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Appendix C

Stormwater Management Report

Hamilton Binbrook Road Intersection MCEA

Preliminary Stormwater Management Study

City of Hamilton
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1.0 Introduction

1.1 Background

R.J. Burnside & Associates Limited (Burnside) has been retained by the City of Hamilton (City) to undertake a Municipal Class Environmental Assessment (MCEA) to examine the feasibility of reconfiguring the intersection at Binbrook Road, Trinity Church Road, and White Church Road East in the Glanbrook District.

The purpose of this report is to provide a review of existing drainage conditions, assess the proposed alternatives, and summarize the stormwater management requirements for the proposed improvements. The study area is shown in Figure 1 below.

Figure 1: Study Area



1.2 Site Context

Trinity Church Road runs in a northeast to southwest direction, and White Church Road and Binbrook Road in west to east directions. The existing roads have rural two-lane cross sections with no pedestrian or cyclist facilities. Land use adjacent to the road right-of-way (ROW) is predominantly rural, consisting of farmland and single-family residential units.

2.0 Design Criteria

The relevant stormwater management and drainage design criteria and guideline documents are listed below:

- Comprehensive Development Guidelines and Financial Policies Manual, City (2019)
- Storm Drainage Policy, City (2004)
- Stormwater Master Plan – Class Environmental Assessment Report, City (2007)
- Highway Drainage Design Standards (HDDS), MTO (2024)
- Stormwater Management Planning and Design Manual, Ontario Ministry of Environment (2003)

The culvert design criteria are summarized in Table 1 below.

Table 1: Culvert Design Criteria

Document	Standard	Criteria
	Road Classification	Existing: Rural Arterial Undivided
Non-Watercourse		
MTO	Design Flow (SD-1, 1.1)	Minor System: 10% Annual Exceedance Probability (AEP) (i.e., 10-Year Return Period) Major System: 1% AEP (i.e., 100-Year Return Period)
MTO	Flow Depth - Major System (SD-9, 2.2)	No roadway overtopping
MTO	Freeboard to Top of Subgrade - Minor System (WC-7, 3.3)	Minimum 0.3 m
Watercourse		
MTO	Design Flow (WC-1)	Design Storm: 4% AEP (i.e., 25-Year Return Period) - span less than 6 m
MTO	Freeboard to Edge of Travelled Lane - Design Storm (WC-7, 3.2)	Minimum 1 m
MTO	Maximum Depth of Flow on Roadway - Regional Storm (WC-13, 3.2.1)	Maximum 0.3 m
MTO	Velocity x Depth on Roadway - Regional Storm (WC-13, 3.2.2)	Maximum 0.8 m^2/s

Additionally, a permit may be required from the Niagara Peninsula Conservation Authority (NPCA), as a portion of the study area is within the NPCA regulated area.

3.0 Existing Condition

The study area is located within the Welland River West Subwatershed within the Upper Welland River Watershed. The area is within the jurisdiction of the NPCA with NPCA regulated areas adjacent to the roadway. Existing drainage is conveyed through roadside ditches and crossing and entrance culverts. There is an existing ditch inlet with a bird cage lid adjacent to Trinity Church Road directly east of the existing intersection with White Church Road. The ditch inlet is assumed to be connected to the tile bed of the adjacent agricultural field, but this is to be confirmed in detailed design. A low-lying channel through the agricultural field adjacent to the ditch inlet is located within the NPCA regulation limits, has been assumed to function as a watercourse, and serves as the ultimate outlet for runoff generated within the study area. See Appendix A for photos of the ditch inlet and low-lying channel.

The areas adjacent to the roadway are within Significant Groundwater Recharge Areas (SGRA) and Highly Vulnerable Aquifers (HVA), refer to Figure A1 in Appendix A for details.

There are four existing road crossing culverts within the project limits. A hydrologic assessment was completed for all four culverts, while the driveway and entrance culverts will be evaluated during detailed design. As three of the four road crossing culverts are proposed for removal, a hydraulic assessment was undertaken only for the remaining culvert. Further details are provided in the following sections.

3.1 Hydrologic Analysis

Contributing catchment areas to the four existing crossing culverts have been determined using LiDAR contours and the Ontario Watershed Information Tool (OWIT) from the Ministry of Natural Resources and Forestry. The catchment generally consists of overland flow and drainage within the road ROW. Refer to Figure A2 in Appendix A for the culvert drainage area plan. Based on the Soil Survey Complex, prepared by the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA), the soil type within the area is predominately silt loam (generally hydrologic soil group BC to C). Refer to Figure A3 in Appendix A for details.

The 24-hour SCS Type II Storm rainfall distributions govern the 2-year to 100-year storm peak flow calculations. The SCS storm distributions were based on the IDF curves found in the City's Development Guidelines. The study area is located within the NPCA jurisdiction, and therefore, the Hurricane Hazel regional storm event has also been included in the analysis for culverts.

Time of concentration (Tc) was calculated with consideration of the catchment runoff coefficient (C). When C is less than 0.40 then the Airport Method was used, and the Bransby-Williams Formula was used when C is greater than or equal to 0.40. The overland flow lengths and slopes were determined through the topographic survey and

OWIT. Peak flows were determined using the Unit Hydrograph method in Visual OTTHYMO 6.2 (VO).

The existing hydrology parameters for each catchment and peak flow rates for each culvert are summarized in Table 2 and Table 3, respectively. Detailed calculations and VO outputs can be found in Appendix A.

Table 2: Existing Culvert Catchment Hydrologic Modelling Parameters

Catchment ID	Area (ha)	Runoff Coefficient	Curve Number (CNII / CNIII)	Initial Abstraction Ia (mm)	Time to Peak Tp (hr)
101	0.39	0.37	87/94	4.1	0.28
102	7.79	0.17	82/91	4.9	0.57
103	0.82	0.31	85/93	4.4	0.28
104	0.76	0.38	87/94	4.1	0.28

Table 3: Culvert Peak Flow Rates

Design Storm	Return Period	Peak Flow (m^3/s)			
		Culvert 1 (Catchment 101)	Culvert 2* (Catchment 101 & 102)	Culvert 3* (Catchment 101, 102, & 103)	Culvert 4 (Catchment 104)
24-hour SCS Type II	2-Year	0.022	0.223	0.252	0.043
	5-Year	0.036	0.348	0.433	0.071
	10-Year	0.046	0.496	0.559	0.089
	25-Year	0.058	0.648	0.730	0.114
	50-Year	0.067	0.754	0.848	0.130
	100-Year	0.076	0.862	0.969	0.147
Hurricane Hazel	Regional Storm	0.056	1.002	1.105	0.109

*Peak Flow values shown are the total flows tributary to Culvert

3.2 Hydraulic Analysis

Table 4, Table 5, Table 6, and Table 7 summarize the existing characteristics of existing Culverts 1 through 4. Culvert characteristics were taken from the City-provided Topographic Survey data (unless otherwise specified below). See the Existing Culvert Drainage Plan in Appendix B for existing road crossing locations.

Table 4: Culvert 1 - Hydraulic Parameters

Parameter	Existing Condition
Road Crossing Classification	Existing: Rural Arterial Undivided, Non-Watercourse
Culvert Description	500 mm Diameter CSP
Culvert Length	12.8 m
Culvert Slope	2.19%
Inlet Invert	221.20 m
Outlet Invert	220.92 m
Centreline of Road Elevation	221.81 m

Table 5: Culvert 2 - Hydraulic Parameters

Parameter	Existing Condition
Road Crossing Classification	Existing: Rural Arterial Undivided, Non-Watercourse
Culvert Description	600 mm Diameter HDPE
Culvert Length	17.1 m
Culvert Slope	1.29%
Inlet Invert	219.83 m
Outlet Invert	219.61 m
Centreline of Road Elevation	221.53 m

Table 6: Culvert 3 - Hydraulic Parameters

Parameter		Existing Condition
Road Crossing Classification		Existing: Rural Arterial Undivided, Watercourse
Culvert Description		Twin 500 mm Diameter CSP
Culvert Length		10.5 m
Culvert Slope	North Pipe	0.07%
	South Pipe	0.60%
Inlet Invert	North Pipe	218.792 m
	South Pipe	218.775 m
Outlet Invert	North Pipe	218.785 m
	South Pipe	218.712 m
Centreline of Road Elevation		219.74 m

Table 7: Culvert 4 - Hydraulic Parameters

Parameter	Existing Condition
Road Crossing Classification	Existing: Rural Arterial Undivided, Non-Watercourse
Culvert Description	420 mm (Height) x 560 mm (Span) CSPA*
Culvert Length	11.1 m
Embedment	0.180 m
Culvert Slope	0.68%
Inlet Invert	218.865 m
Outlet Invert	218.789 m
Centreline of Road Elevation	219.72 m
Headwater Elevation (10-Yr, from HY-8)	219.73 m
Regional Conveyance Criteria Satisfied?	No (Overtopping during 10-year storm event)

*Size taken from GIS culvert database provided by City. Survey states a 600 mm diameter CSPA.

As noted above, a hydraulic analysis was completed in HY-8 for Culvert #4, as it is the only road crossing culvert proposed to remain in its current location under future conditions. The HY-8 analysis indicates that the existing culvert does not satisfy the MTO conveyance criteria for a Rural Arterial Undivided roadway discharging to a non-watercourse, which requires conveyance of the 10-year design storm. In addition, the applicable standards require a minimum freeboard of 0.3 m between the 10-year headwater elevation and the top of subgrade.

In the absence of borehole information along Trinity Church Road, the 10-year headwater elevation was compared to an estimated roadway subgrade elevation. The subgrade elevation was derived from the City's Rural Cross-Section Standard details for existing conditions and from the proposed roadway cross-section design for future conditions. The analysis indicates that, under both existing and proposed conditions, the culvert itself (and therefore the 10-year headwater elevation) encroaches into the roadway subgrade structure.

Due to the conveyance and cover issues mentioned above, existing Culvert #4 is proposed to be replaced and adjusted (along with adjacent roadside ditches) to ensure MTO conveyance criteria is satisfied. This analysis will be completed during detailed design in conjunction with the ditch design. See Section 5.1 for further information.

4.0 Alternatives Comparison

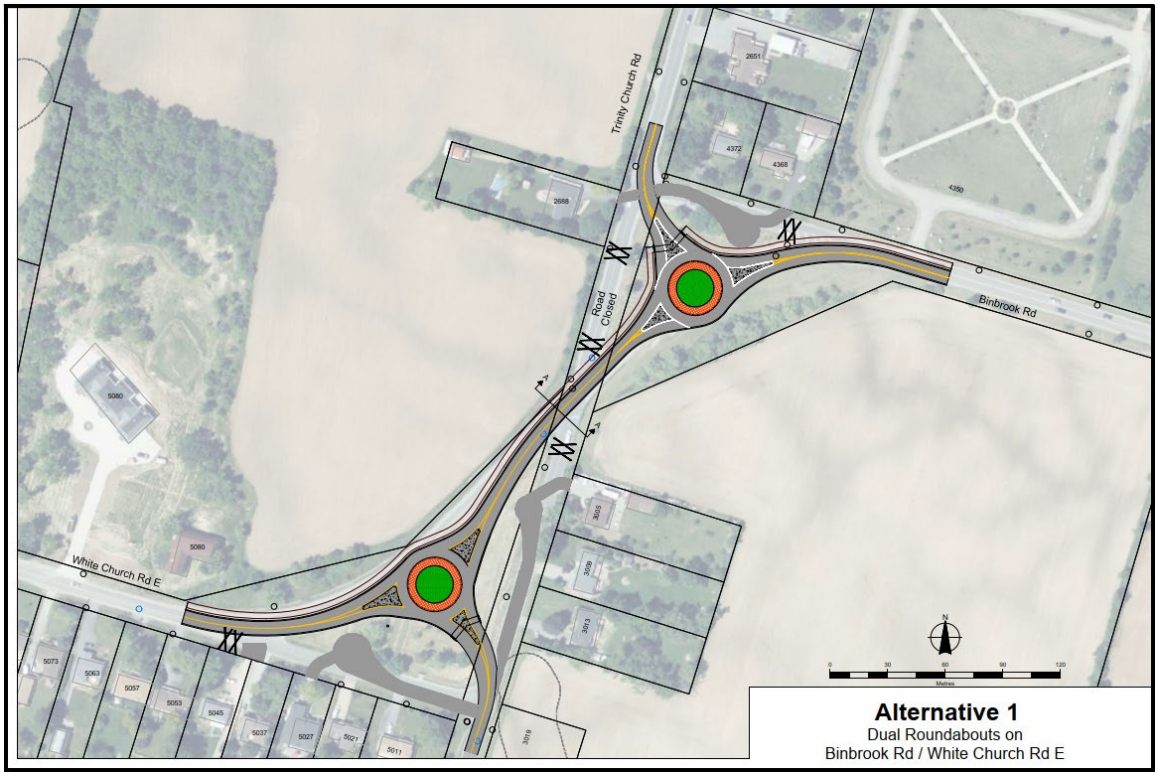
In the proposed condition, the existing drainage pattern will be generally maintained. Five initial design options shared during the Technical Committee Meeting (TAC) #1 held on July 15, 2025, involving single and double intersections, roundabouts, and traffic signals, were evaluated.

Five alternative designs were refined and shared during the TAC #2 held on October 23, 2025, and TAC #3 held on April 15, 2026. The five alternative designs include roundabout configurations, signalized intersections, and a peanut roundabout option.

4.1 Group 1: Alternative 1 and Alternative 2

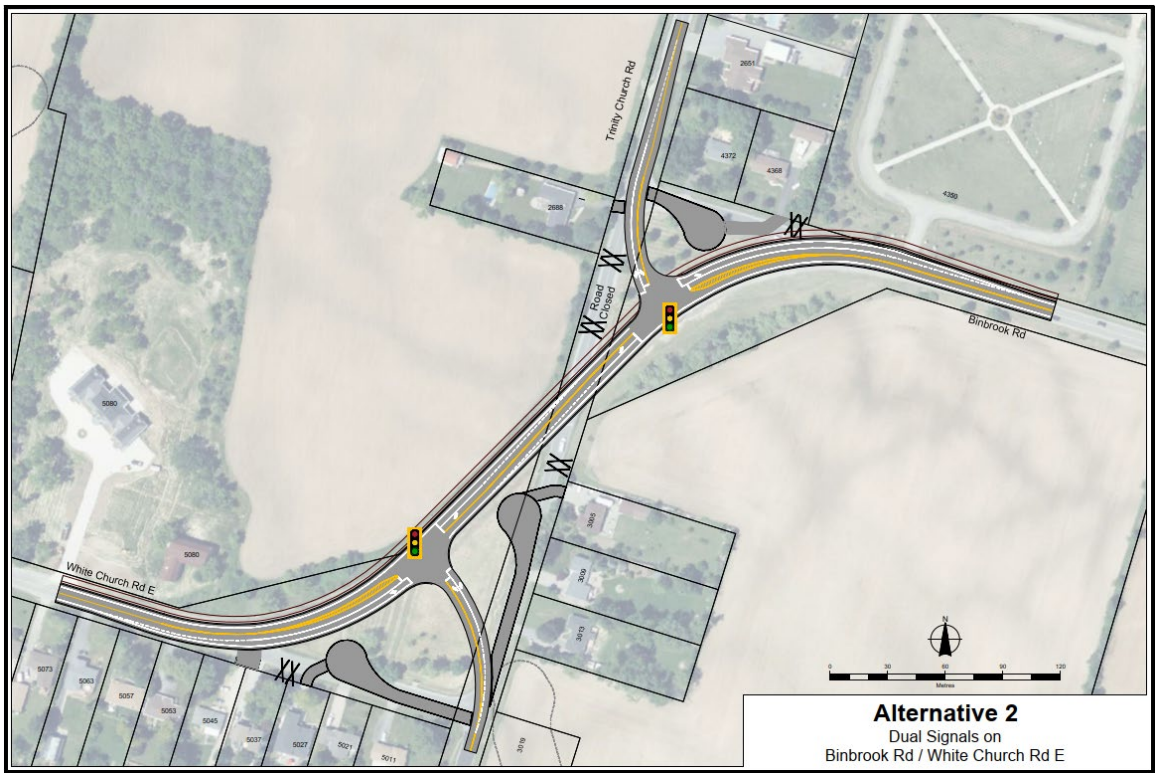
Alternative 1 involves consolidating the existing road alignments and intersections into two intersections with roundabouts on the 'S' curves, refer to Figure 2. Two crossing culverts are anticipated to be impacted, and require extension, replacement, or relocation, and ditch regrading will be required. Although Alternative 1 includes the addition of two roundabouts, based on the realignment of Trinity Church Road along with the assumption that the roundabout islands will be pervious, the proposed design is anticipated to result in a 13% increase to impervious area and runoff.

Figure 2: Alternative 1



Alternative 2, like Alternative 1, involves consolidating the existing road alignments and intersections into two intersections on the 'S' curves, refer to Figure 3. Like Alternative 1, two crossing culverts are anticipated to be impacted, and require extension, replacement, or relocation, and ditch regrading will be required. The proposed design is anticipated to result in a similar or lower increase to impervious area compared to Alternative 1.

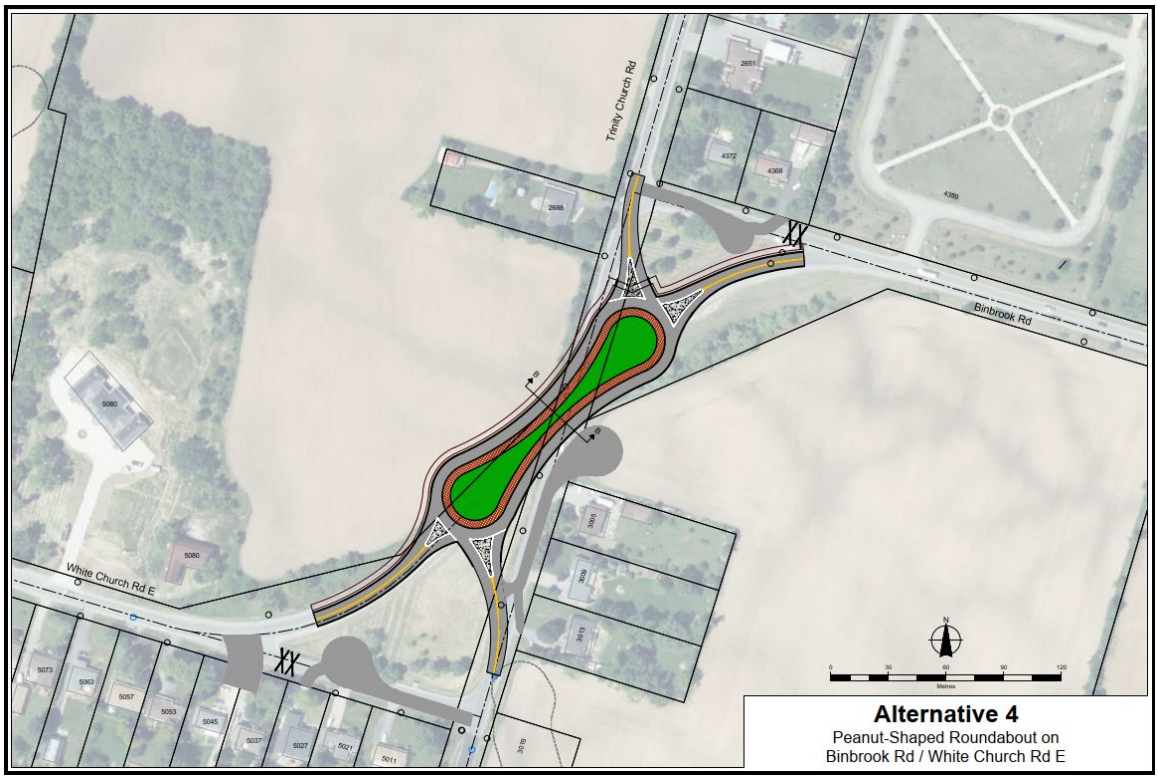
Figure 3: Alternative 2



4.2 Group 2: Alternative 4

Alternative 4 is similar in alignment to the Group 1 alternatives (Alternatives 1 and 2), consolidating the existing road alignments and intersections with roundabouts on the 'S' curves. Alternative 4 further consolidates the proposed roundabouts of Alternative 1 into a single combined "peanut-shaped" roundabout, refer to Figure 5. Two crossing culverts are anticipated to be impacted, and require extension, replacement, or relocation, and ditch regrading will be required. The proposed increase in impervious area and runoff is anticipated to be 17%.

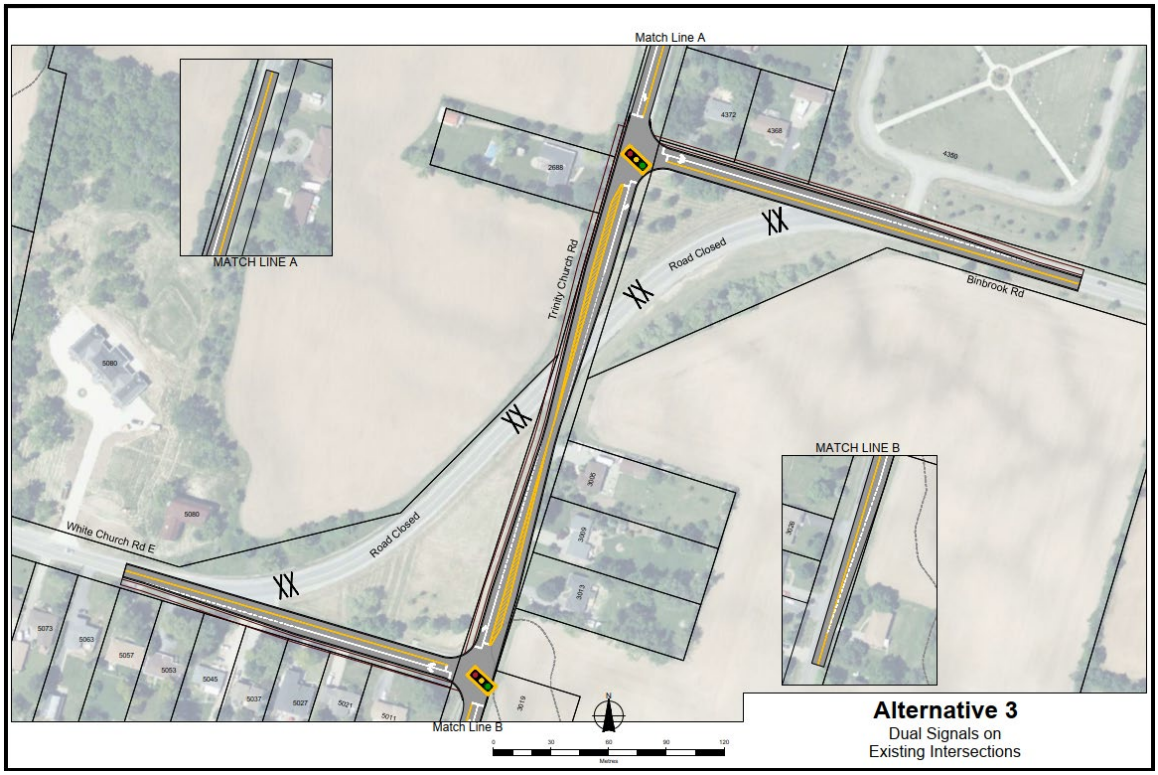
Figure 4: Alternative 4



4.3 Group 3: Alternative 3 and Alternative 5

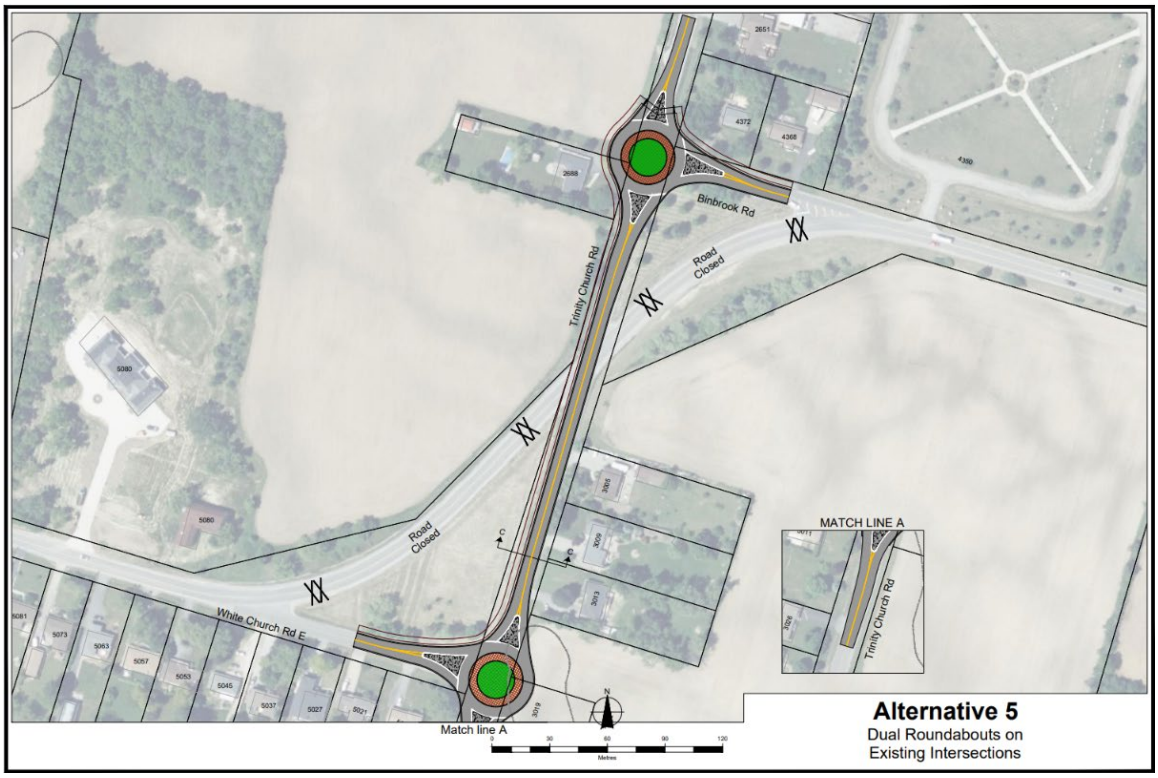
Alternative 3 involves consolidating the existing road alignments and intersections into two signalized intersections, refer to Figure 5. One crossing culvert is anticipated to be impacted, and require removal, and ditch regrading will be required. Based on the assumption that the closed portions of the existing roads will be pervious, the proposed design is anticipated to result in a decrease in impervious area of approximately 32%.

Figure 5: Alternative 3



Alternative 5 involves consolidating the existing road alignments and intersections into two intersections with roundabouts, refer to Figure 6. Three crossing culverts are anticipated to be impacted, and require extension, replacement, relocation, or removal, and ditch regrading will be required. The roundabout and grading at the White Church Road and Trinity Church Road intersection is anticipated to extend further into the NPCA regulated area. The proposed roundabout at the White Church Road and Trinity Church Road intersection and associated grading is anticipated to impact the existing ditch inlet and require ditch inlet relocation. Although Alternative 5 includes the addition of two roundabouts, based on the assumptions that the roundabout islands and closed portions of the existing roads will be pervious, the proposed design is anticipated to result in a decrease in impervious area of approximately 15%.

Figure 6: Alternative 5



5.0 Preferred Alternative

Based on the overall evaluation, Alternative 1 was found to be the preferred alternative. Details regarding the SWM impacts of the preferred alternative are provided below.

5.1 Conveyance

The existing drainage patterns and outlet locations will generally be maintained in the proposed condition. Drainage will continue to be conveyed through roadside ditches and culverts to the regulated watercourses. Roundabout drainage is anticipated to be conveyed to roadside ditches by curb outlets or catch basin (CB) outlets. A preliminary layout has been included in the design drawings, however layout is to be refined pending detailed grading to be done during detailed design.

The improvements for the preferred alternative are anticipated to impact Culverts 1 to 3. While the widening required to accommodate intersection improvements at White Church Road East and Trinity Church Road are minor and not anticipated to impact Culvert 4, the conveyance and cover issues mentioned in Section 3.2 require this culvert to be reviewed further and adjusted to meet provincial standards.

A functional design of Culverts 1 to 3 has been completed based on preliminary grading and includes their preliminary location and size requirement under proposed conditions. Additionally, a preliminary sizing calculation has been completed for Culvert 4. See Table 8 below for a summary of each culvert.

Table 8: Preliminary Culvert Design Summary

	Prop Culvert 1	**Prop Culvert 2**	**Prop Culvert 3A**	**Prop Culvert 3B**	**Prop Culvert 4**
Tributary Catchment(s)	201	201, 202	203A	201, 202, 203A, 203B	204
Design Flow (m^3/s)*	0.061	0.493	0.089	0.515	0.089
Preliminary Size**	500 mm	900 mm	450 mm	900 mm	450 mm
Upsizing Recommended (Y/N)	N	Y	N/A***	Y	Y

*Design flow is for the 10-year storm event
**Preliminary sizing is based on an assumed culvert slope of 0.5% for all culverts. This assumption is considered conservative, and culvert sizes will be refined during detailed design.
***New culvert location proposed.

The need for culvert replacements or extensions, and hydraulic design is to be confirmed at detailed design, based on culvert condition and detailed grading. See Figure B1 in Appendix B for details regarding the proposed culvert drainage plan. Additionally, see Appendix B for the preliminary culvert sizing calculations.

5.2 Stormwater Management

In the existing condition, there are no forms of quantity control and quality control is provided via roadside ditches.

As per the City's and MECP standards, onsite post-development to pre-development peak flow control is required for all storms. A breakdown of the existing and proposed ROW impervious area is shown in Table 9 below. Refer to the design drawings for details regarding the proposed design.

Table 9: ROW Impervious Area

Scenario	Total Area (ha)	Impervious Area (ha)	Total Impervious Percentage	Increase in Impervious Area (ha)	% Increase in Impervious Area
Existing	3.40	1.30	38%	0.13	13%
Proposed	3.40	1.48	43%		

The increase in impervious area is anticipated to result in an approximately 8% increase in ROW peak flows, based on the Rational Method. To mitigate this increase and maintain post-development peak flows at pre-development levels, approximately 46 m^3 of storage will be required for the 100-year storm. This storage is proposed to be provided through a Low Impact Development (LID) measure, although alternative approaches may also be evaluated during detailed design. Refer to Figure B1 in Appendix B for a potential location of an LID feature. Detailed calculations are provided in Appendix C.

Table 9 of the City's Stormwater Master Plan identifies Level 2 – Normal quality control requirements for the Welland River watershed. However, as the project falls under a retrofit scenario with minor changes to impervious area, a best-efforts approach is recommended. At a minimum, water quality treatment is recommended to continue through existing roadside ditches. Additional treatment may be provided through catch basin (CB) treatment devices, such as CB Shield or EnviroBasin, which are verified through ETV Canada (Environmental Technology Verification) to achieve up to 60% TSS removal.

LID measures may also be incorporated to supplement quantity and quality control objectives, where feasible. Potential measures may include infiltration trenches, bioswales, and vegetated swales. Pre-treatment should be provided for any road runoff draining to an LID feature. The suitability of infiltration-based LIDs will depend on site-specific soil conditions, groundwater levels, utility conflicts, and overall site constraints. Location-specific percolation testing and determination of seasonally high groundwater elevations will be required to support the detailed design and feasibility assessment of proposed infiltration-based LID measures.

6.0 Conclusions and Recommendations

This report provides a review of existing drainage conditions and assesses the proposed intersection improvement options at the intersection of Binbrook Road, Trinity Church Road, and White Church Road in the City of Hamilton. The following findings and recommendations have been stated in the report:

- Existing drainage is conveyed via ditches and culverts. The existing drainage patterns and outlet locations will generally be maintained in the proposed condition.
- Existing ditch inlet connection and outlet to be confirmed in detailed design.
- Proposed intersection improvements are anticipated to impact ditches and culverts.
- Culverts 1, 2, and 3 are anticipated to be re-located and replaced with pipes of equal or larger diameters. Preliminary sizing of culverts has been completed, with a detailed hydraulic analysis to be completed at detailed design.
- Culvert 4 is proposed to remain, with existing cover issues to be resolved during detailed design in conjunction with ditch design.
- Proposed ditches are to be designed during detailed design.
- Stormwater quantity control will be required, with an estimated storage volume requirement of approximately 46 m^3 (100-year storm event storage volume).
- Stormwater quality control is recommended to be provided through a “Best Efforts” approach including maintaining roadside ditches and CB treatment devices and LID measures, if feasible.
- LID feasibility is to be assessed as part of detailed design to supplement stormwater quantity and quality control.

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Appendix A

Existing Conditions

Existing ditch inlet with bird cage

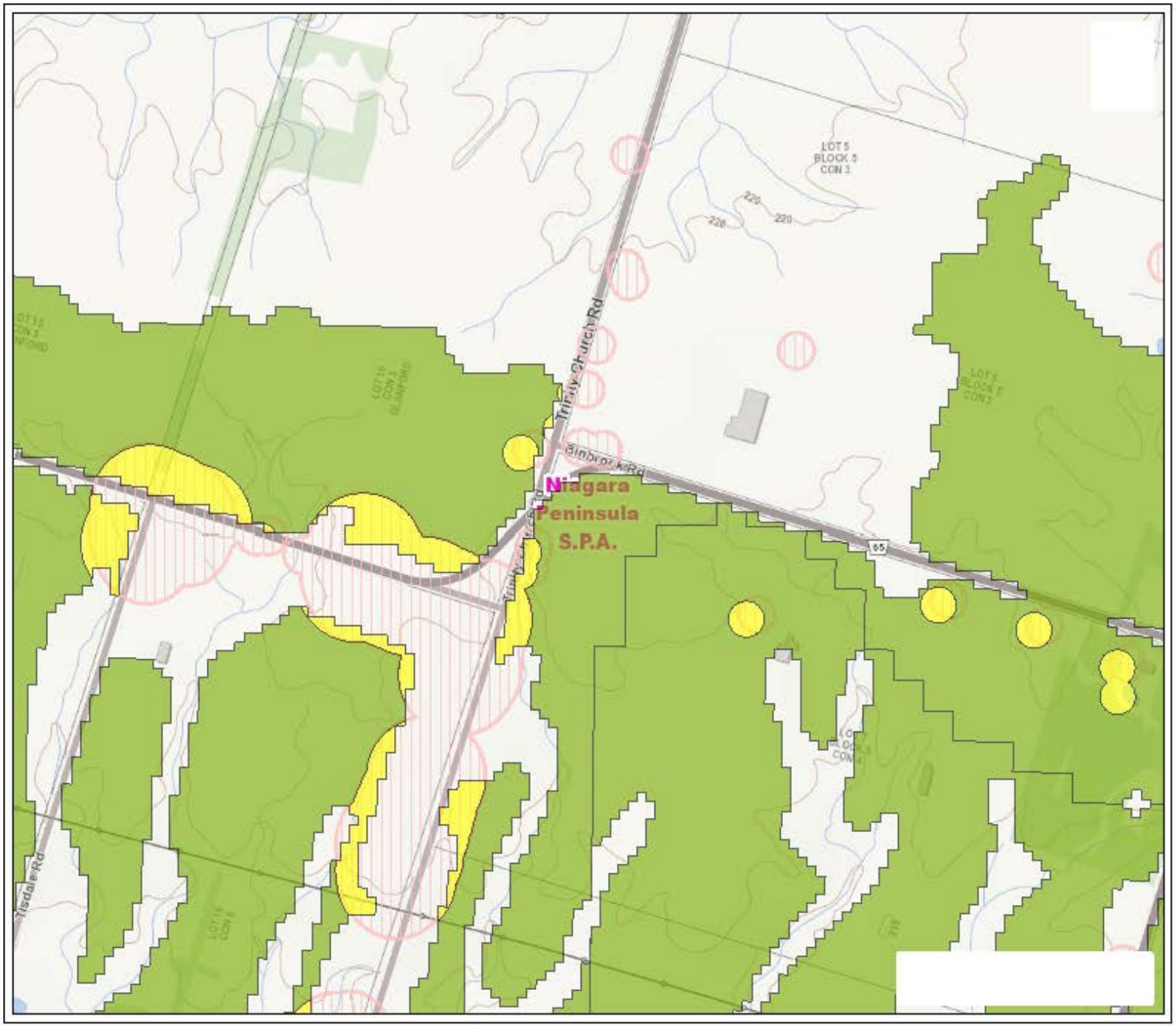




Existing low-lying channel (within NPCA regulation limits)



Figure A1 - Source Protection Information Atlas Map



Legend

- Significant Groundwater Recharge Area
  - N/A
  - 0
  - 2
  - 4
  - 6
- Issue Contributing Areas
- Highly Vulnerable Aquifers
- WHPA-E
- Wellhead Protection Area
  - A
  - B
  - C
  - C1
  - D
  - F
- Intake Protection Zone 1
- Event Based Areas
- Intake Protection Zone 2
- Source Protection Areas

This map should not be relied on as a precise indicator of routes or locations, nor as a guide to navigation. The Ontario Ministry of Environment, Conservation and Parks (MECP) shall not be liable in any way for the use or any information on this map. of, or reliance upon, this map.

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Map Created: 9/24/2025
Map Center: 43.12853 N, -79.842 W



LEGEND

100 / 0.50ha — CATCHMENT ID / AREA (ha)

FLOW DIRECTION

CATCHMENT BOUNDARY

EXISTING CROSSING CULVERT

NPCA REGULATION LIMITS

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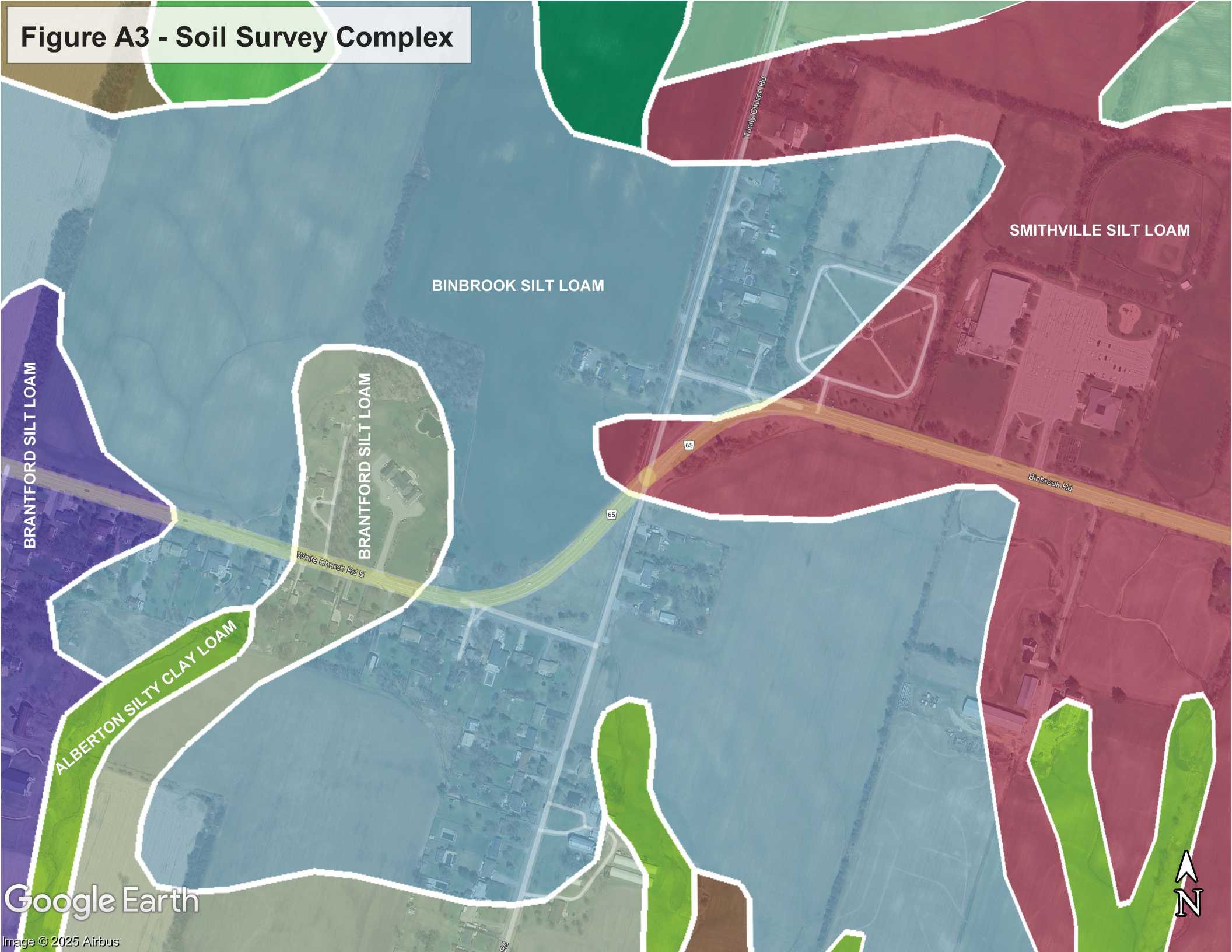
Client: CITY OF HAMILTON

Figure Title: **HAMILTON BINBROOK ROAD INTERSECTION MCEA**
EXISTING CULVERT DRAINAGE PLAN

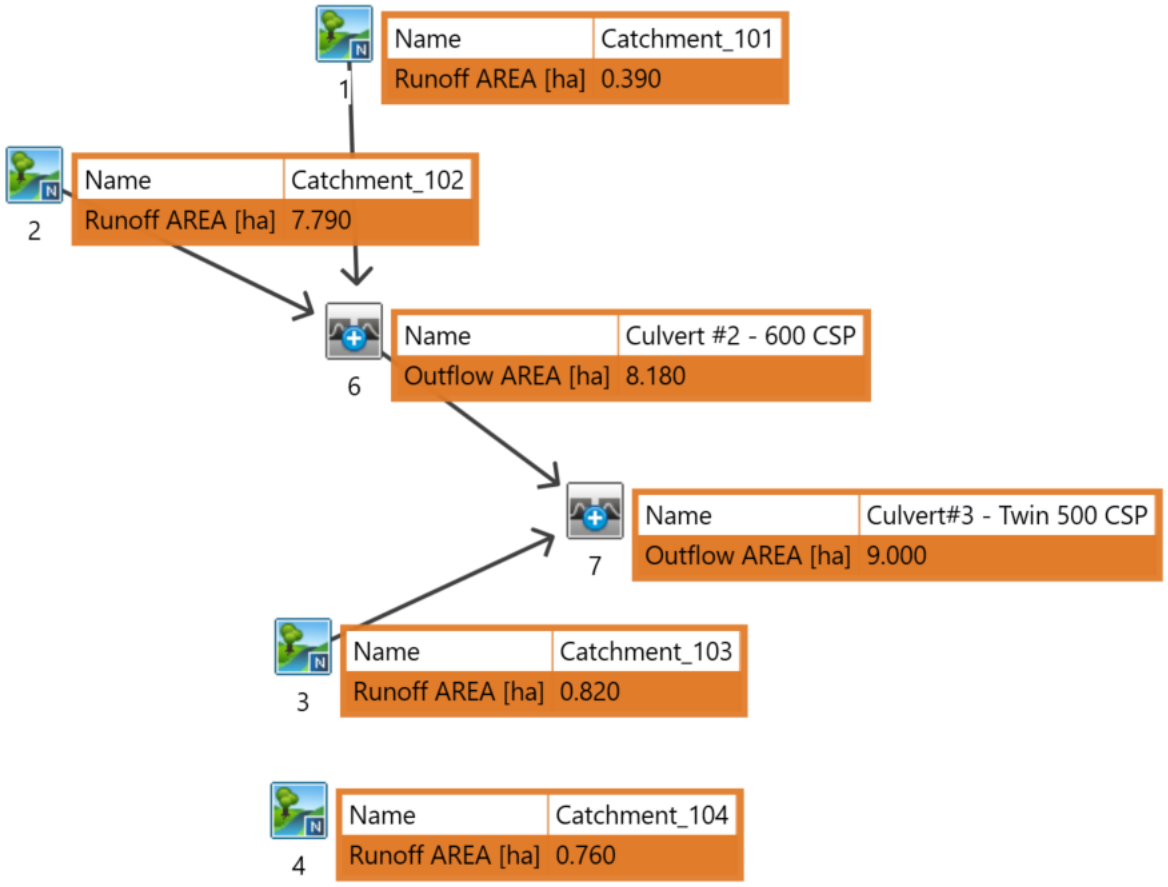
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File: U:\059627\0000\03-PRD\FIG\SWM\059627 Culvert Drainage Plan.dwg Date Plotted: May 26, 2026 - 4:57 PM

Figure A3 - Soil Survey Complex



Existing Conditions - Visual OTTHYMO Plan



Project Name: Hamilton Binbrook Road Intersection MCEA
Project No.: 59627
Completed By: AT/HB
Date: May-20-2026

Visual OTTHYMO NasHyd Modelling Parameters - Rural Land Use

CATCHMENT: **101** (Culvert 1 - 500mm CSP)

Composite Curve Number and Initial Abstraction

Hydrologic Soil Group	Total Area per Various Land Use (ha)					
	Forest/Woodlot	Meadow/Field	Crop	Lawn/Grass	Pavement	Water
A						
AB						
B						
BC						
C				0.27	0.11	
CD						
D						

Total area (ha):	0.39	Composite CN(I):	73	Ia (mm)	4.1	NVCA
Pervious area (ha):	0.27	Composite CN(II):	87	Ia (mm)	8.3	MTO / NRSCS
Impervious area (ha):	0.11	Composite CN(III):	94	Ia (mm)	5.90	VO
% Impervious:	29%					

Composite Runoff Coefficient

Land Type	Hydrologic Soil Groups						
	A	AB	B	BC	C	CD	D
Cultivated, 0-5% slope							
Cultivated, 5-10% slope							
Cultivated, 10-30% slope							
Pasture, 0-5% slope							
Pasture, 5-10% slope							
Pasture, 10-30% slope							
Woodlot or Cutover, 0-5% slope							
Woodlot or Cutover, 5-10% slope							
Woodlot or Cutover, 10-30% slope							
Lakes and Wetlands							
Impervious Area					0.11		
Gravel							
Residential- Single Family							
Residential - Multiple							
Industrial-Light							
Industrial-Heavy							
Commercial							
Unimproved Areas							
Lawn, <2% slope					0.27		
Lawn, 2-7% slope							
Lawn, >7% slope							

Time of Concentration Input Parameters	
Total Area (ha)	0.39
Runoff Coefficient	0.37
Length (m)	125
h_1 (m)	222.8
h_2 (m)	221.3
Dh (m)	1.5
Slope (%)	1.22

Tc Method	Bransby Williams	Airport
Tc (min)	N/A	24.89
Tp (hr)	N/A	0.28

Results

Catchment 101 **Only**

Return Period	Peak Flow (m^3/s)	
	24HR SCS	4 Hr CHICAGO
2-year	0.022	0.013
5-year	0.036	0.025
10-year	0.046	0.034
25-year	0.058	0.046
50-year	0.067	0.055
100-year	0.076	0.065
Regional (Hazel)	0.056	

Project Name: Hamilton Binbrook Road Intersection MCEA
Project No.: 59627
Completed By: AT/HB
Date: May-20-2026

Visual OTTHYMO NasHyd Modelling Parameters - Rural Land Use

CATCHMENT: **102** (Culvert 2 - 600mm CSP)

Composite Curve Number and Initial Abstraction

Hydrologic Soil Group	Total Area per Various Land Use (ha)					
	Forest/Woodlot	Meadow/Field	Crop	Lawn/Grass	Pavement	Water
A						
AB						
B						
BC						
C				7.43	0.35	
CD						
D						

Total area (ha):	7.79	Composite CN(I):	65	Ia (mm)	4.9	NVCA
Pervious area (ha):	7.43	Composite CN(II):	82	Ia (mm)	11.9	MTO / NRSCS
Impervious area (ha):	0.35	Composite CN(III):	91	Ia (mm)	8.44	VO
% Impervious:	5%					

Composite Runoff Coefficient

Land Type	Hydrologic Soil Groups						
	A	AB	B	BC	C	CD	D
Cultivated, 0-5% slope							
Cultivated, 5-10% slope							
Cultivated, 10-30% slope							
Pasture, 0-5% slope							
Pasture, 5-10% slope							
Pasture, 10-30% slope							
Woodlot or Cutover, 0-5% slope							
Woodlot or Cutover, 5-10% slope							
Woodlot or Cutover, 10-30% slope							
Lakes and Wetlands							
Impervious Area					0.35		
Gravel							
Residential- Single Family							
Residential - Multiple							
Industrial-Light							
Industrial-Heavy							
Commercial							
Unimproved Areas							
Lawn, <2% slope					7.43		
Lawn, 2-7% slope							
Lawn, >7% slope							

Time of Concentration Input Parameters	
Total Area (ha)	7.79
Runoff Coefficient	0.17
Length (m)	340
h_1 (m)	224.5
h_2 (m)	220.1
Dh (m)	4.4
Slope (%)	1.29

Tc Method	Bransby Williams	Airport
Tc (min)	N/A	51.46
Tp (hr)	N/A	0.57

Results

Catchment 102 **Only**

Return Period	Peak Flow (m^3/s)	
	24HR SCS	CHICAGO
2-year	0.210	0.123
5-year	0.361	0.248
10-year	0.467	0.346
25-year	0.610	0.479
50-year	0.710	0.576
100-year	0.813	0.688
Regional (Hazel)	0.953	

Catchment 101 and 102

Return Period	Peak Flow (m^3/s)	
	24HR SCS	CHICAGO
2-year	0.223	0.131
5-year	0.348	0.264
10-year	0.496	0.367
25-year	0.648	0.507
50-year	0.754	0.608
100-year	0.862	0.727
Regional (Hazel)	1.002	

Project Name: Hamilton Binbrook Road Intersection MCEA
Project No.: 59627
Completed By: AT/HB
Date: May-20-2026

Visual OTTHYMO NasHyd Modelling Parameters - Rural Land Use

CATCHMENT: **103** (Culvert 3 - 2x500mm CSP)

Composite Curve Number and Initial Abstraction

Hydrologic Soil Group	Total Area per Various Land Use (ha)					
	Forest/Woodlot	Meadow/Field	Crop	Lawn/Grass	Pavement	Water
A						
AB						
B						
BC						
C				0.65	0.18	
CD						
D						

Total area (ha):	0.82	Composite CN(I):	71	Ia (mm)	**4.4** NVCA
Pervious area (ha):	0.65	Composite CN(II):	**85**	Ia (mm)	9.0 MTO / NRSCS
Impervious area (ha):	0.18	Composite CN(III):	93	Ia (mm)	6.68 VO
% Impervious:	21%				

Composite Runoff Coefficient

Land Type	Hydrologic Soil Groups						
	A	AB	B	BC	C	CD	D
Cultivated, 0-5% slope							
Cultivated, 5-10% slope							
Cultivated, 10-30% slope							
Pasture, 0-5% slope							
Pasture, 5-10% slope							
Pasture, 10-30% slope							
Woodlot or Cutover, 0-5% slope							
Woodlot or Cutover, 5-10% slope							
Woodlot or Cutover, 10-30% slope							
Lakes and Wetlands							
Impervious Area					0.18		
Gravel							
Residential- Single Family							
Residential - Multiple							
Industrial-Light							
Industrial-Heavy							
Commercial							
Unimproved Areas							
Lawn, <2% slope					0.65		
Lawn, 2-7% slope							
Lawn, >7% slope							

Time of Concentration Input Parameters	
Total Area (ha)	**0.82**
Runoff Coefficient	**0.31**
Length (m)	145
h_1 (m)	221.8
h_2 (m)	219.1
Dh (m)	**2.65**
Slope (%)	**1.83**

Tc Method	Bransby Williams	Airport
Tc (min)	N/A	**25.50**
Tp (hr)	N/A	**0.28**

Results

Catchment 103 **Only**

Return Period	Peak Flow (m^3/s)	
	24HR SCS	CHICAGO
2-year	0.043	0.024
5-year	0.071	0.047
10-year	0.091	0.065
25-year	0.116	0.089
50-year	0.134	0.107
100-year	0.152	0.127
Regional (Hazel)	0.117	

Catchment 103, 102, and 101

Return Period	Peak Flow (m^3/s)	
	24HR SCS	CHICAGO
2-year	0.252	0.148
5-year	0.433	0.297
10-year	0.559	0.412
25-year	0.730	0.570
50-year	0.848	0.684
100-year	0.969	0.815
Regional (Hazel)	1.105	

Project Name: Hamilton Binbrook Road Intersection MCEA
Project No.: 59627
Completed By: AT/HB
Date: 8/1/2025

Visual OTTHYMO NasHyd Modelling Parameters - Rural Land Use

CATCHMENT: **104** (Culvert4 - 600mm CSP)

Composite Curve Number and Initial Abstraction

Hydrologic Soil Group	Total Area per Various Land Use (ha)					
	Forest/Woodlot	Meadow/Field	Crop	Lawn/Grass	Pavement	Water
A						
AB						
B						
BC						
C				0.53	0.23	
CD						
D						

Total area (ha):	0.76	Composite CN(I):	73	Ia (mm)	4.1	NVCA
Pervious area (ha):	0.53	Composite CN(II):	87	Ia (mm)	8.3	MTO / NRSCS
Impervious area (ha):	0.23	Composite CN(III):	94	Ia (mm)	5.80	VO
% Impervious:	31%					

Composite Runoff Coefficient

Land Type	Hydrologic Soil Groups						
	A	AB	B	BC	C	CD	D
Cultivated, 0-5% slope							
Cultivated, 5-10% slope							
Cultivated, 10-30% slope							
Pasture, 0-5% slope							
Pasture, 5-10% slope							
Pasture, 10-30% slope							
Woodlot or Cutover, 0-5% slope							
Woodlot or Cutover, 5-10% slope							
Woodlot or Cutover, 10-30% slope							
Lakes and Wetlands							
Impervious Area					0.23		
Gravel							
Residential- Single Family							
Residential - Multiple							
Industrial-Light							
Industrial-Heavy							
Commercial							
Unimproved Areas							
Lawn, <2% slope					0.53		
Lawn, 2-7% slope							
Lawn, >7% slope							

Time of Concentration Input Parameters	
Total Area (ha)	0.76
Runoff Coefficient	0.38
Length (m)	140
h_1 (m)	221.0
h_2 (m)	219.1
Dh (m)	1.92
Slope (%)	1.37

Tc Method	Bransby Williams	Airport
Tc (min)	N/A	24.99
Tp (hr)	N/A	0.28

Results

Catchment 104 **Only**

Return Period	Peak Flow (m^3/s)	
	24HR SCS	CHICAGO
2-year	0.043	0.025
5-year	0.071	0.049
10-year	0.089	0.067
25-year	0.114	0.090
50-year	0.130	0.107
100-year	0.147	0.126
Regional (Hazel)	0.109	

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

       V    V   I    SSSSS  U   U    A    L             (v 6.2.2020)
       V    V   I    SS     U   U   A A   L
        V  V    I     SS    U   U  AAAAA  L
         VV     I      SS   U   U  A   A  L
          VV    I    SSSSS  UUUUU  A   A  LLLLL

       OOO   TTTTT  TTTTT  H   H  Y   Y  M   M   OOO    TM
      O   O    T      T    H   H   Y Y   MM MM  O   O
      O   O    T      T    H   H    Y    M M M  O   O
       OOO     T      T    H   H    Y    M   M   OOO
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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\atrenholm\AppData\Local\Civica\VH5\8ef94b88-6605-479e-b003-b70f6886dc93\94e3dfa9-
  Summary filename: C:\Users\atrenholm\AppData\Local\Civica\VH5\8ef94b88-6605-479e-b003-b70f6886dc93\94e3dfa9-

DATE: 05/24/2026                          TIME: 05:00:46

USER:


COMMENTS: _____________________________________________________

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  ************************************************
  ** SIMULATION : 2yr 24hr 15min SCS Type II (M **
  ************************************************


---------------------
|    READ STORM     |    Filename: C:\Users\atrenholm\AppD
|                   |              ata\Local\Temp\
|                   |              e7fbba53-3be4-4227-bc0d-7ae48d330c1e\013783a7
| Ptotal= 52.77 mm  |    Comments: 2yr 24hr 15min SCS Type II (MTO)
---------------------
                TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
                 hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
               0.00    0.00 |  6.25    0.95 | 12.50    7.60 | 18.75    0.95
               0.25    0.58 |  6.50    0.95 | 12.75    3.90 | 19.00    0.95
               0.50    0.58 |  6.75    0.95 | 13.00    3.90 | 19.25    0.95
               0.75    0.58 |  7.00    0.95 | 13.25    2.85 | 19.50    0.95
               1.00    0.58 |  7.25    1.16 | 13.50    2.85 | 19.75    0.95
               1.25    0.58 |  7.50    1.16 | 13.75    2.22 | 20.00    0.95
               1.50    0.58 |  7.75    1.16 | 14.00    2.22 | 20.25    0.63
               1.75    0.58 |  8.00    1.16 | 14.25    1.58 | 20.50    0.63
               2.00    0.58 |  8.25    1.37 | 14.50    1.58 | 20.75    0.63
               2.25    0.69 |  8.50    1.37 | 14.75    1.58 | 21.00    0.63
               2.50    0.69 |  8.75    1.48 | 15.00    1.58 | 21.25    0.63
               2.75    0.69 |  9.00    1.48 | 15.25    1.58 | 21.50    0.63
               3.00    0.69 |  9.25    1.69 | 15.50    1.58 | 21.75    0.63
               3.25    0.69 |  9.50    1.69 | 15.75    1.58 | 22.00    0.63
               3.50    0.69 |  9.75    1.90 | 16.00    1.58 | 22.25    0.63
               3.75    0.69 | 10.00    1.90 | 16.25    0.95 | 22.50    0.63
               4.00    0.69 | 10.25    2.43 | 16.50    0.95 | 22.75    0.63
               4.25    0.84 | 10.50    2.43 | 16.75    0.95 | 23.00    0.63
               4.50    0.84 | 10.75    3.27 | 17.00    0.95 | 23.25    0.63
               4.75    0.84 | 11.00    3.27 | 17.25    0.95 | 23.50    0.63
               5.00    0.84 | 11.25    5.07 | 17.50    0.95 | 23.75    0.63
               5.25    0.84 | 11.50    5.07 | 17.75    0.95 | 24.00    0.63
               5.50    0.84 | 11.75   15.62 | 18.00    0.95 |
               5.75    0.84 | 12.00   64.59 | 18.25    0.95 |
               6.00    0.84 | 12.25    7.60 | 18.50    0.95 |

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

--------------------
| CALIB            |
| NASHYD   (  0004)|   Area    (ha)=   0.76   Curve Number   (CN)= 87.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.10   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.28

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



    RUNOFF COEFFICIENT   =   0.518

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

--------------------------------------------------------------------------------
--------------------
| CALIB            |
| NASHYD   (  0003)|   Area    (ha)=   0.82   Curve Number   (CN)= 85.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.40   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.28

