FINAL

City of Windsor
Dawson Drain

Drainage Report

2025-05-14

WSP Project #: CA-WSP-231-00563-00

Dawson Drain

Drainage Report

City of Windsor

Project No.: CA-WSP-231-00563-00
Date: May 14, 2025

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May 14, 2025

City of Windsor
Engineering Department
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Attention: Tom Graziano, P.Eng., Drainage Superintendent

Dear Sir:

Subject: Drainage Report for Dawson Drain

Under the provisions of the Drainage Act R.S.O. 1990 and in accordance with WSP's appointment, we are pleased to submit the Drainage Report for Dawson Drain. This report documents an examination and survey of the area, existing conditions analysis, proposed conditions analysis, plan, profile and specifications of the Dawson Drain.

We trust the submission of this document meets your requirements.

Yours sincerely,



Bryan Orendorff, M.A.Sc., P.Eng.
Manager, Water Resources

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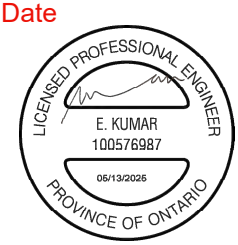
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1 INTRODUCTION

1.1 Scope

WSP Canada Inc. (WSP) has been retained by the City of Windsor to evaluate drain hydraulics for the Dawson Drain and present recommendations for how to best service the area going forward in a current drainage report in accordance with the Drainage Act: R.S.O. 1990, Chapter D.17 referred to as the Drainage Act hereafter.

The Dawson Drain starts on the southeast corner of the Devonwood Conservation Area, just north of Division Road and west of Woodward Boulevard. The drain runs along the east side, then west along the north side of the Devonwood Conservation Area and ultimately outlets into the O'Neil Drain thus becoming a tributary of the latter. The O'Neil Drain is located east of the Windsor Memorial Gardens cemetery and flows north from Division Road.

The Dawson Drain is regulated by By-laws 1830 and 2838 adopted by the Township of Sandwich East (now the City of Windsor) in 1950 and 1963 respectively. The drain has been altered by land development over many years with the latest alterations being adopted in 1999 by CR701/99 by the Devonshire Heights Subdivision.

The Dawson Drain primarily consists of open channel sections having an open channel and an underlying 300 / 150 mm plastic perforated HDPE drain tile (Big "O" pipe). These latter segments were created in the subdivision design wherein stormwater is directed to a perforated pipe during a smaller storm and would overflow into the open channel during larger storms. The existing perforated pipe starts just west of 3785 Woodward Boulevard and runs northerly towards Calderwood Park. As such, under existing conditions there are two outlets for the Dawson Drain.

The recommended service capacity for municipal drains for the City of Windsor is the 5-year design storm. However, runoff generated from large storms or fast snow melts may sometimes exceed the capacity of the drainage system and result in surface ponding / flooding. The scope of this study is to examine the hydraulics and capacity for the Dawson Drain and propose design recommendations. Furthermore, in this report, it is proposed that the Dawson Drain extend further downstream to the current O'Neil Drain Outlet to the ditch inlet southeast of Hallee Crescent near Devonshire Heights Park and the Calderwood Park outlet of the drain (Big "O" pipe) be closed resulting in just one outlet for the Dawson Drain.

All works presented in this report are as per:

- Drainage Act R.S.O. 1990, c. D. 17 – Government of Ontario.
- A Guide for Engineers working under the Drainage Act in Ontario Publication 842 by the Ministry of Agriculture, Food and Rural Affairs (OMAFRA, 2018).

1.2 Drain History and Background Review

The existing Engineers' Report for the Dawson Drain was last completed in 1963 and this study will replace that report. A history of Engineers' Reports is presented here along with background review of other relevant reports:

- **Report for Dawson Drain by C.G.R. Armstrong, 1949:** This report documents the existing conditions of drainage at that time and the need for the drain to function properly to drain the surrounding lands. According to this report, the Dawson Drain commenced at the bottom of the existing ditch on the northerly side of King's Highway 2 (now Division Road) and extended northerly between the present Woodward Boulevard and the Devonwood Conservation Area and turns west near Trailwood Court and then takes a right angle turn to continue northerly where the drain had its outlet in the Third Concession Drain near Lappan Avenue. The By-law 1830 for the construction and maintenance of Dawson Drain was adopted by the Township of Sandwich East on January 23, 1950, to support the repair of Dawson Drain under the Municipal Drainage Act.
- **Report for Dawson Drain by C.G.R. Armstrong, 1963:** This report documents the repairs and improvements for the Dawson Drain. According to this report, the drain was recommended to be repaired, deepened and improved. The By-law 2838 for this report was adopted by the Township of Sandwich East on July 30, 1963.
- **Stormwater Management Report for the Ontario Realty Corporation's Devonshire Heights Phase 4 Subdivision in the City of Windsor by CC Parker Consultants Limited, October 1997:** According to this report, the Devonshire Heights Phase 4 subdivision was the last phase of the development of Devonshire Heights by the Ontario Realty Corporation (ORC). With the exception of the Windsor Grove Cemetery (WGC) residential lands to the west, all other land in the immediate area with an existing residential zoning designation have been developed. The Phase 4 subdivision area was 36.1 hectares (including the Third Concession Drain) and was roughly rectangular shaped with little variation in grade. The most significant feature of this area was the Third Concession Drain which was approximately 10 m wide and varied in depth from 1.7 m to 2.1 m. This drain was an artificial channel that had become heavily vegetated over time and was abandoned and replaced by a trunk storm sewer in the South Woods Estates subdivision to the east of the Phase 4 subdivision in October 1999 as per the City of Windsor's storm

sewer GIS database. To the south of the Phase 4 subdivision is the Devonwood Conservation Area which is owned by the Essex Region Conservation Authority (ERCA). ERCA had requested that adequate base flows be maintained to the conservation area with the development of the Phase 4 subdivision. The City of Windsor had requested that, if practical, a future residential subdivision on the 5.11 ha WGC residential lands share a joint stormwater management (SWM) facility.

- **Amendment to CC Parker Consultants Stormwater Management Report, Hanna, Ghobrial & Spencer, March 1999:** This report is an amendment to the CC Parker Consultants Stormwater Management Report for the Ontario Realty Corporation's Devonshire Heights Stage 4 Subdivision in the City of Windsor dated October 1997 and discussed above. According to this report, the Dawson Drain which drained into the Third Concession Drain on the east side of Devonshire Heights, west of Woodward Boulevard was proposed to be reconstructed to re-direct the flows westerly along the north limit of the Devonwood Conservation Area. The outlet of the Dawson Drain was then proposed to connect to the O'Neil Drain hence becoming a tributary of the latter. The O'Neil Drain which was connected to the Third Concession Drain was proposed to be re-graded, lowered and slopes improved to accommodate the flows from the Dawson Drain.
- **Chief Administrative Officer (CAO) Report #4469 by the Commissioner of Works and Commissioner of Corporate Services and Treasurer, City of Windsor, June 1999:** The aim of this report was to recommend enclosure, relocation and/or improvements to the Third Concession Drain, Dawson Drain and O'Neil Drain. Specifically, in relation to the Dawson Drain, it was recommended that the developer would be responsible to relocate the Dawson Drain to the south side of the development and connect it with the O'Neil Drain on the west side of the development. Further the O'Neil Drain was also proposed to be deepened and widened in order to accommodate the additional flow from the Dawson Drain and that these works were proposed at the entire expense of the developer. Additionally, it was also suggested in the report that the Developer is required to construct a stormwater management (SWM) facility to control runoff from the subject lands to pre-development flows. This SWM facility will be oversized to accommodate runoff from the Windsor Grove Cemetery (WGC) lands located to the west of the Devonshire Heights development. The SWM facility will be incorporated with the adjacent park and will only have water during rain events.
- **Southwind Subdivision by Tru Land Developments Inc. Stormwater Management Plan, R.C. Spencer Associates Inc., March 2016:** Further to the construction of the Devonshire Heights Subdivision that resulted in the enclosure of the Third Concession Drain into a new trunk sewer system and portion of the

Dawson Drain into a 300 mm perforated drain tile, the construction of Phase 1 of the Southwind Subdivision development resulted in the enclosure of a portion of the O'Neil Drain as well. According to this report, the enclosure of this portion of the drain was discussed with the City of Windsor and sized in May - June 2006. The drain was enclosed as a 600 mm diameter reinforced concrete pipe (RCP) and 120.6 m in length (install date July 3, 2017) whose capacity was determined to be 0.230 m^3/s. This enclosed portion of the O'Neil Drain was connected to discharge into the Third Concession Drain trunk storm sewer via an existing 900 mm diameter and 40.2 m long pipe (install date November 1, 1999). The capacity of the 900 mm diameter concrete pipe was determined to be 0.479 m^3/s.

- **The City of Windsor Southwind Subdivision Development Stormwater Management Plan Review, Dillion Consulting Limited, April 2019:** This report is a review of the stormwater management (SWM) plan, outlet capacity, and drainage enclosures related to the Southwind Subdivision Development. The Southwind Subdivision site was originally included in the Devonshire Heights Phase 4 Subdivision Stormwater Management Plan prepared by C.C. Parker Consultants Limited (October 1997). The RC Spencer (2016) report identified uncertainty with regards to the available storage capacity within the existing Devonshire SWM facility to accommodate the runoff from this site. Changes in stormwater management practices since the C.C. Parker (1997) study were also cited as reasons for moving to a stand-alone SWM solution for the Southwind Subdivision. According to the study conducted by Dillion Consulting Limited, the SWM facilities within Southwind Subdivision provide storage underground in sewers and on the surface within roadways and in two depressed vegetated areas: 1) the northwest depressed SWM area, and 2) the park, located at the southeast corner of the site. The Southwind Subdivision park area outlets via a 150 mm diameter pipe discharging to the O'Neil Drain enclosure. The depressed SWM area discharges through a 250 mm orifice to a 450 mm pipe connected to the 1500 mm diameter trunk sewer along Kamloops Street. A review of the municipal drain enclosures was also completed as part of this study. Municipal drains in proximity to Southwind Subdivision were relocated and enclosed, as required by the City of Windsor. The Third Concession Drain has been enclosed into the new trunk sewer system, running along Kamloops Street and Marentette Ave., and discharges into the open drain at Foster Avenue. Within this report, it was recommended that as part of the overall SWM upgrades, methods to lower the HGL in the enclosed sewers be evaluated in the future. This may include a detailed investigation on up gradient flows entering the system through the Devonshire Heights Neighbourhood.

— **Ward 9 Ditch Survey and Inspection of Private Culverts and Private Catch Basins, Council Report: S 14/2022, Public Works – Operations, City of Windsor, April 2022:** According to this report, WSP was appointed as the Drainage Engineer to make an examination of, and prepare a Drainage Report for the repair and improvement to, the Dawson Drain between Division Road and the O'Neil Drain and to the O'Neil Drain from south of Hallee Crescent to Division Road under Section 78 of the Drainage Act. This has been appended to this report as **Appendix A**.

WSP was appointed as the Drainage Engineer on January 11, 2023 upon receipt of the purchase order from the City of Windsor and commencement of the work for this study began.

2 SITE VISIT AND SURVEY

As per Section 12 (1) of the Drainage Act, the WSP team visited the Dawson Drain to conduct a site reconnaissance on February 21, 2023, to understand the issues and general confirmation of the site conditions. Refer to **Appendix B** for the location and photographs of existing conditions of the Dawson Drain.

Observations from the site visit are listed below:

- Dawson Drain starts just west of 3935 Woodward Boulevard and runs northerly along the east side of Devonwood Conservation Area to 3725 Woodward Boulevard where it makes a west turn just south of Trailwood Court and flows northerly for approximately 80 m and then makes a turn west along the north side of the Conservation Area towards Shinglecreek Court. The Dawson Drain meets the O'Neil Drain at the northwest corner of the Conservation Area. The drain outlets to the O'Neil Drain via two 900 mm diameter corrugated steel pipes (CSP).
- The drain is overgrown with vegetation, bushes and shrubs throughout the entire length; therefore, drain capacity is impacted.
- Overgrowth of vegetation was also observed over the catchbasins that were present along the drain from 3789 – 3725 Woodward Boulevard. A perforated pipe exists within the Dawson Drain that starts from just west of 3785 Woodward Boulevard to west of 1827 Trailwood Court and continues to go northerly towards Calderwood Park. This is the Big 'O' 300 mm pipe that is discussed in **Section 1.2.**
- A large volume of standing water was observed within the drain just south of Ledyard Avenue to Moxlay Avenue west of Woodward Boulevard. This is likely attributed to the negative slopes along the drain and the overgrowth of vegetation.
- Several wooden pedestrian bridges (privately owned) have been built over the drain towards the Devonwood Conservation Area. Majority of the pedestrian bridges had the potential to obstruct flows within the drain based on visual inspection. This has been discussed in detail in **Section 6.2.2.1.**
- A number of culverts that exist on the drain were also inspected**. Table 2-1** summarizes the inspection findings of the culverts.

Table 2-1: Hydraulic Structures (culverts) on the Dawson Drain

No.	Station	Structure Description	Size	Culvert Length	Culvert Condition
1	0+215	2 CSPs	900 mm each	9 m each	Edges of the culverts are slightly deformed with minor rusting on the inside. The culverts' inlets, outlets and insides need to be cleaned as there is vegetation growth and debris within the culvert.
2	0+415	2 CSPs	900 mm each	6 m each	Edges of the culverts are slightly deformed with minor rusting on the inside. The culverts' inlets, outlets, edges and insides need to be cleaned as there is vegetation growth and debris within the culvert.
3	0+800	2 CSPs	450 mm and 1200 mm	450 mm pipe length unknown 1200 mm pipe – 15 m length	Edges of the culverts are slightly deformed with minor rusting on the inside. The culverts' inlets, outlets and insides need to be cleaned as there is vegetation growth and debris within the culvert. The west end of the 450 mm CSP is blocked, and no flows can pass through.
4	1+060	3 CSPs	900 mm, 1200 mm and third CSP unknown	12 m each	Edges of the culverts are slightly deformed with minor rusting on the inside. The culverts' inlets, outlets and insides need to be cleaned as there is vegetation growth and debris within the culvert. The third CSP was located on the bank of the drain on the east side and was badly deformed and both ends were blocked.
5	1+100	1 CSP	450 mm	6 m	Edges of the culvert are slightly deformed. The culvert's inlet, outlet and inside need to be cleaned as there is vegetation

No.	Station	Structure Description	Size	Culvert Length	Culvert Condition
					growth and debris within the culvert.
6	1+465	1 HDPE pipe	200 mm	N/A	This HDPE pipe is at the upstream end of the drain and drains 1830 and 1840 Division Road into the Dawson Drain.

Further, in accordance with Section 13 (1) of the Drainage Act, in March 2023, the WSP team completed a detailed topographic survey of the Dawson Drain. Additional topographic survey was completed by JD Barnes Limited in November 2024 to cover additional widths along the banks of the Dawson Drain. In addition to the topographic survey, hydraulic structure measurements and their obverts and inverts were recorded. The topographic information along with the hydraulic structure information was then used for the hydrologic and hydraulic modelling as described in the sections that follow.

3 SITE MEETING

In accordance with Section 9 of the Drainage Act, on July 25, 2023, a site meeting was held at the Optimist Community Centre, 1075 Ypres Ave. in Windsor, ON.

Meeting minutes and a list of attendees is included in **Appendix C.**

4 AREA REQUIRING DRAINAGE

In accordance with Section 9 (2) of the Drainage Act, the drainage area delineation was carried out through a desktop analysis in ArcGIS Pro version 2.9.5 utilizing topographic data from OMAFRA Lake Erie Digital Terrain Model (DTM) 2016-18 Package-A available at the Ontario Open Data portal and performing multiple GIS operations to determine the accurate flow paths and area draining to Dawson Drain.

The existing total drainage area of the Dawson Drain is approximately 52.77 ha and is shown in **Exhibit 1.** Under existing conditions, the Dawson Drain is tributary to the adjoining O'Neil Drain. However, as part of this study, as suggested by the City of Windsor, it is proposed that the Dawson Drain extend further downstream to the current O'Neil Drain Outlet to the ditch inlet southeast of Hallee Crescent near Devonshire Heights Park. As such, the O'Neil Drain now becomes a tributary of the Dawson Drain and the combined drainage area of the Dawson Drain is now 97.13 ha. The proposed drainage area of the Dawson Drain is shown in **Exhibit 2.**

5 DATUM AND BENCHMARKS

The coordinate system used in the hydrologic and hydraulic modelling for the Dawson Drain is NAD 1983 CSRS UTM Zone 17N. The horizontal and vertical datum of the data used presented in this report are NAD83 CSRS (epoch 2010.0) and CGVD2013 (CGG2013 undulation model) respectively.

Additionally, it is noteworthy that the drawings package uses the City of Windsor datum, as such, all elevations shown in the drawings package are in the IGLD85 datum and should there be a need to convert elevations from the CGVD2013 datum to the IGLD85 datum, a conversion factor of +0.463 be used.

In accordance with Section 13 (1) of the Drainage Act, the WSP survey team established sufficient benchmarks by which the drainage works may be governed.

The benchmarks recorded by the WSP team are listed below in **Table 5-1**.

Table 5-1: Benchmarks and Locations

Benchmark	Location	Coordinates	Elevation (m)
1	Top nut of existing hydrant located northeast of the intersection between Division Road and Clarke Drive	4680863.384 Northing 336353.836 Easting	189.381
2	Top nut of existing hydrant located at the intersection of Provincial Road and Clarke Drive	4680816.088 Northing 336291.500 Easting	189.789
3	Top nut of existing hydrant located south of Division Road near the upstream end of O'Neil Drain	4680782.227 Northing 336483.462 Easting	189.821

6 HYDROLOGIC AND HYDRAULIC MODELLING

6.1 Hydrologic Modelling

6.1.1 Existing Conditions

Visual OTTHYMO (VO) model version 6.2.2015 was used for the hydrologic modelling of the Dawson Drain watershed and peak flows were generated for the 2-year through 100-year design storm events.

The design storms were generated using the Windsor / Essex Region Stormwater Management Manual (ERCA 2018). Soil Survey Report #19 – Soil Map of York County (National Soil Database, NSDB) was used to retrieve the soil information for the O'Neil Drain Watershed. Land use information was provided by the City of Windsor. The VO model was simulated for the Chicago and SCS storms for the 3-, 6-,12- and 24-hour durations as per Section 3.7.8 of the Windsor / Essex Region Stormwater Management Manual (ERCA 2018). The 24-hour Chicago storm generated higher peak flows when compared to the others and was selected to be used in the hydraulic model.

Hydrologic peak flows on the Dawson Drain are listed below in **Table 6-1.**

Table 6-1: Dawson Drain Peak Flows

VO Nodes	24-hr Chicago Storm Peak flows (m^3/s)					
	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Prior to Confluence with O'Neil Drain						
101	1.003	1.447	2.245	3.427	4.324	5.221
102	0.316	0.510	0.635	0.815	0.943	1.089
103	0.055	0.076	0.092	0.115	0.134	0.157
104	0.009	0.016	0.021	0.029	0.035	0.042
105	0.008	0.041	0.067	0.105	0.147	0.179
901	1.054	1.519	2.333	3.541	4.458	5.379
902	1.058	1.527	2.344	3.555	4.474	5.398
903	1.360	2.005	2.942	4.361	5.408	6.478
906	1.360	2.035	2.998	4.463	5.553	6.655

Refer to **Exhibit 1** for total drainage areas to Dawson and O'Neil Drains, under existing conditions, and refer to **Exhibit 3** for catchment locations.

- NHYD 101: Represents the summation of Catchments D1_O and D1_Ex. Area between Woodward Boulevard in the west to Walker Street in the east, and from Calderwood Park Avenue in the north to Division Road in the South.
- NHYD 102: Represents the summation of Catchments D2_O and D2_Ex. The areas that majorly make up the Southwoods Estates and Sylvester Woodward subdivisions.
- NHYD 103 and NHYD 104: Represents Catchments D3 and D4, areas of Dawson Drain along the drain.
- NHYD 105: Represents the summation of Catchments D5_O and D5_Ex. Where D5_O is the area of the Dawson Drain along the drain and D5_Ex is the portion of the Devonshire Heights subdivision that back onto the Dawson Drain.
- NHYD 901 to 906: represents hydrologic nodes along the Dawson Drain. Refer to the Visual OTTHYMO schematic in **Appendix D**.

The minor system flows were modelled within VO for relevant catchments to appropriately account for flows that do not enter the open section of the Dawson Drain.

- Catchment D1_Ex. The minor system flows for Byng Road and Walker Road catchments (refer to **Exhibit 3**) were redirected to the sewer system which is designed for the 5-year design storm as per the 2020 upgrades of the area within the VO model and as per WSP's review of the City of Windsor's storm sewer layout dated April 24, 2020, and proposed Walker Road trunk sewer design sheet dated April 2020. This minor system flow was unaccounted through the DuHyd Routine in VO.
- Catchment D2_Ex. Under existing conditions, the Big "O" pipe within the Dawson Drain was assumed to convey minor flows at a 60% capacity due to overgrown vegetation towards Calderwood Park. This was as per WSP's review of the South Woods Estates, Woodward Boulevard and the storm sewer layout dated January 1989 and as per the Ward 9 Ditch Survey dated 2022. This minor system flow was unaccounted through the DuHyd Routine in VO.
- Catchment D5_Ex. The minor system flows for the lots south of Shinglecreek Court and Irongate Circle were redirected to the storm sewer on Shingle Creek Court and Irongate Circle towards Calderwood Avenue. Since the design capacity of the minor system was unknown, it was assumed that the 2-year design storm flows were conveyed to the storm sewer. This was as per WSP's review of the Devonshire

Heights – Stage 4 Phase 3 drawings dated 1999. This minor system flow was unaccounted through the DuHyd Routine in VO.

The nodes 101 and 102 represent the peak flows entering the drainage ditches at Ledyard Avenue and Moxlay Avenue, respectively, shown in **Table 6-1**. The flows entering Ledyard Avenue drainage ditch are higher than the flows at the Moxlay Avenue ditch due to the routing of minor system flows towards the storm sewer system as discussed before. Considering these two drainage ditches convey larger flows to the Dawson Drain and as per WSP's review of the Ward 9 Ditch Survey 2022 drawing 4M – 207 dated August 2021, it is recommended that these ditches be considered as tributaries of the Dawson Drain and a part of the municipal drain infrastructure. The drainage ditches at Ledyard Avenue and Moxlay Avenue west of Woodward Boulevard will be considered as Dawson Drain Tributary A and Dawson Drain Tributary B respectively.

Peak flows on the O'Neil Drain are listed below in **Table 6-2.**

Table 6-2: O'Neil Drain Peak Flows

VO Nodes	Peak flows (m^3/s)					
	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Prior to Confluence with Dawson Drain						
201	0.080	0.135	0.175	0.235	0.280	0.331
202	0.028	0.048	0.062	0.082	0.098	0.115
203	0.106	0.186	0.247	0.340	0.410	0.495
204	0.009	0.015	0.019	0.026	0.031	0.036
904	0.107	0.181	0.235	0.315	0.374	0.443
905	0.196	0.337	0.443	0.601	0.720	0.861
907	0.196	0.337	0.443	0.601	0.720	0.861
After Confluence with Dawson Drain						
908	1.382	2.080	3.058	4.538	5.645	6.767
909	1.387	2.089	3.070	4.553	5.663	6.789

Refer to **Exhibit 3** for catchment locations.

— NHYD 201: Represents Catchment O1. The portion of the Devonwood Conservation Area that drains southward towards Division Road and is intercepted by the O'Neil Drain ditch.

— NHYD 202: Represents Catchments O2. Portions of areas in the Devonwood Conservation Area and adjoining cemetery that drain to the O'Neil Drain.

— NHYD 203: Represents Catchment O3. The largest portion of the Devonwood Conservation area that flow westward and drain to the O'Neil Drain, also minor area along the cemetery.
— NHYD 204: Represents Catchment O4 (Catchment D6 in proposed conditions). Area of the O'Neil downstream of the confluence with Dawson Drain.
— NHYD 904 to 909: Hydrologic nodes along the O'Neil Drain. Refer to the Visual OTTHYMO schematic in **Appendix D**.

Historically, based on background review of the documents, it was found that the Dawson Drain which drains into the Third Concession Drain on the east side of Devonshire Heights, west of Woodward Boulevard was proposed to be reconstructed to re-direct the flows westerly along the north limit of the Devonwood Conservation Area. The outlet of the Dawson Drain was then proposed to connect to the O'Neil Drain hence becoming a tributary of the latter. This increased the drainage area of the O'Neil Drain from 44 ha to 97 ha. For example, Node 907 just upstream of the confluence shows a peak flow of 0.196 m^3/s and 0.337 m^3/s for the 2- and 5-year design storm events, respectively. On the contrary, the peak flows at Node 908, which is downstream of the confluence, of the O'Neil Drain and Dawson Drain, the 2- and 5-year flows are 1.382 m^3/s and 2.080 m^3/s. This shows an approximate increase of 700% for the 2- and 5-year design storm events. Which indicates that before the re-construction of the Dawson Drain the "area requiring drainage" for the O'Neil Drain was smaller and that the Dawson Drain is the major contributor of flow.

Lastly, the flows presented earlier are steady state flows. Attenuation through storage was modelled to estimate the flows entering the downstream infrastructure. The total storage provided by the Dawson and O'Neil drains was estimated at 2,362 m^3. This assessment was done in AutoCAD using available topographic information. This storage was then modelled at the end of the system. Flows entering the downstream infrastructure and are presented in **Table 6-3**.

Table 6-3: Peak Flows Entering Downstream Infrastructure – Existing Conditions

VO Nodes	Peak flows (m^3/s)					
	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
At outlet of O'Neil Drain						
51	0.555	0.585	1.241	3.250	5.767	9.715

The 2- and 5-year design storm peak flows exiting the proposed system (Node 51) are 0.555 m^3/s and 0.585 m^3/s respectively at the ditch inlet (CB-7R6320) south of

Kamloops Street near Hallee Crescent. A short (7.3 m length) 450 mm diameter pipe flowing east is followed by a 600 mm RCP and a 900 mm RCP that takes these flows northerly to the City of Windsor's trunk sewer system. The 450 mm, 600 mm and 900 mm pipes have a capacity of 0.28 m^3/s, 0.23 m^3/s and 0.48 m^3/s respectively. It is clear from the hydrologic modelling and **Table 6-3** above that these pipes don't have the capacity to convey the full flows that reach the ditch inlet. As reported by Dillion Consulting Limited (April 2019), discussed in **Section 1.2**, the pipes may surcharge more than 0.3 m above the finished grade for the 5- and 100-year design storm events. As such, the proposed Dawson Drain, based on the hydrologic modelling presented here does not have a "sufficient outlet" as the flows exiting the drain are limited to the capacity of the existing pipes. This is discussed further in **Section 7**, and to achieve a "sufficient outlet", it is recommended that the existing 450 mm pipe be upgraded outside the municipal drain and Drainage Act process. As such, the proposed upgrades downstream of the drain will not form a part of the Dawson Drain.

Refer to **Appendix D** for rainfall information, detailed hydrologic calculations, different parameters used within the VO model and VO model output of existing conditions.

6.1.2 Proposed Conditions

All hydrologic parameters remain unchanged between the existing and proposed model, with only the downstream most reach of O'Neil Drain being renamed to Dawson Drain. This shift is presented below in **Table 6-4** and shown on **Exhibit 2**.

Table 6-4: Hydrologic Reassignment of Drain Sections

VO Nodes	Proposed Conditions Update
204	Catchment now part of Dawson Drain. Renamed from O4 to D6.
908	Confluence flows now part of Dawson Drain
909	Confluence flows now part of Dawson Drain

Proposed conditions flow generated from catchments and confluences remain flows shown in **Table 6-1** and **Table 6-2.**

Section 6.2 will elaborate the upgrades recommended on the Dawson Drain to improve its performance, few of these include lowering and widening of the drain along its 1400 m length. As can be expected, proposed lowering and widening of the Dawson Drain would provide additional storage. The approximate new storage volume was estimated at 9,974 m^3 and was done in AutoCAD. This additional volume of 7,612 m^3, compared to the existing conditions was credited in the hydrologic model to accurately estimate

the flows entering the downstream infrastructure. The flows entering the downstream infrastructure and are presented in **Table 6-5.**

Table 6-5: Peak Flows Entering Downstream Infrastructure – Proposed Conditions

VO Nodes	Peak flows (m^3/s)					
	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
At new outlet of Dawson Drain						
51	0.542	0.624	0.683	0.763	0.811	0.853

The 2- and 5-year design storm peak flows exiting the proposed system (Node 51) are 0.542 m^3/s and 0.624 m^3/s, respectively. Though these values are similar to the existing conditions flows, **Section 6.2 and Section 7** will demonstrate how lowering of the Dawson Drain provides the suitable starting conditions for the 2- and 5-year events, even though the system is surcharged.

Refer to **Appendix E** for the schematic of hydrologic nodes and proposed conditions hydrologic outputs.

6.2 Hydraulic Modelling

HEC-RAS model version 6.3.1 was used for the hydraulic modelling of existing and proposed conditions of the Dawson Drain.

6.2.1 Existing Conditions

A 1-Dimensional steady-state HEC-RAS model was developed by WSP for the existing conditions of the drain and the two drainage ditches at Ledyard Avenue and Moxlay Avenue which are tributaries of the Dawson Drain.

Geometry: The LiDAR data (0.5 m resolution) from the OMAFRA Lake Erie Digital Terrain Model (DTM) 2016-18 Package A available at the Ontario Open Data portal was used as the terrain within HEC-RAS. Additionally, WSP's and JD Barnes surveyed cross-sections of the Dawson Drain (channel inverts and banks) have also been incorporated in the LiDAR to accurately reflect the existing conditions. Manning's roughness values were used from the HEC-RAS manual.

Structures: Permanent hydraulic structures discussed in **Section 2** and listed in **Table** 2-1 were modelled within the HEC-RAS model. Additionally, multiple pedestrian bridges that obstructed flows and deemed as hydraulically significant were modelled within the

HEC-RAS model to represent accurate existing conditions of the Dawson Drain. The table of structures modelled is presented in **Appendix D**.

Boundary Conditions: At the outlet of the open drain channel system is a 450 mm pipe, followed by a 600 mm RCP and then a 900 mm RCP. The flows entering the downstream infrastructure as estimated in **Table 6-3** were then used to determine the performance of the 450 mm pipe under tailwater conditions and are tabulated in **Table** 6-6 below.

Table 6-6: Reach Boundary Condition – Existing Scenario

Location	Water Surface Elevation (m)					
	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
At existing outlet of O'Neil Drain						
450 mm Pipe	188.0+	188.0+	188.0+	188.0+	188.0+	188.0+

Under existing conditions, the cemetery to the east of the O'Neil Drain, starts to inundate at approximately 187.90 m and acts as a possible overland flow route. At 188.00 m, considerable lateral flow can be expected to occur. This elevation was applied for all return periods and demonstrates that the existing system is unable to confine the 2- and 5-year return period flows at its outlet.

Flows: The peak flows generated from the VO model as presented in **Table 6-1** and **Table 6-2** were used as input for the HEC-RAS model and are tabulated below.

Table 6-7: Peak Flows used in HEC-RAS

River	Reach	Station	Peak flows (m^3/s)					
			2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Dawson	1	1259.00	0.055	0.076	0.092	0.115	0.134	0.157
Dawson	2 (Trib B)	1161.50	1.003	1.447	2.245	3.427	4.324	5.221
Dawson	3	1145.00	1.058	1.527	2.344	3.555	4.474	5.398
Dawson	4 (Trib A)	912.40	0.316	0.51	0.635	0.815	0.943	1.089
Dawson	5	885.00	1.360	2.035	2.998	4.463	5.553	6.655
Dawson	6	192.00	1.387	2.089	3.07	4.553	5.663	6.789
O'Neil	1	840.00	0.107	0.181	0.235	0.315	0.374	0.443
O'Neil	1	694.00	0.196	0.337	0.443	0.601	0.720	0.861

Summary: According to the existing conditions analysis, the Dawson Drain and its tributaries cannot convey the 2- and 5-year design storms safely. Ponding / flooding of the properties abutting the Dawson Drain specifically adjacent to Woodward Boulevard

is observed. Flooding on the west side of the Dawson Drain on the Devonwood Conservation Area lands is also observed. Rear yard flooding of the properties north of the Dawson Drain near Shinglecreek Court and Irongate Circle is also observed. The pedestrian bridges along the drain obstruct flows hence causing increase in water surface elevations within the drain and resulting in flooding.

The inputs and results of the hydraulic analysis under existing conditions are provided in **Appendix D**.

6.2.2 Proposed Conditions Modelling and Recommended Drain Improvements

The following sections discuss the steps and proposed improvements to better service the area. The updates to the drain geometry are discussed in **Sections 6.2.2.1, 6.2.2.2** and **6.2.2.3.** Updates to existing structures are discussed in **Section 6.2.2.4**. The modelled boundary condition is introduced in **Section 6.2.2.8** and further elaborated on in **Section 7** and the proposed flows applied are presented in **Section 6.2.2.9**.

It is noteworthy that to effectively resolve the drainage issues in the area, it is important to implement all the measures and improvements discussed below. Relying on just one measure may not be sufficient to address the drainage problems associated with the Dawson Drain. Additionally, the proposed drain improvements in this study aim to achieve a 5-year design storm service level for the Dawson Drain. If there is a future need to increase the service level beyond a 5-year design storm, substantial enhancements to the drain will be required.

6.2.2.1 Obstructions

As mentioned in **Section 6.2.1**, several wooden pedestrian bridges have been constructed over the years on the drain by local residents to provide access to the Devonwood Conservation Area. However, hydraulic analysis indicates that these bridges can obstruct water flow within the drain, leading to higher water surface elevations and potential ponding or flooding of the Dawson Drain. The hydraulic analysis of the proposed conditions demonstrates that removing these obstructions allows the water to flow freely to the drain outlet.

According to Section 80 (1) of the Drainage Act:

> *When a drainage works becomes obstructed by a dam, low bridge, fence, washing out of a private drain, or other obstruction, for which the owner or occupant of the land adjoining the drainage works is responsible, so that the free flow of the water is impeded thereby, the persons owning or occupying the land shall, upon reasonable notice sent by the council of the local municipality whose duty it is to maintain and*

repair the drainage works or by a drainage superintendent appointed by the council, remove such obstruction and, if it is not so removed within the time specified in the notice, the council or the drainage superintendent shall forthwith cause it to be removed, and the cost thereof is payable to the municipality by the owner or occupant of the land. R.S.O. 1990, c. D.17, s. 80 (1); 1998, c. 18, Sched. A, s. 1 (4); 2010, c. 16, Sched. 1, s. 2 (30).

WSP recommends that all pedestrian bridges shall be removed from the drain that obstruct the free flow of water. The first opportunity should be given to the owner / occupant to remove the blockage. If the owner or occupant decides to do the work, the works should be supervised by the City of Windsor's Drainage Superintendent after obtaining any necessary permits or authorizations.

Further, if the owner / occupant does not remove the obstruction on the drain then the City of Windsor may do so and the costs to complete such work shall be according to the Section 80 (2) of the Drainage Act:

If the cost of removing the obstruction is not paid to the local municipality by the owner or occupant of the land forthwith after the completion of the work, the council may pay the cost, and the clerk of the municipality shall place the amount of cost upon the collector's roll against such land and such amount shall be collected in the same manner as real property taxes.

Refer to **Appendix F** for details on obstructions to be removed.

6.2.2.2 Brushing of the Dawson Drain

As discussed in **Section 2**, Dawson Drain is overgrown with vegetation, brushes and shrubs throughout the entire length, therefore, causing it not to function as expected.

After removal of the obstructions as described in the preceding section, the brushing of the Dawson Drain was modelled within HEC-RAS by adjusting the Manning's n values for the channel. It was observed that brushing of the Dawson Drain decreased the water surface elevations within the drain but did not completely solve the problem of ponding / flooding of the drain.

WSP recommends that the Dawson Drain channel and banks shall be brushed to allow for water to pass in an effective manner as per Section 81 of the Drainage Act:

The council by by-law or resolution shall direct a drainage superintendent to remove from any drainage works all weeds and brushwood, fallen timber or other minor obstructions for which the owner or occupant of the lands adjacent to the drainage works may not be responsible, and the cost of such work is chargeable as part of the

cost of maintenance of the drainage works. R.S.O. 1990, c. D.17, s. 81; 1998, c. 18, Sched. A, s. 1 (5).

Refer to **Appendix F** for details.

6.2.2.3 Channel Geometry Upgrades

Refer to drain cross sections included in **Appendix F** for details.

The existing invert of the Dawson Drain, at the ditch inlet, is 187.006 m. The Dawson Drain then drains to a 450 mm pipe at an upstream invert of 185.955 m, which further drains into a 600 mm pipe at 185.726 m. To increase carrying capacity of the drain, the invert of the drain is suggested to be lowered to 185.726 m, about 1.280 m lower.

Once the invert is lowered, to maintain positive slope and drainage, the channel slope is proposed to be increased. The following describes this in more detail:

- Station 0+000 to 0+938: The existing Dawson Drain main reach has a slope of approximately 0.067% in this section, this is proposed to be increased to 0.118%
- Station 0+938 to 0+948: A 300 mm pipe from the Sylvester Subdivision (from the properties fronting on Woodward Boulevard north of Ledyard Avenue) confluences with the Dawson Drain at this section. Under existing conditions, the 300 mm pipe subsurface drains to the Big “O” under the Dawson Drain (connects to the perforated tile drain near 3735 Woodward Boulevard to ditch inlet 7R9909). At this section the drain is proposed to be lowered to an invert of about 186.85 m with a slope of 2.5%. Therefore, the 300 mm pipe from Sylvester Subdivision will now surface discharge to the Dawson Drain. It is expected that its drainage will greatly improve with this.
- Station 0+948 to 1+466: The existing Dawson Drain main reach has a slope of approximately 0.040% at this section, this is proposed to be increased to 0.125%.
- At Stations 1+103 and 1+356, the tributaries from Ledyard Avenue and Moxley Avenue, confluence with the main reach of Dawson Drain, respectively. Under existing conditions both confluences had an almost negative drainage, with the inverts of the confluences being lower than sections of the Dawson Drain. The proposed Dawson Drain has been modelled as such to provide a constant positive drainage to both the tributaries.

The channel geometry and cross sections within HEC-RAS were modeled under proposed conditions conservatively as follows:

- From Station 0+000 to Station 0+200: The Dawson Drain main reach was modelled with a 0.3 m bottom width, a side slope of 2.5:1 (H: V) on its east bank, owing to the

presence of an existing berm, and a side slope of 3:1 (H:V) on its west bank, due to public safety concerns.

- From Station 0+200 to Station 1+100: The Dawson Drain main reach was modelled with a 0.3 m. A side slope of 3:1 (H: V) on its north and east banks, adjoining the subdivisions, owing to public safety concerns. A side slope of 2.5:1 (H: V) was provided on its south and west banks, adjoining the Devonwood conservation area.
- From Station 1+100 to 1+466: Due to grading being restricted to the presence of Hydro Poles, the main reach of the Dawson Drain was modelled with a bottom width of 0.3 m and a side slope of 2:1 (H:V).
- Both the tributaries from Ledyard Avenue and Moxlay Avenue were modelled with a 0.3 m bottom width and a side slope of 2.5:1 (H:V)

Drain plan, profiles and typical cross-sections are included in **Appendix F.** It is noteworthy that where new side slope work is not shown on the drawings, we are not proposing it. We also recommend that some side slopes are within error tolerance hence not recommended to be ripped out as they are stable side slopes of the drain.

The cut volume determined for the Dawson Drain works is approximately 12,400 m^3 and the fill volume is 950 m^3. The net cut volume determined for the drain works is 11,450 m^3. The cut volumes were determined by generating an AutoCAD Civil 3D surface and performing CAD operations based on the proposed drain geometry. It is recommended that to minimize the excess soil that will need to be trucked off, the net cut volume of earth resulting from the proposed drain works be spread on the working area (approximately 10 m wide) to a depth of approximately 80 cm over the entire drain length.

6.2.2.4 Hydraulic Structures

Recommended action for hydraulic structures along the Dawson Drain (main channel) as described in **Table 6-8** below.

Table 6-8: Hydraulic Structure Upgrades

No.	Station	Existing Structure Description	Existing Size (diameter)	Recommended Action
1.	0+200	2 CSPs	900 mm each	Replace with Twin 1200 mm HDPE (9 m each)
2.	0+418	2 CSPs	900 mm each	Replace with Twin 1200 mm HDPE (6 m each)
3.	0+805	2 CSPs	450 mm and 1200 mm	Replace with Twin 1200 mm HDPE (15 m each)
4.	1+060	3 CSPs	900 mm, 1200 mm and third CSP unknown	Remove all CSPs (for free flow within the drain)
5.	1+110	1 CSP	450 mm	Remove CSP (for free flow within the drain)

It is noteworthy that new installation of corrugated steel pipe culverts is not permitted in the City of Windsor. Refer to **Appendix J** for details.

6.2.2.5 Hydro Poles

No action is recommended for the hydro poles as none of the hydro poles that are present along the Dawson Drain are impacted by the proposed drain works. See drain cross sections in **Appendix F.**

6.2.2.6 Rear Yard Fences

Refer **Appendix F**, the proposed drain works are expected to affect the rear yard fence on two properties (3799 and 3795 Woodward Boulevard) with frontage on Woodward Boulevard at Station 0+875 and Station 0+900 as the drain alignment is straightened through this section of the drain. The City of Windsor's 2023 aerial imagery data from City of Windsor's online ArcGIS maps (https://citywindsor.maps.arcgis.com/apps/MapSeries/index.html?appid=5c64dbb858a2466aa9a2524b1580e495) shows that the aforementioned rear yard fences enter the City's property line. The removal of culverts at this location as mentioned above in **Section 6.2.2.4** along with cross section improvements as shown in **Appendix F** are expected to improve the flow within the drain.

6.2.2.7 Tile Drain and Catchbasins

The existing 300 mm diameter perforated tile drain (Big "O" pipe) starting at approximately Station 1+030 of the Dawson Drain from the ditch inlet 7R9908 to

7R9911 and CB-1 is recommended to be removed. The tile drain going northerly from CB-1 towards Calderwood Park is to remain. The 300 mm lateral pipe that collects drainage from the properties fronting on Woodward Boulevard north of Ledyard Avenue connects to the perforated tile drain near 3735 Woodward Boulevard to ditch inlet 7R9909 is to remain and will outlet to the open drain using standard erosion protection as per OPSS.PROV 421 (refer **Appendix G** for details). Additionally, the 100 mm perforated tile drain from Station 0+200 to Station 0+800 that outlet into the O'Neil Drain is recommended to be removed. Ditch inlets 7R9908, 7R9909, 7R9910, 7R9911, CB-1, CB-2, CB-3 and CB-4 are recommended to be removed.

6.2.2.8 Boundary Conditions

This will be further elaborated on in **Section 7**. As an outlet for the drain, during the 2- and 5-year storms, a 525 mm pipe was found suitable through trials. This 525 mm pipe is proposed to replace the existing 450 mm pipe. Estimated flows entering the downstream infrastructure are shown in **Table 6-5** and the correspondent starting water levels under are presented in **Table 6-9**.

Table 6-9: Reach Boundary Condition – Proposed Scenario

Location	Water Surface Elevation (m)					
	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
At proposed outlet of Dawson Drain						
525 mm Pipe	187.306	187.557	187.761	188.0+	188.0+	188.0+

The 2- and 5-year flows of 0.542 m^3/s and 0.624 m^3/s, generate water levels of 187.306 m and 187.557 m, respectively. As discussed earlier, the cemetery to the east of the Dawson Drain begins to inundate at 187.900 m, at its downstream reach, with considerable lateral flow expected above 188.000 m. Therefore, under proposed conditions the 2- and 5-year flows are confined at the downstream most reach, with poor performance expected for return periods larger than the 25-year.

6.2.2.9 Input Flows to HEC-RAS

As discussed in **Section 6.1.2**, the hydrology has remained unchanged between the existing and proposed condition. Therefore, the flows applied in the proposed HEC-RAS model are the same as those shown in **Table 6-7**. Refer to **Appendix E** for detailed calculations.

Summary:

As discussed in the previous section, the existing Dawson Drain does not have the capacity to convey the 2- and 5-year design storm and results in ponding / flooding impacting properties closer to the drain. The proposed conditions analysis was also completed within HEC-RAS which was developed for existing conditions by using new geometry and plan files. Several iterations were performed within HEC-RAS to determine a conceptual alternative that could allow the safe passage of the 2- and 5-year design storms and not result in ponding / flooding of the drain.

HEC-RAS model proposed conditions output is presented in **Appendix E.**

7 SUFFICIENT OUTLET

As per the Drainage Act Section 1 (Definitions), the definition of a “sufficient outlet" is a point at which water can be discharged safely so that it will do no damage to lands or roads.

