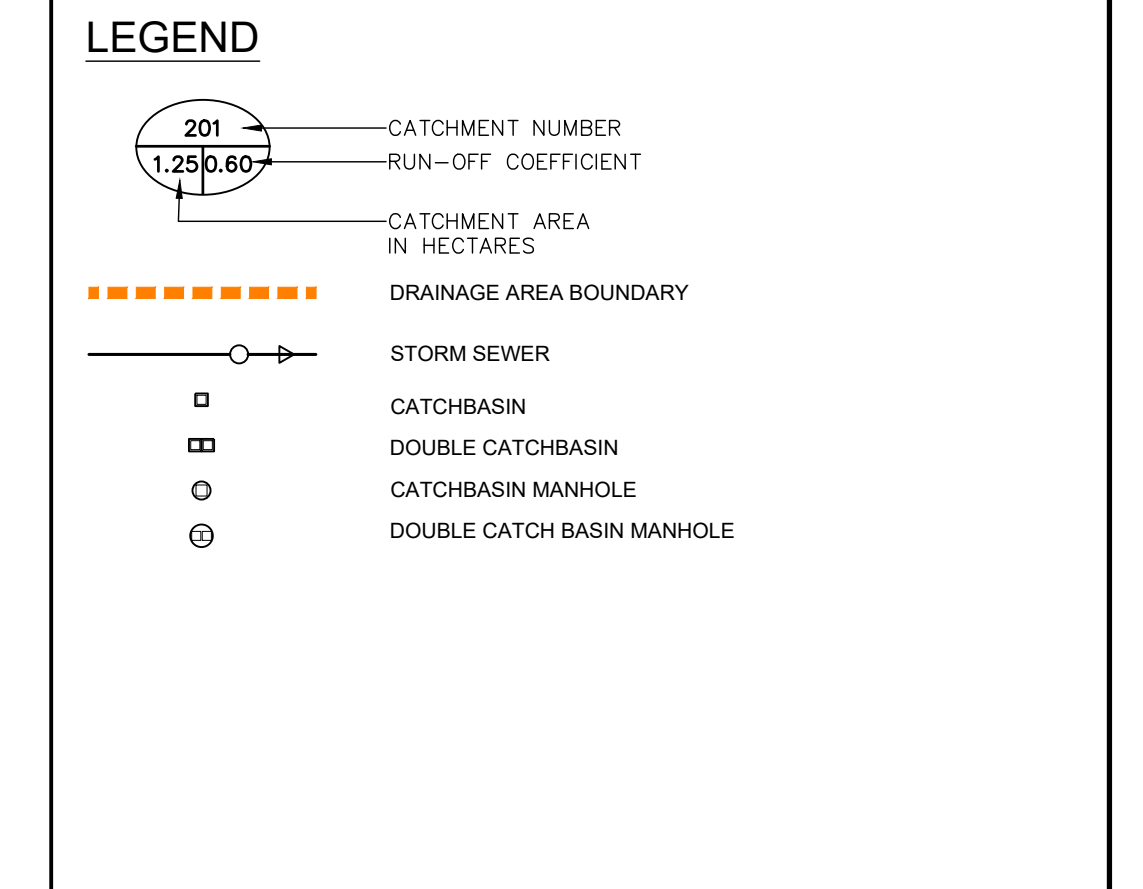
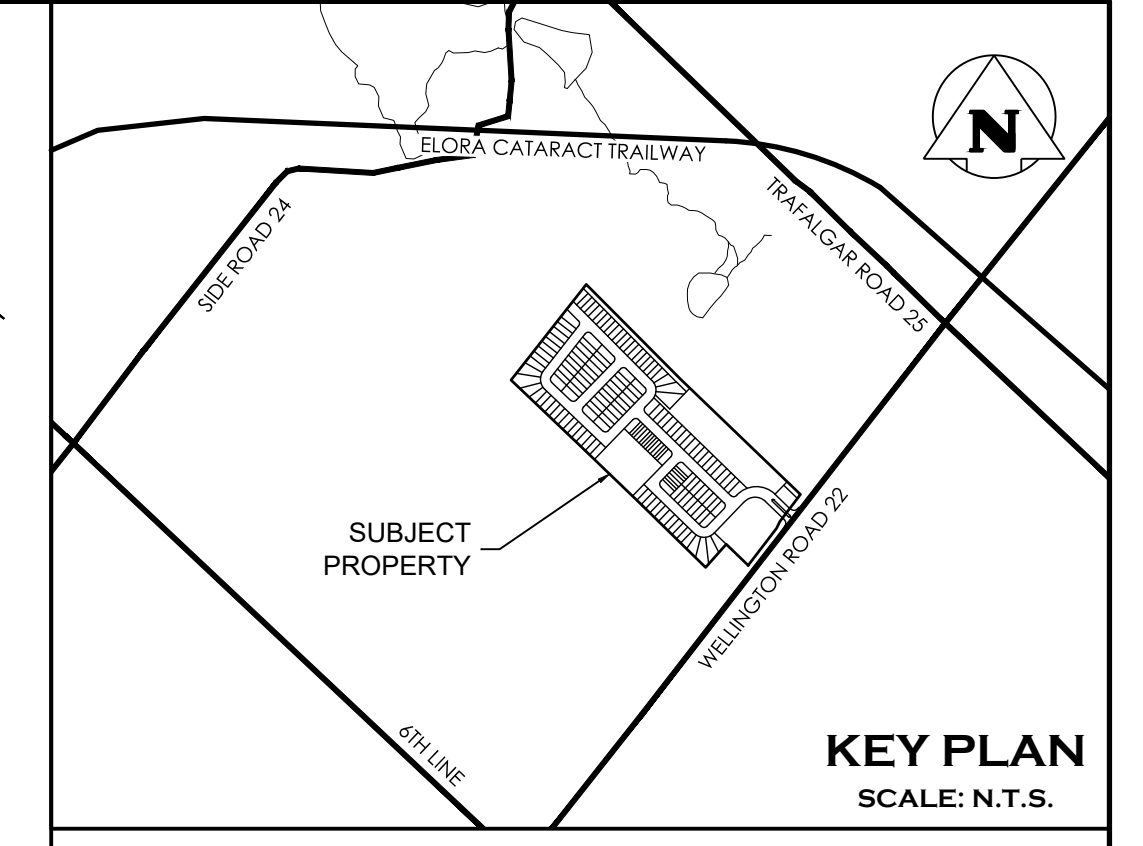
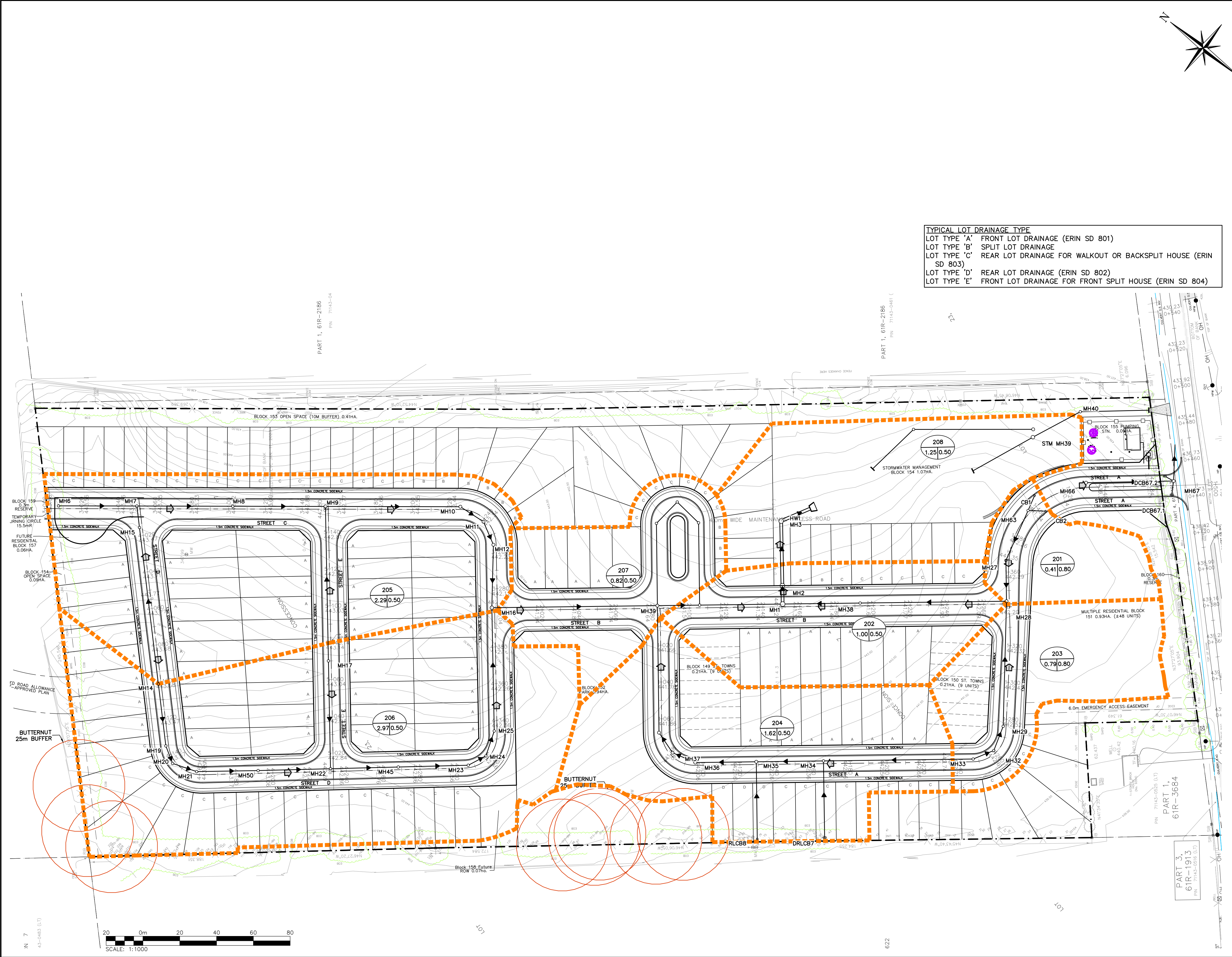
Drawing
 SEWAGE PUMPING STATION
 (CONCEPT ONLY)

Drawn By: S.C. Design By: S.C./J.L. Project: 1808-7463
 Check By: J.L. Check By: T.F. Drawing: C304

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 LEGAL SURVEY PREPARED BY VAN HARTEN SURVEYING INC. PROJECT No:23602-16 DATED: JAN. 16, 2023 TOPOGRAPHIC SURVEY PREPARED BY HAMILTON CONSTRUCTION DATED: NOV. 06, 2025

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4	ISSUED FOR DRAFT PLAN APPROVAL	2026/FEB/13