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

                        ---- TRANSFORMED HYETOGRAPH ----
                TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
                 hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
               0.083    0.00 |  6.250    0.84 |12.250   64.59 | 18.33    0.95
               0.167    0.00 |  6.333    0.95 |12.333    7.61 | 18.42    0.95
               0.250    0.00 |  6.417    0.95 |12.417    7.60 | 18.50    0.95
               0.333    0.58 |  6.500    0.95 |12.500    7.60 | 18.58    0.95
               0.417    0.58 |  6.583    0.95 |12.583    7.60 | 18.67    0.95
               0.500    0.58 |  6.667    0.95 |12.667    7.60 | 18.75    0.95
               0.583    0.58 |  6.750    0.95 |12.750    7.60 | 18.83    0.95
               0.667    0.58 |  6.833    0.95 |12.833    3.91 | 18.92    0.95
               0.750    0.58 |  6.917    0.95 |12.917    3.90 | 19.00    0.95
               0.833    0.58 |  7.000    0.95 |13.000    3.90 | 19.08    0.95
               0.917    0.58 |  7.083    0.95 |13.083    3.90 | 19.17    0.95
               1.000    0.58 |  7.167    0.95 |13.167    3.90 | 19.25    0.95
               1.083    0.58 |  7.250    0.95 |13.250    3.90 | 19.33    0.95
               1.167    0.58 |  7.333    1.16 |13.333    2.85 | 19.42    0.95
               1.250    0.58 |  7.417    1.16 |13.417    2.85 | 19.50    0.95
               1.333    0.58 |  7.500    1.16 |13.500    2.85 | 19.58    0.95
               1.417    0.58 |  7.583    1.16 |13.583    2.85 | 19.67    0.95
               1.500    0.58 |  7.667    1.16 |13.667    2.85 | 19.75    0.95
               1.583    0.58 |  7.750    1.16 |13.750    2.85 | 19.83    0.95
               1.667    0.58 |  7.833    1.16 |13.833    2.22 | 19.92    0.95
               1.750    0.58 |  7.917    1.16 |13.917    2.22 | 20.00    0.95
               1.833    0.58 |  8.000    1.16 |14.000    2.22 | 20.08    0.95
               1.917    0.58 |  8.083    1.16 |14.083    2.22 | 20.17    0.95
               2.000    0.58 |  8.167    1.16 |14.167    2.22 | 20.25    0.95
               2.083    0.58 |  8.250    1.16 |14.250    2.22 | 20.33    0.63
               2.167    0.58 |  8.333    1.37 |14.333    1.58 | 20.42    0.63
               2.250    0.58 |  8.417    1.37 |14.417    1.58 | 20.50    0.63
               2.333    0.69 |  8.500    1.37 |14.500    1.58 | 20.58    0.63
               2.417    0.69 |  8.583    1.37 |14.583    1.58 | 20.67    0.63
               2.500    0.69 |  8.667    1.37 |14.667    1.58 | 20.75    0.63
               2.583    0.69 |  8.750    1.37 |14.750    1.58 | 20.83    0.63
               2.667    0.69 |  8.833    1.48 |14.833    1.58 | 20.92    0.63
               2.750    0.69 |  8.917    1.48 |14.917    1.58 | 21.00    0.63
               2.833    0.69 |  9.000    1.48 |15.000    1.58 | 21.08    0.63
               2.917    0.69 |  9.083    1.48 |15.083    1.58 | 21.17    0.63
               3.000    0.69 |  9.167    1.48 |15.167    1.58 | 21.25    0.63
               3.083    0.69 |  9.250    1.48 |15.250    1.58 | 21.33    0.63
               3.167    0.69 |  9.333    1.69 |15.333    1.58 | 21.42    0.63
               3.250    0.69 |  9.417    1.69 |15.417    1.58 | 21.50    0.63
               3.333    0.69 |  9.500    1.69 |15.500    1.58 | 21.58    0.63
               3.417    0.69 |  9.583    1.69 |15.583    1.58 | 21.67    0.63
               3.500    0.69 |  9.667    1.69 |15.667    1.58 | 21.75    0.63
               3.583    0.69 |  9.750    1.69 |15.750    1.58 | 21.83    0.63
               3.667    0.69 |  9.833    1.90 |15.833    1.58 | 21.92    0.63
               3.750    0.69 |  9.917    1.90 |15.917    1.58 | 22.00    0.63
               3.833    0.69 | 10.000    1.90 |16.000    1.58 | 22.08    0.63
               3.917    0.69 | 10.083    1.90 |16.083    1.58 | 22.17    0.63
               4.000    0.69 | 10.167    1.90 |16.167    1.58 | 22.25    0.63
               4.083    0.69 | 10.250    1.90 |16.250    1.58 | 22.33    0.63
               4.167    0.69 | 10.333    2.43 |16.333    0.95 | 22.42    0.63
               4.250    0.69 | 10.417    2.43 |16.417    0.95 | 22.50    0.63
               4.333    0.84 | 10.500    2.43 |16.500    0.95 | 22.58    0.63
               4.417    0.84 | 10.583    2.43 |16.583    0.95 | 22.67    0.63
               4.500    0.84 | 10.667    2.43 |16.667    0.95 | 22.75    0.63
               4.583    0.84 | 10.750    2.43 |16.750    0.95 | 22.83    0.63
               4.667    0.84 | 10.833    3.27 |16.833    0.95 | 22.92    0.63
               4.750    0.84 | 10.917    3.27 |16.917    0.95 | 23.00    0.63
               4.833    0.84 | 11.000    3.27 |17.000    0.95 | 23.08    0.63
               4.917    0.84 | 11.083    3.27 |17.083    0.95 | 23.17    0.63
               5.000    0.84 | 11.167    3.27 |17.167    0.95 | 23.25    0.63
               5.083    0.84 | 11.250    3.27 |17.250    0.95 | 23.33    0.63
               5.167    0.84 | 11.333    5.07 |17.333    0.95 | 23.42    0.63
               5.250    0.84 | 11.417    5.07 |17.417    0.95 | 23.50    0.63
               5.333    0.84 | 11.500    5.07 |17.500    0.95 | 23.58    0.63
               5.417    0.84 | 11.583    5.07 |17.583    0.95 | 23.67    0.63
               5.500    0.84 | 11.667    5.07 |17.667    0.95 | 23.75    0.63
               5.583    0.84 | 11.750    5.07 |17.750    0.95 | 23.83    0.63
```

                        ---- TRANSFORMED HYETOGRAPH ----
                TIME   RAIN | TIME   RAIN |' TIME   RAIN | TIME   RAIN
                 hrs   mm/hr | hrs   mm/hr |'   hrs   mm/hr | hrs   mm/hr
               0.083   0.00 | 6.167   0.84 |12.250   64.59 | 18.33   0.95
               0.167   0.00 | 6.250   0.84 |12.333   7.61 | 18.42   0.95
               0.250   0.00 | 6.333   0.95 |12.417   7.60 | 18.50   0.95
               0.333   0.58 | 6.417   0.95 |12.500   7.60 | 18.58   0.95
               0.417   0.58 | 6.500   0.95 |12.583   7.60 | 18.67   0.95
               0.500   0.58 | 6.583   0.95 |12.667   7.60 | 18.75   0.95
               0.583   0.58 | 6.667   0.95 |12.750   7.60 | 18.83   0.95
               0.667   0.58 | 6.750   0.95 |12.833   3.91 | 18.92   0.95
               0.750   0.58 | 6.833   0.95 |12.917   3.90 | 19.00   0.95
               0.833   0.58 | 6.917   0.95 |13.000   3.90 | 19.08   0.95
               0.917   0.58 | 7.000   0.95 |13.083   3.90 | 19.17   0.95
               1.000   0.58 | 7.083   0.95 |13.167   3.90 | 19.25   0.95
               1.083   0.58 | 7.167   0.95 |13.250   3.90 | 19.33   0.95
               1.167   0.58 | 7.250   0.95 |13.333   2.85 | 19.42   0.95
               1.250   0.58 | 7.333   1.16 |13.417   2.85 | 19.50   0.95
               1.333   0.58 | 7.417   1.16 |13.500   2.85 | 19.58   0.95
               1.417   0.58 | 7.500   1.16 |13.583   2.85 | 19.67   0.95
               1.500   0.58 | 7.583   1.16 |13.667   2.85 | 19.75   0.95
               1.583   0.58 | 7.667   1.16 |13.750   2.85 | 19.83   0.95
               1.667   0.58 | 7.750   1.16 |13.833   2.22 | 19.92   0.95
               1.750   0.58 | 7.833   1.16 |13.917   2.22 | 20.00   0.95
               1.833   0.58 | 7.917   1.16 |14.000   2.22 | 20.08   0.95
               1.917   0.58 | 8.000   1.16 |14.083   2.22 | 20.17   0.95
               2.000   0.58 | 8.083   1.16 |14.167   2.22 | 20.25   0.95
               2.083   0.58 | 8.167   1.16 |14.250   2.22 | 20.33   0.63
               2.167   0.58 | 8.250   1.16 |14.333   1.58 | 20.42   0.63
               2.250   0.58 | 8.333   1.37 |14.417   1.58 | 20.50   0.63
               2.333   0.69 | 8.417   1.37 |14.500   1.58 | 20.58   0.63
               2.417   0.69 | 8.500   1.37 |14.583   1.58 | 20.67   0.63
               2.500   0.69 | 8.583   1.37 |14.667   1.58 | 20.75   0.63
               2.583   0.69 | 8.667   1.37 |14.750   1.58 | 20.83   0.63
               2.667   0.69 | 8.750   1.37 |14.833   1.58 | 20.92   0.63
               2.750   0.69 | 8.833   1.48 |14.917   1.58 | 21.00   0.63
               2.833   0.69 | 8.917   1.48 |15.000   1.58 | 21.08   0.63
               2.917   0.69 | 9.000   1.48 |15.083   1.58 | 21.17   0.63
               3.000   0.69 | 9.083   1.48 |15.167   1.58 | 21.25   0.63
               3.083   0.69 | 9.167   1.48 |15.250   1.58 | 21.33   0.63
               3.167   0.69 | 9.250   1.48 |15.333   1.58 | 21.42   0.63
               3.250   0.69 | 9.333   1.69 |15.417   1.58 | 21.50   0.63
               3.333   0.69 | 9.417   1.69 |15.500   1.58 | 21.58   0.63
               3.417   0.69 | 9.500   1.69 |15.583   1.58 | 21.67   0.63
               3.500   0.69 | 9.583   1.69 |15.667   1.58 | 21.75   0.63
               3.583   0.69 | 9.667   1.69 |15.750   1.58 | 21.83   0.63
               3.667   0.69 | 9.750   1.69 |15.833   1.58 | 21.92   0.63
               3.750   0.69 | 9.833   1.90 |15.917   1.58 | 22.00   0.63
               3.833   0.69 | 9.917   1.90 |16.000   1.58 | 22.08   0.63
               3.917   0.69 | 10.000   1.90 |16.083   1.58 | 22.17   0.63
               4.000   0.69 | 10.083   1.90 |16.167   1.58 | 22.25   0.63
               4.083   0.69 | 10.167   1.90 |16.250   1.58 | 22.33   0.63
               4.167   0.69 | 10.250   1.90 |16.333   0.95 | 22.42   0.63
               4.250   0.69 | 10.333   2.43 |16.417   0.95 | 22.50   0.63
               4.333   0.84 | 10.417   2.43 |16.500   0.95 | 22.58   0.63
               4.417   0.84 | 10.500   2.43 |16.583   0.95 | 22.67   0.63
               4.500   0.84 | 10.583   2.43 |16.667   0.95 | 22.75   0.63
               4.583   0.84 | 10.667   2.43 |16.750   0.95 | 22.83   0.63
               4.667   0.84 | 10.750   2.43 |16.833   0.95 | 22.92   0.63
               4.750   0.84 | 10.833   3.27 |16.917   0.95 | 23.00   0.63
               4.833   0.84 | 10.917   3.27 |17.000   0.95 | 23.08   0.63
               4.917   0.84 | 11.000   3.27 |17.083   0.95 | 23.17   0.63
               5.000   0.84 | 11.083   3.27 |17.167   0.95 | 23.25   0.63
               5.083   0.84 | 11.167   3.27 |17.250   0.95 | 23.33   0.63
               5.167   0.84 | 11.250   3.27 |17.333   0.95 | 23.42   0.63
               5.250   0.84 | 11.333   5.07 |17.417   0.95 | 23.50   0.63
               5.333   0.84 | 11.417   5.07 |17.500   0.95 | 23.58   0.63
               5.417   0.84 | 11.500   5.07 |17.583   0.95 | 23.67   0.63
               5.500   0.84 | 11.583   5.07 |17.667   0.95 | 23.75   0.63
               5.583   0.84 | 11.667   5.07 |17.750   0.95 | 23.83   0.63
               5.667   0.84 | 11.750   5.07 |17.833   0.95 | 23.92   0.63
               5.750   0.84 | 11.833   15.62 |17.917   0.95 | 24.00   0.63
               5.833   0.84 | 11.917   15.62 |18.000   0.95 | 24.08   0.63
               5.917   0.84 | 12.000   15.62 |18.083   0.95 | 24.17   0.63
               6.000   0.84 | 12.083   64.58 |18.167   0.95 | 24.25   0.63
               6.083   0.84 | 12.167   64.59 |18.250   0.95 |

    Unit Hyd Qpeak (cms)=   0.104

    PEAK FLOW   (cms)=   0.043 (i)
    TIME TO PEAK   (hrs)= 12.417
    RUNOFF VOLUME   (mm)= 27.331
    TOTAL RAINFALL   (mm)= 52.770

    Unit Hyd Qpeak (cms)=   0.112

    PEAK FLOW   (cms)=   0.043 (i)
    TIME TO PEAK   (hrs)= 12.417
    RUNOFF VOLUME   (mm)= 25.092
    TOTAL RAINFALL   (mm)= 52.770
    RUNOFF COEFFICIENT   =   0.475

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

| CALIB |
| NASHYD   (0001)| Area   (ha)=   0.39   Curve Number   (CN)= 87.0
|ID= 1 DT= 5.0 min | Ia   (mm)=   4.10   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.28

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

                        ---- TRANSFORMED HYETOGRAPH ----
                TIME   RAIN | TIME   RAIN |' TIME   RAIN | TIME   RAIN
                 hrs   mm/hr | hrs   mm/hr |'   hrs   mm/hr | hrs   mm/hr
               0.083   0.00 | 6.167   0.84 |12.250   64.59 | 18.33   0.95
               0.167   0.00 | 6.250   0.84 |12.333   7.61 | 18.42   0.95
               0.250   0.00 | 6.333   0.95 |12.417   7.60 | 18.50   0.95
               0.333   0.58 | 6.417   0.95 |12.500   7.60 | 18.58   0.95
               0.417   0.58 | 6.500   0.95 |12.583   7.60 | 18.67   0.95
               0.500   0.58 | 6.583   0.95 |12.667   7.60 | 18.75   0.95
               0.583   0.58 | 6.667   0.95 |12.750   7.60 | 18.83   0.95
               0.667   0.58 | 6.750   0.95 |12.833   3.91 | 18.92   0.95
               0.750   0.58 | 6.833   0.95 |12.917   3.90 | 19.00   0.95
               0.833   0.58 | 6.917   0.95 |13.000   3.90 | 19.08   0.95
               0.917   0.58 | 7.000   0.95 |13.083   3.90 | 19.17   0.95
               1.000   0.58 | 7.083   0.95 |13.167   3.90 | 19.25   0.95
               1.083   0.58 | 7.167   0.95 |13.250   3.90 | 19.33   0.95
               1.167   0.58 | 7.250   0.95 |13.333   2.85 | 19.42   0.95
               1.250   0.58 | 7.333   1.16 |13.417   2.85 | 19.50   0.95
               1.333   0.58 | 7.417   1.16 |13.500   2.85 | 19.58   0.95
               1.417   0.58 | 7.500   1.16 |13.583   2.85 | 19.67   0.95
               1.500   0.58 | 7.583   1.16 |13.667   2.85 | 19.75   0.95
               1.583   0.58 | 7.667   1.16 |13.750   2.85 | 19.83   0.95
               1.667   0.58 | 7.750   1.16 |13.833   2.22 | 19.92   0.95
               1.750   0.58 | 7.833   1.16 |13.917   2.22 | 20.00   0.95
               1.833   0.58 | 7.917   1.16 |14.000   2.22 | 20.08   0.95
               1.917   0.58 | 8.000   1.16 |14.083   2.22 | 20.17   0.95
               2.000   0.58 | 8.083   1.16 |14.167   2.22 | 20.25   0.95
               2.083   0.58 | 8.167   1.16 |14.250   2.22 | 20.33   0.63
               2.167   0.58 | 8.250   1.16 |14.333   1.58 | 20.42   0.63
               2.250   0.58 | 8.333   1.37 |14.417   1.58 | 20.50   0.63
               2.333   0.69 | 8.417   1.37 |14.500   1.58 | 20.58   0.63
               2.417   0.69 | 8.500   1.37 |14.583   1.58 | 20.67   0.63
               2.500   0.69 | 8.583   1.37 |14.667   1.58 | 20.75   0.63
               2.583   0.69 | 8.667   1.37 |14.750   1.58 | 20.83   0.63
               2.667   0.69 | 8.750   1.37 |14.833   1.58 | 20.92   0.63
               2.750   0.69 | 8.833   1.48 |14.917   1.58 | 21.00   0.63
               2.833   0.69 | 8.917   1.48 |15.000   1.58 | 21.08   0.63
               2.917   0.69 | 9.000   1.48 |15.083   1.58 | 21.17   0.63
               3.000   0.69 | 9.083   1.48 |15.167   1.58 | 21.25   0.63
               3.083   0.69 | 9.167   1.48 |15.250   1.58 | 21.33   0.63
               3.167   0.69 | 9.250   1.48 |15.333   1.58 | 21.42   0.63
               3.250   0.69 | 9.333   1.69 |15.417   1.58 | 21.50   0.63
               3.333   0.69 | 9.417   1.69 |15.500   1.58 | 21.58   0.63
               3.417   0.69 | 9.500   1.69 |15.583   1.58 | 21.67   0.63
               3.500   0.69 | 9.583   1.69 |15.667   1.58 | 21.75   0.63
               3.583   0.69 | 9.667   1.69 |15.750   1.58 | 21.83   0.63
               3.667   0.69 | 9.750   1.69 |15.833   1.58 | 21.92   0.63
               3.750   0.69 | 9.833   1.90 |15.917   1.58 | 22.00   0.63
               3.833   0.69 | 9.917   1.90 |16.000   1.58 | 22.08   0.63
               3.917   0.69 | 10.000   1.90 |16.083   1.58 | 22.17   0.63
               4.000   0.69 | 10.083   1.90 |16.167   1.58 | 22.25   0.63
               4.083   0.69 | 10.167   1.90 |16.250   1.58 | 22.33   0.63
               4.167   0.69 | 10.250   1.90 |16.333   0.95 | 22.42   0.63
               4.250   0.69 | 10.333   2.43 |16.417   0.95 | 22.50   0.63
               4.333   0.84 | 10.417   2.43 |16.500   0.95 | 22.58   0.63
               4.417   0.84 | 10.500   2.43 |16.583   0.95 | 22.67   0.63
               4.500   0.84 | 10.583   2.43 |16.667   0.95 | 22.75   0.63
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4.583	0.84	10.667	2.43	16.750	0.95	22.83	0.63
4.667	0.84	10.750	2.43	16.833	0.95	22.92	0.63
4.750	0.84	10.833	3.27	16.917	0.95	23.00	0.63
4.833	0.84	10.917	3.27	17.000	0.95	23.08	0.63
4.917	0.84	11.000	3.27	17.083	0.95	23.17	0.63
5.000	0.84	11.083	3.27	17.167	0.95	23.25	0.63
5.083	0.84	11.167	3.27	17.250	0.95	23.33	0.63
5.167	0.84	11.250	3.27	17.333	0.95	23.42	0.63
5.250	0.84	11.333	5.07	17.417	0.95	23.50	0.63
5.333	0.84	11.417	5.07	17.500	0.95	23.58	0.63
5.417	0.84	11.500	5.07	17.583	0.95	23.67	0.63
5.500	0.84	11.583	5.07	17.667	0.95	23.75	0.63
5.583	0.84	11.667	5.07	17.750	0.95	23.83	0.63
5.667	0.84	11.750	5.07	17.833	0.95	23.92	0.63
5.750	0.84	11.833	15.62	17.917	0.95	24.00	0.63
5.833	0.84	11.917	15.62	18.000	0.95	24.08	0.63
5.917	0.84	12.000	15.62	18.083	0.95	24.17	0.63
6.000	0.84	12.083	64.58	18.167	0.95	24.25	0.63
6.083	0.84	12.167	64.59	18.250	0.95		

Unit Hyd Qpeak (cms)= 0.053

PEAK FLOW (cms)= 0.022 (i)
TIME TO PEAK (hrs)= 12.417
RUNOFF VOLUME (mm)= 27.330
TOTAL RAINFALL (mm)= 52.770
RUNOFF COEFFICIENT = 0.518

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

CALIB					
NASHYD (0002)	Area (ha)=	7.79	Curve Number (CN)=	82.0
ID= 1 DT= 5.0 min	Ia (mm)=	4.90	# of Linear Res.(N)=	3.00
	U.H. Tp(hrs)=	0.57		

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	0.00	6.167	0.84	12.250	64.59	18.33	0.95
0.167	0.00	6.250	0.84	12.333	7.61	18.42	0.95
0.250	0.00	6.333	0.95	12.417	7.60	18.50	0.95
0.333	0.58	6.417	0.95	12.500	7.60	18.58	0.95
0.417	0.58	6.500	0.95	12.583	7.60	18.67	0.95
0.500	0.58	6.583	0.95	12.667	7.60	18.75	0.95
0.583	0.58	6.667	0.95	12.750	7.60	18.83	0.95
0.667	0.58	6.750	0.95	12.833	3.91	18.92	0.95
0.750	0.58	6.833	0.95	12.917	3.90	19.00	0.95
0.833	0.58	6.917	0.95	13.000	3.90	19.08	0.95
0.917	0.58	7.000	0.95	13.083	3.90	19.17	0.95
1.000	0.58	7.083	0.95	13.167	3.90	19.25	0.95
1.083	0.58	7.167	0.95	13.250	3.90	19.33	0.95
1.167	0.58	7.250	0.95	13.333	2.85	19.42	0.95
1.250	0.58	7.333	1.16	13.417	2.85	19.50	0.95
1.333	0.58	7.417	1.16	13.500	2.85	19.58	0.95
1.417	0.58	7.500	1.16	13.583	2.85	19.67	0.95
1.500	0.58	7.583	1.16	13.667	2.85	19.75	0.95
1.583	0.58	7.667	1.16	13.750	2.85	19.83	0.95
1.667	0.58	7.750	1.16	13.833	2.22	19.92	0.95
1.750	0.58	7.833	1.16	13.917	2.22	20.00	0.95
1.833	0.58	7.917	1.16	14.000	2.22	20.08	0.95
1.917	0.58	8.000	1.16	14.083	2.22	20.17	0.95
2.000	0.58	8.083	1.16	14.167	2.22	20.25	0.95
2.083	0.58	8.167	1.16	14.250	2.22	20.33	0.63
2.167	0.58	8.250	1.16	14.333	1.58	20.42	0.63
2.250	0.58	8.333	1.37	14.417	1.58	20.50	0.63
2.333	0.69	8.417	1.37	14.500	1.58	20.58	0.63
2.417	0.69	8.500	1.37	14.583	1.58	20.67	0.63
2.500	0.69	8.583	1.37	14.667	1.58	20.75	0.63
2.583	0.69	8.667	1.37	14.750	1.58	20.83	0.63
2.667	0.69	8.750	1.37	14.833	1.58	20.92	0.63
2.750	0.69	8.833	1.48	14.917	1.58	21.00	0.63
2.833	0.69	8.917	1.48	15.000	1.58	21.08	0.63
2.917	0.69	9.000	1.48	15.083	1.58	21.17	0.63
3.000	0.69	9.083	1.48	15.167	1.58	21.25	0.63
3.083	0.69	9.167	1.48	15.250	1.58	21.33	0.63
3.167	0.69	9.250	1.48	15.333	1.58	21.42	0.63
3.250	0.69	9.333	1.69	15.417	1.58	21.50	0.63
3.333	0.69	9.417	1.69	15.500	1.58	21.58	0.63
3.417	0.69	9.500	1.69	15.583	1.58	21.67	0.63
3.500	0.69	9.583	1.69	15.667	1.58	21.75	0.63
3.583	0.69	9.667	1.69	15.750	1.58	21.83	0.63
3.667	0.69	9.750	1.69	15.833	1.58	21.92	0.63
3.750	0.69	9.833	1.90	15.917	1.58	22.00	0.63
3.833	0.69	9.917	1.90	16.000	1.58	22.08	0.63
3.917	0.69	10.000	1.90	16.083	1.58	22.17	0.63
4.000	0.69	10.083	1.90	16.167	1.58	22.25	0.63
4.083	0.69	10.167	1.90	16.250	1.58	22.33	0.63
4.167	0.69	10.250	1.90	16.333	0.95	22.42	0.63
4.250	0.69	10.333	2.43	16.417	0.95	22.50	0.63
4.333	0.84	10.417	2.43	16.500	0.95	22.58	0.63
4.417	0.84	10.500	2.43	16.583	0.95	22.67	0.63
4.500	0.84	10.583	2.43	16.667	0.95	22.75	0.63
4.583	0.84	10.667	2.43	16.750	0.95	22.83	0.63
4.667	0.84	10.750	2.43	16.833	0.95	22.92	0.63
4.750	0.84	10.833	3.27	16.917	0.95	23.00	0.63
4.833	0.84	10.917	3.27	17.000	0.95	23.08	0.63
4.917	0.84	11.000	3.27	17.083	0.95	23.17	0.63
5.000	0.84	11.083	3.27	17.167	0.95	23.25	0.63
5.083	0.84	11.167	3.27	17.250	0.95	23.33	0.63
5.167	0.84	11.250	3.27	17.333	0.95	23.42	0.63
5.250	0.84	11.333	5.07	17.417	0.95	23.50	0.63
5.333	0.84	11.417	5.07	17.500	0.95	23.58	0.63
5.417	0.84	11.500	5.07	17.583	0.95	23.67	0.63
5.500	0.84	11.583	5.07	17.667	0.95	23.75	0.63
5.583	0.84	11.667	5.07	17.750	0.95	23.83	0.63
5.667	0.84	11.750	5.07	17.833	0.95	23.92	0.63
5.750	0.84	11.833	15.62	17.917	0.95	24.00	0.63
5.833	0.84	11.917	15.62	18.000	0.95	24.08	0.63
5.917	0.84	12.000	15.62	18.083	0.95	24.17	0.63
6.000	0.84	12.083	64.58	18.167	0.95	24.25	0.63
6.083	0.84	12.167	64.59	18.250	0.95		

Unit Hyd Qpeak (cms)= 0.522

PEAK FLOW (cms)= 0.210 (i)
TIME TO PEAK (hrs)= 12.750
RUNOFF VOLUME (mm)= 22.113
TOTAL RAINFALL (mm)= 52.770
RUNOFF COEFFICIENT = 0.419

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

ADD HYD (0006)		AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3		(ha)	(cms)	(hrs)	(mm)
	ID1= 1 (0001):	0.39	0.022	12.42	27.33
	+ ID2= 2 (0002):	7.79	0.210	12.75	22.11
	ID = 3 (0006):	8.18	0.223	12.67	22.36

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0007)		AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3		(ha)	(cms)	(hrs)	(mm)
	ID1= 1 (0003):	0.82	0.043	12.42	25.09
	+ ID2= 2 (0006):	8.18	0.223	12.67	22.36
	ID = 3 (0007):	9.00	0.252	12.58	22.61

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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=============================================================================================================

       V    V   I    SSSSS  U   U    A    L              (v 6.2.2020)
       V    V   I    SS     U   U   A A   L
        V  V    I     SS    U   U  AAAAA  L
         V V    I      SS   U   U A     A L
          VV    I    SSSSS  UUUUU A     A LLLLL

       OOO   TTTTT  TTTTT  H   H  Y   Y  M   M   OOO    TM
      O   O    T      T    H   H   Y Y   MM MM  O   O
      O   O    T      T    H   H    Y    M M M  O   O
       OOO     T      T    H   H    Y    M   M   OOO
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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\atrenholm\AppData\Local\Civica\VH5\8ef94b88-6605-479e-b003-b70f6886dc93\7ec7e4c4-
  Summary filename: C:\Users\atrenholm\AppData\Local\Civica\VH5\8ef94b88-6605-479e-b003-b70f6886dc93\7ec7e4c4-

DATE: 05/24/2026                          TIME: 05:00:45

USER:


COMMENTS: _____________________________________________________

-------------------------------------------------------------------------------------------------------------
  ************************************************
  ** SIMULATION : 2yr 4hr 10min Chicago         **
  ************************************************

--------------------
| CHICAGO STORM    |    IDF curve parameters: A= 646.000
| Ptotal= 35.06 mm |                          B=   6.000
--------------------                          C=   0.781
                        used in:   INTENSITY =  A / (t + B)^C

                        Duration of storm   =  4.00 hrs
                        Storm time step     = 10.00 min
                        Time to peak ratio  =  0.33

                TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
                  hrs   mm/hr |    hrs   mm/hr |'    hrs   mm/hr |    hrs   mm/hr
                0.00     2.39 |  1.00   18.60 |   2.00    5.63 |  3.00    2.84
                0.17     2.73 |  1.17   74.10 |   2.17    4.79 |  3.17    2.63
                0.33     3.22 |  1.33   24.28 |   2.33    4.18 |  3.33    2.46
                0.50     3.95 |  1.50   12.94 |   2.50    3.73 |  3.50    2.31
                0.67     5.20 |  1.67    8.92 |   2.67    3.37 |  3.67    2.18
                0.83     7.89 |  1.83    6.87 |   2.83    3.08 |  3.83    2.07


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--------------------
| CALIB            |
| NASHYD   (  0004)|   Area    (ha)=   0.76   Curve Number   (CN)= 87.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.10   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.28

        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     2.39 | 1.083   18.60 | 2.083    5.63 |  3.08    2.84
              0.167     2.39 | 1.167   18.60 | 2.167    5.63 |  3.17    2.84
              0.250     2.73 | 1.250   74.10 | 2.250    4.79 |  3.25    2.63
              0.333     2.73 | 1.333   74.10 | 2.333    4.79 |  3.33    2.63
              0.417     3.22 | 1.417   24.28 | 2.417    4.18 |  3.42    2.46
              0.500     3.22 | 1.500   24.28 | 2.500    4.18 |  3.50    2.46
              0.583     3.95 | 1.583   12.94 | 2.583    3.73 |  3.58    2.31
              0.667     3.95 | 1.667   12.94 | 2.667    3.73 |  3.67    2.31
              0.750     5.20 | 1.750    8.92 | 2.750    3.37 |  3.75    2.18
              0.833     5.20 | 1.833    8.92 | 2.833    3.37 |  3.83    2.18
              0.917     7.89 | 1.917    6.87 | 2.917    3.08 |  3.92    2.07
              1.000     7.89 | 2.000    6.87 | 3.000    3.08 |  4.00    2.07



--------------------
| CALIB            |
| NASHYD   (  0002)|   Area    (ha)=   7.79   Curve Number   (CN)= 82.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.90   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.57

        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     2.39 | 1.083   18.60 | 2.083    5.63 |  3.08    2.84
              0.167     2.39 | 1.167   18.60 | 2.167    5.63 |  3.17    2.84
              0.250     2.73 | 1.250   74.10 | 2.250    4.79 |  3.25    2.63
              0.333     2.73 | 1.333   74.10 | 2.333    4.79 |  3.33    2.63
              0.417     3.22 | 1.417   24.28 | 2.417    4.18 |  3.42    2.46
              0.500     3.22 | 1.500   24.28 | 2.500    4.18 |  3.50    2.46
              0.583     3.95 | 1.583   12.94 | 2.583    3.73 |  3.58    2.31
              0.667     3.95 | 1.667   12.94 | 2.667    3.73 |  3.67    2.31
              0.750     5.20 | 1.750    8.92 | 2.750    3.37 |  3.75    2.18
              0.833     5.20 | 1.833    8.92 | 2.833    3.37 |  3.83    2.18
              0.917     7.89 | 1.917    6.87 | 2.917    3.08 |  3.92    2.07
              1.000     7.89 | 2.000    6.87 | 3.000    3.08 |  4.00    2.07

    Unit Hyd Qpeak  (cms)=   0.522

    PEAK FLOW       (cms)=   0.123 (i)
    TIME TO PEAK    (hrs)=   2.083
    RUNOFF VOLUME    (mm)=  10.587
    TOTAL RAINFALL   (mm)=  35.061
    RUNOFF COEFFICIENT   =   0.302

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

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--------------------
| ADD HYD  (  0006)|
|  1 +  2 =  3     |        AREA    QPEAK    TPEAK     R.V.
--------------------        (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0001):     0.39   0.013     1.67    13.90
     + ID2= 2 (  0002):     7.79   0.123     2.08    10.59
       ========================================================
       ID = 3 (  0006):     8.18   0.131     2.00    10.75

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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--------------------
| ADD HYD  (  0007)|
|  1 +  2 =  3     |        AREA    QPEAK    TPEAK     R.V.
--------------------        (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0003):     0.82   0.024     1.67    12.45
     + ID2= 2 (  0006):     8.18   0.131     2.00    10.75
       ========================================================
       ID = 3 (  0007):     9.00   0.148     1.92    10.90

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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    Unit Hyd Qpeak  (cms)=   0.104

    PEAK FLOW       (cms)=   0.025 (i)
    TIME TO PEAK    (hrs)=   1.667
    RUNOFF VOLUME    (mm)=  13.901
    TOTAL RAINFALL   (mm)=  35.061
    RUNOFF COEFFICIENT   =   0.396

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

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--------------------
| CALIB            |
| NASHYD   (  0003)|   Area    (ha)=   0.82   Curve Number   (CN)= 85.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.40   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.28

        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     2.39 | 1.083   18.60 | 2.083    5.63 |  3.08    2.84
              0.167     2.39 | 1.167   18.60 | 2.167    5.63 |  3.17    2.84
              0.250     2.73 | 1.250   74.10 | 2.250    4.79 |  3.25    2.63
              0.333     2.73 | 1.333   74.10 | 2.333    4.79 |  3.33    2.63
              0.417     3.22 | 1.417   24.28 | 2.417    4.18 |  3.42    2.46
              0.500     3.22 | 1.500   24.28 | 2.500    4.18 |  3.50    2.46
              0.583     3.95 | 1.583   12.94 | 2.583    3.73 |  3.58    2.31
              0.667     3.95 | 1.667   12.94 | 2.667    3.73 |  3.67    2.31
              0.750     5.20 | 1.750    8.92 | 2.750    3.37 |  3.75    2.18
              0.833     5.20 | 1.833    8.92 | 2.833    3.37 |  3.83    2.18
              0.917     7.89 | 1.917    6.87 | 2.917    3.08 |  3.92    2.07
              1.000     7.89 | 2.000    6.87 | 3.000    3.08 |  4.00    2.07

    Unit Hyd Qpeak  (cms)=   0.112

    PEAK FLOW       (cms)=   0.024 (i)
    TIME TO PEAK    (hrs)=   1.667
    RUNOFF VOLUME    (mm)=  12.447
    TOTAL RAINFALL   (mm)=  35.061
    RUNOFF COEFFICIENT   =   0.355

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

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--------------------
| CALIB            |
| NASHYD   (  0001)|   Area    (ha)=   0.39   Curve Number   (CN)= 87.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.10   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.28

        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     2.39 | 1.083   18.60 | 2.083    5.63 |  3.08    2.84
              0.167     2.39 | 1.167   18.60 | 2.167    5.63 |  3.17    2.84
              0.250     2.73 | 1.250   74.10 | 2.250    4.79 |  3.25    2.63
              0.333     2.73 | 1.333   74.10 | 2.333    4.79 |  3.33    2.63
              0.417     3.22 | 1.417   24.28 | 2.417    4.18 |  3.42    2.46
              0.500     3.22 | 1.500   24.28 | 2.500    4.18 |  3.50    2.46
              0.583     3.95 | 1.583   12.94 | 2.583    3.73 |  3.58    2.31
              0.667     3.95 | 1.667   12.94 | 2.667    3.73 |  3.67    2.31
              0.750     5.20 | 1.750    8.92 | 2.750    3.37 |  3.75    2.18
              0.833     5.20 | 1.833    8.92 | 2.833    3.37 |  3.83    2.18
              0.917     7.89 | 1.917    6.87 | 2.917    3.08 |  3.92    2.07
              1.000     7.89 | 2.000    6.87 | 3.000    3.08 |  4.00    2.07

    Unit Hyd Qpeak  (cms)=   0.053

    PEAK FLOW       (cms)=   0.013 (i)
    TIME TO PEAK    (hrs)=   1.667
    RUNOFF VOLUME    (mm)=  13.901
    TOTAL RAINFALL   (mm)=  35.061
    RUNOFF COEFFICIENT   =   0.396

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

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       V    V   I    SSSSS  U    U    A    L              (v 6.2.2020)
       V    V   I    SS     U    U   A A   L
        V  V    I     SS    U    U  AAAAA  L
         VV     I      SS   U    U  A   A  L
          VV    I    SSSSS  UUUUU  A   A  LLLLL

       OOO   TTTTT  TTTTT  H   H  Y   Y  M   M   OOO    TM
      O   O    T      T    H   H   Y Y   MM MM  O   O
      O   O    T      T    H   H    Y    M M M  O   O
       OOO     T      T    H   H    Y    M   M   OOO
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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\atrenholm\AppData\Local\Civica\VH5\8ef94b88-6605-479e-b003-b70f6886dc93\fb82753e-
  Summary filename: C:\Users\atrenholm\AppData\Local\Civica\VH5\8ef94b88-6605-479e-b003-b70f6886dc93\fb82753e-


DATE: 05/24/2026                          TIME: 05:00:47

USER:


COMMENTS: _____________________________________________________


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  ************************************************
  ** SIMULATION : 5yr 24hr 15min SCS Type II (M **
  ************************************************


---------------------
|    READ STORM     |    Filename: C:\Users\atrenholm\AppD
|                   |              ata\Local\Temp\
|                   |              e7fbba53-3be4-4227-bc0d-7ae48d330c1e\6c6ee626
| Ptotal= 72.96 mm  |    Comments: 5yr 24hr 15min SCS Type II (MTO)
---------------------
                TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
                 hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
               0.00    0.00 |  6.25    1.31 | 12.50   10.51 | 18.75    1.31
               0.25    0.80 |  6.50    1.31 | 12.75    5.40 | 19.00    1.31
               0.50    0.80 |  6.75    1.31 | 13.00    5.40 | 19.25    1.31
               0.75    0.80 |  7.00    1.31 | 13.25    3.94 | 19.50    1.31
               1.00    0.80 |  7.25    1.61 | 13.50    3.94 | 19.75    1.31
               1.25    0.80 |  7.50    1.61 | 13.75    3.06 | 20.00    1.31
               1.50    0.80 |  7.75    1.61 | 14.00    3.06 | 20.25    0.88
               1.75    0.80 |  8.00    1.61 | 14.25    2.19 | 20.50    0.88
               2.00    0.80 |  8.25    1.90 | 14.50    2.19 | 20.75    0.88
               2.25    0.95 |  8.50    1.90 | 14.75    2.19 | 21.00    0.88
               2.50    0.95 |  8.75    2.04 | 15.00    2.19 | 21.25    0.88
               2.75    0.95 |  9.00    2.04 | 15.25    2.19 | 21.50    0.88
               3.00    0.95 |  9.25    2.33 | 15.50    2.19 | 21.75    0.88
               3.25    0.95 |  9.50    2.33 | 15.75    2.19 | 22.00    0.88
               3.50    0.95 |  9.75    2.63 | 16.00    2.19 | 22.25    0.88
               3.75    0.95 | 10.00    2.63 | 16.25    1.31 | 22.50    0.88
               4.00    0.95 | 10.25    3.36 | 16.50    1.31 | 22.75    0.88
               4.25    1.17 | 10.50    3.36 | 16.75    1.31 | 23.00    0.88
               4.50    1.17 | 10.75    4.52 | 17.00    1.31 | 23.25    0.88
               4.75    1.17 | 11.00    4.52 | 17.25    1.31 | 23.50    0.88
               5.00    1.17 | 11.25    7.00 | 17.50    1.31 | 23.75    0.88
               5.25    1.17 | 11.50    7.00 | 17.75    1.31 | 24.00    0.88
               5.50    1.17 | 11.75   21.60 | 18.00    1.31 |
               5.75    1.17 | 12.00   89.30 | 18.25    1.31 |
               6.00    1.17 | 12.25   10.51 | 18.50    1.31 |

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--------------------
| CALIB            |
| NASHYD   (  0004)|   Area    (ha)=   0.76   Curve Number   (CN)= 87.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.10   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.28

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



    RUNOFF COEFFICIENT   =   0.608

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

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--------------------
| CALIB            |
| NASHYD   (  0003)|   Area    (ha)=   0.82   Curve Number   (CN)= 85.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.40   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.28

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

                        ---- TRANSFORMED HYETOGRAPH ----
                TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
                 hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
               0.083    0.00 |  6.250    1.17 | 12.250   89.30 | 18.33    1.31
               0.167    0.00 |  6.250    1.17 |12.333   10.52 | 18.42    1.31
               0.250    0.00 |  6.333    1.31 |12.417   10.51 | 18.50    1.31
               0.333    0.80 |  6.417    1.31 |12.500   10.51 | 18.58    1.31
               0.417    0.80 |  6.500    1.31 |12.583   10.51 | 18.67    1.31
               0.500    0.80 |  6.583    1.31 |12.667   10.51 | 18.75    1.31
               0.583    0.80 |  6.667    1.31 |12.750   10.51 | 18.83    1.31
               0.667    0.80 |  6.750    1.31 |12.833    5.40 | 18.92    1.31
               0.750    0.80 |  6.833    1.31 |12.917    5.40 | 19.00    1.31
               0.833    0.80 |  6.917    1.31 |13.000    5.40 | 19.08    1.31
               0.917    0.80 |  7.000    1.31 |13.083    5.40 | 19.17    1.31
               1.000    0.80 |  7.083    1.31 |13.167    5.40 | 19.25    1.31
               1.083    0.80 |  7.167    1.31 |13.250    5.40 | 19.33    1.31
               1.167    0.80 |  7.250    1.31 |13.333    3.94 | 19.42    1.31
               1.250    0.80 |  7.333    1.61 |13.417    3.94 | 19.50    1.31
               1.333    0.80 |  7.417    1.61 |13.500    3.94 | 19.58    1.31
               1.417    0.80 |  7.500    1.61 |13.583    3.94 | 19.67    1.31
               1.500    0.80 |  7.583    1.61 |13.667    3.94 | 19.75    1.31
               1.583    0.80 |  7.667    1.61 |13.750    3.94 | 19.83    1.31
               1.667    0.80 |  7.750    1.61 |13.833    3.06 | 19.92    1.31
               1.750    0.80 |  7.833    1.61 |13.917    3.06 | 20.00    1.31
               1.833    0.80 |  7.917    1.61 |14.000    3.06 | 20.08    1.31
               1.917    0.80 |  8.000    1.61 |14.083    3.06 | 20.17    1.31
               2.000    0.80 |  8.083    1.61 |14.167    3.06 | 20.25    1.31
               2.083    0.80 |  8.167    1.61 |14.250    3.06 | 20.33    0.88
               2.167    0.80 |  8.250    1.61 |14.333    2.19 | 20.42    0.88
               2.250    0.80 |  8.333    1.90 |14.417    2.19 | 20.50    0.88
               2.333    0.95 |  8.417    1.90 |14.500    2.19 | 20.58    0.88
               2.417    0.95 |  8.500    1.90 |14.583    2.19 | 20.67    0.88
               2.500    0.95 |  8.583    1.90 |14.667    2.19 | 20.75    0.88
               2.583    0.95 |  8.667    1.90 |14.750    2.19 | 20.83    0.88
               2.667    0.95 |  8.750    1.90 |14.833    2.19 | 20.92    0.88
               2.750    0.95 |  8.833    2.04 |14.917    2.19 | 21.00    0.88
               2.833    0.95 |  8.917    2.04 |15.000    2.19 | 21.08    0.88
               2.917    0.95 |  9.000    2.04 |15.083    2.19 | 21.17    0.88
               3.000    0.95 |  9.083    2.04 |15.167    2.19 | 21.25    0.88
               3.083    0.95 |  9.167    2.04 |15.250    2.19 | 21.33    0.88
               3.167    0.95 |  9.250    2.04 |15.333    2.19 | 21.42    0.88
               3.250    0.95 |  9.333    2.33 |15.417    2.19 | 21.50    0.88
               3.333    0.95 |  9.417    2.33 |15.500    2.19 | 21.58    0.88
               3.417    0.95 |  9.500    2.33 |15.583    2.19 | 21.67    0.88
               3.500    0.95 |  9.583    2.33 |15.667    2.19 | 21.75    0.88
               3.583    0.95 |  9.667    2.33 |15.750    2.19 | 21.83    0.88
               3.667    0.95 |  9.750    2.33 |15.833    2.19 | 21.92    0.88
               3.750    0.95 |  9.833    2.63 |15.917    2.19 | 22.00    0.88
               3.833    0.95 |  9.917    2.63 |16.000    2.19 | 22.08    0.88
               3.917    0.95 | 10.000    2.63 |16.083    2.19 | 22.17    0.88
               4.000    0.95 | 10.083    2.63 |16.167    2.19 | 22.25    0.88
               4.083    0.95 | 10.167    2.63 |16.250    2.19 | 22.33    0.88
               4.167    0.95 | 10.250    2.63 |16.333    1.31 | 22.42    0.88
               4.250    0.95 | 10.333    3.36 |16.417    1.31 | 22.50    0.88
               4.333    1.17 | 10.417    3.36 |16.500    1.31 | 22.58    0.88
               4.417    1.17 | 10.500    3.36 |16.583    1.31 | 22.67    0.88
               4.500    1.17 | 10.583    3.36 |16.667    1.31 | 22.75    0.88
               4.583    1.17 | 10.667    3.36 |16.750    1.31 | 22.83    0.88
               4.667    1.17 | 10.750    3.36 |16.833    1.31 | 22.92    0.88
               4.750    1.17 | 10.833    4.52 |16.917    1.31 | 23.00    0.88
               4.833    1.17 | 10.917    4.52 |17.000    1.31 | 23.08    0.88
               4.917    1.17 | 11.000    4.52 |17.083    1.31 | 23.17    0.88
               5.000    1.17 | 11.083    4.52 |17.167    1.31 | 23.25    0.88
               5.083    1.17 | 11.167    4.52 |17.250    1.31 | 23.33    0.88
               5.167    1.17 | 11.250    4.52 |17.333    1.31 | 23.42    0.88
               5.250    1.17 | 11.333    7.00 |17.417    1.31 | 23.50    0.88
               5.333    1.17 | 11.417    7.00 |17.500    1.31 | 23.58    0.88
               5.417    1.17 | 11.500    7.00 |17.583    1.31 | 23.67    0.88
               5.500    1.17 | 11.583    7.00 |17.667    1.31 | 23.75    0.88
               5.583    1.17 | 11.667    7.00 |17.750    1.31 | 23.83    0.88
                        ---- TRANSFORMED HYETOGRAPH ----
                TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
                 hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
               0.083    0.00 |  6.167    1.17 |12.250   89.30 | 18.33    1.31
               0.167    0.00 |  6.250    1.17 |12.333   10.52 | 18.42    1.31
               0.250    0.00 |  6.333    1.31 |12.417   10.51 | 18.50    1.31
               0.333    0.80 |  6.417    1.31 |12.500   10.51 | 18.58    1.31
               0.417    0.80 |  6.500    1.31 |12.583   10.51 | 18.67    1.31
               0.500    0.80 |  6.583    1.31 |12.667   10.51 | 18.75    1.31
               0.583    0.80 |  6.667    1.31 |12.750   10.51 | 18.83    1.31
               0.667    0.80 |  6.750    1.31 |12.833    5.40 | 18.92    1.31
               0.750    0.80 |  6.833    1.31 |12.917    5.40 | 19.00    1.31
               0.833    0.80 |  6.917    1.31 |13.000    5.40 | 19.08    1.31
               0.917    0.80 |  7.000    1.31 |13.083    5.40 | 19.17    1.31
               1.000    0.80 |  7.083    1.31 |13.167    5.40 | 19.25    1.31
               1.083    0.80 |  7.167    1.31 |13.250    5.40 | 19.33    1.31
               1.167    0.80 |  7.250    1.31 |13.333    3.94 | 19.42    1.31
               1.250    0.80 |  7.333    1.61 |13.417    3.94 | 19.50    1.31
               1.333    0.80 |  7.417    1.61 |13.500    3.94 | 19.58    1.31
               1.417    0.80 |  7.500    1.61 |13.583    3.94 | 19.67    1.31
               1.500    0.80 |  7.583    1.61 |13.667    3.94 | 19.75    1.31
               1.583    0.80 |  7.667    1.61 |13.750    3.94 | 19.83    1.31
               1.667    0.80 |  7.750    1.61 |13.833    3.06 | 19.92    1.31
               1.750    0.80 |  7.833    1.61 |13.917    3.06 | 20.00    1.31
               1.833    0.80 |  7.917    1.61 |14.000    3.06 | 20.08    1.31
               1.917    0.80 |  8.000    1.61 |14.083    3.06 | 20.17    1.31
               2.000    0.80 |  8.083    1.61 |14.167    3.06 | 20.25    1.31
               2.083    0.80 |  8.167    1.61 |14.250    3.06 | 20.33    0.88
               2.167    0.80 |  8.250    1.61 |14.333    2.19 | 20.42    0.88
               2.250    0.80 |  8.333    1.90 |14.417    2.19 | 20.50    0.88
               2.333    0.95 |  8.417    1.90 |14.500    2.19 | 20.58    0.88
               2.417    0.95 |  8.500    1.90 |14.583    2.19 | 20.67    0.88
               2.500    0.95 |  8.583    1.90 |14.667    2.19 | 20.75    0.88
               2.583    0.95 |  8.667    1.90 |14.750    2.19 | 20.83    0.88
               2.667    0.95 |  8.750    1.90 |14.833    2.19 | 20.92    0.88
               2.750    0.95 |  8.833    2.04 |14.917    2.19 | 21.00    0.88
               2.833    0.95 |  8.917    2.04 |15.000    2.19 | 21.08    0.88
               2.917    0.95 |  9.000    2.04 |15.083    2.19 | 21.17    0.88
               3.000    0.95 |  9.083    2.04 |15.167    2.19 | 21.25    0.88
               3.083    0.95 |  9.167    2.04 |15.250    2.19 | 21.33    0.88
               3.167    0.95 |  9.250    2.04 |15.333    2.19 | 21.42    0.88
               3.250    0.95 |  9.333    2.33 |15.417    2.19 | 21.50    0.88
               3.333    0.95 |  9.417    2.33 |15.500    2.19 | 21.58    0.88
               3.417    0.95 |  9.500    2.33 |15.583    2.19 | 21.67    0.88
               3.500    0.95 |  9.583    2.33 |15.667    2.19 | 21.75    0.88
               3.583    0.95 |  9.667    2.33 |15.750    2.19 | 21.83    0.88
               3.667    0.95 |  9.750    2.33 |15.833    2.19 | 21.92    0.88
               3.750    0.95 |  9.833    2.63 |15.917    2.19 | 22.00    0.88
               3.833    0.95 |  9.917    2.63 |16.000    2.19 | 22.08    0.88
               3.917    0.95 | 10.000    2.63 |16.083    2.19 | 22.17    0.88
               4.000    0.95 | 10.083    2.63 |16.167    2.19 | 22.25    0.88
               4.083    0.95 | 10.167    2.63 |16.250    2.19 | 22.33    0.88
               4.167    0.95 | 10.250    2.63 |16.333    1.31 | 22.42    0.88
               4.250    0.95 | 10.333    3.36 |16.417    1.31 | 22.50    0.88
               4.333    1.17 | 10.417    3.36 |16.500    1.31 | 22.58    0.88
               4.417    1.17 | 10.500    3.36 |16.583    1.31 | 22.67    0.88
               4.500    1.17 | 10.583    3.36 |16.667    1.31 | 22.75    0.88
               4.583    1.17 | 10.667    3.36 |16.750    1.31 | 22.83    0.88
               4.667    1.17 | 10.750    3.36 |16.833    1.31 | 22.92    0.88
               4.750    1.17 | 10.833    4.52 |16.917    1.31 | 23.00    0.88
               4.833    1.17 | 10.917    4.52 |17.000    1.31 | 23.08    0.88
               4.917    1.17 | 11.000    4.52 |17.083    1.31 | 23.17    0.88
               5.000    1.17 | 11.083    4.52 |17.167    1.31 | 23.25    0.88
               5.083    1.17 | 11.167    4.52 |17.250    1.31 | 23.33    0.88
               5.167    1.17 | 11.250    4.52 |17.333    1.31 | 23.42    0.88
               5.250    1.17 | 11.333    7.00 |17.417    1.31 | 23.50    0.88
               5.333    1.17 | 11.417    7.00 |17.500    1.31 | 23.58    0.88
               5.417    1.17 | 11.500    7.00 |17.583    1.31 | 23.67    0.88
               5.500    1.17 | 11.583    7.00 |17.667    1.31 | 23.75    0.88
               5.583    1.17 | 11.667    7.00 |17.750    1.31 | 23.83    0.88
               5.667    1.17 | 11.750    7.00 |17.833    1.31 | 23.92    0.88
               5.750    1.17 | 11.833   21.59 |17.917    1.31 | 24.00    0.88
               5.833    1.17 | 11.917   21.60 |18.000    1.31 | 24.08    0.88
               5.917    1.17 | 12.000   21.60 |18.083    1.31 | 24.17    0.88
               6.000    1.17 | 12.083   89.29 |18.167    1.31 | 24.25    0.88
               6.083    1.17 | 12.167   89.30 |18.250    1.31 |

    Unit Hyd Qpeak  (cms)=   0.104

    PEAK FLOW       (cms)=   0.071 (i)
    TIME TO PEAK    (hrs)=  12.417
    RUNOFF VOLUME    (mm)=  44.369
    TOTAL RAINFALL   (mm)=  72.960


                        ---- TRANSFORMED HYETOGRAPH ----
                TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
                 hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
               5.667    1.17 |11.750    7.00 |17.833    1.31 | 23.92    0.88
               5.750    1.17 |11.833   21.59 |17.917    1.31 | 24.00    0.88
               5.833    1.17 |11.917   21.60 |18.000    1.31 | 24.08    0.88
               5.917    1.17 |12.000   21.60 |18.083    1.31 | 24.17    0.88
               6.000    1.17 |12.083   89.29 |18.167    1.31 | 24.25    0.88
               6.083    1.17 |12.167   89.30 |18.250    1.31 |

    Unit Hyd Qpeak  (cms)=   0.112

    PEAK FLOW       (cms)=   0.071 (i)
    TIME TO PEAK    (hrs)=  12.417
    RUNOFF VOLUME    (mm)=  41.435
    TOTAL RAINFALL   (mm)=  72.960
    RUNOFF COEFFICIENT   =   0.568

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

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| CALIB            |
| NASHYD   (  0001)|   Area    (ha)=   0.39   Curve Number   (CN)= 87.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.10   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.28

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

                        ---- TRANSFORMED HYETOGRAPH ----
                TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
                 hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
               0.083    0.00 |  6.167    1.17 |12.250   89.30 | 18.33    1.31
               0.167    0.00 |  6.250    1.17 |12.333   10.52 | 18.42    1.31
               0.250    0.00 |  6.333    1.31 |12.417   10.51 | 18.50    1.31
               0.333    0.80 |  6.417    1.31 |12.500   10.51 | 18.58    1.31
               0.417    0.80 |  6.500    1.31 |12.583   10.51 | 18.67    1.31
               0.500    0.80 |  6.583    1.31 |12.667   10.51 | 18.75    1.31
               0.583    0.80 |  6.667    1.31 |12.750   10.51 | 18.83    1.31
               0.667    0.80 |  6.750    1.31 |12.833    5.40 | 18.92    1.31
               0.750    0.80 |  6.833    1.31 |12.917    5.40 | 19.00    1.31
               0.833    0.80 |  6.917    1.31 |13.000    5.40 | 19.08    1.31
               0.917    0.80 |  7.000    1.31 |13.083    5.40 | 19.17    1.31
               1.000    0.80 |  7.083    1.31 |13.167    5.40 | 19.25    1.31
               1.083    0.80 |  7.167    1.31 |13.250    5.40 | 19.33    1.31
               1.167    0.80 |  7.250    1.31 |13.333    3.94 | 19.42    1.31
               1.250    0.80 |  7.333    1.61 |13.417    3.94 | 19.50    1.31
               1.333    0.80 |  7.417    1.61 |13.500    3.94 | 19.58    1.31
               1.417    0.80 |  7.500    1.61 |13.583    3.94 | 19.67    1.31
               1.500    0.80 |  7.583    1.61 |13.667    3.94 | 19.75    1.31
               1.583    0.80 |  7.667    1.61 |13.750    3.94 | 19.83    1.31
               1.667    0.80 |  7.750    1.61 |13.833    3.06 | 19.92    1.31
               1.750    0.80 |  7.833    1.61 |13.917    3.06 | 20.00    1.31
               1.833    0.80 |  7.917    1.61 |14.000    3.06 | 20.08    1.31
               1.917    0.80 |  8.000    1.61 |14.083    3.06 | 20.17    1.31
               2.000    0.80 |  8.083    1.61 |14.167    3.06 | 20.25    1.31
               2.083    0.80 |  8.167    1.61 |14.250    3.06 | 20.33    0.88
               2.167    0.80 |  8.250    1.61 |14.333    2.19 | 20.42    0.88
               2.250    0.80 |  8.333    1.90 |14.417    2.19 | 20.50    0.88
               2.333    0.95 |  8.417    1.90 |14.500    2.19 | 20.58    0.88
               2.417    0.95 |  8.500    1.90 |14.583    2.19 | 20.67    0.88
               2.500    0.95 |  8.583    1.90 |14.667    2.19 | 20.75    0.88
               2.583    0.95 |  8.667    1.90 |14.750    2.19 | 20.83    0.88
               2.667    0.95 |  8.750    1.90 |14.833    2.19 | 20.92    0.88
               2.750    0.95 |  8.833    2.04 |14.917    2.19 | 21.00    0.88
               2.833    0.95 |  8.917    2.04 |15.000    2.19 | 21.08    0.88
               2.917    0.95 |  9.000    2.04 |15.083    2.19 | 21.17    0.88
               3.000    0.95 |  9.083    2.04 |15.167    2.19 | 21.25    0.88
               3.083    0.95 |  9.167    2.04 |15.250    2.19 | 21.33    0.88
               3.167    0.95 |  9.250    2.04 |15.333    2.19 | 21.42    0.88
               3.250    0.95 |  9.333    2.33 |15.417    2.19 | 21.50    0.88
               3.333    0.95 |  9.417    2.33 |15.500    2.19 | 21.58    0.88
               3.417    0.95 |  9.500    2.33 |15.583    2.19 | 21.67    0.88
               3.500    0.95 |  9.583    2.33 |15.667    2.19 | 21.75    0.88
               3.583    0.95 |  9.667    2.33 |15.750    2.19 | 21.83    0.88
               3.667    0.95 |  9.750    2.33 |15.833    2.19 | 21.92    0.88
               3.750    0.95 |  9.833    2.63 |15.917    2.19 | 22.00    0.88
               3.833    0.95 |  9.917    2.63 |16.000    2.19 | 22.08    0.88
               3.917    0.95 | 10.000    2.63 |16.083    2.19 | 22.17    0.88
               4.000    0.95 | 10.083    2.63 |16.167    2.19 | 22.25    0.88
               4.083    0.95 | 10.167    2.63 |16.250    2.19 | 22.33    0.88
               4.167    0.95 | 10.250    2.63 |16.333    1.31 | 22.42    0.88
               4.250    0.95 | 10.333    3.36 |16.417    1.31 | 22.50    0.88
               4.333    1.17 | 10.417    3.36 |16.500    1.31 | 22.58    0.88
               4.417    1.17 | 10.500    3.36 |16.583    1.31 | 22.67    0.88
               4.500    1.17 | 10.583    3.36 |16.667    1.31 | 22.75    0.88
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4.583	1.17	10.667	3.36	16.750	1.31	22.83	0.88
4.667	1.17	10.750	3.36	16.833	1.31	22.92	0.88
4.750	1.17	10.833	4.52	16.917	1.31	23.00	0.88
4.833	1.17	10.917	4.52	17.000	1.31	23.08	0.88
4.917	1.17	11.000	4.52	17.083	1.31	23.17	0.88
5.000	1.17	11.083	4.52	17.167	1.31	23.25	0.88
5.083	1.17	11.167	4.52	17.250	1.31	23.33	0.88
5.167	1.17	11.250	4.52	17.333	1.31	23.42	0.88
5.250	1.17	11.333	7.00	17.417	1.31	23.50	0.88
5.333	1.17	11.417	7.00	17.500	1.31	23.58	0.88
5.417	1.17	11.500	7.00	17.583	1.31	23.67	0.88
5.500	1.17	11.583	7.00	17.667	1.31	23.75	0.88
5.583	1.17	11.667	7.00	17.750	1.31	23.83	0.88
5.667	1.17	11.750	7.00	17.833	1.31	23.92	0.88
5.750	1.17	11.833	21.59	17.917	1.31	24.00	0.88
5.833	1.17	11.917	21.60	18.000	1.31	24.08	0.88
5.917	1.17	12.000	21.60	18.083	1.31	24.17	0.88
6.000	1.17	12.083	89.29	18.167	1.31	24.25	0.88
6.083	1.17	12.167	89.30	18.250	1.31		

Unit Hyd Qpeak (cms)= 0.053

PEAK FLOW (cms)= 0.036 (i)
TIME TO PEAK (hrs)= 12.417
RUNOFF VOLUME (mm)= 44.368
TOTAL RAINFALL (mm)= 72.960
RUNOFF COEFFICIENT = 0.608

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

CALIB			
NASHYD (0002)	Area (ha)=	7.79	Curve Number (CN)= 82.0
ID= 1 DT= 5.0 min	Ia (mm)=	4.90	# of Linear Res.(N)= 3.00
	U.H. Tp(hrs)=	0.57	

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	0.00	6.167	1.17	12.250	89.30	18.33	1.31
0.167	0.00	6.250	1.17	12.333	10.52	18.42	1.31
0.250	0.00	6.333	1.31	12.417	10.51	18.50	1.31
0.333	0.80	6.417	1.31	12.500	10.51	18.58	1.31
0.417	0.80	6.500	1.31	12.583	10.51	18.67	1.31
0.500	0.80	6.583	1.31	12.667	10.51	18.75	1.31
0.583	0.80	6.667	1.31	12.750	10.51	18.83	1.31
0.667	0.80	6.750	1.31	12.833	5.40	18.92	1.31
0.750	0.80	6.833	1.31	12.917	5.40	19.00	1.31
0.833	0.80	6.917	1.31	13.000	5.40	19.08	1.31
0.917	0.80	7.000	1.31	13.083	5.40	19.17	1.31
1.000	0.80	7.083	1.31	13.167	5.40	19.25	1.31
1.083	0.80	7.167	1.31	13.250	5.40	19.33	1.31
1.167	0.80	7.250	1.31	13.333	3.94	19.42	1.31
1.250	0.80	7.333	1.61	13.417	3.94	19.50	1.31
1.333	0.80	7.417	1.61	13.500	3.94	19.58	1.31
1.417	0.80	7.500	1.61	13.583	3.94	19.67	1.31
1.500	0.80	7.583	1.61	13.667	3.94	19.75	1.31
1.583	0.80	7.667	1.61	13.750	3.94	19.83	1.31
1.667	0.80	7.750	1.61	13.833	3.06	19.92	1.31
1.750	0.80	7.833	1.61	13.917	3.06	20.00	1.31
1.833	0.80	7.917	1.61	14.000	3.06	20.08	1.31
1.917	0.80	8.000	1.61	14.083	3.06	20.17	1.31
2.000	0.80	8.083	1.61	14.167	3.06	20.25	1.31
2.083	0.80	8.167	1.61	14.250	3.06	20.33	0.88
2.167	0.80	8.250	1.61	14.333	2.19	20.42	0.88
2.250	0.80	8.333	1.90	14.417	2.19	20.50	0.88
2.333	0.95	8.417	1.90	14.500	2.19	20.58	0.88
2.417	0.95	8.500	1.90	14.583	2.19	20.67	0.88
2.500	0.95	8.583	1.90	14.667	2.19	20.75	0.88
2.583	0.95	8.667	1.90	14.750	2.19	20.83	0.88
2.667	0.95	8.750	1.90	14.833	2.19	20.92	0.88
2.750	0.95	8.833	2.04	14.917	2.19	21.00	0.88
2.833	0.95	8.917	2.04	15.000	2.19	21.08	0.88
2.917	0.95	9.000	2.04	15.083	2.19	21.17	0.88
3.000	0.95	9.083	2.04	15.167	2.19	21.25	0.88
3.083	0.95	9.167	2.04	15.250	2.19	21.33	0.88
3.167	0.95	9.250	2.04	15.333	2.19	21.42	0.88
3.250	0.95	9.333	2.33	15.417	2.19	21.50	0.88
3.333	0.95	9.417	2.33	15.500	2.19	21.58	0.88
3.417	0.95	9.500	2.33	15.583	2.19	21.67	0.88
3.500	0.95	9.583	2.33	15.667	2.19	21.75	0.88
3.583	0.95	9.667	2.33	15.750	2.19	21.83	0.88
3.667	0.95	9.750	2.33	15.833	2.19	21.92	0.88
3.750	0.95	9.833	2.63	15.917	2.19	22.00	0.88
3.833	0.95	9.917	2.63	16.000	2.19	22.08	0.88
3.917	0.95	10.000	2.63	16.083	2.19	22.17	0.88
4.000	0.95	10.083	2.63	16.167	2.19	22.25	0.88
4.083	0.95	10.167	2.63	16.250	2.19	22.33	0.88
4.167	0.95	10.250	2.63	16.333	1.31	22.42	0.88
4.250	0.95	10.333	3.36	16.417	1.31	22.50	0.88
4.333	1.17	10.417	3.36	16.500	1.31	22.58	0.88
4.417	1.17	10.500	3.36	16.583	1.31	22.67	0.88
4.500	1.17	10.583	3.36	16.667	1.31	22.75	0.88
4.583	1.17	10.667	3.36	16.750	1.31	22.83	0.88
4.667	1.17	10.750	3.36	16.833	1.31	22.92	0.88
4.750	1.17	10.833	4.52	16.917	1.31	23.00	0.88
4.833	1.17	10.917	4.52	17.000	1.31	23.08	0.88
4.917	1.17	11.000	4.52	17.083	1.31	23.17	0.88
5.000	1.17	11.083	4.52	17.167	1.31	23.25	0.88
5.083	1.17	11.167	4.52	17.250	1.31	23.33	0.88
5.167	1.17	11.250	4.52	17.333	1.31	23.42	0.88
5.250	1.17	11.333	7.00	17.417	1.31	23.50	0.88
5.333	1.17	11.417	7.00	17.500	1.31	23.58	0.88
5.417	1.17	11.500	7.00	17.583	1.31	23.67	0.88
5.500	1.17	11.583	7.00	17.667	1.31	23.75	0.88
5.583	1.17	11.667	7.00	17.750	1.31	23.83	0.88
5.667	1.17	11.750	7.00	17.833	1.31	23.92	0.88
5.750	1.17	11.833	21.59	17.917	1.31	24.00	0.88
5.833	1.17	11.917	21.60	18.000	1.31	24.08	0.88
5.917	1.17	12.000	21.60	18.083	1.31	24.17	0.88
6.000	1.17	12.083	89.29	18.167	1.31	24.25	0.88
6.083	1.17	12.167	89.30	18.250	1.31		

Unit Hyd Qpeak (cms)= 0.522

PEAK FLOW (cms)= 0.361 (i)
TIME TO PEAK (hrs)= 12.750
RUNOFF VOLUME (mm)= 37.411
TOTAL RAINFALL (mm)= 72.960
RUNOFF COEFFICIENT = 0.513

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

ADD HYD (0006)		AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3		(ha)	(cms)	(hrs)	(mm)
	ID1= 1 (0001):	0.39	0.036	12.42	44.37
	+ ID2= 2 (0002):	7.79	0.361	12.75	37.41
	ID = 3 (0006):	8.18	0.384	12.67	37.74

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0007)		AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3		(ha)	(cms)	(hrs)	(mm)
	ID1= 1 (0003):	0.82	0.071	12.42	41.43
	+ ID2= 2 (0006):	8.18	0.384	12.67	37.74
	ID = 3 (0007):	9.00	0.433	12.58	38.08

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

FINISH

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=============================================================================================================

       V    V   I    SSSSS  U   U    A    L              (v 6.2.2020)
       V    V   I    SS     U   U   A A   L
        V  V    I     SS    U   U  AAAAA  L
         V V    I      SS   U   U A     A L
          VV    I    SSSSS  UUUUU A     A LLLLL

       OOO   TTTTT  TTTTT  H   H  Y   Y  M   M   OOO    TM
      O   O    T      T    H   H   Y Y   MM MM  O   O
      O   O    T      T    H   H    Y    M M M  O   O
       OOO     T      T    H   H    Y    M   M   OOO
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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\atrenholm\AppData\Local\Civica\VH5\8ef94b88-6605-479e-b003-b70f6886dc93\42a822c9-
  Summary filename: C:\Users\atrenholm\AppData\Local\Civica\VH5\8ef94b88-6605-479e-b003-b70f6886dc93\42a822c9-

DATE: 05/24/2026                          TIME: 05:00:45

USER:


COMMENTS: _____

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  ************************************************
  ** SIMULATION : 5yr 4hr 10min Chicago         **
  ************************************************

--------------------
| CHICAGO STORM    |    IDF curve parameters: A=1049.500
| Ptotal= 50.14 mm |                          B=   8.000
--------------------                          C=   0.803
                         used in:   INTENSITY =  A / (t + B)^C

                         Duration of storm   =  4.00 hrs
                         Storm time step     = 10.00 min
                         Time to peak ratio  =  0.33

                  TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
                   hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
                  0.00    3.22 |  1.00   28.14 |'  2.00    8.05 |  3.00    3.87
                  0.17    3.72 |  1.17  103.04 |'  2.17    6.77 |  3.17    3.58
                  0.33    4.43 |  1.33   36.87 |'  2.33    5.86 |  3.33    3.33
                  0.50    5.51 |  1.50   19.46 |'  2.50    5.18 |  3.50    3.12
                  0.67    7.40 |  1.67   13.16 |'  2.67    4.65 |  3.67    2.93
                  0.83   11.55 |  1.83    9.97 |'  2.83    4.22 |  3.83    2.77


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--------------------
| CALIB            |
| NASHYD   (  0004)|   Area    (ha)=   0.76   Curve Number   (CN)= 87.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.10   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.28

        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    3.22 | 1.083   28.14 | 2.083    8.05 |  3.08    3.87
                 0.167    3.22 | 1.167   28.14 | 2.167    8.05 |  3.17    3.87
                 0.250    3.72 | 1.250  103.04 | 2.250    6.77 |  3.25    3.58
                 0.333    3.72 | 1.333  103.04 | 2.333    6.77 |  3.33    3.58
                 0.417    4.43 | 1.417   36.87 | 2.417    5.86 |  3.42    3.33
                 0.500    4.43 | 1.500   36.87 | 2.500    5.86 |  3.50    3.33
                 0.583    5.51 | 1.583   19.46 | 2.583    5.18 |  3.58    3.12
                 0.667    5.51 | 1.667   19.46 | 2.667    5.18 |  3.67    3.12
                 0.750    7.40 | 1.750   13.16 | 2.750    4.65 |  3.75    2.93
                 0.833    7.40 | 1.833   13.16 | 2.833    4.65 |  3.83    2.93
                 0.917   11.55 | 1.917    9.97 | 2.917    4.22 |  3.92    2.77
                 1.000   11.55 | 2.000    9.97 | 3.000    4.22 |  4.00    2.77



--------------------
| CALIB            |
| NASHYD   (  0002)|   Area    (ha)=   7.79   Curve Number   (CN)= 82.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.90   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.57

        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    3.22 | 1.083   28.14 | 2.083    8.05 |  3.08    3.87
                 0.167    3.22 | 1.167   28.14 | 2.167    8.05 |  3.17    3.87
                 0.250    3.72 | 1.250  103.04 | 2.250    6.77 |  3.25    3.58
                 0.333    3.72 | 1.333  103.04 | 2.333    6.77 |  3.33    3.58
                 0.417    4.43 | 1.417   36.87 | 2.417    5.86 |  3.42    3.33
                 0.500    4.43 | 1.500   36.87 | 2.500    5.86 |  3.50    3.33
                 0.583    5.51 | 1.583   19.46 | 2.583    5.18 |  3.58    3.12
                 0.667    5.51 | 1.667   19.46 | 2.667    5.18 |  3.67    3.12
                 0.750    7.40 | 1.750   13.16 | 2.750    4.65 |  3.75    2.93
                 0.833    7.40 | 1.833   13.16 | 2.833    4.65 |  3.83    2.93
                 0.917   11.55 | 1.917    9.97 | 2.917    4.22 |  3.92    2.77
                 1.000   11.55 | 2.000    9.97 | 3.000    4.22 |  4.00    2.77

     Unit Hyd Qpeak  (cms)=   0.522

     PEAK FLOW       (cms)=   0.248 (i)
     TIME TO PEAK    (hrs)=   2.000
     RUNOFF VOLUME    (mm)=  20.261
     TOTAL RAINFALL   (mm)=  50.136
     RUNOFF COEFFICIENT   =   0.404

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

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--------------------
| ADD HYD  (  0006)|
|  1 +  2 =  3     |        AREA    QPEAK    TPEAK     R.V.
--------------------         (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0001):     0.39   0.025     1.58    25.22
     + ID2= 2 (  0002):     7.79   0.248     2.00    20.26
       ========================================================
       ID = 3 (  0006):     8.18   0.264     2.00    20.50

     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 (  0003):     0.82   0.047     1.58    23.09
     + ID2= 2 (  0006):     8.18   0.264     2.00    20.50
       ========================================================
       ID = 3 (  0007):     9.00   0.297     1.92    20.73

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

     Unit Hyd Qpeak  (cms)=   0.104

     PEAK FLOW       (cms)=   0.049 (i)
     TIME TO PEAK    (hrs)=   1.583
     RUNOFF VOLUME    (mm)=  25.219
     TOTAL RAINFALL   (mm)=  50.136
     RUNOFF COEFFICIENT   =   0.503

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

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--------------------
| CALIB            |
| NASHYD   (  0003)|   Area    (ha)=   0.82   Curve Number   (CN)= 85.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.40   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.28

        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    3.22 | 1.083   28.14 | 2.083    8.05 |  3.08    3.87
                 0.167    3.22 | 1.167   28.14 | 2.167    8.05 |  3.17    3.87
                 0.250    3.72 | 1.250  103.04 | 2.250    6.77 |  3.25    3.58
                 0.333    3.72 | 1.333  103.04 | 2.333    6.77 |  3.33    3.58
                 0.417    4.43 | 1.417   36.87 | 2.417    5.86 |  3.42    3.33
                 0.500    4.43 | 1.500   36.87 | 2.500    5.86 |  3.50    3.33
                 0.583    5.51 | 1.583   19.46 | 2.583    5.18 |  3.58    3.12
                 0.667    5.51 | 1.667   19.46 | 2.667    5.18 |  3.67    3.12
                 0.750    7.40 | 1.750   13.16 | 2.750    4.65 |  3.75    2.93
                 0.833    7.40 | 1.833   13.16 | 2.833    4.65 |  3.83    2.93
                 0.917   11.55 | 1.917    9.97 | 2.917    4.22 |  3.92    2.77
                 1.000   11.55 | 2.000    9.97 | 3.000    4.22 |  4.00    2.77

     Unit Hyd Qpeak  (cms)=   0.112

     PEAK FLOW       (cms)=   0.047 (i)
     TIME TO PEAK    (hrs)=   1.583
     RUNOFF VOLUME    (mm)=  23.086
     TOTAL RAINFALL   (mm)=  50.136
     RUNOFF COEFFICIENT   =   0.460

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

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--------------------
| CALIB            |
| NASHYD   (  0001)|   Area    (ha)=   0.39   Curve Number   (CN)= 87.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.10   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.28

        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    3.22 | 1.083   28.14 | 2.083    8.05 |  3.08    3.87
                 0.167    3.22 | 1.167   28.14 | 2.167    8.05 |  3.17    3.87
                 0.250    3.72 | 1.250  103.04 | 2.250    6.77 |  3.25    3.58
                 0.333    3.72 | 1.333  103.04 | 2.333    6.77 |  3.33    3.58
                 0.417    4.43 | 1.417   36.87 | 2.417    5.86 |  3.42    3.33
                 0.500    4.43 | 1.500   36.87 | 2.500    5.86 |  3.50    3.33
                 0.583    5.51 | 1.583   19.46 | 2.583    5.18 |  3.58    3.12
                 0.667    5.51 | 1.667   19.46 | 2.667    5.18 |  3.67    3.12
                 0.750    7.40 | 1.750   13.16 | 2.750    4.65 |  3.75    2.93
                 0.833    7.40 | 1.833   13.16 | 2.833    4.65 |  3.83    2.93
                 0.917   11.55 | 1.917    9.97 | 2.917    4.22 |  3.92    2.77
                 1.000   11.55 | 2.000    9.97 | 3.000    4.22 |  4.00    2.77

     Unit Hyd Qpeak  (cms)=   0.053

     PEAK FLOW       (cms)=   0.025 (i)
     TIME TO PEAK    (hrs)=   1.583
     RUNOFF VOLUME    (mm)=  25.218
     TOTAL RAINFALL   (mm)=  50.136
     RUNOFF COEFFICIENT   =   0.503

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

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================================================================================================================

       V    V   I    SSSSS  U   U    A    L             (v 6.2.2020)
       V    V   I    SS     U   U   A A   L
        V  V    I     SS    U   U  AAAAA  L
         VV     I      SS   U   U  A   A  L
         VV     I    SSSSS  UUUUU  A   A  LLLLL

        OOO   TTTTT  TTTTT  H   H  Y   Y  M   M   OOO    TM
       O   O    T      T    H   H   Y Y   MM MM  O   O
       O   O    T      T    H   H    Y    M M M  O   O
        OOO     T      T    H   H    Y    M   M   OOO
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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\atrenholm\AppData\Local\Civica\VH5\8ef94b88-6605-479e-b003-b70f6886dc93\b86efeb0-
  Summary filename: C:\Users\atrenholm\AppData\Local\Civica\VH5\8ef94b88-6605-479e-b003-b70f6886dc93\b86efeb0-


DATE: 05/24/2026                          TIME: 05:00:47

USER:


COMMENTS: _____________________________________________________


--------------------------------------------------------------------------------------------------------------------
  ************************************************
  ** SIMULATION : 10yr 24hr 15min SCS Type II ( **
  ************************************************


---------------------
|    READ STORM     |    Filename: C:\Users\atrenholm\AppD
|                   |              ata\Local\Temp\
|                   |              e7fbba53-3be4-4227-bc0d-7ae48d330c1e\701bf2a8
| Ptotal= 86.18 mm  |    Comments: 10yr 24hr 15min SCS Type II (MTO)
---------------------
                TIME    RAIN |  TIME    RAIN |  TIME    RAIN |  TIME    RAIN
                 hrs   mm/hr |   hrs   mm/hr |   hrs   mm/hr |   hrs   mm/hr
               0.00    0.00 |  6.25    1.55 | 12.50   12.41 | 18.75    1.55
               0.25    0.95 |  6.50    1.55 | 12.75    6.38 | 19.00    1.55
               0.50    0.95 |  6.75    1.55 | 13.00    6.38 | 19.25    1.55
               0.75    0.95 |  7.00    1.55 | 13.25    4.65 | 19.50    1.55
               1.00    0.95 |  7.25    1.90 | 13.50    4.65 | 19.75    1.55
               1.25    0.95 |  7.50    1.90 | 13.75    3.62 | 20.00    1.55
               1.50    0.95 |  7.75    1.90 | 14.00    3.62 | 20.25    1.03
               1.75    0.95 |  8.00    1.90 | 14.25    2.59 | 20.50    1.03
               2.00    0.95 |  8.25    2.24 | 14.50    2.59 | 20.75    1.03
               2.25    1.12 |  8.50    2.24 | 14.75    2.59 | 21.00    1.03
               2.50    1.12 |  8.75    2.41 | 15.00    2.59 | 21.25    1.03
               2.75    1.12 |  9.00    2.41 | 15.25    2.59 | 21.50    1.03
               3.00    1.12 |  9.25    2.76 | 15.50    2.59 | 21.75    1.03
               3.25    1.12 |  9.50    2.76 | 15.75    2.59 | 22.00    1.03
               3.50    1.12 |  9.75    3.10 | 16.00    2.59 | 22.25    1.03
               3.75    1.12 | 10.00    3.10 | 16.25    1.55 | 22.50    1.03
               4.00    1.12 | 10.25    3.96 | 16.50    1.55 | 22.75    1.03
               4.25    1.38 | 10.50    3.96 | 16.75    1.55 | 23.00    1.03
               4.50    1.38 | 10.75    5.34 | 17.00    1.55 | 23.25    1.03
               4.75    1.38 | 11.00    5.34 | 17.25    1.55 | 23.50    1.03
               5.00    1.38 | 11.25    8.27 | 17.50    1.55 | 23.75    1.03
               5.25    1.38 | 11.50    8.27 | 17.75    1.55 | 24.00    1.03
               5.50    1.38 | 11.75   25.51 | 18.00    1.55 |
               5.75    1.38 | 12.00  105.48 | 18.25    1.55 |
               6.00    1.38 | 12.25   12.41 | 18.50    1.55 |

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

---------------------
| CALIB             |
| NASHYD   (  0004) |   Area    (ha)=   0.76   Curve Number   (CN)= 87.0
|ID= 1 DT= 5.0 min  |   Ia      (mm)=   4.10   # of Linear Res.(N)= 3.00
---------------------   U.H. Tp(hrs)=   0.28

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



    RUNOFF COEFFICIENT   =   0.651

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

--------------------------------------------------------------------------------
---------------------
| CALIB             |
| NASHYD   (  0003) |   Area    (ha)=   0.82   Curve Number   (CN)= 85.0
|ID= 1 DT= 5.0 min  |   Ia      (mm)=   4.40   # of Linear Res.(N)= 3.00
---------------------   U.H. Tp(hrs)=   0.28

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

                        ---- TRANSFORMED HYETOGRAPH ----
                TIME    RAIN |  TIME    RAIN |  TIME    RAIN |  TIME    RAIN
                 hrs   mm/hr |   hrs   mm/hr |   hrs   mm/hr |   hrs   mm/hr
               0.083    0.00 |  6.167    1.38 | 12.250  105.48 | 18.33    1.55
               0.167    0.00 |  6.250    1.38 | 12.333   12.42 | 18.42    1.55
               0.250    0.00 |  6.333    1.55 | 12.417   12.41 | 18.50    1.55
               0.333    0.95 |  6.417    1.55 | 12.500   12.41 | 18.58    1.55
               0.417    0.95 |  6.500    1.55 | 12.583   12.41 | 18.67    1.55
               0.500    0.95 |  6.583    1.55 | 12.667   12.41 | 18.75    1.55
               0.583    0.95 |  6.667    1.55 | 12.750   12.41 | 18.83    1.55
               0.667    0.95 |  6.750    1.55 | 12.833    6.38 | 18.92    1.55
               0.750    0.95 |  6.833    1.55 | 12.917    6.38 | 19.00    1.55
               0.833    0.95 |  6.917    1.55 | 13.000    6.38 | 19.08    1.55
               0.917    0.95 |  7.000    1.55 | 13.083    6.38 | 19.17    1.55
               1.000    0.95 |  7.083    1.55 | 13.167    6.38 | 19.25    1.55
               1.083    0.95 |  7.167    1.55 | 13.250    6.38 | 19.33    1.55
               1.167    0.95 |  7.250    1.55 | 13.333    4.65 | 19.42    1.55
               1.250    0.95 |  7.333    1.90 | 13.417    4.65 | 19.50    1.55
               1.333    0.95 |  7.417    1.90 | 13.500    4.65 | 19.58    1.55
               1.417    0.95 |  7.500    1.90 | 13.583    4.65 | 19.67    1.55
               1.500    0.95 |  7.583    1.90 | 13.667    4.65 | 19.75    1.55
               1.583    0.95 |  7.667    1.90 | 13.750    4.65 | 19.83    1.55
               1.667    0.95 |  7.750    1.90 | 13.833    3.62 | 19.92    1.55
               1.750    0.95 |  7.833    1.90 | 13.917    3.62 | 20.00    1.55
               1.833    0.95 |  7.917    1.90 | 14.000    3.62 | 20.08    1.55
               1.917    0.95 |  8.000    1.90 | 14.083    3.62 | 20.17    1.55
               2.000    0.95 |  8.083    1.90 | 14.167    3.62 | 20.25    1.55
               2.083    0.95 |  8.167    1.90 | 14.250    3.62 | 20.33    1.03
               2.167    0.95 |  8.250    1.90 | 14.333    2.59 | 20.42    1.03
               2.250    0.95 |  8.333    2.24 | 14.417    2.59 | 20.50    1.03
               2.333    1.12 |  8.417    2.24 | 14.500    2.59 | 20.58    1.03
               2.417    1.12 |  8.500    2.24 | 14.583    2.59 | 20.67    1.03
               2.500    1.12 |  8.583    2.24 | 14.667    2.59 | 20.75    1.03
               2.583    1.12 |  8.667    2.24 | 14.750    2.59 | 20.83    1.03
               2.667    1.12 |  8.750    2.24 | 14.833    2.59 | 20.92    1.03
               2.750    1.12 |  8.833    2.41 | 14.917    2.59 | 21.00    1.03
               2.833    1.12 |  8.917    2.41 | 15.000    2.59 | 21.08    1.03
               2.917    1.12 |  9.000    2.41 | 15.083    2.59 | 21.17    1.03
               3.000    1.12 |  9.083    2.41 | 15.167    2.59 | 21.25    1.03
               3.083    1.12 |  9.167    2.41 | 15.250    2.59 | 21.33    1.03
               3.167    1.12 |  9.250    2.41 | 15.333    2.59 | 21.42    1.03
               3.250    1.12 |  9.333    2.76 | 15.417    2.59 | 21.50    1.03
               3.333    1.12 |  9.417    2.76 | 15.500    2.59 | 21.58    1.03
               3.417    1.12 |  9.500    2.76 | 15.583    2.59 | 21.67    1.03
               3.500    1.12 |  9.583    2.76 | 15.667    2.59 | 21.75    1.03
               3.583    1.12 |  9.667    2.76 | 15.750    2.59 | 21.83    1.03
               3.667    1.12 |  9.750    2.76 | 15.833    2.59 | 21.92    1.03
               3.750    1.12 |  9.833    3.10 | 15.917    2.59 | 22.00    1.03
               3.833    1.12 |  9.917    3.10 | 16.000    2.59 | 22.08    1.03
               3.917    1.12 | 10.000    3.10 | 16.083    2.59 | 22.17    1.03
               4.000    1.12 | 10.083    3.10 | 16.167    2.59 | 22.25    1.03
               4.083    1.12 | 10.167    3.10 | 16.250    2.59 | 22.33    1.03
               4.167    1.12 | 10.250    3.10 | 16.333    1.55 | 22.42    1.03
               4.250    1.12 | 10.333    3.96 | 16.417    1.55 | 22.50    1.03
               4.333    1.38 | 10.417    3.96 | 16.500    1.55 | 22.58    1.03
               4.417    1.38 | 10.500    3.96 | 16.583    1.55 | 22.67    1.03
               4.500    1.38 | 10.583    3.96 | 16.667    1.55 | 22.75    1.03
               4.583    1.38 | 10.667    3.96 | 16.750    1.55 | 22.83    1.03
               4.667    1.38 | 10.750    3.96 | 16.833    1.55 | 22.92    1.03
               4.750    1.38 | 10.833    5.34 | 16.917    1.55 | 23.00    1.03
               4.833    1.38 | 10.917    5.34 | 17.000    1.55 | 23.08    1.03
               4.917    1.38 | 11.000    5.34 | 17.083    1.55 | 23.17    1.03
               5.000    1.38 | 11.083    5.34 | 17.167    1.55 | 23.25    1.03
               5.083    1.38 | 11.167    5.34 | 17.250    1.55 | 23.33    1.03
               5.167    1.38 | 11.250    5.34 | 17.333    1.55 | 23.42    1.03
               5.250    1.38 | 11.333    8.27 | 17.417    1.55 | 23.50    1.03
               5.333    1.38 | 11.417    8.27 | 17.500    1.55 | 23.58    1.03
               5.417    1.38 | 11.500    8.27 | 17.583    1.55 | 23.67    1.03
               5.500    1.38 | 11.583    8.27 | 17.667    1.55 | 23.75    1.03
               5.583    1.38 | 11.667    8.27 | 17.750    1.55 | 23.83    1.03
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                        ---- TRANSFORMED HYETOGRAPH ----
                TIME    RAIN |  TIME    RAIN |  TIME    RAIN |  TIME    RAIN
                 hrs   mm/hr |   hrs   mm/hr |   hrs   mm/hr |   hrs   mm/hr
               0.083    0.00 |  6.167    1.38 | 12.250  105.48 | 18.33    1.55
               0.167    0.00 |  6.250    1.38 | 12.333   12.42 | 18.42    1.55
               0.250    0.00 |  6.333    1.55 | 12.417   12.41 | 18.50    1.55
               0.333    0.95 |  6.417    1.55 | 12.500   12.41 | 18.58    1.55
               0.417    0.95 |  6.500    1.55 | 12.583   12.41 | 18.67    1.55
               0.500    0.95 |  6.583    1.55 | 12.667   12.41 | 18.75    1.55
               0.583    0.95 |  6.667    1.55 | 12.750   12.41 | 18.83    1.55
               0.667    0.95 |  6.750    1.55 | 12.833    6.38 | 18.92    1.55
               0.750    0.95 |  6.833    1.55 | 12.917    6.38 | 19.00    1.55
               0.833    0.95 |  6.917    1.55 | 13.000    6.38 | 19.08    1.55
               0.917    0.95 |  7.000    1.55 | 13.083    6.38 | 19.17    1.55
               1.000    0.95 |  7.083    1.55 | 13.167    6.38 | 19.25    1.55
               1.083    0.95 |  7.167    1.55 | 13.250    6.38 | 19.33    1.55
               1.167    0.95 |  7.250    1.55 | 13.333    4.65 | 19.42    1.55
               1.250    0.95 |  7.333    1.90 | 13.417    4.65 | 19.50    1.55
               1.333    0.95 |  7.417    1.90 | 13.500    4.65 | 19.58    1.55
               1.417    0.95 |  7.500    1.90 | 13.583    4.65 | 19.67    1.55
               1.500    0.95 |  7.583    1.90 | 13.667    4.65 | 19.75    1.55
               1.583    0.95 |  7.667    1.90 | 13.750    4.65 | 19.83    1.55
               1.667    0.95 |  7.750    1.90 | 13.833    3.62 | 19.92    1.55
               1.750    0.95 |  7.833    1.90 | 13.917    3.62 | 20.00    1.55
               1.833    0.95 |  7.917    1.90 | 14.000    3.62 | 20.08    1.55
               1.917    0.95 |  8.000    1.90 | 14.083    3.62 | 20.17    1.55
               2.000    0.95 |  8.083    1.90 | 14.167    3.62 | 20.25    1.55
               2.083    0.95 |  8.167    1.90 | 14.250    3.62 | 20.33    1.03
               2.167    0.95 |  8.250    1.90 | 14.333    2.59 | 20.42    1.03
               2.250    0.95 |  8.333    2.24 | 14.417    2.59 | 20.50    1.03
               2.333    1.12 |  8.417    2.24 | 14.500    2.59 | 20.58    1.03
               2.417    1.12 |  8.500    2.24 | 14.583    2.59 | 20.67    1.03
               2.500    1.12 |  8.583    2.24 | 14.667    2.59 | 20.75    1.03
               2.583    1.12 |  8.667    2.24 | 14.750    2.59 | 20.83    1.03
               2.667    1.12 |  8.750    2.24 | 14.833    2.59 | 20.92    1.03
               2.750    1.12 |  8.833    2.41 | 14.917    2.59 | 21.00    1.03
               2.833    1.12 |  8.917    2.41 | 15.000    2.59 | 21.08    1.03
               2.917    1.12 |  9.000    2.41 | 15.083    2.59 | 21.17    1.03
               3.000    1.12 |  9.083    2.41 | 15.167    2.59 | 21.25    1.03
               3.083    1.12 |  9.167    2.41 | 15.250    2.59 | 21.33    1.03
               3.167    1.12 |  9.250    2.41 | 15.333    2.59 | 21.42    1.03
               3.250    1.12 |  9.333    2.76 | 15.417    2.59 | 21.50    1.03
               3.333    1.12 |  9.417    2.76 | 15.500    2.59 | 21.58    1.03
               3.417    1.12 |  9.500    2.76 | 15.583    2.59 | 21.67    1.03
               3.500    1.12 |  9.583    2.76 | 15.667    2.59 | 21.75    1.03
               3.583    1.12 |  9.667    2.76 | 15.750    2.59 | 21.83    1.03
               3.667    1.12 |  9.750    2.76 | 15.833    2.59 | 21.92    1.03
               3.750    1.12 |  9.833    3.10 | 15.917    2.59 | 22.00    1.03
               3.833    1.12 |  9.917    3.10 | 16.000    2.59 | 22.08    1.03
               3.917    1.12 | 10.000    3.10 | 16.083    2.59 | 22.17    1.03
               4.000    1.12 | 10.083    3.10 | 16.167    2.59 | 22.25    1.03
               4.083    1.12 | 10.167    3.10 | 16.250    2.59 | 22.33    1.03
               4.167    1.12 | 10.250    3.10 | 16.333    1.55 | 22.42    1.03
               4.250    1.12 | 10.333    3.96 | 16.417    1.55 | 22.50    1.03
               4.333    1.38 | 10.417    3.96 | 16.500    1.55 | 22.58    1.03
               4.417    1.38 | 10.500    3.96 | 16.583    1.55 | 22.67    1.03
               4.500    1.38 | 10.583    3.96 | 16.667    1.55 | 22.75    1.03
               4.583    1.38 | 10.667    3.96 | 16.750    1.55 | 22.83    1.03
               4.667    1.38 | 10.750    3.96 | 16.833    1.55 | 22.92    1.03
               4.750    1.38 | 10.833    5.34 | 16.917    1.55 | 23.00    1.03
               4.833    1.38 | 10.917    5.34 | 17.000    1.55 | 23.08    1.03
               4.917    1.38 | 11.000    5.34 | 17.083    1.55 | 23.17    1.03
               5.000    1.38 | 11.083    5.34 | 17.167    1.55 | 23.25    1.03
               5.083    1.38 | 11.167    5.34 | 17.250    1.55 | 23.33    1.03
               5.167    1.38 | 11.250    5.34 | 17.333    1.55 | 23.42    1.03
               5.250    1.38 | 11.333    8.27 | 17.417    1.55 | 23.50    1.03
               5.333    1.38 | 11.417    8.27 | 17.500    1.55 | 23.58    1.03
               5.417    1.38 | 11.500    8.27 | 17.583    1.55 | 23.67    1.03
               5.500    1.38 | 11.583    8.27 | 17.667    1.55 | 23.75    1.03
               5.583    1.38 | 11.667    8.27 | 17.750    1.55 | 23.83    1.03
               5.667    1.38 | 11.750    8.27 | 17.833    1.55 | 23.92    1.03
               5.750    1.38 | 11.833   25.51 | 17.917    1.55 | 24.00    1.03
               5.833    1.38 | 11.917   25.51 | 18.000    1.55 | 24.08    1.03
               5.917    1.38 | 12.000   25.51 | 18.083    1.55 | 24.17    1.03
               6.000    1.38 | 12.083  105.47 | 18.167    1.55 | 24.25    1.03
               6.083    1.38 | 12.167  105.48 | 18.250    1.55 |

    Unit Hyd Qpeak  (cms)=   0.104

    PEAK FLOW       (cms)=   0.089 (i)
    TIME TO PEAK    (hrs)=  12.417
    RUNOFF VOLUME    (mm)=  56.098
    TOTAL RAINFALL   (mm)=  86.180



    Unit Hyd Qpeak  (cms)=   0.112

    PEAK FLOW       (cms)=   0.091 (i)
    TIME TO PEAK    (hrs)=  12.417
    RUNOFF VOLUME    (mm)=  52.799
    TOTAL RAINFALL   (mm)=  86.180
    RUNOFF COEFFICIENT   =   0.613

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

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| CALIB             |
| NASHYD   (  0001) |   Area    (ha)=   0.39   Curve Number   (CN)= 87.0
|ID= 1 DT= 5.0 min  |   Ia      (mm)=   4.10   # of Linear Res.(N)= 3.00
---------------------   U.H. Tp(hrs)=   0.28

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

                        ---- TRANSFORMED HYETOGRAPH ----
                TIME    RAIN |  TIME    RAIN |  TIME    RAIN |  TIME    RAIN
                 hrs   mm/hr |   hrs   mm/hr |   hrs   mm/hr |   hrs   mm/hr
               0.083    0.00 |  6.167    1.38 | 12.250  105.48 | 18.33    1.55
               0.167    0.00 |  6.250    1.38 | 12.333   12.42 | 18.42    1.55
               0.250    0.00 |  6.333    1.55 | 12.417   12.41 | 18.50    1.55
               0.333    0.95 |  6.417    1.55 | 12.500   12.41 | 18.58    1.55
               0.417    0.95 |  6.500    1.55 | 12.583   12.41 | 18.67    1.55
               0.500    0.95 |  6.583    1.55 | 12.667   12.41 | 18.75    1.55
               0.583    0.95 |  6.667    1.55 | 12.750   12.41 | 18.83    1.55
               0.667    0.95 |  6.750    1.55 | 12.833    6.38 | 18.92    1.55
               0.750    0.95 |  6.833    1.55 | 12.917    6.38 | 19.00    1.55
               0.833    0.95 |  6.917    1.55 | 13.000    6.38 | 19.08    1.55
               0.917    0.95 |  7.000    1.55 | 13.083    6.38 | 19.17    1.55
               1.000    0.95 |  7.083    1.55 | 13.167    6.38 | 19.25    1.55
               1.083    0.95 |  7.167    1.55 | 13.250    6.38 | 19.33    1.55
               1.167    0.95 |  7.250    1.55 | 13.333    4.65 | 19.42    1.55
               1.250    0.95 |  7.333    1.90 | 13.417    4.65 | 19.50    1.55
               1.333    0.95 |  7.417    1.90 | 13.500    4.65 | 19.58    1.55
               1.417    0.95 |  7.500    1.90 | 13.583    4.65 | 19.67    1.55
               1.500    0.95 |  7.583    1.90 | 13.667    4.65 | 19.75    1.55
               1.583    0.95 |  7.667    1.90 | 13.750    4.65 | 19.83    1.55
               1.667    0.95 |  7.750    1.90 | 13.833    3.62 | 19.92    1.55
               1.750    0.95 |  7.833    1.90 | 13.917    3.62 | 20.00    1.55
               1.833    0.95 |  7.917    1.90 | 14.000    3.62 | 20.08    1.55
               1.917    0.95 |  8.000    1.90 | 14.083    3.62 | 20.17    1.55
               2.000    0.95 |  8.083    1.90 | 14.167    3.62 | 20.25    1.55
               2.083    0.95 |  8.167    1.90 | 14.250    3.62 | 20.33    1.03
               2.167    0.95 |  8.250    1.90 | 14.333    2.59 | 20.42    1.03
               2.250    0.95 |  8.333    2.24 | 14.417    2.59 | 20.50    1.03
               2.333    1.12 |  8.417    2.24 | 14.500    2.59 | 20.58    1.03
               2.417    1.12 |  8.500    2.24 | 14.583    2.59 | 20.67    1.03
               2.500    1.12 |  8.583    2.24 | 14.667    2.59 | 20.75    1.03
               2.583    1.12 |  8.667    2.24 | 14.750    2.59 | 20.83    1.03
               2.667    1.12 |  8.750    2.24 | 14.833    2.59 | 20.92    1.03
               2.750    1.12 |  8.833    2.41 | 14.917    2.59 | 21.00    1.03
               2.833    1.12 |  8.917    2.41 | 15.000    2.59 | 21.08    1.03
               2.917    1.12 |  9.000    2.41 | 15.083    2.59 | 21.17    1.03
               3.000    1.12 |  9.083    2.41 | 15.167    2.59 | 21.25    1.03
               3.083    1.12 |  9.167    2.41 | 15.250    2.59 | 21.33    1.03
               3.167    1.12 |  9.250    2.41 | 15.333    2.59 | 21.42    1.03
               3.250    1.12 |  9.333    2.76 | 15.417    2.59 | 21.50    1.03
               3.333    1.12 |  9.417    2.76 | 15.500    2.59 | 21.58    1.03
               3.417    1.12 |  9.500    2.76 | 15.583    2.59 | 21.67    1.03
               3.500    1.12 |  9.583    2.76 | 15.667    2.59 | 21.75    1.03
               3.583    1.12 |  9.667    2.76 | 15.750    2.59 | 21.83    1.03
               3.667    1.12 |  9.750    2.76 | 15.833    2.59 | 21.92    1.03
               3.750    1.12 |  9.833    3.10 | 15.917    2.59 | 22.00    1.03
               3.833    1.12 |  9.917    3.10 | 16.000    2.59 | 22.08    1.03
               3.917    1.12 | 10.000    3.10 | 16.083    2.59 | 22.17    1.03
               4.000    1.12 | 10.083    3.10 | 16.167    2.59 | 22.25    1.03
               4.083    1.12 | 10.167    3.10 | 16.250    2.59 | 22.33    1.03
               4.167    1.12 | 10.250    3.10 | 16.333    1.55 | 22.42    1.03
               4.250    1.12 | 10.333    3.96 | 16.417    1.55 | 22.50    1.03
               4.333    1.38 | 10.417    3.96 | 16.500    1.55 | 22.58    1.03
               4.417    1.38 | 10.500    3.96 | 16.583    1.55 | 22.67    1.03
               4.500    1.38 | 10.583    3.96 | 16.667    1.55 | 22.75    1.03
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4.583	1.38	10.667	3.96	16.750	1.55	22.83	1.03
4.667	1.38	10.750	3.96	16.833	1.55	22.92	1.03
4.750	1.38	10.833	5.34	16.917	1.55	23.00	1.03
4.833	1.38	10.917	5.34	17.000	1.55	23.08	1.03
4.917	1.38	11.000	5.34	17.083	1.55	23.17	1.03
5.000	1.38	11.083	5.34	17.167	1.55	23.25	1.03
5.083	1.38	11.167	5.34	17.250	1.55	23.33	1.03
5.167	1.38	11.250	5.34	17.333	1.55	23.42	1.03
5.250	1.38	11.333	8.27	17.417	1.55	23.50	1.03
5.333	1.38	11.417	8.27	17.500	1.55	23.58	1.03
5.417	1.38	11.500	8.27	17.583	1.55	23.67	1.03
5.500	1.38	11.583	8.27	17.667	1.55	23.75	1.03
5.583	1.38	11.667	8.27	17.750	1.55	23.83	1.03
5.667	1.38	11.750	8.27	17.833	1.55	23.92	1.03
5.750	1.38	11.833	25.51	17.917	1.55	24.00	1.03
5.833	1.38	11.917	25.51	18.000	1.55	24.08	1.03
5.917	1.38	12.000	25.51	18.083	1.55	24.17	1.03
6.000	1.38	12.083	105.47	18.167	1.55	24.25	1.03
6.083	1.38	12.167	105.48	18.250	1.55		

Unit Hyd Qpeak (cms)= 0.053

PEAK FLOW (cms)= 0.046 (i)
TIME TO PEAK (hrs)= 12.417
RUNOFF VOLUME (mm)= 56.097
TOTAL RAINFALL (mm)= 86.180
RUNOFF COEFFICIENT = 0.651

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

CALIB					
NASHYD (0002)	Area (ha)=	7.79	Curve Number (CN)=	82.0	
ID= 1 DT= 5.0 min	Ia (mm)=	4.90	# of Linear Res.(N)=	3.00	
	U.H. Tp(hrs)=	0.57			

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	0.00	6.167	1.38	12.250	105.48	18.33	1.55
0.167	0.00	6.250	1.38	12.333	12.42	18.42	1.55
0.250	0.00	6.333	1.55	12.417	12.41	18.50	1.55
0.333	0.95	6.417	1.55	12.500	12.41	18.58	1.55
0.417	0.95	6.500	1.55	12.583	12.41	18.67	1.55
0.500	0.95	6.583	1.55	12.667	12.41	18.75	1.55
0.583	0.95	6.667	1.55	12.750	12.41	18.83	1.55
0.667	0.95	6.750	1.55	12.833	6.38	18.92	1.55
0.750	0.95	6.833	1.55	12.917	6.38	19.00	1.55
0.833	0.95	6.917	1.55	13.000	6.38	19.08	1.55
0.917	0.95	7.000	1.55	13.083	6.38	19.17	1.55
1.000	0.95	7.083	1.55	13.167	6.38	19.25	1.55
1.083	0.95	7.167	1.55	13.250	6.38	19.33	1.55
1.167	0.95	7.250	1.55	13.333	4.65	19.42	1.55
1.250	0.95	7.333	1.90	13.417	4.65	19.50	1.55
1.333	0.95	7.417	1.90	13.500	4.65	19.58	1.55
1.417	0.95	7.500	1.90	13.583	4.65	19.67	1.55
1.500	0.95	7.583	1.90	13.667	4.65	19.75	1.55
1.583	0.95	7.667	1.90	13.750	4.65	19.83	1.55
1.667	0.95	7.750	1.90	13.833	3.62	19.92	1.55
1.750	0.95	7.833	1.90	13.917	3.62	20.00	1.55
1.833	0.95	7.917	1.90	14.000	3.62	20.08	1.55
1.917	0.95	8.000	1.90	14.083	3.62	20.17	1.55
2.000	0.95	8.083	1.90	14.167	3.62	20.25	1.55
2.083	0.95	8.167	1.90	14.250	3.62	20.33	1.03
2.167	0.95	8.250	1.90	14.333	2.59	20.42	1.03
2.250	0.95	8.333	2.24	14.417	2.59	20.50	1.03
2.333	1.12	8.417	2.24	14.500	2.59	20.58	1.03
2.417	1.12	8.500	2.24	14.583	2.59	20.67	1.03
2.500	1.12	8.583	2.24	14.667	2.59	20.75	1.03
2.583	1.12	8.667	2.24	14.750	2.59	20.83	1.03
2.667	1.12	8.750	2.24	14.833	2.59	20.92	1.03
2.750	1.12	8.833	2.41	14.917	2.59	21.00	1.03
2.833	1.12	8.917	2.41	15.000	2.59	21.08	1.03
2.917	1.12	9.000	2.41	15.083	2.59	21.17	1.03
3.000	1.12	9.083	2.41	15.167	2.59	21.25	1.03
3.083	1.12	9.167	2.41	15.250	2.59	21.33	1.03
3.167	1.12	9.250	2.41	15.333	2.59	21.42	1.03
3.250	1.12	9.333	2.76	15.417	2.59	21.50	1.03
3.333	1.12	9.417	2.76	15.500	2.59	21.58	1.03
3.417	1.12	9.500	2.76	15.583	2.59	21.67	1.03
3.500	1.12	9.583	2.76	15.667	2.59	21.75	1.03
3.583	1.12	9.667	2.76	15.750	2.59	21.83	1.03
3.667	1.12	9.750	2.76	15.833	2.59	21.92	1.03
3.750	1.12	9.833	3.10	15.917	2.59	22.00	1.03
3.833	1.12	9.917	3.10	16.000	2.59	22.08	1.03
3.917	1.12	10.000	3.10	16.083	2.59	22.17	1.03
4.000	1.12	10.083	3.10	16.167	2.59	22.25	1.03
4.083	1.12	10.167	3.10	16.250	2.59	22.33	1.03
4.167	1.12	10.250	3.10	16.333	1.55	22.42	1.03
4.250	1.12	10.333	3.96	16.417	1.55	22.50	1.03
4.333	1.38	10.417	3.96	16.500	1.55	22.58	1.03
4.417	1.38	10.500	3.96	16.583	1.55	22.67	1.03
4.500	1.38	10.583	3.96	16.667	1.55	22.75	1.03
4.583	1.38	10.667	3.96	16.750	1.55	22.83	1.03
4.667	1.38	10.750	3.96	16.833	1.55	22.92	1.03
4.750	1.38	10.833	5.34	16.917	1.55	23.00	1.03
4.833	1.38	10.917	5.34	17.000	1.55	23.08	1.03
4.917	1.38	11.000	5.34	17.083	1.55	23.17	1.03
5.000	1.38	11.083	5.34	17.167	1.55	23.25	1.03
5.083	1.38	11.167	5.34	17.250	1.55	23.33	1.03
5.167	1.38	11.250	5.34	17.333	1.55	23.42	1.03
5.250	1.38	11.333	8.27	17.417	1.55	23.50	1.03
5.333	1.38	11.417	8.27	17.500	1.55	23.58	1.03
5.417	1.38	11.500	8.27	17.583	1.55	23.67	1.03
5.500	1.38	11.583	8.27	17.667	1.55	23.75	1.03
5.583	1.38	11.667	8.27	17.750	1.55	23.83	1.03
5.667	1.38	11.750	8.27	17.833	1.55	23.92	1.03
5.750	1.38	11.833	25.51	17.917	1.55	24.00	1.03
5.833	1.38	11.917	25.51	18.000	1.55	24.08	1.03
5.917	1.38	12.000	25.51	18.083	1.55	24.17	1.03
6.000	1.38	12.083	105.47	18.167	1.55	24.25	1.03
6.083	1.38	12.167	105.48	18.250	1.55		

Unit Hyd Qpeak (cms)= 0.522

PEAK FLOW (cms)= 0.467 (i)
TIME TO PEAK (hrs)= 12.750
RUNOFF VOLUME (mm)= 48.208
TOTAL RAINFALL (mm)= 86.180
RUNOFF COEFFICIENT = 0.559

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

ADD HYD (0006)		AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3		(ha)	(cms)	(hrs)	(mm)
	ID1= 1 (0001):	0.39	0.046	12.42	56.10
	+ ID2= 2 (0002):	7.79	0.467	12.75	48.21
	ID = 3 (0006):	8.18	0.496	12.67	48.58

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0007)		AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3		(ha)	(cms)	(hrs)	(mm)
	ID1= 1 (0003):	0.82	0.091	12.42	52.80
	+ ID2= 2 (0006):	8.18	0.496	12.67	48.58
	ID = 3 (0007):	9.00	0.559	12.58	48.97

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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

       V    V   I    SSSSS  U   U    A    L              (v 6.2.2020)
       V    V   I    SS     U   U   A A   L
        V  V    I     SS    U   U  AAAAA  L
         V V    I      SS   U   U  A   A  L
          VV    I    SSSSS  UUUUU  A   A  LLLLL

       OOO   TTTTT  TTTTT  H   H  Y   Y  M   M   OOO    TM
      O   O    T      T    H   H   Y Y   MM MM  O   O
      O   O    T      T    H   H    Y    M M M  O   O
       OOO     T      T    H   H    Y    M   M   OOO
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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\atrenholm\AppData\Local\Civica\VH5\8ef94b88-6605-479e-b003-b70f6886dc93\5fbd0a1a-
  Summary filename: C:\Users\atrenholm\AppData\Local\Civica\VH5\8ef94b88-6605-479e-b003-b70f6886dc93\5fbd0a1a-

DATE: 05/24/2026                          TIME: 05:00:45

USER:


COMMENTS: _____________________________________________________

-------------------------------------------------------------------------------------------------------------
  ************************************************
  ** SIMULATION : 10yr 4hr 10min Chicago        **
  ************************************************

--------------------
| CHICAGO STORM    |    IDF curve parameters: A=1343.700
| Ptotal= 60.22 mm |                          B=   9.000
--------------------                          C=   0.814
                       used in:   INTENSITY =  A / (t + B)^C

                       Duration of storm   =  4.00 hrs
                       Storm time step     = 10.00 min
                       Time to peak ratio  =  0.33

                TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
                 hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
                0.00    3.75 |  1.00   34.63 |'  2.00    9.68 |  3.00    4.54
                0.17    4.36 |  1.17  122.29 |'  2.17    8.09 |  3.17    4.19
                0.33    5.21 |  1.33   45.40 |'  2.33    6.97 |  3.33    3.89
                0.50    6.54 |  1.50   23.91 |'  2.50    6.13 |  3.50    3.63
                0.67    8.87 |  1.67   16.05 |'  2.67    5.48 |  3.67    3.41
                0.83   14.04 |  1.83   12.06 |'  2.83    4.96 |  3.83    3.22


-------------------------------------------------------------------------------------------------
--------------------
| CALIB            |
| NASHYD   (  0004)|   Area    (ha)=   0.76   Curve Number   (CN)= 87.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.10   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.28

        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    3.75 | 1.083   34.63 | 2.083    9.68 |  3.08    4.54
               0.167    3.75 | 1.167   34.63 | 2.167    9.68 |  3.17    4.54
               0.250    4.36 | 1.250  122.29 | 2.250    8.09 |  3.25    4.19
               0.333    4.36 | 1.333  122.29 | 2.333    8.09 |  3.33    4.19
               0.417    5.21 | 1.417   45.40 | 2.417    6.97 |  3.42    3.89
               0.500    5.21 | 1.500   45.40 | 2.500    6.97 |  3.50    3.89
               0.583    6.54 | 1.583   23.91 | 2.583    6.13 |  3.58    3.63
               0.667    6.54 | 1.667   23.91 | 2.667    6.13 |  3.67    3.63
               0.750    8.87 | 1.750   16.05 | 2.750    5.48 |  3.75    3.41
               0.833    8.87 | 1.833   16.05 | 2.833    5.48 |  3.83    3.41
               0.917   14.04 | 1.917   12.06 | 2.917    4.96 |  3.92    3.22
               1.000   14.04 | 2.000   12.06 | 3.000    4.96 |  4.00    3.22



--------------------
| CALIB            |
| NASHYD   (  0002)|   Area    (ha)=   7.79   Curve Number   (CN)= 82.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.90   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.57

        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    3.75 | 1.083   34.63 | 2.083    9.68 |  3.08    4.54
               0.167    3.75 | 1.167   34.63 | 2.167    9.68 |  3.17    4.54
               0.250    4.36 | 1.250  122.29 | 2.250    8.09 |  3.25    4.19
               0.333    4.36 | 1.333  122.29 | 2.333    8.09 |  3.33    4.19
               0.417    5.21 | 1.417   45.40 | 2.417    6.97 |  3.42    3.89
               0.500    5.21 | 1.500   45.40 | 2.500    6.97 |  3.50    3.89
               0.583    6.54 | 1.583   23.91 | 2.583    6.13 |  3.58    3.63
               0.667    6.54 | 1.667   23.91 | 2.667    6.13 |  3.67    3.63
               0.750    8.87 | 1.750   16.05 | 2.750    5.48 |  3.75    3.41
               0.833    8.87 | 1.833   16.05 | 2.833    5.48 |  3.83    3.41
               0.917   14.04 | 1.917   12.06 | 2.917    4.96 |  3.92    3.22
               1.000   14.04 | 2.000   12.06 | 3.000    4.96 |  4.00    3.22

    Unit Hyd Qpeak  (cms)=   0.522

    PEAK FLOW       (cms)=   0.346 (i)
    TIME TO PEAK    (hrs)=   2.000
    RUNOFF VOLUME    (mm)=  27.547
    TOTAL RAINFALL   (mm)=  60.215
    RUNOFF COEFFICIENT   =   0.457

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

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

--------------------
| ADD HYD  (  0006)|
|  1 +  2 =  3     |        AREA    QPEAK    TPEAK     R.V.
--------------------        (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0001):     0.39   0.034     1.58    33.46
     + ID2= 2 (  0002):     7.79   0.346     2.00    27.55
       ========================================================
       ID = 3 (  0006):     8.18   0.367     2.00    27.83

    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 (  0003):     0.82   0.065     1.58    30.94
     + ID2= 2 (  0006):     8.18   0.367     2.00    27.83
       ========================================================
       ID = 3 (  0007):     9.00   0.412     1.92    28.11

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

    Unit Hyd Qpeak  (cms)=   0.104

    PEAK FLOW       (cms)=   0.067 (i)
    TIME TO PEAK    (hrs)=   1.583
    RUNOFF VOLUME    (mm)=  33.457
    TOTAL RAINFALL   (mm)=  60.215
    RUNOFF COEFFICIENT   =   0.556

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

-------------------------------------------------------------------------------------------------
--------------------
| CALIB            |
| NASHYD   (  0003)|   Area    (ha)=   0.82   Curve Number   (CN)= 85.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.40   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.28

        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    3.75 | 1.083   34.63 | 2.083    9.68 |  3.08    4.54
               0.167    3.75 | 1.167   34.63 | 2.167    9.68 |  3.17    4.54
               0.250    4.36 | 1.250  122.29 | 2.250    8.09 |  3.25    4.19
               0.333    4.36 | 1.333  122.29 | 2.333    8.09 |  3.33    4.19
               0.417    5.21 | 1.417   45.40 | 2.417    6.97 |  3.42    3.89
               0.500    5.21 | 1.500   45.40 | 2.500    6.97 |  3.50    3.89
               0.583    6.54 | 1.583   23.91 | 2.583    6.13 |  3.58    3.63
               0.667    6.54 | 1.667   23.91 | 2.667    6.13 |  3.67    3.63
               0.750    8.87 | 1.750   16.05 | 2.750    5.48 |  3.75    3.41
               0.833    8.87 | 1.833   16.05 | 2.833    5.48 |  3.83    3.41
               0.917   14.04 | 1.917   12.06 | 2.917    4.96 |  3.92    3.22
               1.000   14.04 | 2.000   12.06 | 3.000    4.96 |  4.00    3.22

    Unit Hyd Qpeak  (cms)=   0.112

    PEAK FLOW       (cms)=   0.065 (i)
    TIME TO PEAK    (hrs)=   1.583
    RUNOFF VOLUME    (mm)=  30.939
    TOTAL RAINFALL   (mm)=  60.215
    RUNOFF COEFFICIENT   =   0.514

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

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--------------------
| CALIB            |
| NASHYD   (  0001)|   Area    (ha)=   0.39   Curve Number   (CN)= 87.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.10   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.28

        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    3.75 | 1.083   34.63 | 2.083    9.68 |  3.08    4.54
               0.167    3.75 | 1.167   34.63 | 2.167    9.68 |  3.17    4.54
               0.250    4.36 | 1.250  122.29 | 2.250    8.09 |  3.25    4.19
               0.333    4.36 | 1.333  122.29 | 2.333    8.09 |  3.33    4.19
               0.417    5.21 | 1.417   45.40 | 2.417    6.97 |  3.42    3.89
               0.500    5.21 | 1.500   45.40 | 2.500    6.97 |  3.50    3.89
               0.583    6.54 | 1.583   23.91 | 2.583    6.13 |  3.58    3.63
               0.667    6.54 | 1.667   23.91 | 2.667    6.13 |  3.67    3.63
               0.750    8.87 | 1.750   16.05 | 2.750    5.48 |  3.75    3.41
               0.833    8.87 | 1.833   16.05 | 2.833    5.48 |  3.83    3.41
               0.917   14.04 | 1.917   12.06 | 2.917    4.96 |  3.92    3.22
               1.000   14.04 | 2.000   12.06 | 3.000    4.96 |  4.00    3.22

    Unit Hyd Qpeak  (cms)=   0.053

    PEAK FLOW       (cms)=   0.034 (i)
    TIME TO PEAK    (hrs)=   1.583
    RUNOFF VOLUME    (mm)=  33.455
    TOTAL RAINFALL   (mm)=  60.215
    RUNOFF COEFFICIENT   =   0.556

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

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================================================================================================================

        V    V   I    SSSSS  U   U    A    L              (v 6.2.2020)
        V    V   I    SS     U   U   A A   L
         V  V    I     SS    U   U  AAAAA  L
          VV     I      SS   U   U  A   A  L
          VV     I    SSSSS  UUUUU  A   A  LLLLL

        OOO   TTTTT  TTTTT  H   H  Y   Y  M   M   OOO    TM
       O   O    T      T    H   H   Y Y   MM MM  O   O
       O   O    T      T    H   H    Y    M M M  O   O
        OOO     T      T    H   H    Y    M   M   OOO
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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\atrenholm\AppData\Local\Civica\VH5\8ef94b88-6605-479e-b003-b70f6886dc93\b52ca263-
  Summary filename: C:\Users\atrenholm\AppData\Local\Civica\VH5\8ef94b88-6605-479e-b003-b70f6886dc93\b52ca263-

DATE: 05/24/2026                          TIME: 05:00:46

USER:


COMMENTS: _____________________________________________________

--------------------------------------------------------------------------------------------------------------------
  ************************************************
  ** SIMULATION : 25yr 24hr 15min SCS Type II ( **
  ************************************************


---------------------
|    READ STORM     |    Filename: C:\Users\atrenholm\AppD
|                   |              ata\Local\Temp\
|                   |              e7fbba53-3be4-4227-bc0d-7ae48d330c1e\0b61cb6c
| Ptotal=103.23 mm  |    Comments: 25yr 24hr 15min SCS Type II (MTO)
---------------------
```