> *Subject to Section 32 of the Drainage Act, and as per Section 15 of the Drainage Act every drainage works constructed under this Act shall be continued to a sufficient outlet.*

Under existing conditions, the Dawson Drain is a tributary of the O’Neil Drain. The O’Neil Drain outlets into a ditch inlet just south of Halle Crescent which is connected to a 450 mm pipe which ultimately discharges into the City’s storm sewer system. During our investigation, the 450 mm pipe was deemed as an insufficient outlet. As such, it is suggested that the proposed outlet should be upsized. Under proposed conditions, the O’Neil Drain is recommended to become a tributary of the Dawson Drain. However, this does not change the overall drainage area draining to the existing outlet, as such, no change is observed to the flows at the outlet for the overall system.

Following an iterative method using trial and error, it was found that, a 525 mm pipe generates a boundary condition leading to manageable water levels during the 5-year storm. Under existing conditions the starting water level, during the 5-year storm, for the system was 188.0+ m and decreased to 187.557 m under proposed conditions. Refer to **Table 6-6** and **Table 6-9** for Reach Boundary Condition water surface elevations during the existing and proposed conditions, respectively. This decrease in water level can be attributed to both lowering of the drain invert and upsizing of the pipe. This then translates upstream to a starting water level of 188.99 m vs 188.22 m, at the confluence with Tributary A (Ledyard Avenue) and 188.99 m vs 188.51 m, at the confluence with Tributary B (Moxley Avenue). It is therefore, recommended that a 525 mm pipe replace the 450 mm pipe, and that the existing Ditch Inlet be replaced with a head wall. The Dawson Drain is recommended to be terminated at the outlet and the downstream works i.e., replacement of the 450 mm pipe with the 525 mm pipe along with a new headwall be performed outside of the drainage works for the Dawson Drain. Proposed conditions boundary condition calculations and hydraulic outputs can be found in **Appendix E**.

In the absence of additional data, the performance of the proposed 525 mm pipe was estimated using the orifice equation and an assumed tailwater condition. However, it is known that the existing downstream 600 mm pipe will connect to Manhole 7R4566, which also receives other inflows. Consequently, this estimation method is a conservative simplification. It is recommended that the City conduct a Hydraulic Grade Line analysis of the downstream infrastructure to account for all potential restrictions.

8 COST ESTIMATES

The cost estimates for improvement and repairs of the Dawson Drain are presented in **Table 8-1** below.

Table 8-1: Cost Estimates for proposed Dawson Drain works

	Item	Amount
1	Brushing of the Dawson Drain from Station 0+000 to Station 1+466, Dawson Drain Tributary A from Station 0+000 to Station 0+053 and Dawson Drain Tributary B from Station 0+000 to Station 0+054 including trimming as required to accommodate drainage works and disposing of brush and removal off-site as required	$23,000.00
2	Removal of all existing CSPs (refer to drawings)	$5,000.00
3	Removal of tile drain from Station 0+200 to 1+050	$5,000.00
4	Removal of 8 ditch inlets and catch-basins (7R9908, 7R9909, 7R9910, 7R9911, CB-1, CB-2, CB-3 and CB-4)	$4,000.00
5	Dawson Drain total earth works (excavation) from Station 0+000 to Station 1+466 totalling approximately 1,466 linear meters of the drain, Dawson Drain Tributary A total earth works (excavation) from Station 0+000 to Station 0+053 totalling approximately 55 linear meters of the drain and Dawson Drain Tributary B total earth works (excavation) from Station 0+000 to Station 0+054 totalling approximately 55 linear meters of the drain totalling approximately 11,450 m^3.	$230,000.00
6	Supply and install new HDPE culverts (2X1200 mm) at 0+200, 0+418 and 0+805	$4,800.00
7	Allowance for granular backfill, asphalt, clear-stone bedding and erosion protection at 0+200, 0+418 and 0+805	$60,000.00
8	Erosion control measures during maintenance such as silt fence.	$2,000.00
9	Restoration of all disturbed areas to existing conditions including hydraulic seeding.	$10,000.00
10	Municipal Administrative Costs (does not include tendering, contract administration, construction review and permitting costs)	$5,000.00
11	Contingency (10% of total costs)	$34,880.00
	Total	**$383,680.00**

The cost estimates presented in this report may vary depending on the time of tendering the work and the cost of work is subject to inflation and effective HST rate.

According to the Drainage Act –

> *Section 59 (1) Where the contract price exceeds 133 percent of the engineer's estimate of the contract price, the council of the initiating municipality shall call a meeting in the manner prescribed by section 41, and sections 42 and 43 apply with necessary modifications.*

9 ASSESSMENTS

9.1 Types of Assessments

The Drainage Act allows for the following types of assessments:

— Benefit

Section 22 Lands, roads, buildings, utilities or other structures that are increased in value or are more easily maintained as a result of the construction, improvement, maintenance or repair of a drainage works may be assessed for benefit.

— Outlet and Injuring Liability

Section 23 (1) Lands and roads that use a drainage works as an outlet, or for which, when the drainage works is constructed or improved, an improved outlet is provided either directly or indirectly through the medium of any other drainage works or of a swale, ravine, creek or watercourse, may be assessed for outlet liability.

Section 23 (2) If, from any land or road, water is artificially caused by any means to flow upon and injure any other land or road, the land or road from which the water is caused to flow may be assessed for injuring liability with respect to a drainage works to relieve the injury so caused to such other land or road.

— Special Benefit

Section 24 The engineer may assess for special benefit any lands for which special benefits have been provided by the drainage works.

— Increased costs to public utilities and road authorities or Special Assessment

Section 26 In addition to all other sums lawfully assessed against the property of a public utility or road authority under this Act, and despite the fact that the public utility or road authority is not otherwise assessable under this Act, the public utility or road authority shall be assessed for and shall pay all the increase of cost of such drainage works caused by the existence of the works of the public utility or road authority.

9.2 Block Assessment

According to Section 25 (1) of the Drainage Act the drainage works for the Dawson Drain have been assessed for different blocks within the “area requiring drainage” as shown in **Appendix H.**

The drainage works cost related to the Dawson Drain as described in Section 8 have been assessed against the affected lands and roads listing in **Appendix H** under "Benefit" and "Outlet Liability" for 50% each. Addresses contained within each block are listed within **Appendix H.**

The assessment rationale that has been followed is as follows and prorated based on affected area:

- Brushing of the drain is assessed 100% to the block abutting the drain.
- Regrading of the drain is assessed 100% to the block abutting the drain.
- New infrastructure assessment is divided equally among all blocks abutting the drain and contributing to the drainage area of the drain.

9.3 Allowances

According to Section 29 of the Drainage Act, the Windsor Memorial Gardens Cemetery is entitled to allowance for land permanently taken for the proposed open channel of the Dawson Drain from Sta 0+000 to 0+200 (which was previously part of the O'Neil Drain).

The value of the land that is taken for the 10 m (approximately) wide, open channel is:

10 m x 200 m x $100/sq. m = $200,000.00

10 RECOMMENDATIONS FOR DAWSON DRAIN

10.1 Repair and Improvement Provisions

The results of existing conditions hydraulic modelling show that the Dawson Drain does not have the capacity to convey the 2- or the 5-year design storm safely to the drain outlet.

All proposed improvements upon examination and proposed in this report shall be subject to:

> *Section 78 (1) If a drainage works has been constructed under a by-law passed under this Act or any predecessor of this Act, and the council of the municipality that is responsible for maintaining and repairing the drainage works considers it appropriate to undertake one or more of the major improvement projects listed in subsection (1.1) for the better use, maintenance or repair of the drainage works or of lands or roads, the municipality may undertake and complete the project in accordance with the report of an engineer appointed by it and without the petition required by section 4. 2010, c. 16, Sched. 1, s. 2 (27); 2020, c. 18, Sched. 4, s. 9 (1).*
>
> *The major improvement projects referred to in subsection (1) are:*
>
> 1. *Changing the course of the drainage works.*
> 2. *Making a new outlet for the whole or any part of the drainage works.*
> 3. *Constructing a tile drain under the bed of the whole or any part of the drainage works.*
> 4. *Constructing, reconstructing or extending embankments, walls, dykes, dams, reservoirs, bridges, pumping stations or other protective works in connection with the drainage works.*
> 5. *Extending the drainage works to an outlet.*
>
> 5.1 *Improving or altering the drainage works if the drainage works is located on more than one property.*
>
> 6. *Covering all or part of the drainage works.*
> 7. *Consolidating two or more drainage works.*

8. *Any other activity to improve the drainage works, other than an activity prescribed by the Minister as a minor improvement. 2010, c. 16, Sched. 1, s. 2 (27); 2020, c. 18, Sched. 4, s. 9 (2-4).*

It is noteworthy that this report recommends that the existing outlet for the Dawson Drain north of Sta 0+810 be abandoned (Big 'O' pipe) and the drain in its entirety is rerouted west to the new outlet.

Further, WSP recommends that for the drain to function adequately in future after repairs and improvements have been performed, regular maintenance (or as needed) be performed on the drain by the City of Windsor Contracts, Field Services & Maintenance Division as per Section 74 of the Drainage Act.

10.2 Working Space

According to the Drainage Act:

> *Section 63 (1) The contractor and the contractor's assistants when engaged in the construction, maintenance, improvement or repair of a drainage works may, with their equipment, enter upon whatever lands are necessary to complete the work within the working space designated in the engineer's report.*

WSP recommends that the contractor only accesses the Dawson Drain and performs drain works based on the details provided in this section and **Table 10-1** below.

Table 10-1: Working Space Specifications

From Station	To Station	Primary Working Space (from top of bank)	Secondary Working Space (Access to Drain)
0+000	0+100	10 m wide working space east of the drain adjacent to the Devonshire Heights Park accessible from Kamloops Street or Calderwood Avenue	N/A
0+100	0+200	10 m wide working space west of the drain	N/A
0+200	0+400	8 m wide working space south of the drain adjacent to the Devonwood Conservation Area[1]	N/A

From Station	To Station	Primary Working Space (from top of bank)	Secondary Working Space (Access to Drain)
0+400	0+460	10 m wide working space southwest of the drain adjacent to the Devonwood Conservation Area[1]	6 m wide on the north side of the drain. Access from Shinglecreek Court.
0+460	0+800	10 m wide working space south of the drain adjacent to the Devonwood Conservation Area[1]	9 m wide on the north side of the drain. Access from Calderwood Park east of Irongate Circle.
0+800	1+060	8 m wide working space east of the drain and west of 1827 and 1835 Trailwood Court 10 m wide working space on the west side of the drain to maintain work from one side of this section to the other	N/A
0+860	0+910	10 m wide working space south of the drain adjacent to the Devonwood Conservation Area[1]	N/A
0+910	1+100	10 m wide working space west of the drain adjacent to the Devonwood Conservation Area[1]	7 m wide on the east side of the drain. Access from Ledyard Avenue
1+100	1+350	10 m wide working space west of the drain adjacent to the Devonwood Conservation Area[1]	4 m wide on the east side of the drain. Access from Moxlay Avenue
1+350	1+466	10 m wide working space west of the drain adjacent to the Devonwood Conservation Area[1]	5 m wide on the upstream end of the drain. Access from Division Road Budget Inn parking lot

[1]There is heavy brush in the area that may need to be cleared to access the working space and the drain. However, avoid removing too much brush or cutting down trees unnecessarily.

Primary working space refers to the access corridor along the Dawson Drain where drain works are to be performed and secondary working space refers to the access corridor where equipment may travel to gain access to the drain.

Access to the drain from Station 0+000 to Station 0+260 shall be from Kamloops Street or Calderwood Ave at Station 0+000. Access to the drain from Station 0+200 to Station 0+460 shall be from Shinglecreek Court at Station 0+410. Access to the drain from Station 0+460 to Station 0+860 shall be from Calderwood Park east of Irongate Circle at Station 0+790. Access to the drain from Station 0+860 to Station 1+100 shall be from Ledyard Avenue at Station 1+075. Access to the drain from Station 1+100 to Station 1+350 shall be from Moxlay Avenue at Station 1+340. Access to the drain from Station 1+350 to Station 1+466 shall be from Division Road from Budget Inn parking lot at Station 1+466.

The contractor is expected to make their own arrangements for any additional access for convenience. Any damages resulting from the contractor's access to the drain outside of the working corridor shall be rectified to pre-existing conditions at the contractor's expense. It should also be noted that the contractor shall not spread soils on the banks of the drain to block flows from entering into the drain from the Devonwood Conservation Area in the west and the properties abutting the drain on the opposite side of the Devonwood Conservation Area. General specifications associated with the drainage works are provided in **Appendix G.**

11 FISHERIES CONCERNS

As per Section 34.4 (1) of the Fisheries Act –

> *No person shall carry on any work, undertaking or activity, other than fishing that results in the death of fish.*

Further, as per Section 35 (1) of the Fisheries Act –

> *No person shall carry on any work, undertaking or activity that results in the harmful alteration, disruption or destruction of fish habitat (HADD).*

DFO identifies "HADD" as any temporary or permanent change to fish habitat that directly or indirectly impairs the habitat's capacity to support one or more life process of a fish.

The Dawson Drain has been classified as a "Type F" drain by the Department of Fisheries and Oceans (DFO) and therefore, maintenance and repair activities on Dawson Drain do not require DFO authorization and review. However, a "Notification of Drain Maintenance or Repair Form" along with a map and pictures of the drain will need to be submitted to DFO. After a "Letter of Advice" is received from the DFO, drainage works may begin. Further, drainage works notification may still need to be submitted to the Essex Region Conservation Authority (ERCA) and all municipal, provincial, or federal legislation that applies to the work being proposed must be respected.

Type F drains are, by definition, intermittent systems, meaning that they are dry for at least 3 months of the year (except after rain events) and do not contain federally listed aquatic species at risk (SAR). As such, maintenance activities on these drains are considered low risk to fish and fish habitat, particularly if the work can be completed in the dry, during periods of no flow (though may have some water in pools), or in the winter when completely frozen. If there is flow, a site-specific review is required.

Additionally, to alleviate the risk of harmful impacts to fish habitat:

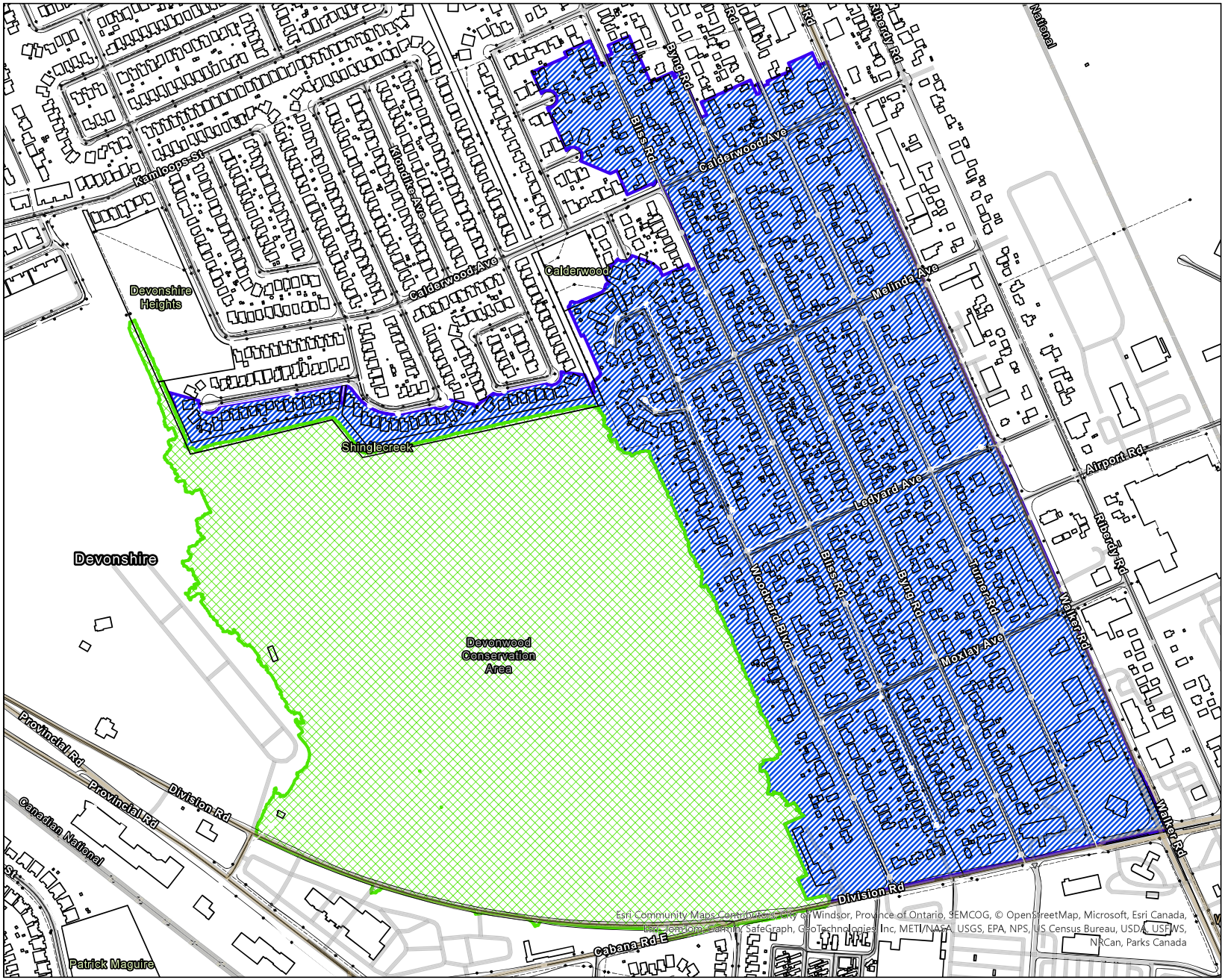
- All in-stream works should be completed in "the dry".
- No "in-water" works should be conducted from March 15 – June 30 to protect spawning and nursery periods.
- Sediment and erosion control measures should be implemented to prevent entry of sediment into the water.
- Standard practices to be followed to minimise disruption to fish habitat including embedment of the culvert a minimum of 10% below grade.

- All disturbed areas should be stabilized immediately, and upon completion of work should be returned to pre-disturbed state.
- Any machinery, equipment and/or materials should be stored in a manner that prevents any deleterious substance, which can be any substance that, if added to any water, would degrade or alter the water quality such that it could directly or indirectly harm fish, fish habitat, or the use of fish by humans, from entering the water.

12 SUMMARY

WSP was retained by the City of Windsor to undertake the hydrologic and hydraulic analysis for the Dawson Drain and present recommended operations of the drain in accordance with the Drainage Act.

Recommendations for the drain to function adequately have been provided through this Engineer's Report. After performing drainage works as outlined in this report, the Dawson Drain is expected to service the area for the 2- and 5-year design storm service level. The proposed works do not increase flooding risk for properties within the watershed of the Dawson Drain. It is also recommended that regular maintenance (or as needed) be performed on the drain.



Legend

- Dawson Drain Existing Drainage Area
- ONeil Drain Existing Drainage Area

City Storm Sewers

Pipes

- CULVERT
- PRIVATE STORM
- STORM
- MISC

N

0 0.25 Kilometers

Client.

CITY OF WINDSOR

350 City Hall Square West, Windsor, Ontario

Title.

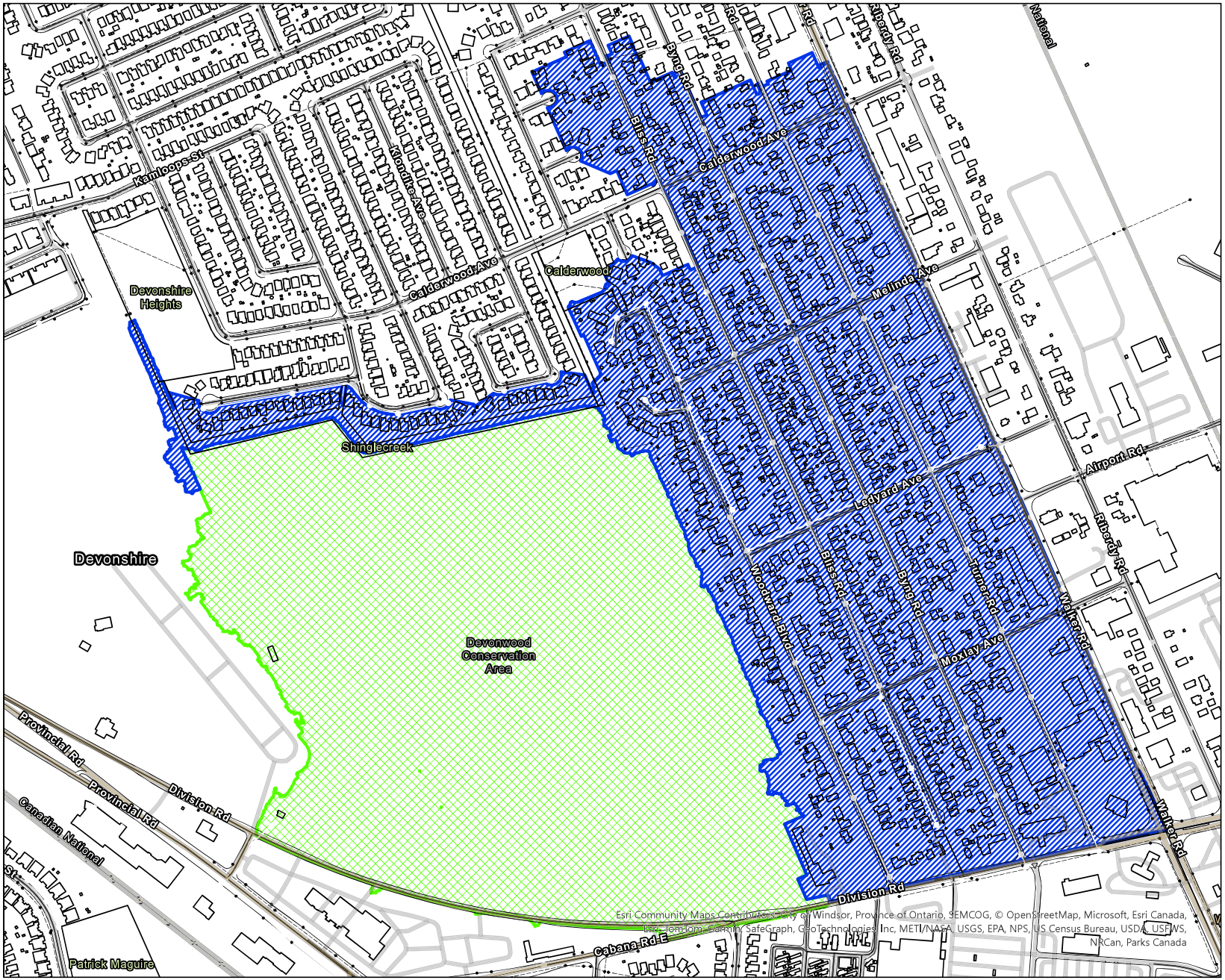
DAWSON DRAIN IMPROVEMENTS STUDY

EXISTING DRAINAGE AREA BOUNDARIES

wsp

Suite 300 - 2611 Queensview Drive
Ottawa, ON K2B 8K2.
t. 613.829.2800
f. 613.829.8299
www.wsp.com

Checked:	Drawn:
E.K.	C.P
Date: APRIL 2025	Project No. 231-00563-00
Scale: 1:5,000	Exhibit no. 1



Legend

- ONeil Drain Proposed Area
- Dawson Drain Proposed Area

N

0 0.25 Kilometers

Client.

CITY OF WINDSOR

350 City Hall Square West, Windsor, Ontario

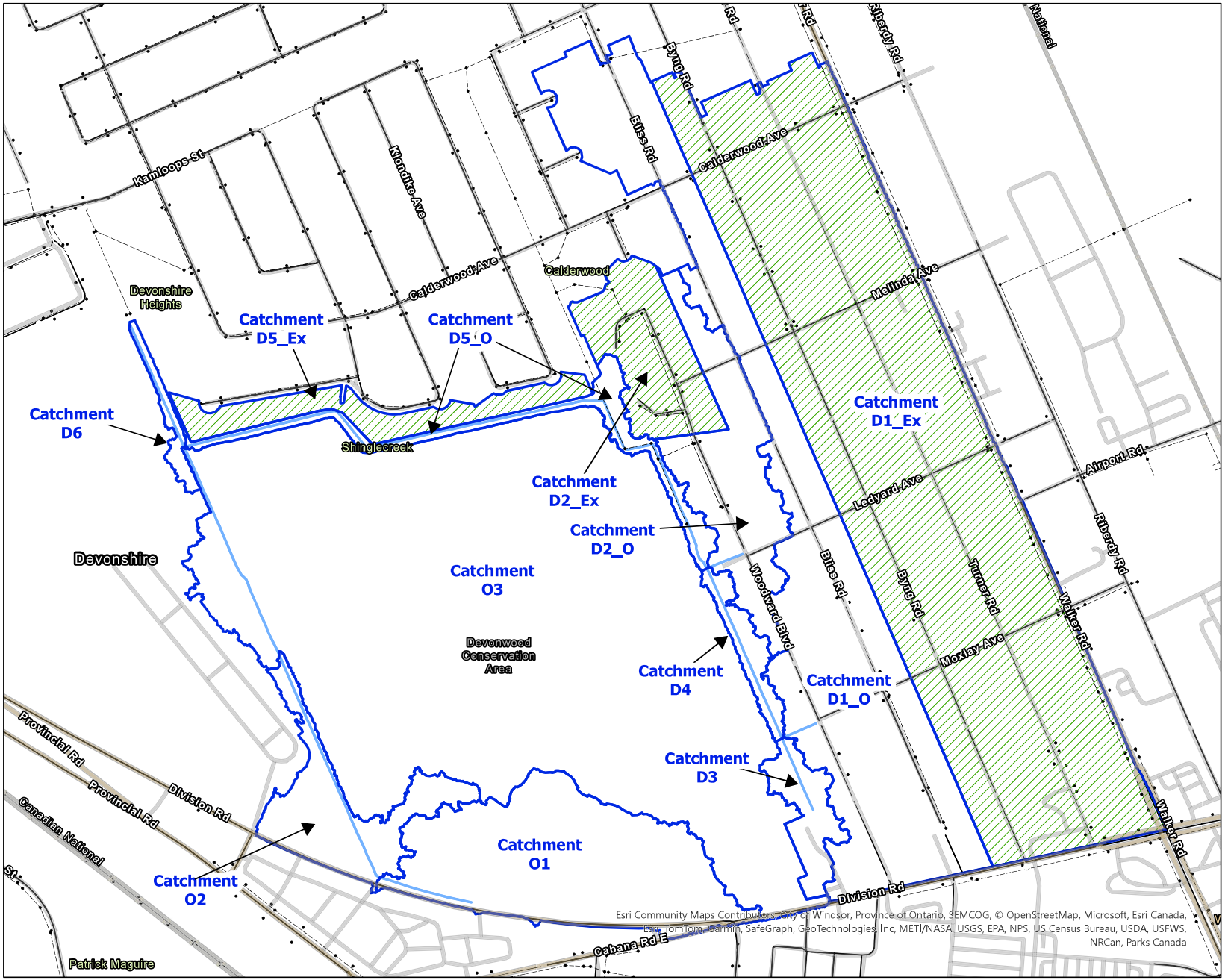
Title.

DAWSON DRAIN IMPROVEMENTS STUDY

PROPOSED DRAINAGE AREA BOUNDARIES

Suite 300 - 2611 Queensview Drive
Ottawa, ON K2B 8K2.
t. 613.829.2800
f. 613.829.8299
www.wsp.com

Checked:	Drawn:
E.K.	C.P
Date: APRIL 2025	Project No. 231-00563-00
Scale: 1:5,000	Exhibit no. 2



Legend

- Dawson and ONeil Drain Catchments
- Minor System Modelled

City Storm Sewers

Pipes

- CULVERT
- PRIVATE STORM
- STORM
- MISC

Points

- CULVERT
- PRIVATE STORM
- STORM
- MISC

N

0 0.25 Kilometers

Client.
CITY OF WINDSOR
350 City Hall Square West, Windsor, Ontario

Title.
DAWSON DRAIN IMPROVEMENTS STUDY
HYDROLOGIC MODELLING CATCHMENTS

Suite 300 - 2611 Queensview Drive
Ottawa, ON K2B 8K2.
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f. 613.829.8299
www.wsp.com

Checked:	Drawn:
E.K.	C.P
Date: APRIL 2025	Project No. 231-00563-00
Scale: 1:5,000	Exhibit no. 3

APPENDIX

A

Report: S 14/2022 City of Windsor

THE CITY OF WINDSOR ONTARIO, CANADA

Committee Matters: SCM 120/2022

Subject: Ward 9 Ditch Survey and Inspection of Private Culverts and Private Catch Basins - Ward 9

Moved by: Councillor McKenzie
Seconded by: Councillor Francis

Decision Number: **ETPS 892**
THAT Local Improvement works for storm sewers, curb and gutter for those street segments not yet constructed to the municipal standard within the area bounded by E.C. Row Avenue to the north, Woodward Boulevard to the west, Division Road to the south, and Riberdy Road to the east, as shown on drawing 4M-206 **BE RECOMMENDED** to future Capital Budgets and prioritized relative to their technical scoring, subject to cost-sharing for such works as established by CR554/2019; and,

THAT WSP Canada Inc. firm **BE APPOINTED** as the Drainage Engineer to make an examination of, and prepare a Drainage Report for the repair and improvement to, the Dawson Drain between Division Road and the O'Neil Drain and to the O'Neil Drain from south of Hallee Crescent to Division Road under section 78 of the *Drainage Act*.
Carried.

Report Number: S 14/2022
Clerk's File: SW2022

Clerk's Note:

1. The recommendation of the Standing Committee and Administration are the same.

2. Please refer to Item 8.1. from the Environment, Transportation & Public Safety Standing Committee Meeting held April 27, 2022.

3. To view the stream of this Standing Committee meeting, please refer to: http://csg001-harmony.sliq.net/00310/Harmony/en/PowerBrowser/PowerBrowserV2/20220428/-1/7324

Subject: Ward 9 Ditch Survey and Inspection of Private Culverts and Private Catch Basins ---Ward 9

Reference:

Date to Council: 4/27/2022
Author: Joseph Bressan
Engineer I
519-255-6100 ext. 6890
jbressan@citywindsor.ca

Public Works - Operations
Report Date: 2/7/2022
Clerk's File #: SW2022

To: Mayor and Members of City Council

Recommendation:

That Local Improvement works for storm sewers, curb and gutter for those street segments not yet constructed to the municipal standard within the area bounded by E.C. Row Avenue to the north, Woodward Boulevard to the west, Division Road to the south, and Riberdy Road to the east, as shown on drawing 4M-206 **BE RECOMMENDED** to future Capital Budgets and prioritized relative to their technical scoring, subject to cost-sharing for such works as established by CR554/2019; and,

That WSP Canada Inc. firm **BE APPOINTED** as the Drainage Engineer to make an examination of, and prepare a Drainage Report for the repair and improvement to, the Dawson Drain between Division Road and the O'Neil Drain and to the O'Neil Drain from south of Hallee Crescent to Division Road under section 78 of the Drainage Act.

Executive Summary:

Substantial drainage and stormwater conveyance issues have been reported to Administration within the geographic area bounded by E.C. Row Avenue to the north, Woodward Boulevard to the west, Division Road to the south, and Riberdy Road to the east.

Updating the streets from a rural to a standard municipal cross-section design can assist in mitigating some of these issues. To ensure that the outletting drains can accommodate such improvements, it is recommended that these be reviewed by a

Drainage Engineer to determine what, if any, measures may be required to further improve the situation.

Background:

Prior to 1991, the installation of culverts in municipal ditches was largely unregulated. Thereafter, permits became required in order to build culverts supporting driveways across municipal ditches.

Report C221/2020 was brought to City Council on November 23, 2020, which reported that 22 incidences of basement flooding were noted in the southeastern corner of the Devonshire Heights neighbourhood after a rainstorm that occurred on August 28th, 2020. Existing ditches in this area were observed to be full. The area's drainage network includes several privately owned and installed culverts and catch basins on the street segments.

Subsequently, City Council approved CR588/2020, which reads in part:

> *[...]* ***That Council APPROVE the ditch survey and inspection of private culverts on residential streets in Ward 9 impacted by the flooding of the August 28, 2020 storm event to an upset limit of $100,000 funded by Project ID#7199004 - Sewer Master Plan Implementation; [...]***

Administration has carried out the above-noted survey and this report speaks to this section of the resolution noted above and recommendations therein.

Discussion:

As directed by CR588/2020, the ditch survey was undertaken in March 2021. The survey area included those streets not having a standard municipal cross-section design and those having a rural cross-section with ditches. These streets are identified on drawing 4M-206. The survey observed the direction of water flow, if any at all, in the existing ditches and swales based on the elevation at the bottom of the ditches and swales. Invert elevations at both ends of culverts and of all private culvert pipes entering/exiting private catch basins were also collected.

Turner Road between Lappan and Seymour was excluded from the survey due to the existing storm trunk sewer on these blocks.

The survey determined that many of the private culverts installed were built prior to regulation. Many were observed to be deformed and on the verge of collapsing. While section 5.8 of By-Law 25-2010 outlines that homeowners are required to inspect and maintain the private culverts and private catch basins, it is not practical for the municipality to assign manpower to undertake proactive enforcement. Ideally, the majority of these pipes would have been set at an elevation lower than the top of the ditch, such that it would limit the risk of backup.

The survey concluded that on a substantial basis, the unregulated private culvert and private catch basin installations were not constructed properly, with existing elevations offset and private infrastructure installed to match both upstream and downstream

inverts instead of being appropriately graded. The following similarities were found on many of the blocks:

- Existing ditches and swales often sloped in opposite directions within a given side of a road segment. Many ditches were found to have a high point in between two private culverts.

- Private catch basins along the culverts had inverts that were confirmed to be improperly offset or staggered. Some private catch basins were found to be at a low point while other private catch basins would build up water within the catch basin before any water could exit the catch basin.

- Private storm water discharge pipes entering the private catch basins were found to be entering the private catch basin at a higher elevation than the culvert pipes.

- The majority of private storm water discharge pipes entering ditches were confirmed to be set at an elevation in which the top of the pipe is below the top of the ditch. Thus, if the ditch is filled with water, the discharge pipes connecting the homes to the ditches (i.e. sump pumps) would be submerged under water.

- Many private culvert pipes connected to private catch basins were found to be sloping in opposite directions; meaning the respective private catch basin would be a high point in the drainage system.

- Commonly found flat segments of ditches and/or private culvert pipes were noted that had an elevation difference of 15mm or less between the two survey shots.

- The high level direction of water flow was distinguishable for some of the ditches/swales, within a given road segment, but the direction of water flow for many road segments was difficult to define.

Dawson and O'Neil Drains:

The Dawson Municipal Drain flows northerly beginning just north of 1830 Division Road to 1100 Division Road (Windsor Memorial Gardens), as regulated by By-laws 1830 and 2838 adopted by the Township of Sandwich East in 1950 and 1963 respectively.

This drain has been altered by land development over many years. The latest alteration was adopted in 1999 by CR701/99 by the Devonshire Heights Subdivision.

Dawson Municipal Drain segments primarily consist of open channel sections and sections having an open channel and an underlying 300/150mm plastic perforated HDPE drain tile (Big "O" pipe). These latter segments were created in the subdivision design wherein stormwater is directed to a perforated pipe during a smaller storm, and would overflow into the open channel during larger storms. The drain also services properties fronting on Division Road.

The Dawson Drain ultimately outlets to a relocated (but still unregulated) O'Neil Drain. The O'Neil Drain is located east of the Windsor Memorial Gardens cemetery and flows north from Division Road. A small section of this ditch, at the junction of the Dawson Drain, was surveyed and the results confirmed that the water is flowing north.

On the most recent walkthrough of the drain from May 13th, 2021, overgrowth of vegetation within the perforated pipe and catch basins was noted. A large volume of standing water was observed at the upstream end of the drain, immediately west of 3933-3935 Woodward Boulevard. Administration has concluded that this drain requires major maintenance and a reassessment of its hydraulic functioning.

Calderwood Park – Dry Pond:

The intended purpose of this dry pond is to accumulate water and act as an overflow area/pond during an intense storm. Water has not been observed at this dry pond in quite some time, and there is little evidence that water is being directed to this pond.

Stormwater Outlets

A variety of stormwater outlets exists for the neighbourhood, including the Dawson and O'Neil Drains, the Lappan Drain, and various storm sewers of varying capacity. To date the sufficiency of these outlets for the area has not been analyzed. Details of the findings are presented in section F of Appendix 7.

Local Improvement (see Appendix 7)

According to the City's Road Condition Rating System, many of the street segments in this area are described as being now deficient (see Appendix 6). These segments are recommended to be referred to the Capital Budget as city-initiated Local Improvements and prioritized according to technical warrants.

Summary of Recommendations

The changes to the area lands, together with the numerous unregulated driveway culverts constructed prior to 1991, have demonstrated a general inconsistency of pipe sizes, with some downstream pipes smaller than those upstream. A more detailed engineering study based on storm water modelling and best practices for land drainage is recommended to better understand the required conveyance capacity and to understand the appropriate outlet capacity. In addition, there is no certainty as to whether existing storm water outlets are sufficient to accept improved drainage from the existing street segments.

A dedicated engineer's report to consider the Dawson and O'Neil Drain watersheds is recommended. Once the stormwater outlets are analyzed, determined and constructed where required, referral to the Capital Budget of upgrades for the various streets to an urban cross-section under City-initiated local improvements can be initiated.

In the short term, residents within the area are encouraged to participate in the Basement Flooding Protection Subsidy Program, including sump pump installation with overflow, and downspout disconnection to reduce future storm water from entering the system. In addition, residents are encouraged to consider private property improvements as described in the Sewer and Coastal Flood Protection Master Plan including low impact development.

Risk Analysis:

Risks inherent by proceeding with the recommendations are generally minimal, as the commissioning of a drainage report will both improve the City's knowledge base of the area and set forward a path towards resolution of longstanding issues noted in the area.

Risks inherent by not proceeding with the recommendations are generally related to an acceptance by the municipality that the described drainage concerns shall remain unresolved.

Climate Change Risks

Climate Change Mitigation:

Future local improvement construction projects will result in Greenhouse Gas (GHG) emissions that are accounted for within the annual Community GHG emissions inventory.

Climate Change Adaptation:

Future significant storms are likely to occur again and could lead to further instances of flooding within the City. While there will always be the risk of flooding, the risk can be mitigated by taking steps to reduce the amount of storm water entering into the sewer system.

The installation of curb and gutter is known to improve road drainage by setting grades and a collection system for the road surface. The installation of storm sewers and drain improvements will improve the conveyance capacity of the system, reducing the potential risk of property damage to residents.

Financial Matters:

As part of the City's Local Improvement policy, the City accepts responsibility for financing a portion of the requested works. Local Improvement works for storm sewers and curb and gutter as noted above are funded through existing local improvement capital projects, pending availability of funding. Administration will continue to monitor local improvement capital project and reprioritize work assignments as needed.

The cost of the Drainage Report can be funded through an existing Capital Project 7086004 – Municipal Drains Maintenance. However it will result in the internal reprioritizing of work assignments. There are funds earmarked in this project to undertake the estimated costs of the Drainage Report. The recommended Drainage Engineer was selected from the Engineering Roster.

Consultations:

Finance Department – Carrie McCrindle

Engineering Department – Andrew Dowie, Adam Mourad

Public Works Operations – Andrew Lewis, Roberta Harrison

Conclusion:

There are no obvious short-term solutions to the cited issues in this neighbourhood. Property owners are encouraged to disconnect their downspouts to help increase the time it takes for water to travel to the ditches.

The engagement of WSP Canada Inc. to complete a drainage report for the repair and improvements to the Dawson and O'Neil Drains will assist in understanding current drain hydraulics and potentially resolve drainage concerns in the neighbourhood.

Administration further recommends that those streets having a rural cross section should be reconstructed subject to City Council's Local Improvement Policy by implementing new storm sewers and curbs & gutters, once appropriate stormwater outlets are identified. It should be noted that City initiated Local Improvements have been prioritized for streets that do not currently have sanitary sewers. Local Improvement funding for storm sewers and curb & gutters is not available at this time. The likelihood of the City proceeding with a Local Improvement project on a given street segment identified within the limits of drawing 4M-206 is low for the next few years.