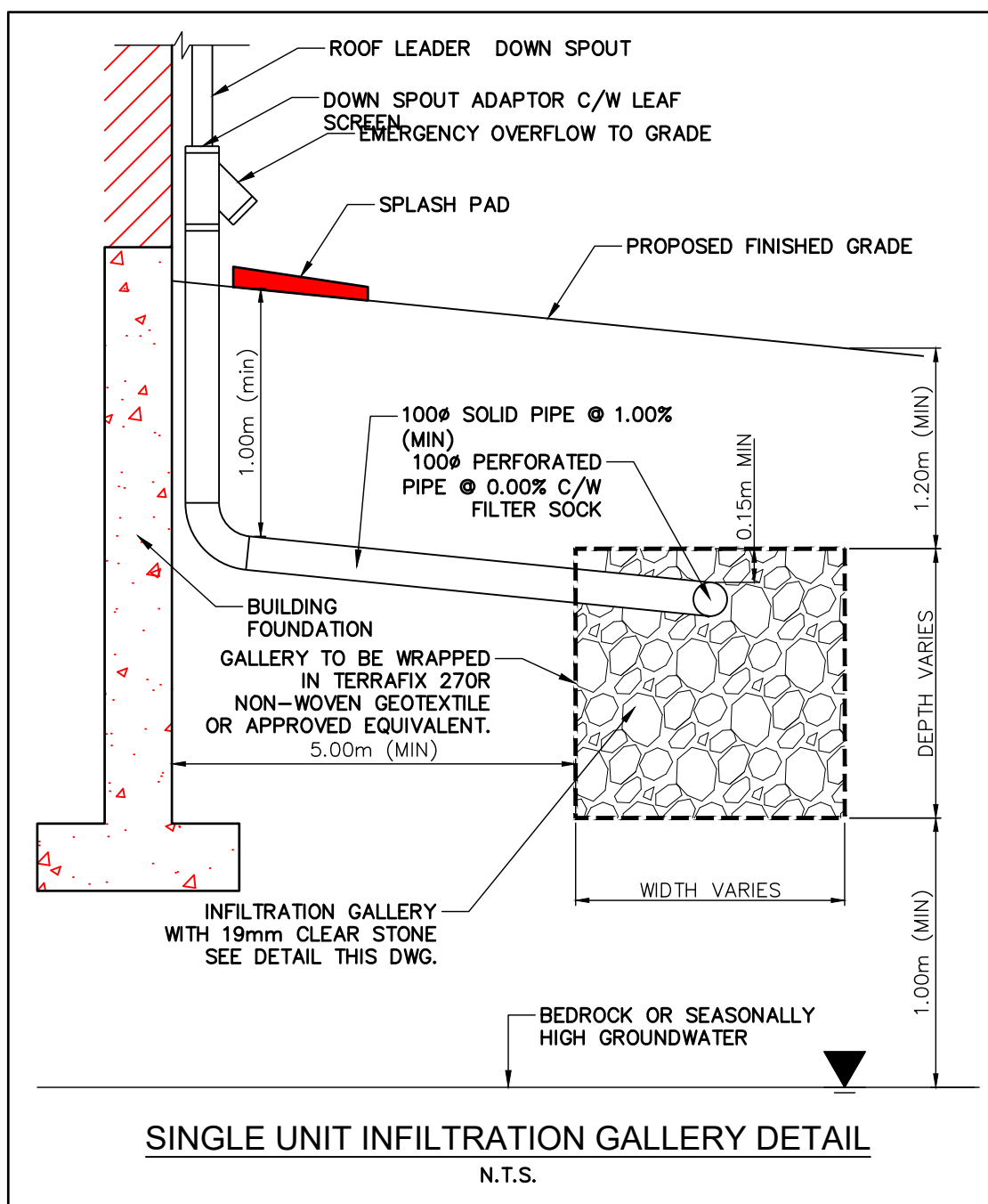
Engineer: T.A.H. FRASER 100176040 2026.02.13 PROVINCE OF ONTARIO

Project: HILLSBURGH RIDGE SUBDIVISION 9354 WELLINGTON ROAD 22, TOWN OF ERIN, WELLINGTON COUNTY

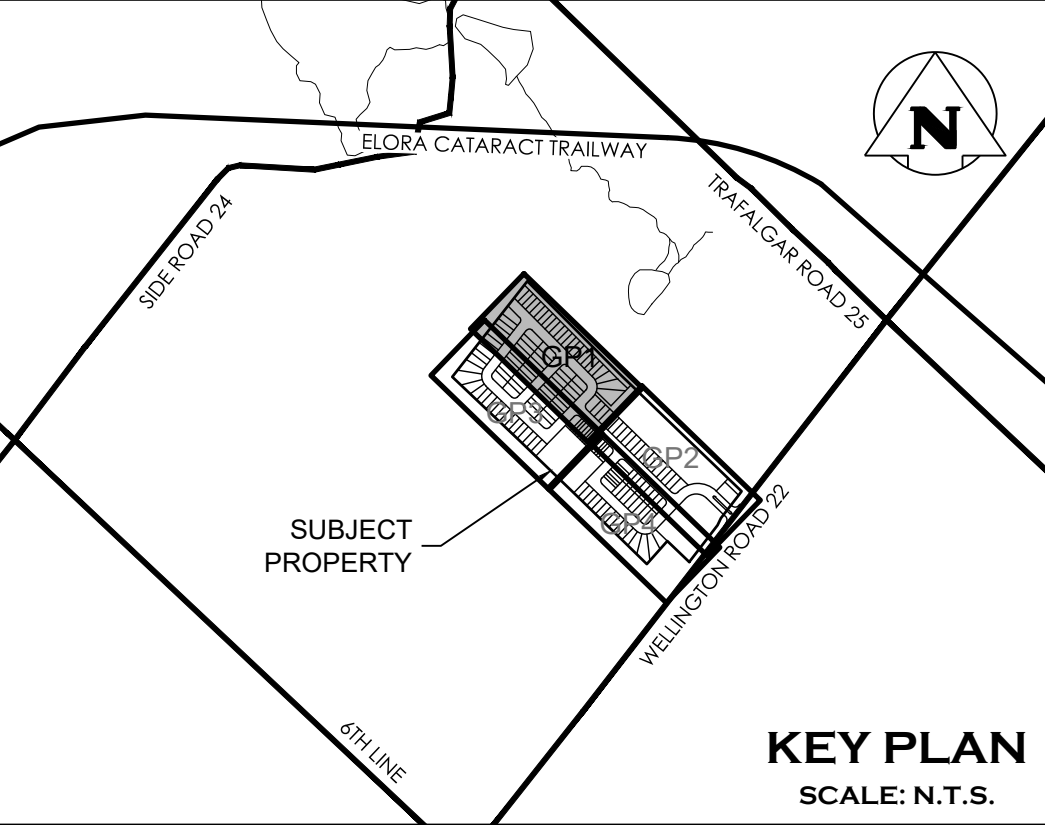
Drawing: STORM WATER CATCHMENT AREAS

CROZIER CONSULTING ENGINEERS

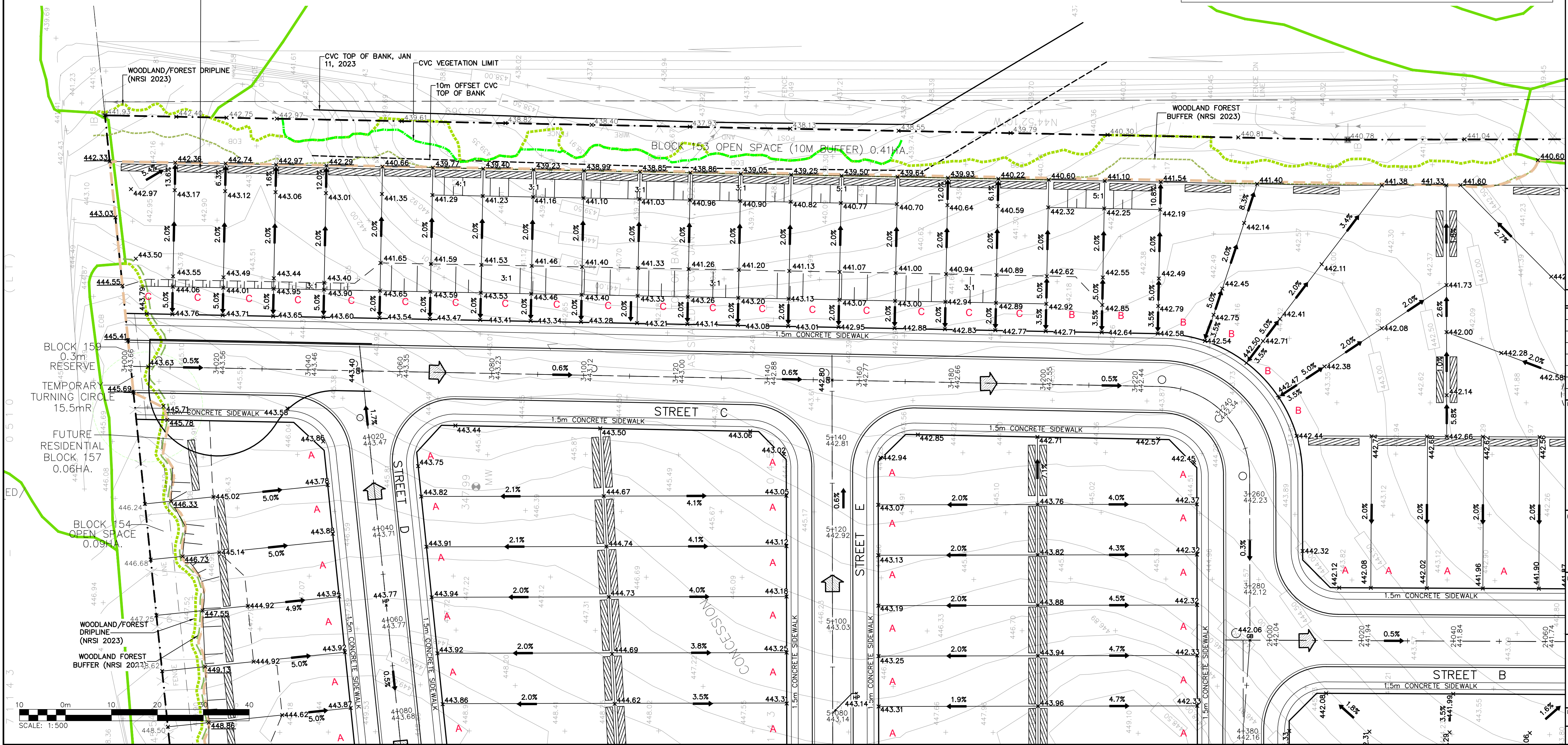
Drawn By: S.C. Design By: S.C./J.L. Project: 1808-7463
 Check By: J.L. Check By: T.F. Drawing: C305



TYPICAL LOT DRAINAGE TYPE
 LOT TYPE 'A' FRONT LOT DRAINAGE (ERIN SD 801)
 LOT TYPE 'B' SPLIT LOT DRAINAGE
 LOT TYPE 'C' REAR LOT DRAINAGE FOR WALKOUT OR BACKSPLIT HOUSE (ERIN SD 803)
 LOT TYPE 'D' REAR LOT DRAINAGE (ERIN SD 802)
 LOT TYPE 'E' FRONT LOT DRAINAGE FOR FRONT SPLIT HOUSE (ERIN SD 804)



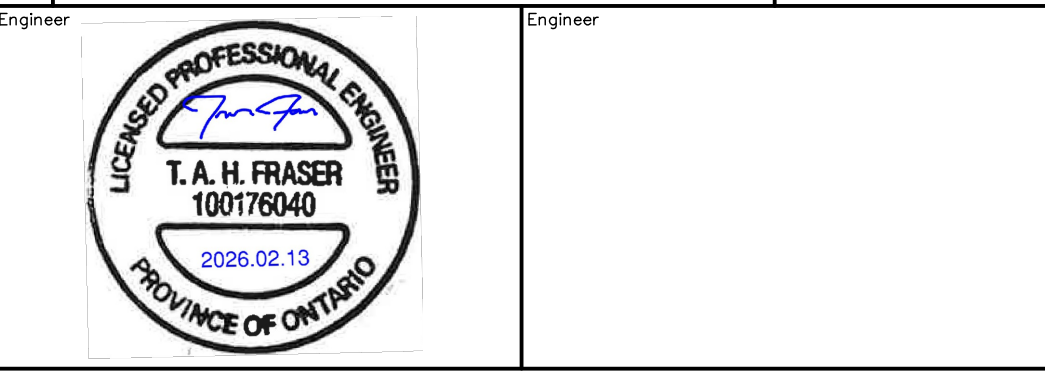
PROPOSED INFILTRATION GALLERY (TYP)
REFER TO DETAIL ON THIS DRAWING



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Project: **HILLSBURGH RIDGE SUBDIVISION**
9354 WELLINGTON ROAD 22,
TOWN OF ERIN, WELLINGTON COUNTY