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.00	0.00	6.25	1.86	12.50	14.87	18.75	1.86
0.25	1.14	6.50	1.86	12.75	7.64	19.00	1.86
0.50	1.14	6.75	1.86	13.00	7.64	19.25	1.86
0.75	1.14	7.00	1.86	13.25	5.57	19.50	1.86
1.00	1.14	7.25	2.27	13.50	5.57	19.75	1.86
1.25	1.14	7.50	2.27	13.75	4.34	20.00	1.86
1.50	1.14	7.75	2.27	14.00	4.34	20.25	1.24
1.75	1.14	8.00	2.27	14.25	3.10	20.50	1.24
2.00	1.14	8.25	2.68	14.50	3.10	20.75	1.24
2.25	1.34	8.50	2.68	14.75	3.10	21.00	1.24
2.50	1.34	8.75	2.89	15.00	3.10	21.25	1.24
2.75	1.34	9.00	2.89	15.25	3.10	21.50	1.24
3.00	1.34	9.25	3.30	15.50	3.10	21.75	1.24
3.25	1.34	9.50	3.30	15.75	3.10	22.00	1.24
3.50	1.34	9.75	3.72	16.00	3.10	22.25	1.24
3.75	1.34	10.00	3.72	16.25	1.86	22.50	1.24
4.00	1.34	10.25	4.75	16.50	1.86	22.75	1.24
4.25	1.65	10.50	4.75	16.75	1.86	23.00	1.24
4.50	1.65	10.75	6.40	17.00	1.86	23.25	1.24
4.75	1.65	11.00	6.40	17.25	1.86	23.50	1.24
5.00	1.65	11.25	9.91	17.50	1.86	23.75	1.24
5.25	1.65	11.50	9.91	17.75	1.86	24.00	1.24
5.50	1.65	11.75	30.56	18.00	1.86		
5.75	1.65	12.00	126.35	18.25	1.86		
6.00	1.65	12.25	14.87	18.50	1.86		

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

--------------------
| CALIB            |
| NASHYD   (  0004)|   Area    (ha)=   0.76   Curve Number   (CN)= 87.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.10   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.28

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



     RUNOFF COEFFICIENT   =   0.694

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

--------------------------------------------------------------------------------
--------------------
| CALIB            |
| NASHYD   (  0003)|   Area    (ha)=   0.82   Curve Number   (CN)= 85.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.40   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.28

        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	0.00	6.167	1.65	12.250	126.35	18.33	1.86
0.167	0.00	6.250	1.65	12.333	14.88	18.42	1.86
0.250	0.00	6.333	1.86	12.417	14.87	18.50	1.86
0.333	1.14	6.417	1.86	12.500	14.87	18.58	1.86
0.417	1.14	6.500	1.86	12.583	14.87	18.67	1.86
0.500	1.14	6.583	1.86	12.667	14.87	18.75	1.86
0.583	1.14	6.667	1.86	12.750	14.87	18.83	1.86
0.667	1.14	6.750	1.86	12.833	7.64	18.92	1.86
0.750	1.14	6.833	1.86	12.917	7.64	19.00	1.86
0.833	1.14	6.917	1.86	13.000	7.64	19.08	1.86
0.917	1.14	7.000	1.86	13.083	7.64	19.17	1.86
1.000	1.14	7.083	1.86	13.167	7.64	19.25	1.86
1.083	1.14	7.167	1.86	13.250	7.64	19.33	1.86
1.167	1.14	7.250	1.86	13.333	5.57	19.42	1.86
1.250	1.14	7.333	2.27	13.417	5.57	19.50	1.86
1.333	1.14	7.417	2.27	13.500	5.57	19.58	1.86
1.417	1.14	7.500	2.27	13.583	5.57	19.67	1.86
1.500	1.14	7.583	2.27	13.667	5.57	19.75	1.86
1.583	1.14	7.667	2.27	13.750	5.57	19.83	1.86
1.667	1.14	7.750	2.27	13.833	4.34	19.92	1.86
1.750	1.14	7.833	2.27	13.917	4.34	20.00	1.86
1.833	1.14	7.917	2.27	14.000	4.34	20.08	1.86
1.917	1.14	8.000	2.27	14.083	4.34	20.17	1.86
2.000	1.14	8.083	2.27	14.167	4.34	20.25	1.86
2.083	1.14	8.167	2.27	14.250	4.34	20.33	1.24
2.167	1.14	8.250	2.27	14.333	3.10	20.42	1.24
2.250	1.14	8.333	2.68	14.417	3.10	20.50	1.24
2.333	1.34	8.417	2.68	14.500	3.10	20.58	1.24
2.417	1.34	8.500	2.68	14.583	3.10	20.67	1.24
2.500	1.34	8.583	2.68	14.667	3.10	20.75	1.24
2.583	1.34	8.667	2.68	14.750	3.10	20.83	1.24
2.667	1.34	8.750	2.68	14.833	3.10	20.92	1.24
2.750	1.34	8.833	2.89	14.917	3.10	21.00	1.24
2.833	1.34	8.917	2.89	15.000	3.10	21.08	1.24
2.917	1.34	9.000	2.89	15.083	3.10	21.17	1.24
3.000	1.34	9.083	2.89	15.167	3.10	21.25	1.24
3.083	1.34	9.167	2.89	15.250	3.10	21.33	1.24
3.167	1.34	9.250	2.89	15.333	3.10	21.42	1.24
3.250	1.34	9.333	3.30	15.417	3.10	21.50	1.24
3.333	1.34	9.417	3.30	15.500	3.10	21.58	1.24
3.417	1.34	9.500	3.30	15.583	3.10	21.67	1.24
3.500	1.34	9.583	3.30	15.667	3.10	21.75	1.24
3.583	1.34	9.667	3.30	15.750	3.10	21.83	1.24
3.667	1.34	9.750	3.30	15.833	3.10	21.92	1.24
3.750	1.34	9.833	3.72	15.917	3.10	22.00	1.24
3.833	1.34	9.917	3.72	16.000	3.10	22.08	1.24
3.917	1.34	10.000	3.72	16.083	3.10	22.17	1.24
4.000	1.34	10.083	3.72	16.167	3.10	22.25	1.24
4.083	1.34	10.167	3.72	16.250	3.10	22.33	1.24
4.167	1.34	10.250	3.72	16.333	1.86	22.42	1.24
4.250	1.34	10.333	4.75	16.417	1.86	22.50	1.24
4.333	1.65	10.417	4.75	16.500	1.86	22.58	1.24
4.417	1.65	10.500	4.75	16.583	1.86	22.67	1.24
4.500	1.65	10.583	4.75	16.667	1.86	22.75	1.24
4.583	1.65	10.667	4.75	16.750	1.86	22.83	1.24
4.667	1.65	10.750	4.75	16.833	1.86	22.92	1.24
4.750	1.65	10.833	6.40	16.917	1.86	23.00	1.24
4.833	1.65	10.917	6.40	17.000	1.86	23.08	1.24
4.917	1.65	11.000	6.40	17.083	1.86	23.17	1.24
5.000	1.65	11.083	6.40	17.167	1.86	23.25	1.24
5.083	1.65	11.167	6.40	17.250	1.86	23.33	1.24
5.167	1.65	11.250	6.40	17.333	1.86	23.42	1.24
5.250	1.65	11.333	9.91	17.417	1.86	23.50	1.24
5.333	1.65	11.417	9.91	17.500	1.86	23.58	1.24
5.417	1.65	11.500	9.91	17.583	1.86	23.67	1.24
5.500	1.65	11.583	9.91	17.667	1.86	23.75	1.24
5.583	1.65	11.667	9.91	17.750	1.86	23.83	1.24

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                        ---- TRANSFORMED HYETOGRAPH ----
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TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.65	12.250	126.35	18.33	1.86
0.167	0.00	6.250	1.65	12.333	14.88	18.42	1.86
0.250	0.00	6.333	1.86	12.417	14.87	18.50	1.86
0.333	1.14	6.417	1.86	12.500	14.87	18.58	1.86
0.417	1.14	6.500	1.86	12.583	14.87	18.67	1.86
0.500	1.14	6.583	1.86	12.667	14.87	18.75	1.86
0.583	1.14	6.667	1.86	12.750	14.87	18.83	1.86
0.667	1.14	6.750	1.86	12.833	7.64	18.92	1.86
0.750	1.14	6.833	1.86	12.917	7.64	19.00	1.86
0.833	1.14	6.917	1.86	13.000	7.64	19.08	1.86
0.917	1.14	7.000	1.86	13.083	7.64	19.17	1.86
1.000	1.14	7.083	1.86	13.167	7.64	19.25	1.86
1.083	1.14	7.167	1.86	13.250	7.64	19.33	1.86
1.167	1.14	7.250	1.86	13.333	5.57	19.42	1.86
1.250	1.14	7.333	2.27	13.417	5.57	19.50	1.86
1.333	1.14	7.417	2.27	13.500	5.57	19.58	1.86
1.417	1.14	7.500	2.27	13.583	5.57	19.67	1.86
1.500	1.14	7.583	2.27	13.667	5.57	19.75	1.86
1.583	1.14	7.667	2.27	13.750	5.57	19.83	1.86
1.667	1.14	7.750	2.27	13.833	4.34	19.92	1.86
1.750	1.14	7.833	2.27	13.917	4.34	20.00	1.86
1.833	1.14	7.917	2.27	14.000	4.34	20.08	1.86
1.917	1.14	8.000	2.27	14.083	4.34	20.17	1.86
2.000	1.14	8.083	2.27	14.167	4.34	20.25	1.86
2.083	1.14	8.167	2.27	14.250	4.34	20.33	1.24
2.167	1.14	8.250	2.27	14.333	3.10	20.42	1.24
2.250	1.14	8.333	2.68	14.417	3.10	20.50	1.24
2.333	1.34	8.417	2.68	14.500	3.10	20.58	1.24
2.417	1.34	8.500	2.68	14.583	3.10	20.67	1.24
2.500	1.34	8.583	2.68	14.667	3.10	20.75	1.24
2.583	1.34	8.667	2.68	14.750	3.10	20.83	1.24
2.667	1.34	8.750	2.68	14.833	3.10	20.92	1.24
2.750	1.34	8.833	2.89	14.917	3.10	21.00	1.24
2.833	1.34	8.917	2.89	15.000	3.10	21.08	1.24
2.917	1.34	9.000	2.89	15.083	3.10	21.17	1.24
3.000	1.34	9.083	2.89	15.167	3.10	21.25	1.24
3.083	1.34	9.167	2.89	15.250	3.10	21.33	1.24
3.167	1.34	9.250	2.89	15.333	3.10	21.42	1.24
3.250	1.34	9.333	3.30	15.417	3.10	21.50	1.24
3.333	1.34	9.417	3.30	15.500	3.10	21.58	1.24
3.417	1.34	9.500	3.30	15.583	3.10	21.67	1.24
3.500	1.34	9.583	3.30	15.667	3.10	21.75	1.24
3.583	1.34	9.667	3.30	15.750	3.10	21.83	1.24
3.667	1.34	9.750	3.30	15.833	3.10	21.92	1.24
3.750	1.34	9.833	3.72	15.917	3.10	22.00	1.24
3.833	1.34	9.917	3.72	16.000	3.10	22.08	1.24
3.917	1.34	10.000	3.72	16.083	3.10	22.17	1.24
4.000	1.34	10.083	3.72	16.167	3.10	22.25	1.24
4.083	1.34	10.167	3.72	16.250	3.10	22.33	1.24
4.167	1.34	10.250	3.72	16.333	1.86	22.42	1.24
4.250	1.34	10.333	4.75	16.417	1.86	22.50	1.24
4.333	1.65	10.417	4.75	16.500	1.86	22.58	1.24
4.417	1.65	10.500	4.75	16.583	1.86	22.67	1.24
4.500	1.65	10.583	4.75	16.667	1.86	22.75	1.24

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                        ---- TRANSFORMED HYETOGRAPH ----
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TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.65	12.250	126.35	18.33	1.86
0.167	0.00	6.250	1.65	12.333	14.88	18.42	1.86
0.250	0.00	6.333	1.86	12.417	14.87	18.50	1.86
0.333	1.14	6.417	1.86	12.500	14.87	18.58	1.86
0.417	1.14	6.500	1.86	12.583	14.87	18.67	1.86
0.500	1.14	6.583	1.86	12.667	14.87	18.75	1.86
0.583	1.14	6.667	1.86	12.750	14.87	18.83	1.86
0.667	1.14	6.750	1.86	12.833	7.64	18.92	1.86
0.750	1.14	6.833	1.86	12.917	7.64	19.00	1.86
0.833	1.14	6.917	1.86	13.000	7.64	19.08	1.86
0.917	1.14	7.000	1.86	13.083	7.64	19.17	1.86
1.000	1.14	7.083	1.86	13.167	7.64	19.25	1.86
1.083	1.14	7.167	1.86	13.250	7.64	19.33	1.86
1.167	1.14	7.250	1.86	13.333	5.57	19.42	1.86
1.250	1.14	7.333	2.27	13.417	5.57	19.50	1.86
1.333	1.14	7.417	2.27	13.500	5.57	19.58	1.86
1.417	1.14	7.500	2.27	13.583	5.57	19.67	1.86
1.500	1.14	7.583	2.27	13.667	5.57	19.75	1.86
1.583	1.14	7.667	2.27	13.750	5.57	19.83	1.86
1.667	1.14	7.750	2.27	13.833	4.34	19.92	1.86
1.750	1.14	7.833	2.27	13.917	4.34	20.00	1.86
1.833	1.14	7.917	2.27	14.000	4.34	20.08	1.86
1.917	1.14	8.000	2.27	14.083	4.34	20.17	1.86
2.000	1.14	8.083	2.27	14.167	4.34	20.25	1.86
2.083	1.14	8.167	2.27	14.250	4.34	20.33	1.24
2.167	1.14	8.250	2.27	14.333	3.10	20.42	1.24
2.250	1.14	8.333	2.68	14.417	3.10	20.50	1.24
2.333	1.34	8.417	2.68	14.500	3.10	20.58	1.24
2.417	1.34	8.500	2.68	14.583	3.10	20.67	1.24
2.500	1.34	8.583	2.68	14.667	3.10	20.75	1.24
2.583	1.34	8.667	2.68	14.750	3.10	20.83	1.24
2.667	1.34	8.750	2.68	14.833	3.10	20.92	1.24
2.750	1.34	8.833	2.89	14.917	3.10	21.00	1.24
2.833	1.34	8.917	2.89	15.000	3.10	21.08	1.24
2.917	1.34	9.000	2.89	15.083	3.10	21.17	1.24
3.000	1.34	9.083	2.89	15.167	3.10	21.25	1.24
3.083	1.34	9.167	2.89	15.250	3.10	21.33	1.24
3.167	1.34	9.250	2.89	15.333	3.10	21.42	1.24
3.250	1.34	9.333	3.30	15.417	3.10	21.50	1.24
3.333	1.34	9.417	3.30	15.500	3.10	21.58	1.24
3.417	1.34	9.500	3.30	15.583	3.10	21.67	1.24
3.500	1.34	9.583	3.30	15.667	3.10	21.75	1.24
3.583	1.34	9.667	3.30	15.750	3.10	21.83	1.24
3.667	1.34	9.750	3.30	15.833	3.10	21.92	1.24
3.750	1.34	9.833	3.72	15.917	3.10	22.00	1.24
3.833	1.34	9.917	3.72	16.000	3.10	22.08	1.24
3.917	1.34	10.000	3.72	16.083	3.10	22.17	1.24
4.000	1.34	10.083	3.72	16.167	3.10	22.25	1.24
4.083	1.34	10.167	3.72	16.250	3.10	22.33	1.24
4.167	1.34	10.250	3.72	16.333	1.86	22.42	1.24
4.250	1.34	10.333	4.75	16.417	1.86	22.50	1.24
4.333	1.65	10.417	4.75	16.500	1.86	22.58	1.24
4.417	1.65	10.500	4.75	16.583	1.86	22.67	1.24
4.500	1.65	10.583	4.75	16.667	1.86	22.75	1.24
5.667	1.65	11.750	9.91	17.833	1.86	23.92	1.24
5.750	1.65	11.833	30.55	17.917	1.86	24.00	1.24
5.833	1.65	11.917	30.56	18.000	1.86	24.08	1.24
5.917	1.65	12.000	30.56	18.083	1.86	24.17	1.24
6.000	1.65	12.083	126.34	18.167	1.86	24.25	1.24
6.083	1.65	12.167	126.35	18.250	1.86		

```
  Unit Hyd Qpeak  (cms)=   0.104

  PEAK FLOW       (cms)=   0.114 (i)
  TIME TO PEAK    (hrs)=  12.417
  RUNOFF VOLUME    (mm)=  71.647
  TOTAL RAINFALL   (mm)= 103.230
```

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
5.667	1.65	11.750	9.91	17.833	1.86	23.92	1.24
5.750	1.65	11.833	30.55	17.917	1.86	24.00	1.24
5.833	1.65	11.917	30.56	18.000	1.86	24.08	1.24
5.917	1.65	12.000	30.56	18.083	1.86	24.17	1.24
6.000	1.65	12.083	126.34	18.167	1.86	24.25	1.24
6.083	1.65	12.167	126.35	18.250	1.86		

```
  Unit Hyd Qpeak  (cms)=   0.112

  PEAK FLOW       (cms)=   0.116 (i)
  TIME TO PEAK    (hrs)=  12.417
  RUNOFF VOLUME    (mm)=  67.957
  TOTAL RAINFALL   (mm)= 103.230
  RUNOFF COEFFICIENT    =   0.658

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

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| CALIB            |
| NASHYD   (  0001)|   Area    (ha)=   0.39   Curve Number   (CN)= 87.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.10   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.28

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

                        ---- TRANSFORMED HYETOGRAPH ----
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TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.65	12.250	126.35	18.33	1.86
0.167	0.00	6.250	1.65	12.333	14.88	18.42	1.86
0.250	0.00	6.333	1.86	12.417	14.87	18.50	1.86
0.333	1.14	6.417	1.86	12.500	14.87	18.58	1.86
0.417	1.14	6.500	1.86	12.583	14.87	18.67	1.86
0.500	1.14	6.583	1.86	12.667	14.87	18.75	1.86
0.583	1.14	6.667	1.86	12.750	14.87	18.83	1.86
0.667	1.14	6.750	1.86	12.833	7.64	18.92	1.86
0.750	1.14	6.833	1.86	12.917	7.64	19.00	1.86
0.833	1.14	6.917	1.86	13.000	7.64	19.08	1.86
0.917	1.14	7.000	1.86	13.083	7.64	19.17	1.86
1.000	1.14	7.083	1.86	13.167	7.64	19.25	1.86
1.083	1.14	7.167	1.86	13.250	7.64	19.33	1.86
1.167	1.14	7.250	1.86	13.333	5.57	19.42	1.86
1.250	1.14	7.333	2.27	13.417	5.57	19.50	1.86
1.333	1.14	7.417	2.27	13.500	5.57	19.58	1.86
1.417	1.14	7.500	2.27	13.583	5.57	19.67	1.86
1.500	1.14	7.583	2.27	13.667	5.57	19.75	1.86
1.583	1.14	7.667	2.27	13.750	5.57	19.83	1.86
1.667	1.14	7.750	2.27	13.833	4.34	19.92	1.86
1.750	1.14	7.833	2.27	13.917	4.34	20.00	1.86
1.833	1.14	7.917	2.27	14.000	4.34	20.08	1.86
1.917	1.14	8.000	2.27	14.083	4.34	20.17	1.86
2.000	1.14	8.083	2.27	14.167	4.34	20.25	1.86
2.083	1.14	8.167	2.27	14.250	4.34	20.33	1.24
2.167	1.14	8.250	2.27	14.333	3.10	20.42	1.24
2.250	1.14	8.333	2.68	14.417	3.10	20.50	1.24
2.333	1.34	8.417	2.68	14.500	3.10	20.58	1.24
2.417	1.34	8.500	2.68	14.583	3.10	20.67	1.24
2.500	1.34	8.583	2.68	14.667	3.10	20.75	1.24
2.583	1.34	8.667	2.68	14.750	3.10	20.83	1.24
2.667	1.34	8.750	2.68	14.833	3.10	20.92	1.24
2.750	1.34	8.833	2.89	14.917	3.10	21.00	1.24
2.833	1.34	8.917	2.89	15.000	3.10	21.08	1.24
2.917	1.34	9.000	2.89	15.083	3.10	21.17	1.24
3.000	1.34	9.083	2.89	15.167	3.10	21.25	1.24
3.083	1.34	9.167	2.89	15.250	3.10	21.33	1.24
3.167	1.34	9.250	2.89	15.333	3.10	21.42	1.24
3.250	1.34	9.333	3.30	15.417	3.10	21.50	1.24
3.333	1.34	9.417	3.30	15.500	3.10	21.58	1.24
3.417	1.34	9.500	3.30	15.583	3.10	21.67	1.24
3.500	1.34	9.583	3.30	15.667	3.10	21.75	1.24
3.583	1.34	9.667	3.30	15.750	3.10	21.83	1.24
3.667	1.34	9.750	3.30	15.833	3.10	21.92	1.24
3.750	1.34	9.833	3.72	15.917	3.10	22.00	1.24
3.833	1.34	9.917	3.72	16.000	3.10	22.08	1.24
3.917	1.34	10.000	3.72	16.083	3.10	22.17	1.24
4.000	1.34	10.083	3.72	16.167	3.10	22.25	1.24
4.083	1.34	10.167	3.72	16.250	3.10	22.33	1.24
4.167	1.34	10.250	3.72	16.333	1.86	22.42	1.24
4.250	1.34	10.333	4.75	16.417	1.86	22.50	1.24
4.333	1.65	10.417	4.75	16.500	1.86	22.58	1.24
4.417	1.65	10.500	4.75	16.583	1.86	22.67	1.24
4.500	1.65	10.583	4.75	16.667	1.86	22.75	1.24

4.583	1.65	10.667	4.75	16.750	1.86	22.83	1.24
4.667	1.65	10.750	4.75	16.833	1.86	22.92	1.24
4.750	1.65	10.833	6.40	16.917	1.86	23.00	1.24
4.833	1.65	10.917	6.40	17.000	1.86	23.08	1.24
4.917	1.65	11.000	6.40	17.083	1.86	23.17	1.24
5.000	1.65	11.083	6.40	17.167	1.86	23.25	1.24
5.083	1.65	11.167	6.40	17.250	1.86	23.33	1.24
5.167	1.65	11.250	6.40	17.333	1.86	23.42	1.24
5.250	1.65	11.333	9.91	17.417	1.86	23.50	1.24
5.333	1.65	11.417	9.91	17.500	1.86	23.58	1.24
5.417	1.65	11.500	9.91	17.583	1.86	23.67	1.24
5.500	1.65	11.583	9.91	17.667	1.86	23.75	1.24
5.583	1.65	11.667	9.91	17.750	1.86	23.83	1.24
5.667	1.65	11.750	9.91	17.833	1.86	23.92	1.24
5.750	1.65	11.833	30.55	17.917	1.86	24.00	1.24
5.833	1.65	11.917	30.56	18.000	1.86	24.08	1.24
5.917	1.65	12.000	30.56	18.083	1.86	24.17	1.24
6.000	1.65	12.083	126.34	18.167	1.86	24.25	1.24
6.083	1.65	12.167	126.35	18.250	1.86		

Unit Hyd Qpeak (cms)= 0.053

PEAK FLOW (cms)= 0.058 (i)
TIME TO PEAK (hrs)= 12.417
RUNOFF VOLUME (mm)= 71.647
TOTAL RAINFALL (mm)= 103.230
RUNOFF COEFFICIENT = 0.694

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

CALIB							
NASHYD (0002)	Area (ha)= 7.79	Curve Number (CN)= 82.0					
ID= 1 DT= 5.0 min	Ia (mm)= 4.90	# of Linear Res.(N)= 3.00					
	U.H. Tp(hrs)= 0.57						

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	0.00	6.167	1.65	12.250	126.35	18.33	1.86
0.167	0.00	6.250	1.65	12.333	14.88	18.42	1.86
0.250	0.00	6.333	1.86	12.417	14.87	18.50	1.86
0.333	1.14	6.417	1.86	12.500	14.87	18.58	1.86
0.417	1.14	6.500	1.86	12.583	14.87	18.67	1.86
0.500	1.14	6.583	1.86	12.667	14.87	18.75	1.86
0.583	1.14	6.667	1.86	12.750	14.87	18.83	1.86
0.667	1.14	6.750	1.86	12.833	7.64	18.92	1.86
0.750	1.14	6.833	1.86	12.917	7.64	19.00	1.86
0.833	1.14	6.917	1.86	13.000	7.64	19.08	1.86
0.917	1.14	7.000	1.86	13.083	7.64	19.17	1.86
1.000	1.14	7.083	1.86	13.167	7.64	19.25	1.86
1.083	1.14	7.167	1.86	13.250	7.64	19.33	1.86
1.167	1.14	7.250	1.86	13.333	5.57	19.42	1.86
1.250	1.14	7.333	2.27	13.417	5.57	19.50	1.86
1.333	1.14	7.417	2.27	13.500	5.57	19.58	1.86
1.417	1.14	7.500	2.27	13.583	5.57	19.67	1.86
1.500	1.14	7.583	2.27	13.667	5.57	19.75	1.86
1.583	1.14	7.667	2.27	13.750	5.57	19.83	1.86
1.667	1.14	7.750	2.27	13.833	4.34	19.92	1.86
1.750	1.14	7.833	2.27	13.917	4.34	20.00	1.86
1.833	1.14	7.917	2.27	14.000	4.34	20.08	1.86
1.917	1.14	8.000	2.27	14.083	4.34	20.17	1.86
2.000	1.14	8.083	2.27	14.167	4.34	20.25	1.86
2.083	1.14	8.167	2.27	14.250	4.34	20.33	1.24
2.167	1.14	8.250	2.27	14.333	3.10	20.42	1.24
2.250	1.14	8.333	2.68	14.417	3.10	20.50	1.24
2.333	1.34	8.417	2.68	14.500	3.10	20.58	1.24
2.417	1.34	8.500	2.68	14.583	3.10	20.67	1.24
2.500	1.34	8.583	2.68	14.667	3.10	20.75	1.24
2.583	1.34	8.667	2.68	14.750	3.10	20.83	1.24
2.667	1.34	8.750	2.68	14.833	3.10	20.92	1.24
2.750	1.34	8.833	2.89	14.917	3.10	21.00	1.24
2.833	1.34	8.917	2.89	15.000	3.10	21.08	1.24
2.917	1.34	9.000	2.89	15.083	3.10	21.17	1.24
3.000	1.34	9.083	2.89	15.167	3.10	21.25	1.24
3.083	1.34	9.167	2.89	15.250	3.10	21.33	1.24
3.167	1.34	9.250	2.89	15.333	3.10	21.42	1.24
3.250	1.34	9.333	3.30	15.417	3.10	21.50	1.24
3.333	1.34	9.417	3.30	15.500	3.10	21.58	1.24
3.417	1.34	9.500	3.30	15.583	3.10	21.67	1.24
3.500	1.34	9.583	3.30	15.667	3.10	21.75	1.24
3.583	1.34	9.667	3.30	15.750	3.10	21.83	1.24
3.667	1.34	9.750	3.30	15.833	3.10	21.92	1.24
3.750	1.34	9.833	3.72	15.917	3.10	22.00	1.24
3.833	1.34	9.917	3.72	16.000	3.10	22.08	1.24
3.917	1.34	10.000	3.72	16.083	3.10	22.17	1.24
4.000	1.34	10.083	3.72	16.167	3.10	22.25	1.24
4.083	1.34	10.167	3.72	16.250	3.10	22.33	1.24
4.167	1.34	10.250	3.72	16.333	1.86	22.42	1.24
4.250	1.34	10.333	4.75	16.417	1.86	22.50	1.24
4.333	1.65	10.417	4.75	16.500	1.86	22.58	1.24
4.417	1.65	10.500	4.75	16.583	1.86	22.67	1.24
4.500	1.65	10.583	4.75	16.667	1.86	22.75	1.24
4.583	1.65	10.667	4.75	16.750	1.86	22.83	1.24
4.667	1.65	10.750	4.75	16.833	1.86	22.92	1.24
4.750	1.65	10.833	6.40	16.917	1.86	23.00	1.24
4.833	1.65	10.917	6.40	17.000	1.86	23.08	1.24
4.917	1.65	11.000	6.40	17.083	1.86	23.17	1.24
5.000	1.65	11.083	6.40	17.167	1.86	23.25	1.24
5.083	1.65	11.167	6.40	17.250	1.86	23.33	1.24
5.167	1.65	11.250	6.40	17.333	1.86	23.42	1.24
5.250	1.65	11.333	9.91	17.417	1.86	23.50	1.24
5.333	1.65	11.417	9.91	17.500	1.86	23.58	1.24
5.417	1.65	11.500	9.91	17.583	1.86	23.67	1.24
5.500	1.65	11.583	9.91	17.667	1.86	23.75	1.24
5.583	1.65	11.667	9.91	17.750	1.86	23.83	1.24
5.667	1.65	11.750	9.91	17.833	1.86	23.92	1.24
5.750	1.65	11.833	30.55	17.917	1.86	24.00	1.24
5.833	1.65	11.917	30.56	18.000	1.86	24.08	1.24
5.917	1.65	12.000	30.56	18.083	1.86	24.17	1.24
6.000	1.65	12.083	126.34	18.167	1.86	24.25	1.24
6.083	1.65	12.167	126.35	18.250	1.86		

Unit Hyd Qpeak (cms)= 0.522

PEAK FLOW (cms)= 0.610 (i)
TIME TO PEAK (hrs)= 12.667
RUNOFF VOLUME (mm)= 62.747
TOTAL RAINFALL (mm)= 103.230
RUNOFF COEFFICIENT = 0.608

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

ADD HYD (0006)					
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0001):	0.39	0.058	12.42	71.65
+ ID2= 2 (0002):	7.79	0.610	12.67	62.75
ID = 3 (0006):	8.18	0.648	12.67	63.17

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 (0003):	0.82	0.116	12.42	67.96
+ ID2= 2 (0006):	8.18	0.648	12.67	63.17
ID = 3 (0007):	9.00	0.730	12.58	63.61

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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================================================================================================================

       V    V   I    SSSSS  U   U    A    L              (v 6.2.2020)
       V    V   I    SS     U   U   A A   L
        V  V    I     SS    U   U  AAAAA  L
         V V    I      SS   U   U  A   A  L
          VV    I    SSSSS  UUUUU  A   A  LLLLL

       OOO   TTTTT  TTTTT  H   H  Y   Y  M   M   OOO    TM
      O   O    T      T    H   H   Y Y   MM MM  O   O
      O   O    T      T    H   H    Y    M M M  O   O
       OOO     T      T    H   H    Y    M   M   OOO
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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\atrenholm\AppData\Local\Civica\VH5\8ef94b88-6605-479e-b003-b70f6886dc93\c69c7bb9-
  Summary filename: C:\Users\atrenholm\AppData\Local\Civica\VH5\8ef94b88-6605-479e-b003-b70f6886dc93\c69c7bb9-

DATE: 05/24/2026                          TIME: 05:00:47

USER:


COMMENTS: _____

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  ************************************************
  ** SIMULATION : 25yr 4hr 10min Chicago        **
  ************************************************

--------------------
| CHICAGO STORM    |    IDF curve parameters: A=1719.500
| Ptotal= 73.08 mm |                          B=  10.000
--------------------                          C=   0.823
                       used in:   INTENSITY =  A / (t + B)^C

                       Duration of storm   =  4.00 hrs
                       Storm time step     = 10.00 min
                       Time to peak ratio  =  0.33

                TIME     RAIN |  TIME     RAIN |'  TIME     RAIN |  TIME     RAIN
                  hrs   mm/hr |    hrs   mm/hr |'    hrs   mm/hr |    hrs   mm/hr
                0.00     4.46 |  1.00    42.92 |'  2.00    11.80 |  3.00    5.42
                0.17     5.19 |  1.17   146.10 |'  2.17     9.82 |  3.17    4.99
                0.33     6.25 |  1.33    56.24 |'  2.33     8.42 |  3.33    4.62
                0.50     7.89 |  1.50    29.66 |'  2.50     7.38 |  3.50    4.31
                0.67    10.80 |  1.67    19.80 |'  2.67     6.58 |  3.67    4.04
                0.83    17.27 |  1.83    14.79 |'  2.83     5.94 |  3.83    3.80


--------------------------------------------------------------------------------------------------------------------
--------------------
| CALIB            |
| NASHYD   (  0004)|   Area    (ha)=   0.76   Curve Number   (CN)= 87.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.10   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.28

        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     4.46 | 1.083    42.92 | 2.083    11.80 |  3.08    5.42
              0.167     4.46 | 1.167    42.92 | 2.167    11.80 |  3.17    5.42
              0.250     5.19 | 1.250   146.10 | 2.250     9.82 |  3.25    4.99
              0.333     5.19 | 1.333   146.10 | 2.333     9.82 |  3.33    4.99
              0.417     6.25 | 1.417    56.24 | 2.417     8.42 |  3.42    4.62
              0.500     6.25 | 1.500    56.24 | 2.500     8.42 |  3.50    4.62
              0.583     7.89 | 1.583    29.66 | 2.583     7.38 |  3.58    4.31
              0.667     7.89 | 1.667    29.66 | 2.667     7.38 |  3.67    4.31
              0.750    10.80 | 1.750    19.80 | 2.750     6.58 |  3.75    4.04
              0.833    10.80 | 1.833    19.80 | 2.833     6.58 |  3.83    4.04
              0.917    17.27 | 1.917    14.79 | 2.917     5.94 |  3.92    3.80
              1.000    17.27 | 2.000    14.79 | 3.000     5.94 |  4.00    3.80



--------------------
| CALIB            |
| NASHYD   (  0002)|   Area    (ha)=   7.79   Curve Number   (CN)= 82.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.90   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.57

        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     4.46 | 1.083    42.92 | 2.083    11.80 |  3.08    5.42
              0.167     4.46 | 1.167    42.92 | 2.167    11.80 |  3.17    5.42
              0.250     5.19 | 1.250   146.10 | 2.250     9.82 |  3.25    4.99
              0.333     5.19 | 1.333   146.10 | 2.333     9.82 |  3.33    4.99
              0.417     6.25 | 1.417    56.24 | 2.417     8.42 |  3.42    4.62
              0.500     6.25 | 1.500    56.24 | 2.500     8.42 |  3.50    4.62
              0.583     7.89 | 1.583    29.66 | 2.583     7.38 |  3.58    4.31
              0.667     7.89 | 1.667    29.66 | 2.667     7.38 |  3.67    4.31
              0.750    10.80 | 1.750    19.80 | 2.750     6.58 |  3.75    4.04
              0.833    10.80 | 1.833    19.80 | 2.833     6.58 |  3.83    4.04
              0.917    17.27 | 1.917    14.79 | 2.917     5.94 |  3.92    3.80
              1.000    17.27 | 2.000    14.79 | 3.000     5.94 |  4.00    3.80

    Unit Hyd Qpeak  (cms)=   0.522

    PEAK FLOW       (cms)=   0.479 (i)
    TIME TO PEAK    (hrs)=   2.000
    RUNOFF VOLUME    (mm)=  37.507
    TOTAL RAINFALL   (mm)=  73.081
    RUNOFF COEFFICIENT   =   0.513

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

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

--------------------
| ADD HYD  (  0006)|
|  1 +  2 =  3     |        AREA    QPEAK    TPEAK     R.V.
--------------------         (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0001):     0.39   0.046     1.58    44.47
     + ID2= 2 (  0002):     7.79   0.479     2.00    37.51
       ========================================================
       ID = 3 (  0006):     8.18   0.507     2.00    37.84

    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 (  0003):     0.82   0.089     1.58    41.54
     + ID2= 2 (  0006):     8.18   0.507     2.00    37.84
       ========================================================
       ID = 3 (  0007):     9.00   0.570     1.92    38.18

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

    Unit Hyd Qpeak  (cms)=   0.104

    PEAK FLOW       (cms)=   0.090 (i)
    TIME TO PEAK    (hrs)=   1.583
    RUNOFF VOLUME    (mm)=  44.475
    TOTAL RAINFALL   (mm)=  73.081
    RUNOFF COEFFICIENT   =   0.609

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

--------------------------------------------------------------------------------------------------------------------
--------------------
| CALIB            |
| NASHYD   (  0003)|   Area    (ha)=   0.82   Curve Number   (CN)= 85.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.40   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.28

        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     4.46 | 1.083    42.92 | 2.083    11.80 |  3.08    5.42
              0.167     4.46 | 1.167    42.92 | 2.167    11.80 |  3.17    5.42
              0.250     5.19 | 1.250   146.10 | 2.250     9.82 |  3.25    4.99
              0.333     5.19 | 1.333   146.10 | 2.333     9.82 |  3.33    4.99
              0.417     6.25 | 1.417    56.24 | 2.417     8.42 |  3.42    4.62
              0.500     6.25 | 1.500    56.24 | 2.500     8.42 |  3.50    4.62
              0.583     7.89 | 1.583    29.66 | 2.583     7.38 |  3.58    4.31
              0.667     7.89 | 1.667    29.66 | 2.667     7.38 |  3.67    4.31
              0.750    10.80 | 1.750    19.80 | 2.750     6.58 |  3.75    4.04
              0.833    10.80 | 1.833    19.80 | 2.833     6.58 |  3.83    4.04
              0.917    17.27 | 1.917    14.79 | 2.917     5.94 |  3.92    3.80
              1.000    17.27 | 2.000    14.79 | 3.000     5.94 |  4.00    3.80

    Unit Hyd Qpeak  (cms)=   0.112

    PEAK FLOW       (cms)=   0.089 (i)
    TIME TO PEAK    (hrs)=   1.583
    RUNOFF VOLUME    (mm)=  41.537
    TOTAL RAINFALL   (mm)=  73.081
    RUNOFF COEFFICIENT   =   0.568

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

--------------------------------------------------------------------------------------------------------------------
--------------------
| CALIB            |
| NASHYD   (  0001)|   Area    (ha)=   0.39   Curve Number   (CN)= 87.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.10   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.28

        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     4.46 | 1.083    42.92 | 2.083    11.80 |  3.08    5.42
              0.167     4.46 | 1.167    42.92 | 2.167    11.80 |  3.17    5.42
              0.250     5.19 | 1.250   146.10 | 2.250     9.82 |  3.25    4.99
              0.333     5.19 | 1.333   146.10 | 2.333     9.82 |  3.33    4.99
              0.417     6.25 | 1.417    56.24 | 2.417     8.42 |  3.42    4.62
              0.500     6.25 | 1.500    56.24 | 2.500     8.42 |  3.50    4.62
              0.583     7.89 | 1.583    29.66 | 2.583     7.38 |  3.58    4.31
              0.667     7.89 | 1.667    29.66 | 2.667     7.38 |  3.67    4.31
              0.750    10.80 | 1.750    19.80 | 2.750     6.58 |  3.75    4.04
              0.833    10.80 | 1.833    19.80 | 2.833     6.58 |  3.83    4.04
              0.917    17.27 | 1.917    14.79 | 2.917     5.94 |  3.92    3.80
              1.000    17.27 | 2.000    14.79 | 3.000     5.94 |  4.00    3.80

    Unit Hyd Qpeak  (cms)=   0.053

    PEAK FLOW       (cms)=   0.046 (i)
    TIME TO PEAK    (hrs)=   1.583
    RUNOFF VOLUME    (mm)=  44.474
    TOTAL RAINFALL   (mm)=  73.081
    RUNOFF COEFFICIENT   =   0.609

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

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================================================================================================================

       V    V   I    SSSSS  U   U    A    L              (v 6.2.2020)
       V    V   I    SS     U   U   A A   L
        V  V    I     SS    U   U  AAAAA  L
         VV     I      SS   U   U  A   A  L
          VV    I    SSSSS  UUUUU  A   A  LLLLL

       OOO   TTTTT  TTTTT  H   H  Y   Y  M   M   OOO    TM
      O   O    T      T    H   H   Y Y   MM MM  O   O
      O   O    T      T    H   H    Y    M M M  O   O
       OOO     T      T    H   H    Y    M   M   OOO
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                  *****  D E T A I L E D   O U T P U T *****


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  Output  filename: C:\Users\atrenholm\AppData\Local\Civica\VH5\8ef94b88-6605-479e-b003-b70f6886dc93\8954d1ab-
  Summary filename: C:\Users\atrenholm\AppData\Local\Civica\VH5\8ef94b88-6605-479e-b003-b70f6886dc93\8954d1ab-

DATE: 05/24/2026                          TIME: 05:00:45

USER:


COMMENTS: _____________________________________________________

--------------------------------------------------------------------------------------------------------------------
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  ** SIMULATION : 50yr 24hr 15min SCS Type II ( **
  ************************************************


---------------------
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|                   |              ata\Local\Temp\
|                   |              e7fbba53-3be4-4227-bc0d-7ae48d330c1e\6483112a
| Ptotal=114.82 mm  |    Comments: 50yr 24hr 15min SCS Type II (MTO)
---------------------
                TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
                 hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
                0.00    0.00 |  6.25    2.07 | 12.50   16.53 | 18.75    2.07
                0.25    1.26 |  6.50    2.07 | 12.75    8.50 | 19.00    2.07
                0.50    1.26 |  6.75    2.07 | 13.00    8.50 | 19.25    2.07
                0.75    1.26 |  7.00    2.07 | 13.25    6.20 | 19.50    2.07
                1.00    1.26 |  7.25    2.53 | 13.50    6.20 | 19.75    2.07
                1.25    1.26 |  7.50    2.53 | 13.75    4.82 | 20.00    2.07
                1.50    1.26 |  7.75    2.53 | 14.00    4.82 | 20.25    1.38
                1.75    1.26 |  8.00    2.53 | 14.25    3.44 | 20.50    1.38
                2.00    1.26 |  8.25    2.99 | 14.50    3.44 | 20.75    1.38
                2.25    1.49 |  8.50    2.99 | 14.75    3.44 | 21.00    1.38
                2.50    1.49 |  8.75    3.21 | 15.00    3.44 | 21.25    1.38
                2.75    1.49 |  9.00    3.21 | 15.25    3.44 | 21.50    1.38
                3.00    1.49 |  9.25    3.67 | 15.50    3.44 | 21.75    1.38
                3.25    1.49 |  9.50    3.67 | 15.75    3.44 | 22.00    1.38
                3.50    1.49 |  9.75    4.13 | 16.00    3.44 | 22.25    1.38
                3.75    1.49 | 10.00    4.13 | 16.25    2.07 | 22.50    1.38
                4.00    1.49 | 10.25    5.28 | 16.50    2.07 | 22.75    1.38
                4.25    1.84 | 10.50    5.28 | 16.75    2.07 | 23.00    1.38
                4.50    1.84 | 10.75    7.12 | 17.00    2.07 | 23.25    1.38
                4.75    1.84 | 11.00    7.12 | 17.25    2.07 | 23.50    1.38
                5.00    1.84 | 11.25   11.02 | 17.50    2.07 | 23.75    1.38
                5.25    1.84 | 11.50   11.02 | 17.75    2.07 | 24.00    1.38
                5.50    1.84 | 11.75   33.98 | 18.00    2.07 |
                5.75    1.84 | 12.00  140.54 | 18.25    2.07 |
                6.00    1.84 | 12.25   16.53 | 18.50    2.07 |

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| CALIB            |
| NASHYD   (  0004)|   Area    (ha)=   0.76   Curve Number   (CN)= 87.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.10   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.28

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



    RUNOFF COEFFICIENT   =   0.718

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

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| CALIB            |
| NASHYD   (  0003)|   Area    (ha)=   0.82   Curve Number   (CN)= 85.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.40   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.28

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

                        ---- TRANSFORMED HYETOGRAPH ----
                TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
                 hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
                0.083   0.00 |  6.167   1.84 |12.250  140.54 | 18.33    2.07
                0.167   0.00 |  6.250   1.84 |12.333   16.55 | 18.42    2.07
                0.250   0.00 |  6.333   2.07 |12.417   16.53 | 18.50    2.07
                0.333   1.26 |  6.417   2.07 |12.500   16.53 | 18.58    2.07
                0.417   1.26 |  6.500   2.07 |12.583   16.53 | 18.67    2.07
                0.500   1.26 |  6.583   2.07 |12.667   16.53 | 18.75    2.07
                0.583   1.26 |  6.667   2.07 |12.750   16.53 | 18.83    2.07
                0.667   1.26 |  6.750   2.07 |12.833    8.50 | 18.92    2.07
                0.750   1.26 |  6.833   2.07 |12.917    8.50 | 19.00    2.07
                0.833   1.26 |  6.917   2.07 |13.000    8.50 | 19.08    2.07
                0.917   1.26 |  7.000   2.07 |13.083    8.50 | 19.17    2.07
                1.000   1.26 |  7.083   2.07 |13.167    8.50 | 19.25    2.07
                1.083   1.26 |  7.167   2.07 |13.250    8.50 | 19.33    2.07
                1.167   1.26 |  7.250   2.07 |13.333    6.20 | 19.42    2.07
                1.250   1.26 |  7.333   2.53 |13.417    6.20 | 19.50    2.07
                1.333   1.26 |  7.417   2.53 |13.500    6.20 | 19.58    2.07
                1.417   1.26 |  7.500   2.53 |13.583    6.20 | 19.67    2.07
                1.500   1.26 |  7.583   2.53 |13.667    6.20 | 19.75    2.07
                1.583   1.26 |  7.667   2.53 |13.750    6.20 | 19.83    2.07
                1.667   1.26 |  7.750   2.53 |13.833    4.82 | 19.92    2.07
                1.750   1.26 |  7.833   2.53 |13.917    4.82 | 20.00    2.07
                1.833   1.26 |  7.917   2.53 |14.000    4.82 | 20.08    2.07
                1.917   1.26 |  8.000   2.53 |14.083    4.82 | 20.17    2.07
                2.000   1.26 |  8.083   2.53 |14.167    4.82 | 20.25    2.07
                2.083   1.26 |  8.167   2.53 |14.250    4.82 | 20.33    1.38
                2.167   1.26 |  8.250   2.53 |14.333    3.44 | 20.42    1.38
                2.250   1.26 |  8.333   2.99 |14.417    3.44 | 20.50    1.38
                2.333   1.49 |  8.417   2.99 |14.500    3.44 | 20.58    1.38
                2.417   1.49 |  8.500   2.99 |14.583    3.44 | 20.67    1.38
                2.500   1.49 |  8.583   2.99 |14.667    3.44 | 20.75    1.38
                2.583   1.49 |  8.667   2.99 |14.750    3.44 | 20.83    1.38
                2.667   1.49 |  8.750   2.99 |14.833    3.44 | 20.92    1.38
                2.750   1.49 |  8.833   3.21 |14.917    3.44 | 21.00    1.38
                2.833   1.49 |  8.917   3.21 |15.000    3.44 | 21.08    1.38
                2.917   1.49 |  9.000   3.21 |15.083    3.44 | 21.17    1.38
                3.000   1.49 |  9.083   3.21 |15.167    3.44 | 21.25    1.38
                3.083   1.49 |  9.167   3.21 |15.250    3.44 | 21.33    1.38
                3.167   1.49 |  9.250   3.21 |15.333    3.44 | 21.42    1.38
                3.250   1.49 |  9.333   3.67 |15.417    3.44 | 21.50    1.38
                3.333   1.49 |  9.417   3.67 |15.500    3.44 | 21.58    1.38
                3.417   1.49 |  9.500   3.67 |15.583    3.44 | 21.67    1.38
                3.500   1.49 |  9.583   3.67 |15.667    3.44 | 21.75    1.38
                3.583   1.49 |  9.667   3.67 |15.750    3.44 | 21.83    1.38
                3.667   1.49 |  9.750   3.67 |15.833    3.44 | 21.92    1.38
                3.750   1.49 |  9.833   4.13 |15.917    3.44 | 22.00    1.38
                3.833   1.49 |  9.917   4.13 |16.000    3.44 | 22.08    1.38
                3.917   1.49 | 10.000   4.13 |16.083    3.44 | 22.17    1.38
                4.000   1.49 | 10.083   4.13 |16.167    3.44 | 22.25    1.38
                4.083   1.49 | 10.167   4.13 |16.250    3.44 | 22.33    1.38
                4.167   1.49 | 10.250   4.13 |16.333    2.07 | 22.42    1.38
                4.250   1.49 | 10.333   5.28 |16.417    2.07 | 22.50    1.38
                4.333   1.84 | 10.417   5.28 |16.500    2.07 | 22.58    1.38
                4.417   1.84 | 10.500   5.28 |16.583    2.07 | 22.67    1.38
                4.500   1.84 | 10.583   5.28 |16.667    2.07 | 22.75    1.38
                4.583   1.84 | 10.667   5.28 |16.750    2.07 | 22.83    1.38
                4.667   1.84 | 10.750   5.28 |16.833    2.07 | 22.92    1.38
                4.750   1.84 | 10.833   7.12 |16.917    2.07 | 23.00    1.38
                4.833   1.84 | 10.917   7.12 |17.000    2.07 | 23.08    1.38
                4.917   1.84 | 11.000   7.12 |17.083    2.07 | 23.17    1.38
                5.000   1.84 | 11.083   7.12 |17.167    2.07 | 23.25    1.38
                5.083   1.84 | 11.167   7.12 |17.250    2.07 | 23.33    1.38
                5.167   1.84 | 11.250   7.12 |17.333    2.07 | 23.42    1.38
                5.250   1.84 | 11.333   11.02|17.417    2.07 | 23.50    1.38
                5.333   1.84 | 11.417   11.02|17.500    2.07 | 23.58    1.38
                5.417   1.84 | 11.500   11.02|17.583    2.07 | 23.67    1.38
                5.500   1.84 | 11.583   11.02|17.667    2.07 | 23.75    1.38
                5.583   1.84 | 11.667   11.02|17.750    2.07 | 23.83    1.38
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                        ---- TRANSFORMED HYETOGRAPH ----
                TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
                 hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
                0.083   0.00 |  6.167   1.84 |12.250  140.54 | 18.33    2.07
                0.167   0.00 |  6.250   1.84 |12.333   16.55 | 18.42    2.07
                0.250   0.00 |  6.333   2.07 |12.417   16.53 | 18.50    2.07
                0.333   1.26 |  6.417   2.07 |12.500   16.53 | 18.58    2.07
                0.417   1.26 |  6.500   2.07 |12.583   16.53 | 18.67    2.07
                0.500   1.26 |  6.583   2.07 |12.667   16.53 | 18.75    2.07
                0.583   1.26 |  6.667   2.07 |12.750   16.53 | 18.83    2.07
                0.667   1.26 |  6.750   2.07 |12.833    8.50 | 18.92    2.07
                0.750   1.26 |  6.833   2.07 |12.917    8.50 | 19.00    2.07
                0.833   1.26 |  6.917   2.07 |13.000    8.50 | 19.08    2.07
                0.917   1.26 |  7.000   2.07 |13.083    8.50 | 19.17    2.07
                1.000   1.26 |  7.083   2.07 |13.167    8.50 | 19.25    2.07
                1.083   1.26 |  7.167   2.07 |13.250    8.50 | 19.33    2.07
                1.167   1.26 |  7.250   2.07 |13.333    6.20 | 19.42    2.07
                1.250   1.26 |  7.333   2.53 |13.417    6.20 | 19.50    2.07
                1.333   1.26 |  7.417   2.53 |13.500    6.20 | 19.58    2.07
                1.417   1.26 |  7.500   2.53 |13.583    6.20 | 19.67    2.07
                1.500   1.26 |  7.583   2.53 |13.667    6.20 | 19.75    2.07
                1.583   1.26 |  7.667   2.53 |13.750    6.20 | 19.83    2.07
                1.667   1.26 |  7.750   2.53 |13.833    4.82 | 19.92    2.07
                1.750   1.26 |  7.833   2.53 |13.917    4.82 | 20.00    2.07
                1.833   1.26 |  7.917   2.53 |14.000    4.82 | 20.08    2.07
                1.917   1.26 |  8.000   2.53 |14.083    4.82 | 20.17    2.07
                2.000   1.26 |  8.083   2.53 |14.167    4.82 | 20.25    2.07
                2.083   1.26 |  8.167   2.53 |14.250    4.82 | 20.33    1.38
                2.167   1.26 |  8.250   2.53 |14.333    3.44 | 20.42    1.38
                2.250   1.26 |  8.333   2.99 |14.417    3.44 | 20.50    1.38
                2.333   1.49 |  8.417   2.99 |14.500    3.44 | 20.58    1.38
                2.417   1.49 |  8.500   2.99 |14.583    3.44 | 20.67    1.38
                2.500   1.49 |  8.583   2.99 |14.667    3.44 | 20.75    1.38
                2.583   1.49 |  8.667   2.99 |14.750    3.44 | 20.83    1.38
                2.667   1.49 |  8.750   2.99 |14.833    3.44 | 20.92    1.38
                2.750   1.49 |  8.833   3.21 |14.917    3.44 | 21.00    1.38
                2.833   1.49 |  8.917   3.21 |15.000    3.44 | 21.08    1.38
                2.917   1.49 |  9.000   3.21 |15.083    3.44 | 21.17    1.38
                3.000   1.49 |  9.083   3.21 |15.167    3.44 | 21.25    1.38
                3.083   1.49 |  9.167   3.21 |15.250    3.44 | 21.33    1.38
                3.167   1.49 |  9.250   3.21 |15.333    3.44 | 21.42    1.38
                3.250   1.49 |  9.333   3.67 |15.417    3.44 | 21.50    1.38
                3.333   1.49 |  9.417   3.67 |15.500    3.44 | 21.58    1.38
                3.417   1.49 |  9.500   3.67 |15.583    3.44 | 21.67    1.38
                3.500   1.49 |  9.583   3.67 |15.667    3.44 | 21.75    1.38
                3.583   1.49 |  9.667   3.67 |15.750    3.44 | 21.83    1.38
                3.667   1.49 |  9.750   3.67 |15.833    3.44 | 21.92    1.38
                3.750   1.49 |  9.833   4.13 |15.917    3.44 | 22.00    1.38
                3.833   1.49 |  9.917   4.13 |16.000    3.44 | 22.08    1.38
                3.917   1.49 | 10.000   4.13 |16.083    3.44 | 22.17    1.38
                4.000   1.49 | 10.083   4.13 |16.167    3.44 | 22.25    1.38
                4.083   1.49 | 10.167   4.13 |16.250    3.44 | 22.33    1.38
                4.167   1.49 | 10.250   4.13 |16.333    2.07 | 22.42    1.38
                4.250   1.49 | 10.333   5.28 |16.417    2.07 | 22.50    1.38
                4.333   1.84 | 10.417   5.28 |16.500    2.07 | 22.58    1.38
                4.417   1.84 | 10.500   5.28 |16.583    2.07 | 22.67    1.38
                4.500   1.84 | 10.583   5.28 |16.667    2.07 | 22.75    1.38
                4.583   1.84 | 10.667   5.28 |16.750    2.07 | 22.83    1.38
                4.667   1.84 | 10.750   5.28 |16.833    2.07 | 22.92    1.38
                4.750   1.84 | 10.833   7.12 |16.917    2.07 | 23.00    1.38
                4.833   1.84 | 10.917   7.12 |17.000    2.07 | 23.08    1.38
                4.917   1.84 | 11.000   7.12 |17.083    2.07 | 23.17    1.38
                5.000   1.84 | 11.083   7.12 |17.167    2.07 | 23.25    1.38
                5.083   1.84 | 11.167   7.12 |17.250    2.07 | 23.33    1.38
                5.167   1.84 | 11.250   7.12 |17.333    2.07 | 23.42    1.38
                5.250   1.84 | 11.333   11.02|17.417    2.07 | 23.50    1.38
                5.333   1.84 | 11.417   11.02|17.500    2.07 | 23.58    1.38
                5.417   1.84 | 11.500   11.02|17.583    2.07 | 23.67    1.38
                5.500   1.84 | 11.583   11.02|17.667    2.07 | 23.75    1.38
                5.583   1.84 | 11.667   11.02|17.750    2.07 | 23.83    1.38
                5.667   1.84 | 11.750   11.02|17.833    2.07 | 23.92    1.38
                5.750   1.84 | 11.833   33.98|17.917    2.07 | 24.00    1.38
                5.833   1.84 | 11.917   33.99|18.000    2.07 | 24.08    1.38
                5.917   1.84 | 12.000   33.99|18.083    2.07 | 24.17    1.38
                6.000   1.84 | 12.083  140.53|18.167    2.07 | 24.25    1.38
                6.083   1.84 | 12.167  140.54|18.250    2.07 |

    Unit Hyd Qpeak  (cms)=   0.104

    PEAK FLOW       (cms)=   0.130 (i)
    TIME TO PEAK    (hrs)=  12.417
    RUNOFF VOLUME    (mm)=  82.412
    TOTAL RAINFALL   (mm)= 114.820
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                5.667   1.84 |11.750   11.02 |17.833    2.07 | 23.92    1.38
                5.750   1.84 |11.833   33.98 |17.917    2.07 | 24.00    1.38
                5.833   1.84 |11.917   33.99 |18.000    2.07 | 24.08    1.38
                5.917   1.84 |12.000   33.99 |18.083    2.07 | 24.17    1.38
                6.000   1.84 |12.083  140.53 |18.167    2.07 | 24.25    1.38
                6.083   1.84 |12.167  140.54 |18.250    2.07 |

    Unit Hyd Qpeak  (cms)=   0.112

    PEAK FLOW       (cms)=   0.134 (i)
    TIME TO PEAK    (hrs)=  12.417
    RUNOFF VOLUME    (mm)=  78.498
    TOTAL RAINFALL   (mm)= 114.820
    RUNOFF COEFFICIENT   =   0.684

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

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| CALIB            |
| NASHYD   (  0001)|   Area    (ha)=   0.39   Curve Number   (CN)= 87.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.10   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.28

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

                        ---- TRANSFORMED HYETOGRAPH ----
                TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
                 hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
                0.083   0.00 |  6.167   1.84 |12.250  140.54 | 18.33    2.07
                0.167   0.00 |  6.250   1.84 |12.333   16.55 | 18.42    2.07
                0.250   0.00 |  6.333   2.07 |12.417   16.53 | 18.50    2.07
                0.333   1.26 |  6.417   2.07 |12.500   16.53 | 18.58    2.07
                0.417   1.26 |  6.500   2.07 |12.583   16.53 | 18.67    2.07
                0.500   1.26 |  6.583   2.07 |12.667   16.53 | 18.75    2.07
                0.583   1.26 |  6.667   2.07 |12.750   16.53 | 18.83    2.07
                0.667   1.26 |  6.750   2.07 |12.833    8.50 | 18.92    2.07
                0.750   1.26 |  6.833   2.07 |12.917    8.50 | 19.00    2.07
                0.833   1.26 |  6.917   2.07 |13.000    8.50 | 19.08    2.07
                0.917   1.26 |  7.000   2.07 |13.083    8.50 | 19.17    2.07
                1.000   1.26 |  7.083   2.07 |13.167    8.50 | 19.25    2.07
                1.083   1.26 |  7.167   2.07 |13.250    8.50 | 19.33    2.07
                1.167   1.26 |  7.250   2.07 |13.333    6.20 | 19.42    2.07
                1.250   1.26 |  7.333   2.53 |13.417    6.20 | 19.50    2.07
                1.333   1.26 |  7.417   2.53 |13.500    6.20 | 19.58    2.07
                1.417   1.26 |  7.500   2.53 |13.583    6.20 | 19.67    2.07
                1.500   1.26 |  7.583   2.53 |13.667    6.20 | 19.75    2.07
                1.583   1.26 |  7.667   2.53 |13.750    6.20 | 19.83    2.07
                1.667   1.26 |  7.750   2.53 |13.833    4.82 | 19.92    2.07
                1.750   1.26 |  7.833   2.53 |13.917    4.82 | 20.00    2.07
                1.833   1.26 |  7.917   2.53 |14.000    4.82 | 20.08    2.07
                1.917   1.26 |  8.000   2.53 |14.083    4.82 | 20.17    2.07
                2.000   1.26 |  8.083   2.53 |14.167    4.82 | 20.25    2.07
                2.083   1.26 |  8.167   2.53 |14.250    4.82 | 20.33    1.38
                2.167   1.26 |  8.250   2.53 |14.333    3.44 | 20.42    1.38
                2.250   1.26 |  8.333   2.99 |14.417    3.44 | 20.50    1.38
                2.333   1.49 |  8.417   2.99 |14.500    3.44 | 20.58    1.38
                2.417   1.49 |  8.500   2.99 |14.583    3.44 | 20.67    1.38
                2.500   1.49 |  8.583   2.99 |14.667    3.44 | 20.75    1.38
                2.583   1.49 |  8.667   2.99 |14.750    3.44 | 20.83    1.38
                2.667   1.49 |  8.750   2.99 |14.833    3.44 | 20.92    1.38
                2.750   1.49 |  8.833   3.21 |14.917    3.44 | 21.00    1.38
                2.833   1.49 |  8.917   3.21 |15.000    3.44 | 21.08    1.38
                2.917   1.49 |  9.000   3.21 |15.083    3.44 | 21.17    1.38
                3.000   1.49 |  9.083   3.21 |15.167    3.44 | 21.25    1.38
                3.083   1.49 |  9.167   3.21 |15.250    3.44 | 21.33    1.38
                3.167   1.49 |  9.250   3.21 |15.333    3.44 | 21.42    1.38
                3.250   1.49 |  9.333   3.67 |15.417    3.44 | 21.50    1.38
                3.333   1.49 |  9.417   3.67 |15.500    3.44 | 21.58    1.38
                3.417   1.49 |  9.500   3.67 |15.583    3.44 | 21.67    1.38
                3.500   1.49 |  9.583   3.67 |15.667    3.44 | 21.75    1.38
                3.583   1.49 |  9.667   3.67 |15.750    3.44 | 21.83    1.38
                3.667   1.49 |  9.750   3.67 |15.833    3.44 | 21.92    1.38
                3.750   1.49 |  9.833   4.13 |15.917    3.44 | 22.00    1.38
                3.833   1.49 |  9.917   4.13 |16.000    3.44 | 22.08    1.38
                3.917   1.49 | 10.000   4.13 |16.083    3.44 | 22.17    1.38
                4.000   1.49 | 10.083   4.13 |16.167    3.44 | 22.25    1.38
                4.083   1.49 | 10.167   4.13 |16.250    3.44 | 22.33    1.38
                4.167   1.49 | 10.250   4.13 |16.333    2.07 | 22.42    1.38
                4.250   1.49 | 10.333   5.28 |16.417    2.07 | 22.50    1.38
                4.333   1.84 | 10.417   5.28 |16.500    2.07 | 22.58    1.38
                4.417   1.84 | 10.500   5.28 |16.583    2.07 | 22.67    1.38
                4.500   1.84 | 10.583   5.28 |16.667    2.07 | 22.75    1.38
```

