

Functional Servicing Report

Quality Inn and Conference Centre Drive Through Development

Prepared for: 1489338 Ontario Inc.
(Andy Sahota – Sahota Hotels)



January 23, 2026

Chisholm, Fleming and Associates,
Consulting engineers



Table of Contents

1	Introduction	1
2	Site Description.....	1
3	Stormwater Management	2
3.1	Existing Storm Sewer and Drainage System.....	2
3.2	Proposed Storm Sewer System.....	2
3.2.1	Storm Sewers – Minor System	3
3.2.2	Overland Flow – Major System	3
3.3	Stormwater Management Plan.....	3
3.3.1	Stormwater Management Targets	3
3.3.2	Stormwater Management Constraints.....	3
3.3.3	Runoff Quality Treatment.....	3
3.4	Runoff Quantity Control	4
4	Sanitary Sewer System	6
4.1	Existing Sanitary Sewer System	6
4.2	Proposed Sanitary Sewer System	6
5	Water Servicing.....	7
5.1	Proposed Sanitary Sewer System	7
5.2	Proposed Water Servicing System.....	7
6	Lot Grading	9
6.1	Existing Site Conditions.....	9
6.2	Proposed Grading Plan	9
7	Sediment and Erosion Control	10
8	Photometric Study	10
9	Conclusions	11



List of Figures

Figure 1 – Location Map	2
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List of Tables

Table 1: Pre-Development (Existing) Peak Flows	4
Table 2: Uncontrolled Post-Development Peak Flows	5
Table 3: Post-Development Peak Flows and Storage Requirements	5
Table 4: Storage – Discharge Relationship	6
Table 6: Estimated Sanitary Flow	7
Table 7: Estimated Water Demand	8
Table 8: Estimated Fire Flow	9

List of Appendices

Appendix A – Existing Drainage Area Plan
Appendix B – Proposed Drainage Area and Storm Sewer Calculations
Appendix C – Site Servicing Plan
Appendix D – Proposed Grading Plan
Appendix E – Stormceptor EF Sizing Report
Appendix F – Water Quality Balance Calculations
Appendix G – Ministry of Transportation IDF Curve for the Town of Midland
Appendix H – VO2 Output Calculations
Appendix I – Storage-Discharge Relationship Calculations



1 Introduction

The Quality Inn and Conference Centre is proposing to expand the development of the existing site located at 924 King Street with the addition of a McDonald's stand-alone restaurant as presented in the Site Plan, prepared by MiKo Urban Consulting Inc. Through the pre-development consultation process with the Town and MTO, some specific requirements have been identified, as listed in Section 3.3.1.

Chisholm, Fleming and Associates (CFA) have been retained by the Quality Inn and Conference Centre Firm to prepare the Functional Servicing Report (FSR), including a stormwater management plan, site servicing plan, grading plan and photometric calculations to support the Site Plan Application.

2 Site Description

The Site is located at the southwest corner of King Street and Heritage Drive (Hwy 12), in the southerly portion of the Town of Midland, in the County of Simcoe. It is flanked by the commercial plaza to the north and a big box store, Home Depot, to the west. To the east are commercial/warehousing properties and a restaurant, and at the south part of the property is the inn and motel. The Heritage Drive flankage and a section of King Street frontage are subject to the Ministry of Transportation (MTO) policies and administered by the Corridor Management Division. The Ministry maintains a 14 m buffer zone on the site as shown on the Plan.

The current site development comprises the Inn, a 3-storey building with 106 guest rooms, completed with a conference centre and restaurant, and a single storey motel with a fifteen room capacity. The Site is serviced with municipal water, municipal sewage disposal, storm sewer drainage and utilities. The residual property is mainly paved for parking, egress and ingress. Access to the site is via an unnamed public road leading from King Street.

The Site, 2.05ha, is identified as a strategic growth area and is within the commercial corridor as established in the Town's Official Plan (TOP). The Site Location Map is shown in Figure 1.



Figure 1 – Location Map

3 Stormwater Management

3.1 Existing Storm Sewer and Drainage System

In general, the block drains from west to east, utilizing catchbasins and storm sewers to convey runoffs via a 650mm diameter CSP pipe to the ditch along the west boulevard of King Street. The Site is in the Wye River Watershed which is a part of the South Georgian Bay Shoreline Watershed.

The storm sewer design sheets and drainage area plan for the existing system are not available. A drainage area map was then developed, based on the topographical survey, aerial imagery and information collected during a site visit. Based on the map, the total drainage area contributing to the 650mm CSP comprise the external area from the north commercial properties of 0.92ha and the internal area of 1.94 ha for a total of 2.86ha. The established drainage area map is provided in Appendix A.

The existing 300mm diameter storm sewer is approximately 1-2.6m deep and at relatively steep slopes, in the range of 5.5-7.5% which is generally paralleling existing grades. There are no defined quality or quantity treatment facilities integrated into the existing stormwater drainage system.

3.2 Proposed Storm Sewer System

Post-development drainage runoff will be conveyed via a reconfigured storm sewer system, with controls such that post development flows rates will not be greater than pre-development for the respective storms. Under the proposed development expansion, 1,255.52m², net, (0.13ha) of soft surface will be converted to pavement. The proposed drainage area map and storm sewer calculation sheet are provided in Appendix B.



3.2.1 Storm Sewers – Minor System

The storm sewer system for the development expansion has been designed, based on the Town's criteria, that of conveying the 5-year storm event. The proposed sewer changes are shown on the Site Servicing Plan, Appendix C. A new reach of storm sewer is proposed to convey the drainage from the snow melt designated area, at the south-west corner of the Site to the existing system. The preliminary storm sewer layout, pipe sizes and slopes are provided in the Servicing Plan and the flow sheet computations are provided in Appendix B. The storm sewer outlet is being maintained via the existing 650mm CSP which discharges to the ditch on King Street.

3.2.2 Overland Flow – Major System

Flows greater than the 5-year event will be conveyed by overland routes to a proposed underground detention storage tank located as shown on the Site Servicing Plan. Release rates from the tank will be controlled by an orifice tube such that the rates under the expansion conditions do not exceed those under the existing conditions.

The overland flow routes are shown in the respective drainage area maps, Appendix A and B.

3.3 Stormwater Management Plan

3.3.1 Stormwater Management Targets

The following are the principal requirements established by the MTO Corridor Management Group during the consultation discussions:

- Post-development flows exiting the site must not exceed pre-development flows
- Runoff treatment is to be implemented such that there is an improvement over existing conditions

3.3.2 Stormwater Management Constraints

- All permanent buildings and structures both above and below ground, utilities, roads/fire routes, essential parking spaces, stormwater facilities, including ponds and associated berms, storages, and noise walls must be set back 14.0 metres from the Highway right-of-way limits.
- Post to pre-development controls for 5 to 100-year storm events. A table is to be provided in the report to confirm that the conditions are met.
- Rooftop storage and unconventional underground storage such as chambers and infiltration systems are not permitted. Underground storages provided in manholes, storm sewer, super pipe or storage tank are permitted as such are accessible through a maintenance hole, providing ease of access for inspection and maintenance purposes.

3.3.3 Runoff Quality Treatment

As noted above, runoff quality treatment is to be provided for runoff originating from the site such that there is an improvement in quality in comparison with the existing condition. Since the proposed additional site development mainly involves converting sundry small areas from grass to pavement (nine in total as shown in the proposed drainage area plan, Appendix B), it is not technically feasible to provide separate quality treatment for the respective areas. Rather, the intent is to provide runoff quality treatment for large blocks such that the target TSS removal is achieved through a weighted approach. The sediment removal is proposed to be provided through an Oil/Grit Separator (OGS), appropriately sized and in the location as shown in the Site Servicing Plan, Appendix C.



The drainage area map shows the catchment to be treated by the OGS, i.e., Catchments 2, 3, 4 and 8, for a total area of 4,567 m² or 0.46ha. The Stormceptor, Model EF5, sizing report is shown in Appendix E, would provide a 60% TSS removal for the 0.46ha drainage area and the remaining 1.48ha of the site would flow through without any dedicated quality treatment facility. To estimate the overall site quality treatment improvements, a simplified approach to the calculations is taken, i.e. the portion of the site area which is treated divided by the total area $((0.46\text{ha} \times 60\%) + (1.48\text{ha} \times 0\%) / 1.94 \text{ ha} = 14\%$; thus meeting the objective of the overall site runoff site quality improvements. Calculations for the water quality balance, provided in Appendix F, show that the actual sediment removal rate will increase by 18% compared to existing conditions, which also corresponds to an improvement in the runoff quality level of treatment.

3.4 Runoff Quantity Control

As noted above, the quantity control target is for post-development flows from the subject property to not exceed the pre-development levels for all storm events up to the 100-year storm, thus meeting both municipal and MTO requirements.

For the same reasons as those presented under the quality treatment sections the strategy here is to take a weighted approach to the quantity control since control in numerous small patches would be ineffective and inefficient. The SWM strategy therefore involves overcontrolling certain parts of the site to compensate for uncontrolled flows from other parts yet achieving post-to-pre control targets at the existing CSP outlet.

The Visual OTTHYMO model (VO) was used for the modelling of pre-development (existing) conditions. Design storms were developed from rainfall depths indicated by MTO's IDF Curve Lookup tool for the Midland area (refer to Appendix G). The 12-hour and 24-hour SCS Type II distributions were used in the VO modelling. The Existing Drainage Area Plan (Appendix A) shows the extents and basic input parameters of the modelled catchments. It is noted that Catchment 7 represents an external drainage area, draining through the subject property. Peak flows at the site outlet, indicated by CBMH#9, are summarized in Table 1. The VO2 output is included in Appendix H.

Table 1: Pre-Development (Existing) Peak Flows

Storm Return Period	Peak Flow (m ³ /s)	
	12-hr SCS Type II	24-hr SCS Type II
2	0.39	0.41
5	0.53	0.56
10	0.64	0.67
25	0.77	0.81
50	0.87	0.90
100	0.97	1.01

The post-development modelling is based on the Proposed Drainage Area Plan, shown in Appendix B. In comparison with the Existing Drainage Area Plan (Appendix A), there are no major changes, in terms of drainage patterns or flow directions. The major change is the separation of the area proposed for pavement to accommodate snow storage, and is



represented by Catchment 8, into a separate catchment area. Other revisions consist of slightly increased runoff coefficients in other catchments due to the conversion of grass to pavement.

Since the proposed site modifications are relatively minor compared to the size of the overall drainage area, a scenario with uncontrolled flows was run to determine the potential peak flow increases. The peak flows are summarized in Table 2, including a percent increase compared to existing conditions.

Table 2: Uncontrolled Post-Development Peak Flows

Storm Return Period	Peak Flow (m ³ /s)		Peak Flow Increase compared to Existing Conditions	
	12-hr SCS Type II	24-hr SCS Type II	12-hr SCS Type II	24-hr SCS Type II
2	0.41	0.42	3.9%	3.3%
5	0.55	0.58	3.2%	4.5%
10	0.66	0.68	2.6%	2.2%
25	0.79	0.83	2.7%	2.5%
50	0.89	0.92	2.6%	2.4%
100	0.98	1.02	1.8%	1.7%

Although the peak flow increases are relatively minor, the proposed SWM includes the provision of underground storage a tank, as permitted under the MTO criteria. In selecting the location of the underground storage facility, consideration was given to the effectiveness of capturing runoff and relative ease to integrate it into the existing system with only minor modifications.

The post-development conditions were modelled in VO software with results summarized in Table 3 (refer to Appendix H for output files).

Table 3: Post-Development Peak Flows and Storage Requirements

Storm Return Period	Peak Flow (m ³ /s)		Required Storage (m ³)	
	12-hr SCS Type II	24-hr SCS Type II	12-hr SCS Type II	24-hr SCS Type II
2	0.39	0.41	32	33
5	0.53	0.56	45	47
10	0.63	0.65	55	57
25	0.75	0.79	68	71
50	0.84	0.88	78	82
100	0.93	0.97	89	93

Per the temporary storage requirements as indicated in Table 3, the maximum is 93 m³. This storage volume will be provided by a 3.6m wide by 1.2m high by 21.5m long concrete tank, resulting in a total available volume of 93m³. The location of the storage tank is shown on the Site Servicing Plan in Appendix C.

Release rate from the storage facility will be controlled by a 200mm dia. restrictor pipe located downstream. The stage - storage – discharge relationship is provided in Table 4 with calculations included in Appendix I.



Table 4: Storage – Discharge Relationship

Stage (m)	Storage (m ³)	Discharge (L/s)
0.0	0	0
0.1	8	0
0.2	15	36
0.3	23	51
0.4	31	62
0.5	39	72
0.6	46	81
0.7	54	88
0.8	62	95
0.9	70	102
1.0	77	108
1.1	85	114
1.2	93	120

4 Sanitary Sewer System

4.1 Existing Sanitary Sewer System

An existing sanitary sewer of 200mm diameter services the Quality Inn hotel via a gravity system. The sanitary service slope of 5.2% is computed based on the measured inverts. It begins from the north corner of the building and runs northeast under the parking lot to a maintenance hole in the west boulevard of King Street where flows discharge to the 300mm municipal sanitary sewer. The existing site sewer system is shown in Appendix C, Site Servicing Plan.

4.2 Proposed Sanitary Sewer System

The existing building sewer is proposed to also be the outlets for the McDonald's Building and drain locations and preliminary routing for sanitary laterals are shown on the Site Servicing Plan, Appendix C. The existing sewer depth is adequate to provide gravity flow from the proposed McDonald's Building.

The connection of the building drain from the McDonald's building to the existing building sanitary sewer service will be achieved by utilizing a doghouse maintenance hole to minimize disruption at the inn and motel.

In accordance with Town standards, the sanitary drain will be a minimum 150mm diameter.

To evaluate the municipal sewer capacity to receive the additional flows from the proposed McDonald's, estimated flow rates were calculated based on Town of Midland standards. The municipal sewer will be able to carry the flows from the site including the existing and proposed buildings without exceeding the original site allocation. See Table 8 below for the summary of the flow rates.



Table 5: Estimated Sanitary Flow

Existing Flow Descriptions	Actual Existing and Proposed Land Use (L/Day)	Based on Commercial Zoning (L/Day)
Flow Rate (Existing Hotel and Motel)	38,415	51,250
Peak Factor	2	2
Max Flow	76,830	102,500
Infiltration	410,000	410,000
Max Flow	486,830	512,500
Proposed Additional Flow		
Flow Rate (McDonald's Building)	940	
Peak Factor	2	
Max Flow	1,880	
Total Flow Rate	488,710	512,500
Total Flow Rate (L/s)	6	6

The existing building 200mm service, at 5.2% slope, has a capacity of 75 L/s per the Table 8 above, the estimated flow rate for the proposed development is 6 L/s. As such, the existing sanitary service also has sufficient capacity to carry the additional flows from the McDonald Building.

5 Water Servicing

5.1 Proposed Sanitary Sewer System

The Quality Inn is serviced by a 150mm diameter water service off the 400mm watermain along King Street. The building has sprinkler system with fire pumps inside the mechanical room. A yard hydrant is located at the northeast corner at the front entrance of the Inn. On February 28, 2023, an annual sprinkler system inspection was conducted at the hotel (Building A) and the static pressure was measured at 56 psi.

5.2 Proposed Water Servicing System

The water distribution network for the development will consist of a water service located within private property connecting to the existing 150mm water service. A preliminary alignment for the water service at the McDonald's building is shown on the Site Servicing Plan in Appendix C. A new fire hydrant is proposed to replace the existing hydrant at the northeast corner of the Quality Inn.

Based on the McDonald floor area and usage, it a 100mm domestic water service is proposed.

To evaluate whether the municipal watermain has sufficient capacity to accommodate the additional demands from the McDonald Building, estimated water demand was calculated based Town of Midland standards. The municipal watermain should be able to carry flows from the entire commercial lot and based on the existing and proposed building on site, the initial water allocation will not be exceeded. See Table 9 below for the summary of water demand. The estimated fire flow calculations are documented in Table 10 below.



Table 6: Estimated Water Demand

Existing Demand Descriptions	Actual Existing and Proposed Land Use (L/Day)	Based on Commercial Zoning (L/Day)
Average Daily Demand (Existing Hotel and Motel)	38,415	51,250
Max Daily Demand Factor	2	2
Max Day Demand	76,830	102,500
Fire Flow (Hotel)	12,600,000	12,600,000
Max Day Demand + Fire Flow	12,676,830	12,702,500
Peak Hourly Demand Factor	4.5	4.5
Peak Hour Flow (Less than Max Day + Fire)	172,868	230,625
Proposed Additional Demand		
Average Daily Demand (McDonald's Building)	940	
Max Daily Demand Factor	2	
Max Day Demand	1,880	
Total Water Demand	12,678,710	12,702,500
Total Water Demand (L/s)	147	147



Table 7: Estimated Fire Flow

	Existing Hotel	Existing Motel	McDonald's Building
Required Fire Flow (RFF) (L/min)	40,161	7,774	6,399
C (highest coefficient, as building material is unknown)	1.5	1.5	1.5
A (m ²)	14,811	555	376
RFF (L/min) Rounded to nearest 1,000	40,000	8,000	7,000
Occupancy Contents*	34,000	6,800	5,950
Automatic Sprinkler Protection**	4000	0	0
Exposure Adjustment Charge	0	0	0
Final RFF	30,000	6,800	5,950
Final RFF (L/min) Rounded to nearest 1,000	30,000	7,000	6,000

*Occupancy Contents used for Hotel and motel is residential. For McDonald's Building is Shops/ Stores. Both 15% reduction.

**Lowest Automatic Sprinkler Protection reduction of 10% used for Hotel based on full coverage.

6 Lot Grading

6.1 Existing Site Conditions

In general, the Site consists of steep grades, rising from King Street to the back of the lot averaging 5% and a height difference of approximately 9m. The runoffs from the rear of the lot drain, via ditches to catch basins, to the north and outlet via the 650mm CSP to the ditch on King Street.

6.2 Proposed Grading Plan

The grade changes to the Site will occur mainly at the proposed McDonald's Building and to the southwest corner where the snow storage is to be located.

The proposed grading modifications are shown on the Grading Plan in Appendix D. Grading has been designed to limit slopes to a maximum of 4% in pedestrian access areas, a maximum of 5.5% on driveways, and a minimum of 0.5% in paved areas as a matter of safety and to provide adequate surface drainage. To meet these grading criteria, retaining walls are proposed where shown, along with localized regrading at some of parking designated areas. As part of the restoration plan, disturbed areas where paving is not the finished treatment topsoil and sod is proposed.



7 Sediment and Erosion Control

The recommended erosion and sediment control measures during site construction are described as follows:

- All erosion and sediment control measures shall be in place prior to the commencement of construction.
- During construction phase of the project, provisions for sediment and erosion control measures (e.g. silt fence, sediment trap, etc.) as required to minimize the water-borne sediments being transport off site will be made, including regular inspections and repairs on a weekly basis as well as after significant rainfall events, on all temporary erosion and sediment measures until completion of all the work.
- It is anticipated that periodic maintenance of the stormwater control devices will be required. The accumulated sediments/ oil collected in the oil/ grit separator should be removed by a licensed vacuum trunk contractor on an as required basis. The restrictor pipe should be checked periodically during dry periods to ensure that it is not clogged or damaged and is functioning properly.

8 Photometric Study

Photometric calculations were conducted for key site areas, including:

- Entrance and exit drives
- Menu board area
- Trash enclosure
- Parking spaces
- General site areas

The lighting design was developed to provide an average illumination level of 3–4 F.C. (Foot-Candles) across these zones, in accordance with the design criteria provided by Arcadis.

The proposed lighting system utilizes 7.62 m (25 ft) lighting poles mounted on 1.0 m raised footings, with 153w GE Evolve series LED luminaire, chosen for their performance and suitability for this application. The proposed luminaire distribution follows

- Eight (8) poles with single luminaires, and
- Three (3) poles with twin luminaires

The photometric computations and schematic pole layout is provided in Appendix J.



9 Conclusions

The Functional Servicing Report recommendations and findings are summarized as follows:

Stormwater Management

- To maintain post-development peak rates of runoff to pre-development rates, 93m³ of on-site storage and a 200mm restrictor pipe is required. The storage volume will be attained through a 3.6m wide by 1.2m high by 21.5m long concrete tank.
- An Oil/Grit Separator (OGS) Stormceptor EF5 is recommended to provide quality treatment to the surface runoff before outletting into the road right-of-way ditch.
- The existing storm sewer system has the capacity to convey the additional flows introduced to the system.

Sanitary Servicing

- Based on the site designation as a commercial corridor in the Town Official Plan, and estimated flow rates based on Town of Midland standards, the sanitary sewer and sanitary service have sufficient capacity to support the proposed development.

Water Servicing

- Based on Town standards, the site designation as a commercial corridor in the Town Official Plan, and estimated flow rates based on Town of Midland standards, the watermain and existing 150mm water service have sufficient capacity to meet the additional demand as result of the McDonald's Building.
- A 100mm water service tapped into the 150mm watermain to supply the McDonald's Building

Lot Grading

- Due to site relative steep grades, retaining walls are required at some locations and some regrading of the existing parking in the noted MTO buffer zone.

Photometric Study

- Eight (8) poles with single luminaires and three (3) poles with twin luminaries are required to provide sufficient lighting for the McDonald's site.

General

- The existing infrastructure is adequate to meet the demands that will be generated by the building addition.
- Based on the site zoning designation, no additional sewage or water allocation is required for the site.
- The site inherent steep grades will require retaining wall construction to provide relatively flat ground to attain a high level of service for McDonald operations.



Appendix A – Existing Drainage Area Plan

Drawing: \\A:\295-01 MIDLAND INN\3-04\3 SHEETS\295-01 EXISTING DRAINAGE AREA PLANNING
Title: 03/06/2024 Time: 10:38:42 AM



LEGEND

DRAINAGE AREA BOUNDARY

IMPERVIOUS AREA

OVERLAND FLOW ROUTE

DRAINAGE AREA IN HA

X

X

X

CATCHMENT #

RUNOFF COEFFICIENT

REGIONAL

N/A

STAMP

SCALE

1:500 HORIZ.

2	12/01/2026	N.V.	REVISED FSR	
1	29/09/2023	N.V.	FSR	
NO.	DATE	BY	REVISIONS	
DESIGN	F.F./S.K.	CH'KD	N.M.	DATE
DRAWN	N.V.	CH'KD		DECEMBER, 2022

Chisholm, Fleming and Associates

consulting engineers

MIDLAND INN

EXISTING DRAINAGE AREA PLAN

MUNICIPAL DRAWING NO.

REGIONAL DRAWING NO.

CONTRACT NO.

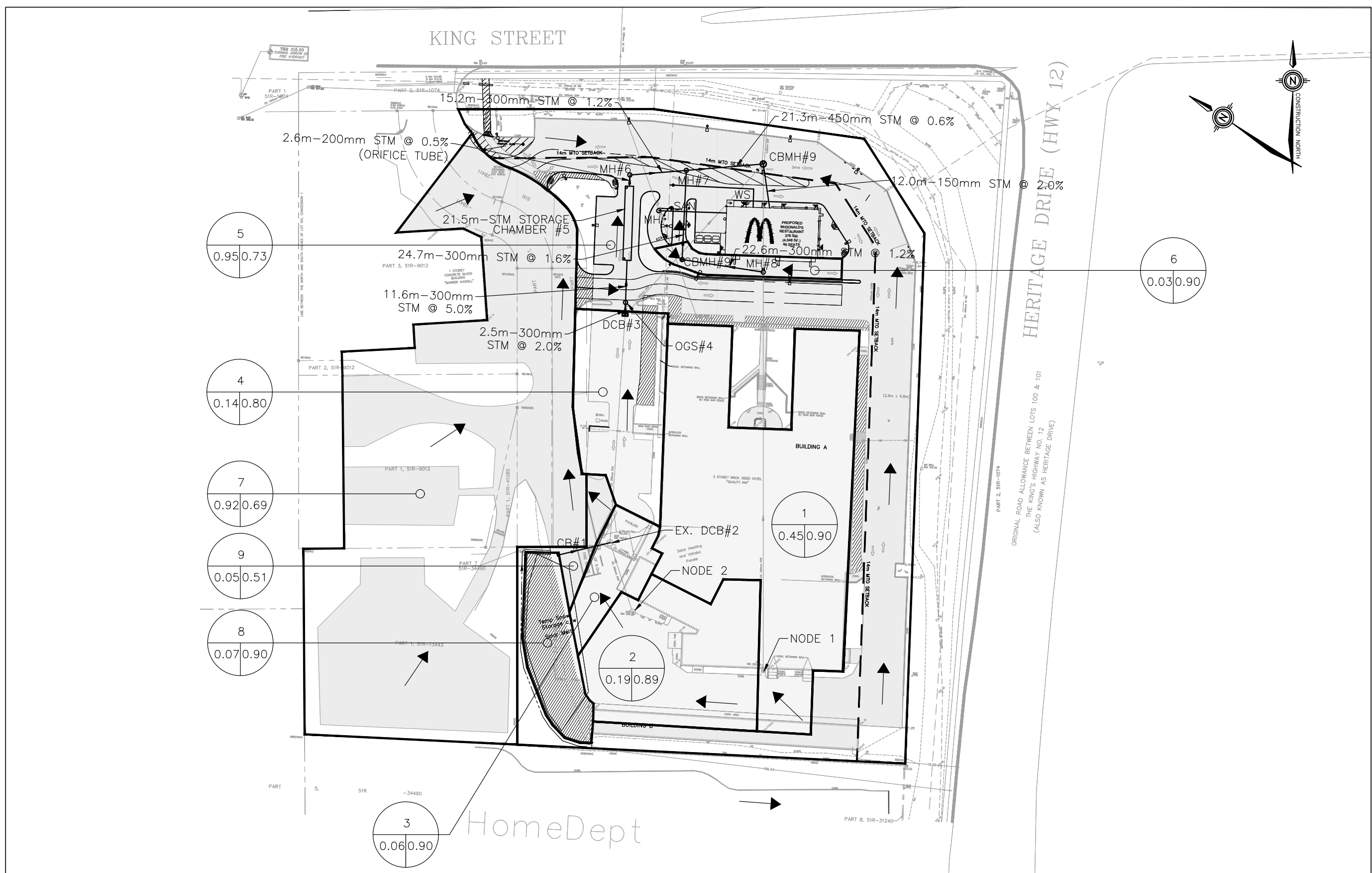
SHEET

1 OF 1



Appendix B – Proposed Drainage Area and Storm Sewer Calculations

Drawing: Y:\2025-01 MIDLAND INN-3-040 SHEETS\205-01 PROPOSED DRAINAGE AREA PLAN.DWG
Date: 01/19/2026 Time: 10:00:03 PM
Author: J. CHISHOLM
Checked: J. CHISHOLM
Revised: J. CHISHOLM



LEGEND

DRAINAGE AREA BOUNDARY

GRASSED AREAS TO BE PAVED

IMPERVIOUS AREA

OVERLAND FLOW ROUTE

DRAINAGE AREA IN HA

X

X

X

CATCHMENT #

RUNOFF COEFFICIENT

REGIONAL

N/A

STAMP

SCALE

1:500 HORIZ.

NO.	DATE	BY	REVISIONS
2	12/01/2026	N.V.	REVISED FSR
1	29/09/2023	N.V.	FSR

DESIGN	F.F./S.K.	CH'KD	N.M.	DATE
DRAWN	N.V.	CH'KD		DECEMBER, 2022

Chisholm, Fleming and Associates

consulting engineers

MIDLAND INN

PROPOSED DRAINAGE AREA PLAN

MUNICIPAL DRAWING NO.

REGIONAL DRAWING NO.

CONTRACT NO.

SHEET

1

OF 1

PROJECT # 295-01

DESIGNED BY NV

DATE JAN. 2026

CHECKED BY NM

DATE JAN. 2026

PAGE # 1 OF 1

STORM SEWER DESIGN CALCULATIONS

MIDLAND INN

MINIMUM DROP (mm) 30 (0deg), 75 (1-45 deg), 150 (46-90deg)

MAXIMUM MH SPACING 110m (300-750mm PIPE), 130m (525-1050mm PIPE), 150m (1200mm PIPE)

MAXIMUM CB SPACING 80m

$I_{100yr}=2193.1/((tc+9.04)^{0.871})$

$I_{5yr}=1135.4/((tc+7.5)^{0.841})$

$Q=0.0028CIA$

STORM FREQUENCY 5-yr for STM sewer system
100-yr for STM storage system

DESIGN 'n' 0.013

MINIMUM COVER 1.5m

$Cc=\sum(A_iC_i)/\sum(A_i)$

MINIMUM/ MAXIMUM VELOCITY 0.75m/s / 5 m/s

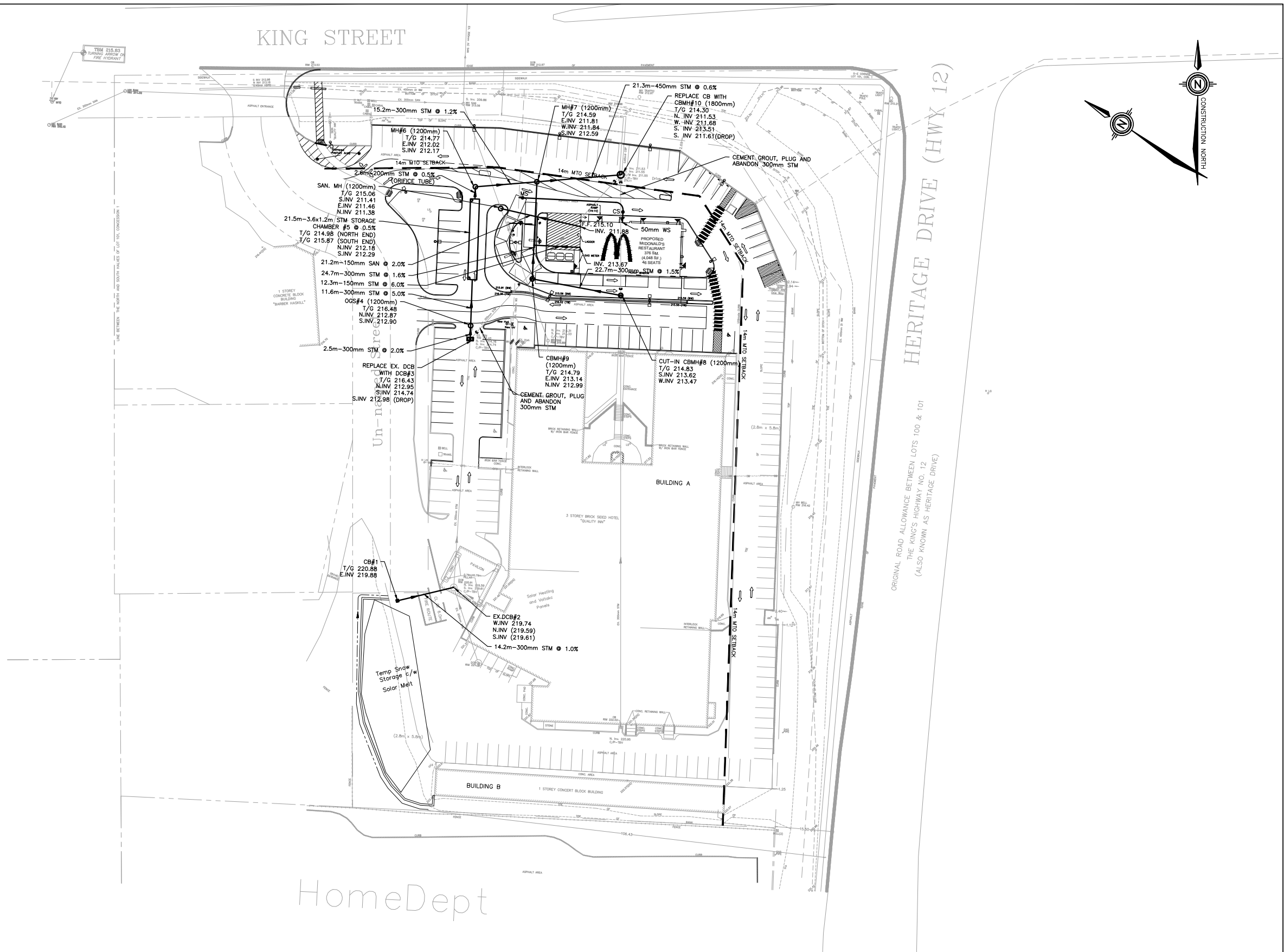
MAXIMUM % LOAD 90%

LOCATION				DRAINAGE AREA				RUNOFF			PIPE SELECTION																REMARKS	
FROM		TO		A	C	AxC	Cum. AxC	Cum. Tc Ti=15	i	Q	D	Pipe So	Qf	Vf	Pipe L	Time of Flow	% Load Q/Qf	V/Vf	Vactual	DROP IN UPSTREAM	FALL IN SEWER	UPSTREAM			DOWNSTREAM			
MH NO.	STA.	MH NO.	STA.	ha.				min.	mm/h	m3/s	mm	%	m3/s	m/s	m	min.						SURF. OR T/G	INVERT	COVER	SURF. OR T/G	INVERT	COVER	
CB1		EX.DCB2		0.07	0.90	0.063	0.063	15.00	82.79	0.014	300	1.00%	0.097	1.37	14.2	0.24	15.0%	0.72	0.98		0.14	220.88	219.88	0.70	220.91	219.74	0.87	
NODE 2		EX.DCB2		0.19	0.89	0.169	0.169	15.00	82.79	0.039	300	2.43%	0.151	2.13	19.4	0.18	25.8%	0.84	1.79		0.47	221.38	220.08	1.00	220.91	219.61	1.00	
EX.DCB2		DCB3		0.06	0.90	0.054	0.286	15.24	82.05	0.065	300	7.51%	0.265	3.75	64.6	0.35	24.6%	0.83	3.11	0.15	4.85	220.91	219.59	1.02	216.43	214.74	1.39	Drop Pipe at DCB3 (212.98)
DCB3		OGS4		0.14	0.80	0.112	0.398	15.59	81.02	0.090	300	2.00%	0.137	1.93	2.5	0.02	65.5%	1.05	2.03	1.79	0.05	216.43	212.95	3.18	216.48	212.90	3.28	
OGS4		CHAMBER 5 (SOUTH					0.398	15.61	80.96	0.045	300	5.00%	0.216	3.06	11.6	0.08	20.7%	0.79	2.42	0.03	0.58	215.87	212.87	2.70	215.87	212.29	3.28	
CHAMBER 5 (SOUTH END)		CHAMBER 5 (NORTH END)					0.398	15.69	80.72	0.089	3600 x 1200	0.50%	22.473	5.20	21.5	0.29	0.4%	0.24	1.25		0.11	215.87	212.29	2.08	214.98	212.18	1.30	Storage Chamber
CHAMBER 5 (NORTH END)		MH6					0.398	15.97	79.89	0.023	200	0.50%	0.023	0.74	2.6	0.06	100.0%	1.00	0.74		0.01	214.98	212.18	2.60	214.77	212.17	2.40	Restrictor Pipe
MH6		MH7					0.398	16.03	79.72	0.088	300	1.20%	0.106	1.50	15.2	0.16	83.2%	1.08	1.62	0.15	0.18	214.77	212.02	2.45	214.59	211.84	2.45	
NODE 1		MH8		0.45	0.90	0.405	0.405	15.00	82.79	0.093	300	6.42%	0.245	3.47	115.0	0.59	38.0%	0.93	3.22		7.39	222.02	220.95	0.77	215.15	213.56	1.29	
MH8		CBMH9					0.405	15.59	80.99	0.091	300	1.20%	0.106	1.50	22.6	0.24	86.0%	1.07	1.60	0.15	0.27	215.15	213.41	1.44	214.87	213.14	1.43	
CBMH9		MH7		0.03	0.90	0.027	0.432	15.83	80.30	0.096	300	1.60%	0.122	1.73	24.7	0.22	78.8%	1.07	1.85	0.15	0.40	214.87	212.99	1.58	214.59	212.59	1.70	
MH7		CBMH10					0.830	16.05	79.67	0.184	450	0.60%	0.221	1.39	21.3	0.24	83.2%	1.08	1.50	0.79	0.13	214.59	211.81	2.33	214.30	211.68	2.17	
MCD		CBMH10		0.04	0.90	0.036	0.036	15.00	82.79	0.008	150	2.00%	0.022	1.22	12.0	0.18	38.4%	0.93	1.13		0.24	215.10	213.75	1.20	214.30	213.51	0.64	Drop Pipe at CBMH10 (211.61)
CBMH10		Ditch		1.88	0.72	1.353	2.156	16.29	79.00	0.473	650	0.54%	0.561	1.69	14.7	0.14	84.4%	1.07	1.81	1.98	0.08	214.30	211.53	2.12	214.11	211.45	2.01	



Appendix C – Site Servicing Plan

Drawing: Y:\2026-01 MIDLAND INN 3-CAD\MODELS\SERVING PLAN.DWG
Date: 03/16/2026 Time: 08:55:22 AM



REGIONAL	N/A	STAMP								Chisholm, Fleming and Associates consulting engineers	MIDLAND INN SITE SERVICING PLAN		
2		12/01/2026	N.V.	REVISED FSR									
1		29/09/2023	N.V.	FSR									
NO.		DATE	BY	REVISIONS									
DESIGN		F.F./S.K.	CH'KD	N.M.	DATE								
DRAWN		N.V.	CH'KD		DECEMBER, 2022								
SCALE		1:500 HORIZ.											
										</			



Appendix D – Proposed Grading Plan



Appendix E – Stormceptor EF Sizing Report

Imbrium® Systems

ESTIMATED NET ANNUAL SEDIMENT (TSS) LOAD REDUCTION

12/16/2025

Province:	Ontario	Project Name:	Quality Inn
City:	Midland	Project Number:	
Nearest Rainfall Station:	BARRIE-ORO	Designer Name:	Frank Fisl
Climate Station Id:	6117700	Designer Company:	Watercom Engineering Inc.
Years of Rainfall Data:	14	Designer Email:	ffisl@watercom.ca
		Designer Phone:	416-575-9360
Site Name:	Quality Inn	EOR Name:	
		EOR Company:	
Drainage Area (ha):	0.46	EOR Email:	
Runoff Coefficient 'c':	0.90	EOR Phone:	

Particle Size Distribution:	CA ETV
Target TSS Removal (%):	60.0
Required Water Quality Runoff Volume Capture (%):	90.00
Estimated Water Quality Flow Rate (L/s):	13.49
Oil / Fuel Spill Risk Site?	No
Upstream Flow Control?	No
Peak Conveyance (maximum) Flow Rate (L/s):	
Influent TSS Concentration (mg/L):	200
Estimated Average Annual Sediment Load (kg/yr):	353
Estimated Average Annual Sediment Volume (L/yr):	287

Net Annual Sediment (TSS) Load Reduction Sizing Summary

Stormceptor Model	TSS Removal Provided (%)
EF4	58
EF5	60
EF6	63
EF8	66
EF10	68

Recommended Stormceptor EF Model: EF5

Estimated Net Annual Sediment (TSS) Load Reduction (%): 60

Water Quality Runoff Volume Capture (%): > 90

THIRD-PARTY TESTING AND VERIFICATION

► **Stormceptor® EF and Stormceptor® EFO** are the latest evolutions in the Stormceptor® oil-grit separator (OGS) technology series, and are designed to remove a wide variety of pollutants from stormwater and snowmelt runoff. These technologies have been third-party tested in accordance with the Canadian ETV **Procedure for Laboratory Testing of Oil-Grit Separators** and performance has been third-party verified in accordance with the **ISO 14034 Environmental Technology Verification (ETV)** protocol.

PERFORMANCE

► **Stormceptor® EF and EFO** remove stormwater pollutants through gravity separation and floatation, and feature a patent-pending design that generates positive removal of total suspended solids (TSS) throughout each storm event, including high-intensity storms. Captured pollutants include sediment, free oils, and sediment-bound pollutants such as nutrients, heavy metals, and petroleum hydrocarbons. Stormceptor is sized to remove a high level of TSS from the frequent rainfall events that contribute the vast majority of annual runoff volume and pollutant load. The technology incorporates an internal bypass to convey excessive stormwater flows from high-intensity storms through the device without resuspension and washout (scour) of previously captured pollutants. Proper routine maintenance ensures high pollutant removal performance and protection of downstream waterways.

PARTICLE SIZE DISTRIBUTION (PSD)

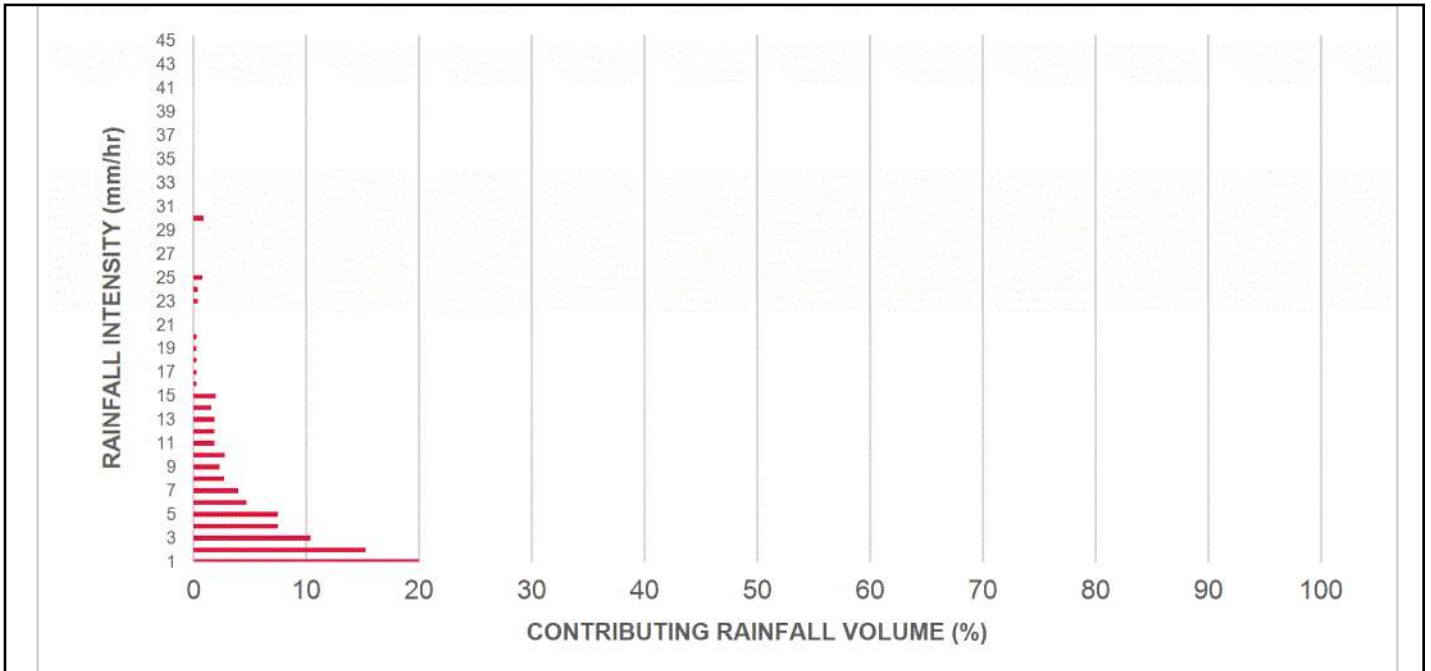
► The **Canadian ETV PSD** shown in the table below was used, or in part, for this sizing. This is the identical PSD that is referenced in the Canadian ETV **Procedure for Laboratory Testing of Oil-Grit Separators** for both sediment removal testing and scour testing. The Canadian ETV PSD contains a wide range of particle sizes in the sand and silt fractions, and is considered reasonably representative of the particle size fractions found in typical urban stormwater runoff.

Particle Size (µm)	Percent Less Than	Particle Size Fraction (µm)	Percent
1000	100	500-1000	5
500	95	250-500	5
250	90	150-250	15
150	75	100-150	15
100	60	75-100	10
75	50	50-75	5
50	45	20-50	10
20	35	8-20	15
8	20	5-8	10
5	10	2-5	5
2	5	<2	5

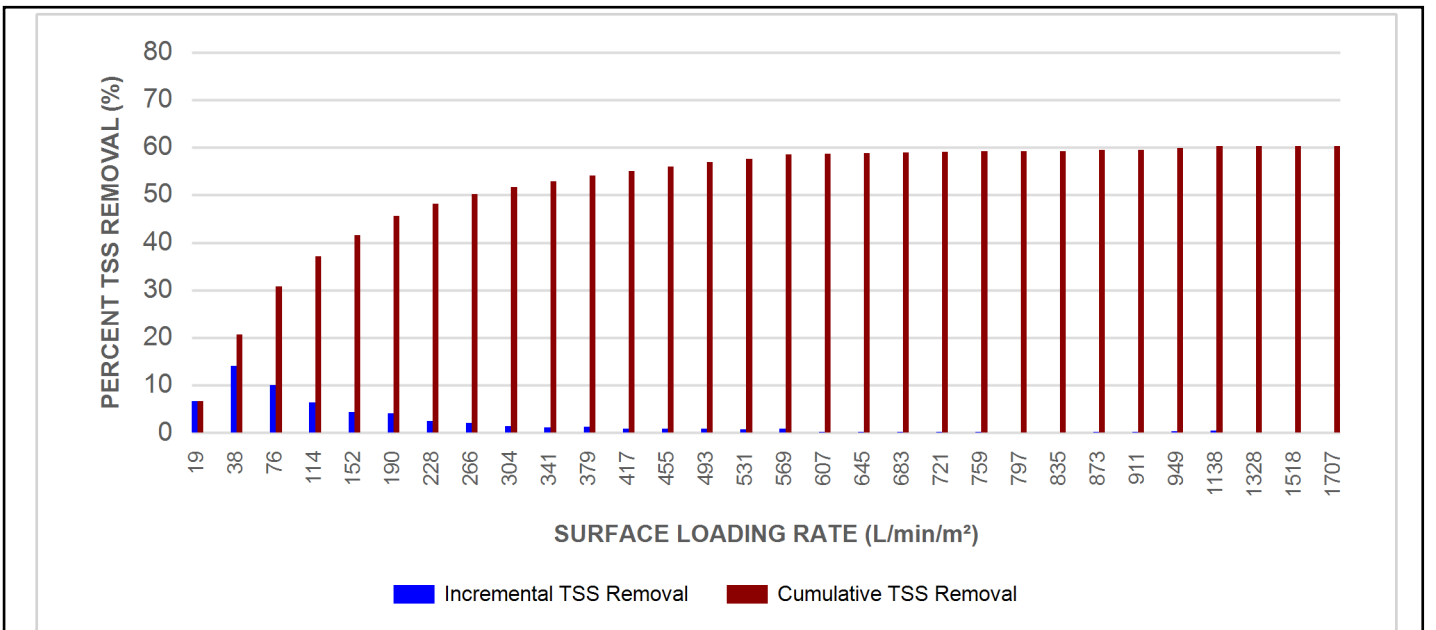
Rainfall Intensity (mm / hr)	Percent Rainfall Volume (%)	Cumulative Rainfall Volume (%)	Flow Rate (L/s)	Flow Rate (L/min)	Surface Loading Rate (L/min/m²)	Removal Efficiency (%)	Incremental Removal (%)	Cumulative Removal (%)
0.50	9.4	9.4	0.58	35.0	19.0	70	6.6	6.6
1.00	20.0	29.4	1.15	69.0	38.0	70	14.1	20.7
2.00	15.3	44.7	2.30	138.0	76.0	66	10.1	30.8
3.00	10.4	55.1	3.45	207.0	114.0	62	6.4	37.1
4.00	7.5	62.6	4.60	276.0	152.0	58	4.4	41.5
5.00	7.5	70.1	5.75	345.0	190.0	55	4.1	45.6
6.00	4.7	74.9	6.91	414.0	228.0	53	2.5	48.1
7.00	4.0	78.8	8.06	483.0	266.0	52	2.1	50.2
8.00	2.7	81.6	9.21	552.0	304.0	51	1.4	51.6
9.00	2.3	83.9	10.36	621.0	341.0	50	1.2	52.8
10.00	2.8	86.6	11.51	691.0	379.0	49	1.3	54.1
11.00	1.9	88.6	12.66	760.0	417.0	48	0.9	55.0
12.00	1.9	90.5	13.81	829.0	455.0	48	0.9	56.0
13.00	1.9	92.4	14.96	898.0	493.0	47	0.9	56.9
14.00	1.6	94.0	16.11	967.0	531.0	47	0.7	57.6
15.00	2.0	96.0	17.26	1036.0	569.0	46	0.9	58.5
16.00	0.3	96.3	18.41	1105.0	607.0	46	0.1	58.7
17.00	0.3	96.6	19.57	1174.0	645.0	46	0.1	58.8
18.00	0.3	96.9	20.72	1243.0	683.0	46	0.1	58.9
19.00	0.3	97.2	21.87	1312.0	721.0	45	0.1	59.1
20.00	0.3	97.5	23.02	1381.0	759.0	45	0.1	59.2
21.00	0.0	97.5	24.17	1450.0	797.0	45	0.0	59.2
22.00	0.0	97.5	25.32	1519.0	835.0	45	0.0	59.2
23.00	0.4	97.9	26.47	1588.0	873.0	45	0.2	59.4
24.00	0.4	98.3	27.62	1657.0	911.0	44	0.2	59.5
25.00	0.8	99.1	28.77	1726.0	949.0	44	0.4	59.9
30.00	0.9	100.0	34.53	2072.0	1138.0	46	0.4	60.3
35.00	0.0	100.0	40.28	2417.0	1328.0	48	0.0	60.3
40.00	0.0	100.0	46.04	2762.0	1518.0	45	0.0	60.3
45.00	0.0	100.0	51.79	3107.0	1707.0	40	0.0	60.3
Estimated Net Annual Sediment (TSS) Load Reduction =								60 %

Climate Station ID: 6117700 Years of Rainfall Data: 14

RAINFALL DATA FROM BARRIE-ORO RAINFALL STATION



INCREMENTAL AND CUMULATIVE TSS REMOVAL FOR THE RECOMMENDED STORMCEPTOR® MODEL



Maximum Pipe Diameter / Peak Conveyance

Stormceptor EF / EFO	Model Diameter		Min Angle Inlet / Outlet Pipes	Max Inlet Pipe Diameter		Max Outlet Pipe Diameter		Peak Conveyance Flow Rate	
	(m)	(ft)		(mm)	(in)	(mm)	(in)	(L/s)	(cfs)
EF4 / EFO4	1.2	4	90	609	24	609	24	425	15
EF5 / EFO5	1.5	5	90	762	30	762	30	710	25
EF6 / EFO6	1.8	6	90	914	36	914	36	990	35
EF8 / EFO8	2.4	8	90	1219	48	1219	48	1700	60
EF10 / EFO10	3.0	10	90	1828	72	1828	72	2830	100
EF12 / EFO12	3.6	12	90	1828	72	1828	72	2830	100

SCOUR PREVENTION AND ONLINE CONFIGURATION

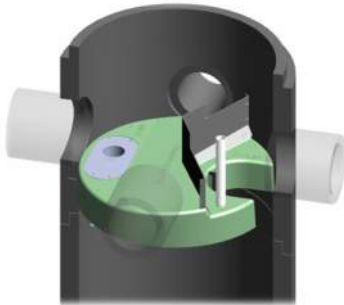
► **Stormceptor® EF and EFO** feature an internal bypass and superior scour prevention technology that have been demonstrated in third-party testing according to the scour testing provisions of the Canadian ETV **Procedure for Laboratory Testing of Oil-Grit Separators**, and the exceptional scour test performance has been third-party verified in accordance with the ISO 14034 ETV protocol. As a result, Stormceptor EF and EFO are approved for online installation, eliminating the need for costly additional bypass structures, piping, and installation expense.

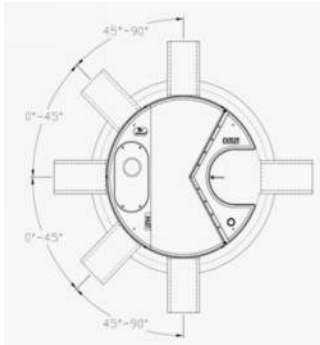
DESIGN FLEXIBILITY

► **Stormceptor® EF and EFO** offers design flexibility in one simplified platform, accepting stormwater flow from a single inlet pipe or multiple inlet pipes, and/or surface runoff through an inlet grate. The device can also serve as a junction structure, accommodate a 90-degree inlet-to-outlet bend angle, and can be modified to ensure performance in submerged conditions.

OIL CAPTURE AND RETENTION

► While Stormceptor® EF will capture and retain oil from dry weather spills and low intensity runoff, **Stormceptor® EFO** has demonstrated superior oil capture and greater than 99% oil retention in third-party testing according to the light liquid re-entrainment testing provisions of the Canadian ETV **Procedure for Laboratory Testing of Oil-Grit Separators**. Stormceptor EFO is recommended for sites where oil capture and retention is a requirement.





INLET-TO-OUTLET DROP

Elevation differential between inlet and outlet pipe inverts is dictated by the angle at which the inlet pipe(s) enters the unit.

0° - 45° : The inlet pipe is 1-inch (25mm) higher than the outlet pipe.

45° - 90° : The inlet pipe is 2-inches (50mm) higher than the outlet pipe.

HEAD LOSS

The head loss through Stormceptor EF is similar to that of a 60-degree bend structure. The applicable K value for calculating minor losses through the unit is 1.1. For submerged conditions the applicable K value is 3.0.

Pollutant Capacity

Stormceptor EF / EFO	Model Diameter		Depth (Outlet Pipe Invert to Sump Floor)		Oil Volume		Recommended Sediment Maintenance Depth *		Maximum Sediment Volume *		Maximum Sediment Mass **	
	(m)	(ft)	(m)	(ft)	(L)	(Gal)	(mm)	(in)	(L)	(ft³)	(kg)	(lb)
EF4 / EFO4	1.2	4	1.52	5.0	265	70	203	8	1190	42	1904	5250
EF5 / EFO5	1.5	5	1.62	5.3	420	111	305	10	2124	75	2612	5758
EF6 / EFO6	1.8	6	1.93	6.3	610	160	305	12	3470	123	5552	15375
EF8 / EFO8	2.4	8	2.59	8.5	1070	280	610	24	8780	310	14048	38750
EF10 / EFO10	3.0	10	3.25	10.7	1670	440	610	24	17790	628	28464	78500
EF12 / EFO12	3.6	12	3.89	12.8	2475	655	610	24	31220	1103	49952	137875

*Increased sump depth may be added to increase sediment storage capacity

** Average density of wet packed sediment in sump = 1.6 kg/L (100 lb/ft³)

Feature	Benefit	Feature Appeals To
Patent-pending enhanced flow treatment and scour prevention technology	Superior, verified third-party performance	Regulator, Specifying & Design Engineer
Third-party verified light liquid capture and retention for EFO version	Proven performance for fuel/oil hotspot locations	Regulator, Specifying & Design Engineer, Site Owner
Functions as bend, junction or inlet structure	Design flexibility	Specifying & Design Engineer
Minimal drop between inlet and outlet	Site installation ease	Contractor
Large diameter outlet riser for inspection and maintenance	Easy maintenance access from grade	Maintenance Contractor & Site Owner

STANDARD STORMCEPTOR EF/EFO DRAWINGS

For standard details, please visit <http://www.imbriumsystems.com/stormwater-treatment-solutions/stormceptor-ef>

STANDARD STORMCEPTOR EF/EFO SPECIFICATION

For specifications, please visit <http://www.imbriumsystems.com/stormwater-treatment-solutions/stormceptor-ef>

Table of TSS Removal vs Surface Loading Rate Based on Third-Party Test Results
Stormceptor® EF

SLR (L/min/m ²)	TSS % REMOVAL	SLR (L/min/m ²)	TSS % REMOVAL	SLR (L/min/m ²)	TSS % REMOVAL	SLR (L/min/m ²)	TSS % REMOVAL
1	70	660	46	1320	48	1980	35
30	70	690	46	1350	48	2010	34
60	67	720	45	1380	49	2040	34
90	63	750	45	1410	49	2070	33
120	61	780	45	1440	48	2100	33
150	58	810	45	1470	47	2130	32
180	56	840	45	1500	46	2160	32
210	54	870	45	1530	45	2190	31
240	53	900	45	1560	44	2220	31
270	52	930	44	1590	43	2250	30
300	51	960	44	1620	42	2280	30
330	50	990	44	1650	42	2310	30
360	49	1020	44	1680	41	2340	29
390	48	1050	45	1710	40	2370	29
420	48	1080	45	1740	39	2400	29
450	48	1110	45	1770	39	2430	28
480	47	1140	46	1800	38	2460	28
510	47	1170	46	1830	37	2490	28
540	47	1200	47	1860	37	2520	27
570	46	1230	47	1890	36	2550	27
600	46	1260	47	1920	36	2580	27
630	46	1290	48	1950	35	2600	26

STANDARD PERFORMANCE SPECIFICATION FOR “OIL GRIT SEPARATOR” (OGS) STORMWATER QUALITY TREATMENT DEVICE

PART 1 – GENERAL

1.1 WORK INCLUDED

This section specifies requirements for selecting, sizing, and designing an underground Oil Grit Separator (OGS) device for stormwater quality treatment, with third-party testing results and a Statement of Verification in accordance with ISO 14034 Environmental Management – Environmental Technology Verification (ETV).

1.2 REFERENCE STANDARDS & PROCEDURES

ISO 14034:2016 Environmental management – Environmental technology verification (ETV)

Canadian Environmental Technology Verification (ETV) Program’s **Procedure for Laboratory Testing of Oil-Grit Separators**.

1.3 SUBMITTALS

1.3.1 All submittals, including sizing reports & shop drawings, shall be submitted upon request with each order to the contractor then forwarded to the Engineer of Record for review and acceptance. Shop drawings shall detail all OGS components, elevations, and sequence of construction.

1.3.2 Alternative devices shall have features identical to or greater than the specified device, including: treatment chamber diameter, treatment chamber wet volume, sediment storage volume, and oil storage volume.

1.3.3 Unless directed otherwise by the Engineer of Record, OGS stormwater quality treatment product substitutions or alternatives submitted within ten days prior to project bid shall not be accepted. All alternatives or substitutions submitted shall be signed and sealed by a local registered Professional Engineer, based on the exact same criteria detailed in Section 3, in entirety, subject to review and approval by the Engineer of Record.

PART 2 – PRODUCTS

2.1 OGS POLLUTANT STORAGE

The OGS device shall include a sump for sediment storage, and a protected volume for the capture and storage of petroleum hydrocarbons and buoyant gross pollutants. The **minimum** sediment & petroleum hydrocarbon storage capacity shall be as follows:

2.1.1	4 ft (1219 mm) Diameter OGS Units:	1.19 m ³ sediment / 265 L oil
	5 ft (1524 mm) Diameter OGS Units:	1.95 m ³ sediment / 420L oil
	6 ft (1829 mm) Diameter OGS Units:	3.48 m ³ sediment / 609 L oil
	8 ft (2438 mm) Diameter OGS Units:	8.78 m ³ sediment / 1,071 L oil
	10 ft (3048 mm) Diameter OGS Units:	17.78 m ³ sediment / 1,673 L oil
	12 ft (3657 mm) Diameter OGS Units:	31.23 m ³ sediment / 2,476 L oil

PART 3 – PERFORMANCE & DESIGN

3.1 GENERAL

The OGS stormwater quality treatment device shall be verified in accordance with ISO 14034:2016 Environmental management – Environmental technology verification (ETV). The OGS stormwater quality treatment device shall remove oil, sediment and gross pollutants from stormwater runoff during frequent wet weather events, and retain these pollutants during less frequent high flow wet weather events below the insert within the OGS for later removal during maintenance. The Manufacturer shall have at least ten (10) years of local experience, history and success in engineering design, manufacturing and production and supply of OGS stormwater quality treatment device systems, acceptable to the Engineer of Record.

3.2 SIZING METHODOLOGY

The OGS device shall be engineered, designed and sized to provide stormwater quality treatment based on treating a minimum of 90 percent of the average annual runoff volume and a minimum removal of an annual average 60% of the sediment (TSS) load based on the Particle Size Distribution (PSD) specified in the sizing report for the specified device. Sizing of the OGS shall be determined by use of a minimum ten (10) years of local historical rainfall data provided by Environment Canada. Sizing shall also be determined by use of the sediment removal performance data derived from the ISO 14034 ETV third-party verified laboratory testing data from testing conducted in accordance with the Canadian ETV protocol Procedure for Laboratory Testing of Oil-Grit Separators, as follows:

3.2.1 Sediment removal efficiency for a given surface loading rate and its associated flow rate shall be based on sediment removal efficiency demonstrated at the seven (7) tested surface loading rates specified in the protocol, ranging 40 L/min/m² to 1400 L/min/m², and as stated in the ISO 14034 ETV Verification Statement for the OGS device.

3.2.2 Sediment removal efficiency for surface loading rates between 40 L/min/m² and 1400 L/min/m² shall be based on linear interpolation of data between consecutive tested surface loading rates.

3.2.3 Sediment removal efficiency for surface loading rates less than the lowest tested surface loading rate of 40 L/min/m² shall be assumed to be identical to the sediment removal efficiency at 40 L/min/m². No extrapolation shall be allowed that results in a sediment removal efficiency that is greater than that demonstrated at 40 L/min/m².

3.2.4 Sediment removal efficiency for surface loading rates greater than the highest tested surface loading rate of 1400 L/min/m² shall assume zero sediment removal for the portion of flow that exceeds 1400 L/min/m², and shall be calculated using a simple proportioning formula, with 1400 L/min/m² in the numerator and the higher surface loading rate in the denominator, and multiplying the resulting fraction times the sediment removal efficiency at 1400 L/min/m².

The OGS device shall also have sufficient annual sediment storage capacity as specified and calculated in Section 2.1.

3.3 CANADIAN ETV or ISO 14034 ETV VERIFICATION OF SCOUR TESTING

The OGS device shall have Canadian ETV or ISO 14034 ETV Verification of third-party scour testing conducted in accordance with the Canadian ETV Program's **Procedure for Laboratory Testing of Oil-Grit Separators**.

3.3.1 To be acceptable for on-line installation, the OGS device must demonstrate an average scour test effluent concentration less than 10 mg/L at each surface loading rate tested, up to and including 2600 L/min/m².



Appendix F – Water Quality Balance Calculations

Runoff Quality Control Calculation

	Reference	Area (m ²)	Draining through OGS?
Area to be converted from grass to pavement	A	848	yes
	B	612	no
Area to be converted from pavement to building	C	0	yes
	D	782	no
Pavement area remaining as pavement	E	2,875	yes
	F	13,543	no
Building area remaining as building	G	844	yes
	H	4,621	no

Sediment loading on pavement per square metre L kg/m²/yr

Sediment loading originating from individual areas	A	848	x L	
	B	612	x L	
	C	0	x L	(roof)
	D	0	x L	(roof)
	E	2875	x L	
	F	13543	x L	
	G	0	x L	(roof)
	H	0	x L	(roof)
	Total	17878	x L	(1)

Target TSS removal for areas being converted from grass to pavement 80%

Sediment loading subject to treatment	A	848	x L
	B	612	x L
	Total	1460	x L

Required sediment removal (80% of loading) 1168 x L (2)

Sediment loading originating from areas draining through OGS	A	848	x L	
	E	2875	x L	
	Total	3723	x L	(3)

Required TSS removal for OGS design 31% (2) / (3)

TSS removal based on OGS design 60% (4)

Sediment removal from treated area 2234 x L (3) x (4) (5)

Total Sediment Removal Rate 12% (5) / (1)

Sediment removal rate compared to existing conditions

Sediment removed by OGS 2234 x L

Sediment removed due to conversion of pvmnt to building 782 x L

Total sediment removed 3016 x L

Total sediment removal rate compared to ex. Conditions 18%



Appendix G – Ministry of Transportation IDF Curve for the Town of Midland



Active coordinate

44° 43' 45" N, 79° 52' 14" W (44.729167,-79.870833)

Retrieved: Thu, 27 Apr 2023 16:03:52 GMT



Location summary

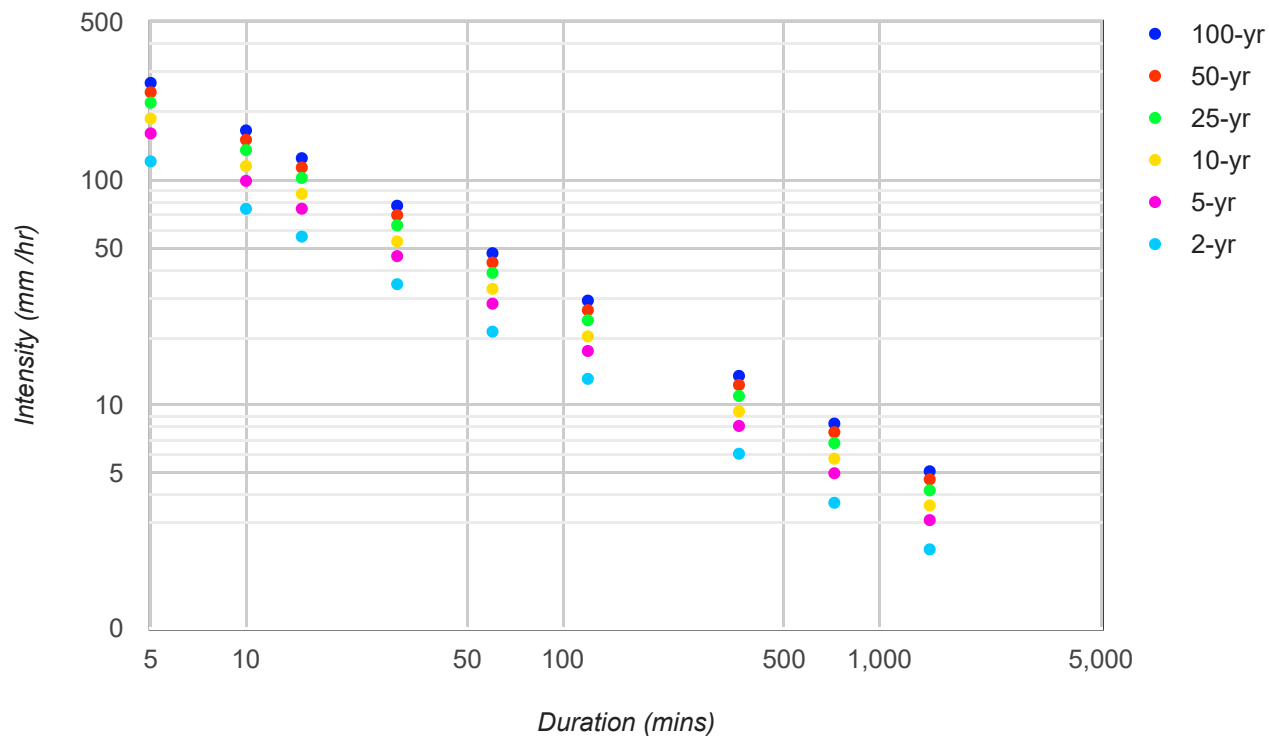
These are the locations in the selection.

IDF Curve: 44° 43' 45" N, 79° 52' 14" W (44.729167,-79.870833)

Results

An IDF curve was found.

Coordinate: 44.729167, -79.870833
IDF curve year: 2010



Coefficient summary**IDF Curve:** 44° 43' 45" N, 79° 52' 14" W (44.729167,-79.870833)

Retrieved: Thu, 27 Apr 2023 16:03:52 GMT

Data year: 2010**IDF curve year:** 2010

Return period	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
A	21.2	28.2	32.8	38.6	42.9	47.2
B	-0.699	-0.699	-0.699	-0.699	-0.699	-0.699

Statistics**Rainfall intensity (mm hr⁻¹)**

Duration	5-min	10-min	15-min	30-min	1-hr	2-hr	6-hr	12-hr	24-hr
2-yr	120.4	74.2	55.9	34.4	21.2	13.1	6.1	3.7	2.3
5-yr	160.2	98.7	74.3	45.8	28.2	17.4	8.1	5.0	3.1
10-yr	186.3	114.8	86.4	53.2	32.8	20.2	9.4	5.8	3.6
25-yr	219.2	135.1	101.7	62.7	38.6	23.8	11.0	6.8	4.2
50-yr	243.7	150.1	113.1	69.6	42.9	26.4	12.3	7.6	4.7
100-yr	268.1	165.1	124.4	76.6	47.2	29.1	13.5	8.3	5.1

Rainfall depth (mm)

Duration	5-min	10-min	15-min	30-min	1-hr	2-hr	6-hr	12-hr	24-hr
2-yr	10.0	12.4	14.0	17.2	21.2	26.1	36.4	44.8	55.2
5-yr	13.3	16.4	18.6	22.9	28.2	34.7	48.4	59.6	73.4
10-yr	15.5	19.1	21.6	26.6	32.8	40.4	56.2	69.3	85.4
25-yr	18.3	22.5	25.4	31.3	38.6	47.6	66.2	81.5	100.5
50-yr	20.3	25.0	28.3	34.8	42.9	52.9	73.6	90.6	111.7
100-yr	22.3	27.5	31.1	38.3	47.2	58.2	80.9	99.7	122.9

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Last Modified: September 2016



Appendix H – VO2 Output Calculations

EXISTING CONDITIONS
12-HOUR SCS TYPE II DISTRIBUTION

=====
V V I SSSS U U A L
V V I SS U U A A L
V V I SS U U A A A L
V V I SS U U A A L
VV I SSSS UUUU A A LLLL
000 TTTT TTTT H H Y Y M M 000 TM, Version 2.1
0 0 T T H H Y Y MM MM 0 0
0 0 T T H H Y M M 0 0
000 T T H H Y M M 000

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

Input filename: C:\Program Files\Visual OTTHYMO 2.2.4\voin.dat
Output filename: C:\Users\Frank Fis\Desktop\QualityInnV02\QualityInn\Existing
Condition.out
Summary filename: C:\Users\Frank Fis\Desktop\QualityInnV02\QualityInn\Existing
Condition.sum

DATE: 2023-07-13 TIME: 12:15:37

USER:

COMMENTS:

** SIMULATION NUMBER: 1 **

Table with 8 columns: TIME, RAIN, TIME, RAIN, TIME, RAIN, TIME, RAIN. It contains two rows of data for different time intervals (0.25 to 2.50 hours).

Table with 8 columns: 2.75, 1.34, 5.75, 21.50, 8.75, 1.57, 11.75, .90. It contains two rows of data.

Table with 3 columns: CALIB, STANDHYD (0006), ID= 1 DT= 5.0 min. It contains data for Area, Total Imp, Dir. Conn, Surface Area, Dep. Storage, Average Slope, Length, and Mannings n.

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

Table with 8 columns: TIME, RAIN, TIME, RAIN, TIME, RAIN, TIME, RAIN. It contains a large amount of data for transformed hyetograph, including peak flow and time to peak.

RUNOFF VOLUME (mm)= 43.80 21.28 35.91
TOTAL RAINFALL (mm)= 44.80 44.80 44.80
RUNOFF COEFFICIENT = .98 .47 .80

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0005)
ID= 1 DT= 5.0 min
Area (ha)= 1.16
Total Imp(%)= 73.00 Dir. Conn.(%)= 73.00

	IMPERVIOUS	PERVIOUS (i)	
Surface Area (ha)=	.85	.31	
Dep. Storage (mm)=	1.00	1.50	
Average Slope (%)=	1.00	2.00	
Length (m)=	87.90	40.00	
Mannings n =	.013	.250	
Max.Eff.Inten.(mm/hr)=	59.14	32.57	
over (min)	5.00	15.00	
Storage Coeff. (min)=	2.92 (ii)	13.97 (ii)	
Unit Hyd. Tpeak (min)=	5.00	15.00	
Unit Hyd. peak (cms)=	.28	.08	
PEAK FLOW (cms)=	.14	.02	*TOTALS*
TIME TO PEAK (hrs)=	6.00	6.08	.154 (iii)
RUNOFF VOLUME (mm)=	43.81	21.28	6.00
TOTAL RAINFALL (mm)=	44.80	44.80	37.72
RUNOFF COEFFICIENT =	.98	.47	44.80
			.84

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0001)
ID= 1 DT= 5.0 min
Area (ha)= .45
Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)	
Surface Area (ha)=	.45	.00	
Dep. Storage (mm)=	1.00	1.50	
Average Slope (%)=	1.00	2.00	
Length (m)=	54.80	40.00	
Mannings n =	.013	.250	
Max.Eff.Inten.(mm/hr)=	59.14	467.02	
over (min)	5.00	5.00	
Storage Coeff. (min)=	2.20 (ii)	3.58 (ii)	
Unit Hyd. Tpeak (min)=	5.00	5.00	
Unit Hyd. peak (cms)=	.30	.26	
PEAK FLOW (cms)=	.07	.00	*TOTALS*
TIME TO PEAK (hrs)=	6.00	6.00	.074 (iii)
RUNOFF VOLUME (mm)=	43.80	21.28	6.00
TOTAL RAINFALL (mm)=	44.80	44.80	43.58
			44.80

RUNOFF COEFFICIENT = .98 .47 .97

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0004)
ID= 1 DT= 5.0 min
Area (ha)= .14
Total Imp(%)= 72.00 Dir. Conn.(%)= 72.00

	IMPERVIOUS	PERVIOUS (i)	
Surface Area (ha)=	.10	.04	
Dep. Storage (mm)=	1.00	1.50	
Average Slope (%)=	1.00	2.00	
Length (m)=	30.60	40.00	
Mannings n =	.013	.250	
Max.Eff.Inten.(mm/hr)=	59.14	32.57	
over (min)	5.00	15.00	
Storage Coeff. (min)=	1.55 (ii)	12.60 (ii)	
Unit Hyd. Tpeak (min)=	5.00	15.00	
Unit Hyd. peak (cms)=	.33	.08	
PEAK FLOW (cms)=	.02	.00	*TOTALS*
TIME TO PEAK (hrs)=	6.00	6.08	.019 (iii)
RUNOFF VOLUME (mm)=	43.80	21.28	6.00
TOTAL RAINFALL (mm)=	44.80	44.80	37.45
RUNOFF COEFFICIENT =	.98	.47	44.80
			.84

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0003)
ID= 1 DT= 5.0 min
Area (ha)= .07
Total Imp(%)= 82.00 Dir. Conn.(%)= 82.00

	IMPERVIOUS	PERVIOUS (i)	
Surface Area (ha)=	.06	.01	
Dep. Storage (mm)=	1.00	1.50	
Average Slope (%)=	1.00	2.00	
Length (m)=	21.60	40.00	
Mannings n =	.013	.250	
Max.Eff.Inten.(mm/hr)=	59.14	34.59	
over (min)	5.00	10.00	
Storage Coeff. (min)=	1.26 (ii)	6.00 (ii)	
Unit Hyd. Tpeak (min)=	5.00	10.00	
Unit Hyd. peak (cms)=	.33	.15	
PEAK FLOW (cms)=	.01	.00	*TOTALS*
TIME TO PEAK (hrs)=	6.00	6.00	.010 (iii)
RUNOFF VOLUME (mm)=	43.80	21.28	6.00
TOTAL RAINFALL (mm)=	44.80	44.80	39.74
RUNOFF COEFFICIENT =	.98	.47	44.80
			.89

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (0002)	Area (ha)=	.22	
ID= 1 DT= 5.0 min	Total Imp(%)=	85.00	Dir. Conn.(%)= 85.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	.19	.03
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	38.30	40.00
Mannings n =	.013	.250
Max.Eff.Inten.(mm/hr)=	59.14	34.59
over (min)	5.00	10.00
Storage Coeff. (min)=	1.77 (ii)	6.12 (ii)
Unit Hyd. Tpeak (min)=	5.00	10.00
Unit Hyd. peak (cms)=	.32	.15

			TOTALS
PEAK FLOW (cms)=	.03	.00	.033 (iii)
TIME TO PEAK (hrs)=	6.00	6.00	6.00
RUNOFF VOLUME (mm)=	43.80	21.28	40.41
TOTAL RAINFALL (mm)=	44.80	44.80	44.80
RUNOFF COEFFICIENT =	.98	.47	.90

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0007)				
1 + 2 = 3	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0003):	.07	.010	6.00	39.74
+ ID2= 2 (0002):	.22	.033	6.00	40.41
ID = 3 (0007):	.29	.044	6.00	40.25

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0008)				
1 + 2 = 3	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0004):	.14	.019	6.00	37.45
+ ID2= 2 (0007):	.29	.044	6.00	40.25
ID = 3 (0008):	.43	.062	6.00	39.34

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0009)				
1 + 2 = 3	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0001):	.45	.074	6.00	43.58
+ ID2= 2 (0008):	.43	.062	6.00	39.34
ID = 3 (0009):	.88	.136	6.00	41.51

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0010)				
1 + 2 = 3	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0005):	1.16	.154	6.00	37.72
+ ID2= 2 (0009):	.88	.136	6.00	41.51
ID = 3 (0010):	2.04	.290	6.00	39.35

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0011)				
1 + 2 = 3	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0006):	.81	.100	6.00	35.91
+ ID2= 2 (0010):	2.04	.290	6.00	39.35
ID = 3 (0011):	2.85	.390	6.00	38.37

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

** SIMULATION NUMBER: 2 **

READ STORM	Filename: C:\Users\Frank Fisl\Desktop\QualityInnV 02\QualityInn\design storms\SCS 12-hr\ 005yr,12hr SCS.stm						
Ptotal= 59.61 mm	Comments: 5-yr, 12-hr SCS Type II Distribution Sto						
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
.25	1.49	3.25	2.38	6.25	10.73	9.25	2.09
.50	1.49	3.50	2.38	6.50	10.73	9.50	2.09
.75	1.49	3.75	2.38	6.75	4.77	9.75	2.09
1.00	1.49	4.00	2.38	7.00	4.77	10.00	2.09
1.25	1.49	4.25	3.58	7.25	3.58	10.25	1.19
1.50	1.49	4.50	3.58	7.50	3.58	10.50	1.19
1.75	1.49	4.75	4.77	7.75	3.58	10.75	1.19
2.00	1.49	5.00	4.77	8.00	3.58	11.00	1.19
2.25	1.79	5.25	7.15	8.25	2.09	11.25	1.19
2.50	1.79	5.50	7.15	8.50	2.09	11.50	1.19
2.75	1.79	5.75	28.61	8.75	2.09	11.75	1.19
3.00	1.79	6.00	78.67	9.00	2.09	12.00	1.19

CALIB
STANDHYD (0006)
ID= 1 DT= 5.0 min

Area (ha)= .81
Total Imp(%)= 65.00 Dir. Conn.(%)= 65.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	.53	.28
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	73.50	40.00
Mannings n =	.013	.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
.083	1.49	3.083	2.38	6.083	10.73	9.08	2.09
.167	1.49	3.167	2.38	6.167	10.73	9.17	2.09
.250	1.49	3.250	2.38	6.250	10.73	9.25	2.09
.333	1.49	3.333	2.38	6.333	10.73	9.33	2.09
.417	1.49	3.417	2.38	6.417	10.73	9.42	2.09
.500	1.49	3.500	2.38	6.500	10.73	9.50	2.09
.583	1.49	3.583	2.38	6.583	4.77	9.58	2.09
.667	1.49	3.667	2.38	6.667	4.77	9.67	2.09
.750	1.49	3.750	2.38	6.750	4.77	9.75	2.09
.833	1.49	3.833	2.38	6.833	4.77	9.83	2.09
.917	1.49	3.917	2.38	6.917	4.77	9.92	2.09
1.000	1.49	4.000	2.38	7.000	4.77	10.00	2.09
1.083	1.49	4.083	3.58	7.083	3.58	10.08	1.19
1.167	1.49	4.167	3.58	7.167	3.58	10.17	1.19
1.250	1.49	4.250	3.58	7.250	3.58	10.25	1.19
1.333	1.49	4.333	3.58	7.333	3.58	10.33	1.19
1.417	1.49	4.417	3.58	7.417	3.58	10.42	1.19
1.500	1.49	4.500	3.58	7.500	3.58	10.50	1.19
1.583	1.49	4.583	4.77	7.583	3.58	10.58	1.19
1.667	1.49	4.667	4.77	7.667	3.58	10.67	1.19
1.750	1.49	4.750	4.77	7.750	3.58	10.75	1.19
1.833	1.49	4.833	4.77	7.833	3.58	10.83	1.19
1.917	1.49	4.917	4.77	7.917	3.58	10.92	1.19
2.000	1.49	5.000	4.77	8.000	3.58	11.00	1.19
2.083	1.79	5.083	7.15	8.083	2.09	11.08	1.19
2.167	1.79	5.167	7.15	8.167	2.09	11.17	1.19
2.250	1.79	5.250	7.15	8.250	2.09	11.25	1.19
2.333	1.79	5.333	7.15	8.333	2.09	11.33	1.19
2.417	1.79	5.417	7.15	8.417	2.09	11.42	1.19
2.500	1.79	5.500	7.15	8.500	2.09	11.50	1.19
2.583	1.79	5.583	28.61	8.583	2.09	11.58	1.19
2.667	1.79	5.667	28.61	8.667	2.09	11.67	1.19
2.750	1.79	5.750	28.61	8.750	2.09	11.75	1.19
2.833	1.79	5.833	78.67	8.833	2.09	11.83	1.19
2.917	1.79	5.917	78.67	8.917	2.09	11.92	1.19
3.000	1.79	6.000	78.67	9.000	2.09	12.00	1.19

Max.Eff.Inten.(mm/hr)=	78.67	52.83
over (min)	5.00	15.00
Storage Coeff. (min)=	2.34 (ii)	11.45 (ii)
Unit Hyd. Tpeak (min)=	5.00	15.00
Unit Hyd. peak (cms)=	.30	.09
PEAK FLOW (cms)=	.11	.03
TIME TO PEAK (hrs)=	6.00	6.08
RUNOFF VOLUME (mm)=	58.61	32.81
TOTAL RAINFALL (mm)=	59.61	59.61
RUNOFF COEFFICIENT =	.98	.55

TOTALS

.139 (iii)

6.00

49.57

59.61

.83

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0005)
ID= 1 DT= 5.0 min

Area (ha)= 1.16
Total Imp(%)= 73.00 Dir. Conn.(%)= 73.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	.85	.31
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	87.90	40.00
Mannings n =	.013	.250

Max.Eff.Inten.(mm/hr)=	78.67	52.83
over (min)	5.00	15.00
Storage Coeff. (min)=	2.60 (ii)	11.71 (ii)
Unit Hyd. Tpeak (min)=	5.00	15.00
Unit Hyd. peak (cms)=	.29	.09

PEAK FLOW (cms)=	.18	.03	.211 (iii)
TIME TO PEAK (hrs)=	6.00	6.08	6.00
RUNOFF VOLUME (mm)=	58.61	32.81	51.64
TOTAL RAINFALL (mm)=	59.61	59.61	59.61
RUNOFF COEFFICIENT =	.98	.55	.87

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0001)
ID= 1 DT= 5.0 min

Area (ha)= .45
Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	.45	.00
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	54.80	40.00
Mannings n =	.013	.250

Max.Eff.Inten.(mm/hr)=	78.67	713.23
over (min)	5.00	5.00
Storage Coeff. (min)=	1.96 (ii)	3.20 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	.31	.27

PEAK FLOW (cms)=	.10	.00	.098 (iii)
TIME TO PEAK (hrs)=	6.00	6.00	6.00
RUNOFF VOLUME (mm)=	58.61	32.81	58.35
TOTAL RAINFALL (mm)=	59.61	59.61	59.61
RUNOFF COEFFICIENT =	.98	.55	.98

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)

- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (0004)		Area (ha)=	.14
ID= 1 DT= 5.0 min		Total Imp(%)=	72.00
		Dir. Conn.(%)=	72.00
		IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	.10		.04
Dep. Storage (mm)=	1.00		1.50
Average Slope (%)=	1.00		2.00
Length (m)=	30.60		40.00
Mannings n =	.013		.250
Max.Eff.Inten.(mm/hr)=	78.67		52.83
over (min)	5.00		15.00
Storage Coeff. (min)=	1.38 (ii)		10.49 (ii)
Unit Hyd. Tpeak (min)=	5.00		15.00
Unit Hyd. peak (cms)=	.33		.09
		TOTALS	
PEAK FLOW (cms)=	.02		.00
TIME TO PEAK (hrs)=	6.00		.025 (iii)
RUNOFF VOLUME (mm)=	58.61		6.00
TOTAL RAINFALL (mm)=	59.61		51.34
RUNOFF COEFFICIENT =	.98		59.61
			.86

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (0003)		Area (ha)=	.07
ID= 1 DT= 5.0 min		Total Imp(%)=	82.00
		Dir. Conn.(%)=	82.00
		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	.06	.01
Dep. Storage	(mm)=	1.00	1.50
Average Slope	(%)=	1.00	2.00
Length	(m)=	21.60	40.00
Mannings n	=	.013	.250
Max.Eff.Inten.(mm/hr)	=	78.67	52.83
over (min)		5.00	10.00
Storage Coeff. (min)	=	1.12 (ii)	5.36 (ii)
Unit Hyd. Tpeak (min)	=	5.00	10.00
Unit Hyd. peak (cms)	=	.34	.16
		TOTALS	
PEAK FLOW (cms)	=	.01	.00
TIME TO PEAK (hrs)	=	6.00	6.00
RUNOFF VOLUME (mm)	=	58.61	32.81
TOTAL RAINFALL (mm)	=	59.61	59.61
RUNOFF COEFFICIENT	=	.98	.55
			.90
			(iii)

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.

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

CALIB			
STANDHYD (0002)		Area (ha)= .22	
ID= 1 DT= 5.0 min		Total Imp(%)= 85.00	Dir. Conn.(%)= 85.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	.19	.03
Dep. Storage	(mm)=	1.00	1.50
Average Slope	(%)=	1.00	2.00
Length	(m)=	38.30	40.00
Mannings n	=	.013	.250
Max.Eff.Inten.(mm/hr)=		78.67	52.83
over	(min)	5.00	10.00
Storage Coeff.	(min)=	1.58 (ii)	5.46 (ii)
Unit Hyd. Tpeak	(min)=	5.00	10.00
Unit Hyd. peak	(cms)=	.33	.16
TOTALS			
PEAK FLOW	(cms)=	.04	.00
TIME TO PEAK	(hrs)=	6.00	6.00
RUNOFF VOLUME	(mm)=	58.61	32.81
TOTAL RAINFALL	(mm)=	59.61	59.61
RUNOFF COEFFICIENT	=	.98	.55
			.92
			.045 (iii)

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0007) 1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0003):	.07	.014	6.00	53.95
+ ID2= 2 (0002):	.22	.045	6.00	54.72
ID = 3 (0007):	.29	.059	6.00	54.53

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0008) 1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0004):	.14	.025	6.00	51.34
+ ID2= 2 (0007):	.29	.059	6.00	54.53
ID = 3 (0008):	.43	.085	6.00	53.49

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0009) 1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0001):	.45	.098	6.00	58.35

```

+ ID2= 2 (0008):      .43      .085      6.00      53.49
=====
ID = 3 (0009):      .88      .183      6.00      55.98

```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

-----
| ADD HYD  (0010) |
| 1 + 2 = 3      |
-----
              AREA      QPEAK      TPEAK      R.V.
              (ha)      (cms)      (hrs)      (mm)
ID1= 1 (0005):      1.16      .211      6.00      51.64
+ ID2= 2 (0009):      .88      .183      6.00      55.98
=====
ID = 3 (0010):      2.04      .394      6.00      53.51

```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

-----
| ADD HYD  (0011) |
| 1 + 2 = 3      |
-----
              AREA      QPEAK      TPEAK      R.V.
              (ha)      (cms)      (hrs)      (mm)
ID1= 1 (0006):      .81      .139      6.00      49.57
+ ID2= 2 (0010):      2.04      .394      6.00      53.51
=====
ID = 3 (0011):      2.85      .533      6.00      52.39

```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

*****
** SIMULATION NUMBER: 3 **
*****

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-----
| READ STORM      |
|                 |
| Ptotal= 69.31 mm |
|                 |
-----
Filename: C:\Users\Frank Fis\Deskto\QualityInnV
          02\QualityInn\design storms\SCS 12-hr\
          010yr,12hr SCS.stm
Comments: 10-yr, 12-hr SCS Type II Distribution St

TIME  RAIN  TIME  RAIN  TIME  RAIN  TIME  RAIN
hrs   mm/hr hrs   mm/hr hrs   mm/hr hrs   mm/hr
.25   1.73  3.25   2.77  6.25   12.47  9.25   2.43
.50   1.73  3.50   2.77  6.50   12.47  9.50   2.43
.75   1.73  3.75   2.77  6.75   5.54   9.75   2.43
1.00   1.73  4.00   2.77  7.00   5.54  10.00   2.43
1.25   1.73  4.25   4.16  7.25   4.16  10.25   1.39
1.50   1.73  4.50   4.16  7.50   4.16  10.50   1.39
1.75   1.73  4.75   5.54  7.75   4.16  10.75   1.39
2.00   1.73  5.00   5.54  8.00   4.16  11.00   1.39
2.25   2.08  5.25   8.32  8.25   2.43  11.25   1.39
2.50   2.08  5.50   8.32  8.50   2.43  11.50   1.39
2.75   2.08  5.75   33.26  8.75   2.43  11.75   1.39
3.00   2.08  6.00   91.48  9.00   2.43  12.00   1.39

```

```

-----
| CALIB          |
| STANDHYD (0006) |
| ID= 1 DT= 5.0 min |
|                 |
-----
Area (ha)= .81
Total Imp(%)= 65.00 Dir. Conn.(%)= 65.00

IMPERVIOUS      PERVIOUS (i)
Surface Area (ha)= .53      .28

```

```

Dep. Storage (mm)=      1.00      1.50
Average Slope (%)=      1.00      2.00
Length (m)=      73.50      40.00
Mannings n =      .013      .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
.083   1.73  3.083   2.77  6.083   12.47  9.08   2.43
.167   1.73  3.167   2.77  6.167   12.47  9.17   2.43
.250   1.73  3.250   2.77  6.250   12.47  9.25   2.43
.333   1.73  3.333   2.77  6.333   12.47  9.33   2.43
.417   1.73  3.417   2.77  6.417   12.47  9.42   2.43
.500   1.73  3.500   2.77  6.500   12.47  9.50   2.43
.583   1.73  3.583   2.77  6.583   5.54   9.58   2.43
.667   1.73  3.667   2.77  6.667   5.54   9.67   2.43
.750   1.73  3.750   2.77  6.750   5.54   9.75   2.43
.833   1.73  3.833   2.77  6.833   5.54   9.83   2.43
.917   1.73  3.917   2.77  6.917   5.54   9.92   2.43
1.000   1.73  4.000   2.77  7.000   5.54  10.00   2.43
1.083   1.73  4.083   4.16  7.083   4.16  10.08   1.39
1.167   1.73  4.167   4.16  7.167   4.16  10.17   1.39
1.250   1.73  4.250   4.16  7.250   4.16  10.25   1.39
1.333   1.73  4.333   4.16  7.333   4.16  10.33   1.39
1.417   1.73  4.417   4.16  7.417   4.16  10.42   1.39
1.500   1.73  4.500   4.16  7.500   4.16  10.50   1.39
1.583   1.73  4.583   5.54  7.583   4.16  10.58   1.39
1.667   1.73  4.667   5.54  7.667   4.16  10.67   1.39
1.750   1.73  4.750   5.54  7.750   4.16  10.75   1.39
1.833   1.73  4.833   5.54  7.833   4.16  10.83   1.39
1.917   1.73  4.917   5.54  7.917   4.16  10.92   1.39
2.000   1.73  5.000   5.54  8.000   4.16  11.00   1.39
2.083   2.08  5.083   8.32  8.083   2.43  11.08   1.39
2.167   2.08  5.167   8.32  8.167   2.43  11.17   1.39
2.250   2.08  5.250   8.32  8.250   2.43  11.25   1.39
2.333   2.08  5.333   8.32  8.333   2.43  11.33   1.39
2.417   2.08  5.417   8.32  8.417   2.43  11.42   1.39
2.500   2.08  5.500   8.32  8.500   2.43  11.50   1.39
2.583   2.08  5.583   33.26  8.583   2.43  11.58   1.39
2.667   2.08  5.667   33.26  8.667   2.43  11.67   1.39
2.750   2.08  5.750   33.26  8.750   2.43  11.75   1.39
2.833   2.08  5.833   91.48  8.833   2.43  11.83   1.39
2.917   2.08  5.917   91.48  8.917   2.43  11.92   1.39
3.000   2.08  6.000   91.48  9.000   2.43  12.00   1.39

```

```

Max.Eff.Inten.(mm/hr)=      91.48      65.34
over (min) =      5.00      15.00
Storage Coeff. (min)=      2.20 (ii)  10.57 (ii)
Unit Hyd. Tpeak (min)=      5.00      15.00
Unit Hyd. peak (cms)=      .30      .09