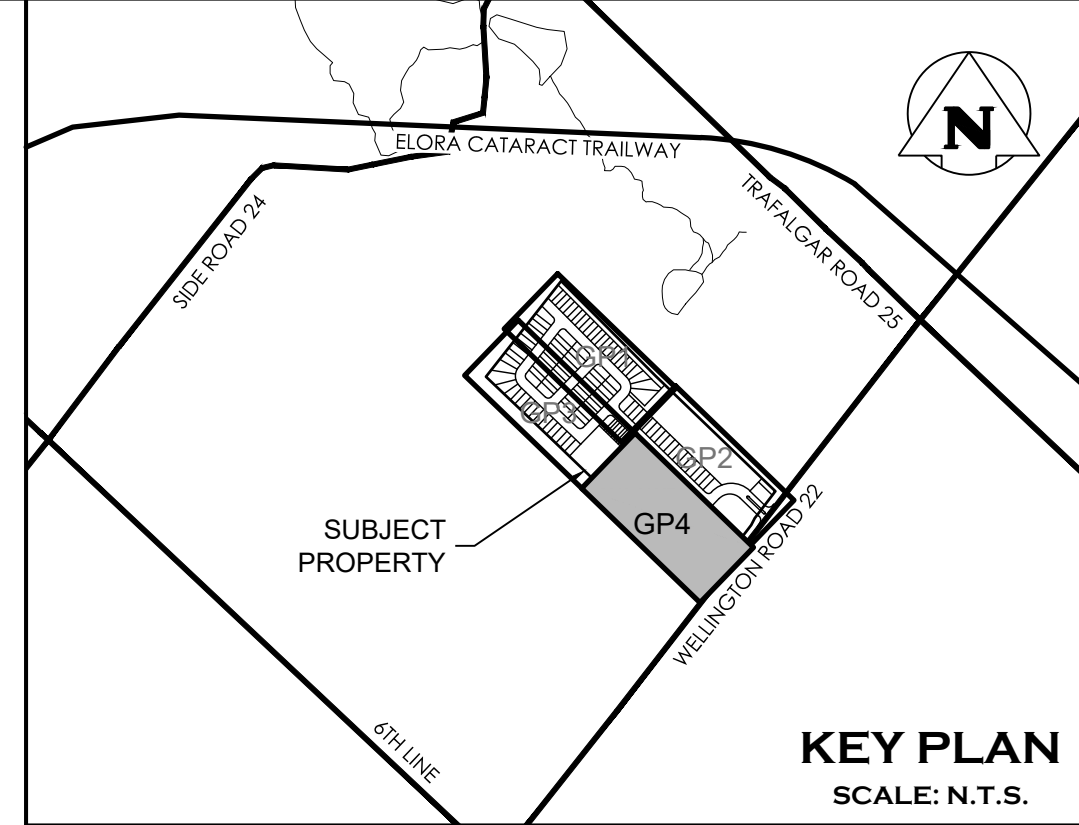
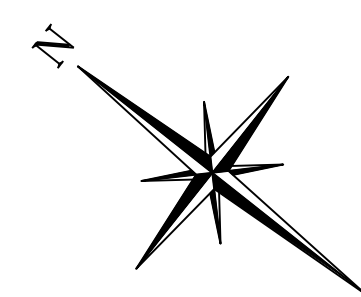
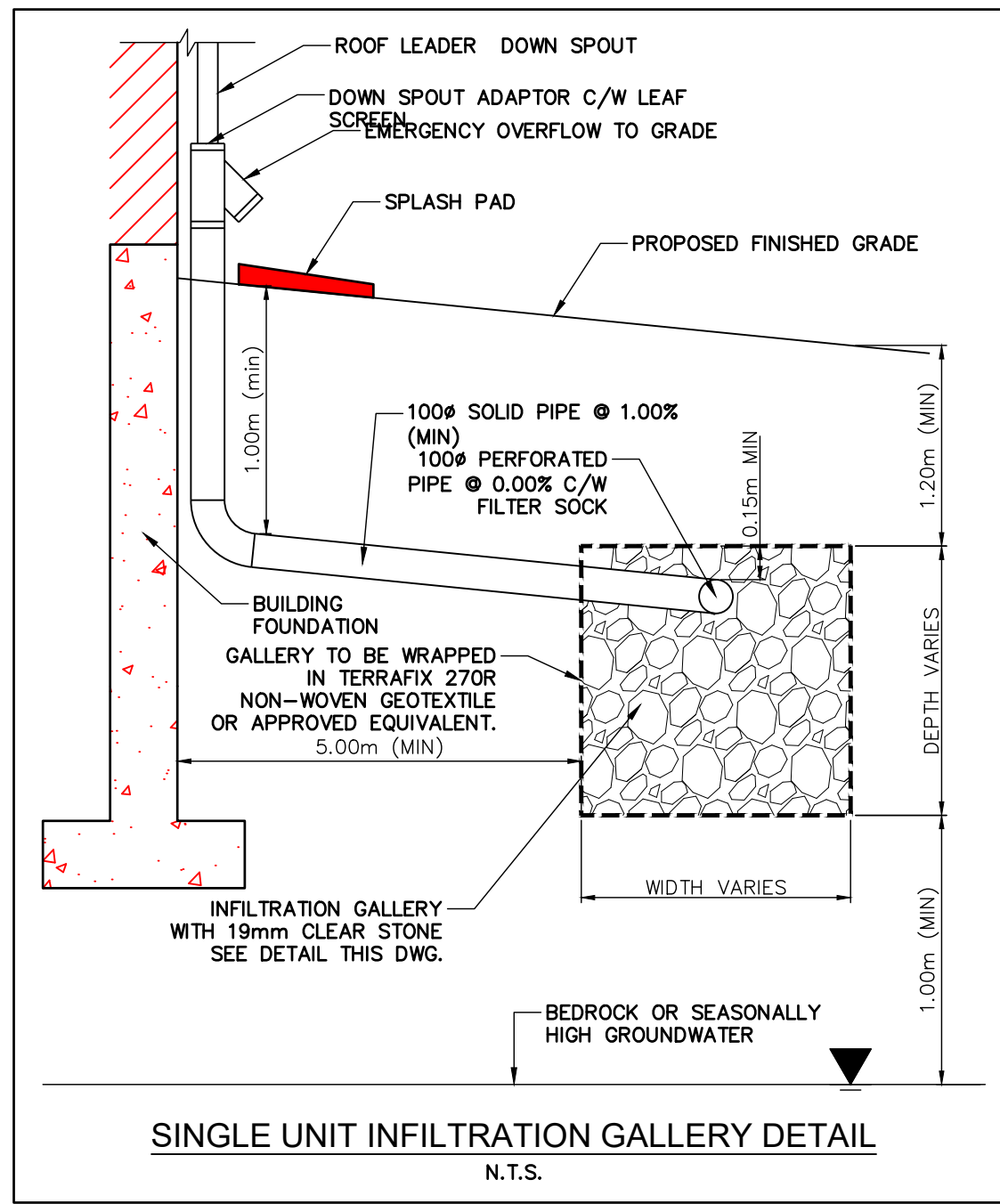
Drawing: **GRADING PLAN 1**

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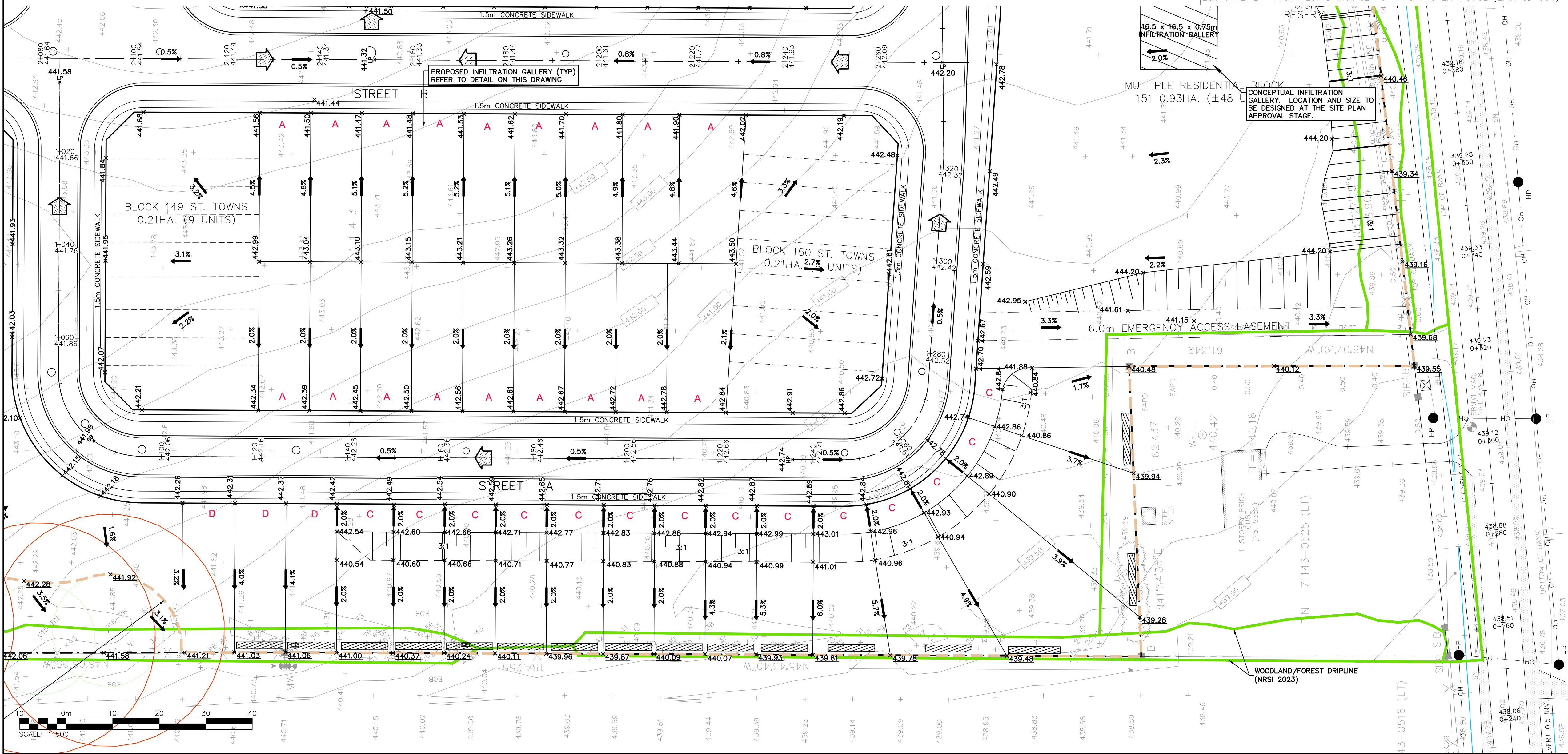
1808-7463
C401

Drawn By: S.C. Design By: S.C./J.L. Project: 1808-7463
Check By: J.L. Check By: T.F. Drawing: C401