4.583	1.84	10.667	5.28	16.750	2.07	22.83	1.38
4.667	1.84	10.750	5.28	16.833	2.07	22.92	1.38
4.750	1.84	10.833	7.12	16.917	2.07	23.00	1.38
4.833	1.84	10.917	7.12	17.000	2.07	23.08	1.38
4.917	1.84	11.000	7.12	17.083	2.07	23.17	1.38
5.000	1.84	11.083	7.12	17.167	2.07	23.25	1.38
5.083	1.84	11.167	7.12	17.250	2.07	23.33	1.38
5.167	1.84	11.250	7.12	17.333	2.07	23.42	1.38
5.250	1.84	11.333	11.02	17.417	2.07	23.50	1.38
5.333	1.84	11.417	11.02	17.500	2.07	23.58	1.38
5.417	1.84	11.500	11.02	17.583	2.07	23.67	1.38
5.500	1.84	11.583	11.02	17.667	2.07	23.75	1.38
5.583	1.84	11.667	11.02	17.750	2.07	23.83	1.38
5.667	1.84	11.750	11.02	17.833	2.07	23.92	1.38
5.750	1.84	11.833	33.98	17.917	2.07	24.00	1.38
5.833	1.84	11.917	33.99	18.000	2.07	24.08	1.38
5.917	1.84	12.000	33.99	18.083	2.07	24.17	1.38
6.000	1.84	12.083	140.53	18.167	2.07	24.25	1.38
6.083	1.84	12.167	140.54	18.250	2.07		

Unit Hyd Qpeak (cms)= 0.053

PEAK FLOW (cms)= 0.067 (i)
TIME TO PEAK (hrs)= 12.417
RUNOFF VOLUME (mm)= 82.412
TOTAL RAINFALL (mm)= 114.820
RUNOFF COEFFICIENT = 0.718

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

CALIB							
NASHYD (0002)	Area (ha)=	7.79	Curve Number (CN)=	82.0			
ID= 1 DT= 5.0 min	Ia (mm)=	4.90	# of Linear Res.(N)=	3.00			
	U.H. Tp(hrs)=	0.57					

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	0.00	6.167	1.84	12.250	140.54	18.33	2.07
0.167	0.00	6.250	1.84	12.333	16.55	18.42	2.07
0.250	0.00	6.333	2.07	12.417	16.53	18.50	2.07
0.333	1.26	6.417	2.07	12.500	16.53	18.58	2.07
0.417	1.26	6.500	2.07	12.583	16.53	18.67	2.07
0.500	1.26	6.583	2.07	12.667	16.53	18.75	2.07
0.583	1.26	6.667	2.07	12.750	16.53	18.83	2.07
0.667	1.26	6.750	2.07	12.833	8.50	18.92	2.07
0.750	1.26	6.833	2.07	12.917	8.50	19.00	2.07
0.833	1.26	6.917	2.07	13.000	8.50	19.08	2.07
0.917	1.26	7.000	2.07	13.083	8.50	19.17	2.07
1.000	1.26	7.083	2.07	13.167	8.50	19.25	2.07
1.083	1.26	7.167	2.07	13.250	8.50	19.33	2.07
1.167	1.26	7.250	2.07	13.333	6.20	19.42	2.07
1.250	1.26	7.333	2.53	13.417	6.20	19.50	2.07
1.333	1.26	7.417	2.53	13.500	6.20	19.58	2.07
1.417	1.26	7.500	2.53	13.583	6.20	19.67	2.07
1.500	1.26	7.583	2.53	13.667	6.20	19.75	2.07
1.583	1.26	7.667	2.53	13.750	6.20	19.83	2.07
1.667	1.26	7.750	2.53	13.833	4.82	19.92	2.07
1.750	1.26	7.833	2.53	13.917	4.82	20.00	2.07
1.833	1.26	7.917	2.53	14.000	4.82	20.08	2.07
1.917	1.26	8.000	2.53	14.083	4.82	20.17	2.07
2.000	1.26	8.083	2.53	14.167	4.82	20.25	2.07
2.083	1.26	8.167	2.53	14.250	4.82	20.33	1.38
2.167	1.26	8.250	2.53	14.333	3.44	20.42	1.38
2.250	1.26	8.333	2.99	14.417	3.44	20.50	1.38
2.333	1.49	8.417	2.99	14.500	3.44	20.58	1.38
2.417	1.49	8.500	2.99	14.583	3.44	20.67	1.38
2.500	1.49	8.583	2.99	14.667	3.44	20.75	1.38
2.583	1.49	8.667	2.99	14.750	3.44	20.83	1.38
2.667	1.49	8.750	2.99	14.833	3.44	20.92	1.38
2.750	1.49	8.833	3.21	14.917	3.44	21.00	1.38
2.833	1.49	8.917	3.21	15.000	3.44	21.08	1.38
2.917	1.49	9.000	3.21	15.083	3.44	21.17	1.38
3.000	1.49	9.083	3.21	15.167	3.44	21.25	1.38
3.083	1.49	9.167	3.21	15.250	3.44	21.33	1.38
3.167	1.49	9.250	3.21	15.333	3.44	21.42	1.38
3.250	1.49	9.333	3.67	15.417	3.44	21.50	1.38
3.333	1.49	9.417	3.67	15.500	3.44	21.58	1.38
3.417	1.49	9.500	3.67	15.583	3.44	21.67	1.38
3.500	1.49	9.583	3.67	15.667	3.44	21.75	1.38
3.583	1.49	9.667	3.67	15.750	3.44	21.83	1.38
3.667	1.49	9.750	3.67	15.833	3.44	21.92	1.38
3.750	1.49	9.833	4.13	15.917	3.44	22.00	1.38
3.833	1.49	9.917	4.13	16.000	3.44	22.08	1.38
3.917	1.49	10.000	4.13	16.083	3.44	22.17	1.38
4.000	1.49	10.083	4.13	16.167	3.44	22.25	1.38
4.083	1.49	10.167	4.13	16.250	3.44	22.33	1.38
4.167	1.49	10.250	4.13	16.333	2.07	22.42	1.38
4.250	1.49	10.333	5.28	16.417	2.07	22.50	1.38
4.333	1.84	10.417	5.28	16.500	2.07	22.58	1.38
4.417	1.84	10.500	5.28	16.583	2.07	22.67	1.38
4.500	1.84	10.583	5.28	16.667	2.07	22.75	1.38
4.583	1.84	10.667	5.28	16.750	2.07	22.83	1.38
4.667	1.84	10.750	5.28	16.833	2.07	22.92	1.38
4.750	1.84	10.833	7.12	16.917	2.07	23.00	1.38
4.833	1.84	10.917	7.12	17.000	2.07	23.08	1.38
4.917	1.84	11.000	7.12	17.083	2.07	23.17	1.38
5.000	1.84	11.083	7.12	17.167	2.07	23.25	1.38
5.083	1.84	11.167	7.12	17.250	2.07	23.33	1.38
5.167	1.84	11.250	7.12	17.333	2.07	23.42	1.38
5.250	1.84	11.333	11.02	17.417	2.07	23.50	1.38
5.333	1.84	11.417	11.02	17.500	2.07	23.58	1.38
5.417	1.84	11.500	11.02	17.583	2.07	23.67	1.38
5.500	1.84	11.583	11.02	17.667	2.07	23.75	1.38
5.583	1.84	11.667	11.02	17.750	2.07	23.83	1.38
5.667	1.84	11.750	11.02	17.833	2.07	23.92	1.38
5.750	1.84	11.833	33.98	17.917	2.07	24.00	1.38
5.833	1.84	11.917	33.99	18.000	2.07	24.08	1.38
5.917	1.84	12.000	33.99	18.083	2.07	24.17	1.38
6.000	1.84	12.083	140.53	18.167	2.07	24.25	1.38
6.083	1.84	12.167	140.54	18.250	2.07		

Unit Hyd Qpeak (cms)= 0.522

PEAK FLOW (cms)= 0.710 (i)
TIME TO PEAK (hrs)= 12.667
RUNOFF VOLUME (mm)= 72.925
TOTAL RAINFALL (mm)= 114.820
RUNOFF COEFFICIENT = 0.635

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

ADD HYD (0006)				
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0001):	0.39	0.067	12.42	82.41
+ ID2= 2 (0002):	7.79	0.710	12.67	72.93
ID = 3 (0006):	8.18	0.754	12.67	73.38

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 (0003):	0.82	0.134	12.42	78.50
+ ID2= 2 (0006):	8.18	0.754	12.67	73.38
ID = 3 (0007):	9.00	0.848	12.58	73.84

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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=============================================================================================================

       V    V   I    SSSSS  U   U    A    L              (v 6.2.2020)
       V    V   I    SS     U   U   A A   L
        V  V    I     SS    U   U  AAAAA  L
         V V    I      SS   U   U A     A L
          VV    I    SSSSS  UUUUU A     A LLLLL

        OOO   TTTTT  TTTTT  H   H  Y   Y  M   M   OOO    TM
       O   O    T      T    H   H   Y Y   MM MM  O   O
       O   O    T      T    H   H    Y    M M M  O   O
        OOO     T      T    H   H    Y    M   M   OOO
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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\atrenholm\AppData\Local\Civica\VH5\8ef94b88-6605-479e-b003-b70f6886dc93\ac32d005-
  Summary filename: C:\Users\atrenholm\AppData\Local\Civica\VH5\8ef94b88-6605-479e-b003-b70f6886dc93\ac32d005-

DATE: 05/24/2026                          TIME: 05:00:46

USER:


COMMENTS: _____

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  ************************************************
  ** SIMULATION : 50yr 4hr 10min Chicago        **
  ************************************************

--------------------
| CHICAGO STORM    |    IDF curve parameters: A=1954.800
| Ptotal= 81.72 mm |                          B=  10.000
--------------------                          C=   0.826
                         used in:   INTENSITY =  A / (t + B)^C

                         Duration of storm   =  4.00 hrs
                         Storm time step     = 10.00 min
                         Time to peak ratio  =  0.33

                TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
                 hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
                0.00    4.92 |  1.00   48.07 |'  2.00   13.11 |  3.00    5.99
                0.17    5.74 |  1.17  164.61 |'  2.17   10.90 |  3.17    5.51
                0.33    6.91 |  1.33   63.07 |'  2.33    9.34 |  3.33    5.10
                0.50    8.74 |  1.50   33.14 |'  2.50    8.17 |  3.50    4.75
                0.67   11.99 |  1.67   22.06 |'  2.67    7.28 |  3.67    4.45
                0.83   19.23 |  1.83   16.45 |'  2.83    6.57 |  3.83    4.19


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--------------------
| CALIB            |
| NASHYD   (  0004)|   Area    (ha)=   0.76   Curve Number   (CN)= 87.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.10   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.28

        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    4.92 | 1.083   48.07 | 2.083   13.11 |  3.08    5.99
               0.167    4.92 | 1.167   48.07 | 2.167   13.11 |  3.17    5.99
               0.250    5.74 | 1.250  164.61 | 2.250   10.90 |  3.25    5.51
               0.333    5.74 | 1.333  164.61 | 2.333   10.90 |  3.33    5.51
               0.417    6.91 | 1.417   63.07 | 2.417    9.34 |  3.42    5.10
               0.500    6.91 | 1.500   63.07 | 2.500    9.34 |  3.50    5.10
               0.583    8.74 | 1.583   33.14 | 2.583    8.17 |  3.58    4.75
               0.667    8.74 | 1.667   33.14 | 2.667    8.17 |  3.67    4.75
               0.750   11.99 | 1.750   22.06 | 2.750    7.28 |  3.75    4.45
               0.833   11.99 | 1.833   22.06 | 2.833    7.28 |  3.83    4.45
               0.917   19.23 | 1.917   16.45 | 2.917    6.57 |  3.92    4.19
               1.000   19.23 | 2.000   16.45 | 3.000    6.57 |  4.00    4.19



--------------------
| CALIB            |
| NASHYD   (  0002)|   Area    (ha)=   7.79   Curve Number   (CN)= 82.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.90   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.57

        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    4.92 | 1.083   48.07 | 2.083   13.11 |  3.08    5.99
               0.167    4.92 | 1.167   48.07 | 2.167   13.11 |  3.17    5.99
               0.250    5.74 | 1.250  164.61 | 2.250   10.90 |  3.25    5.51
               0.333    5.74 | 1.333  164.61 | 2.333   10.90 |  3.33    5.51
               0.417    6.91 | 1.417   63.07 | 2.417    9.34 |  3.42    5.10
               0.500    6.91 | 1.500   63.07 | 2.500    9.34 |  3.50    5.10
               0.583    8.74 | 1.583   33.14 | 2.583    8.17 |  3.58    4.75
               0.667    8.74 | 1.667   33.14 | 2.667    8.17 |  3.67    4.75
               0.750   11.99 | 1.750   22.06 | 2.750    7.28 |  3.75    4.45
               0.833   11.99 | 1.833   22.06 | 2.833    7.28 |  3.83    4.45
               0.917   19.23 | 1.917   16.45 | 2.917    6.57 |  3.92    4.19
               1.000   19.23 | 2.000   16.45 | 3.000    6.57 |  4.00    4.19

    Unit Hyd Qpeak  (cms)=   0.522

    PEAK FLOW       (cms)=   0.576 (i)
    TIME TO PEAK    (hrs)=   2.000
    RUNOFF VOLUME    (mm)=  44.509
    TOTAL RAINFALL   (mm)=  81.717
    RUNOFF COEFFICIENT   =   0.545

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

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

--------------------
| ADD HYD  (  0006)|
|  1 +  2 =  3     |        AREA    QPEAK    TPEAK     R.V.
--------------------         (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0001):     0.39   0.055     1.58    52.10
     + ID2= 2 (  0002):     7.79   0.576     2.00    44.51
       ========================================================
       ID = 3 (  0006):     8.18   0.608     2.00    44.87

    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 (  0003):     0.82   0.107     1.58    48.92
     + ID2= 2 (  0006):     8.18   0.608     2.00    44.87
       ========================================================
       ID = 3 (  0007):     9.00   0.684     1.92    45.24

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

    Unit Hyd Qpeak  (cms)=   0.104

    PEAK FLOW       (cms)=   0.107 (i)
    TIME TO PEAK    (hrs)=   1.583
    RUNOFF VOLUME    (mm)=  52.100
    TOTAL RAINFALL   (mm)=  81.717
    RUNOFF COEFFICIENT   =   0.638

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

-------------------------------------------------------------------------------------------------
--------------------
| CALIB            |
| NASHYD   (  0003)|   Area    (ha)=   0.82   Curve Number   (CN)= 85.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.40   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.28

        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    4.92 | 1.083   48.07 | 2.083   13.11 |  3.08    5.99
               0.167    4.92 | 1.167   48.07 | 2.167   13.11 |  3.17    5.99
               0.250    5.74 | 1.250  164.61 | 2.250   10.90 |  3.25    5.51
               0.333    5.74 | 1.333  164.61 | 2.333   10.90 |  3.33    5.51
               0.417    6.91 | 1.417   63.07 | 2.417    9.34 |  3.42    5.10
               0.500    6.91 | 1.500   63.07 | 2.500    9.34 |  3.50    5.10
               0.583    8.74 | 1.583   33.14 | 2.583    8.17 |  3.58    4.75
               0.667    8.74 | 1.667   33.14 | 2.667    8.17 |  3.67    4.75
               0.750   11.99 | 1.750   22.06 | 2.750    7.28 |  3.75    4.45
               0.833   11.99 | 1.833   22.06 | 2.833    7.28 |  3.83    4.45
               0.917   19.23 | 1.917   16.45 | 2.917    6.57 |  3.92    4.19
               1.000   19.23 | 2.000   16.45 | 3.000    6.57 |  4.00    4.19

    Unit Hyd Qpeak  (cms)=   0.112

    PEAK FLOW       (cms)=   0.107 (i)
    TIME TO PEAK    (hrs)=   1.583
    RUNOFF VOLUME    (mm)=  48.918
    TOTAL RAINFALL   (mm)=  81.717
    RUNOFF COEFFICIENT   =   0.599

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

-------------------------------------------------------------------------------------------------
--------------------
| CALIB            |
| NASHYD   (  0001)|   Area    (ha)=   0.39   Curve Number   (CN)= 87.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.10   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.28

        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    4.92 | 1.083   48.07 | 2.083   13.11 |  3.08    5.99
               0.167    4.92 | 1.167   48.07 | 2.167   13.11 |  3.17    5.99
               0.250    5.74 | 1.250  164.61 | 2.250   10.90 |  3.25    5.51
               0.333    5.74 | 1.333  164.61 | 2.333   10.90 |  3.33    5.51
               0.417    6.91 | 1.417   63.07 | 2.417    9.34 |  3.42    5.10
               0.500    6.91 | 1.500   63.07 | 2.500    9.34 |  3.50    5.10
               0.583    8.74 | 1.583   33.14 | 2.583    8.17 |  3.58    4.75
               0.667    8.74 | 1.667   33.14 | 2.667    8.17 |  3.67    4.75
               0.750   11.99 | 1.750   22.06 | 2.750    7.28 |  3.75    4.45
               0.833   11.99 | 1.833   22.06 | 2.833    7.28 |  3.83    4.45
               0.917   19.23 | 1.917   16.45 | 2.917    6.57 |  3.92    4.19
               1.000   19.23 | 2.000   16.45 | 3.000    6.57 |  4.00    4.19

    Unit Hyd Qpeak  (cms)=   0.053

    PEAK FLOW       (cms)=   0.055 (i)
    TIME TO PEAK    (hrs)=   1.583
    RUNOFF VOLUME    (mm)=  52.099
    TOTAL RAINFALL   (mm)=  81.717
    RUNOFF COEFFICIENT   =   0.638

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

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================================================================================================================

       V    V   I    SSSSS  U   U    A    L              (v 6.2.2020)
       V    V   I    SS     U   U   A A   L
        V  V    I     SS    U   U  AAAAA  L
         VV     I      SS   U   U  A   A  L
          VV    I    SSSSS  UUUUU  A   A  LLLLL

       OOO   TTTTT  TTTTT  H   H  Y   Y  M   M   OOO    TM
      O   O    T      T    H   H   Y Y   MM MM  O   O
      O   O    T      T    H   H    Y    M M M  O   O
       OOO     T      T    H   H    Y    M   M   OOO

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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\atrenholm\AppData\Local\Civica\VH5\8ef94b88-6605-479e-b003-b70f6886dc93\f972a1ec-
  Summary filename: C:\Users\atrenholm\AppData\Local\Civica\VH5\8ef94b88-6605-479e-b003-b70f6886dc93\f972a1ec-


DATE: 05/24/2026                          TIME: 05:00:47

USER:


COMMENTS: _____________________________________________________


--------------------------------------------------------------------------------------------------------------------
  ************************************************
  ** SIMULATION : 100yr 24hr 15min SCS Type II  **
  ************************************************


---------------------
|    READ STORM     |    Filename: C:\Users\atrenholm\AppD
|                   |              ata\Local\Temp\
|                   |              e7fbba53-3be4-4227-bc0d-7ae48d330c1e\e4899df4
| Ptotal=126.49 mm  |    Comments: 100yr 24hr 15min SCS Type II (MTO)
---------------------
```

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.00	0.00	6.25	2.28	12.50	18.21	18.75	2.28
0.25	1.39	6.50	2.28	12.75	9.36	19.00	2.28
0.50	1.39	6.75	2.28	13.00	9.36	19.25	2.28
0.75	1.39	7.00	2.28	13.25	6.83	19.50	2.28
1.00	1.39	7.25	2.78	13.50	6.83	19.75	2.28
1.25	1.39	7.50	2.78	13.75	5.31	20.00	2.28
1.50	1.39	7.75	2.78	14.00	5.31	20.25	1.52
1.75	1.39	8.00	2.78	14.25	3.79	20.50	1.52
2.00	1.39	8.25	3.29	14.50	3.79	20.75	1.52
2.25	1.64	8.50	3.29	14.75	3.79	21.00	1.52
2.50	1.64	8.75	3.54	15.00	3.79	21.25	1.52
2.75	1.64	9.00	3.54	15.25	3.79	21.50	1.52
3.00	1.64	9.25	4.05	15.50	3.79	21.75	1.52
3.25	1.64	9.50	4.05	15.75	3.79	22.00	1.52
3.50	1.64	9.75	4.55	16.00	3.79	22.25	1.52
3.75	1.64	10.00	4.55	16.25	2.28	22.50	1.52
4.00	1.64	10.25	5.82	16.50	2.28	22.75	1.52
4.25	2.02	10.50	5.82	16.75	2.28	23.00	1.52
4.50	2.02	10.75	7.84	17.00	2.28	23.25	1.52
4.75	2.02	11.00	7.84	17.25	2.28	23.50	1.52
5.00	2.02	11.25	12.14	17.50	2.28	23.75	1.52
5.25	2.02	11.50	12.14	17.75	2.28	24.00	1.52
5.50	2.02	11.75	37.44	18.00	2.28		
5.75	2.02	12.00	154.82	18.25	2.28		
6.00	2.02	12.25	18.21	18.50	2.28		

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--------------------
| CALIB              |
| NASHYD   (  0004)  |   Area    (ha)=   0.76   Curve Number   (CN)= 87.0
|ID= 1 DT= 5.0 min   |   Ia      (mm)=   4.10   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.28

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



    RUNOFF COEFFICIENT   =   0.738

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

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--------------------
| CALIB              |
| NASHYD   (  0003)  |   Area    (ha)=   0.82   Curve Number   (CN)= 85.0
|ID= 1 DT= 5.0 min   |   Ia      (mm)=   4.40   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.28

        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	0.00	6.167	2.02	12.250	154.82	18.33	2.28
0.167	0.00	6.250	2.02	12.333	18.23	18.42	2.28
0.250	0.00	6.333	2.28	12.417	18.21	18.50	2.28
0.333	1.39	6.417	2.28	12.500	18.21	18.58	2.28
0.417	1.39	6.500	2.28	12.583	18.21	18.67	2.28
0.500	1.39	6.583	2.28	12.667	18.21	18.75	2.28
0.583	1.39	6.667	2.28	12.750	18.21	18.83	2.28
0.667	1.39	6.750	2.28	12.833	9.36	18.92	2.28
0.750	1.39	6.833	2.28	12.917	9.36	19.00	2.28
0.833	1.39	6.917	2.28	13.000	9.36	19.08	2.28
0.917	1.39	7.000	2.28	13.083	9.36	19.17	2.28
1.000	1.39	7.083	2.28	13.167	9.36	19.25	2.28
1.083	1.39	7.167	2.28	13.250	9.36	19.33	2.28
1.167	1.39	7.250	2.28	13.333	6.83	19.42	2.28
1.250	1.39	7.333	2.78	13.417	6.83	19.50	2.28
1.333	1.39	7.417	2.78	13.500	6.83	19.58	2.28
1.417	1.39	7.500	2.78	13.583	6.83	19.67	2.28
1.500	1.39	7.583	2.78	13.667	6.83	19.75	2.28
1.583	1.39	7.667	2.78	13.750	6.83	19.83	2.28
1.667	1.39	7.750	2.78	13.833	5.31	19.92	2.28
1.750	1.39	7.833	2.78	13.917	5.31	20.00	2.28
1.833	1.39	7.917	2.78	14.000	5.31	20.08	2.28
1.917	1.39	8.000	2.78	14.083	5.31	20.17	2.28
2.000	1.39	8.083	2.78	14.167	5.31	20.25	2.28
2.083	1.39	8.167	2.78	14.250	5.31	20.33	1.52
2.167	1.39	8.250	2.78	14.333	3.80	20.42	1.52
2.250	1.39	8.333	3.29	14.417	3.79	20.50	1.52
2.333	1.64	8.417	3.29	14.500	3.79	20.58	1.52
2.417	1.64	8.500	3.29	14.583	3.79	20.67	1.52
2.500	1.64	8.583	3.29	14.667	3.79	20.75	1.52
2.583	1.64	8.667	3.29	14.750	3.79	20.83	1.52
2.667	1.64	8.750	3.29	14.833	3.79	20.92	1.52
2.750	1.64	8.833	3.54	14.917	3.79	21.00	1.52
2.833	1.64	8.917	3.54	15.000	3.79	21.08	1.52
2.917	1.64	9.000	3.54	15.083	3.79	21.17	1.52
3.000	1.64	9.083	3.54	15.167	3.79	21.25	1.52
3.083	1.64	9.167	3.54	15.250	3.79	21.33	1.52
3.167	1.64	9.250	3.54	15.333	3.79	21.42	1.52
3.250	1.64	9.333	4.05	15.417	3.79	21.50	1.52
3.333	1.64	9.417	4.05	15.500	3.79	21.58	1.52
3.417	1.64	9.500	4.05	15.583	3.79	21.67	1.52
3.500	1.64	9.583	4.05	15.667	3.79	21.75	1.52
3.583	1.64	9.667	4.05	15.750	3.79	21.83	1.52
3.667	1.64	9.750	4.05	15.833	3.79	21.92	1.52
3.750	1.64	9.833	4.55	15.917	3.79	22.00	1.52
3.833	1.64	9.917	4.55	16.000	3.79	22.08	1.52
3.917	1.64	10.000	4.55	16.083	3.79	22.17	1.52
4.000	1.64	10.083	4.55	16.167	3.79	22.25	1.52
4.083	1.64	10.167	4.55	16.250	3.79	22.33	1.52
4.167	1.64	10.250	4.55	16.333	2.28	22.42	1.52
4.250	1.64	10.333	5.82	16.417	2.28	22.50	1.52
4.333	2.02	10.417	5.82	16.500	2.28	22.58	1.52
4.417	2.02	10.500	5.82	16.583	2.28	22.67	1.52
4.500	2.02	10.583	5.82	16.667	2.28	22.75	1.52
4.583	2.02	10.667	5.82	16.750	2.28	22.83	1.52
4.667	2.02	10.750	5.82	16.833	2.28	22.92	1.52
4.750	2.02	10.833	7.84	16.917	2.28	23.00	1.52
4.833	2.02	10.917	7.84	17.000	2.28	23.08	1.52
4.917	2.02	11.000	7.84	17.083	2.28	23.17	1.52
5.000	2.02	11.083	7.84	17.167	2.28	23.25	1.52
5.083	2.02	11.167	7.84	17.250	2.28	23.33	1.52
5.167	2.02	11.250	7.84	17.333	2.28	23.42	1.52
5.250	2.02	11.333	12.14	17.417	2.28	23.50	1.52
5.333	2.02	11.417	12.14	17.500	2.28	23.58	1.52
5.417	2.02	11.500	12.14	17.583	2.28	23.67	1.52
5.500	2.02	11.583	12.14	17.667	2.28	23.75	1.52
5.583	2.02	11.667	12.14	17.750	2.28	23.83	1.52

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	2.02	12.250	154.82	18.33	2.28
0.167	0.00	6.250	2.02	12.333	18.23	18.42	2.28
0.250	0.00	6.333	2.28	12.417	18.21	18.50	2.28
0.333	1.39	6.417	2.28	12.500	18.21	18.58	2.28
0.417	1.39	6.500	2.28	12.583	18.21	18.67	2.28
0.500	1.39	6.583	2.28	12.667	18.21	18.75	2.28
0.583	1.39	6.667	2.28	12.750	18.21	18.83	2.28
0.667	1.39	6.750	2.28	12.833	9.36	18.92	2.28
0.750	1.39	6.833	2.28	12.917	9.36	19.00	2.28
0.833	1.39	6.917	2.28	13.000	9.36	19.08	2.28
0.917	1.39	7.000	2.28	13.083	9.36	19.17	2.28
1.000	1.39	7.083	2.28	13.167	9.36	19.25	2.28
1.083	1.39	7.167	2.28	13.250	9.36	19.33	2.28
1.167	1.39	7.250	2.28	13.333	6.83	19.42	2.28
1.250	1.39	7.333	2.78	13.417	6.83	19.50	2.28
1.333	1.39	7.417	2.78	13.500	6.83	19.58	2.28
1.417	1.39	7.500	2.78	13.583	6.83	19.67	2.28
1.500	1.39	7.583	2.78	13.667	6.83	19.75	2.28
1.583	1.39	7.667	2.78	13.750	6.83	19.83	2.28
1.667	1.39	7.750	2.78	13.833	5.31	19.92	2.28
1.750	1.39	7.833	2.78	13.917	5.31	20.00	2.28
1.833	1.39	7.917	2.78	14.000	5.31	20.08	2.28
1.917	1.39	8.000	2.78	14.083	5.31	20.17	2.28
2.000	1.39	8.083	2.78	14.167	5.31	20.25	2.28
2.083	1.39	8.167	2.78	14.250	5.31	20.33	1.52
2.167	1.39	8.250	2.78	14.333	3.80	20.42	1.52
2.250	1.39	8.333	3.29	14.417	3.79	20.50	1.52
2.333	1.64	8.417	3.29	14.500	3.79	20.58	1.52
2.417	1.64	8.500	3.29	14.583	3.79	20.67	1.52
2.500	1.64	8.583	3.29	14.667	3.79	20.75	1.52
2.583	1.64	8.667	3.29	14.750	3.79	20.83	1.52
2.667	1.64	8.750	3.29	14.833	3.79	20.92	1.52
2.750	1.64	8.833	3.54	14.917	3.79	21.00	1.52
2.833	1.64	8.917	3.54	15.000	3.79	21.08	1.52
2.917	1.64	9.000	3.54	15.083	3.79	21.17	1.52
3.000	1.64	9.083	3.54	15.167	3.79	21.25	1.52
3.083	1.64	9.167	3.54	15.250	3.79	21.33	1.52
3.167	1.64	9.250	3.54	15.333	3.79	21.42	1.52
3.250	1.64	9.333	4.05	15.417	3.79	21.50	1.52
3.333	1.64	9.417	4.05	15.500	3.79	21.58	1.52
3.417	1.64	9.500	4.05	15.583	3.79	21.67	1.52
3.500	1.64	9.583	4.05	15.667	3.79	21.75	1.52
3.583	1.64	9.667	4.05	15.750	3.79	21.83	1.52
3.667	1.64	9.750	4.05	15.833	3.79	21.92	1.52
3.750	1.64	9.833	4.55	15.917	3.79	22.00	1.52
3.833	1.64	9.917	4.55	16.000	3.79	22.08	1.52
3.917	1.64	10.000	4.55	16.083	3.79	22.17	1.52
4.000	1.64	10.083	4.55	16.167	3.79	22.25	1.52
4.083	1.64	10.167	4.55	16.250	3.79	22.33	1.52
4.167	1.64	10.250	4.55	16.333	2.28	22.42	1.52
4.250	1.64	10.333	5.82	16.417	2.28	22.50	1.52
4.333	2.02	10.417	5.82	16.500	2.28	22.58	1.52
4.417	2.02	10.500	5.82	16.583	2.28	22.67	1.52
4.500	2.02	10.583	5.82	16.667	2.28	22.75	1.52
4.583	2.02	10.667	5.82	16.750	2.28	22.83	1.52
4.667	2.02	10.750	5.82	16.833	2.28	22.92	1.52
4.750	2.02	10.833	7.84	16.917	2.28	23.00	1.52
4.833	2.02	10.917	7.84	17.000	2.28	23.08	1.52
4.917	2.02	11.000	7.84	17.083	2.28	23.17	1.52
5.000	2.02	11.083	7.84	17.167	2.28	23.25	1.52
5.083	2.02	11.167	7.84	17.250	2.28	23.33	1.52
5.167	2.02	11.250	7.84	17.333	2.28	23.42	1.52
5.250	2.02	11.333	12.14	17.417	2.28	23.50	1.52
5.333	2.02	11.417	12.14	17.500	2.28	23.58	1.52
5.417	2.02	11.500	12.14	17.583	2.28	23.67	1.52
5.500	2.02	11.583	12.14	17.667	2.28	23.75	1.52
5.583	2.02	11.667	12.14	17.750	2.28	23.83	1.52
5.667	2.02	11.750	12.14	17.833	2.28	23.92	1.52
5.750	2.02	11.833	37.44	17.917	2.28	24.00	1.52
5.833	2.02	11.917	37.44	18.000	2.28	24.08	1.52
5.917	2.02	12.000	37.44	18.083	2.28	24.17	1.52
6.000	2.02	12.083	154.81	18.167	2.28	24.25	1.52
6.083	2.02	12.167	154.82	18.250	2.28		

```
    Unit Hyd Qpeak  (cms)=   0.104

    PEAK FLOW       (cms)=   0.147 (i)
    TIME TO PEAK    (hrs)=  12.417
    RUNOFF VOLUME    (mm)=  93.372
    TOTAL RAINFALL   (mm)= 126.490
```

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
5.667	2.02	11.750	12.14	17.833	2.28	23.92	1.52
5.750	2.02	11.833	37.44	17.917	2.28	24.00	1.52
5.833	2.02	11.917	37.44	18.000	2.28	24.08	1.52
5.917	2.02	12.000	37.44	18.083	2.28	24.17	1.52
6.000	2.02	12.083	154.81	18.167	2.28	24.25	1.52
6.083	2.02	12.167	154.82	18.250	2.28		

```
    Unit Hyd Qpeak  (cms)=   0.112

    PEAK FLOW       (cms)=   0.152 (i)
    TIME TO PEAK    (hrs)=  12.417
    RUNOFF VOLUME    (mm)=  89.258
    TOTAL RAINFALL   (mm)= 126.490
    RUNOFF COEFFICIENT   =   0.706

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

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--------------------
| CALIB              |
| NASHYD   (  0001)  |   Area    (ha)=   0.39   Curve Number   (CN)= 87.0
|ID= 1 DT= 5.0 min   |   Ia      (mm)=   4.10   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.28

        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	0.00	6.167	2.02	12.250	154.82	18.33	2.28
0.167	0.00	6.250	2.02	12.333	18.23	18.42	2.28
0.250	0.00	6.333	2.28	12.417	18.21	18.50	2.28
0.333	1.39	6.417	2.28	12.500	18.21	18.58	2.28
0.417	1.39	6.500	2.28	12.583	18.21	18.67	2.28
0.500	1.39	6.583	2.28	12.667	18.21	18.75	2.28
0.583	1.39	6.667	2.28	12.750	18.21	18.83	2.28
0.667	1.39	6.750	2.28	12.833	9.36	18.92	2.28
0.750	1.39	6.833	2.28	12.917	9.36	19.00	2.28
0.833	1.39	6.917	2.28	13.000	9.36	19.08	2.28
0.917	1.39	7.000	2.28	13.083	9.36	19.17	2.28
1.000	1.39	7.083	2.28	13.167	9.36	19.25	2.28
1.083	1.39	7.167	2.28	13.250	9.36	19.33	2.28
1.167	1.39	7.250	2.28	13.333	6.83	19.42	2.28
1.250	1.39	7.333	2.78	13.417	6.83	19.50	2.28
1.333	1.39	7.417	2.78	13.500	6.83	19.58	2.28
1.417	1.39	7.500	2.78	13.583	6.83	19.67	2.28
1.500	1.39	7.583	2.78	13.667	6.83	19.75	2.28
1.583	1.39	7.667	2.78	13.750	6.83	19.83	2.28
1.667	1.39	7.750	2.78	13.833	5.31	19.92	2.28
1.750	1.39	7.833	2.78	13.917	5.31	20.00	2.28
1.833	1.39	7.917	2.78	14.000	5.31	20.08	2.28
1.917	1.39	8.000	2.78	14.083	5.31	20.17	2.28
2.000	1.39	8.083	2.78	14.167	5.31	20.25	2.28
2.083	1.39	8.167	2.78	14.250	5.31	20.33	1.52
2.167	1.39	8.250	2.78	14.333	3.80	20.42	1.52
2.250	1.39	8.333	3.29	14.417	3.79	20.50	1.52
2.333	1.64	8.417	3.29	14.500	3.79	20.58	1.52
2.417	1.64	8.500	3.29	14.583	3.79	20.67	1.52
2.500	1.64	8.583	3.29	14.667	3.79	20.75	1.52
2.583	1.64	8.667	3.29	14.750	3.79	20.83	1.52
2.667	1.64	8.750	3.29	14.833	3.79	20.92	1.52
2.750	1.64	8.833	3.54	14.917	3.79	21.00	1.52
2.833	1.64	8.917	3.54	15.000	3.79	21.08	1.52
2.917	1.64	9.000	3.54	15.083	3.79	21.17	1.52
3.000	1.64	9.083	3.54	15.167	3.79	21.25	1.52
3.083	1.64	9.167	3.54	15.250	3.79	21.33	1.52
3.167	1.64	9.250	3.54	15.333	3.79	21.42	1.52
3.250	1.64	9.333	4.05	15.417	3.79	21.50	1.52
3.333	1.64	9.417	4.05	15.500	3.79	21.58	1.52
3.417	1.64	9.500	4.05	15.583	3.79	21.67	1.52
3.500	1.64	9.583	4.05	15.667	3.79	21.75	1.52
3.583	1.64	9.667	4.05	15.750	3.79	21.83	1.52
3.667	1.64	9.750	4.05	15.833	3.79	21.92	1.52
3.750	1.64	9.833	4.55	15.917	3.79	22.00	1.52
3.833	1.64	9.917	4.55	16.000	3.79	22.08	1.52
3.917	1.64	10.000	4.55	16.083	3.79	22.17	1.52
4.000	1.64	10.083	4.55	16.167	3.79	22.25	1.52
4.083	1.64	10.167	4.55	16.250	3.79	22.33	1.52
4.167	1.64	10.250	4.55	16.333	2.28	22.42	1.52
4.250	1.64	10.333	5.82	16.417	2.28	22.50	1.52
4.333	2.02	10.417	5.82	16.500	2.28	22.58	1.52
4.417	2.02	10.500	5.82	16.583	2.28	22.67	1.52
4.500	2.02	10.583	5.82	16.667	2.28	22.75	1.52

4.583	2.02	10.667	5.82	16.750	2.28	22.83	1.52
4.667	2.02	10.750	5.82	16.833	2.28	22.92	1.52
4.750	2.02	10.833	7.84	16.917	2.28	23.00	1.52
4.833	2.02	10.917	7.84	17.000	2.28	23.08	1.52
4.917	2.02	11.000	7.84	17.083	2.28	23.17	1.52
5.000	2.02	11.083	7.84	17.167	2.28	23.25	1.52
5.083	2.02	11.167	7.84	17.250	2.28	23.33	1.52
5.167	2.02	11.250	7.84	17.333	2.28	23.42	1.52
5.250	2.02	11.333	12.14	17.417	2.28	23.50	1.52
5.333	2.02	11.417	12.14	17.500	2.28	23.58	1.52
5.417	2.02	11.500	12.14	17.583	2.28	23.67	1.52
5.500	2.02	11.583	12.14	17.667	2.28	23.75	1.52
5.583	2.02	11.667	12.14	17.750	2.28	23.83	1.52
5.667	2.02	11.750	12.14	17.833	2.28	23.92	1.52
5.750	2.02	11.833	37.44	17.917	2.28	24.00	1.52
5.833	2.02	11.917	37.44	18.000	2.28	24.08	1.52
5.917	2.02	12.000	37.44	18.083	2.28	24.17	1.52
6.000	2.02	12.083	154.81	18.167	2.28	24.25	1.52
6.083	2.02	12.167	154.82	18.250	2.28		

Unit Hyd Qpeak (cms)= 0.053

PEAK FLOW (cms)= 0.076 (i)
TIME TO PEAK (hrs)= 12.417
RUNOFF VOLUME (mm)= 93.371
TOTAL RAINFALL (mm)= 126.490
RUNOFF COEFFICIENT = 0.738

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

CALIB					
NASHYD (0002)	Area (ha)=	7.79	Curve Number (CN)=	82.0	
ID= 1 DT= 5.0 min	Ia (mm)=	4.90	# of Linear Res.(N)=	3.00	
	U.H. Tp(hrs)=	0.57			

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	0.00	6.167	2.02	12.250	154.82	18.33	2.28
0.167	0.00	6.250	2.02	12.333	18.23	18.42	2.28
0.250	0.00	6.333	2.28	12.417	18.21	18.50	2.28
0.333	1.39	6.417	2.28	12.500	18.21	18.58	2.28
0.417	1.39	6.500	2.28	12.583	18.21	18.67	2.28
0.500	1.39	6.583	2.28	12.667	18.21	18.75	2.28
0.583	1.39	6.667	2.28	12.750	18.21	18.83	2.28
0.667	1.39	6.750	2.28	12.833	9.36	18.92	2.28
0.750	1.39	6.833	2.28	12.917	9.36	19.00	2.28
0.833	1.39	6.917	2.28	13.000	9.36	19.08	2.28
0.917	1.39	7.000	2.28	13.083	9.36	19.17	2.28
1.000	1.39	7.083	2.28	13.167	9.36	19.25	2.28
1.083	1.39	7.167	2.28	13.250	9.36	19.33	2.28
1.167	1.39	7.250	2.28	13.333	6.83	19.42	2.28
1.250	1.39	7.333	2.78	13.417	6.83	19.50	2.28
1.333	1.39	7.417	2.78	13.500	6.83	19.58	2.28
1.417	1.39	7.500	2.78	13.583	6.83	19.67	2.28
1.500	1.39	7.583	2.78	13.667	6.83	19.75	2.28
1.583	1.39	7.667	2.78	13.750	6.83	19.83	2.28
1.667	1.39	7.750	2.78	13.833	5.31	19.92	2.28
1.750	1.39	7.833	2.78	13.917	5.31	20.00	2.28
1.833	1.39	7.917	2.78	14.000	5.31	20.08	2.28
1.917	1.39	8.000	2.78	14.083	5.31	20.17	2.28
2.000	1.39	8.083	2.78	14.167	5.31	20.25	2.28
2.083	1.39	8.167	2.78	14.250	5.31	20.33	1.52
2.167	1.39	8.250	2.78	14.333	3.80	20.42	1.52
2.250	1.39	8.333	3.29	14.417	3.79	20.50	1.52
2.333	1.64	8.417	3.29	14.500	3.79	20.58	1.52
2.417	1.64	8.500	3.29	14.583	3.79	20.67	1.52
2.500	1.64	8.583	3.29	14.667	3.79	20.75	1.52
2.583	1.64	8.667	3.29	14.750	3.79	20.83	1.52
2.667	1.64	8.750	3.29	14.833	3.79	20.92	1.52
2.750	1.64	8.833	3.54	14.917	3.79	21.00	1.52
2.833	1.64	8.917	3.54	15.000	3.79	21.08	1.52
2.917	1.64	9.000	3.54	15.083	3.79	21.17	1.52
3.000	1.64	9.083	3.54	15.167	3.79	21.25	1.52
3.083	1.64	9.167	3.54	15.250	3.79	21.33	1.52
3.167	1.64	9.250	3.54	15.333	3.79	21.42	1.52
3.250	1.64	9.333	4.05	15.417	3.79	21.50	1.52
3.333	1.64	9.417	4.05	15.500	3.79	21.58	1.52
3.417	1.64	9.500	4.05	15.583	3.79	21.67	1.52
3.500	1.64	9.583	4.05	15.667	3.79	21.75	1.52
3.583	1.64	9.667	4.05	15.750	3.79	21.83	1.52
3.667	1.64	9.750	4.05	15.833	3.79	21.92	1.52
3.750	1.64	9.833	4.55	15.917	3.79	22.00	1.52
3.833	1.64	9.917	4.55	16.000	3.79	22.08	1.52
3.917	1.64	10.000	4.55	16.083	3.79	22.17	1.52
4.000	1.64	10.083	4.55	16.167	3.79	22.25	1.52
4.083	1.64	10.167	4.55	16.250	3.79	22.33	1.52
4.167	1.64	10.250	4.55	16.333	2.28	22.42	1.52
4.250	1.64	10.333	5.82	16.417	2.28	22.50	1.52
4.333	2.02	10.417	5.82	16.500	2.28	22.58	1.52
4.417	2.02	10.500	5.82	16.583	2.28	22.67	1.52
4.500	2.02	10.583	5.82	16.667	2.28	22.75	1.52
4.583	2.02	10.667	5.82	16.750	2.28	22.83	1.52
4.667	2.02	10.750	7.84	16.833	2.28	22.92	1.52
4.750	2.02	10.833	7.84	16.917	2.28	23.00	1.52
4.833	2.02	10.917	7.84	17.000	2.28	23.08	1.52
4.917	2.02	11.000	7.84	17.083	2.28	23.17	1.52
5.000	2.02	11.083	7.84	17.167	2.28	23.25	1.52
5.083	2.02	11.167	7.84	17.250	2.28	23.33	1.52
5.167	2.02	11.250	7.84	17.333	2.28	23.42	1.52
5.250	2.02	11.333	12.14	17.417	2.28	23.50	1.52
5.333	2.02	11.417	12.14	17.500	2.28	23.58	1.52
5.417	2.02	11.500	12.14	17.583	2.28	23.67	1.52
5.500	2.02	11.583	12.14	17.667	2.28	23.75	1.52
5.583	2.02	11.667	12.14	17.750	2.28	23.83	1.52
5.667	2.02	11.750	12.14	17.833	2.28	23.92	1.52
5.750	2.02	11.833	37.44	17.917	2.28	24.00	1.52
5.833	2.02	11.917	37.44	18.000	2.28	24.08	1.52
5.917	2.02	12.000	37.44	18.083	2.28	24.17	1.52
6.000	2.02	12.083	154.81	18.167	2.28	24.25	1.52
6.083	2.02	12.167	154.82	18.250	2.28		

Unit Hyd Qpeak (cms)= 0.522

PEAK FLOW (cms)= 0.813 (i)
TIME TO PEAK (hrs)= 12.667
RUNOFF VOLUME (mm)= 83.361
TOTAL RAINFALL (mm)= 126.490
RUNOFF COEFFICIENT = 0.659

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

ADD HYD (0006)		AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3		(ha)	(cms)	(hrs)	(mm)
	ID1= 1 (0001):	0.39	0.076	12.42	93.37
	+ ID2= 2 (0002):	7.79	0.813	12.67	83.36
	ID = 3 (0006):	8.18	0.862	12.67	83.84

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0007)		AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3		(ha)	(cms)	(hrs)	(mm)
	ID1= 1 (0003):	0.82	0.152	12.42	89.26
	+ ID2= 2 (0006):	8.18	0.862	12.67	83.84
	ID = 3 (0007):	9.00	0.969	12.58	84.33

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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================================================================================================================

       V    V   I    SSSSS  U   U    A    L              (v 6.2.2020)
       V    V   I    SS     U   U   A A   L
        V  V    I     SS    U   U  AAAAA  L
         VV     I    SSSSS  UUUUU  A   A  LLLLL

        OOO   TTTTT  TTTTT  H   H  Y   Y  M   M   OOO    TM
       O   O    T      T    H   H   Y Y   MM MM  O   O
       O   O    T      T    H   H    Y    M M M  O   O
        OOO     T      T    H   H    Y    M   M   OOO
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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\atrenholm\AppData\Local\Civica\VH5\8ef94b88-6605-479e-b003-b70f6886dc93\a7bdd5be-
  Summary filename: C:\Users\atrenholm\AppData\Local\Civica\VH5\8ef94b88-6605-479e-b003-b70f6886dc93\a7bdd5be-

DATE: 05/24/2026                          TIME: 05:00:46

USER:


COMMENTS: _____________________________________________________

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  ************************************************
  ** SIMULATION : 100yr 4hr 10min Chicago       **
  ************************************************

--------------------
| CHICAGO STORM    |    IDF curve parameters: A=2317.400
| Ptotal= 91.37 mm |                          B=  11.000
--------------------                          C=   0.836
                         used in:   INTENSITY =  A / (t + B)^C

                         Duration of storm   =  4.00 hrs
                         Storm time step     = 10.00 min
                         Time to peak ratio  =  0.33

                  TIME     RAIN |  TIME     RAIN |'  TIME     RAIN |  TIME     RAIN
                   hrs    mm/hr |   hrs    mm/hr |'   hrs    mm/hr |   hrs    mm/hr
                  0.00     5.36 |  1.00    54.83 |'  2.00    14.69 |  3.00    6.56
                  0.17     6.28 |  1.17   181.81 |'  2.17    12.15 |  3.17    6.01
                  0.33     7.60 |  1.33    71.90 |'  2.33    10.36 |  3.33    5.56
                  0.50     9.69 |  1.50    37.82 |'  2.50     9.04 |  3.50    5.17
                  0.67    13.40 |  1.67    25.04 |'  2.67     8.02 |  3.67    4.83
                  0.83    21.77 |  1.83    18.55 |'  2.83     7.21 |  3.83    4.54

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--------------------
| CALIB            |
| NASHYD   (  0004)|   Area    (ha)=   0.76   Curve Number   (CN)= 87.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.10   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.28

        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     5.36 | 1.083    54.83 | 2.083    14.69 |  3.08    6.56
                 0.167     5.36 | 1.167    54.83 | 2.167    14.69 |  3.17    6.56
                 0.250     6.28 | 1.250   181.81 | 2.250    12.15 |  3.25    6.01
                 0.333     6.28 | 1.333   181.81 | 2.333    12.15 |  3.33    6.01
                 0.417     7.60 | 1.417    71.90 | 2.417    10.36 |  3.42    5.56
                 0.500     7.60 | 1.500    71.90 | 2.500    10.36 |  3.50    5.56
                 0.583     9.69 | 1.583    37.82 | 2.583     9.04 |  3.58    5.17
                 0.667     9.69 | 1.667    37.82 | 2.667     9.04 |  3.67    5.17
                 0.750    13.40 | 1.750    25.04 | 2.750     8.02 |  3.75    4.83
                 0.833    13.40 | 1.833    25.04 | 2.833     8.02 |  3.83    4.83
                 0.917    21.77 | 1.917    18.55 | 2.917     7.21 |  3.92    4.54
                 1.000    21.77 | 2.000    18.55 | 3.000     7.21 |  4.00    4.54



--------------------
| CALIB            |
| NASHYD   (  0002)|   Area    (ha)=   7.79   Curve Number   (CN)= 82.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.90   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.57

        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     5.36 | 1.083    54.83 | 2.083    14.69 |  3.08    6.56
                 0.167     5.36 | 1.167    54.83 | 2.167    14.69 |  3.17    6.56
                 0.250     6.28 | 1.250   181.81 | 2.250    12.15 |  3.25    6.01
                 0.333     6.28 | 1.333   181.81 | 2.333    12.15 |  3.33    6.01
                 0.417     7.60 | 1.417    71.90 | 2.417    10.36 |  3.42    5.56
                 0.500     7.60 | 1.500    71.90 | 2.500    10.36 |  3.50    5.56
                 0.583     9.69 | 1.583    37.82 | 2.583     9.04 |  3.58    5.17
                 0.667     9.69 | 1.667    37.82 | 2.667     9.04 |  3.67    5.17
                 0.750    13.40 | 1.750    25.04 | 2.750     8.02 |  3.75    4.83
                 0.833    13.40 | 1.833    25.04 | 2.833     8.02 |  3.83    4.83
                 0.917    21.77 | 1.917    18.55 | 2.917     7.21 |  3.92    4.54
                 1.000    21.77 | 2.000    18.55 | 3.000     7.21 |  4.00    4.54

    Unit Hyd Qpeak  (cms)=   0.522

    PEAK FLOW       (cms)=   0.688 (i)
    TIME TO PEAK    (hrs)=   2.000
    RUNOFF VOLUME    (mm)=  52.567
    TOTAL RAINFALL   (mm)=  91.366
    RUNOFF COEFFICIENT   =   0.575

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

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--------------------
| ADD HYD  (  0006)|
|  1 +  2 =  3     |        AREA    QPEAK    TPEAK     R.V.
--------------------         (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0001):     0.39   0.065     1.58    60.78
     + ID2= 2 (  0002):     7.79   0.688     2.00    52.57
       ========================================================
       ID = 3 (  0006):     8.18   0.727     1.92    52.96

    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 (  0003):     0.82   0.127     1.58    57.36
     + ID2= 2 (  0006):     8.18   0.727     1.92    52.96
       ========================================================
       ID = 3 (  0007):     9.00   0.815     1.92    53.36

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

    Unit Hyd Qpeak  (cms)=   0.104

    PEAK FLOW       (cms)=   0.126 (i)
    TIME TO PEAK    (hrs)=   1.583
    RUNOFF VOLUME    (mm)=  60.784
    TOTAL RAINFALL   (mm)=  91.366
    RUNOFF COEFFICIENT   =   0.665

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

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--------------------
| CALIB            |
| NASHYD   (  0003)|   Area    (ha)=   0.82   Curve Number   (CN)= 85.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.40   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.28

        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     5.36 | 1.083    54.83 | 2.083    14.69 |  3.08    6.56
                 0.167     5.36 | 1.167    54.83 | 2.167    14.69 |  3.17    6.56
                 0.250     6.28 | 1.250   181.81 | 2.250    12.15 |  3.25    6.01
                 0.333     6.28 | 1.333   181.81 | 2.333    12.15 |  3.33    6.01
                 0.417     7.60 | 1.417    71.90 | 2.417    10.36 |  3.42    5.56
                 0.500     7.60 | 1.500    71.90 | 2.500    10.36 |  3.50    5.56
                 0.583     9.69 | 1.583    37.82 | 2.583     9.04 |  3.58    5.17
                 0.667     9.69 | 1.667    37.82 | 2.667     9.04 |  3.67    5.17
                 0.750    13.40 | 1.750    25.04 | 2.750     8.02 |  3.75    4.83
                 0.833    13.40 | 1.833    25.04 | 2.833     8.02 |  3.83    4.83
                 0.917    21.77 | 1.917    18.55 | 2.917     7.21 |  3.92    4.54
                 1.000    21.77 | 2.000    18.55 | 3.000     7.21 |  4.00    4.54

    Unit Hyd Qpeak  (cms)=   0.112

    PEAK FLOW       (cms)=   0.127 (i)
    TIME TO PEAK    (hrs)=   1.583
    RUNOFF VOLUME    (mm)=  57.358
    TOTAL RAINFALL   (mm)=  91.366
    RUNOFF COEFFICIENT   =   0.628

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

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--------------------
| CALIB            |
| NASHYD   (  0001)|   Area    (ha)=   0.39   Curve Number   (CN)= 87.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.10   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.28

        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     5.36 | 1.083    54.83 | 2.083    14.69 |  3.08    6.56
                 0.167     5.36 | 1.167    54.83 | 2.167    14.69 |  3.17    6.56
                 0.250     6.28 | 1.250   181.81 | 2.250    12.15 |  3.25    6.01
                 0.333     6.28 | 1.333   181.81 | 2.333    12.15 |  3.33    6.01
                 0.417     7.60 | 1.417    71.90 | 2.417    10.36 |  3.42    5.56
                 0.500     7.60 | 1.500    71.90 | 2.500    10.36 |  3.50    5.56
                 0.583     9.69 | 1.583    37.82 | 2.583     9.04 |  3.58    5.17
                 0.667     9.69 | 1.667    37.82 | 2.667     9.04 |  3.67    5.17
                 0.750    13.40 | 1.750    25.04 | 2.750     8.02 |  3.75    4.83
                 0.833    13.40 | 1.833    25.04 | 2.833     8.02 |  3.83    4.83
                 0.917    21.77 | 1.917    18.55 | 2.917     7.21 |  3.92    4.54
                 1.000    21.77 | 2.000    18.55 | 3.000     7.21 |  4.00    4.54

    Unit Hyd Qpeak  (cms)=   0.053

    PEAK FLOW       (cms)=   0.065 (i)
    TIME TO PEAK    (hrs)=   1.583
    RUNOFF VOLUME    (mm)=  60.783
    TOTAL RAINFALL   (mm)=  91.366
    RUNOFF COEFFICIENT   =   0.665

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

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==========================================================================================================

       V    V   I    SSSSS  U   U    A    L              (v 6.2.2020)
       V    V   I    SS     U   U   A A   L
        V  V    I     SS    U   U  AAAAA  L
        V  V    I      SS   U   U  A   A  L
         VV     I    SSSSS  UUUUU  A   A  LLLLL

        OOO   TTTTT  TTTTT  H   H  Y   Y  M   M   OOO    TM
       O   O    T      T    H   H   Y Y   MM MM  O   O
       O   O    T      T    H   H    Y    M   M  O   O
        OOO     T      T    H   H    Y    M   M   OOO
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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\atrenholm\AppData\Local\Civica\VH5\8ef94b88-6605-479e-b003-b70f6886dc93\fbf8985e-
  Summary filename: C:\Users\atrenholm\AppData\Local\Civica\VH5\8ef94b88-6605-479e-b003-b70f6886dc93\fbf8985e-

DATE: 05/24/2026                          TIME: 04:50:15

USER:


COMMENTS: _____________________________________________________________

----------------------------------------------------------------------------------------------------------
  ************************************************
  ** SIMULATION : Hazel                         **
  ************************************************


--------------------
|    READ STORM    |    Filename: C:\Users\atrenholm\AppD
|                  |              ata\Local\Temp\
|                  |              ba32c5c2-9c5b-438b-aa51-1217ef1d2e25\28a79898
| Ptotal=212.00 mm |    Comments: Hazel
--------------------
                TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
                 hrs   mm/hr |   hrs   mm/hr |'    hrs   mm/hr |   hrs   mm/hr
                0.00    6.00 |  3.00   13.00 |  6.00   23.00 |  9.00   53.00
                1.00    4.00 |  4.00   17.00 |  7.00   13.00 | 10.00   38.00
                2.00    6.00 |  5.00   13.00 |  8.00   13.00 | 11.00   13.00

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--------------------
| CALIB            |
| NASHYD   (  0004)|   Area    (ha)=   0.76   Curve Number   (CN)= 94.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.10   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.28