PEAK FLOW (cms)=      .13      .03
TIME TO PEAK (hrs)=      6.00      6.08
RUNOFF VOLUME (mm)=      68.31      40.82
TOTAL RAINFALL (mm)=      69.31      69.31
RUNOFF COEFFICIENT =      .99      .85

```

TOTALS
.165 (iii)

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (0005)	Area (ha)=	1.16	
ID= 1 DT= 5.0 min	Total Imp(%)=	73.00	Dir. Conn.(%)= 73.00

	IMPERVIOUS	PERVIOUS (i)	
Surface Area (ha)=	.85	.31	
Dep. Storage (mm)=	1.00	1.50	
Average Slope (%)=	1.00	2.00	
Length (m)=	87.90	40.00	
Mannings n =	.013	.250	
Max.Eff.Inten.(mm/hr)=	91.48	65.34	
over (min)	5.00	10.00	
Storage Coeff. (min)=	2.45 (ii)	7.36 (ii)	
Unit Hyd. Tpeak (min)=	5.00	10.00	
Unit Hyd. peak (cms)=	.30	.13	
PEAK FLOW (cms)=	.21	.05	*TOTALS*
TIME TO PEAK (hrs)=	6.00	6.00	.261 (iii)
RUNOFF VOLUME (mm)=	68.31	40.82	60.89
TOTAL RAINFALL (mm)=	69.31	69.31	69.31
RUNOFF COEFFICIENT =	.99	.59	.88

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (0001)	Area (ha)=	.45	
ID= 1 DT= 5.0 min	Total Imp(%)=	99.00	Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)	
Surface Area (ha)=	.45	.00	
Dep. Storage (mm)=	1.00	1.50	
Average Slope (%)=	1.00	2.00	
Length (m)=	54.80	40.00	
Mannings n =	.013	.250	
Max.Eff.Inten.(mm/hr)=	91.48	882.14	
over (min)	5.00	5.00	
Storage Coeff. (min)=	1.85 (ii)	3.01 (ii)	
Unit Hyd. Tpeak (min)=	5.00	5.00	
Unit Hyd. peak (cms)=	.32	.28	
PEAK FLOW (cms)=	.11	.00	*TOTALS*
TIME TO PEAK (hrs)=	6.00	6.00	.114 (iii)
RUNOFF VOLUME (mm)=	68.31	40.82	68.03
TOTAL RAINFALL (mm)=	69.31	69.31	69.31
RUNOFF COEFFICIENT =	.99	.59	.98

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (0004)	Area (ha)=	.14	
ID= 1 DT= 5.0 min	Total Imp(%)=	72.00	Dir. Conn.(%)= 72.00

	IMPERVIOUS	PERVIOUS (i)	
Surface Area (ha)=	.10	.04	
Dep. Storage (mm)=	1.00	1.50	
Average Slope (%)=	1.00	2.00	
Length (m)=	30.60	40.00	
Mannings n =	.013	.250	
Max.Eff.Inten.(mm/hr)=	91.48	65.34	
over (min)	5.00	10.00	
Storage Coeff. (min)=	1.30 (ii)	9.67 (ii)	
Unit Hyd. Tpeak (min)=	5.00	10.00	
Unit Hyd. peak (cms)=	.33	.11	
PEAK FLOW (cms)=	.03	.01	*TOTALS*
TIME TO PEAK (hrs)=	6.00	6.00	.031 (iii)
RUNOFF VOLUME (mm)=	68.31	40.82	60.58
TOTAL RAINFALL (mm)=	69.31	69.31	69.31
RUNOFF COEFFICIENT =	.99	.59	.87

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (0003)	Area (ha)=	.07	
ID= 1 DT= 5.0 min	Total Imp(%)=	82.00	Dir. Conn.(%)= 82.00

	IMPERVIOUS	PERVIOUS (i)	
Surface Area (ha)=	.06	.01	
Dep. Storage (mm)=	1.00	1.50	
Average Slope (%)=	1.00	2.00	
Length (m)=	21.60	40.00	
Mannings n =	.013	.250	
Max.Eff.Inten.(mm/hr)=	91.48	65.34	
over (min)	5.00	10.00	
Storage Coeff. (min)=	1.06 (ii)	5.04 (ii)	
Unit Hyd. Tpeak (min)=	5.00	10.00	
Unit Hyd. peak (cms)=	.34	.16	
PEAK FLOW (cms)=	.01	.00	*TOTALS*
TIME TO PEAK (hrs)=	6.00	6.00	.017 (iii)
RUNOFF VOLUME (mm)=	68.31	40.82	63.34
TOTAL RAINFALL (mm)=	69.31	69.31	69.31
RUNOFF COEFFICIENT =	.99	.59	.91

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB		
STANDHYD (0002)	Area (ha)=	.22

|ID= 1 DT= 5.0 min | Total Imp(%)= 85.00 Dir. Conn.(%)= 85.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	.19	.03
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	38.30	40.00
Mannings n =	.013	.250

Max.Eff.Inten.(mm/hr)=	91.48	65.34
over (min)	5.00	10.00
Storage Coeff. (min)=	1.49 (ii)	5.14 (ii)
Unit Hyd. Tpeak (min)=	5.00	10.00
Unit Hyd. peak (cms)=	.33	.16

TOTALS

PEAK FLOW (cms)=	.05	.01	.053 (iii)
TIME TO PEAK (hrs)=	6.00	6.00	6.00
RUNOFF VOLUME (mm)=	68.31	40.82	64.18
TOTAL RAINFALL (mm)=	69.31	69.31	69.31
RUNOFF COEFFICIENT =	.99	.59	.93

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0003):	.07	.017	6.00	63.34
+ ID2= 2 (0002):	.22	.053	6.00	64.18
=====				
ID = 3 (0007):	.29	.069	6.00	63.98

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0004):	.14	.031	6.00	60.58
+ ID2= 2 (0007):	.29	.069	6.00	63.98
=====				
ID = 3 (0008):	.43	.100	6.00	62.87

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0001):	.45	.114	6.00	68.03
+ ID2= 2 (0008):	.43	.100	6.00	62.87
=====				
ID = 3 (0009):	.88	.214	6.00	65.51

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0005):	1.16	.261	6.00	60.89
+ ID2= 2 (0009):	.88	.214	6.00	65.51
=====				
ID = 3 (0010):	2.04	.475	6.00	62.88

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0006):	.81	.165	6.00	58.68
+ ID2= 2 (0010):	2.04	.475	6.00	62.88
=====				
ID = 3 (0011):	2.85	.640	6.00	61.69

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

** SIMULATION NUMBER: 4 **

READ STORM	Filename: C:\Users\Frank Fisl\Desktop\QualityInn\02\QualityInn\design storms\SCS 12-hr\025yr,12hr SCS.stm
Ptotal= 81.51 mm	Comments: 25-yr, 12-hr SCS Type II Distribution St

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
.25	2.04	3.25	3.26	6.25	14.67	9.25	2.85
.50	2.04	3.50	3.26	6.50	14.67	9.50	2.85
.75	2.04	3.75	3.26	6.75	6.52	9.75	2.85
1.00	2.04	4.00	3.26	7.00	6.52	10.00	2.85
1.25	2.04	4.25	4.89	7.25	4.89	10.25	1.63
1.50	2.04	4.50	4.89	7.50	4.89	10.50	1.63
1.75	2.04	4.75	6.52	7.75	4.89	10.75	1.63
2.00	2.04	5.00	6.52	8.00	4.89	11.00	1.63
2.25	2.45	5.25	9.78	8.25	2.85	11.25	1.63
2.50	2.45	5.50	9.78	8.50	2.85	11.50	1.63
2.75	2.45	5.75	39.12	8.75	2.85	11.75	1.63
3.00	2.45	6.00	107.58	9.00	2.85	12.00	1.63

CALIB	Area (ha)=	.81
STANDHYD (0006)	Total Imp(%)=	65.00
ID= 1 DT= 5.0 min	Dir. Conn.(%)=	65.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	.53	.28
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	73.50	40.00
Mannings n =	.013	.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
.083	2.04	3.083	3.26	6.083	14.67	9.08	2.85
.167	2.04	3.167	3.26	6.167	14.67	9.17	2.85
.250	2.04	3.250	3.26	6.250	14.67	9.25	2.85
.333	2.04	3.333	3.26	6.333	14.67	9.33	2.85
.417	2.04	3.417	3.26	6.417	14.67	9.42	2.85
.500	2.04	3.500	3.26	6.500	14.67	9.50	2.85
.583	2.04	3.583	3.26	6.583	6.52	9.58	2.85
.667	2.04	3.667	3.26	6.667	6.52	9.67	2.85
.750	2.04	3.750	3.26	6.750	6.52	9.75	2.85
.833	2.04	3.833	3.26	6.833	6.52	9.83	2.85
.917	2.04	3.917	3.26	6.917	6.52	9.92	2.85
1.000	2.04	4.000	3.26	7.000	6.52	10.00	2.85
1.083	2.04	4.083	4.89	7.083	4.89	10.08	1.63
1.167	2.04	4.167	4.89	7.167	4.89	10.17	1.63
1.250	2.04	4.250	4.89	7.250	4.89	10.25	1.63
1.333	2.04	4.333	4.89	7.333	4.89	10.33	1.63
1.417	2.04	4.417	4.89	7.417	4.89	10.42	1.63
1.500	2.04	4.500	4.89	7.500	4.89	10.50	1.63
1.583	2.04	4.583	6.52	7.583	4.89	10.58	1.63
1.667	2.04	4.667	6.52	7.667	4.89	10.67	1.63
1.750	2.04	4.750	6.52	7.750	4.89	10.75	1.63
1.833	2.04	4.833	6.52	7.833	4.89	10.83	1.63
1.917	2.04	4.917	6.52	7.917	4.89	10.92	1.63
2.000	2.04	5.000	6.52	8.000	4.89	11.00	1.63
2.083	2.45	5.083	9.78	8.083	2.85	11.08	1.63
2.167	2.45	5.167	9.78	8.167	2.85	11.17	1.63
2.250	2.45	5.250	9.78	8.250	2.85	11.25	1.63
2.333	2.45	5.333	9.78	8.333	2.85	11.33	1.63
2.417	2.45	5.417	9.78	8.417	2.85	11.42	1.63
2.500	2.45	5.500	9.78	8.500	2.85	11.50	1.63
2.583	2.45	5.583	39.12	8.583	2.85	11.58	1.63
2.667	2.45	5.667	39.12	8.667	2.85	11.67	1.63
2.750	2.45	5.750	39.12	8.750	2.85	11.75	1.63
2.833	2.45	5.833	107.58	8.833	2.85	11.83	1.63
2.917	2.45	5.917	107.58	8.917	2.85	11.92	1.63
3.000	2.45	6.000	107.58	9.000	2.85	12.00	1.63

Max.Eff.Inten.(mm/hr)= 107.58 81.47
 over (min) 5.00 10.00
 Storage Coeff. (min)= 2.06 (ii) 9.72 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= .31 .11

 PEAK FLOW (cms)= .16 .05
 TIME TO PEAK (hrs)= 6.00 6.00
 RUNOFF VOLUME (mm)= 80.50 51.28
 TOTAL RAINFALL (mm)= 81.51 81.51
 RUNOFF COEFFICIENT = .99 .63

TOTALS
 .205 (iii)
 6.00
 70.27
 81.51
 .86

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 85.0 Ia = Dep. Storage (Above)
 (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
 (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
 STANDHYD (0005)
 ID= 1 DT= 5.0 min
 Area (ha)= 1.16
 Total Imp(%)= 73.00 Dir. Conn.(%)= 73.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= .85 .31
 Dep. Storage (mm)= 1.00 1.50
 Average Slope (%)= 1.00 2.00
 Length (m)= 87.90 40.00
 Mannings n = .013 .250

 Max.Eff.Inten.(mm/hr)= 107.58 81.47
 over (min) 5.00 10.00
 Storage Coeff. (min)= 2.30 (ii) 6.90 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= .30 .14

 PEAK FLOW (cms)= .25 .06
 TIME TO PEAK (hrs)= 6.00 6.00
 RUNOFF VOLUME (mm)= 80.50 51.28
 TOTAL RAINFALL (mm)= 81.51 81.51
 RUNOFF COEFFICIENT = .99 .63

TOTALS
 .312 (iii)
 6.00
 72.61
 81.51
 .89

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 85.0 Ia = Dep. Storage (Above)
 (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
 (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
 STANDHYD (0001)
 ID= 1 DT= 5.0 min
 Area (ha)= .45
 Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= .45 .00
 Dep. Storage (mm)= 1.00 1.50
 Average Slope (%)= 1.00 2.00
 Length (m)= 54.80 40.00
 Mannings n = .013 .250

 Max.Eff.Inten.(mm/hr)= 107.58 1099.78
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.73 (ii) 2.82 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= .32 .28

 PEAK FLOW (cms)= .13 .00
 TIME TO PEAK (hrs)= 6.00 6.00
 RUNOFF VOLUME (mm)= 80.50 51.28
 TOTAL RAINFALL (mm)= 81.51 81.51
 RUNOFF COEFFICIENT = .99 .63

TOTALS
 .134 (iii)
 6.00
 80.21
 81.51
 .98

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 85.0 Ia = Dep. Storage (Above)
 (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
 (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
 STANDHYD (0004)
 ID= 1 DT= 5.0 min
 Area (ha)= .14
 Total Imp(%)= 72.00 Dir. Conn.(%)= 72.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= .10 .04

Dep. Storage (mm)= 1.00 1.50
Average Slope (%)= 1.00 2.00
Length (m)= 30.60 40.00
Mannings n = .013 .250

Max.Eff.Inten.(mm/hr)= 107.58 81.47
over (min) 5.00 10.00
Storage Coeff. (min)= 1.22 (ii) 5.92 (ii)
Unit Hyd. Tpeak (min)= 5.00 10.00
Unit Hyd. peak (cms)= .33 .15

PEAK FLOW (cms)= .03 .01 .038 (iii)
TIME TO PEAK (hrs)= 6.00 6.00 6.00
RUNOFF VOLUME (mm)= 80.50 51.28 72.30
TOTAL RAINFALL (mm)= 81.51 81.51 81.51
RUNOFF COEFFICIENT = .99 .63 .89

TOTALS

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0003)
ID= 1 DT= 5.0 min
Area (ha)= .07
Total Imp(%)= 82.00 Dir. Conn.(%)= 82.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= .06 .01
Dep. Storage (mm)= 1.00 1.50
Average Slope (%)= 1.00 2.00
Length (m)= 21.60 40.00
Mannings n = .013 .250

Max.Eff.Inten.(mm/hr)= 107.58 81.47
over (min) 5.00 5.00
Storage Coeff. (min)= .99 (ii) 4.73 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= .34 .22

PEAK FLOW (cms)= .02 .00 .020 (iii)
TIME TO PEAK (hrs)= 6.00 6.00 6.00
RUNOFF VOLUME (mm)= 80.50 51.28 75.23
TOTAL RAINFALL (mm)= 81.51 81.51 81.51
RUNOFF COEFFICIENT = .99 .63 .92

TOTALS

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0002)
ID= 1 DT= 5.0 min
Area (ha)= .22
Total Imp(%)= 85.00 Dir. Conn.(%)= 85.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= .19 .03
Dep. Storage (mm)= 1.00 1.50
Average Slope (%)= 1.00 2.00

Length (m)= 38.30 40.00
Mannings n = .013 .250
Max.Eff.Inten.(mm/hr)= 107.58 81.47
over (min) 5.00 5.00
Storage Coeff. (min)= 1.39 (ii) 4.82 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= .33 .22

TOTALS

PEAK FLOW (cms)= .06 .01 .063 (iii)
TIME TO PEAK (hrs)= 6.00 6.00 6.00
RUNOFF VOLUME (mm)= 80.51 51.28 76.11
TOTAL RAINFALL (mm)= 81.51 81.51 81.51
RUNOFF COEFFICIENT = .99 .63 .93

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0007)
1 + 2 = 3
AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 1 (0003): .07 .020 6.00 75.23
+ ID2= 2 (0002): .22 .063 6.00 76.11
ID = 3 (0007): .29 .083 6.00 75.90

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0008)
1 + 2 = 3
AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 1 (0004): .14 .038 6.00 72.30
+ ID2= 2 (0007): .29 .083 6.00 75.90
ID = 3 (0008): .43 .121 6.00 74.73

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0009)
1 + 2 = 3
AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 1 (0001): .45 .134 6.00 80.21
+ ID2= 2 (0008): .43 .121 6.00 74.73
ID = 3 (0009): .88 .255 6.00 77.53

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0010)
1 + 2 = 3
AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)

ID1= 1 (0005): 1.16 .312 6.00 72.61
+ ID2= 2 (0009): .88 .255 6.00 77.53
=====

ID = 3 (0010): 2.04 .567 6.00 74.73

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| ADD HYD (0011) |
1 + 2 = 3
AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 1 (0006): .81 .205 6.00 70.27
+ ID2= 2 (0010): 2.04 .567 6.00 74.73
=====

ID = 3 (0011): 2.85 .772 6.00 73.46

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

** SIMULATION NUMBER: 5 **

| READ STORM |
Ptotal= 90.61 mm
Filename: C:\Users\Frank Fis\\Desktop\QualityInnV
02\QualityInn\design storms\SCS 12-hr\
050yr,12hr SCS.stm
Comments: 50-yr, 12-hr SCS Type II Distribution St

TIME RAIN TIME RAIN TIME RAIN TIME RAIN
hrs mm/hr hrs mm/hr hrs mm/hr hrs mm/hr
.25 2.27 3.25 3.62 6.25 16.31 9.25 3.17
.50 2.27 3.50 3.62 6.50 16.31 9.50 3.17
.75 2.27 3.75 3.62 6.75 7.25 9.75 3.17
1.00 2.27 4.00 3.62 7.00 7.25 10.00 3.17
1.25 2.27 4.25 5.44 7.25 5.44 10.25 1.81
1.50 2.27 4.50 5.44 7.50 5.44 10.50 1.81
1.75 2.27 4.75 7.25 7.75 5.44 10.75 1.81
2.00 2.27 5.00 7.25 8.00 5.44 11.00 1.81
2.25 2.72 5.25 10.87 8.25 3.17 11.25 1.81
2.50 2.72 5.50 10.87 8.50 3.17 11.50 1.81
2.75 2.72 5.75 43.49 8.75 3.17 11.75 1.81
3.00 2.72 6.00 119.59 9.00 3.17 12.00 1.81

| CALIB |
| STANDHYD (0006) |
ID= 1 DT= 5.0 min
Area (ha)= .81
Total Imp(%)= 65.00 Dir. Conn.(%)= 65.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= .53 .28
Dep. Storage (mm)= 1.00 1.50
Average Slope (%)= 1.00 2.00
Length (m)= 73.50 40.00
Mannings n = .013 .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
.083 2.27 3.083 3.62 6.083 16.31 9.08 3.17

.167 2.27 3.167 3.62 6.167 16.31 9.17 3.17
.250 2.27 3.250 3.62 6.250 16.31 9.25 3.17
.333 2.27 3.333 3.62 6.333 16.31 9.33 3.17
.417 2.27 3.417 3.62 6.417 16.31 9.42 3.17
.500 2.27 3.500 3.62 6.500 16.31 9.50 3.17
.583 2.27 3.583 3.62 6.583 7.25 9.58 3.17
.667 2.27 3.667 3.62 6.667 7.25 9.67 3.17
.750 2.27 3.750 3.62 6.750 7.25 9.75 3.17
.833 2.27 3.833 3.62 6.833 7.25 9.83 3.17
.917 2.27 3.917 3.62 6.917 7.25 9.92 3.17
1.000 2.27 4.000 3.62 7.000 7.25 10.00 3.17
1.083 2.27 4.083 5.44 7.083 5.44 10.08 1.81
1.167 2.27 4.167 5.44 7.167 5.44 10.17 1.81
1.250 2.27 4.250 5.44 7.250 5.44 10.25 1.81
1.333 2.27 4.333 5.44 7.333 5.44 10.33 1.81
1.417 2.27 4.417 5.44 7.417 5.44 10.42 1.81
1.500 2.27 4.500 5.44 7.500 5.44 10.50 1.81
1.583 2.27 4.583 7.25 7.583 5.44 10.58 1.81
1.667 2.27 4.667 7.25 7.667 5.44 10.67 1.81
1.750 2.27 4.750 7.25 7.750 5.44 10.75 1.81
1.833 2.27 4.833 7.25 7.833 5.44 10.83 1.81
1.917 2.27 4.917 7.25 7.917 5.44 10.92 1.81
2.000 2.27 5.000 7.25 8.000 5.44 11.00 1.81
2.083 2.72 5.083 10.87 8.083 3.17 11.08 1.81
2.167 2.72 5.167 10.87 8.167 3.17 11.17 1.81
2.250 2.72 5.250 10.87 8.250 3.17 11.25 1.81
2.333 2.72 5.333 10.87 8.333 3.17 11.33 1.81
2.417 2.72 5.417 10.87 8.417 3.17 11.42 1.81
2.500 2.72 5.500 10.87 8.500 3.17 11.50 1.81
2.583 2.72 5.583 43.49 8.583 3.17 11.58 1.81
2.667 2.72 5.667 43.49 8.667 3.17 11.67 1.81
2.750 2.72 5.750 43.49 8.750 3.17 11.75 1.81
2.833 2.72 5.833 119.59 8.833 3.17 11.83 1.81
2.917 2.72 5.917 119.59 8.917 3.17 11.92 1.81
3.000 2.72 6.000 119.59 9.000 3.17 12.00 1.81

Max.Eff.Inten.(mm/hr)= 119.59 93.67
over (min) 5.00 10.00
Storage Coeff. (min)= 1.98 (ii) 9.22 (ii)
Unit Hyd. Tpeak (min)= 5.00 10.00
Unit Hyd. peak (cms)= .31 .12

TOTALS
PEAK FLOW (cms)= .17 .06 .231 (iii)
TIME TO PEAK (hrs)= 6.00 6.00 6.00
RUNOFF VOLUME (mm)= 89.61 59.29 78.99
TOTAL RAINFALL (mm)= 90.61 90.61 90.61
RUNOFF COEFFICIENT = .99 .65 .87

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| CALIB |
| STANDHYD (0005) |
ID= 1 DT= 5.0 min
Area (ha)= 1.16
Total Imp(%)= 73.00 Dir. Conn.(%)= 73.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= .85 .31
Dep. Storage (mm)= 1.00 1.50
Average Slope (%)= 1.00 2.00
Length (m)= 87.90 40.00
Mannings n = .013 .250

Max.Eff.Inten.(mm/hr)=	119.59	93.67	
over (min)	5.00	10.00	
Storage Coeff. (min)=	2.20 (ii)	6.61 (ii)	
Unit Hyd. Tpeak (min)=	5.00	10.00	
Unit Hyd. peak (cms)=	.30	.14	
			TOTALS
PEAK FLOW (cms)=	.28	.07	.350 (iii)
TIME TO PEAK (hrs)=	6.00	6.00	6.00
RUNOFF VOLUME (mm)=	89.61	59.29	81.42
TOTAL RAINFALL (mm)=	90.61	90.61	90.61
RUNOFF COEFFICIENT =	.99	.65	.90

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB		
STANDHYD (0001)	Area (ha)= .45	
ID= 1 DT= 5.0 min	Total Imp(%)= 99.00	Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)	
Surface Area (ha)=	.45	.00	
Dep. Storage (mm)=	1.00	1.50	
Average Slope (%)=	1.00	2.00	
Length (m)=	54.80	40.00	
Mannings n =	.013	.250	
Max.Eff.Inten.(mm/hr)=	119.59	1264.48	
over (min)	5.00	5.00	
Storage Coeff. (min)=	1.66 (ii)	2.70 (ii)	
Unit Hyd. Tpeak (min)=	5.00	5.00	
Unit Hyd. peak (cms)=	.32	.29	
			TOTALS
PEAK FLOW (cms)=	.15	.00	.149 (iii)
TIME TO PEAK (hrs)=	6.00	6.00	6.00
RUNOFF VOLUME (mm)=	89.61	59.29	89.31
TOTAL RAINFALL (mm)=	90.61	90.61	90.61
RUNOFF COEFFICIENT =	.99	.65	.99

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB		
STANDHYD (0004)	Area (ha)= .14	
ID= 1 DT= 5.0 min	Total Imp(%)= 72.00	Dir. Conn.(%)= 72.00

	IMPERVIOUS	PERVIOUS (i)	
Surface Area (ha)=	.10	.04	
Dep. Storage (mm)=	1.00	1.50	
Average Slope (%)=	1.00	2.00	
Length (m)=	30.60	40.00	
Mannings n =	.013	.250	
Max.Eff.Inten.(mm/hr)=	119.59	93.67	

over (min)	5.00	10.00	
Storage Coeff. (min)=	1.17 (ii)	5.67 (ii)	
Unit Hyd. Tpeak (min)=	5.00	10.00	
Unit Hyd. peak (cms)=	.34	.15	
			TOTALS
PEAK FLOW (cms)=	.03	.01	.042 (iii)
TIME TO PEAK (hrs)=	6.00	6.00	6.00
RUNOFF VOLUME (mm)=	89.61	59.29	81.10
TOTAL RAINFALL (mm)=	90.61	90.61	90.61
RUNOFF COEFFICIENT =	.99	.65	.90

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB		
STANDHYD (0003)	Area (ha)= .07	
ID= 1 DT= 5.0 min	Total Imp(%)= 82.00	Dir. Conn.(%)= 82.00

	IMPERVIOUS	PERVIOUS (i)	
Surface Area (ha)=	.06	.01	
Dep. Storage (mm)=	1.00	1.50	
Average Slope (%)=	1.00	2.00	
Length (m)=	21.60	40.00	
Mannings n =	.013	.250	
Max.Eff.Inten.(mm/hr)=	119.59	93.67	
over (min)	5.00	5.00	
Storage Coeff. (min)=	.95 (ii)	4.53 (ii)	
Unit Hyd. Tpeak (min)=	5.00	5.00	
Unit Hyd. peak (cms)=	.34	.23	
			TOTALS
PEAK FLOW (cms)=	.02	.00	.022 (iii)
TIME TO PEAK (hrs)=	5.92	6.00	6.00
RUNOFF VOLUME (mm)=	89.61	59.29	84.14
TOTAL RAINFALL (mm)=	90.61	90.61	90.61
RUNOFF COEFFICIENT =	.99	.65	.93

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB		
STANDHYD (0002)	Area (ha)= .22	
ID= 1 DT= 5.0 min	Total Imp(%)= 85.00	Dir. Conn.(%)= 85.00

	IMPERVIOUS	PERVIOUS (i)	
Surface Area (ha)=	.19	.03	
Dep. Storage (mm)=	1.00	1.50	
Average Slope (%)=	1.00	2.00	
Length (m)=	38.30	40.00	
Mannings n =	.013	.250	
Max.Eff.Inten.(mm/hr)=	119.59	93.67	
over (min)	5.00	5.00	
Storage Coeff. (min)=	1.34 (ii)	4.62 (ii)	

Unit Hyd. Tpeak (min)=	5.00	5.00	
Unit Hyd. peak (cms)=	.33	.22	
TOTALS			
PEAK FLOW (cms)=	.06	.01	.071 (iii)
TIME TO PEAK (hrs)=	6.00	6.00	6.00
RUNOFF VOLUME (mm)=	89.61	59.29	85.05
TOTAL RAINFALL (mm)=	90.61	90.61	90.61
RUNOFF COEFFICIENT =	.99	.65	.94

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0007)				
1 + 2 = 3				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0003):	.07	.022	6.00	84.14
+ ID2= 2 (0002):	.22	.071	6.00	85.05
=====				
ID = 3 (0007):	.29	.093	6.00	84.83

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0008)				
1 + 2 = 3				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0004):	.14	.042	6.00	81.10
+ ID2= 2 (0007):	.29	.093	6.00	84.83
=====				
ID = 3 (0008):	.43	.135	6.00	83.61

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0009)				
1 + 2 = 3				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0001):	.45	.149	6.00	89.31
+ ID2= 2 (0008):	.43	.135	6.00	83.61
=====				
ID = 3 (0009):	.88	.284	6.00	86.53

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0010)				
1 + 2 = 3				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0005):	1.16	.350	6.00	81.42
+ ID2= 2 (0009):	.88	.284	6.00	86.53
=====				
ID = 3 (0010):	2.04	.634	6.00	83.62

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0011)				
1 + 2 = 3				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0006):	.81	.231	6.00	78.99
+ ID2= 2 (0010):	2.04	.634	6.00	83.62
=====				
ID = 3 (0011):	2.85	.865	6.00	82.31

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

** SIMULATION NUMBER: 6 **

READ STORM		Filename: C:\Users\Frank Fisl\Desktop\QualityInnV 02\QualityInn\design storms\SCS 12-hr\ 100yr,12hr SCS.stm							
Ptotal= 99.69 mm		Comments: 100-yr, 12-hr SCS Type II Distribution S							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
.25	2.49	3.25	3.99	6.25	17.95	9.25	3.49		
.50	2.49	3.50	3.99	6.50	17.95	9.50	3.49		
.75	2.49	3.75	3.99	6.75	7.98	9.75	3.49		
1.00	2.49	4.00	3.99	7.00	7.98	10.00	3.49		
1.25	2.49	4.25	5.98	7.25	5.98	10.25	1.99		
1.50	2.49	4.50	5.98	7.50	5.98	10.50	1.99		
1.75	2.49	4.75	7.98	7.75	5.98	10.75	1.99		
2.00	2.49	5.00	7.98	8.00	5.98	11.00	1.99		
2.25	2.99	5.25	11.96	8.25	3.49	11.25	1.99		
2.50	2.99	5.50	11.96	8.50	3.49	11.50	1.99		
2.75	2.99	5.75	47.86	8.75	3.49	11.75	1.99		
3.00	2.99	6.00	131.60	9.00	3.49	12.00	1.99		

CALIB		Area (ha)= .81	
STANDHYD (0006)		Total Imp(%)= 65.00 Dir. Conn.(%)= 65.00	
ID= 1 DT= 5.0 min			
		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	.53	.28
Dep. Storage	(mm)=	1.00	1.50
Average Slope	(%)=	1.00	2.00
Length	(m)=	73.50	40.00
Mannings n	=	.013	.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
.083	2.49	3.083	3.99	6.083	17.95	9.08	3.49
.167	2.49	3.167	3.99	6.167	17.95	9.17	3.49
.250	2.49	3.250	3.99	6.250	17.95	9.25	3.49
.333	2.49	3.333	3.99	6.333	17.95	9.33	3.49
.417	2.49	3.417	3.99	6.417	17.95	9.42	3.49
.500	2.49	3.500	3.99	6.500	17.95	9.50	3.49
.583	2.49	3.583	3.99	6.583	7.98	9.58	3.49

.667	2.49	3.667	3.99	6.667	7.98	9.67	3.49
.750	2.49	3.750	3.99	6.750	7.98	9.75	3.49
.833	2.49	3.833	3.99	6.833	7.98	9.83	3.49
.917	2.49	3.917	3.99	6.917	7.98	9.92	3.49
1.000	2.49	4.000	3.99	7.000	7.98	10.00	3.49
1.083	2.49	4.083	5.98	7.083	5.98	10.08	1.99
1.167	2.49	4.167	5.98	7.167	5.98	10.17	1.99
1.250	2.49	4.250	5.98	7.250	5.98	10.25	1.99
1.333	2.49	4.333	5.98	7.333	5.98	10.33	1.99
1.417	2.49	4.417	5.98	7.417	5.98	10.42	1.99
1.500	2.49	4.500	5.98	7.500	5.98	10.50	1.99
1.583	2.49	4.583	7.98	7.583	5.98	10.58	1.99
1.667	2.49	4.667	7.98	7.667	5.98	10.67	1.99
1.750	2.49	4.750	7.98	7.750	5.98	10.75	1.99
1.833	2.49	4.833	7.98	7.833	5.98	10.83	1.99
1.917	2.49	4.917	7.98	7.917	5.98	10.92	1.99
2.000	2.49	5.000	7.98	8.000	5.98	11.00	1.99
2.083	2.99	5.083	11.96	8.083	3.49	11.08	1.99
2.167	2.99	5.167	11.96	8.167	3.49	11.17	1.99
2.250	2.99	5.250	11.96	8.250	3.49	11.25	1.99
2.333	2.99	5.333	11.96	8.333	3.49	11.33	1.99
2.417	2.99	5.417	11.96	8.417	3.49	11.42	1.99
2.500	2.99	5.500	11.96	8.500	3.49	11.50	1.99
2.583	2.99	5.583	47.86	8.583	3.49	11.58	1.99
2.667	2.99	5.667	47.86	8.667	3.49	11.67	1.99
2.750	2.99	5.750	47.86	8.750	3.49	11.75	1.99
2.833	2.99	5.833	131.60	8.833	3.49	11.83	1.99
2.917	2.99	5.917	131.60	8.917	3.49	11.92	1.99
3.000	2.99	6.000	131.60	9.000	3.49	12.00	1.99

Max.Eff.Inten.(mm/hr)= 131.60 105.96
over (min) 5.00 10.00
Storage Coeff. (min)= 1.90 (ii) 6.84 (ii)
Unit Hyd. Tpeak (min)= 5.00 10.00
Unit Hyd. peak (cms)= .32 .14

PEAK FLOW (cms)= .19 .07
TIME TO PEAK (hrs)= 6.00 6.00
RUNOFF VOLUME (mm)= 98.69 67.41
TOTAL RAINFALL (mm)= 99.69 99.69
RUNOFF COEFFICIENT = .99 .68

TOTALS
.263 (iii)
6.00
87.74
99.69
.88

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

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0005)
ID= 1 DT= 5.0 min

Area (ha)= 1.16
Total Imp(%)= 73.00 Dir. Conn.(%)= 73.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= .85 .31
Dep. Storage (mm)= 1.00 1.50
Average Slope (%)= 1.00 2.00
Length (m)= 87.90 40.00
Mannings n = .013 .250

Max.Eff.Inten.(mm/hr)= 131.60 105.96
over (min) 5.00 10.00
Storage Coeff. (min)= 2.12 (ii) 6.37 (ii)
Unit Hyd. Tpeak (min)= 5.00 10.00
Unit Hyd. peak (cms)= .31 .15

TOTALS
PEAK FLOW (cms)= .31 .08 .388 (iii)
TIME TO PEAK (hrs)= 6.00 6.00 6.00
RUNOFF VOLUME (mm)= 98.69 67.41 90.24
TOTAL RAINFALL (mm)= 99.69 99.69 99.69
RUNOFF COEFFICIENT = .99 .68 .91

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

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0001)
ID= 1 DT= 5.0 min

Area (ha)= .45
Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= .45 .00
Dep. Storage (mm)= 1.00 1.50
Average Slope (%)= 1.00 2.00
Length (m)= 54.80 40.00
Mannings n = .013 .250

Max.Eff.Inten.(mm/hr)= 131.60 1430.47
over (min) 5.00 5.00
Storage Coeff. (min)= 1.60 (ii) 2.60 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= .33 .29

PEAK FLOW (cms)= .16 .00
TIME TO PEAK (hrs)= 6.00 6.00
RUNOFF VOLUME (mm)= 98.69 67.41
TOTAL RAINFALL (mm)= 99.69 99.69
RUNOFF COEFFICIENT = .99 .68

TOTALS
.164 (iii)
6.00
98.38
99.69
.99

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

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0004)
ID= 1 DT= 5.0 min

Area (ha)= .14
Total Imp(%)= 72.00 Dir. Conn.(%)= 72.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= .10 .04
Dep. Storage (mm)= 1.00 1.50
Average Slope (%)= 1.00 2.00
Length (m)= 30.60 40.00
Mannings n = .013 .250

Max.Eff.Inten.(mm/hr)= 131.60 105.96
over (min) 5.00 10.00
Storage Coeff. (min)= 1.12 (ii) 5.46 (ii)
Unit Hyd. Tpeak (min)= 5.00 10.00
Unit Hyd. peak (cms)= .34 .16

PEAK FLOW (cms)= .04 .01
TOTALS
.047 (iii)

TIME TO PEAK (hrs)=	6.00	6.00	6.00
RUNOFF VOLUME (mm)=	98.69	67.41	89.91
TOTAL RAINFALL (mm)=	99.69	99.69	99.69
RUNOFF COEFFICIENT =	.99	.68	.90

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (0003)	Area (ha)= .07		
ID= 1 DT= 5.0 min	Total Imp(%)= 82.00	Dir. Conn.(%)= 82.00	

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	.06	.01
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	21.60	40.00
Mannings n =	.013	.250

Max.Eff.Inten.(mm/hr)=	131.60	105.96
over (min)	5.00	5.00
Storage Coeff. (min)=	.91 (ii)	4.36 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	.34	.23

TOTALS

PEAK FLOW (cms)=	.02	.00	.025 (iii)
TIME TO PEAK (hrs)=	5.92	6.00	6.00
RUNOFF VOLUME (mm)=	98.69	67.41	93.05
TOTAL RAINFALL (mm)=	99.69	99.69	99.69
RUNOFF COEFFICIENT =	.99	.68	.93

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (0002)	Area (ha)= .22		
ID= 1 DT= 5.0 min	Total Imp(%)= 85.00	Dir. Conn.(%)= 85.00	

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	.19	.03
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	38.30	40.00
Mannings n =	.013	.250

Max.Eff.Inten.(mm/hr)=	131.60	105.96
over (min)	5.00	5.00
Storage Coeff. (min)=	1.29 (ii)	4.45 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	.33	.23

TOTALS

PEAK FLOW (cms)=	.07	.01	.078 (iii)
TIME TO PEAK (hrs)=	6.00	6.00	6.00
RUNOFF VOLUME (mm)=	98.69	67.41	93.98

TOTAL RAINFALL (mm)=	99.69	99.69	99.69
RUNOFF COEFFICIENT =	.99	.68	.94

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0007)				
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0003):	.07	.025	6.00	93.05
+ ID2= 2 (0002):	.22	.078	6.00	93.98
ID = 3 (0007):	.29	.103	6.00	93.76

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0008)				
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0004):	.14	.047	6.00	89.91
+ ID2= 2 (0007):	.29	.103	6.00	93.76
ID = 3 (0008):	.43	.150	6.00	92.51

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0009)				
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0001):	.45	.164	6.00	98.38
+ ID2= 2 (0008):	.43	.150	6.00	92.51
ID = 3 (0009):	.88	.314	6.00	95.51

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0010)				
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0005):	1.16	.388	6.00	90.24
+ ID2= 2 (0009):	.88	.314	6.00	95.51
ID = 3 (0010):	2.04	.702	6.00	92.51

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0011)				
1 + 2 = 3	AREA	QPEAK	TPEAK	R.V.

	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0006):	.81	.263	6.00	87.74
+ ID2= 2 (0010):	2.04	.702	6.00	92.51
=====				
ID = 3 (0011):	2.85	.965	6.00	91.16

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

FINISH

=====

=====

EXISTING CONDITIONS
24-HOUR SCS TYPE II DISTRIBUTION

=====
V V I SSSSS U U A L
V V I SS U U A A L
V V I SS U U A A A A A L
V V I SS U U A A L
VV I SSSSS UUUUU A A LLLLL
000 TTTT TTTT H H Y Y M M 000 TM, Version 2.1
0 0 T T H H Y Y MM MM 0 0
0 0 T T H H Y M M 0 0
000 T T H H Y M M 000

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***** D E T A I L E D O U T P U T *****
Input filename: C:\Program Files\Visual OTTHYMO 2.2.4\voin.dat
Output filename: C:\Users\Frank Fis\Desktop\QualityInnV02\QualityInn\Existing
Condition.out
Summary filename: C:\Users\Frank Fis\Desktop\QualityInnV02\QualityInn\Existing
Condition.sum

DATE: 2023-07-13 TIME: 12:17:04
USER:
COMMENTS:

** SIMULATION NUMBER: 1 **

Table with 8 columns: TIME, RAIN, TIME, RAIN, TIME, RAIN, TIME, RAIN. It contains a detailed 24-hour SCS Type II Distribution Storm Hydrograph with time in hours and rain in mm/hr.

Table with 8 columns: TIME, RAIN, TIME, RAIN, TIME, RAIN, TIME, RAIN. It contains a detailed 24-hour SCS Type II Distribution Storm Hydrograph with time in hours and rain in mm/hr.

Summary statistics and notes including:
- CALIB STANDHYD (0006)
- Area (ha) = .81
- Total Imp(%) = 65.00
- Dir. Conn.(%) = 65.00
- IMPERVIOUS and PERVIOUS (i) values for Surface Area, Dep. Storage, Average Slope, Length, and Mannings n.
- NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

Table with 8 columns: TIME, RAIN, TIME, RAIN, TIME, RAIN, TIME, RAIN. It contains a detailed 24-hour SCS Type II Distribution Storm Hydrograph with time in hours and rain in mm/hr.

2.833	.72	8.833	1.55	14.833	1.66	20.83	.66
2.917	.72	8.917	1.55	14.917	1.66	20.92	.66
3.000	.72	9.000	1.55	15.000	1.66	21.00	.66
3.083	.72	9.083	1.77	15.083	1.66	21.08	.66
3.167	.72	9.167	1.77	15.167	1.66	21.17	.66
3.250	.72	9.250	1.77	15.250	1.66	21.25	.66
3.333	.72	9.333	1.77	15.333	1.66	21.33	.66
3.417	.72	9.417	1.77	15.417	1.66	21.42	.66
3.500	.72	9.500	1.77	15.500	1.66	21.50	.66
3.583	.72	9.583	1.99	15.583	1.66	21.58	.66
3.667	.72	9.667	1.99	15.667	1.66	21.67	.66
3.750	.72	9.750	1.99	15.750	1.66	21.75	.66
3.833	.72	9.833	1.99	15.833	1.66	21.83	.66
3.917	.72	9.917	1.99	15.917	1.66	21.92	.66
4.000	.72	10.000	1.99	16.000	1.66	22.00	.66
4.083	.88	10.083	2.54	16.083	.99	22.08	.66
4.167	.88	10.167	2.54	16.167	.99	22.17	.66
4.250	.88	10.250	2.54	16.250	.99	22.25	.66
4.333	.88	10.333	2.54	16.333	.99	22.33	.66
4.417	.88	10.417	2.54	16.417	.99	22.42	.66
4.500	.88	10.500	2.54	16.500	.99	22.50	.66
4.583	.88	10.583	3.42	16.583	.99	22.58	.66
4.667	.88	10.667	3.42	16.667	.99	22.67	.66
4.750	.88	10.750	3.42	16.750	.99	22.75	.66
4.833	.88	10.833	3.42	16.833	.99	22.83	.66
4.917	.88	10.917	3.42	16.917	.99	22.92	.66
5.000	.88	11.000	3.42	17.000	.99	23.00	.66
5.083	.88	11.083	5.30	17.083	.99	23.08	.66
5.167	.88	11.167	5.30	17.167	.99	23.17	.66
5.250	.88	11.250	5.30	17.250	.99	23.25	.66
5.333	.88	11.333	5.30	17.333	.99	23.33	.66
5.417	.88	11.417	5.30	17.417	.99	23.42	.66
5.500	.88	11.500	5.30	17.500	.99	23.50	.66
5.583	.88	11.583	22.96	17.583	.99	23.58	.66
5.667	.88	11.667	22.96	17.667	.99	23.67	.66
5.750	.88	11.750	22.96	17.750	.99	23.75	.66
5.833	.88	11.833	60.94	17.833	.99	23.83	.66
5.917	.88	11.917	60.94	17.917	.99	23.92	.66
6.000	.88	12.000	60.94	18.000	.99	24.00	.66

Max.Eff.Inten.(mm/hr)=	60.94	37.26
over (min)	5.00	15.00
Storage Coeff. (min)=	2.59 (ii)	13.06 (ii)
Unit Hyd. Tpeak (min)=	5.00	15.00
Unit Hyd. peak (cms)=	.29	.08

PEAK FLOW (cms)=	.09	.02	.106 (iii)
TIME TO PEAK (hrs)=	12.00	12.08	12.00
RUNOFF VOLUME (mm)=	54.18	29.26	45.45
TOTAL RAINFALL (mm)=	55.19	55.19	55.19
RUNOFF COEFFICIENT =	.98	.53	.82

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	
STANDHYD (0005)	Area (ha)= 1.16
ID= 1 DT= 5.0 min	Total Imp(%)= 73.00 Dir. Conn.(%)= 73.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	.85	.31

Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	87.90	40.00
Mannings n =	.013	.250

Max.Eff.Inten.(mm/hr)=	60.94	37.26
over (min)	5.00	15.00
Storage Coeff. (min)=	2.88 (ii)	13.36 (ii)
Unit Hyd. Tpeak (min)=	5.00	15.00
Unit Hyd. peak (cms)=	.28	.08

TOTALS

PEAK FLOW (cms)=	.14	.02	.162 (iii)
TIME TO PEAK (hrs)=	12.00	12.08	12.00
RUNOFF VOLUME (mm)=	54.19	29.26	47.45
TOTAL RAINFALL (mm)=	55.19	55.19	55.19
RUNOFF COEFFICIENT =	.98	.53	.86

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	
STANDHYD (0001)	Area (ha)= .45
ID= 1 DT= 5.0 min	Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	.45	.00
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	54.80	40.00
Mannings n =	.013	.250

Max.Eff.Inten.(mm/hr)=	60.94	526.26
over (min)	5.00	5.00
Storage Coeff. (min)=	2.17 (ii)	3.54 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	.31	.26

TOTALS

PEAK FLOW (cms)=	.08	.00	.076 (iii)
TIME TO PEAK (hrs)=	12.00	12.00	12.00
RUNOFF VOLUME (mm)=	54.18	29.26	53.93
TOTAL RAINFALL (mm)=	55.19	55.19	55.19
RUNOFF COEFFICIENT =	.98	.53	.98

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	
STANDHYD (0004)	Area (ha)= .14
ID= 1 DT= 5.0 min	Total Imp(%)= 72.00 Dir. Conn.(%)= 72.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	.10	.04
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00

Length (m)=	30.60	40.00	
Mannings n =	.013	.250	
Max.Eff.Inten.(mm/hr)=	60.94	37.26	
over (min)	5.00	15.00	
Storage Coeff. (min)=	1.53 (ii)	12.01 (ii)	
Unit Hyd. Tpeak (min)=	5.00	15.00	
Unit Hyd. peak (cms)=	.33	.09	
PEAK FLOW (cms)=	.02	.00	
TIME TO PEAK (hrs)=	12.00	12.08	
RUNOFF VOLUME (mm)=	54.18	29.26	
TOTAL RAINFALL (mm)=	55.19	55.19	
RUNOFF COEFFICIENT =	.98	.53	

TOTALS

	.020 (iii)	
	12.00	
	47.17	
	55.19	
	.85	

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha)=	.07	
STANDHYD (0003)	Total Imp(%)=	82.00	Dir. Conn.(%)= 82.00
ID= 1 DT= 5.0 min			

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	.06	.01
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	21.60	40.00
Mannings n =	.013	.250

Max.Eff.Inten.(mm/hr)=	60.94	38.98	
over (min)	5.00	10.00	
Storage Coeff. (min)=	1.24 (ii)	5.93 (ii)	
Unit Hyd. Tpeak (min)=	5.00	10.00	
Unit Hyd. peak (cms)=	.33	.15	
PEAK FLOW (cms)=	.01	.00	
TIME TO PEAK (hrs)=	12.00	12.00	
RUNOFF VOLUME (mm)=	54.19	29.26	
TOTAL RAINFALL (mm)=	55.19	55.19	
RUNOFF COEFFICIENT =	.98	.53	

TOTALS

	.011 (iii)	
	12.00	
	49.69	
	55.19	
	.90	

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha)=	.22	
STANDHYD (0002)	Total Imp(%)=	85.00	Dir. Conn.(%)= 85.00
ID= 1 DT= 5.0 min			

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	.19	.03
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	38.30	40.00
Mannings n =	.013	.250

Max.Eff.Inten.(mm/hr)=	60.94	38.98	
over (min)	5.00	10.00	
Storage Coeff. (min)=	1.75 (ii)	6.05 (ii)	
Unit Hyd. Tpeak (min)=	5.00	10.00	
Unit Hyd. peak (cms)=	.32	.15	
PEAK FLOW (cms)=	.03	.00	
TIME TO PEAK (hrs)=	12.00	12.00	
RUNOFF VOLUME (mm)=	54.18	29.26	
TOTAL RAINFALL (mm)=	55.19	55.19	
RUNOFF COEFFICIENT =	.98	.53	

TOTALS

	.035 (iii)	
	12.00	
	50.43	
	55.19	
	.91	

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0007)	AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0003):	.07	.011	12.00	49.69
+ ID2= 2 (0002):	.22	.035	12.00	50.43
ID = 3 (0007):	.29	.046	12.00	50.25

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0008)	AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0004):	.14	.020	12.00	47.17
+ ID2= 2 (0007):	.29	.046	12.00	50.25
ID = 3 (0008):	.43	.065	12.00	49.25

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0009)	AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0001):	.45	.076	12.00	53.93
+ ID2= 2 (0008):	.43	.065	12.00	49.25
ID = 3 (0009):	.88	.141	12.00	51.64

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0010)	AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0005):	1.16	.162	12.00	47.45
+ ID2= 2 (0009):	.88	.141	12.00	51.64

=====
ID = 3 (0010): 2.04 .302 12.00 49.26

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| ADD HYD (0011) |
| 1 + 2 = 3 |
AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 1 (0006): .81 .106 12.00 45.45
+ ID2= 2 (0010): 2.04 .302 12.00 49.26
=====
ID = 3 (0011): 2.85 .409 12.00 48.17

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

** SIMULATION NUMBER: 2 **

| READ STORM | Filename: C:\Users\Frank Fis\l\Desktop\QualityInnV
| | 02\QualityInn\design storms\SCS 24-hr\
| | 005yr,24hr SCS.stm
| Ptotal= 73.37 mm | Comments: 5-yr, 24-hr SCS Type II Distribution Sto

TIME RAIN TIME RAIN TIME RAIN TIME RAIN
hrs mm/hr hrs mm/hr hrs mm/hr hrs mm/hr
.25 .81 6.25 1.32 12.25 10.57 18.25 1.32
.50 .81 6.50 1.32 12.50 10.57 18.50 1.32
.75 .81 6.75 1.32 12.75 5.43 18.75 1.32
1.00 .81 7.00 1.32 13.00 5.43 19.00 1.32
1.25 .81 7.25 1.61 13.25 3.96 19.25 1.32
1.50 .81 7.50 1.61 13.50 3.96 19.50 1.32
1.75 .81 7.75 1.61 13.75 3.08 19.75 1.32
2.00 .81 8.00 1.61 14.00 3.08 20.00 1.32
2.25 .95 8.25 1.91 14.25 2.20 20.25 .88
2.50 .95 8.50 1.91 14.50 2.20 20.50 .88
2.75 .95 8.75 2.06 14.75 2.20 20.75 .88
3.00 .95 9.00 2.06 15.00 2.20 21.00 .88
3.25 .95 9.25 2.35 15.25 2.20 21.25 .88
3.50 .95 9.50 2.35 15.50 2.20 21.50 .88
3.75 .95 9.75 2.64 15.75 2.20 21.75 .88
4.00 .95 10.00 2.64 16.00 2.20 22.00 .88
4.25 1.17 10.25 3.38 16.25 1.32 22.25 .88
4.50 1.17 10.50 3.38 16.50 1.32 22.50 .88
4.75 1.17 10.75 4.55 16.75 1.32 22.75 .88
5.00 1.17 11.00 4.55 17.00 1.32 23.00 .88
5.25 1.17 11.25 7.05 17.25 1.32 23.25 .88
5.50 1.17 11.50 7.05 17.50 1.32 23.50 .88
5.75 1.17 11.75 30.53 17.75 1.32 23.75 .88
6.00 1.17 12.00 81.03 18.00 1.32 24.00 .88

| CALIB |
| STANDHYD (0006) | Area (ha)= .81
| ID= 1 DT= 5.0 min | Total Imp(%)= 65.00 Dir. Conn.(%)= 65.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= .53 .28
Dep. Storage (mm)= 1.00 1.50
Average Slope (%)= 1.00 2.00

Length (m)= 73.50 40.00
Mannings n = .013 .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
.083 .81 6.083 1.32 12.083 10.58 18.08 1.32
.167 .81 6.167 1.32 12.167 10.57 18.17 1.32
.250 .81 6.250 1.32 12.250 10.57 18.25 1.32
.333 .81 6.333 1.32 12.333 10.57 18.33 1.32
.417 .81 6.417 1.32 12.417 10.57 18.42 1.32
.500 .81 6.500 1.32 12.500 10.57 18.50 1.32
.583 .81 6.583 1.32 12.583 5.43 18.58 1.32
.667 .81 6.667 1.32 12.667 5.43 18.67 1.32
.750 .81 6.750 1.32 12.750 5.43 18.75 1.32
.833 .81 6.833 1.32 12.833 5.43 18.83 1.32
.917 .81 6.917 1.32 12.917 5.43 18.92 1.32
1.000 .81 7.000 1.32 13.000 5.43 19.00 1.32
1.083 .81 7.083 1.61 13.083 3.96 19.08 1.32
1.167 .81 7.167 1.61 13.167 3.96 19.17 1.32
1.250 .81 7.250 1.61 13.250 3.96 19.25 1.32
1.333 .81 7.333 1.61 13.333 3.96 19.33 1.32
1.417 .81 7.417 1.61 13.417 3.96 19.42 1.32
1.500 .81 7.500 1.61 13.500 3.96 19.50 1.32
1.583 .81 7.583 1.61 13.583 3.08 19.58 1.32
1.667 .81 7.667 1.61 13.667 3.08 19.67 1.32
1.750 .81 7.750 1.61 13.750 3.08 19.75 1.32
1.833 .81 7.833 1.61 13.833 3.08 19.83 1.32
1.917 .81 7.917 1.61 13.917 3.08 19.92 1.32
2.000 .81 8.000 1.61 14.000 3.08 20.00 1.32
2.083 .95 8.083 1.91 14.083 2.20 20.08 .88
2.167 .95 8.167 1.91 14.167 2.20 20.17 .88
2.250 .95 8.250 1.91 14.250 2.20 20.25 .88
2.333 .95 8.333 1.91 14.333 2.20 20.33 .88
2.417 .95 8.417 1.91 14.417 2.20 20.42 .88
2.500 .95 8.500 1.91 14.500 2.20 20.50 .88
2.583 .95 8.583 2.06 14.583 2.20 20.58 .88
2.667 .95 8.667 2.06 14.667 2.20 20.67 .88
2.750 .95 8.750 2.06 14.750 2.20 20.75 .88
2.833 .95 8.833 2.06 14.833 2.20 20.83 .88
2.917 .95 8.917 2.06 14.917 2.20 20.92 .88
3.000 .95 9.000 2.06 15.000 2.20 21.00 .88
3.083 .95 9.083 2.35 15.083 2.20 21.08 .88
3.167 .95 9.167 2.35 15.167 2.20 21.17 .88
3.250 .95 9.250 2.35 15.250 2.20 21.25 .88
3.333 .95 9.333 2.35 15.333 2.20 21.33 .88
3.417 .95 9.417 2.35 15.417 2.20 21.42 .88
3.500 .95 9.500 2.35 15.500 2.20 21.50 .88
3.583 .95 9.583 2.64 15.583 2.20 21.58 .88
3.667 .95 9.667 2.64 15.667 2.20 21.67 .88
3.750 .95 9.750 2.64 15.750 2.20 21.75 .88
3.833 .95 9.833 2.64 15.833 2.20 21.83 .88
3.917 .95 9.917 2.64 15.917 2.20 21.92 .88
4.000 .95 10.000 2.64 16.000 2.20 22.00 .88
4.083 1.17 10.083 3.38 16.083 1.32 22.08 .88
4.167 1.17 10.167 3.38 16.167 1.32 22.17 .88
4.250 1.17 10.250 3.38 16.250 1.32 22.25 .88
4.333 1.17 10.333 3.38 16.333 1.32 22.33 .88
4.417 1.17 10.417 3.38 16.417 1.32 22.42 .88
4.500 1.17 10.500 3.38 16.500 1.32 22.50 .88
4.583 1.17 10.583 4.55 16.583 1.32 22.58 .88
4.667 1.17 10.667 4.55 16.667 1.32 22.67 .88
4.750 1.17 10.750 4.55 16.750 1.32 22.75 .88
4.833 1.17 10.833 4.55 16.833 1.32 22.83 .88
4.917 1.17 10.917 4.55 16.917 1.32 22.92 .88

5.000	1.17	11.000	4.55	17.000	1.32	23.00	.88
5.083	1.17	11.083	7.05	17.083	1.32	23.08	.88
5.167	1.17	11.167	7.05	17.167	1.32	23.17	.88
5.250	1.17	11.250	7.05	17.250	1.32	23.25	.88
5.333	1.17	11.333	7.05	17.333	1.32	23.33	.88
5.417	1.17	11.417	7.05	17.417	1.32	23.42	.88
5.500	1.17	11.500	7.05	17.500	1.32	23.50	.88
5.583	1.17	11.583	30.53	17.583	1.32	23.58	.88
5.667	1.17	11.667	30.53	17.667	1.32	23.67	.88
5.750	1.17	11.750	30.53	17.750	1.32	23.75	.88
5.833	1.17	11.833	81.02	17.833	1.32	23.83	.88
5.917	1.17	11.917	81.03	17.917	1.32	23.92	.88
6.000	1.17	12.000	81.03	18.000	1.32	24.00	.88

Max.Eff.Inten.(mm/hr)= 81.03 58.47
over (min) 5.00 15.00
Storage Coeff. (min)= 2.31 (ii) 11.06 (ii)
Unit Hyd. Tpeak (min)= 5.00 15.00
Unit Hyd. peak (cms)= .30 .09

PEAK FLOW (cms)= .12 .03 .147 (iii)
TIME TO PEAK (hrs)= 12.00 12.08 12.00
RUNOFF VOLUME (mm)= 72.37 44.26 62.53
TOTAL RAINFALL (mm)= 73.37 73.37 73.37
RUNOFF COEFFICIENT = .99 .60 .85

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	
STANDHYD (0005)	
ID= 1 DT= 5.0 min	

Area (ha)= 1.16
Total Imp(%)= 73.00 Dir. Conn.(%)= 73.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	.85	.31
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	87.90	40.00
Mannings n =	.013	.250

Max.Eff.Inten.(mm/hr)= 81.03 58.47
over (min) 5.00 15.00
Storage Coeff. (min)= 2.57 (ii) 11.32 (ii)
Unit Hyd. Tpeak (min)= 5.00 15.00
Unit Hyd. peak (cms)= .29 .09

PEAK FLOW (cms)= .19 .03 .221 (iii)
TIME TO PEAK (hrs)= 12.00 12.08 12.00
RUNOFF VOLUME (mm)= 72.37 44.26 64.78
TOTAL RAINFALL (mm)= 73.37 73.37 73.37
RUNOFF COEFFICIENT = .99 .60 .88

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	
STANDHYD (0001)	
ID= 1 DT= 5.0 min	

Area (ha)= .45
Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	.45	.00
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	54.80	40.00
Mannings n =	.013	.250

Max.Eff.Inten.(mm/hr)= 81.03 789.37
over (min) 5.00 5.00
Storage Coeff. (min)= 1.94 (ii) 3.16 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= .31 .27

PEAK FLOW (cms)= .10 .00 .101 (iii)
TIME TO PEAK (hrs)= 12.00 12.00 12.00
RUNOFF VOLUME (mm)= 72.37 44.26 72.08
TOTAL RAINFALL (mm)= 73.37 73.37 73.37
RUNOFF COEFFICIENT = .99 .60 .98

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	
STANDHYD (0004)	
ID= 1 DT= 5.0 min	

Area (ha)= .14
Total Imp(%)= 72.00 Dir. Conn.(%)= 72.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	.10	.04
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	30.60	40.00
Mannings n =	.013	.250

Max.Eff.Inten.(mm/hr)= 81.03 58.47
over (min) 5.00 15.00
Storage Coeff. (min)= 1.37 (ii) 10.11 (ii)
Unit Hyd. Tpeak (min)= 5.00 15.00
Unit Hyd. peak (cms)= .33 .10

PEAK FLOW (cms)= .02 .00 .027 (iii)
TIME TO PEAK (hrs)= 12.00 12.08 12.00
RUNOFF VOLUME (mm)= 72.37 44.26 64.45
TOTAL RAINFALL (mm)= 73.37 73.37 73.37
RUNOFF COEFFICIENT = .99 .60 .88

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	
-------	--

| STANDHYD (0003) | Area (ha)= .07
| ID= 1 DT= 5.0 min | Total Imp(%)= 82.00 Dir. Conn.(%)= 82.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= .06 .01
Dep. Storage (mm)= 1.00 1.50
Average Slope (%)= 1.00 2.00
Length (m)= 21.60 40.00
Mannings n = .013 .250

Max.Eff.Inten.(mm/hr)= 81.03 58.47
over (min) 5.00 10.00
Storage Coeff. (min)= 1.11 (ii) 5.29 (ii)
Unit Hyd. Tpeak (min)= 5.00 10.00
Unit Hyd. peak (cms)= .34 .16

PEAK FLOW (cms)= .01 .00 .015 (iii)
TIME TO PEAK (hrs)= 12.00 12.00 12.00
RUNOFF VOLUME (mm)= 72.37 44.26 67.30
TOTAL RAINFALL (mm)= 73.37 73.37 73.37
RUNOFF COEFFICIENT = .99 .60 .92

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| CALIB |
| STANDHYD (0002) | Area (ha)= .22
| ID= 1 DT= 5.0 min | Total Imp(%)= 85.00 Dir. Conn.(%)= 85.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= .19 .03
Dep. Storage (mm)= 1.00 1.50
Average Slope (%)= 1.00 2.00
Length (m)= 38.30 40.00
Mannings n = .013 .250

Max.Eff.Inten.(mm/hr)= 81.03 58.47
over (min) 5.00 10.00
Storage Coeff. (min)= 1.56 (ii) 5.40 (ii)
Unit Hyd. Tpeak (min)= 5.00 10.00
Unit Hyd. peak (cms)= .33 .16

PEAK FLOW (cms)= .04 .00 .047 (iii)
TIME TO PEAK (hrs)= 12.00 12.00 12.00
RUNOFF VOLUME (mm)= 72.37 44.26 68.14
TOTAL RAINFALL (mm)= 73.37 73.37 73.37
RUNOFF COEFFICIENT = .99 .60 .93

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| ADD HYD (0007) |
| 1 + 2 = 3 | AREA QPEAK TPEAK R.V.

(ha) (cms) (hrs) (mm)
ID1= 1 (0003): .07 .015 12.00 67.30
+ ID2= 2 (0002): .22 .047 12.00 68.14
ID = 3 (0007): .29 .062 12.00 67.94

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| ADD HYD (0008) |
| 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 1 (0004): .14 .027 12.00 64.45
+ ID2= 2 (0007): .29 .062 12.00 67.94
ID = 3 (0008): .43 .088 12.00 66.80

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| ADD HYD (0009) |
| 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 1 (0001): .45 .101 12.00 72.08
+ ID2= 2 (0008): .43 .088 12.00 66.80
ID = 3 (0009): .88 .189 12.00 69.50

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| ADD HYD (0010) |
| 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 1 (0005): 1.16 .221 12.00 64.78
+ ID2= 2 (0009): .88 .189 12.00 69.50
ID = 3 (0010): 2.04 .410 12.00 66.81

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| ADD HYD (0011) |
| 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 1 (0006): .81 .147 12.00 62.53
+ ID2= 2 (0010): 2.04 .410 12.00 66.81
ID = 3 (0011): 2.85 .557 12.00 65.60

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

** SIMULATION NUMBER: 3 **

| READ STORM | Filename: C:\Users\Frank Fisl\Desktop\QualityInnV

02\QualityInn\design storms\SCS 24-hr\010yr,24hr SCS.stm								1.500	.94	7.500	1.88	13.500	4.61	19.50	1.54
Comments: 10-yr, 24-hr SCS Type II Distribution St								1.583	.94	7.583	1.88	13.583	3.59	19.58	1.54
-----								1.667	.94	7.667	1.88	13.667	3.59	19.67	1.54
TIME RAIN TIME RAIN TIME RAIN TIME RAIN								1.750	.94	7.750	1.88	13.750	3.59	19.75	1.54
hrs mm/hr	hrs mm/hr	hrs mm/hr	hrs mm/hr	hrs mm/hr	hrs mm/hr	hrs mm/hr	hrs mm/hr	1.833	.94	7.833	1.88	13.833	3.59	19.83	1.54
.25	.94	6.25	1.54	12.25	12.30	18.25	1.54	1.917	.94	7.917	1.88	13.917	3.59	19.92	1.54
.50	.94	6.50	1.54	12.50	12.30	18.50	1.54	2.000	.94	8.000	1.88	14.000	3.59	20.00	1.54
.75	.94	6.75	1.54	12.75	6.32	18.75	1.54	2.083	1.11	8.083	2.22	14.083	2.56	20.08	1.02
1.00	.94	7.00	1.54	13.00	6.32	19.00	1.54	2.167	1.11	8.167	2.22	14.167	2.56	20.17	1.02
1.25	.94	7.25	1.88	13.25	4.61	19.25	1.54	2.250	1.11	8.250	2.22	14.250	2.56	20.25	1.02
1.50	.94	7.50	1.88	13.50	4.61	19.50	1.54	2.333	1.11	8.333	2.22	14.333	2.56	20.33	1.02
1.75	.94	7.75	1.88	13.75	3.59	19.75	1.54	2.417	1.11	8.417	2.22	14.417	2.56	20.42	1.02
2.00	.94	8.00	1.88	14.00	3.59	20.00	1.54	2.500	1.11	8.500	2.22	14.500	2.56	20.50	1.02
2.25	1.11	8.25	2.22	14.25	2.56	20.25	1.02	2.583	1.11	8.583	2.39	14.583	2.56	20.58	1.02
2.50	1.11	8.50	2.22	14.50	2.56	20.50	1.02	2.667	1.11	8.667	2.39	14.667	2.56	20.67	1.02
2.75	1.11	8.75	2.39	14.75	2.56	20.75	1.02	2.750	1.11	8.750	2.39	14.750	2.56	20.75	1.02
3.00	1.11	9.00	2.39	15.00	2.56	21.00	1.02	2.833	1.11	8.833	2.39	14.833	2.56	20.83	1.02
3.25	1.11	9.25	2.73	15.25	2.56	21.25	1.02	2.917	1.11	8.917	2.39	14.917	2.56	20.92	1.02
3.50	1.11	9.50	2.73	15.50	2.56	21.50	1.02	3.000	1.11	9.000	2.39	15.000	2.56	21.00	1.02
3.75	1.11	9.75	3.07	15.75	2.56	21.75	1.02	3.083	1.11	9.083	2.73	15.083	2.56	21.08	1.02
4.00	1.11	10.00	3.07	16.00	2.56	22.00	1.02	3.167	1.11	9.167	2.73	15.167	2.56	21.17	1.02
4.25	1.37	10.25	3.93	16.25	1.54	22.25	1.02	3.250	1.11	9.250	2.73	15.250	2.56	21.25	1.02
4.50	1.37	10.50	3.93	16.50	1.54	22.50	1.02	3.333	1.11	9.333	2.73	15.333	2.56	21.33	1.02
4.75	1.37	10.75	5.29	16.75	1.54	22.75	1.02	3.417	1.11	9.417	2.73	15.417	2.56	21.42	1.02
5.00	1.37	11.00	5.29	17.00	1.54	23.00	1.02	3.500	1.11	9.500	2.73	15.500	2.56	21.50	1.02
5.25	1.37	11.25	8.20	17.25	1.54	23.25	1.02	3.583	1.11	9.583	3.07	15.583	2.56	21.58	1.02
5.50	1.37	11.50	8.20	17.50	1.54	23.50	1.02	3.667	1.11	9.667	3.07	15.667	2.56	21.67	1.02
5.75	1.37	11.75	35.53	17.75	1.54	23.75	1.02	3.750	1.11	9.750	3.07	15.750	2.56	21.75	

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (0005)	Area (ha)= 1.16		
ID= 1 DT= 5.0 min	Total Imp(%)= 73.00	Dir. Conn.(%)= 73.00	
	IMPERVIOUS	PERVIOUS (i)	
Surface Area (ha)=	.85	.31	
Dep. Storage (mm)=	1.00	1.50	
Average Slope (%)=	1.00	2.00	
Length (m)=	87.90	40.00	
Mannings n =	.013	.250	
Max.Eff.Inten.(mm/hr)=	94.28	71.78	
over (min)	5.00	10.00	
Storage Coeff. (min)=	2.42 (ii)	7.27 (ii)	
Unit Hyd. Tpeak (min)=	5.00	10.00	
Unit Hyd. peak (cms)=	.30	.14	
			TOTALS
PEAK FLOW (cms)=	.22	.05	.273 (iii)
TIME TO PEAK (hrs)=	12.00	12.00	12.00
RUNOFF VOLUME (mm)=	84.40	54.68	76.37
TOTAL RAINFALL (mm)=	85.40	85.40	85.40
RUNOFF COEFFICIENT =	.99	.64	.89

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (0001)	Area (ha)= .45		
ID= 1 DT= 5.0 min	Total Imp(%)= 99.00	Dir. Conn.(%)= 99.00	
	IMPERVIOUS	PERVIOUS (i)	
Surface Area (ha)=	.45	.00	
Dep. Storage (mm)=	1.00	1.50	
Average Slope (%)=	1.00	2.00	
Length (m)=	54.80	40.00	
Mannings n =	.013	.250	
Max.Eff.Inten.(mm/hr)=	94.28	969.06	
over (min)	5.00	5.00	
Storage Coeff. (min)=	1.82 (ii)	2.97 (ii)	
Unit Hyd. Tpeak (min)=	5.00	5.00	
Unit Hyd. peak (cms)=	.32	.28	
			TOTALS
PEAK FLOW (cms)=	.12	.00	.118 (iii)
TIME TO PEAK (hrs)=	12.00	12.00	12.00
RUNOFF VOLUME (mm)=	84.40	54.68	84.09
TOTAL RAINFALL (mm)=	85.40	85.40	85.40
RUNOFF COEFFICIENT =	.99	.64	.98

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (0004)	Area (ha)= .14		
ID= 1 DT= 5.0 min	Total Imp(%)= 72.00	Dir. Conn.(%)= 72.00	
	IMPERVIOUS	PERVIOUS (i)	
Surface Area (ha)=	.10	.04	
Dep. Storage (mm)=	1.00	1.50	
Average Slope (%)=	1.00	2.00	
Length (m)=	30.60	40.00	
Mannings n =	.013	.250	
Max.Eff.Inten.(mm/hr)=	94.28	71.78	
over (min)	5.00	10.00	
Storage Coeff. (min)=	1.29 (ii)	6.24 (ii)	
Unit Hyd. Tpeak (min)=	5.00	10.00	
Unit Hyd. peak (cms)=	.33	.15	
			TOTALS
PEAK FLOW (cms)=	.03	.01	.033 (iii)
TIME TO PEAK (hrs)=	12.00	12.00	12.00
RUNOFF VOLUME (mm)=	84.40	54.68	76.05
TOTAL RAINFALL (mm)=	85.40	85.40	85.40
RUNOFF COEFFICIENT =	.99	.64	.89

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (0003)	Area (ha)= .07		
ID= 1 DT= 5.0 min	Total Imp(%)= 82.00	Dir. Conn.(%)= 82.00	
	IMPERVIOUS	PERVIOUS (i)	
Surface Area (ha)=	.06	.01	
Dep. Storage (mm)=	1.00	1.50	
Average Slope (%)=	1.00	2.00	
Length (m)=	21.60	40.00	
Mannings n =	.013	.250	
Max.Eff.Inten.(mm/hr)=	94.28	71.78	
over (min)	5.00	5.00	
Storage Coeff. (min)=	1.04 (ii)	4.98 (ii)	
Unit Hyd. Tpeak (min)=	5.00	5.00	
Unit Hyd. peak (cms)=	.34	.22	
			TOTALS
PEAK FLOW (cms)=	.02	.00	.017 (iii)
TIME TO PEAK (hrs)=	12.00	12.00	12.00
RUNOFF VOLUME (mm)=	84.40	54.68	79.04
TOTAL RAINFALL (mm)=	85.40	85.40	85.40
RUNOFF COEFFICIENT =	.99	.64	.93

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)

- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0002)
ID= 1 DT= 5.0 min
Area (ha)= .22
Total Imp(%)= 85.00 Dir. Conn.(%)= 85.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= .19 .03
Dep. Storage (mm)= 1.00 1.50
Average Slope (%)= 1.00 2.00
Length (m)= 38.30 40.00
Mannings n = .013 .250

Max.Eff.Inten.(mm/hr)= 94.28 71.78
over (min)= 5.00 10.00
Storage Coeff. (min)= 1.47 (ii) 5.08 (ii)
Unit Hyd. Tpeak (min)= 5.00 10.00
Unit Hyd. peak (cms)= .33 .16

PEAK FLOW (cms)= .05 .01 .055 (iii)
TIME TO PEAK (hrs)= 12.00 12.00 12.00
RUNOFF VOLUME (mm)= 84.40 54.68 79.92
TOTAL RAINFALL (mm)= 85.40 85.40 85.40
RUNOFF COEFFICIENT = .99 .64 .94

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0007)
1 + 2 = 3
AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 1 (0003): .07 .017 12.00 79.04
+ ID2= 2 (0002): .22 .055 12.00 79.92
ID = 3 (0007): .29 .072 12.00 79.71

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0008)
1 + 2 = 3
AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 1 (0004): .14 .033 12.00 76.05
+ ID2= 2 (0007): .29 .072 12.00 79.71
ID = 3 (0008): .43 .106 12.00 78.52

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0009)
1 + 2 = 3
AREA QPEAK TPEAK R.V.

(ha) (cms) (hrs) (mm)
ID1= 1 (0001): .45 .118 12.00 84.09
+ ID2= 2 (0008): .43 .106 12.00 78.52
ID = 3 (0009): .88 .223 12.00 81.37

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0010)
1 + 2 = 3
AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 1 (0005): 1.16 .273 12.00 76.37
+ ID2= 2 (0009): .88 .223 12.00 81.37
ID = 3 (0010): 2.04 .496 12.00 78.53

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0011)
1 + 2 = 3
AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 1 (0006): .81 .174 12.00 73.99
+ ID2= 2 (0010): 2.04 .496 12.00 78.53
ID = 3 (0011): 2.85 .670 12.00 77.24

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

** SIMULATION NUMBER: 4 **

READ STORM
Filename: C:\Users\Frank Fisl\Desktop\QualityInnV
02\QualityInn\design storms\SCS 24-hr\
025yr,24hr SCS.stm
Ptotal=100.55 mm
Comments: 25-yr, 24-hr SCS Type II Distribution St

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
.25	1.11	6.25	1.81	12.25	14.47	18.25	1.81
.50	1.11	6.50	1.81	12.50	14.47	18.50	1.81
.75	1.11	6.75	1.81	12.75	7.44	18.75	1.81
1.00	1.11	7.00	1.81	13.00	7.44	19.00	1.81
1.25	1.11	7.25	2.21	13.25	5.43	19.25	1.81
1.50	1.11	7.50	2.21	13.50	5.43	19.50	1.81
1.75	1.11	7.75	2.21	13.75	4.22	19.75	1.81
2.00	1.11	8.00	2.21	14.00	4.22	20.00	1.81
2.25	1.31	8.25	2.61	14.25	3.02	20.25	1.21
2.50	1.31	8.50	2.61	14.50	3.02	20.50	1.21
2.75	1.31	8.75	2.81	14.75	3.02	20.75	1.21
3.00	1.31	9.00	2.81	15.00	3.02	21.00	1.21
3.25	1.31	9.25	3.22	15.25	3.02	21.25	1.21
3.50	1.31	9.50	3.22	15.50	3.02	21.50	1.21
3.75	1.31	9.75	3.62	15.75	3.02	21.75	1.21
4.00	1.31	10.00	3.62	16.00	3.02	22.00	1.21
4.25	1.61	10.25	4.62	16.25	1.81	22.25	1.21
4.50	1.61	10.50	4.62	16.50	1.81	22.50	1.21
4.75	1.61	10.75	6.23	16.75	1.81	22.75	1.21
5.00	1.61	11.00	6.23	17.00	1.81	23.00	1.21

5.25	1.61	11.25	9.65	17.25	1.81	23.25	1.21
5.50	1.61	11.50	9.65	17.50	1.81	23.50	1.21
5.75	1.61	11.75	41.81	17.75	1.81	23.75	1.21
6.00	1.61	12.00	110.95	18.00	1.81	24.00	1.21

CALIB	
STANDHYD (0006)	Area (ha)= .81
ID= 1 DT= 5.0 min	Total Imp(%)= 65.00 Dir. Conn.(%)= 65.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	.53	.28
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	73.50	40.00
Mannings n	= .013	.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
.083	1.11	6.083	1.81	12.083	14.48	18.08	1.81
.167	1.11	6.167	1.81	12.167	14.47	18.17	1.81
.250	1.11	6.250	1.81	12.250	14.47	18.25	1.81
.333	1.11	6.333	1.81	12.333	14.47	18.33	1.81
.417	1.11	6.417	1.81	12.417	14.47	18.42	1.81
.500	1.11	6.500	1.81	12.500	14.47	18.50	1.81
.583	1.11	6.583	1.81	12.583	7.44	18.58	1.81
.667	1.11	6.667	1.81	12.667	7.44	18.67	1.81
.750	1.11	6.750	1.81	12.750	7.44	18.75	1.81
.833	1.11	6.833	1.81	12.833	7.44	18.83	1.81
.917	1.11	6.917	1.81	12.917	7.44	18.92	1.81
1.000	1.11	7.000	1.81	13.000	7.44	19.00	1.81
1.083	1.11	7.083	2.21	13.083	5.43	19.08	1.81
1.167	1.11	7.167	2.21	13.167	5.43	19.17	1.81
1.250	1.11	7.250	2.21	13.250	5.43	19.25	1.81
1.333	1.11	7.333	2.21	13.333	5.43	19.33	1.81
1.417	1.11	7.417	2.21	13.417	5.43	19.42	1.81
1.500	1.11	7.500	2.21	13.500	5.43	19.50	1.81
1.583	1.11	7.583	2.21	13.583	4.22	19.58	1.81
1.667	1.11	7.667	2.21	13.667	4.22	19.67	1.81
1.750	1.11	7.750	2.21	13.750	4.22	19.75	1.81
1.833	1.11	7.833	2.21	13.833	4.22	19.83	1.81
1.917	1.11	7.917	2.21	13.917	4.22	19.92	1.81
2.000	1.11	8.000	2.21	14.000	4.22	20.00	1.81
2.083	1.31	8.083	2.61	14.083	3.02	20.08	1.21
2.167	1.31	8.167	2.61	14.167	3.02	20.17	1.21
2.250	1.31	8.250	2.61	14.250	3.02	20.25	1.21
2.333	1.31	8.333	2.61	14.333	3.02	20.33	1.21
2.417	1.31	8.417	2.61	14.417	3.02	20.42	1.21
2.500	1.31	8.500	2.61	14.500	3.02	20.50	1.21
2.583	1.31	8.583	2.81	14.583	3.02	20.58	1.21
2.667	1.31	8.667	2.81	14.667	3.02	20.67	1.21
2.750	1.31	8.750	2.81	14.750	3.02	20.75	1.21
2.833	1.31	8.833	2.81	14.833	3.02	20.83	1.21
2.917	1.31	8.917	2.81	14.917	3.02	20.92	1.21
3.000	1.31	9.000	2.81	15.000	3.02	21.00	1.21
3.083	1.31	9.083	3.22	15.083	3.02	21.08	1.21
3.167	1.31	9.167	3.22	15.167	3.02	21.17	1.21
3.250	1.31	9.250	3.22	15.250	3.02	21.25	1.21
3.333	1.31	9.333	3.22	15.333	3.02	21.33	1.21
3.417	1.31	9.417	3.22	15.417	3.02	21.42	1.21
3.500	1.31	9.500	3.22	15.500	3.02	21.50	1.21
3.583	1.31	9.583	3.62	15.583	3.02	21.58	1.21

3.667	1.31	9.667	3.62	15.667	3.02	21.67	1.21
3.750	1.31	9.750	3.62	15.750	3.02	21.75	1.21
3.833	1.31	9.833	3.62	15.833	3.02	21.83	1.21
3.917	1.31	9.917	3.62	15.917	3.02	21.92	1.21
4.000	1.31	10.000	3.62	16.000	3.02	22.00	1.21
4.083	1.61	10.083	4.62	16.083	1.81	22.08	1.21
4.167	1.61	10.167	4.62	16.167	1.81	22.17	1.21
4.250	1.61	10.250	4.62	16.250	1.81	22.25	1.21
4.333	1.61	10.333	4.62	16.333	1.81	22.33	1.21
4.417	1.61	10.417	4.62	16.417	1.81	22.42	1.21
4.500	1.61	10.500	4.62	16.500	1.81	22.50	1.21
4.583	1.61	10.583	6.23	16.583	1.81	22.58	1.21
4.667	1.61	10.667	6.23	16.667	1.81	22.67	1.21
4.750	1.61	10.750	6.23	16.750	1.81	22.75	1.21
4.833	1.61	10.833	6.23	16.833	1.81	22.83	1.21
4.917	1.61	10.917	6.23	16.917	1.81	22.92	1.21
5.000	1.61	11.000	6.23	17.000	1.81	23.00	1.21
5.083	1.61	11.083	9.65	17.083	1.81	23.08	1.21
5.167	1.61	11.167	9.65	17.167	1.81	23.17	1.21
5.250	1.61	11.250	9.65	17.250	1.81	23.25	1.21
5.333	1.61	11.333	9.65	17.333	1.81	23.33	1.21
5.417	1.61	11.417	9.65	17.417	1.81	23.42	1.21
5.500	1.61	11.500	9.65	17.500	1.81	23.50	1.21
5.583	1.61	11.583	41.81	17.583	1.81	23.58	1.21
5.667	1.61	11.667	41.81	17.667	1.81	23.67	1.21
5.750	1.61	11.750	41.81	17.750	1.81	23.75	1.21
5.833	1.61	11.833	110.94	17.833	1.81	23.83	1.21
5.917	1.61	11.917	110.95	17.917	1.81	23.92	1.21
6.000	1.61	12.000	110.95	18.000	1.81	24.00	1.21

Max.Eff.Inten.(mm/hr)=	110.95	88.79
over (min)	5.00	10.00
Storage Coeff. (min)=	2.04 (ii)	9.44 (ii)
Unit Hyd. Tpeak (min)=	5.00	10.00
Unit Hyd. peak (cms)=	.31	.12

TOTALS

PEAK FLOW (cms)=	.16	.05	.216 (iii)
TIME TO PEAK (hrs)=	12.00	12.00	12.00
RUNOFF VOLUME (mm)=	99.55	68.19	88.57
TOTAL RAINFALL (mm)=	100.55	100.55	100.55
RUNOFF COEFFICIENT =	.99	.68	.88

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

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	
STANDHYD (0005)	Area (ha)= 1.16
ID= 1 DT= 5.0 min	Total Imp(%)= 73.00 Dir. Conn.(%)= 73.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	.85	.31
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	87.90	40.00
Mannings n	= .013	.250

Max.Eff.Inten.(mm/hr)=	110.95	88.79
over (min)	5.00	10.00
Storage Coeff. (min)=	2.27 (ii)	6.82 (ii)
Unit Hyd. Tpeak (min)=	5.00	10.00
Unit Hyd. peak (cms)=	.30	.14

PEAK FLOW	(cms)=	.26	.07	*TOTALS*
TIME TO PEAK	(hrs)=	12.00	12.00	.326 (iii)
RUNOFF VOLUME	(mm)=	99.55	68.19	91.08
TOTAL RAINFALL	(mm)=	100.55	100.55	100.55
RUNOFF COEFFICIENT	=	.99	.68	.91

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	STANDHYD (0001)	Area (ha)=	.45
ID= 1 DT= 5.0 min		Total Imp(%)=	99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	.45	.00
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	54.80	40.00
Mannings n =	.013	.250
Max.Eff.Inten.(mm/hr)=	110.95	1198.70
over (min)	5.00	5.00
Storage Coeff. (min)=	1.71 (ii)	2.79 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	.32	.28

PEAK FLOW	(cms)=	.14	.00	*TOTALS*
TIME TO PEAK	(hrs)=	12.00	12.00	.138 (iii)
RUNOFF VOLUME	(mm)=	99.55	68.19	99.23
TOTAL RAINFALL	(mm)=	100.55	100.55	100.55
RUNOFF COEFFICIENT	=	.99	.68	.99

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	STANDHYD (0004)	Area (ha)=	.14
ID= 1 DT= 5.0 min		Total Imp(%)=	72.00 Dir. Conn.(%)= 72.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	.10	.04
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	30.60	40.00
Mannings n =	.013	.250
Max.Eff.Inten.(mm/hr)=	110.95	88.79
over (min)	5.00	10.00
Storage Coeff. (min)=	1.20 (ii)	5.84 (ii)
Unit Hyd. Tpeak (min)=	5.00	10.00
Unit Hyd. peak (cms)=	.33	.15

PEAK FLOW	(cms)=	.03	.01	*TOTALS*
				.040 (iii)

TIME TO PEAK	(hrs)=	12.00	12.00	12.00
RUNOFF VOLUME	(mm)=	99.55	68.19	90.73
TOTAL RAINFALL	(mm)=	100.55	100.55	100.55
RUNOFF COEFFICIENT	=	.99	.68	.90

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	STANDHYD (0003)	Area (ha)=	.07
ID= 1 DT= 5.0 min		Total Imp(%)=	82.00 Dir. Conn.(%)= 82.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	.06	.01
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	21.60	40.00
Mannings n =	.013	.250
Max.Eff.Inten.(mm/hr)=	110.95	88.79
over (min)	5.00	5.00
Storage Coeff. (min)=	.98 (ii)	4.67 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	.34	.22

PEAK FLOW	(cms)=	.02	.00	*TOTALS*
TIME TO PEAK	(hrs)=	12.00	12.00	.021 (iii)
RUNOFF VOLUME	(mm)=	99.55	68.19	93.90
TOTAL RAINFALL	(mm)=	100.55	100.55	100.55
RUNOFF COEFFICIENT	=	.99	.68	.93

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	STANDHYD (0002)	Area (ha)=	.22
ID= 1 DT= 5.0 min		Total Imp(%)=	85.00 Dir. Conn.(%)= 85.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	.19	.03
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	38.30	40.00
Mannings n =	.013	.250
Max.Eff.Inten.(mm/hr)=	110.95	88.79
over (min)	5.00	5.00
Storage Coeff. (min)=	1.38 (ii)	4.76 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	.33	.22

PEAK FLOW	(cms)=	.06	.01	*TOTALS*
TIME TO PEAK	(hrs)=	12.00	12.00	.066 (iii)
RUNOFF VOLUME	(mm)=	99.55	68.19	94.84

TOTAL RAINFALL (mm)= 100.55 100.55 100.55
RUNOFF COEFFICIENT = .99 .68 .94

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```
-----  
| ADD HYD (0007) |  
| 1 + 2 = 3 |  
-----  
ID1= 1 (0003): .07 .021 12.00 93.90  
+ ID2= 2 (0002): .22 .066 12.00 94.84  
=====
```

ID = 3 (0007): .29 .086 12.00 94.61

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```
-----  
| ADD HYD (0008) |  
| 1 + 2 = 3 |  
-----  
ID1= 1 (0004): .14 .040 12.00 90.73  
+ ID2= 2 (0007): .29 .086 12.00 94.61  
=====
```

ID = 3 (0008): .43 .126 12.00 93.35

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```
-----  
| ADD HYD (0009) |  
| 1 + 2 = 3 |  
-----  
ID1= 1 (0001): .45 .138 12.00 99.23  
+ ID2= 2 (0008): .43 .126 12.00 93.35  
=====
```

ID = 3 (0009): .88 .264 12.00 96.36

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```
-----  
| ADD HYD (0010) |  
| 1 + 2 = 3 |  
-----  
ID1= 1 (0005): 1.16 .326 12.00 91.08  
+ ID2= 2 (0009): .88 .264 12.00 96.36  
=====
```

ID = 3 (0010): 2.04 .591 12.00 93.36

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```
-----  
| ADD HYD (0011) |  
| 1 + 2 = 3 |  
-----  
AREA QPEAK TPEAK R.V.
```

```
-----  
ID1= 1 (0006): .81 .216 12.00 88.57  
+ ID2= 2 (0010): 2.04 .591 12.00 93.36  
=====
```

ID = 3 (0011): 2.85 .806 12.00 91.99

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```
*****  
** SIMULATION NUMBER: 5 **  
*****
```

```
-----  
| READ STORM |  
| Ptotal=111.70 mm |  
-----  
Filename: C:\Users\Frank Fisl\Desktop\QualityInnV  
02\QualityInn\design storms\SCS 24-hr\  
050yr,24hr SCS.stm  
Comments: 50-yr, 24-hr SCS Type II Distribution St
```

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
.25	1.23	6.25	2.01	12.25	16.08	18.25	2.01
.50	1.23	6.50	2.01	12.50	16.08	18.50	2.01
.75	1.23	6.75	2.01	12.75	8.27	18.75	2.01
1.00	1.23	7.00	2.01	13.00	8.27	19.00	2.01
1.25	1.23	7.25	2.46	13.25	6.03	19.25	2.01
1.50	1.23	7.50	2.46	13.50	6.03	19.50	2.01
1.75	1.23	7.75	2.46	13.75	4.69	19.75	2.01
2.00	1.23	8.00	2.46	14.00	4.69	20.00	2.01
2.25	1.45	8.25	2.90	14.25	3.35	20.25	1.34
2.50	1.45	8.50	2.90	14.50	3.35	20.50	1.34
2.75	1.45	8.75	3.13	14.75	3.35	20.75	1.34
3.00	1.45	9.00	3.13	15.00	3.35	21.00	1.34
3.25	1.45	9.25	3.57	15.25	3.35	21.25	1.34
3.50	1.45	9.50	3.57	15.50	3.35	21.50	1.34
3.75	1.45	9.75	4.02	15.75	3.35	21.75	1.34
4.00	1.45	10.00	4.02	16.00	3.35	22.00	1.34
4.25	1.79	10.25	5.14	16.25	2.01	22.25	1.34
4.50	1.79	10.50	5.14	16.50	2.01	22.50	1.34
4.75	1.79	10.75	6.93	16.75	2.01	22.75	1.34
5.00	1.79	11.00	6.93	17.00	2.01	23.00	1.34
5.25	1.79	11.25	10.72	17.25	2.01	23.25	1.34
5.50	1.79	11.50	10.72	17.50	2.01	23.50	1.34
5.75	1.79	11.75	46.47	17.75	2.01	23.75	1.34
6.00	1.79	12.00	123.32	18.00	2.01	24.00	1.34

```
-----  
| CALIB |  
| STANDHYD (0006) |  
| ID= 1 DT= 5.0 min |  
-----  
Area (ha)= .81  
Total Imp(%)= 65.00 Dir. Conn.(%)= 65.00
```

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	.53	.28
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	73.50	40.00
Mannings n =	.013	.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  
.083 1.23 | 6.083 2.01 | 12.083 16.09 | 18.08 2.01
```

.167	1.23	6.167	2.01	12.167	16.08	18.17	2.01		5.833	1.79	11.833	123.31	17.833	2.01	23.83	1.34
.250	1.23	6.250	2.01	12.250	16.08	18.25	2.01		5.917	1.79	11.917	123.32	17.917	2.01	23.92	1.34
.333	1.23	6.333	2.01	12.333	16.08	18.33	2.01		6.000	1.79	12.000	123.32	18.000	2.01	24.00	1.34
.417	1.23	6.417	2.01	12.417	16.08	18.42	2.01									
.500	1.23	6.500	2.01	12.500	16.08	18.50	2.01	Max.Eff.Inten.(mm/hr)=			123.32		101.52			
.583	1.23	6.583	2.01	12.583	8.27	18.58	2.01	over (min)			5.00		10.00			
.667	1.23	6.667	2.01	12.667	8.27	18.67	2.01	Storage Coeff. (min)=			1.95 (ii)		8.97 (ii)			
.750	1.23	6.750	2.01	12.750	8.27	18.75	2.01	Unit Hyd. Tpeak (min)=			5.00		10.00			
.833	1.23	6.833	2.01	12.833	8.27	18.83	2.01	Unit Hyd. peak (cms)=			.31		.12			
.917	1.23	6.917	2.01	12.917	8.27	18.92	2.01									
1.000	1.23	7.000	2.01	13.000	8.27	19.00	2.01	PEAK FLOW (cms)=			.18		.06		.243 (iii)	
1.083	1.23	7.083	2.46	13.083	6.03	19.08	2.01	TIME TO PEAK (hrs)=			12.00		12.00		12.00	
1.167	1.23	7.167	2.46	13.167	6.03	19.17	2.01	RUNOFF VOLUME (mm)=			110.70		78.33		99.36	
1.250	1.23	7.250	2.46	13.250	6.03	19.25	2.01	TOTAL RAINFALL (mm)=			111.70		111.70		111.70	
1.333	1.23	7.333	2.46	13.333	6.03	19.33	2.01	RUNOFF COEFFICIENT =			.99		.70		.89	
1.417	1.23	7.417	2.46	13.417	6.03	19.42	2.01									
1.500	1.23	7.500	2.46	13.500	6.03	19.50	2.01	***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!								
1.583	1.23	7.583	2.46	13.583	4.69	19.58	2.01									
1.667	1.23	7.667	2.46	13.667	4.69	19.67	2.01	(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:								
1.750	1.23	7.750	2.46	13.750	4.69	19.75	2.01	CN* = 85.0 Ia = Dep. Storage (Above)								
1.833	1.23	7.833	2.46	13.833	4.69	19.83	2.01	(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL								
1.917	1.23	7.917	2.46	13.917	4.69	19.92	2.01	THAN THE STORAGE COEFFICIENT.								
2.000	1.23	8.000	2.46	14.000	4.69	20.00	2.01	(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.								
2.083	1.45	8.083	2.90	14.083	3.35	20.08	1.34									
2.167	1.45	8.167	2.90	14.167	3.35	20.17	1.34									
2.250	1.45	8.250	2.90	14.250	3.35	20.25	1.34									
2.333	1.45	8.333	2.90	14.333	3.35	20.33	1.34									
2.417	1.45	8.417	2.90	14.417	3.35	20.42	1.34	CALIB								
2.500	1.45	8.500	2.90	14.500	3.35	20.50	1.34	STANDHYD (0005)	Area (ha)=	1.16						
2.583	1.45	8.583	3.13	14.583	3.35	20.58	1.34	ID= 1 DT= 5.0 min	Total Imp(%)=	73.00	Dir. Conn.(%)=	73.00				
2.667	1.45	8.667	3.13	14.667	3.35	20.67	1.34									
2.750	1.45	8.750	3.13	14.750	3.35	20.75	1.34		IMPERVIOUS		PERVIOUS (i)					
2.833	1.45	8.833	3.13	14.833	3.35	20.83	1.34	Surface Area (ha)=	.85		.31					
2.917	1.45	8.917	3.13	14.917	3.35	20.92	1.34	Dep. Storage (mm)=	1.00		1.50					
3.000	1.45	9.000	3.13	15.000	3.35	21.00	1.34	Average Slope (%)=	1.00		2.00					
3.083	1.45	9.083	3.57	15.083	3.35	21.08	1.34	Length (m)=	87.90		40.00					
3.167	1.45	9.167	3.57	15.167	3.35	21.17	1.34	Mannings n =	.013		.250					
3.250	1.45	9.250	3.57	15.250	3.35	21.25	1.34									
3.333	1.45	9.333	3.57	15.333	3.35	21.33	1.34	Max.Eff.Inten.(mm/hr)=			123.32		101.52			
3.417	1.45	9.417	3.57	15.417	3.35	21.42	1.34	over (min)			5.00		10.00			
3.500	1.45	9.500	3.57	15.500	3.35	21.50	1.34	Storage Coeff. (min)=			2.17 (ii)		6.53 (ii)			
3.583	1.45	9.583	4.02	15.583	3.35	21.58	1.34	Unit Hyd. Tpeak (min)=			5.00		10.00			
3.667	1.45	9.667	4.02	15.667	3.35	21.67	1.34	Unit Hyd. peak (cms)=			.31		.14			
3.750	1.45	9.750	4.02	15.750	3.35	21.75	1.34									
3.833	1.45	9.833	4.02	15.833	3.35	21.83	1.34									
3.917	1.45	9.917	4.02	15.917	3.35	21.92	1.34	PEAK FLOW (cms)=			.29		.08		.366 (iii)	
4.000	1.45	10.000	4.02	16.000	3.35	22.00	1.34	TIME TO PEAK (hrs)=			12.00		12.00		12.00	
4.083	1.79	10.083	5.14	16.083	2.01	22.08	1.34	RUNOFF VOLUME (mm)=			110.70		78.33		101.96	
4.167	1.79	10.167	5.14	16.167	2.01	22.17	1.34	TOTAL RAINFALL (mm)=			111.70		111.70		111.70	
4.250	1.79	10.250	5.14	16.250	2.01	22.25	1.34	RUNOFF COEFFICIENT =			.99		.70		.91	
4.333	1.79	10.333	5.14	16.333	2.01	22.33	1.34									
4.417	1.79	10.417	5.14	16.417	2.01	22.42	1.34	***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!								
4.500	1.79	10.500	5.14	16.500	2.01	22.50	1.34									
4.583	1.79	10.583	6.93	16.583	2.01	22.58	1.34	(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:								
4.667	1.79	10.667	6.93	16.667	2.01	22.67	1.34	CN* = 85.0 Ia = Dep. Storage (Above)								
4.750	1.79	10.750	6.93	16.750	2.01	22.75	1.34	(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL								
4.833	1.79	10.833	6.93	16.833	2.01	22.83	1.34	THAN THE STORAGE COEFFICIENT.								
4.917	1.79	10.917	6.93	16.917	2.01	22.92	1.34	(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.								
5.000	1.79	11.000	6.93	17.000	2.01	23.00	1.34									
5.083	1.79	11.083	10.72	17.083	2.01	23.08	1.34									
5.167	1.79	11.167	10.72	17.167	2.01	23.17	1.34									
5.250	1.79	11.250	10.72	17.250	2.01	23.25	1.34	CALIB								
5.333	1.79	11.333	10.72	17.333	2.01	23.33	1.34	STANDHYD (0001)	Area (ha)=	.45						
5.417	1.79	11.417	10.72	17.417	2.01	23.42	1.34	ID= 1 DT= 5.0 min	Total Imp(%)=	99.00	Dir. Conn.(%)=	99.00				
5.500	1.79	11.500	10.72	17.500	2.01	23.50	1.34									
5.583	1.79	11.583	46.47	17.583	2.01	23.58	1.34		IMPERVIOUS		PERVIOUS (i)					
5.667	1.79	11.667	46.47	17.667	2.01	23.67	1.34	Surface Area (ha)=	.45		.00					
5.750	1.79	11.750	46.47	17.750	2.01	23.75	1.34	Dep. Storage (mm)=	1.00		1.50					
								Average Slope (%)=	1.00		2.00					
								Length (m)=	54.80		40.00					

Mannings n	=	.013	.250
Max.Eff.Inten.(mm/hr)=	123.32	1370.55	
over (min)	5.00	5.00	
Storage Coeff. (min)=	1.64 (ii)	2.67 (ii)	
Unit Hyd. Tpeak (min)=	5.00	5.00	
Unit Hyd. peak (cms)=	.32	.29	
PEAK FLOW (cms)=	.15	.00	.154 (iii)
TIME TO PEAK (hrs)=	12.00	12.00	12.00
RUNOFF VOLUME (mm)=	110.70	78.34	110.37
TOTAL RAINFALL (mm)=	111.70	111.70	111.70
RUNOFF COEFFICIENT =	.99	.70	.99

TOTALS

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB		
STANDHYD (0004)	Area (ha)= .14	
ID= 1 DT= 5.0 min	Total Imp(%)= 72.00	Dir. Conn.(%)= 72.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	.10	.04
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	30.60	40.00
Mannings n	=	.013 .250
Max.Eff.Inten.(mm/hr)=	123.32	101.52
over (min)	5.00	10.00
Storage Coeff. (min)=	1.15 (ii)	5.60 (ii)
Unit Hyd. Tpeak (min)=	5.00	10.00
Unit Hyd. peak (cms)=	.34	.15

TOTALS
.044 (iii)
12.00
101.62
111.70
.91

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB		
STANDHYD (0003)	Area (ha)= .07	
ID= 1 DT= 5.0 min	Total Imp(%)= 82.00	Dir. Conn.(%)= 82.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	.06	.01
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	21.60	40.00
Mannings n	=	.013 .250

Max.Eff.Inten.(mm/hr)=	123.32	101.52
over (min)	5.00	5.00
Storage Coeff. (min)=	.94 (ii)	4.48 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	.34	.23
PEAK FLOW (cms)=	.02	.00
TIME TO PEAK (hrs)=	12.00	12.00
RUNOFF VOLUME (mm)=	110.70	78.33
TOTAL RAINFALL (mm)=	111.70	111.70
RUNOFF COEFFICIENT =	.99	.70

TOTALS

.023 (iii)
12.00
104.86
111.70
.94

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB		
STANDHYD (0002)	Area (ha)= .22	
ID= 1 DT= 5.0 min	Total Imp(%)= 85.00	Dir. Conn.(%)= 85.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	.19	.03
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	38.30	40.00
Mannings n	=	.013 .250

Max.Eff.Inten.(mm/hr)=	123.32	101.52
over (min)	5.00	5.00
Storage Coeff. (min)=	1.32 (ii)	4.56 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	.33	.23

TOTALS

.073 (iii)
12.00
105.83
111.70
.95

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0007)				
1 + 2 = 3	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0003):	.07	.023	12.00	104.86
+ ID2= 2 (0002):	.22	.073	12.00	105.83
ID = 3 (0007):	.29	.096	12.00	105.60

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0008)				
1 + 2 = 3				
ID1= 1 (0004):	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
+ ID2= 2 (0007):	.14	.044	12.00	101.62
	.29	.096	12.00	105.60
ID = 3 (0008):	.43	.141	12.00	104.30

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0009)				
1 + 2 = 3				
ID1= 1 (0001):	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
+ ID2= 2 (0008):	.45	.154	12.00	110.37
	.43	.141	12.00	104.30
ID = 3 (0009):	.88	.295	12.00	107.41

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0010)				
1 + 2 = 3				
ID1= 1 (0005):	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
+ ID2= 2 (0009):	1.16	.366	12.00	101.96
	.88	.295	12.00	107.41
ID = 3 (0010):	2.04	.660	12.00	104.31

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0011)				
1 + 2 = 3				
ID1= 1 (0006):	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
+ ID2= 2 (0010):	.81	.243	12.00	99.36
	2.04	.660	12.00	104.31
ID = 3 (0011):	2.85	.903	12.00	102.90

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

** SIMULATION NUMBER: 6 **

READ STORM	Filename: C:\Users\Frank Fis\\Desktop\QualityInnV 02\QualityInn\design storms\SCS 24-hr\ 100yr,24hr SCS.stm						
Ptotal=122.88 mm	Comments: 100-yr, 24-hr SCS Type II Distribution S						
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
.25	1.35	6.25	2.21	12.25	17.70	18.25	2.21
.50	1.35	6.50	2.21	12.50	17.70	18.50	2.21
.75	1.35	6.75	2.21	12.75	9.09	18.75	2.21
1.00	1.35	7.00	2.21	13.00	9.09	19.00	2.21

1.25	1.35	7.25	2.70	13.25	6.64	19.25	2.21
1.50	1.35	7.50	2.70	13.50	6.64	19.50	2.21
1.75	1.35	7.75	2.70	13.75	5.16	19.75	2.21
2.00	1.35	8.00	2.70	14.00	5.16	20.00	2.21
2.25	1.60	8.25	3.20	14.25	3.69	20.25	1.47
2.50	1.60	8.50	3.20	14.50	3.69	20.50	1.47
2.75	1.60	8.75	3.44	14.75	3.69	20.75	1.47
3.00	1.60	9.00	3.44	15.00	3.69	21.00	1.47
3.25	1.60	9.25	3.93	15.25	3.69	21.25	1.47
3.50	1.60	9.50	3.93	15.50	3.69	21.50	1.47
3.75	1.60	9.75	4.42	15.75	3.69	21.75	1.47
4.00	1.60	10.00	4.42	16.00	3.69	22.00	1.47
4.25	1.97	10.25	5.65	16.25	2.21	22.25	1.47
4.50	1.97	10.50	5.65	16.50	2.21	22.50	1.47
4.75	1.97	10.75	7.62	16.75	2.21	22.75	1.47
5.00	1.97	11.00	7.62	17.00	2.21	23.00	1.47
5.25	1.97	11.25	11.80	17.25	2.21	23.25	1.47
5.50	1.97	11.50	11.80	17.50	2.21	23.50	1.47
5.75	1.97	11.75	51.13	17.75	2.21	23.75	1.47
6.00	1.97	12.00	135.68	18.00	2.21	24.00	1.47

CALIB			
STANDHYD (0006)	Area (ha)=	.81	
ID= 1 DT= 5.0 min	Total Imp(%)=	65.00	Dir. Conn.(%)= 65.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	.53	.28
Dep. Storage	(mm)=	1.00	1.50
Average Slope	(%)=	1.00	2.00
Length	(m)=	73.50	40.00
Mannings n	=	.013	.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
.083	1.35	6.083	2.21	12.083	17.71	18.08	2.21
.167	1.35	6.167	2.21	12.167	17.70	18.17	2.21
.250	1.35	6.250	2.21	12.250	17.70	18.25	2.21
.333	1.35	6.333	2.21	12.333	17.70	18.33	2.21
.417	1.35	6.417	2.21	12.417	17.70	18.42	2.21
.500	1.35	6.500	2.21	12.500	17.70	18.50	2.21
.583	1.35	6.583	2.21	12.583	9.09	18.58	2.21
.667	1.35	6.667	2.21	12.667	9.09	18.67	2.21
.750	1.35	6.750	2.21	12.750	9.09	18.75	2.21
.833	1.35	6.833	2.21	12.833	9.09	18.83	2.21
.917	1.35	6.917	2.21	12.917	9.09	18.92	2.21
1.000	1.35	7.000	2.21	13.000	9.09	19.00	2.21
1.083	1.35	7.083	2.70	13.083	6.64	19.08	2.21
1.167	1.35	7.167	2.70	13.167	6.64	19.17	2.21
1.250	1.35	7.250	2.70	13.250	6.64	19.25	2.21
1.333	1.35	7.333	2.70	13.333	6.64	19.33	2.21
1.417	1.35	7.417	2.70	13.417	6.64	19.42	2.21
1.500	1.35	7.500	2.70	13.500	6.64	19.50	2.21
1.583	1.35	7.583	2.70	13.583	5.16	19.58	2.21
1.667	1.35	7.667	2.70	13.667	5.16	19.67	2.21
1.750	1.35	7.750	2.70	13.750	5.16	19.75	2.21
1.833	1.35	7.833	2.70	13.833	5.16	19.83	2.21
1.917	1.35	7.917	2.70	13.917	5.16	19.92	2.21
2.000	1.35	8.000	2.70	14.000	5.16	20.00	2.21
2.083	1.60	8.083	3.20	14.083	3.69	20.08	1.47
2.167	1.60	8.167	3.20	14.167	3.69	20.17	1.47
2.250	1.60	8.250	3.20	14.250	3.69	20.25	1.47

2.333	1.60	8.333	3.20	14.333	3.69	20.33	1.47
2.417	1.60	8.417	3.20	14.417	3.69	20.42	1.47
2.500	1.60	8.500	3.20	14.500	3.69	20.50	1.47
2.583	1.60	8.583	3.44	14.583	3.69	20.58	1.47
2.667	1.60	8.667	3.44	14.667	3.69	20.67	1.47
2.750	1.60	8.750	3.44	14.750	3.69	20.75	1.47
2.833	1.60	8.833	3.44	14.833	3.69	20.83	1.47
2.917	1.60	8.917	3.44	14.917	3.69	20.92	1.47
3.000	1.60	9.000	3.44	15.000	3.69	21.00	1.47
3.083	1.60	9.083	3.93	15.083	3.69	21.08	1.47
3.167	1.60	9.167	3.93	15.167	3.69	21.17	1.47
3.250	1.60	9.250	3.93	15.250	3.69	21.25	1.47
3.333	1.60	9.333	3.93	15.333	3.69	21.33	1.47
3.417	1.60	9.417	3.93	15.417	3.69	21.42	1.47
3.500	1.60	9.500	3.93	15.500	3.69	21.50	1.47
3.583	1.60	9.583	4.42	15.583	3.69	21.58	1.47
3.667	1.60	9.667	4.42	15.667	3.69	21.67	1.47
3.750	1.60	9.750	4.42	15.750	3.69	21.75	1.47
3.833	1.60	9.833	4.42	15.833	3.69	21.83	1.47
3.917	1.60	9.917	4.42	15.917	3.69	21.92	1.47
4.000	1.60	10.000	4.42	16.000	3.69	22.00	1.47
4.083	1.97	10.083	5.65	16.083	2.21	22.08	1.47
4.167	1.97	10.167	5.65	16.167	2.21	22.17	1.47
4.250	1.97	10.250	5.65	16.250	2.21	22.25	1.47
4.333	1.97	10.333	5.65	16.333	2.21	22.33	1.47
4.417	1.97	10.417	5.65	16.417	2.21	22.42	1.47
4.500	1.97	10.500	5.65	16.500	2.21	22.50	1.47
4.583	1.97	10.583	7.62	16.583	2.21	22.58	1.47
4.667	1.97	10.667	7.62	16.667	2.21	22.67	1.47
4.750	1.97	10.750	7.62	16.750	2.21	22.75	1.47
4.833	1.97	10.833	7.62	16.833	2.21	22.83	1.47
4.917	1.97	10.917	7.62	16.917	2.21	22.92	1.47
5.000	1.97	11.000	7.62	17.000	2.21	23.00	1.47
5.083	1.97	11.083	11.80	17.083	2.21	23.08	1.47
5.167	1.97	11.167	11.80	17.167	2.21	23.17	1.47
5.250	1.97	11.250	11.80	17.250	2.21	23.25	1.47
5.333	1.97	11.333	11.80	17.333	2.21	23.33	1.47
5.417	1.97	11.417	11.80	17.417	2.21	23.42	1.47
5.500	1.97	11.500	11.80	17.500	2.21	23.50	1.47
5.583	1.97	11.583	51.13	17.583	2.21	23.58	1.47
5.667	1.97	11.667	51.13	17.667	2.21	23.67	1.47
5.750	1.97	11.750	51.13	17.750	2.21	23.75	1.47
5.833	1.97	11.833	135.67	17.833	2.21	23.83	1.47
5.917	1.97	11.917	135.68	17.917	2.21	23.92	1.47
6.000	1.97	12.000	135.68	18.000	2.21	24.00	1.47

Max.Eff.Inten.(mm/hr)=	135.68	114.31
over (min)	5.00	10.00
Storage Coeff. (min)=	1.88 (ii)	6.76 (ii)
Unit Hyd. Tpeak (min)=	5.00	10.00
Unit Hyd. peak (cms)=	.32	.14

PEAK FLOW (cms)=	.20	.08	.275 (iii)
TIME TO PEAK (hrs)=	12.00	12.00	12.00
RUNOFF VOLUME (mm)=	121.88	88.64	110.24
TOTAL RAINFALL (mm)=	122.88	122.88	122.88
RUNOFF COEFFICIENT =	.99	.72	.90

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB		
STANDHYD (0005)	Area (ha)= 1.16	
ID= 1 DT= 5.0 min	Total Imp(%)= 73.00	Dir. Conn.(%)= 73.00

	IMPERVIOUS	PERVIOUS (i)	
Surface Area (ha)=	.85	.31	
Dep. Storage (mm)=	1.00	1.50	
Average Slope (%)=	1.00	2.00	
Length (m)=	87.90	40.00	
Mannings n =	.013	.250	
Max.Eff.Inten.(mm/hr)=	135.68	114.31	
over (min)	5.00	10.00	
Storage Coeff. (min)=	2.09 (ii)	6.29 (ii)	
Unit Hyd. Tpeak (min)=	5.00	10.00	
Unit Hyd. peak (cms)=	.31	.15	
PEAK FLOW (cms)=	.32	.09	.406 (iii)
TIME TO PEAK (hrs)=	12.00	12.00	12.00
RUNOFF VOLUME (mm)=	121.88	88.64	112.90
TOTAL RAINFALL (mm)=	122.88	122.88	122.88
RUNOFF COEFFICIENT =	.99	.72	.92

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB		
STANDHYD (0001)	Area (ha)= .45	
ID= 1 DT= 5.0 min	Total Imp(%)= 99.00	Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)	
Surface Area (ha)=	.45	.00	
Dep. Storage (mm)=	1.00	1.50	
Average Slope (%)=	1.00	2.00	
Length (m)=	54.80	40.00	
Mannings n =	.013	.250	
Max.Eff.Inten.(mm/hr)=	135.68	1543.14	
over (min)	5.00	5.00	
Storage Coeff. (min)=	1.58 (ii)	2.57 (ii)	
Unit Hyd. Tpeak (min)=	5.00	5.00	
Unit Hyd. peak (cms)=	.33	.29	
PEAK FLOW (cms)=	.17	.00	.169 (iii)
TIME TO PEAK (hrs)=	12.00	12.00	12.00
RUNOFF VOLUME (mm)=	121.88	88.64	121.54
TOTAL RAINFALL (mm)=	122.88	122.88	122.88
RUNOFF COEFFICIENT =	.99	.72	.99