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Engineer

Engineer

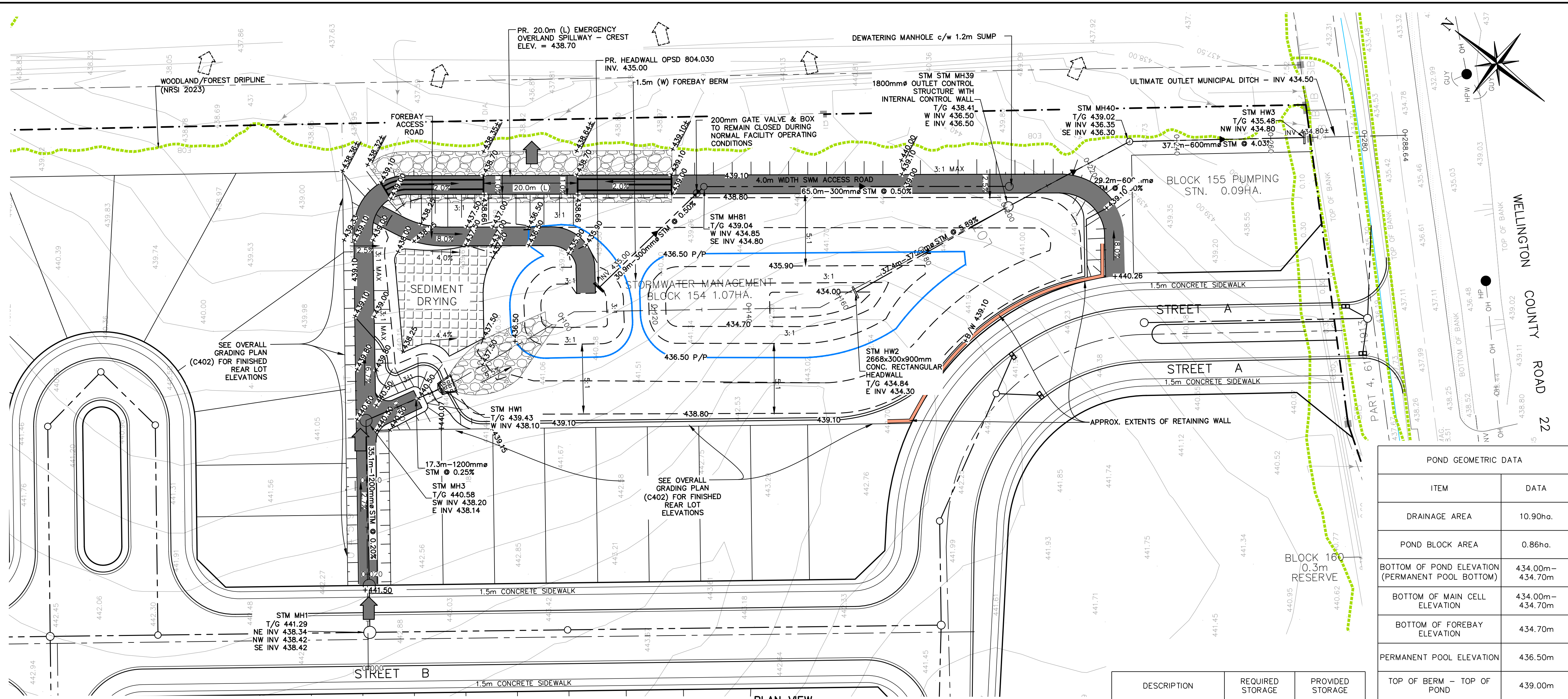
Project
HILLSBURGH RIDGE SUBDIVISION
 9354 WELLINGTON ROAD 22,
 TOWN OF ERIN, WELLINGTON COUNTY

Drawing
GRADING PLAN 4

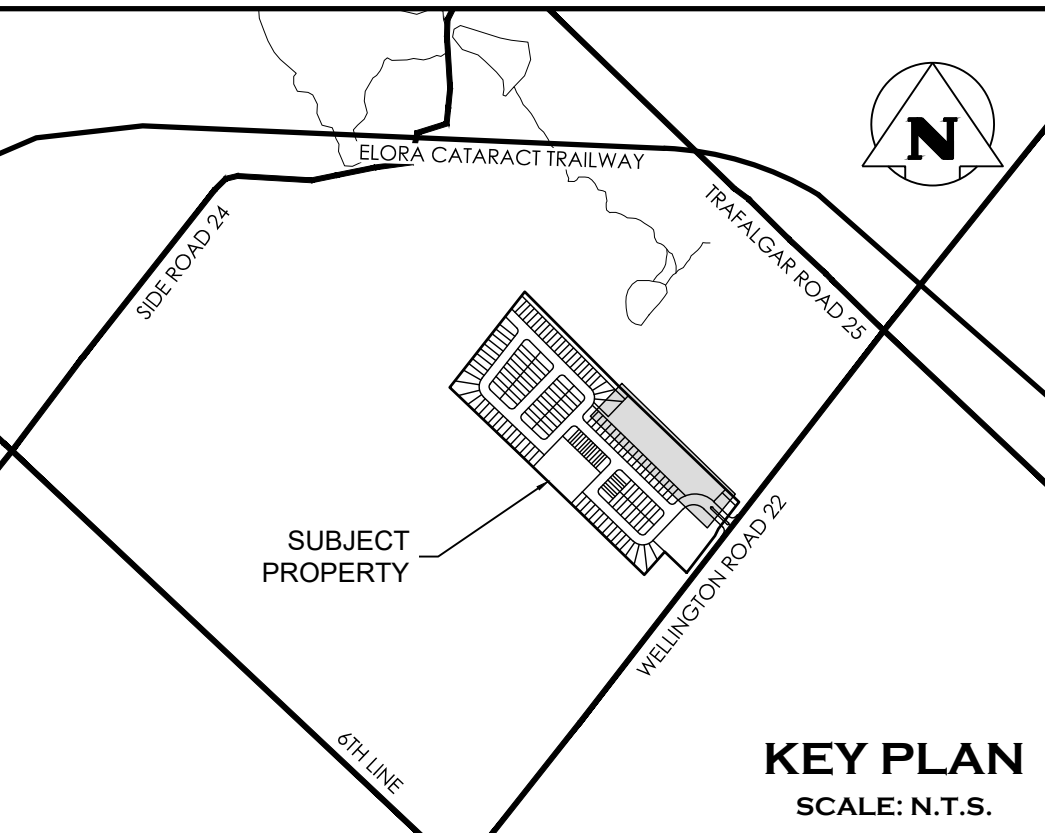
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 Check By J.L. Check By T.F. Drawing 404

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PLAN VIEW
SCALE: HORZ. 1:500



KEY PLAN
SCALE: N.T.S.

LEGEND

- PROPERTY LINE
- EXISTING CONTOUR (1.0m)
- PROPOSED SWM FACILITY CONTOUR
- PROPOSED SWM FACILITY PERMANENT POOL
- PROPOSED STORM SEWER & MANHOLE
- PROPOSED | EXISTING OVERLAND FLOW DIRECTION
- PROPOSED RIP RAP PLACEMENT
- PROPOSED DESIGNATED SEDIMENT DRYING AREA
- PROPOSED SWM ACCESS / FOREBAY ACCESS ROADS
- PROPOSED MATCH TO EXISTING ELEVATION
- PROPOSED ELEVATION
- PROPOSED SLOPE GRADIENT
- PROPOSED SIDE SLOPE
- PROPOSED RETAINING WALL (ARMOUR STONE)

POND GEOMETRIC DATA

ITEM	DATA
DRAINAGE AREA	10.90ha.
POND BLOCK AREA	0.86ha.
BOTTOM OF POND ELEVATION (PERMANENT POOL BOTTOM)	434.00m - 434.70m
BOTTOM OF MAIN CELL ELEVATION	434.00m - 434.70m
BOTTOM OF FOREBAY ELEVATION	434.70m
PERMANENT POOL ELEVATION	436.50m
TOP OF BERM - TOP OF POND	439.00m
100YR. ELEV	438.70
5YR. ELEV	438.10

DESCRIPTION	REQUIRED STORAGE	PROVIDED STORAGE
PERMANENT POOL EL 434.00 - 436.50	1,711 m ³	2,012 m ³
ACTIVE STORAGE EL 436.50 - 438.70	7,693 m ³	8,153 m ³