         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    6.00 | 3.083   13.00 | 6.083   23.00 |  9.08   53.00
               0.167    6.00 | 3.167   13.00 | 6.167   23.00 |  9.17   53.00
               0.250    6.00 | 3.250   13.00 | 6.250   23.00 |  9.25   53.00
               0.333    6.00 | 3.333   13.00 | 6.333   23.00 |  9.33   53.00
               0.417    6.00 | 3.417   13.00 | 6.417   23.00 |  9.42   53.00
               0.500    6.00 | 3.500   13.00 | 6.500   23.00 |  9.50   53.00
               0.583    6.00 | 3.583   13.00 | 6.583   23.00 |  9.58   53.00
               0.667    6.00 | 3.667   13.00 | 6.667   23.00 |  9.67   53.00
               0.750    6.00 | 3.750   13.00 | 6.750   23.00 |  9.75   53.00
               0.833    6.00 | 3.833   13.00 | 6.833   23.00 |  9.83   53.00
               0.917    6.00 | 3.917   13.00 | 6.917   23.00 |  9.92   53.00
               1.000    6.00 | 4.000   13.00 | 7.000   23.00 | 10.00   53.00
               1.083    4.00 | 4.083   17.00 | 7.083   13.00 | 10.08   38.00
               1.167    4.00 | 4.167   17.00 | 7.167   13.00 | 10.17   38.00
               1.250    4.00 | 4.250   17.00 | 7.250   13.00 | 10.25   38.00
               1.333    4.00 | 4.333   17.00 | 7.333   13.00 | 10.33   38.00
               1.417    4.00 | 4.417   17.00 | 7.417   13.00 | 10.42   38.00
               1.500    4.00 | 4.500   17.00 | 7.500   13.00 | 10.50   38.00
```

1.583	4.00	4.583	17.00	7.583	13.00	10.58	38.00
1.667	4.00	4.667	17.00	7.667	13.00	10.67	38.00
1.750	4.00	4.750	17.00	7.750	13.00	10.75	38.00
1.833	4.00	4.833	17.00	7.833	13.00	10.83	38.00
1.917	4.00	4.917	17.00	7.917	13.00	10.92	38.00
2.000	4.00	5.000	17.00	8.000	13.00	11.00	38.00
2.083	6.00	5.083	13.00	8.083	13.00	11.08	13.00
2.167	6.00	5.167	13.00	8.167	13.00	11.17	13.00
2.250	6.00	5.250	13.00	8.250	13.00	11.25	13.00
2.333	6.00	5.333	13.00	8.333	13.00	11.33	13.00
2.417	6.00	5.417	13.00	8.417	13.00	11.42	13.00
2.500	6.00	5.500	13.00	8.500	13.00	11.50	13.00
2.583	6.00	5.583	13.00	8.583	13.00	11.58	13.00
2.667	6.00	5.667	13.00	8.667	13.00	11.67	13.00
2.750	6.00	5.750	13.00	8.750	13.00	11.75	13.00
2.833	6.00	5.833	13.00	8.833	13.00	11.83	13.00
2.917	6.00	5.917	13.00	8.917	13.00	11.92	13.00
3.000	6.00	6.000	13.00	9.000	13.00	12.00	13.00

Unit Hyd Qpeak (cms)= 0.104

PEAK FLOW (cms)= 0.109 (i)
TIME TO PEAK (hrs)= 10.000
RUNOFF VOLUME (mm)= 192.761
TOTAL RAINFALL (mm)= 212.000
RUNOFF COEFFICIENT = 0.909

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

CALIB					
NASHYD (0003)	Area (ha)=	0.82	Curve Number (CN)=	93.0	
ID= 1 DT= 5.0 min	Ia (mm)=	4.40	# of Linear Res.(N)=	3.00	
	U.H. Tp(hrs)=	0.28			

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	6.00	3.083	13.00	6.083	23.00	9.08	53.00
0.167	6.00	3.167	13.00	6.167	23.00	9.17	53.00
0.250	6.00	3.250	13.00	6.250	23.00	9.25	53.00
0.333	6.00	3.333	13.00	6.333	23.00	9.33	53.00
0.417	6.00	3.417	13.00	6.417	23.00	9.42	53.00
0.500	6.00	3.500	13.00	6.500	23.00	9.50	53.00
0.583	6.00	3.583	13.00	6.583	23.00	9.58	53.00
0.667	6.00	3.667	13.00	6.667	23.00	9.67	53.00
0.750	6.00	3.750	13.00	6.750	23.00	9.75	53.00
0.833	6.00	3.833	13.00	6.833	23.00	9.83	53.00
0.917	6.00	3.917	13.00	6.917	23.00	9.92	53.00
1.000	6.00	4.000	13.00	7.000	23.00	10.00	53.00
1.083	4.00	4.083	17.00	7.083	13.00	10.08	38.00
1.167	4.00	4.167	17.00	7.167	13.00	10.17	38.00
1.250	4.00	4.250	17.00	7.250	13.00	10.25	38.00
1.333	4.00	4.333	17.00	7.333	13.00	10.33	38.00
1.417	4.00	4.417	17.00	7.417	13.00	10.42	38.00
1.500	4.00	4.500	17.00	7.500	13.00	10.50	38.00
1.583	4.00	4.583	17.00	7.583	13.00	10.58	38.00
1.667	4.00	4.667	17.00	7.667	13.00	10.67	38.00
1.750	4.00	4.750	17.00	7.750	13.00	10.75	38.00
1.833	4.00	4.833	17.00	7.833	13.00	10.83	38.00
1.917	4.00	4.917	17.00	7.917	13.00	10.92	38.00
2.000	4.00	5.000	17.00	8.000	13.00	11.00	38.00
2.083	6.00	5.083	13.00	8.083	13.00	11.08	13.00
2.167	6.00	5.167	13.00	8.167	13.00	11.17	13.00
2.250	6.00	5.250	13.00	8.250	13.00	11.25	13.00
2.333	6.00	5.333	13.00	8.333	13.00	11.33	13.00
2.417	6.00	5.417	13.00	8.417	13.00	11.42	13.00
2.500	6.00	5.500	13.00	8.500	13.00	11.50	13.00
2.583	6.00	5.583	13.00	8.583	13.00	11.58	13.00
2.667	6.00	5.667	13.00	8.667	13.00	11.67	13.00
2.750	6.00	5.750	13.00	8.750	13.00	11.75	13.00
2.833	6.00	5.833	13.00	8.833	13.00	11.83	13.00
2.917	6.00	5.917	13.00	8.917	13.00	11.92	13.00
3.000	6.00	6.000	13.00	9.000	13.00	12.00	13.00

Unit Hyd Qpeak (cms)= 0.112

PEAK FLOW (cms)= 0.117 (i)
TIME TO PEAK (hrs)= 10.000
RUNOFF VOLUME (mm)= 189.997

TOTAL RAINFALL (mm)= 212.000
RUNOFF COEFFICIENT = 0.896

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

CALIB NASHYD (0001)	Area (ha)= 0.39	Curve Number (CN)= 94.0
ID= 1 DT= 5.0 min	Ia (mm)= 4.10	# of Linear Res.(N)= 3.00
	U.H. Tp(hrs)= 0.28	

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	6.00	3.083	13.00	6.083	23.00	9.08	53.00
0.167	6.00	3.167	13.00	6.167	23.00	9.17	53.00
0.250	6.00	3.250	13.00	6.250	23.00	9.25	53.00
0.333	6.00	3.333	13.00	6.333	23.00	9.33	53.00
0.417	6.00	3.417	13.00	6.417	23.00	9.42	53.00
0.500	6.00	3.500	13.00	6.500	23.00	9.50	53.00
0.583	6.00	3.583	13.00	6.583	23.00	9.58	53.00
0.667	6.00	3.667	13.00	6.667	23.00	9.67	53.00
0.750	6.00	3.750	13.00	6.750	23.00	9.75	53.00
0.833	6.00	3.833	13.00	6.833	23.00	9.83	53.00
0.917	6.00	3.917	13.00	6.917	23.00	9.92	53.00
1.000	6.00	4.000	13.00	7.000	23.00	10.00	53.00
1.083	4.00	4.083	17.00	7.083	13.00	10.08	38.00
1.167	4.00	4.167	17.00	7.167	13.00	10.17	38.00
1.250	4.00	4.250	17.00	7.250	13.00	10.25	38.00
1.333	4.00	4.333	17.00	7.333	13.00	10.33	38.00
1.417	4.00	4.417	17.00	7.417	13.00	10.42	38.00
1.500	4.00	4.500	17.00	7.500	13.00	10.50	38.00
1.583	4.00	4.583	17.00	7.583	13.00	10.58	38.00
1.667	4.00	4.667	17.00	7.667	13.00	10.67	38.00
1.750	4.00	4.750	17.00	7.750	13.00	10.75	38.00
1.833	4.00	4.833	17.00	7.833	13.00	10.83	38.00
1.917	4.00	4.917	17.00	7.917	13.00	10.92	38.00
2.000	4.00	5.000	17.00	8.000	13.00	11.00	38.00
2.083	6.00	5.083	13.00	8.083	13.00	11.08	13.00
2.167	6.00	5.167	13.00	8.167	13.00	11.17	13.00
2.250	6.00	5.250	13.00	8.250	13.00	11.25	13.00
2.333	6.00	5.333	13.00	8.333	13.00	11.33	13.00
2.417	6.00	5.417	13.00	8.417	13.00	11.42	13.00
2.500	6.00	5.500	13.00	8.500	13.00	11.50	13.00
2.583	6.00	5.583	13.00	8.583	13.00	11.58	13.00
2.667	6.00	5.667	13.00	8.667	13.00	11.67	13.00
2.750	6.00	5.750	13.00	8.750	13.00	11.75	13.00
2.833	6.00	5.833	13.00	8.833	13.00	11.83	13.00
2.917	6.00	5.917	13.00	8.917	13.00	11.92	13.00
3.000	6.00	6.000	13.00	9.000	13.00	12.00	13.00

Unit Hyd Qpeak (cms)= 0.053

PEAK FLOW (cms)= 0.056 (i)
TIME TO PEAK (hrs)= 10.000
RUNOFF VOLUME (mm)= 192.761
TOTAL RAINFALL (mm)= 212.000
RUNOFF COEFFICIENT = 0.909

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

CALIB NASHYD (0002)	Area (ha)= 7.79	Curve Number (CN)= 91.0
ID= 1 DT= 5.0 min	Ia (mm)= 4.90	# of Linear Res.(N)= 3.00
	U.H. Tp(hrs)= 0.57	

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	6.00	3.083	13.00	6.083	23.00	9.08	53.00
0.167	6.00	3.167	13.00	6.167	23.00	9.17	53.00
0.250	6.00	3.250	13.00	6.250	23.00	9.25	53.00
0.333	6.00	3.333	13.00	6.333	23.00	9.33	53.00
0.417	6.00	3.417	13.00	6.417	23.00	9.42	53.00
0.500	6.00	3.500	13.00	6.500	23.00	9.50	53.00

0.583	6.00	3.583	13.00	6.583	23.00	9.58	53.00
0.667	6.00	3.667	13.00	6.667	23.00	9.67	53.00
0.750	6.00	3.750	13.00	6.750	23.00	9.75	53.00
0.833	6.00	3.833	13.00	6.833	23.00	9.83	53.00
0.917	6.00	3.917	13.00	6.917	23.00	9.92	53.00
1.000	6.00	4.000	13.00	7.000	23.00	10.00	53.00
1.083	4.00	4.083	17.00	7.083	13.00	10.08	38.00
1.167	4.00	4.167	17.00	7.167	13.00	10.17	38.00
1.250	4.00	4.250	17.00	7.250	13.00	10.25	38.00
1.333	4.00	4.333	17.00	7.333	13.00	10.33	38.00
1.417	4.00	4.417	17.00	7.417	13.00	10.42	38.00
1.500	4.00	4.500	17.00	7.500	13.00	10.50	38.00
1.583	4.00	4.583	17.00	7.583	13.00	10.58	38.00
1.667	4.00	4.667	17.00	7.667	13.00	10.67	38.00
1.750	4.00	4.750	17.00	7.750	13.00	10.75	38.00
1.833	4.00	4.833	17.00	7.833	13.00	10.83	38.00
1.917	4.00	4.917	17.00	7.917	13.00	10.92	38.00
2.000	4.00	5.000	17.00	8.000	13.00	11.00	38.00
2.083	6.00	5.083	13.00	8.083	13.00	11.08	13.00
2.167	6.00	5.167	13.00	8.167	13.00	11.17	13.00
2.250	6.00	5.250	13.00	8.250	13.00	11.25	13.00
2.333	6.00	5.333	13.00	8.333	13.00	11.33	13.00
2.417	6.00	5.417	13.00	8.417	13.00	11.42	13.00
2.500	6.00	5.500	13.00	8.500	13.00	11.50	13.00
2.583	6.00	5.583	13.00	8.583	13.00	11.58	13.00
2.667	6.00	5.667	13.00	8.667	13.00	11.67	13.00
2.750	6.00	5.750	13.00	8.750	13.00	11.75	13.00
2.833	6.00	5.833	13.00	8.833	13.00	11.83	13.00
2.917	6.00	5.917	13.00	8.917	13.00	11.92	13.00
3.000	6.00	6.000	13.00	9.000	13.00	12.00	13.00

Unit Hyd Qpeak (cms)= 0.522

PEAK FLOW (cms)= 0.953 (i)
TIME TO PEAK (hrs)= 10.333
RUNOFF VOLUME (mm)= 184.691
TOTAL RAINFALL (mm)= 212.000
RUNOFF COEFFICIENT = 0.871

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

ADD HYD (0006) | 1 + 2 = 3		AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
	ID1= 1 (0001):	0.39	0.056	10.00	192.76
	+ ID2= 2 (0002):	7.79	0.953	10.33	184.69
	ID = 3 (0006):	8.18	1.002	10.33	185.08

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 (0003):	0.82	0.117	10.00	190.00
	+ ID2= 2 (0006):	8.18	1.002	10.33	185.08
	ID = 3 (0007):	9.00	1.105	10.25	185.52

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

FINISH

==========

HY-8 Culvert Analysis Report

Crossing Input: Existing - Culvert #4

Parameter	Value	Units
DISCHARGE DATA		
Discharge Method	User-Defined	
Discharge List	Define...	
TAILWATER DATA		
Channel Type	Triangular Channel	
Side Slope (H:V)	7.000	_:1
Channel Slope	0.0235	m/m
Manning's n (channel)	0.030	
Channel Invert Elevation	218.970	m
Rating Curve	View...	
ROADWAY DATA		
Roadway Profile Shape	Irregular	
Irregular Shape	Define...	
Roadway Surface	Paved	
Top Width	7.350	m

Culvert Input: Existing - Culvert #4

Parameter	Value	Units
CULVERT DATA		
Name	Culvert 1	
Shape	Pipe Arch	
Material	Steel or Aluminum	
Size	Define...	
Span	551.180	mm
Rise	337.820	mm
Embedment Depth	180.000	mm
Manning's n (Top/Sides)	0.024	
Manning's n (Bottom)	0.024	
Culvert Type	Straight	
Inlet Configuration	Thin Edge Projecting (Ke=0.9)	
Inlet Depression?	No	
SITE DATA		
Site Data Input Option	Culvert Invert Data	
Inlet Station	0.000	m
Inlet Elevation	218.865	m
Outlet Station	11.100	m
Outlet Elevation	218.789	m
Number of Barrels	1	
Computed Culvert Slope	0.006847	m/m

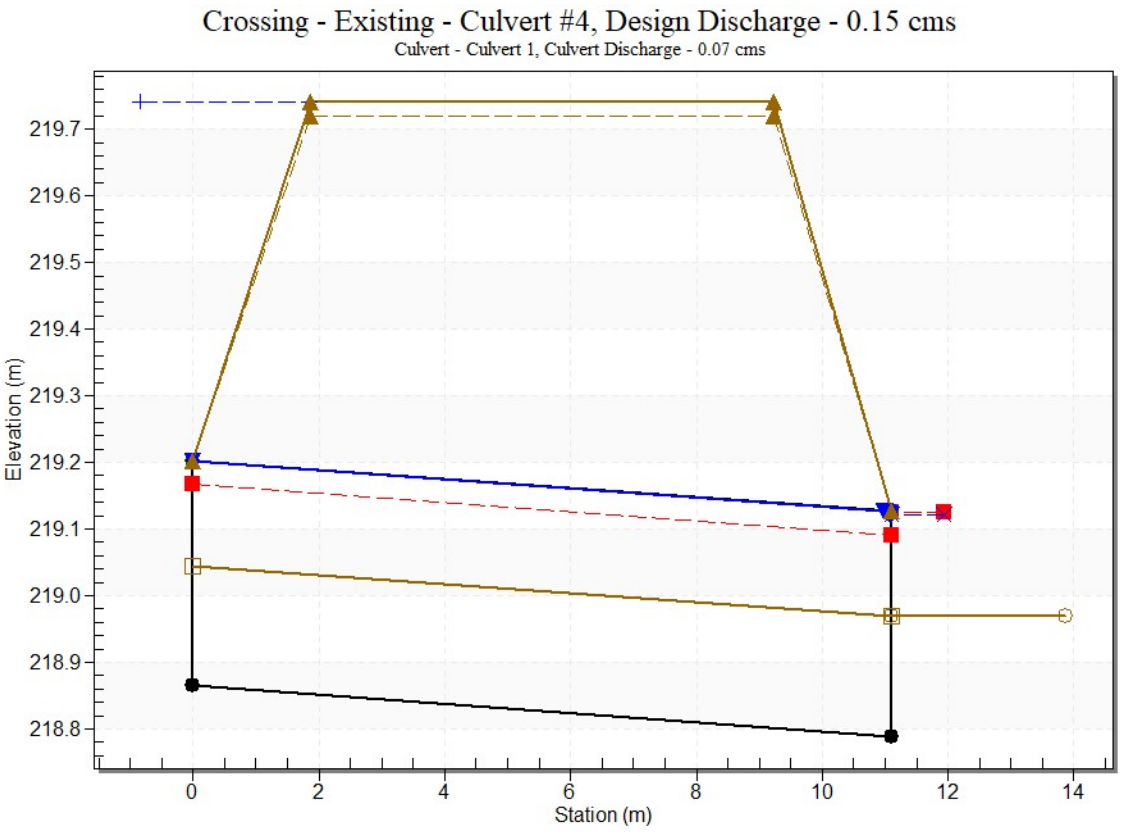
Table 1 - Crossing Summary Table

Headwater Elevation (m)	Discharge Names	Total Discharge (cms)	Culvert 1 Discharge (cms)	Roadway Discharge (cms)	Iterations
219.32	2yr	0.04	0.04	0.00	1
219.72	5yr	0.07	0.07	0.00	106
219.73	10yr	0.09	0.07	0.02	8
219.74	Regional	0.11	0.07	0.04	4
219.74	25yr	0.11	0.07	0.04	3
219.74	50yr	0.13	0.07	0.06	4
219.74	100yr	0.15	0.07	0.08	3
219.72	Overtopping	0.07	0.07	0.00	Overtopping

Table 2 - Culvert Summary Table: Culvert 1

Discharge Names	Total Discharge (cms)	Culvert Discharge (cms)	Headwater Elevation (m)	Inlet Control Depth (m)	Outlet Control Depth (m)	HW / D (m)	Flow Type	Normal Depth (m)	Critical Depth (m)	Outlet Depth (m)	Tailwater Depth (m)	Outlet Velocity (m/s)	Tailwater Velocity (m/s)
2yr	0.04	0.04	219.32	0.19	0.273	0.53	7-M2t	0.16	0.09	0.10	0.10	0.97	0.67
5yr	0.07	0.07	219.72	0.33	0.677	1.31	7-M2c	0.16	0.12	0.12	0.12	1.34	0.76
10yr	0.09	0.07	219.73	0.33	0.687	1.33	7-M2t	0.16	0.12	0.13	0.13	1.31	0.80
Regional	0.11	0.07	219.74	0.33	0.690	1.33	7-M2t	0.16	0.12	0.14	0.14	1.26	0.84
25yr	0.11	0.07	219.74	0.33	0.691	1.33	7-M2t	0.16	0.12	0.14	0.14	1.25	0.85
50yr	0.13	0.07	219.74	0.33	0.693	1.34	7-M2t	0.16	0.12	0.15	0.15	1.22	0.88
100yr	0.15	0.07	219.74	0.33	0.695	1.34	7-M2t	0.16	0.12	0.15	0.15	1.20	0.91
Overtopping	0.15	0.07	219.74	0.33	0.695	1.34	7-M2t	0.16	0.12	0.15	0.15	1.20	0.91

Water Surface Profile Plot for Culvert: Culvert 1

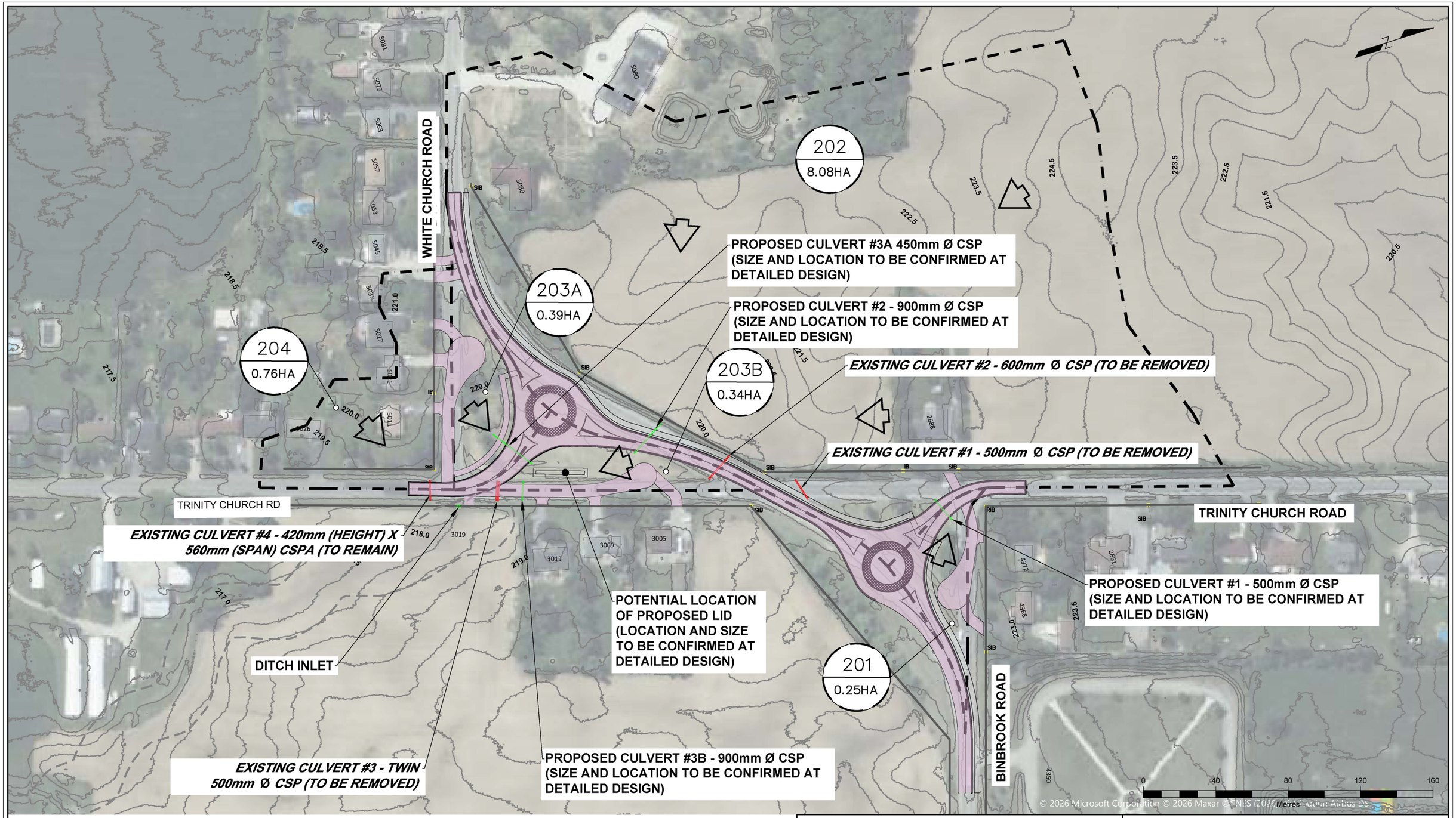


BURNSIDE

[THE DIFFERENCE IS OUR PEOPLE]

Appendix B

Proposed Conditions



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LEGEND

200 / 0.50HA — CATCHMENT ID / AREA (ha)

FLOW DIRECTION

CATCHMENT BOUNDARY

EXISTING CROSSING CULVERT

PROPOSED CROSSING CULVERT

NPCA REGULATION LIMITS

BURNSIDE

Client: CITY OF HAMILTON

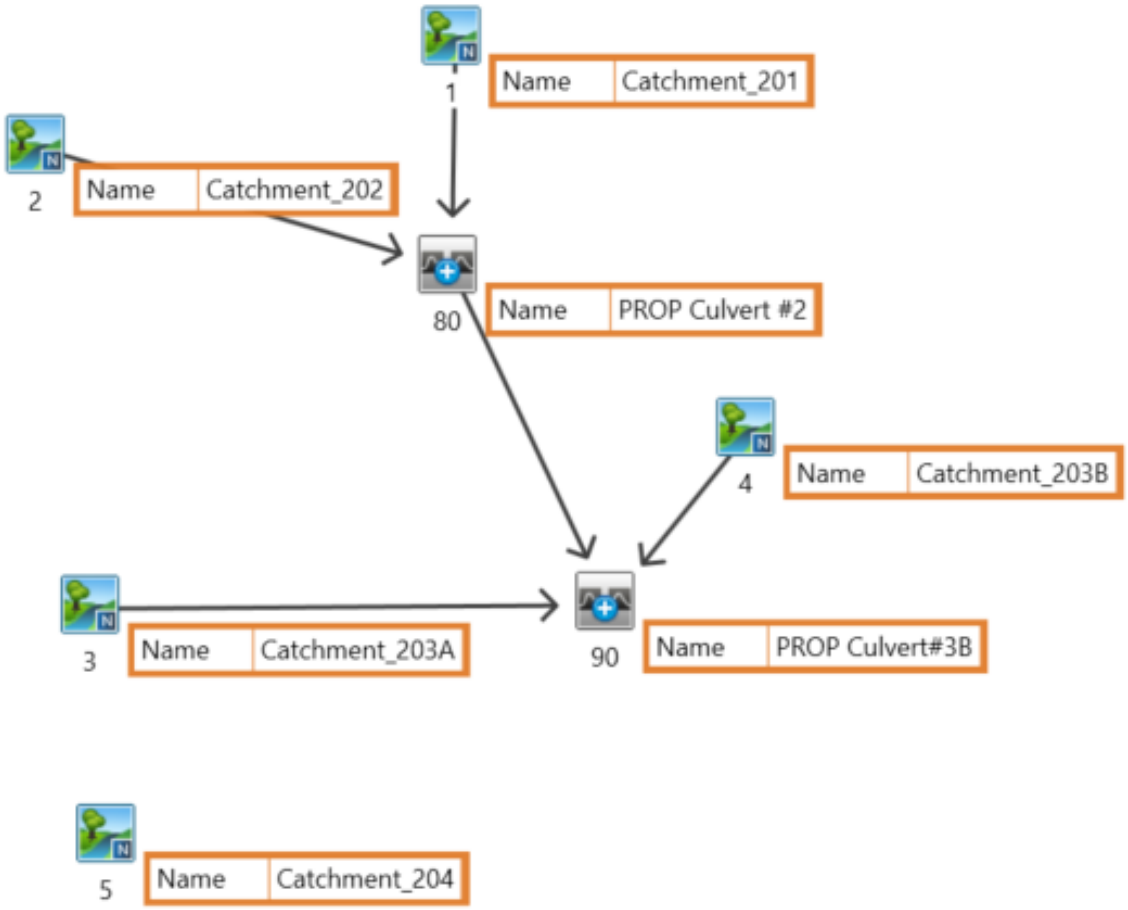
Figure Title: **HAMILTON BINBROOK ROAD INTERSECTION MCEA**
PROPOSED CULVERT DRAINAGE PLAN

Drawn	Checked	Date	Figure No.
AT	HF	25/09/26	B1

Scale	Project No.
1:2000	300059627.0000

File: U:\059627\0000\03-PRD\FIG\SVM\059627 Culvert Drainage Plan - PROPOSED.dwg Date Plotted: June 9, 2026 - 9:21 AM

Proposed Conditions - Visual OTTHYMO Plan



Project Name: Hamilton Binbrook Road Intersection MCEA
Project No.: 59627
Completed By: AT/HB
Date: May-20-2026

Visual OTTHYMO NasHyd Modelling Parameters - Rural Land Use

CATCHMENT: **201** (Culvert TBD)

Composite Curve Number and Initial Abstraction

Hydrologic Soil Group	Total Area per Various Land Use (ha)					
	Forest/Woodlot	Meadow/Field	Crop	Lawn/Grass	Pavement	Water
A						
AB						
B						
BC						
C				0.08	0.17	
CD						
D						

Total area (ha):	0.25	Composite CN(I):	87	Ia (mm)	3.0	NVCA
Pervious area (ha):	0.08	Composite CN(II):	94	Ia (mm)	3.8	MTO / NRSCS
Impervious area (ha):	0.17	Composite CN(III):	97	Ia (mm)	3.32	VO
% Impervious:	68%					

Composite Runoff Coefficient

Land Type	Hydrologic Soil Groups						
	A	AB	B	BC	C	CD	D
Cultivated, 0-5% slope							
Cultivated, 5-10% slope							
Cultivated, 10-30% slope							
Pasture, 0-5% slope							
Pasture, 5-10% slope							
Pasture, 10-30% slope							
Woodlot or Cutover, 0-5% slope							
Woodlot or Cutover, 5-10% slope							
Woodlot or Cutover, 10-30% slope							
Lakes and Wetlands							
Impervious Area					0.17		
Gravel							
Residential- Single Family							
Residential - Multiple							
Industrial-Light							
Industrial-Heavy							
Commercial							
Unimproved Areas							
Lawn, <2% slope					0.08		
Lawn, 2-7% slope							
Lawn, >7% slope							

Time of Concentration Input Parameters	
Total Area (ha)	0.25
Runoff Coefficient	0.69
Length (m)	120
h_1 (m)	222.5
h_2 (m)	222.1
Dh (m)	0.4
Slope (%)	0.37

Tc Method	Bransby Williams	Airport
Tc (min)	9.58	N/A
Tp (hr)	0.11	N/A

Results

Return Period	Peak Flow (m^3/s)	
	24HR SCS	4 Hr CHICAGO
2-year	0.034	0.024
5-year	0.05	0.04
10-year	0.061	0.051
25-year	0.075	0.065
50-year	0.084	0.076
100-year	0.093	0.086
Regional (Hazel)	0.036	

Project Name: Hamilton Binbrook Road Intersection MCEA
Project No.: 59627
Completed By: AT/HB
Date: May-20-2026

Visual OTTHYMO NasHyd Modelling Parameters - Rural Land Use

CATCHMENT: 202 (Culvert TBD)

Composite Curve Number and Initial Abstraction

Hydrologic Soil Group	Total Area per Various Land Use (ha)					
	Forest/Woodlot	Meadow/Field	Crop	Lawn/Grass	Pavement	Water
A						
AB						
B						
BC						
C				7.70	0.38	
CD						
D						

Total area (ha):	8.08	Composite CN(I):	66	Ia (mm)	4.9	NVCA
Pervious area (ha):	7.70	Composite CN(II):	82	Ia (mm)	11.9	MTO / NRSCS
Impervious area (ha):	0.38	Composite CN(III):	91	Ia (mm)	8.42	VO
% Impervious:	5%					

Composite Runoff Coefficient

Land Type	Hydrologic Soil Groups						
	A	AB	B	BC	C	CD	D
Cultivated, 0-5% slope							
Cultivated, 5-10% slope							
Cultivated, 10-30% slope							
Pasture, 0-5% slope							
Pasture, 5-10% slope							
Pasture, 10-30% slope							
Woodlot or Cutover, 0-5% slope							
Woodlot or Cutover, 5-10% slope							
Woodlot or Cutover, 10-30% slope							
Lakes and Wetlands							
Impervious Area					0.38		
Gravel							
Residential- Single Family							
Residential - Multiple							
Industrial-Light							
Industrial-Heavy							
Commercial							
Unimproved Areas							
Lawn, <2% slope					7.70		
Lawn, 2-7% slope							
Lawn, >7% slope							

Time of Concentration Input Parameters	
Total Area (ha)	8.08
Runoff Coefficient	0.17
Length (m)	340
h_1 (m)	224.5
h_2 (m)	220.1
Dh (m)	4.4
Slope (%)	1.29

Tc Method	Bransby Williams	Airport
Tc (min)	N/A	51.37
Tp (hr)	N/A	0.57

Results

Catchment 202 **Only**

Return Period	Peak Flow (m^3/s)	
	24HR SCS	CHICAGO
2-year	0.218	0.127
5-year	0.374	0.257
10-year	0.484	0.359
25-year	0.633	0.497
50-year	0.737	0.597
100-year	0.843	0.713
Regional (Hazel)	0.989	

Catchment 202 and 201 (AddHyd 80)

Return Period	Peak Flow (m^3/s)	
	24HR SCS	CHICAGO
2-year	0.223	0.131
5-year	0.381	0.264
10-year	0.493	0.367
25-year	0.643	0.508
50-year	0.748	0.609
100-year	0.856	0.727
Regional (Hazel)	1.015	

Project Name: Hamilton Binbrook Road Intersection MCEA
Project No.: 59627
Completed By: AT/HB
Date: May-20-2026

Visual OTTHYMO NasHyd Modelling Parameters - Rural Land Use

CATCHMENT: **203A** (Culvert TBD)

Composite Curve Number and Initial Abstraction

Hydrologic Soil Group	Total Area per Various Land Use (ha)					
	Forest/Woodlot	Meadow/Field	Crop	Lawn/Grass	Pavement	Water
A						
AB						
B						
BC						
C				0.19	0.20	
CD						
D						

Total area (ha):	0.39	Composite CN(I):	80	Ia (mm)	3.5	NVCA
Pervious area (ha):	0.19	Composite CN(II):	91	Ia (mm)	5.6	MTO / NRSCS
Impervious area (ha):	0.20	Composite CN(III):	96	Ia (mm)	5.29	VO
% Impervious:	50%					

Composite Runoff Coefficient

Land Type	Hydrologic Soil Groups						
	A	AB	B	BC	C	CD	D
Cultivated, 0-5% slope							
Cultivated, 5-10% slope							
Cultivated, 10-30% slope							
Pasture, 0-5% slope							
Pasture, 5-10% slope							
Pasture, 10-30% slope							
Woodlot or Cutover, 0-5% slope							
Woodlot or Cutover, 5-10% slope							
Woodlot or Cutover, 10-30% slope							
Lakes and Wetlands							
Impervious Area					0.20		
Gravel							
Residential- Single Family							
Residential - Multiple							
Industrial-Light							
Industrial-Heavy							
Commercial							
Unimproved Areas							
Lawn, <2% slope					0.19		
Lawn, 2-7% slope							
Lawn, >7% slope							

Time of Concentration Input Parameters	
Total Area (ha)	0.39
Runoff Coefficient	0.54
Length (m)	155
h_1 (m)	221.5
h_2 (m)	219.7
Dh (m)	1.764
Slope (%)	1.14

Tc Method	Bransby Williams	Airport
Tc (min)	9.46	N/A
Tp (hr)	0.11	N/A

Results

Return Period	Peak Flow (m^3/s)	
	24HR SCS	CHICAGO
2-year	0.047	0.028
5-year	0.072	0.051
10-year	0.089	0.067
25-year	0.110	0.088
50-year	0.125	0.104
100-year	0.139	0.120
Regional (Hazel)	0.056	

Project Name: Hamilton Binbrook Road Intersection MCEA
Project No.: 59627
Completed By: AT/HB
Date: May-20-2026

Visual OTTHYMO NasHyd Modelling Parameters - Rural Land Use

CATCHMENT: **203B** (Culvert TBD)

Composite Curve Number and Initial Abstraction

Hydrologic Soil Group	Total Area per Various Land Use (ha)					
	Forest/Woodlot	Meadow/Field	Crop	Lawn/Grass	Pavement	Water
A						
AB						
B						
BC						
C				0.17	0.17	
CD						
D						

Total area (ha):	0.34	Composite CN(I):	80	Ia (mm)	3.5	NVCA
Pervious area (ha):	0.17	Composite CN(II):	90	Ia (mm)	5.6	MTO / NRSCS
Impervious area (ha):	0.17	Composite CN(III):	96	Ia (mm)	5.44	VO
% Impervious:	49%					

Composite Runoff Coefficient

Land Type	Hydrologic Soil Groups						
	A	AB	B	BC	C	CD	D
Cultivated, 0-5% slope							
Cultivated, 5-10% slope							
Cultivated, 10-30% slope							
Pasture, 0-5% slope							
Pasture, 5-10% slope							
Pasture, 10-30% slope							
Woodlot or Cutover, 0-5% slope							
Woodlot or Cutover, 5-10% slope							
Woodlot or Cutover, 10-30% slope							
Lakes and Wetlands							
Impervious Area					0.17		
Gravel							
Residential- Single Family							
Residential - Multiple							
Industrial-Light							
Industrial-Heavy							
Commercial							
Unimproved Areas							
Lawn, <2% slope					0.17		
Lawn, 2-7% slope							
Lawn, >7% slope							

Time of Concentration Input Parameters	
Total Area (ha)	0.34
Runoff Coefficient	0.53
Length (m)	140
h_1 (m)	221.7
h_2 (m)	219.3
Dh (m)	2.386
Slope (%)	1.70

Tc Method	Bransby Williams	Airport
Tc (min)	7.99	N/A
Tp (hr)	0.09	N/A

Results

Catchment 203B **Only**

Return Period	Peak Flow (m^3/s)	
	24HR SCS	CHICAGO
2-year	0.041	0.027
5-year	0.063	0.048
10-year	0.078	0.063
25-year	0.097	0.082
50-year	0.110	0.097
100-year	0.124	0.112
Regional (Hazel)	0.048	

Catchment 203A, 203B, 202, 201 (AddHyd 90)

Return Period	Peak Flow (m^3/s)	
	24HR SCS	CHICAGO
2-year	0.235	0.142
5-year	0.399	0.282
10-year	0.515	0.389
25-year	0.671	0.536
50-year	0.780	0.642
100-year	0.891	0.766
Regional (Hazel)	1.090	

Project Name: Hamilton Binbrook Road Intersection MCEA
Project No.: 59627
Completed By: AT/HB
Date: 45870

Visual OTTHYMO NasHyd Modelling Parameters - Rural Land Use

CATCHMENT: **204** (Culvert4 - 600mm CSP)

Composite Curve Number and Initial Abstraction

Hydrologic Soil Group	Total Area per Various Land Use (ha)					
	Forest/Woodlot	Meadow/Field	Crop	Lawn/Grass	Pavement	Water
A						
AB						
B						
BC						
C				0.53	0.23	
CD						
D						

Total area (ha):	0.76	Composite CN(I):	73	Ia (mm)	4.1	NVCA
Pervious area (ha):	0.53	Composite CN(II):	87	Ia (mm)	8.3	MTO / NRSCS
Impervious area (ha):	0.23	Composite CN(III):	94	Ia (mm)	5.80	VO
% Impervious:	31%					

Composite Runoff Coefficient

Land Type	Hydrologic Soil Groups						
	A	AB	B	BC	C	CD	D
Cultivated, 0-5% slope							
Cultivated, 5-10% slope							
Cultivated, 10-30% slope							
Pasture, 0-5% slope							
Pasture, 5-10% slope							
Pasture, 10-30% slope							
Woodlot or Cutover, 0-5% slope							
Woodlot or Cutover, 5-10% slope							
Woodlot or Cutover, 10-30% slope							
Lakes and Wetlands							
Impervious Area					0.23		
Gravel							
Residential- Single Family							
Residential - Multiple							
Industrial-Light							
Industrial-Heavy							
Commercial							
Unimproved Areas							
Lawn, <2% slope					0.53		
Lawn, 2-7% slope							
Lawn, >7% slope							

Time of Concentration Input Parameters	
Total Area (ha)	0.76
Runoff Coefficient	0.38
Length (m)	140
h_1 (m)	221.0
h_2 (m)	219.0
Dh (m)	2
Slope (%)	1.43

Tc Method	Bransby Williams	Airport
Tc (min)	N/A	24.66
Tp (hr)	N/A	0.28

Results

Return Period	Peak Flow (m^3/s)	
	24HR SCS	CHICAGO
2-year	0.043	0.025
5-year	0.071	0.049
10-year	0.089	0.067
25-year	0.114	0.090
50-year	0.130	0.107
100-year	0.147	0.126
Regional (Hazel)	0.109	

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

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        V  V    I     SS    U    U  AAAAA  L
         V V    I      SS   U    U A     A L
          V     I    SSSSS  UUUUU  A     A LLLLL

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     O   O     T      T    H   H   Y Y   MM MM  O   O
     O   O     T      T    H   H    Y    M M M  O   O
      OOO      T      T    H   H    Y    M   M   OOO
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          *****         D E T A I L E D   O U T P U T *****


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DATE: 06/05/2026                          TIME: 04:00:04

USER:


COMMENTS: _____________________________________________________

--------------------------------------------------------------------------------------------------------------------
  ************************************************
 ** SIMULATION : 2yr 24hr 15min SCS Type II (M **
  ************************************************


---------------------
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|                   |              ata\Local\Temp\
|                   |              18437d2c-b486-467f-bd34-28794099a257\013783a7
| Ptotal= 52.77 mm  |    Comments: 2yr 24hr 15min SCS Type II (MTO)
---------------------
          TIME          RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
           hrs          mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
          0.00           0.00 |  6.25    0.95 | 12.50    7.60 | 18.75    0.95
          0.25           0.58 |  6.50    0.95 | 12.75    3.90 | 19.00    0.95
          0.50           0.58 |  6.75    0.95 | 13.00    3.90 | 19.25    0.95
          0.75           0.58 |  7.00    0.95 | 13.25    2.85 | 19.50    0.95
          1.00           0.58 |  7.25    1.16 | 13.50    2.85 | 19.75    0.95
          1.25           0.58 |  7.50    1.16 | 13.75    2.22 | 20.00    0.95
          1.50           0.58 |  7.75    1.16 | 14.00    2.22 | 20.25    0.63
          1.75           0.58 |  8.00    1.16 | 14.25    1.58 | 20.50    0.63
          2.00           0.58 |  8.25    1.37 | 14.50    1.58 | 20.75    0.63
          2.25           0.69 |  8.50    1.37 | 14.75    1.58 | 21.00    0.63
          2.50           0.69 |  8.75    1.48 | 15.00    1.58 | 21.25    0.63
          2.75           0.69 |  9.00    1.48 | 15.25    1.58 | 21.50    0.63
          3.00           0.69 |  9.25    1.69 | 15.50    1.58 | 21.75    0.63
          3.25           0.69 |  9.50    1.69 | 15.75    1.58 | 22.00    0.63
          3.50           0.69 |  9.75    1.90 | 16.00    1.58 | 22.25    0.63
          3.75           0.69 | 10.00    1.90 | 16.25    0.95 | 22.50    0.63
          4.00           0.69 | 10.25    2.43 | 16.50    0.95 | 22.75    0.63
          4.25           0.84 | 10.50    2.43 | 16.75    0.95 | 23.00    0.63
          4.50           0.84 | 10.75    3.27 | 17.00    0.95 | 23.25    0.63
          4.75           0.84 | 11.00    3.27 | 17.25    0.95 | 23.50    0.63
          5.00           0.84 | 11.25    5.07 | 17.50    0.95 | 23.75    0.63
          5.25           0.84 | 11.50    5.07 | 17.75    0.95 | 24.00    0.63
          5.50           0.84 | 11.75   15.62 | 18.00    0.95 |
          5.75           0.84 | 12.00   64.59 | 18.25    0.95 |
          6.00           0.84 | 12.25    7.60 | 18.50    0.95 |

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

--------------------
| CALIB            |
| NASHYD   (  0005)|   Area    (ha)=   0.76   Curve Number   (CN)= 87.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.10   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.28

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



    RUNOFF COEFFICIENT   =   0.518

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

--------------------------------------------------------------------------------
--------------------
| CALIB            |
| NASHYD   (  0001)|   Area    (ha)=   0.25   Curve Number   (CN)= 94.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   3.00   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.11

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

                          ---- TRANSFORMED HYETOGRAPH ----
          TIME          RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
           hrs          mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
          0.083          0.00 |  6.167    0.84 |12.250   64.59 | 18.33    0.95
          0.167          0.00 |  6.250    0.84 |12.333    7.61 | 18.42    0.95
          0.250          0.00 |  6.333    0.95 |12.417    7.60 | 18.50    0.95
          0.333          0.58 |  6.417    0.95 |12.500    7.60 | 18.58    0.95
          0.417          0.58 |  6.500    0.95 |12.583    7.60 | 18.67    0.95
          0.500          0.58 |  6.583    0.95 |12.667    7.60 | 18.75    0.95
          0.583          0.58 |  6.667    0.95 |12.750    7.60 | 18.83    0.95
          0.667          0.58 |  6.750    0.95 |12.833    3.91 | 18.92    0.95
          0.750          0.58 |  6.833    0.95 |12.917    3.90 | 19.00    0.95
          0.833          0.58 |  6.917    0.95 |13.000    3.90 | 19.08    0.95
          0.917          0.58 |  7.000    0.95 |13.083    3.90 | 19.17    0.95
          1.000          0.58 |  7.083    0.95 |13.167    3.90 | 19.25    0.95
          1.083          0.58 |  7.167    0.95 |13.250    3.90 | 19.33    0.95
          1.167          0.58 |  7.250    0.95 |13.333    2.85 | 19.42    0.95
          1.250          0.58 |  7.333    1.16 |13.417    2.85 | 19.50    0.95
          1.333          0.58 |  7.417    1.16 |13.500    2.85 | 19.58    0.95
          1.417          0.58 |  7.500    1.16 |13.583    2.85 | 19.67    0.95
          1.500          0.58 |  7.583    1.16 |13.667    2.85 | 19.75    0.95
          1.583          0.58 |  7.667    1.16 |13.750    2.85 | 19.83    0.95
          1.667          0.58 |  7.750    1.16 |13.833    2.22 | 19.92    0.95
          1.750          0.58 |  7.833    1.16 |13.917    2.22 | 20.00    0.95
          1.833          0.58 |  7.917    1.16 |14.000    2.22 | 20.08    0.95
          1.917          0.58 |  8.000    1.16 |14.083    2.22 | 20.17    0.95
          2.000          0.58 |  8.083    1.16 |14.167    2.22 | 20.25    0.95
          2.083          0.58 |  8.167    1.16 |14.250    2.22 | 20.33    0.63
          2.167          0.58 |  8.250    1.16 |14.333    1.58 | 20.42    0.63
          2.250          0.58 |  8.333    1.37 |14.417    1.58 | 20.50    0.63
          2.333          0.69 |  8.417    1.37 |14.500    1.58 | 20.58    0.63
          2.417          0.69 |  8.500    1.37 |14.583    1.58 | 20.67    0.63
          2.500          0.69 |  8.583    1.37 |14.667    1.58 | 20.75    0.63
          2.583          0.69 |  8.667    1.37 |14.750    1.58 | 20.83    0.63
          2.667          0.69 |  8.750    1.37 |14.833    1.58 | 20.92    0.63
          2.750          0.69 |  8.833    1.48 |14.917    1.58 | 21.00    0.63
          2.833          0.69 |  8.917    1.48 |15.000    1.58 | 21.08    0.63
          2.917          0.69 |  9.000    1.48 |15.083    1.58 | 21.17    0.63
          3.000          0.69 |  9.083    1.48 |15.167    1.58 | 21.25    0.63
          3.083          0.69 |  9.167    1.48 |15.250    1.58 | 21.33    0.63
          3.167          0.69 |  9.250    1.48 |15.333    1.58 | 21.42    0.63
          3.250          0.69 |  9.333    1.69 |15.417    1.58 | 21.50    0.63
          3.333          0.69 |  9.417    1.69 |15.500    1.58 | 21.58    0.63
          3.417          0.69 |  9.500    1.69 |15.583    1.58 | 21.67    0.63
          3.500          0.69 |  9.583    1.69 |15.667    1.58 | 21.75    0.63
          3.583          0.69 |  9.667    1.69 |15.750    1.58 | 21.83    0.63
          3.667          0.69 |  9.750    1.69 |15.833    1.58 | 21.92    0.63
          3.750          0.69 |  9.833    1.90 |15.917    1.58 | 22.00    0.63
          3.833          0.69 |  9.917    1.90 |16.000    1.58 | 22.08    0.63
          3.917          0.69 | 10.000    1.90 |16.083    1.58 | 22.17    0.63
          4.000          0.69 | 10.083    1.90 |16.167    1.58 | 22.25    0.63
          4.083          0.69 | 10.167    1.90 |16.250    1.58 | 22.33    0.63
          4.167          0.69 | 10.250    1.90 |16.333    0.95 | 22.42    0.63
          4.250          0.69 | 10.333    2.43 |16.417    0.95 | 22.50    0.63
          4.333          0.84 | 10.417    2.43 |16.500    0.95 | 22.58    0.63
          4.417          0.84 | 10.500    2.43 |16.583    0.95 | 22.67    0.63
          4.500          0.84 | 10.583    2.43 |16.667    0.95 | 22.75    0.63
          4.583          0.84 | 10.667    2.43 |16.750    0.95 | 22.83    0.63
          4.667          0.84 | 10.750    2.43 |16.833    0.95 | 22.92    0.63
          4.750          0.84 | 10.833    3.27 |16.917    0.95 | 23.00    0.63
          4.833          0.84 | 10.917    3.27 |17.000    0.95 | 23.08    0.63
          4.917          0.84 | 11.000    3.27 |17.083    0.95 | 23.17    0.63
          5.000          0.84 | 11.083    3.27 |17.167    0.95 | 23.25    0.63
          5.083          0.84 | 11.167    3.27 |17.250    0.95 | 23.33    0.63
          5.167          0.84 | 11.250    3.27 |17.333    0.95 | 23.42    0.63
          5.250          0.84 | 11.333    5.07 |17.417    0.95 | 23.50    0.63
          5.333          0.84 | 11.417    5.07 |17.500    0.95 | 23.58    0.63
          5.417          0.84 | 11.500    5.07 |17.583    0.95 | 23.67    0.63
          5.500          0.84 | 11.583    5.07 |17.667    0.95 | 23.75    0.63
          5.583          0.84 | 11.667    5.07 |17.750    0.95 | 23.83    0.63
          5.667          0.84 | 11.750    5.07 |17.833    0.95 | 23.92    0.63
          5.750          0.84 | 11.833   15.62 |17.917    0.95 | 24.00    0.63
          5.833          0.84 | 11.917   15.62 |18.000    0.95 | 24.08    0.63
          5.917          0.84 | 12.000   15.62 |18.083    0.95 | 24.17    0.63
          6.000          0.84 | 12.083   64.58 |18.167    0.95 | 24.25    0.63
          6.083          0.84 | 12.167   64.59 |18.250    0.95 |

                          ---- TRANSFORMED HYETOGRAPH ----
          TIME          RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
           hrs          mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
          0.083          0.00 |  6.167    0.84 |12.250   64.59 | 18.33    0.95
          0.167          0.00 |  6.250    0.84 |12.333    7.61 | 18.42    0.95
          0.250          0.00 |  6.333    0.95 |12.417    7.60 | 18.50    0.95
          0.333          0.58 |  6.417    0.95 |12.500    7.60 | 18.58    0.95
          0.417          0.58 |  6.500    0.95 |12.583    7.60 | 18.67    0.95
          0.500          0.58 |  6.583    0.95 |12.667    7.60 | 18.75    0.95
          0.583          0.58 |  6.667    0.95 |12.750    7.60 | 18.83    0.95
          0.667          0.58 |  6.750    0.95 |12.833    3.91 | 18.92    0.95
          0.750          0.58 |  6.833    0.95 |12.917    3.90 | 19.00    0.95
          0.833          0.58 |  6.917    0.95 |13.000    3.90 | 19.08    0.95
          0.917          0.58 |  7.000    0.95 |13.083    3.90 | 19.17    0.95
          1.000          0.58 |  7.083    0.95 |13.167    3.90 | 19.25    0.95
          1.083          0.58 |  7.167    0.95 |13.250    3.90 | 19.33    0.95
          1.167          0.58 |  7.250    0.95 |13.333    2.85 | 19.42    0.95
          1.250          0.58 |  7.333    1.16 |13.417    2.85 | 19.50    0.95
          1.333          0.58 |  7.417    1.16 |13.500    2.85 | 19.58    0.95
          1.417          0.58 |  7.500    1.16 |13.583    2.85 | 19.67    0.95
          1.500          0.58 |  7.583    1.16 |13.667    2.85 | 19.75    0.95
          1.583          0.58 |  7.667    1.16 |13.750    2.85 | 19.83    0.95
          1.667          0.58 |  7.750    1.16 |13.833    2.22 | 19.92    0.95
          1.750          0.58 |  7.833    1.16 |13.917    2.22 | 20.00    0.95
          1.833          0.58 |  7.917    1.16 |14.000    2.22 | 20.08    0.95
          1.917          0.58 |  8.000    1.16 |14.083    2.22 | 20.17    0.95
          2.000          0.58 |  8.083    1.16 |14.167    2.22 | 20.25    0.95
          2.083          0.58 |  8.167    1.16 |14.250    2.22 | 20.33    0.63
          2.167          0.58 |  8.250    1.16 |14.333    1.58 | 20.42    0.63
          2.250          0.58 |  8.333    1.37 |14.417    1.58 | 20.50    0.63
          2.333          0.69 |  8.417    1.37 |14.500    1.58 | 20.58    0.63
          2.417          0.69 |  8.500    1.37 |14.583    1.58 | 20.67    0.63
          2.500          0.69 |  8.583    1.37 |14.667    1.58 | 20.75    0.63
          2.583          0.69 |  8.667    1.37 |14.750    1.58 | 20.83    0.63
          2.667          0.69 |  8.750    1.37 |14.833    1.58 | 20.92    0.63
          2.750          0.69 |  8.833    1.48 |14.917    1.58 | 21.00    0.63
          2.833          0.69 |  8.917    1.48 |15.000    1.58 | 21.08    0.63
          2.917          0.69 |  9.000    1.48 |15.083    1.58 | 21.17    0.63
          3.000          0.69 |  9.083    1.48 |15.167    1.58 | 21.25    0.63
          3.083          0.69 |  9.167    1.48 |15.250    1.58 | 21.33    0.63
          3.167          0.69 |  9.250    1.48 |15.333    1.58 | 21.42    0.63
          3.250          0.69 |  9.333    1.69 |15.417    1.58 | 21.50    0.63
          3.333          0.69 |  9.417    1.69 |15.500    1.58 | 21.58    0.63
          3.417          0.69 |  9.500    1.69 |15.583    1.58 | 21.67    0.63
          3.500          0.69 |  9.583    1.69 |15.667    1.58 | 21.75    0.63
          3.583          0.69 |  9.667    1.69 |15.750    1.58 | 21.83    0.63
          3.667          0.69 |  9.750    1.69 |15.833    1.58 | 21.92    0.63
          3.750          0.69 |  9.833    1.90 |15.917    1.58 | 22.00    0.63
          3.833          0.69 |  9.917    1.90 |16.000    1.58 | 22.08    0.63
          3.917          0.69 | 10.000    1.90 |16.083    1.58 | 22.17    0.63
          4.000          0.69 | 10.083    1.90 |16.167    1.58 | 22.25    0.63
          4.083          0.69 | 10.167    1.90 |16.250    1.58 | 22.33    0.63
          4.167          0.69 | 10.250    1.90 |16.333    0.95 | 22.42    0.63
          4.250          0.69 | 10.333    2.43 |16.417    0.95 | 22.50    0.63
          4.333          0.84 | 10.417    2.43 |16.500    0.95 | 22.58    0.63
          4.417          0.84 | 10.500    2.43 |16.583    0.95 | 22.67    0.63
          4.500          0.84 | 10.583    2.43 |16.667    0.95 | 22.75    0.63
          4.583          0.84 | 10.667    2.43 |16.750    0.95 | 22.83    0.63
          4.667          0.84 | 10.750    2.43 |16.833    0.95 | 22.92    0.63
          4.750          0.84 | 10.833    3.27 |16.917    0.95 | 23.00    0.63
          4.833          0.84 | 10.917    3.27 |17.000    0.95 | 23.08    0.63
          4.917          0.84 | 11.000    3.27 |17.083    0.95 | 23.17    0.63
          5.000          0.84 | 11.083    3.27 |17.167    0.95 | 23.25    0.63
          5.083          0.84 | 11.167    3.27 |17.250    0.95 | 23.33    0.63
          5.167          0.84 | 11.250    3.27 |17.333    0.95 | 23.42    0.63
          5.250          0.84 | 11.333    5.07 |17.417    0.95 | 23.50    0.63
          5.333          0.84 | 11.417    5.07 |17.500    0.95 | 23.58    0.63
          5.417          0.84 | 11.500    5.07 |17.583    0.95 | 23.67    0.63
          5.500          0.84 | 11.583    5.07 |17.667    0.95 | 23.75    0.63
          5.583          0.84 | 11.667    5.07 |17.750    0.95 | 23.83    0.63
          5.667          0.84 | 11.750    5.07 |17.833    0.95 | 23.92    0.63
          5.750          0.84 | 11.833   15.62 |17.917    0.95 | 24.00    0.63
          5.833          0.84 | 11.917   15.62 |18.000    0.95 | 24.08    0.63
          5.917          0.84 | 12.000   15.62 |18.083    0.95 | 24.17    0.63
          6.000          0.84 | 12.083   64.58 |18.167    0.95 | 24.25    0.63
          6.083          0.84 | 12.167   64.59 |18.250    0.95 |

  Unit Hyd Qpeak  (cms)=   0.104

  PEAK FLOW       (cms)=   0.043 (i)
  TIME TO PEAK    (hrs)=  12.417
  RUNOFF VOLUME    (mm)=  27.331
  TOTAL RAINFALL   (mm)=  52.770

  Unit Hyd Qpeak  (cms)=   0.087

  PEAK FLOW       (cms)=   0.034 (i)
  TIME TO PEAK    (hrs)=  12.250
  RUNOFF VOLUME    (mm)=  36.850
  TOTAL RAINFALL   (mm)=  52.770
  RUNOFF COEFFICIENT    =   0.698

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

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| CALIB            |
| NASHYD   (  0002)|   Area    (ha)=   8.08   Curve Number   (CN)= 82.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.90   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.57

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

                          ---- TRANSFORMED HYETOGRAPH ----
          TIME          RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
           hrs          mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
          0.083          0.00 |  6.167    0.84 |12.250   64.59 | 18.33    0.95
          0.167          0.00 |  6.250    0.84 |12.333    7.61 | 18.42    0.95
          0.250          0.00 |  6.333    0.95 |12.417    7.60 | 18.50    0.95
          0.333          0.58 |  6.417    0.95 |12.500    7.60 | 18.58    0.95
          0.417          0.58 |  6.500    0.95 |12.583    7.60 | 18.67    0.95
          0.500          0.58 |  6.583    0.95 |12.667    7.60 | 18.75    0.95
          0.583          0.58 |  6.667    0.95 |12.750    7.60 | 18.83    0.95
          0.667          0.58 |  6.750    0.95 |12.833    3.91 | 18.92    0.95
          0.750          0.58 |  6.833    0.95 |12.917    3.90 | 19.00    0.95
          0.833          0.58 |  6.917    0.95 |13.000    3.90 | 19.08    0.95
          0.917          0.58 |  7.000    0.95 |13.083    3.90 | 19.17    0.95
          1.000          0.58 |  7.083    0.95 |13.167    3.90 | 19.25    0.95
          1.083          0.58 |  7.167    0.95 |13.250    3.90 | 19.33    0.95
          1.167          0.58 |  7.250    0.95 |13.333    2.85 | 19.42    0.95
          1.250          0.58 |  7.333    1.16 |13.417    2.85 | 19.50    0.95
          1.333          0.58 |  7.417    1.16 |13.500    2.85 | 19.58    0.95
          1.417          0.58 |  7.500    1.16 |13.583    2.85 | 19.67    0.95
          1.500          0.58 |  7.583    1.16 |13.667    2.85 | 19.75    0.95
          1.583          0.58 |  7.667    1.16 |13.750    2.85 | 19.83    0.95
          1.667          0.58 |  7.750    1.16 |13.833    2.22 | 19.92    0.95
          1.750          0.58 |  7.833    1.16 |13.917    2.22 | 20.00    0.95
          1.833          0.58 |  7.917    1.16 |14.000    2.22 | 20.08    0.95
          1.917          0.58 |  8.000    1.16 |14.083    2.22 | 20.17    0.95
          2.000          0.58 |  8.083    1.16 |14.167    2.22 | 20.25    0.95
          2.083          0.58 |  8.167    1.16 |14.250    2.22 | 20.33    0.63
          2.167          0.58 |  8.250    1.16 |14.333    1.58 | 20.42    0.63
          2.250          0.58 |  8.333    1.37 |14.417    1.58 | 20.50    0.63
          2.333          0.69 |  8.417    1.37 |14.500    1.58 | 20.58    0.63
          2.417          0.69 |  8.500    1.37 |14.583    1.58 | 20.67    0.63
          2.500          0.69 |  8.583    1.37 |14.667    1.58 | 20.75    0.63
          2.583          0.69 |  8.667    1.37 |14.750    1.58 | 20.83    0.63
          2.667          0.69 |  8.750    1.37 |14.833    1.58 | 20.92    0.63
          2.750          0.69 |  8.833    1.48 |14.917    1.58 | 21.00    0.63
          2.833          0.69 |  8.917    1.48 |15.000    1.58 | 21.08    0.63
          2.917          0.69 |  9.000    1.48 |15.083    1.58 | 21.17    0.63
          3.000          0.69 |  9.083    1.48 |15.167    1.58 | 21.25    0.63
          3.083          0.69 |  9.167    1.48 |15.250    1.58 | 21.33    0.63
          3.167          0.69 |  9.250    1.48 |15.333    1.58 | 21.42    0.63
          3.250          0.69 |  9.333    1.69 |15.417    1.58 | 21.50    0.63
          3.333          0.69 |  9.417    1.69 |15.500    1.58 | 21.58    0.63
          3.417          0.69 |  9.500    1.69 |15.583    1.58 | 21.67    0.63
          3.500          0.69 |  9.583    1.69 |15.667    1.58 | 21.75    0.63
          3.583          0.69 |  9.667    1.69 |15.750    1.58 | 21.83    0.63
          3.667          0.69 |  9.750    1.69 |15.833    1.58 | 21.92    0.63
          3.750          0.69 |  9.833    1.90 |15.917    1.58 | 22.00    0.63
          3.833          0.69 |  9.917    1.90 |16.000    1.58 | 22.08    0.63
          3.917          0.69 | 10.000    1.90 |16.083    1.58 | 22.17    0.63
          4.000          0.69 | 10.083    1.90 |16.167    1.58 | 22.25    0.63
          4.083          0.69 | 10.167    1.90 |16.250    1.58 | 22.33    0.63
          4.167          0.69 | 10.250    1.90 |16.333    0.95 | 22.42    0.63
          4.250          0.69 | 10.333    2.43 |16.417    0.95 | 22.50    0.63
          4.333          0.84 | 10.417    2.43 |16.500    0.95 | 22.58    0.63
          4.417          0.84 | 10.500    2.43 |16.583    0.95 | 22.67    0.63
          4.500          0.84 | 10.583    2.43 |16.667    0.95 | 22.75    0.63
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4.583	0.84	10.667	2.43	16.750	0.95	22.83	0.63
4.667	0.84	10.750	2.43	16.833	0.95	22.92	0.63
4.750	0.84	10.833	3.27	16.917	0.95	23.00	0.63
4.833	0.84	10.917	3.27	17.000	0.95	23.08	0.63
4.917	0.84	11.000	3.27	17.083	0.95	23.17	0.63
5.000	0.84	11.083	3.27	17.167	0.95	23.25	0.63
5.083	0.84	11.167	3.27	17.250	0.95	23.33	0.63
5.167	0.84	11.250	3.27	17.333	0.95	23.42	0.63
5.250	0.84	11.333	5.07	17.417	0.95	23.50	0.63
5.333	0.84	11.417	5.07	17.500	0.95	23.58	0.63
5.417	0.84	11.500	5.07	17.583	0.95	23.67	0.63
5.500	0.84	11.583	5.07	17.667	0.95	23.75	0.63
5.583	0.84	11.667	5.07	17.750	0.95	23.83	0.63
5.667	0.84	11.750	5.07	17.833	0.95	23.92	0.63
5.750	0.84	11.833	15.62	17.917	0.95	24.00	0.63
5.833	0.84	11.917	15.62	18.000	0.95	24.08	0.63
5.917	0.84	12.000	15.62	18.083	0.95	24.17	0.63
6.000	0.84	12.083	64.58	18.167	0.95	24.25	0.63
6.083	0.84	12.167	64.59	18.250	0.95		

Unit Hyd Qpeak (cms)= 0.541

PEAK FLOW (cms)= 0.218 (i)
TIME TO PEAK (hrs)= 12.750
RUNOFF VOLUME (mm)= 22.113
TOTAL RAINFALL (mm)= 52.770
RUNOFF COEFFICIENT = 0.419

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

ADD HYD (0080)		AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3		(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0001):		0.25	0.034	12.25	36.85
+ ID2= 2 (0002):		8.08	0.218	12.75	22.11
ID = 3 (0080):		8.33	0.223	12.75	22.56

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB					
NASHYD (0003)	Area (ha)=	0.39	Curve Number (CN)=	91.0	
ID= 1 DT= 5.0 min	Ia (mm)=	3.50	# of Linear Res.(N)=	3.00	
	U.H. Tp(hrs)=	0.11			

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	0.00	6.167	0.84	12.250	64.59	18.33	0.95
0.167	0.00	6.250	0.84	12.333	7.61	18.42	0.95
0.250	0.00	6.333	0.95	12.417	7.60	18.50	0.95
0.333	0.58	6.417	0.95	12.500	7.60	18.58	0.95
0.417	0.58	6.500	0.95	12.583	7.60	18.67	0.95
0.500	0.58	6.583	0.95	12.667	7.60	18.75	0.95
0.583	0.58	6.667	0.95	12.750	7.60	18.83	0.95
0.667	0.58	6.750	0.95	12.833	3.91	18.92	0.95
0.750	0.58	6.833	0.95	12.917	3.90	19.00	0.95
0.833	0.58	6.917	0.95	13.000	3.90	19.08	0.95
0.917	0.58	7.000	0.95	13.083	3.90	19.17	0.95
1.000	0.58	7.083	0.95	13.167	3.90	19.25	0.95
1.083	0.58	7.167	0.95	13.250	3.90	19.33	0.95
1.167	0.58	7.250	0.95	13.333	2.85	19.42	0.95
1.250	0.58	7.333	1.16	13.417	2.85	19.50	0.95
1.333	0.58	7.417	1.16	13.500	2.85	19.58	0.95
1.417	0.58	7.500	1.16	13.583	2.85	19.67	0.95
1.500	0.58	7.583	1.16	13.667	2.85	19.75	0.95
1.583	0.58	7.667	1.16	13.750	2.85	19.83	0.95
1.667	0.58	7.750	1.16	13.833	2.22	19.92	0.95
1.750	0.58	7.833	1.16	13.917	2.22	20.00	0.95
1.833	0.58	7.917	1.16	14.000	2.22	20.08	0.95
1.917	0.58	8.000	1.16	14.083	2.22	20.17	0.95
2.000	0.58	8.083	1.16	14.167	2.22	20.25	0.95
2.083	0.58	8.167	1.16	14.250	2.22	20.33	0.63
2.167	0.58	8.250	1.16	14.333	1.58	20.42	0.63
2.250	0.58	8.333	1.37	14.417	1.58	20.50	0.63
2.333	0.69	8.417	1.37	14.500	1.58	20.58	0.63
2.417	0.69	8.500	1.37	14.583	1.58	20.67	0.63
2.500	0.69	8.583	1.37	14.667	1.58	20.75	0.63
2.583	0.69	8.667	1.37	14.750	1.58	20.83	0.63
2.667	0.69	8.750	1.37	14.833	1.58	20.92	0.63
2.750	0.69	8.833	1.48	14.917	1.58	21.00	0.63
2.833	0.69	8.917	1.48	15.000	1.58	21.08	0.63
2.917	0.69	9.000	1.48	15.083	1.58	21.17	0.63
3.000	0.69	9.083	1.48	15.167	1.58	21.25	0.63
3.083	0.69	9.167	1.48	15.250	1.58	21.33	0.63
3.167	0.69	9.250	1.48	15.333	1.58	21.42	0.63
3.250	0.69	9.333	1.69	15.417	1.58	21.50	0.63
3.333	0.69	9.417	1.69	15.500	1.58	21.58	0.63
3.417	0.69	9.500	1.69	15.583	1.58	21.67	0.63
3.500	0.69	9.583	1.69	15.667	1.58	21.75	0.63
3.583	0.69	9.667	1.69	15.750	1.58	21.83	0.63
3.667	0.69	9.750	1.69	15.833	1.58	21.92	0.63
3.750	0.69	9.833	1.90	15.917	1.58	22.00	0.63
3.833	0.69	9.917	1.90	16.000	1.58	22.08	0.63
3.917	0.69	10.000	1.90	16.083	1.58	22.17	0.63
4.000	0.69	10.083	1.90	16.167	1.58	22.25	0.63
4.083	0.69	10.167	1.90	16.250	1.58	22.33	0.63
4.167	0.69	10.250	1.90	16.333	0.95	22.42	0.63
4.250	0.69	10.333	2.43	16.417	0.95	22.50	0.63
4.333	0.84	10.417	2.43	16.500	0.95	22.58	0.63
4.417	0.84	10.500	2.43	16.583	0.95	22.67	0.63
4.500	0.84	10.583	2.43	16.667	0.95	22.75	0.63
4.583	0.84	10.667	2.43	16.750	0.95	22.83	0.63
4.667	0.84	10.750	2.43	16.833	0.95	22.92	0.63
4.750	0.84	10.833	3.27	16.917	0.95	23.00	0.63
4.833	0.84	10.917	3.27	17.000	0.95	23.08	0.63
4.917	0.84	11.000	3.27	17.083	0.95	23.17	0.63
5.000	0.84	11.083	3.27	17.167	0.95	23.25	0.63
5.083	0.84	11.167	3.27	17.250	0.95	23.33	0.63
5.167	0.84	11.250	3.27	17.333	0.95	23.42	0.63
5.250	0.84	11.333	5.07	17.417	0.95	23.50	0.63
5.333	0.84	11.417	5.07	17.500	0.95	23.58	0.63
5.417	0.84	11.500	5.07	17.583	0.95	23.67	0.63
5.500	0.84	11.583	5.07	17.667	0.95	23.75	0.63
5.583	0.84	11.667	5.07	17.750	0.95	23.83	0.63
5.667	0.84	11.750	5.07	17.833	0.95	23.92	0.63
5.750	0.84	11.833	15.62	17.917	0.95	24.00	0.63
5.833	0.84	11.917	15.62	18.000	0.95	24.08	0.63
5.917	0.84	12.000	15.62	18.083	0.95	24.17	0.63
6.000	0.84	12.083	64.58	18.167	0.95	24.25	0.63
6.083	0.84	12.167	64.59	18.250	0.95		

Unit Hyd Qpeak (cms)= 0.144

PEAK FLOW (cms)= 0.041 (i)
TIME TO PEAK (hrs)= 12.250
RUNOFF VOLUME (mm)= 30.143
TOTAL RAINFALL (mm)= 52.770
RUNOFF COEFFICIENT = 0.571

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

ADD HYD (0090)		AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3		(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0003):		0.39	0.047	12.25	32.03
+ ID2= 2 (0004):		0.34	0.041	12.25	30.14
ID = 3 (0090):		0.73	0.088	12.25	31.15

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0090)

2.500	0.69	8.583	1.37	14.667	1.58	20.75	0.63
2.583	0.69	8.667	1.37	14.750	1.58	20.83	0.63
2.667	0.69	8.750	1.37	14.833	1.58	20.92	0.63
2.750	0.69	8.833	1.48	14.917	1.58	21.00	0.63
2.833	0.69	8.917	1.48	15.000	1.58	21.08	0.63
2.917	0.69	9.000	1.48	15.083	1.58	21.17	0.63
3.000	0.69	9.083	1.48	15.167	1.58	21.25	0.63
3.083	0.69	9.167	1.48	15.250	1.58	21.33	0.63
3.167	0.69	9.250	1.48	15.333	1.58	21.42	0.63
3.250	0.69	9.333	1.69	15.417	1.58	21.50	0.63
3.333	0.69	9.417	1.69	15.500	1.58	21.58	0.63
3.417	0.69	9.500	1.69	15.583	1.58	21.67	0.63
3.500	0.69	9.583	1.69	15.667	1.58	21.75	0.63
3.583	0.69	9.667	1.69	15.750	1.58	21.83	0.63
3.667	0.69	9.750	1.69	15.833	1.58	21.92	0.63
3.750	0.69	9.833	1.90	15.917	1.58	22.00	0.63
3.833	0.69	9.917	1.90	16.000	1.58	22.08	0.63
3.917	0.69	10.000	1.90	16.083	1.58	22.17	0.63
4.000	0.69	10.083	1.90	16.167	1.58	22.25	0.63
4.083	0.69	10.167	1.90	16.250	1.58	22.33	0.63
4.167	0.69	10.250	1.90	16.333	0.95	22.42	0.63
4.250	0.69	10.333	2.43	16.417	0.95	22.50	0.63
4.333	0.84	10.417	2.43	16.500	0.95	22.58	0.63
4.417	0.84	10.500	2.43	16.583	0.95	22.67	0.63
4.500	0.84	10.583	2.43	16.667	0.95	22.75	0.63
4.583	0.84	10.667	2.43	16.750	0.95	22.83	0.63
4.667	0.84	10.750	2.43	16.833	0.95	22.92	0.63
4.750	0.84	10.833	3.27	16.917	0.95	23.00	0.63
4.833	0.84	10.917	3.27	17.000	0.95	23.08	0.63
4.917	0.84	11.000	3.27	17.083	0.95	23.17	0.63
5.000	0.84	11.083	3.27	17.167	0.95	23.25	0.63
5.083	0.84	11.167	3.27	17.250	0.95	23.33	0.63
5.167	0.84	11.250	3.27	17.333	0.95	23.42	0.63
5.250	0.84	11.333	5.07	17.417	0.95	23.50	0.63
5.333	0.84	11.417	5.07	17.500	0.95	23.58	0.63
5.417	0.84	11.500	5.07	17.583	0.95	23.67	0.63
5.500	0.84	11.583	5.07	17.667	0.95	23.75	0.63
5.583	0.84	11.667	5.07	17.750	0.95	23.83	0.63
5.667	0.84	11.750	5.07	17.833	0.95	23.92	0.63
5.750	0.84	11.833	15.62	17.917	0.95	24.00	0.63
5.833	0.84	11.917	15.62	18.000	0.95	24.08	0.63
5.917	0.84	12.000	15.62	18.083	0.95	24.17	0.63
6.000	0.84	12.083	64.58	18.167	0.95	24.25	0.63
6.083	0.84	12.167	64.59	18.250	0.95		

Unit Hyd Qpeak (cms)= 0.135

PEAK FLOW (cms)= 0.047 (i)
TIME TO PEAK (hrs)= 12.250
RUNOFF VOLUME (mm)= 32.031
TOTAL RAINFALL (mm)= 52.770
RUNOFF COEFFICIENT = 0.607

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

CALIB					
NASHYD (0004)	Area (ha)=	0.34	Curve Number (CN)=	90.0	
ID= 1 DT= 5.0 min	Ia (mm)=	3.50	# of Linear Res.(N)=	3.00	
	U.H. Tp(hrs)=	0.09			

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	0.00	6.167	0.84	12.250	64.59	18.33	0.95
0.167	0.00	6.250	0.84	12.333	7.61	18.42	0.95
0.250	0.00	6.333	0.95	12.417	7.60	18.50	0.95
0.333	0.58	6.417	0.95	12.500	7.60	18.58	0.95
0.417	0.58	6.500	0.95	12.583	7.60	18.67	0.95
0.500	0.58	6.583	0.95	12.667	7.60	18.75	0.95
0.583	0.58	6.667	0.95	12.750	7.60	18.83	0.95
0.667	0.58	6.750	0.95	12.833	3.91	18.92	0.95
0.750	0.58	6.833	0.95	12.917	3.90	19.00	0.95
0.833	0.58	6.917	0.95	13.000	3.90	19.08	0.95
0.917	0.58	7.000	0.95	13.083	3.90	19.17	0.95
1.000	0.58	7.083	0.95	13.167	3.90	19.25	0.95
1.083	0.58	7.167	0.95	13.250	3.90	19.33	0.95
1.167	0.58	7.250	0.95	13.333	2.85	19.42	0.95
1.250	0.58	7.333	1.16	13.417	2.85	19.50	0.95
1.333	0.58	7.417	1.16	13.500	2.85	19.58	0.95

3 + 2 = 1		AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)		
ID1= 3 (0090):		0.73	0.088	12.25	31.15		
+ ID2= 2 (0080):		8.33	0.223	12.75	22.56		
ID = 1 (0090):		9.06	0.235	12.75	23.25		

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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=====================================================================================================

      V     V   I    SSSSS  U    U    A    L                (v 6.2.2020)
       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
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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\atrenholm\AppData\Local\Civica\VH5\8ef94b88-6605-479e-b003-b70f6886dc93\8ad9e91c-
Summary filename: C:\Users\atrenholm\AppData\Local\Civica\VH5\8ef94b88-6605-479e-b003-b70f6886dc93\8ad9e91c-

DATE: 06/05/2026   TIME: 04:00:05

USER:

COMMENTS: ____

** SIMULATION : 5yr 24hr 15min SCS Type II (M **

| READ STORM | | Ptotal= 72.96 mm |

Filename: C:\Users\atrenholm\AppD
ata\Local\Temp\
18437d2c-b486-467f-bd34-28794099a257\6c6ee626
Comments: 5yr 24hr 15min SCS Type II (MTO)

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.00	0.00	6.25	1.31	12.50	10.51	18.75	1.31
0.25	0.80	6.50	1.31	12.75	5.40	19.00	1.31
0.50	0.80	6.75	1.31	13.00	5.40	19.25	1.31
0.75	0.80	7.00	1.31	13.25	3.94	19.50	1.31
1.00	0.80	7.25	1.61	13.50	3.94	19.75	1.31
1.25	0.80	7.50	1.61	13.75	3.06	20.00	1.31
1.50	0.80	7.75	1.61	14.00	3.06	20.25	0.88
1.75	0.80	8.00	1.61	14.25	2.19	20.50	0.88
2.00	0.80	8.25	1.90	14.50	2.19	20.75	0.88
2.25	0.95	8.50	1.90	14.75	2.19	21.00	0.88
2.50	0.95	8.75	2.04	15.00	2.19	21.25	0.88
2.75	0.95	9.00	2.04	15.25	2.19	21.50	0.88
3.00	0.95	9.25	2.33	15.50	2.19	21.75	0.88
3.25	0.95	9.50	2.33	15.75	2.19	22.00	0.88
3.50	0.95	9.75	2.63	16.00	2.19	22.25	0.88
3.75	0.95	10.00	2.63	16.25	1.31	22.50	0.88
4.00	0.95	10.25	3.36	16.50	1.31	22.75	0.88
4.25	1.17	10.50	3.36	16.75	1.31	23.00	0.88
4.50	1.17	10.75	4.52	17.00	1.31	23.25	0.88
4.75	1.17	11.00	4.52	17.25	1.31	23.50	0.88
5.00	1.17	11.25	7.00	17.50	1.31	23.75	0.88
5.25	1.17	11.50	7.00	17.75	1.31	24.00	0.88
5.50	1.17	11.75	21.60	18.00	1.31		
5.75	1.17	12.00	89.30	18.25	1.31		
6.00	1.17	12.25	10.51	18.50	1.31		

| CALIB | NASHYD (0005) | ID= 1 DT= 5.0 min |

Area (ha)= 0.76   Curve Number (CN)= 87.0
Ia (mm)= 4.10   # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 0.28

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

RUNOFF COEFFICIENT = 0.608

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

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

Area (ha)= 0.25   Curve Number (CN)= 94.0
Ia (mm)= 3.00   # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 0.11

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	0.00	6.167	1.17	12.250	89.30	18.33	1.31
0.167	0.00	6.250	1.17	12.333	10.52	18.42	1.31
0.250	0.00	6.333	1.31	12.417	10.51	18.50	1.31
0.333	0.80	6.417	1.31	12.500	10.51	18.58	1.31
0.417	0.80	6.500	1.31	12.583	10.51	18.67	1.31
0.500	0.80	6.583	1.31	12.667	10.51	18.75	1.31
0.583	0.80	6.667	1.31	12.750	10.51	18.83	1.31
0.667	0.80	6.750	1.31	12.833	5.40	18.92	1.31
0.750	0.80	6.833	1.31	12.917	5.40	19.00	1.31
0.833	0.80	6.917	1.31	13.000	5.40	19.08	1.31
0.917	0.80	7.000	1.31	13.083	5.40	19.17	1.31
1.000	0.80	7.083	1.31	13.167	5.40	19.25	1.31
1.083	0.80	7.167	1.31	13.250	5.40	19.33	1.31
1.167	0.80	7.250	1.31	13.333	3.94	19.42	1.31
1.250	0.80	7.333	1.61	13.417	3.94	19.50	1.31
1.333	0.80	7.417	1.61	13.500	3.94	19.58	1.31
1.417	0.80	7.500	1.61	13.583	3.94	19.67	1.31
1.500	0.80	7.583	1.61	13.667	3.94	19.75	1.31
1.583	0.80	7.667	1.61	13.750	3.94	19.83	1.31
1.667	0.80	7.750	1.61	13.833	3.06	19.92	1.31
1.750	0.80	7.833	1.61	13.917	3.06	20.00	1.31
1.833	0.80	7.917	1.61	14.000	3.06	20.08	1.31
1.917	0.80	8.000	1.61	14.083	3.06	20.17	1.31
2.000	0.80	8.083	1.61	14.167	3.06	20.25	1.31
2.083	0.80	8.167	1.61	14.250	3.06	20.33	0.88
2.167	0.80	8.250	1.61	14.333	2.19	20.42	0.88
2.250	0.80	8.333	1.90	14.417	2.19	20.50	0.88
2.333	0.95	8.417	1.90	14.500	2.19	20.58	0.88
2.417	0.95	8.500	1.90	14.583	2.19	20.67	0.88
2.500	0.95	8.583	1.90	14.667	2.19	20.75	0.88
2.583	0.95	8.667	1.90	14.750	2.19	20.83	0.88
2.667	0.95	8.750	1.90	14.833	2.19	20.92	0.88
2.750	0.95	8.833	2.04	14.917	2.19	21.00	0.88
2.833	0.95	8.917	2.04	15.000	2.19	21.08	0.88
2.917	0.95	9.000	2.04	15.083	2.19	21.17	0.88
3.000	0.95	9.083	2.04	15.167	2.19	21.25	0.88
3.083	0.95	9.167	2.04	15.250	2.19	21.33	0.88
3.167	0.95	9.250	2.04	15.333	2.19	21.42	0.88
3.250	0.95	9.333	2.33	15.417	2.19	21.50	0.88
3.333	0.95	9.417	2.33	15.500	2.19	21.58	0.88
3.417	0.95	9.500	2.33	15.583	2.19	21.67	0.88
3.500	0.95	9.583	2.33	15.667	2.19	21.75	0.88
3.583	0.95	9.667	2.33	15.750	2.19	21.83	0.88
3.667	0.95	9.750	2.33	15.833	2.19	21.92	0.88
3.750	0.95	9.833	2.63	15.917	2.19	22.00	0.88
3.833	0.95	9.917	2.63	16.000	2.19	22.08	0.88
3.917	0.95	10.000	2.63	16.083	2.19	22.17	0.88
4.000	0.95	10.083	2.63	16.167	2.19	22.25	0.88
4.083	0.95	10.167	2.63	16.250	2.19	22.33	0.88
4.167	0.95	10.250	2.63	16.333	1.31	22.42	0.88
4.250	0.95	10.333	3.36	16.417	1.31	22.50	0.88
4.333	1.17	10.417	3.36	16.500	1.31	22.58	0.88
4.417	1.17	10.500	3.36	16.583	1.31	22.67	0.88
4.500	1.17	10.583	3.36	16.667	1.31	22.75	0.88
4.583	1.17	10.667	3.36	16.750	1.31	22.83	0.88
4.667	1.17	10.750	3.36	16.833	1.31	22.92	0.88
4.750	1.17	10.833	4.52	16.917	1.31	23.00	0.88
4.833	1.17	10.917	4.52	17.000	1.31	23.08	0.88
4.917	1.17	11.000	4.52	17.083	1.31	23.17	0.88
5.000	1.17	11.083	4.52	17.167	1.31	23.25	0.88
5.083	1.17	11.167	4.52	17.250	1.31	23.33	0.88
5.167	1.17	11.250	4.52	17.333	1.31	23.42	0.88
5.250	1.17	11.333	7.00	17.417	1.31	23.50	0.88
5.333	1.17	11.417	7.00	17.500	1.31	23.58	0.88
5.417	1.17	11.500	7.00	17.583	1.31	23.67	0.88
5.500	1.17	11.583	7.00	17.667	1.31	23.75	0.88
5.583	1.17	11.667	7.00	17.750	1.31	23.83	0.88

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.17	12.250	89.30	18.33	1.31
0.167	0.00	6.250	1.17	12.333	10.52	18.42	1.31
0.250	0.00	6.333	1.31	12.417	10.51	18.50	1.31
0.333	0.80	6.417	1.31	12.500	10.51	18.58	1.31
0.417	0.80	6.500	1.31	12.583	10.51	18.67	1.31
0.500	0.80	6.583	1.31	12.667	10.51	18.75	1.31
0.583	0.80	6.667	1.31	12.750	10.51	18.83	1.31
0.667	0.80	6.750	1.31	12.833	5.40	18.92	1.31
0.750	0.80	6.833	1.31	12.917	5.40	19.00	1.31
0.833	0.80	6.917	1.31	13.000	5.40	19.08	1.31
0.917	0.80	7.000	1.31	13.083	5.40	19.17	1.31
1.000	0.80	7.083	1.31	13.167	5.40	19.25	1.31
1.083	0.80	7.167	1.31	13.250	5.40	19.33	1.31
1.167	0.80	7.250	1.31	13.333	3.94	19.42	1.31
1.250	0.80	7.333	1.61	13.417	3.94	19.50	1.31
1.333	0.80	7.417	1.61	13.500	3.94	19.58	1.31
1.417	0.80	7.500	1.61	13.583	3.94	19.67	1.31
1.500	0.80	7.583	1.61	13.667	3.94	19.75	1.31
1.583	0.80	7.667	1.61	13.750	3.94	19.83	1.31
1.667	0.80	7.750	1.61	13.833	3.06	19.92	1.31
1.750	0.80	7.833	1.61	13.917	3.06	20.00	1.31
1.833	0.80	7.917	1.61	14.000	3.06	20.08	1.31
1.917	0.80	8.000	1.61	14.083	3.06	20.17	1.31
2.000	0.80	8.083	1.61	14.167	3.06	20.25	1.31
2.083	0.80	8.167	1.61	14.250	3.06	20.33	0.88
2.167	0.80	8.250	1.61	14.333	2.19	20.42	0.88
2.250	0.80	8.333	1.90	14.417	2.19	20.50	0.88
2.333	0.95	8.417	1.90	14.500	2.19	20.58	0.88
2.417	0.95	8.500	1.90	14.583	2.19	20.67	0.88
2.500	0.95	8.583	1.90	14.667	2.19	20.75	0.88
2.583	0.95	8.667	1.90	14.750	2.19	20.83	0.88
2.667	0.95	8.750	1.90	14.833	2.19	20.92	0.88
2.750	0.95	8.833	2.04	14.917	2.19	21.00	0.88
2.833	0.95	8.917	2.04	15.000	2.19	21.08	0.88
2.917	0.95	9.000	2.04	15.083	2.19	21.17	0.88
3.000	0.95	9.083	2.04	15.167	2.19	21.25	0.88
3.083	0.95	9.167	2.04	15.250	2.19	21.33	0.88
3.167	0.95	9.250	2.04	15.333	2.19	21.42	0.88
3.250	0.95	9.333	2.33	15.417	2.19	21.50	0.88
3.333	0.95	9.417	2.33	15.500	2.19	21.58	0.88
3.417	0.95	9.500	2.33	15.583	2.19	21.67	0.88
3.500	0.95	9.583	2.33	15.667	2.19	21.75	0.88
3.583	0.95	9.667	2.33	15.750	2.19	21.83	0.88
3.667	0.95	9.750	2.33	15.833	2.19	21.92	0.88
3.750	0.95	9.833	2.63	15.917	2.19	22.00	0.88
3.833	0.95	9.917	2.63	16.000	2.19	22.08	0.88
3.917	0.95	10.000	2.63	16.083	2.19	22.17	0.88
4.000	0.95	10.083	2.63	16.167	2.19	22.25	0.88
4.083	0.95	10.167	2.63	16.250	2.19	22.33	0.88
4.167	0.95	10.250	2.63	16.333	1.31	22.42	0.88
4.250	0.95	10.333	3.36	16.417	1.31	22.50	0.88
4.333	1.17	10.417	3.36	16.500	1.31	22.58	0.88
4.417	1.17	10.500	3.36	16.583	1.31	22.67	0.88
4.500	1.17	10.583	3.36	16.667	1.31	22.75	0.88
4.583	1.17	10.667	3.36	16.750	1.31	22.83	0.88
4.667	1.17	10.750	3.36	16.833	1.31	22.92	0.88
4.750	1.17	10.833	4.52	16.917	1.31	23.00	0.88
4.833	1.17	10.917	4.52	17.000	1.31	23.08	0.88
4.917	1.17	11.000	4.52	17.083	1.31	23.17	0.88
5.000	1.17	11.083	4.52	17.167	1.31	23.25	0.88
5.083	1.17	11.167	4.52	17.250	1.31	23.33	0.88
5.167	1.17	11.250	4.52	17.333	1.31	23.42	0.88
5.250	1.17	11.333	7.00	17.417	1.31	23.50	0.88
5.333	1.17	11.417	7.00	17.500	1.31	23.58	0.88
5.417	1.17	11.500	7.00	17.583	1.31	23.67	0.88
5.500	1.17	11.583	7.00	17.667	1.31	23.75	0.88
5.583	1.17	11.667	7.00	17.750	1.31	23.83	0.88
5.667	1.17	11.750	7.00	17.833	1.31	23.92	0.88
5.750	1.17	11.833	21.59	17.917	1.31	24.00	0.88
5.833	1.17	11.917	21.60	18.000	1.31	24.08	0.88
5.917	1.17	12.000	21.60	18.083	1.31	24.17	0.88
6.000	1.17	12.083	89.29	18.167	1.31	24.25	0.88
6.083	1.17	12.167	89.30	18.250	1.31		

Unit Hyd Qpeak (cms)= 0.104

PEAK FLOW (cms)= 0.071 (i)
TIME TO PEAK (hrs)= 12.417
RUNOFF VOLUME (mm)= 44.369
TOTAL RAINFALL (mm)= 72.960

5.667	1.17	11.750	7.00	17.833	1.31	23.92	0.88
5.750	1.17	11.833	21.59	17.917	1.31	24.00	0.88
5.833	1.17	11.917	21.60	18.000	1.31	24.08	0.88
5.917	1.17	12.000	21.60	18.083	1.31	24.17	0.88
6.000	1.17	12.083	89.29	18.167	1.31	24.25	0.88
6.083	1.17	12.167	89.30	18.250	1.31		

Unit Hyd Qpeak (cms)= 0.087

PEAK FLOW (cms)= 0.050 (i)
TIME TO PEAK (hrs)= 12.250
RUNOFF VOLUME (mm)= 55.752
TOTAL RAINFALL (mm)= 72.960
RUNOFF COEFFICIENT = 0.764

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

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

Area (ha)= 8.08   Curve Number (CN)= 82.0
Ia (mm)= 4.90   # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 0.57

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	0.00	6.167	1.17	12.250	89.30	18.33	1.31
0.167	0.00	6.250	1.17	12.333	10.52	18.42	1.31
0.250	0.00	6.333	1.31	12.417	10.51	18.50	1.31
0.333	0.80	6.417	1.31	12.500	10.51	18.58	1.31
0.417	0.80	6.500	1.31	12.583	10.51	18.67	1.31
0.500	0.80	6.583	1.31	12.667	10.51	18.75	1.31
0.583	0.80	6.667	1.31	12.750	10.51	18.83	1.31
0.667	0.80	6.750	1.31	12.833	5.40	18.92	1.31
0.750	0.80	6.833	1.31	12.917	5.40	19.00	1.31
0.833	0.80	6.917	1.31	13.000	5.40	19.08	1.31
0.917	0.80	7.000	1.31	13.083	5.40	19.17	1.31
1.000	0.80	7.083	1.31	13.167	5.40	19.25	1.31
1.083	0.80	7.167	1.31	13.250	5.40	19.33	1.31
1.167	0.80	7.250	1.31	13.333	3.94	19.42	1.31
1.250	0.80	7.333	1.61	13.417	3.94	19.50	1.31
1.333	0.80	7.417	1.61	13.500	3.94	19.58	1.31
1.417	0.80	7.500	1.61	13.583	3.94	19.67	1.31
1.500	0.80	7.583	1.61	13.667	3.94	19.75	1.31
1.583	0.80	7.667	1.61	13.750	3.94	19.83	1.31
1.667	0.80	7.750	1.61	13.833	3.06	19.92	1.31
1.750	0.80	7.833	1.61	13.917	3.06	20.00	1.31
1.833	0.80	7.917	1.61	14.000	3.06	20.08	1.31
1.917	0.80	8.000	1.61	14.083	3.06	20.17	1.31
2.000	0.80	8.083	1.61	14.167	3.06	20.25	1.31
2.083	0.80	8.167	1.61	14.250	3.06	20.33	0.88
2.167	0.80	8.250	1.61	14.333	2.19	20.42	0.88
2.250	0.80	8.333	1.90	14.417	2.19	20.50	0.88
2.333	0.95	8.417	1.90	14.500	2.19	20.58	0.88
2.417	0.95	8.500	1.90	14.583	2.19	20.67	0.88
2.500	0.95	8.583	1.90	14.667	2.19	20.75	0.88
2.583	0.95	8.667	1.90	14.750	2.19	20.83	0.88
2.667	0.95	8.750	1.90	14.833	2.19	20.92	0.88
2.750	0.95	8.833	2.04	14.917	2.19	21.00	0.88
2.833	0.95	8.917	2.04	15.000	2.19	21.08	0.88
2.917	0.95	9.000	2.04	15.083	2.19	21.17	0.88
3.000	0.95	9.083	2.04	15.167	2.19	21.25	0.88
3.083	0.95	9.167	2.04	15.250	2.19	21.33	0.88
3.167	0.95	9.250	2.04	15.333	2.19	21.42	0.88
3.250	0.95	9.333	2.33	15.417	2.19	21.50	0.88
3.333	0.95	9.417	2.33	15.500	2.19	21.58	0.88
3.417	0.95	9.500	2.33	15.583	2.19	21.67	0.88
3.500	0.95	9.583	2.33	15.667	2.19	21.75	0.88
3.583	0.95	9.667	2.33	15.750	2.19	21.83	0.88
3.667	0.95	9.750	2.33	15.833	2.19	21.92	0.88
3.750	0.95	9.833	2.63	15.917	2.19	22.00	0.88
3.833	0.95	9.917	2.63	16.000	2.19	22.08	0.88
3.917	0.95	10.000	2.63	16.083	2.19	22.17	0.88
4.000	0.95	10.083	2.63	16.167	2.19	22.25	0.88
4.083	0.95	10.167	2.63	16.250	2.19	22.33	0.88
4.167	0.95	10.250	2.63	16.333	1.31	22.42	0.88
4.250	0.95	10.333	3.36	16.417	1.31	22.50	0.88
4.333	1.17	10.417	3.36	16.500	1.31	22.58	0.88
4.417	1.17	10.500	3.36	16.583	1.31	22.67	0.88
4.500	1.17	10.583	3.36	16.667	1.31	22.75	0.88

4.583	1.17	10.667	3.36	16.750	1.31	22.83	0.88
4.667	1.17	10.750	3.36	16.833	1.31	22.92	0.88
4.750	1.17	10.833	4.52	16.917	1.31	23.00	0.88
4.833	1.17	10.917	4.52	17.000	1.31	23.08	0.88
4.917	1.17	11.000	4.52	17.083	1.31	23.17	0.88
5.000	1.17	11.083	4.52	17.167	1.31	23.25	0.88
5.083	1.17	11.167	4.52	17.250	1.31	23.33	0.88
5.167	1.17	11.250	4.52	17.333	1.31	23.42	0.88
5.250	1.17	11.333	7.00	17.417	1.31	23.50	0.88
5.333	1.17	11.417	7.00	17.500	1.31	23.58	0.88
5.417	1.17	11.500	7.00	17.583	1.31	23.67	0.88
5.500	1.17	11.583	7.00	17.667	1.31	23.75	0.88
5.583	1.17	11.667	7.00	17.750	1.31	23.83	0.88
5.667	1.17	11.750	7.00	17.833	1.31	23.92	0.88
5.750	1.17	11.833	21.59	17.917	1.31	24.00	0.88
5.833	1.17	11.917	21.60	18.000	1.31	24.08	0.88
5.917	1.17	12.000	21.60	18.083	1.31	24.17	0.88
6.000	1.17	12.083	89.29	18.167	1.31	24.25	0.88
6.083	1.17	12.167	89.30	18.250	1.31		

Unit Hyd Qpeak (cms)= 0.541

PEAK FLOW (cms)= 0.374 (i)
TIME TO PEAK (hrs)= 12.750
RUNOFF VOLUME (mm)= 37.411
TOTAL RAINFALL (mm)= 72.960
RUNOFF COEFFICIENT = 0.513

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

ADD HYD (0080)		AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3		(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0001):		0.25	0.050	12.25	55.75
+ ID2= 2 (0002):		8.08	0.374	12.75	37.41
ID = 3 (0080):		8.33	0.381	12.75	37.96

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB					
NASHYD (0003)	Area	(ha)=	0.39	Curve Number	(CN)= 91.0
ID= 1 DT= 5.0 min	Ia	(mm)=	3.50	# of Linear Res.(N)= 3.00	
	U.H. Tp(hrs)=		0.11		

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	0.00	6.167	1.17	12.250	89.30	18.33	1.31
0.167	0.00	6.250	1.17	12.333	10.52	18.42	1.31
0.250	0.00	6.333	1.31	12.417	10.51	18.50	1.31
0.333	0.80	6.417	1.31	12.500	10.51	18.58	1.31
0.417	0.80	6.500	1.31	12.583	10.51	18.67	1.31
0.500	0.80	6.583	1.31	12.667	10.51	18.75	1.31
0.583	0.80	6.667	1.31	12.750	10.51	18.83	1.31
0.667	0.80	6.750	1.31	12.833	5.40	18.92	1.31
0.750	0.80	6.833	1.31	12.917	5.40	19.00	1.31
0.833	0.80	6.917	1.31	13.000	5.40	19.08	1.31
0.917	0.80	7.000	1.31	13.083	5.40	19.17	1.31
1.000	0.80	7.083	1.31	13.167	5.40	19.25	1.31
1.083	0.80	7.167	1.31	13.250	5.40	19.33	1.31
1.167	0.80	7.250	1.31	13.333	3.94	19.42	1.31
1.250	0.80	7.333	1.61	13.417	3.94	19.50	1.31
1.333	0.80	7.417	1.61	13.500	3.94	19.58	1.31
1.417	0.80	7.500	1.61	13.583	3.94	19.67	1.31
1.500	0.80	7.583	1.61	13.667	3.94	19.75	1.31
1.583	0.80	7.667	1.61	13.750	3.94	19.83	1.31
1.667	0.80	7.750	1.61	13.833	3.06	19.92	1.31
1.750	0.80	7.833	1.61	13.917	3.06	20.00	1.31
1.833	0.80	7.917	1.61	14.000	3.06	20.08	1.31
1.917	0.80	8.000	1.61	14.083	3.06	20.17	1.31
2.000	0.80	8.083	1.61	14.167	3.06	20.25	1.31
2.083	0.80	8.167	1.61	14.250	3.06	20.33	0.88
2.167	0.80	8.250	1.61	14.333	2.19	20.42	0.88
2.250	0.80	8.333	1.90	14.417	2.19	20.50	0.88
2.333	0.95	8.417	1.90	14.500	2.19	20.58	0.88
2.417	0.95	8.500	1.90	14.583	2.19	20.67	0.88
2.500	0.95	8.583	1.90	14.667	2.19	20.75	0.88
2.583	0.95	8.667	1.90	14.750	2.19	20.83	0.88
2.667	0.95	8.750	1.90	14.833	2.19	20.92	0.88
2.750	0.95	8.833	2.04	14.917	2.19	21.00	0.88
2.833	0.95	8.917	2.04	15.000	2.19	21.08	0.88
2.917	0.95	9.000	2.04	15.083	2.19	21.17	0.88
3.000	0.95	9.083	2.04	15.167	2.19	21.25	0.88
3.083	0.95	9.167	2.04	15.250	2.19	21.33	0.88
3.167	0.95	9.250	2.04	15.333	2.19	21.42	0.88
3.250	0.95	9.333	2.33	15.417	2.19	21.50	0.88
3.333	0.95	9.417	2.33	15.500	2.19	21.58	0.88
3.417	0.95	9.500	2.33	15.583	2.19	21.67	0.88
3.500	0.95	9.583	2.33	15.667	2.19	21.75	0.88
3.583	0.95	9.667	2.33	15.750	2.19	21.83	0.88
3.667	0.95	9.750	2.33	15.833	2.19	21.92	0.88
3.750	0.95	9.833	2.63	15.917	2.19	22.00	0.88
3.833	0.95	9.917	2.63	16.000	2.19	22.08	0.88
3.917	0.95	10.000	2.63	16.083	2.19	22.17	0.88
4.000	0.95	10.083	2.63	16.167	2.19	22.25	0.88
4.083	0.95	10.167	2.63	16.250	2.19	22.33	0.88
4.167	0.95	10.250	2.63	16.333	1.31	22.42	0.88
4.250	0.95	10.333	3.36	16.417	1.31	22.50	0.88
4.333	1.17	10.417	3.36	16.500	1.31	22.58	0.88
4.417	1.17	10.500	3.36	16.583	1.31	22.67	0.88
4.500	1.17	10.583	3.36	16.667	1.31	22.75	0.88
4.583	1.17	10.667	3.36	16.750	1.31	22.83	0.88
4.667	1.17	10.750	3.36	16.833	1.31	22.92	0.88
4.750	1.17	10.833	4.52	16.917	1.31	23.00	0.88
4.833	1.17	10.917	4.52	17.000	1.31	23.08	0.88
4.917	1.17	11.000	4.52	17.083	1.31	23.17	0.88
5.000	1.17	11.083	4.52	17.167	1.31	23.25	0.88
5.083	1.17	11.167	4.52	17.250	1.31	23.33	0.88
5.167	1.17	11.250	4.52	17.333	1.31	23.42	0.88
5.250	1.17	11.333	7.00	17.417	1.31	23.50	0.88
5.333	1.17	11.417	7.00	17.500	1.31	23.58	0.88
5.417	1.17	11.500	7.00	17.583	1.31	23.67	0.88