Planning Act Matters:

N/A

Approvals:

Name	Title
Carrie McCrindle	Financial Planning Administrator
Phong Nguy	Manager of Contracts, Field Services & Maintenance
Andrew Dowie	Engineer III / Drainage Superintendent
Fahd Mikhael	Manager of Design
France Isabelle-Tunks	Senior Manager of Engineering / Deputy City Engineer
Shawna Boakes	Executive Director of Operations
Chris Nepszy	Commissioner, Infrastructure Services
Tony Ardovini	Acting Commissioner, Corporate Services CFO/City Treasurer

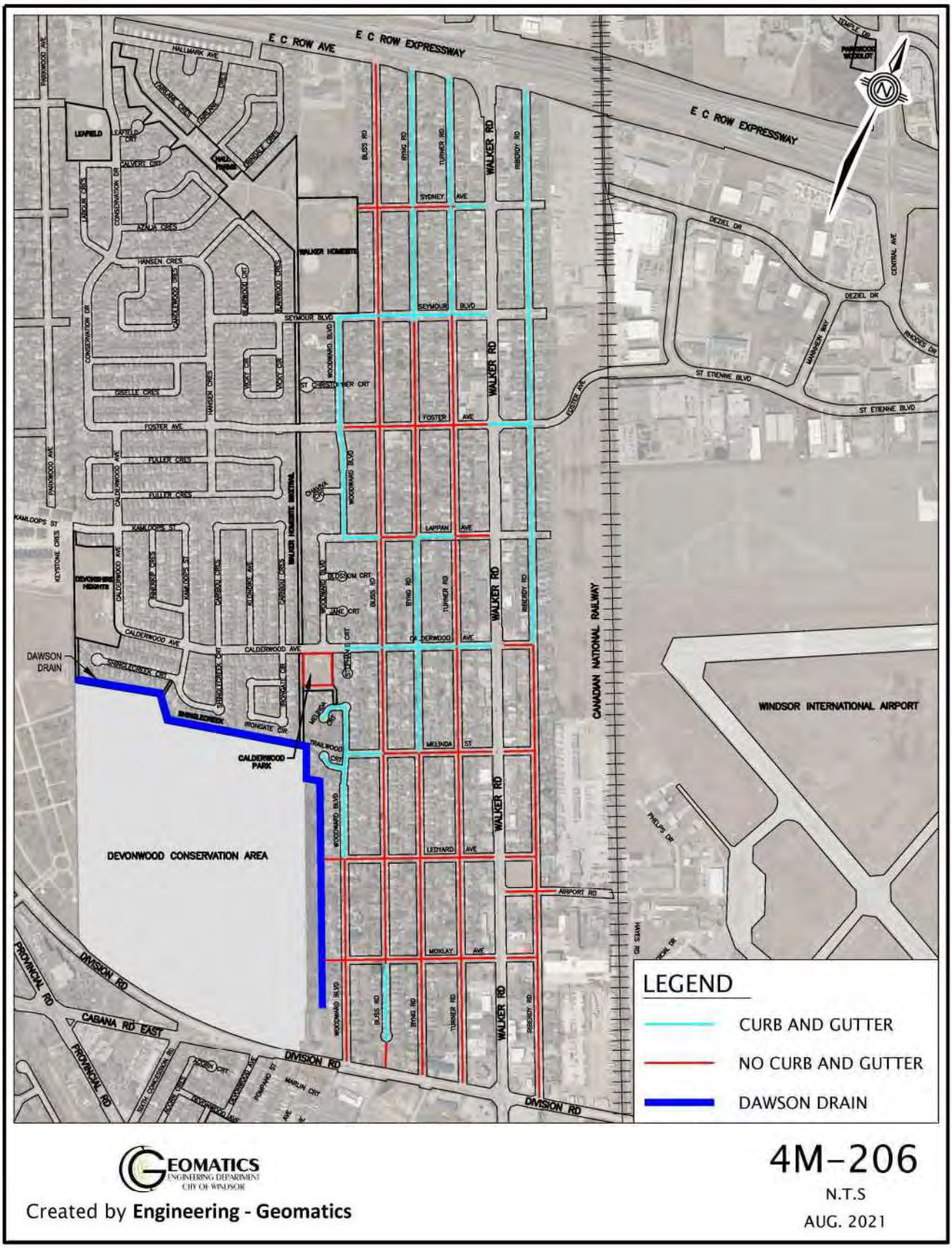
Name	Title
Joe Mancina	Acting Chief Administrative Officer

Notifications:

Name	Address	Email
Michael Stewart, M.A.Sc., P.Eng., WSP Canada Inc.	582 Lancaster Street West, Kitchener, ON, N2K 1M3	michael.stewart@wsp.com

Appendices:

1 Appendix 1 - 4M - 206
2 Appendix 2 - 4M - 207 - Aerial
3 Appendix 3 - Storm Sewer Layout and Drainage Area Plan
4 Appendix 4 - 208
5 Appendix 5 - Photos of Private Culverts and Catchbasins
6 Appendix 6 - Existing Road Condition Ratings
7 Appendix 7 - Technical Findings



GEOMATICS
ENGINEERING DEPARTMENT
CITY OF WINDSOR

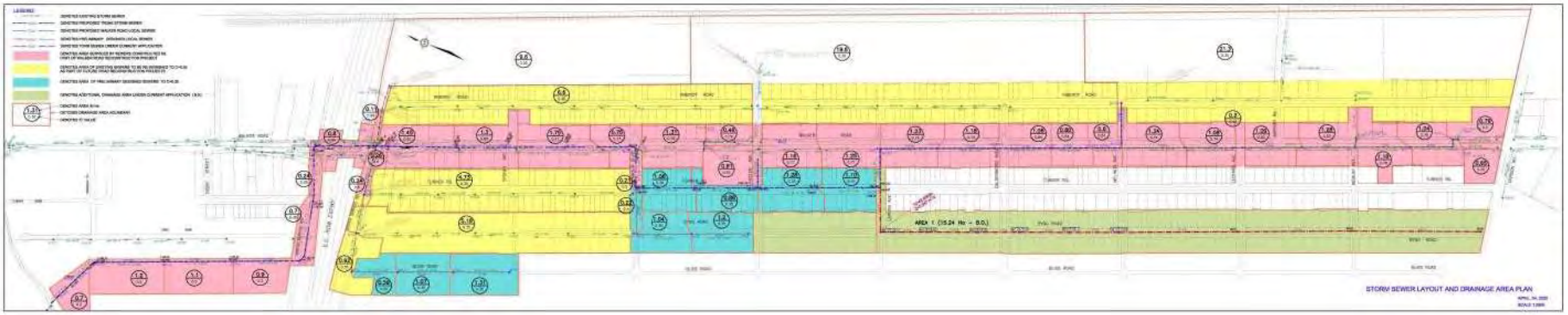
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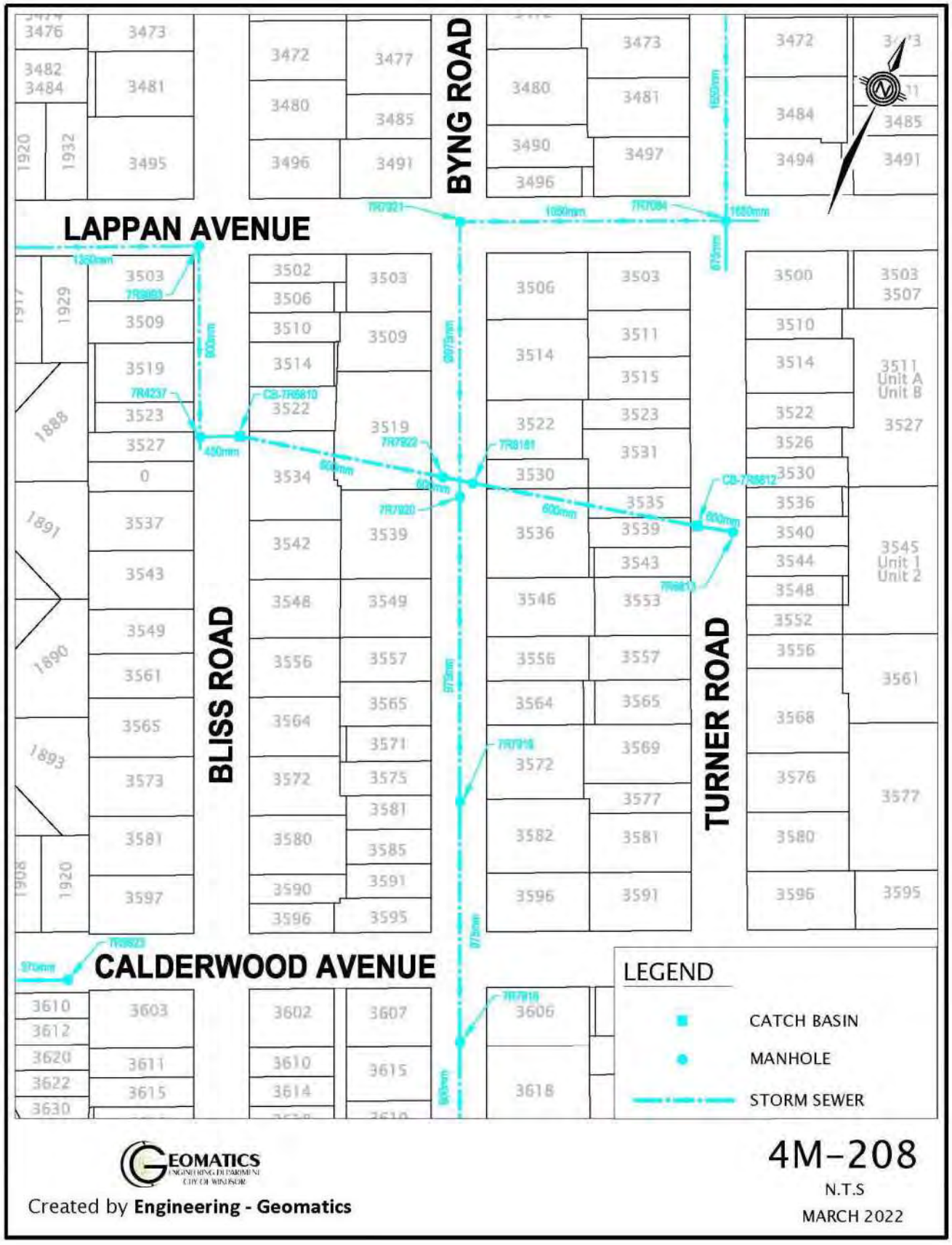
4M-206

N.T.S

AUG. 2021


HALLEE CRES
DEVONSHIRE HEIGHTS
CALDERWOOD AVE
INNERKIP CRES
KAMLOOPS ST
CARIBOU CRES
KLONDIKE AVE
DARIBOU CRES
WOODWARD BLVD
JANE CRT
BLISS RD
STEPHANIE CRT
CALDERWOOD PARK
SHINGLECREEK CRT
IRONGATE CIR
MELINDA CRT
TRAILWOOD CRT
MELINDA ST
LEDYARD AVE
MOXLAY AVE
CB-4
187.631
100% FULL
CB-3
187.667
100% FULL
CB-2
187.647
100% FULL
CB-1
186.079
20% FULL
7R9911
187.937
10% FULL
7R9910
187.819
20% FULL
7R9909
187.732
50% FULL
7R9908
(DICB)
187.347
30% FULL
BOTTOM OF DRAIN
DAWSON DRAIN
O'NEIL DRAIN
DEVONWOOD CONSERVATION AREA
DIVISION RD
LEGEND
CATCH BASIN
DAWSON DRAIN
O'NEIL DRAIN (UNREGULATED)
GEOMATICS
ENGINEERING DEPARTMENT
CITY OF WINDSOR
Created by Engineering - Geomatics
4M-207
N.T.S
AUG. 2021


STORM SEWER LAYOUT AND DRAINAGE AREA PLAN


LAPPAN AVENUE
BYNG ROAD
BLISS ROAD
TURNER ROAD
CALDERWOOD AVENUE
LEGEND
CATCH BASIN
MANHOLE
STORM SEWER
GEOMATICS
ENGINEERING DEPARTMENT
CITY OF WINDSOR
Created by Engineering - Geomatics
4M-208
N.T.S
MARCH 2022

Appendix 5 – Photos of Private Culverts and Catch Basins

Private Culverts:



3762 Bliss Street – 375mm diameter CSP pipe culvert. This pipe appeared to be in good condition, with no observed deformation and rusting. Approximately 10% of the pipe was filled with debris and there is an undamaged concrete headwall



3735 Bliss Street – 375mm diameter CSP pipe culvert. This pipe appeared to be in good condition, with no observed deformation and rusting. There was no blockage of this pipe and the undamaged headwall is made of concrete.

	
3949 Woodward Boulevard – Unknown CSP pipe diameter that was observed to be rusted. Approximately 90% of this pipe is blocked with debris and the headwall is made of pressure treated wood that is in good condition.	1840 Division Road – 250mm diameter HDPE pipe culvert that is an excellent condition with no observed deformation. There was no blockage of this pipe and the undamaged headwall is constructed with jute bags.

	
3860 Woodward Boulevard – 300mm diameter PVC pipe culvert that is in good condition with no observed deformation. Approximately 10% of this pipe was observed to be blocked with debris. No headwall was observed for this culvert.	3726 Riberdy Road – 375mm diameter CSP pipe culvert with no observed deformation but rusted. Approximately 20% of this pipe was observed to be blocked with debris. No headwall was observed for this culvert.

	
3697 Turner Road – 300mm diameter CSP pipe culvert with no observed deformation and rusted. Approximately 70% of this pipe was observed to be blocked with debris. The headwall consists of concrete and stone.	3923 Riberdy Road – 375mm diameter CSP pipe culvert with no observed deformation and rusted. Approximately 40% of this pipe was observed to be blocked with debris. The headwall is a mix of the asphalt driveway and the stone resting on top of it.

Private Catch Basins:



3778 Byng Road – An undamaged 600mm x 600mm square concrete catch basin observed. Two 375mm HDPE pipes were found connected to this catch basin with no deformation and no blockage within the pipes. A 100mm PVC discharge pipe is shown connected to the catch basin from private property.



3791 Turner Road – An undamaged 600mm circular CSP catch basin observed. Two 375mm pipes (one is CSP and the other is HDPE) found connected to this catch basin. The 375mm CSP pipe is deformed and rusted. There was no discharge pipe observed connecting to this catch basin. There is approximately 10% blockage in the 375mm CSP pipe.




3873 Byng Road – An undamaged 450mm circular HDPE catch basin was observed. Two 300mm HDPE diameter pipes found connected to this catch basin with no deformation. There is approximately 10% blockage in both the 300mm diameter pipes. There was no discharge pipe observed connecting to this catch basin.




3750 Bliss Street – An undamaged 600mm circular plastic catch basin was observed. Two 375mm HDPE diameter pipes found connected to this catch basin with no deformation and no blockage within the pipes. There was no discharge pipe observed connecting to this catch basin.

Appendix 6 - Existing road condition ratings for street segments with a rural cross section

STREET	FROM	TO	2021 ROAD CONDITION RATING	Road Deficiency
Woodward Blvd	Division Rd	Moxlay Ave	4	Adequate
	Moxlay Ave	Ledyard Ave	4	Adequate
Bliss Rd	Division Rd	Bliss Rd	N/A - gravel road	-
	Moxlay Ave	Ledyard Ave	7	6-10 year deficient
	Ledyard Ave	Melinda St	7	6-10 year deficient
	Melinda St	Calderwood St	3	Adequate
	Calderwood St	Lappan Ave	3	Adequate
	Lappan Ave	Foster Ave	24	Now deficient
	Foster Ave	Seymour Blvd	24	Now deficient
	Seymour Blvd	Sydney Ave	24	Now deficient
	Sydney Ave	E C Row Ave E	24	Now deficient
Byng Rd	Division Rd	Moxlay Ave	22	Now deficient
	Moxlay Ave	Ledyard Ave	22	Now deficient
	Ledyard Ave	Melinda St	22	Now deficient
	Lappan Ave	Foster Ave	40	Now deficient
	Foster Ave	Seymour Blvd	70	Now deficient
Turner Rd	Division Rd	Moxlay Ave	24	Now deficient
	Moxlay Ave	Ledyard Ave	10	1-5 year deficient
	Ledyard Ave	Melinda St	10	1-5 year deficient
	Melinda St	Calderwood St	15	1-5 year deficient
	Calderwood St	Lappan Ave	15	1-5 year deficient
	Lappan Ave	Foster Ave	2	Adequate
	Foster Ave	Seymour Blvd	2	Adequate
Riberdy Rd	Division Rd	Moxlay Ave	24	Now deficient
	Moxlay Ave	Airport Rd	23	Now deficient
	Airport Rd	Ledyard Ave	8	6-10 year deficient
	Ledyard Ave	Melinda St	82	Now deficient
	Melinda St	Calderwood St	34	Now deficient
Moxlay Ave	Woodward Blvd	Bliss Rd	31	Now deficient
	Bliss Rd	Byng Rd	22	Now deficient
	Byng Rd	Turner Rd	22	Now deficient
	Turner Rd	Walker Rd	16	1-5 year deficient
	Walker Rd	Riberdy Rd	30	Now deficient
Airport Rd	Walker Rd	Riberdy Rd	5	6-10 year deficeint
	Riberdy Rd	Airport Rd	6	6-10 year deficeint
Ledyard Ave	Woodward Blvd	Bliss Rd	35	Now deficient
	Bliss Rd	Byng Rd	35	Now deficient
	Byng Rd	Turner Rd	35	Now deficient
	Turner Rd	Walker Rd	35	Now deficient
	Walker Rd	Riberdy Rd	1	Adequate
Melinda St	Bliss Rd	Byng Rd	9	6-10 year deficeint
	Byng Rd	Turner Rd	18	1-5 year deficient
	Turner Rd	Walker Rd	32	Now deficient
	Walker Rd	Riberdy Rd	19	1-5 year deficient
Calderwood Ave	Walker Rd	Riberdy Rd	25	Now deficient
Lappan Ave	Bliss Rd	Byng Rd	22	Now deficient
	Turner Rd	Walker Rd	26	Now deficient

Foster Ave	Woodward Blvd	Bliss Rd	4	Adequate
	Bliss Rd	Byng Rd	4	Adequate
	Byng Rd	Turner Rd	4	Adequate
	Turner Rd	Walker Rd	4	Adequate
Sydney Ave	Sydney Ave	Bliss Rd	4	Adequate
	Bliss Rd	Byng Rd	46	Now deficient
	Byng Rd	Turner Rd	25	Now deficient

Appendix 7 – Technical Findings

A) Private Culverts:

All existing private culverts and catch basins were inspected by the Field Services staff. The inspection results shown below identify that the majority of the existing private infrastructure is very old, largely built in an unregulated state, and un-maintained. Photos of both private culverts and catch basins have been attached as Appendix 5 of this report.

In total, 827 private culverts were inspected. The results are as follows:

Diameter of Private Culvert								
Size (mm)	200	250	300	375	450	525	600	Other
No. of Culverts	4	29	166	491	118	2	3	14

- Approximately 80% of culverts within this area have a diameter of 300mm/375mm.

Percent Blockage of Private Culvert											
Percent Blockage (%)	0	10	20	30	40	50	60	70	80	90	100
No. of Culverts	260	124	94	77	62	55	44	29	14	26	42

- Approximately 25% of culverts are equal to or more than 50% blocked

Pipe Material of Private Culverts					
Pipe Material	Concrete	Corrugated Steel (CSP)	High Density Polyethylene (HDPE)	Polyvinyl Chloride (PVC)	Other – including Steel, Acrylonitrile butadiene styrene (ABS) Plastic, fiberglass, and unknown
No. of Culverts	10	740	35	32	10

- Approximately 90% of culverts are CSP

Private Culverts – Other Details						
Circular	YES	NO				
Deformed			YES	NO		
Rust					YES	NO
No. of culverts	817	10	312	515	532	295

Culvert headwalls are typically found on both sides of a culvert to help make both ends structurally stable, help reduce erosion and improve the aesthetic characteristics of the culvert. The majority of headwalls, at the private culverts, consisted of concrete, asphalt, jute bags, and rip rap. Many existing culverts were observed to not have headwalls as grass was found over the pipe(s). Other miscellaneous types of headwalls included landscaping, and wood. Approximately 36% of the headwalls were recorded as damaged (crushed and/or cracked).

The information above identifies that many of these private culverts would require some sort of maintenance or replacement in the future.

B) Private Catch Basins:

In total, 206 private catch basins were inspected. The results are as follows:

Approximately 63% of private catch basins were observed to be corrugated steel. Other materials for these private catch basins included concrete, HDPE, and plastic.

Approximately 93% of private catch basin covers observed were cast iron. The remaining cover materials were plastic and steel.

157 private catch basins were observed to be circular. 49 were observed to be square.

Pipe Diameter observed at Private Catch Basins						
Size (mm)	200	250	300	375	450	Other
No. of Catch Basins	14	12	10	133	21	16

- Approximately 65% of these pipe diameters were observed to be 375mm

Percent Blockage of Pipes at Private Catch Basins								
Percent Blockage (%)	0	10	20	30	40	50	60	100
No. of Pipes	128	41	18	4	4	4	2	5

- Approximately 62% of private catch basins were not blocked with any debris

Twenty two private storm water discharge pipes were found outletting to private catch basins. Most of these discharge pipes were not observed to be deformed and 25% of them were found to have rust. These discharge pipes from the private properties ranged in sizes between 100mm and 200mm. 59% of these discharge pipes were found to be Polyvinyl chloride (PVC). The remaining materials observed were high density polyethylene (HDPE), plastic, vitrified clay, and Acrylonitrile butadiene styrene (ABS).

C) Analysis and Observations of the Dawson Drain (Refer to drawing 4M-207):

Properties abutting the Dawson Drain on Division Road were observed to be discharging their storm water into the Dawson Drain. The survey has identified the outlet pipes at these properties to be between 90 and 100% full of water.

From the most upstream location of the Dawson Drain to the ditch inlet catch basin (DICB – MH 7R9908), located approximately 60m north of Ledyard Avenue and adjacent to 3789 Woodward Boulevard, the drain is constructed of only an open channel that directs water flow northerly.

Downstream of this DICB, the drain has both an open channel and an underlying perforated HDPE drain tile. The perforated drain tile is graded so that water will flow towards Calderwood Park. The bottom of the open channel drain immediately north of the DICB (MH 7R9908) is 400mm (16 inches) higher than the elevation of the DICB. Thus, water flowing north from the upstream open channel section of the drain must rise over 16 inches when the perforated HDPE drain tile cannot handle the volume of water flowing into it. This situation seems to be likely due to the size of the HDPE drain tile and due to the fact that vegetation has overgrown into the pipe over the many years that it has been left neglected.

The open channel drain between the DICB (MH 7R9908) and the next CB (MH 7R9909) primarily flows south towards the DICB. A small portion of the open channel drain flows north in the direction of the next catch basin (MH 7R9909) which was confirmed as being

50% full of water. As the majority of this segment is flowing south, a good amount of water may spill 16 inches into the open channel of the drain that is south of the DICB.

A high point exists in the open channel drain between the next 2 catch basins (between MH 7R9909 and MH 7R9910) where water is directed both ways. MH 7R9910 was confirmed to be 20% filled with water.

The open channel drain between the next set of catch basins (MH 7R9910 and MH 7R9911) has a high point where water is directed both ways. MH 7R9911 was confirmed to be 10% full of water.

At the junction, where the Dawson Drain continues west and the perforated HDPE drain tile continues north to Calderwood Park, the survey confirms that water in the open channel section of the drain is initially directed westerly through a 1200mm CSP culvert. Water is only directed towards the catch basin (CB-1) if there is an overflow. The survey indicated that the catch basin (CB-1) is 20% full of water.

To the west of the junction, the drain acts as an open channel with an underlying perforated HDPE drain tile. A cross section of the drain was confirmed from a previous city project in 2001, demonstrating that this HDPE drain tile is 100mm (4 inches) in diameter. Two catch basins were identified in the survey and observed on site to be completely submerged and 100% full of water (CB-2 and CB-3). Other elevations along the open channel were identified as being lower than the elevations of the submerged catch basins. Some flat segments were observed through this section of the open channel drain.

Heading further westerly, where the open channel drain turns northerly towards the south of Shinglecreek Court, the survey indicates a low point between the two turns.

The last segment of the Dawson Drain south of Shinglecreek Court is where the Dawson Drain connects and outlets to the future O'Neil Drain. Low points were observed through the survey and water was generally flowing towards the circular catch basin (CB-4), that is 100% full of water, and a few other low spots. The 100mm perforated HDPE drain tile continues under this segment of the drain as well.

D) Calderwood Park – Dry Pond:

Many elevations of this dry pond were also recorded during the survey to compare the existing elevation of the dry pond relative to the elevation of the surrounding ditches.

- Bottom of ditch elevations for streets running north-south between Calderwood Avenue and Melinda Street (1 block) are very similar/slightly below the elevations at the dry pond.
- Bottom of ditch elevations south of Melinda Street are very similar/above the dry pond's elevations (for streets running north-south)

- Bottom of ditch elevations between Calderwood Avenue and Lappan Avenue are below the dry pond's elevations.

E) CCTV – Storm Sewer in Easement (Refer to Appendix 4):

Closed Circuit Television (CCTV) was undertaken for all sewer runs between Turner Road and Bliss Road, south of Lappan Avenue. Some of these sewers run through private property via an easement.

All of the CCTV runs identified below (apart from the PVC run near Bliss) demonstrated minor water settlement in the pipes. Rust was observed in all CSP pipes.

- **From MH 7R6813 to end of culvert** – approximate length = 15.2m

The culvert immediately south of MH 7R6813, located on Turner Road, has two private discharge pipes connected into the culvert. This culvert pipe appeared to be in good condition as the shape was circular. Debris was observed at the entrance of the culvert. The constructed date of this culvert is unknown.

- **From MH 7R6813 to CB-7R6812** (Turner Road ROW) – approximate length = 12.5m

Debris was found at the junction of the 2 culverts at CB 7R6813. The corrugated steel pipe is circular and it appears to be in good condition. The constructed date is unknown.

- **From CB-7R6812 to MH 7R8181** (in easement) – approximate length = 79.0m

Three private drain connections were observed to be intruding into the corrugated steel pipe. One newer looking connection was almost flush with the pipe wall. The majority of this pipe was found to be circular and in good condition except for a few locations where two holes were visible and one spot where there was a visible deformation in the pipe. The constructed date is unknown and there was some settled debris observed near CB-7R6812.

- **From MH 7R8181 to MH 7R7922** (Byng Road ROW) – approximate length = 11.8m

This reinforced concrete sewer segment was installed in 2020 as apart of the Byng Road Local Improvement project. Minor water settlement was observed in the pipe but no defects to the sewer were observed.

- **From MH 7R7922 to CB 7R6810** (in easement) – approximate length = 75.7m

Settled debris was observed in this CSP pipe near both ends. Two 'Big O' connections were found to be encroaching into this pipe. This pipe appears to be in good condition and the constructed date is unknown.

- **From CB 7R6810 to MH 7R4237** (Bliss Road ROW) – approximate length = 11.4m

This PVC pipe appears to be in good condition with one offset joint noted in the CCTV report. The constructed date is unknown.

F) Existing and Possible Outlets for this area:

Identified existing outlets for this area include:

- Dawson Drain – this drain is the existing outlet for local residential drainage. Storm water in the nearby ditches on Woodward Boulevard is generally directed north towards the Moxlay and Ledyard intersections where it is then directed towards the Dawson Drain. A 300mm PVC pipe through an easement (north of Ledyard) directs storm water from Woodward Boulevard into the perforated drain tile in the Dawson Drain.
- 1350mm trunk storm sewer on Lappan Avenue, west of Bliss Road - this storm sewer outlets into the Caribou Crescent subdivision.
- 900mm storm sewer on Seymour Road, west of Bliss Road – this storm sewer outlets to a ditch east of Blairwood Crescent.
- 1650/1800mm trunk storm sewer on Turner Road and Seymour Avenue – this trunk storm sewer outlets to the 1950mm trunk sewer on Walker Road.
- 825mm storm sewer on E C Row Avenue East (adjacent to E C Row Expressway E/B off ramp at Walker Road) – this acts as an outlet to a downstream sewer on Walker Road while collecting existing water from Byng Road and Turner Road to the south
- 1050mm storm sewer and stub on Foster Avenue – this outlets to an existing 750mm storm sewer on Walker Road
- 300mm storm sewer on Moxlay Avenue between Walker Road and Riberdy Road– this outlets to a 900mm storm sewer on Walker Road
- 375mm storm sewer on Calderwood Avenue, west of Bliss Road – this outlets to the Caribou Crescent subdivision
- Lappan Drain – There is an outlet into the airport property from Riberdy Road, which likely takes the local residential drainage from Riberdy Road.

The 2020 Byng Road Local Improvement project resulted in a realignment of the original drainage areas on the lands bounded by Division Road to the south, E. C. Row Avenue to the north, Riberdy Road to the east, and Bliss Road to the west. Appendix 3 shows that Byng Road's drainage area is now included in the Walker Road sewer system.

The intent is to also bring the area surrounding Turner Road into the Walker Road sewer system once improvements have been made to the Grand Marais Drain and once a nearby restriction at the E. C. Row Expressway and Walker Road has been removed.

Possible future storm sewer outlets can be found in the attached Appendix 3.

- Walker Road would have a trunk sewer system ranging from 1050mm to 1650mm in diameter and extending from Ledyard Avenue to Lappan Avenue (3 blocks). The

current storm sewers on this stretch of Walker Road are undersized as the largest existing storm sewer constructed is 675mm in diameter.

- A 1200mm trunk storm sewer is proposed for Melinda Street (between Walker Road and Riberdy Road). The outlet for any block(s) of Riberdy Road is likely to be Walker Road or the Lappan Drain.

- The outlet for Riberdy Road between Ledyard Avenue and Melinda Street may not be the Lappan Drain, as its Drainage Area was defined by Bruce D. Crozier Engineering Inc. in 2002. This drainage area terminates east of Farm Lot 97 which is immediately west of the Canadian National Railway.

- An extension of the 1050mm storm sewer on Foster is identified as being connected to the trunk storm sewer on Turner.

G) <u>Local Improvement:</u>

The Local Improvement Policy adopted by CR431/2020 and payment schedule adopted by CR432/2020 applies where:

- A storm and/or sanitary sewer does not exist; and

- Abutting property owners have requested in writing a storm and/or sanitary sewer be installed as a local improvement; or

- The City initiates the installation of a storm and/or sanitary sewer as a local improvement

The abutting property owners will be assessed for:

- The approved cost, per metre, for the construction of a sanitary and/or storm sewer along the property frontage;

- The full cost for the construction of a private drain connection and cleanout extending from the centre line of the right of way to the property line of the benefitting property.

- 100% of the cost for boulevard restoration.

The general rate will contribute:

- The remainder of the cost of sewers at intersections, in front of city owned property/alleys, and road drainage. The city will also pay the balance of the cost for the price of storm sewers.

The approved per metre frontage cost to install a new storm or sanitary sewers charged to residents is based on the cost to install a 300mm and 250mm diameter pipes respectively, and not the actual pipe size which may be greater. These pipe sizes are the

minimum sizes used by the City, and this assumption assures that overcharging of residents at the downstream end of the system is avoided.

Regarding curbs and gutters, the policy applies where:

- A paved road is currently without curbs and gutters; and
- Pavement rehabilitation/reconstruction is to be undertaken by the City; and
- Abutting property owners have requested in writing curbs and gutters be installed; or
- The City initiates the installation of curbs and gutters as a local improvement in conjunction with a pavement rehabilitation project

The abutting property owners will be assessed for:

- 100% of the cost, per metre of frontage, for the construction of concrete curbs and gutters;
- 100% of the cost for boulevard restoration.

The general rate will contribute:

- The remainder of the total cost of curbs and gutters at intersections, in front of city owned property/alleys, and road drainage.

All identified street segments with a rural cross section currently do not have a storm sewer or curb and gutter, and are subject to the Local Improvement Policy.

APPENDIX

B

Site Visit Photographic Inventory



Station 0+000 looking N (Outlet for Dawson Drain)



Dawson Drain ditch inlet looking S



Ditch Inlet



Looking E onto Devonshire Heights Park from the ditch inlet



Location Index for Pictures 55 – 88



55: Dawson ditch drainage outlet into O'Neil's ditch looking NNW



56: Dawson ditch drainage outlet into O'Neil's ditch looking SWW



58: Dawson ditch drainage outlet into O'Neil's ditch looking SSE



59: Looking into Dawson ditch drainage outlet into O'Neil's ditch (NEE)



63: Station 0+210 looking NEE



65: Station 0+215 looking SWW into culverts



66: Station 0+215 looking SSE



67: Interior of South Dawson ditch drainage outlet into O'Neil's ditch (SWW)



68. Interior of North Dawson ditch drainage outlet into O'Neil's ditch (SWW)



79: Station 0+220 looking NNW



80: Station 0+225 looking SWW



81: Station 0+230 looking NEE



82: Station 0+240 looking NNW



83: Station 0+253 looking NNW



84: Station 0+268 looking NNW



85: Station 0+280 looking NEE



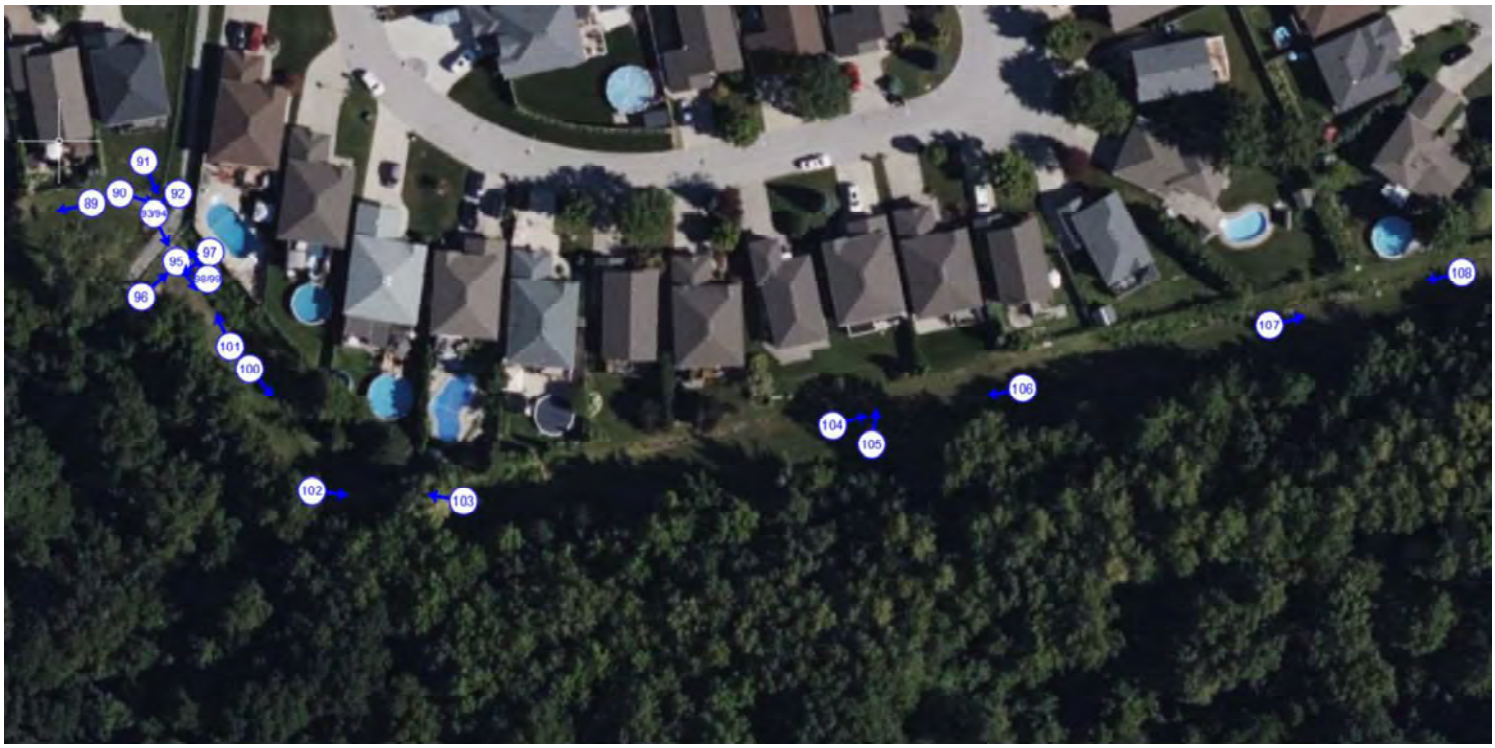
86: Station 0+280 looking SWW



87: Station 0+300 looking NE



88: Station 0+332 looking NEE



Location Index for Pictures 89 – 108



89: Station 0+390 looking SWW



90: Station 0+400 looking SEE



91: Station 0+400 looking SSE into culverts



92: Station 0+423 looking SWW



95: Station 0+415 looking SE



97: Station 0+415 looking SW



98: Station 0+415 looking NW into western culvert



99: Station 0+415 looking NW into eastern culvert



100: Station 0+435 looking SE



101: Station 0+435 looking NNW



102: Station 0+458 looking E



103: Station 0+480 looking W



104: Station 0+540 looking NEE



105: Station 0+545 looking NNE



106: Station 0+572 looking SWW



107: Station 0+615 looking NEE



108: Station 0+646 looking SWW



Location Index for Pictures 109 – 132



109: Station 0+682 looking NEE



112: Station 0+783 looking SWW



113: Station 0+780 looking W



116: Station 0+800 looking SW



118: Station 0+800 interior of southern culvert



119: Station 0+800 interior of northern culvert



121: Station 0+860 looking NNW (Shown in picture is a tree log)



122: Station 0+860 looking SSE



124: Station 0+883 looking E



125: Station 0+883 looking NNW



126: Station 0+890 looking NEE



127: Station 0+902 looking NEE



128: Station 0+912 Looking SSE



129: Station 0+917 looking SWW



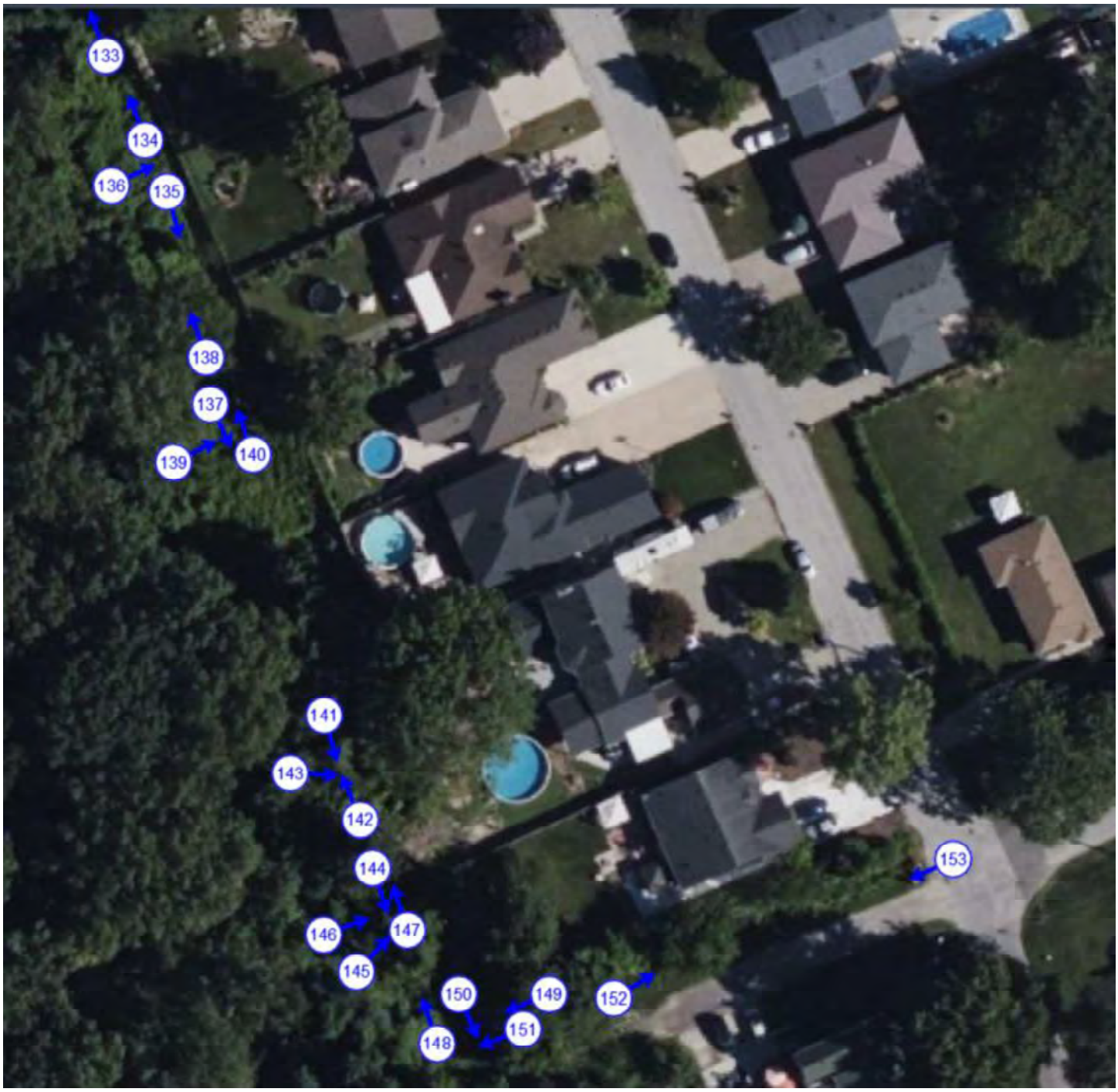
130: Station 0+940 looking SSE



131: Station 0+940 looking NEE



132: Station 0+945 looking SSE



Location Index for Pictures 133 – 153



133: Station 0+967 looking NNW



134: Station 0+980 looking NNW



135: Station 0+980 looking SSE



136: Station 0+980 looking NEE



137: Station 1+015 looking SSE



140: Station 1+015 looking NNW



141: Station 1+060 looking SSE



142: Station 1+060 looking NNW



145: Station 1+080 looking NE



147: Station 1+080 interior of western culvert



148: Station 1+100 looking NNW



150: Station 1+100 looking SEE



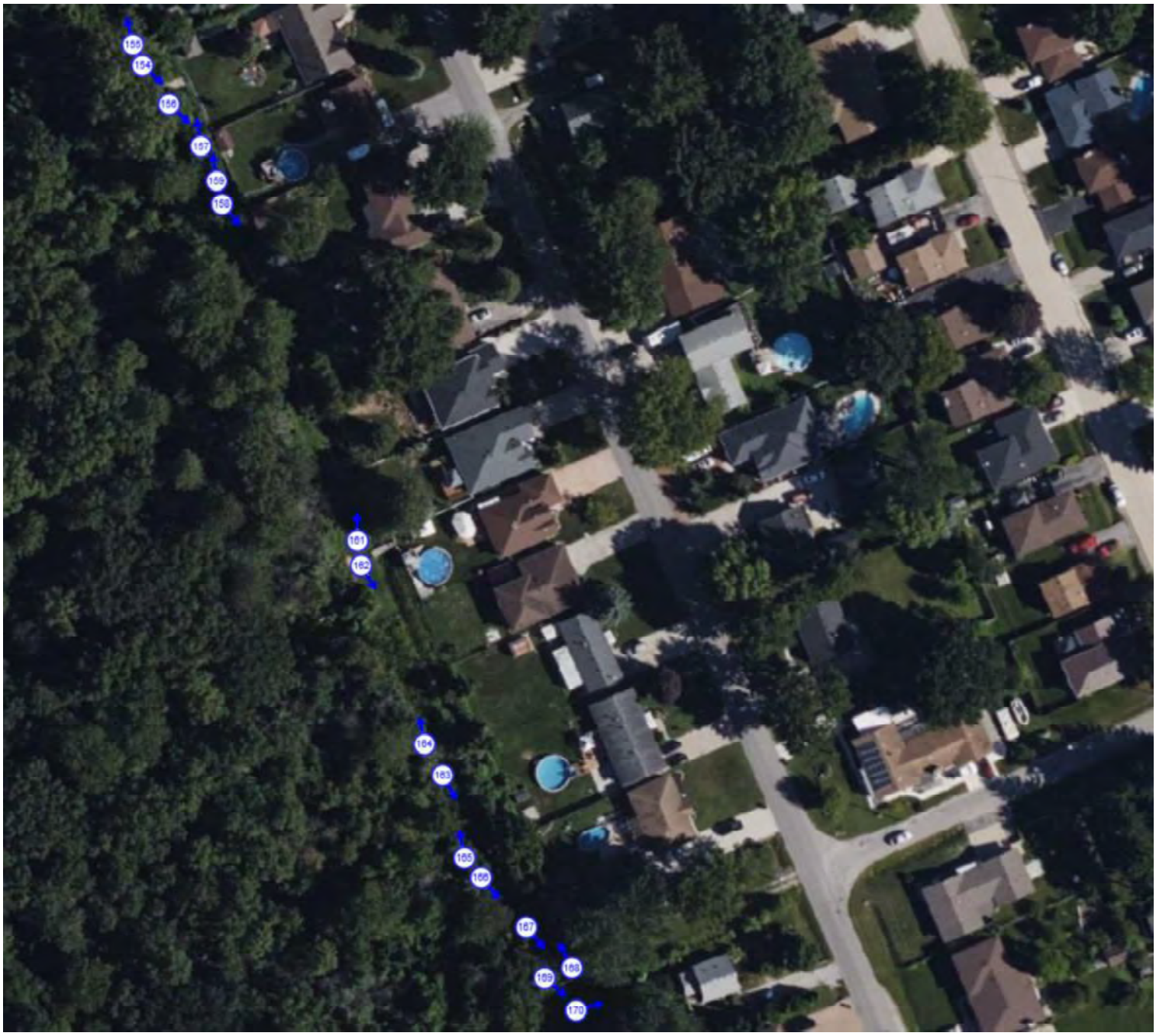
151: Station 1+100 interior of culvert



152: Station 1+100 Ledyard Ave drainage ditch looking NEE



153: Station 1+100 Ledyard Ave drainage ditch looking SEE



Location Index for Pictures 154 – 170



154: Station 1+130 looking SE



155: Station 1+130 looking NNW



156: Station 1+142 looking SE



157: Station 1+152 looking N



158: Station 1+165 looking SE



159: Station 1+165 looking N



161: Station 1+245 looking N



162: Station 1+245 looking SE



163: Station 1+295 looking SSE



164: Station 1+295 looking NNW



165: Station 1+315 looking N



166: Station 1+315 looking SE



167: Station 1+335 looking SE



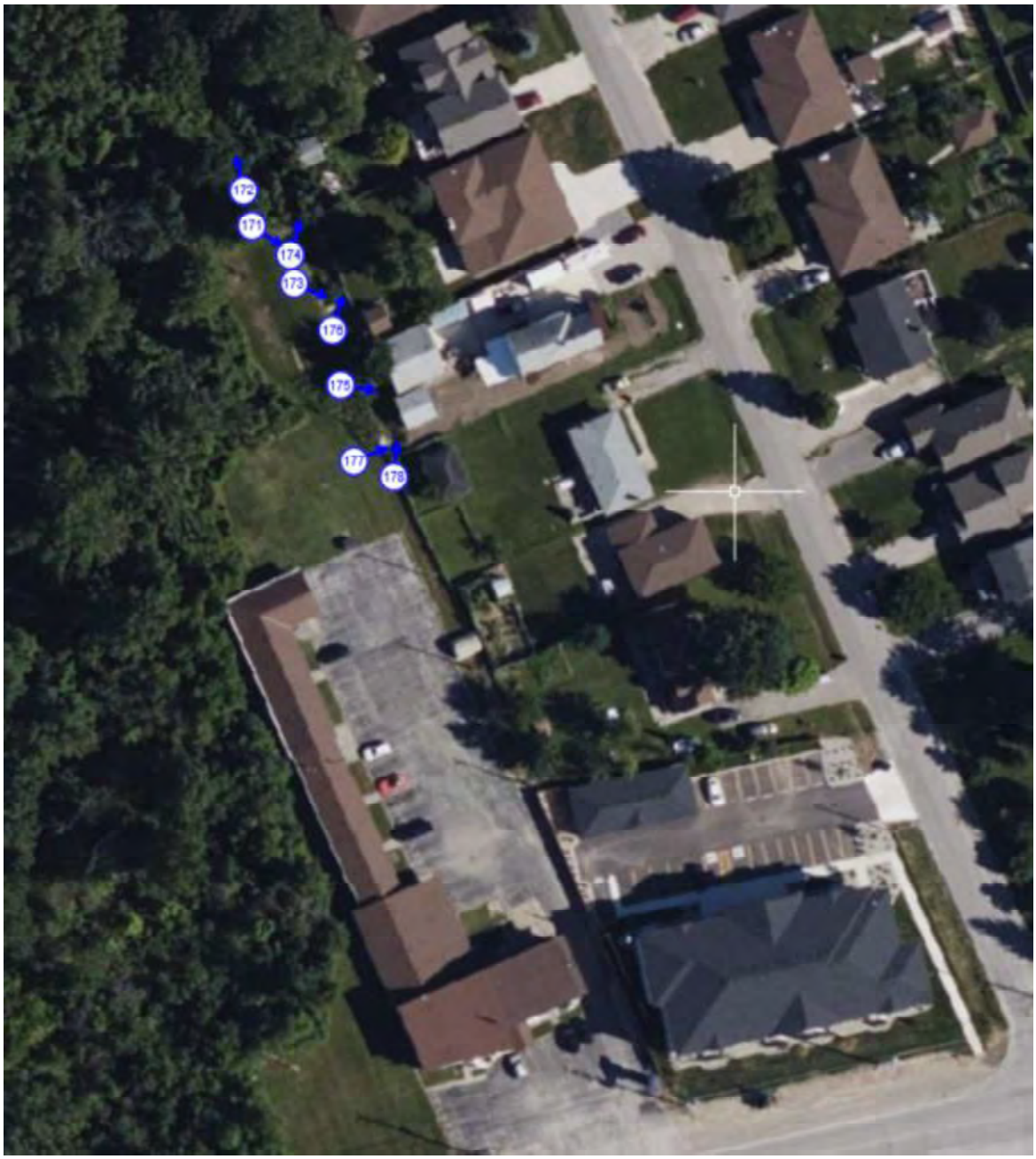
168: Station 1+345 looking NNW



169: Station 1+345 looking SE



170: Station 1+355 Moxlay Ave drainage ditch looking NEE



Location Index for Pictures 171 – 178



171: Station 1+420 looking SE



172: Station 1+420 looking N



173: Station 1+430 looking SE



174: Station 1+425 looking NNE



175: Station 1+450 looking SEE



176: Station 1+440 looking NNE



177: Station 1+466 Dawson drain inlet looking NEE



178: Station 1+466 Dawson drain inlet looking NNE

APPENDIX

C Site Meeting

MEETING NOTES

JOB TITLE	Dawson and O'Neil Drains Project		
PROJECT NUMBER	CA-WSP-231-00563-00	**DATE**	25 July 2023
TIME	4:30 p.m.	**VENUE**	1075 Ypres Ave, Windsor Optimist Community Centre; ABC Room
SUBJECT	On-site Meeting as per Section 9 of the Drainage Act		
CLIENT	City of Windsor		

ATTENDEES		
Name	**Company**	**Email**
Eeshan Kumar (EK)	WSP	Eeshan.kumar@wsp.com
Melinda Nowak (MN)	WSP	Melinda.nowak@wsp.com
Tom Graziano (TG)	City of Windsor	tgraziano@citywindsor.ca
General Public – refer to Check In Sheets		

ADDITIONAL DISTRIBUTION			
Name	**Company**	**Phone**	**Email**

MATTERS ARISING	**ACTION**
1.0 INTRODUCTIONS — Introductions were made by TG to those present — EK presented an overview of the project	N/A
2.0 SUMMARY OF OPEN FLOOR DISCUSSION	

— One gentleman had concern about his fruit trees being affected by any work
 	
— A member of the public asked what kind of improvement was being made
  — EK noted some options to be considered are removal of obstructions and minor widening
 	
— It was questioned if the report was available at this time
  — Answer was no, report is in development
 	
— Public then questioned why they are attending this meeting if no report available
  — TG clarified this meeting was to inform the public of the process based on the requirements of the Municipal Drainage Act
 	
— It was noted that there have been two previous reports for this area	

- Spoke about studies
- Nothing done
- EK and TG noted that this meeting is specific for these two drains only (Dawson and O'Neil) and this on-site meeting is one of the steps of the project.