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Engineer

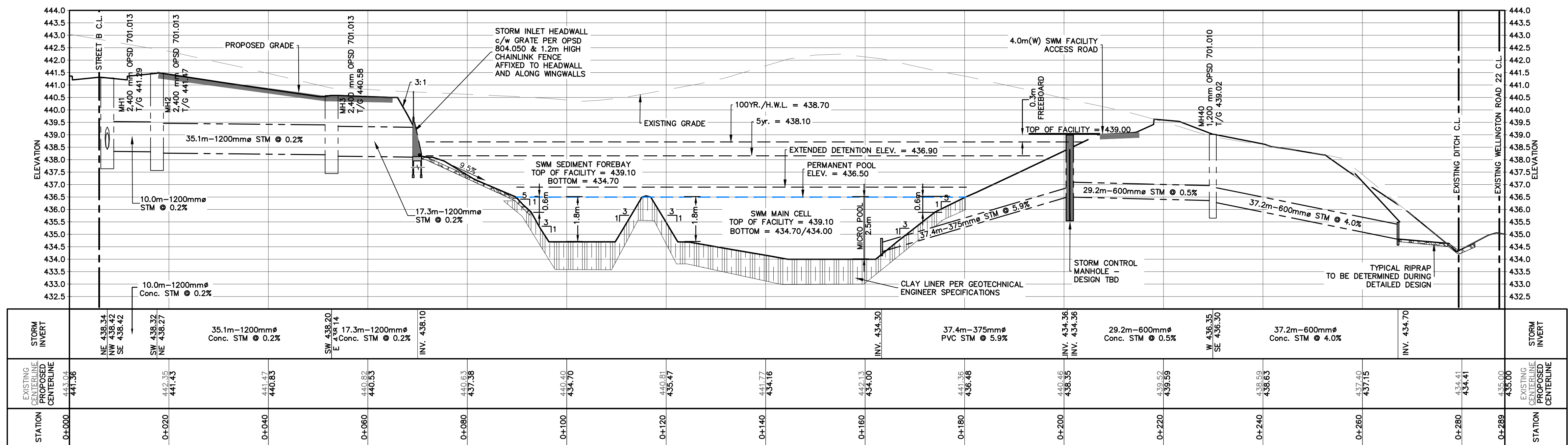
Engineer

Project
HILLSBURGH RIDGE SUBDIVISION
9354 WELLINGTON ROAD 22,
TOWN OF ERIN, WELLINGTON COUNTY

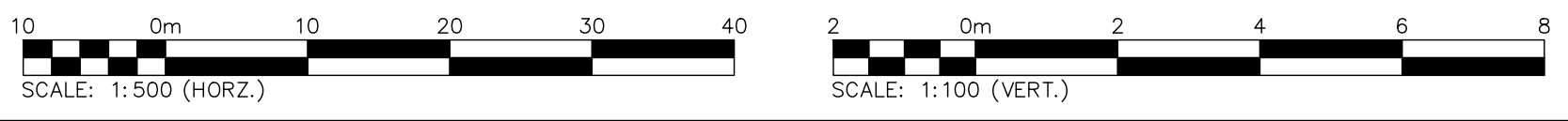
Drawing
SWM PLAN & PROFILE

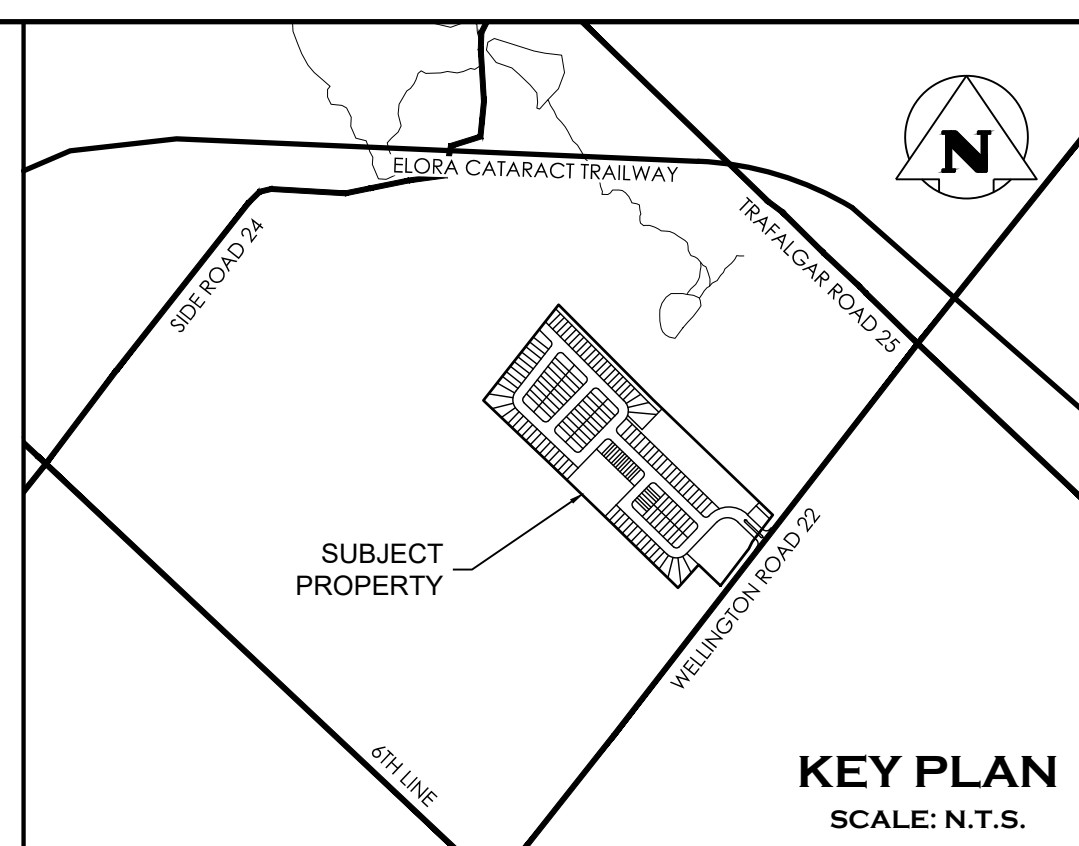
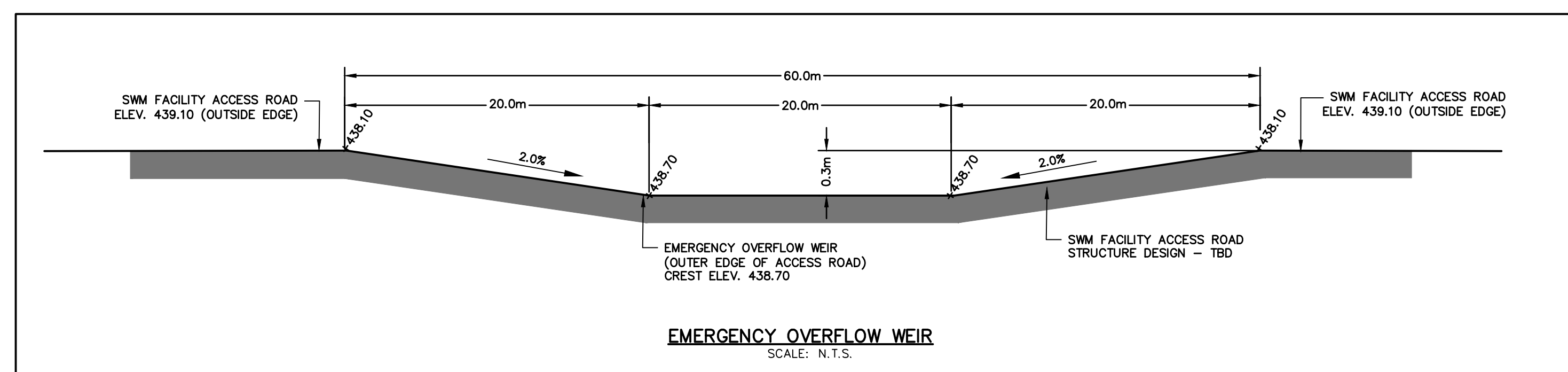
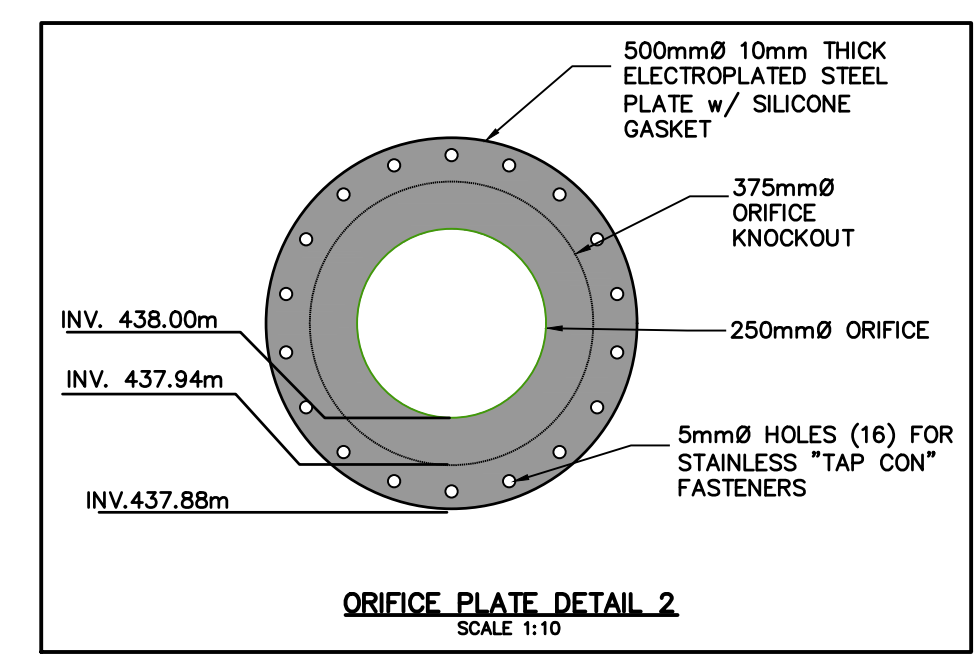
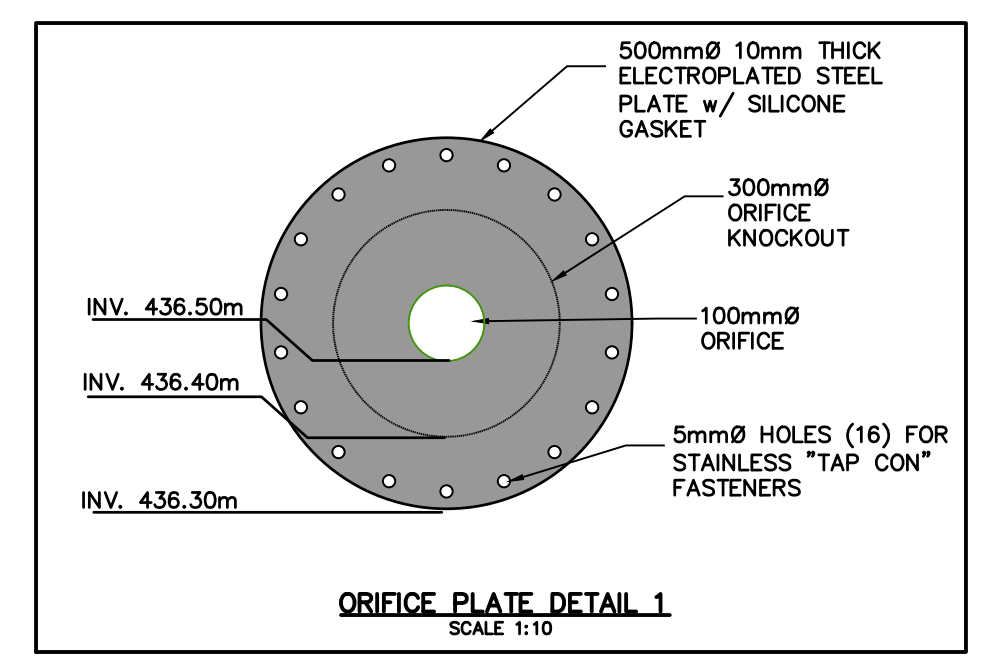
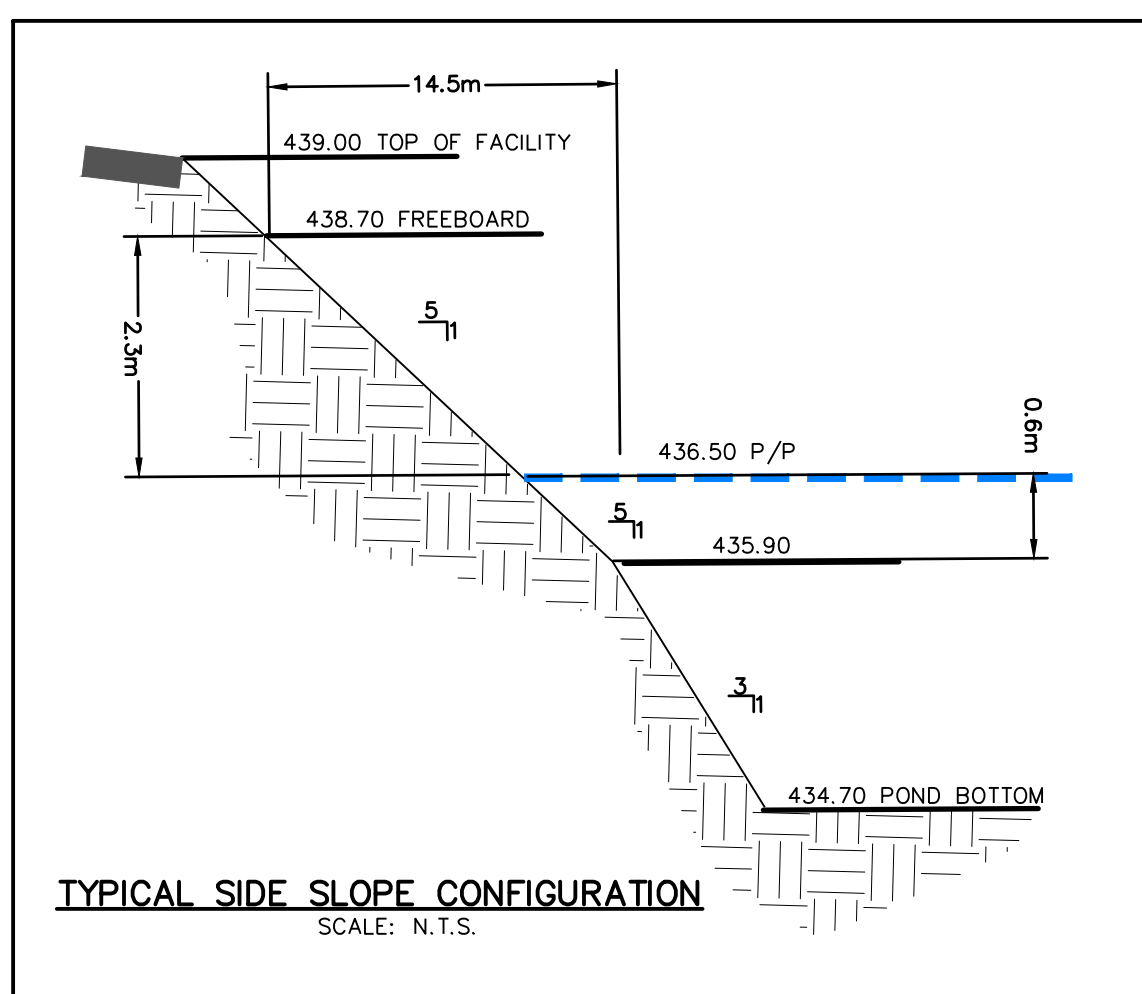
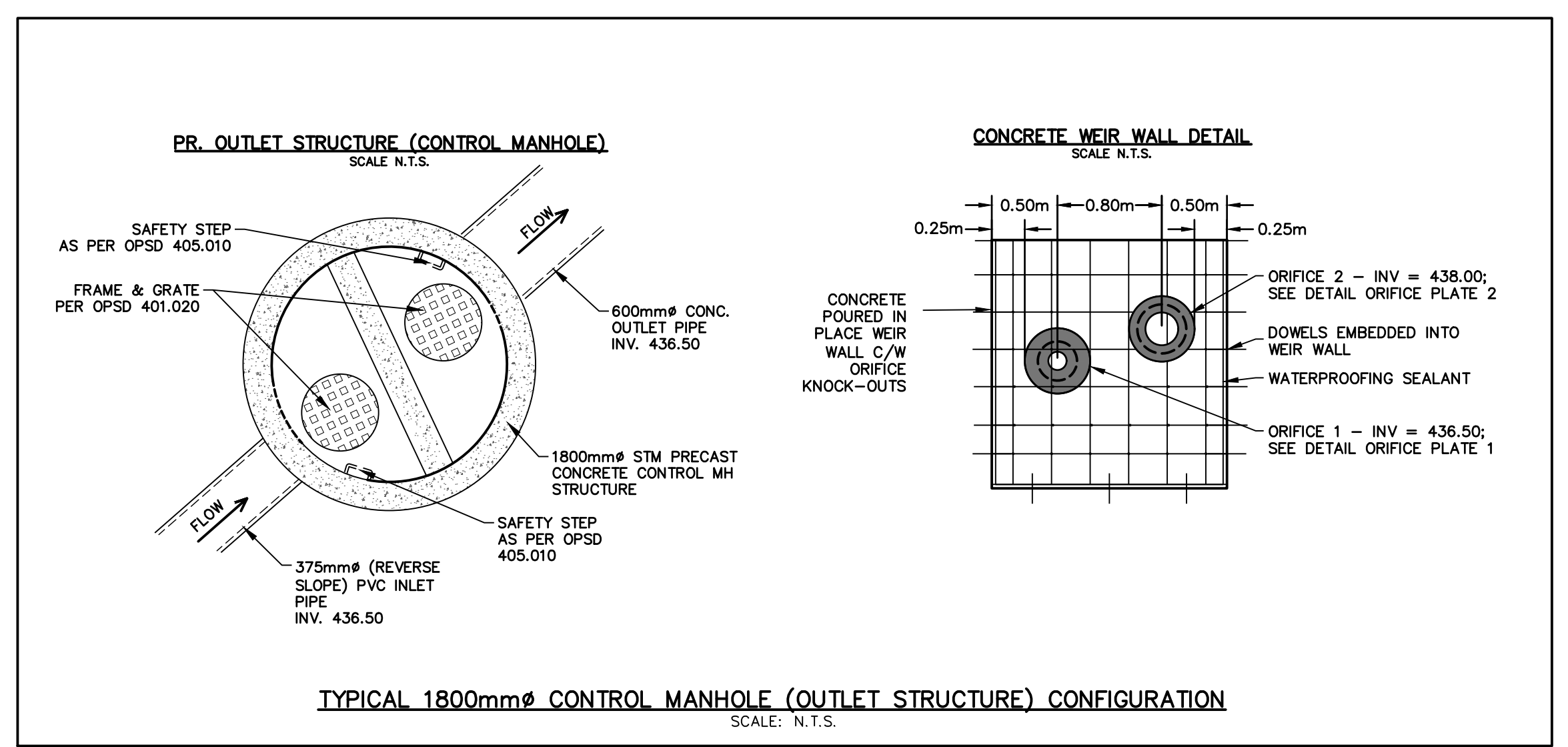
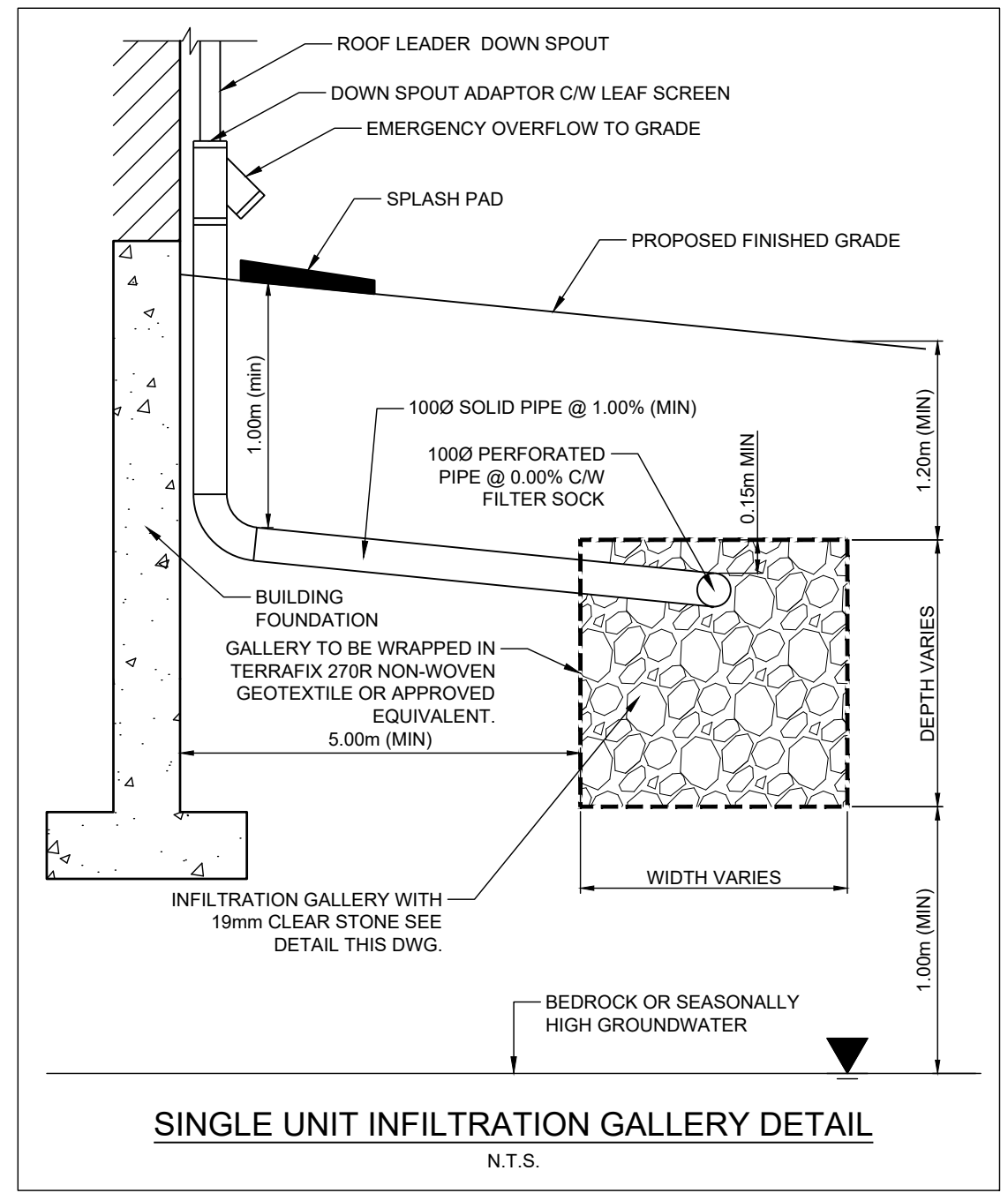
CROZIER
CONSULTING ENGINEERS