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB		
STANDHYD (0004)	Area (ha)= .14	

|ID= 1 DT= 5.0 min | Total Imp(%)= 72.00 Dir. Conn.(%)= 72.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	.10	.04
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	30.60	40.00
Mannings n =	.013	.250
Max.Eff.Inten.(mm/hr)=	135.68	114.31
over (min)	5.00	10.00
Storage Coeff. (min)=	1.11 (ii)	5.39 (ii)
Unit Hyd. Tpeak (min)=	5.00	10.00
Unit Hyd. peak (cms)=	.34	.16
PEAK FLOW (cms)=	.04	.01
TIME TO PEAK (hrs)=	12.00	12.00
RUNOFF VOLUME (mm)=	121.88	88.64
TOTAL RAINFALL (mm)=	122.88	122.88
RUNOFF COEFFICIENT =	.99	.72

TOTALS

PEAK FLOW (cms)=	.04	.01	.049 (iii)
TIME TO PEAK (hrs)=	12.00	12.00	12.00
RUNOFF VOLUME (mm)=	121.88	88.64	112.56
TOTAL RAINFALL (mm)=	122.88	122.88	122.88
RUNOFF COEFFICIENT =	.99	.72	.92

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| CALIB |
| STANDHYD (0003) |
|ID= 1 DT= 5.0 min |

Area (ha)= .07
Total Imp(%)= 82.00 Dir. Conn.(%)= 82.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	.06	.01
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	21.60	40.00
Mannings n =	.013	.250
Max.Eff.Inten.(mm/hr)=	135.68	114.31
over (min)	5.00	5.00
Storage Coeff. (min)=	.90 (ii)	4.31 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	.34	.23
PEAK FLOW (cms)=	.02	.00
TIME TO PEAK (hrs)=	12.00	12.00
RUNOFF VOLUME (mm)=	121.88	88.64
TOTAL RAINFALL (mm)=	122.88	122.88
RUNOFF COEFFICIENT =	.99	.72

TOTALS

PEAK FLOW (cms)=	.02	.00	.026 (iii)
TIME TO PEAK (hrs)=	12.00	12.00	12.00
RUNOFF VOLUME (mm)=	121.88	88.64	115.89
TOTAL RAINFALL (mm)=	122.88	122.88	122.88
RUNOFF COEFFICIENT =	.99	.72	.94

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| CALIB |
| STANDHYD (0002) |
|ID= 1 DT= 5.0 min |

Area (ha)= .22
Total Imp(%)= 85.00 Dir. Conn.(%)= 85.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	.19	.03
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	38.30	40.00
Mannings n =	.013	.250
Max.Eff.Inten.(mm/hr)=	135.68	114.31
over (min)	5.00	5.00
Storage Coeff. (min)=	1.27 (ii)	4.39 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	.33	.23
PEAK FLOW (cms)=	.07	.01
TIME TO PEAK (hrs)=	12.00	12.00
RUNOFF VOLUME (mm)=	121.88	88.64
TOTAL RAINFALL (mm)=	122.88	122.88
RUNOFF COEFFICIENT =	.99	.72

TOTALS

PEAK FLOW (cms)=	.07	.01	.081 (iii)
TIME TO PEAK (hrs)=	12.00	12.00	12.00
RUNOFF VOLUME (mm)=	121.88	88.64	116.88
TOTAL RAINFALL (mm)=	122.88	122.88	122.88
RUNOFF COEFFICIENT =	.99	.72	.95

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| ADD HYD (0007) |
| 1 + 2 = 3 |

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0003):	.07	.026	12.00	115.89
+ ID2= 2 (0002):	.22	.081	12.00	116.88
=====				
ID = 3 (0007):	.29	.106	12.00	116.64

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| ADD HYD (0008) |
| 1 + 2 = 3 |

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0004):	.14	.049	12.00	112.56
+ ID2= 2 (0007):	.29	.106	12.00	116.64
=====				
ID = 3 (0008):	.43	.156	12.00	115.31

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| ADD HYD (0009) |
| 1 + 2 = 3 |

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0001):	.45	.169	12.00	121.54
+ ID2= 2 (0008):	.43	.156	12.00	115.31
=====				
ID = 3 (0009):	.88	.325	12.00	118.50