- A resident indicated that Shinglecreek Ct water doesn't drain
  - Full of trees and that trees can't be removed due to Species at Risk
    - TG noted improvement needed for drainage and that Species at Risk need to be mitigated

- It was noted that Woodward drains to a small hole in the ground

- Groundwater and high water table results in lots of money spent by residents
  - Is it possible issue in neighbour? North of Division and Devonshire

- It was asked who is responsible for the ditch
  - Answer: City

- Once the report is finished when does the work start?
  - TG clarified the intent of the report is to make recommends, then that goes to Council.
  - Report to be completed this year (2023)
  - Council will determine the money to be spent

- If capacity of Dawson Drain is improved what does that mean?
  - Water improves
  - Flow through needs to improve

- City Councillor K. McKenzie was present at the meeting and advised all in attendance that the City has a program for culvert improvements that residents can take advantage of

- A resident asked if any residents that have experienced flooding been personally visited. The City should have records of any flooding complaints reported to them. Are homes directly effecting flooding or not?
  - Answer: No, the City had not requested WSP to complete such a survey

- What has taken place specifically up to this meeting?
  - EK stated the following:
    - Site visit conducted in February 22, 2023
    - Walked the project area and observations noted / photographs taken
    - It was noted behind Woodward is lots of brush
    - Shingle Creek was noted to have trees. If flows are obstructed trees might be removed

- A resident noted that Shinglecreek Ct 23 years ago ran like a stream now it's either dry or flooded

- Survey has been completed
  - Any recommendations will be based on existing conditions, not from legacy reports

- Dawson drain in 1998 was identified to be enclosed and to be paid by the developer.
  - TG indicated he is not familiar with all the background on Dawson drain

— The resident noted some was enclosed partially and questioned if Dawson drain would be fully enclosed
  — TG noted that at present there is no plan to enclose
 	
— Residents noted drain was originally for farms and that farm land has since been developed. They hope the drain would be enclosed to avoid further flooding
 	
— A resident noted that it is 2023 and they don't have storm sewers. Are they not entitled?
  — TG acknowledged that they are part of the City and a request for storm sewers in the area should be made through the Local Improvement procedure
 	
— The question was raised about how the improvements to the drains will be paid for
  — TG stated that under the Drainage Act the improvements to municipal drains is assessed for benefit and outlet liability
  — TG noted that maintenance of municipal drains is funded under the City of Windsor's general tax levy
 	
— Who covers maintenance?
  — The sewer surcharge covers maintenance
  — Councillor K. McKenzie noted that every 3 years ditches will be dredged.
 	
— Residents expressed concern that regular ditch maintenance is not taking place
  — TG noted he would have to look into the frequency of ditch maintenance
 	
— Residents questioned why maintenance is not done
  — TG would need to research the maintenance schedule
 	
— Residents present questioned why this meeting was even being held when no report was available or discussions on options
  — TG advised that under the Municipal Drainage Act this meeting was being held to inform them of the project and to ensure that the requirements of the Drainage Act are being conformed to	

3.0 RESIDENT RECORDED QUESTIONS / CONCERNS — Please refer to the separate document which records any written comments or questions raised by the residents and what action if any was taken, by whom and when.	

These minutes are considered to be accurate recording of all items discussed. Written notice of discrepancies, errors or omission must be given within seven (7) days, otherwise the minutes will be accepted as written.

NEXT MEETING

An invitation will be issued if an additional meeting is required.

LANDOWNERS PRESENT AT THE ON-SITE MEETING, JULY 25, 2023

No.	Landowner	No.	Landowner
1	Lucy Wozciechowska	34	Treston Snellette
2	Dan O'Connor	35	Ed Pivard
3	Sheila O'Connor	36	Barb Priest
4	Mike Juricic	37	Jason Borghi
5	Debbie Ridgewell	38	Anna Lenisa
6	Eileen Guthrie	39	Dan Campence
7	Bob Guthrie	40	John Walter
8	Ron Lewis	41	Sheila Walter
9	Mike Soulliere	42	Gary Galic
10	Chuck Patidor	43	Nate Emanuel
11	Gary Smith	44	Zofia Dotzert
12	Gisele Smith	45	Coary Dotzert
13	Jayme Lawzon	46	Louis Piccolo
14	Steve Lawzon	47	J. Ceneaves
15	Kip Brouwer	48	Mark Ruttle
16	Patricia Robinson	49	Deisen Palmer
17	Elizabeth Kinzsely	50	Mark Wilkimen
18	Kim McLean	51	Claudio Silvaggi
19	Gerry McLean	52	Haider Habib
20	Kirgie Zatel	53	K. O. Joriok
21	Joanna Luck	54	J. Delmore
22	Shawn Ellerbelles	55	C. Reid
23	Dan Siluaggi	56	Colette Guenitto
24	Ghania Urooj	57	Eduardo Collins
25	Sahail Ahmed	58	Phyllis Ac
26	Leah Langlois	59	John James
27	Joe Langlois	60	Kieran McKenzie
28	Talia Reid	61	Krishna Priya Badeti
29	Chace Reid	62	Dana Nica
30	Jane Kaveugh	63	Myrah Akbar
31	Steve Lauzoh	64	Aurcini Mustafa
32	Russ Hann	65	Marty Ricciutti
33	J. Bonenfant	66	G. Alzne

APPENDIX

D Hydrologic Modelling

	Stormwater Management Calculations	Project:	Dawson and O'Neil Drains	No.:	231-00563-00	
	Area Breakdown	By:	CP	Date:	2023-05-19	Page
		Checked:	EK	Date:	2023-05-19	1

1.0 Area and Land Use Statistics

Catchment	% Impervious	Dawson Drain Catchments (both Major and Minor System controlled)											
		D1_O		D2_O		D3		D4		D5_O		-	
LULC Category		Area (m2)	Coverage	Area (m2)	Coverage	Area (m2)	Coverage	Area (m2)	Coverage	Area (m2)	Coverage	-	-
GD1.3/W 1/2 NS ALY - RD1.1/GD1.4/GD1.1/RD1.1/GD1.1	0	1,461	1%	769	2%	3,228	28%	2,700	35%	9,569	59%	-	-
RD1.1	25	91,055	66%	26,751	71%	3,859	33%	4,759	62%	6,016	37%	-	-
RD1.2	30	0	0%	0	0%	0	0%	0	0%	632	4%	-	-
RD3.1/RD2.1/RD2.3	40	7,979	6%	7	0%	4,553	39%	0	0%	0	0%	-	-
CD3.3/CD4.1/E-CD4.1, W-RD1.1	85	0	0%	0	0%	0	0%	0	0%	0	0%	-	-
ROAD	100	36,845	27%	10,179	27%	26	0%	206	3%	13	0%	-	-
Total	-	137,340	100%	37,706	100%	11,666	100%	7,665	100%	16,230	100%	-	-
Total Area (ha)	-	13.734		3.771		1.167		0.767		1.623		-	
% Imperviousness	-	46		45		24		18		11		-	

Catchment	% Impervious	Dawson Drain Catchments (only major system controlled)											
		D1_Ex		D2_Ex		-		-		D5_Ex		Sub Total	
LULC Category		Area (m2)	Coverage	Area (m2)	Coverage	-	-	-	-	Area (m2)	Coverage	Area (m2)	Coverage
GD1.3/W 1/2 NS ALY - RD1.1/GD1.4/GD1.1/RD1.1/GD1.1	0	2,031	1%	677	2%					50	0%	20,485	4%
RD1.1	25	141,937	103%	20,121	53%					0	0%	294,498	56%
RD1.2	30	0	0%	0	0%					19,307	119%	19,939	4%
RD3.1/RD2.1/RD2.3	40	0	0%	1,774	5%					0	0%	14,313	3%
CD3.3/CD4.1/E-CD4.1, W-RD1.1	85	44,899	33%	0	0%					0	0%	44,899	9%
ROAD	100	80,058	58%	6,014	16%					102	1%	133,443	25%
Total	-	268,925	196%	28,586	76%					19,459	120%	527,577	100%
Total Area (ha)	-	26.893		2.859						1.946		52.758	
% Imperviousness	-	57		41						30		49	

Catchment	% Impervious	O'Neil Drain Catchments											
		O1		O2		O3		O4		Sub -Total		Total	
LULC Category		Area (m2)	Coverage	Area (m2)	Coverage	Area (m2)	Coverage	Area (m2)	Coverage	Area (m2)	Coverage	Area (m2)	Coverage
GD1.3/W 1/2 NS ALY - RD1.1/GD1.4/GD1.1/RD1.1/GD1.1	0	60,841	44%	23,357	62%	340,757	2921%	3,180	41%	428,135	96%	448,620	46%
RD1.1	25	0	0%	0	0%	0	0%	0	0%	0	0%	294,498	30%
RD1.2	30	0	0%	0	0%	0	0%	0	0%	0	0%	19,939	2%
RD3.1/RD2.1/RD2.3	40	0	0%	0	0%	1	0%	0	0%	1	0%	14,314	1%
CD3.3/CD4.1/E-CD4.1, W-RD1.1	85	0	0%	0	0%	0	0%	0	0%	0	0%	44,899	5%
ROAD	100	8,871	6%	3,729	10%	2,216	19%	766	10%	15,582	4%	149,025	15%
Total	-	69,712	51%	27,086	72%	342,974	2940%	3,946	51%	443,718	100%	971,295	100%
Total Area (ha)	-	6.971		2.709		34.297		0.395		44.372		97.130	
% Imperviousness	-	13		14		1		19		4		28	

2.0 Design Storms

2.1 IDF Curve for other Storms

Source of IDF: *Table 3.2.1.1 of Windsor/Essex Region Stormwater Management Manual (ERCA Dec 2018)*

Equation $$I = \frac{A}{(T+B)^C}$$

Where, I = Rainfall Intensity (mm/hr)

T = Time of Duration (minutes)

A, B, C = Constant Values for Storms with Various Return Period.

Return Period (Years)	A	B	C
2	854.000	7.000	0.818
5	1259.000	8.800	0.838
10	1511.000	9.500	0.845
25	1851.000	10.200	0.852
50	2114.000	10.600	0.858
100	2375.000	11.000	0.861

3.0 Soils and Permeability

3.1 Soil Information

Site Location	Dawson Drain, City of Windsor	
Soil Symbol:	Bg-s	Soil Survey Report #19 - Soil Map of York County (National Soil DataBase, NSDB)
Name	Burford Loam Shallow	
Soil Type:	Loam	
Drainage:	Good	(Chart C2-6, MTO Drainage Manual, 1978)
Hydrologic Soil Group (HSG)	AB	(Chart C2-6, MTO Drainage Manual, 1978)
Soil Symbol:	Bcl	Soil Survey Report #19 - Soil Map of York County (National Soil DataBase, NSDB)
Name	Brookston Clay Loam	
Soil Type:	Clay Loam	
Drainage:	Poor	(Chart C2-6, MTO Drainage Manual, 1978)
Hydrologic Soil Group (HSG)	C	(Chart C2-6, MTO Drainage Manual, 1978)



Soil Survey of Essex County - Report #on11 - Soil Survey Reports for Ontario (National Soil DataBase, NSDB)

4.0 Hydrologic Methodology

4.1 Catchment Modelling

Catchment ID	Command	NHYD		% Imper	Area (ha)
D1_O	STANDHYD	1011	101	46	13.73
D1_Ex	STANDHYD	1012		57	26.89
D2_O	STANDHYD	1021	102	45	3.77
D2_Ex	STANDHYD	1022		41	2.86
D3	STANDHYD	103		24	1.17
D4	NASHYD	104		18	0.77
D5_O	NASHYD	1051	105	11	1.62
D5_Ex	STANDHYD	1052		30	1.95
O1	NASHYD	201		13	6.97
O2	NASHYD	202		14	2.71
O3	NASHYD	203		1	34.30
O4	NASHYD	204		19	0.39
Total				28	97.13

4.1.1 Imperviousness

Catchments D1, D2, D3 and D5_Ex are residential and commercial developments with % Imperviousness above 20%. Therefore, will be modeled as urban catchments.

4.1.2 SCS Curve Number (CN)

The SCS Curve Number method was used for loss and runoff computations. The modified CN was modeled based on guidance from the Visual OTTHYMO Reference Manual.

4.1.3 Initial Abstraction for Pervious Area

Initial abstraction was estimated based on the soil storage relationships. The modified IA was utilised based on guidance from Visual OTTHYMO Reference Manual.

4.1.4 Time of Concentration (T_C) and Time to Peak (T_P)

Time of concentration (Tc) was calculated using Time of Travel equation, then time to peak (Tp) was determined using Equation tp= (N-1)/N *Tc.

With Travel Time, also referred to as Upland or Velocity Charts method, the average overland flow velocity is determined for a catchment based on the catchment slope and ground type; using predetermined charts. Once the velocity has been determined, then the time of concentration is determined by dividing the catchment length by the overland flow velocity.

$$T_c = \frac{L}{V} \quad \text{and} \quad T_P = \frac{2}{3}T_C$$

Where, T_C = Time of Concentration (minutes)

V^1 = Average overland flow velocity (m/s)

L = Watershed Length (m)

4.2 Visual OTTHYMO Inputs

Catchment D1_O

Area (ha)	13.734	
Command	STANDHYD	
% Impervious	45.73	
TIMP	0.46	
XIMP	0.39	Assuming 85% of TIMP
Pervious Areas		
Landuse	Open Space - (Good Condition)	
SCS Curve Number, $CN_{pervious}$ (II)	50	Table 9-5, Chapter 9, Part 630 - National Engineering Handbook, United States Dept. of Agriculture, July 2004
Soil Storage, S	254.0	S=(25400/CN)-254
Initial Abstraction, IA (mm)	19.1	IA=0.075*S
Modified Curve Number, $CN^*_{pervious}$	48	Visual OTTHYMO User's Manual v6.1
Modified Initial Abstraction, IA^* (mm)	5	Visual OTTHYMO User's Manual v6.1
SLPP (%)	2	Topography
LGP(m)	40	Visual OTTHYMO User's Manual v6.1
MNP	0.25	Visual OTTHYMO User's Manual v6.1
SCP(hr)	0	Visual OTTHYMO User's Manual v6.1
Impervious Areas		
DPSI	1	Visual OTTHYMO User's Manual v6.1
SLPI (%)	0.5	Minimum
LGI (m)	302.59	$A = 1.5*LGI^2$
MNI	0.013	Visual OTTHYMO User's Manual v6.1
SCI(hr)	0	Visual OTTHYMO User's Manual v6.1

Catchment D2_O

Area (ha)	3.771	
Command	STANDHYD	
% Impervious	44.74	
TIMP	0.45	
XIMP	0.38	Assuming 85% of TIMP
Pervious Areas		
Landuse	Open Space - (Good Condition)	
SCS Curve Number, $CN_{pervious}$ (II)	50	Table 9-5, Chapter 9, Part 630 - National Engineering Handbook, United States Dept. of Agriculture, July 2004
Soil Storage, S	254.0	S=(25400/CN)-254
Initial Abstraction, IA (mm)	19.1	IA=0.075*S
Modified Curve Number, $CN^*_{pervious}$	48	Visual OTTHYMO User's Manual v6.1
Modified Initial Abstraction, IA^* (mm)	5	Visual OTTHYMO User's Manual v6.1
SLPP (%)	2	Visual OTTHYMO User's Manual v6.1
LGP(m)	40	Visual OTTHYMO User's Manual v6.1
MNP	0.25	Visual OTTHYMO User's Manual v6.1
SCP(hr)	0	Visual OTTHYMO User's Manual v6.1
Impervious Areas		
DPSI	1	Visual OTTHYMO User's Manual v6.1
SLPI (%)	0.5	Minimum
LGI (m)	158.56	$A = 1.5*LGI^2$
MNI	0.013	Visual OTTHYMO User's Manual v6.1
SCI(hr)	0	Visual OTTHYMO User's Manual v6.1

4.2 Visual OTTHYMO Inputs

Catchment D3

Area (ha)	1.167	
Command	STANDHYD	
% Impervious	24.10	
TIMP	0.24	
XIMP	0.20	Assuming 85% of TIMP
Pervious Areas		
Landuse	Open Space - (Fair Condition)	
SCS Curve Number, $CN_{pervious}$ (II)	59	Table 9-5, Chapter 9, Part 630 - National Engineering Handbook, United States Dept. of Agriculture, July 2004
Soil Storage, S	176.5	S=(25400/CN)-254
Initial Abstraction, IA (mm)	13.2	IA=0.075*S
Modified Curve Number, $CN^*_{pervious}$	57	Visual OTTHYMO User's Manual v6.1
Modified Initial Abstraction, IA^* (mm)	5	Visual OTTHYMO User's Manual v6.1
SLPP (%)	2	Topography
LGP(m)	40	Visual OTTHYMO User's Manual v6.1
MNP	0.25	Visual OTTHYMO User's Manual v6.1
SCP(hr)	0	Visual OTTHYMO User's Manual v6.1
Impervious Areas		
DPSI	1	Visual OTTHYMO User's Manual v6.1
SLPI (%)	0.5	Minimum
LGI (m)	88.2	$A = 1.5*LGI^2$
MNI	0.013	Visual OTTHYMO User's Manual v6.1
SCI(hr)	0	Visual OTTHYMO User's Manual v6.1

4.2 Visual OTTHYMO Inputs

Catchments D1_Ex

Area (ha)	26.893	
Command	STANDHYD	
% Impervious	57.16	
TIMP	0.57	
XIMP	0.49	Assuming 85% of TIMP
Pervious Areas		
Landuse	Open Space - (Good Condition)	
SCS Curve Number, $CN_{pervious}$ (II)	50	Table 9-5, Chapter 9, Part 630 - National Engineering Handbook, United States Dept. of Agriculture, July 2004
Soil Storage, S	254.0	S=(25400/CN)-254
Initial Abstraction, IA (mm)	19.1	IA=0.075*S
Modified Curve Number, $CN^*_{pervious}$	48	Visual OTTHYMO User's Manual v6.1
Modified Initial Abstraction, IA^* (mm)	5	Visual OTTHYMO User's Manual v6.1
SLPP (%)	2	Topography
LGP(m)	40	Visual OTTHYMO User's Manual v6.1
MNP	0.25	Visual OTTHYMO User's Manual v6.1
SCP(hr)	0	Visual OTTHYMO User's Manual v6.1
Impervious Areas		
DPSI	1	Visual OTTHYMO User's Manual v6.1
SLPI (%)	0.5	Minimum
LGI (m)	423.42	$A = 1.5*LGI^2$
MNI	0.013	Visual OTTHYMO User's Manual v6.1
SCI(hr)	0	Visual OTTHYMO User's Manual v6.1

Catchment D2_Ex

Area (ha)	2.859	
Command	STANDHYD	
% Impervious	41.12	
TIMP	0.41	
XIMP	0.35	Assuming 85% of TIMP
Pervious Areas		
Landuse	Open Space - (Good Condition)	
SCS Curve Number, $CN_{pervious}$ (II)	50	Table 9-5, Chapter 9, Part 630 - National Engineering Handbook, United States Dept. of Agriculture, July 2004
Soil Storage, S	254.0	S=(25400/CN)-254
Initial Abstraction, IA (mm)	19.1	IA=0.075*S
Modified Curve Number, $CN^*_{pervious}$	48	Visual OTTHYMO User's Manual v6.1
Modified Initial Abstraction, IA^* (mm)	5	Visual OTTHYMO User's Manual v6.1
SLPP (%)	2	Visual OTTHYMO User's Manual v6.1
LGP(m)	40	Visual OTTHYMO User's Manual v6.1
MNP	0.25	Visual OTTHYMO User's Manual v6.1
SCP(hr)	0	Visual OTTHYMO User's Manual v6.1
Impervious Areas		
DPSI	1	Visual OTTHYMO User's Manual v6.1
SLPI (%)	0.5	Minimum
LGI (m)	138.06	$A = 1.5*LGI^2$
MNI	0.013	Visual OTTHYMO User's Manual v6.1
SCI(hr)	0	Visual OTTHYMO User's Manual v6.1

4.2 Visual OTTHYMO Inputs

Catchment D5_Ex

Area (ha)	1.946	
Command	STANDHYD	
% Impervious	30.29	
TIMP	0.30	
XIMP	0.26	Assuming 85% of TIMP
Pervious Areas		
Landuse	Open Space - (Good Condition)	
SCS Curve Number, $CN_{pervious}$ (II)	50	Table 9-5, Chapter 9, Part 630 - National Engineering Handbook, United States Dept. of Agriculture, July 2004
Soil Storage, S	254.0	S=(25400/CN)-254
Initial Abstraction, IA (mm)	19.1	IA=0.075*S
Modified Curve Number, $CN^*_{pervious}$	48	Visual OTTHYMO User's Manual v6.1
Modified Initial Abstraction, IA^* (mm)	5	Visual OTTHYMO User's Manual v6.1
SLPP (%)	2	Topography
LGP(m)	40	Visual OTTHYMO User's Manual v6.1
MNP	0.25	Visual OTTHYMO User's Manual v6.1
SCP(hr)	0	Visual OTTHYMO User's Manual v6.1
Impervious Areas		
DPSI	1	Visual OTTHYMO User's Manual v6.1
SLPI (%)	0.5	Minimum
LGI (m)	113.9	$A = 1.5*LGI^2$
MNI	0.013	Visual OTTHYMO User's Manual v6.1
SCI(hr)	0	Visual OTTHYMO User's Manual v6.1

4.2 Visual OTTHYMO Inputs

Catchment D4

Area(ha)	0.767	
Command	NASHYD -104	
% Impervious	18.21	
Landuse	Open Space (Poor Condition), fallen trees, brush, sheds, structures and paved surfaces	
SCS Curve Number, CN (II)	56	Table 9-5, Chapter 9, Part 630 - National Engineering Handbook, United States Dept. of Agriculture, July 2004
Soil Storage, S	199.6	S=(25400/CN)-254
Initial Abstraction, IA (mm)	15.0	IA=0.075*S
Modified Curve Number, CN*	53	Visual OTTHYMO User's Manual v6.1
Modified Initial Abstraction, IA* (mm)	5	Visual OTTHYMO User's Manual v6.1
Time of Concentration (tc) (min)	31.00	SCS Travel Time equation, Table 15.1.2, Chow V.T. 1987
Time to peak (Tp) (hr)	0.34	(N-1)/N * Tc

Catchment D5_O

Area(ha)	1.623	
Command	NASHYD	
% Impervious	10.52	
Landuse	Open Space (Poor Condition), fallen trees, brush, sheds, structures and paved surfaces	
SCS Curve Number, CN (II)	64	Table 9-5, Chapter 9, Part 630 - National Engineering Handbook, United States Dept. of Agriculture, July 2004
Soil Storage, S	142.9	S=(25400/CN)-254
Initial Abstraction, IA (mm)	10.7	IA=0.075*S
Modified Curve Number, CN*	60	Visual OTTHYMO User's Manual v6.1
Modified Initial Abstraction, IA* (mm)	5	Visual OTTHYMO User's Manual v6.1
Time of Concentration (tc) (min)	168.00	SCS Travel Time equation, Table 15.1.2, Chow V.T. 1987
Time to peak (Tp) (hr)	1.87	(N-1)/N * Tc

Catchment O1

Area(ha)	6.971	
Command	NASHYD - 201	
% Impervious	12.73	
Landuse	Woods - Good Condition	
SCS Curve Number, CN (II)	68	Tables 9-1 and 9-5, Chapter 9, Part 630 - National Engineering Handbook, United States Dept. of Agriculture, July 2004
Soil Storage, S	119.5	S=(25400/CN)-254
Initial Abstraction, IA (mm)	9.0	IA=0.075*S
Modified Curve Number, CN*	66	Visual OTTHYMO User's Manual v6.1
Modified Initial Abstraction, IA* (mm)	5	Visual OTTHYMO User's Manual v6.1
Time of Concentration (tc) (min)	67.00	SCS Travel Time equation, Table 15.1.2, Chow V.T. 1987
Time to peak (Tp) (hr)	0.74	(N-1)/N * Tc

4.2 Visual OTTHYMO Inputs

Catchment O2

Area(ha)	2.709	
Command	NASHYD - 202	
% Impervious	13.77	
Landuse	Woods - Good Condition; Open Space - Fair Condition	
SCS Curve Number, CN (II)	70	Tables 9-1 and 9-5, Chapter 9, Part 630 - National Engineering Handbook, United States Dept. of Agriculture, July 2004
Soil Storage, S	108.9	S=(25400/CN)-254
Initial Abstraction, IA (mm)	8.2	IA=0.075*S
Modified Curve Number, CN*	68	Visual OTTHYMO User's Manual v6.1
Modified Initial Abstraction, IA* (mm)	5	Visual OTTHYMO User's Manual v6.1
Time of Concentration (tc) (min)	84.00	SCS Travel Time equation, Table 15.1.2, Chow V.T. 1987
Time to peak (Tp) (hr)	0.93	(N-1)/N * Tc

Catchment O3

Area(ha)	34.297	
Command	NASHYD -203	
% Impervious	0.65	
Landuse	Woods - Good Condition	
SCS Curve Number, CN (II)	45	Tables 9-1 and 9-5, Chapter 9, Part 630 - National Engineering Handbook, United States Dept. of Agriculture, July 2004
Soil Storage, S	310.4	S=(25400/CN)-254
Initial Abstraction, IA (mm)	23.3	IA=0.075*S
Modified Curve Number, CN*	42	Visual OTTHYMO User's Manual v6.1
Modified Initial Abstraction, IA* (mm)	5	Visual OTTHYMO User's Manual v6.1
Time of Concentration (tc) (min)	126.00	SCS Travel Time equation, Table 15.1.2, Chow V.T. 1987
Time to peak (Tp) (hr)	1.40	(N-1)/N * Tc

Catchment O4

Area(ha)	0.395	
Command	NASHYD - 204	
% Impervious	19.41	
Landuse	Open Space - Fair Condition ; Woods - Good Condition	
SCS Curve Number, CN (II)	69	Tables 9-1 and 9-5, Chapter 9, Part 630 - National Engineering Handbook, United States Dept. of Agriculture, July 2004
Soil Storage, S	114.1	S=(25400/CN)-254
Initial Abstraction, IA (mm)	8.6	IA=0.075*S
Modified Curve Number, CN*	67	Visual OTTHYMO User's Manual v6.1
Modified Initial Abstraction, IA* (mm)	5	Visual OTTHYMO User's Manual v6.1
Time of Concentration (tc) (min)	25.00	SCS Travel Time equation, Table 15.1.2, Chow V.T. 1987
Time to peak (Tp) (hr)	0.28	(N-1)/N * Tc

4.4 Major Minor System Division

4.4 Minor System Capacity

Catchment ID	Command	5-yr	2-yr	Big "O" Dia	Big "O" Length	Big "O" Slope	Big "O" Discharge	60% Full Discharge	Selected Flow
		m3/s	m3/s	mm	m	%	m3/s	m3/s	m3/s
D1_Ex	DuHyd	3.057	-	-	-	-	-	-	3.057
D2_Ex	DuHyd	0.289	0.209	300	-	0.097	0.301	0.202	0.202
D3	-	-	-	-	-	-	-	-	-
D4	-	-	-	-	-	-	-	-	-
D5_Ex	DuHyd	0.145	0.108	-	-	-	-	-	0.108
O1	-	-	-	-	-	-	-	-	-
O2	-	-	-	-	-	-	-	-	-
O3	-	-	-	-	-	-	-	-	-
O4	-	-	-	-	-	-	-	-	-

4.4.1 Catchment D1

Minor system flows for Catchment D1_Ex are redirected to the sewer system which is designed for the 5-year RP. (Source: Storm Sewer Layout, April 24 2020; Proposed Walker Road Trunk Sewer Design Sheet, Apr. 2020; as obtained from the City of Windor)

4.4.2 Catchment D2

Minor system flows for Catchment D2_Ex are redirected to the "Big O" pipe under the discontinued section of Dawson Drain. Design capacity is unknown. Big O pipe was found to have overgrown plants as per recent survey therefore accounting for reduced capcity by assuming 60% available. (Sources: South Woods Estates, Woodward Blvd, Storm Sewer Layout, January 1989; Ward 9 Ditch Survey 2022)

4.4.3 Catchment D5

Minor system flows for Catchment D5_Ex are redirected to the sewer system. Design capacity unknown, assumed to be able to pass 2-year RP. (Source: Devonshire Heights - Stage 4 Phase 3, 1999)

5.1 Design Storm Selection

Visual OTTHYMO model is simulated for the Chicago and SCS storm for the 3 , 6, 12 and 24 hour durations as presented and were compared to select the design storm.

Return Period (Years)	Existing Peak Flows on Dawson Drain NHYD : 906 (m3/s)				
	3hr Chicago	6hr Chicago	12 hr SCS	24hr Chicago	Hazel
2	1.314	1.327	1.128	1.360	-
5	1.915	1.945	1.676	2.035	-
10	2.750	2.829	2.192	2.998	-
25	4.133	4.244	3.492	4.463	-
50	5.146	5.289	4.357	5.553	-
100	6.170	6.343	5.417	6.655	-
Regional	-	-	-	-	2.323

Return Period (Years)	Existing Peak Flows on O'Neil Drain NHYD : 909 (m3/s)				
	3hr Chicago	6hr Chicago	12 hr SCS	24hr Chicago	Hazel
2	1.324	1.342	1.181	1.387	-
5	1.936	1.973	1.771	2.089	-
10	2.780	2.874	2.320	3.070	-
25	4.176	4.300	3.668	4.553	-
50	5.200	5.358	4.569	5.663	-
100	6.237	6.428	5.673	6.789	-
Regional	-	-	-	-	4.143

Return Period (Years)	Existing Peak Flows entering 450 mm pipe and Overland System - NHYD : 51 (m3/s)				
	3hr Chicago	6hr Chicago	12 hr SCS	24hr Chicago	Hazel
2	0.550	0.551	0.545	0.555	-
5	0.574	0.578	0.576	0.585	-
10	0.596	0.755	0.597	1.241	-
25	2.319	2.762	2.515	3.250	-
50	4.565	4.627	4.377	5.767	-
100	7.309	6.354	6.392	9.715	-
Regional	-	-	-	-	4.143

5.2 Exsiting Conditions Flows

Visual OTTHYMO model is simulated for the 24 hour Chicago and results are presented below.

NHYD	Existing Peak Flows on Dawson Drain (m3/s)						
	2-y	5-yr	10-yr	25-yr	50-yr	100-yr	Hazel
Catchments							
101	1.003	1.447	2.245	3.427	4.324	5.221	1.496
102	0.316	0.510	0.635	0.815	0.943	1.089	0.507
103	0.055	0.076	0.092	0.115	0.134	0.157	0.125
104	0.009	0.016	0.021	0.029	0.035	0.042	0.066
105	0.008	0.041	0.067	0.105	0.147	0.179	0.130
Nodes							
901	1.054	1.519	2.333	3.541	4.458	5.379	1.621
902	1.058	1.527	2.344	3.555	4.474	5.398	1.687
903	1.360	2.005	2.942	4.361	5.408	6.478	2.192
906	1.360	2.035	2.998	4.463	5.553	6.655	2.323

NHYD	Existing Peak Flows on O'Neil Drain (m3/s)						
	2-y	5-yr	10-yr	25-yr	50-yr	100-yr	Hazel
Catchments							
201	0.080	0.135	0.175	0.235	0.280	0.331	0.627
202	0.028	0.048	0.062	0.082	0.098	0.115	0.238
203	0.106	0.186	0.247	0.340	0.410	0.495	1.615
204	0.009	0.015	0.019	0.026	0.031	0.036	0.044
Nodes							
904	0.107	0.181	0.235	0.315	0.374	0.443	0.864
905	0.196	0.337	0.443	0.601	0.720	0.861	2.405
907	0.196	0.337	0.443	0.601	0.720	0.861	2.405
908	1.382	2.080	3.058	4.538	5.645	6.767	4.108
909	1.387	2.089	3.070	4.553	5.663	6.789	4.143

NHYD	Existing Peak Flows entering 450 mm outlet pipe and overland system (m3/s)						
	2-y	5-yr	10-yr	25-yr	50-yr	100-yr	Hazel
Node							
51	0.555	0.585	1.241	3.250	5.767	9.715	4.143

Project : 221-00563-00 Dawson and O'Neil Creeks

Rating Curve for Hydrologic Model (Existing Conditions) - Free Flow

Prepared by: CP
Checked by: EK
Date: 2025-04-04

Elevation of Base of System :	187.006	*(Invert of Grate IGLD 187.47 m)*
Total Height of System (m):	0.994	*(Assumed, to get a maximum WL of 188.0 m in CGVD2013)*

Outlet #1 - 450 mm HDPE pipe from DICB27 to MH26 - Free Flow

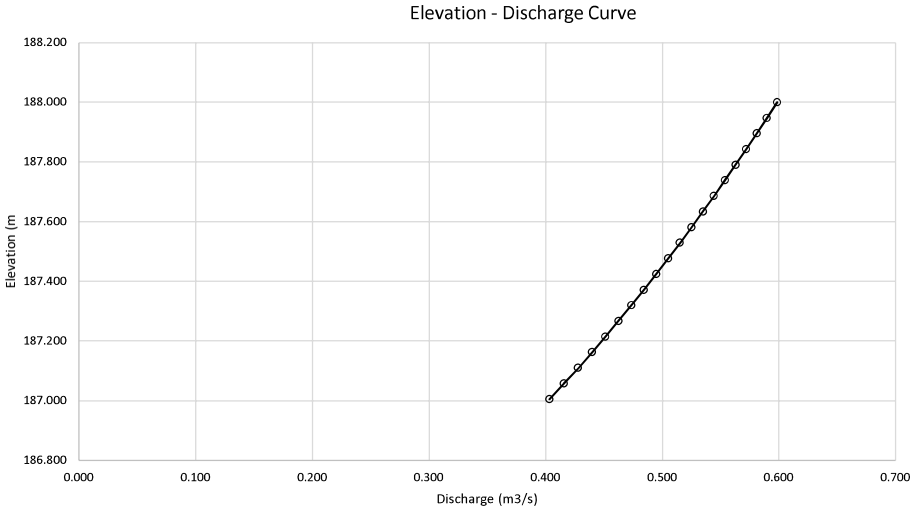
Type	Circular Orifice	Diameter (mm):	450
Invert Elevation of Lowest Outflow/Orifice (m)	185.955	Length - perpendicular to flow (m) :	-
Height of invert above base (m):	-1.05	Width - parallel to flow (m)	-
Height of system above invert (m):	2.04	Discharge Coefficient (m^0.5/s) :	0.63
So each ordinate (m)	0.052	Weir Coefficient:	-

Outlet #2 - Overland Flowroute (cemetery open area, west of the drain)

Type	Broad-Crested Weir	Diameter (mm):	-
Invert Elevation:	188	Length - perpendicular to flow (m) :	100
Height of Invert above Base (m):	0.99	Width - parallel to flow (m)	-
		Discharge Coefficient (m^0.5/s) :	-
		Weir Coefficient:	0.2

Outlet #3 - Overland Flowroute (Hallee Crescent once Top of Berm is overtopped)

Type	Broad-Crested Weir	Diameter (mm):	-
Invert Elevation:	188.336	Length - perpendicular to flow (m) :	8
Height of Invert above Base (m):	1.33	Width - parallel to flow (m)	-
		Discharge Coefficient (m^0.5/s) :	-
		Weir Coefficient:	1.44



Ordinate	Total Depth from Base (m)	Outlet # 1			Outlet # 2			Outlet # 3			For VO		
		Head Above Invert (m)	Discharge (m3/s)	Discharge (L/s)	Head Above Invert (m)	Discharge (m3/s)	Discharge (L/s)	Head Above Invert (m)	Discharge (m3/s)	Discharge (L/s)	Discharge (m3/s)	Elevation (m)	Volume (m3)
1	0	1.051	0.403	403.2							0.403	187.006	0.00
2	0.052	1.103	0.416	415.7							0.416	187.058	0.00
3	0.105	1.156	0.428	427.9							0.428	187.111	0.00
4	0.157	1.208	0.440	439.8							0.440	187.163	0.00
5	0.209	1.260	0.451	451.3							0.451	187.215	1.00
6	0.262	1.313	0.463	462.6							0.463	187.268	6.02
7	0.314	1.365	0.474	473.6							0.474	187.320	12.89
8	0.366	1.417	0.484	484.4							0.484	187.372	30.02
9	0.419	1.470	0.495	494.9							0.495	187.425	56.34
10	0.471	1.522	0.505	505.2							0.505	187.477	101.59
11	0.523	1.574	0.515	515.2							0.515	187.529	163.47
12	0.575	1.626	0.525	525.1							0.525	187.581	270.40
13	0.628	1.679	0.535	534.9							0.535	187.634	404.78
14	0.680	1.731	0.544	544.4							0.544	187.686	566.02
15	0.732	1.783	0.554	553.8							0.554	187.738	774.87
16	0.785	1.836	0.563	563.0							0.563	187.791	1068.66
17	0.837	1.888	0.572	572.1							0.572	187.843	1342.17
18	0.889	1.940	0.581	581.0							0.581	187.895	1635.34
19	0.942	1.993	0.590	589.8							0.590	187.948	1966.99
20	0.994	2.045	0.598	598.4							0.598	188.000	2362.44

Outlet #1 - 450 mm HDPE pipe from DICB27 to MH26
Invert at 186.419 m (datum IGLD85), converted to CGVD2013 = 185.955 m.
Datum Correction = -0.464m.

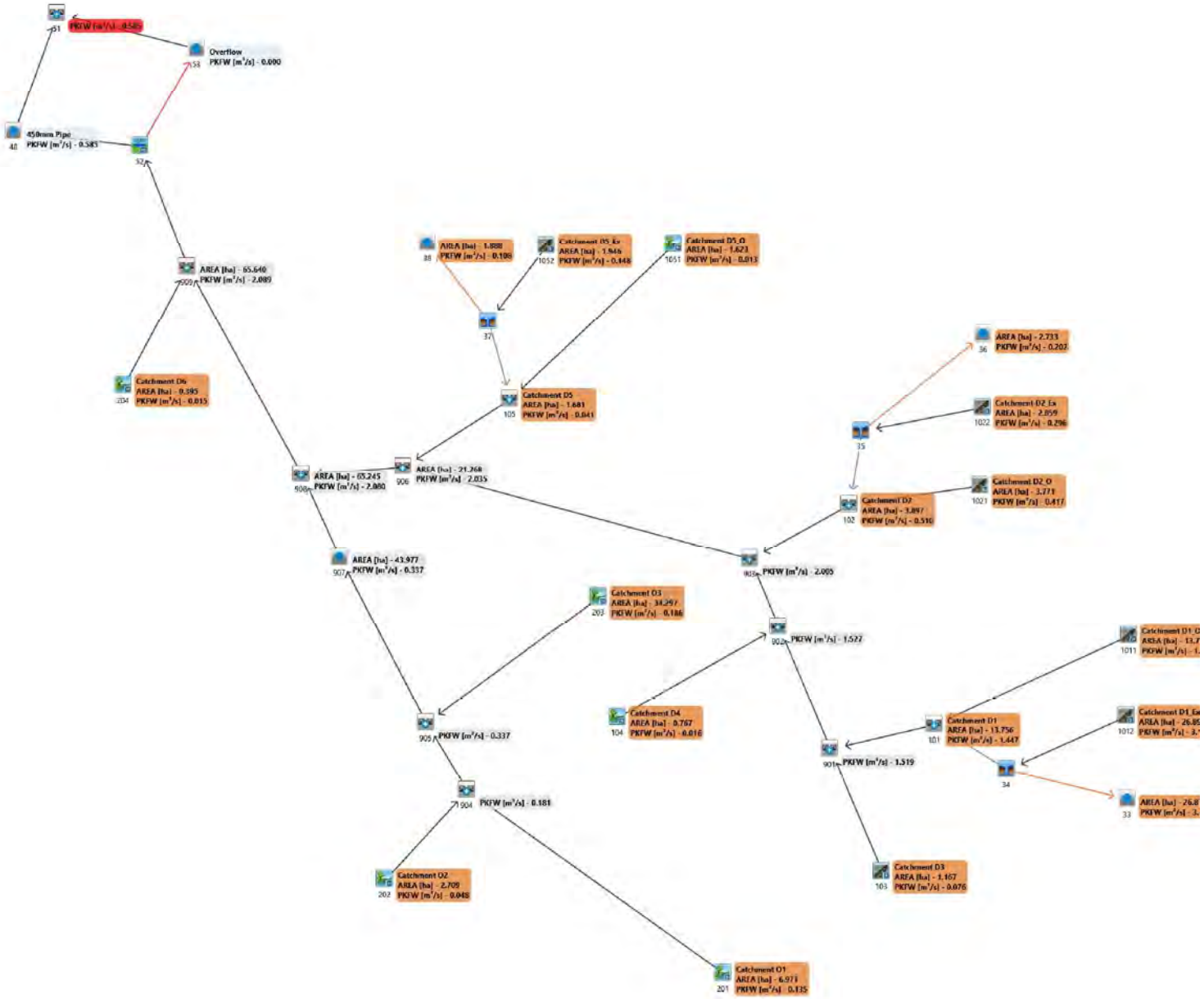
Outlet #2 - Overland Flowroute (cemetery open area, west of the drain)
Approx ground elevation CGVD2013 = 188 m.
Assumed weir length of 100 m.
(currently not modelled)

Outlet #3 - Overland Flowroute (Hallee Crescent once Top of Berm is overtopped)
Approx Top of Berm = 188.80m.(IGLD85). CGVD2013 = 188.386 m.
Road width = 8 m
(currently not modelled)

Source
R. C. Spencer Associates (2016). Southwid Subdivision, As-constructed Phase 1 & 2 Drawings.
Prepared for Tru Land Developments Inc. City of Windsor Reference # S-2018. Sheets 4 and 13.