Drawn By: S.C. Design By: S.C./J.L. Project: 1808-7463
Check By: J.L. Check By: T.F. Drawing: C701



PROFILE VIEW
SCALE: HORZ. 1:500; VERT. 1:100

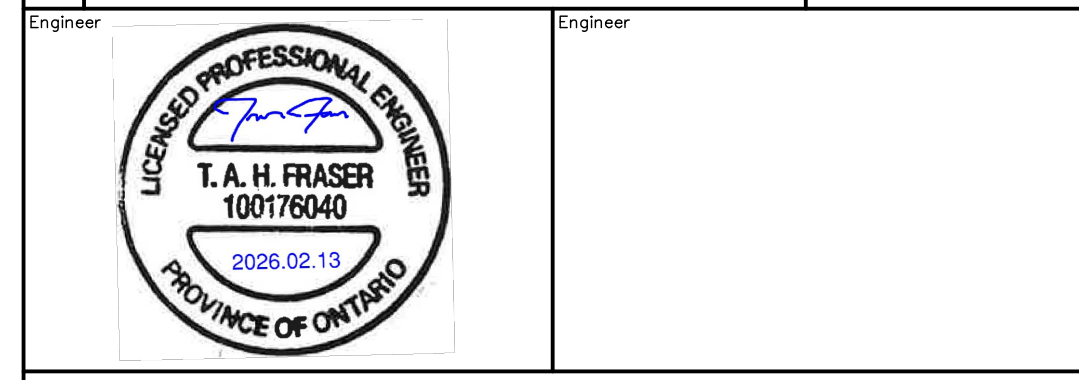




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Project: **HILLSBURGH RIDGE SUBDIVISION**
 9354 WELLINGTON ROAD 22,
 TOWN OF ERIN, WELLINGTON COUNTY