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```
-----
| ADD HYD   (0010) |
| 1 + 2 = 3   |
-----
          AREA      QPEAK      TPEAK      R.V.
          (ha)      (cms)      (hrs)      (mm)
      ID1= 1 (0005):    1.16    .406    12.00    112.90
+ ID2= 2 (0009):      .88    .325    12.00    118.50
=====
      ID = 3 (0010):    2.04    .730    12.00    115.31
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```
-----
| ADD HYD   (0011) |
| 1 + 2 = 3   |
-----
          AREA      QPEAK      TPEAK      R.V.
          (ha)      (cms)      (hrs)      (mm)
      ID1= 1 (0006):    .81    .275    12.00    110.24
+ ID2= 2 (0010):    2.04    .730    12.00    115.31
=====
      ID = 3 (0011):    2.85    1.006    12.00    113.87
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```
-----
FINISH
=====
=====
```

FUTURE CONDITIONS

12-HOUR SCS TYPE II DISTRIBUTION

2.75 1.34 | 5.75 59.14 | 8.75 1.57 | 11.75 0.90

=====

V V I SSSS U U A L (v 6.2.2022)
V V I SS U U A A L
V V I SS U U A A A A L
V V I SS U U A A L
VV I SSSS UUUU A A LLLLL

000 TTTT TTTT H H Y Y M M 000 TM
0 0 T T H H Y Y MM MM 0 0
0 0 T T H H Y Y M M 0 0
000 T T H H Y Y M M 000

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

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voin.dat
Output filename: C:\Users\ffisl\AppData\Local\Civica\XH5\dae7608f-82b9-4213-85a0-cec48cda5646\fc4eb01-910d-4db6-b420-02261df982d3\scenar
Summary filename: C:\Users\ffisl\AppData\Local\Civica\XH5\dae7608f-82b9-4213-85a0-cec48cda5646\fc4eb01-910d-4db6-b420-02261df982d3\scenar

DATE: 12-02-2025

TIME: 06:28:13

USER:

COMMENTS: _____

** SIMULATION : 002-year **

| READ STORM | Filename: C:\Users\ffisl\AppData
| | ata\Local\Temp\
| | 22e05611-c4fa-4c11-803e-23c2a569b1f7\7102fa87
| Ptotal= 44.81 mm | Comments: 2-yr, 12-hr SCS Type II Distribution Sto

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	'	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.00	1.12	3.00	1.79		6.00	8.06	9.00	1.57
0.25	1.12	3.25	1.79		6.25	8.06	9.25	1.57
0.50	1.12	3.50	1.79		6.50	3.58	9.50	1.57
0.75	1.12	3.75	1.79		6.75	3.58	9.75	1.57
1.00	1.12	4.00	2.69		7.00	2.69	10.00	0.90
1.25	1.12	4.25	2.69		7.25	2.69	10.25	0.90
1.50	1.12	4.50	3.58		7.50	2.69	10.50	0.90
1.75	1.12	4.75	3.58		7.75	2.69	10.75	0.90
2.00	1.34	5.00	5.38		8.00	1.57	11.00	0.90
2.25	1.34	5.25	5.38		8.25	1.57	11.25	0.90
2.50	1.34	5.50	21.50		8.50	1.57	11.50	0.90

| CALIB |
| STANDHYD (0001) |
| ID= 1 DT= 5.0 min |

Area (ha)= 0.45
Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.45	0.00
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	54.94	40.00
Mannings n =	0.013	0.250

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

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	'	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	1.12	3.083	1.79		6.083	8.06	9.08	1.57
0.167	1.12	3.167	1.79		6.167	8.06	9.17	1.57
0.250	1.12	3.250	1.79		6.250	8.06	9.25	1.57
0.333	1.12	3.333	1.79		6.333	8.06	9.33	1.57
0.417	1.12	3.417	1.79		6.417	8.06	9.42	1.57
0.500	1.12	3.500	1.79		6.500	8.06	9.50	1.57
0.583	1.12	3.583	1.79		6.583	3.58	9.58	1.57
0.667	1.12	3.667	1.79		6.667	3.58	9.67	1.57
0.750	1.12	3.750	1.79		6.750	3.58	9.75	1.57
0.833	1.12	3.833	1.79		6.833	3.58	9.83	1.57
0.917	1.12	3.917	1.79		6.917	3.58	9.92	1.57
1.000	1.12	4.000	1.79		7.000	3.58	10.00	1.57
1.083	1.12	4.083	2.69		7.083	2.69	10.08	0.90
1.167	1.12	4.167	2.69		7.167	2.69	10.17	0.90
1.250	1.12	4.250	2.69		7.250	2.69	10.25	0.90
1.333	1.12	4.333	2.69		7.333	2.69	10.33	0.90
1.417	1.12	4.417	2.69		7.417	2.69	10.42	0.90
1.500	1.12	4.500	2.69		7.500	2.69	10.50	0.90
1.583	1.12	4.583	3.58		7.583	2.69	10.58	0.90
1.667	1.12	4.667	3.58		7.667	2.69	10.67	0.90
1.750	1.12	4.750	3.58		7.750	2.69	10.75	0.90
1.833	1.12	4.833	3.58		7.833	2.69	10.83	0.90
1.917	1.12	4.917	3.58		7.917	2.69	10.92	0.90
2.000	1.12	5.000	3.58		8.000	2.69	11.00	0.90
2.083	1.34	5.083	5.38		8.083	1.57	11.08	0.90
2.167	1.34	5.167	5.38		8.167	1.57	11.17	0.90
2.250	1.34	5.250	5.38		8.250	1.57	11.25	0.90
2.333	1.34	5.333	5.38		8.333	1.57	11.33	0.90
2.417	1.34	5.417	5.38		8.417	1.57	11.42	0.90
2.500	1.34	5.500	5.38		8.500	1.57	11.50	0.90
2.583	1.34	5.583	21.50		8.583	1.57	11.58	0.90
2.667	1.34	5.667	21.50		8.667	1.57	11.67	0.90
2.750	1.34	5.750	21.50		8.750	1.57	11.75	0.90
2.833	1.34	5.833	59.14		8.833	1.57	11.83	0.90
2.917	1.34	5.917	59.14		8.917	1.57	11.92	0.90
3.000	1.34	6.000	59.14		9.000	1.57	12.00	0.90

Max.Eff.Inten.(mm/hr)= 59.14 34.59
over (min) 5.00
Storage Coeff. (min)= 2.20 (ii) 3.59 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.30 0.26

TOTALS

PEAK FLOW (cms)= 0.07 0.00 0.074 (iii)
TIME TO PEAK (hrs)= 6.00 6.00
RUNOFF VOLUME (mm)= 43.80 21.28 43.58

TOTAL RAINFALL (mm)= 44.80 44.80 44.80
RUNOFF COEFFICIENT = 0.98 0.47 0.97

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0005) | Area (ha)= 0.95
ID= 1 DT= 5.0 min | Total Imp(%)= 75.00 Dir. Conn.(%)= 75.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.71 0.24
Dep. Storage (mm)= 1.00 1.50
Average Slope (%)= 1.00 2.00
Length (m)= 79.65 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	1.12	3.083	1.79	6.083	8.06	9.08	1.57
0.167	1.12	3.167	1.79	6.167	8.06	9.17	1.57
0.250	1.12	3.250	1.79	6.250	8.06	9.25	1.57
0.333	1.12	3.333	1.79	6.333	8.06	9.33	1.57
0.417	1.12	3.417	1.79	6.417	8.06	9.42	1.57
0.500	1.12	3.500	1.79	6.500	8.06	9.50	1.57
0.583	1.12	3.583	1.79	6.583	3.58	9.58	1.57
0.667	1.12	3.667	1.79	6.667	3.58	9.67	1.57
0.750	1.12	3.750	1.79	6.750	3.58	9.75	1.57
0.833	1.12	3.833	1.79	6.833	3.58	9.83	1.57
0.917	1.12	3.917	1.79	6.917	3.58	9.92	1.57
1.000	1.12	4.000	1.79	7.000	3.58	10.00	1.57
1.083	1.12	4.083	2.69	7.083	2.69	10.08	0.90
1.167	1.12	4.167	2.69	7.167	2.69	10.17	0.90
1.250	1.12	4.250	2.69	7.250	2.69	10.25	0.90
1.333	1.12	4.333	2.69	7.333	2.69	10.33	0.90
1.417	1.12	4.417	2.69	7.417	2.69	10.42	0.90
1.500	1.12	4.500	2.69	7.500	2.69	10.50	0.90
1.583	1.12	4.583	3.58	7.583	2.69	10.58	0.90
1.667	1.12	4.667	3.58	7.667	2.69	10.67	0.90
1.750	1.12	4.750	3.58	7.750	2.69	10.75	0.90
1.833	1.12	4.833	3.58	7.833	2.69	10.83	0.90
1.917	1.12	4.917	3.58	7.917	2.69	10.92	0.90
2.000	1.12	5.000	3.58	8.000	2.69	11.00	0.90
2.083	1.34	5.083	5.38	8.083	1.57	11.08	0.90
2.167	1.34	5.167	5.38	8.167	1.57	11.17	0.90
2.250	1.34	5.250	5.38	8.250	1.57	11.25	0.90
2.333	1.34	5.333	5.38	8.333	1.57	11.33	0.90
2.417	1.34	5.417	5.38	8.417	1.57	11.42	0.90
2.500	1.34	5.500	5.38	8.500	1.57	11.50	0.90
2.583	1.34	5.583	21.50	8.583	1.57	11.58	0.90
2.667	1.34	5.667	21.50	8.667	1.57	11.67	0.90
2.750	1.34	5.750	21.50	8.750	1.57	11.75	0.90
2.833	1.34	5.833	59.14	8.833	1.57	11.83	0.90
2.917	1.34	5.917	59.14	8.917	1.57	11.92	0.90
3.000	1.34	6.000	59.14	9.000	1.57	12.00	0.90

Max.Eff.Inten.(mm/hr)= 59.14 32.57

over (min) 5.00 15.00
Storage Coeff. (min)= 2.75 (ii) 13.80 (ii)
Unit Hyd. Tpeak (min)= 5.00 15.00
Unit Hyd. peak (cms)= 0.28 0.08

TOTALS

PEAK FLOW (cms)= 0.12 0.01 0.129 (iii)
TIME TO PEAK (hrs)= 6.00 6.08 6.00
RUNOFF VOLUME (mm)= 43.80 21.28 38.17
TOTAL RAINFALL (mm)= 44.80 44.80 44.80
RUNOFF COEFFICIENT = 0.98 0.47 0.85

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0006) | Area (ha)= 0.92
ID= 1 DT= 5.0 min | Total Imp(%)= 70.00 Dir. Conn.(%)= 70.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.65 0.28
Dep. Storage (mm)= 1.00 1.50
Average Slope (%)= 1.00 2.00
Length (m)= 78.45 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	1.12	3.083	1.79	6.083	8.06	9.08	1.57
0.167	1.12	3.167	1.79	6.167	8.06	9.17	1.57
0.250	1.12	3.250	1.79	6.250	8.06	9.25	1.57
0.333	1.12	3.333	1.79	6.333	8.06	9.33	1.57
0.417	1.12	3.417	1.79	6.417	8.06	9.42	1.57
0.500	1.12	3.500	1.79	6.500	8.06	9.50	1.57
0.583	1.12	3.583	1.79	6.583	3.58	9.58	1.57
0.667	1.12	3.667	1.79	6.667	3.58	9.67	1.57
0.750	1.12	3.750	1.79	6.750	3.58	9.75	1.57
0.833	1.12	3.833	1.79	6.833	3.58	9.83	1.57
0.917	1.12	3.917	1.79	6.917	3.58	9.92	1.57
1.000	1.12	4.000	1.79	7.000	3.58	10.00	1.57
1.083	1.12	4.083	2.69	7.083	2.69	10.08	0.90
1.167	1.12	4.167	2.69	7.167	2.69	10.17	0.90
1.250	1.12	4.250	2.69	7.250	2.69	10.25	0.90
1.333	1.12	4.333	2.69	7.333	2.69	10.33	0.90
1.417	1.12	4.417	2.69	7.417	2.69	10.42	0.90
1.500	1.12	4.500	2.69	7.500	2.69	10.50	0.90
1.583	1.12	4.583	3.58	7.583	2.69	10.58	0.90
1.667	1.12	4.667	3.58	7.667	2.69	10.67	0.90
1.750	1.12	4.750	3.58	7.750	2.69	10.75	0.90
1.833	1.12	4.833	3.58	7.833	2.69	10.83	0.90
1.917	1.12	4.917	3.58	7.917	2.69	10.92	0.90
2.000	1.12	5.000	3.58	8.000	2.69	11.00	0.90
2.083	1.34	5.083	5.38	8.083	1.57	11.08	0.90
2.167	1.34	5.167	5.38	8.167	1.57	11.17	0.90
2.250	1.34	5.250	5.38	8.250	1.57	11.25	0.90
2.333	1.34	5.333	5.38	8.333	1.57	11.33	0.90
2.417	1.34	5.417	5.38	8.417	1.57	11.42	0.90
2.500	1.34	5.500	5.38	8.500	1.57	11.50	0.90

2.583	1.34	5.583	21.50	8.583	1.57	11.58	0.90
2.667	1.34	5.667	21.50	8.667	1.57	11.67	0.90
2.750	1.34	5.750	21.50	8.750	1.57	11.75	0.90
2.833	1.34	5.833	59.14	8.833	1.57	11.83	0.90
2.917	1.34	5.917	59.14	8.917	1.57	11.92	0.90
3.000	1.34	6.000	59.14	9.000	1.57	12.00	0.90

Max.Eff.Inten.(mm/hr)= 59.14 32.57
over (min) 5.00 15.00
Storage Coeff. (min)= 2.72 (ii) 13.78 (ii)
Unit Hyd. Tpeak (min)= 5.00 15.00
Unit Hyd. peak (cms)= 0.29 0.08

TOTALS
PEAK FLOW (cms)= 0.11 0.02 0.120 (iii)
TIME TO PEAK (hrs)= 6.00 6.08 6.00
RUNOFF VOLUME (mm)= 43.80 21.28 37.04
TOTAL RAINFALL (mm)= 44.80 44.80 44.80
RUNOFF COEFFICIENT = 0.98 0.47 0.83

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	
STANDHYD (0015)	Area (ha)= 0.05
ID= 1 DT= 5.0 min	Total Imp(%)= 44.00 Dir. Conn.(%)= 44.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.02	0.03
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	18.62	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	1.12	3.083	1.79	6.083	8.06	9.08	1.57
0.167	1.12	3.167	1.79	6.167	8.06	9.17	1.57
0.250	1.12	3.250	1.79	6.250	8.06	9.25	1.57
0.333	1.12	3.333	1.79	6.333	8.06	9.33	1.57
0.417	1.12	3.417	1.79	6.417	8.06	9.42	1.57
0.500	1.12	3.500	1.79	6.500	8.06	9.50	1.57
0.583	1.12	3.583	1.79	6.583	3.58	9.58	1.57
0.667	1.12	3.667	1.79	6.667	3.58	9.67	1.57
0.750	1.12	3.750	1.79	6.750	3.58	9.75	1.57
0.833	1.12	3.833	1.79	6.833	3.58	9.83	1.57
0.917	1.12	3.917	1.79	6.917	3.58	9.92	1.57
1.000	1.12	4.000	1.79	7.000	3.58	10.00	1.57
1.083	1.12	4.083	2.69	7.083	2.69	10.08	0.90
1.167	1.12	4.167	2.69	7.167	2.69	10.17	0.90
1.250	1.12	4.250	2.69	7.250	2.69	10.25	0.90
1.333	1.12	4.333	2.69	7.333	2.69	10.33	0.90
1.417	1.12	4.417	2.69	7.417	2.69	10.42	0.90
1.500	1.12	4.500	2.69	7.500	2.69	10.50	0.90
1.583	1.12	4.583	3.58	7.583	2.69	10.58	0.90
1.667	1.12	4.667	3.58	7.667	2.69	10.67	0.90
1.750	1.12	4.750	3.58	7.750	2.69	10.75	0.90
1.833	1.12	4.833	3.58	7.833	2.69	10.83	0.90

1.917	1.12	4.917	3.58	7.917	2.69	10.92	0.90
2.000	1.12	5.000	3.58	8.000	2.69	11.00	0.90
2.083	1.34	5.083	5.38	8.083	1.57	11.08	0.90
2.167	1.34	5.167	5.38	8.167	1.57	11.17	0.90
2.250	1.34	5.250	5.38	8.250	1.57	11.25	0.90
2.333	1.34	5.333	5.38	8.333	1.57	11.33	0.90
2.417	1.34	5.417	5.38	8.417	1.57	11.42	0.90
2.500	1.34	5.500	5.38	8.500	1.57	11.50	0.90
2.583	1.34	5.583	21.50	8.583	1.57	11.58	0.90
2.667	1.34	5.667	21.50	8.667	1.57	11.67	0.90
2.750	1.34	5.750	21.50	8.750	1.57	11.75	0.90
2.833	1.34	5.833	59.14	8.833	1.57	11.83	0.90
2.917	1.34	5.917	59.14	8.917	1.57	11.92	0.90
3.000	1.34	6.000	59.14	9.000	1.57	12.00	0.90

Max.Eff.Inten.(mm/hr)= 59.14 32.57
over (min) 5.00 15.00
Storage Coeff. (min)= 1.15 (ii) 12.20 (ii)
Unit Hyd. Tpeak (min)= 5.00 15.00
Unit Hyd. peak (cms)= 0.34 0.09

TOTALS
PEAK FLOW (cms)= 0.00 0.00 0.005 (iii)
TIME TO PEAK (hrs)= 6.00 6.08 6.00
RUNOFF VOLUME (mm)= 43.80 21.28 31.09
TOTAL RAINFALL (mm)= 44.80 44.80 44.80
RUNOFF COEFFICIENT = 0.98 0.47 0.69

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	
STANDHYD (0018)	Area (ha)= 0.03
ID= 1 DT= 5.0 min	Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.03	0.00
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	13.49	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	1.12	3.083	1.79	6.083	8.06	9.08	1.57
0.167	1.12	3.167	1.79	6.167	8.06	9.17	1.57
0.250	1.12	3.250	1.79	6.250	8.06	9.25	1.57
0.333	1.12	3.333	1.79	6.333	8.06	9.33	1.57
0.417	1.12	3.417	1.79	6.417	8.06	9.42	1.57
0.500	1.12	3.500	1.79	6.500	8.06	9.50	1.57
0.583	1.12	3.583	1.79	6.583	3.58	9.58	1.57
0.667	1.12	3.667	1.79	6.667	3.58	9.67	1.57
0.750	1.12	3.750	1.79	6.750	3.58	9.75	1.57
0.833	1.12	3.833	1.79	6.833	3.58	9.83	1.57
0.917	1.12	3.917	1.79	6.917	3.58	9.92	1.57
1.000	1.12	4.000	1.79	7.000	3.58	10.00	1.57
1.083	1.12	4.083	2.69	7.083	2.69	10.08	0.90
1.167	1.12	4.167	2.69	7.167	2.69	10.17	0.90

1.250	1.12	4.250	2.69	7.250	2.69	10.25	0.90
1.333	1.12	4.333	2.69	7.333	2.69	10.33	0.90
1.417	1.12	4.417	2.69	7.417	2.69	10.42	0.90
1.500	1.12	4.500	2.69	7.500	2.69	10.50	0.90
1.583	1.12	4.583	3.58	7.583	2.69	10.58	0.90
1.667	1.12	4.667	3.58	7.667	2.69	10.67	0.90
1.750	1.12	4.750	3.58	7.750	2.69	10.75	0.90
1.833	1.12	4.833	3.58	7.833	2.69	10.83	0.90
1.917	1.12	4.917	3.58	7.917	2.69	10.92	0.90
2.000	1.12	5.000	3.58	8.000	2.69	11.00	0.90
2.083	1.34	5.083	5.38	8.083	1.57	11.08	0.90
2.167	1.34	5.167	5.38	8.167	1.57	11.17	0.90
2.250	1.34	5.250	5.38	8.250	1.57	11.25	0.90
2.333	1.34	5.333	5.38	8.333	1.57	11.33	0.90
2.417	1.34	5.417	5.38	8.417	1.57	11.42	0.90
2.500	1.34	5.500	5.38	8.500	1.57	11.50	0.90
2.583	1.34	5.583	21.50	8.583	1.57	11.58	0.90
2.667	1.34	5.667	21.50	8.667	1.57	11.67	0.90
2.750	1.34	5.750	21.50	8.750	1.57	11.75	0.90
2.833	1.34	5.833	59.14	8.833	1.57	11.83	0.90
2.917	1.34	5.917	59.14	8.917	1.57	11.92	0.90
3.000	1.34	6.000	59.14	9.000	1.57	12.00	0.90

Max.Eff.Inten.(mm/hr)= 59.14 34.59
over (min) 5.00 5.00
Storage Coeff. (min)= 0.95 (ii) 2.33 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.34 0.30

TOTALS
0.004 (iii)

PEAK FLOW (cms)= 0.00 0.00
TIME TO PEAK (hrs)= 5.92 6.00
RUNOFF VOLUME (mm)= 43.81 21.28 41.78
TOTAL RAINFALL (mm)= 44.80 44.80 44.80
RUNOFF COEFFICIENT = 0.98 0.47 0.93

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0009)				
1 + 2 = 3				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0001):	0.45	0.074	6.00	43.58
+ ID2= 2 (0015):	0.05	0.005	6.00	31.09
=====				
ID = 3 (0009):	0.50	0.079	6.00	42.29

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0009)				
3 + 2 = 1				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (0009):	0.50	0.079	6.00	42.29
+ ID2= 2 (0018):	0.03	0.004	6.00	41.78
=====				
ID = 1 (0009):	0.53	0.084	6.00	42.27

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0009)				
1 + 2 = 3				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0009):	0.53	0.084	6.00	42.27
+ ID2= 2 (0005):	0.95	0.129	6.00	38.17
=====				
ID = 3 (0009):	1.48	0.212	6.00	39.64

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0009)				
3 + 2 = 1				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (0009):	1.48	0.212	6.00	39.64
+ ID2= 2 (0006):	0.92	0.120	6.00	37.04
=====				
ID = 1 (0009):	2.41	0.332	6.00	38.64

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB			
STANDHYD (0002)		Area (ha)= 0.19	
ID= 1 DT= 5.0 min		Total Imp(%)= 98.00	Dir. Conn.(%)= 98.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.19	0.00
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	35.52	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	1.12	3.083	1.79	6.083	8.06	9.08	1.57
0.167	1.12	3.167	1.79	6.167	8.06	9.17	1.57
0.250	1.12	3.250	1.79	6.250	8.06	9.25	1.57
0.333	1.12	3.333	1.79	6.333	8.06	9.33	1.57
0.417	1.12	3.417	1.79	6.417	8.06	9.42	1.57
0.500	1.12	3.500	1.79	6.500	8.06	9.50	1.57
0.583	1.12	3.583	1.79	6.583	3.58	9.58	1.57
0.667	1.12	3.667	1.79	6.667	3.58	9.67	1.57
0.750	1.12	3.750	1.79	6.750	3.58	9.75	1.57
0.833	1.12	3.833	1.79	6.833	3.58	9.83	1.57
0.917	1.12	3.917	1.79	6.917	3.58	9.92	1.57
1.000	1.12	4.000	1.79	7.000	3.58	10.00	1.57
1.083	1.12	4.083	2.69	7.083	2.69	10.08	0.90
1.167	1.12	4.167	2.69	7.167	2.69	10.17	0.90
1.250	1.12	4.250	2.69	7.250	2.69	10.25	0.90
1.333	1.12	4.333	2.69	7.333	2.69	10.33	0.90
1.417	1.12	4.417	2.69	7.417	2.69	10.42	0.90
1.500	1.12	4.500	2.69	7.500	2.69	10.50	0.90
1.583	1.12	4.583	3.58	7.583	2.69	10.58	0.90
1.667	1.12	4.667	3.58	7.667	2.69	10.67	0.90
1.750	1.12	4.750	3.58	7.750	2.69	10.75	0.90
1.833	1.12	4.833	3.58	7.833	2.69	10.83	0.90
1.917	1.12	4.917	3.58	7.917	2.69	10.92	0.90
2.000	1.12	5.000	3.58	8.000	2.69	11.00	0.90
2.083	1.34	5.083	5.38	8.083	1.57	11.08	0.90
2.167	1.34	5.167	5.38	8.167	1.57	11.17	0.90

2.250	1.34	5.250	5.38	8.250	1.57	11.25	0.90
2.333	1.34	5.333	5.38	8.333	1.57	11.33	0.90
2.417	1.34	5.417	5.38	8.417	1.57	11.42	0.90
2.500	1.34	5.500	5.38	8.500	1.57	11.50	0.90
2.583	1.34	5.583	21.50	8.583	1.57	11.58	0.90
2.667	1.34	5.667	21.50	8.667	1.57	11.67	0.90
2.750	1.34	5.750	21.50	8.750	1.57	11.75	0.90
2.833	1.34	5.833	59.14	8.833	1.57	11.83	0.90
2.917	1.34	5.917	59.14	8.917	1.57	11.92	0.90
3.000	1.34	6.000	59.14	9.000	1.57	12.00	0.90

Max.Eff.Inten.(mm/hr)= 59.14 34.59
over (min) 5.00 5.00
Storage Coeff. (min)= 1.69 (ii) 3.53 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.32 0.26

PEAK FLOW (cms)= 0.03 0.00 0.031 (iii)
TIME TO PEAK (hrs)= 6.00 6.00 6.00
RUNOFF VOLUME (mm)= 43.80 21.28 43.35
TOTAL RAINFALL (mm)= 44.80 44.80 44.80
RUNOFF COEFFICIENT = 0.98 0.47 0.97

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (0003)	Area (ha)= 0.05		
ID= 1 DT= 5.0 min	Total Imp(%)= 99.00	Dir. Conn.(%)= 99.00	

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.05	0.00
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	19.11	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	1.12	3.083	1.79	6.083	8.06	9.08	1.57
0.167	1.12	3.167	1.79	6.167	8.06	9.17	1.57
0.250	1.12	3.250	1.79	6.250	8.06	9.25	1.57
0.333	1.12	3.333	1.79	6.333	8.06	9.33	1.57
0.417	1.12	3.417	1.79	6.417	8.06	9.42	1.57
0.500	1.12	3.500	1.79	6.500	8.06	9.50	1.57
0.583	1.12	3.583	1.79	6.583	3.58	9.58	1.57
0.667	1.12	3.667	1.79	6.667	3.58	9.67	1.57
0.750	1.12	3.750	1.79	6.750	3.58	9.75	1.57
0.833	1.12	3.833	1.79	6.833	3.58	9.83	1.57
0.917	1.12	3.917	1.79	6.917	3.58	9.92	1.57
1.000	1.12	4.000	1.79	7.000	3.58	10.00	1.57
1.083	1.12	4.083	2.69	7.083	2.69	10.08	0.90
1.167	1.12	4.167	2.69	7.167	2.69	10.17	0.90
1.250	1.12	4.250	2.69	7.250	2.69	10.25	0.90
1.333	1.12	4.333	2.69	7.333	2.69	10.33	0.90
1.417	1.12	4.417	2.69	7.417	2.69	10.42	0.90
1.500	1.12	4.500	2.69	7.500	2.69	10.50	0.90

1.583	1.12	4.583	3.58	7.583	2.69	10.58	0.90
1.667	1.12	4.667	3.58	7.667	2.69	10.67	0.90
1.750	1.12	4.750	3.58	7.750	2.69	10.75	0.90
1.833	1.12	4.833	3.58	7.833	2.69	10.83	0.90
1.917	1.12	4.917	3.58	7.917	2.69	10.92	0.90
2.000	1.12	5.000	3.58	8.000	2.69	11.00	0.90
2.083	1.34	5.083	5.38	8.083	1.57	11.08	0.90
2.167	1.34	5.167	5.38	8.167	1.57	11.17	0.90
2.250	1.34	5.250	5.38	8.250	1.57	11.25	0.90
2.333	1.34	5.333	5.38	8.333	1.57	11.33	0.90
2.417	1.34	5.417	5.38	8.417	1.57	11.42	0.90
2.500	1.34	5.500	5.38	8.500	1.57	11.50	0.90
2.583	1.34	5.583	21.50	8.583	1.57	11.58	0.90
2.667	1.34	5.667	21.50	8.667	1.57	11.67	0.90
2.750	1.34	5.750	21.50	8.750	1.57	11.75	0.90
2.833	1.34	5.833	59.14	8.833	1.57	11.83	0.90
2.917	1.34	5.917	59.14	8.917	1.57	11.92	0.90
3.000	1.34	6.000	59.14	9.000	1.57	12.00	0.90

Max.Eff.Inten.(mm/hr)= 59.14 34.59
over (min) 5.00 5.00
Storage Coeff. (min)= 1.17 (ii) 2.55 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.34 0.29

PEAK FLOW (cms)= 0.01 0.00 0.009 (iii)
TIME TO PEAK (hrs)= 6.00 6.00 6.00
RUNOFF VOLUME (mm)= 43.80 21.28 43.58
TOTAL RAINFALL (mm)= 44.80 44.80 44.80
RUNOFF COEFFICIENT = 0.98 0.47 0.97

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (0004)	Area (ha)= 0.14		
ID= 1 DT= 5.0 min	Total Imp(%)= 86.00	Dir. Conn.(%)= 86.00	

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.12	0.02
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	30.63	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	1.12	3.083	1.79	6.083	8.06	9.08	1.57
0.167	1.12	3.167	1.79	6.167	8.06	9.17	1.57
0.250	1.12	3.250	1.79	6.250	8.06	9.25	1.57
0.333	1.12	3.333	1.79	6.333	8.06	9.33	1.57
0.417	1.12	3.417	1.79	6.417	8.06	9.42	1.57
0.500	1.12	3.500	1.79	6.500	8.06	9.50	1.57
0.583	1.12	3.583	1.79	6.583	3.58	9.58	1.57
0.667	1.12	3.667	1.79	6.667	3.58	9.67	1.57
0.750	1.12	3.750	1.79	6.750	3.58	9.75	1.57
0.833	1.12	3.833	1.79	6.833	3.58	9.83	1.57

0.917	1.12	3.917	1.79	6.917	3.58	9.92	1.57
1.000	1.12	4.000	1.79	7.000	3.58	10.00	1.57
1.083	1.12	4.083	2.69	7.083	2.69	10.08	0.90
1.167	1.12	4.167	2.69	7.167	2.69	10.17	0.90
1.250	1.12	4.250	2.69	7.250	2.69	10.25	0.90
1.333	1.12	4.333	2.69	7.333	2.69	10.33	0.90
1.417	1.12	4.417	2.69	7.417	2.69	10.42	0.90
1.500	1.12	4.500	2.69	7.500	2.69	10.50	0.90
1.583	1.12	4.583	3.58	7.583	2.69	10.58	0.90
1.667	1.12	4.667	3.58	7.667	2.69	10.67	0.90
1.750	1.12	4.750	3.58	7.750	2.69	10.75	0.90
1.833	1.12	4.833	3.58	7.833	2.69	10.83	0.90
1.917	1.12	4.917	3.58	7.917	2.69	10.92	0.90
2.000	1.12	5.000	3.58	8.000	2.69	11.00	0.90
2.083	1.34	5.083	5.38	8.083	1.57	11.08	0.90
2.167	1.34	5.167	5.38	8.167	1.57	11.17	0.90
2.250	1.34	5.250	5.38	8.250	1.57	11.25	0.90
2.333	1.34	5.333	5.38	8.333	1.57	11.33	0.90
2.417	1.34	5.417	5.38	8.417	1.57	11.42	0.90
2.500	1.34	5.500	5.38	8.500	1.57	11.50	0.90
2.583	1.34	5.583	21.50	8.583	1.57	11.58	0.90
2.667	1.34	5.667	21.50	8.667	1.57	11.67	0.90
2.750	1.34	5.750	21.50	8.750	1.57	11.75	0.90
2.833	1.34	5.833	59.14	8.833	1.57	11.83	0.90
2.917	1.34	5.917	59.14	8.917	1.57	11.92	0.90
3.000	1.34	6.000	59.14	9.000	1.57	12.00	0.90

Max.Eff.Inten.(mm/hr)= 59.14 34.59
over (min) 5.00 10.00
Storage Coeff. (min)= 1.55 (ii) 5.76 (ii)
Unit Hyd. Tpeak (min)= 5.00 10.00
Unit Hyd. peak (cms)= 0.33 0.15

PEAK FLOW (cms)= 0.02 0.00 0.021 (iii)
TIME TO PEAK (hrs)= 6.00 6.00
RUNOFF VOLUME (mm)= 43.80 21.28 40.64
TOTAL RAINFALL (mm)= 44.80 44.80 44.80
RUNOFF COEFFICIENT = 0.98 0.47 0.91

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0012)
ID= 1 DT= 5.0 min

Area (ha)= 0.07
Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00
IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.07 0.00
Dep. Storage (mm)= 1.00 1.50
Average Slope (%)= 1.00 2.00
Length (m)= 21.88 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	1.12	3.083	1.79	6.083	8.06	9.08	1.57
0.167	1.12	3.167	1.79	6.167	8.06	9.17	1.57

0.250	1.12	3.250	1.79	6.250	8.06	9.25	1.57
0.333	1.12	3.333	1.79	6.333	8.06	9.33	1.57
0.417	1.12	3.417	1.79	6.417	8.06	9.42	1.57
0.500	1.12	3.500	1.79	6.500	8.06	9.50	1.57
0.583	1.12	3.583	1.79	6.583	3.58	9.58	1.57
0.667	1.12	3.667	1.79	6.667	3.58	9.67	1.57
0.750	1.12	3.750	1.79	6.750	3.58	9.75	1.57
0.833	1.12	3.833	1.79	6.833	3.58	9.83	1.57
0.917	1.12	3.917	1.79	6.917	3.58	9.92	1.57
1.000	1.12	4.000	1.79	7.000	3.58	10.00	1.57
1.083	1.12	4.083	2.69	7.083	2.69	10.08	0.90
1.167	1.12	4.167	2.69	7.167	2.69	10.17	0.90
1.250	1.12	4.250	2.69	7.250	2.69	10.25	0.90
1.333	1.12	4.333	2.69	7.333	2.69	10.33	0.90
1.417	1.12	4.417	2.69	7.417	2.69	10.42	0.90
1.500	1.12	4.500	2.69	7.500	2.69	10.50	0.90
1.583	1.12	4.583	3.58	7.583	2.69	10.58	0.90
1.667	1.12	4.667	3.58	7.667	2.69	10.67	0.90
1.750	1.12	4.750	3.58	7.750	2.69	10.75	0.90
1.833	1.12	4.833	3.58	7.833	2.69	10.83	0.90
1.917	1.12	4.917	3.58	7.917	2.69	10.92	0.90
2.000	1.12	5.000	3.58	8.000	2.69	11.00	0.90
2.083	1.34	5.083	5.38	8.083	1.57	11.08	0.90
2.167	1.34	5.167	5.38	8.167	1.57	11.17	0.90
2.250	1.34	5.250	5.38	8.250	1.57	11.25	0.90
2.333	1.34	5.333	5.38	8.333	1.57	11.33	0.90
2.417	1.34	5.417	5.38	8.417	1.57	11.42	0.90
2.500	1.34	5.500	5.38	8.500	1.57	11.50	0.90
2.583	1.34	5.583	21.50	8.583	1.57	11.58	0.90
2.667	1.34	5.667	21.50	8.667	1.57	11.67	0.90
2.750	1.34	5.750	21.50	8.750	1.57	11.75	0.90
2.833	1.34	5.833	59.14	8.833	1.57	11.83	0.90
2.917	1.34	5.917	59.14	8.917	1.57	11.92	0.90
3.000	1.34	6.000	59.14	9.000	1.57	12.00	0.90

Max.Eff.Inten.(mm/hr)= 59.14 34.59
over (min) 5.00 5.00
Storage Coeff. (min)= 1.27 (ii) 2.65 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.33 0.29

PEAK FLOW (cms)= 0.01 0.00 0.012 (iii)
TIME TO PEAK (hrs)= 6.00 6.00
RUNOFF VOLUME (mm)= 43.80 21.28 43.58
TOTAL RAINFALL (mm)= 44.80 44.80 44.80
RUNOFF COEFFICIENT = 0.98 0.47 0.97

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0007)
1 + 2 = 3
AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 1 (0012): 0.07 0.012 6.00 43.58
+ ID2= 2 (0002): 0.19 0.031 6.00 43.35
=====

ID = 3 (0007): 0.26 0.043 6.00 43.41

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| ADD HYD (0007)|
3 + 2 = 1

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (0007):	0.26	0.043	6.00	43.41
+ ID2= 2 (0003):	0.05	0.009	6.00	43.58
=====				
ID = 1 (0007):	0.32	0.052	6.00	43.44

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| ADD HYD (0007)|
1 + 2 = 3

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0007):	0.32	0.052	6.00	43.44
+ ID2= 2 (0004):	0.14	0.021	6.00	40.64
=====				
ID = 3 (0007):	0.46	0.073	6.00	42.58

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| RESERVOIR(0014)|
| IN= 2---> OUT= 1 |
DT= 5.0 min

OVERFLOW IS OFF

OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
0.0000	0.0000	0.0880	0.0054
0.0000	0.0008	0.0950	0.0062
0.0360	0.0015	0.1020	0.0070
0.0510	0.0023	0.1080	0.0077
0.0620	0.0031	0.1140	0.0085
0.0720	0.0039	0.1200	0.0093
0.0810	0.0046	0.0000	0.0000

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (0007)	0.456	0.073	6.00	42.58
OUTFLOW: ID= 1 (0014)	0.456	0.060	6.00	40.82

PEAK FLOW REDUCTION [Qout/Qin](%)= 82.28
TIME SHIFT OF PEAK FLOW (min)= 0.00
MAXIMUM STORAGE USED (ha.m.)= 0.0032

| ADD HYD (0017)|
1 + 2 = 3

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0014):	0.46	0.060	6.00	40.82
+ ID2= 2 (0009):	2.41	0.332	6.00	38.64
=====				
ID = 3 (0017):	2.86	0.392	6.00	38.99

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

FINISH

=====

V V I SSSSS U U A L

(v 6.2.2022)

V V I SS U U A A L
V V I SS U U A A A A L
V V I SS U U A A L
VV I SSSSS UUUU A A LLLLL

000 TTTT TTTT H H Y Y M M 000 TM
O O T T H H Y Y MM MM O O
O O T T H H Y M M O O
000 T T H H Y M M 000

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

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\V02\voin.dat
Output filename: C:\Users\ffisl\AppData\Local\Civica\XH5\dae7608f-82b9-4213-85a0-cec48cda5646\6356c7d6-c8cb-4a28-bc32-531954ae05c2\scenar
Summary filename: C:\Users\ffisl\AppData\Local\Civica\XH5\dae7608f-82b9-4213-85a0-cec48cda5646\6356c7d6-c8cb-4a28-bc32-531954ae05c2\scenar

DATE: 12-02-2025

TIME: 06:28:13

USER:

COMMENTS: _____

** SIMULATION : 005-year

| READ STORM |
| |
Ptotal= 59.61 mm

Filename: C:\Users\ffisl\AppData\Local\Temp\22e05611-c4fa-4c11-803e-23c2a569b1f7\d79407f7
Comments: 5-yr, 12-hr SCS Type II Distribution Sto

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.00	1.49	3.00	2.38	6.00	10.73	9.00	2.09
0.25	1.49	3.25	2.38	6.25	10.73	9.25	2.09
0.50	1.49	3.50	2.38	6.50	4.77	9.50	2.09
0.75	1.49	3.75	2.38	6.75	4.77	9.75	2.09
1.00	1.49	4.00	3.58	7.00	3.58	10.00	1.19
1.25	1.49	4.25	3.58	7.25	3.58	10.25	1.19
1.50	1.49	4.50	4.77	7.50	3.58	10.50	1.19
1.75	1.49	4.75	4.77	7.75	3.58	10.75	1.19
2.00	1.79	5.00	7.15	8.00	2.09	11.00	1.19
2.25	1.79	5.25	7.15	8.25	2.09	11.25	1.19
2.50	1.79	5.50	28.61	8.50	2.09	11.50	1.19
2.75	1.79	5.75	78.67	8.75	2.09	11.75	1.19

| CALIB
| STANDHYD (0001)|
ID= 1 DT= 5.0 min

Area (ha)= 0.45
Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.45	0.00
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	54.94	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	1.49	3.083	2.38	6.083	10.73	9.08	2.09
0.167	1.49	3.167	2.38	6.167	10.73	9.17	2.09
0.250	1.49	3.250	2.38	6.250	10.73	9.25	2.09
0.333	1.49	3.333	2.38	6.333	10.73	9.33	2.09
0.417	1.49	3.417	2.38	6.417	10.73	9.42	2.09
0.500	1.49	3.500	2.38	6.500	10.73	9.50	2.09
0.583	1.49	3.583	2.38	6.583	4.77	9.58	2.09
0.667	1.49	3.667	2.38	6.667	4.77	9.67	2.09
0.750	1.49	3.750	2.38	6.750	4.77	9.75	2.09
0.833	1.49	3.833	2.38	6.833	4.77	9.83	2.09
0.917	1.49	3.917	2.38	6.917	4.77	9.92	2.09
1.000	1.49	4.000	2.38	7.000	4.77	10.00	2.09
1.083	1.49	4.083	3.58	7.083	3.58	10.08	1.19
1.167	1.49	4.167	3.58	7.167	3.58	10.17	1.19
1.250	1.49	4.250	3.58	7.250	3.58	10.25	1.19
1.333	1.49	4.333	3.58	7.333	3.58	10.33	1.19
1.417	1.49	4.417	3.58	7.417	3.58	10.42	1.19
1.500	1.49	4.500	3.58	7.500	3.58	10.50	1.19
1.583	1.49	4.583	4.77	7.583	3.58	10.58	1.19
1.667	1.49	4.667	4.77	7.667	3.58	10.67	1.19
1.750	1.49	4.750	4.77	7.750	3.58	10.75	1.19
1.833	1.49	4.833	4.77	7.833	3.58	10.83	1.19
1.917	1.49	4.917	4.77	7.917	3.58	10.92	1.19
2.000	1.49	5.000	4.77	8.000	3.58	11.00	1.19
2.083	1.79	5.083	7.15	8.083	2.09	11.08	1.19
2.167	1.79	5.167	7.15	8.167	2.09	11.17	1.19
2.250	1.79	5.250	7.15	8.250	2.09	11.25	1.19
2.333	1.79	5.333	7.15	8.333	2.09	11.33	1.19
2.417	1.79	5.417	7.15	8.417	2.09	11.42	1.19
2.500	1.79	5.500	7.15	8.500	2.09	11.50	1.19
2.583	1.79	5.583	28.61	8.583	2.09	11.58	1.19
2.667	1.79	5.667	28.61	8.667	2.09	11.67	1.19
2.750	1.79	5.750	28.61	8.750	2.09	11.75	1.19
2.833	1.79	5.833	78.67	8.833	2.09	11.83	1.19
2.917	1.79	5.917	78.67	8.917	2.09	11.92	1.19
3.000	1.79	6.000	78.67	9.000	2.09	12.00	1.19

Max.Eff.Inten.(mm/hr)=	78.67	52.83
over (min)	5.00	5.00
Storage Coeff. (min)=	1.96 (ii)	3.20 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.31	0.27

TOTALS

PEAK FLOW (cms)=	0.10	0.00	0.099 (iii)
TIME TO PEAK (hrs)=	6.00	6.00	6.00
RUNOFF VOLUME (mm)=	58.61	32.81	58.35
TOTAL RAINFALL (mm)=	59.61	59.61	59.61
RUNOFF COEFFICIENT =	0.98	0.55	0.98

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.

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

CALIB	Area (ha)=	0.95
STANDHYD (0005)	Total Imp(%)=	75.00
ID= 1 DT= 5.0 min	Dir. Conn.(%)=	75.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.71	0.24
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	79.65	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	1.49	3.083	2.38	6.083	10.73	9.08	2.09
0.167	1.49	3.167	2.38	6.167	10.73	9.17	2.09
0.250	1.49	3.250	2.38	6.250	10.73	9.25	2.09
0.333	1.49	3.333	2.38	6.333	10.73	9.33	2.09
0.417	1.49	3.417	2.38	6.417	10.73	9.42	2.09
0.500	1.49	3.500	2.38	6.500	10.73	9.50	2.09
0.583	1.49	3.583	2.38	6.583	4.77	9.58	2.09
0.667	1.49	3.667	2.38	6.667	4.77	9.67	2.09
0.750	1.49	3.750	2.38	6.750	4.77	9.75	2.09
0.833	1.49	3.833	2.38	6.833	4.77	9.83	2.09
0.917	1.49	3.917	2.38	6.917	4.77	9.92	2.09
1.000	1.49	4.000	2.38	7.000	4.77	10.00	2.09
1.083	1.49	4.083	3.58	7.083	3.58	10.08	1.19
1.167	1.49	4.167	3.58	7.167	3.58	10.17	1.19
1.250	1.49	4.250	3.58	7.250	3.58	10.25	1.19
1.333	1.49	4.333	3.58	7.333	3.58	10.33	1.19
1.417	1.49	4.417	3.58	7.417	3.58	10.42	1.19
1.500	1.49	4.500	3.58	7.500	3.58	10.50	1.19
1.583	1.49	4.583	4.77	7.583	3.58	10.58	1.19
1.667	1.49	4.667	4.77	7.667	3.58	10.67	1.19
1.750	1.49	4.750	4.77	7.750	3.58	10.75	1.19
1.833	1.49	4.833	4.77	7.833	3.58	10.83	1.19
1.917	1.49	4.917	4.77	7.917	3.58	10.92	1.19
2.000	1.49	5.000	4.77	8.000	3.58	11.00	1.19
2.083	1.79	5.083	7.15	8.083	2.09	11.08	1.19
2.167	1.79	5.167	7.15	8.167	2.09	11.17	1.19
2.250	1.79	5.250	7.15	8.250	2.09	11.25	1.19
2.333	1.79	5.333	7.15	8.333	2.09	11.33	1.19
2.417	1.79	5.417	7.15	8.417	2.09	11.42	1.19
2.500	1.79	5.500	7.15	8.500	2.09	11.50	1.19
2.583	1.79	5.583	28.61	8.583	2.09	11.58	1.19
2.667	1.79	5.667	28.61	8.667	2.09	11.67	1.19
2.750	1.79	5.750	28.61	8.750	2.09	11.75	1.19
2.833	1.79	5.833	78.67	8.833	2.09	11.83	1.19
2.917	1.79	5.917	78.67	8.917	2.09	11.92	1.19
3.000	1.79	6.000	78.67	9.000	2.09	12.00	1.19

Max.Eff.Inten.(mm/hr)=	78.67	52.83
over (min)	5.00	15.00
Storage Coeff. (min)=	2.45 (ii)	11.56 (ii)
Unit Hyd. Tpeak (min)=	5.00	15.00
Unit Hyd. peak (cms)=	0.30	0.09

TOTALS

PEAK FLOW (cms)=	0.16	0.02	0.176 (iii)
TIME TO PEAK (hrs)=	6.00	6.08	6.00
RUNOFF VOLUME (mm)=	58.61	32.81	52.15
TOTAL RAINFALL (mm)=	59.61	59.61	59.61

RUNOFF COEFFICIENT = 0.98 0.55 0.87

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0006)
ID= 1 DT= 5.0 min
Area (ha)= 0.92
Total Imp(%)= 70.00 Dir. Conn.(%)= 70.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.65 0.28
Dep. Storage (mm)= 1.00 1.50
Average Slope (%)= 1.00 2.00
Length (m)= 78.45 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	1.49	3.083	2.38	6.083	10.73	9.08	2.09
0.167	1.49	3.167	2.38	6.167	10.73	9.17	2.09
0.250	1.49	3.250	2.38	6.250	10.73	9.25	2.09
0.333	1.49	3.333	2.38	6.333	10.73	9.33	2.09
0.417	1.49	3.417	2.38	6.417	10.73	9.42	2.09
0.500	1.49	3.500	2.38	6.500	10.73	9.50	2.09
0.583	1.49	3.583	2.38	6.583	4.77	9.58	2.09
0.667	1.49	3.667	2.38	6.667	4.77	9.67	2.09
0.750	1.49	3.750	2.38	6.750	4.77	9.75	2.09
0.833	1.49	3.833	2.38	6.833	4.77	9.83	2.09
0.917	1.49	3.917	2.38	6.917	4.77	9.92	2.09
1.000	1.49	4.000	2.38	7.000	4.77	10.00	2.09
1.083	1.49	4.083	3.58	7.083	3.58	10.08	1.19
1.167	1.49	4.167	3.58	7.167	3.58	10.17	1.19
1.250	1.49	4.250	3.58	7.250	3.58	10.25	1.19
1.333	1.49	4.333	3.58	7.333	3.58	10.33	1.19
1.417	1.49	4.417	3.58	7.417	3.58	10.42	1.19
1.500	1.49	4.500	3.58	7.500	3.58	10.50	1.19
1.583	1.49	4.583	4.77	7.583	3.58	10.58	1.19
1.667	1.49	4.667	4.77	7.667	3.58	10.67	1.19
1.750	1.49	4.750	4.77	7.750	3.58	10.75	1.19
1.833	1.49	4.833	4.77	7.833	3.58	10.83	1.19
1.917	1.49	4.917	4.77	7.917	3.58	10.92	1.19
2.000	1.49	5.000	4.77	8.000	3.58	11.00	1.19
2.083	1.79	5.083	7.15	8.083	2.09	11.08	1.19
2.167	1.79	5.167	7.15	8.167	2.09	11.17	1.19
2.250	1.79	5.250	7.15	8.250	2.09	11.25	1.19
2.333	1.79	5.333	7.15	8.333	2.09	11.33	1.19
2.417	1.79	5.417	7.15	8.417	2.09	11.42	1.19
2.500	1.79	5.500	7.15	8.500	2.09	11.50	1.19
2.583	1.79	5.583	28.61	8.583	2.09	11.58	1.19
2.667	1.79	5.667	28.61	8.667	2.09	11.67	1.19
2.750	1.79	5.750	28.61	8.750	2.09	11.75	1.19
2.833	1.79	5.833	78.67	8.833	2.09	11.83	1.19
2.917	1.79	5.917	78.67	8.917	2.09	11.92	1.19
3.000	1.79	6.000	78.67	9.000	2.09	12.00	1.19

Max.Eff.Inten.(mm/hr)= 78.67 52.83
over (min) 5.00 15.00

Storage Coeff. (min)= 2.43 (ii) 11.54 (ii)
Unit Hyd. Tpeak (min)= 5.00 15.00
Unit Hyd. peak (cms)= 0.30 0.09

PEAK FLOW (cms)= 0.14 0.03 0.164 (iii)
TIME TO PEAK (hrs)= 6.00 6.08 6.00
RUNOFF VOLUME (mm)= 58.61 32.81 50.86
TOTAL RAINFALL (mm)= 59.61 59.61 59.61
RUNOFF COEFFICIENT = 0.98 0.55 0.85

TOTALS

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0015)
ID= 1 DT= 5.0 min
Area (ha)= 0.05
Total Imp(%)= 44.00 Dir. Conn.(%)= 44.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.02 0.03
Dep. Storage (mm)= 1.00 1.50
Average Slope (%)= 1.00 2.00
Length (m)= 18.62 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	1.49	3.083	2.38	6.083	10.73	9.08	2.09
0.167	1.49	3.167	2.38	6.167	10.73	9.17	2.09
0.250	1.49	3.250	2.38	6.250	10.73	9.25	2.09
0.333	1.49	3.333	2.38	6.333	10.73	9.33	2.09
0.417	1.49	3.417	2.38	6.417	10.73	9.42	2.09
0.500	1.49	3.500	2.38	6.500	10.73	9.50	2.09
0.583	1.49	3.583	2.38	6.583	4.77	9.58	2.09
0.667	1.49	3.667	2.38	6.667	4.77	9.67	2.09
0.750	1.49	3.750	2.38	6.750	4.77	9.75	2.09
0.833	1.49	3.833	2.38	6.833	4.77	9.83	2.09
0.917	1.49	3.917	2.38	6.917	4.77	9.92	2.09
1.000	1.49	4.000	2.38	7.000	4.77	10.00	2.09
1.083	1.49	4.083	3.58	7.083	3.58	10.08	1.19
1.167	1.49	4.167	3.58	7.167	3.58	10.17	1.19
1.250	1.49	4.250	3.58	7.250	3.58	10.25	1.19
1.333	1.49	4.333	3.58	7.333	3.58	10.33	1.19
1.417	1.49	4.417	3.58	7.417	3.58	10.42	1.19
1.500	1.49	4.500	3.58	7.500	3.58	10.50	1.19
1.583	1.49	4.583	4.77	7.583	3.58	10.58	1.19
1.667	1.49	4.667	4.77	7.667	3.58	10.67	1.19
1.750	1.49	4.750	4.77	7.750	3.58	10.75	1.19
1.833	1.49	4.833	4.77	7.833	3.58	10.83	1.19
1.917	1.49	4.917	4.77	7.917	3.58	10.92	1.19
2.000	1.49	5.000	4.77	8.000	3.58	11.00	1.19
2.083	1.79	5.083	7.15	8.083	2.09	11.08	1.19
2.167	1.79	5.167	7.15	8.167	2.09	11.17	1.19
2.250	1.79	5.250	7.15	8.250	2.09	11.25	1.19
2.333	1.79	5.333	7.15	8.333	2.09	11.33	1.19
2.417	1.79	5.417	7.15	8.417	2.09	11.42	1.19
2.500	1.79	5.500	7.15	8.500	2.09	11.50	1.19
2.583	1.79	5.583	28.61	8.583	2.09	11.58	1.19

2.667	1.79	5.667	28.61	8.667	2.09	11.67	1.19
2.750	1.79	5.750	28.61	8.750	2.09	11.75	1.19
2.833	1.79	5.833	78.67	8.833	2.09	11.83	1.19
2.917	1.79	5.917	78.67	8.917	2.09	11.92	1.19
3.000	1.79	6.000	78.67	9.000	2.09	12.00	1.19

Max.Eff.Inten.(mm/hr)=	78.67	52.83
over (min)	5.00	15.00
Storage Coeff. (min)=	1.03 (ii)	10.14 (ii)
Unit Hyd. Tpeak (min)=	5.00	15.00
Unit Hyd. peak (cms)=	0.34	0.10

PEAK FLOW (cms)=	0.00	0.00	0.008 (iii)
TIME TO PEAK (hrs)=	6.00	6.08	6.00
RUNOFF VOLUME (mm)=	58.61	32.81	44.04
TOTAL RAINFALL (mm)=	59.61	59.61	59.61
RUNOFF COEFFICIENT =	0.98	0.55	0.74

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha)=	0.03
STANDHYD (0018)	Total Imp(%)=	99.00
ID= 1 DT= 5.0 min	Dir. Conn.(%)=	99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.03	0.00
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	13.49	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	1.49	3.083	2.38	6.083	10.73	9.08	2.09
0.167	1.49	3.167	2.38	6.167	10.73	9.17	2.09
0.250	1.49	3.250	2.38	6.250	10.73	9.25	2.09
0.333	1.49	3.333	2.38	6.333	10.73	9.33	2.09
0.417	1.49	3.417	2.38	6.417	10.73	9.42	2.09
0.500	1.49	3.500	2.38	6.500	10.73	9.50	2.09
0.583	1.49	3.583	2.38	6.583	4.77	9.58	2.09
0.667	1.49	3.667	2.38	6.667	4.77	9.67	2.09
0.750	1.49	3.750	2.38	6.750	4.77	9.75	2.09
0.833	1.49	3.833	2.38	6.833	4.77	9.83	2.09
0.917	1.49	3.917	2.38	6.917	4.77	9.92	2.09
1.000	1.49	4.000	2.38	7.000	4.77	10.00	2.09
1.083	1.49	4.083	3.58	7.083	3.58	10.08	1.19
1.167	1.49	4.167	3.58	7.167	3.58	10.17	1.19
1.250	1.49	4.250	3.58	7.250	3.58	10.25	1.19
1.333	1.49	4.333	3.58	7.333	3.58	10.33	1.19
1.417	1.49	4.417	3.58	7.417	3.58	10.42	1.19
1.500	1.49	4.500	3.58	7.500	3.58	10.50	1.19
1.583	1.49	4.583	4.77	7.583	3.58	10.58	1.19
1.667	1.49	4.667	4.77	7.667	3.58	10.67	1.19
1.750	1.49	4.750	4.77	7.750	3.58	10.75	1.19
1.833	1.49	4.833	4.77	7.833	3.58	10.83	1.19
1.917	1.49	4.917	4.77	7.917	3.58	10.92	1.19

2.000	1.49	5.000	4.77	8.000	3.58	11.00	1.19
2.083	1.79	5.083	7.15	8.083	2.09	11.08	1.19
2.167	1.79	5.167	7.15	8.167	2.09	11.17	1.19
2.250	1.79	5.250	7.15	8.250	2.09	11.25	1.19
2.333	1.79	5.333	7.15	8.333	2.09	11.33	1.19
2.417	1.79	5.417	7.15	8.417	2.09	11.42	1.19
2.500	1.79	5.500	7.15	8.500	2.09	11.50	1.19
2.583	1.79	5.583	28.61	8.583	2.09	11.58	1.19
2.667	1.79	5.667	28.61	8.667	2.09	11.67	1.19
2.750	1.79	5.750	28.61	8.750	2.09	11.75	1.19
2.833	1.79	5.833	78.67	8.833	2.09	11.83	1.19
2.917	1.79	5.917	78.67	8.917	2.09	11.92	1.19
3.000	1.79	6.000	78.67	9.000	2.09	12.00	1.19

Max.Eff.Inten.(mm/hr)=	78.67	52.83
over (min)	5.00	5.00
Storage Coeff. (min)=	0.85 (ii)	2.08 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.34	0.31

PEAK FLOW (cms)=	0.01	0.00	0.006 (iii)
TIME TO PEAK (hrs)=	5.92	6.00	6.00
RUNOFF VOLUME (mm)=	58.61	32.81	55.98
TOTAL RAINFALL (mm)=	59.61	59.61	59.61
RUNOFF COEFFICIENT =	0.98	0.55	0.94

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0009)	AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0001):	0.45	0.099	6.00	58.35
+ ID2= 2 (0015):	0.05	0.008	6.00	44.04
=====				
ID = 3 (0009):	0.50	0.106	6.00	56.88

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0009)	AREA	QPEAK	TPEAK	R.V.
3 + 2 = 1	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (0009):	0.50	0.106	6.00	56.88
+ ID2= 2 (0018):	0.03	0.006	6.00	55.98
=====				
ID = 1 (0009):	0.53	0.112	6.00	56.83

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0009)	AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0009):	0.53	0.112	6.00	56.83
+ ID2= 2 (0005):	0.95	0.176	6.00	52.15
=====				
ID = 3 (0009):	1.48	0.288	6.00	53.83

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0009)
3 + 2 = 1

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (0009):	1.48	0.288	6.00	53.83
+ ID2= 2 (0006):	0.92	0.164	6.00	50.86
=====				
ID = 1 (0009):	2.41	0.452	6.00	52.69

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB
STANDHYD (0002)
ID= 1 DT= 5.0 min

Area (ha)= 0.19
Total Imp(%)= 98.00 Dir. Conn.(%)= 98.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.19	0.00
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	35.52	40.00
Mannings n =	0.013	0.250

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

---- TRANSFORMED HYETOGRAPH ----							
TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	1.49	3.083	2.38	6.083	10.73	9.08	2.09
0.167	1.49	3.167	2.38	6.167	10.73	9.17	2.09
0.250	1.49	3.250	2.38	6.250	10.73	9.25	2.09
0.333	1.49	3.333	2.38	6.333	10.73	9.33	2.09
0.417	1.49	3.417	2.38	6.417	10.73	9.42	2.09
0.500	1.49	3.500	2.38	6.500	10.73	9.50	2.09
0.583	1.49	3.583	2.38	6.583	4.77	9.58	2.09
0.667	1.49	3.667	2.38	6.667	4.77	9.67	2.09
0.750	1.49	3.750	2.38	6.750	4.77	9.75	2.09
0.833	1.49	3.833	2.38	6.833	4.77	9.83	2.09
0.917	1.49	3.917	2.38	6.917	4.77	9.92	2.09
1.000	1.49	4.000	2.38	7.000	4.77	10.00	2.09
1.083	1.49	4.083	3.58	7.083	3.58	10.08	1.19
1.167	1.49	4.167	3.58	7.167	3.58	10.17	1.19
1.250	1.49	4.250	3.58	7.250	3.58	10.25	1.19
1.333	1.49	4.333	3.58	7.333	3.58	10.33	1.19
1.417	1.49	4.417	3.58	7.417	3.58	10.42	1.19
1.500	1.49	4.500	3.58	7.500	3.58	10.50	1.19
1.583	1.49	4.583	4.77	7.583	3.58	10.58	1.19
1.667	1.49	4.667	4.77	7.667	3.58	10.67	1.19
1.750	1.49	4.750	4.77	7.750	3.58	10.75	1.19
1.833	1.49	4.833	4.77	7.833	3.58	10.83	1.19
1.917	1.49	4.917	4.77	7.917	3.58	10.92	1.19
2.000	1.49	5.000	4.77	8.000	3.58	11.00	1.19
2.083	1.79	5.083	7.15	8.083	2.09	11.08	1.19
2.167	1.79	5.167	7.15	8.167	2.09	11.17	1.19
2.250	1.79	5.250	7.15	8.250	2.09	11.25	1.19
2.333	1.79	5.333	7.15	8.333	2.09	11.33	1.19
2.417	1.79	5.417	7.15	8.417	2.09	11.42	1.19
2.500	1.79	5.500	7.15	8.500	2.09	11.50	1.19
2.583	1.79	5.583	28.61	8.583	2.09	11.58	1.19
2.667	1.79	5.667	28.61	8.667	2.09	11.67	1.19
2.750	1.79	5.750	28.61	8.750	2.09	11.75	1.19
2.833	1.79	5.833	78.67	8.833	2.09	11.83	1.19
2.917	1.79	5.917	78.67	8.917	2.09	11.92	1.19

3.000 1.79 | 6.000 78.67 | 9.000 2.09 | 12.00 1.19

Max.Eff.Inten.(mm/hr)= 78.67 52.83
over (min) 5.00 5.00
Storage Coeff. (min)= 1.51 (ii) 3.15 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.33 0.27

TOTALS
PEAK FLOW (cms)= 0.04 0.00 0.041 (iii)
TIME TO PEAK (hrs)= 6.00 6.00 6.00
RUNOFF VOLUME (mm)= 58.61 32.81 58.09
TOTAL RAINFALL (mm)= 59.61 59.61 59.61
RUNOFF COEFFICIENT = 0.98 0.55 0.97

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

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0003)
ID= 1 DT= 5.0 min

Area (ha)= 0.05
Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.05	0.00
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	19.11	40.00
Mannings n =	0.013	0.250

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

---- TRANSFORMED HYETOGRAPH ----							
TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	1.49	3.083	2.38	6.083	10.73	9.08	2.09
0.167	1.49	3.167	2.38	6.167	10.73	9.17	2.09
0.250	1.49	3.250	2.38	6.250	10.73	9.25	2.09
0.333	1.49	3.333	2.38	6.333	10.73	9.33	2.09
0.417	1.49	3.417	2.38	6.417	10.73	9.42	2.09
0.500	1.49	3.500	2.38	6.500	10.73	9.50	2.09
0.583	1.49	3.583	2.38	6.583	4.77	9.58	2.09
0.667	1.49	3.667	2.38	6.667	4.77	9.67	2.09
0.750	1.49	3.750	2.38	6.750	4.77	9.75	2.09
0.833	1.49	3.833	2.38	6.833	4.77	9.83	2.09
0.917	1.49	3.917	2.38	6.917	4.77	9.92	2.09
1.000	1.49	4.000	2.38	7.000	4.77	10.00	2.09
1.083	1.49	4.083	3.58	7.083	3.58	10.08	1.19
1.167	1.49	4.167	3.58	7.167	3.58	10.17	1.19
1.250	1.49	4.250	3.58	7.250	3.58	10.25	1.19
1.333	1.49	4.333	3.58	7.333	3.58	10.33	1.19
1.417	1.49	4.417	3.58	7.417	3.58	10.42	1.19
1.500	1.49	4.500	3.58	7.500	3.58	10.50	1.19
1.583	1.49	4.583	4.77	7.583	3.58	10.58	1.19
1.667	1.49	4.667	4.77	7.667	3.58	10.67	1.19
1.750	1.49	4.750	4.77	7.750	3.58	10.75	1.19
1.833	1.49	4.833	4.77	7.833	3.58	10.83	1.19
1.917	1.49	4.917	4.77	7.917	3.58	10.92	1.19
2.000	1.49	5.000	4.77	8.000	3.58	11.00	1.19
2.083	1.79	5.083	7.15	8.083	2.09	11.08	1.19
2.167	1.79	5.167	7.15	8.167	2.09	11.17	1.19
2.250	1.79	5.250	7.15	8.250	2.09	11.25	1.19

2.333	1.79	5.333	7.15	8.333	2.09	11.33	1.19
2.417	1.79	5.417	7.15	8.417	2.09	11.42	1.19
2.500	1.79	5.500	7.15	8.500	2.09	11.50	1.19
2.583	1.79	5.583	28.61	8.583	2.09	11.58	1.19
2.667	1.79	5.667	28.61	8.667	2.09	11.67	1.19
2.750	1.79	5.750	28.61	8.750	2.09	11.75	1.19
2.833	1.79	5.833	78.67	8.833	2.09	11.83	1.19
2.917	1.79	5.917	78.67	8.917	2.09	11.92	1.19
3.000	1.79	6.000	78.67	9.000	2.09	12.00	1.19

Max.Eff.Inten.(mm/hr)=	78.67	52.83
over (min)	5.00	5.00
Storage Coeff. (min)=	1.04 (ii)	2.28 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.34	0.30

TOTALS			
PEAK FLOW (cms)=	0.01	0.00	0.012 (iii)
TIME TO PEAK (hrs)=	6.00	6.00	6.00
RUNOFF VOLUME (mm)=	58.61	32.81	58.35
TOTAL RAINFALL (mm)=	59.61	59.61	59.61
RUNOFF COEFFICIENT =	0.98	0.55	0.98

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha)=	0.14
STANDHYD (0004)	Total Imp(%)=	86.00
ID= 1 DT= 5.0 min	Dir. Conn.(%)=	86.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.12	0.02
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	30.63	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	1.49	3.083	2.38	6.083	10.73	9.08	2.09
0.167	1.49	3.167	2.38	6.167	10.73	9.17	2.09
0.250	1.49	3.250	2.38	6.250	10.73	9.25	2.09
0.333	1.49	3.333	2.38	6.333	10.73	9.33	2.09
0.417	1.49	3.417	2.38	6.417	10.73	9.42	2.09
0.500	1.49	3.500	2.38	6.500	10.73	9.50	2.09
0.583	1.49	3.583	2.38	6.583	4.77	9.58	2.09
0.667	1.49	3.667	2.38	6.667	4.77	9.67	2.09
0.750	1.49	3.750	2.38	6.750	4.77	9.75	2.09
0.833	1.49	3.833	2.38	6.833	4.77	9.83	2.09
0.917	1.49	3.917	2.38	6.917	4.77	9.92	2.09
1.000	1.49	4.000	2.38	7.000	4.77	10.00	2.09
1.083	1.49	4.083	3.58	7.083	3.58	10.08	1.19
1.167	1.49	4.167	3.58	7.167	3.58	10.17	1.19
1.250	1.49	4.250	3.58	7.250	3.58	10.25	1.19
1.333	1.49	4.333	3.58	7.333	3.58	10.33	1.19
1.417	1.49	4.417	3.58	7.417	3.58	10.42	1.19
1.500	1.49	4.500	3.58	7.500	3.58	10.50	1.19
1.583	1.49	4.583	4.77	7.583	3.58	10.58	1.19

1.667	1.49	4.667	4.77	7.667	3.58	10.67	1.19
1.750	1.49	4.750	4.77	7.750	3.58	10.75	1.19
1.833	1.49	4.833	4.77	7.833	3.58	10.83	1.19
1.917	1.49	4.917	4.77	7.917	3.58	10.92	1.19
2.000	1.49	5.000	4.77	8.000	3.58	11.00	1.19
2.083	1.79	5.083	7.15	8.083	2.09	11.08	1.19
2.167	1.79	5.167	7.15	8.167	2.09	11.17	1.19
2.250	1.79	5.250	7.15	8.250	2.09	11.25	1.19
2.333	1.79	5.333	7.15	8.333	2.09	11.33	1.19
2.417	1.79	5.417	7.15	8.417	2.09	11.42	1.19
2.500	1.79	5.500	7.15	8.500	2.09	11.50	1.19
2.583	1.79	5.583	28.61	8.583	2.09	11.58	1.19
2.667	1.79	5.667	28.61	8.667	2.09	11.67	1.19
2.750	1.79	5.750	28.61	8.750	2.09	11.75	1.19
2.833	1.79	5.833	78.67	8.833	2.09	11.83	1.19
2.917	1.79	5.917	78.67	8.917	2.09	11.92	1.19
3.000	1.79	6.000	78.67	9.000	2.09	12.00	1.19

Max.Eff.Inten.(mm/hr)=	78.67	52.83
over (min)	5.00	10.00
Storage Coeff. (min)=	1.38 (ii)	5.14 (ii)
Unit Hyd. Tpeak (min)=	5.00	10.00
Unit Hyd. peak (cms)=	0.33	0.16

TOTALS			
PEAK FLOW (cms)=	0.03	0.00	0.029 (iii)
TIME TO PEAK (hrs)=	6.00	6.00	6.00
RUNOFF VOLUME (mm)=	58.61	32.81	54.98
TOTAL RAINFALL (mm)=	59.61	59.61	59.61
RUNOFF COEFFICIENT =	0.98	0.55	0.92

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha)=	0.07
STANDHYD (0012)	Total Imp(%)=	99.00
ID= 1 DT= 5.0 min	Dir. Conn.(%)=	99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.07	0.00
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	21.88	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	1.49	3.083	2.38	6.083	10.73	9.08	2.09
0.167	1.49	3.167	2.38	6.167	10.73	9.17	2.09
0.250	1.49	3.250	2.38	6.250	10.73	9.25	2.09
0.333	1.49	3.333	2.38	6.333	10.73	9.33	2.09
0.417	1.49	3.417	2.38	6.417	10.73	9.42	2.09
0.500	1.49	3.500	2.38	6.500	10.73	9.50	2.09
0.583	1.49	3.583	2.38	6.583	4.77	9.58	2.09
0.667	1.49	3.667	2.38	6.667	4.77	9.67	2.09
0.750	1.49	3.750	2.38	6.750	4.77	9.75	2.09
0.833	1.49	3.833	2.38	6.833	4.77	9.83	2.09
0.917	1.49	3.917	2.38	6.917	4.77	9.92	2.09

1.000	1.49	4.000	2.38	7.000	4.77	10.00	2.09
1.083	1.49	4.083	3.58	7.083	3.58	10.08	1.19
1.167	1.49	4.167	3.58	7.167	3.58	10.17	1.19
1.250	1.49	4.250	3.58	7.250	3.58	10.25	1.19
1.333	1.49	4.333	3.58	7.333	3.58	10.33	1.19
1.417	1.49	4.417	3.58	7.417	3.58	10.42	1.19
1.500	1.49	4.500	3.58	7.500	3.58	10.50	1.19
1.583	1.49	4.583	4.77	7.583	3.58	10.58	1.19
1.667	1.49	4.667	4.77	7.667	3.58	10.67	1.19
1.750	1.49	4.750	4.77	7.750	3.58	10.75	1.19
1.833	1.49	4.833	4.77	7.833	3.58	10.83	1.19
1.917	1.49	4.917	4.77	7.917	3.58	10.92	1.19
2.000	1.49	5.000	4.77	8.000	3.58	11.00	1.19
2.083	1.79	5.083	7.15	8.083	2.09	11.08	1.19
2.167	1.79	5.167	7.15	8.167	2.09	11.17	1.19
2.250	1.79	5.250	7.15	8.250	2.09	11.25	1.19
2.333	1.79	5.333	7.15	8.333	2.09	11.33	1.19
2.417	1.79	5.417	7.15	8.417	2.09	11.42	1.19
2.500	1.79	5.500	7.15	8.500	2.09	11.50	1.19
2.583	1.79	5.583	28.61	8.583	2.09	11.58	1.19
2.667	1.79	5.667	28.61	8.667	2.09	11.67	1.19
2.750	1.79	5.750	28.61	8.750	2.09	11.75	1.19
2.833	1.79	5.833	78.67	8.833	2.09	11.83	1.19
2.917	1.79	5.917	78.67	8.917	2.09	11.92	1.19
3.000	1.79	6.000	78.67	9.000	2.09	12.00	1.19

Max.Eff.Inten.(mm/hr)= 78.67 52.83
over (min) 5.00 5.00
Storage Coeff. (min)= 1.13 (ii) 2.37 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.34 0.30

PEAK FLOW (cms)= 0.02 0.00 0.016 (iii)
TIME TO PEAK (hrs)= 6.00 6.00 6.00
RUNOFF VOLUME (mm)= 58.61 32.81 58.35
TOTAL RAINFALL (mm)= 59.61 59.61 59.61
RUNOFF COEFFICIENT = 0.98 0.55 0.98

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0007)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3				
ID1= 1 (0012):	0.07	0.016	6.00	58.35
+ ID2= 2 (0002):	0.19	0.041	6.00	58.09
ID = 3 (0007):	0.26	0.057	6.00	58.16

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0007)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
3 + 2 = 1				
ID1= 3 (0007):	0.26	0.057	6.00	58.16
+ ID2= 2 (0003):	0.05	0.012	6.00	58.35
ID = 1 (0007):	0.32	0.069	6.00	58.19

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0007)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3				
ID1= 1 (0007):	0.32	0.069	6.00	58.19
+ ID2= 2 (0004):	0.14	0.029	6.00	54.98
ID = 3 (0007):	0.46	0.098	6.00	57.20

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR(0014)	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
IN= 2---> OUT= 1				
DT= 5.0 min				
	0.0000	0.0000	0.0880	0.0054
	0.0000	0.0008	0.0950	0.0062
	0.0360	0.0015	0.1020	0.0070
	0.0510	0.0023	0.1080	0.0077
	0.0620	0.0031	0.1140	0.0085
	0.0720	0.0039	0.1200	0.0093
	0.0810	0.0046	0.0000	0.0000

AREA (ha) QPEAK (cms) TPEAK (hrs) R.V. (mm)

INFLOW : ID= 2 (0007) 0.456 0.098 6.00 57.20

OUTFLOW: ID= 1 (0014) 0.456 0.075 6.00 55.45

PEAK FLOW REDUCTION [Qout/Qin](%)= 77.10
TIME SHIFT OF PEAK FLOW (min)= 0.00
MAXIMUM STORAGE USED (ha.m.)= 0.0045

ADD HYD (0017)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3				
ID1= 1 (0014):	0.46	0.075	6.00	55.45
+ ID2= 2 (0009):	2.41	0.452	6.00	52.69
ID = 3 (0017):	2.86	0.528	6.00	53.13

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

V V I SSSSS U U A L (v 6.2.2022)
V V I SS U U A A L
V V I SS U U A A L
V V I SS U U A A L
VV I SSSSS UUUU A A LLLL

000 TTTT TTTT H H Y Y M M 000 TM
0 0 T T H H Y Y MM MM 0 0
0 0 T T H H Y M M 0 0
000 T T H H Y M M 000

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

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\V02\voin.dat
Output filename: C:\Users\ffisl\AppData\Local\Civica\XH5\dae7608f-82b9-4213-85a0-cec48cda5646\9c598e83-31cf-433d-aef4-bf048554203f\scenar
Summary filename: C:\Users\ffisl\AppData\Local\Civica\XH5\dae7608f-82b9-4213-85a0-cec48cda5646\9c598e83-31cf-433d-aef4-bf048554203f\scenar

DATE: 12-02-2025

TIME: 06:28:13

USER:

COMMENTS: _____

** SIMULATION : 010-year **

READ STORM	Filename: C:\Users\ffisl\AppData\Local\Temp\22e05611-c4fa-4c11-803e-23c2a569b1f7\6b247f54
Ptotal= 69.31 mm	Comments: 10-yr, 12-hr SCS Type II Distribution St

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.00	1.73	3.00	2.77	6.00	12.47	9.00	2.43
0.25	1.73	3.25	2.77	6.25	12.47	9.25	2.43
0.50	1.73	3.50	2.77	6.50	5.54	9.50	2.43
0.75	1.73	3.75	2.77	6.75	5.54	9.75	2.43
1.00	1.73	4.00	4.16	7.00	4.16	10.00	1.39
1.25	1.73	4.25	4.16	7.25	4.16	10.25	1.39
1.50	1.73	4.50	5.54	7.50	4.16	10.50	1.39
1.75	1.73	4.75	5.54	7.75	4.16	10.75	1.39
2.00	2.08	5.00	8.32	8.00	2.43	11.00	1.39
2.25	2.08	5.25	8.32	8.25	2.43	11.25	1.39
2.50	2.08	5.50	33.26	8.50	2.43	11.50	1.39
2.75	2.08	5.75	91.48	8.75	2.43	11.75	1.39

0.167	1.73	3.167	2.77	6.167	12.47	9.17	2.43
0.250	1.73	3.250	2.77	6.250	12.47	9.25	2.43
0.333	1.73	3.333	2.77	6.333	12.47	9.33	2.43
0.417	1.73	3.417	2.77	6.417	12.47	9.42	2.43
0.500	1.73	3.500	2.77	6.500	12.47	9.50	2.43
0.583	1.73	3.583	2.77	6.583	5.54	9.58	2.43
0.667	1.73	3.667	2.77	6.667	5.54	9.67	2.43
0.750	1.73	3.750	2.77	6.750	5.54	9.75	2.43
0.833	1.73	3.833	2.77	6.833	5.54	9.83	2.43
0.917	1.73	3.917	2.77	6.917	5.54	9.92	2.43
1.000	1.73	4.000	2.77	7.000	5.54	10.00	2.43
1.083	1.73	4.083	4.16	7.083	4.16	10.08	1.39
1.167	1.73	4.167	4.16	7.167	4.16	10.17	1.39
1.250	1.73	4.250	4.16	7.250	4.16	10.25	1.39
1.333	1.73	4.333	4.16	7.333	4.16	10.33	1.39
1.417	1.73	4.417	4.16	7.417	4.16	10.42	1.39
1.500	1.73	4.500	4.16	7.500	4.16	10.50	1.39
1.583	1.73	4.583	5.54	7.583	4.16	10.58	1.39
1.667	1.73	4.667	5.54	7.667	4.16	10.67	1.39
1.750	1.73	4.750	5.54	7.750	4.16	10.75	1.39
1.833	1.73	4.833	5.54	7.833	4.16	10.83	1.39
1.917	1.73	4.917	5.54	7.917	4.16	10.92	1.39
2.000	1.73	5.000	5.54	8.000	4.16	11.00	1.39
2.083	2.08	5.083	8.32	8.083	2.43	11.08	1.39
2.167	2.08	5.167	8.32	8.167	2.43	11.17	1.39
2.250	2.08	5.250	8.32	8.250	2.43	11.25	1.39
2.333	2.08	5.333	8.32	8.333	2.43	11.33	1.39
2.417	2.08	5.417	8.32	8.417	2.43	11.42	1.39
2.500	2.08	5.500	8.32	8.500	2.43	11.50	1.39
2.583	2.08	5.583	33.26	8.583	2.43	11.58	1.39
2.667	2.08	5.667	33.26	8.667	2.43	11.67	1.39
2.750	2.08	5.750	33.26	8.750	2.43	11.75	1.39
2.833	2.08	5.833	91.48	8.833	2.43	11.83	1.39
2.917	2.08	5.917	91.48	8.917	2.43	11.92	1.39
3.000	2.08	6.000	91.48	9.000	2.43	12.00	1.39

Max.Eff.Inten.(mm/hr)= 91.48 65.34
over (min) 5.00 5.00
Storage Coeff. (min)= 1.85 (ii) 3.01 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.32 0.28

TOTALS
PEAK FLOW (cms)= 0.11 0.00 0.115 (iii)
TIME TO PEAK (hrs)= 6.00 6.00 6.00
RUNOFF VOLUME (mm)= 68.31 40.82 68.03
TOTAL RAINFALL (mm)= 69.31 69.31 69.31
RUNOFF COEFFICIENT = 0.99 0.59 0.98

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha)= 0.45
STANDHYD (0001)	Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00
ID= 1 DT= 5.0 min	

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.45	0.00
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	54.94	40.00
Mannings n =	0.013	0.250

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

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	1.73	3.083	2.77	6.083	12.47	9.08	2.43

CALIB	Area (ha)= 0.95
STANDHYD (0005)	Total Imp(%)= 75.00 Dir. Conn.(%)= 75.00
ID= 1 DT= 5.0 min	

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.71	0.24
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	79.65	40.00
Mannings n =	0.013	0.250

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

|ID= 1 DT= 5.0 min | Total Imp(%)= 70.00 Dir. Conn.(%)= 70.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.65	0.28
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	78.45	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	1.73	3.083	2.77	6.083	12.47	9.08	2.43
0.167	1.73	3.167	2.77	6.167	12.47	9.17	2.43
0.250	1.73	3.250	2.77	6.250	12.47	9.25	2.43
0.333	1.73	3.333	2.77	6.333	12.47	9.33	2.43
0.417	1.73	3.417	2.77	6.417	12.47	9.42	2.43
0.500	1.73	3.500	2.77	6.500	12.47	9.50	2.43
0.583	1.73	3.583	2.77	6.583	5.54	9.58	2.43
0.667	1.73	3.667	2.77	6.667	5.54	9.67	2.43
0.750	1.73	3.750	2.77	6.750	5.54	9.75	2.43
0.833	1.73	3.833	2.77	6.833	5.54	9.83	2.43
0.917	1.73	3.917	2.77	6.917	5.54	9.92	2.43
1.000	1.73	4.000	2.77	7.000	5.54	10.00	2.43
1.083	1.73	4.083	4.16	7.083	4.16	10.08	1.39
1.167	1.73	4.167	4.16	7.167	4.16	10.17	1.39
1.250	1.73	4.250	4.16	7.250	4.16	10.25	1.39
1.333	1.73	4.333	4.16	7.333	4.16	10.33	1.39
1.417	1.73	4.417	4.16	7.417	4.16	10.42	1.39
1.500	1.73	4.500	4.16	7.500	4.16	10.50	1.39
1.583	1.73	4.583	5.54	7.583	4.16	10.58	1.39
1.667	1.73	4.667	5.54	7.667	4.16	10.67	1.39
1.750	1.73	4.750	5.54	7.750	4.16	10.75	1.39
1.833	1.73	4.833	5.54	7.833	4.16	10.83	1.39
1.917	1.73	4.917	5.54	7.917	4.16	10.92	1.39
2.000	1.73	5.000	5.54	8.000	4.16	11.00	1.39
2.083	2.08	5.083	8.32	8.083	2.43	11.08	1.39
2.167	2.08	5.167	8.32	8.167	2.43	11.17	1.39
2.250	2.08	5.250	8.32	8.250	2.43	11.25	1.39
2.333	2.08	5.333	8.32	8.333	2.43	11.33	1.39
2.417	2.08	5.417	8.32	8.417	2.43	11.42	1.39
2.500	2.08	5.500	8.32	8.500	2.43	11.50	1.39
2.583	2.08	5.583	33.26	8.583	2.43	11.58	1.39
2.667	2.08	5.667	33.26	8.667	2.43	11.67	1.39
2.750	2.08	5.750	33.26	8.750	2.43	11.75	1.39
2.833	2.08	5.833	91.48	8.833	2.43	11.83	1.39
2.917	2.08	5.917	91.48	8.917	2.43	11.92	1.39
3.000	2.08	6.000	91.48	9.000	2.43	12.00	1.39

Max.Eff.Inten.(mm/hr)= 91.48 65.34
over (min) 5.00 10.00
Storage Coeff. (min)= 2.31 (ii) 7.02 (ii)
Unit Hyd. Tpeak (min)= 5.00 10.00
Unit Hyd. peak (cms)= 0.30 0.14

TOTALS

PEAK FLOW (cms)= 0.18 0.04 0.217 (iii)
TIME TO PEAK (hrs)= 6.00 6.00 6.00
RUNOFF VOLUME (mm)= 68.31 40.82 61.43
TOTAL RAINFALL (mm)= 69.31 69.31 69.31
RUNOFF COEFFICIENT = 0.99 0.59 0.89

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| CALIB |
| STANDHYD (0006) | Area (ha)= 0.92

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	1.73	3.083	2.77	6.083	12.47	9.08	2.43
0.167	1.73	3.167	2.77	6.167	12.47	9.17	2.43
0.250	1.73	3.250	2.77	6.250	12.47	9.25	2.43
0.333	1.73	3.333	2.77	6.333	12.47	9.33	2.43
0.417	1.73	3.417	2.77	6.417	12.47	9.42	2.43
0.500	1.73	3.500	2.77	6.500	12.47	9.50	2.43
0.583	1.73	3.583	2.77	6.583	5.54	9.58	2.43
0.667	1.73	3.667	2.77	6.667	5.54	9.67	2.43
0.750	1.73	3.750	2.77	6.750	5.54	9.75	2.43
0.833	1.73	3.833	2.77	6.833	5.54	9.83	2.43
0.917	1.73	3.917	2.77	6.917	5.54	9.92	2.43
1.000	1.73	4.000	2.77	7.000	5.54	10.00	2.43
1.083	1.73	4.083	4.16	7.083	4.16	10.08	1.39
1.167	1.73	4.167	4.16	7.167	4.16	10.17	1.39
1.250	1.73	4.250	4.16	7.250	4.16	10.25	1.39
1.333	1.73	4.333	4.16	7.333	4.16	10.33	1.39
1.417	1.73	4.417	4.16	7.417	4.16	10.42	1.39
1.500	1.73	4.500	4.16	7.500	4.16	10.50	1.39
1.583	1.73	4.583	5.54	7.583	4.16	10.58	1.39
1.667	1.73	4.667	5.54	7.667	4.16	10.67	1.39
1.750	1.73	4.750	5.54	7.750	4.16	10.75	1.39
1.833	1.73	4.833	5.54	7.833	4.16	10.83	1.39
1.917	1.73	4.917	5.54	7.917	4.16	10.92	1.39
2.000	1.73	5.000	5.54	8.000	4.16	11.00	1.39
2.083	2.08	5.083	8.32	8.083	2.43	11.08	1.39
2.167	2.08	5.167	8.32	8.167	2.43	11.17	1.39
2.250	2.08	5.250	8.32	8.250	2.43	11.25	1.39
2.333	2.08	5.333	8.32	8.333	2.43	11.33	1.39
2.417	2.08	5.417	8.32	8.417	2.43	11.42	1.39
2.500	2.08	5.500	8.32	8.500	2.43	11.50	1.39
2.583	2.08	5.583	33.26	8.583	2.43	11.58	1.39
2.667	2.08	5.667	33.26	8.667	2.43	11.67	1.39
2.750	2.08	5.750	33.26	8.750	2.43	11.75	1.39
2.833	2.08	5.833	91.48	8.833	2.43	11.83	1.39
2.917	2.08	5.917	91.48	8.917	2.43	11.92	1.39
3.000	2.08	6.000	91.48	9.000	2.43	12.00	1.39

Max.Eff.Inten.(mm/hr)= 91.48 65.34
over (min) 5.00 15.00
Storage Coeff. (min)= 2.29 (ii) 10.66 (ii)
Unit Hyd. Tpeak (min)= 5.00 15.00
Unit Hyd. peak (cms)= 0.30 0.09

TOTALS

PEAK FLOW (cms)= 0.16 0.03 0.194 (iii)
TIME TO PEAK (hrs)= 6.00 6.08 6.00
RUNOFF VOLUME (mm)= 68.31 40.82 60.06
TOTAL RAINFALL (mm)= 69.31 69.31 69.31
RUNOFF COEFFICIENT = 0.99 0.59 0.87

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)

- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RUNOFF VOLUME (mm)= 68.31 40.82 52.81
TOTAL RAINFALL (mm)= 69.31 69.31 69.31
RUNOFF COEFFICIENT = 0.99 0.59 0.76

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0015)
ID= 1 DT= 5.0 min
Area (ha)= 0.05
Total Imp(%)= 44.00 Dir. Conn.(%)= 44.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.02 0.03
Dep. Storage (mm)= 1.00 1.50
Average Slope (%)= 1.00 2.00
Length (m)= 18.62 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	1.73	3.083	2.77	6.083	12.47	9.08	2.43
0.167	1.73	3.167	2.77	6.167	12.47	9.17	2.43
0.250	1.73	3.250	2.77	6.250	12.47	9.25	2.43
0.333	1.73	3.333	2.77	6.333	12.47	9.33	2.43
0.417	1.73	3.417	2.77	6.417	12.47	9.42	2.43
0.500	1.73	3.500	2.77	6.500	12.47	9.50	2.43
0.583	1.73	3.583	2.77	6.583	5.54	9.58	2.43
0.667	1.73	3.667	2.77	6.667	5.54	9.67	2.43
0.750	1.73	3.750	2.77	6.750	5.54	9.75	2.43
0.833	1.73	3.833	2.77	6.833	5.54	9.83	2.43
0.917	1.73	3.917	2.77	6.917	5.54	9.92	2.43
1.000	1.73	4.000	2.77	7.000	5.54	10.00	2.43
1.083	1.73	4.083	4.16	7.083	4.16	10.08	1.39
1.167	1.73	4.167	4.16	7.167	4.16	10.17	1.39
1.250	1.73	4.250	4.16	7.250	4.16	10.25	1.39
1.333	1.73	4.333	4.16	7.333	4.16	10.33	1.39
1.417	1.73	4.417	4.16	7.417	4.16	10.42	1.39
1.500	1.73	4.500	4.16	7.500	4.16	10.50	1.39
1.583	1.73	4.583	5.54	7.583	4.16	10.58	1.39
1.667	1.73	4.667	5.54	7.667	4.16	10.67	1.39
1.750	1.73	4.750	5.54	7.750	4.16	10.75	1.39
1.833	1.73	4.833	5.54	7.833	4.16	10.83	1.39
1.917	1.73	4.917	5.54	7.917	4.16	10.92	1.39
2.000	1.73	5.000	5.54	8.000	4.16	11.00	1.39
2.083	2.08	5.083	8.32	8.083	2.43	11.08	1.39
2.167	2.08	5.167	8.32	8.167	2.43	11.17	1.39
2.250	2.08	5.250	8.32	8.250	2.43	11.25	1.39
2.333	2.08	5.333	8.32	8.333	2.43	11.33	1.39
2.417	2.08	5.417	8.32	8.417	2.43	11.42	1.39
2.500	2.08	5.500	8.32	8.500	2.43	11.50	1.39
2.583	2.08	5.583	33.26	8.583	2.43	11.58	1.39
2.667	2.08	5.667	33.26	8.667	2.43	11.67	1.39
2.750	2.08	5.750	33.26	8.750	2.43	11.75	1.39
2.833	2.08	5.833	91.48	8.833	2.43	11.83	1.39
2.917	2.08	5.917	91.48	8.917	2.43	11.92	1.39
3.000	2.08	6.000	91.48	9.000	2.43	12.00	1.39

Max.Eff.Inten.(mm/hr)= 91.48 65.34
over (min) 5.00 10.00
Storage Coeff. (min)= 0.97 (ii) 9.33 (ii)
Unit Hyd. Tpeak (min)= 5.00 10.00
Unit Hyd. peak (cms)= 0.34 0.12

TOTALS
PEAK FLOW (cms)= 0.01 0.00
TIME TO PEAK (hrs)= 6.00 6.00

CALIB
STANDHYD (0018)
ID= 1 DT= 5.0 min
Area (ha)= 0.03
Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.03 0.00
Dep. Storage (mm)= 1.00 1.50
Average Slope (%)= 1.00 2.00
Length (m)= 13.49 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	1.73	3.083	2.77	6.083	12.47	9.08	2.43
0.167	1.73	3.167	2.77	6.167	12.47	9.17	2.43
0.250	1.73	3.250	2.77	6.250	12.47	9.25	2.43
0.333	1.73	3.333	2.77	6.333	12.47	9.33	2.43
0.417	1.73	3.417	2.77	6.417	12.47	9.42	2.43
0.500	1.73	3.500	2.77	6.500	12.47	9.50	2.43
0.583	1.73	3.583	2.77	6.583	5.54	9.58	2.43
0.667	1.73	3.667	2.77	6.667	5.54	9.67	2.43
0.750	1.73	3.750	2.77	6.750	5.54	9.75	2.43
0.833	1.73	3.833	2.77	6.833	5.54	9.83	2.43
0.917	1.73	3.917	2.77	6.917	5.54	9.92	2.43
1.000	1.73	4.000	2.77	7.000	5.54	10.00	2.43
1.083	1.73	4.083	4.16	7.083	4.16	10.08	1.39
1.167	1.73	4.167	4.16	7.167	4.16	10.17	1.39
1.250	1.73	4.250	4.16	7.250	4.16	10.25	1.39
1.333	1.73	4.333	4.16	7.333	4.16	10.33	1.39
1.417	1.73	4.417	4.16	7.417	4.16	10.42	1.39
1.500	1.73	4.500	4.16	7.500	4.16	10.50	1.39
1.583	1.73	4.583	5.54	7.583	4.16	10.58	1.39
1.667	1.73	4.667	5.54	7.667	4.16	10.67	1.39
1.750	1.73	4.750	5.54	7.750	4.16	10.75	1.39
1.833	1.73	4.833	5.54	7.833	4.16	10.83	1.39
1.917	1.73	4.917	5.54	7.917	4.16	10.92	1.39
2.000	1.73	5.000	5.54	8.000	4.16	11.00	1.39
2.083	2.08	5.083	8.32	8.083	2.43	11.08	1.39
2.167	2.08	5.167	8.32	8.167	2.43	11.17	1.39
2.250	2.08	5.250	8.32	8.250	2.43	11.25	1.39
2.333	2.08	5.333	8.32	8.333	2.43	11.33	1.39
2.417	2.08	5.417	8.32	8.417	2.43	11.42	1.39
2.500	2.08	5.500	8.32	8.500	2.43	11.50	1.39
2.583	2.08	5.583	33.26	8.583	2.43	11.58	1.39
2.667	2.08	5.667	33.26	8.667	2.43	11.67	1.39
2.750	2.08	5.750	33.26	8.750	2.43	11.75	1.39
2.833	2.08	5.833	91.48	8.833	2.43	11.83	1.39
2.917	2.08	5.917	91.48	8.917	2.43	11.92	1.39
3.000	2.08	6.000	91.48	9.000	2.43	12.00	1.39

Max.Eff.Inten.(mm/hr)= 91.48 65.34
over (min) 5.00 5.00
Storage Coeff. (min)= 0.80 (ii) 1.96 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.34 0.31

TOTALS

PEAK FLOW (cms)= 0.01 0.00 0.007 (iii)
TIME TO PEAK (hrs)= 5.92 6.00 6.00
RUNOFF VOLUME (mm)= 68.31 40.82 68.03
TOTAL RAINFALL (mm)= 69.31 69.31 69.31
RUNOFF COEFFICIENT = 0.99 0.59 0.98

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0001):	0.45	0.115	6.00	68.03
+ ID2= 2 (0015):	0.05	0.010	6.00	52.81
=====				
ID = 3 (0009):	0.50	0.124	6.00	66.47

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (0009):	0.50	0.124	6.00	66.47
+ ID2= 2 (0018):	0.03	0.007	6.00	68.03
=====				
ID = 1 (0009):	0.53	0.131	6.00	66.55

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0009):	0.53	0.131	6.00	66.55
+ ID2= 2 (0005):	0.95	0.217	6.00	61.43
=====				
ID = 3 (0009):	1.48	0.348	6.00	63.27

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (0009):	1.48	0.348	6.00	63.27
+ ID2= 2 (0006):	0.92	0.194	6.00	60.06
=====				
ID = 1 (0009):	2.41	0.542	6.00	62.04

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB
STANDHYD (0002)
ID= 1 DT= 5.0 min | Area (ha)= 0.19
Total Imp(%)= 98.00 Dir. Conn.(%)= 98.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.19 0.00
Dep. Storage (mm)= 1.00 1.50
Average Slope (%)= 1.00 2.00
Length (m)= 35.52 40.00
Mannings n = 0.013 0.250

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

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	1.73	3.083	2.77	6.083	12.47	9.08	2.43
0.167	1.73	3.167	2.77	6.167	12.47	9.17	2.43
0.250	1.73	3.250	2.77	6.250	12.47	9.25	2.43
0.333	1.73	3.333	2.77	6.333	12.47	9.33	2.43
0.417	1.73	3.417	2.77	6.417	12.47	9.42	2.43
0.500	1.73	3.500	2.77	6.500	12.47	9.50	2.43
0.583	1.73	3.583	2.77	6.583	5.54	9.58	2.43
0.667	1.73	3.667	2.77	6.667	5.54	9.67	2.43
0.750	1.73	3.750	2.77	6.750	5.54	9.75	2.43
0.833	1.73	3.833	2.77	6.833	5.54	9.83	2.43
0.917	1.73	3.917	2.77	6.917	5.54	9.92	2.43
1.000	1.73	4.000	2.77	7.000	5.54	10.00	2.43
1.083	1.73	4.083	4.16	7.083	4.16	10.08	1.39
1.167	1.73	4.167	4.16	7.167	4.16	10.17	1.39
1.250	1.73	4.250	4.16	7.250	4.16	10.25	1.39
1.333	1.73	4.333	4.16	7.333	4.16	10.33	1.39
1.417	1.73	4.417	4.16	7.417	4.16	10.42	1.39
1.500	1.73	4.500	4.16	7.500	4.16	10.50	1.39
1.583	1.73	4.583	5.54	7.583	4.16	10.58	1.39
1.667	1.73	4.667	5.54	7.667	4.16	10.67	1.39
1.750	1.73	4.750	5.54	7.750	4.16	10.75	1.39
1.833	1.73	4.833	5.54	7.833	4.16	10.83	1.39
1.917	1.73	4.917	5.54	7.917	4.16	10.92	1.39
2.000	1.73	5.000	5.54	8.000	4.16	11.00	1.39
2.083	2.08	5.083	8.32	8.083	2.43	11.08	1.39
2.167	2.08	5.167	8.32	8.167	2.43	11.17	1.39
2.250	2.08	5.250	8.32	8.250	2.43	11.25	1.39
2.333	2.08	5.333	8.32	8.333	2.43	11.33	1.39
2.417	2.08	5.417	8.32	8.417	2.43	11.42	1.39
2.500	2.08	5.500	8.32	8.500	2.43	11.50	1.39
2.583	2.08	5.583	33.26	8.583	2.43	11.58	1.39
2.667	2.08	5.667	33.26	8.667	2.43	11.67	1.39
2.750	2.08	5.750	33.26	8.750	2.43	11.75	1.39
2.833	2.08	5.833	91.48	8.833	2.43	11.83	1.39
2.917	2.08	5.917	91.48	8.917	2.43	11.92	1.39
3.000	2.08	6.000	91.48	9.000	2.43	12.00	1.39

Max.Eff.Inten.(mm/hr)= 91.48 65.34
over (min) 5.00 5.00
Storage Coeff. (min)= 1.42 (ii) 2.96 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.33 0.28

TOTALS

PEAK FLOW (cms)= 0.05 0.00 0.048 (iii)
TIME TO PEAK (hrs)= 6.00 6.00 6.00
RUNOFF VOLUME (mm)= 68.31 40.82 67.76
TOTAL RAINFALL (mm)= 69.31 69.31 69.31
RUNOFF COEFFICIENT = 0.99 0.59 0.98

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0003) | Area (ha)= 0.05
ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.05	0.00
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	19.11	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	1.73	3.083	2.77	6.083	12.47	9.08	2.43
0.167	1.73	3.167	2.77	6.167	12.47	9.17	2.43
0.250	1.73	3.250	2.77	6.250	12.47	9.25	2.43
0.333	1.73	3.333	2.77	6.333	12.47	9.33	2.43
0.417	1.73	3.417	2.77	6.417	12.47	9.42	2.43
0.500	1.73	3.500	2.77	6.500	12.47	9.50	2.43
0.583	1.73	3.583	2.77	6.583	5.54	9.58	2.43
0.667	1.73	3.667	2.77	6.667	5.54	9.67	2.43
0.750	1.73	3.750	2.77	6.750	5.54	9.75	2.43
0.833	1.73	3.833	2.77	6.833	5.54	9.83	2.43
0.917	1.73	3.917	2.77	6.917	5.54	9.92	2.43
1.000	1.73	4.000	2.77	7.000	5.54	10.00	2.43
1.083	1.73	4.083	4.16	7.083	4.16	10.08	1.39
1.167	1.73	4.167	4.16	7.167	4.16	10.17	1.39
1.250	1.73	4.250	4.16	7.250	4.16	10.25	1.39
1.333	1.73	4.333	4.16	7.333	4.16	10.33	1.39
1.417	1.73	4.417	4.16	7.417	4.16	10.42	1.39
1.500	1.73	4.500	4.16	7.500	4.16	10.50	1.39
1.583	1.73	4.583	5.54	7.583	4.16	10.58	1.39
1.667	1.73	4.667	5.54	7.667	4.16	10.67	1.39
1.750	1.73	4.750	5.54	7.750	4.16	10.75	1.39
1.833	1.73	4.833	5.54	7.833	4.16	10.83	1.39
1.917	1.73	4.917	5.54	7.917	4.16	10.92	1.39
2.000	1.73	5.000	5.54	8.000	4.16	11.00	1.39
2.083	2.08	5.083	8.32	8.083	2.43	11.08	1.39
2.167	2.08	5.167	8.32	8.167	2.43	11.17	1.39
2.250	2.08	5.250	8.32	8.250	2.43	11.25	1.39
2.333	2.08	5.333	8.32	8.333	2.43	11.33	1.39
2.417	2.08	5.417	8.32	8.417	2.43	11.42	1.39
2.500	2.08	5.500	8.32	8.500	2.43	11.50	1.39
2.583	2.08	5.583	33.26	8.583	2.43	11.58	1.39
2.667	2.08	5.667	33.26	8.667	2.43	11.67	1.39
2.750	2.08	5.750	33.26	8.750	2.43	11.75	1.39
2.833	2.08	5.833	91.48	8.833	2.43	11.83	1.39
2.917	2.08	5.917	91.48	8.917	2.43	11.92	1.39
3.000	2.08	6.000	91.48	9.000	2.43	12.00	1.39

Max.Eff.Inten.(mm/hr)= 91.48 65.34
over (min) 5.00 5.00
Storage Coeff. (min)= 0.98 (ii) 2.14 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00

Unit Hyd. peak (cms)=	0.34	0.31	*TOTALS*
PEAK FLOW (cms)=	0.01	0.00	0.014 (iii)
TIME TO PEAK (hrs)=	6.00	6.00	6.00
RUNOFF VOLUME (mm)=	68.31	40.82	68.03
TOTAL RAINFALL (mm)=	69.31	69.31	69.31
RUNOFF COEFFICIENT =	0.99	0.59	0.98

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0004) | Area (ha)= 0.14
ID= 1 DT= 5.0 min | Total Imp(%)= 86.00 Dir. Conn.(%)= 86.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.12	0.02
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	30.63	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	1.73	3.083	2.77	6.083	12.47	9.08	2.43
0.167	1.73	3.167	2.77	6.167	12.47	9.17	2.43
0.250	1.73	3.250	2.77	6.250	12.47	9.25	2.43
0.333	1.73	3.333	2.77	6.333	12.47	9.33	2.43
0.417	1.73	3.417	2.77	6.417	12.47	9.42	2.43
0.500	1.73	3.500	2.77	6.500	12.47	9.50	2.43
0.583	1.73	3.583	2.77	6.583	5.54	9.58	2.43
0.667	1.73	3.667	2.77	6.667	5.54	9.67	2.43
0.750	1.73	3.750	2.77	6.750	5.54	9.75	2.43
0.833	1.73	3.833	2.77	6.833	5.54	9.83	2.43
0.917	1.73	3.917	2.77	6.917	5.54	9.92	2.43
1.000	1.73	4.000	2.77	7.000	5.54	10.00	2.43
1.083	1.73	4.083	4.16	7.083	4.16	10.08	1.39
1.167	1.73	4.167	4.16	7.167	4.16	10.17	1.39
1.250	1.73	4.250	4.16	7.250	4.16	10.25	1.39
1.333	1.73	4.333	4.16	7.333	4.16	10.33	1.39
1.417	1.73	4.417	4.16	7.417	4.16	10.42	1.39
1.500	1.73	4.500	4.16	7.500	4.16	10.50	1.39
1.583	1.73	4.583	5.54	7.583	4.16	10.58	1.39
1.667	1.73	4.667	5.54	7.667	4.16	10.67	1.39
1.750	1.73	4.750	5.54	7.750	4.16	10.75	1.39
1.833	1.73	4.833	5.54	7.833	4.16	10.83	1.39
1.917	1.73	4.917	5.54	7.917	4.16	10.92	1.39
2.000	1.73	5.000	5.54	8.000	4.16	11.00	1.39
2.083	2.08	5.083	8.32	8.083	2.43	11.08	1.39
2.167	2.08	5.167	8.32	8.167	2.43	11.17	1.39
2.250	2.08	5.250	8.32	8.250	2.43	11.25	1.39
2.333	2.08	5.333	8.32	8.333	2.43	11.33	1.39
2.417	2.08	5.417	8.32	8.417	2.43	11.42	1.39
2.500	2.08	5.500	8.32	8.500	2.43	11.50	1.39
2.583	2.08	5.583	33.26	8.583	2.43	11.58	1.39
2.667	2.08	5.667	33.26	8.667	2.43	11.67	1.39
2.750	2.08	5.750	33.26	8.750	2.43	11.75	1.39

2.833	2.08	5.833	91.48	8.833	2.43	11.83	1.39
2.917	2.08	5.917	91.48	8.917	2.43	11.92	1.39
3.000	2.08	6.000	91.48	9.000	2.43	12.00	1.39

Max.Eff.Inten.(mm/hr)=	91.48	65.34	
over (min)	5.00	5.00	
Storage Coeff. (min)=	1.30 (ii)	4.84 (ii)	
Unit Hyd. Tpeak (min)=	5.00	5.00	
Unit Hyd. peak (cms)=	0.33	0.22	
TOTALS			
PEAK FLOW (cms)=	0.03	0.00	0.034 (iii)
TIME TO PEAK (hrs)=	6.00	6.00	6.00
RUNOFF VOLUME (mm)=	68.31	40.82	64.45
TOTAL RAINFALL (mm)=	69.31	69.31	69.31
RUNOFF COEFFICIENT =	0.99	0.59	0.93

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	
STANDHYD (0012)	Area (ha)= 0.07
ID= 1 DT= 5.0 min	Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.07	0.00
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	21.88	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	1.73	3.083	2.77	6.083	12.47	9.08	2.43
0.167	1.73	3.167	2.77	6.167	12.47	9.17	2.43
0.250	1.73	3.250	2.77	6.250	12.47	9.25	2.43
0.333	1.73	3.333	2.77	6.333	12.47	9.33	2.43
0.417	1.73	3.417	2.77	6.417	12.47	9.42	2.43
0.500	1.73	3.500	2.77	6.500	12.47	9.50	2.43
0.583	1.73	3.583	2.77	6.583	5.54	9.58	2.43
0.667	1.73	3.667	2.77	6.667	5.54	9.67	2.43
0.750	1.73	3.750	2.77	6.750	5.54	9.75	2.43
0.833	1.73	3.833	2.77	6.833	5.54	9.83	2.43
0.917	1.73	3.917	2.77	6.917	5.54	9.92	2.43
1.000	1.73	4.000	2.77	7.000	5.54	10.00	2.43
1.083	1.73	4.083	4.16	7.083	4.16	10.08	1.39
1.167	1.73	4.167	4.16	7.167	4.16	10.17	1.39
1.250	1.73	4.250	4.16	7.250	4.16	10.25	1.39
1.333	1.73	4.333	4.16	7.333	4.16	10.33	1.39
1.417	1.73	4.417	4.16	7.417	4.16	10.42	1.39
1.500	1.73	4.500	4.16	7.500	4.16	10.50	1.39
1.583	1.73	4.583	5.54	7.583	4.16	10.58	1.39
1.667	1.73	4.667	5.54	7.667	4.16	10.67	1.39
1.750	1.73	4.750	5.54	7.750	4.16	10.75	1.39
1.833	1.73	4.833	5.54	7.833	4.16	10.83	1.39
1.917	1.73	4.917	5.54	7.917	4.16	10.92	1.39
2.000	1.73	5.000	5.54	8.000	4.16	11.00	1.39
2.083	2.08	5.083	8.32	8.083	2.43	11.08	1.39

2.167	2.08	5.167	8.32	8.167	2.43	11.17	1.39
2.250	2.08	5.250	8.32	8.250	2.43	11.25	1.39
2.333	2.08	5.333	8.32	8.333	2.43	11.33	1.39
2.417	2.08	5.417	8.32	8.417	2.43	11.42	1.39
2.500	2.08	5.500	8.32	8.500	2.43	11.50	1.39
2.583	2.08	5.583	33.26	8.583	2.43	11.58	1.39
2.667	2.08	5.667	33.26	8.667	2.43	11.67	1.39
2.750	2.08	5.750	33.26	8.750	2.43	11.75	1.39
2.833	2.08	5.833	91.48	8.833	2.43	11.83	1.39
2.917	2.08	5.917	91.48	8.917	2.43	11.92	1.39
3.000	2.08	6.000	91.48	9.000	2.43	12.00	1.39

Max.Eff.Inten.(mm/hr)=	91.48	65.34
over (min)	5.00	5.00
Storage Coeff. (min)=	1.06 (ii)	2.23 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.34	0.30

TOTALS			
PEAK FLOW (cms)=	0.02	0.00	0.018 (iii)
TIME TO PEAK (hrs)=	6.00	6.00	6.00
RUNOFF VOLUME (mm)=	68.31	40.82	68.03
TOTAL RAINFALL (mm)=	69.31	69.31	69.31
RUNOFF COEFFICIENT =	0.99	0.59	0.98

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0007)				
1 + 2 = 3				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0012):	0.07	0.018	6.00	68.03
+ ID2= 2 (0002):	0.19	0.048	6.00	67.76
=====				
ID = 3 (0007):	0.26	0.066	6.00	67.83

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0007)				
3 + 2 = 1				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (0007):	0.26	0.066	6.00	67.83
+ ID2= 2 (0003):	0.05	0.014	6.00	68.03
=====				
ID = 1 (0007):	0.32	0.080	6.00	67.87

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0007)				
1 + 2 = 3				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0007):	0.32	0.080	6.00	67.87
+ ID2= 2 (0004):	0.14	0.034	6.00	64.45
=====				
ID = 3 (0007):	0.46	0.114	6.00	66.81

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR(0014)
IN= 2--> OUT= 1
DT= 5.0 min

OVERFLOW IS OFF

OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
0.0000	0.0000	0.0880	0.0054
0.0000	0.0008	0.0950	0.0062
0.0360	0.0015	0.1020	0.0070
0.0510	0.0023	0.1080	0.0077
0.0620	0.0031	0.1140	0.0085
0.0720	0.0039	0.1200	0.0093
0.0810	0.0046	0.0000	0.0000

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (0007)	0.456	0.114	6.00	66.81
OUTFLOW: ID= 1 (0014)	0.456	0.085	6.00	65.06

PEAK FLOW REDUCTION [Qout/Qin](%)= 74.38
TIME SHIFT OF PEAK FLOW (min)= 0.00
MAXIMUM STORAGE USED (ha.m.)= 0.0055

ADD HYD (0017)
1 + 2 = 3

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0014):	0.46	0.085	6.00	65.06
+ ID2= 2 (0009):	2.41	0.542	6.00	62.04
=====				
ID = 3 (0017):	2.86	0.627	6.00	62.52

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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

000 TTTTT TTTT H H Y Y M M 000 TM
0 0 T T H H Y Y MM MM 0 0
0 0 T T H H Y M M 0 0
000 T T H H Y M M 000

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

Input filename: C:\Program Files (x86)\Visual OTTHYM0 6.2\V02\voin.dat
Output filename: C:\Users\ffisl\AppData\Local\Civica\XH5\dae7608f-82b9-4213-85a0-cec48cda5646\5614d398-48e0-4e73-914e-7bcd9c676843\scenar
Summary filename: C:\Users\ffisl\AppData\Local\Civica\XH5\dae7608f-82b9-4213-85a0-cec48cda5646\5614d398-48e0-4e73-914e-7bcd9c676843\scenar

DATE: 12-02-2025

TIME: 06:28:13

USER:

COMMENTS:

** SIMULATION : 025-year **

READ STORM	Filename: C:\Users\ffisl\AppData\Local\Temp\22e05611-c4fa-4c11-803e-23c2a569b1f7\46dc24f3
Ptotal= 81.51 mm	Comments: 25-yr, 12-hr SCS Type II Distribution St

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.00	2.04	3.00	3.26	6.00	14.67	9.00	2.85
0.25	2.04	3.25	3.26	6.25	14.67	9.25	2.85
0.50	2.04	3.50	3.26	6.50	6.52	9.50	2.85
0.75	2.04	3.75	3.26	6.75	6.52	9.75	2.85
1.00	2.04	4.00	4.89	7.00	4.89	10.00	1.63
1.25	2.04	4.25	4.89	7.25	4.89	10.25	1.63
1.50	2.04	4.50	6.52	7.50	4.89	10.50	1.63
1.75	2.04	4.75	6.52	7.75	4.89	10.75	1.63
2.00	2.45	5.00	9.78	8.00	2.85	11.00	1.63
2.25	2.45	5.25	9.78	8.25	2.85	11.25	1.63
2.50	2.45	5.50	39.12	8.50	2.85	11.50	1.63
2.75	2.45	5.75	107.58	8.75	2.85	11.75	1.63

CALIB
STANDHYD (0001)
ID= 1 DT= 5.0 min

Area (ha)= 0.45
Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.45	0.00
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	54.94	40.00
Mannings n	0.013	0.250

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

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	2.04	3.083	3.26	6.083	14.67	9.08	2.85
0.167	2.04	3.167	3.26	6.167	14.67	9.17	2.85
0.250	2.04	3.250	3.26	6.250	14.67	9.25	2.85
0.333	2.04	3.333	3.26	6.333	14.67	9.33	2.85
0.417	2.04	3.417	3.26	6.417	14.67	9.42	2.85
0.500	2.04	3.500	3.26	6.500	14.67	9.50	2.85
0.583	2.04	3.583	3.26	6.583	6.52	9.58	2.85
0.667	2.04	3.667	3.26	6.667	6.52	9.67	2.85
0.750	2.04	3.750	3.26	6.750	6.52	9.75	2.85
0.833	2.04	3.833	3.26	6.833	6.52	9.83	2.85
0.917	2.04	3.917	3.26	6.917	6.52	9.92	2.85
1.000	2.04	4.000	3.26	7.000	6.52	10.00	2.85
1.083	2.04	4.083	4.89	7.083	4.89	10.08	1.63
1.167	2.04	4.167	4.89	7.167	4.89	10.17	1.63
1.250	2.04	4.250	4.89	7.250	4.89	10.25	1.63

1.333	2.04	4.333	4.89	7.333	4.89	10.33	1.63
1.417	2.04	4.417	4.89	7.417	4.89	10.42	1.63
1.500	2.04	4.500	4.89	7.500	4.89	10.50	1.63
1.583	2.04	4.583	6.52	7.583	4.89	10.58	1.63
1.667	2.04	4.667	6.52	7.667	4.89	10.67	1.63
1.750	2.04	4.750	6.52	7.750	4.89	10.75	1.63
1.833	2.04	4.833	6.52	7.833	4.89	10.83	1.63
1.917	2.04	4.917	6.52	7.917	4.89	10.92	1.63
2.000	2.04	5.000	6.52	8.000	4.89	11.00	1.63
2.083	2.45	5.083	9.78	8.083	2.85	11.08	1.63
2.167	2.45	5.167	9.78	8.167	2.85	11.17	1.63
2.250	2.45	5.250	9.78	8.250	2.85	11.25	1.63
2.333	2.45	5.333	9.78	8.333	2.85	11.33	1.63
2.417	2.45	5.417	9.78	8.417	2.85	11.42	1.63
2.500	2.45	5.500	9.78	8.500	2.85	11.50	1.63
2.583	2.45	5.583	39.12	8.583	2.85	11.58	1.63
2.667	2.45	5.667	39.12	8.667	2.85	11.67	1.63
2.750	2.45	5.750	39.12	8.750	2.85	11.75	1.63
2.833	2.45	5.833	107.58	8.833	2.85	11.83	1.63
2.917	2.45	5.917	107.58	8.917	2.85	11.92	1.63
3.000	2.45	6.000	107.58	9.000	2.85	12.00	1.63

Max.Eff.Inten.(mm/hr)= 107.58 81.47
over (min) 5.00 5.00
Storage Coeff. (min)= 1.73 (ii) 2.82 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.32 0.28

TOTALS
PEAK FLOW (cms)= 0.13 0.00 0.135 (iii)
TIME TO PEAK (hrs)= 6.00 6.00 6.00
RUNOFF VOLUME (mm)= 80.50 51.28 80.21
TOTAL RAINFALL (mm)= 81.50 81.50 81.50
RUNOFF COEFFICIENT = 0.99 0.63 0.98

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	
STANDHYD (0005)	Area (ha)= 0.95
ID= 1 DT= 5.0 min	Total Imp(%)= 75.00 Dir. Conn.(%)= 75.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.71	0.24
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	79.65	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	2.04	3.083	3.26	6.083	14.67	9.08	2.85
0.167	2.04	3.167	3.26	6.167	14.67	9.17	2.85
0.250	2.04	3.250	3.26	6.250	14.67	9.25	2.85
0.333	2.04	3.333	3.26	6.333	14.67	9.33	2.85
0.417	2.04	3.417	3.26	6.417	14.67	9.42	2.85
0.500	2.04	3.500	3.26	6.500	14.67	9.50	2.85
0.583	2.04	3.583	3.26	6.583	6.52	9.58	2.85

0.667	2.04	3.667	3.26	6.667	6.52	9.67	2.85
0.750	2.04	3.750	3.26	6.750	6.52	9.75	2.85
0.833	2.04	3.833	3.26	6.833	6.52	9.83	2.85
0.917	2.04	3.917	3.26	6.917	6.52	9.92	2.85
1.000	2.04	4.000	3.26	7.000	6.52	10.00	2.85
1.083	2.04	4.083	4.89	7.083	4.89	10.08	1.63
1.167	2.04	4.167	4.89	7.167	4.89	10.17	1.63
1.250	2.04	4.250	4.89	7.250	4.89	10.25	1.63
1.333	2.04	4.333	4.89	7.333	4.89	10.33	1.63
1.417	2.04	4.417	4.89	7.417	4.89	10.42	1.63
1.500	2.04	4.500	4.89	7.500	4.89	10.50	1.63
1.583	2.04	4.583	6.52	7.583	4.89	10.58	1.63
1.667	2.04	4.667	6.52	7.667	4.89	10.67	1.63
1.750	2.04	4.750	6.52	7.750	4.89	10.75	1.63
1.833	2.04	4.833	6.52	7.833	4.89	10.83	1.63
1.917	2.04	4.917	6.52	7.917	4.89	10.92	1.63
2.000	2.04	5.000	6.52	8.000	4.89	11.00	1.63
2.083	2.45	5.083	9.78	8.083	2.85	11.08	1.63
2.167	2.45	5.167	9.78	8.167	2.85	11.17	1.63
2.250	2.45	5.250	9.78	8.250	2.85	11.25	1.63
2.333	2.45	5.333	9.78	8.333	2.85	11.33	1.63
2.417	2.45	5.417	9.78	8.417	2.85	11.42	1.63
2.500	2.45	5.500	9.78	8.500	2.85	11.50	1.63
2.583	2.45	5.583	39.12	8.583	2.85	11.58	1.63
2.667	2.45	5.667	39.12	8.667	2.85	11.67	1.63
2.750	2.45	5.750	39.12	8.750	2.85	11.75	1.63
2.833	2.45	5.833	107.58	8.833	2.85	11.83	1.63
2.917	2.45	5.917	107.58	8.917	2.85	11.92	1.63
3.000	2.45	6.000	107.58	9.000	2.85	12.00	1.63

Max.Eff.Inten.(mm/hr)= 107.58 81.47
over (min) 5.00 10.00
Storage Coeff. (min)= 2.16 (ii) 6.58 (ii)
Unit Hyd. Tpeak (min)= 5.00 10.00
Unit Hyd. peak (cms)= 0.31 0.14

TOTALS
PEAK FLOW (cms)= 0.21 0.05 0.258 (iii)
TIME TO PEAK (hrs)= 6.00 6.00 6.00
RUNOFF VOLUME (mm)= 80.50 51.28 73.19
TOTAL RAINFALL (mm)= 81.50 81.50 81.50
RUNOFF COEFFICIENT = 0.99 0.63 0.90

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	
STANDHYD (0006)	Area (ha)= 0.92
ID= 1 DT= 5.0 min	Total Imp(%)= 70.00 Dir. Conn.(%)= 70.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.65	0.28
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	78.45	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	2.04	3.083	3.26	6.083	14.67	9.08	2.85
0.167	2.04	3.167	3.26	6.167	14.67	9.17	2.85
0.250	2.04	3.250	3.26	6.250	14.67	9.25	2.85
0.333	2.04	3.333	3.26	6.333	14.67	9.33	2.85
0.417	2.04	3.417	3.26	6.417	14.67	9.42	2.85
0.500	2.04	3.500	3.26	6.500	14.67	9.50	2.85
0.583	2.04	3.583	3.26	6.583	6.52	9.58	2.85
0.667	2.04	3.667	3.26	6.667	6.52	9.67	2.85
0.750	2.04	3.750	3.26	6.750	6.52	9.75	2.85
0.833	2.04	3.833	3.26	6.833	6.52	9.83	2.85
0.917	2.04	3.917	3.26	6.917	6.52	9.92	2.85
1.000	2.04	4.000	3.26	7.000	6.52	10.00	2.85
1.083	2.04	4.083	4.89	7.083	4.89	10.08	1.63
1.167	2.04	4.167	4.89	7.167	4.89	10.17	1.63
1.250	2.04	4.250	4.89	7.250	4.89	10.25	1.63
1.333	2.04	4.333	4.89	7.333	4.89	10.33	1.63
1.417	2.04	4.417	4.89	7.417	4.89	10.42	1.63
1.500	2.04	4.500	4.89	7.500	4.89	10.50	1.63
1.583	2.04	4.583	6.52	7.583	4.89	10.58	1.63
1.667	2.04	4.667	6.52	7.667	4.89	10.67	1.63
1.750	2.04	4.750	6.52	7.750	4.89	10.75	1.63
1.833	2.04	4.833	6.52	7.833	4.89	10.83	1.63
1.917	2.04	4.917	6.52	7.917	4.89	10.92	1.63
2.000	2.04	5.000	6.52	8.000	4.89	11.00	1.63
2.083	2.45	5.083	9.78	8.083	2.85	11.08	1.63
2.167	2.45	5.167	9.78	8.167	2.85	11.17	1.63
2.250	2.45	5.250	9.78	8.250	2.85	11.25	1.63
2.333	2.45	5.333	9.78	8.333	2.85	11.33	1.63
2.417	2.45	5.417	9.78	8.417	2.85	11.42	1.63
2.500	2.45	5.500	9.78	8.500	2.85	11.50	1.63
2.583	2.45	5.583	39.12	8.583	2.85	11.58	1.63
2.667	2.45	5.667	39.12	8.667	2.85	11.67	1.63
2.750	2.45	5.750	39.12	8.750	2.85	11.75	1.63
2.833	2.45	5.833	107.58	8.833	2.85	11.83	1.63
2.917	2.45	5.917	107.58	8.917	2.85	11.92	1.63
3.000	2.45	6.000	107.58	9.000	2.85	12.00	1.63

Max.Eff.Inten.(mm/hr)= 107.58 81.47
over (min) 5.00 10.00
Storage Coeff. (min)= 2.14 (ii) 7.03 (ii)
Unit Hyd. Tpeak (min)= 5.00 10.00
Unit Hyd. peak (cms)= 0.31 0.14

TOTALS
PEAK FLOW (cms)= 0.19 0.05 0.245 (iii)
TIME TO PEAK (hrs)= 6.00 6.00 6.00
RUNOFF VOLUME (mm)= 80.50 51.28 71.73
TOTAL RAINFALL (mm)= 81.50 81.50 81.50
RUNOFF COEFFICIENT = 0.99 0.63 0.88

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0015)
ID= 1 DT= 5.0 min
Area (ha)= 0.05
Total Imp(%)= 44.00 Dir. Conn.(%)= 44.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.02 0.03
Dep. Storage (mm)= 1.00 1.50
Average Slope (%)= 1.00 2.00

Length (m)= 18.62 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	2.04	3.083	3.26	6.083	14.67	9.08	2.85
0.167	2.04	3.167	3.26	6.167	14.67	9.17	2.85
0.250	2.04	3.250	3.26	6.250	14.67	9.25	2.85
0.333	2.04	3.333	3.26	6.333	14.67	9.33	2.85
0.417	2.04	3.417	3.26	6.417	14.67	9.42	2.85
0.500	2.04	3.500	3.26	6.500	14.67	9.50	2.85
0.583	2.04	3.583	3.26	6.583	6.52	9.58	2.85
0.667	2.04	3.667	3.26	6.667	6.52	9.67	2.85
0.750	2.04	3.750	3.26	6.750	6.52	9.75	2.85
0.833	2.04	3.833	3.26	6.833	6.52	9.83	2.85
0.917	2.04	3.917	3.26	6.917	6.52	9.92	2.85
1.000	2.04	4.000	3.26	7.000	6.52	10.00	2.85
1.083	2.04	4.083	4.89	7.083	4.89	10.08	1.63
1.167	2.04	4.167	4.89	7.167	4.89	10.17	1.63
1.250	2.04	4.250	4.89	7.250	4.89	10.25	1.63
1.333	2.04	4.333	4.89	7.333	4.89	10.33	1.63
1.417	2.04	4.417	4.89	7.417	4.89	10.42	1.63
1.500	2.04	4.500	4.89	7.500	4.89	10.50	1.63
1.583	2.04	4.583	6.52	7.583	4.89	10.58	1.63
1.667	2.04	4.667	6.52	7.667	4.89	10.67	1.63
1.750	2.04	4.750	6.52	7.750	4.89	10.75	1.63
1.833	2.04	4.833	6.52	7.833	4.89	10.83	1.63
1.917	2.04	4.917	6.52	7.917	4.89	10.92	1.63
2.000	2.04	5.000	6.52	8.000	4.89	11.00	1.63
2.083	2.45	5.083	9.78	8.083	2.85	11.08	1.63
2.167	2.45	5.167	9.78	8.167	2.85	11.17	1.63
2.250	2.45	5.250	9.78	8.250	2.85	11.25	1.63
2.333	2.45	5.333	9.78	8.333	2.85	11.33	1.63
2.417	2.45	5.417	9.78	8.417	2.85	11.42	1.63
2.500	2.45	5.500	9.78	8.500	2.85	11.50	1.63
2.583	2.45	5.583	39.12	8.583	2.85	11.58	1.63
2.667	2.45	5.667	39.12	8.667	2.85	11.67	1.63
2.750	2.45	5.750	39.12	8.750	2.85	11.75	1.63
2.833	2.45	5.833	107.58	8.833	2.85	11.83	1.63
2.917	2.45	5.917	107.58	8.917	2.85	11.92	1.63
3.000	2.45	6.000	107.58	9.000	2.85	12.00	1.63

Max.Eff.Inten.(mm/hr)= 107.58 81.47
over (min) 5.00 10.00
Storage Coeff. (min)= 0.90 (ii) 8.57 (ii)
Unit Hyd. Tpeak (min)= 5.00 10.00
Unit Hyd. peak (cms)= 0.34 0.12

TOTALS
PEAK FLOW (cms)= 0.01 0.01 0.012 (iii)
TIME TO PEAK (hrs)= 5.92 6.00 6.00
RUNOFF VOLUME (mm)= 80.50 51.28 64.01
TOTAL RAINFALL (mm)= 81.50 81.50 81.50
RUNOFF COEFFICIENT = 0.99 0.63 0.79

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0018)
ID= 1 DT= 5.0 min

Area (ha)= 0.03
Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.03	0.00
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	13.49	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	2.04	3.083	3.26	6.083	14.67	9.08	2.85
0.167	2.04	3.167	3.26	6.167	14.67	9.17	2.85
0.250	2.04	3.250	3.26	6.250	14.67	9.25	2.85
0.333	2.04	3.333	3.26	6.333	14.67	9.33	2.85
0.417	2.04	3.417	3.26	6.417	14.67	9.42	2.85
0.500	2.04	3.500	3.26	6.500	14.67	9.50	2.85
0.583	2.04	3.583	3.26	6.583	6.52	9.58	2.85
0.667	2.04	3.667	3.26	6.667	6.52	9.67	2.85
0.750	2.04	3.750	3.26	6.750	6.52	9.75	2.85
0.833	2.04	3.833	3.26	6.833	6.52	9.83	2.85
0.917	2.04	3.917	3.26	6.917	6.52	9.92	2.85
1.000	2.04	4.000	3.26	7.000	6.52	10.00	2.85
1.083	2.04	4.083	4.89	7.083	4.89	10.08	1.63
1.167	2.04	4.167	4.89	7.167	4.89	10.17	1.63
1.250	2.04	4.250	4.89	7.250	4.89	10.25	1.63
1.333	2.04	4.333	4.89	7.333	4.89	10.33	1.63
1.417	2.04	4.417	4.89	7.417	4.89	10.42	1.63
1.500	2.04	4.500	4.89	7.500	4.89	10.50	1.63
1.583	2.04	4.583	6.52	7.583	4.89	10.58	1.63
1.667	2.04	4.667	6.52	7.667	4.89	10.67	1.63
1.750	2.04	4.750	6.52	7.750	4.89	10.75	1.63
1.833	2.04	4.833	6.52	7.833	4.89	10.83	1.63
1.917	2.04	4.917	6.52	7.917	4.89	10.92	1.63
2.000	2.04	5.000	6.52	8.000	4.89	11.00	1.63
2.083	2.45	5.083	9.78	8.083	2.85	11.08	1.63
2.167	2.45	5.167	9.78	8.167	2.85	11.17	1.63
2.250	2.45	5.250	9.78	8.250	2.85	11.25	1.63
2.333	2.45	5.333	9.78	8.333	2.85	11.33	1.63
2.417	2.45	5.417	9.78	8.417	2.85	11.42	1.63
2.500	2.45	5.500	9.78	8.500	2.85	11.50	1.63
2.583	2.45	5.583	39.12	8.583	2.85	11.58	1.63
2.667	2.45	5.667	39.12	8.667	2.85	11.67	1.63
2.750	2.45	5.750	39.12	8.750	2.85	11.75	1.63
2.833	2.45	5.833	107.58	8.833	2.85	11.83	1.63
2.917	2.45	5.917	107.58	8.917	2.85	11.92	1.63
3.000	2.45	6.000	107.58	9.000	2.85	12.00	1.63

Max.Eff.Inten.(mm/hr)= 107.58 81.47
over (min) 5.00 5.00
Storage Coeff. (min)= 0.75 (ii) 1.84 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.34 0.32

TOTALS
0.008 (iii)
6.00
80.21
81.50
0.98

PEAK FLOW (cms)= 0.01 0.00
TIME TO PEAK (hrs)= 5.92 6.00
RUNOFF VOLUME (mm)= 80.50 51.28 80.21
TOTAL RAINFALL (mm)= 81.50 81.50 81.50
RUNOFF COEFFICIENT = 0.99 0.63 0.98

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0009)	AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0001):	0.45	0.135	6.00	80.21
+ ID2= 2 (0015):	0.05	0.012	6.00	64.01
ID = 3 (0009):	0.50	0.147	6.00	78.54

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0009)	AREA	QPEAK	TPEAK	R.V.
3 + 2 = 1	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (0009):	0.50	0.147	6.00	78.54
+ ID2= 2 (0018):	0.03	0.008	6.00	64.01
ID = 1 (0009):	0.53	0.155	6.00	78.63

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0009)	AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0009):	0.53	0.155	6.00	78.63
+ ID2= 2 (0005):	0.95	0.258	6.00	73.19
ID = 3 (0009):	1.48	0.414	6.00	75.14

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0009)	AREA	QPEAK	TPEAK	R.V.
3 + 2 = 1	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (0009):	1.48	0.414	6.00	75.14
+ ID2= 2 (0006):	0.92	0.245	6.00	71.73
ID = 1 (0009):	2.41	0.658	6.00	73.83

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB	Area (ha)=	0.19
STANDHYD (0002)	Total Imp(%)=	98.00 Dir. Conn.(%)= 98.00
ID= 1 DT= 5.0 min		
	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.19	0.00
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	35.52	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	2.04	3.083	3.26	6.083	14.67	9.08	2.85
0.167	2.04	3.167	3.26	6.167	14.67	9.17	2.85
0.250	2.04	3.250	3.26	6.250	14.67	9.25	2.85
0.333	2.04	3.333	3.26	6.333	14.67	9.33	2.85
0.417	2.04	3.417	3.26	6.417	14.67	9.42	2.85
0.500	2.04	3.500	3.26	6.500	14.67	9.50	2.85
0.583	2.04	3.583	3.26	6.583	6.52	9.58	2.85
0.667	2.04	3.667	3.26	6.667	6.52	9.67	2.85
0.750	2.04	3.750	3.26	6.750	6.52	9.75	2.85
0.833	2.04	3.833	3.26	6.833	6.52	9.83	2.85
0.917	2.04	3.917	3.26	6.917	6.52	9.92	2.85
1.000	2.04	4.000	3.26	7.000	6.52	10.00	2.85
1.083	2.04	4.083	4.89	7.083	4.89	10.08	1.63
1.167	2.04	4.167	4.89	7.167	4.89	10.17	1.63
1.250	2.04	4.250	4.89	7.250	4.89	10.25	1.63
1.333	2.04	4.333	4.89	7.333	4.89	10.33	1.63
1.417	2.04	4.417	4.89	7.417	4.89	10.42	1.63
1.500	2.04	4.500	4.89	7.500	4.89	10.50	1.63
1.583	2.04	4.583	6.52	7.583	4.89	10.58	1.63
1.667	2.04	4.667	6.52	7.667	4.89	10.67	1.63
1.750	2.04	4.750	6.52	7.750	4.89	10.75	1.63
1.833	2.04	4.833	6.52	7.833	4.89	10.83	1.63
1.917	2.04	4.917	6.52	7.917	4.89	10.92	1.63
2.000	2.04	5.000	6.52	8.000	4.89	11.00	1.63
2.083	2.45	5.083	9.78	8.083	2.85	11.08	1.63
2.167	2.45	5.167	9.78	8.167	2.85	11.17	1.63
2.250	2.45	5.250	9.78	8.250	2.85	11.25	1.63
2.333	2.45	5.333	9.78	8.333	2.85	11.33	1.63
2.417	2.45	5.417	9.78	8.417	2.85	11.42	1.63
2.500	2.45	5.500	9.78	8.500	2.85	11.50	1.63
2.583	2.45	5.583	39.12	8.583	2.85	11.58	1.63
2.667	2.45	5.667	39.12	8.667	2.85	11.67	1.63
2.750	2.45	5.750	39.12	8.750	2.85	11.75	1.63
2.833	2.45	5.833	107.58	8.833	2.85	11.83	1.63
2.917	2.45	5.917	107.58	8.917	2.85	11.92	1.63
3.000	2.45	6.000	107.58	9.000	2.85	12.00	1.63

Max.Eff.Inten.(mm/hr)= 107.58 81.47
over (min) 5.00 5.00
Storage Coeff. (min)= 1.33 (ii) 2.78 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.33 0.28

TOTALS
PEAK FLOW (cms)= 0.06 0.00 0.056 (iii)
TIME TO PEAK (hrs)= 6.00 6.00
RUNOFF VOLUME (mm)= 80.50 51.28 79.92
TOTAL RAINFALL (mm)= 81.50 81.50 81.50
RUNOFF COEFFICIENT = 0.99 0.63 0.98

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| CALIB |
| STANDHYD (0003) | Area (ha)= 0.05
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PVIOUS (i)
Surface Area (ha)= 0.05 0.00
Dep. Storage (mm)= 1.00 1.50
Average Slope (%)= 1.00 2.00
Length (m)= 19.11 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	2.04	3.083	3.26	6.083	14.67	9.08	2.85
0.167	2.04	3.167	3.26	6.167	14.67	9.17	2.85
0.250	2.04	3.250	3.26	6.250	14.67	9.25	2.85
0.333	2.04	3.333	3.26	6.333	14.67	9.33	2.85
0.417	2.04	3.417	3.26	6.417	14.67	9.42	2.85
0.500	2.04	3.500	3.26	6.500	14.67	9.50	2.85
0.583	2.04	3.583	3.26	6.583	6.52	9.58	2.85
0.667	2.04	3.667	3.26	6.667	6.52	9.67	2.85
0.750	2.04	3.750	3.26	6.750	6.52	9.75	2.85
0.833	2.04	3.833	3.26	6.833	6.52	9.83	2.85
0.917	2.04	3.917	3.26	6.917	6.52	9.92	2.85
1.000	2.04	4.000	3.26	7.000	6.52	10.00	2.85
1.083	2.04	4.083	4.89	7.083	4.89	10.08	1.63
1.167	2.04	4.167	4.89	7.167	4.89	10.17	1.63
1.250	2.04	4.250	4.89	7.250	4.89	10.25	1.63
1.333	2.04	4.333	4.89	7.333	4.89	10.33	1.63
1.417	2.04	4.417	4.89	7.417	4.89	10.42	1.63
1.500	2.04	4.500	4.89	7.500	4.89	10.50	1.63
1.583	2.04	4.583	6.52	7.583	4.89	10.58	1.63
1.667	2.04	4.667	6.52	7.667	4.89	10.67	1.63
1.750	2.04	4.750	6.52	7.750	4.89	10.75	1.63
1.833	2.04	4.833	6.52	7.833	4.89	10.83	1.63
1.917	2.04	4.917	6.52	7.917	4.89	10.92	1.63
2.000	2.04	5.000	6.52	8.000	4.89	11.00	1.63
2.083	2.45	5.083	9.78	8.083	2.85	11.08	1.63
2.167	2.45	5.167	9.78	8.167	2.85	11.17	1.63
2.250	2.45	5.250	9.78	8.250	2.85	11.25	1.63
2.333	2.45	5.333	9.78	8.333	2.85	11.33	1.63
2.417	2.45	5.417	9.78	8.417	2.85	11.42	1.63
2.500	2.45	5.500	9.78	8.500	2.85	11.50	1.63
2.583	2.45	5.583	39.12	8.583	2.85	11.58	1.63
2.667	2.45	5.667	39.12	8.667	2.85	11.67	1.63
2.750	2.45	5.750	39.12	8.750	2.85	11.75	1.63
2.833	2.45	5.833	107.58	8.833	2.85	11.83	1.63
2.917	2.45	5.917	107.58	8.917	2.85	11.92	1.63
3.000	2.45	6.000	107.58	9.000	2.85	12.00	1.63

Max.Eff.Inten.(mm/hr)= 107.58 81.47
over (min) 5.00 5.00
Storage Coeff. (min)= 0.92 (ii) 2.01 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.34 0.31

TOTALS
PEAK FLOW (cms)= 0.02 0.00 0.016 (iii)
TIME TO PEAK (hrs)= 5.92 6.00 6.00
RUNOFF VOLUME (mm)= 80.50 51.28 80.21
TOTAL RAINFALL (mm)= 81.50 81.50 81.50
RUNOFF COEFFICIENT = 0.99 0.63 0.98

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.

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

RUNOFF COEFFICIENT = 0.99 0.63 0.94

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0004) | Area (ha)= 0.14
ID= 1 DT= 5.0 min | Total Imp(%)= 86.00 Dir. Conn.(%)= 86.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.12	0.02
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	30.63	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	2.04	3.083	3.26	6.083	14.67	9.08	2.85
0.167	2.04	3.167	3.26	6.167	14.67	9.17	2.85
0.250	2.04	3.250	3.26	6.250	14.67	9.25	2.85
0.333	2.04	3.333	3.26	6.333	14.67	9.33	2.85
0.417	2.04	3.417	3.26	6.417	14.67	9.42	2.85
0.500	2.04	3.500	3.26	6.500	14.67	9.50	2.85
0.583	2.04	3.583	3.26	6.583	6.52	9.58	2.85
0.667	2.04	3.667	3.26	6.667	6.52	9.67	2.85
0.750	2.04	3.750	3.26	6.750	6.52	9.75	2.85
0.833	2.04	3.833	3.26	6.833	6.52	9.83	2.85
0.917	2.04	3.917	3.26	6.917	6.52	9.92	2.85
1.000	2.04	4.000	3.26	7.000	6.52	10.00	2.85
1.083	2.04	4.083	4.89	7.083	4.89	10.08	1.63
1.167	2.04	4.167	4.89	7.167	4.89	10.17	1.63
1.250	2.04	4.250	4.89	7.250	4.89	10.25	1.63
1.333	2.04	4.333	4.89	7.333	4.89	10.33	1.63
1.417	2.04	4.417	4.89	7.417	4.89	10.42	1.63
1.500	2.04	4.500	4.89	7.500	4.89	10.50	1.63
1.583	2.04	4.583	6.52	7.583	4.89	10.58	1.63
1.667	2.04	4.667	6.52	7.667	4.89	10.67	1.63
1.750	2.04	4.750	6.52	7.750	4.89	10.75	1.63
1.833	2.04	4.833	6.52	7.833	4.89	10.83	1.63
1.917	2.04	4.917	6.52	7.917	4.89	10.92	1.63
2.000	2.04	5.000	6.52	8.000	4.89	11.00	1.63
2.083	2.45	5.083	9.78	8.083	2.85	11.08	1.63
2.167	2.45	5.167	9.78	8.167	2.85	11.17	1.63
2.250	2.45	5.250	9.78	8.250	2.85	11.25	1.63
2.333	2.45	5.333	9.78	8.333	2.85	11.33	1.63
2.417	2.45	5.417	9.78	8.417	2.85	11.42	1.63
2.500	2.45	5.500	9.78	8.500	2.85	11.50	1.63
2.583	2.45	5.583	39.12	8.583	2.85	11.58	1.63
2.667	2.45	5.667	39.12	8.667	2.85	11.67	1.63
2.750	2.45	5.750	39.12	8.750	2.85	11.75	1.63
2.833	2.45	5.833	107.58	8.833	2.85	11.83	1.63
2.917	2.45	5.917	107.58	8.917	2.85	11.92	1.63
3.000	2.45	6.000	107.58	9.000	2.85	12.00	1.63

Max.Eff.Inten.(mm/hr)=	107.58	81.47
over (min)	5.00	5.00
Storage Coeff. (min)=	1.22 (ii)	4.54 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.33	0.23

TOTALS

PEAK FLOW (cms)=	0.04	0.00	0.041 (iii)
TIME TO PEAK (hrs)=	6.00	6.00	6.00
RUNOFF VOLUME (mm)=	80.50	51.28	76.40
TOTAL RAINFALL (mm)=	81.50	81.50	81.50

CALIB
STANDHYD (0012) | Area (ha)= 0.07
ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.07	0.00
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	21.88	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	2.04	3.083	3.26	6.083	14.67	9.08	2.85
0.167	2.04	3.167	3.26	6.167	14.67	9.17	2.85
0.250	2.04	3.250	3.26	6.250	14.67	9.25	2.85
0.333	2.04	3.333	3.26	6.333	14.67	9.33	2.85
0.417	2.04	3.417	3.26	6.417	14.67	9.42	2.85
0.500	2.04	3.500	3.26	6.500	14.67	9.50	2.85
0.583	2.04	3.583	3.26	6.583	6.52	9.58	2.85
0.667	2.04	3.667	3.26	6.667	6.52	9.67	2.85
0.750	2.04	3.750	3.26	6.750	6.52	9.75	2.85
0.833	2.04	3.833	3.26	6.833	6.52	9.83	2.85
0.917	2.04	3.917	3.26	6.917	6.52	9.92	2.85
1.000	2.04	4.000	3.26	7.000	6.52	10.00	2.85
1.083	2.04	4.083	4.89	7.083	4.89	10.08	1.63
1.167	2.04	4.167	4.89	7.167	4.89	10.17	1.63
1.250	2.04	4.250	4.89	7.250	4.89	10.25	1.63
1.333	2.04	4.333	4.89	7.333	4.89	10.33	1.63
1.417	2.04	4.417	4.89	7.417	4.89	10.42	1.63
1.500	2.04	4.500	4.89	7.500	4.89	10.50	1.63
1.583	2.04	4.583	6.52	7.583	4.89	10.58	1.63
1.667	2.04	4.667	6.52	7.667	4.89	10.67	1.63
1.750	2.04	4.750	6.52	7.750	4.89	10.75	1.63
1.833	2.04	4.833	6.52	7.833	4.89	10.83	1.63
1.917	2.04	4.917	6.52	7.917	4.89	10.92	1.63
2.000	2.04	5.000	6.52	8.000	4.89	11.00	1.63
2.083	2.45	5.083	9.78	8.083	2.85	11.08	1.63
2.167	2.45	5.167	9.78	8.167	2.85	11.17	1.63
2.250	2.45	5.250	9.78	8.250	2.85	11.25	1.63
2.333	2.45	5.333	9.78	8.333	2.85	11.33	1.63
2.417	2.45	5.417	9.78	8.417	2.85	11.42	1.63
2.500	2.45	5.500	9.78	8.500	2.85	11.50	1.63
2.583	2.45	5.583	39.12	8.583	2.85	11.58	1.63
2.667	2.45	5.667	39.12	8.667	2.85	11.67	1.63
2.750	2.45	5.750	39.12	8.750	2.85	11.75	1.63
2.833	2.45	5.833	107.58	8.833	2.85	11.83	1.63
2.917	2.45	5.917	107.58	8.917	2.85	11.92	1.63
3.000	2.45	6.000	107.58	9.000	2.85	12.00	1.63

Max.Eff.Inten.(mm/hr)=	107.58	81.47
over (min)	5.00	5.00

Storage Coeff. (min)= 1.00 (ii) 2.09 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.31

TOTALS

PEAK FLOW (cms)= 0.02 0.00 0.021 (iii)
 TIME TO PEAK (hrs)= 6.00 6.00 6.00
 RUNOFF VOLUME (mm)= 80.50 51.28 80.21
 TOTAL RAINFALL (mm)= 81.50 81.50 81.50
 RUNOFF COEFFICIENT = 0.99 0.63 0.98

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 85.0 Ia = Dep. Storage (Above)
 (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
 (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0007)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3				
ID1= 1 (0012):	0.07	0.021	6.00	80.21
+ ID2= 2 (0002):	0.19	0.056	6.00	79.92
ID = 3 (0007):	0.26	0.078	6.00	80.00

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0007)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
3 + 2 = 1				
ID1= 3 (0007):	0.26	0.078	6.00	80.00
+ ID2= 2 (0003):	0.05	0.016	6.00	80.21
ID = 1 (0007):	0.32	0.094	6.00	80.03

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0007)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3				
ID1= 1 (0007):	0.32	0.094	6.00	80.03
+ ID2= 2 (0004):	0.14	0.041	6.00	76.40
ID = 3 (0007):	0.46	0.135	6.00	78.92

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR(0014)	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
IN= 2--> OUT= 1				
DT= 5.0 min				
	0.0000	0.0000	0.0880	0.0054
	0.0000	0.0008	0.0950	0.0062
	0.0360	0.0015	0.1020	0.0070
	0.0510	0.0023	0.1080	0.0077
	0.0620	0.0031	0.1140	0.0085
	0.0720	0.0039	0.1200	0.0093
	0.0810	0.0046	0.0000	0.0000

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (0007)	0.456	0.135	6.00	78.92
OUTFLOW: ID= 1 (0014)	0.456	0.095	6.00	77.16

PEAK FLOW REDUCTION [Qout/Qin](%)= 70.71
 TIME SHIFT OF PEAK FLOW (min)= 0.00
 MAXIMUM STORAGE USED (ha.m.)= 0.0068

ADD HYD (0017)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3				
ID1= 1 (0014):	0.46	0.095	6.00	77.16
+ ID2= 2 (0009):	2.41	0.658	6.00	73.83
ID = 3 (0017):	2.86	0.754	6.00	74.37

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

V V I SSSSS U U A L (v 6.2.2022)
 V V I SS U U A A L
 V V I SS U U A A A L
 V V I SS U U A A L
 VV I SSSSS UUUU A A LLLL

000 TTTT TTTT H H Y Y M M 000 TM
 0 0 T T H H Y Y MM MM 0 0
 0 0 T T H H Y M M 0 0
 000 T T H H Y M M 000

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

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\V02\voin.dat
 Output filename: C:\Users\ffisl\AppData\Local\Civica\XH5\dae7608f-82b9-4213-85a0-cec48cda5646\06666462-27e3-471c-8cb6-b228c63ef173\scenar
 Summary filename: C:\Users\ffisl\AppData\Local\Civica\XH5\dae7608f-82b9-4213-85a0-cec48cda5646\06666462-27e3-471c-8cb6-b228c63ef173\scenar

DATE: 12-02-2025

TIME: 06:28:13

USER:

COMMENTS: _____

 ** SIMULATION : 050-year **

READ STORM | Filename: C:\Users\ffisl\AppData

ata\Local\Temp\
22e05611-c4fa-4c11-803e-23c2a569b1f7\bb134884
Ptotal= 90.61 mm Comments: 50-yr, 12-hr SCS Type II Distribution St

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.00	2.27	3.00	3.62	6.00	16.31	9.00	3.17
0.25	2.27	3.25	3.62	6.25	16.31	9.25	3.17
0.50	2.27	3.50	3.62	6.50	7.25	9.50	3.17
0.75	2.27	3.75	3.62	6.75	7.25	9.75	3.17
1.00	2.27	4.00	5.44	7.00	5.44	10.00	1.81
1.25	2.27	4.25	5.44	7.25	5.44	10.25	1.81
1.50	2.27	4.50	7.25	7.50	5.44	10.50	1.81
1.75	2.27	4.75	7.25	7.75	5.44	10.75	1.81
2.00	2.72	5.00	10.87	8.00	3.17	11.00	1.81
2.25	2.72	5.25	10.87	8.25	3.17	11.25	1.81
2.50	2.72	5.50	43.49	8.50	3.17	11.50	1.81
2.75	2.72	5.75	119.59	8.75	3.17	11.75	1.81

2.500	2.72	5.500	10.87	8.500	3.17	11.50	1.81
2.583	2.72	5.583	43.49	8.583	3.17	11.58	1.81
2.667	2.72	5.667	43.49	8.667	3.17	11.67	1.81
2.750	2.72	5.750	43.49	8.750	3.17	11.75	1.81
2.833	2.72	5.833	119.59	8.833	3.17	11.83	1.81
2.917	2.72	5.917	119.59	8.917	3.17	11.92	1.81
3.000	2.72	6.000	119.59	9.000	3.17	12.00	1.81

Max.Eff.Inten.(mm/hr)= 119.59 93.67
over (min) 5.00 5.00
Storage Coeff. (min)= 1.66 (ii) 2.71 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.32 0.29

TOTALS
PEAK FLOW (cms)= 0.15 0.00 0.150 (iii)
TIME TO PEAK (hrs)= 6.00 6.00 6.00
RUNOFF VOLUME (mm)= 89.61 59.29 89.1
TOTAL RAINFALL (mm)= 90.61 90.61 90.61
RUNOFF COEFFICIENT = 0.99 0.65 0.99

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0001)
ID= 1 DT= 5.0 min
Area (ha)= 0.45
Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.45 0.00
Dep. Storage (mm)= 1.00 1.50
Average Slope (%)= 1.00 2.00
Length (m)= 54.94 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	2.27	3.083	3.62	6.083	16.31	9.08	3.17
0.167	2.27	3.167	3.62	6.167	16.31	9.17	3.17
0.250	2.27	3.250	3.62	6.250	16.31	9.25	3.17
0.333	2.27	3.333	3.62	6.333	16.31	9.33	3.17
0.417	2.27	3.417	3.62	6.417	16.31	9.42	3.17
0.500	2.27	3.500	3.62	6.500	16.31	9.50	3.17
0.583	2.27	3.583	3.62	6.583	7.25	9.58	3.17
0.667	2.27	3.667	3.62	6.667	7.25	9.67	3.17
0.750	2.27	3.750	3.62	6.750	7.25	9.75	3.17
0.833	2.27	3.833	3.62	6.833	7.25	9.83	3.17
0.917	2.27	3.917	3.62	6.917	7.25	9.92	3.17
1.000	2.27	4.000	3.62	7.000	7.25	10.00	3.17
1.083	2.27	4.083	5.44	7.083	5.44	10.08	1.81
1.167	2.27	4.167	5.44	7.167	5.44	10.17	1.81
1.250	2.27	4.250	5.44	7.250	5.44	10.25	1.81
1.333	2.27	4.333	5.44	7.333	5.44	10.33	1.81
1.417	2.27	4.417	5.44	7.417	5.44	10.42	1.81
1.500	2.27	4.500	5.44	7.500	5.44	10.50	1.81
1.583	2.27	4.583	7.25	7.583	5.44	10.58	1.81
1.667	2.27	4.667	7.25	7.667	5.44	10.67	1.81
1.750	2.27	4.750	7.25	7.750	5.44	10.75	1.81
1.833	2.27	4.833	7.25	7.833	5.44	10.83	1.81
1.917	2.27	4.917	7.25	7.917	5.44	10.92	1.81
2.000	2.27	5.000	7.25	8.000	5.44	11.00	1.81
2.083	2.72	5.083	10.87	8.083	3.17	11.08	1.81
2.167	2.72	5.167	10.87	8.167	3.17	11.17	1.81
2.250	2.72	5.250	10.87	8.250	3.17	11.25	1.81
2.333	2.72	5.333	10.87	8.333	3.17	11.33	1.81
2.417	2.72	5.417	10.87	8.417	3.17	11.42	1.81

CALIB
STANDHYD (0005)
ID= 1 DT= 5.0 min
Area (ha)= 0.95
Total Imp(%)= 75.00 Dir. Conn.(%)= 75.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.71 0.24
Dep. Storage (mm)= 1.00 1.50
Average Slope (%)= 1.00 2.00
Length (m)= 79.65 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	2.27	3.083	3.62	6.083	16.31	9.08	3.17
0.167	2.27	3.167	3.62	6.167	16.31	9.17	3.17
0.250	2.27	3.250	3.62	6.250	16.31	9.25	3.17
0.333	2.27	3.333	3.62	6.333	16.31	9.33	3.17
0.417	2.27	3.417	3.62	6.417	16.31	9.42	3.17
0.500	2.27	3.500	3.62	6.500	16.31	9.50	3.17
0.583	2.27	3.583	3.62	6.583	7.25	9.58	3.17
0.667	2.27	3.667	3.62	6.667	7.25	9.67	3.17
0.750	2.27	3.750	3.62	6.750	7.25	9.75	3.17
0.833	2.27	3.833	3.62	6.833	7.25	9.83	3.17
0.917	2.27	3.917	3.62	6.917	7.25	9.92	3.17
1.000	2.27	4.000	3.62	7.000	7.25	10.00	3.17
1.083	2.27	4.083	5.44	7.083	5.44	10.08	1.81
1.167	2.27	4.167	5.44	7.167	5.44	10.17	1.81
1.250	2.27	4.250	5.44	7.250	5.44	10.25	1.81
1.333	2.27	4.333	5.44	7.333	5.44	10.33	1.81
1.417	2.27	4.417	5.44	7.417	5.44	10.42	1.81
1.500	2.27	4.500	5.44	7.500	5.44	10.50	1.81
1.583	2.27	4.583	7.25	7.583	5.44	10.58	1.81
1.667	2.27	4.667	7.25	7.667	5.44	10.67	1.81
1.750	2.27	4.750	7.25	7.750	5.44	10.75	1.81

1.833	2.27	4.833	7.25	7.833	5.44	10.83	1.81
1.917	2.27	4.917	7.25	7.917	5.44	10.92	1.81
2.000	2.27	5.000	7.25	8.000	5.44	11.00	1.81
2.083	2.72	5.083	10.87	8.083	3.17	11.08	1.81
2.167	2.72	5.167	10.87	8.167	3.17	11.17	1.81
2.250	2.72	5.250	10.87	8.250	3.17	11.25	1.81
2.333	2.72	5.333	10.87	8.333	3.17	11.33	1.81
2.417	2.72	5.417	10.87	8.417	3.17	11.42	1.81
2.500	2.72	5.500	10.87	8.500	3.17	11.50	1.81
2.583	2.72	5.583	43.49	8.583	3.17	11.58	1.81
2.667	2.72	5.667	43.49	8.667	3.17	11.67	1.81
2.750	2.72	5.750	43.49	8.750	3.17	11.75	1.81
2.833	2.72	5.833	119.59	8.833	3.17	11.83	1.81
2.917	2.72	5.917	119.59	8.917	3.17	11.92	1.81
3.000	2.72	6.000	119.59	9.000	3.17	12.00	1.81

Max.Eff.Inten.(mm/hr)= 119.59 93.67
over (min) 5.00 10.00
Storage Coeff. (min)= 2.07 (ii) 6.31 (ii)
Unit Hyd. Tpeak (min)= 5.00 10.00
Unit Hyd. peak (cms)= 0.31 0.15

TOTALS
PEAK FLOW (cms)= 0.24 0.05 0.290 (iii)
TIME TO PEAK (hrs)= 6.00 6.00 6.00
RUNOFF VOLUME (mm)= 89.61 59.29 82.02
TOTAL RAINFALL (mm)= 90.61 90.61 90.61
RUNOFF COEFFICIENT = 0.99 0.65 0.91

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha)=	0.92
STANDHYD (0006)	Total Imp(%)=	70.00
ID= 1 DT= 5.0 min	Dir. Conn.(%)=	70.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.65	0.28
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	78.45	40.00
Mannings n =	0.013	0.250

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

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	2.27	3.083	3.62	6.083	16.31	9.08	3.17
0.167	2.27	3.167	3.62	6.167	16.31	9.17	3.17
0.250	2.27	3.250	3.62	6.250	16.31	9.25	3.17
0.333	2.27	3.333	3.62	6.333	16.31	9.33	3.17
0.417	2.27	3.417	3.62	6.417	16.31	9.42	3.17
0.500	2.27	3.500	3.62	6.500	16.31	9.50	3.17
0.583	2.27	3.583	3.62	6.583	7.25	9.58	3.17
0.667	2.27	3.667	3.62	6.667	7.25	9.67	3.17
0.750	2.27	3.750	3.62	6.750	7.25	9.75	3.17
0.833	2.27	3.833	3.62	6.833	7.25	9.83	3.17
0.917	2.27	3.917	3.62	6.917	7.25	9.92	3.17
1.000	2.27	4.000	3.62	7.000	7.25	10.00	3.17
1.083	2.27	4.083	5.44	7.083	5.44	10.08	1.81

1.167	2.27	4.167	5.44	7.167	5.44	10.17	1.81
1.250	2.27	4.250	5.44	7.250	5.44	10.25	1.81
1.333	2.27	4.333	5.44	7.333	5.44	10.33	1.81
1.417	2.27	4.417	5.44	7.417	5.44	10.42	1.81
1.500	2.27	4.500	5.44	7.500	5.44	10.50	1.81
1.583	2.27	4.583	7.25	7.583	5.44	10.58	1.81
1.667	2.27	4.667	7.25	7.667	5.44	10.67	1.81
1.750	2.27	4.750	7.25	7.750	5.44	10.75	1.81
1.833	2.27	4.833	7.25	7.833	5.44	10.83	1.81
1.917	2.27	4.917	7.25	7.917	5.44	10.92	1.81
2.000	2.27	5.000	7.25	8.000	5.44	11.00	1.81
2.083	2.72	5.083	10.87	8.083	3.17	11.08	1.81
2.167	2.72	5.167	10.87	8.167	3.17	11.17	1.81
2.250	2.72	5.250	10.87	8.250	3.17	11.25	1.81
2.333	2.72	5.333	10.87	8.333	3.17	11.33	1.81
2.417	2.72	5.417	10.87	8.417	3.17	11.42	1.81
2.500	2.72	5.500	10.87	8.500	3.17	11.50	1.81
2.583	2.72	5.583	43.49	8.583	3.17	11.58	1.81
2.667	2.72	5.667	43.49	8.667	3.17	11.67	1.81
2.750	2.72	5.750	43.49	8.750	3.17	11.75	1.81
2.833	2.72	5.833	119.59	8.833	3.17	11.83	1.81
2.917	2.72	5.917	119.59	8.917	3.17	11.92	1.81
3.000	2.72	6.000	119.59	9.000	3.17	12.00	1.81

Max.Eff.Inten.(mm/hr)= 119.59 93.67
over (min) 5.00 10.00
Storage Coeff. (min)= 2.06 (ii) 6.74 (ii)
Unit Hyd. Tpeak (min)= 5.00 10.00
Unit Hyd. peak (cms)= 0.31 0.14

TOTALS
PEAK FLOW (cms)= 0.21 0.06 0.275 (iii)
TIME TO PEAK (hrs)= 6.00 6.00 6.00
RUNOFF VOLUME (mm)= 89.61 59.29 80.51
TOTAL RAINFALL (mm)= 90.61 90.61 90.61
RUNOFF COEFFICIENT = 0.99 0.65 0.89

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha)=	0.05
STANDHYD (0015)	Total Imp(%)=	44.00
ID= 1 DT= 5.0 min	Dir. Conn.(%)=	44.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.02	0.03
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	18.62	40.00
Mannings n =	0.013	0.250

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

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	2.27	3.083	3.62	6.083	16.31	9.08	3.17
0.167	2.27	3.167	3.62	6.167	16.31	9.17	3.17
0.250	2.27	3.250	3.62	6.250	16.31	9.25	3.17
0.333	2.27	3.333	3.62	6.333	16.31	9.33	3.17
0.417	2.27	3.417	3.62	6.417	16.31	9.42	3.17

0.500	2.27	3.500	3.62	6.500	16.31	9.50	3.17
0.583	2.27	3.583	3.62	6.583	7.25	9.58	3.17
0.667	2.27	3.667	3.62	6.667	7.25	9.67	3.17
0.750	2.27	3.750	3.62	6.750	7.25	9.75	3.17
0.833	2.27	3.833	3.62	6.833	7.25	9.83	3.17
0.917	2.27	3.917	3.62	6.917	7.25	9.92	3.17
1.000	2.27	4.000	3.62	7.000	7.25	10.00	3.17
1.083	2.27	4.083	5.44	7.083	5.44	10.08	1.81
1.167	2.27	4.167	5.44	7.167	5.44	10.17	1.81
1.250	2.27	4.250	5.44	7.250	5.44	10.25	1.81
1.333	2.27	4.333	5.44	7.333	5.44	10.33	1.81
1.417	2.27	4.417	5.44	7.417	5.44	10.42	1.81
1.500	2.27	4.500	5.44	7.500	5.44	10.50	1.81
1.583	2.27	4.583	7.25	7.583	5.44	10.58	1.81
1.667	2.27	4.667	7.25	7.667	5.44	10.67	1.81
1.750	2.27	4.750	7.25	7.750	5.44	10.75	1.81
1.833	2.27	4.833	7.25	7.833	5.44	10.83	1.81
1.917	2.27	4.917	7.25	7.917	5.44	10.92	1.81
2.000	2.27	5.000	7.25	8.000	5.44	11.00	1.81
2.083	2.72	5.083	10.87	8.083	3.17	11.08	1.81
2.167	2.72	5.167	10.87	8.167	3.17	11.17	1.81
2.250	2.72	5.250	10.87	8.250	3.17	11.25	1.81
2.333	2.72	5.333	10.87	8.333	3.17	11.33	1.81
2.417	2.72	5.417	10.87	8.417	3.17	11.42	1.81
2.500	2.72	5.500	10.87	8.500	3.17	11.50	1.81
2.583	2.72	5.583	43.49	8.583	3.17	11.58	1.81
2.667	2.72	5.667	43.49	8.667	3.17	11.67	1.81
2.750	2.72	5.750	43.49	8.750	3.17	11.75	1.81
2.833	2.72	5.833	119.59	8.833	3.17	11.83	1.81
2.917	2.72	5.917	119.59	8.917	3.17	11.92	1.81
3.000	2.72	6.000	119.59	9.000	3.17	12.00	1.81

Max.Eff.Inten.(mm/hr)= 119.59 93.67
over (min) 5.00 10.00
Storage Coeff. (min)= 0.87 (ii) 8.11 (ii)
Unit Hyd. Tpeak (min)= 5.00 10.00
Unit Hyd. peak (cms)= 0.34 0.13

TOTALS

PEAK FLOW (cms)= 0.01 0.01 0.014 (iii)
TIME TO PEAK (hrs)= 5.92 6.00 6.00
RUNOFF VOLUME (mm)= 89.61 59.29 72.56
TOTAL RAINFALL (mm)= 90.61 90.61 90.61
RUNOFF COEFFICIENT = 0.99 0.65 0.80

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0018)
ID= 1 DT= 5.0 min
Area (ha)= 0.03
Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.03 0.00
Dep. Storage (mm)= 1.00 1.50
Average Slope (%)= 1.00 2.00
Length (m)= 13.49 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	2.27	3.083	3.62	6.083	16.31	9.08	3.17
0.167	2.27	3.167	3.62	6.167	16.31	9.17	3.17
0.250	2.27	3.250	3.62	6.250	16.31	9.25	3.17
0.333	2.27	3.333	3.62	6.333	16.31	9.33	3.17
0.417	2.27	3.417	3.62	6.417	16.31	9.42	3.17
0.500	2.27	3.500	3.62	6.500	16.31	9.50	3.17
0.583	2.27	3.583	3.62	6.583	7.25	9.58	3.17
0.667	2.27	3.667	3.62	6.667	7.25	9.67	3.17
0.750	2.27	3.750	3.62	6.750	7.25	9.75	3.17
0.833	2.27	3.833	3.62	6.833	7.25	9.83	3.17
0.917	2.27	3.917	3.62	6.917	7.25	9.92	3.17
1.000	2.27	4.000	3.62	7.000	7.25	10.00	3.17
1.083	2.27	4.083	5.44	7.083	5.44	10.08	1.81
1.167	2.27	4.167	5.44	7.167	5.44	10.17	1.81
1.250	2.27	4.250	5.44	7.250	5.44	10.25	1.81
1.333	2.27	4.333	5.44	7.333	5.44	10.33	1.81
1.417	2.27	4.417	5.44	7.417	5.44	10.42	1.81
1.500	2.27	4.500	5.44	7.500	5.44	10.50	1.81
1.583	2.27	4.583	7.25	7.583	5.44	10.58	1.81
1.667	2.27	4.667	7.25	7.667	5.44	10.67	1.81
1.750	2.27	4.750	7.25	7.750	5.44	10.75	1.81
1.833	2.27	4.833	7.25	7.833	5.44	10.83	1.81
1.917	2.27	4.917	7.25	7.917	5.44	10.92	1.81
2.000	2.27	5.000	7.25	8.000	5.44	11.00	1.81
2.083	2.72	5.083	10.87	8.083	3.17	11.08	1.81
2.167	2.72	5.167	10.87	8.167	3.17	11.17	1.81
2.250	2.72	5.250	10.87	8.250	3.17	11.25	1.81
2.333	2.72	5.333	10.87	8.333	3.17	11.33	1.81
2.417	2.72	5.417	10.87	8.417	3.17	11.42	1.81
2.500	2.72	5.500	10.87	8.500	3.17	11.50	1.81
2.583	2.72	5.583	43.49	8.583	3.17	11.58	1.81
2.667	2.72	5.667	43.49	8.667	3.17	11.67	1.81
2.750	2.72	5.750	43.49	8.750	3.17	11.75	1.81
2.833	2.72	5.833	119.59	8.833	3.17	11.83	1.81
2.917	2.72	5.917	119.59	8.917	3.17	11.92	1.81
3.000	2.72	6.000	119.59	9.000	3.17	12.00	1.81

Max.Eff.Inten.(mm/hr)= 119.59 93.67
over (min) 5.00 5.00
Storage Coeff. (min)= 0.71 (ii) 1.76 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.34 0.32

TOTALS

PEAK FLOW (cms)= 0.01 0.00 0.009 (iii)
TIME TO PEAK (hrs)= 5.92 6.00 6.00
RUNOFF VOLUME (mm)= 89.61 59.29 89.31
TOTAL RAINFALL (mm)= 90.61 90.61 90.61
RUNOFF COEFFICIENT = 0.99 0.65 0.99

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0009)
1 + 2 = 3
AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 1 (0001): 0.45 0.150 6.00 89.31
+ ID2= 2 (0015): 0.05 0.014 6.00 72.56

=====

ID = 3 (0009):	0.50	0.164	6.00	87.58
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NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0009)				
3 + 2 = 1				

	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (0009):	0.50	0.164	6.00	87.58
+ ID2= 2 (0018):	0.03	0.009	6.00	89.31

ID = 1 (0009):	0.53	0.173	6.00	87.67

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0009)				
1 + 2 = 3				

	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0009):	0.53	0.173	6.00	87.67
+ ID2= 2 (0005):	0.95	0.290	6.00	82.02

ID = 3 (0009):	1.48	0.463	6.00	84.05

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0009)				
3 + 2 = 1				

	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (0009):	1.48	0.463	6.00	84.05
+ ID2= 2 (0006):	0.92	0.275	6.00	80.51

ID = 1 (0009):	2.41	0.738	6.00	82.69

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB			
STANDHYD (0002)	Area (ha)=	0.19	
ID= 1 DT= 5.0 min	Total Imp(%)=	98.00	Dir. Conn.(%)= 98.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.19	0.00
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	35.52	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	2.27	3.083	3.62	6.083	16.31	9.08	3.17
0.167	2.27	3.167	3.62	6.167	16.31	9.17	3.17
0.250	2.27	3.250	3.62	6.250	16.31	9.25	3.17
0.333	2.27	3.333	3.62	6.333	16.31	9.33	3.17
0.417	2.27	3.417	3.62	6.417	16.31	9.42	3.17
0.500	2.27	3.500	3.62	6.500	16.31	9.50	3.17
0.583	2.27	3.583	3.62	6.583	7.25	9.58	3.17
0.667	2.27	3.667	3.62	6.667	7.25	9.67	3.17
0.750	2.27	3.750	3.62	6.750	7.25	9.75	3.17

0.833	2.27	3.833	3.62	6.833	7.25	9.83	3.17
0.917	2.27	3.917	3.62	6.917	7.25	9.92	3.17
1.000	2.27	4.000	3.62	7.000	7.25	10.00	3.17
1.083	2.27	4.083	5.44	7.083	5.44	10.08	1.81
1.167	2.27	4.167	5.44	7.167	5.44	10.17	1.81
1.250	2.27	4.250	5.44	7.250	5.44	10.25	1.81
1.333	2.27	4.333	5.44	7.333	5.44	10.33	1.81
1.417	2.27	4.417	5.44	7.417	5.44	10.42	1.81
1.500	2.27	4.500	5.44	7.500	5.44	10.50	1.81
1.583	2.27	4.583	7.25	7.583	5.44	10.58	1.81
1.667	2.27	4.667	7.25	7.667	5.44	10.67	1.81
1.750	2.27	4.750	7.25	7.750	5.44	10.75	1.81
1.833	2.27	4.833	7.25	7.833	5.44	10.83	1.81
1.917	2.27	4.917	7.25	7.917	5.44	10.92	1.81
2.000	2.27	5.000	7.25	8.000	5.44	11.00	1.81
2.083	2.72	5.083	10.87	8.083	3.17	11.08	1.81
2.167	2.72	5.167	10.87	8.167	3.17	11.17	1.81
2.250	2.72	5.250	10.87	8.250	3.17	11.25	1.81
2.333	2.72	5.333	10.87	8.333	3.17	11.33	1.81
2.417	2.72	5.417	10.87	8.417	3.17	11.42	1.81
2.500	2.72	5.500	10.87	8.500	3.17	11.50	1.81
2.583	2.72	5.583	43.49	8.583	3.17	11.58	1.81
2.667	2.72	5.667	43.49	8.667	3.17	11.67	1.81
2.750	2.72	5.750	43.49	8.750	3.17	11.75	1.81
2.833	2.72	5.833	119.59	8.833	3.17	11.83	1.81
2.917	2.72	5.917	119.59	8.917	3.17	11.92	1.81
3.000	2.72	6.000	119.59	9.000	3.17	12.00	1.81

Max.Eff.Inten.(mm/hr)=	119.59	93.67
over (min)	5.00	5.00
Storage Coeff. (min)=	1.28 (ii)	2.66 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.33	0.29

			TOTALS
PEAK FLOW (cms)=	0.06	0.00	0.063 (iii)
TIME TO PEAK (hrs)=	6.00	6.00	6.00
RUNOFF VOLUME (mm)=	89.61	59.29	89.00
TOTAL RAINFALL (mm)=	90.61	90.61	90.61
RUNOFF COEFFICIENT =	0.99	0.65	0.98

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

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (0003)	Area (ha)=	0.05	
ID= 1 DT= 5.0 min	Total Imp(%)=	99.00	Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.05	0.00
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	19.11	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	2.27	3.083	3.62	6.083	16.31	9.08	3.17

0.167	2.27	3.167	3.62	6.167	16.31	9.17	3.17
0.250	2.27	3.250	3.62	6.250	16.31	9.25	3.17
0.333	2.27	3.333	3.62	6.333	16.31	9.33	3.17
0.417	2.27	3.417	3.62	6.417	16.31	9.42	3.17
0.500	2.27	3.500	3.62	6.500	16.31	9.50	3.17
0.583	2.27	3.583	3.62	6.583	7.25	9.58	3.17
0.667	2.27	3.667	3.62	6.667	7.25	9.67	3.17
0.750	2.27	3.750	3.62	6.750	7.25	9.75	3.17
0.833	2.27	3.833	3.62	6.833	7.25	9.83	3.17
0.917	2.27	3.917	3.62	6.917	7.25	9.92	3.17
1.000	2.27	4.000	3.62	7.000	7.25	10.00	3.17
1.083	2.27	4.083	5.44	7.083	5.44	10.08	1.81
1.167	2.27	4.167	5.44	7.167	5.44	10.17	1.81
1.250	2.27	4.250	5.44	7.250	5.44	10.25	1.81
1.333	2.27	4.333	5.44	7.333	5.44	10.33	1.81
1.417	2.27	4.417	5.44	7.417	5.44	10.42	1.81
1.500	2.27	4.500	5.44	7.500	5.44	10.50	1.81
1.583	2.27	4.583	7.25	7.583	5.44	10.58	1.81
1.667	2.27	4.667	7.25	7.667	5.44	10.67	1.81
1.750	2.27	4.750	7.25	7.750	5.44	10.75	1.81
1.833	2.27	4.833	7.25	7.833	5.44	10.83	1.81
1.917	2.27	4.917	7.25	7.917	5.44	10.92	1.81
2.000	2.27	5.000	7.25	8.000	5.44	11.00	1.81
2.083	2.72	5.083	10.87	8.083	3.17	11.08	1.81
2.167	2.72	5.167	10.87	8.167	3.17	11.17	1.81
2.250	2.72	5.250	10.87	8.250	3.17	11.25	1.81
2.333	2.72	5.333	10.87	8.333	3.17	11.33	1.81
2.417	2.72	5.417	10.87	8.417	3.17	11.42	1.81
2.500	2.72	5.500	10.87	8.500	3.17	11.50	1.81
2.583	2.72	5.583	43.49	8.583	3.17	11.58	1.81
2.667	2.72	5.667	43.49	8.667	3.17	11.67	1.81
2.750	2.72	5.750	43.49	8.750	3.17	11.75	1.81
2.833	2.72	5.833	119.59	8.833	3.17	11.83	1.81
2.917	2.72	5.917	119.59	8.917	3.17	11.92	1.81
3.000	2.72	6.000	119.59	9.000	3.17	12.00	1.81

Max.Eff.Inten.(mm/hr)= 119.59 93.67
over (min) 5.00 5.00
Storage Coeff. (min)= 0.88 (ii) 1.93 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.34 0.31

TOTALS
PEAK FLOW (cms)= 0.02 0.00 0.018 (iii)
TIME TO PEAK (hrs)= 5.92 6.00 6.00
RUNOFF VOLUME (mm)= 89.61 59.29 89.31
TOTAL RAINFALL (mm)= 90.61 90.61 90.61
RUNOFF COEFFICIENT = 0.99 0.65 0.99

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0004)
ID= 1 DT= 5.0 min

Area (ha)= 0.14
Total Imp(%)= 86.00 Dir. Conn.(%)= 86.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.12 0.02
Dep. Storage (mm)= 1.00 1.50
Average Slope (%)= 1.00 2.00
Length (m)= 30.63 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	2.27	3.083	3.62	6.083	16.31	9.08	3.17
0.167	2.27	3.167	3.62	6.167	16.31	9.17	3.17
0.250	2.27	3.250	3.62	6.250	16.31	9.25	3.17
0.333	2.27	3.333	3.62	6.333	16.31	9.33	3.17
0.417	2.27	3.417	3.62	6.417	16.31	9.42	3.17
0.500	2.27	3.500	3.62	6.500	16.31	9.50	3.17
0.583	2.27	3.583	3.62	6.583	7.25	9.58	3.17
0.667	2.27	3.667	3.62	6.667	7.25	9.67	3.17
0.750	2.27	3.750	3.62	6.750	7.25	9.75	3.17
0.833	2.27	3.833	3.62	6.833	7.25	9.83	3.17
0.917	2.27	3.917	3.62	6.917	7.25	9.92	3.17
1.000	2.27	4.000	3.62	7.000	7.25	10.00	3.17
1.083	2.27	4.083	5.44	7.083	5.44	10.08	1.81
1.167	2.27	4.167	5.44	7.167	5.44	10.17	1.81
1.250	2.27	4.250	5.44	7.250	5.44	10.25	1.81
1.333	2.27	4.333	5.44	7.333	5.44	10.33	1.81
1.417	2.27	4.417	5.44	7.417	5.44	10.42	1.81
1.500	2.27	4.500	5.44	7.500	5.44	10.50	1.81
1.583	2.27	4.583	7.25	7.583	5.44	10.58	1.81
1.667	2.27	4.667	7.25	7.667	5.44	10.67	1.81
1.750	2.27	4.750	7.25	7.750	5.44	10.75	1.81
1.833	2.27	4.833	7.25	7.833	5.44	10.83	1.81
1.917	2.27	4.917	7.25	7.917	5.44	10.92	1.81
2.000	2.27	5.000	7.25	8.000	5.44	11.00	1.81
2.083	2.72	5.083	10.87	8.083	3.17	11.08	1.81
2.167	2.72	5.167	10.87	8.167	3.17	11.17	1.81
2.250	2.72	5.250	10.87	8.250	3.17	11.25	1.81
2.333	2.72	5.333	10.87	8.333	3.17	11.33	1.81
2.417	2.72	5.417	10.87	8.417	3.17	11.42	1.81
2.500	2.72	5.500	10.87	8.500	3.17	11.50	1.81
2.583	2.72	5.583	43.49	8.583	3.17	11.58	1.81
2.667	2.72	5.667	43.49	8.667	3.17	11.67	1.81
2.750	2.72	5.750	43.49	8.750	3.17	11.75	1.81
2.833	2.72	5.833	119.59	8.833	3.17	11.83	1.81
2.917	2.72	5.917	119.59	8.917	3.17	11.92	1.81
3.000	2.72	6.000	119.59	9.000	3.17	12.00	1.81

Max.Eff.Inten.(mm/hr)= 119.59 93.67
over (min) 5.00 5.00
Storage Coeff. (min)= 1.17 (ii) 4.35 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.34 0.23

TOTALS
PEAK FLOW (cms)= 0.04 0.01 0.045 (iii)
TIME TO PEAK (hrs)= 6.00 6.00 6.00
RUNOFF VOLUME (mm)= 89.61 59.29 85.35
TOTAL RAINFALL (mm)= 90.61 90.61 90.61
RUNOFF COEFFICIENT = 0.99 0.65 0.94

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0012)
Area (ha)= 0.07

|ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.07	0.00
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	21.88	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	2.27	3.083	3.62	6.083	16.31	9.08	3.17
0.167	2.27	3.167	3.62	6.167	16.31	9.17	3.17
0.250	2.27	3.250	3.62	6.250	16.31	9.25	3.17
0.333	2.27	3.333	3.62	6.333	16.31	9.33	3.17
0.417	2.27	3.417	3.62	6.417	16.31	9.42	3.17
0.500	2.27	3.500	3.62	6.500	16.31	9.50	3.17
0.583	2.27	3.583	3.62	6.583	7.25	9.58	3.17
0.667	2.27	3.667	3.62	6.667	7.25	9.67	3.17
0.750	2.27	3.750	3.62	6.750	7.25	9.75	3.17
0.833	2.27	3.833	3.62	6.833	7.25	9.83	3.17
0.917	2.27	3.917	3.62	6.917	7.25	9.92	3.17
1.000	2.27	4.000	3.62	7.000	7.25	10.00	3.17
1.083	2.27	4.083	5.44	7.083	5.44	10.08	1.81
1.167	2.27	4.167	5.44	7.167	5.44	10.17	1.81
1.250	2.27	4.250	5.44	7.250	5.44	10.25	1.81
1.333	2.27	4.333	5.44	7.333	5.44	10.33	1.81
1.417	2.27	4.417	5.44	7.417	5.44	10.42	1.81
1.500	2.27	4.500	5.44	7.500	5.44	10.50	1.81
1.583	2.27	4.583	7.25	7.583	5.44	10.58	1.81
1.667	2.27	4.667	7.25	7.667	5.44	10.67	1.81
1.750	2.27	4.750	7.25	7.750	5.44	10.75	1.81
1.833	2.27	4.833	7.25	7.833	5.44	10.83	1.81
1.917	2.27	4.917	7.25	7.917	5.44	10.92	1.81
2.000	2.27	5.000	7.25	8.000	5.44	11.00	1.81
2.083	2.72	5.083	10.87	8.083	3.17	11.08	1.81
2.167	2.72	5.167	10.87	8.167	3.17	11.17	1.81
2.250	2.72	5.250	10.87	8.250	3.17	11.25	1.81
2.333	2.72	5.333	10.87	8.333	3.17	11.33	1.81
2.417	2.72	5.417	10.87	8.417	3.17	11.42	1.81
2.500	2.72	5.500	10.87	8.500	3.17	11.50	1.81
2.583	2.72	5.583	43.49	8.583	3.17	11.58	1.81
2.667	2.72	5.667	43.49	8.667	3.17	11.67	1.81
2.750	2.72	5.750	43.49	8.750	3.17	11.75	1.81
2.833	2.72	5.833	119.59	8.833	3.17	11.83	1.81
2.917	2.72	5.917	119.59	8.917	3.17	11.92	1.81
3.000	2.72	6.000	119.59	9.000	3.17	12.00	1.81

Max.Eff.Inten.(mm/hr)=	119.59	93.67
over (min)	5.00	5.00
Storage Coeff. (min)=	0.96 (ii)	2.00 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.34	0.31

TOTALS

PEAK FLOW (cms)=	0.02	0.00	0.024 (iii)
TIME TO PEAK (hrs)=	6.00	6.00	6.00
RUNOFF VOLUME (mm)=	89.61	59.29	89.31
TOTAL RAINFALL (mm)=	90.61	90.61	90.61
RUNOFF COEFFICIENT =	0.99	0.65	0.99

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

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)

- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0007)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3				
ID1= 1 (0012):	0.07	0.024	6.00	89.31
+ ID2= 2 (0002):	0.19	0.063	6.00	89.00
=====				
ID = 3 (0007):	0.26	0.086	6.00	89.08

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0007)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
3 + 2 = 1				
ID1= 3 (0007):	0.26	0.086	6.00	89.08
+ ID2= 2 (0003):	0.05	0.018	6.00	89.31
=====				
ID = 1 (0007):	0.32	0.105	6.00	89.12

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0007)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3				
ID1= 1 (0007):	0.32	0.105	6.00	89.12
+ ID2= 2 (0004):	0.14	0.045	6.00	85.35
=====				
ID = 3 (0007):	0.46	0.150	6.00	87.96

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR(0014)	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
IN= 2----> OUT= 1				
DT= 5.0 min				
	0.0000	0.0000	0.0880	0.0054
	0.0000	0.0008	0.0950	0.0062
	0.0360	0.0015	0.1020	0.0070
	0.0510	0.0023	0.1080	0.0077
	0.0620	0.0031	0.1140	0.0085
	0.0720	0.0039	0.1200	0.0093
	0.0810	0.0046	0.0000	0.0000

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (0007)	0.456	0.150	6.00	87.96
OUTFLOW: ID= 1 (0014)	0.456	0.103	6.00	86.21

PEAK FLOW REDUCTION [Qout/Qin](%)= 68.91
TIME SHIFT OF PEAK FLOW (min)= 0.00
MAXIMUM STORAGE USED (ha.m.)= 0.0078

ADD HYD (0017)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3				

----- (ha) (cms) (hrs) (mm)
ID1= 1 (0014): 0.46 0.103 6.00 86.21
+ ID2= 2 (0009): 2.41 0.738 6.00 82.69
=====
ID = 3 (0017): 2.86 0.841 6.00 83.25

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

=====
=====

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

000 TTTT TTTT H H Y Y M M 000 TM
0 0 T T H H Y Y MM MM 0 0
0 0 T T H H Y M M 0 0
000 T T H H Y M M 000

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

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\V02\voin.dat
Output filename: C:\Users\ffisl\AppData\Local\Civica\XH5\dae7608f-82b9-4213-85a0-cec48cda5646\74bd025b-b2dd-4259-86be-290993984538\scenar
Summary filename: C:\Users\ffisl\AppData\Local\Civica\XH5\dae7608f-82b9-4213-85a0-cec48cda5646\74bd025b-b2dd-4259-86be-290993984538\scenar

DATE: 12-02-2025 TIME: 06:28:13

USER:

COMMENTS: _____

** SIMULATION : 100-year **

| READ STORM | Filename: C:\Users\ffisl\AppData
| | ata\Local\Temp\
| | 22e05611-c4fa-4c11-803e-23c2a569b1f7\9d646744
| Ptotal= 99.69 mm | Comments: 100-yr, 12-hr SCS Type II Distribution S

TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr
0.00 2.49 | 3.00 3.99 | 6.00 17.95 | 9.00 3.49
0.25 2.49 | 3.25 3.99 | 6.25 17.95 | 9.25 3.49
0.50 2.49 | 3.50 3.99 | 6.50 7.98 | 9.50 3.49
0.75 2.49 | 3.75 3.99 | 6.75 7.98 | 9.75 3.49
1.00 2.49 | 4.00 5.98 | 7.00 5.98 | 10.00 1.99
1.25 2.49 | 4.25 5.98 | 7.25 5.98 | 10.25 1.99
1.50 2.49 | 4.50 7.98 | 7.50 5.98 | 10.50 1.99
1.75 2.49 | 4.75 7.98 | 7.75 5.98 | 10.75 1.99

2.00 2.99 | 5.00 11.96 | 8.00 3.49 | 11.00 1.99
2.25 2.99 | 5.25 11.96 | 8.25 3.49 | 11.25 1.99
2.50 2.99 | 5.50 47.86 | 8.50 3.49 | 11.50 1.99
2.75 2.99 | 5.75 131.60 | 8.75 3.49 | 11.75 1.99

| CALIB |
| STANDHYD (0001) | Area (ha)= 0.45
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.45 0.00
Dep. Storage (mm)= 1.00 1.50
Average Slope (%)= 1.00 2.00
Length (m)= 54.94 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 2.49 | 3.083 3.99 | 6.083 17.95 | 9.08 3.49
0.167 2.49 | 3.167 3.99 | 6.167 17.95 | 9.17 3.49
0.250 2.49 | 3.250 3.99 | 6.250 17.95 | 9.25 3.49
0.333 2.49 | 3.333 3.99 | 6.333 17.95 | 9.33 3.49
0.417 2.49 | 3.417 3.99 | 6.417 17.95 | 9.42 3.49
0.500 2.49 | 3.500 3.99 | 6.500 17.95 | 9.50 3.49
0.583 2.49 | 3.583 3.99 | 6.583 7.98 | 9.58 3.49
0.667 2.49 | 3.667 3.99 | 6.667 7.98 | 9.67 3.49
0.750 2.49 | 3.750 3.99 | 6.750 7.98 | 9.75 3.49
0.833 2.49 | 3.833 3.99 | 6.833 7.98 | 9.83 3.49
0.917 2.49 | 3.917 3.99 | 6.917 7.98 | 9.92 3.49
1.000 2.49 | 4.000 3.99 | 7.000 7.98 | 10.00 3.49
1.083 2.49 | 4.083 5.98 | 7.083 5.98 | 10.08 1.99
1.167 2.49 | 4.167 5.98 | 7.167 5.98 | 10.17 1.99
1.250 2.49 | 4.250 5.98 | 7.250 5.98 | 10.25 1.99
1.333 2.49 | 4.333 5.98 | 7.333 5.98 | 10.33 1.99
1.417 2.49 | 4.417 5.98 | 7.417 5.98 | 10.42 1.99
1.500 2.49 | 4.500 5.98 | 7.500 5.98 | 10.50 1.99
1.583 2.49 | 4.583 7.98 | 7.583 5.98 | 10.58 1.99
1.667 2.49 | 4.667 7.98 | 7.667 5.98 | 10.67 1.99
1.750 2.49 | 4.750 7.98 | 7.750 5.98 | 10.75 1.99
1.833 2.49 | 4.833 7.98 | 7.833 5.98 | 10.83 1.99
1.917 2.49 | 4.917 7.98 | 7.917 5.98 | 10.92 1.99
2.000 2.49 | 5.000 7.98 | 8.000 5.98 | 11.00 1.99
2.083 2.99 | 5.083 11.96 | 8.083 3.49 | 11.08 1.99
2.167 2.99 | 5.167 11.96 | 8.167 3.49 | 11.17 1.99
2.250 2.99 | 5.250 11.96 | 8.250 3.49 | 11.25 1.99
2.333 2.99 | 5.333 11.96 | 8.333 3.49 | 11.33 1.99
2.417 2.99 | 5.417 11.96 | 8.417 3.49 | 11.42 1.99
2.500 2.99 | 5.500 11.96 | 8.500 3.49 | 11.50 1.99
2.583 2.99 | 5.583 47.86 | 8.583 3.49 | 11.58 1.99
2.667 2.99 | 5.667 47.86 | 8.667 3.49 | 11.67 1.99
2.750 2.99 | 5.750 47.86 | 8.750 3.49 | 11.75 1.99
2.833 2.99 | 5.833 131.60 | 8.833 3.49 | 11.83 1.99
2.917 2.99 | 5.917 131.60 | 8.917 3.49 | 11.92 1.99
3.000 2.99 | 6.000 131.60 | 9.000 3.49 | 12.00 1.99

Max.Eff.Inten.(mm/hr)= 131.60 105.96
over (min) 5.00 5.00
Storage Coeff. (min)= 1.60 (ii) 2.60 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.32 0.29

TOTALS

PEAK FLOW (cms)= 0.16 0.00 0.165 (iii)
TIME TO PEAK (hrs)= 6.00 6.00 6.00
RUNOFF VOLUME (mm)= 98.69 67.42 98.38
TOTAL RAINFALL (mm)= 99.69 99.69 99.69
RUNOFF COEFFICIENT = 0.99 0.68 0.99

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0005)
ID= 1 DT= 5.0 min

Area (ha)= 0.95
Total Imp(%)= 75.00 Dir. Conn.(%)= 75.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.71 0.24
Dep. Storage (mm)= 1.00 1.50
Average Slope (%)= 1.00 2.00
Length (m)= 79.65 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	2.49	3.083	3.99	6.083	17.95	9.08	3.49
0.167	2.49	3.167	3.99	6.167	17.95	9.17	3.49
0.250	2.49	3.250	3.99	6.250	17.95	9.25	3.49
0.333	2.49	3.333	3.99	6.333	17.95	9.33	3.49
0.417	2.49	3.417	3.99	6.417	17.95	9.42	3.49
0.500	2.49	3.500	3.99	6.500	17.95	9.50	3.49
0.583	2.49	3.583	3.99	6.583	7.98	9.58	3.49
0.667	2.49	3.667	3.99	6.667	7.98	9.67	3.49
0.750	2.49	3.750	3.99	6.750	7.98	9.75	3.49
0.833	2.49	3.833	3.99	6.833	7.98	9.83	3.49
0.917	2.49	3.917	3.99	6.917	7.98	9.92	3.49
1.000	2.49	4.000	3.99	7.000	7.98	10.00	3.49
1.083	2.49	4.083	5.98	7.083	5.98	10.08	1.99
1.167	2.49	4.167	5.98	7.167	5.98	10.17	1.99
1.250	2.49	4.250	5.98	7.250	5.98	10.25	1.99
1.333	2.49	4.333	5.98	7.333	5.98	10.33	1.99
1.417	2.49	4.417	5.98	7.417	5.98	10.42	1.99
1.500	2.49	4.500	5.98	7.500	5.98	10.50	1.99
1.583	2.49	4.583	7.98	7.583	5.98	10.58	1.99
1.667	2.49	4.667	7.98	7.667	5.98	10.67	1.99
1.750	2.49	4.750	7.98	7.750	5.98	10.75	1.99
1.833	2.49	4.833	7.98	7.833	5.98	10.83	1.99
1.917	2.49	4.917	7.98	7.917	5.98	10.92	1.99
2.000	2.49	5.000	7.98	8.000	5.98	11.00	1.99
2.083	2.99	5.083	11.96	8.083	3.49	11.08	1.99
2.167	2.99	5.167	11.96	8.167	3.49	11.17	1.99
2.250	2.99	5.250	11.96	8.250	3.49	11.25	1.99
2.333	2.99	5.333	11.96	8.333	3.49	11.33	1.99
2.417	2.99	5.417	11.96	8.417	3.49	11.42	1.99
2.500	2.99	5.500	11.96	8.500	3.49	11.50	1.99
2.583	2.99	5.583	47.86	8.583	3.49	11.58	1.99
2.667	2.99	5.667	47.86	8.667	3.49	11.67	1.99
2.750	2.99	5.750	47.86	8.750	3.49	11.75	1.99
2.833	2.99	5.833	131.60	8.833	3.49	11.83	1.99
2.917	2.99	5.917	131.60	8.917	3.49	11.92	1.99

3.000 2.99 | 6.000 131.60 | 9.000 3.49 | 12.00 1.99

Max.Eff.Inten.(mm/hr)= 131.60 105.96
over (min)= 5.00 10.00
Storage Coeff. (min)= 2.00 (ii) 6.07 (ii)
Unit Hyd. Tpeak (min)= 5.00 10.00
Unit Hyd. peak (cms)= 0.31 0.15

TOTALS

PEAK FLOW (cms)= 0.26 0.06 0.321 (iii)
TIME TO PEAK (hrs)= 6.00 6.00 6.00
RUNOFF VOLUME (mm)= 98.69 67.41 90.87
TOTAL RAINFALL (mm)= 99.69 99.69 99.69
RUNOFF COEFFICIENT = 0.99 0.68 0.91

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0006)
ID= 1 DT= 5.0 min

Area (ha)= 0.92
Total Imp(%)= 70.00 Dir. Conn.(%)= 70.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.65 0.28
Dep. Storage (mm)= 1.00 1.50
Average Slope (%)= 1.00 2.00
Length (m)= 78.45 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	2.49	3.083	3.99	6.083	17.95	9.08	3.49
0.167	2.49	3.167	3.99	6.167	17.95	9.17	3.49
0.250	2.49	3.250	3.99	6.250	17.95	9.25	3.49
0.333	2.49	3.333	3.99	6.333	17.95	9.33	3.49
0.417	2.49	3.417	3.99	6.417	17.95	9.42	3.49
0.500	2.49	3.500	3.99	6.500	17.95	9.50	3.49
0.583	2.49	3.583	3.99	6.583	7.98	9.58	3.49
0.667	2.49	3.667	3.99	6.667	7.98	9.67	3.49
0.750	2.49	3.750	3.99	6.750	7.98	9.75	3.49
0.833	2.49	3.833	3.99	6.833	7.98	9.83	3.49
0.917	2.49	3.917	3.99	6.917	7.98	9.92	3.49
1.000	2.49	4.000	3.99	7.000	7.98	10.00	3.49
1.083	2.49	4.083	5.98	7.083	5.98	10.08	1.99
1.167	2.49	4.167	5.98	7.167	5.98	10.17	1.99
1.250	2.49	4.250	5.98	7.250	5.98	10.25	1.99
1.333	2.49	4.333	5.98	7.333	5.98	10.33	1.99
1.417	2.49	4.417	5.98	7.417	5.98	10.42	1.99
1.500	2.49	4.500	5.98	7.500	5.98	10.50	1.99
1.583	2.49	4.583	7.98	7.583	5.98	10.58	1.99
1.667	2.49	4.667	7.98	7.667	5.98	10.67	1.99
1.750	2.49	4.750	7.98	7.750	5.98	10.75	1.99
1.833	2.49	4.833	7.98	7.833	5.98	10.83	1.99
1.917	2.49	4.917	7.98	7.917	5.98	10.92	1.99
2.000	2.49	5.000	7.98	8.000	5.98	11.00	1.99
2.083	2.99	5.083	11.96	8.083	3.49	11.08	1.99
2.167	2.99	5.167	11.96	8.167	3.49	11.17	1.99
2.250	2.99	5.250	11.96	8.250	3.49	11.25	1.99

2.333	2.99	5.333	11.96	8.333	3.49	11.33	1.99
2.417	2.99	5.417	11.96	8.417	3.49	11.42	1.99
2.500	2.99	5.500	11.96	8.500	3.49	11.50	1.99
2.583	2.99	5.583	47.86	8.583	3.49	11.58	1.99
2.667	2.99	5.667	47.86	8.667	3.49	11.67	1.99
2.750	2.99	5.750	47.86	8.750	3.49	11.75	1.99
2.833	2.99	5.833	131.60	8.833	3.49	11.83	1.99
2.917	2.99	5.917	131.60	8.917	3.49	11.92	1.99
3.000	2.99	6.000	131.60	9.000	3.49	12.00	1.99

Max.Eff.Inten.(mm/hr)= 131.60 105.96
over (min) 5.00 10.00
Storage Coeff. (min)= 1.98 (ii) 6.48 (ii)
Unit Hyd. Tpeak (min)= 5.00 10.00
Unit Hyd. peak (cms)= 0.31 0.14

TOTALS
PEAK FLOW (cms)= 0.24 0.07 0.306 (iii)
TIME TO PEAK (hrs)= 6.00 6.00 6.00
RUNOFF VOLUME (mm)= 98.69 67.41 89.30
TOTAL RAINFALL (mm)= 99.69 99.69 99.69
RUNOFF COEFFICIENT = 0.99 0.68 0.90

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (0015)	Area (ha)=	0.05	
ID= 1 DT= 5.0 min	Total Imp(%)=	44.00	Dir. Conn.(%)= 44.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.02	0.03
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	18.62	40.00
Mannings n =	0.013	0.250

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

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	2.49	3.083	3.99	6.083	17.95	9.08	3.49
0.167	2.49	3.167	3.99	6.167	17.95	9.17	3.49
0.250	2.49	3.250	3.99	6.250	17.95	9.25	3.49
0.333	2.49	3.333	3.99	6.333	17.95	9.33	3.49
0.417	2.49	3.417	3.99	6.417	17.95	9.42	3.49
0.500	2.49	3.500	3.99	6.500	17.95	9.50	3.49
0.583	2.49	3.583	3.99	6.583	7.98	9.58	3.49
0.667	2.49	3.667	3.99	6.667	7.98	9.67	3.49
0.750	2.49	3.750	3.99	6.750	7.98	9.75	3.49
0.833	2.49	3.833	3.99	6.833	7.98	9.83	3.49
0.917	2.49	3.917	3.99	6.917	7.98	9.92	3.49
1.000	2.49	4.000	3.99	7.000	7.98	10.00	3.49
1.083	2.49	4.083	5.98	7.083	5.98	10.08	1.99
1.167	2.49	4.167	5.98	7.167	5.98	10.17	1.99
1.250	2.49	4.250	5.98	7.250	5.98	10.25	1.99
1.333	2.49	4.333	5.98	7.333	5.98	10.33	1.99
1.417	2.49	4.417	5.98	7.417	5.98	10.42	1.99
1.500	2.49	4.500	5.98	7.500	5.98	10.50	1.99
1.583	2.49	4.583	7.98	7.583	5.98	10.58	1.99

1.667	2.49	4.667	7.98	7.667	5.98	10.67	1.99
1.750	2.49	4.750	7.98	7.750	5.98	10.75	1.99
1.833	2.49	4.833	7.98	7.833	5.98	10.83	1.99
1.917	2.49	4.917	7.98	7.917	5.98	10.92	1.99
2.000	2.49	5.000	7.98	8.000	5.98	11.00	1.99
2.083	2.99	5.083	11.96	8.083	3.49	11.08	1.99
2.167	2.99	5.167	11.96	8.167	3.49	11.17	1.99
2.250	2.99	5.250	11.96	8.250	3.49	11.25	1.99
2.333	2.99	5.333	11.96	8.333	3.49	11.33	1.99
2.417	2.99	5.417	11.96	8.417	3.49	11.42	1.99
2.500	2.99	5.500	11.96	8.500	3.49	11.50	1.99
2.583	2.99	5.583	47.86	8.583	3.49	11.58	1.99
2.667	2.99	5.667	47.86	8.667	3.49	11.67	1.99
2.750	2.99	5.750	47.86	8.750	3.49	11.75	1.99
2.833	2.99	5.833	131.60	8.833	3.49	11.83	1.99
2.917	2.99	5.917	131.60	8.917	3.49	11.92	1.99
3.000	2.99	6.000	131.60	9.000	3.49	12.00	1.99

Max.Eff.Inten.(mm/hr)= 131.60 105.96
over (min) 5.00 10.00
Storage Coeff. (min)= 0.83 (ii) 7.73 (ii)
Unit Hyd. Tpeak (min)= 5.00 10.00
Unit Hyd. peak (cms)= 0.34 0.13

TOTALS
PEAK FLOW (cms)= 0.01 0.01 0.015 (iii)
TIME TO PEAK (hrs)= 5.92 6.00 6.00
RUNOFF VOLUME (mm)= 98.69 67.42 81.10
TOTAL RAINFALL (mm)= 99.69 99.69 99.69
RUNOFF COEFFICIENT = 0.99 0.68 0.81

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (0018)	Area (ha)=	0.03	
ID= 1 DT= 5.0 min	Total Imp(%)=	99.00	Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.03	0.00
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	13.49	40.00
Mannings n =	0.013	0.250

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

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	2.49	3.083	3.99	6.083	17.95	9.08	3.49
0.167	2.49	3.167	3.99	6.167	17.95	9.17	3.49
0.250	2.49	3.250	3.99	6.250	17.95	9.25	3.49
0.333	2.49	3.333	3.99	6.333	17.95	9.33	3.49
0.417	2.49	3.417	3.99	6.417	17.95	9.42	3.49
0.500	2.49	3.500	3.99	6.500	17.95	9.50	3.49
0.583	2.49	3.583	3.99	6.583	7.98	9.58	3.49
0.667	2.49	3.667	3.99	6.667	7.98	9.67	3.49
0.750	2.49	3.750	3.99	6.750	7.98	9.75	3.49
0.833	2.49	3.833	3.99	6.833	7.98	9.83	3.49
0.917	2.49	3.917	3.99	6.917	7.98	9.92	3.49

1.000	2.49	4.000	3.99	7.000	7.98	10.00	3.49
1.083	2.49	4.083	5.98	7.083	5.98	10.08	1.99
1.167	2.49	4.167	5.98	7.167	5.98	10.17	1.99
1.250	2.49	4.250	5.98	7.250	5.98	10.25	1.99
1.333	2.49	4.333	5.98	7.333	5.98	10.33	1.99
1.417	2.49	4.417	5.98	7.417	5.98	10.42	1.99
1.500	2.49	4.500	5.98	7.500	5.98	10.50	1.99
1.583	2.49	4.583	7.98	7.583	5.98	10.58	1.99
1.667	2.49	4.667	7.98	7.667	5.98	10.67	1.99
1.750	2.49	4.750	7.98	7.750	5.98	10.75	1.99
1.833	2.49	4.833	7.98	7.833	5.98	10.83	1.99
1.917	2.49	4.917	7.98	7.917	5.98	10.92	1.99
2.000	2.49	5.000	7.98	8.000	5.98	11.00	1.99
2.083	2.99	5.083	11.96	8.083	3.49	11.08	1.99
2.167	2.99	5.167	11.96	8.167	3.49	11.17	1.99
2.250	2.99	5.250	11.96	8.250	3.49	11.25	1.99
2.333	2.99	5.333	11.96	8.333	3.49	11.33	1.99
2.417	2.99	5.417	11.96	8.417	3.49	11.42	1.99
2.500	2.99	5.500	11.96	8.500	3.49	11.50	1.99
2.583	2.99	5.583	47.86	8.583	3.49	11.58	1.99
2.667	2.99	5.667	47.86	8.667	3.49	11.67	1.99
2.750	2.99	5.750	47.86	8.750	3.49	11.75	1.99
2.833	2.99	5.833	131.60	8.833	3.49	11.83	1.99
2.917	2.99	5.917	131.60	8.917	3.49	11.92	1.99
3.000	2.99	6.000	131.60	9.000	3.49	12.00	1.99

Max.Eff.Inten.(mm/hr)= 131.60 105.96
over (min) 5.00 5.00
Storage Coeff. (min)= 0.69 (ii) 1.69 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.34 0.32

TOTALS

PEAK FLOW (cms)=	0.01	0.00	0.010 (iii)
TIME TO PEAK (hrs)=	5.92	6.00	6.00
RUNOFF VOLUME (mm)=	98.69	67.42	98.38
TOTAL RAINFALL (mm)=	99.69	99.69	99.69
RUNOFF COEFFICIENT =	0.99	0.68	0.99

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0009)				
1 + 2 = 3	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0001):	0.45	0.165	6.00	98.38
+ ID2= 2 (0015):	0.05	0.015	6.00	81.10
=====				
ID = 3 (0009):	0.50	0.180	6.00	96.60

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0009)				
3 + 2 = 1	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (0009):	0.50	0.180	6.00	96.60
+ ID2= 2 (0018):	0.03	0.010	6.00	98.38
=====				
ID = 1 (0009):	0.53	0.190	6.00	96.69

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0009)				
1 + 2 = 3	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0009):	0.53	0.190	6.00	96.69
+ ID2= 2 (0005):	0.95	0.321	6.00	90.87
=====				
ID = 3 (0009):	1.48	0.512	6.00	92.95

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0009)				
3 + 2 = 1	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (0009):	1.48	0.512	6.00	92.95
+ ID2= 2 (0006):	0.92	0.306	6.00	89.30
=====				
ID = 1 (0009):	2.41	0.818	6.00	91.55

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB			
STANDHYD (0002)	Area (ha)=	0.19	
ID= 1 DT= 5.0 min	Total Imp(%)=	98.00	Dir. Conn.(%)= 98.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.19	0.00	
Dep. Storage (mm)=	1.00	1.50	
Average Slope (%)=	1.00	2.00	
Length (m)=	35.52	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	2.49	3.083	3.99	6.083	17.95	9.08	3.49
0.167	2.49	3.167	3.99	6.167	17.95	9.17	3.49
0.250	2.49	3.250	3.99	6.250	17.95	9.25	3.49
0.333	2.49	3.333	3.99	6.333	17.95	9.33	3.49
0.417	2.49	3.417	3.99	6.417	17.95	9.42	3.49
0.500	2.49	3.500	3.99	6.500	17.95	9.50	3.49
0.583	2.49	3.583	3.99	6.583	7.98	9.58	3.49
0.667	2.49	3.667	3.99	6.667	7.98	9.67	3.49
0.750	2.49	3.750	3.99	6.750	7.98	9.75	3.49
0.833	2.49	3.833	3.99	6.833	7.98	9.83	3.49
0.917	2.49	3.917	3.99	6.917	7.98	9.92	3.49
1.000	2.49	4.000	3.99	7.000	7.98	10.00	3.49
1.083	2.49	4.083	5.98	7.083	5.98	10.08	1.99
1.167	2.49	4.167	5.98	7.167	5.98	10.17	1.99
1.250	2.49	4.250	5.98	7.250	5.98	10.25	1.99
1.333	2.49	4.333	5.98	7.333	5.98	10.33	1.99
1.417	2.49	4.417	5.98	7.417	5.98	10.42	1.99
1.500	2.49	4.500	5.98	7.500	5.98	10.50	1.99
1.583	2.49	4.583	7.98	7.583	5.98	10.58	1.99
1.667	2.49	4.667	7.98	7.667	5.98	10.67	1.99
1.750	2.49	4.750	7.98	7.750	5.98	10.75	1.99
1.833	2.49	4.833	7.98	7.833	5.98	10.83	1.99
1.917	2.49	4.917	7.98	7.917	5.98	10.92	1.99

2.000	2.49	5.000	7.98	8.000	5.98	11.00	1.99
2.083	2.99	5.083	11.96	8.083	3.49	11.08	1.99
2.167	2.99	5.167	11.96	8.167	3.49	11.17	1.99
2.250	2.99	5.250	11.96	8.250	3.49	11.25	1.99
2.333	2.99	5.333	11.96	8.333	3.49	11.33	1.99
2.417	2.99	5.417	11.96	8.417	3.49	11.42	1.99
2.500	2.99	5.500	11.96	8.500	3.49	11.50	1.99
2.583	2.99	5.583	47.86	8.583	3.49	11.58	1.99
2.667	2.99	5.667	47.86	8.667	3.49	11.67	1.99
2.750	2.99	5.750	47.86	8.750	3.49	11.75	1.99
2.833	2.99	5.833	131.60	8.833	3.49	11.83	1.99
2.917	2.99	5.917	131.60	8.917	3.49	11.92	1.99
3.000	2.99	6.000	131.60	9.000	3.49	12.00	1.99

Max.Eff.Inten.(mm/hr)= 131.60 105.96
over (min) 5.00 5.00
Storage Coeff. (min)= 1.23 (ii) 2.56 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.33 0.29

PEAK FLOW (cms)= 0.07 0.00 0.069 (iii)
TIME TO PEAK (hrs)= 6.00 6.00 6.00
RUNOFF VOLUME (mm)= 98.69 67.42 98.06
TOTAL RAINFALL (mm)= 99.69 99.69 99.69
RUNOFF COEFFICIENT = 0.99 0.68 0.98

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (0003)	Area (ha)=	0.05	
ID= 1 DT= 5.0 min	Total Imp(%)=	99.00	Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.05	0.00
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	19.11	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	2.49	3.083	3.99	6.083	17.95	9.08	3.49
0.167	2.49	3.167	3.99	6.167	17.95	9.17	3.49
0.250	2.49	3.250	3.99	6.250	17.95	9.25	3.49
0.333	2.49	3.333	3.99	6.333	17.95	9.33	3.49
0.417	2.49	3.417	3.99	6.417	17.95	9.42	3.49
0.500	2.49	3.500	3.99	6.500	17.95	9.50	3.49
0.583	2.49	3.583	3.99	6.583	7.98	9.58	3.49
0.667	2.49	3.667	3.99	6.667	7.98	9.67	3.49
0.750	2.49	3.750	3.99	6.750	7.98	9.75	3.49
0.833	2.49	3.833	3.99	6.833	7.98	9.83	3.49
0.917	2.49	3.917	3.99	6.917	7.98	9.92	3.49
1.000	2.49	4.000	3.99	7.000	7.98	10.00	3.49
1.083	2.49	4.083	5.98	7.083	5.98	10.08	1.99
1.167	2.49	4.167	5.98	7.167	5.98	10.17	1.99
1.250	2.49	4.250	5.98	7.250	5.98	10.25	1.99

1.333	2.49	4.333	5.98	7.333	5.98	10.33	1.99
1.417	2.49	4.417	5.98	7.417	5.98	10.42	1.99
1.500	2.49	4.500	5.98	7.500	5.98	10.50	1.99
1.583	2.49	4.583	7.98	7.583	5.98	10.58	1.99
1.667	2.49	4.667	7.98	7.667	5.98	10.67	1.99
1.750	2.49	4.750	7.98	7.750	5.98	10.75	1.99
1.833	2.49	4.833	7.98	7.833	5.98	10.83	1.99
1.917	2.49	4.917	7.98	7.917	5.98	10.92	1.99
2.000	2.49	5.000	7.98	8.000	5.98	11.00	1.99
2.083	2.99	5.083	11.96	8.083	3.49	11.08	1.99
2.167	2.99	5.167	11.96	8.167	3.49	11.17	1.99
2.250	2.99	5.250	11.96	8.250	3.49	11.25	1.99
2.333	2.99	5.333	11.96	8.333	3.49	11.33	1.99
2.417	2.99	5.417	11.96	8.417	3.49	11.42	1.99
2.500	2.99	5.500	11.96	8.500	3.49	11.50	1.99
2.583	2.99	5.583	47.86	8.583	3.49	11.58	1.99
2.667	2.99	5.667	47.86	8.667	3.49	11.67	1.99
2.750	2.99	5.750	47.86	8.750	3.49	11.75	1.99
2.833	2.99	5.833	131.60	8.833	3.49	11.83	1.99
2.917	2.99	5.917	131.60	8.917	3.49	11.92	1.99
3.000	2.99	6.000	131.60	9.000	3.49	12.00	1.99

Max.Eff.Inten.(mm/hr)= 131.60 105.96
over (min) 5.00 5.00
Storage Coeff. (min)= 0.85 (ii) 1.85 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.34 0.32

PEAK FLOW (cms)= 0.02 0.00 0.020 (iii)
TIME TO PEAK (hrs)= 5.92 6.00 6.00
RUNOFF VOLUME (mm)= 98.69 67.42 98.38
TOTAL RAINFALL (mm)= 99.69 99.69 99.69
RUNOFF COEFFICIENT = 0.99 0.68 0.99

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (0004)	Area (ha)=	0.14	
ID= 1 DT= 5.0 min	Total Imp(%)=	86.00	Dir. Conn.(%)= 86.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.12	0.02
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	30.63	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	2.49	3.083	3.99	6.083	17.95	9.08	3.49
0.167	2.49	3.167	3.99	6.167	17.95	9.17	3.49
0.250	2.49	3.250	3.99	6.250	17.95	9.25	3.49
0.333	2.49	3.333	3.99	6.333	17.95	9.33	3.49
0.417	2.49	3.417	3.99	6.417	17.95	9.42	3.49
0.500	2.49	3.500	3.99	6.500	17.95	9.50	3.49
0.583	2.49	3.583	3.99	6.583	7.98	9.58	3.49

0.667	2.49	3.667	3.99	6.667	7.98	9.67	3.49
0.750	2.49	3.750	3.99	6.750	7.98	9.75	3.49
0.833	2.49	3.833	3.99	6.833	7.98	9.83	3.49
0.917	2.49	3.917	3.99	6.917	7.98	9.92	3.49
1.000	2.49	4.000	3.99	7.000	7.98	10.00	3.49
1.083	2.49	4.083	5.98	7.083	5.98	10.08	1.99
1.167	2.49	4.167	5.98	7.167	5.98	10.17	1.99
1.250	2.49	4.250	5.98	7.250	5.98	10.25	1.99
1.333	2.49	4.333	5.98	7.333	5.98	10.33	1.99
1.417	2.49	4.417	5.98	7.417	5.98	10.42	1.99
1.500	2.49	4.500	5.98	7.500	5.98	10.50	1.99
1.583	2.49	4.583	7.98	7.583	5.98	10.58	1.99
1.667	2.49	4.667	7.98	7.667	5.98	10.67	1.99
1.750	2.49	4.750	7.98	7.750	5.98	10.75	1.99
1.833	2.49	4.833	7.98	7.833	5.98	10.83	1.99
1.917	2.49	4.917	7.98	7.917	5.98	10.92	1.99
2.000	2.49	5.000	7.98	8.000	5.98	11.00	1.99
2.083	2.99	5.083	11.96	8.083	3.49	11.08	1.99
2.167	2.99	5.167	11.96	8.167	3.49	11.17	1.99
2.250	2.99	5.250	11.96	8.250	3.49	11.25	1.99
2.333	2.99	5.333	11.96	8.333	3.49	11.33	1.99
2.417	2.99	5.417	11.96	8.417	3.49	11.42	1.99
2.500	2.99	5.500	11.96	8.500	3.49	11.50	1.99
2.583	2.99	5.583	47.86	8.583	3.49	11.58	1.99
2.667	2.99	5.667	47.86	8.667	3.49	11.67	1.99
2.750	2.99	5.750	47.86	8.750	3.49	11.75	1.99
2.833	2.99	5.833	131.60	8.833	3.49	11.83	1.99
2.917	2.99	5.917	131.60	8.917	3.49	11.92	1.99
3.000	2.99	6.000	131.60	9.000	3.49	12.00	1.99

Max.Eff.Inten.(mm/hr)= 131.60 105.96
over (min) 5.00 5.00
Storage Coeff. (min)= 1.13 (ii) 4.18 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.34 0.24

TOTALS
PEAK FLOW (cms)= 0.04 0.01 0.050 (iii)
TIME TO PEAK (hrs)= 6.00 6.00
RUNOFF VOLUME (mm)= 98.69 67.41 94.30
TOTAL RAINFALL (mm)= 99.69 99.69 99.69
RUNOFF COEFFICIENT = 0.99 0.68 0.95

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| CALIB |
| STANDHYD (0012) | Area (ha)= 0.07
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.07	0.00
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	21.88	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	2.49	3.083	3.99	6.083	17.95	9.08	3.49
0.167	2.49	3.167	3.99	6.167	17.95	9.17	3.49
0.250	2.49	3.250	3.99	6.250	17.95	9.25	3.49
0.333	2.49	3.333	3.99	6.333	17.95	9.33	3.49
0.417	2.49	3.417	3.99	6.417	17.95	9.42	3.49
0.500	2.49	3.500	3.99	6.500	17.95	9.50	3.49
0.583	2.49	3.583	3.99	6.583	7.98	9.58	3.49
0.667	2.49	3.667	3.99	6.667	7.98	9.67	3.49
0.750	2.49	3.750	3.99	6.750	7.98	9.75	3.49
0.833	2.49	3.833	3.99	6.833	7.98	9.83	3.49
0.917	2.49	3.917	3.99	6.917	7.98	9.92	3.49
1.000	2.49	4.000	3.99	7.000	7.98	10.00	3.49
1.083	2.49	4.083	5.98	7.083	5.98	10.08	1.99
1.167	2.49	4.167	5.98	7.167	5.98	10.17	1.99
1.250	2.49	4.250	5.98	7.250	5.98	10.25	1.99
1.333	2.49	4.333	5.98	7.333	5.98	10.33	1.99
1.417	2.49	4.417	5.98	7.417	5.98	10.42	1.99
1.500	2.49	4.500	5.98	7.500	5.98	10.50	1.99
1.583	2.49	4.583	7.98	7.583	5.98	10.58	1.99
1.667	2.49	4.667	7.98	7.667	5.98	10.67	1.99
1.750	2.49	4.750	7.98	7.750	5.98	10.75	1.99
1.833	2.49	4.833	7.98	7.833	5.98	10.83	1.99
1.917	2.49	4.917	7.98	7.917	5.98	10.92	1.99
2.000	2.49	5.000	7.98	8.000	5.98	11.00	1.99
2.083	2.99	5.083	11.96	8.083	3.49	11.08	1.99
2.167	2.99	5.167	11.96	8.167	3.49	11.17	1.99
2.250	2.99	5.250	11.96	8.250	3.49	11.25	1.99
2.333	2.99	5.333	11.96	8.333	3.49	11.33	1.99
2.417	2.99	5.417	11.96	8.417	3.49	11.42	1.99
2.500	2.99	5.500	11.96	8.500	3.49	11.50	1.99
2.583	2.99	5.583	47.86	8.583	3.49	11.58	1.99
2.667	2.99	5.667	47.86	8.667	3.49	11.67	1.99
2.750	2.99	5.750	47.86	8.750	3.49	11.75	1.99
2.833	2.99	5.833	131.60	8.833	3.49	11.83	1.99
2.917	2.99	5.917	131.60	8.917	3.49	11.92	1.99
3.000	2.99	6.000	131.60	9.000	3.49	12.00	1.99

Max.Eff.Inten.(mm/hr)= 131.60 105.96
over (min) 5.00 5.00
Storage Coeff. (min)= 0.92 (ii) 1.93 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.34 0.31

TOTALS
PEAK FLOW (cms)= 0.03 0.00 0.026 (iii)
TIME TO PEAK (hrs)= 5.92 6.00 6.00
RUNOFF VOLUME (mm)= 98.69 67.42 98.38
TOTAL RAINFALL (mm)= 99.69 99.69 99.69
RUNOFF COEFFICIENT = 0.99 0.68 0.99

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| ADD HYD (0007) |
| 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 1 (0012): 0.07 0.026 6.00 98.38
+ ID2= 2 (0002): 0.19 0.069 6.00 98.06
===== ID = 3 (0007): 0.26 0.095 6.00 98.15

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```
-----
| ADD HYD ( 0007)|
| 3 + 2 = 1 |
-----
          AREA    QPEAK    TPEAK    R.V.
          (ha)    (cms)    (hrs)    (mm)
      ID1= 3 ( 0007):    0.26    0.095    6.00    98.15
+ ID2= 2 ( 0003):    0.05    0.020    6.00    98.38
=====
      ID = 1 ( 0007):    0.32    0.115    6.00    98.19
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```
-----
| ADD HYD ( 0007)|
| 1 + 2 = 3 |
-----
          AREA    QPEAK    TPEAK    R.V.
          (ha)    (cms)    (hrs)    (mm)
      ID1= 1 ( 0007):    0.32    0.115    6.00    98.19
+ ID2= 2 ( 0004):    0.14    0.050    6.00    94.30
=====
      ID = 3 ( 0007):    0.46    0.165    6.00    96.99
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```
-----
| RESERVOIR( 0014)|
| IN= 2---> OUT= 1 |
| DT= 5.0 min |
-----
OVERFLOW IS OFF

          OUTFLOW    STORAGE    |    OUTFLOW    STORAGE
          (cms)      (ha.m.)    |    (cms)      (ha.m.)
      0.0000      0.0000    |    0.0880      0.0054
      0.0000      0.0008    |    0.0950      0.0062
      0.0360      0.0015    |    0.1020      0.0070
      0.0510      0.0023    |    0.1080      0.0077
      0.0620      0.0031    |    0.1140      0.0085
      0.0720      0.0039    |    0.1200      0.0093
      0.0810      0.0046    |    0.0000      0.0000

          AREA    QPEAK    TPEAK    R.V.
          (ha)    (cms)    (hrs)    (mm)
INFLOW : ID= 2 ( 0007)    0.456    0.165    6.00    96.99
OUTFLOW: ID= 1 ( 0014)    0.456    0.111    6.00    95.24
```