Overland Weir Coefficients
https://www.kleinschmidtgroup.com/ras-post/weir-equations-in-hec-ras/

Volumes estimated in AutoCAD using LiDAR


Overflow
PKFW [m³/s] - 0.000
450mm Pipe
PKFW [m³/s] - 0.585
AREA [ha] - 55.640
PKFW [m³/s] - 2.089
Catchment D6
AREA [ha] - 0.395
PKFW [m³/s] - 0.015
AREA [ha] - 1.888
PKFW [m³/s] - 0.109
Catchment D5_Ex
AREA [ha] - 1.946
PKFW [m³/s] - 0.448
Catchment D5_O
AREA [ha] - 1.623
PKFW [m³/s] - 0.013
Catchment D5
AREA [ha] - 1.681
PKFW [m³/s] - 0.041
AREA [ha] - 65.245
PKFW [m³/s] - 2.080
AREA [ha] - 21.268
PKFW [m³/s] - 2.035
AREA [ha] - 2.733
PKFW [m³/s] - 0.202
Catchment D2_Ex
AREA [ha] - 2.859
PKFW [m³/s] - 0.296
Catchment D2_O
AREA [ha] - 3.771
PKFW [m³/s] - 0.417
Catchment D2
AREA [ha] - 3.897
PKFW [m³/s] - 0.510
AREA [ha] - 43.977
PKFW [m³/s] - 0.337
PKFW [m³/s] - 2.005
Catchment D3
AREA [ha] - 34.297
PKFW [m³/s] - 0.186
PKFW [m³/s] - 1.522
Catchment D4
AREA [ha] - 0.767
PKFW [m³/s] - 0.016
PKFW [m³/s] - 0.337
Catchment D1
AREA [ha] - 13.756
PKFW [m³/s] - 1.447
PKFW [m³/s] - 1.519
PKFW [m³/s] - 0.181
Catchment O2
AREA [ha] - 2.709
PKFW [m³/s] - 0.045
Catchment D3
AREA [ha] - 1.167
PKFW [m³/s] - 0.076
Catchment O1
AREA [ha] - 6.971
PKFW [m³/s] - 0.135

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================================================================================
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      V    V   I    SSSSS  U   U    A    L              (v 6.2.2015)
      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 *****


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DATE: 04-04-2025                          TIME: 09:55:00

USER:


COMMENTS: _____________________________________________________


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  ************************************************
  ** SIMULATION : 100yr 24hr 10min Chicago      **
  ************************************************

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| CHICAGO STORM    |    IDF curve parameters: A=2375.000
| Ptotal=108.06 mm |                          B=  11.000
-------------------                          C=   0.861
                        used in:   INTENSITY =  A / (t + B)^C

                  Duration of storm  = 24.00 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    0.67 |  6.00    2.65 | 12.00    2.29 | 18.00    0.99
 0.17    0.68 |  6.17    2.92 | 12.17    2.20 | 18.17    0.97
 0.33    0.70 |  6.33    3.26 | 12.33    2.12 | 18.33    0.96
 0.50    0.71 |  6.50    3.69 | 12.50    2.05 | 18.50    0.94
 0.67    0.73 |  6.67    4.25 | 12.67    1.98 | 18.67    0.93
 0.83    0.74 |  6.83    5.02 | 12.83    1.92 | 18.83    0.92
 1.00    0.76 |  7.00    6.15 | 13.00    1.86 | 19.00    0.91
 1.17    0.77 |  7.17    7.95 | 13.17    1.80 | 19.17    0.89
 1.33    0.79 |  7.33   11.22 | 13.33    1.75 | 19.33    0.88
 1.50    0.81 |  7.50   18.75 | 13.50    1.70 | 19.50    0.87
 1.67    0.83 |  7.67   49.66 | 13.67    1.66 | 19.67    0.86
 1.83    0.85 |  7.83  172.68 | 13.83    1.61 | 19.83    0.85
 2.00    0.88 |  8.00   65.83 | 14.00    1.57 | 20.00    0.84
 2.17    0.90 |  8.17   33.57 | 14.17    1.53 | 20.17    0.83
 2.33    0.92 |  8.33   21.73 | 14.33    1.50 | 20.33    0.82
 2.50    0.95 |  8.50   15.83 | 14.50    1.46 | 20.50    0.81
 2.67    0.98 |  8.67   12.37 | 14.67    1.43 | 20.67    0.80
 2.83    1.01 |  8.83   10.11 | 14.83    1.39 | 20.83    0.79
 3.00    1.04 |  9.00    8.54 | 15.00    1.36 | 21.00    0.78
 3.17    1.08 |  9.17    7.39 | 15.17    1.34 | 21.17    0.77
 3.33    1.11 |  9.33    6.51 | 15.33    1.31 | 21.33    0.76
 3.50    1.15 |  9.50    5.82 | 15.50    1.28 | 21.50    0.75
 3.67    1.20 |  9.67    5.26 | 15.67    1.26 | 21.67    0.75
 3.83    1.24 |  9.83    4.80 | 15.83    1.23 | 21.83    0.74
 4.00    1.29 | 10.00    4.42 | 16.00    1.21 | 22.00    0.73
 4.17    1.35 | 10.17    4.09 | 16.17    1.19 | 22.17    0.72
 4.33    1.41 | 10.33    3.81 | 16.33    1.16 | 22.33    0.72
 4.50    1.48 | 10.50    3.57 | 16.50    1.14 | 22.50    0.71
 4.67    1.55 | 10.67    3.36 | 16.67    1.12 | 22.67    0.70
 4.83    1.63 | 10.83    3.17 | 16.83    1.10 | 22.83    0.69
 5.00    1.72 | 11.00    3.00 | 17.00    1.09 | 23.00    0.69
 5.17    1.83 | 11.17    2.85 | 17.17    1.07 | 23.17    0.68
 5.33    1.95 | 11.33    2.72 | 17.33    1.05 | 23.33    0.67
 5.50    2.08 | 11.50    2.59 | 17.50    1.03 | 23.50    0.67
 5.67    2.24 | 11.67    2.48 | 17.67    1.02 | 23.67    0.66
 5.83    2.43 | 11.83    2.38 | 17.83    1.00 | 23.83    0.65

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-------------------
| CALIB            |
| STANDHYD (  1012)|   Area    (ha)=  26.89
|ID= 1 DT= 1.0 min |   Total Imp(%)=  57.00   Dir. Conn.(%)=  49.00
-------------------

                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       15.33         11.56

Dep. Storage     (mm)=       1.00          5.00
Average Slope     (%)=       0.50          2.00
Length            (m)=     423.42         40.00
Mannings n             =      0.013         0.250

    NOTE:  RAINFALL WAS TRANSFORMED TO   1.0 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
0.017    0.67 | 6.017    2.65 |12.017    2.29 | 18.02    0.99
0.033    0.67 | 6.033    2.65 |12.033    2.29 | 18.03    0.99
0.050    0.67 | 6.050    2.65 |12.050    2.29 | 18.05    0.99
0.067    0.67 | 6.067    2.65 |12.067    2.29 | 18.07    0.99
0.083    0.67 | 6.083    2.65 |12.083    2.29 | 18.08    0.99
0.100    0.67 | 6.100    2.65 |12.100    2.29 | 18.10    0.99
0.117    0.67 | 6.117    2.65 |12.117    2.29 | 18.12    0.99
0.133    0.67 | 6.133    2.65 |12.133    2.29 | 18.13    0.99
0.150    0.67 | 6.150    2.65 |12.150    2.29 | 18.15    0.99
0.167    0.67 | 6.167    2.65 |12.167    2.29 | 18.17    0.99
0.183    0.68 | 6.183    2.92 |12.183    2.20 | 18.18    0.97
0.200    0.68 | 6.200    2.92 |12.200    2.20 | 18.20    0.97
0.217    0.68 | 6.217    2.92 |12.217    2.20 | 18.22    0.97
0.233    0.68 | 6.233    2.92 |12.233    2.20 | 18.23    0.97
0.250    0.68 | 6.250    2.92 |12.250    2.20 | 18.25    0.97
0.267    0.68 | 6.267    2.92 |12.267    2.20 | 18.27    0.97
0.283    0.68 | 6.283    2.92 |12.283    2.20 | 18.28    0.97
0.300    0.68 | 6.300    2.92 |12.300    2.20 | 18.30    0.97
0.317    0.68 | 6.317    2.92 |12.317    2.20 | 18.32    0.97
0.333    0.68 | 6.333    2.92 |12.333    2.20 | 18.33    0.97
0.350    0.70 | 6.350    3.26 |12.350    2.12 | 18.35    0.96
0.367    0.70 | 6.367    3.26 |12.367    2.12 | 18.37    0.96
0.383    0.70 | 6.383    3.26 |12.383    2.12 | 18.38    0.96
0.400    0.70 | 6.400    3.26 |12.400    2.12 | 18.40    0.96
0.417    0.70 | 6.417    3.26 |12.417    2.12 | 18.42    0.96
0.433    0.70 | 6.433    3.26 |12.433    2.12 | 18.43    0.96
0.450    0.70 | 6.450    3.26 |12.450    2.12 | 18.45    0.96
0.467    0.70 | 6.467    3.26 |12.467    2.12 | 18.47    0.96
0.483    0.70 | 6.483    3.26 |12.483    2.12 | 18.48    0.96
0.500    0.70 | 6.500    3.26 |12.500    2.12 | 18.50    0.96
0.517    0.71 | 6.517    3.69 |12.517    2.05 | 18.52    0.94
0.533    0.71 | 6.533    3.69 |12.533    2.05 | 18.53    0.94
0.550    0.71 | 6.550    3.69 |12.550    2.05 | 18.55    0.94
0.567    0.71 | 6.567    3.69 |12.567    2.05 | 18.57    0.94
0.583    0.71 | 6.583    3.69 |12.583    2.05 | 18.58    0.94
0.600    0.71 | 6.600    3.69 |12.600    2.05 | 18.60    0.94
0.617    0.71 | 6.617    3.69 |12.617    2.05 | 18.62    0.94
0.633    0.71 | 6.633    3.69 |12.633    2.05 | 18.63    0.94
0.650    0.71 | 6.650    3.69 |12.650    2.05 | 18.65    0.94
0.667    0.71 | 6.667    3.69 |12.667    2.05 | 18.67    0.94
0.683    0.73 | 6.683    4.25 |12.683    1.98 | 18.68    0.93

0.700    0.73 | 6.700    4.25 |12.700    1.98 | 18.70    0.93
0.717    0.73 | 6.717    4.25 |12.717    1.98 | 18.72    0.93
0.733    0.73 | 6.733    4.25 |12.733    1.98 | 18.73    0.93
0.750    0.73 | 6.750    4.25 |12.750    1.98 | 18.75    0.93
0.767    0.73 | 6.767    4.25 |12.767    1.98 | 18.77    0.93
0.783    0.73 | 6.783    4.25 |12.783    1.98 | 18.78    0.93
0.800    0.73 | 6.800    4.25 |12.800    1.98 | 18.80    0.93
0.817    0.73 | 6.817    4.25 |12.817    1.98 | 18.82    0.93
0.833    0.73 | 6.833    4.25 |12.833    1.98 | 18.83    0.93
0.850    0.74 | 6.850    5.02 |12.850    1.92 | 18.85    0.92
0.867    0.74 | 6.867    5.02 |12.867    1.92 | 18.87    0.92
0.883    0.74 | 6.883    5.02 |12.883    1.92 | 18.88    0.92
0.900    0.74 | 6.900    5.02 |12.900    1.92 | 18.90    0.92
0.917    0.74 | 6.917    5.02 |12.917    1.92 | 18.92    0.92
0.933    0.74 | 6.933    5.02 |12.933    1.92 | 18.93    0.92
0.950    0.74 | 6.950    5.02 |12.950    1.92 | 18.95    0.92
0.967    0.74 | 6.967    5.02 |12.967    1.92 | 18.97    0.92
0.983    0.74 | 6.983    5.02 |12.983    1.92 | 18.98    0.92
1.000    0.74 | 7.000    5.03 |13.000    1.92 | 19.00    0.92
1.017    0.76 | 7.017    6.15 |13.017    1.86 | 19.02    0.91
1.033    0.76 | 7.033    6.15 |13.033    1.86 | 19.03    0.91
1.050    0.76 | 7.050    6.15 |13.050    1.86 | 19.05    0.91
1.067    0.76 | 7.067    6.15 |13.067    1.86 | 19.07    0.91
1.083    0.76 | 7.083    6.15 |13.083    1.86 | 19.08    0.91
1.100    0.76 | 7.100    6.15 |13.100    1.86 | 19.10    0.91
1.117    0.76 | 7.117    6.15 |13.117    1.86 | 19.12    0.91
1.133    0.76 | 7.133    6.15 |13.133    1.86 | 19.13    0.91
1.150    0.76 | 7.150    6.15 |13.150    1.86 | 19.15    0.91
1.167    0.76 | 7.167    6.16 |13.167    1.86 | 19.17    0.91
1.183    0.77 | 7.183    7.95 |13.183    1.80 | 19.18    0.89
1.200    0.77 | 7.200    7.95 |13.200    1.80 | 19.20    0.89
1.217    0.77 | 7.217    7.95 |13.217    1.80 | 19.22    0.89
1.233    0.77 | 7.233    7.95 |13.233    1.80 | 19.23    0.89
1.250    0.77 | 7.250    7.95 |13.250    1.80 | 19.25    0.89
1.267    0.77 | 7.267    7.95 |13.267    1.80 | 19.27    0.89
1.283    0.77 | 7.283    7.95 |13.283    1.80 | 19.28    0.89
1.300    0.77 | 7.300    7.95 |13.300    1.80 | 19.30    0.89
1.317    0.77 | 7.317    7.95 |13.317    1.80 | 19.32    0.89
1.333    0.77 | 7.333    7.96 |13.333    1.80 | 19.33    0.89
1.350    0.79 | 7.350   11.22 |13.350    1.75 | 19.35    0.88
1.367    0.79 | 7.367   11.22 |13.367    1.75 | 19.37    0.88
1.383    0.79 | 7.383   11.22 |13.383    1.75 | 19.38    0.88
1.400    0.79 | 7.400   11.22 |13.400    1.75 | 19.40    0.88
1.417    0.79 | 7.417   11.22 |13.417    1.75 | 19.42    0.88
1.433    0.79 | 7.433   11.22 |13.433    1.75 | 19.43    0.88
1.450    0.79 | 7.450   11.22 |13.450    1.75 | 19.45    0.88
1.467    0.79 | 7.467   11.22 |13.467    1.75 | 19.47    0.88
1.483    0.79 | 7.483   11.22 |13.483    1.75 | 19.48    0.88
1.500    0.79 | 7.500   11.24 |13.500    1.75 | 19.50    0.88
1.517    0.81 | 7.517   18.75 |13.517    1.70 | 19.52    0.87
1.533    0.81 | 7.533   18.75 |13.533    1.70 | 19.53    0.87
1.550    0.81 | 7.550   18.75 |13.550    1.70 | 19.55    0.87

1.567    0.81 | 7.567   18.75 |13.567    1.70 | 19.57    0.87
1.583    0.81 | 7.583   18.75 |13.583    1.70 | 19.58    0.87
1.600    0.81 | 7.600   18.75 |13.600    1.70 | 19.60    0.87
1.617    0.81 | 7.617   18.75 |13.617    1.70 | 19.62    0.87
1.633    0.81 | 7.633   18.75 |13.633    1.70 | 19.63    0.87
1.650    0.81 | 7.650   18.75 |13.650    1.70 | 19.65    0.87
1.667    0.81 | 7.667   18.84 |13.667    1.70 | 19.67    0.87
1.683    0.83 | 7.683   49.66 |13.683    1.66 | 19.68    0.86
1.700    0.83 | 7.700   49.66 |13.700    1.66 | 19.70    0.86
1.717    0.83 | 7.717   49.66 |13.717    1.66 | 19.72    0.86
1.733    0.83 | 7.733   49.66 |13.733    1.66 | 19.73    0.86
1.750    0.83 | 7.750   49.66 |13.750    1.66 | 19.75    0.86
1.767    0.83 | 7.767   49.66 |13.767    1.66 | 19.77    0.86
1.783    0.83 | 7.783   49.66 |13.783    1.66 | 19.78    0.86
1.800    0.83 | 7.800   49.66 |13.800    1.66 | 19.80    0.86
1.817    0.83 | 7.817   49.66 |13.817    1.66 | 19.82    0.86
1.833    0.83 | 7.833   50.02 |13.833    1.66 | 19.83    0.86
1.850    0.85 | 7.850  172.68 |13.850    1.61 | 19.85    0.85
1.867    0.85 | 7.867  172.68 |13.867    1.61 | 19.87    0.85
1.883    0.85 | 7.883  172.68 |13.883    1.61 | 19.88    0.85
1.900    0.85 | 7.900  172.68 |13.900    1.61 | 19.90    0.85
1.917    0.85 | 7.917  172.68 |13.917    1.61 | 19.92    0.85
1.933    0.85 | 7.933  172.68 |13.933    1.61 | 19.93    0.85
1.950    0.85 | 7.950  172.68 |13.950    1.61 | 19.95    0.85
1.967    0.85 | 7.967  172.68 |13.967    1.61 | 19.97    0.85
1.983    0.85 | 7.983  172.68 |13.983    1.61 | 19.98    0.85
2.000    0.85 | 8.000  172.36 |14.000    1.61 | 20.00    0.85
2.017    0.88 | 8.017   65.83 |14.017    1.57 | 20.02    0.84
2.033    0.88 | 8.033   65.83 |14.033    1.57 | 20.03    0.84
2.050    0.88 | 8.050   65.83 |14.050    1.57 | 20.05    0.84
2.067    0.88 | 8.067   65.83 |14.067    1.57 | 20.07    0.84
2.083    0.88 | 8.083   65.83 |14.083    1.57 | 20.08    0.84
2.100    0.88 | 8.100   65.83 |14.100    1.57 | 20.10    0.84
2.117    0.88 | 8.117   65.83 |14.117    1.57 | 20.12    0.84
2.133    0.88 | 8.133   65.83 |14.133    1.57 | 20.13    0.84
2.150    0.88 | 8.150   65.83 |14.150    1.57 | 20.15    0.84
2.167    0.88 | 8.167   65.74 |14.167    1.57 | 20.17    0.84
2.183    0.90 | 8.183   33.57 |14.183    1.53 | 20.18    0.83
2.200    0.90 | 8.200   33.57 |14.200    1.53 | 20.20    0.83
2.217    0.90 | 8.217   33.57 |14.217    1.53 | 20.22    0.83
2.233    0.90 | 8.233   33.57 |14.233    1.53 | 20.23    0.83
2.250    0.90 | 8.250   33.57 |14.250    1.53 | 20.25    0.83
2.267    0.90 | 8.267   33.57 |14.267    1.53 | 20.27    0.83
2.283    0.90 | 8.283   33.57 |14.283    1.53 | 20.28    0.83
2.300    0.90 | 8.300   33.57 |14.300    1.53 | 20.30    0.83
2.317    0.90 | 8.317   33.57 |14.317    1.53 | 20.32    0.83
2.333    0.90 | 8.333   33.53 |14.333    1.53 | 20.33    0.83
2.350    0.92 | 8.350   21.73 |14.350    1.50 | 20.35    0.82
2.367    0.92 | 8.367   21.73 |14.367    1.50 | 20.37    0.82
2.383    0.92 | 8.383   21.73 |14.383    1.50 | 20.38    0.82
2.400    0.92 | 8.400   21.73 |14.400    1.50 | 20.40    0.82
2.417    0.92 | 8.417   21.73 |14.417    1.50 | 20.42    0.82

2.433    0.92 | 8.433   21.73 |14.433    1.50 | 20.43    0.82
2.450    0.92 | 8.450   21.73 |14.450    1.50 | 20.45    0.82
2.467    0.92 | 8.467   21.73 |14.467    1.50 | 20.47    0.82
2.483    0.92 | 8.483   21.73 |14.483    1.50 | 20.48    0.82
2.500    0.92 | 8.500   21.72 |14.500    1.50 | 20.50    0.82
2.517    0.95 | 8.517   15.83 |14.517    1.46 | 20.52    0.81
2.533    0.95 | 8.533   15.83 |14.533    1.46 | 20.53    0.81
2.550    0.95 | 8.550   15.83 |14.550    1.46 | 20.55    0.81
2.567    0.95 | 8.567   15.83 |14.567    1.46 | 20.57    0.81
2.583    0.95 | 8.583   15.83 |14.583    1.46 | 20.58    0.81
2.600    0.95 | 8.600   15.83 |14.600    1.46 | 20.60    0.81
2.617    0.95 | 8.617   15.83 |14.617    1.46 | 20.62    0.81
2.633    0.95 | 8.633   15.83 |14.633    1.46 | 20.63    0.81
2.650    0.95 | 8.650   15.83 |14.650    1.46 | 20.65    0.81
2.667    0.95 | 8.667   15.82 |14.667    1.46 | 20.67    0.81
2.683    0.98 | 8.683   12.37 |14.683    1.43 | 20.68    0.80
2.700    0.98 | 8.700   12.37 |14.700    1.43 | 20.70    0.80
2.717    0.98 | 8.717   12.37 |14.717    1.43 | 20.72    0.80
2.733    0.98 | 8.733   12.37 |14.733    1.43 | 20.73    0.80
2.750    0.98 | 8.750   12.37 |14.750    1.43 | 20.75    0.80
2.767    0.98 | 8.767   12.37 |14.767    1.43 | 20.77    0.80
2.783    0.98 | 8.783   12.37 |14.783    1.43 | 20.78    0.80
2.800    0.98 | 8.800   12.37 |14.800    1.43 | 20.80    0.80
2.817    0.98 | 8.817   12.37 |14.817    1.43 | 20.82    0.80
2.833    0.98 | 8.833   12.36 |14.833    1.43 | 20.83    0.80
2.850    1.01 | 8.850   10.11 |14.850    1.39 | 20.85    0.79
2.867    1.01 | 8.867   10.11 |14.867    1.39 | 20.87    0.79
2.883    1.01 | 8.883   10.11 |14.883    1.39 | 20.88    0.79
2.900    1.01 | 8.900   10.11 |14.900    1.39 | 20.90    0.79
2.917    1.01 | 8.917   10.11 |14.917    1.39 | 20.92    0.79
2.933    1.01 | 8.933   10.11 |14.933    1.39 | 20.93    0.79
2.950    1.01 | 8.950   10.11 |14.950    1.39 | 20.95    0.79
2.967    1.01 | 8.967   10.11 |14.967    1.39 | 20.97    0.79
2.983    1.01 | 8.983   10.11 |14.983    1.39 | 20.98    0.79
3.000    1.01 | 9.000   10.11 |15.000    1.39 | 21.00    0.79
3.017    1.04 | 9.017    8.54 |15.017    1.36 | 21.02    0.78
3.033    1.04 | 9.033    8.54 |15.033    1.36 | 21.03    0.78
3.050    1.04 | 9.050    8.54 |15.050    1.36 | 21.05    0.78
3.067    1.04 | 9.067    8.54 |15.067    1.36 | 21.07    0.78
3.083    1.04 | 9.083    8.54 |15.083    1.36 | 21.08    0.78
3.100    1.04 | 9.100    8.54 |15.100    1.36 | 21.10    0.78
3.117    1.04 | 9.117    8.54 |15.117    1.36 | 21.12    0.78
3.133    1.04 | 9.133    8.54 |15.133    1.36 | 21.13    0.78
3.150    1.04 | 9.150    8.54 |15.150    1.36 | 21.15    0.78
3.167    1.04 | 9.167    8.54 |15.167    1.36 | 21.17    0.78
3.183    1.08 | 9.183    7.39 |15.183    1.34 | 21.18    0.77
3.200    1.08 | 9.200    7.39 |15.200    1.34 | 21.20    0.77
3.217    1.08 | 9.217    7.39 |15.217    1.34 | 21.22    0.77
3.233    1.08 | 9.233    7.39 |15.233    1.34 | 21.23    0.77
3.250    1.08 | 9.250    7.39 |15.250    1.34 | 21.25    0.77
3.267    1.08 | 9.267    7.39 |15.267    1.34 | 21.27    0.77
3.283    1.08 | 9.283    7.39 |15.283    1.34 | 21.28    0.77
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3.300	1.08	9.300	7.39	15.300	1.34	21.30	0.77
3.317	1.08	9.317	7.39	15.317	1.34	21.32	0.77
3.333	1.08	9.333	7.39	15.333	1.34	21.33	0.77
3.350	1.11	9.350	6.51	15.350	1.31	21.35	0.76
3.367	1.11	9.367	6.51	15.367	1.31	21.37	0.76
3.383	1.11	9.383	6.51	15.383	1.31	21.38	0.76
3.400	1.11	9.400	6.51	15.400	1.31	21.40	0.76
3.417	1.11	9.417	6.51	15.417	1.31	21.42	0.76
3.433	1.11	9.433	6.51	15.433	1.31	21.43	0.76
3.450	1.11	9.450	6.51	15.450	1.31	21.45	0.76
3.467	1.11	9.467	6.51	15.467	1.31	21.47	0.76
3.483	1.11	9.483	6.51	15.483	1.31	21.48	0.76
3.500	1.11	9.500	6.51	15.500	1.31	21.50	0.76
3.517	1.15	9.517	5.82	15.517	1.28	21.52	0.75
3.533	1.15	9.533	5.82	15.533	1.28	21.53	0.75
3.550	1.15	9.550	5.82	15.550	1.28	21.55	0.75
3.567	1.15	9.567	5.82	15.567	1.28	21.57	0.75
3.583	1.15	9.583	5.82	15.583	1.28	21.58	0.75
3.600	1.15	9.600	5.82	15.600	1.28	21.60	0.75
3.617	1.15	9.617	5.82	15.617	1.28	21.62	0.75
3.633	1.15	9.633	5.82	15.633	1.28	21.63	0.75
3.650	1.15	9.650	5.82	15.650	1.28	21.65	0.75
3.667	1.15	9.667	5.82	15.667	1.28	21.67	0.75
3.683	1.20	9.683	5.26	15.683	1.26	21.68	0.75
3.700	1.20	9.700	5.26	15.700	1.26	21.70	0.75
3.717	1.20	9.717	5.26	15.717	1.26	21.72	0.75
3.733	1.20	9.733	5.26	15.733	1.26	21.73	0.75
3.750	1.20	9.750	5.26	15.750	1.26	21.75	0.75
3.767	1.20	9.767	5.26	15.767	1.26	21.77	0.75
3.783	1.20	9.783	5.26	15.783	1.26	21.78	0.75
3.800	1.20	9.800	5.26	15.800	1.26	21.80	0.75
3.817	1.20	9.817	5.26	15.817	1.26	21.82	0.75
3.833	1.20	9.833	5.26	15.833	1.26	21.83	0.75
3.850	1.24	9.850	4.80	15.850	1.23	21.85	0.74
3.867	1.24	9.867	4.80	15.867	1.23	21.87	0.74
3.883	1.24	9.883	4.80	15.883	1.23	21.88	0.74
3.900	1.24	9.900	4.80	15.900	1.23	21.90	0.74
3.917	1.24	9.917	4.80	15.917	1.23	21.92	0.74
3.933	1.24	9.933	4.80	15.933	1.23	21.93	0.74
3.950	1.24	9.950	4.80	15.950	1.23	21.95	0.74
3.967	1.24	9.967	4.80	15.967	1.23	21.97	0.74
3.983	1.24	9.983	4.80	15.983	1.23	21.98	0.74
4.000	1.24	10.000	4.80	16.000	1.23	22.00	0.74
4.017	1.29	10.017	4.42	16.017	1.21	22.02	0.73
4.033	1.29	10.033	4.42	16.033	1.21	22.03	0.73
4.050	1.29	10.050	4.42	16.050	1.21	22.05	0.73
4.067	1.29	10.067	4.42	16.067	1.21	22.07	0.73
4.083	1.29	10.083	4.42	16.083	1.21	22.08	0.73
4.100	1.29	10.100	4.42	16.100	1.21	22.10	0.73
4.117	1.29	10.117	4.42	16.117	1.21	22.12	0.73
4.133	1.29	10.133	4.42	16.133	1.21	22.13	0.73
4.150	1.29	10.150	4.42	16.150	1.21	22.15	0.73

4.167	1.29	10.167	4.42	16.167	1.21	22.17	0.73
4.183	1.35	10.183	4.09	16.183	1.19	22.18	0.72
4.200	1.35	10.200	4.09	16.200	1.19	22.20	0.72
4.217	1.35	10.217	4.09	16.217	1.19	22.22	0.72
4.233	1.35	10.233	4.09	16.233	1.19	22.23	0.72
4.250	1.35	10.250	4.09	16.250	1.19	22.25	0.72
4.267	1.35	10.267	4.09	16.267	1.19	22.27	0.72
4.283	1.35	10.283	4.09	16.283	1.19	22.28	0.72
4.300	1.35	10.300	4.09	16.300	1.19	22.30	0.72
4.317	1.35	10.317	4.09	16.317	1.19	22.32	0.72
4.333	1.35	10.333	4.09	16.333	1.19	22.33	0.72
4.350	1.41	10.350	3.81	16.350	1.16	22.35	0.72
4.367	1.41	10.367	3.81	16.367	1.16	22.37	0.72
4.383	1.41	10.383	3.81	16.383	1.16	22.38	0.72
4.400	1.41	10.400	3.81	16.400	1.16	22.40	0.72
4.417	1.41	10.417	3.81	16.417	1.16	22.42	0.72
4.433	1.41	10.433	3.81	16.433	1.16	22.43	0.72
4.450	1.41	10.450	3.81	16.450	1.16	22.45	0.72
4.467	1.41	10.467	3.81	16.467	1.16	22.47	0.72
4.483	1.41	10.483	3.81	16.483	1.16	22.48	0.72
4.500	1.41	10.500	3.81	16.500	1.16	22.50	0.72
4.517	1.48	10.517	3.57	16.517	1.14	22.52	0.71
4.533	1.48	10.533	3.57	16.533	1.14	22.53	0.71
4.550	1.48	10.550	3.57	16.550	1.14	22.55	0.71
4.567	1.48	10.567	3.57	16.567	1.14	22.57	0.71
4.583	1.48	10.583	3.57	16.583	1.14	22.58	0.71
4.600	1.48	10.600	3.57	16.600	1.14	22.60	0.71
4.617	1.48	10.617	3.57	16.617	1.14	22.62	0.71
4.633	1.48	10.633	3.57	16.633	1.14	22.63	0.71
4.650	1.48	10.650	3.57	16.650	1.14	22.65	0.71
4.667	1.48	10.667	3.57	16.667	1.14	22.67	0.71
4.683	1.55	10.683	3.36	16.683	1.12	22.68	0.70
4.700	1.55	10.700	3.36	16.700	1.12	22.70	0.70
4.717	1.55	10.717	3.36	16.717	1.12	22.72	0.70
4.733	1.55	10.733	3.36	16.733	1.12	22.73	0.70
4.750	1.55	10.750	3.36	16.750	1.12	22.75	0.70
4.767	1.55	10.767	3.36	16.767	1.12	22.77	0.70
4.783	1.55	10.783	3.36	16.783	1.12	22.78	0.70
4.800	1.55	10.800	3.36	16.800	1.12	22.80	0.70
4.817	1.55	10.817	3.36	16.817	1.12	22.82	0.70
4.833	1.55	10.833	3.36	16.833	1.12	22.83	0.70
4.850	1.63	10.850	3.17	16.850	1.10	22.85	0.69
4.867	1.63	10.867	3.17	16.867	1.10	22.87	0.69
4.883	1.63	10.883	3.17	16.883	1.10	22.88	0.69
4.900	1.63	10.900	3.17	16.900	1.10	22.90	0.69
4.917	1.63	10.917	3.17	16.917	1.10	22.92	0.69
4.933	1.63	10.933	3.17	16.933	1.10	22.93	0.69
4.950	1.63	10.950	3.17	16.950	1.10	22.95	0.69
4.967	1.63	10.967	3.17	16.967	1.10	22.97	0.69
4.983	1.63	10.983	3.17	16.983	1.10	22.98	0.69
5.000	1.63	11.000	3.17	17.000	1.10	23.00	0.69
5.017	1.72	11.017	3.00	17.017	1.09	23.02	0.69

5.033	1.72	11.033	3.00	17.033	1.09	23.03	0.69
5.050	1.72	11.050	3.00	17.050	1.09	23.05	0.69
5.067	1.72	11.067	3.00	17.067	1.09	23.07	0.69
5.083	1.72	11.083	3.00	17.083	1.09	23.08	0.69
5.100	1.72	11.100	3.00	17.100	1.09	23.10	0.69
5.117	1.72	11.117	3.00	17.117	1.09	23.12	0.69
5.133	1.72	11.133	3.00	17.133	1.09	23.13	0.69
5.150	1.72	11.150	3.00	17.150	1.09	23.15	0.69
5.167	1.72	11.167	3.00	17.167	1.09	23.17	0.69
5.183	1.83	11.183	2.85	17.183	1.07	23.18	0.68
5.200	1.83	11.200	2.85	17.200	1.07	23.20	0.68
5.217	1.83	11.217	2.85	17.217	1.07	23.22	0.68
5.233	1.83	11.233	2.85	17.233	1.07	23.23	0.68
5.250	1.83	11.250	2.85	17.250	1.07	23.25	0.68
5.267	1.83	11.267	2.85	17.267	1.07	23.27	0.68
5.283	1.83	11.283	2.85	17.283	1.07	23.28	0.68
5.300	1.83	11.300	2.85	17.300	1.07	23.30	0.68
5.317	1.83	11.317	2.85	17.317	1.07	23.32	0.68
5.333	1.83	11.333	2.85	17.333	1.07	23.33	0.68
5.350	1.95	11.350	2.72	17.350	1.05	23.35	0.67
5.367	1.95	11.367	2.72	17.367	1.05	23.37	0.67
5.383	1.95	11.383	2.72	17.383	1.05	23.38	0.67
5.400	1.95	11.400	2.72	17.400	1.05	23.40	0.67
5.417	1.95	11.417	2.72	17.417	1.05	23.42	0.67
5.433	1.95	11.433	2.72	17.433	1.05	23.43	0.67
5.450	1.95	11.450	2.72	17.450	1.05	23.45	0.67
5.467	1.95	11.467	2.72	17.467	1.05	23.47	0.67
5.483	1.95	11.483	2.72	17.483	1.05	23.48	0.67
5.500	1.95	11.500	2.72	17.500	1.05	23.50	0.67
5.517	2.08	11.517	2.59	17.517	1.03	23.52	0.67
5.533	2.08	11.533	2.59	17.533	1.03	23.53	0.67
5.550	2.08	11.550	2.59	17.550	1.03	23.55	0.67
5.567	2.08	11.567	2.59	17.567	1.03	23.57	0.67
5.583	2.08	11.583	2.59	17.583	1.03	23.58	0.67
5.600	2.08	11.600	2.59	17.600	1.03	23.60	0.67
5.617	2.08	11.617	2.59	17.617	1.03	23.62	0.67
5.633	2.08	11.633	2.59	17.633	1.03	23.63	0.67
5.650	2.08	11.650	2.59	17.650	1.03	23.65	0.67
5.667	2.08	11.667	2.59	17.667	1.03	23.67	0.67
5.683	2.24	11.683	2.48	17.683	1.02	23.68	0.66
5.700	2.24	11.700	2.48	17.700	1.02	23.70	0.66
5.717	2.24	11.717	2.48	17.717	1.02	23.72	0.66
5.733	2.24	11.733	2.48	17.733	1.02	23.73	0.66
5.750	2.24	11.750	2.48	17.750	1.02	23.75	0.66
5.767	2.24	11.767	2.48	17.767	1.02	23.77	0.66
5.783	2.24	11.783	2.48	17.783	1.02	23.78	0.66
5.800	2.24	11.800	2.48	17.800	1.02	23.80	0.66
5.817	2.24	11.817	2.48	17.817	1.02	23.82	0.66
5.833	2.24	11.833	2.48	17.833	1.02	23.83	0.66
5.850	2.43	11.850	2.38	17.850	1.00	23.85	0.65
5.867	2.43	11.867	2.38	17.867	1.00	23.87	0.65
5.883	2.43	11.883	2.38	17.883	1.00	23.88	0.65

5.900	2.43	11.900	2.38	17.900	1.00	23.90	0.65
5.917	2.43	11.917	2.38	17.917	1.00	23.92	0.65
5.933	2.43	11.933	2.38	17.933	1.00	23.93	0.65
5.950	2.43	11.950	2.38	17.950	1.00	23.95	0.65
5.967	2.43	11.967	2.38	17.967	1.00	23.97	0.65
5.983	2.43	11.983	2.38	17.983	1.00	23.98	0.65
6.000	2.43	12.000	2.38	18.000	1.00	24.00	0.65

Max.Eff.Inten.(mm/hr)=	172.68	51.46	
over (min)	6.00	12.00	
Storage Coeff. (min)=	6.01 (ii)	11.39 (ii)	
Unit Hyd. Tpeak (min)=	6.00	12.00	
Unit Hyd. peak (cms)=	0.19	0.10	
			TOTALS
PEAK FLOW (cms)=	5.04	1.02	5.731 (iii)
TIME TO PEAK (hrs)=	8.03	8.17	8.05
RUNOFF VOLUME (mm)=	107.05	32.10	68.84
TOTAL RAINFALL (mm)=	108.06	108.06	108.06
RUNOFF COEFFICIENT =	0.99	0.30	0.64

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 48.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	
STANDHYD (1052)	Area (ha)= 1.95
ID= 1 DT= 1.0 min	Total Imp(%)= 30.00 Dir. Conn.(%)= 26.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.58	1.36
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.50	2.00
Length (m)=	113.90	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 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
0.017	0.67	6.017	2.65	12.017	2.29	18.02	0.99
0.033	0.67	6.033	2.65	12.033	2.29	18.03	0.99
0.050	0.67	6.050	2.65	12.050	2.29	18.05	0.99
0.067	0.67	6.067	2.65	12.067	2.29	18.07	0.99
0.083	0.67	6.083	2.65	12.083	2.29	18.08	0.99
0.100	0.67	6.100	2.65	12.100	2.29	18.10	0.99
0.117	0.67	6.117	2.65	12.117	2.29	18.12	0.99
0.133	0.67	6.133	2.65	12.133	2.29	18.13	0.99
0.150	0.67	6.150	2.65	12.150	2.29	18.15	0.99
0.167	0.67	6.167	2.65	12.167	2.29	18.17	0.99
0.183	0.68	6.183	2.92	12.183	2.20	18.18	0.97
0.200	0.68	6.200	2.92	12.200	2.20	18.20	0.97
0.217	0.68	6.217	2.92	12.217	2.20	18.22	0.97
0.233	0.68	6.233	2.92	12.233	2.20	18.23	0.97
0.250	0.68	6.250	2.92	12.250	2.20	18.25	0.97
0.267	0.68	6.267	2.92	12.267	2.20	18.27	0.97
0.283	0.68	6.283	2.92	12.283	2.20	18.28	0.97
0.300	0.68	6.300	2.92	12.300	2.20	18.30	0.97
0.317	0.68	6.317	2.92	12.317	2.20	18.32	0.97
0.333	0.68	6.333	2.92	12.333	2.20	18.33	0.97
0.350	0.70	6.350	3.26	12.350	2.12	18.35	0.96
0.367	0.70	6.367	3.26	12.367	2.12	18.37	0.96
0.383	0.70	6.383	3.26	12.383	2.12	18.38	0.96
0.400	0.70	6.400	3.26	12.400	2.12	18.40	0.96
0.417	0.70	6.417	3.26	12.417	2.12	18.42	0.96
0.433	0.70	6.433	3.26	12.433	2.12	18.43	0.96
0.450	0.70	6.450	3.26	12.450	2.12	18.45	0.96
0.467	0.70	6.467	3.26	12.467	2.12	18.47	0.96
0.483	0.70	6.483	3.26	12.483	2.12	18.48	0.96
0.500	0.70	6.500	3.26	12.500	2.12	18.50	0.96
0.517	0.71	6.517	3.69	12.517	2.05	18.52	0.94
0.533	0.71	6.533	3.69	12.533	2.05	18.53	0.94
0.550	0.71	6.550	3.69	12.550	2.05	18.55	0.94

0.567	0.71	6.567	3.69	12.567	2.05	18.57	0.94
0.583	0.71	6.583	3.69	12.583	2.05	18.58	0.94
0.600	0.71	6.600	3.69	12.600	2.05	18.60	0.94
0.617	0.71	6.617	3.69	12.617	2.05	18.62	0.94
0.633	0.71	6.633	3.69	12.633	2.05	18.63	0.94
0.650	0.71	6.650	3.69	12.650	2.05	18.65	0.94
0.667	0.71	6.667	3.69	12.667	2.05	18.67	0.94
0.683	0.73	6.683	4.25	12.683	1.98	18.68	0.93
0.700	0.73	6.700	4.25	12.700	1.98	18.70	0.93
0.717	0.73	6.717	4.25	12.717	1.98	18.72	0.93
0.733	0.73	6.733	4.25	12.733	1.98	18.73	0.93
0.750	0.73	6.750	4.25	12.750	1.98	18.75	0.93
0.767	0.73	6.767	4.25	12.767	1.98	18.77	0.93
0.783	0.73	6.783	4.25	12.783	1.98	18.78	0.93
0.800	0.73	6.800	4.25	12.800	1.98	18.80	0.93
0.817	0.73	6.817	4.25	12.817	1.98	18.82	0.93
0.833	0.73	6.833	4.25	12.833	1.98	18.83	0.93
0.850	0.74	6.850	5.02	12.850	1.92	18.85	0.92
0.867	0.74	6.867	5.02	12.867	1.92	18.87	0.92
0.883	0.74	6.883	5.02	12.883	1.92	18.88	0.92
0.900	0.74	6.900	5.02	12.900	1.92	18.90	0.92
0.917	0.74	6.917	5.02	12.917	1.92	18.92	0.92
0.933	0.74	6.933	5.02	12.933	1.92	18.93	0.92
0.950	0.74	6.950	5.02	12.950	1.92	18.95	0.92
0.967	0.74	6.967	5.02	12.967	1.92	18.97	0.92
0.983	0.74	6.983	5.02	12.983	1.92	18.98	0.92
1.000	0.74	7.000	5.03	13.000	1.92	19.00	0.92
1.017	0.76	7.017	6.15	13.017	1.86	19.02	0.91
1.033	0.76	7.033	6.15	13.033	1.86	19.03	0.91
1.050	0.76	7.050	6.15	13.050	1.86	19.05	0.91
1.067	0.76	7.067	6.15	13.067	1.86	19.07	0.91
1.083	0.76	7.083	6.15	13.083	1.86	19.08	0.91
1.100	0.76	7.100	6.15	13.100	1.86	19.10	0.91
1.117	0.76	7.117	6.15	13.117	1.86	19.12	0.91
1.133	0.76	7.133	6.15	13.133	1.86	19.13	0.91
1.150	0.76	7.150	6.15	13.150	1.86	19.15	0.91
1.167	0.76	7.167	6.16	13.167	1.86	19.17	0.91
1.183	0.77	7.183	7.95	13.183	1.80	19.18	0.89
1.200	0.77	7.200	7.95	13.200	1.80	19.20	0.89
1.217	0.77	7.217	7.95	13.217	1.80	19.22	0.89
1.233	0.77	7.233	7.95	13.233	1.80	19.23	0.89
1.250	0.77	7.250	7.95	13.250	1.80	19.25	0.89
1.267	0.77	7.267	7.95	13.267	1.80	19.27	0.89
1.283	0.77	7.283	7.95	13.283	1.80	19.28	0.89
1.300	0.77	7.300	7.95	13.300	1.80	19.30	0.89
1.317	0.77	7.317	7.95	13.317	1.80	19.32	0.89
1.333	0.77	7.333	7.96	13.333	1.80	19.33	0.89
1.350	0.79	7.350	11.22	13.350	1.75	19.35	0.88
1.367	0.79	7.367	11.22	13.367	1.75	19.37	0.88
1.383	0.79	7.383	11.22	13.383	1.75	19.38	0.88
1.400	0.79	7.400	11.22	13.400	1.75	19.40	0.88
1.417	0.79	7.417	11.22	13.417	1.75	19.42	0.88

DUHYD (0034)					
Inlet Cap.= 3.057					
#of Inlets= 1					
Total(cms)= 3.1		AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
TOTAL HYD.(ID= 1):		26.89	5.73	8.05	68.84
MAJOR SYS.(ID= 2):		2.88	2.67	8.05	68.84
MINOR SYS.(ID= 3):		24.01	3.06	7.92	68.84

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

Junction Command(0033)				
	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 9(0034)	24.01	3.06	7.92	68.84
OUTFLOW: ID= 2(0033)	24.01	3.06	7.92	68.84