Drawing: **SWM SECTIONS & DETAILS**

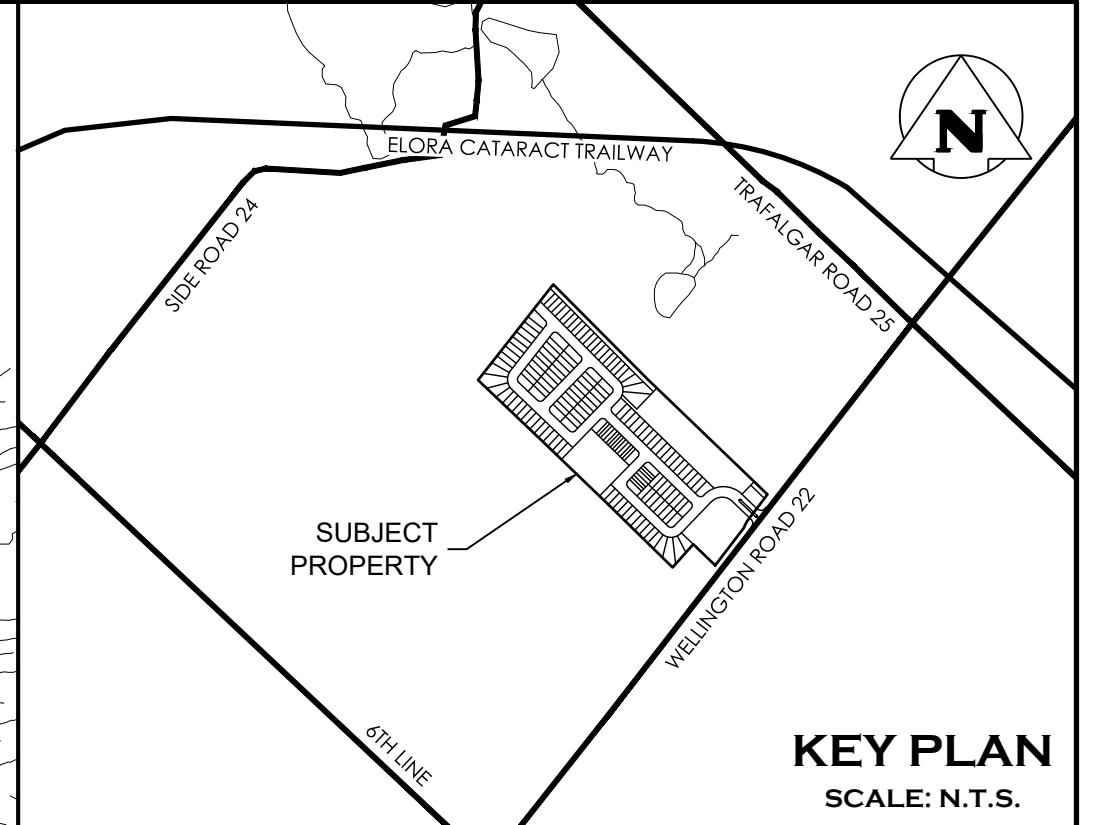
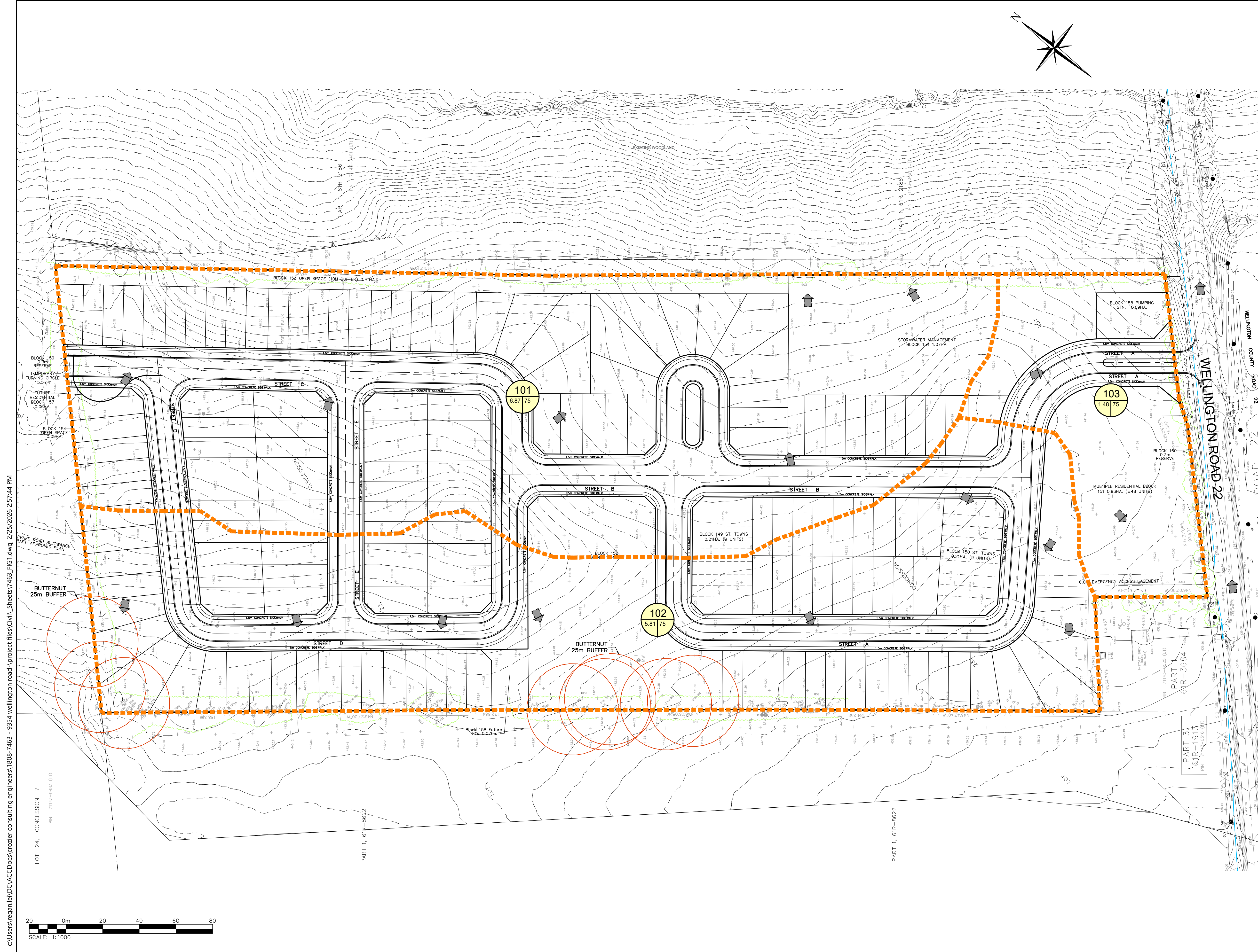


Drawn By: S.C. Design By: S.C./J.L. Project: **1808-7463**
 Check By: J.L. Check By: T.F. Drawing: **C702**

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FIGURES

- Figure 1:** Pre-Development Drainage Figure
- Figure 2:** Post-Development Drainage Figure
- Figure 3:** Pre-Development Water Balance Figure
- Figure 4:** Post-Development Water Balance Figure



LEGEND

	PROPERTY LINE
	EXISTING CONTOUR (0.5m)
	EXISTING CONTOUR (1.0m)
	EXISTING DITCH
	EXISTING GRADE
	EXISTING OVERLAND FLOW DIRECTION
	STORM DRAINAGE CATCHMENT
	CATCHMENT I.D.
	AREA (ha) CURVE NUMBER (CN')

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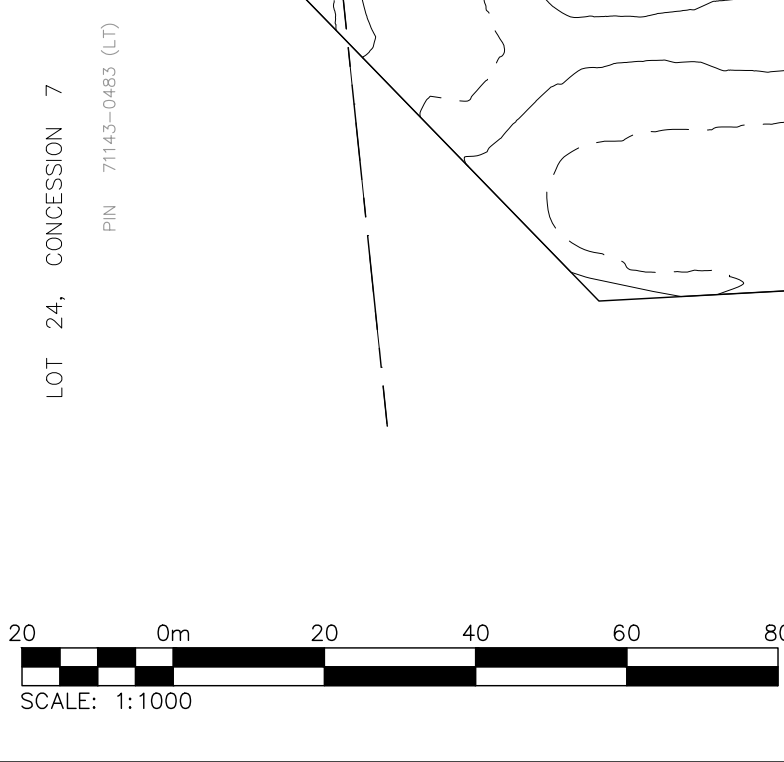
Engineer: _____
 Project: **HILLSBURGH RIDGE SUBDIVISION**
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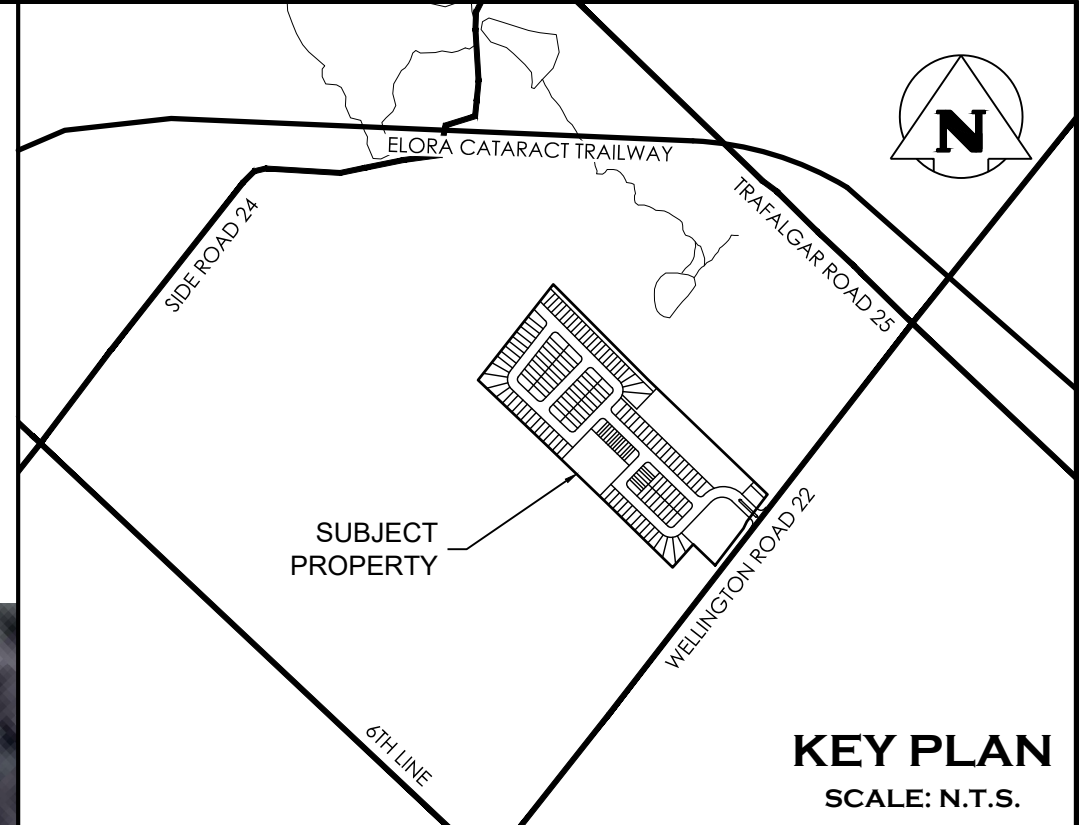
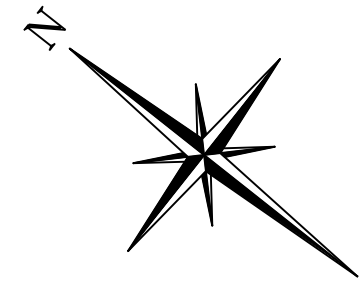
Drawing: **PRE-DEVELOPMENT DRAINAGE PLAN**

CROZIER CONSULTING ENGINEERS

Drawn By: S.C.	Design By: S.C./J.L.	Project: 1808-7463
Check By: J.L.	Check By: T.F.	Drawing: FIG1

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LEGEND

	PROPERTY LINE
	INFERRED GROUNDWATER CONTOUR (GM BLUEPLAN, 2024)
	EXISTING DITCH
	EXISTING GRADE
	INFERRED GROUNDWATER FLOW DIRECTION
	WATER BALANCE CATCHMENT
	GROUNDWATER DIVIDE
	CATCHMENT I.D.
	AREA (ha) PERCENT IMPERVIOUS (%)