PEAK FLOW REDUCTION [Qout/Qin](%)= 67.16
TIME SHIFT OF PEAK FLOW (min)= 0.00
MAXIMUM STORAGE USED (ha.m.)= 0.0089

```
-----
| ADD HYD ( 0017)|
| 1 + 2 = 3 |
-----
          AREA    QPEAK    TPEAK    R.V.
          (ha)    (cms)    (hrs)    (mm)
      ID1= 1 ( 0014):    0.46    0.111    6.00    95.24
+ ID2= 2 ( 0009):    2.41    0.818    6.00    91.55
=====
      ID = 3 ( 0017):    2.86    0.928    6.00    92.14
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

FUTURE CONDITIONS
24-HOUR SCS TYPE II DISTRIBUTION

=====
=====
V V I SSSSS U U A L (v 6.2.2022)
V V I SS U U A A L
V V I SS U U AAAAA L
V V I SS U U A A L
VV I SSSSS UUUUU A A LLLLL
000 TTTT TTTT H H Y Y M M 000 TM
0 0 T T H H Y Y MM MM 0 0
0 0 T T H H Y M M 0 0
000 T T H H Y M M 000

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

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voin.dat
Output filename: C:\Users\ffisl\AppData\Local\Civica\XH5\dae7608f-82b9-4213-85a0-cec48cda5646\2c72473c-4808-4d32-b9ac-9bdfbf1ab61a\scenar
Summary filename: C:\Users\ffisl\AppData\Local\Civica\XH5\dae7608f-82b9-4213-85a0-cec48cda5646\2c72473c-4808-4d32-b9ac-9bdfbf1ab61a\scenar

DATE: 12-02-2025 TIME: 06:29:03

USER:

COMMENTS: _____

** SIMULATION : 002-year **

| READ STORM | Filename: C:\Users\ffisl\AppData
| | ata\Local\Temp\
| | 65ee925f-bdec-4dce-8f1a-7fb2dd9de23e\58e14337
| Ptotal= 55.18 mm | Comments: 2-yr, 24-hr SCS Type II Distribution Sto

Table with 8 columns: TIME hrs, RAIN mm/hr, TIME hrs, RAIN mm/hr, TIME hrs, RAIN mm/hr, TIME hrs, RAIN mm/hr. Rows show rainfall distribution from 0.00 to 2.50 hours.

Table with 8 columns: TIME hrs, RAIN mm/hr, TIME hrs, RAIN mm/hr, TIME hrs, RAIN mm/hr, TIME hrs, RAIN mm/hr. Rows show rainfall distribution from 2.75 to 5.75 hours.

| CALIB |
| STANDHYD (0001) | Area (ha)= 0.45
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00
|-----

Table with 3 columns: IMPERVIOUS, PVIOUS (i). Rows show Surface Area, Dep. Storage, Average Slope, Length, Mannings n.

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

Table with 8 columns: TIME hrs, RAIN mm/hr, TIME hrs, RAIN mm/hr, TIME hrs, RAIN mm/hr, TIME hrs, RAIN mm/hr. Rows show transformed hyetograph data from 0.083 to 2.833 hours.

2.917	0.72	8.917	1.55	14.917	1.66	20.92	0.66
3.000	0.72	9.000	1.55	15.000	1.66	21.00	0.66
3.083	0.72	9.083	1.77	15.083	1.66	21.08	0.66
3.167	0.72	9.167	1.77	15.167	1.66	21.17	0.66
3.250	0.72	9.250	1.77	15.250	1.66	21.25	0.66
3.333	0.72	9.333	1.77	15.333	1.66	21.33	0.66
3.417	0.72	9.417	1.77	15.417	1.66	21.42	0.66
3.500	0.72	9.500	1.77	15.500	1.66	21.50	0.66
3.583	0.72	9.583	1.99	15.583	1.66	21.58	0.66
3.667	0.72	9.667	1.99	15.667	1.66	21.67	0.66
3.750	0.72	9.750	1.99	15.750	1.66	21.75	0.66
3.833	0.72	9.833	1.99	15.833	1.66	21.83	0.66
3.917	0.72	9.917	1.99	15.917	1.66	21.92	0.66
4.000	0.72	10.000	1.99	16.000	1.66	22.00	0.66
4.083	0.88	10.083	2.54	16.083	0.99	22.08	0.66
4.167	0.88	10.167	2.54	16.167	0.99	22.17	0.66
4.250	0.88	10.250	2.54	16.250	0.99	22.25	0.66
4.333	0.88	10.333	2.54	16.333	0.99	22.33	0.66
4.417	0.88	10.417	2.54	16.417	0.99	22.42	0.66
4.500	0.88	10.500	2.54	16.500	0.99	22.50	0.66
4.583	0.88	10.583	3.42	16.583	0.99	22.58	0.66
4.667	0.88	10.667	3.42	16.667	0.99	22.67	0.66
4.750	0.88	10.750	3.42	16.750	0.99	22.75	0.66
4.833	0.88	10.833	3.42	16.833	0.99	22.83	0.66
4.917	0.88	10.917	3.42	16.917	0.99	22.92	0.66
5.000	0.88	11.000	3.42	17.000	0.99	23.00	0.66
5.083	0.88	11.083	5.30	17.083	0.99	23.08	0.66
5.167	0.88	11.167	5.30	17.167	0.99	23.17	0.66
5.250	0.88	11.250	5.30	17.250	0.99	23.25	0.66
5.333	0.88	11.333	5.30	17.333	0.99	23.33	0.66
5.417	0.88	11.417	5.30	17.417	0.99	23.42	0.66
5.500	0.88	11.500	5.30	17.500	0.99	23.50	0.66
5.583	0.88	11.583	22.96	17.583	0.99	23.58	0.66
5.667	0.88	11.667	22.96	17.667	0.99	23.67	0.66
5.750	0.88	11.750	22.96	17.750	0.99	23.75	0.66
5.833	0.88	11.833	60.94	17.833	0.99	23.83	0.66
5.917	0.88	11.917	60.94	17.917	0.99	23.92	0.66
6.000	0.88	12.000	60.94	18.000	0.99	24.00	0.66

Max.Eff.Inten.(mm/hr)= 60.94 38.98
over (min) 5.00 5.00
Storage Coeff. (min)= 2.17 (ii) 3.54 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.31 0.26

TOTALS
PEAK FLOW (cms)= 0.08 0.00 0.076 (iii)
TIME TO PEAK (hrs)= 12.00 12.00 12.00
RUNOFF VOLUME (mm)= 54.19 29.26 53.93
TOTAL RAINFALL (mm)= 55.19 55.19 55.19
RUNOFF COEFFICIENT = 0.98 0.53 0.98

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| CALIB |
| STANDHYD (0005) | Area (ha)= 0.95
| ID= 1 DT= 5.0 min | Total Imp(%)= 75.00 Dir. Conn.(%)= 75.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.71 0.24
Dep. Storage (mm)= 1.00 1.50

Average Slope (%)= 1.00 2.00
Length (m)= 79.65 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	0.61	6.083	0.99	12.083	7.96	18.08	0.99
0.167	0.61	6.167	0.99	12.167	7.95	18.17	0.99
0.250	0.61	6.250	0.99	12.250	7.95	18.25	0.99
0.333	0.61	6.333	0.99	12.333	7.95	18.33	0.99
0.417	0.61	6.417	0.99	12.417	7.95	18.42	0.99
0.500	0.61	6.500	0.99	12.500	7.95	18.50	0.99
0.583	0.61	6.583	0.99	12.583	4.08	18.58	0.99
0.667	0.61	6.667	0.99	12.667	4.08	18.67	0.99
0.750	0.61	6.750	0.99	12.750	4.08	18.75	0.99
0.833	0.61	6.833	0.99	12.833	4.08	18.83	0.99
0.917	0.61	6.917	0.99	12.917	4.08	18.92	0.99
1.000	0.61	7.000	0.99	13.000	4.08	19.00	0.99
1.083	0.61	7.083	1.21	13.083	2.98	19.08	0.99
1.167	0.61	7.167	1.21	13.167	2.98	19.17	0.99
1.250	0.61	7.250	1.21	13.250	2.98	19.25	0.99
1.333	0.61	7.333	1.21	13.333	2.98	19.33	0.99
1.417	0.61	7.417	1.21	13.417	2.98	19.42	0.99
1.500	0.61	7.500	1.21	13.500	2.98	19.50	0.99
1.583	0.61	7.583	1.21	13.583	2.32	19.58	0.99
1.667	0.61	7.667	1.21	13.667	2.32	19.67	0.99
1.750	0.61	7.750	1.21	13.750	2.32	19.75	0.99
1.833	0.61	7.833	1.21	13.833	2.32	19.83	0.99
1.917	0.61	7.917	1.21	13.917	2.32	19.92	0.99
2.000	0.61	8.000	1.21	14.000	2.32	20.00	0.99
2.083	0.72	8.083	1.44	14.083	1.66	20.08	0.66
2.167	0.72	8.167	1.44	14.167	1.66	20.17	0.66
2.250	0.72	8.250	1.44	14.250	1.66	20.25	0.66
2.333	0.72	8.333	1.44	14.333	1.66	20.33	0.66
2.417	0.72	8.417	1.44	14.417	1.66	20.42	0.66
2.500	0.72	8.500	1.44	14.500	1.66	20.50	0.66
2.583	0.72	8.583	1.55	14.583	1.66	20.58	0.66
2.667	0.72	8.667	1.55	14.667	1.66	20.67	0.66
2.750	0.72	8.750	1.55	14.750	1.66	20.75	0.66
2.833	0.72	8.833	1.55	14.833	1.66	20.83	0.66
2.917	0.72	8.917	1.55	14.917	1.66	20.92	0.66
3.000	0.72	9.000	1.55	15.000	1.66	21.00	0.66
3.083	0.72	9.083	1.77	15.083	1.66	21.08	0.66
3.167	0.72	9.167	1.77	15.167	1.66	21.17	0.66
3.250	0.72	9.250	1.77	15.250	1.66	21.25	0.66
3.333	0.72	9.333	1.77	15.333	1.66	21.33	0.66
3.417	0.72	9.417	1.77	15.417	1.66	21.42	0.66
3.500	0.72	9.500	1.77	15.500	1.66	21.50	0.66
3.583	0.72	9.583	1.99	15.583	1.66	21.58	0.66
3.667	0.72	9.667	1.99	15.667	1.66	21.67	0.66
3.750	0.72	9.750	1.99	15.750	1.66	21.75	0.66
3.833	0.72	9.833	1.99	15.833	1.66	21.83	0.66
3.917	0.72	9.917	1.99	15.917	1.66	21.92	0.66
4.000	0.72	10.000	1.99	16.000	1.66	22.00	0.66
4.083	0.88	10.083	2.54	16.083	0.99	22.08	0.66
4.167	0.88	10.167	2.54	16.167	0.99	22.17	0.66
4.250	0.88	10.250	2.54	16.250	0.99	22.25	0.66
4.333	0.88	10.333	2.54	16.333	0.99	22.33	0.66
4.417	0.88	10.417	2.54	16.417	0.99	22.42	0.66
4.500	0.88	10.500	2.54	16.500	0.99	22.50	0.66
4.583	0.88	10.583	3.42	16.583	0.99	22.58	0.66
4.667	0.88	10.667	3.42	16.667	0.99	22.67	0.66
4.750	0.88	10.750	3.42	16.750	0.99	22.75	0.66
4.833	0.88	10.833	3.42	16.833	0.99	22.83	0.66

4.917	0.88	10.917	3.42	16.917	0.99	22.92	0.66
5.000	0.88	11.000	3.42	17.000	0.99	23.00	0.66
5.083	0.88	11.083	5.30	17.083	0.99	23.08	0.66
5.167	0.88	11.167	5.30	17.167	0.99	23.17	0.66
5.250	0.88	11.250	5.30	17.250	0.99	23.25	0.66
5.333	0.88	11.333	5.30	17.333	0.99	23.33	0.66
5.417	0.88	11.417	5.30	17.417	0.99	23.42	0.66
5.500	0.88	11.500	5.30	17.500	0.99	23.50	0.66
5.583	0.88	11.583	22.96	17.583	0.99	23.58	0.66
5.667	0.88	11.667	22.96	17.667	0.99	23.67	0.66
5.750	0.88	11.750	22.96	17.750	0.99	23.75	0.66
5.833	0.88	11.833	60.94	17.833	0.99	23.83	0.66
5.917	0.88	11.917	60.94	17.917	0.99	23.92	0.66
6.000	0.88	12.000	60.94	18.000	0.99	24.00	0.66

Max.Eff.Inten.(mm/hr)= 60.94 37.26
over (min) 5.00 15.00
Storage Coeff. (min)= 2.72 (ii) 13.19 (ii)
Unit Hyd. Tpeak (min)= 5.00 15.00
Unit Hyd. peak (cms)= 0.29 0.08

TOTALS
PEAK FLOW (cms)= 0.12 0.02 0.135 (iii)
TIME TO PEAK (hrs)= 12.00 12.08 12.00
RUNOFF VOLUME (mm)= 54.19 29.26 47.94
TOTAL RAINFALL (mm)= 55.19 55.19 55.19
RUNOFF COEFFICIENT = 0.98 0.53 0.87

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

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| CALIB |
| STANDHYD (0006) | Area (ha)= 0.92
| ID= 1 DT= 5.0 min | Total Imp(%)= 70.00 Dir. Conn.(%)= 70.00
|-----|

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.65	0.28
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	78.45	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	0.61	6.083	0.99	12.083	7.96	18.08	0.99
0.167	0.61	6.167	0.99	12.167	7.95	18.17	0.99
0.250	0.61	6.250	0.99	12.250	7.95	18.25	0.99
0.333	0.61	6.333	0.99	12.333	7.95	18.33	0.99
0.417	0.61	6.417	0.99	12.417	7.95	18.42	0.99
0.500	0.61	6.500	0.99	12.500	7.95	18.50	0.99
0.583	0.61	6.583	0.99	12.583	4.08	18.58	0.99
0.667	0.61	6.667	0.99	12.667	4.08	18.67	0.99
0.750	0.61	6.750	0.99	12.750	4.08	18.75	0.99
0.833	0.61	6.833	0.99	12.833	4.08	18.83	0.99
0.917	0.61	6.917	0.99	12.917	4.08	18.92	0.99
1.000	0.61	7.000	0.99	13.000	4.08	19.00	0.99
1.083	0.61	7.083	1.21	13.083	2.98	19.08	0.99
1.167	0.61	7.167	1.21	13.167	2.98	19.17	0.99

1.250	0.61	7.250	1.21	13.250	2.98	19.25	0.99
1.333	0.61	7.333	1.21	13.333	2.98	19.33	0.99
1.417	0.61	7.417	1.21	13.417	2.98	19.42	0.99
1.500	0.61	7.500	1.21	13.500	2.98	19.50	0.99
1.583	0.61	7.583	1.21	13.583	2.32	19.58	0.99
1.667	0.61	7.667	1.21	13.667	2.32	19.67	0.99
1.750	0.61	7.750	1.21	13.750	2.32	19.75	0.99
1.833	0.61	7.833	1.21	13.833	2.32	19.83	0.99
1.917	0.61	7.917	1.21	13.917	2.32	19.92	0.99
2.000	0.61	8.000	1.21	14.000	2.32	20.00	0.99
2.083	0.72	8.083	1.44	14.083	1.66	20.08	0.66
2.167	0.72	8.167	1.44	14.167	1.66	20.17	0.66
2.250	0.72	8.250	1.44	14.250	1.66	20.25	0.66
2.333	0.72	8.333	1.44	14.333	1.66	20.33	0.66
2.417	0.72	8.417	1.44	14.417	1.66	20.42	0.66
2.500	0.72	8.500	1.44	14.500	1.66	20.50	0.66
2.583	0.72	8.583	1.55	14.583	1.66	20.58	0.66
2.667	0.72	8.667	1.55	14.667	1.66	20.67	0.66
2.750	0.72	8.750	1.55	14.750	1.66	20.75	0.66
2.833	0.72	8.833	1.55	14.833	1.66	20.83	0.66
2.917	0.72	8.917	1.55	14.917	1.66	20.92	0.66
3.000	0.72	9.000	1.55	15.000	1.66	21.00	0.66
3.083	0.72	9.083	1.77	15.083	1.66	21.08	0.66
3.167	0.72	9.167	1.77	15.167	1.66	21.17	0.66
3.250	0.72	9.250	1.77	15.250	1.66	21.25	0.66
3.333	0.72	9.333	1.77	15.333	1.66	21.33	0.66
3.417	0.72	9.417	1.77	15.417	1.66	21.42	0.66
3.500	0.72	9.500	1.77	15.500	1.66	21.50	0.66
3.583	0.72	9.583	1.99	15.583	1.66	21.58	0.66
3.667	0.72	9.667	1.99	15.667	1.66	21.67	0.66
3.750	0.72	9.750	1.99	15.750	1.66	21.75	0.66
3.833	0.72	9.833	1.99	15.833	1.66	21.83	0.66
3.917	0.72	9.917	1.99	15.917	1.66	21.92	0.66
4.000	0.72	10.000	1.99	16.000	1.66	22.00	0.66
4.083	0.88	10.083	2.54	16.083	0.99	22.08	0.66
4.167	0.88	10.167	2.54	16.167	0.99	22.17	0.66
4.250	0.88	10.250	2.54	16.250	0.99	22.25	0.66
4.333	0.88	10.333	2.54	16.333	0.99	22.33	0.66
4.417	0.88	10.417	2.54	16.417	0.99	22.42	0.66
4.500	0.88	10.500	2.54	16.500	0.99	22.50	0.66
4.583	0.88	10.583	3.42	16.583	0.99	22.58	0.66
4.667	0.88	10.667	3.42	16.667	0.99	22.67	0.66
4.750	0.88	10.750	3.42	16.750	0.99	22.75	0.66
4.833	0.88	10.833	3.42	16.833	0.99	22.83	0.66
4.917	0.88	10.917	3.42	16.917	0.99	22.92	0.66
5.000	0.88	11.000	3.42	17.000	0.99	23.00	0.66
5.083	0.88	11.083	5.30	17.083	0.99	23.08	0.66
5.167	0.88	11.167	5.30	17.167	0.99	23.17	0.66
5.250	0.88	11.250	5.30	17.250	0.99	23.25	0.66
5.333	0.88	11.333	5.30	17.333	0.99	23.33	0.66
5.417	0.88	11.417	5.30	17.417	0.99	23.42	0.66
5.500	0.88	11.500	5.30	17.500	0.99	23.50	0.66
5.583	0.88	11.583	22.96	17.583	0.99	23.58	0.66
5.667	0.88	11.667	22.96	17.667	0.99	23.67	0.66
5.750	0.88	11.750	22.96	17.750	0.99	23.75	0.66
5.833	0.88	11.833	60.94	17.833	0.99	23.83	0.66
5.917	0.88	11.917	60.94	17.917	0.99	23.92	0.66
6.000	0.88	12.000	60.94	18.000	0.99	24.00	0.66

Max.Eff.Inten.(mm/hr)= 60.94 37.26
over (min) 5.00 15.00
Storage Coeff. (min)= 2.69 (ii) 13.17 (ii)
Unit Hyd. Tpeak (min)= 5.00 15.00
Unit Hyd. peak (cms)= 0.29 0.08

TOTALS
PEAK FLOW (cms)= 0.11 0.02 0.126 (iii)
TIME TO PEAK (hrs)= 12.00 12.08 12.00
RUNOFF VOLUME (mm)= 54.18 29.26 46.70

TOTAL RAINFALL (mm)= 55.19 55.19 55.19
RUNOFF COEFFICIENT = 0.98 0.53 0.85

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0015) | Area (ha)= 0.05
ID= 1 DT= 5.0 min | Total Imp(%)= 44.00 Dir. Conn.(%)= 44.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.02 0.03
Dep. Storage (mm)= 1.00 1.50
Average Slope (%)= 1.00 2.00
Length (m)= 18.62 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 0.61 6.083 0.99 12.083 7.96 18.08 0.99
0.167 0.61 6.167 0.99 12.167 7.95 18.17 0.99
0.250 0.61 6.250 0.99 12.250 7.95 18.25 0.99
0.333 0.61 6.333 0.99 12.333 7.95 18.33 0.99
0.417 0.61 6.417 0.99 12.417 7.95 18.42 0.99
0.500 0.61 6.500 0.99 12.500 7.95 18.50 0.99
0.583 0.61 6.583 0.99 12.583 4.08 18.58 0.99
0.667 0.61 6.667 0.99 12.667 4.08 18.67 0.99
0.750 0.61 6.750 0.99 12.750 4.08 18.75 0.99
0.833 0.61 6.833 0.99 12.833 4.08 18.83 0.99
0.917 0.61 6.917 0.99 12.917 4.08 18.92 0.99
1.000 0.61 7.000 0.99 13.000 4.08 19.00 0.99
1.083 0.61 7.083 1.21 13.083 2.98 19.08 0.99
1.167 0.61 7.167 1.21 13.167 2.98 19.17 0.99
1.250 0.61 7.250 1.21 13.250 2.98 19.25 0.99
1.333 0.61 7.333 1.21 13.333 2.98 19.33 0.99
1.417 0.61 7.417 1.21 13.417 2.98 19.42 0.99
1.500 0.61 7.500 1.21 13.500 2.98 19.50 0.99
1.583 0.61 7.583 1.21 13.583 2.32 19.58 0.99
1.667 0.61 7.667 1.21 13.667 2.32 19.67 0.99
1.750 0.61 7.750 1.21 13.750 2.32 19.75 0.99
1.833 0.61 7.833 1.21 13.833 2.32 19.83 0.99
1.917 0.61 7.917 1.21 13.917 2.32 19.92 0.99
2.000 0.61 8.000 1.21 14.000 2.32 20.00 0.99
2.083 0.72 8.083 1.44 14.083 1.66 20.08 0.66
2.167 0.72 8.167 1.44 14.167 1.66 20.17 0.66
2.250 0.72 8.250 1.44 14.250 1.66 20.25 0.66
2.333 0.72 8.333 1.44 14.333 1.66 20.33 0.66
2.417 0.72 8.417 1.44 14.417 1.66 20.42 0.66
2.500 0.72 8.500 1.44 14.500 1.66 20.50 0.66
2.583 0.72 8.583 1.55 14.583 1.66 20.58 0.66
2.667 0.72 8.667 1.55 14.667 1.66 20.67 0.66
2.750 0.72 8.750 1.55 14.750 1.66 20.75 0.66
2.833 0.72 8.833 1.55 14.833 1.66 20.83 0.66
2.917 0.72 8.917 1.55 14.917 1.66 20.92 0.66
3.000 0.72 9.000 1.55 15.000 1.66 21.00 0.66
3.083 0.72 9.083 1.77 15.083 1.66 21.08 0.66
3.167 0.72 9.167 1.77 15.167 1.66 21.17 0.66

3.250 0.72 9.250 1.77 15.250 1.66 21.25 0.66
3.333 0.72 9.333 1.77 15.333 1.66 21.33 0.66
3.417 0.72 9.417 1.77 15.417 1.66 21.42 0.66
3.500 0.72 9.500 1.77 15.500 1.66 21.50 0.66
3.583 0.72 9.583 1.99 15.583 1.66 21.58 0.66
3.667 0.72 9.667 1.99 15.667 1.66 21.67 0.66
3.750 0.72 9.750 1.99 15.750 1.66 21.75 0.66
3.833 0.72 9.833 1.99 15.833 1.66 21.83 0.66
3.917 0.72 9.917 1.99 15.917 1.66 21.92 0.66
4.000 0.72 10.000 1.99 16.000 1.66 22.00 0.66
4.083 0.88 10.083 2.54 16.083 0.99 22.08 0.66
4.167 0.88 10.167 2.54 16.167 0.99 22.17 0.66
4.250 0.88 10.250 2.54 16.250 0.99 22.25 0.66
4.333 0.88 10.333 2.54 16.333 0.99 22.33 0.66
4.417 0.88 10.417 2.54 16.417 0.99 22.42 0.66
4.500 0.88 10.500 2.54 16.500 0.99 22.50 0.66
4.583 0.88 10.583 3.42 16.583 0.99 22.58 0.66
4.667 0.88 10.667 3.42 16.667 0.99 22.67 0.66
4.750 0.88 10.750 3.42 16.750 0.99 22.75 0.66
4.833 0.88 10.833 3.42 16.833 0.99 22.83 0.66
4.917 0.88 10.917 3.42 16.917 0.99 22.92 0.66
5.000 0.88 11.000 3.42 17.000 0.99 23.00 0.66
5.083 0.88 11.083 5.30 17.083 0.99 23.08 0.66
5.167 0.88 11.167 5.30 17.167 0.99 23.17 0.66
5.250 0.88 11.250 5.30 17.250 0.99 23.25 0.66
5.333 0.88 11.333 5.30 17.333 0.99 23.33 0.66
5.417 0.88 11.417 5.30 17.417 0.99 23.42 0.66
5.500 0.88 11.500 5.30 17.500 0.99 23.50 0.66
5.583 0.88 11.583 22.96 17.583 0.99 23.58 0.66
5.667 0.88 11.667 22.96 17.667 0.99 23.67 0.66
5.750 0.88 11.750 22.96 17.750 0.99 23.75 0.66
5.833 0.88 11.833 60.94 17.833 0.99 23.83 0.66
5.917 0.88 11.917 60.94 17.917 0.99 23.92 0.66
6.000 0.88 12.000 60.94 18.000 0.99 24.00 0.66

Max.Eff.Inten.(mm/hr)= 60.94 37.26
over (min) 5.00 15.00
Storage Coeff. (min)= 1.14 (ii) 11.61 (ii)
Unit Hyd. Tpeak (min)= 5.00 15.00
Unit Hyd. peak (cms)= 0.34 0.09
TOTALS
PEAK FLOW (cms)= 0.00 0.00 0.006 (iii)
TIME TO PEAK (hrs)= 12.00 12.08 12.00
RUNOFF VOLUME (mm)= 54.19 29.26 37.85
TOTAL RAINFALL (mm)= 55.19 55.19 55.19
RUNOFF COEFFICIENT = 0.98 0.53 0.69

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0018) | Area (ha)= 0.03
ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.03 0.00
Dep. Storage (mm)= 1.00 1.50
Average Slope (%)= 1.00 2.00
Length (m)= 13.49 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	0.61	6.083	0.99	12.083	7.96	18.08	0.99
0.167	0.61	6.167	0.99	12.167	7.95	18.17	0.99
0.250	0.61	6.250	0.99	12.250	7.95	18.25	0.99
0.333	0.61	6.333	0.99	12.333	7.95	18.33	0.99
0.417	0.61	6.417	0.99	12.417	7.95	18.42	0.99
0.500	0.61	6.500	0.99	12.500	7.95	18.50	0.99
0.583	0.61	6.583	0.99	12.583	4.08	18.58	0.99
0.667	0.61	6.667	0.99	12.667	4.08	18.67	0.99
0.750	0.61	6.750	0.99	12.750	4.08	18.75	0.99
0.833	0.61	6.833	0.99	12.833	4.08	18.83	0.99
0.917	0.61	6.917	0.99	12.917	4.08	18.92	0.99
1.000	0.61	7.000	0.99	13.000	4.08	19.00	0.99
1.083	0.61	7.083	1.21	13.083	2.98	19.08	0.99
1.167	0.61	7.167	1.21	13.167	2.98	19.17	0.99
1.250	0.61	7.250	1.21	13.250	2.98	19.25	0.99
1.333	0.61	7.333	1.21	13.333	2.98	19.33	0.99
1.417	0.61	7.417	1.21	13.417	2.98	19.42	0.99
1.500	0.61	7.500	1.21	13.500	2.98	19.50	0.99
1.583	0.61	7.583	1.21	13.583	2.32	19.58	0.99
1.667	0.61	7.667	1.21	13.667	2.32	19.67	0.99
1.750	0.61	7.750	1.21	13.750	2.32	19.75	0.99
1.833	0.61	7.833	1.21	13.833	2.32	19.83	0.99
1.917	0.61	7.917	1.21	13.917	2.32	19.92	0.99
2.000	0.61	8.000	1.21	14.000	2.32	20.00	0.99
2.083	0.72	8.083	1.44	14.083	1.66	20.08	0.66
2.167	0.72	8.167	1.44	14.167	1.66	20.17	0.66
2.250	0.72	8.250	1.44	14.250	1.66	20.25	0.66
2.333	0.72	8.333	1.44	14.333	1.66	20.33	0.66
2.417	0.72	8.417	1.44	14.417	1.66	20.42	0.66
2.500	0.72	8.500	1.44	14.500	1.66	20.50	0.66
2.583	0.72	8.583	1.55	14.583	1.66	20.58	0.66
2.667	0.72	8.667	1.55	14.667	1.66	20.67	0.66
2.750	0.72	8.750	1.55	14.750	1.66	20.75	0.66
2.833	0.72	8.833	1.55	14.833	1.66	20.83	0.66
2.917	0.72	8.917	1.55	14.917	1.66	20.92	0.66
3.000	0.72	9.000	1.55	15.000	1.66	21.00	0.66
3.083	0.72	9.083	1.77	15.083	1.66	21.08	0.66
3.167	0.72	9.167	1.77	15.167	1.66	21.17	0.66
3.250	0.72	9.250	1.77	15.250	1.66	21.25	0.66
3.333	0.72	9.333	1.77	15.333	1.66	21.33	0.66
3.417	0.72	9.417	1.77	15.417	1.66	21.42	0.66
3.500	0.72	9.500	1.77	15.500	1.66	21.50	0.66
3.583	0.72	9.583	1.99	15.583	1.66	21.58	0.66
3.667	0.72	9.667	1.99	15.667	1.66	21.67	0.66
3.750	0.72	9.750	1.99	15.750	1.66	21.75	0.66
3.833	0.72	9.833	1.99	15.833	1.66	21.83	0.66
3.917	0.72	9.917	1.99	15.917	1.66	21.92	0.66
4.000	0.72	10.000	1.99	16.000	1.66	22.00	0.66
4.083	0.88	10.083	2.54	16.083	0.99	22.08	0.66
4.167	0.88	10.167	2.54	16.167	0.99	22.17	0.66
4.250	0.88	10.250	2.54	16.250	0.99	22.25	0.66
4.333	0.88	10.333	2.54	16.333	0.99	22.33	0.66
4.417	0.88	10.417	2.54	16.417	0.99	22.42	0.66
4.500	0.88	10.500	2.54	16.500	0.99	22.50	0.66
4.583	0.88	10.583	3.42	16.583	0.99	22.58	0.66
4.667	0.88	10.667	3.42	16.667	0.99	22.67	0.66
4.750	0.88	10.750	3.42	16.750	0.99	22.75	0.66
4.833	0.88	10.833	3.42	16.833	0.99	22.83	0.66
4.917	0.88	10.917	3.42	16.917	0.99	22.92	0.66
5.000	0.88	11.000	3.42	17.000	0.99	23.00	0.66
5.083	0.88	11.083	5.30	17.083	0.99	23.08	0.66
5.167	0.88	11.167	5.30	17.167	0.99	23.17	0.66

5.250	0.88	11.250	5.30	17.250	0.99	23.25	0.66
5.333	0.88	11.333	5.30	17.333	0.99	23.33	0.66
5.417	0.88	11.417	5.30	17.417	0.99	23.42	0.66
5.500	0.88	11.500	5.30	17.500	0.99	23.50	0.66
5.583	0.88	11.583	22.96	17.583	0.99	23.58	0.66
5.667	0.88	11.667	22.96	17.667	0.99	23.67	0.66
5.750	0.88	11.750	22.96	17.750	0.99	23.75	0.66
5.833	0.88	11.833	60.94	17.833	0.99	23.83	0.66
5.917	0.88	11.917	60.94	17.917	0.99	23.92	0.66
6.000	0.88	12.000	60.94	18.000	0.99	24.00	0.66

Max.Eff.Inten.(mm/hr)= 60.94 38.98
over (min) 5.00 5.00
Storage Coeff. (min)= 0.94 (ii) 2.31 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.34 0.30

PEAK FLOW (cms)= 0.00 0.00 0.005 (iii)
TIME TO PEAK (hrs)= 12.00 12.00 12.00
RUNOFF VOLUME (mm)= 54.19 29.26 47.35
TOTAL RAINFALL (mm)= 55.19 55.19 55.19
RUNOFF COEFFICIENT = 0.98 0.53 0.86

TOTALS

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

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| ADD HYD (0009) |
1 + 2 = 3
AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 1 (0001): 0.45 0.076 12.00 53.93
+ ID2= 2 (0015): 0.05 0.006 12.00 37.85
=====

ID = 3 (0009): 0.50 0.082 12.00 52.27

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| ADD HYD (0009) |
3 + 2 = 1
AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 3 (0009): 0.50 0.082 12.00 52.27
+ ID2= 2 (0018): 0.03 0.005 12.00 47.35
=====

ID = 1 (0009): 0.53 0.087 12.00 52.02

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| ADD HYD (0009) |
1 + 2 = 3
AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 1 (0009): 0.53 0.087 12.00 52.02
+ ID2= 2 (0005): 0.95 0.135 12.00 47.94
=====

ID = 3 (0009): 1.48 0.221 12.00 49.41

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| ADD HYD (0009) |
3 + 2 = 1

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (0009):	1.48	0.221	12.00	49.41
+ ID2= 2 (0006):	0.92	0.126	12.00	46.70
=====				
ID = 1 (0009):	2.41	0.347	12.00	48.37

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| CALIB
| STANDHYD (0002) |
ID= 1 DT= 5.0 min

Area (ha)=	0.19
Total Imp(%)=	98.00
Dir. Conn.(%)=	98.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.19	0.00
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	35.52	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	0.61	6.083	0.99	12.083	7.96	18.08	0.99
0.167	0.61	6.167	0.99	12.167	7.95	18.17	0.99
0.250	0.61	6.250	0.99	12.250	7.95	18.25	0.99
0.333	0.61	6.333	0.99	12.333	7.95	18.33	0.99
0.417	0.61	6.417	0.99	12.417	7.95	18.42	0.99
0.500	0.61	6.500	0.99	12.500	7.95	18.50	0.99
0.583	0.61	6.583	0.99	12.583	4.08	18.58	0.99
0.667	0.61	6.667	0.99	12.667	4.08	18.67	0.99
0.750	0.61	6.750	0.99	12.750	4.08	18.75	0.99
0.833	0.61	6.833	0.99	12.833	4.08	18.83	0.99
0.917	0.61	6.917	0.99	12.917	4.08	18.92	0.99
1.000	0.61	7.000	0.99	13.000	4.08	19.00	0.99
1.083	0.61	7.083	1.21	13.083	2.98	19.08	0.99
1.167	0.61	7.167	1.21	13.167	2.98	19.17	0.99
1.250	0.61	7.250	1.21	13.250	2.98	19.25	0.99
1.333	0.61	7.333	1.21	13.333	2.98	19.33	0.99
1.417	0.61	7.417	1.21	13.417	2.98	19.42	0.99
1.500	0.61	7.500	1.21	13.500	2.98	19.50	0.99
1.583	0.61	7.583	1.21	13.583	2.32	19.58	0.99
1.667	0.61	7.667	1.21	13.667	2.32	19.67	0.99
1.750	0.61	7.750	1.21	13.750	2.32	19.75	0.99
1.833	0.61	7.833	1.21	13.833	2.32	19.83	0.99
1.917	0.61	7.917	1.21	13.917	2.32	19.92	0.99
2.000	0.61	8.000	1.21	14.000	2.32	20.00	0.99
2.083	0.72	8.083	1.44	14.083	1.66	20.08	0.66
2.167	0.72	8.167	1.44	14.167	1.66	20.17	0.66
2.250	0.72	8.250	1.44	14.250	1.66	20.25	0.66
2.333	0.72	8.333	1.44	14.333	1.66	20.33	0.66
2.417	0.72	8.417	1.44	14.417	1.66	20.42	0.66
2.500	0.72	8.500	1.44	14.500	1.66	20.50	0.66
2.583	0.72	8.583	1.55	14.583	1.66	20.58	0.66
2.667	0.72	8.667	1.55	14.667	1.66	20.67	0.66
2.750	0.72	8.750	1.55	14.750	1.66	20.75	0.66
2.833	0.72	8.833	1.55	14.833	1.66	20.83	0.66
2.917	0.72	8.917	1.55	14.917	1.66	20.92	0.66
3.000	0.72	9.000	1.55	15.000	1.66	21.00	0.66
3.083	0.72	9.083	1.77	15.083	1.66	21.08	0.66
3.167	0.72	9.167	1.77	15.167	1.66	21.17	0.66

3.250	0.72	9.250	1.77	15.250	1.66	21.25	0.66
3.333	0.72	9.333	1.77	15.333	1.66	21.33	0.66
3.417	0.72	9.417	1.77	15.417	1.66	21.42	0.66
3.500	0.72	9.500	1.77	15.500	1.66	21.50	0.66
3.583	0.72	9.583	1.99	15.583	1.66	21.58	0.66
3.667	0.72	9.667	1.99	15.667	1.66	21.67	0.66
3.750	0.72	9.750	1.99	15.750	1.66	21.75	0.66
3.833	0.72	9.833	1.99	15.833	1.66	21.83	0.66
3.917	0.72	9.917	1.99	15.917	1.66	21.92	0.66
4.000	0.72	10.000	1.99	16.000	1.66	22.00	0.66
4.083	0.88	10.083	2.54	16.083	0.99	22.08	0.66
4.167	0.88	10.167	2.54	16.167	0.99	22.17	0.66
4.250	0.88	10.250	2.54	16.250	0.99	22.25	0.66
4.333	0.88	10.333	2.54	16.333	0.99	22.33	0.66
4.417	0.88	10.417	2.54	16.417	0.99	22.42	0.66
4.500	0.88	10.500	2.54	16.500	0.99	22.50	0.66
4.583	0.88	10.583	3.42	16.583	0.99	22.58	0.66
4.667	0.88	10.667	3.42	16.667	0.99	22.67	0.66
4.750	0.88	10.750	3.42	16.750	0.99	22.75	0.66
4.833	0.88	10.833	3.42	16.833	0.99	22.83	0.66
4.917	0.88	10.917	3.42	16.917	0.99	22.92	0.66
5.000	0.88	11.000	3.42	17.000	0.99	23.00	0.66
5.083	0.88	11.083	5.30	17.083	0.99	23.08	0.66
5.167	0.88	11.167	5.30	17.167	0.99	23.17	0.66
5.250	0.88	11.250	5.30	17.250	0.99	23.25	0.66
5.333	0.88	11.333	5.30	17.333	0.99	23.33	0.66
5.417	0.88	11.417	5.30	17.417	0.99	23.42	0.66
5.500	0.88	11.500	5.30	17.500	0.99	23.50	0.66
5.583	0.88	11.583	22.96	17.583	0.99	23.58	0.66
5.667	0.88	11.667	22.96	17.667	0.99	23.67	0.66
5.750	0.88	11.750	22.96	17.750	0.99	23.75	0.66
5.833	0.88	11.833	60.94	17.833	0.99	23.83	0.66
5.917	0.88	11.917	60.94	17.917	0.99	23.92	0.66
6.000	0.88	12.000	60.94	18.000	0.99	24.00	0.66

Max.Eff.Inten.(mm/hr)=	60.94	38.98
over (min)	5.00	5.00
Storage Coeff. (min)=	1.67 (ii)	3.49 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.32	0.26

TOTALS

PEAK FLOW (cms)=	0.03	0.00	0.032 (iii)
TIME TO PEAK (hrs)=	12.00	12.00	12.00
RUNOFF VOLUME (mm)=	54.19	29.26	53.68
TOTAL RAINFALL (mm)=	55.19	55.19	55.19
RUNOFF COEFFICIENT =	0.98	0.53	0.97

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

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| CALIB
| STANDHYD (0003) |
ID= 1 DT= 5.0 min

Area (ha)=	0.05
Total Imp(%)=	99.00
Dir. Conn.(%)=	99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.05	0.00
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	19.11	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	0.61	6.083	0.99	12.083	7.96	18.08	0.99
0.167	0.61	6.167	0.99	12.167	7.95	18.17	0.99
0.250	0.61	6.250	0.99	12.250	7.95	18.25	0.99
0.333	0.61	6.333	0.99	12.333	7.95	18.33	0.99
0.417	0.61	6.417	0.99	12.417	7.95	18.42	0.99
0.500	0.61	6.500	0.99	12.500	7.95	18.50	0.99
0.583	0.61	6.583	0.99	12.583	4.08	18.58	0.99
0.667	0.61	6.667	0.99	12.667	4.08	18.67	0.99
0.750	0.61	6.750	0.99	12.750	4.08	18.75	0.99
0.833	0.61	6.833	0.99	12.833	4.08	18.83	0.99
0.917	0.61	6.917	0.99	12.917	4.08	18.92	0.99
1.000	0.61	7.000	0.99	13.000	4.08	19.00	0.99
1.083	0.61	7.083	1.21	13.083	2.98	19.08	0.99
1.167	0.61	7.167	1.21	13.167	2.98	19.17	0.99
1.250	0.61	7.250	1.21	13.250	2.98	19.25	0.99
1.333	0.61	7.333	1.21	13.333	2.98	19.33	0.99
1.417	0.61	7.417	1.21	13.417	2.98	19.42	0.99
1.500	0.61	7.500	1.21	13.500	2.98	19.50	0.99
1.583	0.61	7.583	1.21	13.583	2.32	19.58	0.99
1.667	0.61	7.667	1.21	13.667	2.32	19.67	0.99
1.750	0.61	7.750	1.21	13.750	2.32	19.75	0.99
1.833	0.61	7.833	1.21	13.833	2.32	19.83	0.99
1.917	0.61	7.917	1.21	13.917	2.32	19.92	0.99
2.000	0.61	8.000	1.21	14.000	2.32	20.00	0.99
2.083	0.72	8.083	1.44	14.083	1.66	20.08	0.66
2.167	0.72	8.167	1.44	14.167	1.66	20.17	0.66
2.250	0.72	8.250	1.44	14.250	1.66	20.25	0.66
2.333	0.72	8.333	1.44	14.333	1.66	20.33	0.66
2.417	0.72	8.417	1.44	14.417	1.66	20.42	0.66
2.500	0.72	8.500	1.44	14.500	1.66	20.50	0.66
2.583	0.72	8.583	1.55	14.583	1.66	20.58	0.66
2.667	0.72	8.667	1.55	14.667	1.66	20.67	0.66
2.750	0.72	8.750	1.55	14.750	1.66	20.75	0.66
2.833	0.72	8.833	1.55	14.833	1.66	20.83	0.66
2.917	0.72	8.917	1.55	14.917	1.66	20.92	0.66
3.000	0.72	9.000	1.55	15.000	1.66	21.00	0.66
3.083	0.72	9.083	1.77	15.083	1.66	21.08	0.66
3.167	0.72	9.167	1.77	15.167	1.66	21.17	0.66
3.250	0.72	9.250	1.77	15.250	1.66	21.25	0.66
3.333	0.72	9.333	1.77	15.333	1.66	21.33	0.66
3.417	0.72	9.417	1.77	15.417	1.66	21.42	0.66
3.500	0.72	9.500	1.77	15.500	1.66	21.50	0.66
3.583	0.72	9.583	1.99	15.583	1.66	21.58	0.66
3.667	0.72	9.667	1.99	15.667	1.66	21.67	0.66
3.750	0.72	9.750	1.99	15.750	1.66	21.75	0.66
3.833	0.72	9.833	1.99	15.833	1.66	21.83	0.66
3.917	0.72	9.917	1.99	15.917	1.66	21.92	0.66
4.000	0.72	10.000	1.99	16.000	1.66	22.00	0.66
4.083	0.88	10.083	2.54	16.083	0.99	22.08	0.66
4.167	0.88	10.167	2.54	16.167	0.99	22.17	0.66
4.250	0.88	10.250	2.54	16.250	0.99	22.25	0.66
4.333	0.88	10.333	2.54	16.333	0.99	22.33	0.66
4.417	0.88	10.417	2.54	16.417	0.99	22.42	0.66
4.500	0.88	10.500	2.54	16.500	0.99	22.50	0.66
4.583	0.88	10.583	3.42	16.583	0.99	22.58	0.66
4.667	0.88	10.667	3.42	16.667	0.99	22.67	0.66
4.750	0.88	10.750	3.42	16.750	0.99	22.75	0.66
4.833	0.88	10.833	3.42	16.833	0.99	22.83	0.66
4.917	0.88	10.917	3.42	16.917	0.99	22.92	0.66
5.000	0.88	11.000	3.42	17.000	0.99	23.00	0.66
5.083	0.88	11.083	5.30	17.083	0.99	23.08	0.66
5.167	0.88	11.167	5.30	17.167	0.99	23.17	0.66

5.250	0.88	11.250	5.30	17.250	0.99	23.25	0.66
5.333	0.88	11.333	5.30	17.333	0.99	23.33	0.66
5.417	0.88	11.417	5.30	17.417	0.99	23.42	0.66
5.500	0.88	11.500	5.30	17.500	0.99	23.50	0.66
5.583	0.88	11.583	22.96	17.583	0.99	23.58	0.66
5.667	0.88	11.667	22.96	17.667	0.99	23.67	0.66
5.750	0.88	11.750	22.96	17.750	0.99	23.75	0.66
5.833	0.88	11.833	60.94	17.833	0.99	23.83	0.66
5.917	0.88	11.917	60.94	17.917	0.99	23.92	0.66
6.000	0.88	12.000	60.94	18.000	0.99	24.00	0.66

Max.Eff.Inten.(mm/hr)=	60.94	38.98	
over (min)	5.00	5.00	
Storage Coeff. (min)=	1.15 (ii)	2.52 (ii)	
Unit Hyd. Tpeak (min)=	5.00	5.00	
Unit Hyd. peak (cms)=	0.34	0.29	
			TOTALS
PEAK FLOW (cms)=	0.01	0.00	0.009 (iii)
TIME TO PEAK (hrs)=	12.00	12.00	12.00
RUNOFF VOLUME (mm)=	54.19	29.26	53.93
TOTAL RAINFALL (mm)=	55.19	55.19	55.19
RUNOFF COEFFICIENT =	0.98	0.53	0.98

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (0004)	Area (ha)=	0.14	
ID= 1 DT= 5.0 min	Total Imp(%)=	86.00	Dir. Conn.(%)= 86.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.12	0.02
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	30.63	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	0.61	6.083	0.99	12.083	7.96	18.08	0.99
0.167	0.61	6.167	0.99	12.167	7.95	18.17	0.99
0.250	0.61	6.250	0.99	12.250	7.95	18.25	0.99
0.333	0.61	6.333	0.99	12.333	7.95	18.33	0.99
0.417	0.61	6.417	0.99	12.417	7.95	18.42	0.99
0.500	0.61	6.500	0.99	12.500	7.95	18.50	0.99
0.583	0.61	6.583	0.99	12.583	4.08	18.58	0.99
0.667	0.61	6.667	0.99	12.667	4.08	18.67	0.99
0.750	0.61	6.750	0.99	12.750	4.08	18.75	0.99
0.833	0.61	6.833	0.99	12.833	4.08	18.83	0.99
0.917	0.61	6.917	0.99	12.917	4.08	18.92	0.99
1.000	0.61	7.000	0.99	13.000	4.08	19.00	0.99
1.083	0.61	7.083	1.21	13.083	2.98	19.08	0.99
1.167	0.61	7.167	1.21	13.167	2.98	19.17	0.99
1.250	0.61	7.250	1.21	13.250	2.98	19.25	0.99
1.333	0.61	7.333	1.21	13.333	2.98	19.33	0.99
1.417	0.61	7.417	1.21	13.417	2.98	19.42	0.99
1.500	0.61	7.500	1.21	13.500	2.98	19.50	0.99

1.583	0.61	7.583	1.21	13.583	2.32	19.58	0.99
1.667	0.61	7.667	1.21	13.667	2.32	19.67	0.99
1.750	0.61	7.750	1.21	13.750	2.32	19.75	0.99
1.833	0.61	7.833	1.21	13.833	2.32	19.83	0.99
1.917	0.61	7.917	1.21	13.917	2.32	19.92	0.99
2.000	0.61	8.000	1.21	14.000	2.32	20.00	0.99
2.083	0.72	8.083	1.44	14.083	1.66	20.08	0.66
2.167	0.72	8.167	1.44	14.167	1.66	20.17	0.66
2.250	0.72	8.250	1.44	14.250	1.66	20.25	0.66
2.333	0.72	8.333	1.44	14.333	1.66	20.33	0.66
2.417	0.72	8.417	1.44	14.417	1.66	20.42	0.66
2.500	0.72	8.500	1.44	14.500	1.66	20.50	0.66
2.583	0.72	8.583	1.55	14.583	1.66	20.58	0.66
2.667	0.72	8.667	1.55	14.667	1.66	20.67	0.66
2.750	0.72	8.750	1.55	14.750	1.66	20.75	0.66
2.833	0.72	8.833	1.55	14.833	1.66	20.83	0.66
2.917	0.72	8.917	1.55	14.917	1.66	20.92	0.66
3.000	0.72	9.000	1.55	15.000	1.66	21.00	0.66
3.083	0.72	9.083	1.77	15.083	1.66	21.08	0.66
3.167	0.72	9.167	1.77	15.167	1.66	21.17	0.66
3.250	0.72	9.250	1.77	15.250	1.66	21.25	0.66
3.333	0.72	9.333	1.77	15.333	1.66	21.33	0.66
3.417	0.72	9.417	1.77	15.417	1.66	21.42	0.66
3.500	0.72	9.500	1.77	15.500	1.66	21.50	0.66
3.583	0.72	9.583	1.99	15.583	1.66	21.58	0.66
3.667	0.72	9.667	1.99	15.667	1.66	21.67	0.66
3.750	0.72	9.750	1.99	15.750	1.66	21.75	0.66
3.833	0.72	9.833	1.99	15.833	1.66	21.83	0.66
3.917	0.72	9.917	1.99	15.917	1.66	21.92	0.66
4.000	0.72	10.000	1.99	16.000	1.66	22.00	0.66
4.083	0.88	10.083	2.54	16.083	0.99	22.08	0.66
4.167	0.88	10.167	2.54	16.167	0.99	22.17	0.66
4.250	0.88	10.250	2.54	16.250	0.99	22.25	0.66
4.333	0.88	10.333	2.54	16.333	0.99	22.33	0.66
4.417	0.88	10.417	2.54	16.417	0.99	22.42	0.66
4.500	0.88	10.500	2.54	16.500	0.99	22.50	0.66
4.583	0.88	10.583	3.42	16.583	0.99	22.58	0.66
4.667	0.88	10.667	3.42	16.667	0.99	22.67	0.66
4.750	0.88	10.750	3.42	16.750	0.99	22.75	0.66
4.833	0.88	10.833	3.42	16.833	0.99	22.83	0.66
4.917	0.88	10.917	3.42	16.917	0.99	22.92	0.66
5.000	0.88	11.000	3.42	17.000	0.99	23.00	0.66
5.083	0.88	11.083	5.30	17.083	0.99	23.08	0.66
5.167	0.88	11.167	5.30	17.167	0.99	23.17	0.66
5.250	0.88	11.250	5.30	17.250	0.99	23.25	0.66
5.333	0.88	11.333	5.30	17.333	0.99	23.33	0.66
5.417	0.88	11.417	5.30	17.417	0.99	23.42	0.66
5.500	0.88	11.500	5.30	17.500	0.99	23.50	0.66
5.583	0.88	11.583	22.96	17.583	0.99	23.58	0.66
5.667	0.88	11.667	22.96	17.667	0.99	23.67	0.66
5.750	0.88	11.750	22.96	17.750	0.99	23.75	0.66
5.833	0.88	11.833	60.94	17.833	0.99	23.83	0.66
5.917	0.88	11.917	60.94	17.917	0.99	23.92	0.66
6.000	0.88	12.000	60.94	18.000	0.99	24.00	0.66

Max.Eff.Inten.(mm/hr)= 60.94 38.98
over (min) 5.00 10.00
Storage Coeff. (min)= 1.53 (ii) 5.69 (ii)
Unit Hyd. Tpeak (min)= 5.00 10.00
Unit Hyd. peak (cms)= 0.33 0.15

PEAK FLOW (cms)= 0.02 0.00 0.022 (iii)
TIME TO PEAK (hrs)= 12.00 12.00 12.00
RUNOFF VOLUME (mm)= 54.18 29.26 50.69
TOTAL RAINFALL (mm)= 55.19 55.19 55.19
RUNOFF COEFFICIENT = 0.98 0.53 0.92

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0012)
ID= 1 DT= 5.0 min
Area (ha)= 0.07
Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.07 0.00
Dep. Storage (mm)= 1.00 1.50
Average Slope (%)= 1.00 2.00
Length (m)= 21.88 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	0.61	6.083	0.99	12.083	7.96	18.08	0.99
0.167	0.61	6.167	0.99	12.167	7.95	18.17	0.99
0.250	0.61	6.250	0.99	12.250	7.95	18.25	0.99
0.333	0.61	6.333	0.99	12.333	7.95	18.33	0.99
0.417	0.61	6.417	0.99	12.417	7.95	18.42	0.99
0.500	0.61	6.500	0.99	12.500	7.95	18.50	0.99
0.583	0.61	6.583	0.99	12.583	4.08	18.58	0.99
0.667	0.61	6.667	0.99	12.667	4.08	18.67	0.99
0.750	0.61	6.750	0.99	12.750	4.08	18.75	0.99
0.833	0.61	6.833	0.99	12.833	4.08	18.83	0.99
0.917	0.61	6.917	0.99	12.917	4.08	18.92	0.99
1.000	0.61	7.000	0.99	13.000	4.08	19.00	0.99
1.083	0.61	7.083	1.21	13.083	2.98	19.08	0.99
1.167	0.61	7.167	1.21	13.167	2.98	19.17	0.99
1.250	0.61	7.250	1.21	13.250	2.98	19.25	0.99
1.333	0.61	7.333	1.21	13.333	2.98	19.33	0.99
1.417	0.61	7.417	1.21	13.417	2.98	19.42	0.99
1.500	0.61	7.500	1.21	13.500	2.98	19.50	0.99
1.583	0.61	7.583	1.21	13.583	2.32	19.58	0.99
1.667	0.61	7.667	1.21	13.667	2.32	19.67	0.99
1.750	0.61	7.750	1.21	13.750	2.32	19.75	0.99
1.833	0.61	7.833	1.21	13.833	2.32	19.83	0.99
1.917	0.61	7.917	1.21	13.917	2.32	19.92	0.99
2.000	0.61	8.000	1.21	14.000	2.32	20.00	0.99
2.083	0.72	8.083	1.44	14.083	1.66	20.08	0.66
2.167	0.72	8.167	1.44	14.167	1.66	20.17	0.66
2.250	0.72	8.250	1.44	14.250	1.66	20.25	0.66
2.333	0.72	8.333	1.44	14.333	1.66	20.33	0.66
2.417	0.72	8.417	1.44	14.417	1.66	20.42	0.66
2.500	0.72	8.500	1.44	14.500	1.66	20.50	0.66
2.583	0.72	8.583	1.55	14.583	1.66	20.58	0.66
2.667	0.72	8.667	1.55	14.667	1.66	20.67	0.66
2.750	0.72	8.750	1.55	14.750	1.66	20.75	0.66
2.833	0.72	8.833	1.55	14.833	1.66	20.83	0.66
2.917	0.72	8.917	1.55	14.917	1.66	20.92	0.66
3.000	0.72	9.000	1.55	15.000	1.66	21.00	0.66
3.083	0.72	9.083	1.77	15.083	1.66	21.08	0.66
3.167	0.72	9.167	1.77	15.167	1.66	21.17	0.66
3.250	0.72	9.250	1.77	15.250	1.66	21.25	0.66
3.333	0.72	9.333	1.77	15.333	1.66	21.33	0.66
3.417	0.72	9.417	1.77	15.417	1.66	21.42	0.66
3.500	0.72	9.500	1.77	15.500	1.66	21.50	0.66

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

3.583	0.72	9.583	1.99	15.583	1.66	21.58	0.66
3.667	0.72	9.667	1.99	15.667	1.66	21.67	0.66
3.750	0.72	9.750	1.99	15.750	1.66	21.75	0.66
3.833	0.72	9.833	1.99	15.833	1.66	21.83	0.66
3.917	0.72	9.917	1.99	15.917	1.66	21.92	0.66
4.000	0.72	10.000	1.99	16.000	1.66	22.00	0.66
4.083	0.88	10.083	2.54	16.083	0.99	22.08	0.66
4.167	0.88	10.167	2.54	16.167	0.99	22.17	0.66
4.250	0.88	10.250	2.54	16.250	0.99	22.25	0.66
4.333	0.88	10.333	2.54	16.333	0.99	22.33	0.66
4.417	0.88	10.417	2.54	16.417	0.99	22.42	0.66
4.500	0.88	10.500	2.54	16.500	0.99	22.50	0.66
4.583	0.88	10.583	3.42	16.583	0.99	22.58	0.66
4.667	0.88	10.667	3.42	16.667	0.99	22.67	0.66
4.750	0.88	10.750	3.42	16.750	0.99	22.75	0.66
4.833	0.88	10.833	3.42	16.833	0.99	22.83	0.66
4.917	0.88	10.917	3.42	16.917	0.99	22.92	0.66
5.000	0.88	11.000	3.42	17.000	0.99	23.00	0.66
5.083	0.88	11.083	5.30	17.083	0.99	23.08	0.66
5.167	0.88	11.167	5.30	17.167	0.99	23.17	0.66
5.250	0.88	11.250	5.30	17.250	0.99	23.25	0.66
5.333	0.88	11.333	5.30	17.333	0.99	23.33	0.66
5.417	0.88	11.417	5.30	17.417	0.99	23.42	0.66
5.500	0.88	11.500	5.30	17.500	0.99	23.50	0.66
5.583	0.88	11.583	22.96	17.583	0.99	23.58	0.66
5.667	0.88	11.667	22.96	17.667	0.99	23.67	0.66
5.750	0.88	11.750	22.96	17.750	0.99	23.75	0.66
5.833	0.88	11.833	60.94	17.833	0.99	23.83	0.66
5.917	0.88	11.917	60.94	17.917	0.99	23.92	0.66
6.000	0.88	12.000	60.94	18.000	0.99	24.00	0.66

Max.Eff.Inten.(mm/hr)=	60.94	38.98
over (min)	5.00	5.00
Storage Coeff. (min)=	1.25 (ii)	2.62 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.33	0.29

TOTALS

PEAK FLOW (cms)=	0.01	0.00	0.012 (iii)
TIME TO PEAK (hrs)=	12.00	12.00	12.00
RUNOFF VOLUME (mm)=	54.18	29.26	53.93
TOTAL RAINFALL (mm)=	55.19	55.19	55.19
RUNOFF COEFFICIENT =	0.98	0.53	0.98

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0007)				
1 + 2 = 3				

ID1= 1 (0012):	0.07	0.012	12.00	53.93
+ ID2= 2 (0002):	0.19	0.032	12.00	53.68
=====				
ID = 3 (0007):	0.26	0.044	12.00	53.75

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0007)				
3 + 2 = 1				

AREA	QPEAK	TPEAK	R.V.	

	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (0007):	0.26	0.044	12.00	53.75
+ ID2= 2 (0003):	0.05	0.009	12.00	53.93
=====				
ID = 1 (0007):	0.32	0.053	12.00	53.78

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0007)				
1 + 2 = 3				

ID1= 1 (0007):	0.32	0.053	12.00	53.78
+ ID2= 2 (0004):	0.14	0.022	12.00	50.69
=====				
ID = 3 (0007):	0.46	0.075	12.00	52.83

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR(0014)	OVERFLOW IS OFF			
IN= 2--> OUT= 1				
DT= 5.0 min				

OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)	
0.0000	0.0000	0.0880	0.0054	
0.0000	0.0008	0.0950	0.0062	
0.0360	0.0015	0.1020	0.0070	
0.0510	0.0023	0.1080	0.0077	
0.0620	0.0031	0.1140	0.0085	
0.0720	0.0039	0.1200	0.0093	
0.0810	0.0046	0.0000	0.0000	

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (0007)	0.456	0.075	12.00	52.83
OUTFLOW: ID= 1 (0014)	0.456	0.062	12.00	51.08

PEAK FLOW REDUCTION [Qout/Qin](%)= 81.85
TIME SHIFT OF PEAK FLOW (min)= 0.00
MAXIMUM STORAGE USED (ha.m.)= 0.0033

ADD HYD (0017)				
1 + 2 = 3				

ID1= 1 (0014):	0.46	0.062	12.00	51.08
+ ID2= 2 (0009):	2.41	0.347	12.00	48.37
=====				
ID = 3 (0017):	2.86	0.409	12.00	48.80

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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

000	TTTTT	TTTTT	H	H	Y	Y	M	M	000	TM
0	0	T	T	H	H	Y Y	MM	MM	0	0
0	0	T	T	H	H	Y	M	M	0	0
000		T	T	H	H	Y	M	M	000	

| STANDHYD (0001) | Area (ha)= 0.45
|ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

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

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\V02\voin.dat
Output filename: C:\Users\ffisl\AppData\Local\Civica\XH5\dae7608f-82b9-4213-85a0-cec48cda5646\026008b4-4cbc-4fc6-926c-c19f39f64edb\scenar
Summary filename: C:\Users\ffisl\AppData\Local\Civica\XH5\dae7608f-82b9-4213-85a0-cec48cda5646\026008b4-4cbc-4fc6-926c-c19f39f64edb\scenar

IMPERVIOUS PVIOUS (i)
Surface Area (ha)= 0.45 0.00
Dep. Storage (mm)= 1.00 1.50
Average Slope (%)= 1.00 2.00
Length (m)= 54.94 40.00
Mannings n = 0.013 0.250

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

DATE: 12-02-2025

TIME: 06:29:03

USER:

COMMENTS: _____

** SIMULATION : 005-year **

| READ STORM | Filename: C:\Users\ffisl\AppData\Local\Temp\65ee925f-bdec-4dc8-8f1a-7fb2dd9de23e\dd370264
| Ptotal= 73.37 mm | Comments: 5-yr, 24-hr SCS Type II Distribution Sto

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.00	0.81	6.00	1.32	12.00	10.57	18.00	1.32
0.25	0.81	6.25	1.32	12.25	10.57	18.25	1.32
0.50	0.81	6.50	1.32	12.50	5.43	18.50	1.32
0.75	0.81	6.75	1.32	12.75	5.43	18.75	1.32
1.00	0.81	7.00	1.61	13.00	3.96	19.00	1.32
1.25	0.81	7.25	1.61	13.25	3.96	19.25	1.32
1.50	0.81	7.50	1.61	13.50	3.08	19.50	1.32
1.75	0.81	7.75	1.61	13.75	3.08	19.75	1.32
2.00	0.95	8.00	1.91	14.00	2.20	20.00	0.88
2.25	0.95	8.25	1.91	14.25	2.20	20.25	0.88
2.50	0.95	8.50	2.06	14.50	2.20	20.50	0.88
2.75	0.95	8.75	2.06	14.75	2.20	20.75	0.88
3.00	0.95	9.00	2.35	15.00	2.20	21.00	0.88
3.25	0.95	9.25	2.35	15.25	2.20	21.25	0.88
3.50	0.95	9.50	2.64	15.50	2.20	21.50	0.88
3.75	0.95	9.75	2.64	15.75	2.20	21.75	0.88
4.00	1.17	10.00	3.38	16.00	1.32	22.00	0.88
4.25	1.17	10.25	3.38	16.25	1.32	22.25	0.88
4.50	1.17	10.50	4.55	16.50	1.32	22.50	0.88
4.75	1.17	10.75	4.55	16.75	1.32	22.75	0.88
5.00	1.17	11.00	7.05	17.00	1.32	23.00	0.88
5.25	1.17	11.25	7.05	17.25	1.32	23.25	0.88
5.50	1.17	11.50	30.53	17.50	1.32	23.50	0.88
5.75	1.17	11.75	81.03	17.75	1.32	23.75	0.88

| CALIB |

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.81	6.083	1.32	12.083	10.58	18.08	1.32
0.167	0.81	6.167	1.32	12.167	10.57	18.17	1.32
0.250	0.81	6.250	1.32	12.250	10.57	18.25	1.32
0.333	0.81	6.333	1.32	12.333	10.57	18.33	1.32
0.417	0.81	6.417	1.32	12.417	10.57	18.42	1.32
0.500	0.81	6.500	1.32	12.500	10.57	18.50	1.32
0.583	0.81	6.583	1.32	12.583	5.43	18.58	1.32
0.667	0.81	6.667	1.32	12.667	5.43	18.67	1.32
0.750	0.81	6.750	1.32	12.750	5.43	18.75	1.32
0.833	0.81	6.833	1.32	12.833	5.43	18.83	1.32
0.917	0.81	6.917	1.32	12.917	5.43	18.92	1.32
1.000	0.81	7.000	1.32	13.000	5.43	19.00	1.32
1.083	0.81	7.083	1.61	13.083	3.96	19.08	1.32
1.167	0.81	7.167	1.61	13.167	3.96	19.17	1.32
1.250	0.81	7.250	1.61	13.250	3.96	19.25	1.32
1.333	0.81	7.333	1.61	13.333	3.96	19.33	1.32
1.417	0.81	7.417	1.61	13.417	3.96	19.42	1.32
1.500	0.81	7.500	1.61	13.500	3.96	19.50	1.32
1.583	0.81	7.583	1.61	13.583	3.08	19.58	1.32
1.667	0.81	7.667	1.61	13.667	3.08	19.67	1.32
1.750	0.81	7.750	1.61	13.750	3.08	19.75	1.32
1.833	0.81	7.833	1.61	13.833	3.08	19.83	1.32
1.917	0.81	7.917	1.61	13.917	3.08	19.92	1.32
2.000	0.81	8.000	1.61	14.000	3.08	20.00	1.32
2.083	0.95	8.083	1.91	14.083	2.20	20.08	0.88
2.167	0.95	8.167	1.91	14.167	2.20	20.17	0.88
2.250	0.95	8.250	1.91	14.250	2.20	20.25	0.88
2.333	0.95	8.333	1.91	14.333	2.20	20.33	0.88
2.417	0.95	8.417	1.91	14.417	2.20	20.42	0.88
2.500	0.95	8.500	1.91	14.500	2.20	20.50	0.88
2.583	0.95	8.583	2.06	14.583	2.20	20.58	0.88
2.667	0.95	8.667	2.06	14.667	2.20	20.67	0.88
2.750	0.95	8.750	2.06	14.750	2.20	20.75	0.88
2.833	0.95	8.833	2.06	14.833	2.20	20.83	0.88
2.917	0.95	8.917	2.06	14.917	2.20	20.92	0.88
3.000	0.95	9.000	2.06	15.000	2.20	21.00	0.88
3.083	0.95	9.083	2.35	15.083	2.20	21.08	0.88
3.167	0.95	9.167	2.35	15.167	2.20	21.17	0.88
3.250	0.95	9.250	2.35	15.250	2.20	21.25	0.88
3.333	0.95	9.333	2.35	15.333	2.20	21.33	0.88
3.417	0.95	9.417	2.35	15.417	2.20	21.42	0.88
3.500	0.95	9.500	2.35	15.500	2.20	21.50	0.88
3.583	0.95	9.583	2.64	15.583	2.20	21.58	0.88
3.667	0.95	9.667	2.64	15.667	2.20	21.67	0.88
3.750	0.95	9.750	2.64	15.750	2.20	21.75	0.88
3.833	0.95	9.833	2.64	15.833	2.20	21.83	0.88
3.917	0.95	9.917	2.64	15.917	2.20	21.92	0.88
4.000	0.95	10.000	2.64	16.000	2.20	22.00	0.88
4.083	1.17	10.083	3.38	16.083	1.32	22.08	0.88
4.167	1.17	10.167	3.38	16.167	1.32	22.17	0.88
4.250	1.17	10.250	3.38	16.250	1.32	22.25	0.88
4.333	1.17	10.333	3.38	16.333	1.32	22.33	0.88

4.417	1.17	10.417	3.38	16.417	1.32	22.42	0.88
4.500	1.17	10.500	3.38	16.500	1.32	22.50	0.88
4.583	1.17	10.583	4.55	16.583	1.32	22.58	0.88
4.667	1.17	10.667	4.55	16.667	1.32	22.67	0.88
4.750	1.17	10.750	4.55	16.750	1.32	22.75	0.88
4.833	1.17	10.833	4.55	16.833	1.32	22.83	0.88
4.917	1.17	10.917	4.55	16.917	1.32	22.92	0.88
5.000	1.17	11.000	4.55	17.000	1.32	23.00	0.88
5.083	1.17	11.083	7.05	17.083	1.32	23.08	0.88
5.167	1.17	11.167	7.05	17.167	1.32	23.17	0.88
5.250	1.17	11.250	7.05	17.250	1.32	23.25	0.88
5.333	1.17	11.333	7.05	17.333	1.32	23.33	0.88
5.417	1.17	11.417	7.05	17.417	1.32	23.42	0.88
5.500	1.17	11.500	7.05	17.500	1.32	23.50	0.88
5.583	1.17	11.583	30.53	17.583	1.32	23.58	0.88
5.667	1.17	11.667	30.53	17.667	1.32	23.67	0.88
5.750	1.17	11.750	30.53	17.750	1.32	23.75	0.88
5.833	1.17	11.833	81.02	17.833	1.32	23.83	0.88
5.917	1.17	11.917	81.03	17.917	1.32	23.92	0.88
6.000	1.17	12.000	81.03	18.000	1.32	24.00	0.88

Max.Eff.Inten.(mm/hr)= 81.03 58.47
over (min) 5.00 5.00
Storage Coeff. (min)= 1.94 (ii) 3.16 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.31 0.27

TOTALS

PEAK FLOW (cms)= 0.10 0.00 0.102 (iii)
TIME TO PEAK (hrs)= 12.00 12.00 12.00
RUNOFF VOLUME (mm)= 72.37 44.26 72.08
TOTAL RAINFALL (mm)= 73.37 73.37 73.37
RUNOFF COEFFICIENT = 0.99 0.60 0.98

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

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| CALIB |
| STANDHYD (0005) | Area (ha)= 0.95
| ID= 1 DT= 5.0 min | Total Imp(%)= 75.00 Dir. Conn.(%)= 75.00
|-----|

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.71 0.24
Dep. Storage (mm)= 1.00 1.50
Average Slope (%)= 1.00 2.00
Length (m)= 79.65 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	0.81	6.083	1.32	12.083	10.58	18.08	1.32
0.167	0.81	6.167	1.32	12.167	10.57	18.17	1.32
0.250	0.81	6.250	1.32	12.250	10.57	18.25	1.32
0.333	0.81	6.333	1.32	12.333	10.57	18.33	1.32
0.417	0.81	6.417	1.32	12.417	10.57	18.42	1.32
0.500	0.81	6.500	1.32	12.500	10.57	18.50	1.32
0.583	0.81	6.583	1.32	12.583	5.43	18.58	1.32
0.667	0.81	6.667	1.32	12.667	5.43	18.67	1.32

0.750	0.81	6.750	1.32	12.750	5.43	18.75	1.32
0.833	0.81	6.833	1.32	12.833	5.43	18.83	1.32
0.917	0.81	6.917	1.32	12.917	5.43	18.92	1.32
1.000	0.81	7.000	1.32	13.000	5.43	19.00	1.32
1.083	0.81	7.083	1.61	13.083	3.96	19.08	1.32
1.167	0.81	7.167	1.61	13.167	3.96	19.17	1.32
1.250	0.81	7.250	1.61	13.250	3.96	19.25	1.32
1.333	0.81	7.333	1.61	13.333	3.96	19.33	1.32
1.417	0.81	7.417	1.61	13.417	3.96	19.42	1.32
1.500	0.81	7.500	1.61	13.500	3.96	19.50	1.32
1.583	0.81	7.583	1.61	13.583	3.08	19.58	1.32
1.667	0.81	7.667	1.61	13.667	3.08	19.67	1.32
1.750	0.81	7.750	1.61	13.750	3.08	19.75	1.32
1.833	0.81	7.833	1.61	13.833	3.08	19.83	1.32
1.917	0.81	7.917	1.61	13.917	3.08	19.92	1.32
2.000	0.81	8.000	1.61	14.000	3.08	20.00	1.32
2.083	0.95	8.083	1.91	14.083	2.20	20.08	0.88
2.167	0.95	8.167	1.91	14.167	2.20	20.17	0.88
2.250	0.95	8.250	1.91	14.250	2.20	20.25	0.88
2.333	0.95	8.333	1.91	14.333	2.20	20.33	0.88
2.417	0.95	8.417	1.91	14.417	2.20	20.42	0.88
2.500	0.95	8.500	1.91	14.500	2.20	20.50	0.88
2.583	0.95	8.583	2.06	14.583	2.20	20.58	0.88
2.667	0.95	8.667	2.06	14.667	2.20	20.67	0.88
2.750	0.95	8.750	2.06	14.750	2.20	20.75	0.88
2.833	0.95	8.833	2.06	14.833	2.20	20.83	0.88
2.917	0.95	8.917	2.06	14.917	2.20	20.92	0.88
3.000	0.95	9.000	2.06	15.000	2.20	21.00	0.88
3.083	0.95	9.083	2.35	15.083	2.20	21.08	0.88
3.167	0.95	9.167	2.35	15.167	2.20	21.17	0.88
3.250	0.95	9.250	2.35	15.250	2.20	21.25	0.88
3.333	0.95	9.333	2.35	15.333	2.20	21.33	0.88
3.417	0.95	9.417	2.35	15.417	2.20	21.42	0.88
3.500	0.95	9.500	2.35	15.500	2.20	21.50	0.88
3.583	0.95	9.583	2.64	15.583	2.20	21.58	0.88
3.667	0.95	9.667	2.64	15.667	2.20	21.67	0.88
3.750	0.95	9.750	2.64	15.750	2.20	21.75	0.88
3.833	0.95	9.833	2.64	15.833	2.20	21.83	0.88
3.917	0.95	9.917	2.64	15.917	2.20	21.92	0.88
4.000	0.95	10.000	2.64	16.000	2.20	22.00	0.88
4.083	1.17	10.083	3.38	16.083	1.32	22.08	0.88
4.167	1.17	10.167	3.38	16.167	1.32	22.17	0.88
4.250	1.17	10.250	3.38	16.250	1.32	22.25	0.88
4.333	1.17	10.333	3.38	16.333	1.32	22.33	0.88
4.417	1.17	10.417	3.38	16.417	1.32	22.42	0.88
4.500	1.17	10.500	3.38	16.500	1.32	22.50	0.88
4.583	1.17	10.583	4.55	16.583	1.32	22.58	0.88
4.667	1.17	10.667	4.55	16.667	1.32	22.67	0.88
4.750	1.17	10.750	4.55	16.750	1.32	22.75	0.88
4.833	1.17	10.833	4.55	16.833	1.32	22.83	0.88
4.917	1.17	10.917	4.55	16.917	1.32	22.92	0.88
5.000	1.17	11.000	4.55	17.000	1.32	23.00	0.88
5.083	1.17	11.083	7.05	17.083	1.32	23.08	0.88
5.167	1.17	11.167	7.05	17.167	1.32	23.17	0.88
5.250	1.17	11.250	7.05	17.250	1.32	23.25	0.88
5.333	1.17	11.333	7.05	17.333	1.32	23.33	0.88
5.417	1.17	11.417	7.05	17.417	1.32	23.42	0.88
5.500	1.17	11.500	7.05	17.500	1.32	23.50	0.88
5.583	1.17	11.583	30.53	17.583	1.32	23.58	0.88
5.667	1.17	11.667	30.53	17.667	1.32	23.67	0.88
5.750	1.17	11.750	30.53	17.750	1.32	23.75	0.88
5.833	1.17	11.833	81.02	17.833	1.32	23.83	0.88
5.917	1.17	11.917	81.03	17.917	1.32	23.92	0.88
6.000	1.17	12.000	81.03	18.000	1.32	24.00	0.88

Max.Eff.Inten.(mm/hr)= 81.03 58.47
over (min) 5.00 10.00
Storage Coeff. (min)= 2.42 (ii) 7.37 (ii)

Unit Hyd. Tpeak (min)= 5.00 10.00
Unit Hyd. peak (cms)= 0.30 0.13

PEAK FLOW (cms)= 0.16 0.03 0.192 (iii)
TIME TO PEAK (hrs)= 12.00 12.00 12.00
RUNOFF VOLUME (mm)= 72.37 44.26 65.34
TOTAL RAINFALL (mm)= 73.37 73.37 73.37
RUNOFF COEFFICIENT = 0.99 0.60 0.89

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0006) | Area (ha)= 0.92
ID= 1 DT= 5.0 min | Total Imp(%)= 70.00 Dir. Conn.(%)= 70.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.65 0.28
Dep. Storage (mm)= 1.00 1.50
Average Slope (%)= 1.00 2.00
Length (m)= 78.45 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	0.81	6.083	1.32	12.083	10.58	18.08	1.32
0.167	0.81	6.167	1.32	12.167	10.57	18.17	1.32
0.250	0.81	6.250	1.32	12.250	10.57	18.25	1.32
0.333	0.81	6.333	1.32	12.333	10.57	18.33	1.32
0.417	0.81	6.417	1.32	12.417	10.57	18.42	1.32
0.500	0.81	6.500	1.32	12.500	10.57	18.50	1.32
0.583	0.81	6.583	1.32	12.583	5.43	18.58	1.32
0.667	0.81	6.667	1.32	12.667	5.43	18.67	1.32
0.750	0.81	6.750	1.32	12.750	5.43	18.75	1.32
0.833	0.81	6.833	1.32	12.833	5.43	18.83	1.32
0.917	0.81	6.917	1.32	12.917	5.43	18.92	1.32
1.000	0.81	7.000	1.32	13.000	5.43	19.00	1.32
1.083	0.81	7.083	1.61	13.083	3.96	19.08	1.32
1.167	0.81	7.167	1.61	13.167	3.96	19.17	1.32
1.250	0.81	7.250	1.61	13.250	3.96	19.25	1.32
1.333	0.81	7.333	1.61	13.333	3.96	19.33	1.32
1.417	0.81	7.417	1.61	13.417	3.96	19.42	1.32
1.500	0.81	7.500	1.61	13.500	3.96	19.50	1.32
1.583	0.81	7.583	1.61	13.583	3.08	19.58	1.32
1.667	0.81	7.667	1.61	13.667	3.08	19.67	1.32
1.750	0.81	7.750	1.61	13.750	3.08	19.75	1.32
1.833	0.81	7.833	1.61	13.833	3.08	19.83	1.32
1.917	0.81	7.917	1.61	13.917	3.08	19.92	1.32
2.000	0.81	8.000	1.61	14.000	3.08	20.00	1.32
2.083	0.95	8.083	1.91	14.083	2.20	20.08	0.88
2.167	0.95	8.167	1.91	14.167	2.20	20.17	0.88
2.250	0.95	8.250	1.91	14.250	2.20	20.25	0.88
2.333	0.95	8.333	1.91	14.333	2.20	20.33	0.88
2.417	0.95	8.417	1.91	14.417	2.20	20.42	0.88
2.500	0.95	8.500	1.91	14.500	2.20	20.50	0.88
2.583	0.95	8.583	2.06	14.583	2.20	20.58	0.88
2.667	0.95	8.667	2.06	14.667	2.20	20.67	0.88

2.750	0.95	8.750	2.06	14.750	2.20	20.75	0.88
2.833	0.95	8.833	2.06	14.833	2.20	20.83	0.88
2.917	0.95	8.917	2.06	14.917	2.20	20.92	0.88
3.000	0.95	9.000	2.06	15.000	2.20	21.00	0.88
3.083	0.95	9.083	2.35	15.083	2.20	21.08	0.88
3.167	0.95	9.167	2.35	15.167	2.20	21.17	0.88
3.250	0.95	9.250	2.35	15.250	2.20	21.25	0.88
3.333	0.95	9.333	2.35	15.333	2.20	21.33	0.88
3.417	0.95	9.417	2.35	15.417	2.20	21.42	0.88
3.500	0.95	9.500	2.35	15.500	2.20	21.50	0.88
3.583	0.95	9.583	2.64	15.583	2.20	21.58	0.88
3.667	0.95	9.667	2.64	15.667	2.20	21.67	0.88
3.750	0.95	9.750	2.64	15.750	2.20	21.75	0.88
3.833	0.95	9.833	2.64	15.833	2.20	21.83	0.88
3.917	0.95	9.917	2.64	15.917	2.20	21.92	0.88
4.000	0.95	10.000	2.64	16.000	2.20	22.00	0.88
4.083	1.17	10.083	3.38	16.083	1.32	22.08	0.88
4.167	1.17	10.167	3.38	16.167	1.32	22.17	0.88
4.250	1.17	10.250	3.38	16.250	1.32	22.25	0.88
4.333	1.17	10.333	3.38	16.333	1.32	22.33	0.88
4.417	1.17	10.417	3.38	16.417	1.32	22.42	0.88
4.500	1.17	10.500	3.38	16.500	1.32	22.50	0.88
4.583	1.17	10.583	4.55	16.583	1.32	22.58	0.88
4.667	1.17	10.667	4.55	16.667	1.32	22.67	0.88
4.750	1.17	10.750	4.55	16.750	1.32	22.75	0.88
4.833	1.17	10.833	4.55	16.833	1.32	22.83	0.88
4.917	1.17	10.917	4.55	16.917	1.32	22.92	0.88
5.000	1.17	11.000	4.55	17.000	1.32	23.00	0.88
5.083	1.17	11.083	7.05	17.083	1.32	23.08	0.88
5.167	1.17	11.167	7.05	17.167	1.32	23.17	0.88
5.250	1.17	11.250	7.05	17.250	1.32	23.25	0.88
5.333	1.17	11.333	7.05	17.333	1.32	23.33	0.88
5.417	1.17	11.417	7.05	17.417	1.32	23.42	0.88
5.500	1.17	11.500	7.05	17.500	1.32	23.50	0.88
5.583	1.17	11.583	30.53	17.583	1.32	23.58	0.88
5.667	1.17	11.667	30.53	17.667	1.32	23.67	0.88
5.750	1.17	11.750	30.53	17.750	1.32	23.75	0.88
5.833	1.17	11.833	81.02	17.833	1.32	23.83	0.88
5.917	1.17	11.917	81.03	17.917	1.32	23.92	0.88
6.000	1.17	12.000	81.03	18.000	1.32	24.00	0.88

Max.Eff.Inten.(mm/hr)= 81.03 58.47
over (min)= 5.00 15.00
Storage Coeff. (min)= 2.40 (ii) 11.15 (ii)
Unit Hyd. Tpeak (min)= 5.00 15.00
Unit Hyd. peak (cms)= 0.30 0.09

TOTALS
PEAK FLOW (cms)= 0.15 0.03 0.173 (iii)
TIME TO PEAK (hrs)= 12.00 12.08 12.00
RUNOFF VOLUME (mm)= 72.37 44.26 63.93
TOTAL RAINFALL (mm)= 73.37 73.37 73.37
RUNOFF COEFFICIENT = 0.99 0.60 0.87

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0015) | Area (ha)= 0.05
ID= 1 DT= 5.0 min | Total Imp(%)= 44.00 Dir. Conn.(%)= 44.00

IMPERVIOUS PERVIOUS (i)

Surface Area (ha)= 0.02 0.03
 Dep. Storage (mm)= 1.00 1.50
 Average Slope (%)= 1.00 2.00
 Length (m)= 18.62 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	0.81	6.083	1.32	12.083	10.58	18.08	1.32
0.167	0.81	6.167	1.32	12.167	10.57	18.17	1.32
0.250	0.81	6.250	1.32	12.250	10.57	18.25	1.32
0.333	0.81	6.333	1.32	12.333	10.57	18.33	1.32
0.417	0.81	6.417	1.32	12.417	10.57	18.42	1.32
0.500	0.81	6.500	1.32	12.500	10.57	18.50	1.32
0.583	0.81	6.583	1.32	12.583	5.43	18.58	1.32
0.667	0.81	6.667	1.32	12.667	5.43	18.67	1.32
0.750	0.81	6.750	1.32	12.750	5.43	18.75	1.32
0.833	0.81	6.833	1.32	12.833	5.43	18.83	1.32
0.917	0.81	6.917	1.32	12.917	5.43	18.92	1.32
1.000	0.81	7.000	1.32	13.000	5.43	19.00	1.32
1.083	0.81	7.083	1.61	13.083	3.96	19.08	1.32
1.167	0.81	7.167	1.61	13.167	3.96	19.17	1.32
1.250	0.81	7.250	1.61	13.250	3.96	19.25	1.32
1.333	0.81	7.333	1.61	13.333	3.96	19.33	1.32
1.417	0.81	7.417	1.61	13.417	3.96	19.42	1.32
1.500	0.81	7.500	1.61	13.500	3.96	19.50	1.32
1.583	0.81	7.583	1.61	13.583	3.08	19.58	1.32
1.667	0.81	7.667	1.61	13.667	3.08	19.67	1.32
1.750	0.81	7.750	1.61	13.750	3.08	19.75	1.32
1.833	0.81	7.833	1.61	13.833	3.08	19.83	1.32
1.917	0.81	7.917	1.61	13.917	3.08	19.92	1.32
2.000	0.81	8.000	1.61	14.000	3.08	20.00	1.32
2.083	0.95	8.083	1.91	14.083	2.20	20.08	0.88
2.167	0.95	8.167	1.91	14.167	2.20	20.17	0.88
2.250	0.95	8.250	1.91	14.250	2.20	20.25	0.88
2.333	0.95	8.333	1.91	14.333	2.20	20.33	0.88
2.417	0.95	8.417	1.91	14.417	2.20	20.42	0.88
2.500	0.95	8.500	1.91	14.500	2.20	20.50	0.88
2.583	0.95	8.583	2.06	14.583	2.20	20.58	0.88
2.667	0.95	8.667	2.06	14.667	2.20	20.67	0.88
2.750	0.95	8.750	2.06	14.750	2.20	20.75	0.88
2.833	0.95	8.833	2.06	14.833	2.20	20.83	0.88
2.917	0.95	8.917	2.06	14.917	2.20	20.92	0.88
3.000	0.95	9.000	2.06	15.000	2.20	21.00	0.88
3.083	0.95	9.083	2.35	15.083	2.20	21.08	0.88
3.167	0.95	9.167	2.35	15.167	2.20	21.17	0.88
3.250	0.95	9.250	2.35	15.250	2.20	21.25	0.88
3.333	0.95	9.333	2.35	15.333	2.20	21.33	0.88
3.417	0.95	9.417	2.35	15.417	2.20	21.42	0.88
3.500	0.95	9.500	2.35	15.500	2.20	21.50	0.88
3.583	0.95	9.583	2.64	15.583	2.20	21.58	0.88
3.667	0.95	9.667	2.64	15.667	2.20	21.67	0.88
3.750	0.95	9.750	2.64	15.750	2.20	21.75	0.88
3.833	0.95	9.833	2.64	15.833	2.20	21.83	0.88
3.917	0.95	9.917	2.64	15.917	2.20	21.92	0.88
4.000	0.95	10.000	2.64	16.000	2.20	22.00	0.88
4.083	1.17	10.083	3.38	16.083	1.32	22.08	0.88
4.167	1.17	10.167	3.38	16.167	1.32	22.17	0.88
4.250	1.17	10.250	3.38	16.250	1.32	22.25	0.88
4.333	1.17	10.333	3.38	16.333	1.32	22.33	0.88
4.417	1.17	10.417	3.38	16.417	1.32	22.42	0.88
4.500	1.17	10.500	3.38	16.500	1.32	22.50	0.88
4.583	1.17	10.583	4.55	16.583	1.32	22.58	0.88
4.667	1.17	10.667	4.55	16.667	1.32	22.67	0.88

4.750	1.17	10.750	4.55	16.750	1.32	22.75	0.88
4.833	1.17	10.833	4.55	16.833	1.32	22.83	0.88
4.917	1.17	10.917	4.55	16.917	1.32	22.92	0.88
5.000	1.17	11.000	4.55	17.000	1.32	23.00	0.88
5.083	1.17	11.083	7.05	17.083	1.32	23.08	0.88
5.167	1.17	11.167	7.05	17.167	1.32	23.17	0.88
5.250	1.17	11.250	7.05	17.250	1.32	23.25	0.88
5.333	1.17	11.333	7.05	17.333	1.32	23.33	0.88
5.417	1.17	11.417	7.05	17.417	1.32	23.42	0.88
5.500	1.17	11.500	7.05	17.500	1.32	23.50	0.88
5.583	1.17	11.583	30.53	17.583	1.32	23.58	0.88
5.667	1.17	11.667	30.53	17.667	1.32	23.67	0.88
5.750	1.17	11.750	30.53	17.750	1.32	23.75	0.88
5.833	1.17	11.833	81.02	17.833	1.32	23.83	0.88
5.917	1.17	11.917	81.03	17.917	1.32	23.92	0.88
6.000	1.17	12.000	81.03	18.000	1.32	24.00	0.88

Max.Eff.Inten.(mm/hr)= 81.03 58.47
 over (min) 5.00 10.00
 Storage Coeff. (min)= 1.01 (ii) 9.76 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.34 0.11

TOTALS
 PEAK FLOW (cms)= 0.01 0.00 0.009 (iii)
 TIME TO PEAK (hrs)= 12.00 12.00 12.00
 RUNOFF VOLUME (mm)= 72.37 44.26 56.56
 TOTAL RAINFALL (mm)= 73.37 73.37 73.37
 RUNOFF COEFFICIENT = 0.99 0.60 0.77

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

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 85.0 Ia = Dep. Storage (Above)
 (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
 (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (0018) | Area (ha)= 0.03
 |ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

 IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 0.03 0.00
 Dep. Storage (mm)= 1.00 1.50
 Average Slope (%)= 1.00 2.00
 Length (m)= 13.49 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	0.81	6.083	1.32	12.083	10.58	18.08	1.32
0.167	0.81	6.167	1.32	12.167	10.57	18.17	1.32
0.250	0.81	6.250	1.32	12.250	10.57	18.25	1.32
0.333	0.81	6.333	1.32	12.333	10.57	18.33	1.32
0.417	0.81	6.417	1.32	12.417	10.57	18.42	1.32
0.500	0.81	6.500	1.32	12.500	10.57	18.50	1.32
0.583	0.81	6.583	1.32	12.583	5.43	18.58	1.32
0.667	0.81	6.667	1.32	12.667	5.43	18.67	1.32
0.750	0.81	6.750	1.32	12.750	5.43	18.75	1.32
0.833	0.81	6.833	1.32	12.833	5.43	18.83	1.32
0.917	0.81	6.917	1.32	12.917	5.43	18.92	1.32
1.000	0.81	7.000	1.32	13.000	5.43	19.00	1.32

1.083	0.81	7.083	1.61	13.083	3.96	19.08	1.32
1.167	0.81	7.167	1.61	13.167	3.96	19.17	1.32
1.250	0.81	7.250	1.61	13.250	3.96	19.25	1.32
1.333	0.81	7.333	1.61	13.333	3.96	19.33	1.32
1.417	0.81	7.417	1.61	13.417	3.96	19.42	1.32
1.500	0.81	7.500	1.61	13.500	3.96	19.50	1.32
1.583	0.81	7.583	1.61	13.583	3.08	19.58	1.32
1.667	0.81	7.667	1.61	13.667	3.08	19.67	1.32
1.750	0.81	7.750	1.61	13.750	3.08	19.75	1.32
1.833	0.81	7.833	1.61	13.833	3.08	19.83	1.32
1.917	0.81	7.917	1.61	13.917	3.08	19.92	1.32
2.000	0.81	8.000	1.61	14.000	3.08	20.00	1.32
2.083	0.95	8.083	1.91	14.083	2.20	20.08	0.88
2.167	0.95	8.167	1.91	14.167	2.20	20.17	0.88
2.250	0.95	8.250	1.91	14.250	2.20	20.25	0.88
2.333	0.95	8.333	1.91	14.333	2.20	20.33	0.88
2.417	0.95	8.417	1.91	14.417	2.20	20.42	0.88
2.500	0.95	8.500	1.91	14.500	2.20	20.50	0.88
2.583	0.95	8.583	2.06	14.583	2.20	20.58	0.88
2.667	0.95	8.667	2.06	14.667	2.20	20.67	0.88
2.750	0.95	8.750	2.06	14.750	2.20	20.75	0.88
2.833	0.95	8.833	2.06	14.833	2.20	20.83	0.88
2.917	0.95	8.917	2.06	14.917	2.20	20.92	0.88
3.000	0.95	9.000	2.06	15.000	2.20	21.00	0.88
3.083	0.95	9.083	2.35	15.083	2.20	21.08	0.88
3.167	0.95	9.167	2.35	15.167	2.20	21.17	0.88
3.250	0.95	9.250	2.35	15.250	2.20	21.25	0.88
3.333	0.95	9.333	2.35	15.333	2.20	21.33	0.88
3.417	0.95	9.417	2.35	15.417	2.20	21.42	0.88
3.500	0.95	9.500	2.35	15.500	2.20	21.50	0.88
3.583	0.95	9.583	2.64	15.583	2.20	21.58	0.88
3.667	0.95	9.667	2.64	15.667	2.20	21.67	0.88
3.750	0.95	9.750	2.64	15.750	2.20	21.75	0.88
3.833	0.95	9.833	2.64	15.833	2.20	21.83	0.88
3.917	0.95	9.917	2.64	15.917	2.20	21.92	0.88
4.000	0.95	10.000	2.64	16.000	2.20	22.00	0.88
4.083	1.17	10.083	3.38	16.083	1.32	22.08	0.88
4.167	1.17	10.167	3.38	16.167	1.32	22.17	0.88
4.250	1.17	10.250	3.38	16.250	1.32	22.25	0.88
4.333	1.17	10.333	3.38	16.333	1.32	22.33	0.88
4.417	1.17	10.417	3.38	16.417	1.32	22.42	0.88
4.500	1.17	10.500	3.38	16.500	1.32	22.50	0.88
4.583	1.17	10.583	4.55	16.583	1.32	22.58	0.88
4.667	1.17	10.667	4.55	16.667	1.32	22.67	0.88
4.750	1.17	10.750	4.55	16.750	1.32	22.75	0.88
4.833	1.17	10.833	4.55	16.833	1.32	22.83	0.88
4.917	1.17	10.917	4.55	16.917	1.32	22.92	0.88
5.000	1.17	11.000	4.55	17.000	1.32	23.00	0.88
5.083	1.17	11.083	7.05	17.083	1.32	23.08	0.88
5.167	1.17	11.167	7.05	17.167	1.32	23.17	0.88
5.250	1.17	11.250	7.05	17.250	1.32	23.25	0.88
5.333	1.17	11.333	7.05	17.333	1.32	23.33	0.88
5.417	1.17	11.417	7.05	17.417	1.32	23.42	0.88
5.500	1.17	11.500	7.05	17.500	1.32	23.50	0.88
5.583	1.17	11.583	30.53	17.583	1.32	23.58	0.88
5.667	1.17	11.667	30.53	17.667	1.32	23.67	0.88
5.750	1.17	11.750	30.53	17.750	1.32	23.75	0.88
5.833	1.17	11.833	81.02	17.833	1.32	23.83	0.88
5.917	1.17	11.917	81.03	17.917	1.32	23.92	0.88
6.000	1.17	12.000	81.03	18.000	1.32	24.00	0.88

Max.Eff.Inten.(mm/hr)= 81.03 58.47
over (min) 5.00 5.00
Storage Coeff. (min)= 0.84 (ii) 2.06 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.34 0.31

TOTALS
PEAK FLOW (cms)= 0.01 0.00 0.006 (iii)

TIME TO PEAK (hrs)= 12.00 12.00 12.00
RUNOFF VOLUME (mm)= 72.37 44.26 68.57
TOTAL RAINFALL (mm)= 73.37 73.37 73.37
RUNOFF COEFFICIENT = 0.99 0.60 0.93

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

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| ADD HYD (0009) |
| 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 1 (0001): 0.45 0.102 12.00 72.08
+ ID2= 2 (0015): 0.05 0.009 12.00 56.56
=====

ID = 3 (0009): 0.50 0.110 12.00 70.48

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| ADD HYD (0009) |
| 3 + 2 = 1 | AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 3 (0009): 0.50 0.110 12.00 70.48
+ ID2= 2 (0018): 0.03 0.006 12.00 68.57
=====

ID = 1 (0009): 0.53 0.116 12.00 70.39

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| ADD HYD (0009) |
| 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 1 (0009): 0.53 0.116 12.00 70.39
+ ID2= 2 (0005): 0.95 0.192 12.00 65.34
=====

ID = 3 (0009): 1.48 0.309 12.00 67.15

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| ADD HYD (0009) |
| 3 + 2 = 1 | AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 3 (0009): 1.48 0.309 12.00 67.15
+ ID2= 2 (0006): 0.92 0.173 12.00 63.93
=====

ID = 1 (0009): 2.41 0.481 12.00 65.92

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| CALIB
| STANDHYD (0002) | Area (ha)= 0.19
| ID= 1 DT= 5.0 min | Total Imp(%)= 98.00 Dir. Conn.(%)= 98.00

IMPERVIOUS PERVIOUS (i)

Surface Area (ha)= 0.19 0.00
Dep. Storage (mm)= 1.00 1.50
Average Slope (%)= 1.00 2.00
Length (m)= 35.52 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	0.81	6.083	1.32	12.083	10.58	18.08	1.32
0.167	0.81	6.167	1.32	12.167	10.57	18.17	1.32
0.250	0.81	6.250	1.32	12.250	10.57	18.25	1.32
0.333	0.81	6.333	1.32	12.333	10.57	18.33	1.32
0.417	0.81	6.417	1.32	12.417	10.57	18.42	1.32
0.500	0.81	6.500	1.32	12.500	10.57	18.50	1.32
0.583	0.81	6.583	1.32	12.583	5.43	18.58	1.32
0.667	0.81	6.667	1.32	12.667	5.43	18.67	1.32
0.750	0.81	6.750	1.32	12.750	5.43	18.75	1.32
0.833	0.81	6.833	1.32	12.833	5.43	18.83	1.32
0.917	0.81	6.917	1.32	12.917	5.43	18.92	1.32
1.000	0.81	7.000	1.32	13.000	5.43	19.00	1.32
1.083	0.81	7.083	1.61	13.083	3.96	19.08	1.32
1.167	0.81	7.167	1.61	13.167	3.96	19.17	1.32
1.250	0.81	7.250	1.61	13.250	3.96	19.25	1.32
1.333	0.81	7.333	1.61	13.333	3.96	19.33	1.32
1.417	0.81	7.417	1.61	13.417	3.96	19.42	1.32
1.500	0.81	7.500	1.61	13.500	3.96	19.50	1.32
1.583	0.81	7.583	1.61	13.583	3.08	19.58	1.32
1.667	0.81	7.667	1.61	13.667	3.08	19.67	1.32
1.750	0.81	7.750	1.61	13.750	3.08	19.75	1.32
1.833	0.81	7.833	1.61	13.833	3.08	19.83	1.32
1.917	0.81	7.917	1.61	13.917	3.08	19.92	1.32
2.000	0.81	8.000	1.61	14.000	3.08	20.00	1.32
2.083	0.95	8.083	1.91	14.083	2.20	20.08	0.88
2.167	0.95	8.167	1.91	14.167	2.20	20.17	0.88
2.250	0.95	8.250	1.91	14.250	2.20	20.25	0.88
2.333	0.95	8.333	1.91	14.333	2.20	20.33	0.88
2.417	0.95	8.417	1.91	14.417	2.20	20.42	0.88
2.500	0.95	8.500	1.91	14.500	2.20	20.50	0.88
2.583	0.95	8.583	2.06	14.583	2.20	20.58	0.88
2.667	0.95	8.667	2.06	14.667	2.20	20.67	0.88
2.750	0.95	8.750	2.06	14.750	2.20	20.75	0.88
2.833	0.95	8.833	2.06	14.833	2.20	20.83	0.88
2.917	0.95	8.917	2.06	14.917	2.20	20.92	0.88
3.000	0.95	9.000	2.06	15.000	2.20	21.00	0.88
3.083	0.95	9.083	2.35	15.083	2.20	21.08	0.88
3.167	0.95	9.167	2.35	15.167	2.20	21.17	0.88
3.250	0.95	9.250	2.35	15.250	2.20	21.25	0.88
3.333	0.95	9.333	2.35	15.333	2.20	21.33	0.88
3.417	0.95	9.417	2.35	15.417	2.20	21.42	0.88
3.500	0.95	9.500	2.35	15.500	2.20	21.50	0.88
3.583	0.95	9.583	2.64	15.583	2.20	21.58	0.88
3.667	0.95	9.667	2.64	15.667	2.20	21.67	0.88
3.750	0.95	9.750	2.64	15.750	2.20	21.75	0.88
3.833	0.95	9.833	2.64	15.833	2.20	21.83	0.88
3.917	0.95	9.917	2.64	15.917	2.20	21.92	0.88
4.000	0.95	10.000	2.64	16.000	2.20	22.00	0.88
4.083	1.17	10.083	3.38	16.083	1.32	22.08	0.88
4.167	1.17	10.167	3.38	16.167	1.32	22.17	0.88
4.250	1.17	10.250	3.38	16.250	1.32	22.25	0.88
4.333	1.17	10.333	3.38	16.333	1.32	22.33	0.88
4.417	1.17	10.417	3.38	16.417	1.32	22.42	0.88
4.500	1.17	10.500	3.38	16.500	1.32	22.50	0.88
4.583	1.17	10.583	4.55	16.583	1.32	22.58	0.88
4.667	1.17	10.667	4.55	16.667	1.32	22.67	0.88

4.750	1.17	10.750	4.55	16.750	1.32	22.75	0.88
4.833	1.17	10.833	4.55	16.833	1.32	22.83	0.88
4.917	1.17	10.917	4.55	16.917	1.32	22.92	0.88
5.000	1.17	11.000	4.55	17.000	1.32	23.00	0.88
5.083	1.17	11.083	7.05	17.083	1.32	23.08	0.88
5.167	1.17	11.167	7.05	17.167	1.32	23.17	0.88
5.250	1.17	11.250	7.05	17.250	1.32	23.25	0.88
5.333	1.17	11.333	7.05	17.333	1.32	23.33	0.88
5.417	1.17	11.417	7.05	17.417	1.32	23.42	0.88
5.500	1.17	11.500	7.05	17.500	1.32	23.50	0.88
5.583	1.17	11.583	30.53	17.583	1.32	23.58	0.88
5.667	1.17	11.667	30.53	17.667	1.32	23.67	0.88
5.750	1.17	11.750	30.53	17.750	1.32	23.75	0.88
5.833	1.17	11.833	81.02	17.833	1.32	23.83	0.88
5.917	1.17	11.917	81.03	17.917	1.32	23.92	0.88
6.000	1.17	12.000	81.03	18.000	1.32	24.00	0.88

Max.Eff.Inten.(mm/hr)= 81.03 58.47
over (min) 5.00 5.00
Storage Coeff. (min)= 1.49 (ii) 3.11 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.33 0.27

TOTALS
PEAK FLOW (cms)= 0.04 0.00 0.042 (iii)
TIME TO PEAK (hrs)= 12.00 12.00 12.00
RUNOFF VOLUME (mm)= 72.37 44.26 71.81
TOTAL RAINFALL (mm)= 73.37 73.37 73.37
RUNOFF COEFFICIENT = 0.99 0.60 0.98

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

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| CALIB |
| STANDHYD (0003) | Area (ha)= 0.05
|ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.05 0.00
Dep. Storage (mm)= 1.00 1.50
Average Slope (%)= 1.00 2.00
Length (m)= 19.11 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	0.81	6.083	1.32	12.083	10.58	18.08	1.32
0.167	0.81	6.167	1.32	12.167	10.57	18.17	1.32
0.250	0.81	6.250	1.32	12.250	10.57	18.25	1.32
0.333	0.81	6.333	1.32	12.333	10.57	18.33	1.32
0.417	0.81	6.417	1.32	12.417	10.57	18.42	1.32
0.500	0.81	6.500	1.32	12.500	10.57	18.50	1.32
0.583	0.81	6.583	1.32	12.583	5.43	18.58	1.32
0.667	0.81	6.667	1.32	12.667	5.43	18.67	1.32
0.750	0.81	6.750	1.32	12.750	5.43	18.75	1.32
0.833	0.81	6.833	1.32	12.833	5.43	18.83	1.32
0.917	0.81	6.917	1.32	12.917	5.43	18.92	1.32
1.000	0.81	7.000	1.32	13.000	5.43	19.00	1.32

1.083	0.81	7.083	1.61	13.083	3.96	19.08	1.32
1.167	0.81	7.167	1.61	13.167	3.96	19.17	1.32
1.250	0.81	7.250	1.61	13.250	3.96	19.25	1.32
1.333	0.81	7.333	1.61	13.333	3.96	19.33	1.32
1.417	0.81	7.417	1.61	13.417	3.96	19.42	1.32
1.500	0.81	7.500	1.61	13.500	3.96	19.50	1.32
1.583	0.81	7.583	1.61	13.583	3.08	19.58	1.32
1.667	0.81	7.667	1.61	13.667	3.08	19.67	1.32
1.750	0.81	7.750	1.61	13.750	3.08	19.75	1.32
1.833	0.81	7.833	1.61	13.833	3.08	19.83	1.32
1.917	0.81	7.917	1.61	13.917	3.08	19.92	1.32
2.000	0.81	8.000	1.61	14.000	3.08	20.00	1.32
2.083	0.95	8.083	1.91	14.083	2.20	20.08	0.88
2.167	0.95	8.167	1.91	14.167	2.20	20.17	0.88
2.250	0.95	8.250	1.91	14.250	2.20	20.25	0.88
2.333	0.95	8.333	1.91	14.333	2.20	20.33	0.88
2.417	0.95	8.417	1.91	14.417	2.20	20.42	0.88
2.500	0.95	8.500	1.91	14.500	2.20	20.50	0.88
2.583	0.95	8.583	2.06	14.583	2.20	20.58	0.88
2.667	0.95	8.667	2.06	14.667	2.20	20.67	0.88
2.750	0.95	8.750	2.06	14.750	2.20	20.75	0.88
2.833	0.95	8.833	2.06	14.833	2.20	20.83	0.88
2.917	0.95	8.917	2.06	14.917	2.20	20.92	0.88
3.000	0.95	9.000	2.06	15.000	2.20	21.00	0.88
3.083	0.95	9.083	2.35	15.083	2.20	21.08	0.88
3.167	0.95	9.167	2.35	15.167	2.20	21.17	0.88
3.250	0.95	9.250	2.35	15.250	2.20	21.25	0.88
3.333	0.95	9.333	2.35	15.333	2.20	21.33	0.88
3.417	0.95	9.417	2.35	15.417	2.20	21.42	0.88
3.500	0.95	9.500	2.35	15.500	2.20	21.50	0.88
3.583	0.95	9.583	2.64	15.583	2.20	21.58	0.88
3.667	0.95	9.667	2.64	15.667	2.20	21.67	0.88
3.750	0.95	9.750	2.64	15.750	2.20	21.75	0.88
3.833	0.95	9.833	2.64	15.833	2.20	21.83	0.88
3.917	0.95	9.917	2.64	15.917	2.20	21.92	0.88
4.000	0.95	10.000	2.64	16.000	2.20	22.00	0.88
4.083	1.17	10.083	3.38	16.083	1.32	22.08	0.88
4.167	1.17	10.167	3.38	16.167	1.32	22.17	0.88
4.250	1.17	10.250	3.38	16.250	1.32	22.25	0.88
4.333	1.17	10.333	3.38	16.333	1.32	22.33	0.88
4.417	1.17	10.417	3.38	16.417	1.32	22.42	0.88
4.500	1.17	10.500	3.38	16.500	1.32	22.50	0.88
4.583	1.17	10.583	4.55	16.583	1.32	22.58	0.88
4.667	1.17	10.667	4.55	16.667	1.32	22.67	0.88
4.750	1.17	10.750	4.55	16.750	1.32	22.75	0.88
4.833	1.17	10.833	4.55	16.833	1.32	22.83	0.88
4.917	1.17	10.917	4.55	16.917	1.32	22.92	0.88
5.000	1.17	11.000	4.55	17.000	1.32	23.00	0.88
5.083	1.17	11.083	7.05	17.083	1.32	23.08	0.88
5.167	1.17	11.167	7.05	17.167	1.32	23.17	0.88
5.250	1.17	11.250	7.05	17.250	1.32	23.25	0.88
5.333	1.17	11.333	7.05	17.333	1.32	23.33	0.88
5.417	1.17	11.417	7.05	17.417	1.32	23.42	0.88
5.500	1.17	11.500	7.05	17.500	1.32	23.50	0.88
5.583	1.17	11.583	30.53	17.583	1.32	23.58	0.88
5.667	1.17	11.667	30.53	17.667	1.32	23.67	0.88
5.750	1.17	11.750	30.53	17.750	1.32	23.75	0.88
5.833	1.17	11.833	81.02	17.833	1.32	23.83	0.88
5.917	1.17	11.917	81.03	17.917	1.32	23.92	0.88
6.000	1.17	12.000	81.03	18.000	1.32	24.00	0.88

Max.Eff.Inten.(mm/hr)= 81.03 58.47
over (min) 5.00 5.00
Storage Coeff. (min)= 1.03 (ii) 2.25 (ii)
Unit Hyd. Tpeak (min)= 5.00
Unit Hyd. peak (cms)= 0.34 0.30

TOTALS
PEAK FLOW (cms)= 0.01 0.00 0.012 (iii)

TIME TO PEAK (hrs)= 12.00 12.00 12.00
RUNOFF VOLUME (mm)= 72.37 44.26 72.09
TOTAL RAINFALL (mm)= 73.37 73.37 73.37
RUNOFF COEFFICIENT = 0.99 0.60 0.98

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

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0004) Area (ha)= 0.14
ID= 1 DT= 5.0 min Total Imp(%)= 86.00 Dir. Conn.(%)= 86.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.12 0.02
Dep. Storage (mm)= 1.00 1.50
Average Slope (%)= 1.00 2.00
Length (m)= 30.63 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	0.81	6.083	1.32	12.083	10.58	18.08	1.32
0.167	0.81	6.167	1.32	12.167	10.57	18.17	1.32
0.250	0.81	6.250	1.32	12.250	10.57	18.25	1.32
0.333	0.81	6.333	1.32	12.333	10.57	18.33	1.32
0.417	0.81	6.417	1.32	12.417	10.57	18.42	1.32
0.500	0.81	6.500	1.32	12.500	10.57	18.50	1.32
0.583	0.81	6.583	1.32	12.583	5.43	18.58	1.32
0.667	0.81	6.667	1.32	12.667	5.43	18.67	1.32
0.750	0.81	6.750	1.32	12.750	5.43	18.75	1.32
0.833	0.81	6.833	1.32	12.833	5.43	18.83	1.32
0.917	0.81	6.917	1.32	12.917	5.43	18.92	1.32
1.000	0.81	7.000	1.32	13.000	5.43	19.00	1.32
1.083	0.81	7.083	1.61	13.083	3.96	19.08	1.32
1.167	0.81	7.167	1.61	13.167	3.96	19.17	1.32
1.250	0.81	7.250	1.61	13.250	3.96	19.25	1.32
1.333	0.81	7.333	1.61	13.333	3.96	19.33	1.32
1.417	0.81	7.417	1.61	13.417	3.96	19.42	1.32
1.500	0.81	7.500	1.61	13.500	3.96	19.50	1.32
1.583	0.81	7.583	1.61	13.583	3.08	19.58	1.32
1.667	0.81	7.667	1.61	13.667	3.08	19.67	1.32
1.750	0.81	7.750	1.61	13.750	3.08	19.75	1.32
1.833	0.81	7.833	1.61	13.833	3.08	19.83	1.32
1.917	0.81	7.917	1.61	13.917	3.08	19.92	1.32
2.000	0.81	8.000	1.61	14.000	3.08	20.00	1.32
2.083	0.95	8.083	1.91	14.083	2.20	20.08	0.88
2.167	0.95	8.167	1.91	14.167	2.20	20.17	0.88
2.250	0.95	8.250	1.91	14.250	2.20	20.25	0.88
2.333	0.95	8.333	1.91	14.333	2.20	20.33	0.88
2.417	0.95	8.417	1.91	14.417	2.20	20.42	0.88
2.500	0.95	8.500	1.91	14.500	2.20	20.50	0.88
2.583	0.95	8.583	2.06	14.583	2.20	20.58	0.88
2.667	0.95	8.667	2.06	14.667	2.20	20.67	0.88
2.750	0.95	8.750	2.06	14.750	2.20	20.75	0.88
2.833	0.95	8.833	2.06	14.833	2.20	20.83	0.88
2.917	0.95	8.917	2.06	14.917	2.20	20.92	0.88
3.000	0.95	9.000	2.06	15.000	2.20	21.00	0.88

3.083	0.95	9.083	2.35	15.083	2.20	21.08	0.88
3.167	0.95	9.167	2.35	15.167	2.20	21.17	0.88
3.250	0.95	9.250	2.35	15.250	2.20	21.25	0.88
3.333	0.95	9.333	2.35	15.333	2.20	21.33	0.88
3.417	0.95	9.417	2.35	15.417	2.20	21.42	0.88
3.500	0.95	9.500	2.35	15.500	2.20	21.50	0.88
3.583	0.95	9.583	2.64	15.583	2.20	21.58	0.88
3.667	0.95	9.667	2.64	15.667	2.20	21.67	0.88
3.750	0.95	9.750	2.64	15.750	2.20	21.75	0.88
3.833	0.95	9.833	2.64	15.833	2.20	21.83	0.88
3.917	0.95	9.917	2.64	15.917	2.20	21.92	0.88
4.000	0.95	10.000	2.64	16.000	2.20	22.00	0.88
4.083	1.17	10.083	3.38	16.083	1.32	22.08	0.88
4.167	1.17	10.167	3.38	16.167	1.32	22.17	0.88
4.250	1.17	10.250	3.38	16.250	1.32	22.25	0.88
4.333	1.17	10.333	3.38	16.333	1.32	22.33	0.88
4.417	1.17	10.417	3.38	16.417	1.32	22.42	0.88
4.500	1.17	10.500	3.38	16.500	1.32	22.50	0.88
4.583	1.17	10.583	4.55	16.583	1.32	22.58	0.88
4.667	1.17	10.667	4.55	16.667	1.32	22.67	0.88
4.750	1.17	10.750	4.55	16.750	1.32	22.75	0.88
4.833	1.17	10.833	4.55	16.833	1.32	22.83	0.88
4.917	1.17	10.917	4.55	16.917	1.32	22.92	0.88
5.000	1.17	11.000	4.55	17.000	1.32	23.00	0.88
5.083	1.17	11.083	7.05	17.083	1.32	23.08	0.88
5.167	1.17	11.167	7.05	17.167	1.32	23.17	0.88
5.250	1.17	11.250	7.05	17.250	1.32	23.25	0.88
5.333	1.17	11.333	7.05	17.333	1.32	23.33	0.88
5.417	1.17	11.417	7.05	17.417	1.32	23.42	0.88
5.500	1.17	11.500	7.05	17.500	1.32	23.50	0.88
5.583	1.17	11.583	30.53	17.583	1.32	23.58	0.88
5.667	1.17	11.667	30.53	17.667	1.32	23.67	0.88
5.750	1.17	11.750	30.53	17.750	1.32	23.75	0.88
5.833	1.17	11.833	81.02	17.833	1.32	23.83	0.88
5.917	1.17	11.917	81.03	17.917	1.32	23.92	0.88
6.000	1.17	12.000	81.03	18.000	1.32	24.00	0.88

Max.Eff.Inten.(mm/hr)= 81.03 58.47
over (min) 5.00 10.00
Storage Coeff. (min)= 1.37 (ii) 5.08 (ii)
Unit Hyd. Tpeak (min)= 5.00 10.00
Unit Hyd. peak (cms)= 0.33 0.16

TOTALS
PEAK FLOW (cms)= 0.03 0.00 0.030 (iii)
TIME TO PEAK (hrs)= 12.00 12.00 12.00
RUNOFF VOLUME (mm)= 72.37 44.26 68.42
TOTAL RAINFALL (mm)= 73.37 73.37 73.37
RUNOFF COEFFICIENT = 0.99 0.60 0.93

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| CALIB |
| STANDHYD (0012) | Area (ha)= 0.07
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.07 0.00
Dep. Storage (mm)= 1.00 1.50
Average Slope (%)= 1.00 2.00
Length (m)= 21.88 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	0.81	6.083	1.32	12.083	10.58	18.08	1.32
0.167	0.81	6.167	1.32	12.167	10.57	18.17	1.32
0.250	0.81	6.250	1.32	12.250	10.57	18.25	1.32
0.333	0.81	6.333	1.32	12.333	10.57	18.33	1.32
0.417	0.81	6.417	1.32	12.417	10.57	18.42	1.32
0.500	0.81	6.500	1.32	12.500	10.57	18.50	1.32
0.583	0.81	6.583	1.32	12.583	5.43	18.58	1.32
0.667	0.81	6.667	1.32	12.667	5.43	18.67	1.32
0.750	0.81	6.750	1.32	12.750	5.43	18.75	1.32
0.833	0.81	6.833	1.32	12.833	5.43	18.83	1.32
0.917	0.81	6.917	1.32	12.917	5.43	18.92	1.32
1.000	0.81	7.000	1.32	13.000	5.43	19.00	1.32
1.083	0.81	7.083	1.61	13.083	3.96	19.08	1.32
1.167	0.81	7.167	1.61	13.167	3.96	19.17	1.32
1.250	0.81	7.250	1.61	13.250	3.96	19.25	1.32
1.333	0.81	7.333	1.61	13.333	3.96	19.33	1.32
1.417	0.81	7.417	1.61	13.417	3.96	19.42	1.32
1.500	0.81	7.500	1.61	13.500	3.96	19.50	1.32
1.583	0.81	7.583	1.61	13.583	3.08	19.58	1.32
1.667	0.81	7.667	1.61	13.667	3.08	19.67	1.32
1.750	0.81	7.750	1.61	13.750	3.08	19.75	1.32
1.833	0.81	7.833	1.61	13.833	3.08	19.83	1.32
1.917	0.81	7.917	1.61	13.917	3.08	19.92	1.32
2.000	0.81	8.000	1.61	14.000	3.08	20.00	1.32
2.083	0.95	8.083	1.91	14.083	2.20	20.08	0.88
2.167	0.95	8.167	1.91	14.167	2.20	20.17	0.88
2.250	0.95	8.250	1.91	14.250	2.20	20.25	0.88
2.333	0.95	8.333	1.91	14.333	2.20	20.33	0.88
2.417	0.95	8.417	1.91	14.417	2.20	20.42	0.88
2.500	0.95	8.500	1.91	14.500	2.20	20.50	0.88
2.583	0.95	8.583	2.06	14.583	2.20	20.58	0.88
2.667	0.95	8.667	2.06	14.667	2.20	20.67	0.88
2.750	0.95	8.750	2.06	14.750	2.20	20.75	0.88
2.833	0.95	8.833	2.06	14.833	2.20	20.83	0.88
2.917	0.95	8.917	2.06	14.917	2.20	20.92	0.88
3.000	0.95	9.000	2.06	15.000	2.20	21.00	0.88
3.083	0.95	9.083	2.35	15.083	2.20	21.08	0.88
3.167	0.95	9.167	2.35	15.167	2.20	21.17	0.88
3.250	0.95	9.250	2.35	15.250	2.20	21.25	0.88
3.333	0.95	9.333	2.35	15.333	2.20	21.33	0.88
3.417	0.95	9.417	2.35	15.417	2.20	21.42	0.88
3.500	0.95	9.500	2.35	15.500	2.20	21.50	0.88
3.583	0.95	9.583	2.64	15.583	2.20	21.58	0.88
3.667	0.95	9.667	2.64	15.667	2.20	21.67	0.88
3.750	0.95	9.750	2.64	15.750	2.20	21.75	0.88
3.833	0.95	9.833	2.64	15.833	2.20	21.83	0.88
3.917	0.95	9.917	2.64	15.917	2.20	21.92	0.88
4.000	0.95	10.000	2.64	16.000	2.20	22.00	0.88
4.083	1.17	10.083	3.38	16.083	1.32	22.08	0.88
4.167	1.17	10.167	3.38	16.167	1.32	22.17	0.88
4.250	1.17	10.250	3.38	16.250	1.32	22.25	0.88
4.333	1.17	10.333	3.38	16.333	1.32	22.33	0.88
4.417	1.17	10.417	3.38	16.417	1.32	22.42	0.88
4.500	1.17	10.500	3.38	16.500	1.32	22.50	0.88
4.583	1.17	10.583	4.55	16.583	1.32	22.58	0.88
4.667	1.17	10.667	4.55	16.667	1.32	22.67	0.88
4.750	1.17	10.750	4.55	16.750	1.32	22.75	0.88
4.833	1.17	10.833	4.55	16.833	1.32	22.83	0.88
4.917	1.17	10.917	4.55	16.917	1.32	22.92	0.88
5.000	1.17	11.000	4.55	17.000	1.32	23.00	0.88

Max.Eff.Inten.(mm/hr)=	81.03	58.47	
over (min)	5.00	5.00	
Storage Coeff. (min)=	1.12 (ii)	2.34 (ii)	
Unit Hyd. Tpeak (min)=	5.00	5.00	
Unit Hyd. peak (cms)=	0.34	0.30	
			TOTALS
PEAK FLOW (cms)=	0.02	0.00	0.016 (iii)
TIME TO PEAK (hrs)	12.00	12.00	12.00
RUNOFF VOLUME (mm)=	72.37	44.26	72.09
TOTAL RAINFALL (mm)=	73.37	73.37	73.37
RUNOFF COEFFICIENT =	0.99	0.60	0.98

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR(0014)	OVERFLOW IS OFF			
IN= 2---> OUT= 1				
DT= 5.0 min	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
-----	0.0000	0.0000	0.0880	0.0054
	0.0000	0.0008	0.0950	0.0062
	0.0360	0.0015	0.1020	0.0070
	0.0510	0.0023	0.1080	0.0077
	0.0620	0.0031	0.1140	0.0085
	0.0720	0.0039	0.1200	0.0093
	0.0810	0.0046	0.0000	0.0000
	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (0007)	0.456	0.101	12.00	70.84
OUTFLOW: ID= 1 (0014)	0.456	0.078	12.00	69.09
	PEAK FLOW REDUCTION [Qout/Qin](%)=	76.85		
	TIME SHIFT OF PEAK FLOW	(min)= 0.00		
	MAXIMUM STORAGE USED	(ha.m.)= 0.0047		

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

000	TTTT	TTTT	H	H	Y	Y	M	M	000	TM
0 0	T	T	H	H	Y	Y	MM	MM	0 0	
0 0	T	T	H	H	Y		M	M	0 0	
000	T	T	H	H	Y		M	M	000	

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

USER:

COMMENTS: _____

** SIMULATION : 010-year **

| READ STORM | Filename: C:\Users\ffisl\AppData
| | ata\Local\Temp\
| | 65ee925f-bdec-4dce-8f1a-7fb2dd9de23e\4de091ec
| Ptotal= 85.40 mm | Comments: 10-yr, 24-hr SCS Type II Distribution St

TIME	RAIN	TIME	RAIN	'	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	'	hrs	mm/hr	hrs	mm/hr
0.00	0.94	6.00	1.54		12.00	12.30	18.00	1.54
0.25	0.94	6.25	1.54		12.25	12.30	18.25	1.54
0.50	0.94	6.50	1.54		12.50	6.32	18.50	1.54
0.75	0.94	6.75	1.54		12.75	6.32	18.75	1.54
1.00	0.94	7.00	1.88		13.00	4.61	19.00	1.54
1.25	0.94	7.25	1.88		13.25	4.61	19.25	1.54
1.50	0.94	7.50	1.88		13.50	3.59	19.50	1.54