1.433	0.79	7.433	11.22	13.433	1.75	19.43	0.88
1.450	0.79	7.450	11.22	13.450	1.75	19.45	0.88
1.467	0.79	7.467	11.22	13.467	1.75	19.47	0.88
1.483	0.79	7.483	11.22	13.483	1.75	19.48	0.88
1.500	0.79	7.500	11.24	13.500	1.75	19.50	0.88
1.517	0.81	7.517	18.75	13.517	1.70	19.52	0.87
1.533	0.81	7.533	18.75	13.533	1.70	19.53	0.87
1.550	0.81	7.550	18.75	13.550	1.70	19.55	0.87
1.567	0.81	7.567	18.75	13.567	1.70	19.57	0.87
1.583	0.81	7.583	18.75	13.583	1.70	19.58	0.87
1.600	0.81	7.600	18.75	13.600	1.70	19.60	0.87
1.617	0.81	7.617	18.75	13.617	1.70	19.62	0.87
1.633	0.81	7.633	18.75	13.633	1.70	19.63	0.87
1.650	0.81	7.650	18.75	13.650	1.70	19.65	0.87
1.667	0.81	7.667	18.84	13.667	1.70	19.67	0.87
1.683	0.83	7.683	49.66	13.683	1.66	19.68	0.86
1.700	0.83	7.700	49.66	13.700	1.66	19.70	0.86
1.717	0.83	7.717	49.66	13.717	1.66	19.72	0.86
1.733	0.83	7.733	49.66	13.733	1.66	19.73	0.86
1.750	0.83	7.750	49.66	13.750	1.66	19.75	0.86
1.767	0.83	7.767	49.66	13.767	1.66	19.77	0.86
1.783	0.83	7.783	49.66	13.783	1.66	19.78	0.86
1.800	0.83	7.800	49.66	13.800	1.66	19.80	0.86
1.817	0.83	7.817	49.66	13.817	1.66	19.82	0.86
1.833	0.83	7.833	50.02	13.833	1.66	19.83	0.86
1.850	0.85	7.850	172.68	13.850	1.61	19.85	0.85
1.867	0.85	7.867	172.68	13.867	1.61	19.87	0.85
1.883	0.85	7.883	172.68	13.883	1.61	19.88	0.85
1.900	0.85	7.900	172.68	13.900	1.61	19.90	0.85
1.917	0.85	7.917	172.68	13.917	1.61	19.92	0.85
1.933	0.85	7.933	172.68	13.933	1.61	19.93	0.85
1.950	0.85	7.950	172.68	13.950	1.61	19.95	0.85
1.967	0.85	7.967	172.68	13.967	1.61	19.97	0.85
1.983	0.85	7.983	172.68	13.983	1.61	19.98	0.85
2.000	0.85	8.000	172.36	14.000	1.61	20.00	0.85
2.017	0.88	8.017	65.83	14.017	1.57	20.02	0.84
2.033	0.88	8.033	65.83	14.033	1.57	20.03	0.84
2.050	0.88	8.050	65.83	14.050	1.57	20.05	0.84
2.067	0.88	8.067	65.83	14.067	1.57	20.07	0.84
2.083	0.88	8.083	65.83	14.083	1.57	20.08	0.84
2.100	0.88	8.100	65.83	14.100	1.57	20.10	0.84
2.117	0.88	8.117	65.83	14.117	1.57	20.12	0.84
2.133	0.88	8.133	65.83	14.133	1.57	20.13	0.84
2.150	0.88	8.150	65.83	14.150	1.57	20.15	0.84
2.167	0.88	8.167	65.74	14.167	1.57	20.17	0.84
2.183	0.90	8.183	33.57	14.183	1.53	20.18	0.83
2.200	0.90	8.200	33.57	14.200	1.53	20.20	0.83
2.217	0.90	8.217	33.57	14.217	1.53	20.22	0.83
2.233	0.90	8.233	33.57	14.233	1.53	20.23	0.83
2.250	0.90	8.250	33.57	14.250	1.53	20.25	0.83
2.267	0.90	8.267	33.57	14.267	1.53	20.27	0.83
2.283	0.90	8.283	33.57	14.283	1.53	20.28	0.83

2.300	0.90	8.300	33.57	14.300	1.53	20.30	0.83
2.317	0.90	8.317	33.57	14.317	1.53	20.32	0.83
2.333	0.90	8.333	33.53	14.333	1.53	20.33	0.83
2.350	0.92	8.350	21.73	14.350	1.50	20.35	0.82
2.367	0.92	8.367	21.73	14.367	1.50	20.37	0.82
2.383	0.92	8.383	21.73	14.383	1.50	20.38	0.82
2.400	0.92	8.400	21.73	14.400	1.50	20.40	0.82
2.417	0.92	8.417	21.73	14.417	1.50	20.42	0.82
2.433	0.92	8.433	21.73	14.433	1.50	20.43	0.82
2.450	0.92	8.450	21.73	14.450	1.50	20.45	0.82
2.467	0.92	8.467	21.73	14.467	1.50	20.47	0.82
2.483	0.92	8.483	21.73	14.483	1.50	20.48	0.82
2.500	0.92	8.500	21.72	14.500	1.50	20.50	0.82
2.517	0.95	8.517	15.83	14.517	1.46	20.52	0.81
2.533	0.95	8.533	15.83	14.533	1.46	20.53	0.81
2.550	0.95	8.550	15.83	14.550	1.46	20.55	0.81
2.567	0.95	8.567	15.83	14.567	1.46	20.57	0.81
2.583	0.95	8.583	15.83	14.583	1.46	20.58	0.81
2.600	0.95	8.600	15.83	14.600	1.46	20.60	0.81
2.617	0.95	8.617	15.83	14.617	1.46	20.62	0.81
2.633	0.95	8.633	15.83	14.633	1.46	20.63	0.81
2.650	0.95	8.650	15.83	14.650	1.46	20.65	0.81
2.667	0.95	8.667	15.82	14.667	1.46	20.67	0.81
2.683	0.98	8.683	12.37	14.683	1.43	20.68	0.80
2.700	0.98	8.700	12.37	14.700	1.43	20.70	0.80
2.717	0.98	8.717	12.37	14.717	1.43	20.72	0.80
2.733	0.98	8.733	12.37	14.733	1.43	20.73	0.80
2.750	0.98	8.750	12.37	14.750	1.43	20.75	0.80
2.767	0.98	8.767	12.37	14.767	1.43	20.77	0.80
2.783	0.98	8.783	12.37	14.783	1.43	20.78	0.80
2.800	0.98	8.800	12.37	14.800	1.43	20.80	0.80
2.817	0.98	8.817	12.37	14.817	1.43	20.82	0.80
2.833	0.98	8.833	12.36	14.833	1.43	20.83	0.80
2.850	1.01	8.850	10.11	14.850	1.39	20.85	0.79
2.867	1.01	8.867	10.11	14.867	1.39	20.87	0.79
2.883	1.01	8.883	10.11	14.883	1.39	20.88	0.79
2.900	1.01	8.900	10.11	14.900	1.39	20.90	0.79
2.917	1.01	8.917	10.11	14.917	1.39	20.92	0.79
2.933	1.01	8.933	10.11	14.933	1.39	20.93	0.79
2.950	1.01	8.950	10.11	14.950	1.39	20.95	0.79
2.967	1.01	8.967	10.11	14.967	1.39	20.97	0.79
2.983	1.01	8.983	10.11	14.983	1.39	20.98	0.79
3.000	1.01	9.000	10.11	15.000	1.39	21.00	0.79
3.017	1.04	9.017	8.54	15.017	1.36	21.02	0.78
3.033	1.04	9.033	8.54	15.033	1.36	21.03	0.78
3.050	1.04	9.050	8.54	15.050	1.36	21.05	0.78
3.067	1.04	9.067	8.54	15.067	1.36	21.07	0.78
3.083	1.04	9.083	8.54	15.083	1.36	21.08	0.78
3.100	1.04	9.100	8.54	15.100	1.36	21.10	0.78
3.117	1.04	9.117	8.54	15.117	1.36	21.12	0.78
3.133	1.04	9.133	8.54	15.133	1.36	21.13	0.78
3.150	1.04	9.150	8.54	15.150	1.36	21.15	0.78

3.167	1.04	9.167	8.54	15.167	1.36	21.17	0.78
3.183	1.08	9.183	7.39	15.183	1.34	21.18	0.77
3.200	1.08	9.200	7.39	15.200	1.34	21.20	0.77
3.217	1.08	9.217	7.39	15.217	1.34	21.22	0.77
3.233	1.08	9.233	7.39	15.233	1.34	21.23	0.77
3.250	1.08	9.250	7.39	15.250	1.34	21.25	0.77
3.267	1.08	9.267	7.39	15.267	1.34	21.27	0.77
3.283	1.08	9.283	7.39	15.283	1.34	21.28	0.77
3.300	1.08	9.300	7.39	15.300	1.34	21.30	0.77
3.317	1.08	9.317	7.39	15.317	1.34	21.32	0.77
3.333	1.08	9.333	7.39	15.333	1.34	21.33	0.77
3.350	1.11	9.350	6.51	15.350	1.31	21.35	0.76
3.367	1.11	9.367	6.51	15.367	1.31	21.37	0.76
3.383	1.11	9.383	6.51	15.383	1.31	21.38	0.76
3.400	1.11	9.400	6.51	15.400	1.31	21.40	0.76
3.417	1.11	9.417	6.51	15.417	1.31	21.42	0.76
3.433	1.11	9.433	6.51	15.433	1.31	21.43	0.76
3.450	1.11	9.450	6.51	15.450	1.31	21.45	0.76
3.467	1.11	9.467	6.51	15.467	1.31	21.47	0.76
3.483	1.11	9.483	6.51	15.483	1.31	21.48	0.76
3.500	1.11	9.500	6.51	15.500	1.31	21.50	0.76
3.517	1.15	9.517	5.82	15.517	1.28	21.52	0.75
3.533	1.15	9.533	5.82	15.533	1.28	21.53	0.75
3.550	1.15	9.550	5.82	15.550	1.28	21.55	0.75
3.567	1.15	9.567	5.82	15.567	1.28	21.57	0.75
3.583	1.15	9.583	5.82	15.583	1.28	21.58	0.75
3.600	1.15	9.600	5.82	15.600	1.28	21.60	0.75
3.617	1.15	9.617	5.82	15.617	1.28	21.62	0.75
3.633	1.15	9.633	5.82	15.633	1.28	21.63	0.75
3.650	1.15	9.650	5.82	15.650	1.28	21.65	0.75
3.667	1.15	9.667	5.82	15.667	1.28	21.67	0.75
3.683	1.20	9.683	5.26	15.683	1.26	21.68	0.75
3.700	1.20	9.700	5.26	15.700	1.26	21.70	0.75
3.717	1.20	9.717	5.26	15.717	1.26	21.72	0.75
3.733	1.20	9.733	5.26	15.733	1.26	21.73	0.75
3.750	1.20	9.750	5.26	15.750	1.26	21.75	0.75
3.767	1.20	9.767	5.26	15.767	1.26	21.77	0.75
3.783	1.20	9.783	5.26	15.783	1.26	21.78	0.75
3.800	1.20	9.800	5.26	15.800	1.26	21.80	0.75
3.817	1.20	9.817	5.26	15.817	1.26	21.82	0.75
3.833	1.20	9.833	5.26	15.833	1.26	21.83	0.75
3.850	1.24	9.850	4.80	15.850	1.23	21.85	0.74
3.867	1.24	9.867	4.80	15.867	1.23	21.87	0.74
3.883	1.24	9.883	4.80	15.883	1.23	21.88	0.74
3.900	1.24	9.900	4.80	15.900	1.23	21.90	0.74
3.917	1.24	9.917	4.80	15.917	1.23	21.92	0.74
3.933	1.24	9.933	4.80	15.933	1.23	21.93	0.74
3.950	1.24	9.950	4.80	15.950	1.23	21.95	0.74
3.967	1.24	9.967	4.80	15.967	1.23	21.97	0.74
3.983	1.24	9.983	4.80	15.983	1.23	21.98	0.74
4.000	1.24	10.000	4.80	16.000	1.23	22.00	0.74
4.017	1.29	10.017	4.42	16.017	1.21	22.02	0.73

4.033	1.29	10.033	4.42	16.033	1.21	22.03	0.73
4.050	1.29	10.050	4.42	16.050	1.21	22.05	0.73
4.067	1.29	10.067	4.42	16.067	1.21	22.07	0.73
4.083	1.29	10.083	4.42	16.083	1.21	22.08	0.73
4.100	1.29	10.100	4.42	16.100	1.21	22.10	0.73
4.117	1.29	10.117	4.42	16.117	1.21	22.12	0.73
4.133	1.29	10.133	4.42	16.133	1.21	22.13	0.73
4.150	1.29	10.150	4.42	16.150	1.21	22.15	0.73
4.167	1.29	10.167	4.42	16.167	1.21	22.17	0.73
4.183	1.35	10.183	4.09	16.183	1.19	22.18	0.72
4.200	1.35	10.200	4.09	16.200	1.19	22.20	0.72
4.217	1.35	10.217	4.09	16.217	1.19	22.22	0.72
4.233	1.35	10.233	4.09	16.233	1.19	22.23	0.72
4.250	1.35	10.250	4.09	16.250	1.19	22.25	0.72
4.267	1.35	10.267	4.09	16.267	1.19	22.27	0.72
4.283	1.35	10.283	4.09	16.283	1.19	22.28	0.72
4.300	1.35	10.300	4.09	16.300	1.19	22.30	0.72
4.317	1.35	10.317	4.09	16.317	1.19	22.32	0.72
4.333	1.35	10.333	4.09	16.333	1.19	22.33	0.72
4.350	1.41	10.350	3.81	16.350	1.16	22.35	0.72
4.367	1.41	10.367	3.81	16.367	1.16	22.37	0.72
4.383	1.41	10.383	3.81	16.383	1.16	22.38	0.72
4.400	1.41	10.400	3.81	16.400	1.16	22.40	0.72
4.417	1.41	10.417	3.81	16.417	1.16	22.42	0.72
4.433	1.41	10.433	3.81	16.433	1.16	22.43	0.72
4.450	1.41	10.450	3.81	16.450	1.16	22.45	0.72
4.467	1.41	10.467	3.81	16.467	1.16	22.47	0.72
4.483	1.41	10.483	3.81	16.483	1.16	22.48	0.72
4.500	1.41	10.500	3.81	16.500	1.16	22.50	0.72
4.517	1.48	10.517	3.57	16.517	1.14	22.52	0.71
4.533	1.48	10.533	3.57	16.533	1.14	22.53	0.71
4.550	1.48	10.550	3.57	16.550	1.14	22.55	0.71
4.567	1.48	10.567	3.57	16.567	1.14	22.57	0.71
4.583	1.48	10.583	3.57	16.583	1.14	22.58	0.71
4.600	1.48	10.600	3.57	16.600	1.14	22.60	0.71
4.617	1.48	10.617	3.57	16.617	1.14	22.62	0.71
4.633	1.48	10.633	3.57	16.633	1.14	22.63	0.71
4.650	1.48	10.650	3.57	16.650	1.14	22.65	0.71
4.667	1.48	10.667	3.57	16.667	1.14	22.67	0.71
4.683	1.55	10.683	3.36	16.683	1.12	22.68	0.70
4.700	1.55	10.700	3.36	16.700	1.12	22.70	0.70
4.717	1.55	10.717	3.36	16.717	1.12	22.72	0.70
4.733	1.55	10.733	3.36	16.733	1.12	22.73	0.70
4.750	1.55	10.750	3.36	16.750	1.12	22.75	0.70
4.767	1.55	10.767	3.36	16.767	1.12	22.77	0.70
4.783	1.55	10.783	3.36	16.783	1.12	22.78	0.70
4.800	1.55	10.800	3.36	16.800	1.12	22.80	0.70
4.817	1.55	10.817	3.36	16.817	1.12	22.82	0.70
4.833	1.55	10.833	3.36	16.833	1.12	22.83	0.70
4.850	1.63	10.850	3.17	16.850	1.10	22.85	0.69
4.867	1.63	10.867	3.17	16.867	1.10	22.87	0.69
4.883	1.63	10.883	3.17	16.883	1.10	22.88	0.69

4.900	1.63	10.900	3.17	16.900	1.10	22.90	0.69
4.917	1.63	10.917	3.17	16.917	1.10	22.92	0.69
4.933	1.63	10.933	3.17	16.933	1.10	22.93	0.69
4.950	1.63	10.950	3.17	16.950	1.10	22.95	0.69
4.967	1.63	10.967	3.17	16.967	1.10	22.97	0.69
4.983	1.63	10.983	3.17	16.983	1.10	22.98	0.69
5.000	1.63	11.000	3.17	17.000	1.10	23.00	0.69
5.017	1.72	11.017	3.00	17.017	1.09	23.02	0.69
5.033	1.72	11.033	3.00	17.033	1.09	23.03	0.69
5.050	1.72	11.050	3.00	17.050	1.09	23.05	0.69
5.067	1.72	11.067	3.00	17.067	1.09	23.07	0.69
5.083	1.72	11.083	3.00	17.083	1.09	23.08	0.69
5.100	1.72	11.100	3.00	17.100	1.09	23.10	0.69
5.117	1.72	11.117	3.00	17.117	1.09	23.12	0.69
5.133	1.72	11.133	3.00	17.133	1.09	23.13	0.69
5.150	1.72	11.150	3.00	17.150	1.09	23.15	0.69
5.167	1.72	11.167	3.00	17.167	1.09	23.17	0.69
5.183	1.83	11.183	2.85	17.183	1.07	23.18	0.68
5.200	1.83	11.200	2.85	17.200	1.07	23.20	0.68
5.217	1.83	11.217	2.85	17.217	1.07	23.22	0.68
5.233	1.83	11.233	2.85	17.233	1.07	23.23	0.68
5.250	1.83	11.250	2.85	17.250	1.07	23.25	0.68
5.267	1.83	11.267	2.85	17.267	1.07	23.27	0.68
5.283	1.83	11.283	2.85	17.283	1.07	23.28	0.68
5.300	1.83	11.300	2.85	17.300	1.07	23.30	0.68
5.317	1.83	11.317	2.85	17.317	1.07	23.32	0.68
5.333	1.83	11.333	2.85	17.333	1.07	23.33	0.68
5.350	1.95	11.350	2.72	17.350	1.05	23.35	0.67
5.367	1.95	11.367	2.72	17.367	1.05	23.37	0.67
5.383	1.95	11.383	2.72	17.383	1.05	23.38	0.67
5.400	1.95	11.400	2.72	17.400	1.05	23.40	0.67
5.417	1.95	11.417	2.72	17.417	1.05	23.42	0.67
5.433	1.95	11.433	2.72	17.433	1.05	23.43	0.67
5.450	1.95	11.450	2.72	17.450	1.05	23.45	0.67
5.467	1.95	11.467	2.72	17.467	1.05	23.47	0.67
5.483	1.95	11.483	2.72	17.483	1.05	23.48	0.67
5.500	1.95	11.500	2.72	17.500	1.05	23.50	0.67
5.517	2.08	11.517	2.59	17.517	1.03	23.52	0.67
5.533	2.08	11.533	2.59	17.533	1.03	23.53	0.67
5.550	2.08	11.550	2.59	17.550	1.03	23.55	0.67
5.567	2.08	11.567	2.59	17.567	1.03	23.57	0.67
5.583	2.08	11.583	2.59	17.583	1.03	23.58	0.67
5.600	2.08	11.600	2.59	17.600	1.03	23.60	0.67
5.617	2.08	11.617	2.59	17.617	1.03	23.62	0.67
5.633	2.08	11.633	2.59	17.633	1.03	23.63	0.67
5.650	2.08	11.650	2.59	17.650	1.03	23.65	0.67
5.667	2.08	11.667	2.59	17.667	1.03	23.67	0.67
5.683	2.24	11.683	2.48	17.683	1.02	23.68	0.66
5.700	2.24	11.700	2.48	17.700	1.02	23.70	0.66
5.717	2.24	11.717	2.48	17.717	1.02	23.72	0.66
5.733	2.24	11.733	2.48	17.733	1.02	23.73	0.66
5.750	2.24	11.750	2.48	17.750	1.02	23.75	0.66

5.767	2.24	11.767	2.48	17.767	1.02	23.77	0.66
5.783	2.24	11.783	2.48	17.783	1.02	23.78	0.66
5.800	2.24	11.800	2.48	17.800	1.02	23.80	0.66
5.817	2.24	11.817	2.48	17.817	1.02	23.82	0.66
5.833	2.24	11.833	2.48	17.833	1.02	23.83	0.66
5.850	2.43	11.850	2.38	17.850	1.00	23.85	0.65
5.867	2.43	11.867	2.38	17.867	1.00	23.87	0.65
5.883	2.43	11.883	2.38	17.883	1.00	23.88	0.65
5.900	2.43	11.900	2.38	17.900	1.00	23.90	0.65
5.917	2.43	11.917	2.38	17.917	1.00	23.92	0.65
5.933	2.43	11.933	2.38	17.933	1.00	23.93	0.65
5.950	2.43	11.950	2.38	17.950	1.00	23.95	0.65
5.967	2.43	11.967	2.38	17.967	1.00	23.97	0.65
5.983	2.43	11.983	2.38	17.983	1.00	23.98	0.65
6.000	2.43	12.000	2.38	18.000	1.00	24.00	0.65

Max.Eff.Inten.(mm/hr)=	172.68	41.32	
over (min)	5.00	12.00	
Storage Coeff. (min)=	2.73 (ii)	11.16 (ii)	
Unit Hyd. Tpeak (min)=	5.00	12.00	
Unit Hyd. peak (cms)=	0.32	0.10	
			TOTALS
PEAK FLOW (cms)=	0.23	0.10	0.286 (iii)
TIME TO PEAK (hrs)=	8.00	8.17	8.02
RUNOFF VOLUME (mm)=	107.06	29.36	49.56
TOTAL RAINFALL (mm)=	108.06	108.06	108.06
RUNOFF COEFFICIENT =	0.99	0.27	0.46

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 48.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

DUHYD (0037)
Inlet Cap.= 0.108
#of Inlets= 1
Total(cms)= 0.1

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
TOTAL HYD.(ID= 1):	1.95	0.29	8.02	49.56
MAJOR SYS.(ID= 2):	0.33	0.18	8.02	49.56
MINOR SYS.(ID= 3):	1.62	0.11	7.88	49.56

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| Junction Command(0038) |

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 9(0037)	1.62	0.11	7.88	49.56
OUTFLOW: ID= 2(0038)	1.62	0.11	7.88	49.56

CALIB	NASHYD (0104)	ID= 1 DT= 5.0 min
Area (ha)= 0.77	Curve Number (CN)= 53.0	
Ia (mm)= 5.00	# of Linear Res.(N)= 3.00	
U.H. Tp(hrs)= 0.34		

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	0.67	6.083	2.65	12.083	2.29	18.08	0.99
0.167	0.67	6.167	2.65	12.167	2.29	18.17	0.99
0.250	0.68	6.250	2.92	12.250	2.20	18.25	0.97
0.333	0.68	6.333	2.92	12.333	2.20	18.33	0.97
0.417	0.70	6.417	3.26	12.417	2.12	18.42	0.96
0.500	0.70	6.500	3.26	12.500	2.12	18.50	0.96
0.583	0.71	6.583	3.69	12.583	2.05	18.58	0.94
0.667	0.71	6.667	3.69	12.667	2.05	18.67	0.94
0.750	0.73	6.750	4.25	12.750	1.98	18.75	0.93
0.833	0.73	6.833	4.25	12.833	1.98	18.83	0.93
0.917	0.74	6.917	5.02	12.917	1.92	18.92	0.92
1.000	0.74	7.000	5.02	13.000	1.92	19.00	0.92
1.083	0.76	7.083	6.15	13.083	1.86	19.08	0.91
1.167	0.76	7.167	6.15	13.167	1.86	19.17	0.91
1.250	0.77	7.250	7.95	13.250	1.80	19.25	0.89
1.333	0.77	7.333	7.95	13.333	1.80	19.33	0.89
1.417	0.79	7.417	11.22	13.417	1.75	19.42	0.88
1.500	0.79	7.500	11.22	13.500	1.75	19.50	0.88
1.583	0.81	7.583	18.75	13.583	1.70	19.58	0.87
1.667	0.81	7.667	18.76	13.667	1.70	19.67	0.87
1.750	0.83	7.750	49.66	13.750	1.66	19.75	0.86
1.833	0.83	7.833	49.67	13.833	1.66	19.83	0.86
1.917	0.85	7.917	172.68	13.917	1.61	19.92	0.85
2.000	0.85	8.000	172.67	14.000	1.61	20.00	0.85
2.083	0.88	8.083	65.83	14.083	1.57	20.08	0.84
2.167	0.88	8.167	65.83	14.167	1.57	20.17	0.84
2.250	0.90	8.250	33.57	14.250	1.53	20.25	0.83
2.333	0.90	8.333	33.56	14.333	1.53	20.33	0.83
2.417	0.92	8.417	21.73	14.417	1.50	20.42	0.82
2.500	0.92	8.500	21.73	14.500	1.50	20.50	0.82
2.583	0.95	8.583	15.83	14.583	1.46	20.58	0.81
2.667	0.95	8.667	15.83	14.667	1.46	20.67	0.81
2.750	0.98	8.750	12.37	14.750	1.43	20.75	0.80
2.833	0.98	8.833	12.37	14.833	1.43	20.83	0.80
2.917	1.01	8.917	10.11	14.917	1.39	20.92	0.79
3.000	1.01	9.000	10.11	15.000	1.39	21.00	0.79
3.083	1.04	9.083	8.54	15.083	1.36	21.08	0.78
3.167	1.04	9.167	8.54	15.167	1.36	21.17	0.78
3.250	1.08	9.250	7.39	15.250	1.34	21.25	0.77
3.333	1.08	9.333	7.39	15.333	1.34	21.33	0.77
3.417	1.11	9.417	6.51	15.417	1.31	21.42	0.76
3.500	1.11	9.500	6.51	15.500	1.31	21.50	0.76
3.583	1.15	9.583	5.82	15.583	1.28	21.58	0.75
3.667	1.15	9.667	5.82	15.667	1.28	21.67	0.75
3.750	1.20	9.750	5.26	15.750	1.26	21.75	0.75
3.833	1.20	9.833	5.26	15.833	1.26	21.83	0.75
3.917	1.24	9.917	4.80	15.917	1.23	21.92	0.74
4.000	1.24	10.000	4.80	16.000	1.23	22.00	0.74
4.083	1.29	10.083	4.42	16.083	1.21	22.08	0.73
4.167	1.29	10.167	4.42	16.167	1.21	22.17	0.73
4.250	1.35	10.250	4.09	16.250	1.19	22.25	0.72
4.333	1.35	10.333	4.09	16.333	1.19	22.33	0.72
4.417	1.41	10.417	3.81	16.417	1.16	22.42	0.72
4.500	1.41	10.500	3.81	16.500	1.16	22.50	0.72
4.583	1.48	10.583	3.57	16.583	1.14	22.58	0.71
4.667	1.48	10.667	3.57	16.667	1.14	22.67	0.71
4.750	1.55	10.750	3.36	16.750	1.12	22.75	0.70
4.833	1.55	10.833	3.36	16.833	1.12	22.83	0.70
4.917	1.63	10.917	3.17	16.917	1.10	22.92	0.69
5.000	1.63	11.000	3.17	17.000	1.10	23.00	0.69
5.083	1.72	11.083	3.00	17.083	1.09	23.08	0.69
5.167	1.72	11.167	3.00	17.167	1.09	23.17	0.69
5.250	1.83	11.250	2.85	17.250	1.07	23.25	0.68
5.333	1.83	11.333	2.85	17.333	1.07	23.33	0.68
5.417	1.95	11.417	2.72	17.417	1.05	23.42	0.67
5.500	1.95	11.500	2.72	17.500	1.05	23.50	0.67
5.583	2.08	11.583	2.59	17.583	1.03	23.58	0.67
5.667	2.08	11.667	2.59	17.667	1.03	23.67	0.67
5.750	2.24	11.750	2.48	17.750	1.02	23.75	0.66
5.833	2.24	11.833	2.48	17.833	1.02	23.83	0.66
5.917	2.43	11.917	2.38	17.917	1.00	23.92	0.65
6.000	2.43	12.000	2.38	18.000	1.00	24.00	0.65

Unit Hyd Qpeak (cms)= 0.086

PEAK FLOW (cms)= 0.042 (i)
TIME TO PEAK (hrs)= 8.333
RUNOFF VOLUME (mm)= 32.345
TOTAL RAINFALL (mm)= 108.063
RUNOFF COEFFICIENT = 0.299

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

CALIB	STANDHYD (0103)	ID= 1 DT= 1.0 min
Area (ha)= 1.17	Total Imp(%)= 24.00	Dir. Conn.(%)= 20.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.28	0.89
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.50	2.00
Length (m)=	88.20	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 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
0.017	0.67	6.017	2.65	12.017	2.29	18.02	0.99
0.033	0.67	6.033	2.65	12.033	2.29	18.03	0.99
0.050	0.67	6.050	2.65	12.050	2.29	18.05	0.99
0.067	0.67	6.067	2.65	12.067	2.29	18.07	0.99
0.083	0.67	6.083	2.65	12.083	2.29	18.08	0.99
0.100	0.67	6.100	2.65	12.100	2.29	18.10	0.99
0.117	0.67	6.117	2.65	12.117	2.29	18.12	0.99
0.133	0.67	6.133	2.65	12.133	2.29	18.13	0.99
0.150	0.67	6.150	2.65	12.150	2.29	18.15	0.99
0.167	0.67	6.167	2.65	12.167	2.29	18.17	0.99
0.183	0.68	6.183	2.92	12.183	2.20	18.18	0.97
0.200	0.68	6.200	2.92	12.200	2.20	18.20	0.97
0.217	0.68	6.217	2.92	12.217	2.20	18.22	0.97
0.233	0.68	6.233	2.92	12.233	2.20	18.23	0.97
0.250	0.68	6.250	2.92	12.250	2.20	18.25	0.97
0.267	0.68	6.267	2.92	12.267	2.20	18.27	0.97
0.283	0.68	6.283	2.92	12.283	2.20	18.28	0.97
0.300	0.68	6.300	2.92	12.300	2.20	18.30	0.97
0.317	0.68	6.317	2.92	12.317	2.20	18.32	0.97
0.333	0.68	6.333	2.92	12.333	2.20	18.33	0.97
0.350	0.70	6.350	3.26	12.350	2.12	18.35	0.96
0.367	0.70	6.367	3.26	12.367	2.12	18.37	0.96
0.383	0.70	6.383	3.26	12.383	2.12	18.38	0.96
0.400	0.70	6.400	3.26	12.400	2.12	18.40	0.96
0.417	0.70	6.417	3.26	12.417	2.12	18.42	0.96
0.433	0.70	6.433	3.26	12.433	2.12	18.43	0.96
0.450	0.70	6.450	3.26	12.450	2.12	18.45	0.96
0.467	0.70	6.467	3.26	12.467	2.12	18.47	0.96
0.483	0.70	6.483	3.26	12.483	2.12	18.48	0.96
0.500	0.70	6.500	3.26	12.500	2.12	18.50	0.96
0.517	0.71	6.517	3.69	12.517	2.05	18.52	0.94
0.533	0.71	6.533	3.69	12.533	2.05	18.53	0.94
0.550	0.71	6.550	3.69	12.550	2.05	18.55	0.94
0.567	0.71	6.567	3.69	12.567	2.05	18.57	0.94
0.583	0.71	6.583	3.69	12.583	2.05	18.58	0.94
0.600	0.71	6.600	3.69	12.600	2.05	18.60	0.94
0.617	0.71	6.617	3.69	12.617	2.05	18.62	0.94
0.633	0.71	6.633	3.69	12.633	2.05	18.63	0.94
0.650	0.71	6.650	3.69	12.650	2.05	18.65	0.94
0.667	0.71	6.667	3.69	12.667	2.05	18.67	0.94
0.683	0.73	6.683	4.25	12.683	1.98	18.68	0.93
0.700	0.73	6.700	4.25	12.700	1.98	18.70	0.93
0.717	0.73	6.717	4.25	12.717	1.98	18.72	0.93
0.733	0.73	6.733	4.25	12.733	1.98	18.73	0.93
0.750	0.73	6.750	4.25	12.750	1.98	18.75	0.93
0.767	0.73	6.767	4.25	12.767	1.98	18.77	0.93
0.783	0.73	6.783	4.25	12.783	1.98	18.78	0.93
0.800	0.73	6.800	4.25	12.800	1.98	18.80	0.93
0.817	0.73	6.817	4.25	12.817	1.98	18.82	0.93
0.833	0.73	6.833	4.25	12.833	1.98	18.83	0.93
0.850	0.74	6.850	5.02	12.850	1.92	18.85	0.92
0.867	0.74	6.867	5.02	12.867	1.92	18.87	0.92
0.883	0.74	6.883	5.02	12.883	1.92	18.88	0.92
0.900	0.74	6.900	5.02	12.900	1.92	18.90	0.92
0.917	0.74	6.917	5.02	12.917	1.92	18.92	0.92
0.933	0.74	6.933	5.02	12.933	1.92	18.93	0.92
0.950	0.74	6.950	5.02	12.950	1.92	18.95	0.92
0.967	0.74	6.967	5.02	12.967	1.92	18.97	0.92
0.983	0.74	6.983	5.02	12.983	1.92	18.98	0.92
1.000	0.74	7.000	5.03	13.000	1.92	19.00	0.92
1.017	0.76	7.017	6.15	13.017	1.86	19.02	0.91
1.033	0.76	7.033	6.15	13.033	1.86	19.03	0.91
1.050	0.76	7.050	6.15	13.050	1.86	19.05	0.91
1.067	0.76	7.067	6.15	13.067	1.86	19.07	0.91
1.083	0.76	7.083	6.15	13.083	1.86	19.08	0.91
1.100	0.76	7.100	6.15	13.100	1.86	19.10	0.91
1.117	0.76	7.117	6.15	13.117	1.86	19.12	0.91
1.133	0.76	7.133	6.15	13.133	1.86	19.13	0.91
1.150	0.76	7.150	6.15	13.150	1.86	19.15	0.91
1.167	0.76	7.167	6.16	13.167	1.86	19.17	0.91
1.183	0.77	7.183	7.95	13.183	1.80	19.18	0.89
1.200	0.77	7.200	7.95	13.200	1.80	19.20	0.89
1.217	0.77	7.217	7.95	13.217	1.80	19.22	0.89
1.233	0.77	7.233	7.95	13.233	1.80	19.23	0.89
1.250	0.77	7.250	7.95	13.250	1.80	19.25	0.89
1.267	0.77	7.267	7.95	13.267	1.80	19.27	0.89
1.283	0.77	7.283	7.95	13.283	1.80	19.28	0.89
1.300	0.77	7.300	7.95	13.300	1.80	19.30	0.89
1.317	0.77	7.317	7.95	13.317	1.80	19.32	0.89
1.333	0.77	7.333	7.96	13.333	1.80	19.33	0.89
1.350	0.79	7.350	11.22	13.350	1.75	19.35	0.88
1.367	0.79	7.367	11.22	13.367	1.75	19.37	0.88
1.383	0.79	7.383	11.22	13.383	1.75	19.38	0.88
1.400	0.79	7.400	11.22	13.400	1.75	19.40	0.88
1.417	0.79	7.417	11.22	13.417	1.75	19.42	0.88
1.433	0.79	7.433	11.22	13.433	1.75	19.43	0.88
1.450	0.79	7.450	11.22	13.450	1.75	19.45	0.88
1.467	0.79	7.467	11.22	13.467	1.75	19.47	0.88
1.483	0.79	7.483	11.22	13.483	1.75	19.48	0.88
1.500	0.79	7.500	11.24	13.500	1.75	19.50	0.88
1.517	0.81	7.517	18.75	13.517	1.70	19.52	0.87
1.533	0.81	7.533	18.75	13.533	1.70	19.53	0.87
1.550	0.81	7.550	18.75	13.550	1.70	19.55	0.87
1.567	0.81	7.567	18.75	13.567	1.70	19.57	0.87
1.583	0.81	7.583	18.75	13.583	1.70	19.58	0.87
1.600	0.81	7.600	18.75	13.600	1.70	19.60	0.87
1.617	0.81	7.617	18.75	13.617	1.70	19.62	0.87
1.633	0.81	7.633	18.75	13.633	1.70	19.63	0.87
1.650	0.81	7.650	18.75	13.650	1.70	19.65	0.87
1.667	0.81	7.667	18.84	13.667	1.70	19.67	0.87
1.683	0.83	7.683	49.66	13.683	1.66	19.68	0.86
1.700	0.83	7.700	49.66	13.700	1.66	19.70	0.86
1.717	0.83	7.717	49.66	13.717	1.66	19.72	0.86
1.733	0.83	7.733	49.66	13.733	1.66	19.73	0.86
1.750	0.83	7.750	49.66	13.750	1.66	19.75	0.86
1.767	0.83	7.767	49.66	13.767	1.66	19.77	0.86
1.783	0.83	7.783	49.66	13.783	1.66	19.78	0.86
1.800	0.83	7.800	49.66	13.800	1.66	19.80	0.86
1.817	0.83	7.817	49.66	13.817	1.66	19.82	0.86
1.833	0.83	7.833	50.02	13.833	1.66	19.83	0.86
1.850	0.85	7.850	172.68	13.850	1.61	19.85	0.85
1.867	0.85	7.867	172.68	13.867	1.61	19.87	0.85
1.883	0.85	7.883	172.68	13.883	1.61	19.88	0.85
1.900	0.85	7.900	172.68	13.900	1.61	19.90	0.85
1.917	0.85	7.917	172.68	13.917	1.61	19.92	0.85
1.933	0.85	7.933	172.68	13.933	1.61	19.93	0.85
1.950	0.85	7.950	172.68	13.950	1.61	19.95	0.85
1.967	0.85	7.967	172.68	13.967	1.61	19.97	0.85
1.983	0.85	7.983	172.68	13.983	1.61	19.98	0.85
2.000	0.85	8.000	172.36	14.000	1.61	20.00	0.85
2.017	0.88	8.017	65.83	14.017	1.57	20.02	0.84
2.033	0.88	8.033	65.83	14.033	1.57	20.03	0.84
2.050	0.88	8.050	65.83	14.050	1.57	20.05	0.84
2.067	0.88	8.067	65.83	14.067	1.57	20.07	0.84
2.083	0.88	8.083	65.83	14.083	1.57	20.08	0.84
2.100	0.88	8.100	65.83	14.100	1.57	20.10	0.84
2.117	0.88	8.117	65.83	14.117	1.57	20.12	0.84
2.133	0.88	8.133	65.83	14.133	1.57	20.13	0.84
2.150	0.88	8.150	65.83	14.150	1.57	20.15	0.84
2.167	0.88	8.167	65.74	14.167	1.57	20.17	0.84
2.183	0.90	8.183	33.57	14.183	1.53	20.18	0.83
2.200	0.90	8.200	33.57	14.200	1.53	20.20	0.83
2.217	0.90	8.217	33.57	14.217	1.53	20.22	0.83
2.233	0.90	8.233	33.57	14.233	1.53	20.23	0.83
2.250	0.90	8.250	33.57	14.250	1.53	20.25	0.83
2.267	0.90	8.267	33.57	14.267	1.53	20.27	0.83
2.283	0.90	8.283	33.57	14.283	1.53	20.28	0.83
2.300	0.90	8.300	33.57	14.300	1.53	20.30	0.83
2.317	0.90	8.317	33.57	14.317	1.53	20.32	0.83
2.333	0.90	8.333	33.53	14.333	1.53	20.33	0.83
2.350	0.92	8.350	21.73	14.350	1.50	20.35	0.82
2.367	0.92	8.367	21.73	14.367	1.50	20.37	0.82
2.383	0.92	8.383	21.73	14.383	1.50	20.38	0.82
2.400	0.92	8.400	21.73	14.400	1.50	20.40	0.82
2.417	0.92	8.417	21.73	14.417	1.50	20.42	0.82
2.433	0.92	8.433	21.73	14.433	1.50	20.43	0.82
2.450	0.92	8.450	21.73	14.450	1.50	20.45	0.82
2.467	0.92	8.467	21.73	14.467	1.50	20.47	0.82
2.483	0.92	8.483	21.73	14.483	1.50	20.48	0.82
2.500	0.92	8.500	21.72	14.500	1.50	20.50	0.82
2.517	0.95	8.517	15.83	14.517	1.46	20.52	0.81
2.533	0.95	8.533	15.83	14.533	1.46	20.53	0.81
2.550	0.95	8.550	15.83	14.550	1.46	20.55	0.81
2.567	0.95	8.567	15.83	14.567	1.46	20.57	0.81
2.583	0.95	8.583	15.83	14.583	1.46	20.58	0.81
2.600	0.95	8.600	15.83	14.600	1.46	20.60	0.81
2.617	0.95	8.617	15.83	14.617	1.46	20.62	0.81
2.633	0.95	8.633	15.83	14.633	1.46	20.63	0.81
2.650	0.95	8.650	15.83	14.650	1.46	20.65	0.81
2.667	0.95	8.667	15.82	14.667	1.46	20.67	0.81
2.683	0.98	8.683	12.37	14.683	1.43	20.68	0.80
2.700	0.98	8.700	12.37	14.700	1.43	20.70	0.80
2.717	0.98	8.717	12.37	14.717	1.43	20.72	0.80
2.733	0.98	8.733	12.37	14.733	1.43	20.73	0.80
2.750	0.98	8.750	12.37	14.750	1.43	20.75	0.80
2.767	0.98	8.767	12.37	14.767	1.43	20.77	0.80
2.783	0.98	8.783	12.37	14.783	1.43	20.78	0.80
2.800	0.98	8.800	12.37	14.800	1.43	20.80	0.80
2.817	0.98	8.817	12.37	14.817	1.43	20.82	0.80
2.833	0.98	8.833	12.36	14.833	1.43	20.83	0.80
2.850	1.01	8.850	10.11	14.850	1.39	20.85	0.79
2.867	1.01	8.867	10.11	14.867	1.39	20.87	0.79
2.883	1.01	8.883	10.11	14.883	1.39	20.88	0.79
2.900	1.01	8.900	10.11	14.900	1.39	20.90	0.79
2.917	1.01	8.917	10.11	14.917	1.39	20.92	0.79
2.933	1.01	8.933	10.11	14.933	1.39	20.93	0.79
2.950	1.01	8.950	10.11	14.950	1.39	20.95	0.79
2.967	1.01	8.967	10.11	14.967	1.39	20.97	0.79
2.983	1.01	8.983	10.11	14.983	1.39	20.98	0.79
3.000	1.01	9.000	10.11	15.000	1.39	21.00	0.79
3.017	1.04	9.017	8.54	15.017	1.36	21.02	0.78
3.033	1.04	9.033	8.54	15.033	1.36	21.03	0.78
3.050	1.04	9.050	8.54	15.050	1.36	21.05	0.78
3.067	1.04	9.067	8.54	15.067	1.36	21.07	0.78
3.083	1.04	9.083	8.54	15.083	1.36	21.08	0.78
3.100	1.04	9.100	8.54	15.100	1.36	21.10	0.78
3.117	1.04	9.117	8.54	15.117	1.36	21.12	0.78
3.133	1.04	9.133	8.54	15.133	1.36	21.13	0.78
3.150	1.04	9.150	8.54	15.150	1.36	21.15	0.78

3.167	1.04	9.167	8.54	15.167	1.36	21.17	0.78
3.183	1.08	9.183	7.39	15.183	1.34	21.18	0.77
3.200	1.08	9.200	7.39	15.200	1.34	21.20	0.77
3.217	1.08	9.217	7.39	15.217	1.34	21.22	0.77
3.233	1.08	9.233	7.39	15.233	1.34	21.23	0.77
3.250	1.08	9.250	7.39	15.250	1.34	21.25	0.77
3.267	1.08	9.267	7.39	15.267	1.34	21.27	0.77
3.283	1.08	9.283	7.39	15.283	1.34	21.28	0.77
3.300	1.08	9.300	7.39	15.300	1.34	21.30	0.77
3.317	1.08	9.317	7.39	15.317	1.34	21.32	0.77
3.333	1.08	9.333	7.39	15.333	1.34	21.33	0.77
3.350	1.11	9.350	6.51	15.350	1.31	21.35	0.76
3.367	1.11	9.367	6.51	15.367	1.31	21.37	0.76
3.383	1.11	9.383	6.51	15.383	1.31	21.38	0.76
3.400	1.11	9.400	6.51	15.400	1.31	21.40	0.76
3.417	1.11	9.417	6.51	15.417	1.31	21.42	0.76
3.433	1.11	9.433	6.51	15.433	1.31	21.43	0.76
3.450	1.11	9.450	6.51	15.450	1.31	21.45	0.76
3.467	1.11	9.467	6.51	15.467	1.31	21.47	0.76
3.483	1.11	9.483	6.51	15.483	1.31	21.48	0.76
3.500	1.11	9.500	6.51	15.500	1.31	21.50	0.76
3.517	1.15	9.517	5.82	15.517	1.28	21.52	0.75
3.533	1.15	9.533	5.82	15.533	1.28	21.53	0.75
3.550	1.15	9.550	5.82	15.550	1.28	21.55	0.75
3.567	1.15	9.567	5.82	15.567	1.28	21.57	0.75
3.583	1.15	9.583	5.82	15.583	1.28	21.58	0.75
3.600	1.15	9.600	5.82	15.600	1.28	21.60	0.75
3.617	1.15	9.617	5.82	15.617	1.28	21.62	0.75
3.633	1.15	9.633	5.82	15.633	1.28	21.63	0.75
3.650	1.15	9.650	5.82	15.650	1.28	21.65	0.75
3.667	1.15	9.667	5.82	15.667	1.28	21.67	0.75
3.683	1.20	9.683	5.26	15.683	1.26	21.68	0.75
3.700	1.20	9.700	5.26	15.700	1.26	21.70	0.75
3.717	1.20	9.717	5.26	15.717	1.26	21.72	0.75
3.733	1.20	9.733	5.26	15.733	1.26	21.73	0.75
3.750	1.20	9.750	5.26	15.750	1.26	21.75	0.75
3.767	1.20	9.767	5.26	15.767	1.26	21.77	0.75
3.783	1.20	9.783	5.26	15.783	1.26	21.78	0.75
3.800	1.20	9.800	5.26	15.800	1.26	21.80	0.75
3.817	1.20	9.817	5.26	15.817	1.26	21.82	0.75
3.833	1.20	9.833	5.26	15.833	1.26	21.83	0.75
3.850	1.24	9.850	4.80	15.850	1.23	21.85	0.74
3.867	1.24	9.867	4.80	15.867	1.23	21.87	0.74
3.883	1.24	9.883	4.80	15.883	1.23	21.88	0.74
3.900	1.24	9.900	4.80	15.900	1.23	21.90	0.74
3.917	1.24	9.917	4.80	15.917	1.23	21.92	0.74
3.933	1.24	9.933	4.80	15.933	1.23	21.93	0.74
3.950	1.24	9.950	4.80	15.950	1.23	21.95	0.74
3.967	1.24	9.967	4.80	15.967	1.23	21.97	0.74
3.983	1.24	9.983	4.80	15.983	1.23	21.98	0.74
4.000	1.24	10.000	4.80	16.000	1.23	22.00	0.74
4.017	1.29	10.017	4.42	16.017	1.21	22.02	0.73