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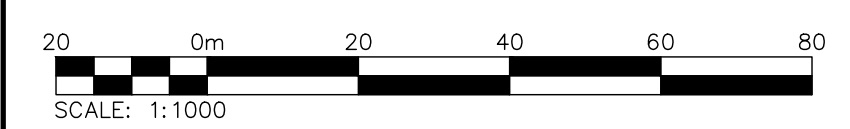
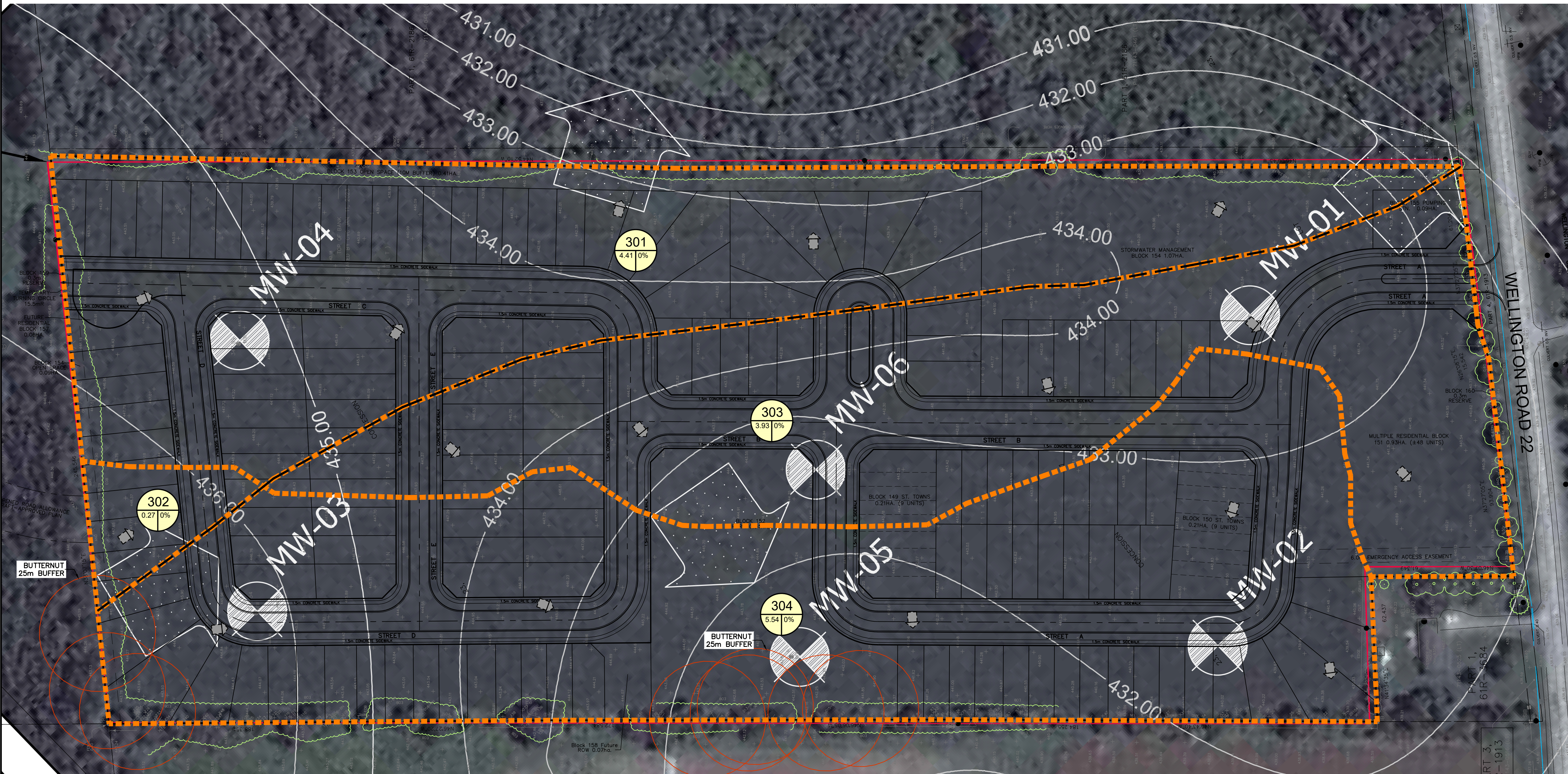
Engineer _____ Engineer _____

Project **HILLSBURGH RIDGE SUBDIVISION
9354 WELLINGTON ROAD 22,
TOWN OF ERIN, WELLINGTON COUNTY**

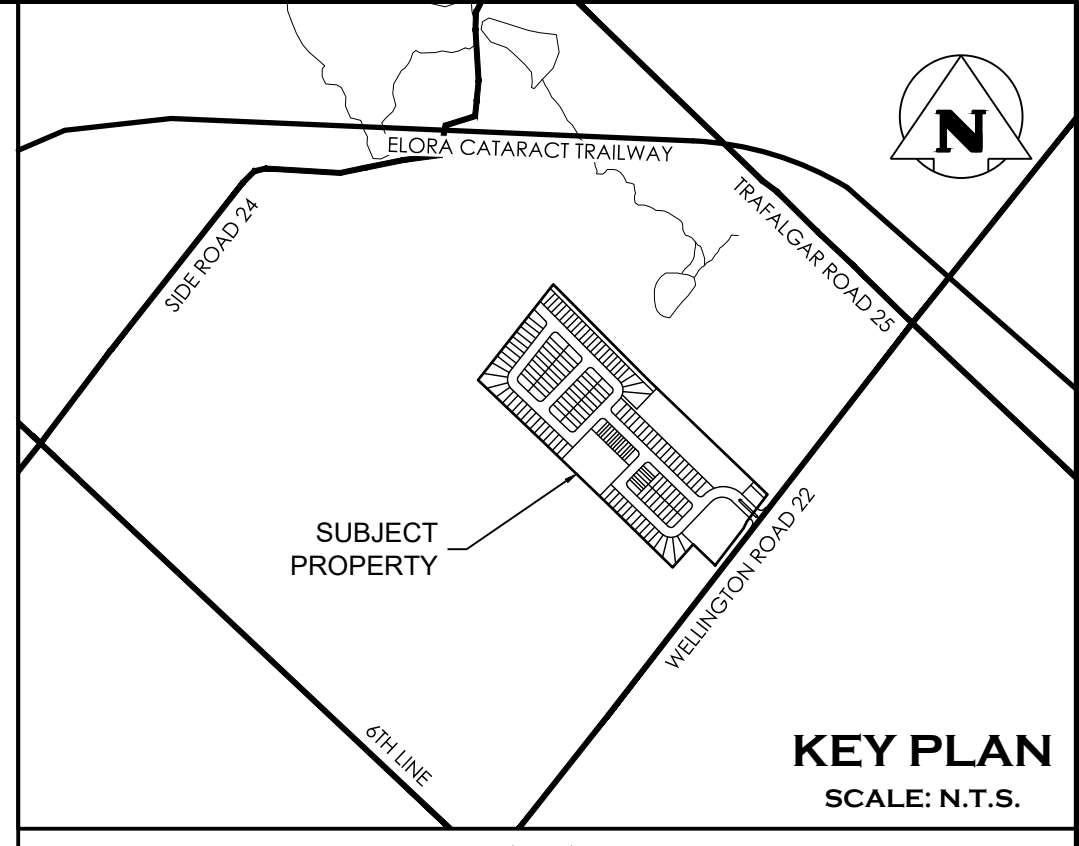
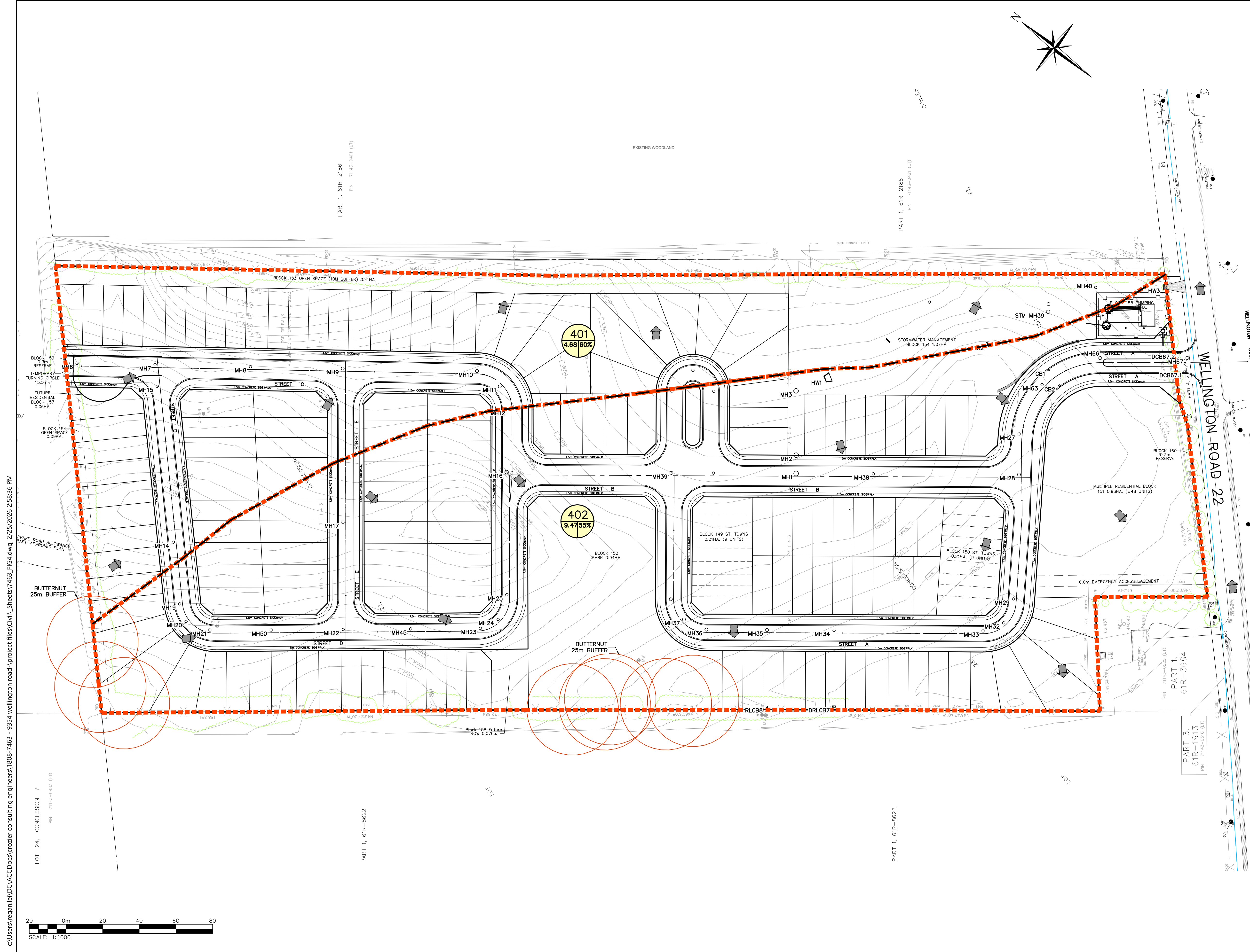
Drawing **PRE-DEVELOPMENT
WATER BALANCE CATCHMENTS**



Drawn By	S.C.	Design By	S.C./J.L.	Project	1808-7463
Check By	J.L.	Check By	T.F.	Drawing	FIG3



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LEGEND

	PROPERTY LINE
	EXISTING CONTOUR (0.5m)
	EXISTING CONTOUR (1.0m)
	EXISTING DITCH
	PROPOSED STORM SEWER & MANHOLE
	PROPOSED CATCHBASIN
	INFERRED GROUNDWATER FLOW DIRECTION
	WATER BALANCE CATCHMENT
	GROUNDWATER DIVIDE
	CATCHMENT I.D.
	AREA (ha) | PERCENT IMPERVIOUSNESS (%)

TEMPORARY BENCHMARKS
 SITE BENCHMARK#1: MAGNETIC NAIL IN ASPHALT APPROX. 18m SOUTH OF SOUTH-WEST CORNER OF THE SUBJECT PROPERTY. ELEV=439.18m
 SITE BENCHMARK#2: MAGNETIC NAIL IN ASPHALT APPROX 100m EAST OF SOUTH-WEST CORNER OF THE SUBJECT PROPERTY. ELEV=438.51m
 LEGAL SURVEY PREPARED BY VAN HARTEN SURVEYING INC. PROJECT No:23602-16 DATED: JAN. 16, 2023
 TOPOGRAPHIC SURVEY PREPARED BY HAMILTON CONSTRUCTION DATED: NOV. 06, 2025

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5. ALL EXISTING UNDERGROUND UTILITIES TO BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
6. DO NOT SCALE DRAWINGS.

No.	ISSUE	DATE: YYYY/MM/DD
3	ISSUED BY CEI	2024/NOV/07
4	ISSUED FOR DRAFT PLAN APPROVAL	2026/FEB/13

Engineer: _____
 Project: **HILLSBURGH RIDGE SUBDIVISION**
9354 WELLINGTON ROAD 22,
TOWN OF ERIN, WELLINGTON COUNTY

Drawing: **POST-DEVELOPMENT**
WATER BALANCE CATCHMENTS

CROZIER CONSULTING ENGINEERS

Drawn By: S.C.	Design By: S.C./J.L.	Project: 1808-7463
Check By: J.L.	Check By: T.F.	Drawing: FIG4

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