5.500	1.17	11.583	7.00	17.667	1.31	23.75	0.88
5.583	1.17	11.667	7.00	17.750	1.31	23.83	0.88
5.667	1.17	11.750	7.00	17.833	1.31	23.92	0.88
5.750	1.17	11.833	21.59	17.917	1.31	24.00	0.88
5.833	1.17	11.917	21.60	18.000	1.31	24.08	0.88
5.917	1.17	12.000	21.60	18.083	1.31	24.17	0.88
6.000	1.17	12.083	89.29	18.167	1.31	24.25	0.88
6.083	1.17	12.167	89.30	18.250	1.31		

Unit Hyd Qpeak (cms)= 0.144

PEAK FLOW (cms)= 0.063 (i)
TIME TO PEAK (hrs)= 12.250
RUNOFF VOLUME (mm)= 47.526
TOTAL RAINFALL (mm)= 72.960
RUNOFF COEFFICIENT = 0.651

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

ADD HYD (0090)		AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3		(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0003):		0.39	0.072	12.25	50.07
+ ID2= 2 (0004):		0.34	0.063	12.25	47.53
ID = 3 (0090):		0.73	0.135	12.25	48.89

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0090)

2.500	0.95	8.583	1.90	14.667	2.19	20.75	0.88
2.583	0.95	8.667	1.90	14.750	2.19	20.83	0.88
2.667	0.95	8.750	1.90	14.833	2.19	20.92	0.88
2.750	0.95	8.833	2.04	14.917	2.19	21.00	0.88
2.833	0.95	8.917	2.04	15.000	2.19	21.08	0.88
2.917	0.95	9.000	2.04	15.083	2.19	21.17	0.88
3.000	0.95	9.083	2.04	15.167	2.19	21.25	0.88
3.083	0.95	9.167	2.04	15.250	2.19	21.33	0.88
3.167	0.95	9.250	2.04	15.333	2.19	21.42	0.88
3.250	0.95	9.333	2.33	15.417	2.19	21.50	0.88
3.333	0.95	9.417	2.33	15.500	2.19	21.58	0.88
3.417	0.95	9.500	2.33	15.583	2.19	21.67	0.88
3.500	0.95	9.583	2.33	15.667	2.19	21.75	0.88
3.583	0.95	9.667	2.33	15.750	2.19	21.83	0.88
3.667	0.95	9.750	2.33	15.833	2.19	21.92	0.88
3.750	0.95	9.833	2.63	15.917	2.19	22.00	0.88
3.833	0.95	9.917	2.63	16.000	2.19	22.08	0.88
3.917	0.95	10.000	2.63	16.083	2.19	22.17	0.88
4.000	0.95	10.083	2.63	16.167	2.19	22.25	0.88
4.083	0.95	10.167	2.63	16.250	2.19	22.33	0.88
4.167	0.95	10.250	2.63	16.333	1.31	22.42	0.88
4.250	0.95	10.333	3.36	16.417	1.31	22.50	0.88
4.333	1.17	10.417	3.36	16.500	1.31	22.58	0.88
4.417	1.17	10.500	3.36	16.583	1.31	22.67	0.88
4.500	1.17	10.583	3.36	16.667	1.31	22.75	0.88
4.583	1.17	10.667	3.36	16.750	1.31	22.83	0.88
4.667	1.17	10.750	3.36	16.833	1.31	22.92	0.88
4.750	1.17	10.833	4.52	16.917	1.31	23.00	0.88
4.833	1.17	10.917	4.52	17.000	1.31	23.08	0.88
4.917	1.17	11.000	4.52	17.083	1.31	23.17	0.88
5.000	1.17	11.083	4.52	17.167	1.31	23.25	0.88
5.083	1.17	11.167	4.52	17.250	1.31	23.33	0.88
5.167	1.17	11.250	4.52	17.333	1.31	23.42	0.88
5.250	1.17	11.333	7.00	17.417	1.31	23.50	0.88
5.333	1.17	11.417	7.00	17.500	1.31	23.58	0.88
5.417	1.17	11.500	7.00	17.583	1.31	23.67	0.88
5.500	1.17	11.583	7.00	17.667	1.31	23.75	0.88
5.583	1.17	11.667	7.00	17.750	1.31	23.83	0.88
5.667	1.17	11.750	7.00	17.833	1.31	23.92	0.88
5.750	1.17	11.833	21.59	17.917	1.31	24.00	0.88
5.833	1.17	11.917	21.60	18.000	1.31	24.08	0.88
5.917	1.17	12.000	21.60	18.083	1.31	24.17	0.88
6.000	1.17	12.083	89.29	18.167	1.31	24.25	0.88
6.083	1.17	12.167	89.30	18.250	1.31		

Unit Hyd Qpeak (cms)= 0.135

PEAK FLOW (cms)= 0.072 (i)
TIME TO PEAK (hrs)= 12.250
RUNOFF VOLUME (mm)= 50.072
TOTAL RAINFALL (mm)= 72.960
RUNOFF COEFFICIENT = 0.686

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

CALIB					
NASHYD (0004)	Area	(ha)=	0.34	Curve Number	(CN)= 90.0
ID= 1 DT= 5.0 min	Ia	(mm)=	3.50	# of Linear Res.(N)= 3.00	
	U.H. Tp(hrs)=		0.09		

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	0.00	6.167	1.17	12.250	89.30	18.33	1.31
0.167	0.00	6.250	1.17	12.333	10.52	18.42	1.31
0.250	0.00	6.333	1.31	12.417	10.51	18.50	1.31
0.333	0.80	6.417	1.31	12.500	10.51	18.58	1.31
0.417	0.80	6.500	1.31	12.583	10.51	18.67	1.31
0.500	0.80	6.583	1.31	12.667	10.51	18.75	1.31
0.583	0.80	6.667	1.31	12.750	10.51	18.83	1.31
0.667	0.80	6.750	1.31	12.833	5.40	18.92	1.31
0.750	0.80	6.833	1.31	12.917	5.40	19.00	1.31
0.833	0.80	6.917	1.31	13.000	5.40	19.08	1.31
0.917	0.80	7.000	1.31	13.083	5.40	19.17	1.31
1.000	0.80	7.083	1.31	13.167	5.40	19.25	1.31
1.083	0.80	7.167	1.31	13.250	5.40	19.33	1.31
1.167	0.80	7.250	1.31	13.333	3.94	19.42	1.31
1.250	0.80	7.333	1.61	13.417	3.94	19.50	1.31
1.333	0.80	7.417	1.61	13.500	3.94	19.58	1.31

3 + 2 = 1	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (0090):	0.73	0.135	12.25	48.89
+ ID2= 2 (0080):	8.33	0.381	12.75	37.96
ID = 1 (0090):	9.06	0.399	12.75	38.84

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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================================================================================================================

      V      V   I    SSSSS  U    U    A    L                (v 6.2.2020)
       V    V   I    SS     U    U   A A   L
        V  V    I     SS    U    U  AAAAA  L
         VV     I      SS   U    U  A   A  L
         VV     I    SSSSS  UUUUU  A   A  LLLLL

      OOO    TTTTT  TTTTT  H   H  Y   Y  M   M   OOO    TM
     O   O     T      T    H   H   Y Y   MM MM  O   O
     O   O     T      T    H   H    Y    M M M  O   O
      OOO      T      T    H   H    Y    M   M   OOO
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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\atrenholm\AppData\Local\Civica\VH5\8ef94b88-6605-479e-b003-b70f6886dc93\ea0561b0-
  Summary filename: C:\Users\atrenholm\AppData\Local\Civica\VH5\8ef94b88-6605-479e-b003-b70f6886dc93\ea0561b0-


DATE: 06/05/2026                          TIME: 04:00:06

USER:



COMMENTS: _____________________________________________________


--------------------------------------------------------------------------------------------------------------------
  ************************************************
 ** SIMULATION : 10yr 24hr 15min SCS Type II ( **
  ************************************************


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|    READ STORM    |    Filename: C:\Users\atrenholm\AppD
|                  |              ata\Local\Temp\
|                  |              18437d2c-b486-467f-bd34-28794099a257\701bf2a8
| Ptotal= 86.18 mm |    Comments: 10yr 24hr 15min SCS Type II (MTO)
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TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.00	0.00	6.25	1.55	12.50	12.41	18.75	1.55
0.25	0.00	6.50	1.55	12.75	6.38	19.00	1.55
0.50	0.95	6.75	1.55	13.00	6.38	19.25	1.55
0.75	0.95	7.00	1.55	13.25	4.65	19.50	1.55
1.00	0.95	7.25	1.90	13.50	4.65	19.75	1.55
1.25	0.95	7.50	1.90	13.75	3.62	20.00	1.55
1.50	0.95	7.75	1.90	14.00	3.62	20.25	1.03
1.75	0.95	8.00	1.90	14.25	2.59	20.50	1.03
2.00	0.95	8.25	2.24	14.50	2.59	20.75	1.03
2.25	1.12	8.50	2.24	14.75	2.59	21.00	1.03
2.50	1.12	8.75	2.41	15.00	2.59	21.25	1.03
2.75	1.12	9.00	2.41	15.25	2.59	21.50	1.03
3.00	1.12	9.25	2.76	15.50	2.59	21.75	1.03
3.25	1.12	9.50	2.76	15.75	2.59	22.00	1.03
3.50	1.12	9.75	3.10	16.00	2.59	22.25	1.03
3.75	1.12	10.00	3.10	16.25	1.55	22.50	1.03
4.00	1.12	10.25	3.96	16.50	1.55	22.75	1.03
4.25	1.38	10.50	3.96	16.75	1.55	23.00	1.03
4.50	1.38	10.75	5.34	17.00	1.55	23.25	1.03
4.75	1.38	11.00	5.34	17.25	1.55	23.50	1.03
5.00	1.38	11.25	8.27	17.50	1.55	23.75	1.03
5.25	1.38	11.50	8.27	17.75	1.55	24.00	1.03
5.50	1.38	11.75	25.51	18.00	1.55		
5.75	1.38	12.00	105.48	18.25	1.55		
6.00	1.38	12.25	12.41	18.50	1.55		

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| CALIB            |
| NASHYD   (  0005)|   Area    (ha)=   0.76   Curve Number   (CN)= 87.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.10   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.28

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



     RUNOFF COEFFICIENT   =   0.651

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

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| CALIB            |
| NASHYD   (  0001)|   Area    (ha)=   0.25   Curve Number   (CN)= 94.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   3.00   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.11

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

                          ---- TRANSFORMED HYETOGRAPH ----
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TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.38	12.250	105.48	18.33	1.55
0.167	0.00	6.250	1.38	12.333	12.42	18.42	1.55
0.250	0.00	6.333	1.55	12.417	12.41	18.50	1.55
0.333	0.95	6.417	1.55	12.500	12.41	18.58	1.55
0.417	0.95	6.500	1.55	12.583	12.41	18.67	1.55
0.500	0.95	6.583	1.55	12.667	12.41	18.75	1.55
0.583	0.95	6.667	1.55	12.750	12.41	18.83	1.55
0.667	0.95	6.750	1.55	12.833	6.38	18.92	1.55
0.750	0.95	6.833	1.55	12.917	6.38	19.00	1.55
0.833	0.95	6.917	1.55	13.000	6.38	19.08	1.55
0.917	0.95	7.000	1.55	13.083	6.38	19.17	1.55
1.000	0.95	7.083	1.55	13.167	6.38	19.25	1.55
1.083	0.95	7.167	1.55	13.250	6.38	19.33	1.55
1.167	0.95	7.250	1.55	13.333	4.65	19.42	1.55
1.250	0.95	7.333	1.90	13.417	4.65	19.50	1.55
1.333	0.95	7.417	1.90	13.500	4.65	19.58	1.55
1.417	0.95	7.500	1.90	13.583	4.65	19.67	1.55
1.500	0.95	7.583	1.90	13.667	4.65	19.75	1.55
1.583	0.95	7.667	1.90	13.750	4.65	19.83	1.55
1.667	0.95	7.750	1.90	13.833	3.62	19.92	1.55
1.750	0.95	7.833	1.90	13.917	3.62	20.00	1.55
1.833	0.95	7.917	1.90	14.000	3.62	20.08	1.55
1.917	0.95	8.000	1.90	14.083	3.62	20.17	1.55
2.000	0.95	8.083	1.90	14.167	3.62	20.25	1.55
2.083	0.95	8.167	1.90	14.250	3.62	20.33	1.03
2.167	0.95	8.250	1.90	14.333	2.59	20.42	1.03
2.250	0.95	8.333	2.24	14.417	2.59	20.50	1.03
2.333	1.12	8.417	2.24	14.500	2.59	20.58	1.03
2.417	1.12	8.500	2.24	14.583	2.59	20.67	1.03
2.500	1.12	8.583	2.24	14.667	2.59	20.75	1.03
2.583	1.12	8.667	2.24	14.750	2.59	20.83	1.03
2.667	1.12	8.750	2.24	14.833	2.59	20.92	1.03
2.750	1.12	8.833	2.41	14.917	2.59	21.00	1.03
2.833	1.12	8.917	2.41	15.000	2.59	21.08	1.03
2.917	1.12	9.000	2.41	15.083	2.59	21.17	1.03
3.000	1.12	9.083	2.41	15.167	2.59	21.25	1.03
3.083	1.12	9.167	2.41	15.250	2.59	21.33	1.03
3.167	1.12	9.250	2.41	15.333	2.59	21.42	1.03
3.250	1.12	9.333	2.76	15.417	2.59	21.50	1.03
3.333	1.12	9.417	2.76	15.500	2.59	21.58	1.03
3.417	1.12	9.500	2.76	15.583	2.59	21.67	1.03
3.500	1.12	9.583	2.76	15.667	2.59	21.75	1.03
3.583	1.12	9.667	2.76	15.750	2.59	21.83	1.03
3.667	1.12	9.750	2.76	15.833	2.59	21.92	1.03
3.750	1.12	9.833	3.10	15.917	2.59	22.00	1.03
3.833	1.12	9.917	3.10	16.000	2.59	22.08	1.03
3.917	1.12	10.000	3.10	16.083	2.59	22.17	1.03
4.000	1.12	10.083	3.10	16.167	2.59	22.25	1.03
4.083	1.12	10.167	3.10	16.250	2.59	22.33	1.03
4.167	1.12	10.250	3.10	16.333	1.55	22.42	1.03
4.250	1.12	10.333	3.96	16.417	1.55	22.50	1.03
4.333	1.38	10.417	3.96	16.500	1.55	22.58	1.03
4.417	1.38	10.500	3.96	16.583	1.55	22.67	1.03
4.500	1.38	10.583	3.96	16.667	1.55	22.75	1.03
4.583	1.38	10.667	3.96	16.750	1.55	22.83	1.03
4.667	1.38	10.750	3.96	16.833	1.55	22.92	1.03
4.750	1.38	10.833	5.34	16.917	1.55	23.00	1.03
4.833	1.38	10.917	5.34	17.000	1.55	23.08	1.03
4.917	1.38	11.000	5.34	17.083	1.55	23.17	1.03
5.000	1.38	11.083	5.34	17.167	1.55	23.25	1.03
5.083	1.38	11.167	5.34	17.250	1.55	23.33	1.03
5.167	1.38	11.250	5.34	17.333	1.55	23.42	1.03
5.250	1.38	11.333	8.27	17.417	1.55	23.50	1.03
5.333	1.38	11.417	8.27	17.500	1.55	23.58	1.03
5.417	1.38	11.500	8.27	17.583	1.55	23.67	1.03
5.500	1.38	11.583	8.27	17.667	1.55	23.75	1.03
5.583	1.38	11.667	8.27	17.750	1.55	23.83	1.03

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                          ---- TRANSFORMED HYETOGRAPH ----
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TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.38	12.250	105.48	18.33	1.55
0.167	0.00	6.250	1.38	12.333	12.42	18.42	1.55
0.250	0.00	6.333	1.55	12.417	12.41	18.50	1.55
0.333	0.95	6.417	1.55	12.500	12.41	18.58	1.55
0.417	0.95	6.500	1.55	12.583	12.41	18.67	1.55
0.500	0.95	6.583	1.55	12.667	12.41	18.75	1.55
0.583	0.95	6.667	1.55	12.750	12.41	18.83	1.55
0.667	0.95	6.750	1.55	12.833	6.38	18.92	1.55
0.750	0.95	6.833	1.55	12.917	6.38	19.00	1.55
0.833	0.95	6.917	1.55	13.000	6.38	19.08	1.55
0.917	0.95	7.000	1.55	13.083	6.38	19.17	1.55
1.000	0.95	7.083	1.55	13.167	6.38	19.25	1.55
1.083	0.95	7.167	1.55	13.250	6.38	19.33	1.55
1.167	0.95	7.250	1.55	13.333	4.65	19.42	1.55
1.250	0.95	7.333	1.90	13.417	4.65	19.50	1.55
1.333	0.95	7.417	1.90	13.500	4.65	19.58	1.55
1.417	0.95	7.500	1.90	13.583	4.65	19.67	1.55
1.500	0.95	7.583	1.90	13.667	4.65	19.75	1.55
1.583	0.95	7.667	1.90	13.750	4.65	19.83	1.55
1.667	0.95	7.750	1.90	13.833	3.62	19.92	1.55
1.750	0.95	7.833	1.90	13.917	3.62	20.00	1.55
1.833	0.95	7.917	1.90	14.000	3.62	20.08	1.55
1.917	0.95	8.000	1.90	14.083	3.62	20.17	1.55
2.000	0.95	8.083	1.90	14.167	3.62	20.25	1.55
2.083	0.95	8.167	1.90	14.250	3.62	20.33	1.03
2.167	0.95	8.250	1.90	14.333	2.59	20.42	1.03
2.250	0.95	8.333	2.24	14.417	2.59	20.50	1.03
2.333	1.12	8.417	2.24	14.500	2.59	20.58	1.03
2.417	1.12	8.500	2.24	14.583	2.59	20.67	1.03
2.500	1.12	8.583	2.24	14.667	2.59	20.75	1.03
2.583	1.12	8.667	2.24	14.750	2.59	20.83	1.03
2.667	1.12	8.750	2.24	14.833	2.59	20.92	1.03
2.750	1.12	8.833	2.41	14.917	2.59	21.00	1.03
2.833	1.12	8.917	2.41	15.000	2.59	21.08	1.03
2.917	1.12	9.000	2.41	15.083	2.59	21.17	1.03
3.000	1.12	9.083	2.41	15.167	2.59	21.25	1.03
3.083	1.12	9.167	2.41	15.250	2.59	21.33	1.03
3.167	1.12	9.250	2.41	15.333	2.59	21.42	1.03
3.250	1.12	9.333	2.76	15.417	2.59	21.50	1.03
3.333	1.12	9.417	2.76	15.500	2.59	21.58	1.03
3.417	1.12	9.500	2.76	15.583	2.59	21.67	1.03
3.500	1.12	9.583	2.76	15.667	2.59	21.75	1.03
3.583	1.12	9.667	2.76	15.750	2.59	21.83	1.03
3.667	1.12	9.750	2.76	15.833	2.59	21.92	1.03
3.750	1.12	9.833	3.10	15.917	2.59	22.00	1.03
3.833	1.12	9.917	3.10	16.000	2.59	22.08	1.03
3.917	1.12	10.000	3.10	16.083	2.59	22.17	1.03
4.000	1.12	10.083	3.10	16.167	2.59	22.25	1.03
4.083	1.12	10.167	3.10	16.250	2.59	22.33	1.03
4.167	1.12	10.250	3.10	16.333	1.55	22.42	1.03
4.250	1.12	10.333	3.96	16.417	1.55	22.50	1.03
4.333	1.38	10.417	3.96	16.500	1.55	22.58	1.03
4.417	1.38	10.500	3.96	16.583	1.55	22.67	1.03
4.500	1.38	10.583	3.96	16.667	1.55	22.75	1.03

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                          ---- TRANSFORMED HYETOGRAPH ----
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TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.38	12.250	105.48	18.33	1.55
0.167	0.00	6.250	1.38	12.333	12.42	18.42	1.55
0.250	0.00	6.333	1.55	12.417	12.41	18.50	1.55
0.333	0.95	6.417	1.55	12.500	12.41	18.58	1.55
0.417	0.95	6.500	1.55	12.583	12.41	18.67	1.55
0.500	0.95	6.583	1.55	12.667	12.41	18.75	1.55
0.583	0.95	6.667	1.55	12.750	12.41	18.83	1.55
0.667	0.95	6.750	1.55	12.833	6.38	18.92	1.55
0.750	0.95	6.833	1.55	12.917	6.38	19.00	1.55
0.833	0.95	6.917	1.55	13.000	6.38	19.08	1.55
0.917	0.95	7.000	1.55	13.083	6.38	19.17	1.55
1.000	0.95	7.083	1.55	13.167	6.38	19.25	1.55
1.083	0.95	7.167	1.55	13.250	6.38	19.33	1.55
1.167	0.95	7.250	1.55	13.333	4.65	19.42	1.55
1.250	0.95	7.333	1.90	13.417	4.65	19.50	1.55
1.333	0.95	7.417	1.90	13.500	4.65	19.58	1.55
1.417	0.95	7.500	1.90	13.583	4.65	19.67	1.55
1.500	0.95	7.583	1.90	13.667	4.65	19.75	1.55
1.583	0.95	7.667	1.90	13.750	4.65	19.83	1.55
1.667	0.95	7.750	1.90	13.833	3.62	19.92	1.55
1.750	0.95	7.833	1.90	13.917	3.62	20.00	1.55
1.833	0.95	7.917	1.90	14.000	3.62	20.08	1.55
1.917	0.95	8.000	1.90	14.083	3.62	20.17	1.55
2.000	0.95	8.083	1.90	14.167	3.62	20.25	1.55
2.083	0.95	8.167	1.90	14.250	3.62	20.33	1.03
2.167	0.95	8.250	1.90	14.333	2.59	20.42	1.03
2.250	0.95	8.333	2.24	14.417	2.59	20.50	1.03
2.333	1.12	8.417	2.24	14.500	2.59	20.58	1.03
2.417	1.12	8.500	2.24	14.583	2.59	20.67	1.03
2.500	1.12	8.583	2.24	14.667	2.59	20.75	1.03
2.583	1.12	8.667	2.24	14.750	2.59	20.83	1.03
2.667	1.12	8.750	2.24	14.833	2.59	20.92	1.03
2.750	1.12	8.833	2.41	14.917	2.59	21.00	1.03
2.833	1.12	8.917	2.41	15.000	2.59	21.08	1.03
2.917	1.12	9.000	2.41	15.083	2.59	21.17	1.03
3.000	1.12	9.083	2.41	15.167	2.59	21.25	1.03
3.083	1.12	9.167	2.41	15.250	2.59	21.33	1.03
3.167	1.12	9.250	2.41	15.333	2.59	21.42	1.03
3.250	1.12	9.333	2.76	15.417	2.59	21.50	1.03
3.333	1.12	9.417	2.76	15.500	2.59	21.58	1.03
3.417	1.12	9.500	2.76	15.583	2.59	21.67	1.03
3.500	1.12	9.583	2.76	15.667	2.59	21.75	1.03
3.583	1.12	9.667	2.76	15.750	2.59	21.83	1.03
3.667	1.12	9.750	2.76	15.833	2.59	21.92	1.03
3.750	1.12	9.833	3.10	15.917	2.59	22.00	1.03
3.833	1.12	9.917	3.10	16.000	2.59	22.08	1.03
3.917	1.12	10.000	3.10	16.083	2.59	22.17	1.03
4.000	1.12	10.083	3.10	16.167	2.59	22.25	1.03
4.083	1.12	10.167	3.10	16.250	2.59	22.33	1.03
4.167	1.12	10.250	3.10	16.333	1.55	22.42	1.03
4.250	1.12	10.333	3.96	16.417	1.55	22.50	1.03
4.333	1.38	10.417	3.96	16.500	1.55	22.58	1.03
4.417	1.38	10.500	3.96	16.583	1.55	22.67	1.03
4.500	1.38	10.583	3.96	16.667	1.55	22.75	1.03
5.667	1.38	11.750	8.27	17.833	1.55	23.92	1.03
5.750	1.38	11.833	25.51	17.917	1.55	24.00	1.03
5.833	1.38	11.917	25.51	18.000	1.55	24.08	1.03
5.917	1.38	12.000	25.51	18.083	1.55	24.17	1.03
6.000	1.38	12.083	105.47	18.167	1.55	24.25	1.03
6.083	1.38	12.167	105.48	18.250	1.55		

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Unit Hyd Qpeak  (cms)=   0.104

PEAK FLOW       (cms)=   0.089 (i)
TIME TO PEAK    (hrs)=  12.417
RUNOFF VOLUME    (mm)=  56.098
TOTAL RAINFALL   (mm)=  86.180



Unit Hyd Qpeak  (cms)=   0.087

PEAK FLOW       (cms)=   0.061 (i)
TIME TO PEAK    (hrs)=  12.250
RUNOFF VOLUME    (mm)=  68.330
TOTAL RAINFALL   (mm)=  86.180
RUNOFF COEFFICIENT    =   0.793

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

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--------------------
| CALIB            |
| NASHYD   (  0002)|   Area    (ha)=   8.08   Curve Number   (CN)= 82.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.90   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.57

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

                          ---- TRANSFORMED HYETOGRAPH ----
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TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.38	12.250	105.48	18.33	1.55
0.167	0.00	6.250	1.38	12.333	12.42	18.42	1.55
0.250	0.00	6.333	1.55	12.417	12.41	18.50	1.55
0.333	0.95	6.417	1.55	12.500	12.41	18.58	1.55
0.417	0.95	6.500	1.55	12.583	12.41	18.67	1.55
0.500	0.95	6.583	1.55	12.667	12.41	18.75	1.55
0.583	0.95	6.667	1.55	12.750	12.41	18.83	1.55
0.667	0.95	6.750	1.55	12.833	6.38	18.92	1.55
0.750	0.95	6.833	1.55	12.917	6.38	19.00	1.55
0.833	0.95	6.917	1.55	13.000	6.38	19.08	1.55
0.917	0.95	7.000	1.55	13.083	6.38	19.17	1.55
1.000	0.95	7.083	1.55	13.167	6.38	19.25	1.55
1.083	0.95	7.167	1.55	13.250	6.38	19.33	1.55
1.167	0.95	7.250	1.55	13.333	4.65	19.42	1.55
1.250	0.95	7.333	1.90	13.417	4.65	19.50	1.55
1.333	0.95	7.417	1.90	13.500	4.65	19.58	1.55
1.417	0.95	7.500	1.90	13.583	4.65	19.67	1.55
1.500	0.95	7.583	1.90	13.667	4.65	19.75	1.55
1.583	0.95	7.667	1.90	13.750	4.65	19.83	1.55
1.667	0.95	7.750	1.90	13.833	3.62	19.92	1.55
1.750	0.95	7.833	1.90	13.917	3.62	20.00	1.55
1.833	0.95	7.917	1.90	14.000	3.62	20.08	1.55
1.917	0.95	8.000	1.90	14.083	3.62	20.17	1.55
2.000	0.95	8.083	1.90	14.167	3.62	20.25	1.55
2.083	0.95	8.167	1.90	14.250	3.62	20.33	1.03
2.167	0.95	8.250	1.90	14.333	2.59	20.42	1.03
2.250	0.95	8.333	2.24	14.417	2.59	20.50	1.03
2.333	1.12	8.417	2.24	14.500	2.59	20.58	1.03
2.417	1.12	8.500	2.24	14.583	2.59	20.67	1.03
2.500	1.12	8.583	2.24	14.667	2.59	20.75	1.03
2.583	1.12	8.667	2.24	14.750	2.59	20.83	1.03
2.667	1.12	8.750	2.24	14.833	2.59	20.92	1.03
2.750	1.12	8.833	2.41	14.917	2.59	21.00	1.03
2.833	1.12	8.917	2.41	15.000	2.59	21.08	1.03
2.917	1.12	9.000	2.41	15.083	2.59	21.17	1.03
3.000	1.12	9.083	2.41	15.167	2.59	21.25	1.03
3.083	1.12	9.167	2.41	15.250	2.59	21.33	1.03
3.167	1.12	9.250	2.41	15.333	2.59	21.42	1.03
3.250	1.12	9.333	2.76	15.417	2.59	21.50	1.03
3.333	1.12	9.417	2.76	15.500	2.59	21.58	1.03
3.417	1.12	9.500	2.76	15.583	2.59	21.67	1.03
3.500	1.12	9.583	2.76	15.667	2.59	21.75	1.03
3.583	1.12	9.667	2.76	15.750	2.59	21.83	1.03
3.667	1.12	9.750	2.76	15.833	2.59	21.92	1.03
3.750	1.12	9.833	3.10	15.917	2.59	22.00	1.03
3.833	1.12	9.917	3.10	16.000	2.59	22.08	1.03
3.917	1.12	10.000	3.10	16.083	2.59	22.17	1.03
4.000	1.12	10.083	3.10	16.167	2.59	22.25	1.03
4.083	1.12	10.167	3.10	16.250	2.59	22.33	1.03
4.167	1.12	10.250	3.10	16.333	1.55	22.42	1.03
4.250	1.12	10.333	3.96	16.417	1.55	22.50	1.03
4.333	1.38	10.417	3.96	16.500	1.55	22.58	1.03
4.417	1.38	10.500	3.96	16.583	1.55	22.67	1.03
4.500	1.38	10.583	3.96	16.667	1.55	22.75	1.03

4.583	1.38	10.667	3.96	16.750	1.55	22.83	1.03
4.667	1.38	10.750	3.96	16.833	1.55	22.92	1.03
4.750	1.38	10.833	5.34	16.917	1.55	23.00	1.03
4.833	1.38	10.917	5.34	17.000	1.55	23.08	1.03
4.917	1.38	11.000	5.34	17.083	1.55	23.17	1.03
5.000	1.38	11.083	5.34	17.167	1.55	23.25	1.03
5.083	1.38	11.167	5.34	17.250	1.55	23.33	1.03
5.167	1.38	11.250	5.34	17.333	1.55	23.42	1.03
5.250	1.38	11.333	8.27	17.417	1.55	23.50	1.03
5.333	1.38	11.417	8.27	17.500	1.55	23.58	1.03
5.417	1.38	11.500	8.27	17.583	1.55	23.67	1.03
5.500	1.38	11.583	8.27	17.667	1.55	23.75	1.03
5.583	1.38	11.667	8.27	17.750	1.55	23.83	1.03
5.667	1.38	11.750	8.27	17.833	1.55	23.92	1.03
5.750	1.38	11.833	25.51	17.917	1.55	24.00	1.03
5.833	1.38	11.917	25.51	18.000	1.55	24.08	1.03
5.917	1.38	12.000	25.51	18.083	1.55	24.17	1.03
6.000	1.38	12.083	105.47	18.167	1.55	24.25	1.03
6.083	1.38	12.167	105.48	18.250	1.55		

Unit Hyd Qpeak (cms)= 0.541

PEAK FLOW (cms)= 0.484 (i)
TIME TO PEAK (hrs)= 12.750
RUNOFF VOLUME (mm)= 48.208
TOTAL RAINFALL (mm)= 86.180
RUNOFF COEFFICIENT = 0.559

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

ADD HYD (0080)		AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3		(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0001):		0.25	0.061	12.25	68.33
+ ID2= 2 (0002):		8.08	0.484	12.75	48.21
ID = 3 (0080):		8.33	0.493	12.75	48.81

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB					
NASHYD (0003)	Area (ha)=	0.39	Curve Number (CN)=	91.0	
ID= 1 DT= 5.0 min	Ia (mm)=	3.50	# of Linear Res.(N)=	3.00	
	U.H. Tp(hrs)=	0.11			

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	0.00	6.167	1.38	12.250	105.48	18.33	1.55
0.167	0.00	6.250	1.38	12.333	12.42	18.42	1.55
0.250	0.00	6.333	1.55	12.417	12.41	18.50	1.55
0.333	0.95	6.417	1.55	12.500	12.41	18.58	1.55
0.417	0.95	6.500	1.55	12.583	12.41	18.67	1.55
0.500	0.95	6.583	1.55	12.667	12.41	18.75	1.55
0.583	0.95	6.667	1.55	12.750	12.41	18.83	1.55
0.667	0.95	6.750	1.55	12.833	6.38	18.92	1.55
0.750	0.95	6.833	1.55	12.917	6.38	19.00	1.55
0.833	0.95	6.917	1.55	13.000	6.38	19.08	1.55
0.917	0.95	7.000	1.55	13.083	6.38	19.17	1.55
1.000	0.95	7.083	1.55	13.167	6.38	19.25	1.55
1.083	0.95	7.167	1.55	13.250	6.38	19.33	1.55
1.167	0.95	7.250	1.55	13.333	4.65	19.42	1.55
1.250	0.95	7.333	1.90	13.417	4.65	19.50	1.55
1.333	0.95	7.417	1.90	13.500	4.65	19.58	1.55
1.417	0.95	7.500	1.90	13.583	4.65	19.67	1.55
1.500	0.95	7.583	1.90	13.667	4.65	19.75	1.55
1.583	0.95	7.667	1.90	13.750	4.65	19.83	1.55
1.667	0.95	7.750	1.90	13.833	3.62	19.92	1.55
1.750	0.95	7.833	1.90	13.917	3.62	20.00	1.55
1.833	0.95	7.917	1.90	14.000	3.62	20.08	1.55
1.917	0.95	8.000	1.90	14.083	3.62	20.17	1.55
2.000	0.95	8.083	1.90	14.167	3.62	20.25	1.55
2.083	0.95	8.167	1.90	14.250	3.62	20.33	1.03
2.167	0.95	8.250	1.90	14.333	2.59	20.42	1.03
2.250	0.95	8.333	2.24	14.417	2.59	20.50	1.03
2.333	1.12	8.417	2.24	14.500	2.59	20.58	1.03
2.417	1.12	8.500	2.24	14.583	2.59	20.67	1.03
2.500	1.12	8.583	2.24	14.667	2.59	20.75	1.03
2.583	1.12	8.667	2.24	14.750	2.59	20.83	1.03
2.667	1.12	8.750	2.24	14.833	2.59	20.92	1.03
2.750	1.12	8.833	2.41	14.917	2.59	21.00	1.03
2.833	1.12	8.917	2.41	15.000	2.59	21.08	1.03
2.917	1.12	9.000	2.41	15.083	2.59	21.17	1.03
3.000	1.12	9.083	2.41	15.167	2.59	21.25	1.03
3.083	1.12	9.167	2.41	15.250	2.59	21.33	1.03
3.167	1.12	9.250	2.41	15.333	2.59	21.42	1.03
3.250	1.12	9.333	2.76	15.417	2.59	21.50	1.03
3.333	1.12	9.417	2.76	15.500	2.59	21.58	1.03
3.417	1.12	9.500	2.76	15.583	2.59	21.67	1.03
3.500	1.12	9.583	2.76	15.667	2.59	21.75	1.03
3.583	1.12	9.667	2.76	15.750	2.59	21.83	1.03
3.667	1.12	9.750	2.76	15.833	2.59	21.92	1.03
3.750	1.12	9.833	3.10	15.917	2.59	22.00	1.03
3.833	1.12	9.917	3.10	16.000	2.59	22.08	1.03
3.917	1.12	10.000	3.10	16.083	2.59	22.17	1.03
4.000	1.12	10.083	3.10	16.167	2.59	22.25	1.03
4.083	1.12	10.167	3.10	16.250	2.59	22.33	1.03
4.167	1.12	10.250	3.10	16.333	1.55	22.42	1.03
4.250	1.12	10.333	3.96	16.417	1.55	22.50	1.03
4.333	1.38	10.417	3.96	16.500	1.55	22.58	1.03
4.417	1.38	10.500	3.96	16.583	1.55	22.67	1.03
4.500	1.38	10.583	3.96	16.667	1.55	22.75	1.03
4.583	1.38	10.667	3.96	16.750	1.55	22.83	1.03
4.667	1.38	10.750	3.96	16.833	1.55	22.92	1.03
4.750	1.38	10.833	5.34	16.917	1.55	23.00	1.03
4.833	1.38	10.917	5.34	17.000	1.55	23.08	1.03
4.917	1.38	11.000	5.34	17.083	1.55	23.17	1.03
5.000	1.38	11.083	5.34	17.167	1.55	23.25	1.03
5.083	1.38	11.167	5.34	17.250	1.55	23.33	1.03
5.167	1.38	11.250	5.34	17.333	1.55	23.42	1.03
5.250	1.38	11.333	8.27	17.417	1.55	23.50	1.03
5.333	1.38	11.417	8.27	17.500	1.55	23.58	1.03
5.417	1.38	11.500	8.27	17.583	1.55	23.67	1.03
5.500	1.38	11.583	8.27	17.667	1.55	23.75	1.03
5.583	1.38	11.667	8.27	17.750	1.55	23.83	1.03
5.667	1.38	11.750	8.27	17.833	1.55	23.92	1.03
5.750	1.38	11.833	25.51	17.917	1.55	24.00	1.03
5.833	1.38	11.917	25.51	18.000	1.55	24.08	1.03
5.917	1.38	12.000	25.51	18.083	1.55	24.17	1.03
6.000	1.38	12.083	105.47	18.167	1.55	24.25	1.03
6.083	1.38	12.167	105.48	18.250	1.55		

Unit Hyd Qpeak (cms)= 0.144

PEAK FLOW (cms)= 0.078 (i)
TIME TO PEAK (hrs)= 12.250
RUNOFF VOLUME (mm)= 59.312
TOTAL RAINFALL (mm)= 86.180
RUNOFF COEFFICIENT = 0.688

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

ADD HYD (0090)		AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3		(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0003):		0.39	0.089	12.25	62.25
+ ID2= 2 (0004):		0.34	0.078	12.25	59.31
ID = 3 (0090):		0.73	0.167	12.25	60.88

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0090)

2.500	1.12	8.583	2.24	14.667	2.59	20.75	1.03
2.583	1.12	8.667	2.24	14.750	2.59	20.83	1.03
2.667	1.12	8.750	2.24	14.833	2.59	20.92	1.03
2.750	1.12	8.833	2.41	14.917	2.59	21.00	1.03
2.833	1.12	8.917	2.41	15.000	2.59	21.08	1.03
2.917	1.12	9.000	2.41	15.083	2.59	21.17	1.03
3.000	1.12	9.083	2.41	15.167	2.59	21.25	1.03
3.083	1.12	9.167	2.41	15.250	2.59	21.33	1.03
3.167	1.12	9.250	2.41	15.333	2.59	21.42	1.03
3.250	1.12	9.333	2.76	15.417	2.59	21.50	1.03
3.333	1.12	9.417	2.76	15.500	2.59	21.58	1.03
3.417	1.12	9.500	2.76	15.583	2.59	21.67	1.03
3.500	1.12	9.583	2.76	15.667	2.59	21.75	1.03
3.583	1.12	9.667	2.76	15.750	2.59	21.83	1.03
3.667	1.12	9.750	2.76	15.833	2.59	21.92	1.03
3.750	1.12	9.833	3.10	15.917	2.59	22.00	1.03
3.833	1.12	9.917	3.10	16.000	2.59	22.08	1.03
3.917	1.12	10.000	3.10	16.083	2.59	22.17	1.03
4.000	1.12	10.083	3.10	16.167	2.59	22.25	1.03
4.083	1.12	10.167	3.10	16.250	2.59	22.33	1.03
4.167	1.12	10.250	3.10	16.333	1.55	22.42	1.03
4.250	1.12	10.333	3.96	16.417	1.55	22.50	1.03
4.333	1.38	10.417	3.96	16.500	1.55	22.58	1.03
4.417	1.38	10.500	3.96	16.583	1.55	22.67	1.03
4.500	1.38	10.583	3.96	16.667	1.55	22.75	1.03
4.583	1.38	10.667	3.96	16.750	1.55	22.83	1.03
4.667	1.38	10.750	3.96	16.833	1.55	22.92	1.03
4.750	1.38	10.833	5.34	16.917	1.55	23.00	1.03
4.833	1.38	10.917	5.34	17.000	1.55	23.08	1.03
4.917	1.38	11.000	5.34	17.083	1.55	23.17	1.03
5.000	1.38	11.083	5.34	17.167	1.55	23.25	1.03
5.083	1.38	11.167	5.34	17.250	1.55	23.33	1.03
5.167	1.38	11.250	5.34	17.333	1.55	23.42	1.03
5.250	1.38	11.333	8.27	17.417	1.55	23.50	1.03
5.333	1.38	11.417	8.27	17.500	1.55	23.58	1.03
5.417	1.38	11.500	8.27	17.583	1.55	23.67	1.03
5.500	1.38	11.583	8.27	17.667	1.55	23.75	1.03
5.583	1.38	11.667	8.27	17.750	1.55	23.83	1.03
5.667	1.38	11.750	8.27	17.833	1.55	23.92	1.03
5.750	1.38	11.833	25.51	17.917	1.55	24.00	1.03
5.833	1.38	11.917	25.51	18.000	1.55	24.08	1.03
5.917	1.38	12.000	25.51	18.083	1.55	24.17	1.03
6.000	1.38	12.083	105.47	18.167	1.55	24.25	1.03
6.083	1.38	12.167	105.48	18.250	1.55		

Unit Hyd Qpeak (cms)= 0.135

PEAK FLOW (cms)= 0.089 (i)
TIME TO PEAK (hrs)= 12.250
RUNOFF VOLUME (mm)= 62.246
TOTAL RAINFALL (mm)= 86.180
RUNOFF COEFFICIENT = 0.722

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

CALIB					
NASHYD (0004)	Area (ha)=	0.34	Curve Number (CN)=	90.0	
ID= 1 DT= 5.0 min	Ia (mm)=	3.50	# of Linear Res.(N)=	3.00	
	U.H. Tp(hrs)=	0.09			

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	0.00	6.167	1.38	12.250	105.48	18.33	1.55
0.167	0.00	6.250	1.38	12.333	12.42	18.42	1.55
0.250	0.00	6.333	1.55	12.417	12.41	18.50	1.55
0.333	0.95	6.417	1.55	12.500	12.41	18.58	1.55
0.417	0.95	6.500	1.55	12.583	12.41	18.67	1.55
0.500	0.95	6.583	1.55	12.667	12.41	18.75	1.55
0.583	0.95	6.667	1.55	12.750	12.41	18.83	1.55
0.667	0.95	6.750	1.55	12.833	6.38	18.92	1.55
0.750	0.95	6.833	1.55	12.917	6.38	19.00	1.55
0.833	0.95	6.917	1.55	13.000	6.38	19.08	1.55
0.917	0.95	7.000	1.55	13.083	6.38	19.17	1.55
1.000	0.95	7.083	1.55	13.167	6.38	19.25	1.55
1.083	0.95	7.167	1.55	13.250	6.38	19.33	1.55
1.167	0.95	7.250	1.55	13.333	4.65	19.42	1.55
1.250	0.95	7.333	1.90	13.417	4.65	19.50	1.55
1.333	0.95	7.417	1.90	13.500	4.65	19.58	1.55

1.417	0.95	7.500	1.90	13.583	4.65	19.67	1.55
1.500	0.95	7.583	1.90	13.667	4.65	19.75	1.55
1.583	0.95	7.667	1.90	13.750	4.65	19.83	1.55
1.667	0.95	7.750	1.90	13.833	3.62	19.92	1.55
1.750	0.95	7.833	1.90	13.917	3.62	20.00	1.55
1.833	0.95	7.917	1.90	14.000	3.62	20.08	1.55
1.917	0.95	8.000	1.90	14.083	3.62	20.17	1.55
2.000	0.95	8.083	1.90	14.167	3.62	20.25	1.55
2.083	0.95	8.167	1.90	14.250	3.62	20.33	1.03
2.167	0.95	8.250	1.90	14.333	2.59	20.42	1.03
2.250	0.95	8.333	2.24	14.417	2.59	20.50	1.03
2.333	1.12	8.417	2.24	14.500	2.59	20.58	1.03
2.417	1.12	8.500	2.24	14.583	2.59	20.67	1.03
2.500	1.12	8.583	2.24	14.667	2.59	20.75	1.03
2.583	1.12	8.667	2.24	14.750	2.59	20.83	1.03
2.667	1.12	8.750	2.24	14.833	2.59	20.92	1.03
2.750	1.12	8.833	2.41	14.917	2.59	21.00	1.03
2.833	1.12	8.917	2.41	15.000	2.59	21.08	1.03
2.917	1.12	9.000	2.41	15.083	2.59	21.17	1.03
3.000	1.12	9.083	2.41	15.167	2.59	21.25	1.03
3.083	1.12	9.167	2.41	15.250	2.59	21.33	1.03
3.167	1.12	9.250	2.41	15.333	2.59	21.42	1.03
3.250	1.12	9.333	2.76	15.417	2.59	21.50	1.03
3.333	1.12	9.417	2.76	15.500	2.59	21.58	1.03
3.417	1.12	9.500	2.76	15.583	2.59	21.67	1.03
3.500	1.12	9.583	2.76	15.667	2.59	21.75	1.03
3.583	1.12	9.667	2.76	15.750	2.59	21.83	1.03
3.667	1.12	9.750	2.76	15.833	2.59	21.92	1.03
3.750	1.12	9.833	3.10	15.917	2.59	22.00	1.03
3.833	1.12	9.917	3.10	16.000	2.59	22.08	1.03
3.917	1.12	10.000	3.10	16.083	2.59	22.17	1.03
4.000	1.12	10.083	3.10	16.167	2.59	22.25	1.03
4.083	1.12	10.167	3.10	16.250	2.59	22.33	1.03
4.167	1.12	10.250	3.10	16.333	1.55	22.42	1.03
4.250	1.12	10.333	3.96	16.417	1.55	22.50	1.03
4.333	1.38	10.417	3.96	16.500	1.55	22.58	1.03
4.417	1.38	10.500	3.96	16.583	1.55	22.67	1.03
4.500	1.38	10.583	3.96	16.667	1.55	22.75	1.03
4.583	1.38	10.667	3.96	16.750	1.55	22.83	1.03
4.667	1.38	10.750	3.96	16.833	1.55	22.92	1.03
4.750	1.38	10.833	5.34	16.917	1.55	23.00	1.03
4.833	1.38	10.917	5.34	17.000	1.55	23.08	1.03
4.917	1.38	11.000	5.34	17.083	1.55	23.17	1.03
5.000	1.38	11.083	5.34	17.167	1.55	23.25	1.03
5.083	1.38	11.167	5.34	17.250	1.55	23.33	1.03
5.167	1.38	11.250	5.34	17.333	1.55	23.42	1.03
5.250	1.38	11.333	8.27	17.417	1.55	23.50	1.03
5.333	1.38	11.417	8.27	17.500	1.55	23.58	1.03
5.417	1.38	11.500	8.27	17.583	1.55	23.67	1.03
5.500	1.38	11.583	8.27	17.667	1.55	23.75	1.03
5.583	1.38	11.667	8.27	17.750	1.55	23.83	1.03
5.667	1.38	11.750	8.27	17.833	1.55	23.92	1.03
5.750	1.38	11.833	25.51	17.917	1.55	24.00	1.03
5.833	1.38	11.917	25.51	18.000	1.55	24.08	1.03
5.917	1.38	12.000	25.51	18.083	1.55	24.17	1.03
6.000	1.38	12.083	105.47	18.167	1.55	24.25	1.03
6.083	1.38	12.167	105.48	18.250	1.55		

3 + 2 = 1		AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (0090):		0.73	0.167	12.25	60.88
+ ID2= 2 (0080):		8.33	0.493	12.75	48.81
ID = 1 (0090):		9.06	0.515	12.67	49.78

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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================================================================================================================

      V      V   I    SSSSS  U    U    A    L              (v 6.2.2020)
       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
          V     I    SSSSS  UUUUU  A     A LLLLL

      OOO    TTTTT  TTTTT  H   H  Y   Y  M    M   OOO    TM
     O   O     T      T    H   H   Y Y   MM  MM  O   O
     O   O     T      T    H   H    Y    M MM M  O   O
      OOO      T      T    H   H    Y    M    M   OOO
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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\atrenholm\AppData\Local\Civica\VH5\8ef94b88-6605-479e-b003-b70f6886dc93\7e13d07a-
  Summary filename: C:\Users\atrenholm\AppData\Local\Civica\VH5\8ef94b88-6605-479e-b003-b70f6886dc93\7e13d07a-

DATE: 06/05/2026                          TIME: 04:00:05

USER:


COMMENTS: _____________________________________________________

--------------------------------------------------------------------------------------------------------------------
  ************************************************
 ** SIMULATION : 25yr 24hr 15min SCS Type II ( **
  ************************************************


--------------------
|    READ STORM    |    Filename: C:\Users\atrenholm\AppD
|                  |              ata\Local\Temp\
|                  |              18437d2c-b486-467f-bd34-28794099a257\0b61cb6c
| Ptotal=103.23 mm |    Comments: 25yr 24hr 15min SCS Type II (MTO)
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```

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.00	0.00	6.25	1.86	12.50	14.87	18.75	1.86
0.25	1.14	6.50	1.86	12.75	7.64	19.00	1.86
0.50	1.14	6.75	1.86	13.00	7.64	19.25	1.86
0.75	1.14	7.00	1.86	13.25	5.57	19.50	1.86
1.00	1.14	7.25	2.27	13.50	5.57	19.75	1.86
1.25	1.14	7.50	2.27	13.75	4.34	20.00	1.86
1.50	1.14	7.75	2.27	14.00	4.34	20.25	1.24
1.75	1.14	8.00	2.27	14.25	3.10	20.50	1.24
2.00	1.14	8.25	2.68	14.50	3.10	20.75	1.24
2.25	1.34	8.50	2.68	14.75	3.10	21.00	1.24
2.50	1.34	8.75	2.89	15.00	3.10	21.25	1.24
2.75	1.34	9.00	2.89	15.25	3.10	21.50	1.24
3.00	1.34	9.25	3.30	15.50	3.10	21.75	1.24
3.25	1.34	9.50	3.30	15.75	3.10	22.00	1.24
3.50	1.34	9.75	3.72	16.00	3.10	22.25	1.24
3.75	1.34	10.00	3.72	16.25	1.86	22.50	1.24
4.00	1.34	10.25	4.75	16.50	1.86	22.75	1.24
4.25	1.65	10.50	4.75	16.75	1.86	23.00	1.24
4.50	1.65	10.75	6.40	17.00	1.86	23.25	1.24
4.75	1.65	11.00	6.40	17.25	1.86	23.50	1.24
5.00	1.65	11.25	9.91	17.50	1.86	23.75	1.24
5.25	1.65	11.50	9.91	17.75	1.86	24.00	1.24
5.50	1.65	11.75	30.56	18.00	1.86		
5.75	1.65	12.00	126.35	18.25	1.86		
6.00	1.65	12.25	14.87	18.50	1.86		

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| CALIB            |
| NASHYD   (  0005)|   Area    (ha)=   0.76   Curve Number   (CN)= 87.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.10   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.28

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



     RUNOFF COEFFICIENT   =   0.694

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

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| CALIB            |
| NASHYD   (  0001)|   Area    (ha)=   0.25   Curve Number   (CN)= 94.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   3.00   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.11

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

                          ---- TRANSFORMED HYETOGRAPH ----
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TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.65	12.250	126.35	18.33	1.86
0.167	0.00	6.250	1.65	12.333	14.88	18.42	1.86
0.250	0.00	6.333	1.86	12.417	14.87	18.50	1.86
0.333	1.14	6.417	1.86	12.500	14.87	18.58	1.86
0.417	1.14	6.500	1.86	12.583	14.87	18.67	1.86
0.500	1.14	6.583	1.86	12.667	14.87	18.75	1.86
0.583	1.14	6.667	1.86	12.750	14.87	18.83	1.86
0.667	1.14	6.750	1.86	12.833	7.64	18.92	1.86
0.750	1.14	6.833	1.86	12.917	7.64	19.00	1.86
0.833	1.14	6.917	1.86	13.000	7.64	19.08	1.86
0.917	1.14	7.000	1.86	13.083	7.64	19.17	1.86
1.000	1.14	7.083	1.86	13.167	7.64	19.25	1.86
1.083	1.14	7.167	1.86	13.250	7.64	19.33	1.86
1.167	1.14	7.250	1.86	13.333	5.57	19.42	1.86
1.250	1.14	7.333	2.27	13.417	5.57	19.50	1.86
1.333	1.14	7.417	2.27	13.500	5.57	19.58	1.86
1.417	1.14	7.500	2.27	13.583	5.57	19.67	1.86
1.500	1.14	7.583	2.27	13.667	5.57	19.75	1.86
1.583	1.14	7.667	2.27	13.750	5.57	19.83	1.86
1.667	1.14	7.750	2.27	13.833	4.34	19.92	1.86
1.750	1.14	7.833	2.27	13.917	4.34	20.00	1.86
1.833	1.14	7.917	2.27	14.000	4.34	20.08	1.86
1.917	1.14	8.000	2.27	14.083	4.34	20.17	1.86
2.000	1.14	8.083	2.27	14.167	4.34	20.25	1.86
2.083	1.14	8.167	2.27	14.250	4.34	20.33	1.24
2.167	1.14	8.250	2.27	14.333	3.10	20.42	1.24
2.250	1.14	8.333	2.68	14.417	3.10	20.50	1.24
2.333	1.34	8.417	2.68	14.500	3.10	20.58	1.24
2.417	1.34	8.500	2.68	14.583	3.10	20.67	1.24
2.500	1.34	8.583	2.68	14.667	3.10	20.75	1.24
2.583	1.34	8.667	2.68	14.750	3.10	20.83	1.24
2.667	1.34	8.750	2.68	14.833	3.10	20.92	1.24
2.750	1.34	8.833	2.89	14.917	3.10	21.00	1.24
2.833	1.34	8.917	2.89	15.000	3.10	21.08	1.24
2.917	1.34	9.000	2.89	15.083	3.10	21.17	1.24
3.000	1.34	9.083	2.89	15.167	3.10	21.25	1.24
3.083	1.34	9.167	2.89	15.250	3.10	21.33	1.24
3.167	1.34	9.250	2.89	15.333	3.10	21.42	1.24
3.250	1.34	9.333	3.30	15.417	3.10	21.50	1.24
3.333	1.34	9.417	3.30	15.500	3.10	21.58	1.24
3.417	1.34	9.500	3.30	15.583	3.10	21.67	1.24
3.500	1.34	9.583	3.30	15.667	3.10	21.75	1.24
3.583	1.34	9.667	3.30	15.750	3.10	21.83	1.24
3.667	1.34	9.750	3.30	15.833	3.10	21.92	1.24
3.750	1.34	9.833	3.72	15.917	3.10	22.00	1.24
3.833	1.34	9.917	3.72	16.000	3.10	22.08	1.24
3.917	1.34	10.000	3.72	16.083	3.10	22.17	1.24
4.000	1.34	10.083	3.72	16.167	3.10	22.25	1.24
4.083	1.34	10.167	3.72	16.250	3.10	22.33	1.24
4.167	1.34	10.250	3.72	16.333	1.86	22.42	1.24
4.250	1.34	10.333	4.75	16.417	1.86	22.50	1.24
4.333	1.65	10.417	4.75	16.500	1.86	22.58	1.24
4.417	1.65	10.500	4.75	16.583	1.86	22.67	1.24
4.500	1.65	10.583	4.75	16.667	1.86	22.75	1.24
4.583	1.65	10.667	4.75	16.750	1.86	22.83	1.24
4.667	1.65	10.750	4.75	16.833	1.86	22.92	1.24
4.750	1.65	10.833	6.40	16.917	1.86	23.00	1.24
4.833	1.65	10.917	6.40	17.000	1.86	23.08	1.24
4.917	1.65	11.000	6.40	17.083	1.86	23.17	1.24
5.000	1.65	11.083	6.40	17.167	1.86	23.25	1.24
5.083	1.65	11.167	6.40	17.250	1.86	23.33	1.24
5.167	1.65	11.250	6.40	17.333	1.86	23.42	1.24
5.250	1.65	11.333	9.91	17.417	1.86	23.50	1.24
5.333	1.65	11.417	9.91	17.500	1.86	23.58	1.24
5.417	1.65	11.500	9.91	17.583	1.86	23.67	1.24
5.500	1.65	11.583	9.91	17.667	1.86	23.75	1.24
5.583	1.65	11.667	9.91	17.750	1.86	23.83	1.24

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                          ---- TRANSFORMED HYETOGRAPH ----
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TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.65	12.250	126.35	18.33	1.86
0.167	0.00	6.250	1.65	12.333	14.88	18.42	1.86
0.250	0.00	6.333	1.86	12.417	14.87	18.50	1.86
0.333	1.14	6.417	1.86	12.500	14.87	18.58	1.86
0.417	1.14	6.500	1.86	12.583	14.87	18.67	1.86
0.500	1.14	6.583	1.86	12.667	14.87	18.75	1.86
0.583	1.14	6.667	1.86	12.750	14.87	18.83	1.86
0.667	1.14	6.750	1.86	12.833	7.64	18.92	1.86
0.750	1.14	6.833	1.86	12.917	7.64	19.00	1.86
0.833	1.14	6.917	1.86	13.000	7.64	19.08	1.86
0.917	1.14	7.000	1.86	13.083	7.64	19.17	1.86
1.000	1.14	7.083	1.86	13.167	7.64	19.25	1.86
1.083	1.14	7.167	1.86	13.250	7.64	19.33	1.86
1.167	1.14	7.250	1.86	13.333	5.57	19.42	1.86
1.250	1.14	7.333	2.27	13.417	5.57	19.50	1.86
1.333	1.14	7.417	2.27	13.500	5.57	19.58	1.86
1.417	1.14	7.500	2.27	13.583	5.57	19.67	1.86
1.500	1.14	7.583	2.27	13.667	5.57	19.75	1.86
1.583	1.14	7.667	2.27	13.750	5.57	19.83	1.86
1.667	1.14	7.750	2.27	13.833	4.34	19.92	1.86
1.750	1.14	7.833	2.27	13.917	4.34	20.00	1.86
1.833	1.14	7.917	2.27	14.000	4.34	20.08	1.86
1.917	1.14	8.000	2.27	14.083	4.34	20.17	1.86
2.000	1.14	8.083	2.27	14.167	4.34	20.25	1.86
2.083	1.14	8.167	2.27	14.250	4.34	20.33	1.24
2.167	1.14	8.250	2.27	14.333	3.10	20.42	1.24
2.250	1.14	8.333	2.68	14.417	3.10	20.50	1.24
2.333	1.34	8.417	2.68	14.500	3.10	20.58	1.24
2.417	1.34	8.500	2.68	14.583	3.10	20.67	1.24
2.500	1.34	8.583	2.68	14.667	3.10	20.75	1.24
2.583	1.34	8.667	2.68	14.750	3.10	20.83	1.24
2.667	1.34	8.750	2.68	14.833	3.10	20.92	1.24
2.750	1.34	8.833	2.89	14.917	3.10	21.00	1.24
2.833	1.34	8.917	2.89	15.000	3.10	21.08	1.24
2.917	1.34	9.000	2.89	15.083	3.10	21.17	1.24
3.000	1.34	9.083	2.89	15.167	3.10	21.25	1.24
3.083	1.34	9.167	2.89	15.250	3.10	21.33	1.24
3.167	1.34	9.250	2.89	15.333	3.10	21.42	1.24
3.250	1.34	9.333	3.30	15.417	3.10	21.50	1.24
3.333	1.34	9.417	3.30	15.500	3.10	21.58	1.24
3.417	1.34	9.500	3.30	15.583	3.10	21.67	1.24
3.500	1.34	9.583	3.30	15.667	3.10	21.75	1.24
3.583	1.34	9.667	3.30	15.750	3.10	21.83	1.24
3.667	1.34	9.750	3.30	15.833	3.10	21.92	1.24
3.750	1.34	9.833	3.72	15.917	3.10	22.00	1.24
3.833	1.34	9.917	3.72	16.000	3.10	22.08	1.24
3.917	1.34	10.000	3.72	16.083	3.10	22.17	1.24
4.000	1.34	10.083	3.72	16.167	3.10	22.25	1.24
4.083	1.34	10.167	3.72	16.250	3.10	22.33	1.24
4.167	1.34	10.250	3.72	16.333	1.86	22.42	1.24
4.250	1.34	10.333	4.75	16.417	1.86	22.50	1.24
4.333	1.65	10.417	4.75	16.500	1.86	22.58	1.24
4.417	1.65	10.500	4.75	16.583	1.86	22.67	1.24
4.500	1.65	10.583	4.75	16.667	1.86	22.75	1.24

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                          ---- TRANSFORMED HYETOGRAPH ----
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TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.65	12.250	126.35	18.33	1.86
0.167	0.00	6.250	1.65	12.333	14.88	18.42	1.86
0.250	0.00	6.333	1.86	12.417	14.87	18.50	1.86
0.333	1.14	6.417	1.86	12.500	14.87	18.58	1.86
0.417	1.14	6.500	1.86	12.583	14.87	18.67	1.86
0.500	1.14	6.583	1.86	12.667	14.87	18.75	1.86
0.583	1.14	6.667	1.86	12.750	14.87	18.83	1.86
0.667	1.14	6.750	1.86	12.833	7.64	18.92	1.86
0.750	1.14	6.833	1.86	12.917	7.64	19.00	1.86
0.833	1.14	6.917	1.86	13.000	7.64	19.08	1.86
0.917	1.14	7.000	1.86	13.083	7.64	19.17	1.86
1.000	1.14	7.083	1.86	13.167	7.64	19.25	1.86
1.083	1.14	7.167	1.86	13.250	7.64	19.33	1.86
1.167	1.14	7.250	1.86	13.333	5.57	19.42	1.86
1.250	1.14	7.333	2.27	13.417	5.57	19.50	1.86
1.333	1.14	7.417	2.27	13.500	5.57	19.58	1.86
1.417	1.14	7.500	2.27	13.583	5.57	19.67	1.86
1.500	1.14	7.583	2.27	13.667	5.57	19.75	1.86
1.583	1.14	7.667	2.27	13.750	5.57	19.83	1.86
1.667	1.14	7.750	2.27	13.833	4.34	19.92	1.86
1.750	1.14	7.833	2.27	13.917	4.34	20.00	1.86
1.833	1.14	7.917	2.27	14.000	4.34	20.08	1.86
1.917	1.14	8.000	2.27	14.083	4.34	20.17	1.86
2.000	1.14	8.083	2.27	14.167	4.34	20.25	1.86
2.083	1.14	8.167	2.27	14.250	4.34	20.33	1.24
2.167	1.14	8.250	2.27	14.333	3.10	20.42	1.24
2.250	1.14	8.333	2.68	14.417	3.10	20.50	1.24
2.333	1.34	8.417	2.68	14.500	3.10	20.58	1.24
2.417	1.34	8.500	2.68	14.583	3.10	20.67	1.24
2.500	1.34	8.583	2.68	14.667	3.10	20.75	1.24
2.583	1.34	8.667	2.68	14.750	3.10	20.83	1.24
2.667	1.34	8.750	2.68	14.833	3.10	20.92	1.24
2.750	1.34	8.833	2.89	14.917	3.10	21.00	1.24
2.833	1.34	8.917	2.89	15.000	3.10	21.08	1.24
2.917	1.34	9.000	2.89	15.083	3.10	21.17	1.24
3.000	1.34	9.083	2.89	15.167	3.10	21.25	1.24
3.083	1.34	9.167	2.89	15.250	3.10	21.33	1.24
3.167	1.34	9.250	2.89	15.333	3.10	21.42	1.24
3.250	1.34	9.333	3.30	15.417	3.10	21.50	1.24
3.333	1.34	9.417	3.30	15.500	3.10	21.58	1.24
3.417	1.34	9.500	3.30	15.583	3.10	21.67	1.24
3.500	1.34	9.583	3.30	15.667	3.10	21.75	1.24
3.583	1.34	9.667	3.30	15.750	3.10	21.83	1.24
3.667	1.34	9.750	3.30	15.833	3.10	21.92	1.24
3.750	1.34	9.833	3.72	15.917	3.10	22.00	1.24
3.833	1.34	9.917	3.72	16.000	3.10	22.08	1.24
3.917	1.34	10.000	3.72	16.083	3.10	22.17	1.24
4.000	1.34	10.083	3.72	16.167	3.10	22.25	1.24
4.083	1.34	10.167	3.72	16.250	3.10	22.33	1.24
4.167	1.34	10.250	3.72	16.333	1.86	22.42	1.24
4.250	1.34	10.333	4.75	16.417	1.86	22.50	1.24
4.333	1.65	10.417	4.75	16.500	1.86	22.58	1.24
4.417	1.65	10.500	4.75	16.583	1.86	22.67	1.24
4.500	1.65	10.583	4.75	16.667	1.86	22.75	1.24
4.583	1.65	10.667	4.75	16.750	1.86	22.83	1.24
4.667	1.65	10.750	4.75	16.833	1.86	22.92	1.24
4.750	1.65	10.833	6.40	16.917	1.86	23.00	1.24
4.833	1.65	10.917	6.40	17.000	1.86	23.08	1.24
4.917	1.65	11.000	6.40	17.083	1.86	23.17	1.24
5.000	1.65	11.083	6.40	17.167	1.86	23.25	1.24
5.083	1.65	11.167	6.40	17.250	1.86	23.33	1.24
5.167	1.65	11.250	6.40	17.333	1.86	23.42	1.24
5.250	1.65	11.333	9.91	17.417	1.86	23.50	1.24
5.333	1.65	11.417	9.91	17.500	1.86	23.58	1.24
5.417	1.65	11.500	9.91	17.583	1.86	23.67	1.24
5.500	1.65	11.583	9.91	17.667	1.86	23.75	1.24
5.583	1.65	11.667	9.91	17.750	1.86	23.83	1.24
5.667	1.65	11.750	9.91	17.833	1.86	23.92	1.24
5.750	1.65	11.833	30.55	17.917	1.86	24.00	1.24
5.833	1.65	11.917	30.56	18.000	1.86	24.08	1.24
5.917	1.65	12.000	30.56	18.083	1.86	24.17	1.24
6.000	1.65	12.083	126.34	18.167	1.86	24.25	1.24
6.083	1.65	12.167	126.35	18.250	1.86		

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Unit Hyd Qpeak  (cms)=   0.104

PEAK FLOW       (cms)=   0.114 (i)
TIME TO PEAK    (hrs)=  12.417
RUNOFF VOLUME    (mm)=  71.647
TOTAL RAINFALL   (mm)= 103.230



     RUNOFF COEFFICIENT   =   0.820

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

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| CALIB            |
| NASHYD   (  0002)|   Area    (ha)=   8.08   Curve Number   (CN)= 82.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.90   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.57

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

                          ---- TRANSFORMED HYETOGRAPH ----
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TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.65	12.250	126.35	18.33	1.86
0.167	0.00	6.250	1.65	12.333	14.88	18.42	1.86
0.250	0.00	6.333	1.86	12.417	14.87	18.50	1.86
0.333	1.14	6.417	1.86	12.500	14.87	18.58	1.86
0.417	1.14	6.500	1.86	12.583	14.87	18.67	1.86
0.500	1.14	6.583	1.86	12.667	14.87	18.75	1.86
0.583	1.14	6.667	1.86	12.750	14.87	18.83	1.86
0.667	1.14	6.750	1.86	12.833	7.64	18.92	1.86
0.750	1.14	6.833	1.86	12.917	7.64	19.00	1.86
0.833	1.14	6.917	1.86	13.000	7.64	19.08	1.86
0.917	1.14	7.000	1.86	13.083	7.64	19.17	1.86
1.000	1.14	7.083	1.86	13.167	7.64	19.25	1.86
1.083	1.14	7.167	1.86	13.250	7.64	19.33	1.86
1.167	1.14	7.250	1.86	13.333	5.57	19.42	1.86
1.250	1.14	7.333	2.27	13.417	5.57	19.50	1.86
1.333	1.14	7.417	2.27	13.500	5.57	19.58	1.86
1.417	1.14	7.500	2.27	13.583	5.57	19.67	1.86
1.500	1.14	7.583	2.27	13.667	5.57	19.75	1.86
1.583	1.14	7.667	2.27	13.750	5.57	19.83	1.86
1.667	1.14	7.750	2.27	13.833	4.34	19.92	1.86
1.750	1.14	7.833	2.27	13.917	4.34	20.00	1.86
1.833	1.14	7.917	2.27	14.000	4.34	20.08	1.86
1.917	1.14	8.000	2.27	14.083	4.34	20.17	1.86
2.000	1.14	8.083	2.27	14.167	4.34	20.25	1.86
2.083	1.14	8.167	2.27	14.250	4.34	20.33	1.24
2.167	1.14	8.250	2.27	14.333	3.10	20.42	1.24
2.250	1.14	8.333	2.68	14.417	3.10	20.50	1.24
2.333	1.34	8.417	2.68	14.500	3.10	20.58	1.24
2.417	1.34	8.500	2.68	14.583	3.10	20.67	1.24
2.500	1.34	8.583	2.68	14.667	3.10	20.75	1.24
2.583	1.34	8.667	2.68	14.750	3.10	20.83	1.24
2.667	1.34	8.750	2.68	14.833	3.10	20.92	1.24
2.750	1.34	8.833	2.89	14.917	3.10	21.00	1.24
2.833	1.34	8.917	2.89	15.000	3.10	21.08	1.24
2.917	1.34	9.000	2.89	15.083	3.10	21.17	1.24
3.000	1.34	9.083	2.89	15.167	3.10	21.25	1.24
3.083	1.34	9.167	2.89	15.250	3.10	21.33	1.24
3.167	1.34	9.250	2.89	15.333	3.10	21.42	1.24
3.250	1.34	9.333	3.30	15.417	3.10	21.50	1.24
3.333	1.34	9.417	3.30	15.500	3.10	21.58	1.24
3.417	1.34	9.500	3.30	15.583	3.10	21.67	1.24
3.500	1.34	9.583	3.30	15.667	3.10	21.75	1.24
3.583	1.34	9.667	3.30	15.750	3.10	21.83	1.24
3.667	1.34	9.750	3.30	15.833	3.10	21.92	1.24
3.750	1.34	9.833	3.72	15.917	3.10	22.00	1.24
3.833	1.34	9.917	3.72	16.000	3.10	22.08	1.24
3.917	1.34	10.000	3.72	16.083	3.10	22.17	1.24
4.000	1.34	10.083	3.72	16.167	3.10	22.25	1.24
4.083	1.34	10.167	3.72	16.250	3.10	22.33	1.24
4.167	1.34	10.250	3.72	16.333	1.86	22.42	1.24
4.250	1.34	10.333	4.75	16.417	1.86	22.50	1.24
4.333	1.65	10.417	4.75	16.500	1.86	22.58	1.24
4.417	1.65	10.500	4.75	16.583	1.86	22.67	1.24
4.500	1.65	10.583	4.75	16.667	1.86	22.75	1.24

4.583	1.65	10.667	4.75	16.750	1.86	22.83	1.24
4.667	1.65	10.750	4.75	16.833	1.86	22.92	1.24
4.750	1.65	10.833	6.40	16.917	1.86	23.00	1.24
4.833	1.65	10.917	6.40	17.000	1.86	23.08	1.24
4.917	1.65	11.000	6.40	17.083	1.86	23.17	1.24
5.000	1.65	11.083	6.40	17.167	1.86	23.25	1.24
5.083	1.65	11.167	6.40	17.250	1.86	23.33	1.24
5.167	1.65	11.250	6.40	17.333	1.86	23.42	1.24
5.250	1.65	11.333	9.91	17.417	1.86	23.50	1.24
5.333	1.65	11.417	9.91	17.500	1.86	23.58	1.24
5.417	1.65	11.500	9.91	17.583	1.86	23.67	1.24
5.500	1.65	11.583	9.91	17.667	1.86	23.75	1.24
5.583	1.65	11.667	9.91	17.750	1.86	23.83	1.24
5.667	1.65	11.750	9.91	17.833	1.86	23.92	1.24
5.750	1.65	11.833	30.55	17.917	1.86	24.00	1.24
5.833	1.65	11.917	30.56	18.000	1.86	24.08	1.24
5.917	1.65	12.000	30.56	18.083	1.86	24.17	1.24
6.000	1.65	12.083	126.34	18.167	1.86	24.25	1.24
6.083	1.65	12.167	126.35	18.250	1.86		

Unit Hyd Qpeak (cms)= 0.541

PEAK FLOW (cms)= 0.633 (i)
TIME TO PEAK (hrs)= 12.667
RUNOFF VOLUME (mm)= 62.747
TOTAL RAINFALL (mm)= 103.230
RUNOFF COEFFICIENT = 0.608

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

ADD HYD (0080)				
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0001):	0.25	0.075	12.25	84.69
+ ID2= 2 (0002):	8.08	0.633	12.67	62.75
ID = 3 (0080):	8.33	0.643	12.67	63.41

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB					
NASHYD (0003)	Area (ha)=	0.39	Curve Number (CN)=	91.0	
ID= 1 DT= 5.0 min	Ia (mm)=	3.50	# of Linear Res.(N)=	3.00	
	U.H. Tp(hrs)=	0.11			

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	0.00	6.167	1.65	12.250	126.35	18.33	1.86
0.167	0.00	6.250	1.65	12.333	14.88	18.42	1.86
0.250	0.00	6.333	1.86	12.417	14.87	18.50	1.86
0.333	1.14	6.417	1.86	12.500	14.87	18.58	1.86
0.417	1.14	6.500	1.86	12.583	14.87	18.67	1.86
0.500	1.14	6.583	1.86	12.667	14.87	18.75	1.86
0.583	1.14	6.667	1.86	12.750	14.87	18.83	1.86
0.667	1.14	6.750	1.86	12.833	7.64	18.92	1.86
0.750	1.14	6.833	1.86	12.917	7.64	19.00	1.86
0.833	1.14	6.917	1.86	13.000	7.64	19.08	1.86
0.917	1.14	7.000	1.86	13.083	7.64	19.17	1.86
1.000	1.14	7.083	1.86	13.167	7.64	19.25	1.86
1.083	1.14	7.167	1.86	13.250	7.64	19.33	1.86
1.167	1.14	7.250	1.86	13.333	5.57	19.42	1.86
1.250	1.14	7.333	2.27	13.417	5.57	19.50	1.86
1.333	1.14	7.417	2.27	13.500	5.57	19.58	1.86
1.417	1.14	7.500	2.27	13.583	5.57	19.67	1.86
1.500	1.14	7.583	2.27	13.667	5.57	19.75	1.86
1.583	1.14	7.667	2.27	13.750	5.57	19.83	1.86
1.667	1.14	7.750	2.27	13.833	4.34	19.92	1.86
1.750	1.14	7.833	2.27	13.917	4.34	20.00	1.86
1.833	1.14	7.917	2.27	14.000	4.34	20.08	1.86
1.917	1.14	8.000	2.27	14.083	4.34	20.17	1.86
2.000	1.14	8.083	2.27	14.167	4.34	20.25	1.86
2.083	1.14	8.167	2.27	14.250	4.34	20.33	1.24
2.167	1.14	8.250	2.27	14.333	3.10	20.42	1.24
2.250	1.14	8.333	2.68	14.417	3.10	20.50	1.24
2.333	1.34	8.417	2.68	14.500	3.10	20.58	1.24
2.417	1.34	8.500	2.68	14.583	3.10	20.67	1.24
2.500	1.34	8.583	2.68	14.667	3.10	20.75	1.24
2.583	1.34	8.667	2.68	14.750	3.10	20.83	1.24
2.667	1.34	8.750	2.68	14.833	3.10	20.92	1.24
2.750	1.34	8.833	2.89	14.917	3.10	21.00	1.24
2.833	1.34	8.917	2.89	15.000	3.10	21.08	1.24
2.917	1.34	9.000	2.89	15.083	3.10	21.17	1.24
3.000	1.34	9.083	2.89	15.167	3.10	21.25	1.24
3.083	1.34	9.167	2.89	15.250	3.10	21.33	1.24
3.167	1.34	9.250	2.89	15.333	3.10	21.42	1.24
3.250	1.34	9.333	3.30	15.417	3.10	21.50	1.24
3.333	1.34	9.417	3.30	15.500	3.10	21.58	1.24
3.417	1.34	9.500	3.30	15.583	3.10	21.67	1.24
3.500	1.34	9.583	3.30	15.667	3.10	21.75	1.24
3.583	1.34	9.667	3.30	15.750	3.10	21.83	1.24
3.667	1.34	9.750	3.30	15.833	3.10	21.92	1.24
3.750	1.34	9.833	3.72	15.917	3.10	22.00	1.24
3.833	1.34	9.917	3.72	16.000	3.10	22.08	1.24
3.917	1.34	10.000	3.72	16.083	3.10	22.17	1.24
4.000	1.34	10.083	3.72	16.167	3.10	22.25	1.24
4.083	1.34	10.167	3.72	16.250	3.10	22.33	1.24
4.167	1.34	10.250	3.72	16.333	1.86	22.42	1.24
4.250	1.34	10.333	4.75	16.417	1.86	22.50	1.24
4.333	1.65	10.417	4.75	16.500	1.86	22.58	1.24
4.417	1.65	10.500	4.75	16.583	1.86	22.67	1.24
4.500	1.65	10.583	4.75	16.667	1.86	22.75	1.24
4.583	1.65	10.667	4.75	16.750	1.86	22.83	1.24
4.667	1.65	10.750	4.75	16.833	1.86	22.92	1.24
4.750	1.65	10.833	6.40	16.917	1.86	23.00	1.24
4.833	1.65	10.917	6.40	17.000	1.86	23.08	1.24
4.917	1.65	11.000	6.40	17.083	1.86	23.17	1.24
5.000	1.65	11.083	6.40	17.167	1.86	23.25	1.24
5.083	1.65	11.167	6.40	17.250	1.86	23.33	1.24
5.167	1.65	11.250	6.40	17.333	1.86	23.42	1.24
5.250	1.65	11.333	9.91	17.417	1.86	23.50	1.24
5.333	1.65	11.417	9.91	17.500	1.86	23.58	1.24
5.417	1.65	11.500	9.91	17.583	1.86	23.67	1.24
5.500	1.65	11.583	9.91	17.667	1.86	23.75	1.24
5.583	1.65	11.667	9.91	17.750	1.86	23.83	1.24
5.667	1.65	11.750	9.91	17.833	1.86	23.92	1.24
5.750	1.65	11.833	30.55	17.917	1.86	24.00	1.24
5.833	1.65	11.917	30.56	18.000	1.86	24.08	1.24
5.917	1.65	12.000	30.56	18.083	1.86	24.17	1.24
6.000	1.65	12.083	126.34	18.167	1.86	24.25	1.24
6.083	1.65	12.167	126.35	18.250	1.86		

Unit Hyd Qpeak (cms)= 0.144

PEAK FLOW (cms)= 0.097 (i)
TIME TO PEAK (hrs)= 12.250
RUNOFF VOLUME (mm)= 74.798
TOTAL RAINFALL (mm)= 103.230
RUNOFF COEFFICIENT = 0.725

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

ADD HYD (0090)				
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0003):	0.39	0.110	12.25	78.20
+ ID2= 2 (0004):	0.34	0.097	12.25	74.80
ID = 3 (0090):	0.73	0.208	12.25	76.61

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0090)

2.500	1.34	8.583	2.68	14.667	3.10	20.75	1.24
2.583	1.34	8.667	2.68	14.750	3.10	20.83	1.24
2.667	1.34	8.750	2.68	14.833	3.10	20.92	1.24
2.750	1.34	8.833	2.89	14.917	3.10	21.00	1.24
2.833	1.34	8.917	2.89	15.000	3.10	21.08	1.24
2.917	1.34	9.000	2.89	15.083	3.10	21.17	1.24
3.000	1.34	9.083	2.89	15.167	3.10	21.25	1.24
3.083	1.34	9.167	2.89	15.250	3.10	21.33	1.24
3.167	1.34	9.250	2.89	15.333	3.10	21.42	1.24
3.250	1.34	9.333	3.30	15.417	3.10	21.50	1.24
3.333	1.34	9.417	3.30	15.500	3.10	21.58	1.24
3.417	1.34	9.500	3.30	15.583	3.10	21.67	1.24
3.500	1.34	9.583	3.30	15.667	3.10	21.75	1.24
3.583	1.34	9.667	3.30	15.750	3.10	21.83	1.24
3.667	1.34	9.750	3.30	15.833	3.10	21.92	1.24
3.750	1.34	9.833	3.72	15.917	3.10	22.00	1.24
3.833	1.34	9.917	3.72	16.000	3.10	22.08	1.24
3.917	1.34	10.000	3.72	16.083	3.10	22.17	1.24
4.000	1.34	10.083	3.72	16.167	3.10	22.25	1.24
4.083	1.34	10.167	3.72	16.250	3.10	22.33	1.24
4.167	1.34	10.250	3.72	16.333	1.86	22.42	1.24
4.250	1.34	10.333	4.75	16.417	1.86	22.50	1.24
4.333	1.65	10.417	4.75	16.500	1.86	22.58	1.24
4.417	1.65	10.500	4.75	16.583	1.86	22.67	1.24
4.500	1.65	10.583	4.75	16.667	1.86	22.75	1.24
4.583	1.65	10.667	4.75	16.750	1.86	22.83	1.24
4.667	1.65	10.750	4.75	16.833	1.86	22.92	1.24
4.750	1.65	10.833	6.40	16.917	1.86	23.00	1.24
4.833	1.65	10.917	6.40	17.000	1.86	23.08	1.24
4.917	1.65	11.000	6.40	17.083	1.86	23.17	1.24
5.000	1.65	11.083	6.40	17.167	1.86	23.25	1.24
5.083	1.65	11.167	6.40	17.250	1.86	23.33	1.24
5.167	1.65	11.250	6.40	17.333	1.86	23.42	1.24
5.250	1.65	11.333	9.91	17.417	1.86	23.50	1.24
5.333	1.65	11.417	9.91	17.500	1.86	23.58	1.24
5.417	1.65	11.500	9.91	17.583	1.86	23.67	1.24
5.500	1.65	11.583	9.91	17.667	1.86	23.75	1.24
5.583	1.65	11.667	9.91	17.750	1.86	23.83	1.24
5.667	1.65	11.750	9.91	17.833	1.86	23.92	1.24
5.750	1.65	11.833	30.55	17.917	1.86	24.00	1.24
5.833	1.65	11.917	30.56	18.000	1.86	24.08	1.24
5.917	1.65	12.000	30.56	18.083	1.86	24.17	1.24
6.000	1.65	12.083	126.34	18.167	1.86	24.25	1.24
6.083	1.65	12.167	126.35	18.250	1.86		

Unit Hyd Qpeak (cms)= 0.135

PEAK FLOW (cms)= 0.110 (i)
TIME TO PEAK (hrs)= 12.250
RUNOFF VOLUME (mm)= 78.198
TOTAL RAINFALL (mm)= 103.230
RUNOFF COEFFICIENT = 0.758

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

CALIB					
NASHYD (0004)	Area (ha)=	0.34	Curve Number (CN)=	90.0	
ID= 1 DT= 5.0 min	Ia (mm)=	3.50	# of Linear Res.(N)=	3.00	
	U.H. Tp(hrs)=	0.09			

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	0.00	6.167	1.65	12.250	126.35	18.33	1.86
0.167	0.00	6.250	1.65	12.333	14.88	18.42	1.86
0.250	0.00	6.333	1.86	12.417	14.87	18.50	1.86
0.333	1.14	6.417	1.86	12.500	14.87	18.58	1.86
0.417	1.14	6.500	1.86	12.583	14.87	18.67	1.86
0.500	1.14	6.583	1.86	12.667	14.87	18.75	1.86
0.583	1.14	6.667	1.86	12.750	14.87	18.83	1.86
0.667	1.14	6.750	1.86	12.833	7.64	18.92	1.86
0.750	1.14	6.833	1.86	12.917	7.64	19.00	1.86
0.833	1.14	6.917	1.86	13.000	7.64	19.08	1.86
0.917	1.14	7.000	1.86	13.083	7.64	19.17	1.86
1.000	1.14	7.083	1.86	13.167	7.64	19.25	1.86
1.083	1.14	7.167	1.86	13.250	7.64	19.33	1.86
1.167	1.14	7.250	1.86	13.333	5.57	19.42	1.86
1.250	1.14	7.333	2.27	13.417	5.57	19.50	1.86
1.333	1.14	7.417	2.27	13.500	5.57	19.58	1.86

3 + 2 = 1	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	
ID1= 3 (0090):	0.73	0.208	12.25	76.61	
+ ID2= 2 (0080):	8.33	0.643	12.67	63.41	
ID = 1 (0090):	9.06	0.671	12.67	64.47	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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      V      V   I    SSSSS  U    U    A    L              (v 6.2.2020)
       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
          V     I    SSSSS  UUUUU  A     A LLLLL

      OOO    TTTTT  TTTTT  H   H  Y   Y  M    M   OOO    TM
     O   O     T      T    H   H   Y Y   MM  MM  O   O
     O   O     T      T    H   H    Y    M MM M  O   O
      OOO      T      T    H   H    Y    M    M   OOO
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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\atrenholm\AppData\Local\Civica\VH5\8ef94b88-6605-479e-b003-b70f6886dc93\bf358578-
  Summary filename: C:\Users\atrenholm\AppData\Local\Civica\VH5\8ef94b88-6605-479e-b003-b70f6886dc93\bf358578-

DATE: 06/05/2026                          TIME: 04:00:06

USER:


COMMENTS: _____________________________________________

--------------------------------------------------------------------------------------------------------------------
  ************************************************
 ** SIMULATION : 50yr 24hr 15min SCS Type II ( **
  ************************************************


--------------------
|    READ STORM    |    Filename: C:\Users\atrenholm\AppD
|                  |              ata\Local\Temp\
|                  |              18437d2c-b486-467f-bd34-28794099a257\6483112a
| Ptotal=114.82 mm |    Comments: 50yr 24hr 15min SCS Type II (MTO)
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TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.00	0.00	6.25	2.07	12.50	16.53	18.75	2.07
0.25	1.26	6.50	2.07	12.75	8.50	19.00	2.07
0.50	1.26	6.75	2.07	13.00	8.50	19.25	2.07
0.75	1.26	7.00	2.07	13.25	6.20	19.50	2.07
1.00	1.26	7.25	2.53	13.50	6.20	19.75	2.07
1.25	1.26	7.50	2.53	13.75	4.82	20.00	2.07
1.50	1.26	7.75	2.53	14.00	4.82	20.25	1.38
1.75	1.26	8.00	2.53	14.25	3.44	20.50	1.38
2.00	1.26	8.25	2.99	14.50	3.44	20.75	1.38
2.25	1.49	8.50	2.99	14.75	3.44	21.00	1.38
2.50	1.49	8.75	3.21	15.00	3.44	21.25	1.38
2.75	1.49	9.00	3.21	15.25	3.44	21.50	1.38
3.00	1.49	9.25	3.67	15.50	3.44	21.75	1.38
3.25	1.49	9.50	3.67	15.75	3.44	22.00	1.38
3.50	1.49	9.75	4.13	16.00	3.44	22.25	1.38
3.75	1.49	10.00	4.13	16.25	2.07	22.50	1.38
4.00	1.49	10.25	5.28	16.50	2.07	22.75	1.38
4.25	1.84	10.50	5.28	16.75	2.07	23.00	1.38
4.50	1.84	10.75	7.12	17.00	2.07	23.25	1.38
4.75	1.84	11.00	7.12	17.25	2.07	23.50	1.38
5.00	1.84	11.25	11.02	17.50	2.07	23.75	1.38
5.25	1.84	11.50	11.02	17.75	2.07	24.00	1.38
5.50	1.84	11.75	33.99	18.00	2.07		
5.75	1.84	12.00	140.54	18.25	2.07		
6.00	1.84	12.25	16.53	18.50	2.07		

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| CALIB            |
| NASHYD   (  0005)|   Area    (ha)=   0.76   Curve Number   (CN)= 87.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.10   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.28

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



     RUNOFF COEFFICIENT   =   0.718

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

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| CALIB            |
| NASHYD   (  0001)|   Area    (ha)=   0.25   Curve Number   (CN)= 94.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   3.00   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.11

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

                        ---- TRANSFORMED HYETOGRAPH ----
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TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.84	12.250	140.54	18.33	2.07
0.167	0.00	6.250	1.84	12.333	16.55	18.42	2.07
0.250	0.00	6.333	2.07	12.417	16.53	18.50	2.07
0.333	1.26	6.417	2.07	12.500	16.53	18.58	2.07
0.417	1.26	6.500	2.07	12.583	16.53	18.67	2.07
0.500	1.26	6.583	2.07	12.667	16.53	18.75	2.07
0.583	1.26	6.667	2.07	12.750	16.53	18.83	2.07
0.667	1.26	6.750	2.07	12.833	8.50	18.92	2.07
0.750	1.26	6.833	2.07	12.917	8.50	19.00	2.07
0.833	1.26	6.917	2.07	13.000	8.50	19.08	2.07
0.917	1.26	7.000	2.07	13.083	8.50	19.17	2.07
1.000	1.26	7.083	2.07	13.167	8.50	19.25	2.07
1.083	1.26	7.167	2.07	13.250	8.50	19.33	2.07
1.167	1.26	7.250	2.07	13.333	6.20	19.42	2.07
1.250	1.26	7.333	2.53	13.417	6.20	19.50	2.07
1.333	1.26	7.417	2.53	13.500	6.20	19.58	2.07
1.417	1.26	7.500	2.53	13.583	6.20	19.67	2.07
1.500	1.26	7.583	2.53	13.667	6.20	19.75	2.07
1.583	1.26	7.667	2.53	13.750	6.20	19.83	2.07
1.667	1.26	7.750	2.53	13.833	4.82	19.92	2.07
1.750	1.26	7.833	2.53	13.917	4.82	20.00	2.07
1.833	1.26	7.917	2.53	14.000	4.82	20.08	2.07
1.917	1.26	8.000	2.53	14.083	4.82	20.17	2.07
2.000	1.26	8.083	2.53	14.167	4.82	20.25	2.07
2.083	1.26	8.167	2.53	14.250	4.82	20.33	1.38
2.167	1.26	8.250	2.53	14.333	3.44	20.42	1.38
2.250	1.26	8.333	2.99	14.417	3.44	20.50	1.38
2.333	1.49	8.417	2.99	14.500	3.44	20.58	1.38
2.417	1.49	8.500	2.99	14.583	3.44	20.67	1.38
2.500	1.49	8.583	2.99	14.667	3.44	20.75	1.38
2.583	1.49	8.667	2.99	14.750	3.44	20.83	1.38
2.667	1.49	8.750	2.99	14.833	3.44	20.92	1.38
2.750	1.49	8.833	3.21	14.917	3.44	21.00	1.38
2.833	1.49	8.917	3.21	15.000	3.44	21.08	1.38
2.917	1.49	9.000	3.21	15.083	3.44	21.17	1.38
3.000	1.49	9.083	3.21	15.167	3.44	21.25	1.38
3.083	1.49	9.167	3.21	15.250	3.44	21.33	1.38
3.167	1.49	9.250	3.21	15.333	3.44	21.42	1.38
3.250	1.49	9.333	3.67	15.417	3.44	21.50	1.38
3.333	1.49	9.417	3.67	15.500	3.44	21.58	1.38
3.417	1.49	9.500	3.67	15.583	3.44	21.67	1.38
3.500	1.49	9.583	3.67	15.667	3.44	21.75	1.38
3.583	1.49	9.667	3.67	15.750	3.44	21.83	1.38
3.667	1.49	9.750	3.67	15.833	3.44	21.92	1.38
3.750	1.49	9.833	4.13	15.917	3.44	22.00	1.38
3.833	1.49	9.917	4.13	16.000	3.44	22.08	1.38
3.917	1.49	10.000	4.13	16.083	3.44	22.17	1.38
4.000	1.49	10.083	4.13	16.167	3.44	22.25	1.38
4.083	1.49	10.167	4.13	16.250	3.44	22.33	1.38
4.167	1.49	10.250	4.13	16.333	2.07	22.42	1.38
4.250	1.49	10.333	5.28	16.417	2.07	22.50	1.38
4.333	1.84	10.417	5.28	16.500	2.07	22.58	1.38
4.417	1.84	10.500	5.28	16.583	2.07	22.67	1.38
4.500	1.84	10.583	5.28	16.667	2.07	22.75	1.38
4.583	1.84	10.667	5.28	16.750	2.07	22.83	1.38
4.667	1.84	10.750	5.28	16.833	2.07	22.92	1.38
4.750	1.84	10.833	7.12	16.917	2.07	23.00	1.38
4.833	1.84	10.917	7.12	17.000	2.07	23.08	1.38
4.917	1.84	11.000	7.12	17.083	2.07	23.17	1.38
5.000	1.84	11.083	7.12	17.167	2.07	23.25	1.38
5.083	1.84	11.167	7.12	17.250	2.07	23.33	1.38
5.167	1.84	11.250	7.12	17.333	2.07	23.42	1.38
5.250	1.84	11.333	11.02	17.417	2.07	23.50	1.38
5.333	1.84	11.417	11.02	17.500	2.07	23.58	1.38
5.417	1.84	11.500	11.02	17.583	2.07	23.67	1.38
5.500	1.84	11.583	11.02	17.667	2.07	23.75	1.38
5.583	1.84	11.667	11.02	17.750	2.07	23.83	1.38

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                        ---- TRANSFORMED HYETOGRAPH ----
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TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.84	12.250	140.54	18.33	2.07
0.167	0.00	6.250	1.84	12.333	16.55	18.42	2.07
0.250	0.00	6.333	2.07	12.417	16.53	18.50	2.07
0.333	1.26	6.417	2.07	12.500	16.53	18.58	2.07
0.417	1.26	6.500	2.07	12.583	16.53	18.67	2.07
0.500	1.26	6.583	2.07	12.667	16.53	18.75	2.07
0.583	1.26	6.667	2.07	12.750	16.53	18.83	2.07
0.667	1.26	6.750	2.07	12.833	8.50	18.92	2.07
0.750	1.26	6.833	2.07	12.917	8.50	19.00	2.07
0.833	1.26	6.917	2.07	13.000	8.50	19.08	2.07
0.917	1.26	7.000	2.07	13.083	8.50	19.17	2.07
1.000	1.26	7.083	2.07	13.167	8.50	19.25	2.07
1.083	1.26	7.167	2.07	13.250	8.50	19.33	2.07
1.167	1.26	7.250	2.07	13.333	6.20	19.42	2.07
1.250	1.26	7.333	2.53	13.417	6.20	19.50	2.07
1.333	1.26	7.417	2.53	13.500	6.20	19.58	2.07
1.417	1.26	7.500	2.53	13.583	6.20	19.67	2.07
1.500	1.26	7.583	2.53	13.667	6.20	19.75	2.07
1.583	1.26	7.667	2.53	13.750	6.20	19.83	2.07
1.667	1.26	7.750	2.53	13.833	4.82	19.92	2.07
1.750	1.26	7.833	2.53	13.917	4.82	20.00	2.07
1.833	1.26	7.917	2.53	14.000	4.82	20.08	2.07
1.917	1.26	8.000	2.53	14.083	4.82	20.17	2.07
2.000	1.26	8.083	2.53	14.167	4.82	20.25	2.07
2.083	1.26	8.167	2.53	14.250	4.82	20.33	1.38
2.167	1.26	8.250	2.53	14.333	3.44	20.42	1.38
2.250	1.26	8.333	2.99	14.417	3.44	20.50	1.38
2.333	1.49	8.417	2.99	14.500	3.44	20.58	1.38
2.417	1.49	8.500	2.99	14.583	3.44	20.67	1.38
2.500	1.49	8.583	2.99	14.667	3.44	20.75	1.38
2.583	1.49	8.667	2.99	14.750	3.44	20.83	1.38
2.667	1.49	8.750	2.99	14.833	3.44	20.92	1.38
2.750	1.49	8.833	3.21	14.917	3.44	21.00	1.38
2.833	1.49	8.917	3.21	15.000	3.44	21.08	1.38
2.917	1.49	9.000	3.21	15.083	3.44	21.17	1.38
3.000	1.49	9.083	3.21	15.167	3.44	21.25	1.38
3.083	1.49	9.167	3.21	15.250	3.44	21.33	1.38
3.167	1.49	9.250	3.21	15.333	3.44	21.42	1.38
3.250	1.49	9.333	3.67	15.417	3.44	21.50	1.38
3.333	1.49	9.417	3.67	15.500	3.44	21.58	1.38
3.417	1.49	9.500	3.67	15.583	3.44	21.67	1.38
3.500	1.49	9.583	3.67	15.667	3.44	21.75	1.38
3.583	1.49	9.667	3.67	15.750	3.44	21.83	1.38
3.667	1.49	9.750	3.67	15.833	3.44	21.92	1.38
3.750	1.49	9.833	4.13	15.917	3.44	22.00	1.38
3.833	1.49	9.917	4.13	16.000	3.44	22.08	1.38
3.917	1.49	10.000	4.13	16.083	3.44	22.17	1.38
4.000	1.49	10.083	4.13	16.167	3.44	22.25	1.38
4.083	1.49	10.167	4.13	16.250	3.44	22.33	1.38
4.167	1.49	10.250	4.13	16.333	2.07	22.42	1.38
4.250	1.49	10.333	5.28	16.417	2.07	22.50	1.38
4.333	1.84	10.417	5.28	16.500	2.07	22.58	1.38
4.417	1.84	10.500	5.28	16.583	2.07	22.67	1.38
4.500	1.84	10.583	5.28	16.667	2.07	22.75	1.38
4.583	1.84	10.667	5.28	16.750	2.07	22.83	1.38
4.667	1.84	10.750	5.28	16.833	2.07	22.92	1.38
4.750	1.84	10.833	7.12	16.917	2.07	23.00	1.38
4.833	1.84	10.917	7.12	17.000	2.07	23.08	1.38
4.917	1.84	11.000	7.12	17.083	2.07	23.17	1.38
5.000	1.84	11.083	7.12	17.167	2.07	23.25	1.38
5.083	1.84	11.167	7.12	17.250	2.07	23.33	1.38
5.167	1.84	11.250	7.12	17.333	2.07	23.42	1.38
5.250	1.84	11.333	11.02	17.417	2.07	23.50	1.38
5.333	1.84	11.417	11.02	17.500	2.07	23.58	1.38
5.417	1.84	11.500	11.02	17.583	2.07	23.67	1.38
5.500	1.84	11.583	11.02	17.667	2.07	23.75	1.38
5.583	1.84	11.667	11.02	17.750	2.07	23.83	1.38
5.667	1.84	11.750	11.02	17.833	2.07	23.92	1.38
5.750	1.84	11.833	33.98	17.917	2.07	24.00	1.38
5.833	1.84	11.917	33.99	18.000	2.07	24.08	1.38
5.917	1.84	12.000	33.99	18.083	2.07	24.17	1.38
6.000	1.84	12.083	140.53	18.167	2.07	24.25	1.38
6.083	1.84	12.167	140.54	18.250	2.07		

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Unit Hyd Qpeak  (cms)=   0.104

PEAK FLOW       (cms)=   0.130 (i)
TIME TO PEAK    (hrs)=  12.417
RUNOFF VOLUME    (mm)=  82.412
TOTAL RAINFALL   (mm)= 114.820
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TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.84	12.250	140.54	18.33	2.07
0.167	0.00	6.250	1.84	12.333	16.55	18.42	2.07
0.250	0.00	6.333	2.07	12.417	16.53	18.50	2.07
0.333	1.26	6.417	2.07	12.500	16.53	18.58	2.07
0.417	1.26	6.500	2.07	12.583	16.53	18.67	2.07
0.500	1.26	6.583	2.07	12.667	16.53	18.75	2.07
0.583	1.26	6.667	2.07	12.750	16.53	18.83	2.07
0.667	1.26	6.750	2.07	12.833	8.50	18.92	2.07
0.750	1.26	6.833	2.07	12.917	8.50	19.00	2.07
0.833	1.26	6.917	2.07	13.000	8.50	19.08	2.07
0.917	1.26	7.000	2.07	13.083	8.50	19.17	2.07
1.000	1.26	7.083	2.07	13.167	8.50	19.25	2.07
1.083	1.26	7.167	2.07	13.250	8.50	19.33	2.07
1.167	1.26	7.250	2.07	13.333	6.20	19.42	2.07
1.250	1.26	7.333	2.53	13.417	6.20	19.50	2.07
1.333	1.26	7.417	2.53	13.500	6.20	19.58	2.07
1.417	1.26	7.500	2.53	13.583	6.20	19.67	2.07
1.500	1.26	7.583	2.53	13.667	6.20	19.75	2.07
1.583	1.26	7.667	2.53	13.750	6.20	19.83	2.07
1.667	1.26	7.750	2.53	13.833	4.82	19.92	2.07
1.750	1.26	7.833	2.53	13.917	4.82	20.00	2.07
1.833	1.26	7.917	2.53	14.000	4.82	20.08	2.07
1.917	1.26	8.000	2.53	14.083	4.82	20.17	2.07
2.000	1.26	8.083	2.53	14.167	4.82	20.25	2.07
2.083	1.26	8.167	2.53	14.250	4.82	20.33	1.38
2.167	1.26	8.250	2.53	14.333	3.44	20.42	1.38
2.250	1.26	8.333	2.99	14.417	3.44	20.50	1.38
2.333	1.49	8.417	2.99	14.500	3.44	20.58	1.38
2.417	1.49	8.500	2.99	14.583	3.44	20.67	1.38
2.500	1.49	8.583	2.99	14.667	3.44	20.75	1.38
2.583	1.49	8.667	2.99	14.750	3.44	20.83	1.38
2.667	1.49	8.750	2.99	14.833	3.44	20.92	1.38
2.750	1.49	8.833	3.21	14.917	3.44	21.00	1.38
2.833	1.49	8.917	3.21	15.000	3.44	21.08	1.38
2.917	1.49	9.000	3.21	15.083	3.44	21.17	1.38
3.000	1.49	9.083	3.21	15.167	3.44	21.25	1.38
3.083	1.49	9.167	3.21	15.250	3.44	21.33	1.38
3.167	1.49	9.250	3.21	15.333	3.44	21.42	1.38
3.250	1.49	9.333	3.67	15.417	3.44	21.50	1.38
3.333	1.49	9.417	3.67	15.500	3.44	21.58	1.38
3.417	1.49	9.500	3.67	15.583	3.44	21.67	1.38
3.500	1.49	9.583	3.67	15.667	3.44	21.75	1.38
3.583	1.49	9.667	3.67	15.750	3.44	21.83	1.38
3.667	1.49	9.750	3.67	15.833	3.44	21.92	1.38
3.750	1.49	9.833	4.13	15.917	3.44	22.00	1.38
3.833	1.49	9.917	4.13	16.000	3.44	22.08	1.38
3.917	1.49	10.000	4.13	16.083	3.44	22.17	1.38
4.000	1.49	10.083	4.13	16.167	3.44	22.25	1.38
4.083	1.49	10.167	4.13	16.250	3.44	22.33	1.38
4.167	1.49	10.250	4.13	16.333	2.07	22.42	1.38
4.250	1.49	10.333	5.28	16.417	2.07	22.50	1.38
4.333	1.84	10.417	5.28	16.500	2.07	22.58	1.38
4.417	1.84	10.500	5.28	16.583	2.07	22.67	1.38
4.500	1.84	10.583	5.28	16.667	2.07	22.75	1.38