4.033	1.29	10.033	4.42	16.033	1.21	22.03	0.73
4.050	1.29	10.050	4.42	16.050	1.21	22.05	0.73
4.067	1.29	10.067	4.42	16.067	1.21	22.07	0.73
4.083	1.29	10.083	4.42	16.083	1.21	22.08	0.73
4.100	1.29	10.100	4.42	16.100	1.21	22.10	0.73
4.117	1.29	10.117	4.42	16.117	1.21	22.12	0.73
4.133	1.29	10.133	4.42	16.133	1.21	22.13	0.73
4.150	1.29	10.150	4.42	16.150	1.21	22.15	0.73
4.167	1.29	10.167	4.42	16.167	1.21	22.17	0.73
4.183	1.35	10.183	4.09	16.183	1.19	22.18	0.72
4.200	1.35	10.200	4.09	16.200	1.19	22.20	0.72
4.217	1.35	10.217	4.09	16.217	1.19	22.22	0.72
4.233	1.35	10.233	4.09	16.233	1.19	22.23	0.72
4.250	1.35	10.250	4.09	16.250	1.19	22.25	0.72
4.267	1.35	10.267	4.09	16.267	1.19	22.27	0.72
4.283	1.35	10.283	4.09	16.283	1.19	22.28	0.72
4.300	1.35	10.300	4.09	16.300	1.19	22.30	0.72
4.317	1.35	10.317	4.09	16.317	1.19	22.32	0.72
4.333	1.35	10.333	4.09	16.333	1.19	22.33	0.72
4.350	1.41	10.350	3.81	16.350	1.16	22.35	0.72
4.367	1.41	10.367	3.81	16.367	1.16	22.37	0.72
4.383	1.41	10.383	3.81	16.383	1.16	22.38	0.72
4.400	1.41	10.400	3.81	16.400	1.16	22.40	0.72
4.417	1.41	10.417	3.81	16.417	1.16	22.42	0.72
4.433	1.41	10.433	3.81	16.433	1.16	22.43	0.72
4.450	1.41	10.450	3.81	16.450	1.16	22.45	0.72
4.467	1.41	10.467	3.81	16.467	1.16	22.47	0.72
4.483	1.41	10.483	3.81	16.483	1.16	22.48	0.72
4.500	1.41	10.500	3.81	16.500	1.16	22.50	0.72
4.517	1.48	10.517	3.57	16.517	1.14	22.52	0.71
4.533	1.48	10.533	3.57	16.533	1.14	22.53	0.71
4.550	1.48	10.550	3.57	16.550	1.14	22.55	0.71
4.567	1.48	10.567	3.57	16.567	1.14	22.57	0.71
4.583	1.48	10.583	3.57	16.583	1.14	22.58	0.71
4.600	1.48	10.600	3.57	16.600	1.14	22.60	0.71
4.617	1.48	10.617	3.57	16.617	1.14	22.62	0.71
4.633	1.48	10.633	3.57	16.633	1.14	22.63	0.71
4.650	1.48	10.650	3.57	16.650	1.14	22.65	0.71
4.667	1.48	10.667	3.57	16.667	1.14	22.67	0.71
4.683	1.55	10.683	3.36	16.683	1.12	22.68	0.70
4.700	1.55	10.700	3.36	16.700	1.12	22.70	0.70
4.717	1.55	10.717	3.36	16.717	1.12	22.72	0.70
4.733	1.55	10.733	3.36	16.733	1.12	22.73	0.70
4.750	1.55	10.750	3.36	16.750	1.12	22.75	0.70
4.767	1.55	10.767	3.36	16.767	1.12	22.77	0.70
4.783	1.55	10.783	3.36	16.783	1.12	22.78	0.70
4.800	1.55	10.800	3.36	16.800	1.12	22.80	0.70
4.817	1.55	10.817	3.36	16.817	1.12	22.82	0.70
4.833	1.55	10.833	3.36	16.833	1.12	22.83	0.70
4.850	1.63	10.850	3.17	16.850	1.10	22.85	0.69
4.867	1.63	10.867	3.17	16.867	1.10	22.87	0.69
4.883	1.63	10.883	3.17	16.883	1.10	22.88	0.69

4.900	1.63	10.900	3.17	16.900	1.10	22.90	0.69
4.917	1.63	10.917	3.17	16.917	1.10	22.92	0.69
4.933	1.63	10.933	3.17	16.933	1.10	22.93	0.69
4.950	1.63	10.950	3.17	16.950	1.10	22.95	0.69
4.967	1.63	10.967	3.17	16.967	1.10	22.97	0.69
4.983	1.63	10.983	3.17	16.983	1.10	22.98	0.69
5.000	1.63	11.000	3.17	17.000	1.10	23.00	0.69
5.017	1.72	11.017	3.00	17.017	1.09	23.02	0.69
5.033	1.72	11.033	3.00	17.033	1.09	23.03	0.69
5.050	1.72	11.050	3.00	17.050	1.09	23.05	0.69
5.067	1.72	11.067	3.00	17.067	1.09	23.07	0.69
5.083	1.72	11.083	3.00	17.083	1.09	23.08	0.69
5.100	1.72	11.100	3.00	17.100	1.09	23.10	0.69
5.117	1.72	11.117	3.00	17.117	1.09	23.12	0.69
5.133	1.72	11.133	3.00	17.133	1.09	23.13	0.69
5.150	1.72	11.150	3.00	17.150	1.09	23.15	0.69
5.167	1.72	11.167	3.00	17.167	1.09	23.17	0.69
5.183	1.83	11.183	2.85	17.183	1.07	23.18	0.68
5.200	1.83	11.200	2.85	17.200	1.07	23.20	0.68
5.217	1.83	11.217	2.85	17.217	1.07	23.22	0.68
5.233	1.83	11.233	2.85	17.233	1.07	23.23	0.68
5.250	1.83	11.250	2.85	17.250	1.07	23.25	0.68
5.267	1.83	11.267	2.85	17.267	1.07	23.27	0.68
5.283	1.83	11.283	2.85	17.283	1.07	23.28	0.68
5.300	1.83	11.300	2.85	17.300	1.07	23.30	0.68
5.317	1.83	11.317	2.85	17.317	1.07	23.32	0.68
5.333	1.83	11.333	2.85	17.333	1.07	23.33	0.68
5.350	1.95	11.350	2.72	17.350	1.05	23.35	0.67
5.367	1.95	11.367	2.72	17.367	1.05	23.37	0.67
5.383	1.95	11.383	2.72	17.383	1.05	23.38	0.67
5.400	1.95	11.400	2.72	17.400	1.05	23.40	0.67
5.417	1.95	11.417	2.72	17.417	1.05	23.42	0.67
5.433	1.95	11.433	2.72	17.433	1.05	23.43	0.67
5.450	1.95	11.450	2.72	17.450	1.05	23.45	0.67
5.467	1.95	11.467	2.72	17.467	1.05	23.47	0.67
5.483	1.95	11.483	2.72	17.483	1.05	23.48	0.67
5.500	1.95	11.500	2.72	17.500	1.05	23.50	0.67
5.517	2.08	11.517	2.59	17.517	1.03	23.52	0.67
5.533	2.08	11.533	2.59	17.533	1.03	23.53	0.67
5.550	2.08	11.550	2.59	17.550	1.03	23.55	0.67
5.567	2.08	11.567	2.59	17.567	1.03	23.57	0.67
5.583	2.08	11.583	2.59	17.583	1.03	23.58	0.67
5.600	2.08	11.600	2.59	17.600	1.03	23.60	0.67
5.617	2.08	11.617	2.59	17.617	1.03	23.62	0.67
5.633	2.08	11.633	2.59	17.633	1.03	23.63	0.67
5.650	2.08	11.650	2.59	17.650	1.03	23.65	0.67
5.667	2.08	11.667	2.59	17.667	1.03	23.67	0.67
5.683	2.24	11.683	2.48	17.683	1.02	23.68	0.66
5.700	2.24	11.700	2.48	17.700	1.02	23.70	0.66
5.717	2.24	11.717	2.48	17.717	1.02	23.72	0.66
5.733	2.24	11.733	2.48	17.733	1.02	23.73	0.66
5.750	2.24	11.750	2.48	17.750	1.02	23.75	0.66

5.767	2.24	11.767	2.48	17.767	1.02	23.77	0.66
5.783	2.24	11.783	2.48	17.783	1.02	23.78	0.66
5.800	2.24	11.800	2.48	17.800	1.02	23.80	0.66
5.817	2.24	11.817	2.48	17.817	1.02	23.82	0.66
5.833	2.24	11.833	2.48	17.833	1.02	23.83	0.66
5.850	2.43	11.850	2.38	17.850	1.00	23.85	0.65
5.867	2.43	11.867	2.38	17.867	1.00	23.87	0.65
5.883	2.43	11.883	2.38	17.883	1.00	23.88	0.65
5.900	2.43	11.900	2.38	17.900	1.00	23.90	0.65
5.917	2.43	11.917	2.38	17.917	1.00	23.92	0.65
5.933	2.43	11.933	2.38	17.933	1.00	23.93	0.65
5.950	2.43	11.950	2.38	17.950	1.00	23.95	0.65
5.967	2.43	11.967	2.38	17.967	1.00	23.97	0.65
5.983	2.43	11.983	2.38	17.983	1.00	23.98	0.65
6.000	2.43	12.000	2.38	18.000	1.00	24.00	0.65

Max.Eff.Inten.(mm/hr)=	172.68	54.48	
over (min)	5.00	12.00	
Storage Coeff. (min)=	2.34 (ii)	11.34 (ii)	
Unit Hyd. Tpeak (min)=	5.00	12.00	
Unit Hyd. peak (cms)=	0.35	0.10	
			TOTALS
PEAK FLOW (cms)=	0.11	0.08	0.157 (iii)
TIME TO PEAK (hrs)=	8.00	8.17	8.03
RUNOFF VOLUME (mm)=	107.06	37.40	51.33
TOTAL RAINFALL (mm)=	108.06	108.06	108.06
RUNOFF COEFFICIENT =	0.99	0.35	0.48

***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
YOU SHOULD CONSIDER SPLITTING THE AREA.

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 57.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB					
STANDHYD (1011)	Area	(ha)=	13.73		
ID= 1 DT= 1.0 min	Total Imp(%)=		46.00	Dir. Conn.(%)=	39.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	6.32	7.42
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	0.50	2.00
Length	(m)=	302.59	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 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
0.017	0.67	6.017	2.65	12.017	2.29	18.02	0.99
0.033	0.67	6.033	2.65	12.033	2.29	18.03	0.99
0.050	0.67	6.050	2.65	12.050	2.29	18.05	0.99
0.067	0.67	6.067	2.65	12.067	2.29	18.07	0.99
0.083	0.67	6.083	2.65	12.083	2.29	18.08	0.99
0.100	0.67	6.100	2.65	12.100	2.29	18.10	0.99
0.117	0.67	6.117	2.65	12.117	2.29	18.12	0.99
0.133	0.67	6.133	2.65	12.133	2.29	18.13	0.99
0.150	0.67	6.150	2.65	12.150	2.29	18.15	0.99
0.167	0.67	6.167	2.65	12.167	2.29	18.17	0.99
0.183	0.68	6.183	2.92	12.183	2.20	18.18	0.97
0.200	0.68	6.200	2.92	12.200	2.20	18.20	0.97
0.217	0.68	6.217	2.92	12.217	2.20	18.22	0.97
0.233	0.68	6.233	2.92	12.233	2.20	18.23	0.97
0.250	0.68	6.250	2.92	12.250	2.20	18.25	0.97
0.267	0.68	6.267	2.92	12.267	2.20	18.27	0.97
0.283	0.68	6.283	2.92	12.283	2.20	18.28	0.97
0.300	0.68	6.300	2.92	12.300	2.20	18.30	0.97
0.317	0.68	6.317	2.92	12.317	2.20	18.32	0.97
0.333	0.68	6.333	2.92	12.333	2.20	18.33	0.97
0.350	0.70	6.350	3.26	12.350	2.12	18.35	0.96
0.367	0.70	6.367	3.26	12.367	2.12	18.37	0.96
0.383	0.70	6.383	3.26	12.383	2.12	18.38	0.96
0.400	0.70	6.400	3.26	12.400	2.12	18.40	0.96
0.417	0.70	6.417	3.26	12.417	2.12	18.42	0.96
0.433	0.70	6.433	3.26	12.433	2.12	18.43	0.96
0.450	0.70	6.450	3.26	12.450	2.12	18.45	0.96
0.467	0.70	6.467	3.26	12.467	2.12	18.47	0.96
0.483	0.70	6.483	3.26	12.483	2.12	18.48	0.96
0.500	0.70	6.500	3.26	12.500	2.12	18.50	0.96
0.517	0.71	6.517	3.69	12.517	2.05	18.52	0.94
0.533	0.71	6.533	3.69	12.533	2.05	18.53	0.94
0.550	0.71	6.550	3.69	12.550	2.05	18.55	0.94
0.567	0.71	6.567	3.69	12.567	2.05	18.57	0.94
0.583	0.71	6.583	3.69	12.583	2.05	18.58	0.94
0.600	0.71	6.600	3.69	12.600	2.05	18.60	0.94
0.617	0.71	6.617	3.69	12.617	2.05	18.62	0.94
0.633	0.71	6.633	3.69	12.633	2.05	18.63	0.94
0.650	0.71	6.650	3.69	12.650	2.05	18.65	0.94
0.667	0.71	6.667	3.69	12.667	2.05	18.67	0.94
0.683	0.73	6.683	4.25	12.683	1.98	18.68	0.93
0.700	0.73	6.700	4.25	12.700	1.98	18.70	0.93
0.717	0.73	6.717	4.25	12.717	1.98	18.72	0.93
0.733	0.73	6.733	4.25	12.733	1.98	18.73	0.93
0.750	0.73	6.750	4.25	12.750	1.98	18.75	0.93
0.767	0.73	6.767	4.25	12.767	1.98	18.77	0.93
0.783	0.73	6.783	4.25	12.783	1.98	18.78	0.93
0.800	0.73	6.800	4.25	12.800	1.98	18.80	0.93

0.817	0.73	6.817	4.25	12.817	1.98	18.82	0.93
0.833	0.73	6.833	4.25	12.833	1.98	18.83	0.93
0.850	0.74	6.850	5.02	12.850	1.92	18.85	0.92
0.867	0.74	6.867	5.02	12.867	1.92	18.87	0.92
0.883	0.74	6.883	5.02	12.883	1.92	18.88	0.92
0.900	0.74	6.900	5.02	12.900	1.92	18.90	0.92
0.917	0.74	6.917	5.02	12.917	1.92	18.92	0.92
0.933	0.74	6.933	5.02	12.933	1.92	18.93	0.92
0.950	0.74	6.950	5.02	12.950	1.92	18.95	0.92
0.967	0.74	6.967	5.02	12.967	1.92	18.97	0.92
0.983	0.74	6.983	5.02	12.983	1.92	18.98	0.92
1.000	0.74	7.000	5.03	13.000	1.92	19.00	0.92
1.017	0.76	7.017	6.15	13.017	1.86	19.02	0.91
1.033	0.76	7.033	6.15	13.033	1.86	19.03	0.91
1.050	0.76	7.050	6.15	13.050	1.86	19.05	0.91
1.067	0.76	7.067	6.15	13.067	1.86	19.07	0.91
1.083	0.76	7.083	6.15	13.083	1.86	19.08	0.91
1.100	0.76	7.100	6.15	13.100	1.86	19.10	0.91
1.117	0.76	7.117	6.15	13.117	1.86	19.12	0.91
1.133	0.76	7.133	6.15	13.133	1.86	19.13	0.91
1.150	0.76	7.150	6.15	13.150	1.86	19.15	0.91
1.167	0.76	7.167	6.16	13.167	1.86	19.17	0.91
1.183	0.77	7.183	7.95	13.183	1.80	19.18	0.89
1.200	0.77	7.200	7.95	13.200	1.80	19.20	0.89
1.217	0.77	7.217	7.95	13.217	1.80	19.22	0.89
1.233	0.77	7.233	7.95	13.233	1.80	19.23	0.89
1.250	0.77	7.250	7.95	13.250	1.80	19.25	0.89
1.267	0.77	7.267	7.95	13.267	1.80	19.27	0.89
1.283	0.77	7.283	7.95	13.283	1.80	19.28	0.89
1.300	0.77	7.300	7.95	13.300	1.80	19.30	0.89
1.317	0.77	7.317	7.95	13.317	1.80	19.32	0.89
1.333	0.77	7.333	7.96	13.333	1.80	19.33	0.89
1.350	0.79	7.350	11.22	13.350	1.75	19.35	0.88
1.367	0.79	7.367	11.22	13.367	1.75	19.37	0.88
1.383	0.79	7.383	11.22	13.383	1.75	19.38	0.88
1.400	0.79	7.400	11.22	13.400	1.75	19.40	0.88
1.417	0.79	7.417	11.22	13.417	1.75	19.42	0.88
1.433	0.79	7.433	11.22	13.433	1.75	19.43	0.88
1.450	0.79	7.450	11.22	13.450	1.75	19.45	0.88
1.467	0.79	7.467	11.22	13.467	1.75	19.47	0.88
1.483	0.79	7.483	11.22	13.483	1.75	19.48	0.88
1.500	0.79	7.500	11.24	13.500	1.75	19.50	0.88
1.517	0.81	7.517	18.75	13.517	1.70	19.52	0.87
1.533	0.81	7.533	18.75	13.533	1.70	19.53	0.87
1.550	0.81	7.550	18.75	13.550	1.70	19.55	0.87
1.567	0.81	7.567	18.75	13.567	1.70	19.57	0.87
1.583	0.81	7.583	18.75	13.583	1.70	19.58	0.87
1.600	0.81	7.600	18.75	13.600	1.70	19.60	0.87
1.617	0.81	7.617	18.75	13.617	1.70	19.62	0.87
1.633	0.81	7.633	18.75	13.633	1.70	19.63	0.87
1.650	0.81	7.650	18.75	13.650	1.70	19.65	0.87
1.667	0.81	7.667	18.84	13.667	1.70	19.67	0.87

1.683	0.83	7.683	49.66	13.683	1.66	19.68	0.86
1.700	0.83	7.700	49.66	13.700	1.66	19.70	0.86
1.717	0.83	7.717	49.66	13.717	1.66	19.72	0.86
1.733	0.83	7.733	49.66	13.733	1.66	19.73	0.86
1.750	0.83	7.750	49.66	13.750	1.66	19.75	0.86
1.767	0.83	7.767	49.66	13.767	1.66	19.77	0.86
1.783	0.83	7.783	49.66	13.783	1.66	19.78	0.86
1.800	0.83	7.800	49.66	13.800	1.66	19.80	0.86
1.817	0.83	7.817	49.66	13.817	1.66	19.82	0.86
1.833	0.83	7.833	50.02	13.833	1.66	19.83	0.86
1.850	0.85	7.850	172.68	13.850	1.61	19.85	0.85
1.867	0.85	7.867	172.68	13.867	1.61	19.87	0.85
1.883	0.85	7.883	172.68	13.883	1.61	19.88	0.85
1.900	0.85	7.900	172.68	13.900	1.61	19.90	0.85
1.917	0.85	7.917	172.68	13.917	1.61	19.92	0.85
1.933	0.85	7.933	172.68	13.933	1.61	19.93	0.85
1.950	0.85	7.950	172.68	13.950	1.61	19.95	0.85
1.967	0.85	7.967	172.68	13.967	1.61	19.97	0.85
1.983	0.85	7.983	172.68	13.983	1.61	19.98	0.85
2.000	0.85	8.000	172.36	14.000	1.61	20.00	0.85
2.017	0.88	8.017	65.83	14.017	1.57	20.02	0.84
2.033	0.88	8.033	65.83	14.033	1.57	20.03	0.84
2.050	0.88	8.050	65.83	14.050	1.57	20.05	0.84
2.067	0.88	8.067	65.83	14.067	1.57	20.07	0.84
2.083	0.88	8.083	65.83	14.083	1.57	20.08	0.84
2.100	0.88	8.100	65.83	14.100	1.57	20.10	0.84
2.117	0.88	8.117	65.83	14.117	1.57	20.12	0.84
2.133	0.88	8.133	65.83	14.133	1.57	20.13	0.84
2.150	0.88	8.150	65.83	14.150	1.57	20.15	0.84
2.167	0.88	8.167	65.74	14.167	1.57	20.17	0.84
2.183	0.90	8.183	33.57	14.183	1.53	20.18	0.83
2.200	0.90	8.200	33.57	14.200	1.53	20.20	0.83
2.217	0.90	8.217	33.57	14.217	1.53	20.22	0.83
2.233	0.90	8.233	33.57	14.233	1.53	20.23	0.83
2.250	0.90	8.250	33.57	14.250	1.53	20.25	0.83
2.267	0.90	8.267	33.57	14.267	1.53	20.27	0.83
2.283	0.90	8.283	33.57	14.283	1.53	20.28	0.83
2.300	0.90	8.300	33.57	14.300	1.53	20.30	0.83
2.317	0.90	8.317	33.57	14.317	1.53	20.32	0.83
2.333	0.90	8.333	33.53	14.333	1.53	20.33	0.83
2.350	0.92	8.350	21.73	14.350	1.50	20.35	0.82
2.367	0.92	8.367	21.73	14.367	1.50	20.37	0.82
2.383	0.92	8.383	21.73	14.383	1.50	20.38	0.82
2.400	0.92	8.400	21.73	14.400	1.50	20.40	0.82
2.417	0.92	8.417	21.73	14.417	1.50	20.42	0.82
2.433	0.92	8.433	21.73	14.433	1.50	20.43	0.82
2.450	0.92	8.450	21.73	14.450	1.50	20.45	0.82
2.467	0.92	8.467	21.73	14.467	1.50	20.47	0.82
2.483	0.92	8.483	21.73	14.483	1.50	20.48	0.82
2.500	0.92	8.500	21.72	14.500	1.50	20.50	0.82
2.517	0.95	8.517	15.83	14.517	1.46	20.52	0.81
2.533	0.95	8.533	15.83	14.533	1.46	20.53	0.81
2.550	0.95	8.550	15.83	14.550	1.46	20.55	0.81
2.567	0.95	8.567	15.83	14.567	1.46	20.57	0.81
2.583	0.95	8.583	15.83	14.583	1.46	20.58	0.81
2.600	0.95	8.600	15.83	14.600	1.46	20.60	0.81
2.617	0.95	8.617	15.83	14.617	1.46	20.62	0.81
2.633	0.95	8.633	15.83	14.633	1.46	20.63	0.81
2.650	0.95	8.650	15.83	14.650	1.46	20.65	0.81
2.667	0.95	8.667	15.82	14.667	1.46	20.67	0.81
2.683	0.98	8.683	12.37	14.683	1.43	20.68	0.80
2.700	0.98	8.700	12.37	14.700	1.43	20.70	0.80
2.717	0.98	8.717	12.37	14.717	1.43	20.72	0.80
2.733	0.98	8.733	12.37	14.733	1.43	20.73	0.80
2.750	0.98	8.750	12.37	14.750	1.43	20.75	0.80
2.767	0.98	8.767	12.37	14.767	1.43	20.77	0.80
2.783	0.98	8.783	12.37	14.783	1.43	20.78	0.80
2.800	0.98	8.800	12.37	14.800	1.43	20.80	0.80
2.817	0.98	8.817	12.37	14.817	1.43	20.82	0.80
2.833	0.98	8.833	12.36	14.833	1.43	20.83	0.80
2.850	1.01	8.850	10.11	14.850	1.39	20.85	0.79
2.867	1.01	8.867	10.11	14.867	1.39	20.87	0.79
2.883	1.01	8.883	10.11	14.883	1.39	20.88	0.79
2.900	1.01	8.900	10.11	14.900	1.39	20.90	0.79
2.917	1.01	8.917	10.11	14.917	1.39	20.92	0.79
2.933	1.01	8.933	10.11	14.933	1.39	20.93	0.79
2.950	1.01	8.950	10.11	14.950	1.39	20.95	0.79
2.967	1.01	8.967	10.11	14.967	1.39	20.97	0.79
2.983	1.01	8.983	10.11	14.983	1.39	20.98	0.79
3.000	1.01	9.000	10.11	15.000	1.39	21.00	0.79
3.017	1.04	9.017	8.54	15.017	1.36	21.02	0.78
3.033	1.04	9.033	8.54	15.033	1.36	21.03	0.78
3.050	1.04	9.050	8.54	15.050	1.36	21.05	0.78
3.067	1.04	9.067	8.54	15.067	1.36	21.07	0.78
3.083	1.04	9.083	8.54	15.083	1.36	21.08	0.78
3.100	1.04	9.100	8.54	15.100	1.36	21.10	0.78
3.117	1.04	9.117	8.54	15.117	1.36	21.12	0.78
3.133	1.04	9.133	8.54	15.133	1.36	21.13	0.78
3.150	1.04	9.150	8.54	15.150	1.36	21.15	0.78
3.167	1.04	9.167	8.54	15.167	1.36	21.17	0.78
3.183	1.08	9.183	7.39	15.183	1.34	21.18	0.77
3.200	1.08	9.200	7.39	15.200	1.34	21.20	0.77
3.217	1.08	9.217	7.39	15.217	1.34	21.22	0.77
3.233	1.08	9.233	7.39	15.233	1.34	21.23	0.77
3.250	1.08	9.250	7.39	15.250	1.34	21.25	0.77
3.267	1.08	9.267	7.39	15.267	1.34	21.27	0.77
3.283	1.08	9.283	7.39	15.283	1.34	21.28	0.77
3.300	1.08	9.300	7.39	15.300	1.34	21.30	0.77
3.317	1.08	9.317	7.39	15.317	1.34	21.32	0.77
3.333	1.08	9.333	7.39	15.333	1.34	21.33	0.77
3.350	1.11	9.350	6.51	15.350	1.31	21.35	0.76
3.367	1.11	9.367	6.51	15.367	1.31	21.37	0.76
3.383	1.11	9.383	6.51	15.383	1.31	21.38	0.76
3.400	1.11	9.400	6.51	15.400	1.31	21.40	0.76
3.417	1.11	9.417	6.51	15.417	1.31	21.42	0.76
3.433	1.11	9.433	6.51	15.433	1.31	21.43	0.76
3.450	1.11	9.450	6.51	15.450	1.31	21.45	0.76
3.467	1.11	9.467	6.51	15.467	1.31	21.47	0.76
3.483	1.11	9.483	6.51	15.483	1.31	21.48	0.76
3.500	1.11	9.500	6.51	15.500	1.31	21.50	0.76
3.517	1.15	9.517	5.82	15.517	1.28	21.52	0.75
3.533	1.15	9.533	5.82	15.533	1.28	21.53	0.75
3.550	1.15	9.550	5.82	15.550	1.28	21.55	0.75
3.567	1.15	9.567	5.82	15.567	1.28	21.57	0.75
3.583	1.15	9.583	5.82	15.583	1.28	21.58	0.75
3.600	1.15	9.600	5.82	15.600	1.28	21.60	0.75
3.617	1.15	9.617	5.82	15.617	1.28	21.62	0.75
3.633	1.15	9.633	5.82	15.633	1.28	21.63	0.75
3.650	1.15	9.650	5.82	15.650	1.28	21.65	0.75
3.667	1.15	9.667	5.82	15.667	1.28	21.67	0.75
3.683	1.20	9.683	5.26	15.683	1.26	21.68	0.75
3.700	1.20	9.700	5.26	15.700	1.26	21.70	0.75
3.717	1.20	9.717	5.26	15.717	1.26	21.72	0.75
3.733	1.20	9.733	5.26	15.733	1.26	21.73	0.75
3.750	1.20	9.750	5.26	15.750	1.26	21.75	0.75
3.767	1.20	9.767	5.26	15.767	1.26	21.77	0.75
3.783	1.20	9.783	5.26	15.783	1.26	21.78	0.75
3.800	1.20	9.800	5.26	15.800	1.26	21.80	0.75
3.817	1.20	9.817	5.26	15.817	1.26	21.82	0.75
3.833	1.20	9.833	5.26	15.833	1.26	21.83	0.75
3.850	1.24	9.850	4.80	15.850	1.23	21.85	0.74
3.867	1.24	9.867	4.80	15.867	1.23	21.87	0.74
3.883	1.24	9.883	4.80	15.883	1.23	21.88	0.74
3.900	1.24	9.900	4.80	15.900	1.23	21.90	0.74
3.917	1.24	9.917	4.80	15.917	1.23	21.92	0.74
3.933	1.24	9.933	4.80	15.933	1.23	21.93	0.74
3.950	1.24	9.950	4.80	15.950	1.23	21.95	0.74
3.967	1.24	9.967	4.80	15.967	1.23	21.97	0.74
3.983	1.24	9.983	4.80	15.983	1.23	21.98	0.74
4.000	1.24	10.000	4.80	16.000	1.23	22.00	0.74
4.017	1.29	10.017	4.42	16.017	1.21	22.02	0.73
4.033	1.29	10.033	4.42	16.033	1.21	22.03	0.73
4.050	1.29	10.050	4.42	16.050	1.21	22.05	0.73
4.067	1.29	10.067	4.42	16.067	1.21	22.07	0.73
4.083	1.29	10.083	4.42	16.083	1.21	22.08	0.73
4.100	1.29	10.100	4.42	16.100	1.21	22.10	0.73
4.117	1.29	10.117	4.42	16.117	1.21	22.12	0.73
4.133	1.29	10.133	4.42	16.133	1.21	22.13	0.73
4.150	1.29	10.150	4.42	16.150	1.21	22.15	0.73
4.167	1.29	10.167	4.42	16.167	1.21	22.17	0.73
4.183	1.35	10.183	4.09	16.183	1.19	22.18	0.72
4.200	1.35	10.200	4.09	16.200	1.19	22.20	0.72
4.217	1.35	10.217	4.09	16.217	1.19	22.22	0.72
4.233	1.35	10.233	4.09	16.233	1.19	22.23	0.72
4.250	1.35	10.250	4.09	16.250	1.19	22.25	0.72
4.267	1.35	10.267	4.09	16.267	1.19	22.27	0.72
4.283	1.35	10.283	4.09	16.283	1.19	22.28	0.72
4.300	1.35	10.300	4.09	16.300	1.19	22.30	0.72
4.317	1.35	10.317	4.09	16.317	1.19	22.32	0.72
4.333	1.35	10.333	4.09	16.333	1.19	22.33	0.72
4.350	1.41	10.350	3.81	16.350	1.16	22.35	0.72
4.367	1.41	10.367	3.81	16.367	1.16	22.37	0.72
4.383	1.41	10.383	3.81	16.383	1.16	22.38	0.72
4.400	1.41	10.400	3.81	16.400	1.16	22.40	0.72
4.417	1.41	10.417	3.81	16.417	1.16	22.42	0.72
4.433	1.41	10.433	3.81	16.433	1.16	22.43	0.72
4.450	1.41	10.450	3.81	16.450	1.16	22.45	0.72
4.467	1.41	10.467	3.81	16.467	1.16	22.47	0.72
4.483	1.41	10.483	3.81	16.483	1.16	22.48	0.72
4.500	1.41	10.500	3.81	16.500	1.16	22.50	0.72
4.517	1.48	10.517	3.57	16.517	1.14	22.52	0.71
4.533	1.48	10.533	3.57	16.533	1.14	22.53	0.71
4.550	1.48	10.550	3.57	16.550	1.14	22.55	0.71
4.567	1.48	10.567	3.57	16.567	1.14	22.57	0.71
4.583	1.48	10.583	3.57	16.583	1.14	22.58	0.71
4.600	1.48	10.600	3.57	16.600	1.14	22.60	0.71
4.617	1.48	10.617	3.57	16.617	1.14	22.62	0.71
4.633	1.48	10.633	3.57	16.633	1.14	22.63	0.71
4.650	1.48	10.650	3.57	16.650	1.14	22.65	0.71
4.667	1.48	10.667	3.57	16.667	1.14	22.67	0.71
4.683	1.55	10.683	3.36	16.683	1.12	22.68	0.70
4.700	1.55	10.700	3.36	16.700	1.12	22.70	0.70
4.717	1.55	10.717	3.36	16.717	1.12	22.72	0.70
4.733	1.55	10.733	3.36	16.733	1.12	22.73	0.70
4.750	1.55	10.750	3.36	16.750	1.12	22.75	0.70
4.767	1.55	10.767	3.36	16.767	1.12	22.77	0.70
4.783	1.55	10.783	3.36	16.783	1.12	22.78	0.70
4.800	1.55	10.800	3.36	16.800	1.12	22.80	0.70
4.817	1.55	10.817	3.36	16.817	1.12	22.82	0.70
4.833	1.55	10.833	3.36	16.833	1.12	22.83	0.70
4.850	1.63	10.850	3.17	16.850	1.10	22.85	0.69
4.867	1.63	10.867	3.17	16.867	1.10	22.87	0.69
4.883	1.63	10.883	3.17	16.883	1.10	22.88	0.69
4.900	1.63	10.900	3.17	16.900	1.10	22.90	0.69
4.917	1.63	10.917	3.17	16.917	1.10	22.92	0.69
4.933	1.63	10.933	3.17	16.933	1.10	22.93	0.69
4.950	1.63	10.950	3.17	16.950	1.10	22.95	0.69
4.967	1.63	10.967	3.17	16.967	1.10	22.97	0.69
4.983	1.63	10.983	3.17	16.983	1.10	22.98	0.69
5.000	1.63	11.000	3.17	17.000	1.10	23.00	0.69
5.017	1.72	11.017	3.00	17.017	1.09	23.02	0.69
5.033	1.72	11.033	3.00	17.033	1.09	23.03	0.69
5.050	1.72	11.050	3.00	17.050	1.09	23.05	0.69
5.067	1.72	11.067	3.00	17.067	1.09	23.07	0.69
5.083	1.72	11.083	3.00	17.083	1.09	23.08	0.69
5.100	1.72	11.100	3.00	17.100	1.09	23.10	0.69
5.117	1.72	11.117	3.00	17.117	1.09	23.12	0.69
5.133	1.72	11.133	3.00	17.133	1.09	23.13	0.69
5.150	1.72	11.150	3.00	17.150	1.09	23.15	0.69
5.167	1.72	11.167	3.00	17.167	1.09	23.17	0.69
5.183	1.83	11.183	2.85	17.183	1.07	23.18	0.68
5.200	1.83	11.200	2.85	17.200	1.07	23.20	0.68
5.217	1.83	11.217	2.85	17.217	1.07	23.22	0.68
5.233	1.83	11.233	2.85	17.233	1.07	23.23	0.68
5.250	1.83	11.250	2.85	17.250	1.07	23.25	0.68
5.267	1.83	11.267	2.85	17.267	1.07	23.27	0.68
5.283	1.83	11.283	2.85	17.283	1.07	23.28	0.68
5.300	1.83	11.300	2.85	17.300	1.07	23.30	0.68
5.317	1.83	11.317	2.85	17.317	1.07	23.32	0.68
5.333	1.83	11.333	2.85	17.333	1.07	23.33	0.68
5.350	1.95	11.350	2.72	17.350	1.05	23.35	0.67
5.367	1.95	11.367	2.72	17.367	1.05	23.37	0.67
5.383	1.95	11.383	2.72	17.383	1.05	23.38	0.67
5.400	1.95	11.400	2.72	17.400	1.05	23.40	0.67
5.417	1.95	11.417	2.72	17.417	1.05	23.42	0.67
5.433	1.95	11.433	2.72	17.433	1.05	23.43	0.67
5.450	1.95	11.450	2.72	17.450	1.05	23.45	0.67
5.467	1.95	11.467	2.72	17.467	1.05	23.47	0.67
5.483	1.95	11.483	2.72	17.483	1.05	23.48	0.67
5.500	1.95	11.500	2.72	17.500	1.05	23.50	0.67
5.517	2.08	11.517	2.59	17.517	1.03	23.52	0.67
5.533	2.08	11.533	2.59	17.533	1.03	23.53	0.67
5.550	2.08	11.550	2.59	17.550	1.03	23.55	0.67
5.567	2.08	11.567	2.59	17.567	1.03	23.57	0.67
5.583	2.08	11.583	2.59	17.583	1.03	23.58	0.67
5.600	2.08	11.600	2.59	17.600	1.03	23.60	0.67
5.617	2.08	11.617	2.59	17.617	1.03	23.62	0.67
5.633	2.08	11.633	2.59	17.633	1.03	23.63	0.67
5.650	2.08	11.650	2.59	17.650	1.03	23.65	0.67
5.667	2.08	11.667	2.59	17.667	1.03	23.67	0.67
5.683	2.24	11.683	2.48	17.683	1.02	23.68	0.66
5.700	2.24	11.700	2.48	17.700	1.02	23.70	0.66
5.717	2.24	11.717	2.48	17.717	1.02	23.72	0.66
5.733	2.24	11.733	2.48	17.733	1.02	23.73	0.66
5.750	2.24	11.750	2.48	17.750	1.02	23.75	0.66
5.767	2.24	11.767	2.48	17.767	1.02	23.77	0.66
5.783	2.24	11.783	2.48	17.783	1.02	23.78	0.66
5.800	2.24	11.800	2.48	17.800	1.02	23.80	0.66
5.817	2.24	11.817	2.48	17.817	1.02	23.82	0.66
5.833	2.24	11.833	2.48	17.833	1.02	23.83	0.66
5.850	2.43	11.850	2.38	17.850	1.00	23.85	0.65
5.867	2.43	11.867	2.38	17.867	1.00	23.87	0.65
5.883	2.43	11.883	2.38	17.883	1.00	23.88	0.65
5.900	2.43	11.900	2.38	17.900	1.00	23.90	0.65
5.917	2.43	11.917	2.38	17.917	1.00	23.92	0.65
5.933	2.43	11.933	2.38	17.933	1.00	23.93	0.65
5.950	2.43	11.950	2.38	17.950	1.00	23.95	0.65
5.967	2.43	11.967	2.38	17.967	1.00	23.97	0.65
5.983	2.43	11.983	2.38	17.983	1.00	23.98	0.65
6.000	2.43	12.000	2.38	18.000	1.00	24.00	0.65

Max.Eff.Inten.(mm/hr)=	172.68	46.92	
over (min)	5.00	12.00	
Storage Coeff. (min)=	4.91 (ii)	11.37 (ii)	
Unit Hyd. Tpeak (min)=	5.00	12.00	
Unit Hyd. peak (cms)=	0.23	0.10	
			TOTALS
PEAK FLOW (cms)=	2.19	0.60	2.564 (iii)
TIME TO PEAK (hrs)=	8.02	8.17	8.03
RUNOFF VOLUME (mm)=	107.05	30.92	60.62
TOTAL RAINFALL (mm)=	108.06	108.06	108.06
RUNOFF COEFFICIENT =	0.99	0.29	0.56

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 48.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0101)					
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	
ID1= 1 (1011):	13.73	2.564	8.03	60.62	
+ ID2= 2 (0034):	2.88	2.674	8.05	68.84	
ID = 3 (0101):	16.61	5.221	8.03	62.05	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0901)					
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	
ID1= 1 (0101):	16.61	5.221	8.03	62.05	
+ ID2= 2 (0103):	1.17	0.157	8.03	51.33	
ID = 3 (0901):	17.78	5.379	8.03	61.34	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0902)					
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	
ID1= 1 (0104):	0.77	0.042	8.33	32.34	
+ ID2= 2 (0901):	17.78	5.379	8.03	61.34	

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      ==================================================
      ID = 3 (  0902):    18.55   5.398     8.03    60.14

   NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
-------------------------------------------------------------------------------
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| CALIB             |
| STANDHYD (  1021)|   Area     (ha)=   3.77
|ID= 1 DT= 1.0 min |   Total Imp(%)=  45.00   Dir. Conn.(%)=  38.00
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                        IMPERVIOUS     PERVIOUS (i)
     Surface Area     (ha)=        1.70          2.07
     Dep. Storage     (mm)=        1.00          5.00
     Average Slope     (%)=        0.50          2.00
     Length            (m)=      158.56         40.00
     Mannings n             =      0.013         0.250