1.75	0.94	7.75	1.88		13.75	3.59	19.75	1.54
2.00	1.11	8.00	2.22		14.00	2.56	20.00	1.02
2.25	1.11	8.25	2.22		14.25	2.56	20.25	1.02
2.50	1.11	8.50	2.39		14.50	2.56	20.50	1.02
2.75	1.11	8.75	2.39		14.75	2.56	20.75	1.02
3.00	1.11	9.00	2.73		15.00	2.56	21.00	1.02
3.25	1.11	9.25	2.73		15.25	2.56	21.25	1.02
3.50	1.11	9.50	3.07		15.50	2.56	21.50	1.02
3.75	1.11	9.75	3.07		15.75	2.56	21.75	1.02
4.00	1.37	10.00	3.93		16.00	1.54	22.00	1.02
4.25	1.37	10.25	3.93		16.25	1.54	22.25	1.02
4.50	1.37	10.50	5.29		16.50	1.54	22.50	1.02
4.75	1.37	10.75	5.29		16.75	1.54	22.75	1.02
5.00	1.37	11.00	8.20		17.00	1.54	23.00	1.02
5.25	1.37	11.25	8.20		17.25	1.54	23.25	1.02
5.50	1.37	11.50	35.53		17.50	1.54	23.50	1.02
5.75	1.37	11.75	94.28		17.75	1.54	23.75	1.02

| CALIB | Area (ha)= 0.45
| STANDHYD (0001) | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00
ID= 1 DT= 5.0 min

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.45	0.00
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	54.94	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 0.94 | 6.083 1.54 | | 12.083 12.30 | 18.08 1.54
0.167 0.94 | 6.167 1.54 | | 12.167 12.30 | 18.17 1.54

0.250	0.94	6.250	1.54	12.250	12.30	18.25	1.54
0.333	0.94	6.333	1.54	12.333	12.30	18.33	1.54
0.417	0.94	6.417	1.54	12.417	12.30	18.42	1.54
0.500	0.94	6.500	1.54	12.500	12.30	18.50	1.54
0.583	0.94	6.583	1.54	12.583	6.32	18.58	1.54
0.667	0.94	6.667	1.54	12.667	6.32	18.67	1.54
0.750	0.94	6.750	1.54	12.750	6.32	18.75	1.54
0.833	0.94	6.833	1.54	12.833	6.32	18.83	1.54
0.917	0.94	6.917	1.54	12.917	6.32	18.92	1.54
1.000	0.94	7.000	1.54	13.000	6.32	19.00	1.54
1.083	0.94	7.083	1.88	13.083	4.61	19.08	1.54
1.167	0.94	7.167	1.88	13.167	4.61	19.17	1.54
1.250	0.94	7.250	1.88	13.250	4.61	19.25	1.54
1.333	0.94	7.333	1.88	13.333	4.61	19.33	1.54
1.417	0.94	7.417	1.88	13.417	4.61	19.42	1.54
1.500	0.94	7.500	1.88	13.500	4.61	19.50	1.54
1.583	0.94	7.583	1.88	13.583	3.59	19.58	1.54
1.667	0.94	7.667	1.88	13.667	3.59	19.67	1.54
1.750	0.94	7.750	1.88	13.750	3.59	19.75	1.54
1.833	0.94	7.833	1.88	13.833	3.59	19.83	1.54
1.917	0.94	7.917	1.88	13.917	3.59	19.92	1.54
2.000	0.94	8.000	1.88	14.000	3.59	20.00	1.54
2.083	1.11	8.083	2.22	14.083	2.56	20.08	1.02
2.167	1.11	8.167	2.22	14.167	2.56	20.17	1.02
2.250	1.11	8.250	2.22	14.250	2.56	20.25	1.02
2.333	1.11	8.333	2.22	14.333	2.56	20.33	1.02
2.417	1.11	8.417	2.22	14.417	2.56	20.42	1.02
2.500	1.11	8.500	2.22	14.500	2.56	20.50	1.02
2.583	1.11	8.583	2.39	14.583	2.56	20.58	1.02
2.667	1.11	8.667	2.39	14.667	2.56	20.67	1.02
2.750	1.11	8.750	2.39	14.750	2.56	20.75	1.02
2.833	1.11	8.833	2.39	14.833	2.56	20.83	1.02
2.917	1.11	8.917	2.39	14.917	2.56	20.92	1.02
3.000	1.11	9.000	2.39	15.000	2.56	21.00	1.02
3.083	1.11	9.083	2.73	15.083	2.56	21.08	1.02
3.167	1.11	9.167	2.73	15.167	2.56	21.17	1.02
3.250	1.11	9.250	2.73	15.250	2.56	21.25	1.02
3.333	1.11	9.333	2.73	15.333	2.56	21.33	1.02
3.417	1.11	9.417	2.73	15.417	2.56	21.42	1.02
3.500	1.11	9.500	2.73	15.500	2.56	21.50	1.02
3.583	1.11	9.583	3.07	15.583	2.56	21.58	1.02
3.667	1.11	9.667	3.07	15.667	2.56	21.67	1.02
3.750	1.11	9.750	3.07	15.750	2.56	21.75	1.02
3.833	1.11	9.833	3.07	15.833	2.56	21.83	1.02
3.917	1.11	9.917	3.07	15.917	2.56	21.92	1.02
4.000	1.11	10.000	3.07	16.000	2.56	22.00	1.02
4.083	1.37	10.083	3.93	16.083	1.54	22.08	1.02
4.167	1.37	10.167	3.93	16.167	1.54	22.17	1.02
4.250	1.37	10.250	3.93	16.250	1.54	22.25	1.02
4.333	1.37	10.333	3.93	16.333	1.54	22.33	1.02
4.417	1.37	10.417	3.93	16.417	1.54	22.42	1.02
4.500	1.37	10.500	3.93	16.500	1.54	22.50	1.02
4.583	1.37	10.583	5.29	16.583	1.54	22.58	1.02
4.667	1.37	10.667	5.29	16.667	1.54	22.67	1.02
4.750	1.37	10.750	5.29	16.750	1.54	22.75	1.02
4.833	1.37	10.833	5.29	16.833	1.54	22.83	1.02
4.917	1.37	10.917	5.29	16.917	1.54	22.92	1.02
5.000	1.37	11.000	5.29	17.000	1.54	23.00	1.02
5.083	1.37	11.083	8.20	17.083	1.54	23.08	1.02
5.167	1.37	11.167	8.20	17.167	1.54	23.17	1.02
5.250	1.37	11.250	8.20	17.250	1.54	23.25	1.02
5.333	1.37	11.333	8.20	17.333	1.54	23.33	1.02
5.417	1.37	11.417	8.20	17.417	1.54	23.42	1.02
5.500	1.37	11.500	8.20	17.500	1.54	23.50	1.02
5.583	1.37	11.583	35.53	17.583	1.54	23.58	1.02
5.667	1.37	11.667	35.53	17.667	1.54	23.67	1.02
5.750	1.37	11.750	35.53	17.750	1.54	23.75	1.02
5.833	1.37	11.833	94.27	17.833	1.54	23.83	1.02

5.917	1.37	11.917	94.28	17.917	1.54	23.92	1.02
6.000	1.37	12.000	94.28	18.000	1.54	24.00	1.02

Max.Eff.Inten.(mm/hr)= 94.28 71.78
over (min) 5.00 5.00
Storage Coeff. (min)= 1.83 (ii) 2.98 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.32 0.28

TOTALS

PEAK FLOW (cms)=	0.12	0.00	0.118 (iii)
TIME TO PEAK (hrs)=	12.00	12.00	12.00
RUNOFF VOLUME (mm)=	84.40	54.68	84.09
TOTAL RAINFALL (mm)=	85.40	85.40	85.40
RUNOFF COEFFICIENT =	0.99	0.64	0.98

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha)=	0.95
STANDHYD (0005)	Total Imp(%)=	75.00
ID= 1 DT= 5.0 min	Dir. Conn.(%)=	75.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.71	0.24
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	79.65	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	0.94	6.083	1.54	12.083	12.31	18.08	1.54
0.167	0.94	6.167	1.54	12.167	12.30	18.17	1.54
0.250	0.94	6.250	1.54	12.250	12.30	18.25	1.54
0.333	0.94	6.333	1.54	12.333	12.30	18.33	1.54
0.417	0.94	6.417	1.54	12.417	12.30	18.42	1.54
0.500	0.94	6.500	1.54	12.500	12.30	18.50	1.54
0.583	0.94	6.583	1.54	12.583	6.32	18.58	1.54
0.667	0.94	6.667	1.54	12.667	6.32	18.67	1.54
0.750	0.94	6.750	1.54	12.750	6.32	18.75	1.54
0.833	0.94	6.833	1.54	12.833	6.32	18.83	1.54
0.917	0.94	6.917	1.54	12.917	6.32	18.92	1.54
1.000	0.94	7.000	1.54	13.000	6.32	19.00	1.54
1.083	0.94	7.083	1.88	13.083	4.61	19.08	1.54
1.167	0.94	7.167	1.88	13.167	4.61	19.17	1.54
1.250	0.94	7.250	1.88	13.250	4.61	19.25	1.54
1.333	0.94	7.333	1.88	13.333	4.61	19.33	1.54
1.417	0.94	7.417	1.88	13.417	4.61	19.42	1.54
1.500	0.94	7.500	1.88	13.500	4.61	19.50	1.54
1.583	0.94	7.583	1.88	13.583	3.59	19.58	1.54
1.667	0.94	7.667	1.88	13.667	3.59	19.67	1.54
1.750	0.94	7.750	1.88	13.750	3.59	19.75	1.54
1.833	0.94	7.833	1.88	13.833	3.59	19.83	1.54
1.917	0.94	7.917	1.88	13.917	3.59	19.92	1.54
2.000	0.94	8.000	1.88	14.000	3.59	20.00	1.54
2.083	1.11	8.083	2.22	14.083	2.56	20.08	1.02
2.167	1.11	8.167	2.22	14.167	2.56	20.17	1.02

2.250	1.11	8.250	2.22	14.250	2.56	20.25	1.02
2.333	1.11	8.333	2.22	14.333	2.56	20.33	1.02
2.417	1.11	8.417	2.22	14.417	2.56	20.42	1.02
2.500	1.11	8.500	2.22	14.500	2.56	20.50	1.02
2.583	1.11	8.583	2.39	14.583	2.56	20.58	1.02
2.667	1.11	8.667	2.39	14.667	2.56	20.67	1.02
2.750	1.11	8.750	2.39	14.750	2.56	20.75	1.02
2.833	1.11	8.833	2.39	14.833	2.56	20.83	1.02
2.917	1.11	8.917	2.39	14.917	2.56	20.92	1.02
3.000	1.11	9.000	2.39	15.000	2.56	21.00	1.02
3.083	1.11	9.083	2.73	15.083	2.56	21.08	1.02
3.167	1.11	9.167	2.73	15.167	2.56	21.17	1.02
3.250	1.11	9.250	2.73	15.250	2.56	21.25	1.02
3.333	1.11	9.333	2.73	15.333	2.56	21.33	1.02
3.417	1.11	9.417	2.73	15.417	2.56	21.42	1.02
3.500	1.11	9.500	2.73	15.500	2.56	21.50	1.02
3.583	1.11	9.583	3.07	15.583	2.56	21.58	1.02
3.667	1.11	9.667	3.07	15.667	2.56	21.67	1.02
3.750	1.11	9.750	3.07	15.750	2.56	21.75	1.02
3.833	1.11	9.833	3.07	15.833	2.56	21.83	1.02
3.917	1.11	9.917	3.07	15.917	2.56	21.92	1.02
4.000	1.11	10.000	3.07	16.000	2.56	22.00	1.02
4.083	1.37	10.083	3.93	16.083	1.54	22.08	1.02
4.167	1.37	10.167	3.93	16.167	1.54	22.17	1.02
4.250	1.37	10.250	3.93	16.250	1.54	22.25	1.02
4.333	1.37	10.333	3.93	16.333	1.54	22.33	1.02
4.417	1.37	10.417	3.93	16.417	1.54	22.42	1.02
4.500	1.37	10.500	3.93	16.500	1.54	22.50	1.02
4.583	1.37	10.583	5.29	16.583	1.54	22.58	1.02
4.667	1.37	10.667	5.29	16.667	1.54	22.67	1.02
4.750	1.37	10.750	5.29	16.750	1.54	22.75	1.02
4.833	1.37	10.833	5.29	16.833	1.54	22.83	1.02
4.917	1.37	10.917	5.29	16.917	1.54	22.92	1.02
5.000	1.37	11.000	5.29	17.000	1.54	23.00	1.02
5.083	1.37	11.083	8.20	17.083	1.54	23.08	1.02
5.167	1.37	11.167	8.20	17.167	1.54	23.17	1.02
5.250	1.37	11.250	8.20	17.250	1.54	23.25	1.02
5.333	1.37	11.333	8.20	17.333	1.54	23.33	1.02
5.417	1.37	11.417	8.20	17.417	1.54	23.42	1.02
5.500	1.37	11.500	8.20	17.500	1.54	23.50	1.02
5.583	1.37	11.583	35.53	17.583	1.54	23.58	1.02
5.667	1.37	11.667	35.53	17.667	1.54	23.67	1.02
5.750	1.37	11.750	35.53	17.750	1.54	23.75	1.02
5.833	1.37	11.833	94.27	17.833	1.54	23.83	1.02
5.917	1.37	11.917	94.28	17.917	1.54	23.92	1.02
6.000	1.37	12.000	94.28	18.000	1.54	24.00	1.02

Max.Eff.Inten.(mm/hr)=	94.28	71.78
over (min)	5.00	10.00
Storage Coeff. (min)=	2.28 (ii)	6.94 (ii)
Unit Hyd. Tpeak (min)=	5.00	10.00
Unit Hyd. peak (cms)=	0.30	0.14

TOTALS

PEAK FLOW (cms)=	0.19	0.04	0.227 (iii)
TIME TO PEAK (hrs)=	12.00	12.00	12.00
RUNOFF VOLUME (mm)=	84.40	54.68	76.97
TOTAL RAINFALL (mm)=	85.40	85.40	85.40
RUNOFF COEFFICIENT =	0.99	0.64	0.90

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| CALIB
| STANDHYD (0006) |
ID= 1 DT= 5.0 min

Area (ha)= 0.92
Total Imp(%)= 70.00 Dir. Conn.(%)= 70.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.65 0.28
Dep. Storage (mm)= 1.00 1.50
Average Slope (%)= 1.00 2.00
Length (m)= 78.45 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 0.94 6.083 1.54 12.083 12.31 18.08 1.54
0.167 0.94 6.167 1.54 12.167 12.30 18.17 1.54
0.250 0.94 6.250 1.54 12.250 12.30 18.25 1.54
0.333 0.94 6.333 1.54 12.333 12.30 18.33 1.54
0.417 0.94 6.417 1.54 12.417 12.30 18.42 1.54
0.500 0.94 6.500 1.54 12.500 12.30 18.50 1.54
0.583 0.94 6.583 1.54 12.583 6.32 18.58 1.54
0.667 0.94 6.667 1.54 12.667 6.32 18.67 1.54
0.750 0.94 6.750 1.54 12.750 6.32 18.75 1.54
0.833 0.94 6.833 1.54 12.833 6.32 18.83 1.54
0.917 0.94 6.917 1.54 12.917 6.32 18.92 1.54
1.000 0.94 7.000 1.54 13.000 6.32 19.00 1.54
1.083 0.94 7.083 1.88 13.083 4.61 19.08 1.54
1.167 0.94 7.167 1.88 13.167 4.61 19.17 1.54
1.250 0.94 7.250 1.88 13.250 4.61 19.25 1.54
1.333 0.94 7.333 1.88 13.333 4.61 19.33 1.54
1.417 0.94 7.417 1.88 13.417 4.61 19.42 1.54
1.500 0.94 7.500 1.88 13.500 4.61 19.50 1.54
1.583 0.94 7.583 1.88 13.583 3.59 19.58 1.54
1.667 0.94 7.667 1.88 13.667 3.59 19.67 1.54
1.750 0.94 7.750 1.88 13.750 3.59 19.75 1.54
1.833 0.94 7.833 1.88 13.833 3.59 19.83 1.54
1.917 0.94 7.917 1.88 13.917 3.59 19.92 1.54
2.000 0.94 8.000 1.88 14.000 3.59 20.00 1.54
2.083 1.11 8.083 2.22 14.083 2.56 20.08 1.02
2.167 1.11 8.167 2.22 14.167 2.56 20.17 1.02
2.250 1.11 8.250 2.22 14.250 2.56 20.25 1.02
2.333 1.11 8.333 2.22 14.333 2.56 20.33 1.02
2.417 1.11 8.417 2.22 14.417 2.56 20.42 1.02
2.500 1.11 8.500 2.22 14.500 2.56 20.50 1.02
2.583 1.11 8.583 2.39 14.583 2.56 20.58 1.02
2.667 1.11 8.667 2.39 14.667 2.56 20.67 1.02
2.750 1.11 8.750 2.39 14.750 2.56 20.75 1.02
2.833 1.11 8.833 2.39 14.833 2.56 20.83 1.02
2.917 1.11 8.917 2.39 14.917 2.56 20.92 1.02
3.000 1.11 9.000 2.39 15.000 2.56 21.00 1.02
3.083 1.11 9.083 2.73 15.083 2.56 21.08 1.02
3.167 1.11 9.167 2.73 15.167 2.56 21.17 1.02
3.250 1.11 9.250 2.73 15.250 2.56 21.25 1.02
3.333 1.11 9.333 2.73 15.333 2.56 21.33 1.02
3.417 1.11 9.417 2.73 15.417 2.56 21.42 1.02
3.500 1.11 9.500 2.73 15.500 2.56 21.50 1.02
3.583 1.11 9.583 3.07 15.583 2.56 21.58 1.02
3.667 1.11 9.667 3.07 15.667 2.56 21.67 1.02
3.750 1.11 9.750 3.07 15.750 2.56 21.75 1.02
3.833 1.11 9.833 3.07 15.833 2.56 21.83 1.02
3.917 1.11 9.917 3.07 15.917 2.56 21.92 1.02
4.000 1.11 10.000 3.07 16.000 2.56 22.00 1.02
4.083 1.37 10.083 3.93 16.083 1.54 22.08 1.02
4.167 1.37 10.167 3.93 16.167 1.54 22.17 1.02

4.250 1.37 10.250 3.93 16.250 1.54 22.25 1.02
4.333 1.37 10.333 3.93 16.333 1.54 22.33 1.02
4.417 1.37 10.417 3.93 16.417 1.54 22.42 1.02
4.500 1.37 10.500 3.93 16.500 1.54 22.50 1.02
4.583 1.37 10.583 5.29 16.583 1.54 22.58 1.02
4.667 1.37 10.667 5.29 16.667 1.54 22.67 1.02
4.750 1.37 10.750 5.29 16.750 1.54 22.75 1.02
4.833 1.37 10.833 5.29 16.833 1.54 22.83 1.02
4.917 1.37 10.917 5.29 16.917 1.54 22.92 1.02
5.000 1.37 11.000 5.29 17.000 1.54 23.00 1.02
5.083 1.37 11.083 8.20 17.083 1.54 23.08 1.02
5.167 1.37 11.167 8.20 17.167 1.54 23.17 1.02
5.250 1.37 11.250 8.20 17.250 1.54 23.25 1.02
5.333 1.37 11.333 8.20 17.333 1.54 23.33 1.02
5.417 1.37 11.417 8.20 17.417 1.54 23.42 1.02
5.500 1.37 11.500 8.20 17.500 1.54 23.50 1.02
5.583 1.37 11.583 35.53 17.583 1.54 23.58 1.02
5.667 1.37 11.667 35.53 17.667 1.54 23.67 1.02
5.750 1.37 11.750 35.53 17.750 1.54 23.75 1.02
5.833 1.37 11.833 94.27 17.833 1.54 23.83 1.02
5.917 1.37 11.917 94.28 17.917 1.54 23.92 1.02
6.000 1.37 12.000 94.28 18.000 1.54 24.00 1.02

Max.Eff.Inten.(mm/hr)= 94.28 71.78
over (min) 5.00 15.00
Storage Coeff. (min)= 2.26 (ii) 10.32 (ii)
Unit Hyd. Tpeak (min)= 5.00 15.00
Unit Hyd. peak (cms)= 0.30 0.09

TOTALS
PEAK FLOW (cms)= 0.17 0.04 0.204 (iii)
TIME TO PEAK (hrs)= 12.00 12.08 12.00
RUNOFF VOLUME (mm)= 84.40 54.68 75.48
TOTAL RAINFALL (mm)= 85.40 85.40 85.40
RUNOFF COEFFICIENT = 0.99 0.64 0.88

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

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| CALIB
| STANDHYD (0015) |
ID= 1 DT= 5.0 min

Area (ha)= 0.05
Total Imp(%)= 44.00 Dir. Conn.(%)= 44.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.02 0.03
Dep. Storage (mm)= 1.00 1.50
Average Slope (%)= 1.00 2.00
Length (m)= 18.62 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 0.94 6.083 1.54 12.083 12.31 18.08 1.54
0.167 0.94 6.167 1.54 12.167 12.30 18.17 1.54
0.250 0.94 6.250 1.54 12.250 12.30 18.25 1.54
0.333 0.94 6.333 1.54 12.333 12.30 18.33 1.54
0.417 0.94 6.417 1.54 12.417 12.30 18.42 1.54
0.500 0.94 6.500 1.54 12.500 12.30 18.50 1.54

0.583	0.94	6.583	1.54	12.583	6.32	18.58	1.54
0.667	0.94	6.667	1.54	12.667	6.32	18.67	1.54
0.750	0.94	6.750	1.54	12.750	6.32	18.75	1.54
0.833	0.94	6.833	1.54	12.833	6.32	18.83	1.54
0.917	0.94	6.917	1.54	12.917	6.32	18.92	1.54
1.000	0.94	7.000	1.54	13.000	6.32	19.00	1.54
1.083	0.94	7.083	1.88	13.083	4.61	19.08	1.54
1.167	0.94	7.167	1.88	13.167	4.61	19.17	1.54
1.250	0.94	7.250	1.88	13.250	4.61	19.25	1.54
1.333	0.94	7.333	1.88	13.333	4.61	19.33	1.54
1.417	0.94	7.417	1.88	13.417	4.61	19.42	1.54
1.500	0.94	7.500	1.88	13.500	4.61	19.50	1.54
1.583	0.94	7.583	1.88	13.583	3.59	19.58	1.54
1.667	0.94	7.667	1.88	13.667	3.59	19.67	1.54
1.750	0.94	7.750	1.88	13.750	3.59	19.75	1.54
1.833	0.94	7.833	1.88	13.833	3.59	19.83	1.54
1.917	0.94	7.917	1.88	13.917	3.59	19.92	1.54
2.000	0.94	8.000	1.88	14.000	3.59	20.00	1.54
2.083	1.11	8.083	2.22	14.083	2.56	20.08	1.02
2.167	1.11	8.167	2.22	14.167	2.56	20.17	1.02
2.250	1.11	8.250	2.22	14.250	2.56	20.25	1.02
2.333	1.11	8.333	2.22	14.333	2.56	20.33	1.02
2.417	1.11	8.417	2.22	14.417	2.56	20.42	1.02
2.500	1.11	8.500	2.22	14.500	2.56	20.50	1.02
2.583	1.11	8.583	2.39	14.583	2.56	20.58	1.02
2.667	1.11	8.667	2.39	14.667	2.56	20.67	1.02
2.750	1.11	8.750	2.39	14.750	2.56	20.75	1.02
2.833	1.11	8.833	2.39	14.833	2.56	20.83	1.02
2.917	1.11	8.917	2.39	14.917	2.56	20.92	1.02
3.000	1.11	9.000	2.39	15.000	2.56	21.00	1.02
3.083	1.11	9.083	2.73	15.083	2.56	21.08	1.02
3.167	1.11	9.167	2.73	15.167	2.56	21.17	1.02
3.250	1.11	9.250	2.73	15.250	2.56	21.25	1.02
3.333	1.11	9.333	2.73	15.333	2.56	21.33	1.02
3.417	1.11	9.417	2.73	15.417	2.56	21.42	1.02
3.500	1.11	9.500	2.73	15.500	2.56	21.50	1.02
3.583	1.11	9.583	3.07	15.583	2.56	21.58	1.02
3.667	1.11	9.667	3.07	15.667	2.56	21.67	1.02
3.750	1.11	9.750	3.07	15.750	2.56	21.75	1.02
3.833	1.11	9.833	3.07	15.833	2.56	21.83	1.02
3.917	1.11	9.917	3.07	15.917	2.56	21.92	1.02
4.000	1.11	10.000	3.07	16.000	2.56	22.00	1.02
4.083	1.37	10.083	3.93	16.083	1.54	22.08	1.02
4.167	1.37	10.167	3.93	16.167	1.54	22.17	1.02
4.250	1.37	10.250	3.93	16.250	1.54	22.25	1.02
4.333	1.37	10.333	3.93	16.333	1.54	22.33	1.02
4.417	1.37	10.417	3.93	16.417	1.54	22.42	1.02
4.500	1.37	10.500	3.93	16.500	1.54	22.50	1.02
4.583	1.37	10.583	5.29	16.583	1.54	22.58	1.02
4.667	1.37	10.667	5.29	16.667	1.54	22.67	1.02
4.750	1.37	10.750	5.29	16.750	1.54	22.75	1.02
4.833	1.37	10.833	5.29	16.833	1.54	22.83	1.02
4.917	1.37	10.917	5.29	16.917	1.54	22.92	1.02
5.000	1.37	11.000	5.29	17.000	1.54	23.00	1.02
5.083	1.37	11.083	8.20	17.083	1.54	23.08	1.02
5.167	1.37	11.167	8.20	17.167	1.54	23.17	1.02
5.250	1.37	11.250	8.20	17.250	1.54	23.25	1.02
5.333	1.37	11.333	8.20	17.333	1.54	23.33	1.02
5.417	1.37	11.417	8.20	17.417	1.54	23.42	1.02
5.500	1.37	11.500	8.20	17.500	1.54	23.50	1.02
5.583	1.37	11.583	35.53	17.583	1.54	23.58	1.02
5.667	1.37	11.667	35.53	17.667	1.54	23.67	1.02
5.750	1.37	11.750	35.53	17.750	1.54	23.75	1.02
5.833	1.37	11.833	94.27	17.833	1.54	23.83	1.02
5.917	1.37	11.917	94.28	17.917	1.54	23.92	1.02
6.000	1.37	12.000	94.28	18.000	1.54	24.00	1.02

Max.Eff.Inten.(mm/hr)= 94.28 71.78

over (min)	5.00	10.00
Storage Coeff. (min)=	0.95 (ii)	9.01 (ii)
Unit Hyd. Tpeak (min)=	5.00	10.00
Unit Hyd. peak (cms)=	0.34	0.12
TOTALS		
PEAK FLOW (cms)=	0.01	0.00
TIME TO PEAK (hrs)=	12.00	12.00
RUNOFF VOLUME (mm)=	84.40	54.68
TOTAL RAINFALL (mm)=	85.40	85.40
RUNOFF COEFFICIENT =	0.99	0.64
		0.79

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (0018)			
ID= 1 DT= 5.0 min			
Area (ha)=	0.03		
Total Imp(%)=	99.00	Dir. Conn.(%)=	99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.03	0.00
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	13.49	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	0.94	6.083	1.54	12.083	12.31	18.08	1.54
0.167	0.94	6.167	1.54	12.167	12.30	18.17	1.54
0.250	0.94	6.250	1.54	12.250	12.30	18.25	1.54
0.333	0.94	6.333	1.54	12.333	12.30	18.33	1.54
0.417	0.94	6.417	1.54	12.417	12.30	18.42	1.54
0.500	0.94	6.500	1.54	12.500	12.30	18.50	1.54
0.583	0.94	6.583	1.54	12.583	6.32	18.58	1.54
0.667	0.94	6.667	1.54	12.667	6.32	18.67	1.54
0.750	0.94	6.750	1.54	12.750	6.32	18.75	1.54
0.833	0.94	6.833	1.54	12.833	6.32	18.83	1.54
0.917	0.94	6.917	1.54	12.917	6.32	18.92	1.54
1.000	0.94	7.000	1.54	13.000	6.32	19.00	1.54
1.083	0.94	7.083	1.88	13.083	4.61	19.08	1.54
1.167	0.94	7.167	1.88	13.167	4.61	19.17	1.54
1.250	0.94	7.250	1.88	13.250	4.61	19.25	1.54
1.333	0.94	7.333	1.88	13.333	4.61	19.33	1.54
1.417	0.94	7.417	1.88	13.417	4.61	19.42	1.54
1.500	0.94	7.500	1.88	13.500	4.61	19.50	1.54
1.583	0.94	7.583	1.88	13.583	3.59	19.58	1.54
1.667	0.94	7.667	1.88	13.667	3.59	19.67	1.54
1.750	0.94	7.750	1.88	13.750	3.59	19.75	1.54
1.833	0.94	7.833	1.88	13.833	3.59	19.83	1.54
1.917	0.94	7.917	1.88	13.917	3.59	19.92	1.54
2.000	0.94	8.000	1.88	14.000	3.59	20.00	1.54
2.083	1.11	8.083	2.22	14.083	2.56	20.08	1.02
2.167	1.11	8.167	2.22	14.167	2.56	20.17	1.02
2.250	1.11	8.250	2.22	14.250	2.56	20.25	1.02
2.333	1.11	8.333	2.22	14.333	2.56	20.33	1.02
2.417	1.11	8.417	2.22	14.417	2.56	20.42	1.02
2.500	1.11	8.500	2.22	14.500	2.56	20.50	1.02

2.583	1.11	8.583	2.39	14.583	2.56	20.58	1.02
2.667	1.11	8.667	2.39	14.667	2.56	20.67	1.02
2.750	1.11	8.750	2.39	14.750	2.56	20.75	1.02
2.833	1.11	8.833	2.39	14.833	2.56	20.83	1.02
2.917	1.11	8.917	2.39	14.917	2.56	20.92	1.02
3.000	1.11	9.000	2.39	15.000	2.56	21.00	1.02
3.083	1.11	9.083	2.73	15.083	2.56	21.08	1.02
3.167	1.11	9.167	2.73	15.167	2.56	21.17	1.02
3.250	1.11	9.250	2.73	15.250	2.56	21.25	1.02
3.333	1.11	9.333	2.73	15.333	2.56	21.33	1.02
3.417	1.11	9.417	2.73	15.417	2.56	21.42	1.02
3.500	1.11	9.500	2.73	15.500	2.56	21.50	1.02
3.583	1.11	9.583	3.07	15.583	2.56	21.58	1.02
3.667	1.11	9.667	3.07	15.667	2.56	21.67	1.02
3.750	1.11	9.750	3.07	15.750	2.56	21.75	1.02
3.833	1.11	9.833	3.07	15.833	2.56	21.83	1.02
3.917	1.11	9.917	3.07	15.917	2.56	21.92	1.02
4.000	1.11	10.000	3.07	16.000	2.56	22.00	1.02
4.083	1.37	10.083	3.93	16.083	1.54	22.08	1.02
4.167	1.37	10.167	3.93	16.167	1.54	22.17	1.02
4.250	1.37	10.250	3.93	16.250	1.54	22.25	1.02
4.333	1.37	10.333	3.93	16.333	1.54	22.33	1.02
4.417	1.37	10.417	3.93	16.417	1.54	22.42	1.02
4.500	1.37	10.500	3.93	16.500	1.54	22.50	1.02
4.583	1.37	10.583	5.29	16.583	1.54	22.58	1.02
4.667	1.37	10.667	5.29	16.667	1.54	22.67	1.02
4.750	1.37	10.750	5.29	16.750	1.54	22.75	1.02
4.833	1.37	10.833	5.29	16.833	1.54	22.83	1.02
4.917	1.37	10.917	5.29	16.917	1.54	22.92	1.02
5.000	1.37	11.000	5.29	17.000	1.54	23.00	1.02
5.083	1.37	11.083	8.20	17.083	1.54	23.08	1.02
5.167	1.37	11.167	8.20	17.167	1.54	23.17	1.02
5.250	1.37	11.250	8.20	17.250	1.54	23.25	1.02
5.333	1.37	11.333	8.20	17.333	1.54	23.33	1.02
5.417	1.37	11.417	8.20	17.417	1.54	23.42	1.02
5.500	1.37	11.500	8.20	17.500	1.54	23.50	1.02
5.583	1.37	11.583	35.53	17.583	1.54	23.58	1.02
5.667	1.37	11.667	35.53	17.667	1.54	23.67	1.02
5.750	1.37	11.750	35.53	17.750	1.54	23.75	1.02
5.833	1.37	11.833	94.27	17.833	1.54	23.83	1.02
5.917	1.37	11.917	94.28	17.917	1.54	23.92	1.02
6.000	1.37	12.000	94.28	18.000	1.54	24.00	1.02

Max.Eff.Inten.(mm/hr)= 94.28 71.78
over (min) 5.00 5.00
Storage Coeff. (min)= 0.79 (ii) 1.94 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.34 0.31

TOTALS

PEAK FLOW (cms)= 0.01 0.00 0.007 (iii)
TIME TO PEAK (hrs)= 12.00 12.00 12.00
RUNOFF VOLUME (mm)= 84.40 54.68 80.03
TOTAL RAINFALL (mm)= 85.40 85.40 85.40
RUNOFF COEFFICIENT = 0.99 0.64 0.94

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| ADD HYD (0009) |
| 1 + 2 = 3 | AREA QPEAK TPEAK R.V.

----- (ha) (cms) (hrs) (mm)
ID1= 1 (0001): 0.45 0.118 12.00 84.09
+ ID2= 2 (0015): 0.05 0.010 12.00 67.68
=====

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| ADD HYD (0009) |
| 3 + 2 = 1 | AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 3 (0009): 0.50 0.129 12.00 82.40
+ ID2= 2 (0018): 0.03 0.007 12.00 80.03
=====

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| ADD HYD (0009) |
| 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 1 (0009): 0.53 0.136 12.00 82.28
+ ID2= 2 (0005): 0.95 0.227 12.00 76.97
=====

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| ADD HYD (0009) |
| 3 + 2 = 1 | AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 3 (0009): 1.48 0.362 12.00 78.87
+ ID2= 2 (0006): 0.92 0.204 12.00 75.48
=====

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| CALIB |
| STANDHYD (0002) | Area (ha)= 0.19
| ID= 1 DT= 5.0 min | Total Imp(%)= 98.00 Dir. Conn.(%)= 98.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.19 0.00
Dep. Storage (mm)= 1.00 1.50
Average Slope (%)= 1.00 2.00
Length (m)= 35.52 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 0.94 | 6.083 1.54 | 12.083 12.31 | 18.08 1.54
0.167 0.94 | 6.167 1.54 | 12.167 12.30 | 18.17 1.54
0.250 0.94 | 6.250 1.54 | 12.250 12.30 | 18.25 1.54
0.333 0.94 | 6.333 1.54 | 12.333 12.30 | 18.33 1.54
0.417 0.94 | 6.417 1.54 | 12.417 12.30 | 18.42 1.54
0.500 0.94 | 6.500 1.54 | 12.500 12.30 | 18.50 1.54

0.583	0.94	6.583	1.54	12.583	6.32	18.58	1.54
0.667	0.94	6.667	1.54	12.667	6.32	18.67	1.54
0.750	0.94	6.750	1.54	12.750	6.32	18.75	1.54
0.833	0.94	6.833	1.54	12.833	6.32	18.83	1.54
0.917	0.94	6.917	1.54	12.917	6.32	18.92	1.54
1.000	0.94	7.000	1.54	13.000	6.32	19.00	1.54
1.083	0.94	7.083	1.88	13.083	4.61	19.08	1.54
1.167	0.94	7.167	1.88	13.167	4.61	19.17	1.54
1.250	0.94	7.250	1.88	13.250	4.61	19.25	1.54
1.333	0.94	7.333	1.88	13.333	4.61	19.33	1.54
1.417	0.94	7.417	1.88	13.417	4.61	19.42	1.54
1.500	0.94	7.500	1.88	13.500	4.61	19.50	1.54
1.583	0.94	7.583	1.88	13.583	3.59	19.58	1.54
1.667	0.94	7.667	1.88	13.667	3.59	19.67	1.54
1.750	0.94	7.750	1.88	13.750	3.59	19.75	1.54
1.833	0.94	7.833	1.88	13.833	3.59	19.83	1.54
1.917	0.94	7.917	1.88	13.917	3.59	19.92	1.54
2.000	0.94	8.000	1.88	14.000	3.59	20.00	1.54
2.083	1.11	8.083	2.22	14.083	2.56	20.08	1.02
2.167	1.11	8.167	2.22	14.167	2.56	20.17	1.02
2.250	1.11	8.250	2.22	14.250	2.56	20.25	1.02
2.333	1.11	8.333	2.22	14.333	2.56	20.33	1.02
2.417	1.11	8.417	2.22	14.417	2.56	20.42	1.02
2.500	1.11	8.500	2.22	14.500	2.56	20.50	1.02
2.583	1.11	8.583	2.39	14.583	2.56	20.58	1.02
2.667	1.11	8.667	2.39	14.667	2.56	20.67	1.02
2.750	1.11	8.750	2.39	14.750	2.56	20.75	1.02
2.833	1.11	8.833	2.39	14.833	2.56	20.83	1.02
2.917	1.11	8.917	2.39	14.917	2.56	20.92	1.02
3.000	1.11	9.000	2.39	15.000	2.56	21.00	1.02
3.083	1.11	9.083	2.73	15.083	2.56	21.08	1.02
3.167	1.11	9.167	2.73	15.167	2.56	21.17	1.02
3.250	1.11	9.250	2.73	15.250	2.56	21.25	1.02
3.333	1.11	9.333	2.73	15.333	2.56	21.33	1.02
3.417	1.11	9.417	2.73	15.417	2.56	21.42	1.02
3.500	1.11	9.500	2.73	15.500	2.56	21.50	1.02
3.583	1.11	9.583	3.07	15.583	2.56	21.58	1.02
3.667	1.11	9.667	3.07	15.667	2.56	21.67	1.02
3.750	1.11	9.750	3.07	15.750	2.56	21.75	1.02
3.833	1.11	9.833	3.07	15.833	2.56	21.83	1.02
3.917	1.11	9.917	3.07	15.917	2.56	21.92	1.02
4.000	1.11	10.000	3.07	16.000	2.56	22.00	1.02
4.083	1.37	10.083	3.93	16.083	1.54	22.08	1.02
4.167	1.37	10.167	3.93	16.167	1.54	22.17	1.02
4.250	1.37	10.250	3.93	16.250	1.54	22.25	1.02
4.333	1.37	10.333	3.93	16.333	1.54	22.33	1.02
4.417	1.37	10.417	3.93	16.417	1.54	22.42	1.02
4.500	1.37	10.500	3.93	16.500	1.54	22.50	1.02
4.583	1.37	10.583	5.29	16.583	1.54	22.58	1.02
4.667	1.37	10.667	5.29	16.667	1.54	22.67	1.02
4.750	1.37	10.750	5.29	16.750	1.54	22.75	1.02
4.833	1.37	10.833	5.29	16.833	1.54	22.83	1.02
4.917	1.37	10.917	5.29	16.917	1.54	22.92	1.02
5.000	1.37	11.000	5.29	17.000	1.54	23.00	1.02
5.083	1.37	11.083	8.20	17.083	1.54	23.08	1.02
5.167	1.37	11.167	8.20	17.167	1.54	23.17	1.02
5.250	1.37	11.250	8.20	17.250	1.54	23.25	1.02
5.333	1.37	11.333	8.20	17.333	1.54	23.33	1.02
5.417	1.37	11.417	8.20	17.417	1.54	23.42	1.02
5.500	1.37	11.500	8.20	17.500	1.54	23.50	1.02
5.583	1.37	11.583	35.53	17.583	1.54	23.58	1.02
5.667	1.37	11.667	35.53	17.667	1.54	23.67	1.02
5.750	1.37	11.750	35.53	17.750	1.54	23.75	1.02
5.833	1.37	11.833	94.27	17.833	1.54	23.83	1.02
5.917	1.37	11.917	94.28	17.917	1.54	23.92	1.02
6.000	1.37	12.000	94.28	18.000	1.54	24.00	1.02

Max.Eff.Inten.(mm/hr)= 94.28 71.78

over (min)	5.00	5.00	
Storage Coeff. (min)=	1.41 (ii)	2.93 (ii)	
Unit Hyd. Tpeak (min)=	5.00	5.00	
Unit Hyd. peak (cms)=	0.33	0.28	
TOTALS			
PEAK FLOW (cms)=	0.05	0.00	0.049 (iii)
TIME TO PEAK (hrs)=	12.00	12.00	12.00
RUNOFF VOLUME (mm)=	84.40	54.68	83.80
TOTAL RAINFALL (mm)=	85.40	85.40	85.40
RUNOFF COEFFICIENT =	0.99	0.64	0.98

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (0003)			
ID= 1 DT= 5.0 min		Area (ha)= 0.05	
		Total Imp(%)= 99.00	Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.05	0.00
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	19.11	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	0.94	6.083	1.54	12.083	12.31	18.08	1.54
0.167	0.94	6.167	1.54	12.167	12.30	18.17	1.54
0.250	0.94	6.250	1.54	12.250	12.30	18.25	1.54
0.333	0.94	6.333	1.54	12.333	12.30	18.33	1.54
0.417	0.94	6.417	1.54	12.417	12.30	18.42	1.54
0.500	0.94	6.500	1.54	12.500	12.30	18.50	1.54
0.583	0.94	6.583	1.54	12.583	6.32	18.58	1.54
0.667	0.94	6.667	1.54	12.667	6.32	18.67	1.54
0.750	0.94	6.750	1.54	12.750	6.32	18.75	1.54
0.833	0.94	6.833	1.54	12.833	6.32	18.83	1.54
0.917	0.94	6.917	1.54	12.917	6.32	18.92	1.54
1.000	0.94	7.000	1.54	13.000	6.32	19.00	1.54
1.083	0.94	7.083	1.88	13.083	4.61	19.08	1.54
1.167	0.94	7.167	1.88	13.167	4.61	19.17	1.54
1.250	0.94	7.250	1.88	13.250	4.61	19.25	1.54
1.333	0.94	7.333	1.88	13.333	4.61	19.33	1.54
1.417	0.94	7.417	1.88	13.417	4.61	19.42	1.54
1.500	0.94	7.500	1.88	13.500	4.61	19.50	1.54
1.583	0.94	7.583	1.88	13.583	3.59	19.58	1.54
1.667	0.94	7.667	1.88	13.667	3.59	19.67	1.54
1.750	0.94	7.750	1.88	13.750	3.59	19.75	1.54
1.833	0.94	7.833	1.88	13.833	3.59	19.83	1.54
1.917	0.94	7.917	1.88	13.917	3.59	19.92	1.54
2.000	0.94	8.000	1.88	14.000	3.59	20.00	1.54
2.083	1.11	8.083	2.22	14.083	2.56	20.08	1.02
2.167	1.11	8.167	2.22	14.167	2.56	20.17	1.02
2.250	1.11	8.250	2.22	14.250	2.56	20.25	1.02
2.333	1.11	8.333	2.22	14.333	2.56	20.33	1.02
2.417	1.11	8.417	2.22	14.417	2.56	20.42	1.02
2.500	1.11	8.500	2.22	14.500	2.56	20.50	1.02

2.583	1.11	8.583	2.39	14.583	2.56	20.58	1.02
2.667	1.11	8.667	2.39	14.667	2.56	20.67	1.02
2.750	1.11	8.750	2.39	14.750	2.56	20.75	1.02
2.833	1.11	8.833	2.39	14.833	2.56	20.83	1.02
2.917	1.11	8.917	2.39	14.917	2.56	20.92	1.02
3.000	1.11	9.000	2.39	15.000	2.56	21.00	1.02
3.083	1.11	9.083	2.73	15.083	2.56	21.08	1.02
3.167	1.11	9.167	2.73	15.167	2.56	21.17	1.02
3.250	1.11	9.250	2.73	15.250	2.56	21.25	1.02
3.333	1.11	9.333	2.73	15.333	2.56	21.33	1.02
3.417	1.11	9.417	2.73	15.417	2.56	21.42	1.02
3.500	1.11	9.500	2.73	15.500	2.56	21.50	1.02
3.583	1.11	9.583	3.07	15.583	2.56	21.58	1.02
3.667	1.11	9.667	3.07	15.667	2.56	21.67	1.02
3.750	1.11	9.750	3.07	15.750	2.56	21.75	1.02
3.833	1.11	9.833	3.07	15.833	2.56	21.83	1.02
3.917	1.11	9.917	3.07	15.917	2.56	21.92	1.02
4.000	1.11	10.000	3.07	16.000	2.56	22.00	1.02
4.083	1.37	10.083	3.93	16.083	1.54	22.08	1.02
4.167	1.37	10.167	3.93	16.167	1.54	22.17	1.02
4.250	1.37	10.250	3.93	16.250	1.54	22.25	1.02
4.333	1.37	10.333	3.93	16.333	1.54	22.33	1.02
4.417	1.37	10.417	3.93	16.417	1.54	22.42	1.02
4.500	1.37	10.500	3.93	16.500	1.54	22.50	1.02
4.583	1.37	10.583	5.29	16.583	1.54	22.58	1.02
4.667	1.37	10.667	5.29	16.667	1.54	22.67	1.02
4.750	1.37	10.750	5.29	16.750	1.54	22.75	1.02
4.833	1.37	10.833	5.29	16.833	1.54	22.83	1.02
4.917	1.37	10.917	5.29	16.917	1.54	22.92	1.02
5.000	1.37	11.000	5.29	17.000	1.54	23.00	1.02
5.083	1.37	11.083	8.20	17.083	1.54	23.08	1.02
5.167	1.37	11.167	8.20	17.167	1.54	23.17	1.02
5.250	1.37	11.250	8.20	17.250	1.54	23.25	1.02
5.333	1.37	11.333	8.20	17.333	1.54	23.33	1.02
5.417	1.37	11.417	8.20	17.417	1.54	23.42	1.02
5.500	1.37	11.500	8.20	17.500	1.54	23.50	1.02
5.583	1.37	11.583	35.53	17.583	1.54	23.58	1.02
5.667	1.37	11.667	35.53	17.667	1.54	23.67	1.02
5.750	1.37	11.750	35.53	17.750	1.54	23.75	1.02
5.833	1.37	11.833	94.27	17.833	1.54	23.83	1.02
5.917	1.37	11.917	94.28	17.917	1.54	23.92	1.02
6.000	1.37	12.000	94.28	18.000	1.54	24.00	1.02

Max.Eff.Inten.(mm/hr)= 94.28 71.78
over (min) 5.00 5.00
Storage Coeff. (min)= 0.97 (ii) 2.12 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.34 0.31

TOTALS

PEAK FLOW (cms)= 0.01 0.00 0.014 (iii)
TIME TO PEAK (hrs)= 12.00 12.00 12.00
RUNOFF VOLUME (mm)= 84.40 54.68 84.10
TOTAL RAINFALL (mm)= 85.40 85.40 85.40
RUNOFF COEFFICIENT = 0.99 0.64 0.98

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.12 0.02
Dep. Storage (mm)= 1.00 1.50
Average Slope (%)= 1.00 2.00
Length (m)= 30.63 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	0.94	6.083	1.54	12.083	12.31	18.08	1.54
0.167	0.94	6.167	1.54	12.167	12.30	18.17	1.54
0.250	0.94	6.250	1.54	12.250	12.30	18.25	1.54
0.333	0.94	6.333	1.54	12.333	12.30	18.33	1.54
0.417	0.94	6.417	1.54	12.417	12.30	18.42	1.54
0.500	0.94	6.500	1.54	12.500	12.30	18.50	1.54
0.583	0.94	6.583	1.54	12.583	6.32	18.58	1.54
0.667	0.94	6.667	1.54	12.667	6.32	18.67	1.54
0.750	0.94	6.750	1.54	12.750	6.32	18.75	1.54
0.833	0.94	6.833	1.54	12.833	6.32	18.83	1.54
0.917	0.94	6.917	1.54	12.917	6.32	18.92	1.54
1.000	0.94	7.000	1.54	13.000	6.32	19.00	1.54
1.083	0.94	7.083	1.88	13.083	4.61	19.08	1.54
1.167	0.94	7.167	1.88	13.167	4.61	19.17	1.54
1.250	0.94	7.250	1.88	13.250	4.61	19.25	1.54
1.333	0.94	7.333	1.88	13.333	4.61	19.33	1.54
1.417	0.94	7.417	1.88	13.417	4.61	19.42	1.54
1.500	0.94	7.500	1.88	13.500	4.61	19.50	1.54
1.583	0.94	7.583	1.88	13.583	3.59	19.58	1.54
1.667	0.94	7.667	1.88	13.667	3.59	19.67	1.54
1.750	0.94	7.750	1.88	13.750	3.59	19.75	1.54
1.833	0.94	7.833	1.88	13.833	3.59	19.83	1.54
1.917	0.94	7.917	1.88	13.917	3.59	19.92	1.54
2.000	0.94	8.000	1.88	14.000	3.59	20.00	1.54
2.083	1.11	8.083	2.22	14.083	2.56	20.08	1.02
2.167	1.11	8.167	2.22	14.167	2.56	20.17	1.02
2.250	1.11	8.250	2.22	14.250	2.56	20.25	1.02
2.333	1.11	8.333	2.22	14.333	2.56	20.33	1.02
2.417	1.11	8.417	2.22	14.417	2.56	20.42	1.02
2.500	1.11	8.500	2.22	14.500	2.56	20.50	1.02
2.583	1.11	8.583	2.39	14.583	2.56	20.58	1.02
2.667	1.11	8.667	2.39	14.667	2.56	20.67	1.02
2.750	1.11	8.750	2.39	14.750	2.56	20.75	1.02
2.833	1.11	8.833	2.39	14.833	2.56	20.83	1.02
2.917	1.11	8.917	2.39	14.917	2.56	20.92	1.02
3.000	1.11	9.000	2.39	15.000	2.56	21.00	1.02
3.083	1.11	9.083	2.73	15.083	2.56	21.08	1.02
3.167	1.11	9.167	2.73	15.167	2.56	21.17	1.02
3.250	1.11	9.250	2.73	15.250	2.56	21.25	1.02
3.333	1.11	9.333	2.73	15.333	2.56	21.33	1.02
3.417	1.11	9.417	2.73	15.417	2.56	21.42	1.02
3.500	1.11	9.500	2.73	15.500	2.56	21.50	1.02
3.583	1.11	9.583	3.07	15.583	2.56	21.58	1.02
3.667	1.11	9.667	3.07	15.667	2.56	21.67	1.02
3.750	1.11	9.750	3.07	15.750	2.56	21.75	1.02
3.833	1.11	9.833	3.07	15.833	2.56	21.83	1.02
3.917	1.11	9.917	3.07	15.917	2.56	21.92	1.02
4.000	1.11	10.000	3.07	16.000	2.56	22.00	1.02
4.083	1.37	10.083	3.93	16.083	1.54	22.08	1.02
4.167	1.37	10.167	3.93	16.167	1.54	22.17	1.02
4.250	1.37	10.250	3.93	16.250	1.54	22.25	1.02
4.333	1.37	10.333	3.93	16.333	1.54	22.33	1.02
4.417	1.37	10.417	3.93	16.417	1.54	22.42	1.02
4.500	1.37	10.500	3.93	16.500	1.54	22.50	1.02

| CALIB |
| STANDHYD (0004) | Area (ha)= 0.14
| ID= 1 DT= 5.0 min | Total Imp(%)= 86.00 Dir. Conn.(%)= 86.00

4.583	1.37	10.583	5.29	16.583	1.54	22.58	1.02
4.667	1.37	10.667	5.29	16.667	1.54	22.67	1.02
4.750	1.37	10.750	5.29	16.750	1.54	22.75	1.02
4.833	1.37	10.833	5.29	16.833	1.54	22.83	1.02
4.917	1.37	10.917	5.29	16.917	1.54	22.92	1.02
5.000	1.37	11.000	5.29	17.000	1.54	23.00	1.02
5.083	1.37	11.083	8.20	17.083	1.54	23.08	1.02
5.167	1.37	11.167	8.20	17.167	1.54	23.17	1.02
5.250	1.37	11.250	8.20	17.250	1.54	23.25	1.02
5.333	1.37	11.333	8.20	17.333	1.54	23.33	1.02
5.417	1.37	11.417	8.20	17.417	1.54	23.42	1.02
5.500	1.37	11.500	8.20	17.500	1.54	23.50	1.02
5.583	1.37	11.583	35.53	17.583	1.54	23.58	1.02
5.667	1.37	11.667	35.53	17.667	1.54	23.67	1.02
5.750	1.37	11.750	35.53	17.750	1.54	23.75	1.02
5.833	1.37	11.833	94.27	17.833	1.54	23.83	1.02
5.917	1.37	11.917	94.28	17.917	1.54	23.92	1.02
6.000	1.37	12.000	94.28	18.000	1.54	24.00	1.02

Max.Eff.Inten.(mm/hr)=	94.28	71.78
over (min)	5.00	5.00
Storage Coeff. (min)=	1.29 (ii)	4.78 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.33	0.22

TOTALS		
PEAK FLOW (cms)=	0.03	0.00
TIME TO PEAK (hrs)=	12.00	12.00
RUNOFF VOLUME (mm)=	84.40	54.68
TOTAL RAINFALL (mm)=	85.40	85.40
RUNOFF COEFFICIENT =	0.99	0.64

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	
STANDHYD (0012)	Area (ha)= 0.07
ID= 1 DT= 5.0 min	Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS		PERVIOUS (i)	
Surface Area (ha)=	0.07		0.00
Dep. Storage (mm)=	1.00		1.50
Average Slope (%)=	1.00		2.00
Length (m)=	21.88		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	0.94	6.083	1.54	12.083	12.31	18.08	1.54
0.167	0.94	6.167	1.54	12.167	12.30	18.17	1.54
0.250	0.94	6.250	1.54	12.250	12.30	18.25	1.54
0.333	0.94	6.333	1.54	12.333	12.30	18.33	1.54
0.417	0.94	6.417	1.54	12.417	12.30	18.42	1.54
0.500	0.94	6.500	1.54	12.500	12.30	18.50	1.54
0.583	0.94	6.583	1.54	12.583	6.32	18.58	1.54
0.667	0.94	6.667	1.54	12.667	6.32	18.67	1.54
0.750	0.94	6.750	1.54	12.750	6.32	18.75	1.54
0.833	0.94	6.833	1.54	12.833	6.32	18.83	1.54

0.917	0.94	6.917	1.54	12.917	6.32	18.92	1.54
1.000	0.94	7.000	1.54	13.000	6.32	19.00	1.54
1.083	0.94	7.083	1.88	13.083	4.61	19.08	1.54
1.167	0.94	7.167	1.88	13.167	4.61	19.17	1.54
1.250	0.94	7.250	1.88	13.250	4.61	19.25	1.54
1.333	0.94	7.333	1.88	13.333	4.61	19.33	1.54
1.417	0.94	7.417	1.88	13.417	4.61	19.42	1.54
1.500	0.94	7.500	1.88	13.500	4.61	19.50	1.54
1.583	0.94	7.583	1.88	13.583	3.59	19.58	1.54
1.667	0.94	7.667	1.88	13.667	3.59	19.67	1.54
1.750	0.94	7.750	1.88	13.750	3.59	19.75	1.54
1.833	0.94	7.833	1.88	13.833	3.59	19.83	1.54
1.917	0.94	7.917	1.88	13.917	3.59	19.92	1.54
2.000	0.94	8.000	1.88	14.000	3.59	20.00	1.54
2.083	1.11	8.083	2.22	14.083	2.56	20.08	1.02
2.167	1.11	8.167	2.22	14.167	2.56	20.17	1.02
2.250	1.11	8.250	2.22	14.250	2.56	20.25	1.02
2.333	1.11	8.333	2.22	14.333	2.56	20.33	1.02
2.417	1.11	8.417	2.22	14.417	2.56	20.42	1.02
2.500	1.11	8.500	2.22	14.500	2.56	20.50	1.02
2.583	1.11	8.583	2.39	14.583	2.56	20.58	1.02
2.667	1.11	8.667	2.39	14.667	2.56	20.67	1.02
2.750	1.11	8.750	2.39	14.750	2.56	20.75	1.02
2.833	1.11	8.833	2.39	14.833	2.56	20.83	1.02
2.917	1.11	8.917	2.39	14.917	2.56	20.92	1.02
3.000	1.11	9.000	2.39	15.000	2.56	21.00	1.02
3.083	1.11	9.083	2.73	15.083	2.56	21.08	1.02
3.167	1.11	9.167	2.73	15.167	2.56	21.17	1.02
3.250	1.11	9.250	2.73	15.250	2.56	21.25	1.02
3.333	1.11	9.333	2.73	15.333	2.56	21.33	1.02
3.417	1.11	9.417	2.73	15.417	2.56	21.42	1.02
3.500	1.11	9.500	2.73	15.500	2.56	21.50	1.02
3.583	1.11	9.583	3.07	15.583	2.56	21.58	1.02
3.667	1.11	9.667	3.07	15.667	2.56	21.67	1.02
3.750	1.11	9.750	3.07	15.750	2.56	21.75	1.02
3.833	1.11	9.833	3.07	15.833	2.56	21.83	1.02
3.917	1.11	9.917	3.07	15.917	2.56	21.92	1.02
4.000	1.11	10.000	3.07	16.000	2.56	22.00	1.02
4.083	1.37	10.083	3.93	16.083	1.54	22.08	1.02
4.167	1.37	10.167	3.93	16.167	1.54	22.17	1.02
4.250	1.37	10.250	3.93	16.250	1.54	22.25	1.02
4.333	1.37	10.333	3.93	16.333	1.54	22.33	1.02
4.417	1.37	10.417	3.93	16.417	1.54	22.42	1.02
4.500	1.37	10.500	3.93	16.500	1.54	22.50	1.02
4.583	1.37	10.583	5.29	16.583	1.54	22.58	1.02
4.667	1.37	10.667	5.29	16.667	1.54	22.67	1.02
4.750	1.37	10.750	5.29	16.750	1.54	22.75	1.02
4.833	1.37	10.833	5.29	16.833	1.54	22.83	1.02
4.917	1.37	10.917	5.29	16.917	1.54	22.92	1.02
5.000	1.37	11.000	5.29	17.000	1.54	23.00	1.02
5.083	1.37	11.083	8.20	17.083	1.54	23.08	1.02
5.167	1.37	11.167	8.20	17.167	1.54	23.17	1.02
5.250	1.37	11.250	8.20	17.250	1.54	23.25	1.02
5.333	1.37	11.333	8.20	17.333	1.54	23.33	1.02
5.417	1.37	11.417	8.20	17.417	1.54	23.42	1.02
5.500	1.37	11.500	8.20	17.500	1.54	23.50	1.02
5.583	1.37	11.583	35.53	17.583	1.54	23.58	1.02
5.667	1.37	11.667	35.53	17.667	1.54	23.67	1.02
5.750	1.37	11.750	35.53	17.750	1.54	23.75	1.02
5.833	1.37	11.833	94.27	17.833	1.54	23.83	1.02
5.917	1.37	11.917	94.28	17.917	1.54	23.92	1.02
6.000	1.37	12.000	94.28	18.000	1.54	24.00	1.02

Max.Eff.Inten.(mm/hr)=	94.28	71.78
over (min)	5.00	5.00
Storage Coeff. (min)=	1.05 (ii)	2.20 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.34	0.30

PEAK FLOW (cms)= 0.02 0.00 0.019 (iii)
TIME TO PEAK (hrs)= 12.00 12.00 12.00
RUNOFF VOLUME (mm)= 84.40 54.68 84.10
TOTAL RAINFALL (mm)= 85.40 85.40 85.40
RUNOFF COEFFICIENT = 0.99 0.64 0.98

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0007)
1 + 2 = 3
ID1= 1 (0012): 0.07 0.019 12.00 84.10
+ ID2= 2 (0002): 0.19 0.049 12.00 83.80
ID = 3 (0007): 0.26 0.068 12.00 83.88

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0007)
3 + 2 = 1
ID1= 3 (0007): 0.26 0.068 12.00 83.88
+ ID2= 2 (0003): 0.05 0.014 12.00 84.10
ID = 1 (0007): 0.32 0.082 12.00 83.92

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0007)
1 + 2 = 3
ID1= 1 (0007): 0.32 0.082 12.00 83.92
+ ID2= 2 (0004): 0.14 0.036 12.00 80.23
ID = 3 (0007): 0.46 0.118 12.00 82.78

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR(0014)
IN= 2----> OUT= 1
DT= 5.0 min
OVERFLOW IS OFF
OUTFLOW STORAGE | OUTFLOW STORAGE
(cms) (ha.m.) | (cms) (ha.m.)
0.0000 0.0000 | 0.0880 0.0054
0.0000 0.0008 | 0.0950 0.0062
0.0360 0.0015 | 0.1020 0.0070
0.0510 0.0023 | 0.1080 0.0077
0.0620 0.0031 | 0.1140 0.0085
0.0720 0.0039 | 0.1200 0.0093
0.0810 0.0046 | 0.0000 0.0000

INFLOW : ID= 2 (0007) 0.456 0.118 12.00 82.78

OUTFLOW: ID= 1 (0014) 0.456 0.087 12.00 81.03

PEAK FLOW REDUCTION [Qout/Qin](%)= 73.78
TIME SHIFT OF PEAK FLOW (min)= 0.00
MAXIMUM STORAGE USED (ha.m.)= 0.0057

ADD HYD (0017)
1 + 2 = 3
ID1= 1 (0014): 0.46 0.087 12.00 81.03
+ ID2= 2 (0009): 2.41 0.567 12.00 77.57
ID = 3 (0017): 2.86 0.654 12.00 78.12

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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

000 TTTT TTTT H H Y Y M M 000 TM
0 0 T T H H Y Y MM MM 0 0
0 0 T T H H Y M M 0 0
000 T T H H Y M M 000

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

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\V02\voin.dat
Output filename: C:\Users\ffisl\AppData\Local\Civica\XH5\dae7608f-82b9-4213-85a0-cec48cda5646\547d1c0f-af53-4a1e-9b71-2a0478eb19b2\scenar
Summary filename: C:\Users\ffisl\AppData\Local\Civica\XH5\dae7608f-82b9-4213-85a0-cec48cda5646\547d1c0f-af53-4a1e-9b71-2a0478eb19b2\scenar

DATE: 12-02-2025

TIME: 06:29:03

USER:

COMMENTS:

** SIMULATION : 025-year **

READ STORM | Filename: C:\Users\ffisl\AppData\Local\Temp\65ee925f-bdec-4dce-8f1a-7fb2dd9de23e\733f967f
| Ptotal=100.55 mm | Comments: 25-yr, 24-hr SCS Type II Distribution St

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.00	1.11	6.00	1.81	12.00	14.47	18.00	1.81
0.25	1.11	6.25	1.81	12.25	14.47	18.25	1.81
0.50	1.11	6.50	1.81	12.50	7.44	18.50	1.81
0.75	1.11	6.75	1.81	12.75	7.44	18.75	1.81
1.00	1.11	7.00	2.21	13.00	5.43	19.00	1.81
1.25	1.11	7.25	2.21	13.25	5.43	19.25	1.81
1.50	1.11	7.50	2.21	13.50	4.22	19.50	1.81
1.75	1.11	7.75	2.21	13.75	4.22	19.75	1.81
2.00	1.31	8.00	2.61	14.00	3.02	20.00	1.21
2.25	1.31	8.25	2.61	14.25	3.02	20.25	1.21
2.50	1.31	8.50	2.81	14.50	3.02	20.50	1.21
2.75	1.31	8.75	2.81	14.75	3.02	20.75	1.21
3.00	1.31	9.00	3.22	15.00	3.02	21.00	1.21
3.25	1.31	9.25	3.22	15.25	3.02	21.25	1.21
3.50	1.31	9.50	3.62	15.50	3.02	21.50	1.21
3.75	1.31	9.75	3.62	15.75	3.02	21.75	1.21
4.00	1.61	10.00	4.62	16.00	1.81	22.00	1.21
4.25	1.61	10.25	4.62	16.25	1.81	22.25	1.21
4.50	1.61	10.50	6.23	16.50	1.81	22.50	1.21
4.75	1.61	10.75	6.23	16.75	1.81	22.75	1.21
5.00	1.61	11.00	9.65	17.00	1.81	23.00	1.21
5.25	1.61	11.25	9.65	17.25	1.81	23.25	1.21
5.50	1.61	11.50	41.81	17.50	1.81	23.50	1.21
5.75	1.61	11.75	110.95	17.75	1.81	23.75	1.21

CALIB
 STANDHYD (0001)
 ID= 1 DT= 5.0 min

Area (ha)= 0.45
 Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.45	0.00
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	54.94	40.00
Mannings n =	0.013	0.250

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

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	1.11	6.083	1.81	12.083	14.48	18.08	1.81
0.167	1.11	6.167	1.81	12.167	14.47	18.17	1.81
0.250	1.11	6.250	1.81	12.250	14.47	18.25	1.81
0.333	1.11	6.333	1.81	12.333	14.47	18.33	1.81
0.417	1.11	6.417	1.81	12.417	14.47	18.42	1.81
0.500	1.11	6.500	1.81	12.500	14.47	18.50	1.81
0.583	1.11	6.583	1.81	12.583	7.44	18.58	1.81
0.667	1.11	6.667	1.81	12.667	7.44	18.67	1.81
0.750	1.11	6.750	1.81	12.750	7.44	18.75	1.81
0.833	1.11	6.833	1.81	12.833	7.44	18.83	1.81
0.917	1.11	6.917	1.81	12.917	7.44	18.92	1.81
1.000	1.11	7.000	1.81	13.000	7.44	19.00	1.81
1.083	1.11	7.083	2.21	13.083	5.43	19.08	1.81
1.167	1.11	7.167	2.21	13.167	5.43	19.17	1.81
1.250	1.11	7.250	2.21	13.250	5.43	19.25	1.81
1.333	1.11	7.333	2.21	13.333	5.43	19.33	1.81
1.417	1.11	7.417	2.21	13.417	5.43	19.42	1.81
1.500	1.11	7.500	2.21	13.500	5.43	19.50	1.81
1.583	1.11	7.583	2.21	13.583	4.22	19.58	1.81
1.667	1.11	7.667	2.21	13.667	4.22	19.67	1.81

1.750	1.11	7.750	2.21	13.750	4.22	19.75	1.81
1.833	1.11	7.833	2.21	13.833	4.22	19.83	1.81
1.917	1.11	7.917	2.21	13.917	4.22	19.92	1.81
2.000	1.11	8.000	2.21	14.000	4.22	20.00	1.81
2.083	1.31	8.083	2.61	14.083	3.02	20.08	1.21
2.167	1.31	8.167	2.61	14.167	3.02	20.17	1.21
2.250	1.31	8.250	2.61	14.250	3.02	20.25	1.21
2.333	1.31	8.333	2.61	14.333	3.02	20.33	1.21
2.417	1.31	8.417	2.61	14.417	3.02	20.42	1.21
2.500	1.31	8.500	2.61	14.500	3.02	20.50	1.21
2.583	1.31	8.583	2.81	14.583	3.02	20.58	1.21
2.667	1.31	8.667	2.81	14.667	3.02	20.67	1.21
2.750	1.31	8.750	2.81	14.750	3.02	20.75	1.21
2.833	1.31	8.833	2.81	14.833	3.02	20.83	1.21
2.917	1.31	8.917	2.81	14.917	3.02	20.92	1.21
3.000	1.31	9.000	2.81	15.000	3.02	21.00	1.21
3.083	1.31	9.083	3.22	15.083	3.02	21.08	1.21
3.167	1.31	9.167	3.22	15.167	3.02	21.17	1.21
3.250	1.31	9.250	3.22	15.250	3.02	21.25	1.21
3.333	1.31	9.333	3.22	15.333	3.02	21.33	1.21
3.417	1.31	9.417	3.22	15.417	3.02	21.42	1.21
3.500	1.31	9.500	3.22	15.500	3.02	21.50	1.21
3.583	1.31	9.583	3.62	15.583	3.02	21.58	1.21
3.667	1.31	9.667	3.62	15.667	3.02	21.67	1.21
3.750	1.31	9.750	3.62	15.750	3.02	21.75	1.21
3.833	1.31	9.833	3.62	15.833	3.02	21.83	1.21
3.917	1.31	9.917	3.62	15.917	3.02	21.92	1.21
4.000	1.31	10.000	3.62	16.000	3.02	22.00	1.21
4.083	1.61	10.083	4.62	16.083	1.81	22.08	1.21
4.167	1.61	10.167	4.62	16.167	1.81	22.17	1.21
4.250	1.61	10.250	4.62	16.250	1.81	22.25	1.21
4.333	1.61	10.333	4.62	16.333	1.81	22.33	1.21
4.417	1.61	10.417	4.62	16.417	1.81	22.42	1.21
4.500	1.61	10.500	4.62	16.500	1.81	22.50	1.21
4.583	1.61	10.583	6.23	16.583	1.81	22.58	1.21
4.667	1.61	10.667	6.23	16.667	1.81	22.67	1.21
4.750	1.61	10.750	6.23	16.750	1.81	22.75	1.21
4.833	1.61	10.833	6.23	16.833	1.81	22.83	1.21
4.917	1.61	10.917	6.23	16.917	1.81	22.92	1.21
5.000	1.61	11.000	6.23	17.000	1.81	23.00	1.21
5.083	1.61	11.083	9.65	17.083	1.81	23.08	1.21
5.167	1.61	11.167	9.65	17.167	1.81	23.17	1.21
5.250	1.61	11.250	9.65	17.250	1.81	23.25	1.21
5.333	1.61	11.333	9.65	17.333	1.81	23.33	1.21
5.417	1.61	11.417	9.65	17.417	1.81	23.42	1.21
5.500	1.61	11.500	9.65	17.500	1.81	23.50	1.21
5.583	1.61	11.583	41.81	17.583	1.81	23.58	1.21
5.667	1.61	11.667	41.81	17.667	1.81	23.67	1.21
5.750	1.61	11.750	41.81	17.750	1.81	23.75	1.21
5.833	1.61	11.833	110.94	17.833	1.81	23.83	1.21
5.917	1.61	11.917	110.95	17.917	1.81	23.92	1.21
6.000	1.61	12.000	110.95	18.000	1.81	24.00	1.21

Max.Eff.Inten.(mm/hr)= 110.95 88.79
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.71 (ii) 2.79 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.32 0.28

PEAK FLOW (cms)= 0.14 0.00 0.139 (iii)
 TIME TO PEAK (hrs)= 12.00 12.00 12.00
 RUNOFF VOLUME (mm)= 99.55 68.19 99.23
 TOTAL RAINFALL (mm)= 100.55 100.55 100.55
 RUNOFF COEFFICIENT = 0.99 0.68 0.99

TOTALS

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

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:

CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0005)
ID= 1 DT= 5.0 min
Area (ha)= 0.95
Total Imp(%)= 75.00 Dir. Conn.(%)= 75.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.71 0.24
Dep. Storage (mm)= 1.00 1.50
Average Slope (%)= 1.00 2.00
Length (m)= 79.65 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 1.11 6.083 1.81 12.083 14.48 18.08 1.81
0.167 1.11 6.167 1.81 12.167 14.47 18.17 1.81
0.250 1.11 6.250 1.81 12.250 14.47 18.25 1.81
0.333 1.11 6.333 1.81 12.333 14.47 18.33 1.81
0.417 1.11 6.417 1.81 12.417 14.47 18.42 1.81
0.500 1.11 6.500 1.81 12.500 14.47 18.50 1.81
0.583 1.11 6.583 1.81 12.583 7.44 18.58 1.81
0.667 1.11 6.667 1.81 12.667 7.44 18.67 1.81
0.750 1.11 6.750 1.81 12.750 7.44 18.75 1.81
0.833 1.11 6.833 1.81 12.833 7.44 18.83 1.81
0.917 1.11 6.917 1.81 12.917 7.44 18.92 1.81
1.000 1.11 7.000 1.81 13.000 7.44 19.00 1.81
1.083 1.11 7.083 2.21 13.083 5.43 19.08 1.81
1.167 1.11 7.167 2.21 13.167 5.43 19.17 1.81
1.250 1.11 7.250 2.21 13.250 5.43 19.25 1.81
1.333 1.11 7.333 2.21 13.333 5.43 19.33 1.81
1.417 1.11 7.417 2.21 13.417 5.43 19.42 1.81
1.500 1.11 7.500 2.21 13.500 5.43 19.50 1.81
1.583 1.11 7.583 2.21 13.583 4.22 19.58 1.81
1.667 1.11 7.667 2.21 13.667 4.22 19.67 1.81
1.750 1.11 7.750 2.21 13.750 4.22 19.75 1.81
1.833 1.11 7.833 2.21 13.833 4.22 19.83 1.81
1.917 1.11 7.917 2.21 13.917 4.22 19.92 1.81
2.000 1.11 8.000 2.21 14.000 4.22 20.00 1.81
2.083 1.31 8.083 2.61 14.083 3.02 20.08 1.21
2.167 1.31 8.167 2.61 14.167 3.02 20.17 1.21
2.250 1.31 8.250 2.61 14.250 3.02 20.25 1.21
2.333 1.31 8.333 2.61 14.333 3.02 20.33 1.21
2.417 1.31 8.417 2.61 14.417 3.02 20.42 1.21
2.500 1.31 8.500 2.61 14.500 3.02 20.50 1.21
2.583 1.31 8.583 2.81 14.583 3.02 20.58 1.21
2.667 1.31 8.667 2.81 14.667 3.02 20.67 1.21
2.750 1.31 8.750 2.81 14.750 3.02 20.75 1.21
2.833 1.31 8.833 2.81 14.833 3.02 20.83 1.21
2.917 1.31 8.917 2.81 14.917 3.02 20.92 1.21
3.000 1.31 9.000 2.81 15.000 3.02 21.00 1.21
3.083 1.31 9.083 3.22 15.083 3.02 21.08 1.21
3.167 1.31 9.167 3.22 15.167 3.02 21.17 1.21
3.250 1.31 9.250 3.22 15.250 3.02 21.25 1.21
3.333 1.31 9.333 3.22 15.333 3.02 21.33 1.21
3.417 1.31 9.417 3.22 15.417 3.02 21.42 1.21
3.500 1.31 9.500 3.22 15.500 3.02 21.50 1.21
3.583 1.31 9.583 3.62 15.583 3.02 21.58 1.21
3.667 1.31 9.667 3.62 15.667 3.02 21.67 1.21

3.750 1.31 9.750 3.62 15.750 3.02 21.75 1.21
3.833 1.31 9.833 3.62 15.833 3.02 21.83 1.21
3.917 1.31 9.917 3.62 15.917 3.02 21.92 1.21
4.000 1.31 10.000 3.62 16.000 3.02 22.00 1.21
4.083 1.61 10.083 4.62 16.083 1.81 22.08 1.21
4.167 1.61 10.167 4.62 16.167 1.81 22.17 1.21
4.250 1.61 10.250 4.62 16.250 1.81 22.25 1.21
4.333 1.61 10.333 4.62 16.333 1.81 22.33 1.21
4.417 1.61 10.417 4.62 16.417 1.81 22.42 1.21
4.500 1.61 10.500 4.62 16.500 1.81 22.50 1.21
4.583 1.61 10.583 6.23 16.583 1.81 22.58 1.21
4.667 1.61 10.667 6.23 16.667 1.81 22.67 1.21
4.750 1.61 10.750 6.23 16.750 1.81 22.75 1.21
4.833 1.61 10.833 6.23 16.833 1.81 22.83 1.21
4.917 1.61 10.917 6.23 16.917 1.81 22.92 1.21
5.000 1.61 11.000 6.23 17.000 1.81 23.00 1.21
5.083 1.61 11.083 9.65 17.083 1.81 23.08 1.21
5.167 1.61 11.167 9.65 17.167 1.81 23.17 1.21
5.250 1.61 11.250 9.65 17.250 1.81 23.25 1.21
5.333 1.61 11.333 9.65 17.333 1.81 23.33 1.21
5.417 1.61 11.417 9.65 17.417 1.81 23.42 1.21
5.500 1.61 11.500 9.65 17.500 1.81 23.50 1.21
5.583 1.61 11.583 41.81 17.583 1.81 23.58 1.21
5.667 1.61 11.667 41.81 17.667 1.81 23.67 1.21
5.750 1.61 11.750 41.81 17.750 1.81 23.75 1.21
5.833 1.61 11.833 110.94 17.833 1.81 23.83 1.21
5.917 1.61 11.917 110.95 17.917 1.81 23.92 1.21
6.000 1.61 12.000 110.95 18.000 1.81 24.00 1.21

Max.Eff.Inten.(mm/hr)= 110.95 88.79
over (min) 5.00 10.00
Storage Coeff. (min)= 2.14 (ii) 6.50 (ii)
Unit Hyd. Tpeak (min)= 5.00 10.00
Unit Hyd. peak (cms)= 0.31 0.14

TOTALS
PEAK FLOW (cms)= 0.22 0.05 0.270 (iii)
TIME TO PEAK (hrs)= 12.00 12.00 12.00
RUNOFF VOLUME (mm)= 99.55 68.19 91.71
TOTAL RAINFALL (mm)= 100.55 100.55 100.55
RUNOFF COEFFICIENT = 0.99 0.68 0.91

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

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0006)
ID= 1 DT= 5.0 min
Area (ha)= 0.92
Total Imp(%)= 70.00 Dir. Conn.(%)= 70.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.65 0.28
Dep. Storage (mm)= 1.00 1.50
Average Slope (%)= 1.00 2.00
Length (m)= 78.45 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	1.11	6.083	1.81	12.083	14.48	18.08	1.81
0.167	1.11	6.167	1.81	12.167	14.47	18.17	1.81
0.250	1.11	6.250	1.81	12.250	14.47	18.25	1.81
0.333	1.11	6.333	1.81	12.333	14.47	18.33	1.81
0.417	1.11	6.417	1.81	12.417	14.47	18.42	1.81
0.500	1.11	6.500	1.81	12.500	14.47	18.50	1.81
0.583	1.11	6.583	1.81	12.583	7.44	18.58	1.81
0.667	1.11	6.667	1.81	12.667	7.44	18.67	1.81
0.750	1.11	6.750	1.81	12.750	7.44	18.75	1.81
0.833	1.11	6.833	1.81	12.833	7.44	18.83	1.81
0.917	1.11	6.917	1.81	12.917	7.44	18.92	1.81
1.000	1.11	7.000	1.81	13.000	7.44	19.00	1.81
1.083	1.11	7.083	2.21	13.083	5.43	19.08	1.81
1.167	1.11	7.167	2.21	13.167	5.43	19.17	1.81
1.250	1.11	7.250	2.21	13.250	5.43	19.25	1.81
1.333	1.11	7.333	2.21	13.333	5.43	19.33	1.81
1.417	1.11	7.417	2.21	13.417	5.43	19.42	1.81
1.500	1.11	7.500	2.21	13.500	5.43	19.50	1.81
1.583	1.11	7.583	2.21	13.583	4.22	19.58	1.81
1.667	1.11	7.667	2.21	13.667	4.22	19.67	1.81
1.750	1.11	7.750	2.21	13.750	4.22	19.75	1.81
1.833	1.11	7.833	2.21	13.833	4.22	19.83	1.81
1.917	1.11	7.917	2.21	13.917	4.22	19.92	1.81
2.000	1.11	8.000	2.21	14.000	4.22	20.00	1.81
2.083	1.31	8.083	2.61	14.083	3.02	20.08	1.21
2.167	1.31	8.167	2.61	14.167	3.02	20.17	1.21
2.250	1.31	8.250	2.61	14.250	3.02	20.25	1.21
2.333	1.31	8.333	2.61	14.333	3.02	20.33	1.21
2.417	1.31	8.417	2.61	14.417	3.02	20.42	1.21
2.500	1.31	8.500	2.61	14.500	3.02	20.50	1.21
2.583	1.31	8.583	2.81	14.583	3.02	20.58	1.21
2.667	1.31	8.667	2.81	14.667	3.02	20.67	1.21
2.750	1.31	8.750	2.81	14.750	3.02	20.75	1.21
2.833	1.31	8.833	2.81	14.833	3.02	20.83	1.21
2.917	1.31	8.917	2.81	14.917	3.02	20.92	1.21
3.000	1.31	9.000	2.81	15.000	3.02	21.00	1.21
3.083	1.31	9.083	3.22	15.083	3.02	21.08	1.21
3.167	1.31	9.167	3.22	15.167	3.02	21.17	1.21
3.250	1.31	9.250	3.22	15.250	3.02	21.25	1.21
3.333	1.31	9.333	3.22	15.333	3.02	21.33	1.21
3.417	1.31	9.417	3.22	15.417	3.02	21.42	1.21
3.500	1.31	9.500	3.22	15.500	3.02	21.50	1.21
3.583	1.31	9.583	3.62	15.583	3.02	21.58	1.21
3.667	1.31	9.667	3.62	15.667	3.02	21.67	1.21
3.750	1.31	9.750	3.62	15.750	3.02	21.75	1.21
3.833	1.31	9.833	3.62	15.833	3.02	21.83	1.21
3.917	1.31	9.917	3.62	15.917	3.02	21.92	1.21
4.000	1.31	10.000	3.62	16.000	3.02	22.00	1.21
4.083	1.61	10.083	4.62	16.083	1.81	22.08	1.21
4.167	1.61	10.167	4.62	16.167	1.81	22.17	1.21
4.250	1.61	10.250	4.62	16.250	1.81	22.25	1.21
4.333	1.61	10.333	4.62	16.333	1.81	22.33	1.21
4.417	1.61	10.417	4.62	16.417	1.81	22.42	1.21
4.500	1.61	10.500	4.62	16.500	1.81	22.50	1.21
4.583	1.61	10.583	6.23	16.583	1.81	22.58	1.21
4.667	1.61	10.667	6.23	16.667	1.81	22.67	1.21
4.750	1.61	10.750	6.23	16.750	1.81	22.75	1.21
4.833	1.61	10.833	6.23	16.833	1.81	22.83	1.21
4.917	1.61	10.917	6.23	16.917	1.81	22.92	1.21
5.000	1.61	11.000	6.23	17.000	1.81	23.00	1.21
5.083	1.61	11.083	9.65	17.083	1.81	23.08	1.21
5.167	1.61	11.167	9.65	17.167	1.81	23.17	1.21
5.250	1.61	11.250	9.65	17.250	1.81	23.25	1.21
5.333	1.61	11.333	9.65	17.333	1.81	23.33	1.21
5.417	1.61	11.417	9.65	17.417	1.81	23.42	1.21
5.500	1.61	11.500	9.65	17.500	1.81	23.50	1.21
5.583	1.61	11.583	41.81	17.583	1.81	23.58	1.21
5.667	1.61	11.667	41.81	17.667	1.81	23.67	1.21

5.750	1.61	11.750	41.81	17.750	1.81	23.75	1.21
5.833	1.61	11.833	110.94	17.833	1.81	23.83	1.21
5.917	1.61	11.917	110.95	17.917	1.81	23.92	1.21
6.000	1.61	12.000	110.95	18.000	1.81	24.00	1.21

Max.Eff.Inten.(mm/hr)=	110.95	88.79	
over (min)	5.00	10.00	
Storage Coeff. (min)=	2.12 (ii)	6.94 (ii)	
Unit Hyd. Tpeak (min)=	5.00	10.00	
Unit Hyd. peak (cms)=	0.31	0.14	
PEAK FLOW (cms)=	0.20	0.06	0.257 (iii)
TIME TO PEAK (hrs)=	12.00	12.00	12.00
RUNOFF VOLUME (mm)=	99.55	68.19	90.14
TOTAL RAINFALL (mm)=	100.55	100.55	100.55
RUNOFF COEFFICIENT =	0.99	0.68	0.90

TOTALS

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha)=	0.05
STANDHYD (0015)	Total Imp(%)=	44.00
ID= 1 DT= 5.0 min	Dir. Conn.(%)=	44.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.02	0.03
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	18.62	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	1.11	6.083	1.81	12.083	14.48	18.08	1.81
0.167	1.11	6.167	1.81	12.167	14.47	18.17	1.81
0.250	1.11	6.250	1.81	12.250	14.47	18.25	1.81
0.333	1.11	6.333	1.81	12.333	14.47	18.33	1.81
0.417	1.11	6.417	1.81	12.417	14.47	18.42	1.81
0.500	1.11	6.500	1.81	12.500	14.47	18.50	1.81
0.583	1.11	6.583	1.81	12.583	7.44	18.58	1.81
0.667	1.11	6.667	1.81	12.667	7.44	18.67	1.81
0.750	1.11	6.750	1.81	12.750	7.44	18.75	1.81
0.833	1.11	6.833	1.81	12.833	7.44	18.83	1.81
0.917	1.11	6.917	1.81	12.917	7.44	18.92	1.81
1.000	1.11	7.000	1.81	13.000	7.44	19.00	1.81
1.083	1.11	7.083	2.21	13.083	5.43	19.08	1.81
1.167	1.11	7.167	2.21	13.167	5.43	19.17	1.81
1.250	1.11	7.250	2.21	13.250	5.43	19.25	1.81
1.333	1.11	7.333	2.21	13.333	5.43	19.33	1.81
1.417	1.11	7.417	2.21	13.417	5.43	19.42	1.81
1.500	1.11	7.500	2.21	13.500	5.43	19.50	1.81
1.583	1.11	7.583	2.21	13.583	4.22	19.58	1.81
1.667	1.11	7.667	2.21	13.667	4.22	19.67	1.81
1.750	1.11	7.750	2.21	13.750	4.22	19.75	1.81
1.833	1.11	7.833	2.21	13.833	4.22	19.83	1.81
1.917	1.11	7.917	2.21	13.917	4.22	19.92	1.81
2.000	1.11	8.000	2.21	14.000	4.22	20.00	1.81

2.083	1.31	8.083	2.61	14.083	3.02	20.08	1.21
2.167	1.31	8.167	2.61	14.167	3.02	20.17	1.21
2.250	1.31	8.250	2.61	14.250	3.02	20.25	1.21
2.333	1.31	8.333	2.61	14.333	3.02	20.33	1.21
2.417	1.31	8.417	2.61	14.417	3.02	20.42	1.21
2.500	1.31	8.500	2.61	14.500	3.02	20.50	1.21
2.583	1.31	8.583	2.81	14.583	3.02	20.58	1.21
2.667	1.31	8.667	2.81	14.667	3.02	20.67	1.21
2.750	1.31	8.750	2.81	14.750	3.02	20.75	1.21
2.833	1.31	8.833	2.81	14.833	3.02	20.83	1.21
2.917	1.31	8.917	2.81	14.917	3.02	20.92	1.21
3.000	1.31	9.000	2.81	15.000	3.02	21.00	1.21
3.083	1.31	9.083	3.22	15.083	3.02	21.08	1.21
3.167	1.31	9.167	3.22	15.167	3.02	21.17	1.21
3.250	1.31	9.250	3.22	15.250	3.02	21.25	1.21
3.333	1.31	9.333	3.22	15.333	3.02	21.33	1.21
3.417	1.31	9.417	3.22	15.417	3.02	21.42	1.21
3.500	1.31	9.500	3.22	15.500	3.02	21.50	1.21
3.583	1.31	9.583	3.62	15.583	3.02	21.58	1.21
3.667	1.31	9.667	3.62	15.667	3.02	21.67	1.21
3.750	1.31	9.750	3.62	15.750	3.02	21.75	1.21
3.833	1.31	9.833	3.62	15.833	3.02	21.83	1.21
3.917	1.31	9.917	3.62	15.917	3.02	21.92	1.21
4.000	1.31	10.000	3.62	16.000	3.02	22.00	1.21
4.083	1.61	10.083	4.62	16.083	1.81	22.08	1.21
4.167	1.61	10.167	4.62	16.167	1.81	22.17	1.21
4.250	1.61	10.250	4.62	16.250	1.81	22.25	1.21
4.333	1.61	10.333	4.62	16.333	1.81	22.33	1.21
4.417	1.61	10.417	4.62	16.417	1.81	22.42	1.21
4.500	1.61	10.500	4.62	16.500	1.81	22.50	1.21
4.583	1.61	10.583	6.23	16.583	1.81	22.58	1.21
4.667	1.61	10.667	6.23	16.667	1.81	22.67	1.21
4.750	1.61	10.750	6.23	16.750	1.81	22.75	1.21
4.833	1.61	10.833	6.23	16.833	1.81	22.83	1.21
4.917	1.61	10.917	6.23	16.917	1.81	22.92	1.21
5.000	1.61	11.000	6.23	17.000	1.81	23.00	1.21
5.083	1.61	11.083	9.65	17.083	1.81	23.08	1.21
5.167	1.61	11.167	9.65	17.167	1.81	23.17	1.21
5.250	1.61	11.250	9.65	17.250	1.81	23.25	1.21
5.333	1.61	11.333	9.65	17.333	1.81	23.33	1.21
5.417	1.61	11.417	9.65	17.417	1.81	23.42	1.21
5.500	1.61	11.500	9.65	17.500	1.81	23.50	1.21
5.583	1.61	11.583	41.81	17.583	1.81	23.58	1.21
5.667	1.61	11.667	41.81	17.667	1.81	23.67	1.21
5.750	1.61	11.750	41.81	17.750	1.81	23.75	1.21
5.833	1.61	11.833	110.94	17.833	1.81	23.83	1.21
5.917	1.61	11.917	110.95	17.917	1.81	23.92	1.21
6.000	1.61	12.000	110.95	18.000	1.81	24.00	1.21

Max.Eff.Inten.(mm/hr)= 110.95 88.79
over (min) 5.00 10.00
Storage Coeff. (min)= 0.89 (ii) 8.30 (ii)
Unit Hyd. Tpeak (min)= 5.00 10.00
Unit Hyd. peak (cms)= 0.34 0.13

PEAK FLOW (cms)= 0.01 0.01 0.013 (iii)
TIME TO PEAK (hrs)= 12.00 12.00 12.00
RUNOFF VOLUME (mm)= 99.55 68.19 81.90
TOTAL RAINFALL (mm)= 100.55 100.55 100.55
RUNOFF COEFFICIENT = 0.99 0.68 0.81

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| CALIB |
| STANDHYD (0018) | Area (ha)= 0.03
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	0.03	0.00
Dep. Storage	(mm)=	1.00	1.50
Average Slope	(%)=	1.00	2.00
Length	(m)=	13.49	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	1.11	6.083	1.81	12.083	14.48	18.08	1.81
0.167	1.11	6.167	1.81	12.167	14.47	18.17	1.81
0.250	1.11	6.250	1.81	12.250	14.47	18.25	1.81
0.333	1.11	6.333	1.81	12.333	14.47	18.33	1.81
0.417	1.11	6.417	1.81	12.417	14.47	18.42	1.81
0.500	1.11	6.500	1.81	12.500	14.47	18.50	1.81
0.583	1.11	6.583	1.81	12.583	7.44	18.58	1.81
0.667	1.11	6.667	1.81	12.667	7.44	18.67	1.81
0.750	1.11	6.750	1.81	12.750	7.44	18.75	1.81
0.833	1.11	6.833	1.81	12.833	7.44	18.83	1.81
0.917	1.11	6.917	1.81	12.917	7.44	18.92	1.81
1.000	1.11	7.000	1.81	13.000	7.44	19.00	1.81
1.083	1.11	7.083	2.21	13.083	5.43	19.08	1.81
1.167	1.11	7.167	2.21	13.167	5.43	19.17	1.81
1.250	1.11	7.250	2.21	13.250	5.43	19.25	1.81
1.333	1.11	7.333	2.21	13.333	5.43	19.33	1.81
1.417	1.11	7.417	2.21	13.417	5.43	19.42	1.81
1.500	1.11	7.500	2.21	13.500	5.43	19.50	1.81
1.583	1.11	7.583	2.21	13.583	4.22	19.58	1.81
1.667	1.11	7.667	2.21	13.667	4.22	19.67	1.81
1.750	1.11	7.750	2.21	13.750	4.22	19.75	1.81
1.833	1.11	7.833	2.21	13.833	4.22	19.83	1.81
1.917	1.11	7.917	2.21	13.917	4.22	19.92	1.81
2.000	1.11	8.000	2.21	14.000	4.22	20.00	1.81
2.083	1.31	8.083	2.61	14.083	3.02	20.08	1.21
2.167	1.31	8.167	2.61	14.167	3.02	20.17	1.21
2.250	1.31	8.250	2.61	14.250	3.02	20.25	1.21
2.333	1.31	8.333	2.61	14.333	3.02	20.33	1.21
2.417	1.31	8.417	2.61	14.417	3.02	20.42	1.21
2.500	1.31	8.500	2.61	14.500	3.02	20.50	1.21
2.583	1.31	8.583	2.81	14.583	3.02	20.58	1.21
2.667	1.31	8.667	2.81	14.667	3.02	20.67	1.21
2.750	1.31	8.750	2.81	14.750	3.02	20.75	1.21
2.833	1.31	8.833	2.81	14.833	3.02	20.83	1.21
2.917	1.31	8.917	2.81	14.917	3.02	20.92	1.21
3.000	1.31	9.000	2.81	15.000	3.02	21.00	1.21
3.083	1.31	9.083	3.22	15.083	3.02	21.08	1.21
3.167	1.31	9.167	3.22	15.167	3.02	21.17	1.21
3.250	1.31	9.250	3.22	15.250	3.02	21.25	1.21
3.333	1.31	9.333	3.22	15.333	3.02	21.33	1.21
3.417	1.31	9.417	3.22	15.417	3.02	21.42	1.21
3.500	1.31	9.500	3.22	15.500	3.02	21.50	1.21
3.583	1.31	9.583	3.62	15.583	3.02	21.58	1.21
3.667	1.31	9.667	3.62	15.667	3.02	21.67	1.21
3.750	1.31	9.750	3.62	15.750	3.02	21.75	1.21
3.833	1.31	9.833	3.62	15.833	3.02	21.83	1.21
3.917	1.31	9.917	3.62	15.917	3.02	21.92	1.21
4.000	1.31	10.000	3.62	16.000	3.02	22.00	1.21

4.083	1.61	10.083	4.62	16.083	1.81	22.08	1.21
4.167	1.61	10.167	4.62	16.167	1.81	22.17	1.21
4.250	1.61	10.250	4.62	16.250	1.81	22.25	1.21
4.333	1.61	10.333	4.62	16.333	1.81	22.33	1.21
4.417	1.61	10.417	4.62	16.417	1.81	22.42	1.21
4.500	1.61	10.500	4.62	16.500	1.81	22.50	1.21
4.583	1.61	10.583	6.23	16.583	1.81	22.58	1.21
4.667	1.61	10.667	6.23	16.667	1.81	22.67	1.21
4.750	1.61	10.750	6.23	16.750	1.81	22.75	1.21
4.833	1.61	10.833	6.23	16.833	1.81	22.83	1.21
4.917	1.61	10.917	6.23	16.917	1.81	22.92	1.21
5.000	1.61	11.000	6.23	17.000	1.81	23.00	1.21
5.083	1.61	11.083	9.65	17.083	1.81	23.08	1.21
5.167	1.61	11.167	9.65	17.167	1.81	23.17	1.21
5.250	1.61	11.250	9.65	17.250	1.81	23.25	1.21
5.333	1.61	11.333	9.65	17.333	1.81	23.33	1.21
5.417	1.61	11.417	9.65	17.417	1.81	23.42	1.21
5.500	1.61	11.500	9.65	17.500	1.81	23.50	1.21
5.583	1.61	11.583	41.81	17.583	1.81	23.58	1.21
5.667	1.61	11.667	41.81	17.667	1.81	23.67	1.21
5.750	1.61	11.750	41.81	17.750	1.81	23.75	1.21
5.833	1.61	11.833	110.94	17.833	1.81	23.83	1.21
5.917	1.61	11.917	110.95	17.917	1.81	23.92	1.21
6.000	1.61	12.000	110.95	18.000	1.81	24.00	1.21

Max.Eff.Inten.(mm/hr)=	110.95	88.79
over (min)	5.00	5.00
Storage Coeff. (min)=	0.74 (ii)	1.81 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.34	0.32

			TOTALS
PEAK FLOW (cms)=	0.01	0.00	0.008 (iii)
TIME TO PEAK (hrs)=	12.00	12.00	12.00
RUNOFF VOLUME (mm)=	99.55	68.19	94.40
TOTAL RAINFALL (mm)=	100.55	100.55	100.55
RUNOFF COEFFICIENT =	0.99	0.68	0.94

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0009)				
1 + 2 = 3				

ID1= 1 (0001):	0.45	0.139	12.00	99.23
+ ID2= 2 (0015):	0.05	0.013	12.00	81.90
=====				
ID = 3 (0009):	0.50	0.152	12.00	97.44

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0009)				
3 + 2 = 1				

ID1= 3 (0009):	0.50	0.152	12.00	97.44
+ ID2= 2 (0018):	0.03	0.008	12.00	94.40
=====				
ID = 1 (0009):	0.53	0.160	12.00	97.29

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0009)				
1 + 2 = 3				

ID1= 1 (0009):	0.53	0.160	12.00	97.29
+ ID2= 2 (0005):	0.95	0.270	12.00	91.71
=====				
ID = 3 (0009):	1.48	0.431	12.00	93.71

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0009)				
3 + 2 = 1				

ID1= 3 (0009):	1.48	0.431	12.00	93.71
+ ID2= 2 (0006):	0.92	0.257	12.00	90.14
=====				
ID = 1 (0009):	2.41	0.687	12.00	92.34

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB			
STANDHYD (0002)	Area (ha)=	0.19	
ID= 1 DT= 5.0 min	Total Imp(%)=	98.00	Dir. Conn.(%)= 98.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.19	0.00	
Dep. Storage (mm)=	1.00	1.50	
Average Slope (%)=	1.00	2.00	
Length (m)=	35.52	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	1.11	6.083	1.81	12.083	14.48	18.08	1.81
0.167	1.11	6.167	1.81	12.167	14.47	18.17	1.81
0.250	1.11	6.250	1.81	12.250	14.47	18.25	1.81
0.333	1.11	6.333	1.81	12.333	14.47	18.33	1.81
0.417	1.11	6.417	1.81	12.417	14.47	18.42	1.81
0.500	1.11	6.500	1.81	12.500	14.47	18.50	1.81
0.583	1.11	6.583	1.81	12.583	7.44	18.58	1.81
0.667	1.11	6.667	1.81	12.667	7.44	18.67	1.81
0.750	1.11	6.750	1.81	12.750	7.44	18.75	1.81
0.833	1.11	6.833	1.81	12.833	7.44	18.83	1.81
0.917	1.11	6.917	1.81	12.917	7.44	18.92	1.81
1.000	1.11	7.000	1.81	13.000	7.44	19.00	1.81
1.083	1.11	7.083	2.21	13.083	5.43	19.08	1.81
1.167	1.11	7.167	2.21	13.167	5.43	19.17	1.81
1.250	1.11	7.250	2.21	13.250	5.43	19.25	1.81
1.333	1.11	7.333	2.21	13.333	5.43	19.33	1.81
1.417	1.11	7.417	2.21	13.417	5.43	19.42	1.81
1.500	1.11	7.500	2.21	13.500	5.43	19.50	1.81
1.583	1.11	7.583	2.21	13.583	4.22	19.58	1.81
1.667	1.11	7.667	2.21	13.667	4.22	19.67	1.81
1.750	1.11	7.750	2.21	13.750	4.22	19.75	1.81
1.833	1.11	7.833	2.21	13.833	4.22	19.83	1.81
1.917	1.11	7.917	2.21	13.917	4.22	19.92	1.81
2.000	1.11	8.000	2.21	14.000	4.22	20.00	1.81

2.083	1.31	8.083	2.61	14.083	3.02	20.08	1.21
2.167	1.31	8.167	2.61	14.167	3.02	20.17	1.21
2.250	1.31	8.250	2.61	14.250	3.02	20.25	1.21
2.333	1.31	8.333	2.61	14.333	3.02	20.33	1.21
2.417	1.31	8.417	2.61	14.417	3.02	20.42	1.21
2.500	1.31	8.500	2.61	14.500	3.02	20.50	1.21
2.583	1.31	8.583	2.81	14.583	3.02	20.58	1.21
2.667	1.31	8.667	2.81	14.667	3.02	20.67	1.21
2.750	1.31	8.750	2.81	14.750	3.02	20.75	1.21
2.833	1.31	8.833	2.81	14.833	3.02	20.83	1.21
2.917	1.31	8.917	2.81	14.917	3.02	20.92	1.21
3.000	1.31	9.000	2.81	15.000	3.02	21.00	1.21
3.083	1.31	9.083	3.22	15.083	3.02	21.08	1.21
3.167	1.31	9.167	3.22	15.167	3.02	21.17	1.21
3.250	1.31	9.250	3.22	15.250	3.02	21.25	1.21
3.333	1.31	9.333	3.22	15.333	3.02	21.33	1.21
3.417	1.31	9.417	3.22	15.417	3.02	21.42	1.21
3.500	1.31	9.500	3.22	15.500	3.02	21.50	1.21
3.583	1.31	9.583	3.62	15.583	3.02	21.58	1.21
3.667	1.31	9.667	3.62	15.667	3.02	21.67	1.21
3.750	1.31	9.750	3.62	15.750	3.02	21.75	1.21
3.833	1.31	9.833	3.62	15.833	3.02	21.83	1.21
3.917	1.31	9.917	3.62	15.917	3.02	21.92	1.21
4.000	1.31	10.000	3.62	16.000	3.02	22.00	1.21
4.083	1.61	10.083	4.62	16.083	1.81	22.08	1.21
4.167	1.61	10.167	4.62	16.167	1.81	22.17	1.21
4.250	1.61	10.250	4.62	16.250	1.81	22.25	1.21
4.333	1.61	10.333	4.62	16.333	1.81	22.33	1.21
4.417	1.61	10.417	4.62	16.417	1.81	22.42	1.21
4.500	1.61	10.500	4.62	16.500	1.81	22.50	1.21
4.583	1.61	10.583	6.23	16.583	1.81	22.58	1.21
4.667	1.61	10.667	6.23	16.667	1.81	22.67	1.21
4.750	1.61	10.750	6.23	16.750	1.81	22.75	1.21
4.833	1.61	10.833	6.23	16.833	1.81	22.83	1.21
4.917	1.61	10.917	6.23	16.917	1.81	22.92	1.21
5.000	1.61	11.000	6.23	17.000	1.81	23.00	1.21
5.083	1.61	11.083	9.65	17.083	1.81	23.08	1.21
5.167	1.61	11.167	9.65	17.167	1.81	23.17	1.21
5.250	1.61	11.250	9.65	17.250	1.81	23.25	1.21
5.333	1.61	11.333	9.65	17.333	1.81	23.33	1.21
5.417	1.61	11.417	9.65	17.417	1.81	23.42	1.21
5.500	1.61	11.500	9.65	17.500	1.81	23.50	1.21
5.583	1.61	11.583	41.81	17.583	1.81	23.58	1.21
5.667	1.61	11.667	41.81	17.667	1.81	23.67	1.21
5.750	1.61	11.750	41.81	17.750	1.81	23.75	1.21
5.833	1.61	11.833	110.94	17.833	1.81	23.83	1.21
5.917	1.61	11.917	110.95	17.917	1.81	23.92	1.21
6.000	1.61	12.000	110.95	18.000	1.81	24.00	1.21

Max.Eff.Inten.(mm/hr)= 110.95 88.79
over (min) 5.00 5.00
Storage Coeff. (min)= 1.32 (ii) 2.74 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.33 0.28

PEAK FLOW (cms)= 0.06 0.00 0.058 (iii)
TIME TO PEAK (hrs)= 12.00 12.00 12.00
RUNOFF VOLUME (mm)= 99.55 68.19 98.92
TOTAL RAINFALL (mm)= 100.55 100.55 100.55
RUNOFF COEFFICIENT = 0.99 0.68 0.98

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| CALIB |
| STANDHYD (0003) | Area (ha)= 0.05
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	0.05	0.00
Dep. Storage	(mm)=	1.00	1.50
Average Slope	(%)=	1.00	2.00
Length	(m)=	19.11	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	1.11	6.083	1.81	12.083	14.48	18.08	1.81
0.167	1.11	6.167	1.81	12.167	14.47	18.17	1.81
0.250	1.11	6.250	1.81	12.250	14.47	18.25	1.81
0.333	1.11	6.333	1.81	12.333	14.47	18.33	1.81
0.417	1.11	6.417	1.81	12.417	14.47	18.42	1.81
0.500	1.11	6.500	1.81	12.500	14.47	18.50	1.81
0.583	1.11	6.583	1.81	12.583	7.44	18.58	1.81
0.667	1.11	6.667	1.81	12.667	7.44	18.67	1.81
0.750	1.11	6.750	1.81	12.750	7.44	18.75	1.81
0.833	1.11	6.833	1.81	12.833	7.44	18.83	1.81
0.917	1.11	6.917	1.81	12.917	7.44	18.92	1.81
1.000	1.11	7.000	1.81	13.000	7.44	19.00	1.81
1.083	1.11	7.083	2.21	13.083	5.43	19.08	1.81
1.167	1.11	7.167	2.21	13.167	5.43	19.17	1.81
1.250	1.11	7.250	2.21	13.250	5.43	19.25	1.81
1.333	1.11	7.333	2.21	13.333	5.43	19.33	1.81
1.417	1.11	7.417	2.21	13.417	5.43	19.42	1.81
1.500	1.11	7.500	2.21	13.500	5.43	19.50	1.81
1.583	1.11	7.583	2.21	13.583	4.22	19.58	1.81
1.667	1.11	7.667	2.21	13.667	4.22	19.67	1.81
1.750	1.11	7.750	2.21	13.750	4.22	19.75	1.81
1.833	1.11	7.833	2.21	13.833	4.22	19.83	1.81
1.917	1.11	7.917	2.21	13.917	4.22	19.92	1.81
2.000	1.11	8.000	2.21	14.000	4.22	20.00	1.81
2.083	1.31	8.083	2.61	14.083	3.02	20.08	1.21
2.167	1.31	8.167	2.61	14.167	3.02	20.17	1.21
2.250	1.31	8.250	2.61	14.250	3.02	20.25	1.21
2.333	1.31	8.333	2.61	14.333	3.02	20.33	1.21
2.417	1.31	8.417	2.61	14.417	3.02	20.42	1.21
2.500	1.31	8.500	2.61	14.500	3.02	20.50	1.21
2.583	1.31	8.583	2.81	14.583	3.02	20.58	1.21
2.667	1.31	8.667	2.81	14.667	3.02	20.67	1.21
2.750	1.31	8.750	2.81	14.750	3.02	20.75	1.21
2.833	1.31	8.833	2.81	14.833	3.02	20.83	1.21
2.917	1.31	8.917	2.81	14.917	3.02	20.92	1.21
3.000	1.31	9.000	2.81	15.000	3.02	21.00	1.21
3.083	1.31	9.083	3.22	15.083	3.02	21.08	1.21
3.167	1.31	9.167	3.22	15.167	3.02	21.17	1.21
3.250	1.31	9.250	3.22	15.250	3.02	21.25	1.21
3.333	1.31	9.333	3.22	15.333	3.02	21.33	1.21
3.417	1.31	9.417	3.22	15.417	3.02	21.42	1.21
3.500	1.31	9.500	3.22	15.500	3.02	21.50	1.21
3.583	1.31	9.583	3.62	15.583	3.02	21.58	1.21
3.667	1.31	9.667	3.62	15.667	3.02	21.67	1.21
3.750	1.31	9.750	3.62	15.750	3.02	21.75	1.21
3.833	1.31	9.833	3.62	15.833	3.02	21.83	1.21
3.917	1.31	9.917	3.62	15.917	3.02	21.92	1.21
4.000	1.31	10.000	3.62	16.000	3.02	22.00	1.21

4.083	1.61	10.083	4.62	16.083	1.81	22.08	1.21
4.167	1.61	10.167	4.62	16.167	1.81	22.17	1.21
4.250	1.61	10.250	4.62	16.250	1.81	22.25	1.21
4.333	1.61	10.333	4.62	16.333	1.81	22.33	1.21
4.417	1.61	10.417	4.62	16.417	1.81	22.42	1.21
4.500	1.61	10.500	4.62	16.500	1.81	22.50	1.21
4.583	1.61	10.583	6.23	16.583	1.81	22.58	1.21
4.667	1.61	10.667	6.23	16.667	1.81	22.67	1.21
4.750	1.61	10.750	6.23	16.750	1.81	22.75	1.21
4.833	1.61	10.833	6.23	16.833	1.81	22.83	1.21
4.917	1.61	10.917	6.23	16.917	1.81	22.92	1.21
5.000	1.61	11.000	6.23	17.000	1.81	23.00	1.21
5.083	1.61	11.083	9.65	17.083	1.81	23.08	1.21
5.167	1.61	11.167	9.65	17.167	1.81	23.17	1.21
5.250	1.61	11.250	9.65	17.250	1.81	23.25	1.21
5.333	1.61	11.333	9.65	17.333	1.81	23.33	1.21
5.417	1.61	11.417	9.65	17.417	1.81	23.42	1.21
5.500	1.61	11.500	9.65	17.500	1.81	23.50	1.21
5.583	1.61	11.583	41.81	17.583	1.81	23.58	1.21
5.667	1.61	11.667	41.81	17.667	1.81	23.67	1.21
5.750	1.61	11.750	41.81	17.750	1.81	23.75	1.21
5.833	1.61	11.833	110.94	17.833	1.81	23.83	1.21
5.917	1.61	11.917	110.95	17.917	1.81	23.92	1.21
6.000	1.61	12.000	110.95	18.000	1.81	24.00	1.21

Max.Eff.Inten.(mm/hr)= 110.95 88.79
over (min) 5.00 5.00
Storage Coeff. (min)= 0.91 (ii) 1.99 (ii)
Unit Hyd. Tpeak (min)= 5.00
Unit Hyd. peak (cms)= 0.34 0.31

PEAK FLOW (cms)= 0.02 0.00
TIME TO PEAK (hrs)= 12.00 12.00
RUNOFF VOLUME (mm)= 99.55 68.19
TOTAL RAINFALL (mm)= 100.55 100.55
RUNOFF COEFFICIENT = 0.99 0.68

TOTALS

0.017 (iii)
12.00
99.24
100.55
0.99

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0004)
ID= 1 DT= 5.0 min
Area (ha)= 0.14
Total Imp(%)= 86.00 Dir. Conn.(%)= 86.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.12 0.02
Dep. Storage (mm)= 1.00 1.50
Average Slope (%)= 1.00 2.00
Length (m)= 30.63 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	1.11	6.083	1.81	12.083	14.48	18.08	1.81
0.167	1.11	6.167	1.81	12.167	14.47	18.17	1.81
0.250	1.11	6.250	1.81	12.250	14.47	18.25	1.81
0.333	1.11	6.333	1.81	12.333	14.47	18.33	1.81

0.417	1.11	6.417	1.81	12.417	14.47	18.42	1.81
0.500	1.11	6.500	1.81	12.500	14.47	18.50	1.81
0.583	1.11	6.583	1.81	12.583	7.44	18.58	1.81
0.667	1.11	6.667	1.81	12.667	7.44	18.67	1.81
0.750	1.11	6.750	1.81	12.750	7.44	18.75	1.81
0.833	1.11	6.833	1.81	12.833	7.44	18.83	1.81
0.917	1.11	6.917	1.81	12.917	7.44	18.92	1.81
1.000	1.11	7.000	1.81	13.000	7.44	19.00	1.81
1.083	1.11	7.083	2.21	13.083	5.43	19.08	1.81
1.167	1.11	7.167	2.21	13.167	5.43	19.17	1.81
1.250	1.11	7.250	2.21	13.250	5.43	19.25	1.81
1.333	1.11	7.333	2.21	13.333	5.43	19.33	1.81
1.417	1.11	7.417	2.21	13.417	5.43	19.42	1.81
1.500	1.11	7.500	2.21	13.500	5.43	19.50	1.81
1.583	1.11	7.583	2.21	13.583	4.22	19.58	1.81
1.667	1.11	7.667	2.21	13.667	4.22	19.67	1.81
1.750	1.11	7.750	2.21	13.750	4.22	19.75	1.81
1.833	1.11	7.833	2.21	13.833	4.22	19.83	1.81
1.917	1.11	7.917	2.21	13.917	4.22	19.92	1.81
2.000	1.11	8.000	2.21	14.000	4.22	20.00	1.81
2.083	1.31	8.083	2.61	14.083	3.02	20.08	1.21
2.167	1.31	8.167	2.61	14.167	3.02	20.17	1.21
2.250	1.31	8.250	2.61	14.250	3.02	20.25	1.21
2.333	1.31	8.333	2.61	14.333	3.02	20.33	1.21
2.417	1.31	8.417	2.61	14.417	3.02	20.42	1.21
2.500	1.31	8.500	2.61	14.500	3.02	20.50	1.21
2.583	1.31	8.583	2.81	14.583	3.02	20.58	1.21
2.667	1.31	8.667	2.81	14.667	3.02	20.67	1.21
2.750	1.31	8.750	2.81	14.750	3.02	20.75	1.21
2.833	1.31	8.833	2.81	14.833	3.02	20.83	1.21
2.917	1.31	8.917	2.81	14.917	3.02	20.92	1.21
3.000	1.31	9.000	2.81	15.000	3.02	21.00	1.21
3.083	1.31	9.083	3.22	15.083	3.02	21.08	1.21
3.167	1.31	9.167	3.22	15.167	3.02	21.17	1.21
3.250	1.31	9.250	3.22	15.250	3.02	21.25	1.21
3.333	1.31	9.333	3.22	15.333	3.02	21.33	1.21
3.417	1.31	9.417	3.22	15.417	3.02	21.42	1.21
3.500	1.31	9.500	3.22	15.500	3.02	21.50	1.21
3.583	1.31	9.583	3.62	15.583	3.02	21.58	1.21
3.667	1.31	9.667	3.62	15.667	3.02	21.67	1.21
3.750	1.31	9.750	3.62	15.750	3.02	21.75	1.21
3.833	1.31	9.833	3.62	15.833	3.02	21.83	1.21
3.917	1.31	9.917	3.62	15.917	3.02	21.92	1.21
4.000	1.31	10.000	3.62	16.000	3.02	22.00	1.21
4.083	1.61	10.083	4.62	16.083	1.81	22.08	1.21
4.167	1.61	10.167	4.62	16.167	1.81	22.17	1.21
4.250	1.61	10.250	4.62	16.250	1.81	22.25	1.21
4.333	1.61	10.333	4.62	16.333	1.81	22.33	1.21
4.417	1.61	10.417	4.62	16.417	1.81	22.42	1.21
4.500	1.61	10.500	4.62	16.500	1.81	22.50	1.21
4.583	1.61	10.583	6.23	16.583	1.81	22.58	1.21
4.667	1.61	10.667	6.23	16.667	1.81	22.67	1.21
4.750	1.61	10.750	6.23	16.750	1.81	22.75	1.21
4.833	1.61	10.833	6.23	16.833	1.81	22.83	1.21
4.917	1.61	10.917	6.23	16.917	1.81	22.92	1.21
5.000	1.61	11.000	6.23	17.000	1.81	23.00	1.21
5.083	1.61	11.083	9.65	17.083	1.81	23.08	1.21
5.167	1.61	11.167	9.65	17.167	1.81	23.17	1.21
5.250	1.61	11.250	9.65	17.250	1.81	23.25	1.21
5.333	1.61	11.333	9.65	17.333	1.81	23.33	1.21
5.417	1.61	11.417	9.65	17.417	1.81	23.42	1.21
5.500	1.61	11.500	9.65	17.500	1.81	23.50	1.21
5.583	1.61	11.583	41.81	17.583	1.81	23.58	1.21
5.667	1.61	11.667	41.81	17.667	1.81	23.67	1.21
5.750	1.61	11.750	41.81	17.750	1.81	23.75	1.21
5.833	1.61	11.833	110.94	17.833	1.81	23.83	1.21
5.917	1.61	11.917	110.95	17.917	1.81	23.92	1.21
6.000	1.61	12.000	110.95	18.000	1.81	24.00	1.21

Max.Eff.Inten.(mm/hr)= 110.95 88.79
over (min) 5.00 5.00
Storage Coeff. (min)= 1.20 (ii) 4.48 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.33 0.23

PEAK FLOW (cms)= 0.04 0.00
TIME TO PEAK (hrs)= 12.00 12.00
RUNOFF VOLUME (mm)= 99.55 68.19
TOTAL RAINFALL (mm)= 100.55 100.55
RUNOFF COEFFICIENT = 0.99 0.68

TOTALS
0.042 (iii)
12.00
95.15
100.55
0.95

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

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0012)
ID= 1 DT= 5.0 min

Area (ha)= 0.07
Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PVIOUS (i)
Surface Area (ha)= 0.07 0.00
Dep. Storage (mm)= 1.00 1.50
Average Slope (%)= 1.00 2.00
Length (m)= 21.88 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	1.11	6.083	1.81	12.083	14.48	18.08	1.81
0.167	1.11	6.167	1.81	12.167	14.47	18.17	1.81
0.250	1.11	6.250	1.81	12.250	14.47	18.25	1.81
0.333	1.11	6.333	1.81	12.333	14.47	18.33	1.81
0.417	1.11	6.417	1.81	12.417	14.47	18.42	1.81
0.500	1.11	6.500	1.81	12.500	14.47	18.50	1.81
0.583	1.11	6.583	1.81	12.583	7.44	18.58	1.81
0.667	1.11	6.667	1.81	12.667	7.44	18.67	1.81
0.750	1.11	6.750	1.81	12.750	7.44	18.75	1.81
0.833	1.11	6.833	1.81	12.833	7.44	18.83	1.81
0.917	1.11	6.917	1.81	12.917	7.44	18.92	1.81
1.000	1.11	7.000	1.81	13.000	7.44	19.00	1.81
1.083	1.11	7.083	2.21	13.083	5.43	19.08	1.81
1.167	1.11	7.167	2.21	13.167	5.43	19.17	1.81
1.250	1.11	7.250	2.21	13.250	5.43	19.25	1.81
1.333	1.11	7.333	2.21	13.333	5.43	19.33	1.81
1.417	1.11	7.417	2.21	13.417	5.43	19.42	1.81
1.500	1.11	7.500	2.21	13.500	5.43	19.50	1.81
1.583	1.11	7.583	2.21	13.583	4.22	19.58	1.81
1.667	1.11	7.667	2.21	13.667	4.22	19.67	1.81
1.750	1.11	7.750	2.21	13.750	4.22	19.75	1.81
1.833	1.11	7.833	2.21	13.833	4.22	19.83	1.81
1.917	1.11	7.917	2.21	13.917	4.22	19.92	1.81
2.000	1.11	8.000	2.21	14.000	4.22	20.00	1.81
2.083	1.31	8.083	2.61	14.083	3.02	20.08	1.21
2.167	1.31	8.167	2.61	14.167	3.02	20.17	1.21
2.250	1.31	8.250	2.61	14.250	3.02	20.25	1.21
2.333	1.31	8.333	2.61	14.333	3.02	20.33	1.21

2.417	1.31	8.417	2.61	14.417	3.02	20.42	1.21
2.500	1.31	8.500	2.61	14.500	3.02	20.50	1.21
2.583	1.31	8.583	2.81	14.583	3.02	20.58	1.21
2.667	1.31	8.667	2.81	14.667	3.02	20.67	1.21
2.750	1.31	8.750	2.81	14.750	3.02	20.75	1.21
2.833	1.31	8.833	2.81	14.833	3.02	20.83	1.21
2.917	1.31	8.917	2.81	14.917	3.02	20.92	1.21
3.000	1.31	9.000	2.81	15.000	3.02	21.00	1.21
3.083	1.31	9.083	3.22	15.083	3.02	21.08	1.21
3.167	1.31	9.167	3.22	15.167	3.02	21.17	1.21
3.250	1.31	9.250	3.22	15.250	3.02	21.25	1.21
3.333	1.31	9.333	3.22	15.333	3.02	21.33	1.21
3.417	1.31	9.417	3.22	15.417	3.02	21.42	1.21
3.500	1.31	9.500	3.22	15.500	3.02	21.50	1.21
3.583	1.31	9.583	3.62	15.583	3.02	21.58	1.21
3.667	1.31	9.667	3.62	15.667	3.02	21.67	1.21
3.750	1.31	9.750	3.62	15.750	3.02	21.75	1.21
3.833	1.31	9.833	3.62	15.833	3.02	21.83	1.21
3.917	1.31	9.917	3.62	15.917	3.02	21.92	1.21
4.000	1.31	10.000	3.62	16.000	3.02	22.00	1.21
4.083	1.61	10.083	4.62	16.083	1.81	22.08	1.21
4.167	1.61	10.167	4.62	16.167	1.81	22.17	1.21
4.250	1.61	10.250	4.62	16.250	1.81	22.25	1.21
4.333	1.61	10.333	4.62	16.333	1.81	22.33	1.21
4.417	1.61	10.417	4.62	16.417	1.81	22.42	1.21
4.500	1.61	10.500	4.62	16.500	1.81	22.50	1.21
4.583	1.61	10.583	6.23	16.583	1.81	22.58	1.21
4.667	1.61	10.667	6.23	16.667	1.81	22.67	1.21
4.750	1.61	10.750	6.23	16.750	1.81	22.75	1.21
4.833	1.61	10.833	6.23	16.833	1.81	22.83	1.21
4.917	1.61	10.917	6.23	16.917	1.81	22.92	1.21
5.000	1.61	11.000	6.23	17.000	1.81	23.00	1.21
5.083	1.61	11.083	9.65	17.083	1.81	23.08	1.21
5.167	1.61	11.167	9.65	17.167	1.81	23.17	1.21
5.250	1.61	11.250	9.65	17.250	1.81	23.25	1.21
5.333	1.61	11.333	9.65	17.333	1.81	23.33	1.21
5.417	1.61	11.417	9.65	17.417	1.81	23.42	1.21
5.500	1.61	11.500	9.65	17.500	1.81	23.50	1.21
5.583	1.61	11.583	41.81	17.583	1.81	23.58	1.21
5.667	1.61	11.667	41.81	17.667	1.81	23.67	1.21
5.750	1.61	11.750	41.81	17.750	1.81	23.75	1.21
5.833	1.61	11.833	110.94	17.833	1.81	23.83	1.21
5.917	1.61	11.917	110.95	17.917	1.81	23.92	1.21
6.000	1.61	12.000	110.95	18.000	1.81	24.00	1.21

Max.Eff.Inten.(mm/hr)= 110.95 88.79
over (min) 5.00 5.00
Storage Coeff. (min)= 0.98 (ii) 2.06 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.34 0.31

TOTALS
PEAK FLOW (cms)= 0.02 0.00 0.022 (iii)
TIME TO PEAK (hrs)= 12.00 12.00 12.00
RUNOFF VOLUME (mm)= 99.55 68.19 99.24
TOTAL RAINFALL (mm)= 100.55 100.55 100.55
RUNOFF COEFFICIENT = 0.99 0.68 0.99

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

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```
| ADD HYD ( 0007) |
| 1 + 2 = 3 |
=====
ID1= 1 ( 0012): 0.07 0.022 12.00 99.24
+ ID2= 2 ( 0002): 0.19 0.058 12.00 98.92
=====
ID = 3 ( 0007): 0.26 0.080 12.00 99.01
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```
| ADD HYD ( 0007) |
| 3 + 2 = 1 |
=====
ID1= 3 ( 0007): 0.26 0.080 12.00 99.01
+ ID2= 2 ( 0003): 0.05 0.017 12.00 99.24
=====
ID = 1 ( 0007): 0.32 0.097 12.00 99.05
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```
| ADD HYD ( 0007) |
| 1 + 2 = 3 |
=====
ID1= 1 ( 0007): 0.32 0.097 12.00 99.05
+ ID2= 2 ( 0004): 0.14 0.042 12.00 95.15
=====
ID = 3 ( 0007): 0.46 0.139 12.00 97.85
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```
| RESERVOIR( 0014) |
| IN= 2----> OUT= 1 |
| DT= 5.0 min |
=====
| OUTFLOW | STORAGE | OUTFLOW | STORAGE |
| (cms) | (ha.m.) | (cms) | (ha.m.) |
|-----|-----|-----|-----|
| 0.0000 | 0.0000 | 0.0880 | 0.0054 |
| 0.0000 | 0.0008 | 0.0950 | 0.0062 |
| 0.0360 | 0.0015 | 0.1020 | 0.0070 |
| 0.0510 | 0.0023 | 0.1080 | 0.0077 |
| 0.0620 | 0.0031 | 0.1140 | 0.0085 |
| 0.0720 | 0.0039 | 0.1200 | 0.0093 |
| 0.0810 | 0.0046 | 0.0000 | 0.0000 |
=====
| AREA | QPEAK | TPEAK | R.V. |
| (ha) | (cms) | (hrs) | (mm) | |
|---|---|---|---|---|
| INFLOW : ID= 2 ( 0007) | 0.456 | 0.139 | 12.00 | 97.85 |
| OUTFLOW: ID= 1 ( 0014) | 0.456 | 0.098 | 12.00 | 96.09 |
```