```
Unit Hyd Qpeak  (cms)=   0.087

PEAK FLOW       (cms)=   0.084 (i)
TIME TO PEAK    (hrs)=  12.250
RUNOFF VOLUME    (mm)=  95.862
TOTAL RAINFALL   (mm)= 114.820
RUNOFF COEFFICIENT    =   0.835

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

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| CALIB            |
| NASHYD   (  0002)|   Area    (ha)=   8.08   Curve Number   (CN)= 82.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.90   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.57

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

                        ---- TRANSFORMED HYETOGRAPH ----
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TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.84	12.250	140.54	18.33	2.07
0.167	0.00	6.250	1.84	12.333	16.55	18.42	2.07
0.250	0.00	6.333	2.07	12.417	16.53	18.50	2.07
0.333	1.26	6.417	2.07	12.500	16.53	18.58	2.07
0.417	1.26	6.500	2.07	12.583	16.53	18.67	2.07
0.500	1.26	6.583	2.07	12.667	16.53	18.75	2.07
0.583	1.26	6.667	2.07	12.750	16.53	18.83	2.07
0.667	1.26	6.750	2.07	12.833	8.50	18.92	2.07
0.750	1.26	6.833	2.07	12.917	8.50	19.00	2.07
0.833	1.26	6.917	2.07	13.000	8.50	19.08	2.07
0.917	1.26	7.000	2.07	13.083	8.50	19.17	2.07
1.000	1.26	7.083	2.07	13.167	8.50	19.25	2.07
1.083	1.26	7.167	2.07	13.250	8.50	19.33	2.07
1.167	1.26	7.250	2.07	13.333	6.20	19.42	2.07
1.250	1.26	7.333	2.53	13.417	6.20	19.50	2.07
1.333	1.26	7.417	2.53	13.500	6.20	19.58	2.07
1.417	1.26	7.500	2.53	13.583	6.20	19.67	2.07
1.500	1.26	7.583	2.53	13.667	6.20	19.75	2.07
1.583	1.26	7.667	2.53	13.750	6.20	19.83	2.07
1.667	1.26	7.750	2.53	13.833	4.82	19.92	2.07
1.750	1.26	7.833	2.53	13.917	4.82	20.00	2.07
1.833	1.26	7.917	2.53	14.000	4.82	20.08	2.07
1.917	1.26	8.000	2.53	14.083	4.82	20.17	2.07
2.000	1.26	8.083	2.53	14.167	4.82	20.25	2.07
2.083	1.26	8.167	2.53	14.250	4.82	20.33	1.38
2.167	1.26	8.250	2.53	14.333	3.44	20.42	1.38
2.250	1.26	8.333	2.99	14.417	3.44	20.50	1.38
2.333	1.49	8.417	2.99	14.500	3.44	20.58	1.38
2.417	1.49	8.500	2.99	14.583	3.44	20.67	1.38
2.500	1.49	8.583	2.99	14.667	3.44	20.75	1.38
2.583	1.49	8.667	2.99	14.750	3.44	20.83	1.38
2.667	1.49	8.750	2.99	14.833	3.44	20.92	1.38
2.750	1.49	8.833	3.21	14.917	3.44	21.00	1.38
2.833	1.49	8.917	3.21	15.000	3.44	21.08	1.38
2.917	1.49	9.000	3.21	15.083	3.44	21.17	1.38
3.000	1.49	9.083	3.21	15.167	3.44	21.25	1.38
3.083	1.49	9.167	3.21	15.250	3.44	21.33	1.38
3.167	1.49	9.250	3.21	15.333	3.44	21.42	1.38
3.250	1.49	9.333	3.67	15.417	3.44	21.50	1.38
3.333	1.49	9.417	3.67	15.500	3.44	21.58	1.38
3.417	1.49	9.500	3.67	15.583	3.44	21.67	1.38
3.500	1.49	9.583	3.67	15.667	3.44	21.75	1.38
3.583	1.49	9.667	3.67	15.750	3.44	21.83	1.38
3.667	1.49	9.750	3.67	15.833	3.44	21.92	1.38
3.750	1.49	9.833	4.13	15.917	3.44	22.00	1.38
3.833	1.49	9.917	4.13	16.000	3.44	22.08	1.38
3.917	1.49	10.000	4.13	16.083	3.44	22.17	1.38
4.000	1.49	10.083	4.13	16.167	3.44	22.25	1.38
4.083	1.49	10.167	4.13	16.250	3.44	22.33	1.38
4.167	1.49	10.250	4.13	16.333	2.07	22.42	1.38
4.250	1.49	10.333	5.28	16.417	2.07	22.50	1.38
4.333	1.84	10.417	5.28	16.500	2.07	22.58	1.38
4.417	1.84	10.500	5.28	16.583	2.07	22.67	1.38
4.500	1.84	10.583	5.28	16.667	2.07	22.75	1.38

4.583	1.84	10.667	5.28	16.750	2.07	22.83	1.38
4.667	1.84	10.750	5.28	16.833	2.07	22.92	1.38
4.750	1.84	10.833	7.12	16.917	2.07	23.00	1.38
4.833	1.84	10.917	7.12	17.000	2.07	23.08	1.38
4.917	1.84	11.000	7.12	17.083	2.07	23.17	1.38
5.000	1.84	11.083	7.12	17.167	2.07	23.25	1.38
5.083	1.84	11.167	7.12	17.250	2.07	23.33	1.38
5.167	1.84	11.250	7.12	17.333	2.07	23.42	1.38
5.250	1.84	11.333	11.02	17.417	2.07	23.50	1.38
5.333	1.84	11.417	11.02	17.500	2.07	23.58	1.38
5.417	1.84	11.500	11.02	17.583	2.07	23.67	1.38
5.500	1.84	11.583	11.02	17.667	2.07	23.75	1.38
5.583	1.84	11.667	11.02	17.750	2.07	23.83	1.38
5.667	1.84	11.750	11.02	17.833	2.07	23.92	1.38
5.750	1.84	11.833	33.98	17.917	2.07	24.00	1.38
5.833	1.84	11.917	33.99	18.000	2.07	24.08	1.38
5.917	1.84	12.000	33.99	18.083	2.07	24.17	1.38
6.000	1.84	12.083	140.53	18.167	2.07	24.25	1.38
6.083	1.84	12.167	140.54	18.250	2.07		

Unit Hyd Qpeak (cms)= 0.541

PEAK FLOW (cms)= 0.737 (i)
TIME TO PEAK (hrs)= 12.667
RUNOFF VOLUME (mm)= 72.926
TOTAL RAINFALL (mm)= 114.820
RUNOFF COEFFICIENT = 0.635

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

ADD HYD (0080)		AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3		(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0001):		0.25	0.084	12.25	95.86
+ ID2= 2 (0002):		8.08	0.737	12.67	72.93
ID = 3 (0080):		8.33	0.748	12.67	73.61

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB					
NASHYD (0003)	Area (ha)=	0.39	Curve Number (CN)=	91.0	
ID= 1 DT= 5.0 min	Ia (mm)=	3.50	# of Linear Res.(N)=	3.00	
	U.H. Tp(hrs)=	0.11			

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	0.00	6.167	1.84	12.250	140.54	18.33	2.07
0.167	0.00	6.250	1.84	12.333	16.55	18.42	2.07
0.250	0.00	6.333	2.07	12.417	16.53	18.50	2.07
0.333	1.26	6.417	2.07	12.500	16.53	18.58	2.07
0.417	1.26	6.500	2.07	12.583	16.53	18.67	2.07
0.500	1.26	6.583	2.07	12.667	16.53	18.75	2.07
0.583	1.26	6.667	2.07	12.750	16.53	18.83	2.07
0.667	1.26	6.750	2.07	12.833	8.50	18.92	2.07
0.750	1.26	6.833	2.07	12.917	8.50	19.00	2.07
0.833	1.26	6.917	2.07	13.000	8.50	19.08	2.07
0.917	1.26	7.000	2.07	13.083	8.50	19.17	2.07
1.000	1.26	7.083	2.07	13.167	8.50	19.25	2.07
1.083	1.26	7.167	2.07	13.250	8.50	19.33	2.07
1.167	1.26	7.250	2.07	13.333	6.20	19.42	2.07
1.250	1.26	7.333	2.53	13.417	6.20	19.50	2.07
1.333	1.26	7.417	2.53	13.500	6.20	19.58	2.07
1.417	1.26	7.500	2.53	13.583	6.20	19.67	2.07
1.500	1.26	7.583	2.53	13.667	6.20	19.75	2.07
1.583	1.26	7.667	2.53	13.750	6.20	19.83	2.07
1.667	1.26	7.750	2.53	13.833	4.82	19.92	2.07
1.750	1.26	7.833	2.53	13.917	4.82	20.00	2.07
1.833	1.26	7.917	2.53	14.000	4.82	20.08	2.07
1.917	1.26	8.000	2.53	14.083	4.82	20.17	2.07
2.000	1.26	8.083	2.53	14.167	4.82	20.25	2.07
2.083	1.26	8.167	2.53	14.250	4.82	20.33	1.38
2.167	1.26	8.250	2.53	14.333	3.44	20.42	1.38
2.250	1.26	8.333	2.99	14.417	3.44	20.50	1.38
2.333	1.49	8.417	2.99	14.500	3.44	20.58	1.38
2.417	1.49	8.500	2.99	14.583	3.44	20.67	1.38
2.500	1.49	8.583	2.99	14.667	3.44	20.75	1.38
2.583	1.49	8.667	2.99	14.750	3.44	20.83	1.38
2.667	1.49	8.750	2.99	14.833	3.44	20.92	1.38
2.750	1.49	8.833	3.21	14.917	3.44	21.00	1.38
2.833	1.49	8.917	3.21	15.000	3.44	21.08	1.38
2.917	1.49	9.000	3.21	15.083	3.44	21.17	1.38
3.000	1.49	9.083	3.21	15.167	3.44	21.25	1.38
3.083	1.49	9.167	3.21	15.250	3.44	21.33	1.38
3.167	1.49	9.250	3.21	15.333	3.44	21.42	1.38
3.250	1.49	9.333	3.67	15.417	3.44	21.50	1.38
3.333	1.49	9.417	3.67	15.500	3.44	21.58	1.38
3.417	1.49	9.500	3.67	15.583	3.44	21.67	1.38
3.500	1.49	9.583	3.67	15.667	3.44	21.75	1.38
3.583	1.49	9.667	3.67	15.750	3.44	21.83	1.38
3.667	1.49	9.750	3.67	15.833	3.44	21.92	1.38
3.750	1.49	9.833	4.13	15.917	3.44	22.00	1.38
3.833	1.49	9.917	4.13	16.000	3.44	22.08	1.38
3.917	1.49	10.000	4.13	16.083	3.44	22.17	1.38
4.000	1.49	10.083	4.13	16.167	3.44	22.25	1.38
4.083	1.49	10.167	4.13	16.250	3.44	22.33	1.38
4.167	1.49	10.250	4.13	16.333	2.07	22.42	1.38
4.250	1.49	10.333	5.28	16.417	2.07	22.50	1.38
4.333	1.84	10.417	5.28	16.500	2.07	22.58	1.38
4.417	1.84	10.500	5.28	16.583	2.07	22.67	1.38
4.500	1.84	10.583	5.28	16.667	2.07	22.75	1.38
4.583	1.84	10.667	5.28	16.750	2.07	22.83	1.38
4.667	1.84	10.750	5.28	16.833	2.07	22.92	1.38
4.750	1.84	10.833	7.12	16.917	2.07	23.00	1.38
4.833	1.84	10.917	7.12	17.000	2.07	23.08	1.38
4.917	1.84	11.000	7.12	17.083	2.07	23.17	1.38
5.000	1.84	11.083	7.12	17.167	2.07	23.25	1.38
5.083	1.84	11.167	7.12	17.250	2.07	23.33	1.38
5.167	1.84	11.250	7.12	17.333	2.07	23.42	1.38
5.250	1.84	11.333	11.02	17.417	2.07	23.50	1.38
5.333	1.84	11.417	11.02	17.500	2.07	23.58	1.38
5.417	1.84	11.500	11.02	17.583	2.07	23.67	1.38
5.500	1.84	11.583	11.02	17.667	2.07	23.75	1.38
5.583	1.84	11.667	11.02	17.750	2.07	23.83	1.38
5.667	1.84	11.750	11.02	17.833	2.07	23.92	1.38
5.750	1.84	11.833	33.98	17.917	2.07	24.00	1.38
5.833	1.84	11.917	33.99	18.000	2.07	24.08	1.38
5.917	1.84	12.000	33.99	18.083	2.07	24.17	1.38
6.000	1.84	12.083	140.53	18.167	2.07	24.25	1.38
6.083	1.84	12.167	140.54	18.250	2.07		

Unit Hyd Qpeak (cms)= 0.144

PEAK FLOW (cms)= 0.110 (i)
TIME TO PEAK (hrs)= 12.250
RUNOFF VOLUME (mm)= 85.453
TOTAL RAINFALL (mm)= 114.820
RUNOFF COEFFICIENT = 0.744

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

ADD HYD (0090)		AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3		(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0003):		0.39	0.125	12.25	89.15
+ ID2= 2 (0004):		0.34	0.110	12.25	85.45
ID = 3 (0090):		0.73	0.235	12.25	87.43

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0090)

2.500	1.49	8.583	2.99	14.667	3.44	20.75	1.38
2.583	1.49	8.667	2.99	14.750	3.44	20.83	1.38
2.667	1.49	8.750	2.99	14.833	3.44	20.92	1.38
2.750	1.49	8.833	3.21	14.917	3.44	21.00	1.38
2.833	1.49	8.917	3.21	15.000	3.44	21.08	1.38
2.917	1.49	9.000	3.21	15.083	3.44	21.17	1.38
3.000	1.49	9.083	3.21	15.167	3.44	21.25	1.38
3.083	1.49	9.167	3.21	15.250	3.44	21.33	1.38
3.167	1.49	9.250	3.21	15.333	3.44	21.42	1.38
3.250	1.49	9.333	3.67	15.417	3.44	21.50	1.38
3.333	1.49	9.417	3.67	15.500	3.44	21.58	1.38
3.417	1.49	9.500	3.67	15.583	3.44	21.67	1.38
3.500	1.49	9.583	3.67	15.667	3.44	21.75	1.38
3.583	1.49	9.667	3.67	15.750	3.44	21.83	1.38
3.667	1.49	9.750	3.67	15.833	3.44	21.92	1.38
3.750	1.49	9.833	4.13	15.917	3.44	22.00	1.38
3.833	1.49	9.917	4.13	16.000	3.44	22.08	1.38
3.917	1.49	10.000	4.13	16.083	3.44	22.17	1.38
4.000	1.49	10.083	4.13	16.167	3.44	22.25	1.38
4.083	1.49	10.167	4.13	16.250	3.44	22.33	1.38
4.167	1.49	10.250	4.13	16.333	2.07	22.42	1.38
4.250	1.49	10.333	5.28	16.417	2.07	22.50	1.38
4.333	1.84	10.417	5.28	16.500	2.07	22.58	1.38
4.417	1.84	10.500	5.28	16.583	2.07	22.67	1.38
4.500	1.84	10.583	5.28	16.667	2.07	22.75	1.38
4.583	1.84	10.667	5.28	16.750	2.07	22.83	1.38
4.667	1.84	10.750	5.28	16.833	2.07	22.92	1.38
4.750	1.84	10.833	7.12	16.917	2.07	23.00	1.38
4.833	1.84	10.917	7.12	17.000	2.07	23.08	1.38
4.917	1.84	11.000	7.12	17.083	2.07	23.17	1.38
5.000	1.84	11.083	7.12	17.167	2.07	23.25	1.38
5.083	1.84	11.167	7.12	17.250	2.07	23.33	1.38
5.167	1.84	11.250	7.12	17.333	2.07	23.42	1.38
5.250	1.84	11.333	11.02	17.417	2.07	23.50	1.38
5.333	1.84	11.417	11.02	17.500	2.07	23.58	1.38
5.417	1.84	11.500	11.02	17.583	2.07	23.67	1.38
5.500	1.84	11.583	11.02	17.667	2.07	23.75	1.38
5.583	1.84	11.667	11.02	17.750	2.07	23.83	1.38
5.667	1.84	11.750	11.02	17.833	2.07	23.92	1.38
5.750	1.84	11.833	33.98	17.917	2.07	24.00	1.38
5.833	1.84	11.917	33.99	18.000	2.07	24.08	1.38
5.917	1.84	12.000	33.99	18.083	2.07	24.17	1.38
6.000	1.84	12.083	140.53	18.167	2.07	24.25	1.38
6.083	1.84	12.167	140.54	18.250	2.07		

Unit Hyd Qpeak (cms)= 0.135

PEAK FLOW (cms)= 0.125 (i)
TIME TO PEAK (hrs)= 12.250
RUNOFF VOLUME (mm)= 89.153
TOTAL RAINFALL (mm)= 114.820
RUNOFF COEFFICIENT = 0.776

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

CALIB					
NASHYD (0004)	Area (ha)=	0.34	Curve Number (CN)=	90.0	
ID= 1 DT= 5.0 min	Ia (mm)=	3.50	# of Linear Res.(N)=	3.00	
	U.H. Tp(hrs)=	0.09			

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	0.00	6.167	1.84	12.250	140.54	18.33	2.07
0.167	0.00	6.250	1.84	12.333	16.55	18.42	2.07
0.250	0.00	6.333	2.07	12.417	16.53	18.50	2.07
0.333	1.26	6.417	2.07	12.500	16.53	18.58	2.07
0.417	1.26	6.500	2.07	12.583	16.53	18.67	2.07
0.500	1.26	6.583	2.07	12.667	16.53	18.75	2.07
0.583	1.26	6.667	2.07	12.750	16.53	18.83	2.07
0.667	1.26	6.750	2.07	12.833	8.50	18.92	2.07
0.750	1.26	6.833	2.07	12.917	8.50	19.00	2.07
0.833	1.26	6.917	2.07	13.000	8.50	19.08	2.07
0.917	1.26	7.000	2.07	13.083	8.50	19.17	2.07
1.000	1.26	7.083	2.07	13.167	8.50	19.25	2.07
1.083	1.26	7.167	2.07	13.250	8.50	19.33	2.07
1.167	1.26	7.250	2.07	13.333	6.20	19.42	2.07
1.250	1.26	7.333	2.53	13.417	6.20	19.50	2.07
1.333	1.26	7.417	2.53	13.500	6.20	19.58	2.07

3 + 2 = 1		AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)		
ID1= 3 (0090):		0.73	0.235	12.25	87.43		
+ ID2= 2 (0080):		8.33	0.748	12.67	73.61		
ID = 1 (0090):		9.06	0.780	12.67	74.73		

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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=====================================================================================================

      V     V   I    SSSSS  U    U     A    L                (v 6.2.2020)
       V    V   I    SS     U    U    A A   L
        V  V    I     SS    U    U   AAAAA  L
        V  V    I       SS  U    U   A   A  L
         VV     I    SSSSS  UUUUU   A   A  LLLLL

       OOO    TTTTT  TTTTT  H   H  Y   Y M   M   OOO     TM
      O   O     T      T    H   H   Y Y  MM MM  O   O
      O   O     T      T    H   H    Y   M   M  O   O
       OOO      T      T    H   H    Y   M   M   OOO
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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\atrenholm\AppData\Local\Civica\VH5\8ef94b88-6605-479e-b003-b70f6886dc93\b7a71121-
Summary filename: C:\Users\atrenholm\AppData\Local\Civica\VH5\8ef94b88-6605-479e-b003-b70f6886dc93\b7a71121-

DATE: 06/05/2026 TIME: 04:00:05

USER:

COMMENTS: ____

** SIMULATION : 100yr 24hr 15min SCS Type II **

| READ STORM | Ptotal=126.49 mm |

Filename: C:\Users\atrenholm\AppData\Local\Temp\18437d2c-b486-467f-bd34-28794099a257\e4899df4
Comments: 100yr 24hr 15min SCS Type II (MTO)

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.00	0.00	6.25	2.28	12.50	18.21	18.75	2.28
0.25	1.39	6.50	2.28	12.75	9.36	19.00	2.28
0.50	1.39	6.75	2.28	13.00	9.36	19.25	2.28
0.75	1.39	7.00	2.28	13.25	6.83	19.50	2.28
1.00	1.39	7.25	2.78	13.50	6.83	19.75	2.28
1.25	1.39	7.50	2.78	13.75	5.31	20.00	2.28
1.50	1.39	7.75	2.78	14.00	5.31	20.25	1.52
1.75	1.39	8.00	2.78	14.25	3.79	20.50	1.52
2.00	1.39	8.25	3.29	14.50	3.79	20.75	1.52
2.25	1.64	8.50	3.29	14.75	3.79	21.00	1.52
2.50	1.64	8.75	3.54	15.00	3.79	21.25	1.52
2.75	1.64	9.00	3.54	15.25	3.79	21.50	1.52
3.00	1.64	9.25	4.05	15.50	3.79	21.75	1.52
3.25	1.64	9.50	4.05	15.75	3.79	22.00	1.52
3.50	1.64	9.75	4.55	16.00	3.79	22.25	1.52
3.75	1.64	10.00	4.55	16.25	2.28	22.50	1.52
4.00	1.64	10.25	5.82	16.50	2.28	22.75	1.52
4.25	2.02	10.50	5.82	16.75	2.28	23.00	1.52
4.50	2.02	10.75	7.84	17.00	2.28	23.25	1.52
4.75	2.02	11.00	7.84	17.25	2.28	23.50	1.52
5.00	2.02	11.25	12.14	17.50	2.28	23.75	1.52
5.25	2.02	11.50	12.14	17.75	2.28	24.00	1.52
5.50	2.02	11.75	37.44	18.00	2.28		
5.75	2.02	12.00	154.82	18.25	2.28		
6.00	2.02	12.25	18.21	18.50	2.28		

| CALIB | NASHYD (0005) | ID= 1 DT= 5.0 min |

Area (ha)= 0.76 Curve Number (CN)= 87.0
Ia (mm)= 4.10 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 0.28

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

RUNOFF COEFFICIENT = 0.738

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

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

Area (ha)= 0.25 Curve Number (CN)= 94.0
Ia (mm)= 3.00 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 0.11

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	0.00	6.167	2.02	12.250	154.82	18.33	2.28
0.167	0.00	6.250	2.02	12.333	18.23	18.42	2.28
0.250	0.00	6.333	2.28	12.417	18.21	18.50	2.28
0.333	1.39	6.417	2.28	12.500	18.21	18.58	2.28
0.417	1.39	6.500	2.28	12.583	18.21	18.67	2.28
0.500	1.39	6.583	2.28	12.667	18.21	18.75	2.28
0.583	1.39	6.667	2.28	12.750	18.21	18.83	2.28
0.667	1.39	6.750	2.28	12.833	9.36	18.92	2.28
0.750	1.39	6.833	2.28	12.917	9.36	19.00	2.28
0.833	1.39	6.917	2.28	13.000	9.36	19.08	2.28
0.917	1.39	7.000	2.28	13.083	9.36	19.17	2.28
1.000	1.39	7.083	2.28	13.167	9.36	19.25	2.28
1.083	1.39	7.167	2.28	13.250	9.36	19.33	2.28
1.167	1.39	7.250	2.28	13.333	6.83	19.42	2.28
1.250	1.39	7.333	2.78	13.417	6.83	19.50	2.28
1.333	1.39	7.417	2.78	13.500	6.83	19.58	2.28
1.417	1.39	7.500	2.78	13.583	6.83	19.67	2.28
1.500	1.39	7.583	2.78	13.667	6.83	19.75	2.28
1.583	1.39	7.667	2.78	13.750	6.83	19.83	2.28
1.667	1.39	7.750	2.78	13.833	5.31	19.92	2.28
1.750	1.39	7.833	2.78	13.917	5.31	20.00	2.28
1.833	1.39	7.917	2.78	14.000	5.31	20.08	2.28
1.917	1.39	8.000	2.78	14.083	5.31	20.17	2.28
2.000	1.39	8.083	2.78	14.167	5.31	20.25	2.28
2.083	1.39	8.167	2.78	14.250	5.31	20.33	1.52
2.167	1.39	8.250	2.78	14.333	3.80	20.42	1.52
2.250	1.39	8.333	3.29	14.417	3.79	20.50	1.52
2.333	1.64	8.417	3.29	14.500	3.79	20.58	1.52
2.417	1.64	8.500	3.29	14.583	3.79	20.67	1.52
2.500	1.64	8.583	3.29	14.667	3.79	20.75	1.52
2.583	1.64	8.667	3.29	14.750	3.79	20.83	1.52
2.667	1.64	8.750	3.29	14.833	3.79	20.92	1.52
2.750	1.64	8.833	3.54	14.917	3.79	21.00	1.52
2.833	1.64	8.917	3.54	15.000	3.79	21.08	1.52
2.917	1.64	9.000	3.54	15.083	3.79	21.17	1.52
3.000	1.64	9.083	3.54	15.167	3.79	21.25	1.52
3.083	1.64	9.167	3.54	15.250	3.79	21.33	1.52
3.167	1.64	9.250	3.54	15.333	3.79	21.42	1.52
3.250	1.64	9.333	4.05	15.417	3.79	21.50	1.52
3.333	1.64	9.417	4.05	15.500	3.79	21.58	1.52
3.417	1.64	9.500	4.05	15.583	3.79	21.67	1.52
3.500	1.64	9.583	4.05	15.667	3.79	21.75	1.52
3.583	1.64	9.667	4.05	15.750	3.79	21.83	1.52
3.667	1.64	9.750	4.05	15.833	3.79	21.92	1.52
3.750	1.64	9.833	4.55	15.917	3.79	22.00	1.52
3.833	1.64	9.917	4.55	16.000	3.79	22.08	1.52
3.917	1.64	10.000	4.55	16.083	3.79	22.17	1.52
4.000	1.64	10.083	4.55	16.167	3.79	22.25	1.52
4.083	1.64	10.167	4.55	16.250	3.79	22.33	1.52
4.167	1.64	10.250	4.55	16.333	2.28	22.42	1.52
4.250	1.64	10.333	5.82	16.417	2.28	22.50	1.52
4.333	2.02	10.417	5.82	16.500	2.28	22.58	1.52
4.417	2.02	10.500	5.82	16.583	2.28	22.67	1.52
4.500	2.02	10.583	5.82	16.667	2.28	22.75	1.52
4.583	2.02	10.667	5.82	16.750	2.28	22.83	1.52
4.667	2.02	10.750	5.82	16.833	2.28	22.92	1.52
4.750	2.02	10.833	7.84	16.917	2.28	23.00	1.52
4.833	2.02	10.917	7.84	17.000	2.28	23.08	1.52
4.917	2.02	11.000	7.84	17.083	2.28	23.17	1.52
5.000	2.02	11.083	7.84	17.167	2.28	23.25	1.52
5.083	2.02	11.167	7.84	17.250	2.28	23.33	1.52
5.167	2.02	11.250	7.84	17.333	2.28	23.42	1.52
5.250	2.02	11.333	12.14	17.417	2.28	23.50	1.52
5.333	2.02	11.417	12.14	17.500	2.28	23.58	1.52
5.417	2.02	11.500	12.14	17.583	2.28	23.67	1.52
5.500	2.02	11.583	12.14	17.667	2.28	23.75	1.52
5.583	2.02	11.667	12.14	17.750	2.28	23.83	1.52

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	2.02	12.250	154.82	18.33	2.28
0.167	0.00	6.250	2.02	12.333	18.23	18.42	2.28
0.250	0.00	6.333	2.28	12.417	18.21	18.50	2.28
0.333	1.39	6.417	2.28	12.500	18.21	18.58	2.28
0.417	1.39	6.500	2.28	12.583	18.21	18.67	2.28
0.500	1.39	6.583	2.28	12.667	18.21	18.75	2.28
0.583	1.39	6.667	2.28	12.750	18.21	18.83	2.28
0.667	1.39	6.750	2.28	12.833	9.36	18.92	2.28
0.750	1.39	6.833	2.28	12.917	9.36	19.00	2.28
0.833	1.39	6.917	2.28	13.000	9.36	19.08	2.28
0.917	1.39	7.000	2.28	13.083	9.36	19.17	2.28
1.000	1.39	7.083	2.28	13.167	9.36	19.25	2.28
1.083	1.39	7.167	2.28	13.250	9.36	19.33	2.28
1.167	1.39	7.250	2.28	13.333	6.83	19.42	2.28
1.250	1.39	7.333	2.78	13.417	6.83	19.50	2.28
1.333	1.39	7.417	2.78	13.500	6.83	19.58	2.28
1.417	1.39	7.500	2.78	13.583	6.83	19.67	2.28
1.500	1.39	7.583	2.78	13.667	6.83	19.75	2.28
1.583	1.39	7.667	2.78	13.750	6.83	19.83	2.28
1.667	1.39	7.750	2.78	13.833	5.31	19.92	2.28
1.750	1.39	7.833	2.78	13.917	5.31	20.00	2.28
1.833	1.39	7.917	2.78	14.000	5.31	20.08	2.28
1.917	1.39	8.000	2.78	14.083	5.31	20.17	2.28
2.000	1.39	8.083	2.78	14.167	5.31	20.25	2.28
2.083	1.39	8.167	2.78	14.250	5.31	20.33	1.52
2.167	1.39	8.250	2.78	14.333	3.80	20.42	1.52
2.250	1.39	8.333	3.29	14.417	3.79	20.50	1.52
2.333	1.64	8.417	3.29	14.500	3.79	20.58	1.52
2.417	1.64	8.500	3.29	14.583	3.79	20.67	1.52
2.500	1.64	8.583	3.29	14.667	3.79	20.75	1.52
2.583	1.64	8.667	3.29	14.750	3.79	20.83	1.52
2.667	1.64	8.750	3.29	14.833	3.79	20.92	1.52
2.750	1.64	8.833	3.54	14.917	3.79	21.00	1.52
2.833	1.64	8.917	3.54	15.000	3.79	21.08	1.52
2.917	1.64	9.000	3.54	15.083	3.79	21.17	1.52
3.000	1.64	9.083	3.54	15.167	3.79	21.25	1.52
3.083	1.64	9.167	3.54	15.250	3.79	21.33	1.52
3.167	1.64	9.250	3.54	15.333	3.79	21.42	1.52
3.250	1.64	9.333	4.05	15.417	3.79	21.50	1.52
3.333	1.64	9.417	4.05	15.500	3.79	21.58	1.52
3.417	1.64	9.500	4.05	15.583	3.79	21.67	1.52
3.500	1.64	9.583	4.05	15.667	3.79	21.75	1.52
3.583	1.64	9.667	4.05	15.750	3.79	21.83	1.52
3.667	1.64	9.750	4.05	15.833	3.79	21.92	1.52
3.750	1.64	9.833	4.55	15.917	3.79	22.00	1.52
3.833	1.64	9.917	4.55	16.000	3.79	22.08	1.52
3.917	1.64	10.000	4.55	16.083	3.79	22.17	1.52
4.000	1.64	10.083	4.55	16.167	3.79	22.25	1.52
4.083	1.64	10.167	4.55	16.250	3.79	22.33	1.52
4.167	1.64	10.250	4.55	16.333	2.28	22.42	1.52
4.250	1.64	10.333	5.82	16.417	2.28	22.50	1.52
4.333	2.02	10.417	5.82	16.500	2.28	22.58	1.52
4.417	2.02	10.500	5.82	16.583	2.28	22.67	1.52
4.500	2.02	10.583	5.82	16.667	2.28	22.75	1.52
4.583	2.02	10.667	5.82	16.750	2.28	22.83	1.52
4.667	2.02	10.750	5.82	16.833	2.28	22.92	1.52
4.750	2.02	10.833	7.84	16.917	2.28	23.00	1.52
4.833	2.02	10.917	7.84	17.000	2.28	23.08	1.52
4.917	2.02	11.000	7.84	17.083	2.28	23.17	1.52
5.000	2.02	11.083	7.84	17.167	2.28	23.25	1.52
5.083	2.02	11.167	7.84	17.250	2.28	23.33	1.52
5.167	2.02	11.250	7.84	17.333	2.28	23.42	1.52
5.250	2.02	11.333	12.14	17.417	2.28	23.50	1.52
5.333	2.02	11.417	12.14	17.500	2.28	23.58	1.52
5.417	2.02	11.500	12.14	17.583	2.28	23.67	1.52
5.500	2.02	11.583	12.14	17.667	2.28	23.75	1.52
5.583	2.02	11.667	12.14	17.750	2.28	23.83	1.52
5.667	2.02	11.750	12.14	17.833	2.28	23.92	1.52
5.750	2.02	11.833	37.44	17.917	2.28	24.00	1.52
5.833	2.02	11.917	37.44	18.000	2.28	24.08	1.52
5.917	2.02	12.000	37.44	18.083	2.28	24.17	1.52
6.000	2.02	12.083	154.81	18.167	2.28	24.25	1.52
6.083	2.02	12.167	154.82	18.250	2.28		

Unit Hyd Qpeak (cms)= 0.104

PEAK FLOW (cms)= 0.147 (i)
TIME TO PEAK (hrs)= 12.417
RUNOFF VOLUME (mm)= 93.372
TOTAL RAINFALL (mm)= 126.490

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
5.667	2.02	11.750	12.14	17.833	2.28	23.92	1.52
5.750	2.02	11.833	37.44	17.917	2.28	24.00	1.52
5.833	2.02	11.917	37.44	18.000	2.28	24.08	1.52
5.917	2.02	12.000	37.44	18.083	2.28	24.17	1.52
6.000	2.02	12.083	154.81	18.167	2.28	24.25	1.52
6.083	2.02	12.167	154.82	18.250	2.28		

Unit Hyd Qpeak (cms)= 0.087

PEAK FLOW (cms)= 0.093 (i)
TIME TO PEAK (hrs)= 12.250
RUNOFF VOLUME (mm)= 107.150
TOTAL RAINFALL (mm)= 126.490
RUNOFF COEFFICIENT = 0.847

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

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

Area (ha)= 8.08 Curve Number (CN)= 82.0
Ia (mm)= 4.90 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 0.57

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	0.00	6.167	2.02	12.250	154.82	18.33	2.28
0.167	0.00	6.250	2.02	12.333	18.23	18.42	2.28
0.250	0.00	6.333	2.28	12.417	18.21	18.50	2.28
0.333	1.39	6.417	2.28	12.500	18.21	18.58	2.28
0.417	1.39	6.500	2.28	12.583	18.21	18.67	2.28
0.500	1.39	6.583	2.28	12.667	18.21	18.75	2.28
0.583	1.39	6.667	2.28	12.750	18.21	18.83	2.28
0.667	1.39	6.750	2.28	12.833	9.36	18.92	2.28
0.750	1.39	6.833	2.28	12.917	9.36	19.00	2.28
0.833	1.39	6.917	2.28	13.000	9.36	19.08	2.28
0.917	1.39	7.000	2.28	13.083	9.36	19.17	2.28
1.000	1.39	7.083	2.28	13.167	9.36	19.25	2.28
1.083	1.39	7.167	2.28	13.250	9.36	19.33	2.28
1.167	1.39	7.250	2.28	13.333	6.83	19.42	2.28
1.250	1.39	7.333	2.78	13.417	6.83	19.50	2.28
1.333	1.39	7.417	2.78	13.500	6.83	19.58	2.28
1.417	1.39	7.500	2.78	13.583	6.83	19.67	2.28
1.500	1.39	7.583	2.78	13.667	6.83	19.75	2.28
1.583	1.39	7.667	2.78	13.750	6.83	19.83	2.28
1.667	1.39	7.750	2.78	13.833	5.31	19.92	2.28
1.750	1.39	7.833	2.78	13.917	5.31	20.00	2.28
1.833	1.39	7.917	2.78	14.000	5.31	20.08	2.28
1.917	1.39	8.000	2.78	14.083	5.31	20.17	2.28
2.000	1.39	8.083	2.78	14.167	5.31	20.25	2.28
2.083	1.39	8.167	2.78	14.250	5.31	20.33	1.52
2.167	1.39	8.250	2.78	14.333	3.80	20.42	1.52
2.250	1.39	8.333	3.29	14.417	3.79	20.50	1.52
2.333	1.64	8.417	3.29	14.500	3.79	20.58	1.52
2.417	1.64	8.500	3.29	14.583	3.79	20.67	1.52
2.500	1.64	8.583	3.29	14.667	3.79	20.75	1.52
2.583	1.64	8.667	3.29	14.750	3.79	20.83	1.52
2.667	1.64	8.750	3.29	14.833	3.79	20.92	1.52
2.750	1.64	8.833	3.54	14.917	3.79	21.00	1.52
2.833	1.64	8.917	3.54	15.000	3.79	21.08	1.52
2.917	1.64	9.000	3.54	15.083	3.79	21.17	1.52
3.000	1.64	9.083	3.54	15.167	3.79	21.25	1.52
3.083	1.64	9.167	3.54	15.250	3.79	21.33	1.52
3.167	1.64	9.250	3.54	15.333	3.79	21.42	1.52
3.250	1.64	9.333	4.05	15.417	3.79	21.50	1.52
3.333	1.64	9.417	4.05	15.500	3.79	21.58	1.52
3.417	1.64	9.500	4.05	15.583	3.79	21.67	1.52
3.500	1.64	9.583	4.05	15.667	3.79	21.75	1.52
3.583	1.64	9.667	4.05	15.750	3.79	21.83	1.52
3.667	1.64	9.750	4.05	15.833	3.79	21.92	1.52
3.750	1.64	9.833	4.55	15.917	3.79	22.00	1.52
3.833	1.64	9.917	4.55	16.000	3.79	22.08	1.52
3.917	1.64	10.000	4.55	16.083	3.79	22.17	1.52
4.000	1.64	10.083	4.55	16.167	3.79	22.25	1.52
4.083	1.64	10.167	4.55	16.250	3.79	22.33	1.52
4.167	1.64	10.250	4.55	16.333	2.28	22.42	1.52
4.250	1.64	10.333	5.82	16.417	2.28	22.50	1.52
4.333	2.02	10.417	5.82	16.500	2.28	22.58	1.52
4.417	2.02	10.500	5.82	16.583	2.28	22.67	1.52
4.500	2.02	10.583	5.82	16.667	2.28	22.75	1.52

4.583	2.02	10.667	5.82	16.750	2.28	22.83	1.52
4.667	2.02	10.750	5.82	16.833	2.28	22.92	1.52
4.750	2.02	10.833	7.84	16.917	2.28	23.00	1.52
4.833	2.02	10.917	7.84	17.000	2.28	23.08	1.52
4.917	2.02	11.000	7.84	17.083	2.28	23.17	1.52
5.000	2.02	11.083	7.84	17.167	2.28	23.25	1.52
5.083	2.02	11.167	7.84	17.250	2.28	23.33	1.52
5.167	2.02	11.250	7.84	17.333	2.28	23.42	1.52
5.250	2.02	11.333	12.14	17.417	2.28	23.50	1.52
5.333	2.02	11.417	12.14	17.500	2.28	23.58	1.52
5.417	2.02	11.500	12.14	17.583	2.28	23.67	1.52
5.500	2.02	11.583	12.14	17.667	2.28	23.75	1.52
5.583	2.02	11.667	12.14	17.750	2.28	23.83	1.52
5.667	2.02	11.750	12.14	17.833	2.28	23.92	1.52
5.750	2.02	11.833	37.44	17.917	2.28	24.00	1.52
5.833	2.02	11.917	37.44	18.000	2.28	24.08	1.52
5.917	2.02	12.000	37.44	18.083	2.28	24.17	1.52
6.000	2.02	12.083	154.81	18.167	2.28	24.25	1.52
6.083	2.02	12.167	154.82	18.250	2.28		

Unit Hyd Qpeak (cms)= 0.541

PEAK FLOW (cms)= 0.843 (i)
TIME TO PEAK (hrs)= 12.667
RUNOFF VOLUME (mm)= 83.361
TOTAL RAINFALL (mm)= 126.490
RUNOFF COEFFICIENT = 0.659

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

ADD HYD (0080)				
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0001):	0.25	0.093	12.25	107.15
+ ID2= 2 (0002):	8.08	0.843	12.67	83.36
ID = 3 (0080):	8.33	0.856	12.67	84.07

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB			
NASHYD (0003)	Area (ha)= 0.39	Curve Number (CN)= 91.0	
ID= 1 DT= 5.0 min	Ia (mm)= 3.50	# of Linear Res.(N)= 3.00	
	U.H. Tp(hrs)= 0.11		

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	0.00	6.167	2.02	12.250	154.82	18.33	2.28
0.167	0.00	6.250	2.02	12.333	18.23	18.42	2.28
0.250	0.00	6.333	2.28	12.417	18.21	18.50	2.28
0.333	1.39	6.417	2.28	12.500	18.21	18.58	2.28
0.417	1.39	6.500	2.28	12.583	18.21	18.67	2.28
0.500	1.39	6.583	2.28	12.667	18.21	18.75	2.28
0.583	1.39	6.667	2.28	12.750	18.21	18.83	2.28
0.667	1.39	6.750	2.28	12.833	9.36	18.92	2.28
0.750	1.39	6.833	2.28	12.917	9.36	19.00	2.28
0.833	1.39	6.917	2.28	13.000	9.36	19.08	2.28
0.917	1.39	7.000	2.28	13.083	9.36	19.17	2.28
1.000	1.39	7.083	2.28	13.167	9.36	19.25	2.28
1.083	1.39	7.167	2.28	13.250	9.36	19.33	2.28
1.167	1.39	7.250	2.28	13.333	6.83	19.42	2.28
1.250	1.39	7.333	2.78	13.417	6.83	19.50	2.28
1.333	1.39	7.417	2.78	13.500	6.83	19.58	2.28
1.417	1.39	7.500	2.78	13.583	6.83	19.67	2.28
1.500	1.39	7.583	2.78	13.667	6.83	19.75	2.28
1.583	1.39	7.667	2.78	13.750	6.83	19.83	2.28
1.667	1.39	7.750	2.78	13.833	5.31	19.92	2.28
1.750	1.39	7.833	2.78	13.917	5.31	20.00	2.28
1.833	1.39	7.917	2.78	14.000	5.31	20.08	2.28
1.917	1.39	8.000	2.78	14.083	5.31	20.17	2.28
2.000	1.39	8.083	2.78	14.167	5.31	20.25	2.28
2.083	1.39	8.167	2.78	14.250	5.31	20.33	1.52
2.167	1.39	8.250	2.78	14.333	3.80	20.42	1.52
2.250	1.39	8.333	3.29	14.417	3.79	20.50	1.52
2.333	1.64	8.417	3.29	14.500	3.79	20.58	1.52
2.417	1.64	8.500	3.29	14.583	3.79	20.67	1.52
2.500	1.64	8.583	3.29	14.667	3.79	20.75	1.52
2.583	1.64	8.667	3.29	14.750	3.79	20.83	1.52
2.667	1.64	8.750	3.29	14.833	3.79	20.92	1.52
2.750	1.64	8.833	3.54	14.917	3.79	21.00	1.52
2.833	1.64	8.917	3.54	15.000	3.79	21.08	1.52
2.917	1.64	9.000	3.54	15.083	3.79	21.17	1.52
3.000	1.64	9.083	3.54	15.167	3.79	21.25	1.52
3.083	1.64	9.167	3.54	15.250	3.79	21.33	1.52
3.167	1.64	9.250	3.54	15.333	3.79	21.42	1.52
3.250	1.64	9.333	4.05	15.417	3.79	21.50	1.52
3.333	1.64	9.417	4.05	15.500	3.79	21.58	1.52
3.417	1.64	9.500	4.05	15.583	3.79	21.67	1.52
3.500	1.64	9.583	4.05	15.667	3.79	21.75	1.52
3.583	1.64	9.667	4.05	15.750	3.79	21.83	1.52
3.667	1.64	9.750	4.05	15.833	3.79	21.92	1.52
3.750	1.64	9.833	4.55	15.917	3.79	22.00	1.52
3.833	1.64	9.917	4.55	16.000	3.79	22.08	1.52
3.917	1.64	10.000	4.55	16.083	3.79	22.17	1.52
4.000	1.64	10.083	4.55	16.167	3.79	22.25	1.52
4.083	1.64	10.167	4.55	16.250	3.79	22.33	1.52
4.167	1.64	10.250	4.55	16.333	2.28	22.42	1.52
4.250	1.64	10.333	5.82	16.417	2.28	22.50	1.52
4.333	2.02	10.417	5.82	16.500	2.28	22.58	1.52
4.417	2.02	10.500	5.82	16.583	2.28	22.67	1.52
4.500	2.02	10.583	5.82	16.667	2.28	22.75	1.52
4.583	2.02	10.667	5.82	16.750	2.28	22.83	1.52
4.667	2.02	10.750	5.82	16.833	2.28	22.92	1.52
4.750	2.02	10.833	7.84	16.917	2.28	23.00	1.52
4.833	2.02	10.917	7.84	17.000	2.28	23.08	1.52
4.917	2.02	11.000	7.84	17.083	2.28	23.17	1.52
5.000	2.02	11.083	7.84	17.167	2.28	23.25	1.52
5.083	2.02	11.167	7.84	17.250	2.28	23.33	1.52
5.167	2.02	11.250	7.84	17.333	2.28	23.42	1.52
5.250	2.02	11.333	12.14	17.417	2.28	23.50	1.52
5.333	2.02	11.417	12.14	17.500	2.28	23.58	1.52
5.417	2.02	11.500	12.14	17.583	2.28	23.67	1.52
5.500	2.02	11.583	12.14	17.667	2.28	23.75	1.52
5.583	2.02	11.667	12.14	17.750	2.28	23.83	1.52
5.667	2.02	11.750	12.14	17.833	2.28	23.92	1.52
5.750	2.02	11.833	37.44	17.917	2.28	24.00	1.52
5.833	2.02	11.917	37.44	18.000	2.28	24.08	1.52
5.917	2.02	12.000	37.44	18.083	2.28	24.17	1.52
6.000	2.02	12.083	154.81	18.167	2.28	24.25	1.52
6.083	2.02	12.167	154.82	18.250	2.28		

Unit Hyd Qpeak (cms)= 0.144

PEAK FLOW (cms)= 0.124 (i)
TIME TO PEAK (hrs)= 12.250
RUNOFF VOLUME (mm)= 96.258
TOTAL RAINFALL (mm)= 126.490
RUNOFF COEFFICIENT = 0.761

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

ADD HYD (0090)				
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0003):	0.39	0.139	12.25	100.25
+ ID2= 2 (0004):	0.34	0.124	12.25	96.26
ID = 3 (0090):	0.73	0.263	12.25	98.39

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0090)

2.500	1.64	8.583	3.29	14.667	3.79	20.75	1.52
2.583	1.64	8.667	3.29	14.750	3.79	20.83	1.52
2.667	1.64	8.750	3.29	14.833	3.79	20.92	1.52
2.750	1.64	8.833	3.54	14.917	3.79	21.00	1.52
2.833	1.64	8.917	3.54	15.000	3.79	21.08	1.52
2.917	1.64	9.000	3.54	15.083	3.79	21.17	1.52
3.000	1.64	9.083	3.54	15.167	3.79	21.25	1.52
3.083	1.64	9.167	3.54	15.250	3.79	21.33	1.52
3.167	1.64	9.250	3.54	15.333	3.79	21.42	1.52
3.250	1.64	9.333	4.05	15.417	3.79	21.50	1.52
3.333	1.64	9.417	4.05	15.500	3.79	21.58	1.52
3.417	1.64	9.500	4.05	15.583	3.79	21.67	1.52
3.500	1.64	9.583	4.05	15.667	3.79	21.75	1.52
3.583	1.64	9.667	4.05	15.750	3.79	21.83	1.52
3.667	1.64	9.750	4.05	15.833	3.79	21.92	1.52
3.750	1.64	9.833	4.55	15.917	3.79	22.00	1.52
3.833	1.64	9.917	4.55	16.000	3.79	22.08	1.52
3.917	1.64	10.000	4.55	16.083	3.79	22.17	1.52
4.000	1.64	10.083	4.55	16.167	3.79	22.25	1.52
4.083	1.64	10.167	4.55	16.250	3.79	22.33	1.52
4.167	1.64	10.250	4.55	16.333	2.28	22.42	1.52
4.250	1.64	10.333	5.82	16.417	2.28	22.50	1.52
4.333	2.02	10.417	5.82	16.500	2.28	22.58	1.52
4.417	2.02	10.500	5.82	16.583	2.28	22.67	1.52
4.500	2.02	10.583	5.82	16.667	2.28	22.75	1.52
4.583	2.02	10.667	5.82	16.750	2.28	22.83	1.52
4.667	2.02	10.750	5.82	16.833	2.28	22.92	1.52
4.750	2.02	10.833	7.84	16.917	2.28	23.00	1.52
4.833	2.02	10.917	7.84	17.000	2.28	23.08	1.52
4.917	2.02	11.000	7.84	17.083	2.28	23.17	1.52
5.000	2.02	11.083	7.84	17.167	2.28	23.25	1.52
5.083	2.02	11.167	7.84	17.250	2.28	23.33	1.52
5.167	2.02	11.250	7.84	17.333	2.28	23.42	1.52
5.250	2.02	11.333	12.14	17.417	2.28	23.50	1.52
5.333	2.02	11.417	12.14	17.500	2.28	23.58	1.52
5.417	2.02	11.500	12.14	17.583	2.28	23.67	1.52
5.500	2.02	11.583	12.14	17.667	2.28	23.75	1.52
5.583	2.02	11.667	12.14	17.750	2.28	23.83	1.52
5.667	2.02	11.750	12.14	17.833	2.28	23.92	1.52
5.750	2.02	11.833	37.44	17.917	2.28	24.00	1.52
5.833	2.02	11.917	37.44	18.000	2.28	24.08	1.52
5.917	2.02	12.000	37.44	18.083	2.28	24.17	1.52
6.000	2.02	12.083	154.81	18.167	2.28	24.25	1.52
6.083	2.02	12.167	154.82	18.250	2.28		

Unit Hyd Qpeak (cms)= 0.135

PEAK FLOW (cms)= 0.139 (i)
TIME TO PEAK (hrs)= 12.250
RUNOFF VOLUME (mm)= 100.251
TOTAL RAINFALL (mm)= 126.490
RUNOFF COEFFICIENT = 0.793

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

CALIB			
NASHYD (0004)	Area (ha)= 0.34	Curve Number (CN)= 90.0	
ID= 1 DT= 5.0 min	Ia (mm)= 3.50	# of Linear Res.(N)= 3.00	
	U.H. Tp(hrs)= 0.09		

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	0.00	6.167	2.02	12.250	154.82	18.33	2.28
0.167	0.00	6.250	2.02	12.333	18.23	18.42	2.28
0.250	0.00	6.333	2.28	12.417	18.21	18.50	2.28
0.333	1.39	6.417	2.28	12.500	18.21	18.58	2.28
0.417	1.39	6.500	2.28	12.583	18.21	18.67	2.28
0.500	1.39	6.583	2.28	12.667	18.21	18.75	2.28
0.583	1.39	6.667	2.28	12.750	18.21	18.83	2.28
0.667	1.39	6.750	2.28	12.833	9.36	18.92	2.28
0.750	1.39	6.833	2.28	12.917	9.36	19.00	2.28
0.833	1.39	6.917	2.28	13.000	9.36	19.08	2.28
0.917	1.39	7.000	2.28	13.083	9.36	19.17	2.28
1.000	1.39	7.083	2.28	13.167	9.36	19.25	2.28
1.083	1.39	7.167	2.28	13.250	9.36	19.33	2.28
1.167	1.39	7.250	2.28	13.333	6.83	19.42	2.28
1.250	1.39	7.333	2.78	13.417	6.83	19.50	2.28
1.333	1.39	7.417	2.78	13.500	6.83	19.58	2.28

3 + 2 = 1	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (0090):	0.73	0.263	12.25	98.39
+ ID2= 2 (0080):	8.33	0.856	12.67	84.07
ID = 1 (0090):	9.06	0.891	12.67	85.23

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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=============================================================================================================

       V     V   I    SSSSS  U   U    A    L              (v 6.2.2020)
       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
          V      I    SSSSS  UUUUU  A   A  LLLLL

       OOO    TTTTT  TTTTT  H   H  Y   Y  M   M   OOO    TM
       O   O     T      T    H   H   Y Y   MM MM  O   O
       O   O     T      T    H   H    Y    M M M  O   O
        OOO      T      T    H   H    Y    M   M   OOO
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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\atrenholm\AppData\Local\Civica\VH5\8ef94b88-6605-479e-b003-b70f6886dc93\67257e6a-
  Summary filename: C:\Users\atrenholm\AppData\Local\Civica\VH5\8ef94b88-6605-479e-b003-b70f6886dc93\67257e6a-


DATE: 06/05/2026                          TIME: 03:54:03

USER:


COMMENTS: _____

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  ************************************************
 ** SIMULATION : Hazel                         **
  ************************************************


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|    READ STORM    |    Filename: C:\Users\atrenholm\AppD
|                  |              ata\Local\Temp\
|                  |              3947771f-722e-4e21-bd9a-d8bfe55bacb0\28a79898
| Ptotal=212.00 mm |    Comments: Hazel
--------------------
          TIME          RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
          hrs          mm/hr |    hrs   mm/hr |'    hrs   mm/hr |    hrs   mm/hr
          0.00          6.00 |  3.00   13.00 |'   6.00   23.00 |  9.00   53.00
          1.00          4.00 |  4.00   17.00 |'   7.00   13.00 | 10.00   38.00
          2.00          6.00 |  5.00   13.00 |'   8.00   13.00 | 11.00   13.00

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| CALIB            |
| NASHYD  (  0005)|   Area    (ha)=   0.76   Curve Number   (CN)= 94.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.10   # of Linear Res.(N)= 3.00
--------------------  U.H. Tp(hrs)=   0.28

       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          6.00 | 3.083   13.00 | 6.083   23.00 |  9.08   53.00
         0.167          6.00 | 3.167   13.00 | 6.167   23.00 |  9.17   53.00
         0.250          6.00 | 3.250   13.00 | 6.250   23.00 |  9.25   53.00
         0.333          6.00 | 3.333   13.00 | 6.333   23.00 |  9.33   53.00
         0.417          6.00 | 3.417   13.00 | 6.417   23.00 |  9.42   53.00
         0.500          6.00 | 3.500   13.00 | 6.500   23.00 |  9.50   53.00
         0.583          6.00 | 3.583   13.00 | 6.583   23.00 |  9.58   53.00
         0.667          6.00 | 3.667   13.00 | 6.667   23.00 |  9.67   53.00
         0.750          6.00 | 3.750   13.00 | 6.750   23.00 |  9.75   53.00
         0.833          6.00 | 3.833   13.00 | 6.833   23.00 |  9.83   53.00
         0.917          6.00 | 3.917   13.00 | 6.917   23.00 |  9.92   53.00
         1.000          6.00 | 4.000   13.00 | 7.000   23.00 | 10.00   53.00
         1.083          4.00 | 4.083   17.00 | 7.083   13.00 | 10.08   38.00
         1.167          4.00 | 4.167   17.00 | 7.167   13.00 | 10.17   38.00
         1.250          4.00 | 4.250   17.00 | 7.250   13.00 | 10.25   38.00
         1.333          4.00 | 4.333   17.00 | 7.333   13.00 | 10.33   38.00
         1.417          4.00 | 4.417   17.00 | 7.417   13.00 | 10.42   38.00
         1.500          4.00 | 4.500   17.00 | 7.500   13.00 | 10.50   38.00



    TOTAL RAINFALL   (mm)= 212.000
    RUNOFF COEFFICIENT    =   0.933

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

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| CALIB            |
| NASHYD  (  0002)|   Area    (ha)=   8.08   Curve Number   (CN)= 91.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   4.90   # of Linear Res.(N)= 3.00
--------------------  U.H. Tp(hrs)=   0.57

       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          6.00 | 3.083   13.00 | 6.083   23.00 |  9.08   53.00
         0.167          6.00 | 3.167   13.00 | 6.167   23.00 |  9.17   53.00
         0.250          6.00 | 3.250   13.00 | 6.250   23.00 |  9.25   53.00
         0.333          6.00 | 3.333   13.00 | 6.333   23.00 |  9.33   53.00
         0.417          6.00 | 3.417   13.00 | 6.417   23.00 |  9.42   53.00
         0.500          6.00 | 3.500   13.00 | 6.500   23.00 |  9.50   53.00
         0.583          6.00 | 3.583   13.00 | 6.583   23.00 |  9.58   53.00
         0.667          6.00 | 3.667   13.00 | 6.667   23.00 |  9.67   53.00
         0.750          6.00 | 3.750   13.00 | 6.750   23.00 |  9.75   53.00
         0.833          6.00 | 3.833   13.00 | 6.833   23.00 |  9.83   53.00
         0.917          6.00 | 3.917   13.00 | 6.917   23.00 |  9.92   53.00
         1.000          6.00 | 4.000   13.00 | 7.000   23.00 | 10.00   53.00
         1.083          4.00 | 4.083   17.00 | 7.083   13.00 | 10.08   38.00
         1.167          4.00 | 4.167   17.00 | 7.167   13.00 | 10.17   38.00
         1.250          4.00 | 4.250   17.00 | 7.250   13.00 | 10.25   38.00
         1.333          4.00 | 4.333   17.00 | 7.333   13.00 | 10.33   38.00
         1.417          4.00 | 4.417   17.00 | 7.417   13.00 | 10.42   38.00
         1.500          4.00 | 4.500   17.00 | 7.500   13.00 | 10.50   38.00
         1.583          4.00 | 4.583   17.00 | 7.583   13.00 | 10.58   38.00
         1.667          4.00 | 4.667   17.00 | 7.667   13.00 | 10.67   38.00
         1.750          4.00 | 4.750   17.00 | 7.750   13.00 | 10.75   38.00
         1.833          4.00 | 4.833   17.00 | 7.833   13.00 | 10.83   38.00
         1.917          4.00 | 4.917   17.00 | 7.917   13.00 | 10.92   38.00
         2.000          4.00 | 5.000   17.00 | 8.000   13.00 | 11.00   38.00
         2.083          6.00 | 5.083   13.00 | 8.083   13.00 | 11.08   13.00
         2.167          6.00 | 5.167   13.00 | 8.167   13.00 | 11.17   13.00
         2.250          6.00 | 5.250   13.00 | 8.250   13.00 | 11.25   13.00
         2.333          6.00 | 5.333   13.00 | 8.333   13.00 | 11.33   13.00
         2.417          6.00 | 5.417   13.00 | 8.417   13.00 | 11.42   13.00
         2.500          6.00 | 5.500   13.00 | 8.500   13.00 | 11.50   13.00
         2.583          6.00 | 5.583   13.00 | 8.583   13.00 | 11.58   13.00
         2.667          6.00 | 5.667   13.00 | 8.667   13.00 | 11.67   13.00
         2.750          6.00 | 5.750   13.00 | 8.750   13.00 | 11.75   13.00
         2.833          6.00 | 5.833   13.00 | 8.833   13.00 | 11.83   13.00
         2.917          6.00 | 5.917   13.00 | 8.917   13.00 | 11.92   13.00
         3.000          6.00 | 6.000   13.00 | 9.000   13.00 | 12.00   13.00

    Unit Hyd Qpeak  (cms)=   0.541

    PEAK FLOW       (cms)=   0.989 (i)
    TIME TO PEAK    (hrs)=  10.333
    RUNOFF VOLUME    (mm)= 184.691
    TOTAL RAINFALL   (mm)= 212.000
    RUNOFF COEFFICIENT    =   0.871

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

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

--------------------
| ADD HYD  (  0080)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)      (mm)
      ID1= 1 (   0001):     0.25   0.036  10.00     197.72
    + ID2= 2 (   0002):     8.08   0.989  10.33     184.69
      ==========================================
      ID = 3 (   0080):     8.33   1.015  10.33     185.08

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

--------------------
| CALIB            |
| NASHYD  (  0003)|   Area    (ha)=   0.39   Curve Number   (CN)= 96.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   3.50   # of Linear Res.(N)= 3.00
--------------------  U.H. Tp(hrs)=   0.11

          1.583          4.00 | 4.583   17.00 | 7.583   13.00 | 10.58   38.00
          1.667          4.00 | 4.667   17.00 | 7.667   13.00 | 10.67   38.00
          1.750          4.00 | 4.750   17.00 | 7.750   13.00 | 10.75   38.00
          1.833          4.00 | 4.833   17.00 | 7.833   13.00 | 10.83   38.00
          1.917          4.00 | 4.917   17.00 | 7.917   13.00 | 10.92   38.00
          2.000          4.00 | 5.000   17.00 | 8.000   13.00 | 11.00   38.00
          2.083          6.00 | 5.083   13.00 | 8.083   13.00 | 11.08   13.00
          2.167          6.00 | 5.167   13.00 | 8.167   13.00 | 11.17   13.00
          2.250          6.00 | 5.250   13.00 | 8.250   13.00 | 11.25   13.00
          2.333          6.00 | 5.333   13.00 | 8.333   13.00 | 11.33   13.00
          2.417          6.00 | 5.417   13.00 | 8.417   13.00 | 11.42   13.00
          2.500          6.00 | 5.500   13.00 | 8.500   13.00 | 11.50   13.00
          2.583          6.00 | 5.583   13.00 | 8.583   13.00 | 11.58   13.00
          2.667          6.00 | 5.667   13.00 | 8.667   13.00 | 11.67   13.00
          2.750          6.00 | 5.750   13.00 | 8.750   13.00 | 11.75   13.00
          2.833          6.00 | 5.833   13.00 | 8.833   13.00 | 11.83   13.00
          2.917          6.00 | 5.917   13.00 | 8.917   13.00 | 11.92   13.00
          3.000          6.00 | 6.000   13.00 | 9.000   13.00 | 12.00   13.00

    Unit Hyd Qpeak  (cms)=   0.104

    PEAK FLOW       (cms)=   0.109 (i)
    TIME TO PEAK    (hrs)=  10.000
    RUNOFF VOLUME    (mm)= 192.761
    TOTAL RAINFALL   (mm)= 212.000
    RUNOFF COEFFICIENT    =   0.909

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

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

--------------------
| CALIB            |
| NASHYD  (  0001)|   Area    (ha)=   0.25   Curve Number   (CN)= 97.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   3.00   # of Linear Res.(N)= 3.00
--------------------  U.H. Tp(hrs)=   0.11

       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          6.00 | 3.083   13.00 | 6.083   23.00 |  9.08   53.00
         0.167          6.00 | 3.167   13.00 | 6.167   23.00 |  9.17   53.00
         0.250          6.00 | 3.250   13.00 | 6.250   23.00 |  9.25   53.00
         0.333          6.00 | 3.333   13.00 | 6.333   23.00 |  9.33   53.00
         0.417          6.00 | 3.417   13.00 | 6.417   23.00 |  9.42   53.00
         0.500          6.00 | 3.500   13.00 | 6.500   23.00 |  9.50   53.00
         0.583          6.00 | 3.583   13.00 | 6.583   23.00 |  9.58   53.00
         0.667          6.00 | 3.667   13.00 | 6.667   23.00 |  9.67   53.00
         0.750          6.00 | 3.750   13.00 | 6.750   23.00 |  9.75   53.00
         0.833          6.00 | 3.833   13.00 | 6.833   23.00 |  9.83   53.00
         0.917          6.00 | 3.917   13.00 | 6.917   23.00 |  9.92   53.00
         1.000          6.00 | 4.000   13.00 | 7.000   23.00 | 10.00   53.00
         1.083          4.00 | 4.083   17.00 | 7.083   13.00 | 10.08   38.00
         1.167          4.00 | 4.167   17.00 | 7.167   13.00 | 10.17   38.00
         1.250          4.00 | 4.250   17.00 | 7.250   13.00 | 10.25   38.00
         1.333          4.00 | 4.333   17.00 | 7.333   13.00 | 10.33   38.00
         1.417          4.00 | 4.417   17.00 | 7.417   13.00 | 10.42   38.00
         1.500          4.00 | 4.500   17.00 | 7.500   13.00 | 10.50   38.00
         1.583          4.00 | 4.583   17.00 | 7.583   13.00 | 10.58   38.00
         1.667          4.00 | 4.667   17.00 | 7.667   13.00 | 10.67   38.00
         1.750          4.00 | 4.750   17.00 | 7.750   13.00 | 10.75   38.00
         1.833          4.00 | 4.833   17.00 | 7.833   13.00 | 10.83   38.00
         1.917          4.00 | 4.917   17.00 | 7.917   13.00 | 10.92   38.00
         2.000          4.00 | 5.000   17.00 | 8.000   13.00 | 11.00   38.00
         2.083          6.00 | 5.083   13.00 | 8.083   13.00 | 11.08   13.00
         2.167          6.00 | 5.167   13.00 | 8.167   13.00 | 11.17   13.00
         2.250          6.00 | 5.250   13.00 | 8.250   13.00 | 11.25   13.00
         2.333          6.00 | 5.333   13.00 | 8.333   13.00 | 11.33   13.00
         2.417          6.00 | 5.417   13.00 | 8.417   13.00 | 11.42   13.00
         2.500          6.00 | 5.500   13.00 | 8.500   13.00 | 11.50   13.00
         2.583          6.00 | 5.583   13.00 | 8.583   13.00 | 11.58   13.00
         2.667          6.00 | 5.667   13.00 | 8.667   13.00 | 11.67   13.00
         2.750          6.00 | 5.750   13.00 | 8.750   13.00 | 11.75   13.00
         2.833          6.00 | 5.833   13.00 | 8.833   13.00 | 11.83   13.00
         2.917          6.00 | 5.917   13.00 | 8.917   13.00 | 11.92   13.00
         3.000          6.00 | 6.000   13.00 | 9.000   13.00 | 12.00   13.00

    Unit Hyd Qpeak  (cms)=   0.087

    PEAK FLOW       (cms)=   0.036 (i)
    TIME TO PEAK    (hrs)=  10.000
    RUNOFF VOLUME    (mm)= 197.722

       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          6.00 | 3.083   13.00 | 6.083   23.00 |  9.08   53.00
         0.167          6.00 | 3.167   13.00 | 6.167   23.00 |  9.17   53.00
         0.250          6.00 | 3.250   13.00 | 6.250   23.00 |  9.25   53.00
         0.333          6.00 | 3.333   13.00 | 6.333   23.00 |  9.33   53.00
         0.417          6.00 | 3.417   13.00 | 6.417   23.00 |  9.42   53.00
         0.500          6.00 | 3.500   13.00 | 6.500   23.00 |  9.50   53.00
         0.583          6.00 | 3.583   13.00 | 6.583   23.00 |  9.58   53.00
         0.667          6.00 | 3.667   13.00 | 6.667   23.00 |  9.67   53.00
         0.750          6.00 | 3.750   13.00 | 6.750   23.00 |  9.75   53.00
         0.833          6.00 | 3.833   13.00 | 6.833   23.00 |  9.83   53.00
         0.917          6.00 | 3.917   13.00 | 6.917   23.00 |  9.92   53.00
         1.000          6.00 | 4.000   13.00 | 7.000   23.00 | 10.00   53.00
         1.083          4.00 | 4.083   17.00 | 7.083   13.00 | 10.08   38.00
         1.167          4.00 | 4.167   17.00 | 7.167   13.00 | 10.17   38.00
         1.250          4.00 | 4.250   17.00 | 7.250   13.00 | 10.25   38.00
         1.333          4.00 | 4.333   17.00 | 7.333   13.00 | 10.33   38.00
         1.417          4.00 | 4.417   17.00 | 7.417   13.00 | 10.42   38.00
         1.500          4.00 | 4.500   17.00 | 7.500   13.00 | 10.50   38.00
         1.583          4.00 | 4.583   17.00 | 7.583   13.00 | 10.58   38.00
         1.667          4.00 | 4.667   17.00 | 7.667   13.00 | 10.67   38.00
         1.750          4.00 | 4.750   17.00 | 7.750   13.00 | 10.75   38.00
         1.833          4.00 | 4.833   17.00 | 7.833   13.00 | 10.83   38.00
         1.917          4.00 | 4.917   17.00 | 7.917   13.00 | 10.92   38.00
         2.000          4.00 | 5.000   17.00 | 8.000   13.00 | 11.00   38.00
         2.083          6.00 | 5.083   13.00 | 8.083   13.00 | 11.08   13.00
         2.167          6.00 | 5.167   13.00 | 8.167   13.00 | 11.17   13.00
         2.250          6.00 | 5.250   13.00 | 8.250   13.00 | 11.25   13.00
         2.333          6.00 | 5.333   13.00 | 8.333   13.00 | 11.33   13.00
         2.417          6.00 | 5.417   13.00 | 8.417   13.00 | 11.42   13.00
         2.500          6.00 | 5.500   13.00 | 8.500   13.00 | 11.50   13.00
         2.583          6.00 | 5.583   13.00 | 8.583   13.00 | 11.58   13.00
         2.667          6.00 | 5.667   13.00 | 8.667   13.00 | 11.67   13.00
         2.750          6.00 | 5.750   13.00 | 8.750   13.00 | 11.75   13.00
         2.833          6.00 | 5.833   13.00 | 8.833   13.00 | 11.83   13.00
         2.917          6.00 | 5.917   13.00 | 8.917   13.00 | 11.92   13.00
         3.000          6.00 | 6.000   13.00 | 9.000   13.00 | 12.00   13.00

    Unit Hyd Qpeak  (cms)=   0.135

    PEAK FLOW       (cms)=   0.056 (i)
    TIME TO PEAK    (hrs)=  10.000
    RUNOFF VOLUME    (mm)= 194.777
    TOTAL RAINFALL   (mm)= 212.000
    RUNOFF COEFFICIENT    =   0.919

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

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--------------------
| CALIB            |
| NASHYD  (  0004)|   Area    (ha)=   0.34   Curve Number   (CN)= 95.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   3.50   # of Linear Res.(N)= 3.00
--------------------  U.H. Tp(hrs)=   0.09

       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          6.00 | 3.083   13.00 | 6.083   23.00 |  9.08   53.00
         0.167          6.00 | 3.167   13.00 | 6.167   23.00 |  9.17   53.00
         0.250          6.00 | 3.250   13.00 | 6.250   23.00 |  9.25   53.00
         0.333          6.00 | 3.333   13.00 | 6.333   23.00 |  9.33   53.00
         0.417          6.00 | 3.417   13.00 | 6.417   23.00 |  9.42   53.00
         0.500          6.00 | 3.500   13.00 | 6.500   23.00 |  9.50   53.00
         0.583          6.00 | 3.583   13.00 | 6.583   23.00 |  9.58   53.00
         0.667          6.00 | 3.667   13.00 | 6.667   23.00 |  9.67   53.00
         0.750          6.00 | 3.750   13.00 | 6.750   23.00 |  9.75   53.00
         0.833          6.00 | 3.833   13.00 | 6.833   23.00 |  9.83   53.00
         0.917          6.00 | 3.917   13.00 | 6.917   23.00 |  9.92   53.00
         1.000          6.00 | 4.000   13.00 | 7.000   23.00 | 10.00   53.00
         1.083          4.00 | 4.083   17.00 | 7.083   13.00 | 10.08   38.00
         1.167          4.00 | 4.167   17.00 | 7.167   13.00 | 10.17   38.00
         1.250          4.00 | 4.250   17.00 | 7.250   13.00 | 10.25   38.00
         1.333          4.00 | 4.333   17.00 | 7.333   13.00 | 10.33   38.00
         1.417          4.00 | 4.417   17.00 | 7.417   13.00 | 10.42   38.00
         1.500          4.00 | 4.500   17.00 | 7.500   13.00 | 10.50   38.00
```

1.583	4.00	4.583	17.00	7.583	13.00	10.58	38.00
1.667	4.00	4.667	17.00	7.667	13.00	10.67	38.00
1.750	4.00	4.750	17.00	7.750	13.00	10.75	38.00
1.833	4.00	4.833	17.00	7.833	13.00	10.83	38.00
1.917	4.00	4.917	17.00	7.917	13.00	10.92	38.00
2.000	4.00	5.000	17.00	8.000	13.00	11.00	38.00
2.083	6.00	5.083	13.00	8.083	13.00	11.08	13.00
2.167	6.00	5.167	13.00	8.167	13.00	11.17	13.00
2.250	6.00	5.250	13.00	8.250	13.00	11.25	13.00
2.333	6.00	5.333	13.00	8.333	13.00	11.33	13.00
2.417	6.00	5.417	13.00	8.417	13.00	11.42	13.00
2.500	6.00	5.500	13.00	8.500	13.00	11.50	13.00
2.583	6.00	5.583	13.00	8.583	13.00	11.58	13.00
2.667	6.00	5.667	13.00	8.667	13.00	11.67	13.00
2.750	6.00	5.750	13.00	8.750	13.00	11.75	13.00
2.833	6.00	5.833	13.00	8.833	13.00	11.83	13.00
2.917	6.00	5.917	13.00	8.917	13.00	11.92	13.00
3.000	6.00	6.000	13.00	9.000	13.00	12.00	13.00

Unit Hyd Qpeak (cms)= 0.144

PEAK FLOW (cms)= 0.048 (i)
TIME TO PEAK (hrs)= 10.000
RUNOFF VOLUME (mm)= 188.540
TOTAL RAINFALL (mm)= 212.000
RUNOFF COEFFICIENT = 0.889

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

ADD HYD (0090)
1 + 2 = 3

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0003):	0.39	0.056	10.00	194.78
+ ID2= 2 (0004):	0.34	0.048	10.00	188.54
ID = 3 (0090):	0.73	0.104	10.00	191.87

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0090)
3 + 2 = 1

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (0090):	0.73	0.104	10.00	191.87
+ ID2= 2 (0080):	8.33	1.015	10.33	185.08
ID = 1 (0090):	9.06	1.090	10.33	185.63

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

FINISH

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Channel Report

059627 - Proposed Culvert #1 (Catchment 201) - 10yr

Circular

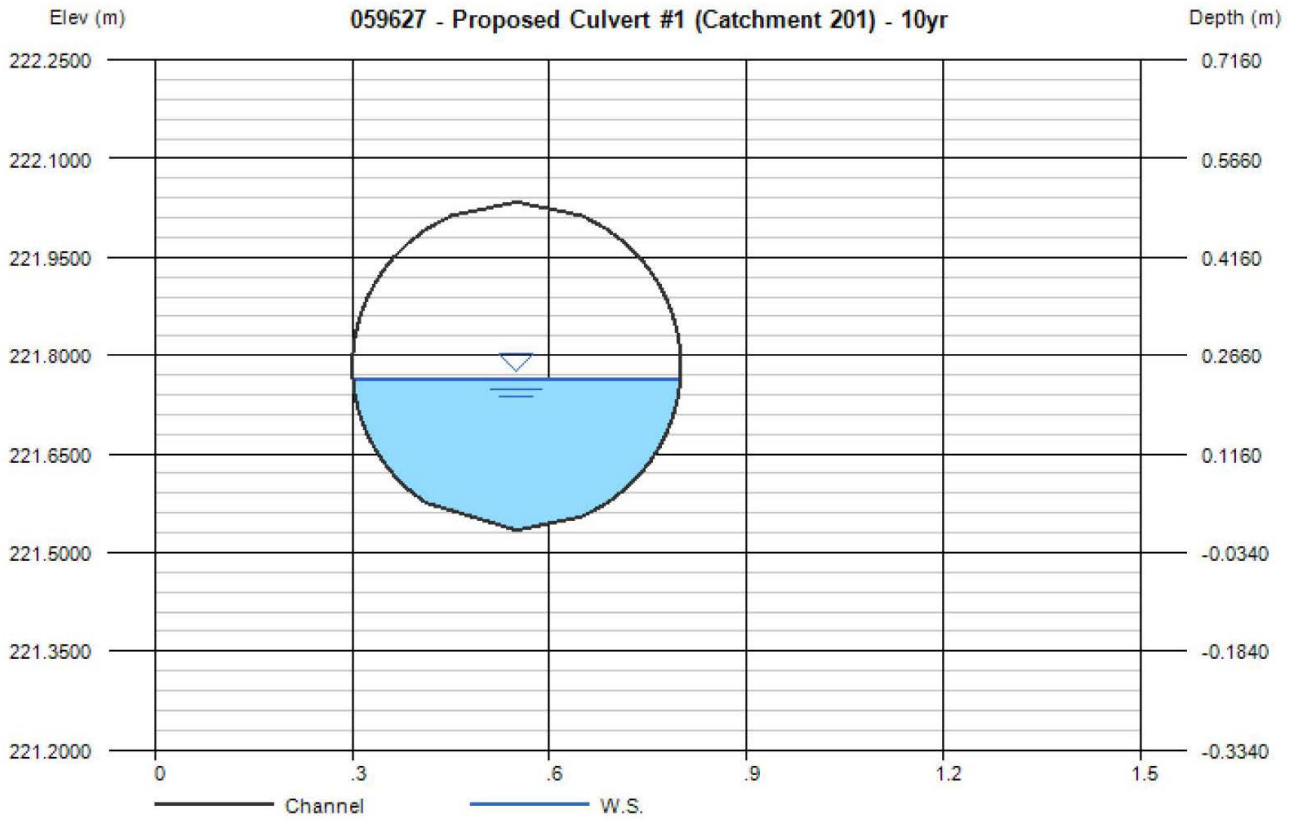
Diameter (m)	= 0.5000
Invert Elev (m)	= 221.5340
Slope (%)	= 0.5000
N-Value	= 0.024

Calculations

Compute by:	Known Q
Known Q (cms)	= 0.0610

Highlighted

Depth (m)	= 0.2286
Q (cms)	= 0.061
Area (sqm)	= 0.0881
Velocity (m/s)	= 0.6924
Wetted Perim (m)	= 0.7450
Crit Depth, Yc (m)	= 0.1646
Top Width (m)	= 0.4984
EGL (m)	= 0.2531



Channel Report

059627 - Proposed Culvert #2 (Catchment 202) - 10-yr

Circular

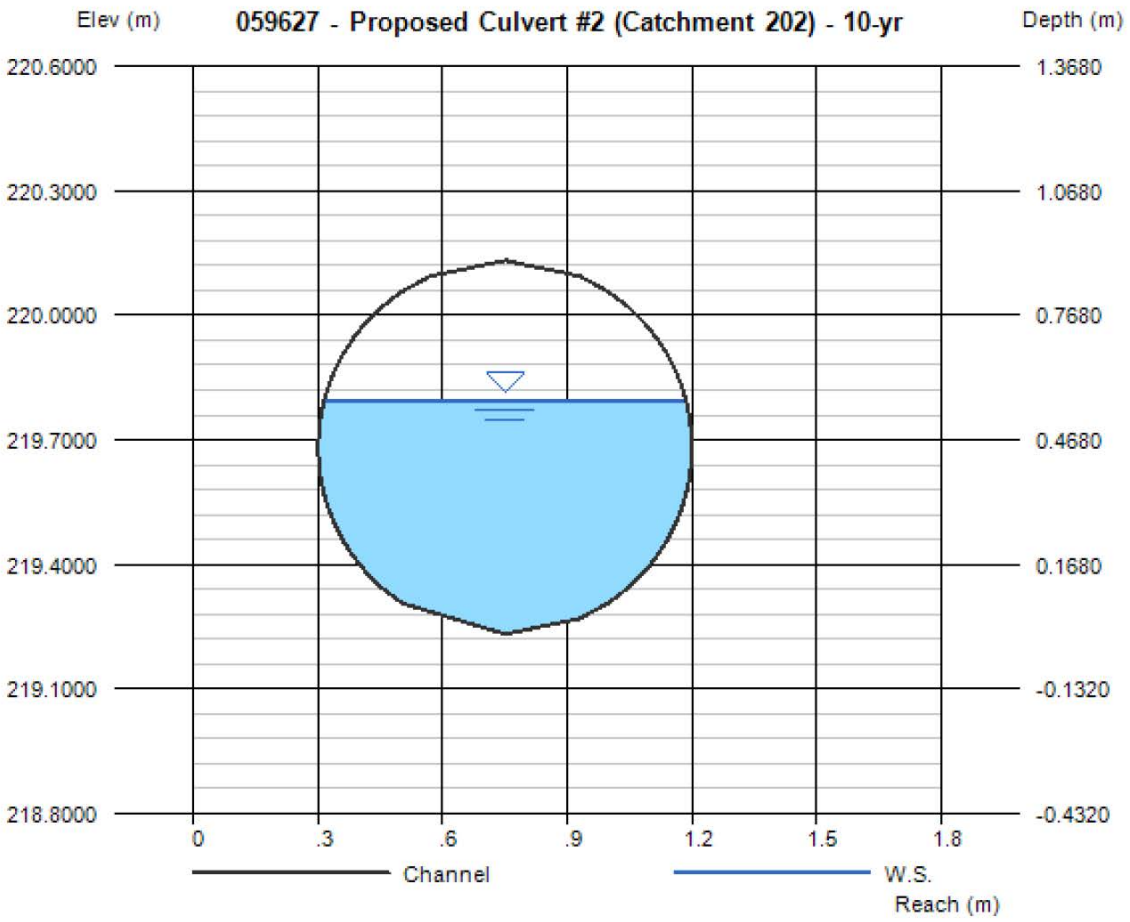
Diameter (m)	= 0.9000
Invert Elev (m)	= 219.2320
Slope (%)	= 0.5000
N-Value	= 0.024

Calculations

Compute by:	Known Q
Known Q (cms)	= 0.4930

Highlighted

Depth (m)	= 0.5608
Q (cms)	= 0.4930
Area (sqm)	= 0.4169
Velocity (m/s)	= 1.1824
Wetted Perim (m)	= 1.6380
Crit Depth, Yc (m)	= 0.4084
Top Width (m)	= 0.8722
EGL (m)	= 0.6321



Channel Report

059627 - Proposed Culvert #3A (Catchment 203A) - 10Yr

Circular

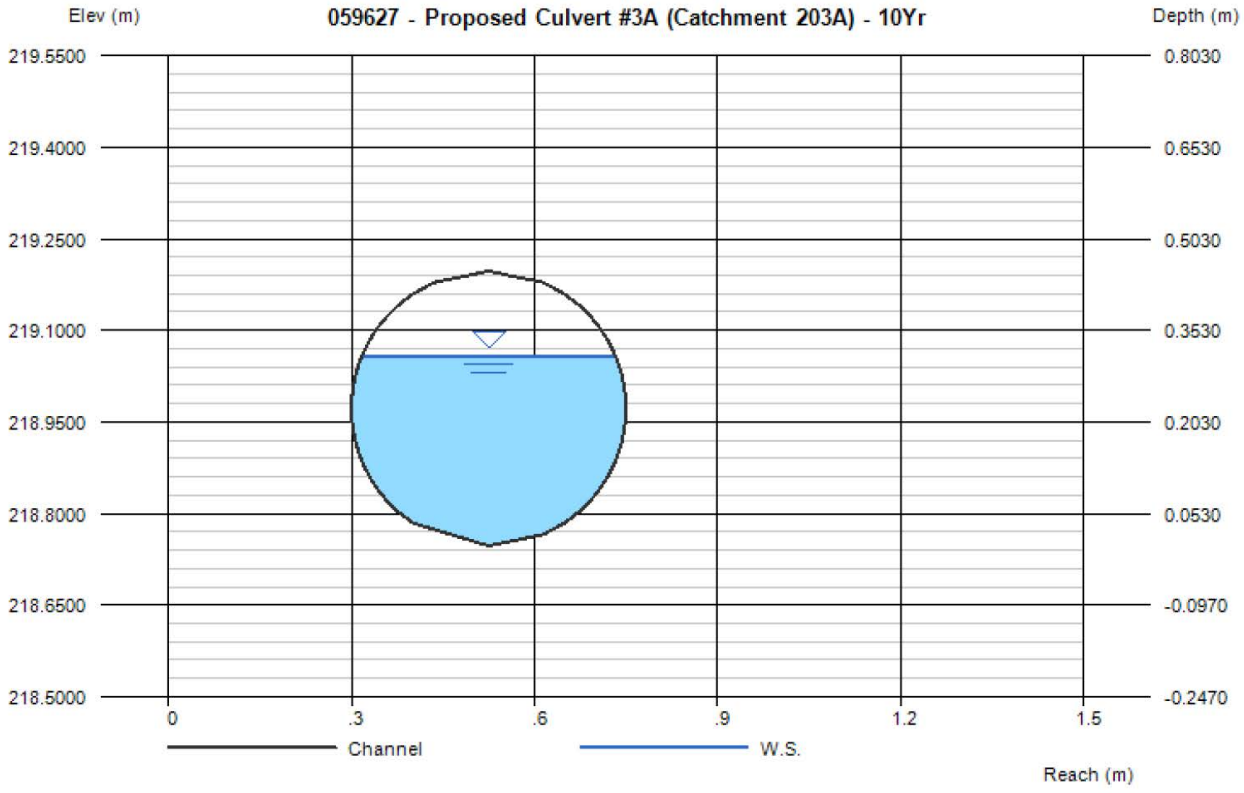
Diameter (m)	= 0.4500
Invert Elev (m)	= 218.7470
Slope (%)	= 0.5000
N-Value	= 0.024

Calculations

Compute by:	Known Q
Known Q (cms)	= 0.0890

Highlighted

Depth (m)	= 0.3109
Q (cms)	= 0.089
Area (sqm)	= 0.1174
Velocity (m/s)	= 0.7579
Wetted Perim (m)	= 0.8842
Crit Depth, Yc (m)	= 0.2073
Top Width (m)	= 0.4155
EGL (m)	= 0.3402



Channel Report

059627 - Proposed Culvert #3B (Catchment 203B) - 10Yr

Circular

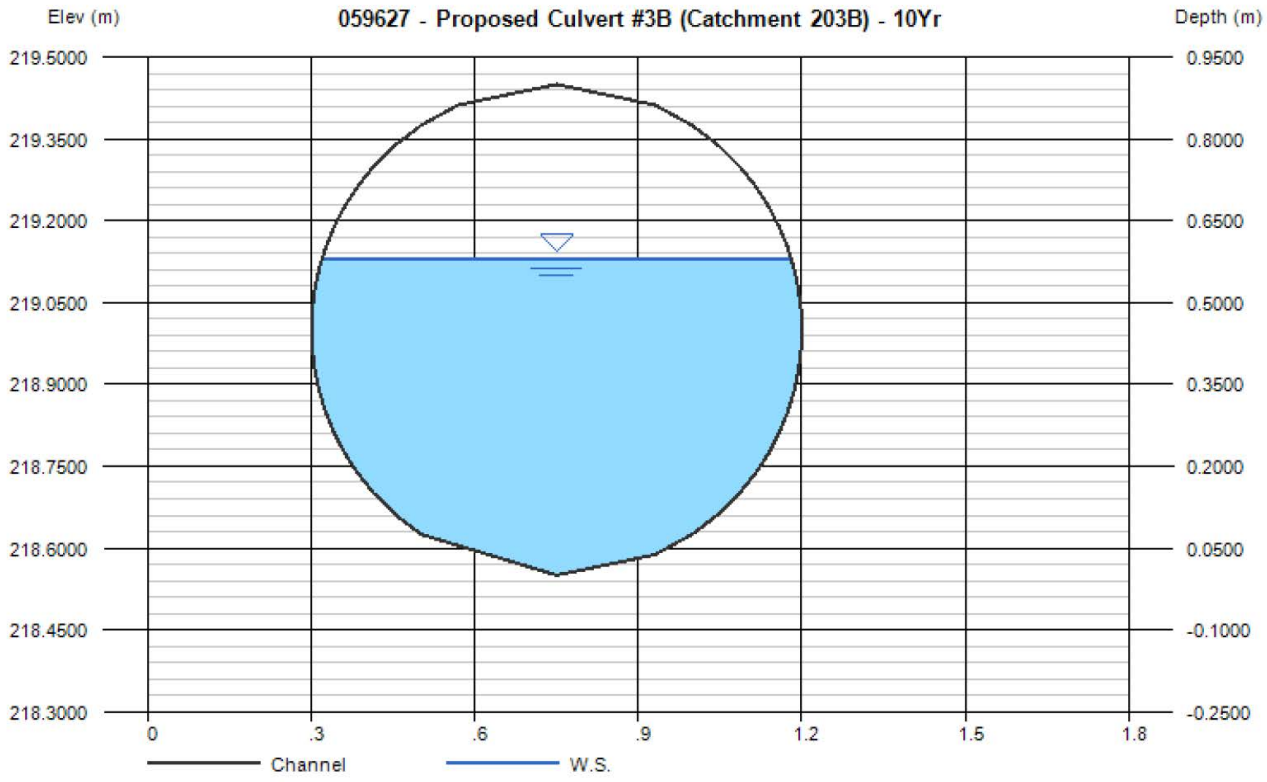
Diameter (m)	= 0.9000
Invert Elev (m)	= 218.5500
Slope (%)	= 0.5000
N-Value	= 0.024

Calculations

Compute by:	Known Q
Known Q (cms)	= 0.5150

Highlighted

Depth (m)	= 0.5791
Q (cms)	= 0.5150
Area (sqm)	= 0.4339
Velocity (m/s)	= 1.1870
Wetted Perim (m)	= 1.6785
Crit Depth, Yc (m)	= 0.4206
Top Width (m)	= 0.8613
EGL (m)	= 0.6510



Channel Report

059627 - Proposed Culvert #4 (Catchment 204) - 10Yr

Circular

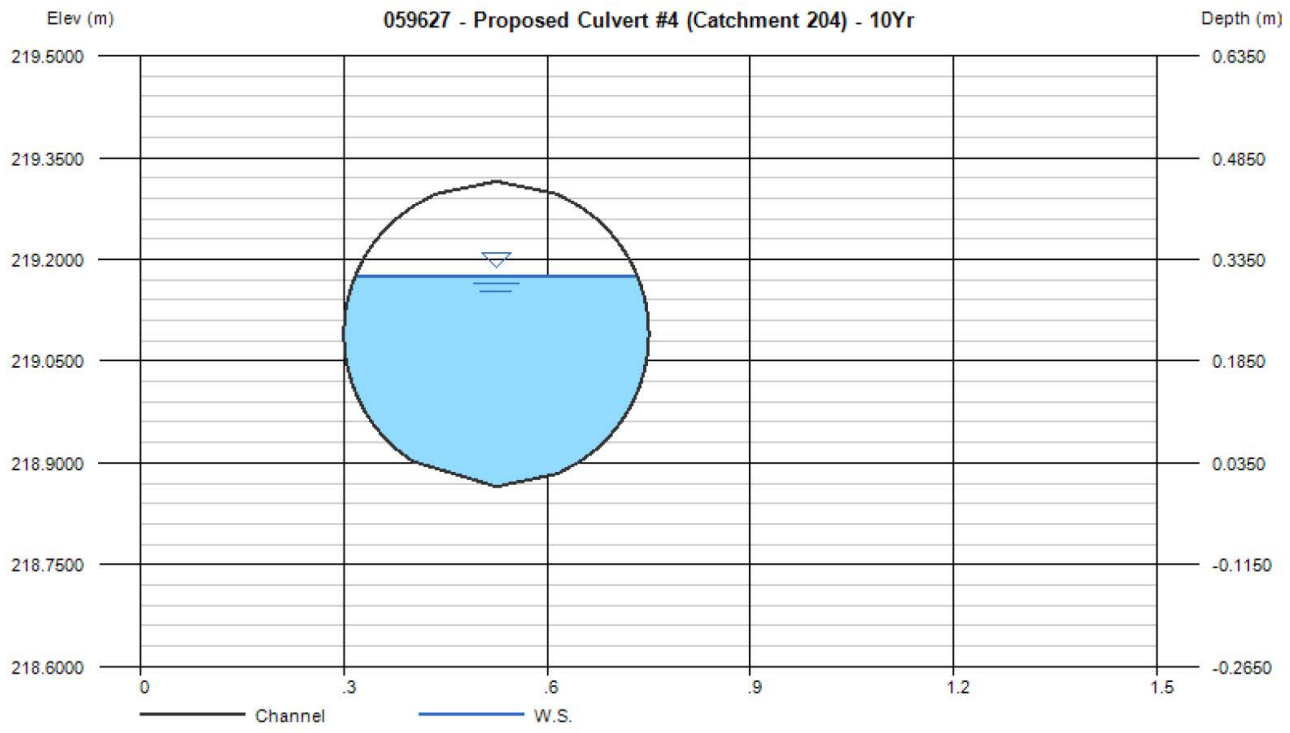
Diameter (m)	= 0.4500
Invert Elev (m)	= 218.8650
Slope (%)	= 0.5000
N-Value	= 0.024

Calculations

Compute by:	Known Q
Known Q (cms)	= 0.0890

Highlighted

Depth (m)	= 0.3109
Q (cms)	= 0.089
Area (sqm)	= 0.1174
Velocity (m/s)	= 0.7579
Wetted Perim (m)	= 0.8842
Crit Depth, Yc (m)	= 0.2073
Top Width (m)	= 0.4155
EGL (m)	= 0.3402



BURNSIDE

[THE DIFFERENCE IS OUR PEOPLE]

Appendix C

Stormwater Management

BURNSIDE

CALCULATION SHEET

Project: Hamilton Binbrook Road Intersection MCEA

Existing ROW

Prepared by: AT
Project No: 059627
Date: May 20, 2026

Runoff Equation Q = 2.78CIA (l/s)

where,
C = runoff coefficient
I = rainfall intensity (mm/hr) (based on City of Hamilton IDF Curve)
A = area (ha)
2.78= conversion factor

C Adjustment Factor	
25 year	1.1
50 year	1.2
100 year	1.25

	Return Period					
Coefficient	2	5	10	25	50	100
A	646.0	1049.5	1343.7	1719.5	1954.8	2317.4
B	6	8	9	10	10	11
C	0.781	0.803	0.814	0.823	0.826	0.836

Existing Flows			**C**	**% Imp**
Pervious	20968	m^2	0.20	0
Impervious	13023	m^2	0.90	100
Total Area	**33991**	**m^2**	0.47	38

Return Period	**T (min)**	**T (hour)**	**I**		**Q**	
2 year	10.0	0.17	74.10	mm/hr	**327.6**	L/s
5 year	10.0	0.17	103.04	mm/hr	**455.5**	L/s
10 year	10.0	0.17	122.29	mm/hr	**540.6**	L/s
25 year	10.0	0.17	146.10	mm/hr	**710.5**	L/s
50 year	10.0	0.17	164.61	mm/hr	**873.3**	L/s
100 year	10.0	0.17	181.81	mm/hr	**1004.7**	L/s

BURNSIDE

CALCULATION SHEET

Project: Hamilton Binbrook Road Intersection MCEA

Proposed ROW

Prepared by: AT
Project No: 059627
Date: May 20, 2026

Runoff Equation $Q = 2.78CIA$ (l/s)

where,
- C = runoff coefficient
- I = rainfall intensity (mm/hr) (based on City of Hamilton IDF Curve)
- A = area (ha)
- 2.78 = conversion factor

C Adjustment Factor	
25 year	1.1
50 year	1.2
100 year	1.25

	Return Period					
Coefficient	2	5	10	25	50	100
A	646.0	1049.5	1343.7	1719.5	1954.8	2317.4
B	6	8	9	10	10	11
C	0.781	0.803	0.814	0.823	0.826	0.836

Proposed Flows			C	% Imp			Imp. Increase ha	Imp. Increase %
Pervious	19226	m^2	0.20	0			0.17	13%
Impervious	14765	m^2	0.90	100				
Total Area	**33991**	**m^2**	0.50	43				

Return Period	T (min)	T (hour)	I		Q		Peak Flow Increase L/s	Peak Flow Increase %
2 year	10.0	0.17	74.10	mm/hr	**352.7**	L/s	25.1	
5 year	10.0	0.17	103.04	mm/hr	**490.4**	L/s	34.9	
10 year	10.0	0.17	122.29	mm/hr	**582.1**	L/s	41.4	8%
25 year	10.0	0.17	146.10	mm/hr	**764.9**	L/s	54.4	
50 year	10.0	0.17	164.61	mm/hr	**940.2**	L/s	66.9	
100 year	10.0	0.17	181.81	mm/hr	**1081.7**	L/s	77.0	

BURNSIDE

Project: Hamilton Binbrook Road Intersection MCEA
Project No.: 059627
Modelled By: A. Trenholm/ H. Faulkner
Date: 2026/05/20

MODIFIED RATIONAL METHOD
POST-DEVELOPMENT CONTROLLED FLOWS

Rainfall IDF Coefficients — 100 -year

A =		A =	2317.400
C =		B =	11.000
		C =	0.836

Area =	3.40	ha
Runoff Coefficient, C =	0.50	
C*A =	1.71	
Time of Concentration, t_c =	10.0	min
Storm Duration Increment =	10.0	min
Target Release Rate =	1005	L/s

Storm Duration (min)	Rainfall Intensity (mm/hr)	Max. Runoff Flow (L/s)	Runoff Volume (m^3)	Released Volume (m^3)	Storage Volume (m^3)	Max. Storage Volume Required (m^3)	Drawdown Time (hrs)
10.0	181.81	1081.63	649	603	46	46	0
20.0	131.29	781.04	937	904	33		
30.0	103.92	618.25	1113	1206	0		
40.0	86.59	515.14	1236	1507	0		
50.0	74.55	443.53	1331	1809	0		
60.0	65.67	390.66	1406	2110	0		
70.0	58.82	349.91	1470	2411	0		
80.0	53.36	317.46	1524	2713	0		
90.0	48.91	290.97	1571	3014	0		
100.0	45.20	268.88	1613	3316	0		
110.0	42.05	250.18	1651	3617	0		
120.0	39.35	234.11	1686	3918	0		
130.0	37.00	220.14	1717	4220	0		
140.0	34.94	207.89	1746	4521	0		
150.0	33.12	197.04	1773	4823	0		
160.0	31.49	187.36	1799	5124	0		