PEAK FLOW REDUCTION [Qout/Qin](%)= 70.39
TIME SHIFT OF PEAK FLOW (min)= 0.00
MAXIMUM STORAGE USED (ha.m.)= 0.0071

```
| ADD HYD ( 0017) |
| 1 + 2 = 3 |
=====
ID1= 1 ( 0014): 0.46 0.098 12.00 96.09
+ ID2= 2 ( 0009): 2.41 0.687 12.00 92.34
=====
ID = 3 ( 0017): 2.86 0.785 12.00 92.94
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```
-----
=====
V V I SSSSS U U A L (v 6.2.2022)
V V I SS U U A A L
V V I SS U U A A L
V V I SS U U A A L
VV I SSSSS UUUUU A A LLLLL

000 TTTT TTTT H H Y Y M M 000 TM
0 0 T T H H Y Y MM MM 0 0
0 0 T T H H Y M M 0 0
000 T T H H Y M M 000
```

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

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\V02\voin.dat
Output filename: C:\Users\ffisl\AppData\Local\Civica\XH5\dae7608f-82b9-4213-85a0-cec48cda5646\62427250-b513-4337-a264-f14738ce0593\scenar
Summary filename: C:\Users\ffisl\AppData\Local\Civica\XH5\dae7608f-82b9-4213-85a0-cec48cda5646\62427250-b513-4337-a264-f14738ce0593\scenar

DATE: 12-02-2025

TIME: 06:29:03

USER:

COMMENTS: _____

```
-----
*****
** SIMULATION : 050-year **
*****
```

```
| READ STORM |
| |
| Ptotal=111.70 mm |
|-----|
Filename: C:\Users\ffisl\AppData\Local\Temp\65ee925f-bdec-4dce-8f1a-7fb2dd9de23e\9618b99f
Comments: 50-yr, 24-hr SCS Type II Distribution St
```

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.00	1.23	6.00	2.01	12.00	16.08	18.00	2.01
0.25	1.23	6.25	2.01	12.25	16.08	18.25	2.01
0.50	1.23	6.50	2.01	12.50	8.27	18.50	2.01
0.75	1.23	6.75	2.01	12.75	8.27	18.75	2.01
1.00	1.23	7.00	2.46	13.00	6.03	19.00	2.01
1.25	1.23	7.25	2.46	13.25	6.03	19.25	2.01
1.50	1.23	7.50	2.46	13.50	4.69	19.50	2.01
1.75	1.23	7.75	2.46	13.75	4.69	19.75	2.01
2.00	1.45	8.00	2.90	14.00	3.35	20.00	1.34
2.25	1.45	8.25	2.90	14.25	3.35	20.25	1.34
2.50	1.45	8.50	3.13	14.50	3.35	20.50	1.34
2.75	1.45	8.75	3.13	14.75	3.35	20.75	1.34
3.00	1.45	9.00	3.57	15.00	3.35	21.00	1.34
3.25	1.45	9.25	3.57	15.25	3.35	21.25	1.34
3.50	1.45	9.50	4.02	15.50	3.35	21.50	1.34

3.75	1.45	9.75	4.02	15.75	3.35	21.75	1.34
4.00	1.79	10.00	5.14	16.00	2.01	22.00	1.34
4.25	1.79	10.25	5.14	16.25	2.01	22.25	1.34
4.50	1.79	10.50	6.93	16.50	2.01	22.50	1.34
4.75	1.79	10.75	6.93	16.75	2.01	22.75	1.34
5.00	1.79	11.00	10.72	17.00	2.01	23.00	1.34
5.25	1.79	11.25	10.72	17.25	2.01	23.25	1.34
5.50	1.79	11.50	46.47	17.50	2.01	23.50	1.34
5.75	1.79	11.75	123.32	17.75	2.01	23.75	1.34

| CALIB
| STANDHYD (0001)
ID= 1 DT= 5.0 min

Area (ha)= 0.45
Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.45	0.00
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	54.94	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	1.23	6.083	2.01	12.083	16.09	18.08	2.01
0.167	1.23	6.167	2.01	12.167	16.08	18.17	2.01
0.250	1.23	6.250	2.01	12.250	16.08	18.25	2.01
0.333	1.23	6.333	2.01	12.333	16.08	18.33	2.01
0.417	1.23	6.417	2.01	12.417	16.08	18.42	2.01
0.500	1.23	6.500	2.01	12.500	16.08	18.50	2.01
0.583	1.23	6.583	2.01	12.583	8.27	18.58	2.01
0.667	1.23	6.667	2.01	12.667	8.27	18.67	2.01
0.750	1.23	6.750	2.01	12.750	8.27	18.75	2.01
0.833	1.23	6.833	2.01	12.833	8.27	18.83	2.01
0.917	1.23	6.917	2.01	12.917	8.27	18.92	2.01
1.000	1.23	7.000	2.01	13.000	8.27	19.00	2.01
1.083	1.23	7.083	2.46	13.083	6.03	19.08	2.01
1.167	1.23	7.167	2.46	13.167	6.03	19.17	2.01
1.250	1.23	7.250	2.46	13.250	6.03	19.25	2.01
1.333	1.23	7.333	2.46	13.333	6.03	19.33	2.01
1.417	1.23	7.417	2.46	13.417	6.03	19.42	2.01
1.500	1.23	7.500	2.46	13.500	6.03	19.50	2.01
1.583	1.23	7.583	2.46	13.583	4.69	19.58	2.01
1.667	1.23	7.667	2.46	13.667	4.69	19.67	2.01
1.750	1.23	7.750	2.46	13.750	4.69	19.75	2.01
1.833	1.23	7.833	2.46	13.833	4.69	19.83	2.01
1.917	1.23	7.917	2.46	13.917	4.69	19.92	2.01
2.000	1.23	8.000	2.46	14.000	4.69	20.00	2.01
2.083	1.45	8.083	2.90	14.083	3.35	20.08	1.34
2.167	1.45	8.167	2.90	14.167	3.35	20.17	1.34
2.250	1.45	8.250	2.90	14.250	3.35	20.25	1.34
2.333	1.45	8.333	2.90	14.333	3.35	20.33	1.34
2.417	1.45	8.417	2.90	14.417	3.35	20.42	1.34
2.500	1.45	8.500	2.90	14.500	3.35	20.50	1.34
2.583	1.45	8.583	3.13	14.583	3.35	20.58	1.34
2.667	1.45	8.667	3.13	14.667	3.35	20.67	1.34
2.750	1.45	8.750	3.13	14.750	3.35	20.75	1.34
2.833	1.45	8.833	3.13	14.833	3.35	20.83	1.34
2.917	1.45	8.917	3.13	14.917	3.35	20.92	1.34
3.000	1.45	9.000	3.13	15.000	3.35	21.00	1.34
3.083	1.45	9.083	3.57	15.083	3.35	21.08	1.34
3.167	1.45	9.167	3.57	15.167	3.35	21.17	1.34

3.250	1.45	9.250	3.57	15.250	3.35	21.25	1.34
3.333	1.45	9.333	3.57	15.333	3.35	21.33	1.34
3.417	1.45	9.417	3.57	15.417	3.35	21.42	1.34
3.500	1.45	9.500	3.57	15.500	3.35	21.50	1.34
3.583	1.45	9.583	4.02	15.583	3.35	21.58	1.34
3.667	1.45	9.667	4.02	15.667	3.35	21.67	1.34
3.750	1.45	9.750	4.02	15.750	3.35	21.75	1.34
3.833	1.45	9.833	4.02	15.833	3.35	21.83	1.34
3.917	1.45	9.917	4.02	15.917	3.35	21.92	1.34
4.000	1.45	10.000	4.02	16.000	3.35	22.00	1.34
4.083	1.79	10.083	5.14	16.083	2.01	22.08	1.34
4.167	1.79	10.167	5.14	16.167	2.01	22.17	1.34
4.250	1.79	10.250	5.14	16.250	2.01	22.25	1.34
4.333	1.79	10.333	5.14	16.333	2.01	22.33	1.34
4.417	1.79	10.417	5.14	16.417	2.01	22.42	1.34
4.500	1.79	10.500	5.14	16.500	2.01	22.50	1.34
4.583	1.79	10.583	6.93	16.583	2.01	22.58	1.34
4.667	1.79	10.667	6.93	16.667	2.01	22.67	1.34
4.750	1.79	10.750	6.93	16.750	2.01	22.75	1.34
4.833	1.79	10.833	6.93	16.833	2.01	22.83	1.34
4.917	1.79	10.917	6.93	16.917	2.01	22.92	1.34
5.000	1.79	11.000	6.93	17.000	2.01	23.00	1.34
5.083	1.79	11.083	10.72	17.083	2.01	23.08	1.34
5.167	1.79	11.167	10.72	17.167	2.01	23.17	1.34
5.250	1.79	11.250	10.72	17.250	2.01	23.25	1.34
5.333	1.79	11.333	10.72	17.333	2.01	23.33	1.34
5.417	1.79	11.417	10.72	17.417	2.01	23.42	1.34
5.500	1.79	11.500	10.72	17.500	2.01	23.50	1.34
5.583	1.79	11.583	46.47	17.583	2.01	23.58	1.34
5.667	1.79	11.667	46.47	17.667	2.01	23.67	1.34
5.750	1.79	11.750	46.47	17.750	2.01	23.75	1.34
5.833	1.79	11.833	123.31	17.833	2.01	23.83	1.34
5.917	1.79	11.917	123.32	17.917	2.01	23.92	1.34
6.000	1.79	12.000	123.32	18.000	2.01	24.00	1.34

Max.Eff.Inten.(mm/hr)= 123.32 101.52
over (min) 5.00 5.00
Storage Coeff. (min)= 1.64 (ii) 2.67 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.32 0.29

TOTALS
PEAK FLOW (cms)= 0.15 0.00 0.155 (iii)
TIME TO PEAK (hrs)= 12.00 12.00 12.00
RUNOFF VOLUME (mm)= 110.70 78.33 110.37
TOTAL RAINFALL (mm)= 111.70 111.70 111.70
RUNOFF COEFFICIENT = 0.99 0.70 0.99

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

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| CALIB
| STANDHYD (0005)
ID= 1 DT= 5.0 min

Area (ha)= 0.95
Total Imp(%)= 75.00 Dir. Conn.(%)= 75.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.71	0.24
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	79.65	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	1.23	6.083	2.01	12.083	16.09	18.08	2.01
0.167	1.23	6.167	2.01	12.167	16.08	18.17	2.01
0.250	1.23	6.250	2.01	12.250	16.08	18.25	2.01
0.333	1.23	6.333	2.01	12.333	16.08	18.33	2.01
0.417	1.23	6.417	2.01	12.417	16.08	18.42	2.01
0.500	1.23	6.500	2.01	12.500	16.08	18.50	2.01
0.583	1.23	6.583	2.01	12.583	8.27	18.58	2.01
0.667	1.23	6.667	2.01	12.667	8.27	18.67	2.01
0.750	1.23	6.750	2.01	12.750	8.27	18.75	2.01
0.833	1.23	6.833	2.01	12.833	8.27	18.83	2.01
0.917	1.23	6.917	2.01	12.917	8.27	18.92	2.01
1.000	1.23	7.000	2.01	13.000	8.27	19.00	2.01
1.083	1.23	7.083	2.46	13.083	6.03	19.08	2.01
1.167	1.23	7.167	2.46	13.167	6.03	19.17	2.01
1.250	1.23	7.250	2.46	13.250	6.03	19.25	2.01
1.333	1.23	7.333	2.46	13.333	6.03	19.33	2.01
1.417	1.23	7.417	2.46	13.417	6.03	19.42	2.01
1.500	1.23	7.500	2.46	13.500	6.03	19.50	2.01
1.583	1.23	7.583	2.46	13.583	4.69	19.58	2.01
1.667	1.23	7.667	2.46	13.667	4.69	19.67	2.01
1.750	1.23	7.750	2.46	13.750	4.69	19.75	2.01
1.833	1.23	7.833	2.46	13.833	4.69	19.83	2.01
1.917	1.23	7.917	2.46	13.917	4.69	19.92	2.01
2.000	1.23	8.000	2.46	14.000	4.69	20.00	2.01
2.083	1.45	8.083	2.90	14.083	3.35	20.08	1.34
2.167	1.45	8.167	2.90	14.167	3.35	20.17	1.34
2.250	1.45	8.250	2.90	14.250	3.35	20.25	1.34
2.333	1.45	8.333	2.90	14.333	3.35	20.33	1.34
2.417	1.45	8.417	2.90	14.417	3.35	20.42	1.34
2.500	1.45	8.500	2.90	14.500	3.35	20.50	1.34
2.583	1.45	8.583	3.13	14.583	3.35	20.58	1.34
2.667	1.45	8.667	3.13	14.667	3.35	20.67	1.34
2.750	1.45	8.750	3.13	14.750	3.35	20.75	1.34
2.833	1.45	8.833	3.13	14.833	3.35	20.83	1.34
2.917	1.45	8.917	3.13	14.917	3.35	20.92	1.34
3.000	1.45	9.000	3.13	15.000	3.35	21.00	1.34
3.083	1.45	9.083	3.57	15.083	3.35	21.08	1.34
3.167	1.45	9.167	3.57	15.167	3.35	21.17	1.34
3.250	1.45	9.250	3.57	15.250	3.35	21.25	1.34
3.333	1.45	9.333	3.57	15.333	3.35	21.33	1.34
3.417	1.45	9.417	3.57	15.417	3.35	21.42	1.34
3.500	1.45	9.500	3.57	15.500	3.35	21.50	1.34
3.583	1.45	9.583	4.02	15.583	3.35	21.58	1.34
3.667	1.45	9.667	4.02	15.667	3.35	21.67	1.34
3.750	1.45	9.750	4.02	15.750	3.35	21.75	1.34
3.833	1.45	9.833	4.02	15.833	3.35	21.83	1.34
3.917	1.45	9.917	4.02	15.917	3.35	21.92	1.34
4.000	1.45	10.000	4.02	16.000	3.35	22.00	1.34
4.083	1.79	10.083	5.14	16.083	2.01	22.08	1.34
4.167	1.79	10.167	5.14	16.167	2.01	22.17	1.34
4.250	1.79	10.250	5.14	16.250	2.01	22.25	1.34
4.333	1.79	10.333	5.14	16.333	2.01	22.33	1.34
4.417	1.79	10.417	5.14	16.417	2.01	22.42	1.34
4.500	1.79	10.500	5.14	16.500	2.01	22.50	1.34
4.583	1.79	10.583	6.93	16.583	2.01	22.58	1.34
4.667	1.79	10.667	6.93	16.667	2.01	22.67	1.34
4.750	1.79	10.750	6.93	16.750	2.01	22.75	1.34
4.833	1.79	10.833	6.93	16.833	2.01	22.83	1.34
4.917	1.79	10.917	6.93	16.917	2.01	22.92	1.34
5.000	1.79	11.000	6.93	17.000	2.01	23.00	1.34
5.083	1.79	11.083	10.72	17.083	2.01	23.08	1.34
5.167	1.79	11.167	10.72	17.167	2.01	23.17	1.34

5.250	1.79	11.250	10.72	17.250	2.01	23.25	1.34
5.333	1.79	11.333	10.72	17.333	2.01	23.33	1.34
5.417	1.79	11.417	10.72	17.417	2.01	23.42	1.34
5.500	1.79	11.500	10.72	17.500	2.01	23.50	1.34
5.583	1.79	11.583	46.47	17.583	2.01	23.58	1.34
5.667	1.79	11.667	46.47	17.667	2.01	23.67	1.34
5.750	1.79	11.750	46.47	17.750	2.01	23.75	1.34
5.833	1.79	11.833	123.31	17.833	2.01	23.83	1.34
5.917	1.79	11.917	123.32	17.917	2.01	23.92	1.34
6.000	1.79	12.000	123.32	18.000	2.01	24.00	1.34

Max.Eff.Inten.(mm/hr)=	123.32	101.52	
over (min)	5.00	10.00	
Storage Coeff. (min)=	2.05 (ii)	6.23 (ii)	
Unit Hyd. Tpeak (min)=	5.00	10.00	
Unit Hyd. peak (cms)=	0.31	0.15	
			TOTALS
PEAK FLOW (cms)=	0.24	0.06	0.303 (iii)
TIME TO PEAK (hrs)=	12.00	12.00	12.00
RUNOFF VOLUME (mm)=	110.70	78.33	102.60
TOTAL RAINFALL (mm)=	111.70	111.70	111.70
RUNOFF COEFFICIENT =	0.99	0.70	0.92

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (0006)	Area (ha)=	0.92	
ID= 1 DT= 5.0 min	Total Imp(%)=	70.00	Dir. Conn.(%)= 70.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.65	0.28
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	78.45	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	1.23	6.083	2.01	12.083	16.09	18.08	2.01
0.167	1.23	6.167	2.01	12.167	16.08	18.17	2.01
0.250	1.23	6.250	2.01	12.250	16.08	18.25	2.01
0.333	1.23	6.333	2.01	12.333	16.08	18.33	2.01
0.417	1.23	6.417	2.01	12.417	16.08	18.42	2.01
0.500	1.23	6.500	2.01	12.500	16.08	18.50	2.01
0.583	1.23	6.583	2.01	12.583	8.27	18.58	2.01
0.667	1.23	6.667	2.01	12.667	8.27	18.67	2.01
0.750	1.23	6.750	2.01	12.750	8.27	18.75	2.01
0.833	1.23	6.833	2.01	12.833	8.27	18.83	2.01
0.917	1.23	6.917	2.01	12.917	8.27	18.92	2.01
1.000	1.23	7.000	2.01	13.000	8.27	19.00	2.01
1.083	1.23	7.083	2.46	13.083	6.03	19.08	2.01
1.167	1.23	7.167	2.46	13.167	6.03	19.17	2.01
1.250	1.23	7.250	2.46	13.250	6.03	19.25	2.01
1.333	1.23	7.333	2.46	13.333	6.03	19.33	2.01
1.417	1.23	7.417	2.46	13.417	6.03	19.42	2.01
1.500	1.23	7.500	2.46	13.500	6.03	19.50	2.01

1.583	1.23	7.583	2.46	13.583	4.69	19.58	2.01
1.667	1.23	7.667	2.46	13.667	4.69	19.67	2.01
1.750	1.23	7.750	2.46	13.750	4.69	19.75	2.01
1.833	1.23	7.833	2.46	13.833	4.69	19.83	2.01
1.917	1.23	7.917	2.46	13.917	4.69	19.92	2.01
2.000	1.23	8.000	2.46	14.000	4.69	20.00	2.01
2.083	1.45	8.083	2.90	14.083	3.35	20.08	1.34
2.167	1.45	8.167	2.90	14.167	3.35	20.17	1.34
2.250	1.45	8.250	2.90	14.250	3.35	20.25	1.34
2.333	1.45	8.333	2.90	14.333	3.35	20.33	1.34
2.417	1.45	8.417	2.90	14.417	3.35	20.42	1.34
2.500	1.45	8.500	2.90	14.500	3.35	20.50	1.34
2.583	1.45	8.583	3.13	14.583	3.35	20.58	1.34
2.667	1.45	8.667	3.13	14.667	3.35	20.67	1.34
2.750	1.45	8.750	3.13	14.750	3.35	20.75	1.34
2.833	1.45	8.833	3.13	14.833	3.35	20.83	1.34
2.917	1.45	8.917	3.13	14.917	3.35	20.92	1.34
3.000	1.45	9.000	3.13	15.000	3.35	21.00	1.34
3.083	1.45	9.083	3.57	15.083	3.35	21.08	1.34
3.167	1.45	9.167	3.57	15.167	3.35	21.17	1.34
3.250	1.45	9.250	3.57	15.250	3.35	21.25	1.34
3.333	1.45	9.333	3.57	15.333	3.35	21.33	1.34
3.417	1.45	9.417	3.57	15.417	3.35	21.42	1.34
3.500	1.45	9.500	3.57	15.500	3.35	21.50	1.34
3.583	1.45	9.583	4.02	15.583	3.35	21.58	1.34
3.667	1.45	9.667	4.02	15.667	3.35	21.67	1.34
3.750	1.45	9.750	4.02	15.750	3.35	21.75	1.34
3.833	1.45	9.833	4.02	15.833	3.35	21.83	1.34
3.917	1.45	9.917	4.02	15.917	3.35	21.92	1.34
4.000	1.45	10.000	4.02	16.000	3.35	22.00	1.34
4.083	1.79	10.083	5.14	16.083	2.01	22.08	1.34
4.167	1.79	10.167	5.14	16.167	2.01	22.17	1.34
4.250	1.79	10.250	5.14	16.250	2.01	22.25	1.34
4.333	1.79	10.333	5.14	16.333	2.01	22.33	1.34
4.417	1.79	10.417	5.14	16.417	2.01	22.42	1.34
4.500	1.79	10.500	5.14	16.500	2.01	22.50	1.34
4.583	1.79	10.583	6.93	16.583	2.01	22.58	1.34
4.667	1.79	10.667	6.93	16.667	2.01	22.67	1.34
4.750	1.79	10.750	6.93	16.750	2.01	22.75	1.34
4.833	1.79	10.833	6.93	16.833	2.01	22.83	1.34
4.917	1.79	10.917	6.93	16.917	2.01	22.92	1.34
5.000	1.79	11.000	6.93	17.000	2.01	23.00	1.34
5.083	1.79	11.083	10.72	17.083	2.01	23.08	1.34
5.167	1.79	11.167	10.72	17.167	2.01	23.17	1.34
5.250	1.79	11.250	10.72	17.250	2.01	23.25	1.34
5.333	1.79	11.333	10.72	17.333	2.01	23.33	1.34
5.417	1.79	11.417	10.72	17.417	2.01	23.42	1.34
5.500	1.79	11.500	10.72	17.500	2.01	23.50	1.34
5.583	1.79	11.583	46.47	17.583	2.01	23.58	1.34
5.667	1.79	11.667	46.47	17.667	2.01	23.67	1.34
5.750	1.79	11.750	46.47	17.750	2.01	23.75	1.34
5.833	1.79	11.833	123.31	17.833	2.01	23.83	1.34
5.917	1.79	11.917	123.32	17.917	2.01	23.92	1.34
6.000	1.79	12.000	123.32	18.000	2.01	24.00	1.34

Max.Eff.Inten.(mm/hr)= 123.32 101.52
over (min) 5.00 10.00
Storage Coeff. (min)= 2.03 (ii) 6.66 (ii)
Unit Hyd. Tpeak (min)= 5.00 10.00
Unit Hyd. peak (cms)= 0.31 0.14

PEAK FLOW (cms)= 0.22 0.07 0.288 (iii)
TIME TO PEAK (hrs)= 12.00 12.00 12.00
RUNOFF VOLUME (mm)= 110.70 78.33 100.98
TOTAL RAINFALL (mm)= 111.70 111.70 111.70
RUNOFF COEFFICIENT = 0.99 0.70 0.90

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0015)
ID= 1 DT= 5.0 min
Area (ha)= 0.05
Total Imp(%)= 44.00 Dir. Conn.(%)= 44.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.02 0.03
Dep. Storage (mm)= 1.00 1.50
Average Slope (%)= 1.00 2.00
Length (m)= 18.62 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	1.23	6.083	2.01	12.083	16.09	18.08	2.01
0.167	1.23	6.167	2.01	12.167	16.08	18.17	2.01
0.250	1.23	6.250	2.01	12.250	16.08	18.25	2.01
0.333	1.23	6.333	2.01	12.333	16.08	18.33	2.01
0.417	1.23	6.417	2.01	12.417	16.08	18.42	2.01
0.500	1.23	6.500	2.01	12.500	16.08	18.50	2.01
0.583	1.23	6.583	2.01	12.583	8.27	18.58	2.01
0.667	1.23	6.667	2.01	12.667	8.27	18.67	2.01
0.750	1.23	6.750	2.01	12.750	8.27	18.75	2.01
0.833	1.23	6.833	2.01	12.833	8.27	18.83	2.01
0.917	1.23	6.917	2.01	12.917	8.27	18.92	2.01
1.000	1.23	7.000	2.01	13.000	8.27	19.00	2.01
1.083	1.23	7.083	2.46	13.083	6.03	19.08	2.01
1.167	1.23	7.167	2.46	13.167	6.03	19.17	2.01
1.250	1.23	7.250	2.46	13.250	6.03	19.25	2.01
1.333	1.23	7.333	2.46	13.333	6.03	19.33	2.01
1.417	1.23	7.417	2.46	13.417	6.03	19.42	2.01
1.500	1.23	7.500	2.46	13.500	6.03	19.50	2.01
1.583	1.23	7.583	2.46	13.583	4.69	19.58	2.01
1.667	1.23	7.667	2.46	13.667	4.69	19.67	2.01
1.750	1.23	7.750	2.46	13.750	4.69	19.75	2.01
1.833	1.23	7.833	2.46	13.833	4.69	19.83	2.01
1.917	1.23	7.917	2.46	13.917	4.69	19.92	2.01
2.000	1.23	8.000	2.46	14.000	4.69	20.00	2.01
2.083	1.45	8.083	2.90	14.083	3.35	20.08	1.34
2.167	1.45	8.167	2.90	14.167	3.35	20.17	1.34
2.250	1.45	8.250	2.90	14.250	3.35	20.25	1.34
2.333	1.45	8.333	2.90	14.333	3.35	20.33	1.34
2.417	1.45	8.417	2.90	14.417	3.35	20.42	1.34
2.500	1.45	8.500	2.90	14.500	3.35	20.50	1.34
2.583	1.45	8.583	3.13	14.583	3.35	20.58	1.34
2.667	1.45	8.667	3.13	14.667	3.35	20.67	1.34
2.750	1.45	8.750	3.13	14.750	3.35	20.75	1.34
2.833	1.45	8.833	3.13	14.833	3.35	20.83	1.34
2.917	1.45	8.917	3.13	14.917	3.35	20.92	1.34
3.000	1.45	9.000	3.13	15.000	3.35	21.00	1.34
3.083	1.45	9.083	3.57	15.083	3.35	21.08	1.34
3.167	1.45	9.167	3.57	15.167	3.35	21.17	1.34
3.250	1.45	9.250	3.57	15.250	3.35	21.25	1.34
3.333	1.45	9.333	3.57	15.333	3.35	21.33	1.34
3.417	1.45	9.417	3.57	15.417	3.35	21.42	1.34
3.500	1.45	9.500	3.57	15.500	3.35	21.50	1.34

3.583	1.45	9.583	4.02	15.583	3.35	21.58	1.34
3.667	1.45	9.667	4.02	15.667	3.35	21.67	1.34
3.750	1.45	9.750	4.02	15.750	3.35	21.75	1.34
3.833	1.45	9.833	4.02	15.833	3.35	21.83	1.34
3.917	1.45	9.917	4.02	15.917	3.35	21.92	1.34
4.000	1.45	10.000	4.02	16.000	3.35	22.00	1.34
4.083	1.79	10.083	5.14	16.083	2.01	22.08	1.34
4.167	1.79	10.167	5.14	16.167	2.01	22.17	1.34
4.250	1.79	10.250	5.14	16.250	2.01	22.25	1.34
4.333	1.79	10.333	5.14	16.333	2.01	22.33	1.34
4.417	1.79	10.417	5.14	16.417	2.01	22.42	1.34
4.500	1.79	10.500	5.14	16.500	2.01	22.50	1.34
4.583	1.79	10.583	6.93	16.583	2.01	22.58	1.34
4.667	1.79	10.667	6.93	16.667	2.01	22.67	1.34
4.750	1.79	10.750	6.93	16.750	2.01	22.75	1.34
4.833	1.79	10.833	6.93	16.833	2.01	22.83	1.34
4.917	1.79	10.917	6.93	16.917	2.01	22.92	1.34
5.000	1.79	11.000	6.93	17.000	2.01	23.00	1.34
5.083	1.79	11.083	10.72	17.083	2.01	23.08	1.34
5.167	1.79	11.167	10.72	17.167	2.01	23.17	1.34
5.250	1.79	11.250	10.72	17.250	2.01	23.25	1.34
5.333	1.79	11.333	10.72	17.333	2.01	23.33	1.34
5.417	1.79	11.417	10.72	17.417	2.01	23.42	1.34
5.500	1.79	11.500	10.72	17.500	2.01	23.50	1.34
5.583	1.79	11.583	46.47	17.583	2.01	23.58	1.34
5.667	1.79	11.667	46.47	17.667	2.01	23.67	1.34
5.750	1.79	11.750	46.47	17.750	2.01	23.75	1.34
5.833	1.79	11.833	123.31	17.833	2.01	23.83	1.34
5.917	1.79	11.917	123.32	17.917	2.01	23.92	1.34
6.000	1.79	12.000	123.32	18.000	2.01	24.00	1.34

Max.Eff.Inten.(mm/hr)= 123.32 101.52
over (min) 5.00 10.00
Storage Coeff. (min)= 0.86 (ii) 7.87 (ii)
Unit Hyd. Tpeak (min)= 5.00 10.00
Unit Hyd. peak (cms)= 0.34 0.13

TOTALS
PEAK FLOW (cms)= 0.01 0.01 0.015 (iii)
TIME TO PEAK (hrs)= 12.00 12.00 12.00
RUNOFF VOLUME (mm)= 110.70 78.33 92.48
TOTAL RAINFALL (mm)= 111.70 111.70 111.70
RUNOFF COEFFICIENT = 0.99 0.70 0.83

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| CALIB |
| STANDHYD (0018) | Area (ha)= 0.03
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.03 0.00
Dep. Storage (mm)= 1.00 1.50
Average Slope (%)= 1.00 2.00
Length (m)= 13.49 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	1.23	6.083	2.01	12.083	16.09	18.08	2.01
0.167	1.23	6.167	2.01	12.167	16.08	18.17	2.01
0.250	1.23	6.250	2.01	12.250	16.08	18.25	2.01
0.333	1.23	6.333	2.01	12.333	16.08	18.33	2.01
0.417	1.23	6.417	2.01	12.417	16.08	18.42	2.01
0.500	1.23	6.500	2.01	12.500	16.08	18.50	2.01
0.583	1.23	6.583	2.01	12.583	8.27	18.58	2.01
0.667	1.23	6.667	2.01	12.667	8.27	18.67	2.01
0.750	1.23	6.750	2.01	12.750	8.27	18.75	2.01
0.833	1.23	6.833	2.01	12.833	8.27	18.83	2.01
0.917	1.23	6.917	2.01	12.917	8.27	18.92	2.01
1.000	1.23	7.000	2.01	13.000	8.27	19.00	2.01
1.083	1.23	7.083	2.46	13.083	6.03	19.08	2.01
1.167	1.23	7.167	2.46	13.167	6.03	19.17	2.01
1.250	1.23	7.250	2.46	13.250	6.03	19.25	2.01
1.333	1.23	7.333	2.46	13.333	6.03	19.33	2.01
1.417	1.23	7.417	2.46	13.417	6.03	19.42	2.01
1.500	1.23	7.500	2.46	13.500	6.03	19.50	2.01
1.583	1.23	7.583	2.46	13.583	4.69	19.58	2.01
1.667	1.23	7.667	2.46	13.667	4.69	19.67	2.01
1.750	1.23	7.750	2.46	13.750	4.69	19.75	2.01
1.833	1.23	7.833	2.46	13.833	4.69	19.83	2.01
1.917	1.23	7.917	2.46	13.917	4.69	19.92	2.01
2.000	1.23	8.000	2.46	14.000	4.69	20.00	2.01
2.083	1.45	8.083	2.90	14.083	3.35	20.08	1.34
2.167	1.45	8.167	2.90	14.167	3.35	20.17	1.34
2.250	1.45	8.250	2.90	14.250	3.35	20.25	1.34
2.333	1.45	8.333	2.90	14.333	3.35	20.33	1.34
2.417	1.45	8.417	2.90	14.417	3.35	20.42	1.34
2.500	1.45	8.500	2.90	14.500	3.35	20.50	1.34
2.583	1.45	8.583	3.13	14.583	3.35	20.58	1.34
2.667	1.45	8.667	3.13	14.667	3.35	20.67	1.34
2.750	1.45	8.750	3.13	14.750	3.35	20.75	1.34
2.833	1.45	8.833	3.13	14.833	3.35	20.83	1.34
2.917	1.45	8.917	3.13	14.917	3.35	20.92	1.34
3.000	1.45	9.000	3.13	15.000	3.35	21.00	1.34
3.083	1.45	9.083	3.57	15.083	3.35	21.08	1.34
3.167	1.45	9.167	3.57	15.167	3.35	21.17	1.34
3.250	1.45	9.250	3.57	15.250	3.35	21.25	1.34
3.333	1.45	9.333	3.57	15.333	3.35	21.33	1.34
3.417	1.45	9.417	3.57	15.417	3.35	21.42	1.34
3.500	1.45	9.500	3.57	15.500	3.35	21.50	1.34
3.583	1.45	9.583	4.02	15.583	3.35	21.58	1.34
3.667	1.45	9.667	4.02	15.667	3.35	21.67	1.34
3.750	1.45	9.750	4.02	15.750	3.35	21.75	1.34
3.833	1.45	9.833	4.02	15.833	3.35	21.83	1.34
3.917	1.45	9.917	4.02	15.917	3.35	21.92	1.34
4.000	1.45	10.000	4.02	16.000	3.35	22.00	1.34
4.083	1.79	10.083	5.14	16.083	2.01	22.08	1.34
4.167	1.79	10.167	5.14	16.167	2.01	22.17	1.34
4.250	1.79	10.250	5.14	16.250	2.01	22.25	1.34
4.333	1.79	10.333	5.14	16.333	2.01	22.33	1.34
4.417	1.79	10.417	5.14	16.417	2.01	22.42	1.34
4.500	1.79	10.500	5.14	16.500	2.01	22.50	1.34
4.583	1.79	10.583	6.93	16.583	2.01	22.58	1.34
4.667	1.79	10.667	6.93	16.667	2.01	22.67	1.34
4.750	1.79	10.750	6.93	16.750	2.01	22.75	1.34
4.833	1.79	10.833	6.93	16.833	2.01	22.83	1.34
4.917	1.79	10.917	6.93	16.917	2.01	22.92	1.34
5.000	1.79	11.000	6.93	17.000	2.01	23.00	1.34
5.083	1.79	11.083	10.72	17.083	2.01	23.08	1.34
5.167	1.79	11.167	10.72	17.167	2.01	23.17	1.34
5.250	1.79	11.250	10.72	17.250	2.01	23.25	1.34
5.333	1.79	11.333	10.72	17.333	2.01	23.33	1.34
5.417	1.79	11.417	10.72	17.417	2.01	23.42	1.34
5.500	1.79	11.500	10.72	17.500	2.01	23.50	1.34

5.583	1.79	11.583	46.47	17.583	2.01	23.58	1.34
5.667	1.79	11.667	46.47	17.667	2.01	23.67	1.34
5.750	1.79	11.750	46.47	17.750	2.01	23.75	1.34
5.833	1.79	11.833	123.31	17.833	2.01	23.83	1.34
5.917	1.79	11.917	123.32	17.917	2.01	23.92	1.34
6.000	1.79	12.000	123.32	18.000	2.01	24.00	1.34

Max.Eff.Inten.(mm/hr)=	123.32	101.52
over (min)	5.00	5.00
Storage Coeff. (min)=	0.71 (ii)	1.74 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.34	0.32

TOTALS

PEAK FLOW (cms)=	0.01	0.00	0.009 (iii)
TIME TO PEAK (hrs)=	12.00	12.00	12.00
RUNOFF VOLUME (mm)=	110.70	78.33	110.37
TOTAL RAINFALL (mm)=	111.70	111.70	111.70
RUNOFF COEFFICIENT =	0.99	0.70	0.99

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0009)				
1 + 2 = 3				

ID1= 1 (0001):	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
+ ID2= 2 (0015):	0.45	0.155	12.00	110.37
=====	0.05	0.015	12.00	92.48
ID = 3 (0009):	0.50	0.169	12.00	108.52

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0009)				
3 + 2 = 1				

ID1= 3 (0009):	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
+ ID2= 2 (0018):	0.50	0.169	12.00	108.52
=====	0.03	0.009	12.00	110.37
ID = 1 (0009):	0.53	0.179	12.00	108.62

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0009)				
1 + 2 = 3				

ID1= 1 (0009):	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
+ ID2= 2 (0005):	0.53	0.179	12.00	108.62
=====	0.95	0.303	12.00	102.60
ID = 3 (0009):	1.48	0.481	12.00	104.76

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0009)				
3 + 2 = 1				

	AREA	QPEAK	TPEAK	R.V.

	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (0009):	1.48	0.481	12.00	104.76
+ ID2= 2 (0006):	0.92	0.288	12.00	100.98
=====				
ID = 1 (0009):	2.41	0.770	12.00	103.31

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB			
STANDHYD (0002)			
ID= 1 DT= 5.0 min			

Area (ha)=	0.19		
Total Imp(%)=	98.00	Dir. Conn.(%)=	98.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.19	0.00
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	35.52	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	1.23	6.083	2.01	12.083	16.09	18.08	2.01
0.167	1.23	6.167	2.01	12.167	16.08	18.17	2.01
0.250	1.23	6.250	2.01	12.250	16.08	18.25	2.01
0.333	1.23	6.333	2.01	12.333	16.08	18.33	2.01
0.417	1.23	6.417	2.01	12.417	16.08	18.42	2.01
0.500	1.23	6.500	2.01	12.500	16.08	18.50	2.01
0.583	1.23	6.583	2.01	12.583	8.27	18.58	2.01
0.667	1.23	6.667	2.01	12.667	8.27	18.67	2.01
0.750	1.23	6.750	2.01	12.750	8.27	18.75	2.01
0.833	1.23	6.833	2.01	12.833	8.27	18.83	2.01
0.917	1.23	6.917	2.01	12.917	8.27	18.92	2.01
1.000	1.23	7.000	2.01	13.000	8.27	19.00	2.01
1.083	1.23	7.083	2.46	13.083	6.03	19.08	2.01
1.167	1.23	7.167	2.46	13.167	6.03	19.17	2.01
1.250	1.23	7.250	2.46	13.250	6.03	19.25	2.01
1.333	1.23	7.333	2.46	13.333	6.03	19.33	2.01
1.417	1.23	7.417	2.46	13.417	6.03	19.42	2.01
1.500	1.23	7.500	2.46	13.500	6.03	19.50	2.01
1.583	1.23	7.583	2.46	13.583	4.69	19.58	2.01
1.667	1.23	7.667	2.46	13.667	4.69	19.67	2.01
1.750	1.23	7.750	2.46	13.750	4.69	19.75	2.01
1.833	1.23	7.833	2.46	13.833	4.69	19.83	2.01
1.917	1.23	7.917	2.46	13.917	4.69	19.92	2.01
2.000	1.23	8.000	2.46	14.000	4.69	20.00	2.01
2.083	1.45	8.083	2.90	14.083	3.35	20.08	1.34
2.167	1.45	8.167	2.90	14.167	3.35	20.17	1.34
2.250	1.45	8.250	2.90	14.250	3.35	20.25	1.34
2.333	1.45	8.333	2.90	14.333	3.35	20.33	1.34
2.417	1.45	8.417	2.90	14.417	3.35	20.42	1.34
2.500	1.45	8.500	2.90	14.500	3.35	20.50	1.34
2.583	1.45	8.583	3.13	14.583	3.35	20.58	1.34
2.667	1.45	8.667	3.13	14.667	3.35	20.67	1.34
2.750	1.45	8.750	3.13	14.750	3.35	20.75	1.34
2.833	1.45	8.833	3.13	14.833	3.35	20.83	1.34
2.917	1.45	8.917	3.13	14.917	3.35	20.92	1.34
3.000	1.45	9.000	3.13	15.000	3.35	21.00	1.34
3.083	1.45	9.083	3.57	15.083	3.35	21.08	1.34
3.167	1.45	9.167	3.57	15.167	3.35	21.17	1.34
3.250	1.45	9.250	3.57	15.250	3.35	21.25	1.34
3.333	1.45	9.333	3.57	15.333	3.35	21.33	1.34
3.417	1.45	9.417	3.57	15.417	3.35	21.42	1.34
3.500	1.45	9.500	3.57	15.500	3.35	21.50	1.34

3.583	1.45	9.583	4.02	15.583	3.35	21.58	1.34
3.667	1.45	9.667	4.02	15.667	3.35	21.67	1.34
3.750	1.45	9.750	4.02	15.750	3.35	21.75	1.34
3.833	1.45	9.833	4.02	15.833	3.35	21.83	1.34
3.917	1.45	9.917	4.02	15.917	3.35	21.92	1.34
4.000	1.45	10.000	4.02	16.000	3.35	22.00	1.34
4.083	1.79	10.083	5.14	16.083	2.01	22.08	1.34
4.167	1.79	10.167	5.14	16.167	2.01	22.17	1.34
4.250	1.79	10.250	5.14	16.250	2.01	22.25	1.34
4.333	1.79	10.333	5.14	16.333	2.01	22.33	1.34
4.417	1.79	10.417	5.14	16.417	2.01	22.42	1.34
4.500	1.79	10.500	5.14	16.500	2.01	22.50	1.34
4.583	1.79	10.583	6.93	16.583	2.01	22.58	1.34
4.667	1.79	10.667	6.93	16.667	2.01	22.67	1.34
4.750	1.79	10.750	6.93	16.750	2.01	22.75	1.34
4.833	1.79	10.833	6.93	16.833	2.01	22.83	1.34
4.917	1.79	10.917	6.93	16.917	2.01	22.92	1.34
5.000	1.79	11.000	6.93	17.000	2.01	23.00	1.34
5.083	1.79	11.083	10.72	17.083	2.01	23.08	1.34
5.167	1.79	11.167	10.72	17.167	2.01	23.17	1.34
5.250	1.79	11.250	10.72	17.250	2.01	23.25	1.34
5.333	1.79	11.333	10.72	17.333	2.01	23.33	1.34
5.417	1.79	11.417	10.72	17.417	2.01	23.42	1.34
5.500	1.79	11.500	10.72	17.500	2.01	23.50	1.34
5.583	1.79	11.583	46.47	17.583	2.01	23.58	1.34
5.667	1.79	11.667	46.47	17.667	2.01	23.67	1.34
5.750	1.79	11.750	46.47	17.750	2.01	23.75	1.34
5.833	1.79	11.833	123.31	17.833	2.01	23.83	1.34
5.917	1.79	11.917	123.32	17.917	2.01	23.92	1.34
6.000	1.79	12.000	123.32	18.000	2.01	24.00	1.34

Max.Eff.Inten.(mm/hr)= 123.32 101.52
over (min) 5.00 5.00
Storage Coeff. (min)= 1.26 (ii) 2.63 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.33 0.29

TOTALS
PEAK FLOW (cms)= 0.06 0.00 0.065 (iii)
TIME TO PEAK (hrs)= 12.00 12.00 12.00
RUNOFF VOLUME (mm)= 110.70 78.33 110.05
TOTAL RAINFALL (mm)= 111.70 111.70 111.70
RUNOFF COEFFICIENT = 0.99 0.70 0.99

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| CALIB |
| STANDHYD (0003) |
ID= 1 DT= 5.0 min
Area (ha)= 0.05
Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.05 0.00
Dep. Storage (mm)= 1.00 1.50
Average Slope (%)= 1.00 2.00
Length (m)= 19.11 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	1.23	6.083	2.01	12.083	16.09	18.08	2.01
0.167	1.23	6.167	2.01	12.167	16.08	18.17	2.01
0.250	1.23	6.250	2.01	12.250	16.08	18.25	2.01
0.333	1.23	6.333	2.01	12.333	16.08	18.33	2.01
0.417	1.23	6.417	2.01	12.417	16.08	18.42	2.01
0.500	1.23	6.500	2.01	12.500	16.08	18.50	2.01
0.583	1.23	6.583	2.01	12.583	8.27	18.58	2.01
0.667	1.23	6.667	2.01	12.667	8.27	18.67	2.01
0.750	1.23	6.750	2.01	12.750	8.27	18.75	2.01
0.833	1.23	6.833	2.01	12.833	8.27	18.83	2.01
0.917	1.23	6.917	2.01	12.917	8.27	18.92	2.01
1.000	1.23	7.000	2.01	13.000	8.27	19.00	2.01
1.083	1.23	7.083	2.46	13.083	6.03	19.08	2.01
1.167	1.23	7.167	2.46	13.167	6.03	19.17	2.01
1.250	1.23	7.250	2.46	13.250	6.03	19.25	2.01
1.333	1.23	7.333	2.46	13.333	6.03	19.33	2.01
1.417	1.23	7.417	2.46	13.417	6.03	19.42	2.01
1.500	1.23	7.500	2.46	13.500	6.03	19.50	2.01
1.583	1.23	7.583	2.46	13.583	4.69	19.58	2.01
1.667	1.23	7.667	2.46	13.667	4.69	19.67	2.01
1.750	1.23	7.750	2.46	13.750	4.69	19.75	2.01
1.833	1.23	7.833	2.46	13.833	4.69	19.83	2.01
1.917	1.23	7.917	2.46	13.917	4.69	19.92	2.01
2.000	1.23	8.000	2.46	14.000	4.69	20.00	2.01
2.083	1.45	8.083	2.90	14.083	3.35	20.08	1.34
2.167	1.45	8.167	2.90	14.167	3.35	20.17	1.34
2.250	1.45	8.250	2.90	14.250	3.35	20.25	1.34
2.333	1.45	8.333	2.90	14.333	3.35	20.33	1.34
2.417	1.45	8.417	2.90	14.417	3.35	20.42	1.34
2.500	1.45	8.500	2.90	14.500	3.35	20.50	1.34
2.583	1.45	8.583	3.13	14.583	3.35	20.58	1.34
2.667	1.45	8.667	3.13	14.667	3.35	20.67	1.34
2.750	1.45	8.750	3.13	14.750	3.35	20.75	1.34
2.833	1.45	8.833	3.13	14.833	3.35	20.83	1.34
2.917	1.45	8.917	3.13	14.917	3.35	20.92	1.34
3.000	1.45	9.000	3.13	15.000	3.35	21.00	1.34
3.083	1.45	9.083	3.57	15.083	3.35	21.08	1.34
3.167	1.45	9.167	3.57	15.167	3.35	21.17	1.34
3.250	1.45	9.250	3.57	15.250	3.35	21.25	1.34
3.333	1.45	9.333	3.57	15.333	3.35	21.33	1.34
3.417	1.45	9.417	3.57	15.417	3.35	21.42	1.34
3.500	1.45	9.500	3.57	15.500	3.35	21.50	1.34
3.583	1.45	9.583	4.02	15.583	3.35	21.58	1.34
3.667	1.45	9.667	4.02	15.667	3.35	21.67	1.34
3.750	1.45	9.750	4.02	15.750	3.35	21.75	1.34
3.833	1.45	9.833	4.02	15.833	3.35	21.83	1.34
3.917	1.45	9.917	4.02	15.917	3.35	21.92	1.34
4.000	1.45	10.000	4.02	16.000	3.35	22.00	1.34
4.083	1.79	10.083	5.14	16.083	2.01	22.08	1.34
4.167	1.79	10.167	5.14	16.167	2.01	22.17	1.34
4.250	1.79	10.250	5.14	16.250	2.01	22.25	1.34
4.333	1.79	10.333	5.14	16.333	2.01	22.33	1.34
4.417	1.79	10.417	5.14	16.417	2.01	22.42	1.34
4.500	1.79	10.500	5.14	16.500	2.01	22.50	1.34
4.583	1.79	10.583	6.93	16.583	2.01	22.58	1.34
4.667	1.79	10.667	6.93	16.667	2.01	22.67	1.34
4.750	1.79	10.750	6.93	16.750	2.01	22.75	1.34
4.833	1.79	10.833	6.93	16.833	2.01	22.83	1.34
4.917	1.79	10.917	6.93	16.917	2.01	22.92	1.34
5.000	1.79	11.000	6.93	17.000	2.01	23.00	1.34
5.083	1.79	11.083	10.72	17.083	2.01	23.08	1.34
5.167	1.79	11.167	10.72	17.167	2.01	23.17	1.34
5.250	1.79	11.250	10.72	17.250	2.01	23.25	1.34
5.333	1.79	11.333	10.72	17.333	2.01	23.33	1.34
5.417	1.79	11.417	10.72	17.417	2.01	23.42	1.34
5.500	1.79	11.500	10.72	17.500	2.01	23.50	1.34

5.583	1.79	11.583	46.47	17.583	2.01	23.58	1.34
5.667	1.79	11.667	46.47	17.667	2.01	23.67	1.34
5.750	1.79	11.750	46.47	17.750	2.01	23.75	1.34
5.833	1.79	11.833	123.31	17.833	2.01	23.83	1.34
5.917	1.79	11.917	123.32	17.917	2.01	23.92	1.34
6.000	1.79	12.000	123.32	18.000	2.01	24.00	1.34

Max.Eff.Inten.(mm/hr)=	123.32	101.52
over (min)	5.00	5.00
Storage Coeff. (min)=	0.87 (ii)	1.90 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.34	0.32

			TOTALS
PEAK FLOW (cms)=	0.02	0.00	0.019 (iii)
TIME TO PEAK (hrs)=	12.00	12.00	12.00
RUNOFF VOLUME (mm)=	110.70	78.33	110.37
TOTAL RAINFALL (mm)=	111.70	111.70	111.70
RUNOFF COEFFICIENT =	0.99	0.70	0.99

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha)=	0.14
STANDHYD (0004)	Total Imp(%)=	86.00
ID= 1 DT= 5.0 min	Dir. Conn.(%)=	86.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.12	0.02	
Dep. Storage (mm)=	1.00	1.50	
Average Slope (%)=	1.00	2.00	
Length (m)=	30.63	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	1.23	6.083	2.01	12.083	16.09	18.08	2.01
0.167	1.23	6.167	2.01	12.167	16.08	18.17	2.01
0.250	1.23	6.250	2.01	12.250	16.08	18.25	2.01
0.333	1.23	6.333	2.01	12.333	16.08	18.33	2.01
0.417	1.23	6.417	2.01	12.417	16.08	18.42	2.01
0.500	1.23	6.500	2.01	12.500	16.08	18.50	2.01
0.583	1.23	6.583	2.01	12.583	8.27	18.58	2.01
0.667	1.23	6.667	2.01	12.667	8.27	18.67	2.01
0.750	1.23	6.750	2.01	12.750	8.27	18.75	2.01
0.833	1.23	6.833	2.01	12.833	8.27	18.83	2.01
0.917	1.23	6.917	2.01	12.917	8.27	18.92	2.01
1.000	1.23	7.000	2.01	13.000	8.27	19.00	2.01
1.083	1.23	7.083	2.46	13.083	6.03	19.08	2.01
1.167	1.23	7.167	2.46	13.167	6.03	19.17	2.01
1.250	1.23	7.250	2.46	13.250	6.03	19.25	2.01
1.333	1.23	7.333	2.46	13.333	6.03	19.33	2.01
1.417	1.23	7.417	2.46	13.417	6.03	19.42	2.01
1.500	1.23	7.500	2.46	13.500	6.03	19.50	2.01
1.583	1.23	7.583	2.46	13.583	4.69	19.58	2.01
1.667	1.23	7.667	2.46	13.667	4.69	19.67	2.01
1.750	1.23	7.750	2.46	13.750	4.69	19.75	2.01
1.833	1.23	7.833	2.46	13.833	4.69	19.83	2.01

1.917	1.23	7.917	2.46	13.917	4.69	19.92	2.01
2.000	1.23	8.000	2.46	14.000	4.69	20.00	2.01
2.083	1.45	8.083	2.90	14.083	3.35	20.08	1.34
2.167	1.45	8.167	2.90	14.167	3.35	20.17	1.34
2.250	1.45	8.250	2.90	14.250	3.35	20.25	1.34
2.333	1.45	8.333	2.90	14.333	3.35	20.33	1.34
2.417	1.45	8.417	2.90	14.417	3.35	20.42	1.34
2.500	1.45	8.500	2.90	14.500	3.35	20.50	1.34
2.583	1.45	8.583	3.13	14.583	3.35	20.58	1.34
2.667	1.45	8.667	3.13	14.667	3.35	20.67	1.34
2.750	1.45	8.750	3.13	14.750	3.35	20.75	1.34
2.833	1.45	8.833	3.13	14.833	3.35	20.83	1.34
2.917	1.45	8.917	3.13	14.917	3.35	20.92	1.34
3.000	1.45	9.000	3.13	15.000	3.35	21.00	1.34
3.083	1.45	9.083	3.57	15.083	3.35	21.08	1.34
3.167	1.45	9.167	3.57	15.167	3.35	21.17	1.34
3.250	1.45	9.250	3.57	15.250	3.35	21.25	1.34
3.333	1.45	9.333	3.57	15.333	3.35	21.33	1.34
3.417	1.45	9.417	3.57	15.417	3.35	21.42	1.34
3.500	1.45	9.500	3.57	15.500	3.35	21.50	1.34
3.583	1.45	9.583	4.02	15.583	3.35	21.58	1.34
3.667	1.45	9.667	4.02	15.667	3.35	21.67	1.34
3.750	1.45	9.750	4.02	15.750	3.35	21.75	1.34
3.833	1.45	9.833	4.02	15.833	3.35	21.83	1.34
3.917	1.45	9.917	4.02	15.917	3.35	21.92	1.34
4.000	1.45	10.000	4.02	16.000	3.35	22.00	1.34
4.083	1.79	10.083	5.14	16.083	2.01	22.08	1.34
4.167	1.79	10.167	5.14	16.167	2.01	22.17	1.34
4.250	1.79	10.250	5.14	16.250	2.01	22.25	1.34
4.333	1.79	10.333	5.14	16.333	2.01	22.33	1.34
4.417	1.79	10.417	5.14	16.417	2.01	22.42	1.34
4.500	1.79	10.500	5.14	16.500	2.01	22.50	1.34
4.583	1.79	10.583	6.93	16.583	2.01	22.58	1.34
4.667	1.79	10.667	6.93	16.667	2.01	22.67	1.34
4.750	1.79	10.750	6.93	16.750	2.01	22.75	1.34
4.833	1.79	10.833	6.93	16.833	2.01	22.83	1.34
4.917	1.79	10.917	6.93	16.917	2.01	22.92	1.34
5.000	1.79	11.000	6.93	17.000	2.01	23.00	1.34
5.083	1.79	11.083	10.72	17.083	2.01	23.08	1.34
5.167	1.79	11.167	10.72	17.167	2.01	23.17	1.34
5.250	1.79	11.250	10.72	17.250	2.01	23.25	1.34
5.333	1.79	11.333	10.72	17.333	2.01	23.33	1.34
5.417	1.79	11.417	10.72	17.417	2.01	23.42	1.34
5.500	1.79	11.500	10.72	17.500	2.01	23.50	1.34
5.583	1.79	11.583	46.47	17.583	2.01	23.58	1.34
5.667	1.79	11.667	46.47	17.667	2.01	23.67	1.34
5.750	1.79	11.750	46.47	17.750	2.01	23.75	1.34
5.833	1.79	11.833	123.31	17.833	2.01	23.83	1.34
5.917	1.79	11.917	123.32	17.917	2.01	23.92	1.34
6.000	1.79	12.000	123.32	18.000	2.01	24.00	1.34

Max.Eff.Inten.(mm/hr)=	123.32	101.52
over (min)	5.00	5.00
Storage Coeff. (min)=	1.16 (ii)	4.29 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.34	0.23

			TOTALS
PEAK FLOW (cms)=	0.04	0.01	0.047 (iii)
TIME TO PEAK (hrs)=	12.00	12.00	12.00
RUNOFF VOLUME (mm)=	110.70	78.33	106.16
TOTAL RAINFALL (mm)=	111.70	111.70	111.70
RUNOFF COEFFICIENT =	0.99	0.70	0.95

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL

THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0012)
ID= 1 DT= 5.0 min

Area (ha)= 0.07
Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.07 0.00
Dep. Storage (mm)= 1.00 1.50
Average Slope (%)= 1.00 2.00
Length (m)= 21.88 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	1.23	6.083	2.01	12.083	16.09	18.08	2.01
0.167	1.23	6.167	2.01	12.167	16.08	18.17	2.01
0.250	1.23	6.250	2.01	12.250	16.08	18.25	2.01
0.333	1.23	6.333	2.01	12.333	16.08	18.33	2.01
0.417	1.23	6.417	2.01	12.417	16.08	18.42	2.01
0.500	1.23	6.500	2.01	12.500	16.08	18.50	2.01
0.583	1.23	6.583	2.01	12.583	8.27	18.58	2.01
0.667	1.23	6.667	2.01	12.667	8.27	18.67	2.01
0.750	1.23	6.750	2.01	12.750	8.27	18.75	2.01
0.833	1.23	6.833	2.01	12.833	8.27	18.83	2.01
0.917	1.23	6.917	2.01	12.917	8.27	18.92	2.01
1.000	1.23	7.000	2.01	13.000	8.27	19.00	2.01
1.083	1.23	7.083	2.46	13.083	6.03	19.08	2.01
1.167	1.23	7.167	2.46	13.167	6.03	19.17	2.01
1.250	1.23	7.250	2.46	13.250	6.03	19.25	2.01
1.333	1.23	7.333	2.46	13.333	6.03	19.33	2.01
1.417	1.23	7.417	2.46	13.417	6.03	19.42	2.01
1.500	1.23	7.500	2.46	13.500	6.03	19.50	2.01
1.583	1.23	7.583	2.46	13.583	4.69	19.58	2.01
1.667	1.23	7.667	2.46	13.667	4.69	19.67	2.01
1.750	1.23	7.750	2.46	13.750	4.69	19.75	2.01
1.833	1.23	7.833	2.46	13.833	4.69	19.83	2.01
1.917	1.23	7.917	2.46	13.917	4.69	19.92	2.01
2.000	1.23	8.000	2.46	14.000	4.69	20.00	2.01
2.083	1.45	8.083	2.90	14.083	3.35	20.08	1.34
2.167	1.45	8.167	2.90	14.167	3.35	20.17	1.34
2.250	1.45	8.250	2.90	14.250	3.35	20.25	1.34
2.333	1.45	8.333	2.90	14.333	3.35	20.33	1.34
2.417	1.45	8.417	2.90	14.417	3.35	20.42	1.34
2.500	1.45	8.500	2.90	14.500	3.35	20.50	1.34
2.583	1.45	8.583	3.13	14.583	3.35	20.58	1.34
2.667	1.45	8.667	3.13	14.667	3.35	20.67	1.34
2.750	1.45	8.750	3.13	14.750	3.35	20.75	1.34
2.833	1.45	8.833	3.13	14.833	3.35	20.83	1.34
2.917	1.45	8.917	3.13	14.917	3.35	20.92	1.34
3.000	1.45	9.000	3.13	15.000	3.35	21.00	1.34
3.083	1.45	9.083	3.57	15.083	3.35	21.08	1.34
3.167	1.45	9.167	3.57	15.167	3.35	21.17	1.34
3.250	1.45	9.250	3.57	15.250	3.35	21.25	1.34
3.333	1.45	9.333	3.57	15.333	3.35	21.33	1.34
3.417	1.45	9.417	3.57	15.417	3.35	21.42	1.34
3.500	1.45	9.500	3.57	15.500	3.35	21.50	1.34
3.583	1.45	9.583	4.02	15.583	3.35	21.58	1.34
3.667	1.45	9.667	4.02	15.667	3.35	21.67	1.34
3.750	1.45	9.750	4.02	15.750	3.35	21.75	1.34
3.833	1.45	9.833	4.02	15.833	3.35	21.83	1.34

3.917	1.45	9.917	4.02	15.917	3.35	21.92	1.34
4.000	1.45	10.000	4.02	16.000	3.35	22.00	1.34
4.083	1.79	10.083	5.14	16.083	2.01	22.08	1.34
4.167	1.79	10.167	5.14	16.167	2.01	22.17	1.34
4.250	1.79	10.250	5.14	16.250	2.01	22.25	1.34
4.333	1.79	10.333	5.14	16.333	2.01	22.33	1.34
4.417	1.79	10.417	5.14	16.417	2.01	22.42	1.34
4.500	1.79	10.500	5.14	16.500	2.01	22.50	1.34
4.583	1.79	10.583	6.93	16.583	2.01	22.58	1.34
4.667	1.79	10.667	6.93	16.667	2.01	22.67	1.34
4.750	1.79	10.750	6.93	16.750	2.01	22.75	1.34
4.833	1.79	10.833	6.93	16.833	2.01	22.83	1.34
4.917	1.79	10.917	6.93	16.917	2.01	22.92	1.34
5.000	1.79	11.000	6.93	17.000	2.01	23.00	1.34
5.083	1.79	11.083	10.72	17.083	2.01	23.08	1.34
5.167	1.79	11.167	10.72	17.167	2.01	23.17	1.34
5.250	1.79	11.250	10.72	17.250	2.01	23.25	1.34
5.333	1.79	11.333	10.72	17.333	2.01	23.33	1.34
5.417	1.79	11.417	10.72	17.417	2.01	23.42	1.34
5.500	1.79	11.500	10.72	17.500	2.01	23.50	1.34
5.583	1.79	11.583	46.47	17.583	2.01	23.58	1.34
5.667	1.79	11.667	46.47	17.667	2.01	23.67	1.34
5.750	1.79	11.750	46.47	17.750	2.01	23.75	1.34
5.833	1.79	11.833	123.31	17.833	2.01	23.83	1.34
5.917	1.79	11.917	123.32	17.917	2.01	23.92	1.34
6.000	1.79	12.000	123.32	18.000	2.01	24.00	1.34

Max.Eff.Inten.(mm/hr)= 123.32 101.52
over (min) 5.00 5.00
Storage Coeff. (min)= 0.94 (ii) 1.98 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.34 0.31

TOTALS
PEAK FLOW (cms)= 0.02 0.00 0.025 (iii)
TIME TO PEAK (hrs)= 12.00 12.00 12.00
RUNOFF VOLUME (mm)= 110.70 78.33 110.37
TOTAL RAINFALL (mm)= 111.70 111.70 111.70
RUNOFF COEFFICIENT = 0.99 0.70 0.99

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

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0007)
1 + 2 = 3

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0012):	0.07	0.025	12.00	110.37
+ ID2= 2 (0002):	0.19	0.065	12.00	110.05
=====				
ID = 3 (0007):	0.26	0.089	12.00	110.14

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0007)
3 + 2 = 1

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (0007):	0.26	0.089	12.00	110.14
+ ID2= 2 (0003):	0.05	0.019	12.00	110.37
=====				

ID = 1 (0007): 0.32 0.108 12.00 110.18

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```
-----
| ADD HYD ( 0007) |
| 1 + 2 = 3 |
-----
ID1= 1 ( 0007): 0.32 0.108 12.00 110.18
+ ID2= 2 ( 0004): 0.14 0.047 12.00 106.16
=====
ID = 3 ( 0007): 0.46 0.155 12.00 108.94
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```
-----
| RESERVOIR( 0014) |
| IN= 2---> OUT= 1 |
| DT= 5.0 min |
-----
OVERFLOW IS OFF

OUTFLOW STORAGE | OUTFLOW STORAGE
(cms) (ha.m.) | (cms) (ha.m.)
0.0000 0.0000 | 0.0880 0.0054
0.0000 0.0008 | 0.0950 0.0062
0.0360 0.0015 | 0.1020 0.0070
0.0510 0.0023 | 0.1080 0.0077
0.0620 0.0031 | 0.1140 0.0085
0.0720 0.0039 | 0.1200 0.0093
0.0810 0.0046 | 0.0000 0.0000

AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
INFLOW : ID= 2 ( 0007) 0.456 0.155 12.00 108.94
OUTFLOW: ID= 1 ( 0014) 0.456 0.106 12.00 107.19
```

PEAK FLOW REDUCTION [Qout/Qin](%)= 68.62
TIME SHIFT OF PEAK FLOW (min)= 0.00
MAXIMUM STORAGE USED (ha.m.)= 0.0082

```
-----
| ADD HYD ( 0017) |
| 1 + 2 = 3 |
-----
ID1= 1 ( 0014): 0.46 0.106 12.00 107.19
+ ID2= 2 ( 0009): 2.41 0.770 12.00 103.31
=====
ID = 3 ( 0017): 2.86 0.876 12.00 103.93
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```
-----
| ADD HYD ( 0017) |
| 1 + 2 = 3 |
-----
ID1= 1 ( 0014): 0.46 0.106 12.00 107.19
+ ID2= 2 ( 0009): 2.41 0.770 12.00 103.31
=====
ID = 3 ( 0017): 2.86 0.876 12.00 103.93
```

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

000 TTTT TTTT H H Y Y M M 000 TM
0 0 T T H H Y Y MM MM 0 0
0 0 T T H H Y M M 0 0
000 T T H H Y M M 000

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

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\V02\voin.dat
Output filename: C:\Users\ffisl\AppData\Local\Civica\XH5\dae7608f-82b9-4213-85a0-cec48cda5646\7294d144-0815-4780-83c0-4fa107e28455\scenar
Summary filename: C:\Users\ffisl\AppData\Local\Civica\XH5\dae7608f-82b9-4213-85a0-cec48cda5646\7294d144-0815-4780-83c0-4fa107e28455\scenar

DATE: 12-02-2025

TIME: 06:29:03

USER:

COMMENTS:

** SIMULATION : 100-year **

```
-----
| READ STORM |
| Ptotal=122.88 mm |
-----
Filename: C:\Users\ffisl\AppData\Local\Temp\65ee925f-bdec-8f1a-7fb2dd9de23e\cda824ea
Comments: 100-yr, 24-hr SCS Type II Distribution S
```

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.00	1.35	6.00	2.21	12.00	17.70	18.00	2.21
0.25	1.35	6.25	2.21	12.25	17.70	18.25	2.21
0.50	1.35	6.50	2.21	12.50	9.09	18.50	2.21
0.75	1.35	6.75	2.21	12.75	9.09	18.75	2.21
1.00	1.35	7.00	2.70	13.00	6.64	19.00	2.21
1.25	1.35	7.25	2.70	13.25	6.64	19.25	2.21
1.50	1.35	7.50	2.70	13.50	5.16	19.50	2.21
1.75	1.35	7.75	2.70	13.75	5.16	19.75	2.21
2.00	1.60	8.00	3.20	14.00	3.69	20.00	1.47
2.25	1.60	8.25	3.20	14.25	3.69	20.25	1.47
2.50	1.60	8.50	3.44	14.50	3.69	20.50	1.47
2.75	1.60	8.75	3.44	14.75	3.69	20.75	1.47
3.00	1.60	9.00	3.93	15.00	3.69	21.00	1.47
3.25	1.60	9.25	3.93	15.25	3.69	21.25	1.47
3.50	1.60	9.50	4.42	15.50	3.69	21.50	1.47
3.75	1.60	9.75	4.42	15.75	3.69	21.75	1.47
4.00	1.97	10.00	5.65	16.00	2.21	22.00	1.47
4.25	1.97	10.25	5.65	16.25	2.21	22.25	1.47
4.50	1.97	10.50	7.62	16.50	2.21	22.50	1.47
4.75	1.97	10.75	7.62	16.75	2.21	22.75	1.47
5.00	1.97	11.00	11.80	17.00	2.21	23.00	1.47
5.25	1.97	11.25	11.80	17.25	2.21	23.25	1.47
5.50	1.97	11.50	51.13	17.50	2.21	23.50	1.47
5.75	1.97	11.75	135.68	17.75	2.21	23.75	1.47

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-----
| CALIB |
| STANDHYD ( 0001) |
| ID= 1 DT= 5.0 min |
-----
Area (ha)= 0.45
Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00
```

IMPERVIOUS PERVIOUS (i)

Surface Area (ha)= 0.45 0.00
Dep. Storage (mm)= 1.00 1.50
Average Slope (%)= 1.00 2.00
Length (m)= 54.94 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	1.35	6.083	2.21	12.083	17.71	18.08	2.21
0.167	1.35	6.167	2.21	12.167	17.70	18.17	2.21
0.250	1.35	6.250	2.21	12.250	17.70	18.25	2.21
0.333	1.35	6.333	2.21	12.333	17.70	18.33	2.21
0.417	1.35	6.417	2.21	12.417	17.70	18.42	2.21
0.500	1.35	6.500	2.21	12.500	17.70	18.50	2.21
0.583	1.35	6.583	2.21	12.583	9.09	18.58	2.21
0.667	1.35	6.667	2.21	12.667	9.09	18.67	2.21
0.750	1.35	6.750	2.21	12.750	9.09	18.75	2.21
0.833	1.35	6.833	2.21	12.833	9.09	18.83	2.21
0.917	1.35	6.917	2.21	12.917	9.09	18.92	2.21
1.000	1.35	7.000	2.21	13.000	9.09	19.00	2.21
1.083	1.35	7.083	2.70	13.083	6.64	19.08	2.21
1.167	1.35	7.167	2.70	13.167	6.64	19.17	2.21
1.250	1.35	7.250	2.70	13.250	6.64	19.25	2.21
1.333	1.35	7.333	2.70	13.333	6.64	19.33	2.21
1.417	1.35	7.417	2.70	13.417	6.64	19.42	2.21
1.500	1.35	7.500	2.70	13.500	6.64	19.50	2.21
1.583	1.35	7.583	2.70	13.583	5.16	19.58	2.21
1.667	1.35	7.667	2.70	13.667	5.16	19.67	2.21
1.750	1.35	7.750	2.70	13.750	5.16	19.75	2.21
1.833	1.35	7.833	2.70	13.833	5.16	19.83	2.21
1.917	1.35	7.917	2.70	13.917	5.16	19.92	2.21
2.000	1.35	8.000	2.70	14.000	5.16	20.00	2.21
2.083	1.60	8.083	3.20	14.083	3.69	20.08	1.47
2.167	1.60	8.167	3.20	14.167	3.69	20.17	1.47
2.250	1.60	8.250	3.20	14.250	3.69	20.25	1.47
2.333	1.60	8.333	3.20	14.333	3.69	20.33	1.47
2.417	1.60	8.417	3.20	14.417	3.69	20.42	1.47
2.500	1.60	8.500	3.20	14.500	3.69	20.50	1.47
2.583	1.60	8.583	3.44	14.583	3.69	20.58	1.47
2.667	1.60	8.667	3.44	14.667	3.69	20.67	1.47
2.750	1.60	8.750	3.44	14.750	3.69	20.75	1.47
2.833	1.60	8.833	3.44	14.833	3.69	20.83	1.47
2.917	1.60	8.917	3.44	14.917	3.69	20.92	1.47
3.000	1.60	9.000	3.44	15.000	3.69	21.00	1.47
3.083	1.60	9.083	3.93	15.083	3.69	21.08	1.47
3.167	1.60	9.167	3.93	15.167	3.69	21.17	1.47
3.250	1.60	9.250	3.93	15.250	3.69	21.25	1.47
3.333	1.60	9.333	3.93	15.333	3.69	21.33	1.47
3.417	1.60	9.417	3.93	15.417	3.69	21.42	1.47
3.500	1.60	9.500	3.93	15.500	3.69	21.50	1.47
3.583	1.60	9.583	4.42	15.583	3.69	21.58	1.47
3.667	1.60	9.667	4.42	15.667	3.69	21.67	1.47
3.750	1.60	9.750	4.42	15.750	3.69	21.75	1.47
3.833	1.60	9.833	4.42	15.833	3.69	21.83	1.47
3.917	1.60	9.917	4.42	15.917	3.69	21.92	1.47
4.000	1.60	10.000	4.42	16.000	3.69	22.00	1.47
4.083	1.97	10.083	5.65	16.083	2.21	22.08	1.47
4.167	1.97	10.167	5.65	16.167	2.21	22.17	1.47
4.250	1.97	10.250	5.65	16.250	2.21	22.25	1.47
4.333	1.97	10.333	5.65	16.333	2.21	22.33	1.47
4.417	1.97	10.417	5.65	16.417	2.21	22.42	1.47
4.500	1.97	10.500	5.65	16.500	2.21	22.50	1.47
4.583	1.97	10.583	7.62	16.583	2.21	22.58	1.47
4.667	1.97	10.667	7.62	16.667	2.21	22.67	1.47

4.750	1.97	10.750	7.62	16.750	2.21	22.75	1.47
4.833	1.97	10.833	7.62	16.833	2.21	22.83	1.47
4.917	1.97	10.917	7.62	16.917	2.21	22.92	1.47
5.000	1.97	11.000	7.62	17.000	2.21	23.00	1.47
5.083	1.97	11.083	11.80	17.083	2.21	23.08	1.47
5.167	1.97	11.167	11.80	17.167	2.21	23.17	1.47
5.250	1.97	11.250	11.80	17.250	2.21	23.25	1.47
5.333	1.97	11.333	11.80	17.333	2.21	23.33	1.47
5.417	1.97	11.417	11.80	17.417	2.21	23.42	1.47
5.500	1.97	11.500	11.80	17.500	2.21	23.50	1.47
5.583	1.97	11.583	51.13	17.583	2.21	23.58	1.47
5.667	1.97	11.667	51.13	17.667	2.21	23.67	1.47
5.750	1.97	11.750	51.13	17.750	2.21	23.75	1.47
5.833	1.97	11.833	135.67	17.833	2.21	23.83	1.47
5.917	1.97	11.917	135.68	17.917	2.21	23.92	1.47
6.000	1.97	12.000	135.68	18.000	2.21	24.00	1.47

Max.Eff.Inten.(mm/hr)= 135.68 114.31
over (min) 5.00 5.00
Storage Coeff. (min)= 1.58 (ii) 2.57 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.33 0.29

TOTALS
PEAK FLOW (cms)= 0.17 0.00 0.170 (iii)
TIME TO PEAK (hrs)= 12.00 12.00 12.00
RUNOFF VOLUME (mm)= 121.88 88.64 121.54
TOTAL RAINFALL (mm)= 122.88 122.88 122.88
RUNOFF COEFFICIENT = 0.99 0.72 0.99

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

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| CALIB |
| STANDHYD (0005) | Area (ha)= 0.95
|ID= 1 DT= 5.0 min | Total Imp(%)= 75.00 Dir. Conn.(%)= 75.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.71	0.24
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	79.65	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	1.35	6.083	2.21	12.083	17.71	18.08	2.21
0.167	1.35	6.167	2.21	12.167	17.70	18.17	2.21
0.250	1.35	6.250	2.21	12.250	17.70	18.25	2.21
0.333	1.35	6.333	2.21	12.333	17.70	18.33	2.21
0.417	1.35	6.417	2.21	12.417	17.70	18.42	2.21
0.500	1.35	6.500	2.21	12.500	17.70	18.50	2.21
0.583	1.35	6.583	2.21	12.583	9.09	18.58	2.21
0.667	1.35	6.667	2.21	12.667	9.09	18.67	2.21
0.750	1.35	6.750	2.21	12.750	9.09	18.75	2.21
0.833	1.35	6.833	2.21	12.833	9.09	18.83	2.21
0.917	1.35	6.917	2.21	12.917	9.09	18.92	2.21
1.000	1.35	7.000	2.21	13.000	9.09	19.00	2.21

1.083	1.35	7.083	2.70	13.083	6.64	19.08	2.21
1.167	1.35	7.167	2.70	13.167	6.64	19.17	2.21
1.250	1.35	7.250	2.70	13.250	6.64	19.25	2.21
1.333	1.35	7.333	2.70	13.333	6.64	19.33	2.21
1.417	1.35	7.417	2.70	13.417	6.64	19.42	2.21
1.500	1.35	7.500	2.70	13.500	6.64	19.50	2.21
1.583	1.35	7.583	2.70	13.583	5.16	19.58	2.21
1.667	1.35	7.667	2.70	13.667	5.16	19.67	2.21
1.750	1.35	7.750	2.70	13.750	5.16	19.75	2.21
1.833	1.35	7.833	2.70	13.833	5.16	19.83	2.21
1.917	1.35	7.917	2.70	13.917	5.16	19.92	2.21
2.000	1.35	8.000	2.70	14.000	5.16	20.00	2.21
2.083	1.60	8.083	3.20	14.083	3.69	20.08	1.47
2.167	1.60	8.167	3.20	14.167	3.69	20.17	1.47
2.250	1.60	8.250	3.20	14.250	3.69	20.25	1.47
2.333	1.60	8.333	3.20	14.333	3.69	20.33	1.47
2.417	1.60	8.417	3.20	14.417	3.69	20.42	1.47
2.500	1.60	8.500	3.20	14.500	3.69	20.50	1.47
2.583	1.60	8.583	3.44	14.583	3.69	20.58	1.47
2.667	1.60	8.667	3.44	14.667	3.69	20.67	1.47
2.750	1.60	8.750	3.44	14.750	3.69	20.75	1.47
2.833	1.60	8.833	3.44	14.833	3.69	20.83	1.47
2.917	1.60	8.917	3.44	14.917	3.69	20.92	1.47
3.000	1.60	9.000	3.44	15.000	3.69	21.00	1.47
3.083	1.60	9.083	3.93	15.083	3.69	21.08	1.47
3.167	1.60	9.167	3.93	15.167	3.69	21.17	1.47
3.250	1.60	9.250	3.93	15.250	3.69	21.25	1.47
3.333	1.60	9.333	3.93	15.333	3.69	21.33	1.47
3.417	1.60	9.417	3.93	15.417	3.69	21.42	1.47
3.500	1.60	9.500	3.93	15.500	3.69	21.50	1.47
3.583	1.60	9.583	4.42	15.583	3.69	21.58	1.47
3.667	1.60	9.667	4.42	15.667	3.69	21.67	1.47
3.750	1.60	9.750	4.42	15.750	3.69	21.75	1.47
3.833	1.60	9.833	4.42	15.833	3.69	21.83	1.47
3.917	1.60	9.917	4.42	15.917	3.69	21.92	1.47
4.000	1.60	10.000	4.42	16.000	3.69	22.00	1.47
4.083	1.97	10.083	5.65	16.083	2.21	22.08	1.47
4.167	1.97	10.167	5.65	16.167	2.21	22.17	1.47
4.250	1.97	10.250	5.65	16.250	2.21	22.25	1.47
4.333	1.97	10.333	5.65	16.333	2.21	22.33	1.47
4.417	1.97	10.417	5.65	16.417	2.21	22.42	1.47
4.500	1.97	10.500	5.65	16.500	2.21	22.50	1.47
4.583	1.97	10.583	7.62	16.583	2.21	22.58	1.47
4.667	1.97	10.667	7.62	16.667	2.21	22.67	1.47
4.750	1.97	10.750	7.62	16.750	2.21	22.75	1.47
4.833	1.97	10.833	7.62	16.833	2.21	22.83	1.47
4.917	1.97	10.917	7.62	16.917	2.21	22.92	1.47
5.000	1.97	11.000	7.62	17.000	2.21	23.00	1.47
5.083	1.97	11.083	11.80	17.083	2.21	23.08	1.47
5.167	1.97	11.167	11.80	17.167	2.21	23.17	1.47
5.250	1.97	11.250	11.80	17.250	2.21	23.25	1.47
5.333	1.97	11.333	11.80	17.333	2.21	23.33	1.47
5.417	1.97	11.417	11.80	17.417	2.21	23.42	1.47
5.500	1.97	11.500	11.80	17.500	2.21	23.50	1.47
5.583	1.97	11.583	51.13	17.583	2.21	23.58	1.47
5.667	1.97	11.667	51.13	17.667	2.21	23.67	1.47
5.750	1.97	11.750	51.13	17.750	2.21	23.75	1.47
5.833	1.97	11.833	135.67	17.833	2.21	23.83	1.47
5.917	1.97	11.917	135.68	17.917	2.21	23.92	1.47
6.000	1.97	12.000	135.68	18.000	2.21	24.00	1.47

Max.Eff.Inten.(mm/hr)= 135.68 114.31
over (min) 5.00 10.00
Storage Coeff. (min)= 1.97 (ii) 6.00 (ii)
Unit Hyd. Tpeak (min)= 5.00 10.00
Unit Hyd. peak (cms)= 0.31 0.15

PEAK FLOW (cms)= 0.27 0.07 *TOTALS* 0.335 (iii)

TIME TO PEAK (hrs)= 12.00 12.00 12.00
RUNOFF VOLUME (mm)= 121.88 88.64 113.57
TOTAL RAINFALL (mm)= 122.88 122.88 122.88
RUNOFF COEFFICIENT = 0.99 0.72 0.92

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

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0006) Area (ha)= 0.92
ID= 1 DT= 5.0 min Total Imp(%)= 70.00 Dir. Conn.(%)= 70.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.65 0.28
Dep. Storage (mm)= 1.00 1.50
Average Slope (%)= 1.00 2.00
Length (m)= 78.45 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	1.35	6.083	2.21	12.083	17.71	18.08	2.21
0.167	1.35	6.167	2.21	12.167	17.70	18.17	2.21
0.250	1.35	6.250	2.21	12.250	17.70	18.25	2.21
0.333	1.35	6.333	2.21	12.333	17.70	18.33	2.21
0.417	1.35	6.417	2.21	12.417	17.70	18.42	2.21
0.500	1.35	6.500	2.21	12.500	17.70	18.50	2.21
0.583	1.35	6.583	2.21	12.583	9.09	18.58	2.21
0.667	1.35	6.667	2.21	12.667	9.09	18.67	2.21
0.750	1.35	6.750	2.21	12.750	9.09	18.75	2.21
0.833	1.35	6.833	2.21	12.833	9.09	18.83	2.21
0.917	1.35	6.917	2.21	12.917	9.09	18.92	2.21
1.000	1.35	7.000	2.21	13.000	9.09	19.00	2.21
1.083	1.35	7.083	2.70	13.083	6.64	19.08	2.21
1.167	1.35	7.167	2.70	13.167	6.64	19.17	2.21
1.250	1.35	7.250	2.70	13.250	6.64	19.25	2.21
1.333	1.35	7.333	2.70	13.333	6.64	19.33	2.21
1.417	1.35	7.417	2.70	13.417	6.64	19.42	2.21
1.500	1.35	7.500	2.70	13.500	6.64	19.50	2.21
1.583	1.35	7.583	2.70	13.583	5.16	19.58	2.21
1.667	1.35	7.667	2.70	13.667	5.16	19.67	2.21
1.750	1.35	7.750	2.70	13.750	5.16	19.75	2.21
1.833	1.35	7.833	2.70	13.833	5.16	19.83	2.21
1.917	1.35	7.917	2.70	13.917	5.16	19.92	2.21
2.000	1.35	8.000	2.70	14.000	5.16	20.00	2.21
2.083	1.60	8.083	3.20	14.083	3.69	20.08	1.47
2.167	1.60	8.167	3.20	14.167	3.69	20.17	1.47
2.250	1.60	8.250	3.20	14.250	3.69	20.25	1.47
2.333	1.60	8.333	3.20	14.333	3.69	20.33	1.47
2.417	1.60	8.417	3.20	14.417	3.69	20.42	1.47
2.500	1.60	8.500	3.20	14.500	3.69	20.50	1.47
2.583	1.60	8.583	3.44	14.583	3.69	20.58	1.47
2.667	1.60	8.667	3.44	14.667	3.69	20.67	1.47
2.750	1.60	8.750	3.44	14.750	3.69	20.75	1.47
2.833	1.60	8.833	3.44	14.833	3.69	20.83	1.47
2.917	1.60	8.917	3.44	14.917	3.69	20.92	1.47
3.000	1.60	9.000	3.44	15.000	3.69	21.00	1.47

3.083	1.60	9.083	3.93	15.083	3.69	21.08	1.47
3.167	1.60	9.167	3.93	15.167	3.69	21.17	1.47
3.250	1.60	9.250	3.93	15.250	3.69	21.25	1.47
3.333	1.60	9.333	3.93	15.333	3.69	21.33	1.47
3.417	1.60	9.417	3.93	15.417	3.69	21.42	1.47
3.500	1.60	9.500	3.93	15.500	3.69	21.50	1.47
3.583	1.60	9.583	4.42	15.583	3.69	21.58	1.47
3.667	1.60	9.667	4.42	15.667	3.69	21.67	1.47
3.750	1.60	9.750	4.42	15.750	3.69	21.75	1.47
3.833	1.60	9.833	4.42	15.833	3.69	21.83	1.47
3.917	1.60	9.917	4.42	15.917	3.69	21.92	1.47
4.000	1.60	10.000	4.42	16.000	3.69	22.00	1.47
4.083	1.97	10.083	5.65	16.083	2.21	22.08	1.47
4.167	1.97	10.167	5.65	16.167	2.21	22.17	1.47
4.250	1.97	10.250	5.65	16.250	2.21	22.25	1.47
4.333	1.97	10.333	5.65	16.333	2.21	22.33	1.47
4.417	1.97	10.417	5.65	16.417	2.21	22.42	1.47
4.500	1.97	10.500	5.65	16.500	2.21	22.50	1.47
4.583	1.97	10.583	7.62	16.583	2.21	22.58	1.47
4.667	1.97	10.667	7.62	16.667	2.21	22.67	1.47
4.750	1.97	10.750	7.62	16.750	2.21	22.75	1.47
4.833	1.97	10.833	7.62	16.833	2.21	22.83	1.47
4.917	1.97	10.917	7.62	16.917	2.21	22.92	1.47
5.000	1.97	11.000	7.62	17.000	2.21	23.00	1.47
5.083	1.97	11.083	11.80	17.083	2.21	23.08	1.47
5.167	1.97	11.167	11.80	17.167	2.21	23.17	1.47
5.250	1.97	11.250	11.80	17.250	2.21	23.25	1.47
5.333	1.97	11.333	11.80	17.333	2.21	23.33	1.47
5.417	1.97	11.417	11.80	17.417	2.21	23.42	1.47
5.500	1.97	11.500	11.80	17.500	2.21	23.50	1.47
5.583	1.97	11.583	51.13	17.583	2.21	23.58	1.47
5.667	1.97	11.667	51.13	17.667	2.21	23.67	1.47
5.750	1.97	11.750	51.13	17.750	2.21	23.75	1.47
5.833	1.97	11.833	135.67	17.833	2.21	23.83	1.47
5.917	1.97	11.917	135.68	17.917	2.21	23.92	1.47
6.000	1.97	12.000	135.68	18.000	2.21	24.00	1.47

Max.Eff.Inten.(mm/hr)= 135.68 114.31
over (min) 5.00 10.00
Storage Coeff. (min)= 1.95 (ii) 6.41 (ii)
Unit Hyd. Tpeak (min)= 5.00 10.00
Unit Hyd. peak (cms)= 0.31 0.14

PEAK FLOW (cms)= 0.24 0.08 0.320 (iii)
TIME TO PEAK (hrs)= 12.00 12.00 12.00
RUNOFF VOLUME (mm)= 121.88 88.64 111.90
TOTAL RAINFALL (mm)= 122.88 122.88 122.88
RUNOFF COEFFICIENT = 0.99 0.72 0.91

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| CALIB |
| STANDHYD (0015) | Area (ha)= 0.05
| ID= 1 DT= 5.0 min | Total Imp(%)= 44.00 Dir. Conn.(%)= 44.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.02 0.03
Dep. Storage (mm)= 1.00 1.50
Average Slope (%)= 1.00 2.00
Length (m)= 18.62 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	1.35	6.083	2.21	12.083	17.71	18.08	2.21
0.167	1.35	6.167	2.21	12.167	17.70	18.17	2.21
0.250	1.35	6.250	2.21	12.250	17.70	18.25	2.21
0.333	1.35	6.333	2.21	12.333	17.70	18.33	2.21
0.417	1.35	6.417	2.21	12.417	17.70	18.42	2.21
0.500	1.35	6.500	2.21	12.500	17.70	18.50	2.21
0.583	1.35	6.583	2.21	12.583	9.09	18.58	2.21
0.667	1.35	6.667	2.21	12.667	9.09	18.67	2.21
0.750	1.35	6.750	2.21	12.750	9.09	18.75	2.21
0.833	1.35	6.833	2.21	12.833	9.09	18.83	2.21
0.917	1.35	6.917	2.21	12.917	9.09	18.92	2.21
1.000	1.35	7.000	2.21	13.000	9.09	19.00	2.21
1.083	1.35	7.083	2.70	13.083	6.64	19.08	2.21
1.167	1.35	7.167	2.70	13.167	6.64	19.17	2.21
1.250	1.35	7.250	2.70	13.250	6.64	19.25	2.21
1.333	1.35	7.333	2.70	13.333	6.64	19.33	2.21
1.417	1.35	7.417	2.70	13.417	6.64	19.42	2.21
1.500	1.35	7.500	2.70	13.500	6.64	19.50	2.21
1.583	1.35	7.583	2.70	13.583	5.16	19.58	2.21
1.667	1.35	7.667	2.70	13.667	5.16	19.67	2.21
1.750	1.35	7.750	2.70	13.750	5.16	19.75	2.21
1.833	1.35	7.833	2.70	13.833	5.16	19.83	2.21
1.917	1.35	7.917	2.70	13.917	5.16	19.92	2.21
2.000	1.35	8.000	2.70	14.000	5.16	20.00	2.21
2.083	1.60	8.083	3.20	14.083	3.69	20.08	1.47
2.167	1.60	8.167	3.20	14.167	3.69	20.17	1.47
2.250	1.60	8.250	3.20	14.250	3.69	20.25	1.47
2.333	1.60	8.333	3.20	14.333	3.69	20.33	1.47
2.417	1.60	8.417	3.20	14.417	3.69	20.42	1.47
2.500	1.60	8.500	3.20	14.500	3.69	20.50	1.47
2.583	1.60	8.583	3.44	14.583	3.69	20.58	1.47
2.667	1.60	8.667	3.44	14.667	3.69	20.67	1.47
2.750	1.60	8.750	3.44	14.750	3.69	20.75	1.47
2.833	1.60	8.833	3.44	14.833	3.69	20.83	1.47
2.917	1.60	8.917	3.44	14.917	3.69	20.92	1.47
3.000	1.60	9.000	3.44	15.000	3.69	21.00	1.47
3.083	1.60	9.083	3.93	15.083	3.69	21.08	1.47
3.167	1.60	9.167	3.93	15.167	3.69	21.17	1.47
3.250	1.60	9.250	3.93	15.250	3.69	21.25	1.47
3.333	1.60	9.333	3.93	15.333	3.69	21.33	1.47
3.417	1.60	9.417	3.93	15.417	3.69	21.42	1.47
3.500	1.60	9.500	3.93	15.500	3.69	21.50	1.47
3.583	1.60	9.583	4.42	15.583	3.69	21.58	1.47
3.667	1.60	9.667	4.42	15.667	3.69	21.67	1.47
3.750	1.60	9.750	4.42	15.750	3.69	21.75	1.47
3.833	1.60	9.833	4.42	15.833	3.69	21.83	1.47
3.917	1.60	9.917	4.42	15.917	3.69	21.92	1.47
4.000	1.60	10.000	4.42	16.000	3.69	22.00	1.47
4.083	1.97	10.083	5.65	16.083	2.21	22.08	1.47
4.167	1.97	10.167	5.65	16.167	2.21	22.17	1.47
4.250	1.97	10.250	5.65	16.250	2.21	22.25	1.47
4.333	1.97	10.333	5.65	16.333	2.21	22.33	1.47
4.417	1.97	10.417	5.65	16.417	2.21	22.42	1.47
4.500	1.97	10.500	5.65	16.500	2.21	22.50	1.47
4.583	1.97	10.583	7.62	16.583	2.21	22.58	1.47
4.667	1.97	10.667	7.62	16.667	2.21	22.67	1.47
4.750	1.97	10.750	7.62	16.750	2.21	22.75	1.47
4.833	1.97	10.833	7.62	16.833	2.21	22.83	1.47
4.917	1.97	10.917	7.62	16.917	2.21	22.92	1.47
5.000	1.97	11.000	7.62	17.000	2.21	23.00	1.47

5.083	1.97	11.083	11.80	17.083	2.21	23.08	1.47
5.167	1.97	11.167	11.80	17.167	2.21	23.17	1.47
5.250	1.97	11.250	11.80	17.250	2.21	23.25	1.47
5.333	1.97	11.333	11.80	17.333	2.21	23.33	1.47
5.417	1.97	11.417	11.80	17.417	2.21	23.42	1.47
5.500	1.97	11.500	11.80	17.500	2.21	23.50	1.47
5.583	1.97	11.583	51.13	17.583	2.21	23.58	1.47
5.667	1.97	11.667	51.13	17.667	2.21	23.67	1.47
5.750	1.97	11.750	51.13	17.750	2.21	23.75	1.47
5.833	1.97	11.833	135.67	17.833	2.21	23.83	1.47
5.917	1.97	11.917	135.68	17.917	2.21	23.92	1.47
6.000	1.97	12.000	135.68	18.000	2.21	24.00	1.47

Max.Eff.Inten.(mm/hr)=	135.68	114.31
over (min)	5.00	10.00
Storage Coeff. (min)=	0.82 (ii)	7.51 (ii)
Unit Hyd. Tpeak (min)=	5.00	10.00
Unit Hyd. peak (cms)=	0.34	0.13

PEAK FLOW (cms)=	0.01	0.01	0.016 (iii)
TIME TO PEAK (hrs)=	12.00	12.00	12.00
RUNOFF VOLUME (mm)=	121.88	88.64	103.16
TOTAL RAINFALL (mm)=	122.88	122.88	122.88
RUNOFF COEFFICIENT =	0.99	0.72	0.84

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha)=	0.03
STANDHYD (0018)	Total Imp(%)=	99.00
ID= 1 DT= 5.0 min	Dir. Conn.(%)=	99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.03	0.00
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	13.49	40.00
Mannings n =	0.013	0.250

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

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	1.35	6.083	2.21	12.083	17.71	18.08	2.21
0.167	1.35	6.167	2.21	12.167	17.70	18.17	2.21
0.250	1.35	6.250	2.21	12.250	17.70	18.25	2.21
0.333	1.35	6.333	2.21	12.333	17.70	18.33	2.21
0.417	1.35	6.417	2.21	12.417	17.70	18.42	2.21
0.500	1.35	6.500	2.21	12.500	17.70	18.50	2.21
0.583	1.35	6.583	2.21	12.583	9.09	18.58	2.21
0.667	1.35	6.667	2.21	12.667	9.09	18.67	2.21
0.750	1.35	6.750	2.21	12.750	9.09	18.75	2.21
0.833	1.35	6.833	2.21	12.833	9.09	18.83	2.21
0.917	1.35	6.917	2.21	12.917	9.09	18.92	2.21
1.000	1.35	7.000	2.21	13.000	9.09	19.00	2.21
1.083	1.35	7.083	2.70	13.083	6.64	19.08	2.21
1.167	1.35	7.167	2.70	13.167	6.64	19.17	2.21
1.250	1.35	7.250	2.70	13.250	6.64	19.25	2.21
1.333	1.35	7.333	2.70	13.333	6.64	19.33	2.21

1.417	1.35	7.417	2.70	13.417	6.64	19.42	2.21
1.500	1.35	7.500	2.70	13.500	6.64	19.50	2.21
1.583	1.35	7.583	2.70	13.583	5.16	19.58	2.21
1.667	1.35	7.667	2.70	13.667	5.16	19.67	2.21
1.750	1.35	7.750	2.70	13.750	5.16	19.75	2.21
1.833	1.35	7.833	2.70	13.833	5.16	19.83	2.21
1.917	1.35	7.917	2.70	13.917	5.16	19.92	2.21
2.000	1.35	8.000	2.70	14.000	5.16	20.00	2.21
2.083	1.60	8.083	3.20	14.083	3.69	20.08	1.47
2.167	1.60	8.167	3.20	14.167	3.69	20.17	1.47
2.250	1.60	8.250	3.20	14.250	3.69	20.25	1.47
2.333	1.60	8.333	3.20	14.333	3.69	20.33	1.47
2.417	1.60	8.417	3.20	14.417	3.69	20.42	1.47
2.500	1.60	8.500	3.20	14.500	3.69	20.50	1.47
2.583	1.60	8.583	3.44	14.583	3.69	20.58	1.47
2.667	1.60	8.667	3.44	14.667	3.69	20.67	1.47
2.750	1.60	8.750	3.44	14.750	3.69	20.75	1.47
2.833	1.60	8.833	3.44	14.833	3.69	20.83	1.47
2.917	1.60	8.917	3.44	14.917	3.69	20.92	1.47
3.000	1.60	9.000	3.44	15.000	3.69	21.00	1.47
3.083	1.60	9.083	3.93	15.083	3.69	21.08	1.47
3.167	1.60	9.167	3.93	15.167	3.69	21.17	1.47
3.250	1.60	9.250	3.93	15.250	3.69	21.25	1.47
3.333	1.60	9.333	3.93	15.333	3.69	21.33	1.47
3.417	1.60	9.417	3.93	15.417	3.69	21.42	1.47
3.500	1.60	9.500	3.93	15.500	3.69	21.50	1.47
3.583	1.60	9.583	4.42	15.583	3.69	21.58	1.47
3.667	1.60	9.667	4.42	15.667	3.69	21.67	1.47
3.750	1.60	9.750	4.42	15.750	3.69	21.75	1.47
3.833	1.60	9.833	4.42	15.833	3.69	21.83	1.47
3.917	1.60	9.917	4.42	15.917	3.69	21.92	1.47
4.000	1.60	10.000	4.42	16.000	3.69	22.00	1.47
4.083	1.97	10.083	5.65	16.083	2.21	22.08	1.47
4.167	1.97	10.167	5.65	16.167	2.21	22.17	1.47
4.250	1.97	10.250	5.65	16.250	2.21	22.25	1.47
4.333	1.97	10.333	5.65	16.333	2.21	22.33	1.47
4.417	1.97	10.417	5.65	16.417	2.21	22.42	1.47
4.500	1.97	10.500	5.65	16.500	2.21	22.50	1.47
4.583	1.97	10.583	7.62	16.583	2.21	22.58	1.47
4.667	1.97	10.667	7.62	16.667	2.21	22.67	1.47
4.750	1.97	10.750	7.62	16.750	2.21	22.75	1.47
4.833	1.97	10.833	7.62	16.833	2.21	22.83	1.47
4.917	1.97	10.917	7.62	16.917	2.21	22.92	1.47
5.000	1.97	11.000	7.62	17.000	2.21	23.00	1.47
5.083	1.97	11.083	11.80	17.083	2.21	23.08	1.47
5.167	1.97	11.167	11.80	17.167	2.21	23.17	1.47
5.250	1.97	11.250	11.80	17.250	2.21	23.25	1.47
5.333	1.97	11.333	11.80	17.333	2.21	23.33	1.47
5.417	1.97	11.417	11.80	17.417	2.21	23.42	1.47
5.500	1.97	11.500	11.80	17.500	2.21	23.50	1.47
5.583	1.97	11.583	51.13	17.583	2.21	23.58	1.47
5.667	1.97	11.667	51.13	17.667	2.21	23.67	1.47
5.750	1.97	11.750	51.13	17.750	2.21	23.75	1.47
5.833	1.97	11.833	135.67	17.833	2.21	23.83	1.47
5.917	1.97	11.917	135.68	17.917	2.21	23.92	1.47
6.000	1.97	12.000	135.68	18.000	2.21	24.00	1.47

Max.Eff.Inten.(mm/hr)=	135.68	114.31
over (min)	5.00	5.00
Storage Coeff. (min)=	0.68 (ii)	1.67 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.34	0.32

PEAK FLOW (cms)=	0.01	0.00	0.010 (iii)
TIME TO PEAK (hrs)=	12.00	12.00	12.00
RUNOFF VOLUME (mm)=	121.88	88.64	121.55
TOTAL RAINFALL (mm)=	122.88	122.88	122.88
RUNOFF COEFFICIENT =	0.99	0.72	0.99

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

Mannings n = 0.013 0.250

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```
-----
| ADD HYD ( 0009) |
| 1 + 2 = 3 |
-----
          AREA      QPEAK      TPEAK      R.V.
          (ha)      (cms)      (hrs)      (mm)
ID1= 1 ( 0001):    0.45    0.170    12.00    121.54
+ ID2= 2 ( 0015):    0.05    0.016    12.00    103.16
=====
ID = 3 ( 0009):    0.50    0.187    12.00    119.65
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```
-----
| ADD HYD ( 0009) |
| 3 + 2 = 1 |
-----
          AREA      QPEAK      TPEAK      R.V.
          (ha)      (cms)      (hrs)      (mm)
ID1= 3 ( 0009):    0.50    0.187    12.00    119.65
+ ID2= 2 ( 0018):    0.03    0.010    12.00    121.55
=====
ID = 1 ( 0009):    0.53    0.197    12.00    119.74
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```
-----
| ADD HYD ( 0009) |
| 1 + 2 = 3 |
-----
          AREA      QPEAK      TPEAK      R.V.
          (ha)      (cms)      (hrs)      (mm)
ID1= 1 ( 0009):    0.53    0.197    12.00    119.74
+ ID2= 2 ( 0005):    0.95    0.335    12.00    113.57
=====
ID = 3 ( 0009):    1.48    0.532    12.00    115.78
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```
-----
| ADD HYD ( 0009) |
| 3 + 2 = 1 |
-----
          AREA      QPEAK      TPEAK      R.V.
          (ha)      (cms)      (hrs)      (mm)
ID1= 3 ( 0009):    1.48    0.532    12.00    115.78
+ ID2= 2 ( 0006):    0.92    0.320    12.00    111.90
=====
ID = 1 ( 0009):    2.41    0.852    12.00    114.29
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```
-----
| CALIB |
| STANDHYD ( 0002) |
| ID= 1 DT= 5.0 min |
-----
Area (ha)= 0.19
Total Imp(%)= 98.00 Dir. Conn.(%)= 98.00
```

```
-----
          IMPERVIOUS      PERVIOUS (i)
Surface Area (ha)= 0.19 0.00
Dep. Storage (mm)= 1.00 1.50
Average Slope (%)= 1.00 2.00
Length (m)= 35.52 40.00
```

----- TRANSFORMED HYETOGRAPH -----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	1.35	6.083	2.21	12.083	17.71	18.08	2.21
0.167	1.35	6.167	2.21	12.167	17.70	18.17	2.21
0.250	1.35	6.250	2.21	12.250	17.70	18.25	2.21
0.333	1.35	6.333	2.21	12.333	17.70	18.33	2.21
0.417	1.35	6.417	2.21	12.417	17.70	18.42	2.21
0.500	1.35	6.500	2.21	12.500	17.70	18.50	2.21
0.583	1.35	6.583	2.21	12.583	9.09	18.58	2.21
0.667	1.35	6.667	2.21	12.667	9.09	18.67	2.21
0.750	1.35	6.750	2.21	12.750	9.09	18.75	2.21
0.833	1.35	6.833	2.21	12.833	9.09	18.83	2.21
0.917	1.35	6.917	2.21	12.917	9.09	18.92	2.21
1.000	1.35	7.000	2.21	13.000	9.09	19.00	2.21
1.083	1.35	7.083	2.70	13.083	6.64	19.08	2.21
1.167	1.35	7.167	2.70	13.167	6.64	19.17	2.21
1.250	1.35	7.250	2.70	13.250	6.64	19.25	2.21
1.333	1.35	7.333	2.70	13.333	6.64	19.33	2.21
1.417	1.35	7.417	2.70	13.417	6.64	19.42	2.21
1.500	1.35	7.500	2.70	13.500	6.64	19.50	2.21
1.583	1.35	7.583	2.70	13.583	5.16	19.58	2.21
1.667	1.35	7.667	2.70	13.667	5.16	19.67	2.21
1.750	1.35	7.750	2.70	13.750	5.16	19.75	2.21
1.833	1.35	7.833	2.70	13.833	5.16	19.83	2.21
1.917	1.35	7.917	2.70	13.917	5.16	19.92	2.21
2.000	1.35	8.000	2.70	14.000	5.16	20.00	2.21
2.083	1.60	8.083	3.20	14.083	3.69	20.08	1.47
2.167	1.60	8.167	3.20	14.167	3.69	20.17	1.47
2.250	1.60	8.250	3.20	14.250	3.69	20.25	1.47
2.333	1.60	8.333	3.20	14.333	3.69	20.33	1.47
2.417	1.60	8.417	3.20	14.417	3.69	20.42	1.47
2.500	1.60	8.500	3.20	14.500	3.69	20.50	1.47
2.583	1.60	8.583	3.44	14.583	3.69	20.58	1.47
2.667	1.60	8.667	3.44	14.667	3.69	20.67	1.47
2.750	1.60	8.750	3.44	14.750	3.69	20.75	1.47
2.833	1.60	8.833	3.44	14.833	3.69	20.83	1.47
2.917	1.60	8.917	3.44	14.917	3.69	20.92	1.47
3.000	1.60	9.000	3.44	15.000	3.69	21.00	1.47
3.083	1.60	9.083	3.93	15.083	3.69	21.08	1.47
3.167	1.60	9.167	3.93	15.167	3.69	21.17	1.47
3.250	1.60	9.250	3.93	15.250	3.69	21.25	1.47
3.333	1.60	9.333	3.93	15.333	3.69	21.33	1.47
3.417	1.60	9.417	3.93	15.417	3.69	21.42	1.47
3.500	1.60	9.500	3.93	15.500	3.69	21.50	1.47
3.583	1.60	9.583	4.42	15.583	3.69	21.58	1.47
3.667	1.60	9.667	4.42	15.667	3.69	21.67	1.47
3.750	1.60	9.750	4.42	15.750	3.69	21.75	1.47
3.833	1.60	9.833	4.42	15.833	3.69	21.83	1.47
3.917	1.60	9.917	4.42	15.917	3.69	21.92	1.47
4.000	1.60	10.000	4.42	16.000	3.69	22.00	1.47
4.083	1.97	10.083	5.65	16.083	2.21	22.08	1.47
4.167	1.97	10.167	5.65	16.167	2.21	22.17	1.47
4.250	1.97	10.250	5.65	16.250	2.21	22.25	1.47
4.333	1.97	10.333	5.65	16.333	2.21	22.33	1.47
4.417	1.97	10.417	5.65	16.417	2.21	22.42	1.47
4.500	1.97	10.500	5.65	16.500	2.21	22.50	1.47
4.583	1.97	10.583	7.62	16.583	2.21	22.58	1.47
4.667	1.97	10.667	7.62	16.667	2.21	22.67	1.47
4.750	1.97	10.750	7.62	16.750	2.21	22.75	1.47
4.833	1.97	10.833	7.62	16.833	2.21	22.83	1.47
4.917	1.97	10.917	7.62	16.917	2.21	22.92	1.47
5.000	1.97	11.000	7.62	17.000	2.21	23.00	1.47

5.083	1.97	11.083	11.80	17.083	2.21	23.08	1.47
5.167	1.97	11.167	11.80	17.167	2.21	23.17	1.47
5.250	1.97	11.250	11.80	17.250	2.21	23.25	1.47
5.333	1.97	11.333	11.80	17.333	2.21	23.33	1.47
5.417	1.97	11.417	11.80	17.417	2.21	23.42	1.47
5.500	1.97	11.500	11.80	17.500	2.21	23.50	1.47
5.583	1.97	11.583	51.13	17.583	2.21	23.58	1.47
5.667	1.97	11.667	51.13	17.667	2.21	23.67	1.47
5.750	1.97	11.750	51.13	17.750	2.21	23.75	1.47
5.833	1.97	11.833	135.67	17.833	2.21	23.83	1.47
5.917	1.97	11.917	135.68	17.917	2.21	23.92	1.47
6.000	1.97	12.000	135.68	18.000	2.21	24.00	1.47

Max.Eff.Inten.(mm/hr)=	135.68	114.31
over (min)	5.00	5.00
Storage Coeff. (min)=	1.22 (ii)	2.53 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.33	0.29

PEAK FLOW (cms)=	0.07	0.00	0.071 (iii)
TIME TO PEAK (hrs)=	12.00	12.00	12.00
RUNOFF VOLUME (mm)=	121.88	88.64	121.21
TOTAL RAINFALL (mm)=	122.88	122.88	122.88
RUNOFF COEFFICIENT =	0.99	0.72	0.99

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha)=	0.05
STANDHYD (0003)	Total Imp(%)=	99.00
ID= 1 DT= 5.0 min	Dir. Conn.(%)=	99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.05	0.00
Dep. Storage (mm)=	1.00	1.50
Average Slope (%)=	1.00	2.00
Length (m)=	19.11	40.00
Mannings n =	0.013	0.250

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

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	1.35	6.083	2.21	12.083	17.71	18.08	2.21
0.167	1.35	6.167	2.21	12.167	17.70	18.17	2.21
0.250	1.35	6.250	2.21	12.250	17.70	18.25	2.21
0.333	1.35	6.333	2.21	12.333	17.70	18.33	2.21
0.417	1.35	6.417	2.21	12.417	17.70	18.42	2.21
0.500	1.35	6.500	2.21	12.500	17.70	18.50	2.21
0.583	1.35	6.583	2.21	12.583	9.09	18.58	2.21
0.667	1.35	6.667	2.21	12.667	9.09	18.67	2.21
0.750	1.35	6.750	2.21	12.750	9.09	18.75	2.21
0.833	1.35	6.833	2.21	12.833	9.09	18.83	2.21
0.917	1.35	6.917	2.21	12.917	9.09	18.92	2.21
1.000	1.35	7.000	2.21	13.000	9.09	19.00	2.21
1.083	1.35	7.083	2.70	13.083	6.64	19.08	2.21
1.167	1.35	7.167	2.70	13.167	6.64	19.17	2.21
1.250	1.35	7.250	2.70	13.250	6.64	19.25	2.21
1.333	1.35	7.333	2.70	13.333	6.64	19.33	2.21

1.417	1.35	7.417	2.70	13.417	6.64	19.42	2.21
1.500	1.35	7.500	2.70	13.500	6.64	19.50	2.21
1.583	1.35	7.583	2.70	13.583	5.16	19.58	2.21
1.667	1.35	7.667	2.70	13.667	5.16	19.67	2.21
1.750	1.35	7.750	2.70	13.750	5.16	19.75	2.21
1.833	1.35	7.833	2.70	13.833	5.16	19.83	2.21
1.917	1.35	7.917	2.70	13.917	5.16	19.92	2.21
2.000	1.35	8.000	2.70	14.000	5.16	20.00	2.21
2.083	1.60	8.083	3.20	14.083	3.69	20.08	1.47
2.167	1.60	8.167	3.20	14.167	3.69	20.17	1.47
2.250	1.60	8.250	3.20	14.250	3.69	20.25	1.47
2.333	1.60	8.333	3.20	14.333	3.69	20.33	1.47
2.417	1.60	8.417	3.20	14.417	3.69	20.42	1.47
2.500	1.60	8.500	3.20	14.500	3.69	20.50	1.47
2.583	1.60	8.583	3.44	14.583	3.69	20.58	1.47
2.667	1.60	8.667	3.44	14.667	3.69	20.67	1.47
2.750	1.60	8.750	3.44	14.750	3.69	20.75	1.47
2.833	1.60	8.833	3.44	14.833	3.69	20.83	1.47
2.917	1.60	8.917	3.44	14.917	3.69	20.92	1.47
3.000	1.60	9.000	3.44	15.000	3.69	21.00	1.47
3.083	1.60	9.083	3.93	15.083	3.69	21.08	1.47
3.167	1.60	9.167	3.93	15.167	3.69	21.17	1.47
3.250	1.60	9.250	3.93	15.250	3.69	21.25	1.47
3.333	1.60	9.333	3.93	15.333	3.69	21.33	1.47
3.417	1.60	9.417	3.93	15.417	3.69	21.42	1.47
3.500	1.60	9.500	3.93	15.500	3.69	21.50	1.47
3.583	1.60	9.583	4.42	15.583	3.69	21.58	1.47
3.667	1.60	9.667	4.42	15.667	3.69	21.67	1.47
3.750	1.60	9.750	4.42	15.750	3.69	21.75	1.47
3.833	1.60	9.833	4.42	15.833	3.69	21.83	1.47
3.917	1.60	9.917	4.42	15.917	3.69	21.92	1.47
4.000	1.60	10.000	4.42	16.000	3.69	22.00	1.47
4.083	1.97	10.083	5.65	16.083	2.21	22.08	1.47
4.167	1.97	10.167	5.65	16.167	2.21	22.17	1.47
4.250	1.97	10.250	5.65	16.250	2.21	22.25	1.47
4.333	1.97	10.333	5.65	16.333	2.21	22.33	1.47
4.417	1.97	10.417	5.65	16.417	2.21	22.42	1.47
4.500	1.97	10.500	5.65	16.500	2.21	22.50	1.47
4.583	1.97	10.583	7.62	16.583	2.21	22.58	1.47
4.667	1.97	10.667	7.62	16.667	2.21	22.67	1.47
4.750	1.97	10.750	7.62	16.750	2.21	22.75	1.47
4.833	1.97	10.833	7.62	16.833	2.21	22.83	1.47
4.917	1.97	10.917	7.62	16.917	2.21	22.92	1.47
5.000	1.97	11.000	7.62	17.000	2.21	23.00	1.47
5.083	1.97	11.083	11.80	17.083	2.21	23.08	1.47
5.167	1.97	11.167	11.80	17.167	2.21	23.17	1.47
5.250	1.97	11.250	11.80	17.250	2.21	23.25	1.47
5.333	1.97	11.333	11.80	17.333	2.21	23.33	1.47
5.417	1.97	11.417	11.80	17.417	2.21	23.42	1.47
5.500	1.97	11.500	11.80	17.500	2.21	23.50	1.47
5.583	1.97	11.583	51.13	17.583	2.21	23.58	1.47
5.667	1.97	11.667	51.13	17.667	2.21	23.67	1.47
5.750	1.97	11.750	51.13	17.750	2.21	23.75	1.47
5.833	1.97	11.833	135.67	17.833	2.21	23.83	1.47
5.917	1.97	11.917	135.68	17.917	2.21	23.92	1.47
6.000	1.97	12.000	135.68	18.000	2.21	24.00	1.47

Max.Eff.Inten.(mm/hr)=	135.68	114.31
over (min)	5.00	5.00
Storage Coeff. (min)=	0.84 (ii)	1.83 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.34	0.32

PEAK FLOW (cms)=	0.02	0.00	0.021 (iii)
TIME TO PEAK (hrs)=	12.00	12.00	12.00
RUNOFF VOLUME (mm)=	121.88	88.64	121.54
TOTAL RAINFALL (mm)=	122.88	122.88	122.88
RUNOFF COEFFICIENT =	0.99	0.72	0.99

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| CALIB |
| STANDHYD (0004) | Area (ha)= 0.14
| ID= 1 DT= 5.0 min | Total Imp(%)= 86.00 Dir. Conn.(%)= 86.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.12 0.02
Dep. Storage (mm)= 1.00 1.50
Average Slope (%)= 1.00 2.00
Length (m)= 30.63 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	1.35	6.083	2.21	12.083	17.71	18.08	2.21
0.167	1.35	6.167	2.21	12.167	17.70	18.17	2.21
0.250	1.35	6.250	2.21	12.250	17.70	18.25	2.21
0.333	1.35	6.333	2.21	12.333	17.70	18.33	2.21
0.417	1.35	6.417	2.21	12.417	17.70	18.42	2.21
0.500	1.35	6.500	2.21	12.500	17.70	18.50	2.21
0.583	1.35	6.583	2.21	12.583	9.09	18.58	2.21
0.667	1.35	6.667	2.21	12.667	9.09	18.67	2.21
0.750	1.35	6.750	2.21	12.750	9.09	18.75	2.21
0.833	1.35	6.833	2.21	12.833	9.09	18.83	2.21
0.917	1.35	6.917	2.21	12.917	9.09	18.92	2.21
1.000	1.35	7.000	2.21	13.000	9.09	19.00	2.21
1.083	1.35	7.083	2.70	13.083	6.64	19.08	2.21
1.167	1.35	7.167	2.70	13.167	6.64	19.17	2.21
1.250	1.35	7.250	2.70	13.250	6.64	19.25	2.21
1.333	1.35	7.333	2.70	13.333	6.64	19.33	2.21
1.417	1.35	7.417	2.70	13.417	6.64	19.42	2.21
1.500	1.35	7.500	2.70	13.500	6.64	19.50	2.21
1.583	1.35	7.583	2.70	13.583	5.16	19.58	2.21
1.667	1.35	7.667	2.70	13.667	5.16	19.67	2.21
1.750	1.35	7.750	2.70	13.750	5.16	19.75	2.21
1.833	1.35	7.833	2.70	13.833	5.16	19.83	2.21
1.917	1.35	7.917	2.70	13.917	5.16	19.92	2.21
2.000	1.35	8.000	2.70	14.000	5.16	20.00	2.21
2.083	1.60	8.083	3.20	14.083	3.69	20.08	1.47
2.167	1.60	8.167	3.20	14.167	3.69	20.17	1.47
2.250	1.60	8.250	3.20	14.250	3.69	20.25	1.47
2.333	1.60	8.333	3.20	14.333	3.69	20.33	1.47
2.417	1.60	8.417	3.20	14.417	3.69	20.42	1.47
2.500	1.60	8.500	3.20	14.500	3.69	20.50	1.47
2.583	1.60	8.583	3.44	14.583	3.69	20.58	1.47
2.667	1.60	8.667	3.44	14.667	3.69	20.67	1.47
2.750	1.60	8.750	3.44	14.750	3.69	20.75	1.47
2.833	1.60	8.833	3.44	14.833	3.69	20.83	1.47
2.917	1.60	8.917	3.44	14.917	3.69	20.92	1.47
3.000	1.60	9.000	3.44	15.000	3.69	21.00	1.47
3.083	1.60	9.083	3.93	15.083	3.69	21.08	1.47
3.167	1.60	9.167	3.93	15.167	3.69	21.17	1.47
3.250	1.60	9.250	3.93	15.250	3.69	21.25	1.47
3.333	1.60	9.333	3.93	15.333	3.69	21.33	1.47

3.417	1.60	9.417	3.93	15.417	3.69	21.42	1.47
3.500	1.60	9.500	3.93	15.500	3.69	21.50	1.47
3.583	1.60	9.583	4.42	15.583	3.69	21.58	1.47
3.667	1.60	9.667	4.42	15.667	3.69	21.67	1.47
3.750	1.60	9.750	4.42	15.750	3.69	21.75	1.47
3.833	1.60	9.833	4.42	15.833	3.69	21.83	1.47
3.917	1.60	9.917	4.42	15.917	3.69	21.92	1.47
4.000	1.60	10.000	4.42	16.000	3.69	22.00	1.47
4.083	1.97	10.083	5.65	16.083	2.21	22.08	1.47
4.167	1.97	10.167	5.65	16.167	2.21	22.17	1.47
4.250	1.97	10.250	5.65	16.250	2.21	22.25	1.47
4.333	1.97	10.333	5.65	16.333	2.21	22.33	1.47
4.417	1.97	10.417	5.65	16.417	2.21	22.42	1.47
4.500	1.97	10.500	5.65	16.500	2.21	22.50	1.47
4.583	1.97	10.583	7.62	16.583	2.21	22.58	1.47
4.667	1.97	10.667	7.62	16.667	2.21	22.67	1.47
4.750	1.97	10.750	7.62	16.750	2.21	22.75	1.47
4.833	1.97	10.833	7.62	16.833	2.21	22.83	1.47
4.917	1.97	10.917	7.62	16.917	2.21	22.92	1.47
5.000	1.97	11.000	7.62	17.000	2.21	23.00	1.47
5.083	1.97	11.083	11.80	17.083	2.21	23.08	1.47
5.167	1.97	11.167	11.80	17.167	2.21	23.17	1.47
5.250	1.97	11.250	11.80	17.250	2.21	23.25	1.47
5.333	1.97	11.333	11.80	17.333	2.21	23.33	1.47
5.417	1.97	11.417	11.80	17.417	2.21	23.42	1.47
5.500	1.97	11.500	11.80	17.500	2.21	23.50	1.47
5.583	1.97	11.583	51.13	17.583	2.21	23.58	1.47
5.667	1.97	11.667	51.13	17.667	2.21	23.67	1.47
5.750	1.97	11.750	51.13	17.750	2.21	23.75	1.47
5.833	1.97	11.833	135.67	17.833	2.21	23.83	1.47
5.917	1.97	11.917	135.68	17.917	2.21	23.92	1.47
6.000	1.97	12.000	135.68	18.000	2.21	24.00	1.47

Max.Eff.Inten.(mm/hr)= 135.68 114.31
over (min) 5.00 5.00
Storage Coeff. (min)= 1.11 (ii) 4.13 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.34 0.24

TOTALS
PEAK FLOW (cms)= 0.05 0.01 0.052 (iii)
TIME TO PEAK (hrs)= 12.00 12.00 12.00
RUNOFF VOLUME (mm)= 121.88 88.64 117.22
TOTAL RAINFALL (mm)= 122.88 122.88 122.88
RUNOFF COEFFICIENT = 0.99 0.72 0.95

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| CALIB |
| STANDHYD (0012) | Area (ha)= 0.07
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.07 0.00
Dep. Storage (mm)= 1.00 1.50
Average Slope (%)= 1.00 2.00
Length (m)= 21.88 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	1.35	6.083	2.21	12.083	17.71	18.08	2.21
0.167	1.35	6.167	2.21	12.167	17.70	18.17	2.21
0.250	1.35	6.250	2.21	12.250	17.70	18.25	2.21
0.333	1.35	6.333	2.21	12.333	17.70	18.33	2.21
0.417	1.35	6.417	2.21	12.417	17.70	18.42	2.21
0.500	1.35	6.500	2.21	12.500	17.70	18.50	2.21
0.583	1.35	6.583	2.21	12.583	9.09	18.58	2.21
0.667	1.35	6.667	2.21	12.667	9.09	18.67	2.21
0.750	1.35	6.750	2.21	12.750	9.09	18.75	2.21
0.833	1.35	6.833	2.21	12.833	9.09	18.83	2.21
0.917	1.35	6.917	2.21	12.917	9.09	18.92	2.21
1.000	1.35	7.000	2.21	13.000	9.09	19.00	2.21
1.083	1.35	7.083	2.70	13.083	6.64	19.08	2.21
1.167	1.35	7.167	2.70	13.167	6.64	19.17	2.21
1.250	1.35	7.250	2.70	13.250	6.64	19.25	2.21
1.333	1.35	7.333	2.70	13.333	6.64	19.33	2.21
1.417	1.35	7.417	2.70	13.417	6.64	19.42	2.21
1.500	1.35	7.500	2.70	13.500	6.64	19.50	2.21
1.583	1.35	7.583	2.70	13.583	5.16	19.58	2.21
1.667	1.35	7.667	2.70	13.667	5.16	19.67	2.21
1.750	1.35	7.750	2.70	13.750	5.16	19.75	2.21
1.833	1.35	7.833	2.70	13.833	5.16	19.83	2.21
1.917	1.35	7.917	2.70	13.917	5.16	19.92	2.21
2.000	1.35	8.000	2.70	14.000	5.16	20.00	2.21
2.083	1.60	8.083	3.20	14.083	3.69	20.08	1.47
2.167	1.60	8.167	3.20	14.167	3.69	20.17	1.47
2.250	1.60	8.250	3.20	14.250	3.69	20.25	1.47
2.333	1.60	8.333	3.20	14.333	3.69	20.33	1.47
2.417	1.60	8.417	3.20	14.417	3.69	20.42	1.47
2.500	1.60	8.500	3.20	14.500	3.69	20.50	1.47
2.583	1.60	8.583	3.44	14.583	3.69	20.58	1.47
2.667	1.60	8.667	3.44	14.667	3.69	20.67	1.47
2.750	1.60	8.750	3.44	14.750	3.69	20.75	1.47
2.833	1.60	8.833	3.44	14.833	3.69	20.83	1.47
2.917	1.60	8.917	3.44	14.917	3.69	20.92	1.47
3.000	1.60	9.000	3.44	15.000	3.69	21.00	1.47
3.083	1.60	9.083	3.93	15.083	3.69	21.08	1.47
3.167	1.60	9.167	3.93	15.167	3.69	21.17	1.47
3.250	1.60	9.250	3.93	15.250	3.69	21.25	1.47
3.333	1.60	9.333	3.93	15.333	3.69	21.33	1.47
3.417	1.60	9.417	3.93	15.417	3.69	21.42	1.47
3.500	1.60	9.500	3.93	15.500	3.69	21.50	1.47
3.583	1.60	9.583	4.42	15.583	3.69	21.58	1.47
3.667	1.60	9.667	4.42	15.667	3.69	21.67	1.47
3.750	1.60	9.750	4.42	15.750	3.69	21.75	1.47
3.833	1.60	9.833	4.42	15.833	3.69	21.83	1.47
3.917	1.60	9.917	4.42	15.917	3.69	21.92	1.47
4.000	1.60	10.000	4.42	16.000	3.69	22.00	1.47
4.083	1.97	10.083	5.65	16.083	2.21	22.08	1.47
4.167	1.97	10.167	5.65	16.167	2.21	22.17	1.47
4.250	1.97	10.250	5.65	16.250	2.21	22.25	1.47
4.333	1.97	10.333	5.65	16.333	2.21	22.33	1.47
4.417	1.97	10.417	5.65	16.417	2.21	22.42	1.47
4.500	1.97	10.500	5.65	16.500	2.21	22.50	1.47
4.583	1.97	10.583	7.62	16.583	2.21	22.58	1.47
4.667	1.97	10.667	7.62	16.667	2.21	22.67	1.47
4.750	1.97	10.750	7.62	16.750	2.21	22.75	1.47
4.833	1.97	10.833	7.62	16.833	2.21	22.83	1.47
4.917	1.97	10.917	7.62	16.917	2.21	22.92	1.47
5.000	1.97	11.000	7.62	17.000	2.21	23.00	1.47
5.083	1.97	11.083	11.80	17.083	2.21	23.08	1.47
5.167	1.97	11.167	11.80	17.167	2.21	23.17	1.47
5.250	1.97	11.250	11.80	17.250	2.21	23.25	1.47
5.333	1.97	11.333	11.80	17.333	2.21	23.33	1.47

5.417	1.97	11.417	11.80	17.417	2.21	23.42	1.47
5.500	1.97	11.500	11.80	17.500	2.21	23.50	1.47
5.583	1.97	11.583	51.13	17.583	2.21	23.58	1.47
5.667	1.97	11.667	51.13	17.667	2.21	23.67	1.47
5.750	1.97	11.750	51.13	17.750	2.21	23.75	1.47
5.833	1.97	11.833	135.67	17.833	2.21	23.83	1.47
5.917	1.97	11.917	135.68	17.917	2.21	23.92	1.47
6.000	1.97	12.000	135.68	18.000	2.21	24.00	1.47

Max.Eff.Inten.(mm/hr)=	135.68	114.31	
over (min)	5.00	5.00	
Storage Coeff. (min)=	0.91 (ii)	1.90 (ii)	
Unit Hyd. Tpeak (min)=	5.00	5.00	
Unit Hyd. peak (cms)=	0.34	0.32	
TOTALS			
PEAK FLOW (cms)=	0.03	0.00	0.027 (iii)
TIME TO PEAK (hrs)=	12.00	12.00	12.00
RUNOFF VOLUME (mm)=	121.88	88.64	121.54
TOTAL RAINFALL (mm)=	122.88	122.88	122.88
RUNOFF COEFFICIENT =	0.99	0.72	0.99

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

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0007)				
1 + 2 = 3				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0012):	0.07	0.027	12.00	121.54
+ ID2= 2 (0002):	0.19	0.071	12.00	121.21
=====				
ID = 3 (0007):	0.26	0.098	12.00	121.30

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0007)				
3 + 2 = 1				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (0007):	0.26	0.098	12.00	121.30
+ ID2= 2 (0003):	0.05	0.021	12.00	121.54
=====				
ID = 1 (0007):	0.32	0.119	12.00	121.34

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0007)				
1 + 2 = 3				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0007):	0.32	0.119	12.00	121.34
+ ID2= 2 (0004):	0.14	0.052	12.00	117.22
=====				
ID = 3 (0007):	0.46	0.171	12.00	120.07

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| RESERVOIR(0014) | OVERFLOW IS OFF

| IN= 2--> OUT= 1 |
DT= 5.0 min

OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
0.0000	0.0000	0.0880	0.0054
0.0000	0.0008	0.0950	0.0062
0.0360	0.0015	0.1020	0.0070
0.0510	0.0023	0.1080	0.0077
0.0620	0.0031	0.1140	0.0085
0.0720	0.0039	0.1200	0.0093
0.0810	0.0046	0.0000	0.0000

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (0007)	0.456	0.171	12.00	120.07
OUTFLOW: ID= 1 (0014)	0.456	0.114	12.00	118.32

PEAK FLOW REDUCTION [Qout/Qin](%)= 66.76
TIME SHIFT OF PEAK FLOW (min)= 0.00
MAXIMUM STORAGE USED (ha.m.)= 0.0093

| ADD HYD (0017) |
1 + 2 = 3

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0014):	0.46	0.114	12.00	118.32
+ ID2= 2 (0009):	2.41	0.852	12.00	114.29
=====				
ID = 3 (0017):	2.86	0.966	12.00	114.94

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

FINISH
=====



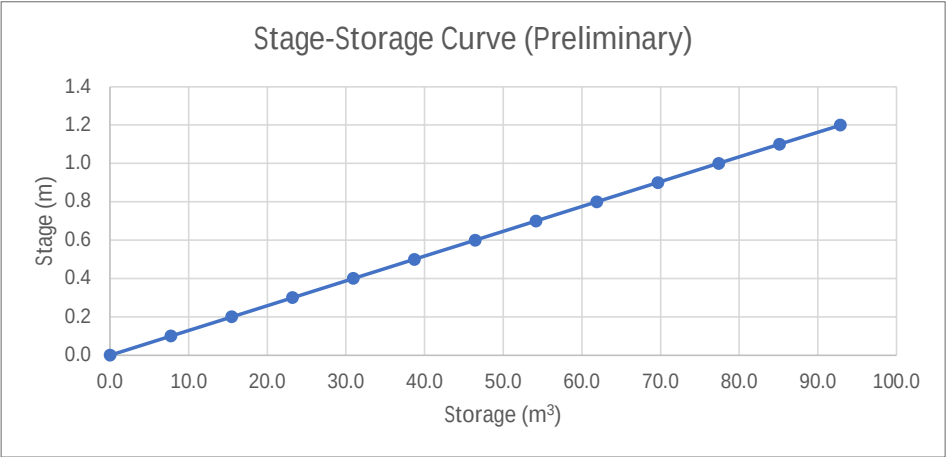
Appendix I – Storage-Discharge Relationship Calculations

STAGE - STORAGE - DISCHARGE CALCULATIONS

Preliminary Storage Tank Configuration

Tank width	1.8 m	Total Volume	92.9 m ³
Tank length	43 m		
Tank depth	1.2 m		

Depth, D (m)	Volume (m ³)
0.0	0.0
0.1	7.7
0.2	15.5
0.3	23.2
0.4	31.0
0.5	38.7
0.6	46.4
0.7	54.2
0.8	61.9
0.9	69.7
1.0	77.4
1.1	85.1
1.2	92.9

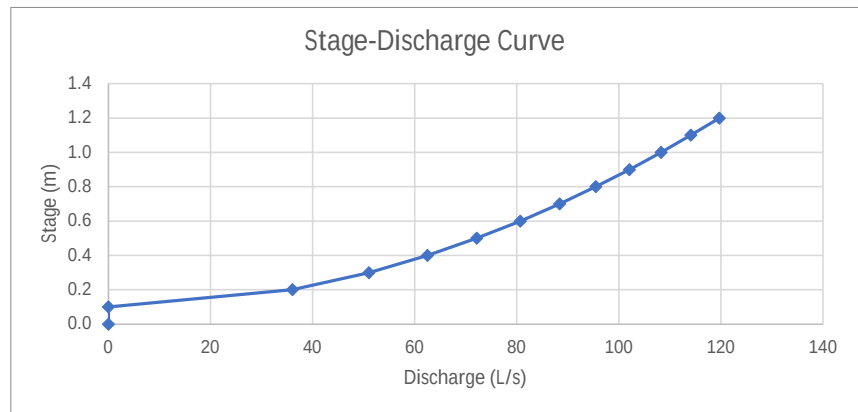


Stage-Discharge Curve

Orifice Equation: $Q = C_d A (2gh)^{1/2}$
(Vertical Orifice)

Orifice diameter = 200 mm
Area = 0.031 m²
g = 9.81 m/s²
C_d = 0.82 (tube)
Orifice invert = 0.00 m (arbitrary)

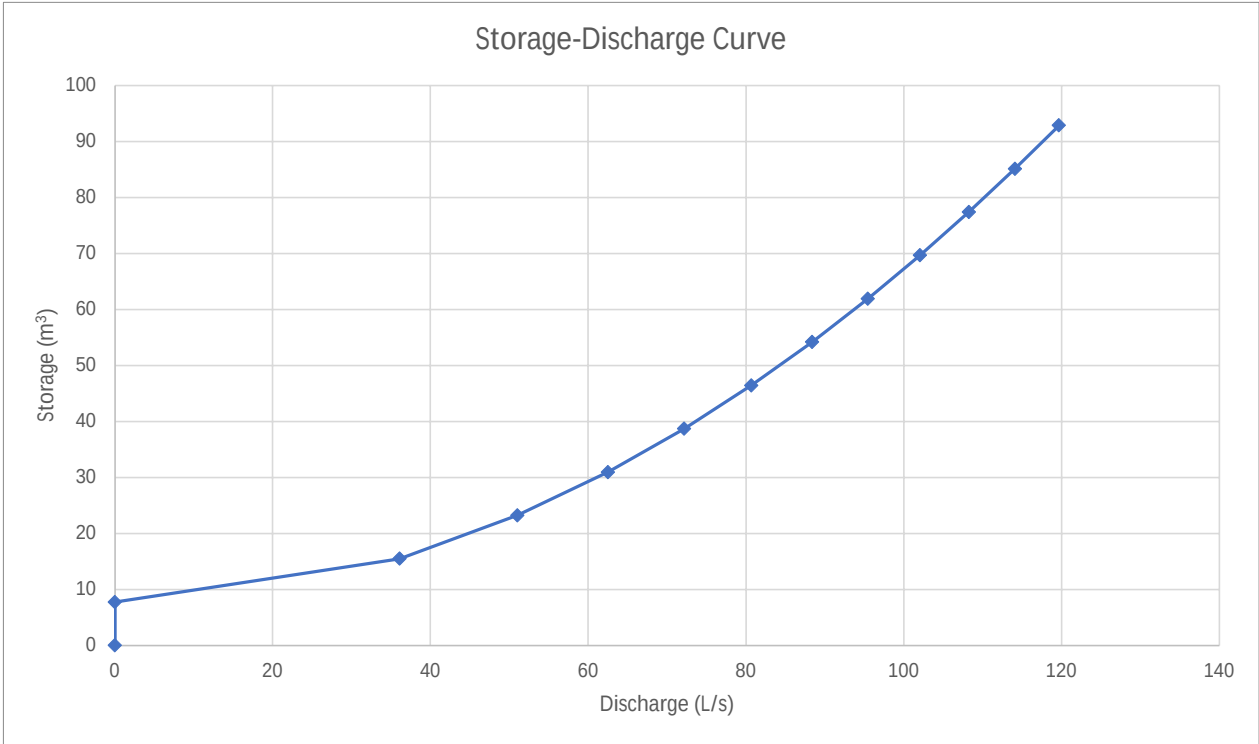
Depth (m)	Head (m)	Q (L/s)
0.0	0.0	0
0.1	0.0	0
0.2	0.1	36
0.3	0.2	51
0.4	0.3	62
0.5	0.4	72
0.6	0.5	81
0.7	0.6	88
0.8	0.7	95
0.9	0.8	102
1.0	0.9	108
1.1	1.0	114
1.2	1.1	120



Storage-Discharge Curve

Depth (m)	Volume (m ³)	Q (L/s)
0.0	0	0
0.1	8	0
0.2	15	36
0.3	23	51
0.4	31	62
0.5	39	72
0.6	46	81
0.7	54	88
0.8	62	95
0.9	70	102
1.0	77	108
1.1	85	114
1.2	93	120

Q (m ³ /s)	Volume (ha m)
0.000	0.0000
0.000	0.0008
0.036	0.0015
0.051	0.0023
0.062	0.0031
0.072	0.0039
0.081	0.0046
0.088	0.0054
0.095	0.0062
0.102	0.0070
0.108	0.0077
0.114	0.0085
0.120	0.0093





Appendix J – Photometric Study



MEMORANDUM 1

TO: Andy Sahota
Quality Inn
924 King Street,
Midland, ON L4R 0B8

DATE: October 23, 2025

FROM: Ritesh Patel
C.C. Naveen Varathan
Neville Morrison

RE: Quality Inn Expansion – Midland, Ontario
McDonald Parking Lot Area Photometric study

Please find attached the lighting calculation drawing for the proposed McDonald's development.

Photometric calculations were conducted for key site areas, including:

- Entrance and exit drives
- Menu board area
- Trash enclosure
- Parking spaces
- General site areas

The lighting design was developed to provide an average illumination level of 3–4 F.C. (Foot-Candles) across these zones, in accordance with the design criteria provided by Arcadis.

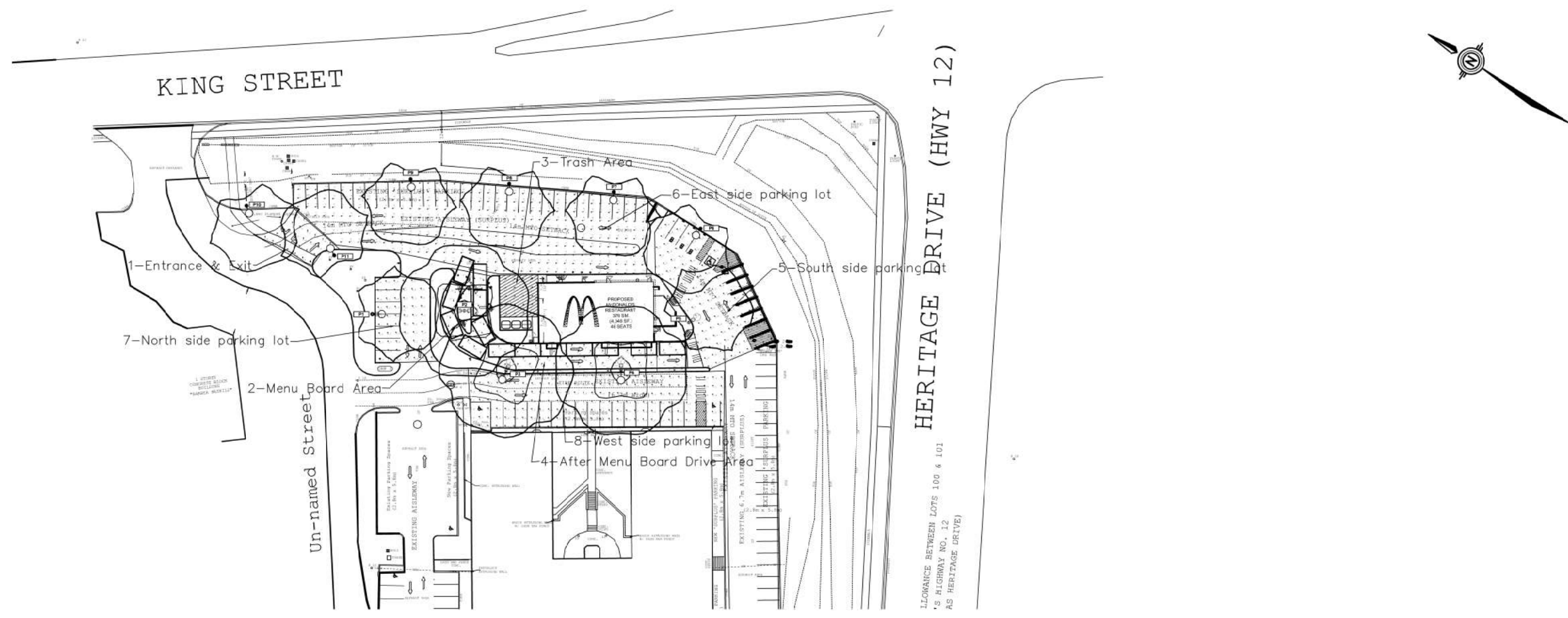
The proposed lighting system utilizes 7.62 m (25 ft) lighting poles mounted on 1.0 m raised footings, with 153w GE Evolve series LED luminaire, chosen for their performance and suitability for this application.

Lighting Layout Overview:

The proposed layout in McDonlad's site plan included five (5) lighting poles (P1-P5); however, this configuration did not provide sufficient illumination across the site. To meet the required illumination levels, the design has been revised to include six (6) additional poles (P6-P11) and eight (8) additional luminaires, as shown in the attached schematic lighting layout drawing. The updated configuration comprises eleven (11) poles in total:

- Eight (8) poles with single luminaires, and
- Three (3) poles with twin luminaires

This updated arrangement ensures consistent light distribution and coverage across the site, enhancing visibility and safety.



Luminaire Schedule								
Symbol	Qty	Arrangement	Description	LLF	Luminaire Lumens	Luminaire Watts	Total Watts	Arm
	3	Back-Back	EACL01 H4AF740	0.850	20000	153	918	0.3
	8	Single	EACL01 H4AF740	0.850	20000	153	1224	0.3

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
1-Entrance & Exit	Illuminance	Fc	4.08	5.4	3.1	1.32	1.74
2-Menu Board Area	Illuminance	Fc	6.02	7.7	4.2	1.43	1.83
3- Trash area	Illuminance	Fc	3.24	4.7	2.1	1.54	2.24
4-After menu board drive area	Illuminance	Fc	4.44	7.2	2.3	1.93	3.13
5-South side parking lot	Illuminance	Fc	3.40	6.0	1.0	3.40	6.00
6-East side parking lot	Illuminance	Fc	3.23	5.6	1.1	2.94	5.09
7-North parking lot	Illuminance	Fc	4.13	5.6	1.9	2.17	2.95
8-West parking lot	Illuminance	Fc	3.02	6.5	0.4	7.55	16.25

- Lighting Requirements
- a. Entrance and Exit Drives: 3-4 F.C
 - b. Menu Board Area: 3-4 F.C.
 - c. Trash Area: 3-4 F.C.
 - d. Parking: 3-4 F.C.
 - e. Balance of Site: 3-4 F.C.

Drawing: I:\2025-01 MIDLAND INN\3-CAD\3-SHEET\ELECTRICAL\ED-LIGHTING CALCULATIONS 2025-10-21.DWG
Date: 10/21/2025 Time: 04:27:49 PM

LEGEND

REGIONAL

N/A

SCALE
1:500 HORIZ.

STAMP

NO. DATE BY REVISIONS
DESIGN CH'KD DATE
DRAWN CH'KD 2025-OCT-15

 Chisholm, Fleming and Associates
consulting engineers

MIDLAND INN
DRAFT SITE PLAN
MUNICIPAL DRAWING NO. REGIONAL DRAWING NO.
CONTRACT NO. SHEET
E0 of E0