       NOTE:  RAINFALL WAS TRANSFORMED TO   1.0 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
 0.017    0.67 | 6.017    2.65 |12.017    2.29 | 18.02    0.99
 0.033    0.67 | 6.033    2.65 |12.033    2.29 | 18.03    0.99
 0.050    0.67 | 6.050    2.65 |12.050    2.29 | 18.05    0.99
 0.067    0.67 | 6.067    2.65 |12.067    2.29 | 18.07    0.99
 0.083    0.67 | 6.083    2.65 |12.083    2.29 | 18.08    0.99
 0.100    0.67 | 6.100    2.65 |12.100    2.29 | 18.10    0.99
 0.117    0.67 | 6.117    2.65 |12.117    2.29 | 18.12    0.99
 0.133    0.67 | 6.133    2.65 |12.133    2.29 | 18.13    0.99
 0.150    0.67 | 6.150    2.65 |12.150    2.29 | 18.15    0.99
 0.167    0.67 | 6.167    2.65 |12.167    2.29 | 18.17    0.99
 0.183    0.68 | 6.183    2.92 |12.183    2.20 | 18.18    0.97
 0.200    0.68 | 6.200    2.92 |12.200    2.20 | 18.20    0.97
 0.217    0.68 | 6.217    2.92 |12.217    2.20 | 18.22    0.97
 0.233    0.68 | 6.233    2.92 |12.233    2.20 | 18.23    0.97
 0.250    0.68 | 6.250    2.92 |12.250    2.20 | 18.25    0.97
 0.267    0.68 | 6.267    2.92 |12.267    2.20 | 18.27    0.97
 0.283    0.68 | 6.283    2.92 |12.283    2.20 | 18.28    0.97
 0.300    0.68 | 6.300    2.92 |12.300    2.20 | 18.30    0.97
 0.317    0.68 | 6.317    2.92 |12.317    2.20 | 18.32    0.97
 0.333    0.68 | 6.333    2.92 |12.333    2.20 | 18.33    0.97
 0.350    0.70 | 6.350    3.26 |12.350    2.12 | 18.35    0.96
 0.367    0.70 | 6.367    3.26 |12.367    2.12 | 18.37    0.96
 0.383    0.70 | 6.383    3.26 |12.383    2.12 | 18.38    0.96
 0.400    0.70 | 6.400    3.26 |12.400    2.12 | 18.40    0.96
 0.417    0.70 | 6.417    3.26 |12.417    2.12 | 18.42    0.96
 0.433    0.70 | 6.433    3.26 |12.433    2.12 | 18.43    0.96
 0.450    0.70 | 6.450    3.26 |12.450    2.12 | 18.45    0.96
 0.467    0.70 | 6.467    3.26 |12.467    2.12 | 18.47    0.96
 0.483    0.70 | 6.483    3.26 |12.483    2.12 | 18.48    0.96
 0.500    0.70 | 6.500    3.26 |12.500    2.12 | 18.50    0.96
 0.517    0.71 | 6.517    3.69 |12.517    2.05 | 18.52    0.94
 0.533    0.71 | 6.533    3.69 |12.533    2.05 | 18.53    0.94
 0.550    0.71 | 6.550    3.69 |12.550    2.05 | 18.55    0.94
 0.567    0.71 | 6.567    3.69 |12.567    2.05 | 18.57    0.94
 0.583    0.71 | 6.583    3.69 |12.583    2.05 | 18.58    0.94
 0.600    0.71 | 6.600    3.69 |12.600    2.05 | 18.60    0.94
 0.617    0.71 | 6.617    3.69 |12.617    2.05 | 18.62    0.94
 0.633    0.71 | 6.633    3.69 |12.633    2.05 | 18.63    0.94
 0.650    0.71 | 6.650    3.69 |12.650    2.05 | 18.65    0.94
 0.667    0.71 | 6.667    3.69 |12.667    2.05 | 18.67    0.94
 0.683    0.73 | 6.683    4.25 |12.683    1.98 | 18.68    0.93
 0.700    0.73 | 6.700    4.25 |12.700    1.98 | 18.70    0.93
 0.717    0.73 | 6.717    4.25 |12.717    1.98 | 18.72    0.93
 0.733    0.73 | 6.733    4.25 |12.733    1.98 | 18.73    0.93
 0.750    0.73 | 6.750    4.25 |12.750    1.98 | 18.75    0.93
 0.767    0.73 | 6.767    4.25 |12.767    1.98 | 18.77    0.93
 0.783    0.73 | 6.783    4.25 |12.783    1.98 | 18.78    0.93
 0.800    0.73 | 6.800    4.25 |12.800    1.98 | 18.80    0.93
 0.817    0.73 | 6.817    4.25 |12.817    1.98 | 18.82    0.93
 0.833    0.73 | 6.833    4.25 |12.833    1.98 | 18.83    0.93
 0.850    0.74 | 6.850    5.02 |12.850    1.92 | 18.85    0.92
 0.867    0.74 | 6.867    5.02 |12.867    1.92 | 18.87    0.92
 0.883    0.74 | 6.883    5.02 |12.883    1.92 | 18.88    0.92
 0.900    0.74 | 6.900    5.02 |12.900    1.92 | 18.90    0.92
 0.917    0.74 | 6.917    5.02 |12.917    1.92 | 18.92    0.92
 0.933    0.74 | 6.933    5.02 |12.933    1.92 | 18.93    0.92
 0.950    0.74 | 6.950    5.02 |12.950    1.92 | 18.95    0.92
 0.967    0.74 | 6.967    5.02 |12.967    1.92 | 18.97    0.92
 0.983    0.74 | 6.983    5.02 |12.983    1.92 | 18.98    0.92
 1.000    0.74 | 7.000    5.03 |13.000    1.92 | 19.00    0.92
 1.017    0.76 | 7.017    6.15 |13.017    1.86 | 19.02    0.91
 1.033    0.76 | 7.033    6.15 |13.033    1.86 | 19.03    0.91
 1.050    0.76 | 7.050    6.15 |13.050    1.86 | 19.05    0.91
 1.067    0.76 | 7.067    6.15 |13.067    1.86 | 19.07    0.91
 1.083    0.76 | 7.083    6.15 |13.083    1.86 | 19.08    0.91
 1.100    0.76 | 7.100    6.15 |13.100    1.86 | 19.10    0.91
 1.117    0.76 | 7.117    6.15 |13.117    1.86 | 19.12    0.91
 1.133    0.76 | 7.133    6.15 |13.133    1.86 | 19.13    0.91
 1.150    0.76 | 7.150    6.15 |13.150    1.86 | 19.15    0.91
 1.167    0.76 | 7.167    6.16 |13.167    1.86 | 19.17    0.91
 1.183    0.77 | 7.183    7.95 |13.183    1.80 | 19.18    0.89
 1.200    0.77 | 7.200    7.95 |13.200    1.80 | 19.20    0.89
 1.217    0.77 | 7.217    7.95 |13.217    1.80 | 19.22    0.89
 1.233    0.77 | 7.233    7.95 |13.233    1.80 | 19.23    0.89
 1.250    0.77 | 7.250    7.95 |13.250    1.80 | 19.25    0.89
 1.267    0.77 | 7.267    7.95 |13.267    1.80 | 19.27    0.89
 1.283    0.77 | 7.283    7.95 |13.283    1.80 | 19.28    0.89
 1.300    0.77 | 7.300    7.95 |13.300    1.80 | 19.30    0.89
 1.317    0.77 | 7.317    7.95 |13.317    1.80 | 19.32    0.89
 1.333    0.77 | 7.333    7.96 |13.333    1.80 | 19.33    0.89
 1.350    0.79 | 7.350   11.22 |13.350    1.75 | 19.35    0.88
 1.367    0.79 | 7.367   11.22 |13.367    1.75 | 19.37    0.88
 1.383    0.79 | 7.383   11.22 |13.383    1.75 | 19.38    0.88
 1.400    0.79 | 7.400   11.22 |13.400    1.75 | 19.40    0.88
 1.417    0.79 | 7.417   11.22 |13.417    1.75 | 19.42    0.88
 1.433    0.79 | 7.433   11.22 |13.433    1.75 | 19.43    0.88
 1.450    0.79 | 7.450   11.22 |13.450    1.75 | 19.45    0.88
 1.467    0.79 | 7.467   11.22 |13.467    1.75 | 19.47    0.88
 1.483    0.79 | 7.483   11.22 |13.483    1.75 | 19.48    0.88
 1.500    0.79 | 7.500   11.24 |13.500    1.75 | 19.50    0.88
 1.517    0.81 | 7.517   18.75 |13.517    1.70 | 19.52    0.87
 1.533    0.81 | 7.533   18.75 |13.533    1.70 | 19.53    0.87
 1.550    0.81 | 7.550   18.75 |13.550    1.70 | 19.55    0.87
 1.567    0.81 | 7.567   18.75 |13.567    1.70 | 19.57    0.87
 1.583    0.81 | 7.583   18.75 |13.583    1.70 | 19.58    0.87
 1.600    0.81 | 7.600   18.75 |13.600    1.70 | 19.60    0.87
 1.617    0.81 | 7.617   18.75 |13.617    1.70 | 19.62    0.87
 1.633    0.81 | 7.633   18.75 |13.633    1.70 | 19.63    0.87
 1.650    0.81 | 7.650   18.75 |13.650    1.70 | 19.65    0.87
 1.667    0.81 | 7.667   18.84 |13.667    1.70 | 19.67    0.87
 1.683    0.83 | 7.683   49.66 |13.683    1.66 | 19.68    0.86
 1.700    0.83 | 7.700   49.66 |13.700    1.66 | 19.70    0.86
 1.717    0.83 | 7.717   49.66 |13.717    1.66 | 19.72    0.86
 1.733    0.83 | 7.733   49.66 |13.733    1.66 | 19.73    0.86
 1.750    0.83 | 7.750   49.66 |13.750    1.66 | 19.75    0.86
 1.767    0.83 | 7.767   49.66 |13.767    1.66 | 19.77    0.86
 1.783    0.83 | 7.783   49.66 |13.783    1.66 | 19.78    0.86
 1.800    0.83 | 7.800   49.66 |13.800    1.66 | 19.80    0.86
 1.817    0.83 | 7.817   49.66 |13.817    1.66 | 19.82    0.86
 1.833    0.83 | 7.833   50.02 |13.833    1.66 | 19.83    0.86
 1.850    0.85 | 7.850  172.68 |13.850    1.61 | 19.85    0.85
 1.867    0.85 | 7.867  172.68 |13.867    1.61 | 19.87    0.85
 1.883    0.85 | 7.883  172.68 |13.883    1.61 | 19.88    0.85
 1.900    0.85 | 7.900  172.68 |13.900    1.61 | 19.90    0.85
 1.917    0.85 | 7.917  172.68 |13.917    1.61 | 19.92    0.85
 1.933    0.85 | 7.933  172.68 |13.933    1.61 | 19.93    0.85
 1.950    0.85 | 7.950  172.68 |13.950    1.61 | 19.95    0.85
 1.967    0.85 | 7.967  172.68 |13.967    1.61 | 19.97    0.85
 1.983    0.85 | 7.983  172.68 |13.983    1.61 | 19.98    0.85
 2.000    0.85 | 8.000  172.36 |14.000    1.61 | 20.00    0.85
 2.017    0.88 | 8.017   65.83 |14.017    1.57 | 20.02    0.84
 2.033    0.88 | 8.033   65.83 |14.033    1.57 | 20.03    0.84
 2.050    0.88 | 8.050   65.83 |14.050    1.57 | 20.05    0.84
 2.067    0.88 | 8.067   65.83 |14.067    1.57 | 20.07    0.84
 2.083    0.88 | 8.083   65.83 |14.083    1.57 | 20.08    0.84
 2.100    0.88 | 8.100   65.83 |14.100    1.57 | 20.10    0.84
 2.117    0.88 | 8.117   65.83 |14.117    1.57 | 20.12    0.84
 2.133    0.88 | 8.133   65.83 |14.133    1.57 | 20.13    0.84
 2.150    0.88 | 8.150   65.83 |14.150    1.57 | 20.15    0.84
 2.167    0.88 | 8.167   65.74 |14.167    1.57 | 20.17    0.84
 2.183    0.90 | 8.183   33.57 |14.183    1.53 | 20.18    0.83
 2.200    0.90 | 8.200   33.57 |14.200    1.53 | 20.20    0.83
 2.217    0.90 | 8.217   33.57 |14.217    1.53 | 20.22    0.83
 2.233    0.90 | 8.233   33.57 |14.233    1.53 | 20.23    0.83
 2.250    0.90 | 8.250   33.57 |14.250    1.53 | 20.25    0.83
 2.267    0.90 | 8.267   33.57 |14.267    1.53 | 20.27    0.83
 2.283    0.90 | 8.283   33.57 |14.283    1.53 | 20.28    0.83
 2.300    0.90 | 8.300   33.57 |14.300    1.53 | 20.30    0.83
 2.317    0.90 | 8.317   33.57 |14.317    1.53 | 20.32    0.83
 2.333    0.90 | 8.333   33.53 |14.333    1.53 | 20.33    0.83
 2.350    0.92 | 8.350   21.73 |14.350    1.50 | 20.35    0.82
 2.367    0.92 | 8.367   21.73 |14.367    1.50 | 20.37    0.82
 2.383    0.92 | 8.383   21.73 |14.383    1.50 | 20.38    0.82
 2.400    0.92 | 8.400   21.73 |14.400    1.50 | 20.40    0.82
 2.417    0.92 | 8.417   21.73 |14.417    1.50 | 20.42    0.82
 2.433    0.92 | 8.433   21.73 |14.433    1.50 | 20.43    0.82
 2.450    0.92 | 8.450   21.73 |14.450    1.50 | 20.45    0.82
 2.467    0.92 | 8.467   21.73 |14.467    1.50 | 20.47    0.82
 2.483    0.92 | 8.483   21.73 |14.483    1.50 | 20.48    0.82
 2.500    0.92 | 8.500   21.72 |14.500    1.50 | 20.50    0.82
 2.517    0.95 | 8.517   15.83 |14.517    1.46 | 20.52    0.81
 2.533    0.95 | 8.533   15.83 |14.533    1.46 | 20.53    0.81
 2.550    0.95 | 8.550   15.83 |14.550    1.46 | 20.55    0.81
 2.567    0.95 | 8.567   15.83 |14.567    1.46 | 20.57    0.81
 2.583    0.95 | 8.583   15.83 |14.583    1.46 | 20.58    0.81
 2.600    0.95 | 8.600   15.83 |14.600    1.46 | 20.60    0.81
 2.617    0.95 | 8.617   15.83 |14.617    1.46 | 20.62    0.81
 2.633    0.95 | 8.633   15.82 |14.633    1.46 | 20.63    0.81
 2.650    0.95 | 8.650   15.83 |14.650    1.46 | 20.65    0.81
 2.667    0.95 | 8.667   15.82 |14.667    1.46 | 20.67    0.81
 2.683    0.98 | 8.683   12.37 |14.683    1.43 | 20.68    0.80
 2.700    0.98 | 8.700   12.37 |14.700    1.43 | 20.70    0.80
 2.717    0.98 | 8.717   12.37 |14.717    1.43 | 20.72    0.80
 2.733    0.98 | 8.733   12.37 |14.733    1.43 | 20.73    0.80
 2.750    0.98 | 8.750   12.37 |14.750    1.43 | 20.75    0.80
 2.767    0.98 | 8.767   12.37 |14.767    1.43 | 20.77    0.80
 2.783    0.98 | 8.783   12.37 |14.783    1.43 | 20.78    0.80
 2.800    0.98 | 8.800   12.37 |14.800    1.43 | 20.80    0.80
 2.817    0.98 | 8.817   12.37 |14.817    1.43 | 20.82    0.80
 2.833    0.98 | 8.833   12.36 |14.833    1.43 | 20.83    0.80
 2.850    1.01 | 8.850   10.11 |14.850    1.39 | 20.85    0.79
 2.867    1.01 | 8.867   10.11 |14.867    1.39 | 20.87    0.79
 2.883    1.01 | 8.883   10.11 |14.883    1.39 | 20.88    0.79
 2.900    1.01 | 8.900   10.11 |14.900    1.39 | 20.90    0.79
 2.917    1.01 | 8.917   10.11 |14.917    1.39 | 20.92    0.79
 2.933    1.01 | 8.933   10.11 |14.933    1.39 | 20.93    0.79
 2.950    1.01 | 8.950   10.11 |14.950    1.39 | 20.95    0.79
 2.967    1.01 | 8.967   10.11 |14.967    1.39 | 20.97    0.79
 2.983    1.01 | 8.983   10.11 |14.983    1.39 | 20.98    0.79
 3.000    1.01 | 9.000   10.11 |15.000    1.39 | 21.00    0.79
 3.017    1.04 | 9.017    8.54 |15.017    1.36 | 21.02    0.78
 3.033    1.04 | 9.033    8.54 |15.033    1.36 | 21.03    0.78
 3.050    1.04 | 9.050    8.54 |15.050    1.36 | 21.05    0.78
 3.067    1.04 | 9.067    8.54 |15.067    1.36 | 21.07    0.78
 3.083    1.04 | 9.083    8.54 |15.083    1.36 | 21.08    0.78
 3.100    1.04 | 9.100    8.54 |15.100    1.36 | 21.10    0.78
 3.117    1.04 | 9.117    8.54 |15.117    1.36 | 21.12    0.78
 3.133    1.04 | 9.133    8.54 |15.133    1.36 | 21.13    0.78
 3.150    1.04 | 9.150    8.54 |15.150    1.36 | 21.15    0.78
 3.167    1.04 | 9.167    8.54 |15.167    1.36 | 21.17    0.78
 3.183    1.08 | 9.183    7.39 |15.183    1.34 | 21.18    0.77
 3.200    1.08 | 9.200    7.39 |15.200    1.34 | 21.20    0.77
 3.217    1.08 | 9.217    7.39 |15.217    1.34 | 21.22    0.77
 3.233    1.08 | 9.233    7.39 |15.233    1.34 | 21.23    0.77
 3.250    1.08 | 9.250    7.39 |15.250    1.34 | 21.25    0.77
 3.267    1.08 | 9.267    7.39 |15.267    1.34 | 21.27    0.77
 3.283    1.08 | 9.283    7.39 |15.283    1.34 | 21.28    0.77
 3.300    1.08 | 9.300    7.39 |15.300    1.34 | 21.30    0.77
 3.317    1.08 | 9.317    7.39 |15.317    1.34 | 21.32    0.77
 3.333    1.08 | 9.333    7.39 |15.333    1.34 | 21.33    0.77
 3.350    1.11 | 9.350    6.51 |15.350    1.31 | 21.35    0.76
 3.367    1.11 | 9.367    6.51 |15.367    1.31 | 21.37    0.76
 3.383    1.11 | 9.383    6.51 |15.383    1.31 | 21.38    0.76
 3.400    1.11 | 9.400    6.51 |15.400    1.31 | 21.40    0.76
 3.417    1.11 | 9.417    6.51 |15.417    1.31 | 21.42    0.76
 3.433    1.11 | 9.433    6.51 |15.433    1.31 | 21.43    0.76
 3.450    1.11 | 9.450    6.51 |15.450    1.31 | 21.45    0.76
 3.467    1.11 | 9.467    6.51 |15.467    1.31 | 21.47    0.76
 3.483    1.11 | 9.483    6.51 |15.483    1.31 | 21.48    0.76
 3.500    1.11 | 9.500    6.51 |15.500    1.31 | 21.50    0.76
 3.517    1.15 | 9.517    5.82 |15.517    1.28 | 21.52    0.75
 3.533    1.15 | 9.533    5.82 |15.533    1.28 | 21.53    0.75
 3.550    1.15 | 9.550    5.82 |15.550    1.28 | 21.55    0.75
 3.567    1.15 | 9.567    5.82 |15.567    1.28 | 21.57    0.75
 3.583    1.15 | 9.583    5.82 |15.583    1.28 | 21.58    0.75
 3.600    1.15 | 9.600    5.82 |15.600    1.28 | 21.60    0.75
 3.617    1.15 | 9.617    5.82 |15.617    1.28 | 21.62    0.75
 3.633    1.15 | 9.633    5.82 |15.633    1.28 | 21.63    0.75
 3.650    1.15 | 9.650    5.82 |15.650    1.28 | 21.65    0.75
 3.667    1.15 | 9.667    5.82 |15.667    1.28 | 21.67    0.75
 3.683    1.20 | 9.683    5.26 |15.683    1.26 | 21.68    0.75
 3.700    1.20 | 9.700    5.26 |15.700    1.26 | 21.70    0.75
 3.717    1.20 | 9.717    5.26 |15.717    1.26 | 21.72    0.75
 3.733    1.20 | 9.733    5.26 |15.733    1.26 | 21.73    0.75
 3.750    1.20 | 9.750    5.26 |15.750    1.26 | 21.75    0.75
 3.767    1.20 | 9.767    5.26 |15.767    1.26 | 21.77    0.75
 3.783    1.20 | 9.783    5.26 |15.783    1.26 | 21.78    0.75
 3.800    1.20 | 9.800    5.26 |15.800    1.26 | 21.80    0.75
 3.817    1.20 | 9.817    5.26 |15.817    1.26 | 21.82    0.75
 3.833    1.20 | 9.833    5.26 |15.833    1.26 | 21.83    0.75
 3.850    1.24 | 9.850    4.80 |15.850    1.23 | 21.85    0.74
 3.867    1.24 | 9.867    4.80 |15.867    1.23 | 21.87    0.74
 3.883    1.24 | 9.883    4.80 |15.883    1.23 | 21.88    0.74
 3.900    1.24 | 9.900    4.80 |15.900    1.23 | 21.90    0.74
 3.917    1.24 | 9.917    4.80 |15.917    1.23 | 21.92    0.74
 3.933    1.24 | 9.933    4.80 |15.933    1.23 | 21.93    0.74
 3.950    1.24 | 9.950    4.80 |15.950    1.23 | 21.95    0.74
 3.967    1.24 | 9.967    4.80 |15.967    1.23 | 21.97    0.74
 3.983    1.24 | 9.983    4.80 |15.983    1.23 | 21.98    0.74
 4.000    1.24 |10.000    4.80 |16.000    1.23 | 22.00    0.74
 4.017    1.29 |10.017    4.42 |16.017    1.21 | 22.02    0.73
 4.033    1.29 |10.033    4.42 |16.033    1.21 | 22.03    0.73
 4.050    1.29 |10.050    4.42 |16.050    1.21 | 22.05    0.73
 4.067    1.29 |10.067    4.42 |16.067    1.21 | 22.07    0.73
 4.083    1.29 |10.083    4.42 |16.083    1.21 | 22.08    0.73
 4.100    1.29 |10.100    4.42 |16.100    1.21 | 22.10    0.73
 4.117    1.29 |10.117    4.42 |16.117    1.21 | 22.12    0.73
 4.133    1.29 |10.133    4.42 |16.133    1.21 | 22.13    0.73
 4.150    1.29 |10.150    4.42 |16.150    1.21 | 22.15    0.73
 4.167    1.29 |10.167    4.42 |16.167    1.21 | 22.17    0.73
 4.183    1.35 |10.183    4.09 |16.183    1.19 | 22.18    0.72
 4.200    1.35 |10.200    4.09 |16.200    1.19 | 22.20    0.72
 4.217    1.35 |10.217    4.09 |16.217    1.19 | 22.22    0.72
 4.233    1.35 |10.233    4.09 |16.233    1.19 | 22.23    0.72
 4.250    1.35 |10.250    4.09 |16.250    1.19 | 22.25    0.72
 4.267    1.35 |10.267    4.09 |16.267    1.19 | 22.27    0.72
 4.283    1.35 |10.283    4.09 |16.283    1.19 | 22.28    0.72
 4.300    1.35 |10.300    4.09 |16.300    1.19 | 22.30    0.72
 4.317    1.35 |10.317    4.09 |16.317    1.19 | 22.32    0.72
 4.333    1.35 |10.333    4.09 |16.333    1.19 | 22.33    0.72
 4.350    1.41 |10.350    3.81 |16.350    1.16 | 22.35    0.72
 4.367    1.41 |10.367    3.81 |16.367    1.16 | 22.37    0.72
 4.383    1.41 |10.383    3.81 |16.383    1.16 | 22.38    0.72
 4.400    1.41 |10.400    3.81 |16.400    1.16 | 22.40    0.72
 4.417    1.41 |10.417    3.81 |16.417    1.16 | 22.42    0.72
 4.433    1.41 |10.433    3.81 |16.433    1.16 | 22.43    0.72
 4.450    1.41 |10.450    3.81 |16.450    1.16 | 22.45    0.72
 4.467    1.41 |10.467    3.81 |16.467    1.16 | 22.47    0.72
 4.483    1.41 |10.483    3.81 |16.483    1.16 | 22.48    0.72
 4.500    1.41 |10.500    3.81 |16.500    1.16 | 22.50    0.72
 4.517    1.48 |10.517    3.57 |16.517    1.14 | 22.52    0.71
 4.533    1.48 |10.533    3.57 |16.533    1.14 | 22.53    0.71
 4.550    1.48 |10.550    3.57 |16.550    1.14 | 22.55    0.71
 4.567    1.48 |10.567    3.57 |16.567    1.14 | 22.57    0.71
 4.583    1.48 |10.583    3.57 |16.583    1.14 | 22.58    0.71
 4.600    1.48 |10.600    3.57 |16.600    1.14 | 22.60    0.71
 4.617    1.48 |10.617    3.57 |16.617    1.14 | 22.62    0.71
 4.633    1.48 |10.633    3.57 |16.633    1.14 | 22.63    0.71
 4.650    1.48 |10.650    3.57 |16.650    1.14 | 22.65    0.71
 4.667    1.48 |10.667    3.57 |16.667    1.14 | 22.67    0.71
 4.683    1.55 |10.683    3.36 |16.683    1.12 | 22.68    0.70
 4.700    1.55 |10.700    3.36 |16.700    1.12 | 22.70    0.70
 4.717    1.55 |10.717    3.36 |16.717    1.12 | 22.72    0.70
 4.733    1.55 |10.733    3.36 |16.733    1.12 | 22.73    0.70
 4.750    1.55 |10.750    3.36 |16.750    1.12 | 22.75    0.70
 4.767    1.55 |10.767    3.36 |16.767    1.12 | 22.77    0.70
 4.783    1.55 |10.783    3.36 |16.783    1.12 | 22.78    0.70
 4.800    1.55 |10.800    3.36 |16.800    1.12 | 22.80    0.70
 4.817    1.55 |10.817    3.36 |16.817    1.12 | 22.82    0.70
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4.833	1.55	10.833	3.36	16.833	1.12	22.83	0.70
4.850	1.63	10.850	3.17	16.850	1.10	22.85	0.69
4.867	1.63	10.867	3.17	16.867	1.10	22.87	0.69
4.883	1.63	10.883	3.17	16.883	1.10	22.88	0.69
4.900	1.63	10.900	3.17	16.900	1.10	22.90	0.69
4.917	1.63	10.917	3.17	16.917	1.10	22.92	0.69
4.933	1.63	10.933	3.17	16.933	1.10	22.93	0.69
4.950	1.63	10.950	3.17	16.950	1.10	22.95	0.69
4.967	1.63	10.967	3.17	16.967	1.10	22.97	0.69
4.983	1.63	10.983	3.17	16.983	1.10	22.98	0.69
5.000	1.63	11.000	3.17	17.000	1.10	23.00	0.69
5.017	1.72	11.017	3.00	17.017	1.09	23.02	0.69
5.033	1.72	11.033	3.00	17.033	1.09	23.03	0.69
5.050	1.72	11.050	3.00	17.050	1.09	23.05	0.69
5.067	1.72	11.067	3.00	17.067	1.09	23.07	0.69
5.083	1.72	11.083	3.00	17.083	1.09	23.08	0.69
5.100	1.72	11.100	3.00	17.100	1.09	23.10	0.69
5.117	1.72	11.117	3.00	17.117	1.09	23.12	0.69
5.133	1.72	11.133	3.00	17.133	1.09	23.13	0.69
5.150	1.72	11.150	3.00	17.150	1.09	23.15	0.69
5.167	1.72	11.167	3.00	17.167	1.09	23.17	0.69
5.183	1.83	11.183	2.85	17.183	1.07	23.18	0.68
5.200	1.83	11.200	2.85	17.200	1.07	23.20	0.68
5.217	1.83	11.217	2.85	17.217	1.07	23.22	0.68
5.233	1.83	11.233	2.85	17.233	1.07	23.23	0.68
5.250	1.83	11.250	2.85	17.250	1.07	23.25	0.68
5.267	1.83	11.267	2.85	17.267	1.07	23.27	0.68
5.283	1.83	11.283	2.85	17.283	1.07	23.28	0.68
5.300	1.83	11.300	2.85	17.300	1.07	23.30	0.68
5.317	1.83	11.317	2.85	17.317	1.07	23.32	0.68
5.333	1.83	11.333	2.85	17.333	1.07	23.33	0.68
5.350	1.95	11.350	2.72	17.350	1.05	23.35	0.67
5.367	1.95	11.367	2.72	17.367	1.05	23.37	0.67
5.383	1.95	11.383	2.72	17.383	1.05	23.38	0.67
5.400	1.95	11.400	2.72	17.400	1.05	23.40	0.67
5.417	1.95	11.417	2.72	17.417	1.05	23.42	0.67
5.433	1.95	11.433	2.72	17.433	1.05	23.43	0.67
5.450	1.95	11.450	2.72	17.450	1.05	23.45	0.67
5.467	1.95	11.467	2.72	17.467	1.05	23.47	0.67
5.483	1.95	11.483	2.72	17.483	1.05	23.48	0.67
5.500	1.95	11.500	2.72	17.500	1.05	23.50	0.67
5.517	2.08	11.517	2.59	17.517	1.03	23.52	0.67
5.533	2.08	11.533	2.59	17.533	1.03	23.53	0.67
5.550	2.08	11.550	2.59	17.550	1.03	23.55	0.67
5.567	2.08	11.567	2.59	17.567	1.03	23.57	0.67
5.583	2.08	11.583	2.59	17.583	1.03	23.58	0.67
5.600	2.08	11.600	2.59	17.600	1.03	23.60	0.67
5.617	2.08	11.617	2.59	17.617	1.03	23.62	0.67
5.633	2.08	11.633	2.59	17.633	1.03	23.63	0.67
5.650	2.08	11.650	2.59	17.650	1.03	23.65	0.67
5.667	2.08	11.667	2.59	17.667	1.03	23.67	0.67
5.683	2.24	11.683	2.48	17.683	1.02	23.68	0.66
5.700	2.24	11.700	2.48	17.700	1.02	23.70	0.66
5.717	2.24	11.717	2.48	17.717	1.02	23.72	0.66
5.733	2.24	11.733	2.48	17.733	1.02	23.73	0.66
5.750	2.24	11.750	2.48	17.750	1.02	23.75	0.66
5.767	2.24	11.767	2.48	17.767	1.02	23.77	0.66
5.783	2.24	11.783	2.48	17.783	1.02	23.78	0.66
5.800	2.24	11.800	2.48	17.800	1.02	23.80	0.66
5.817	2.24	11.817	2.48	17.817	1.02	23.82	0.66
5.833	2.24	11.833	2.48	17.833	1.02	23.83	0.66
5.850	2.43	11.850	2.38	17.850	1.00	23.85	0.65
5.867	2.43	11.867	2.38	17.867	1.00	23.87	0.65
5.883	2.43	11.883	2.38	17.883	1.00	23.88	0.65
5.900	2.43	11.900	2.38	17.900	1.00	23.90	0.65
5.917	2.43	11.917	2.38	17.917	1.00	23.92	0.65
5.933	2.43	11.933	2.38	17.933	1.00	23.93	0.65
5.950	2.43	11.950	2.38	17.950	1.00	23.95	0.65
5.967	2.43	11.967	2.38	17.967	1.00	23.97	0.65
5.983	2.43	11.983	2.38	17.983	1.00	23.98	0.65
6.000	2.43	12.000	2.38	18.000	1.00	24.00	0.65

Max.Eff.Inten.(mm/hr)=	172.68	46.73	
over (min)	5.00	10.00	
Storage Coeff. (min)=	3.33 (ii)	9.91 (ii)	
Unit Hyd. Tpeak (min)=	5.00	10.00	
Unit Hyd. peak (cms)=	0.29	0.11	
			TOTALS
PEAK FLOW (cms)=	0.63	0.18	0.757 (iii)
TIME TO PEAK (hrs)=	8.00	8.13	8.02
RUNOFF VOLUME (mm)=	107.06	30.88	59.83
TOTAL RAINFALL (mm)=	108.06	108.06	108.06
RUNOFF COEFFICIENT =	0.99	0.29	0.55

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 48.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (1022)	Area (ha)=	2.86	
ID= 1 DT= 1.0 min	Total Imp(%)=	41.00	Dir. Conn.(%)= 35.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.17	1.69
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.50	2.00
Length (m)=	138.06	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 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
0.017	0.67	6.017	2.65	12.017	2.29	18.02	0.99
0.033	0.67	6.033	2.65	12.033	2.29	18.03	0.99
0.050	0.67	6.050	2.65	12.050	2.29	18.05	0.99
0.067	0.67	6.067	2.65	12.067	2.29	18.07	0.99
0.083	0.67	6.083	2.65	12.083	2.29	18.08	0.99
0.100	0.67	6.100	2.65	12.100	2.29	18.10	0.99
0.117	0.67	6.117	2.65	12.117	2.29	18.12	0.99
0.133	0.67	6.133	2.65	12.133	2.29	18.13	0.99
0.150	0.67	6.150	2.65	12.150	2.29	18.15	0.99
0.167	0.67	6.167	2.65	12.167	2.29	18.17	0.99
0.183	0.68	6.183	2.92	12.183	2.20	18.18	0.97
0.200	0.68	6.200	2.92	12.200	2.20	18.20	0.97
0.217	0.68	6.217	2.92	12.217	2.20	18.22	0.97
0.233	0.68	6.233	2.92	12.233	2.20	18.23	0.97
0.250	0.68	6.250	2.92	12.250	2.20	18.25	0.97
0.267	0.68	6.267	2.92	12.267	2.20	18.27	0.97
0.283	0.68	6.283	2.92	12.283	2.20	18.28	0.97
0.300	0.68	6.300	2.92	12.300	2.20	18.30	0.97
0.317	0.68	6.317	2.92	12.317	2.20	18.32	0.97
0.333	0.68	6.333	2.92	12.333	2.20	18.33	0.97
0.350	0.70	6.350	3.26	12.350	2.12	18.35	0.96
0.367	0.70	6.367	3.26	12.367	2.12	18.37	0.96
0.383	0.70	6.383	3.26	12.383	2.12	18.38	0.96
0.400	0.70	6.400	3.26	12.400	2.12	18.40	0.96
0.417	0.70	6.417	3.26	12.417	2.12	18.42	0.96
0.433	0.70	6.433	3.26	12.433	2.12	18.43	0.96
0.450	0.70	6.450	3.26	12.450	2.12	18.45	0.96
0.467	0.70	6.467	3.26	12.467	2.12	18.47	0.96
0.483	0.70	6.483	3.26	12.483	2.12	18.48	0.96
0.500	0.70	6.500	3.26	12.500	2.12	18.50	0.96
0.517	0.71	6.517	3.69	12.517	2.05	18.52	0.94
0.533	0.71	6.533	3.69	12.533	2.05	18.53	0.94
0.550	0.71	6.550	3.69	12.550	2.05	18.55	0.94
0.567	0.71	6.567	3.69	12.567	2.05	18.57	0.94
0.583	0.71	6.583	3.69	12.583	2.05	18.58	0.94
0.600	0.71	6.600	3.69	12.600	2.05	18.60	0.94
0.617	0.71	6.617	3.69	12.617	2.05	18.62	0.94
0.633	0.71	6.633	3.69	12.633	2.05	18.63	0.94
0.650	0.71	6.650	3.69	12.650	2.05	18.65	0.94
0.667	0.71	6.667	3.69	12.667	2.05	18.67	0.94
0.683	0.73	6.683	4.25	12.683	1.98	18.68	0.93
0.700	0.73	6.700	4.25	12.700	1.98	18.70	0.93
0.717	0.73	6.717	4.25	12.717	1.98	18.72	0.93
0.733	0.73	6.733	4.25	12.733	1.98	18.73	0.93
0.750	0.73	6.750	4.25	12.750	1.98	18.75	0.93
0.767	0.73	6.767	4.25	12.767	1.98	18.77	0.93
0.783	0.73	6.783	4.25	12.783	1.98	18.78	0.93
0.800	0.73	6.800	4.25	12.800	1.98	18.80	0.93
0.817	0.73	6.817	4.25	12.817	1.98	18.82	0.93
0.833	0.73	6.833	4.25	12.833	1.98	18.83	0.93
0.850	0.74	6.850	5.02	12.850	1.92	18.85	0.92
0.867	0.74	6.867	5.02	12.867	1.92	18.87	0.92
0.883	0.74	6.883	5.02	12.883	1.92	18.88	0.92
0.900	0.74	6.900	5.02	12.900	1.92	18.90	0.92
0.917	0.74	6.917	5.02	12.917	1.92	18.92	0.92
0.933	0.74	6.933	5.02	12.933	1.92	18.93	0.92
0.950	0.74	6.950	5.02	12.950	1.92	18.95	0.92
0.967	0.74	6.967	5.02	12.967	1.92	18.97	0.92
0.983	0.74	6.983	5.02	12.983	1.92	18.98	0.92
1.000	0.74	7.000	5.83	13.000	1.92	19.00	0.92
1.017	0.76	7.017	6.15	13.017	1.86	19.02	0.91
1.033	0.76	7.033	6.15	13.033	1.86	19.03	0.91
1.050	0.76	7.050	6.15	13.050	1.86	19.05	0.91
1.067	0.76	7.067	6.15	13.067	1.86	19.07	0.91
1.083	0.76	7.083	6.15	13.083	1.86	19.08	0.91
1.100	0.76	7.100	6.15	13.100	1.86	19.10	0.91
1.117	0.76	7.117	6.15	13.117	1.86	19.12	0.91
1.133	0.76	7.133	6.15	13.133	1.86	19.13	0.91
1.150	0.76	7.150	6.15	13.150	1.86	19.15	0.91
1.167	0.76	7.167	6.16	13.167	1.86	19.17	0.91
1.183	0.77	7.183	7.95	13.183	1.80	19.18	0.89
1.200	0.77	7.200	7.95	13.200	1.80	19.20	0.89
1.217	0.77	7.217	7.95	13.217	1.80	19.22	0.89
1.233	0.77	7.233	7.95	13.233	1.80	19.23	0.89
1.250	0.77	7.250	7.95	13.250	1.80	19.25	0.89
1.267	0.77	7.267	7.95	13.267	1.80	19.27	0.89
1.283	0.77	7.283	7.95	13.283	1.80	19.28	0.89
1.300	0.77	7.300	7.95	13.300	1.80	19.30	0.89
1.317	0.77	7.317	7.95	13.317	1.80	19.32	0.89
1.333	0.77	7.333	7.96	13.333	1.80	19.33	0.89
1.350	0.79	7.350	11.22	13.350	1.75	19.35	0.88
1.367	0.79	7.367	11.22	13.367	1.75	19.37	0.88
1.383	0.79	7.383	11.22	13.383	1.75	19.38	0.88
1.400	0.79	7.400	11.22	13.400	1.75	19.40	0.88
1.417	0.79	7.417	11.22	13.417	1.75	19.42	0.88
1.433	0.79	7.433	11.22	13.433	1.75	19.43	0.88
1.450	0.79	7.450	11.22	13.450	1.75	19.45	0.88
1.467	0.79	7.467	11.22	13.467	1.75	19.47	0.88
1.483	0.79	7.483	11.22	13.483	1.75	19.48	0.88
1.500	0.79	7.500	11.24	13.500	1.75	19.50	0.88
1.517	0.81	7.517	18.75	13.517	1.70	19.52	0.87
1.533	0.81	7.533	18.75	13.533	1.70	19.53	0.87
1.550	0.81	7.550	18.75	13.550	1.70	19.55	0.87
1.567	0.81	7.567	18.75	13.567	1.70	19.57	0.87
1.583	0.81	7.583	18.75	13.583	1.70	19.58	0.87
1.600	0.81	7.600	18.75	13.600	1.70	19.60	0.87
1.617	0.81	7.617	18.75	13.617	1.70	19.62	0.87
1.633	0.81	7.633	18.75	13.633	1.70	19.63	0.87
1.650	0.81	7.650	18.75	13.650	1.70	19.65	0.87
1.667	0.81	7.667	18.84	13.667	1.70	19.67	0.87
1.683	0.83	7.683	49.66	13.683	1.66	19.68	0.86
1.700	0.83	7.700	49.66	13.700	1.66	19.70	0.86
1.717	0.83	7.717	49.66	13.717	1.66	19.72	0.86
1.733	0.83	7.733	49.66	13.733	1.66	19.73	0.86
1.750	0.83	7.750	49.66	13.750	1.66	19.75	0.86
1.767	0.83	7.767	49.66	13.767	1.66	19.77	0.86
1.783	0.83	7.783	49.66	13.783	1.66	19.78	0.86
1.800	0.83	7.800	49.66	13.800	1.66	19.80	0.86
1.817	0.83	7.817	49.66	13.817	1.66	19.82	0.86
1.833	0.83	7.833	50.02	13.833	1.66	19.83	0.86
1.850	0.85	7.850	172.68	13.850	1.61	19.85	0.85
1.867	0.85	7.867	172.68	13.867	1.61	19.87	0.85
1.883	0.85	7.883	172.68	13.883	1.61	19.88	0.85
1.900	0.85	7.900	172.68	13.900	1.61	19.90	0.85
1.917	0.85	7.917	172.68	13.917	1.61	19.92	0.85
1.933	0.85	7.933	172.68	13.933	1.61	19.93	0.85
1.950	0.85	7.950	172.68	13.950	1.61	19.95	0.85
1.967	0.85	7.967	172.68	13.967	1.61	19.97	0.85
1.983	0.85	7.983	172.68	13.983	1.61	19.98	0.85
2.000	0.85	8.000	172.36	14.000	1.61	20.00	0.85
2.017	0.88	8.017	65.83	14.017	1.57	20.02	0.84
2.033	0.88	8.033	65.83	14.033	1.57	20.03	0.84
2.050	0.88	8.050	65.83	14.050	1.57	20.05	0.84
2.067	0.88	8.067	65.83	14.067	1.57	20.07	0.84
2.083	0.88	8.083	65.83	14.083	1.57	20.08	0.84
2.100	0.88	8.100	65.83	14.100	1.57	20.10	0.84
2.117	0.88	8.117	65.83	14.117	1.57	20.12	0.84
2.133	0.88	8.133	65.83	14.133	1.57	20.13	0.84
2.150	0.88	8.150	65.83	14.150	1.57	20.15	0.84
2.167	0.88	8.167	65.74	14.167	1.57	20.17	0.84
2.183	0.90	8.183	33.57	14.183	1.53	20.18	0.83
2.200	0.90	8.200	33.57	14.200	1.53	20.20	0.83
2.217	0.90	8.217	33.57	14.217	1.53	20.22	0.83
2.233	0.90	8.233	33.57	14.233	1.53	20.23	0.83
2.250	0.90	8.250	33.57	14.250	1.53	20.25	0.83
2.267	0.90	8.267	33.57	14.267	1.53	20.27	0.83
2.283	0.90	8.283	33.57	14.283	1.53	20.28	0.83
2.300	0.90	8.300	33.57	14.300	1.53	20.30	0.83
2.317	0.90	8.317	33.57	14.317	1.53	20.32	0.83
2.333	0.90	8.333	33.53	14.333	1.53	20.33	0.83
2.350	0.92	8.350	21.73	14.350	1.50	20.35	0.82
2.367	0.92	8.367	21.73	14.367	1.50	20.37	0.82
2.383	0.92	8.383	21.73	14.383	1.50	20.38	0.82
2.400	0.92	8.400	21.73	14.400	1.50	20.40	0.82
2.417	0.92	8.417	21.73	14.417	1.50	20.42	0.82
2.433	0.92	8.433	21.73	14.433	1.50	20.43	0.82
2.450	0.92	8.450	21.73	14.450	1.50	20.45	0.82
2.467	0.92	8.467	21.73	14.467	1.50	20.47	0.82
2.483	0.92	8.483	21.73	14.483	1.50	20.48	0.82
2.500	0.92	8.500	21.72	14.500	1.50	20.50	0.82
2.517	0.95	8.517	15.83	14.517	1.46	20.52	0.81
2.533	0.95	8.533	15.83	14.533	1.46	20.53	0.81
2.550	0.95	8.550	15.83	14.550	1.46	20.55	0.81
2.567	0.95	8.567	15.83	14.567	1.46	20.57	0.81
2.583	0.95	8.583	15.83	14.583	1.46	20.58	0.81
2.600	0.95	8.600	15.83	14.600	1.46	20.60	0.81
2.617	0.95	8.617	15.83	14.617	1.46	20.62	0.81
2.633	0.95	8.633	15.83	14.633	1.46	20.63	0.81
2.650	0.95	8.650	15.83	14.650	1.46	20.65	0.81
2.667	0.95	8.667	15.82	14.667	1.46	20.67	0.81
2.683	0.98	8.683	12.37	14.683	1.43	20.68	0.80
2.700	0.98	8.700	12.37	14.700	1.43	20.70	0.80
2.717	0.98	8.717	12.37	14.717	1.43	20.72	0.80
2.733	0.98	8.733	12.37	14.733	1.43	20.73	0.80
2.750	0.98	8.750	12.37	14.750	1.43	20.75	0.80
2.767	0.98	8.767	12.37	14.767	1.43	20.77	0.80
2.783	0.98	8.783	12.37	14.783	1.43	20.78	0.80
2.800	0.98	8.800	12.37	14.800	1.43	20.80	0.80
2.817	0.98	8.817	12.37	14.817	1.43	20.82	0.80
2.833	0.98	8.833	12.36	14.833	1.43	20.83	0.80
2.850	1.01	8.850	10.11	14.850	1.39	20.85	0.79
2.867	1.01	8.867	10.11	14.867	1.39	20.87	0.79
2.883	1.01	8.883	10.11	14.883	1.39	20.88	0.79
2.900	1.01	8.900	10.11	14.900	1.39	20.90	0.79
2.917	1.01	8.917	10.11	14.917	1.39	20.92	0.79
2.933	1.01	8.933	10.11	14.933	1.39	20.93	0.79
2.950	1.01	8.950	10.11	14.950	1.39	20.95	0.79
2.967	1.01	8.967	10.11	14.967	1.39	20.97	0.79
2.983	1.01	8.983	10.11	14.983	1.39	20.98	0.79
3.000	1.01	9.000	10.11	15.000	1.39	21.00	0.79
3.017	1.04	9.017	8.54	15.017	1.36	21.02	0.78
3.033	1.04	9.033	8.54	15.033	1.36	21.03	0.78
3.050	1.04	9.050	8.54	15.050	1.36	21.05	0.78
3.067	1.04	9.067	8.54	15.067	1.36	21.07	0.78
3.083	1.04	9.083	8.54	15.083	1.36	21.08	0.78
3.100	1.04	9.100	8.54	15.100	1.36	21.10	0.78
3.117	1.04	9.117	8.54	15.117	1.36	21.12	0.78
3.133	1.04	9.133	8.54	15.133	1.36	21.13	0.78
3.150	1.04	9.150	8.54	15.150	1.36	21.15	0.78
3.167	1.04	9.167	8.54	15.167	1.36	21.17	0.78
3.183	1.08	9.183	7.39	15.183	1.34	21.18	0.77
3.200	1.08	9.200	7.39	15.200	1.34	21.20	0.77
3.217	1.08	9.217	7.39	15.217	1.34	21.22	0.77
3.233	1.08	9.233	7.39	15.233	1.34	21.23	0.77
3.250	1.08	9.250	7.39	15.250	1.34	21.25	0.77
3.267	1.08	9.267	7.39	15.267	1.34	21.27	0.77
3.283	1.08	9.283	7.39	15.283	1.34	21.28	0.77
3.300	1.08	9.300	7.39	15.300	1.34	21.30	0.77
3.317	1.08	9.317	7.39	15.317	1.34	21.32	0.77
3.333	1.08	9.333	7.39	15.333	1.34	21.33	0.77
3.350	1.11	9.350	6.51	15.350	1.31	21.35	0.76
3.367	1.11	9.367	6.51	15.367	1.31	21.37	0.76

3.383	1.11	9.383	6.51	15.383	1.31	21.38	0.76
3.400	1.11	9.400	6.51	15.400	1.31	21.40	0.76
3.417	1.11	9.417	6.51	15.417	1.31	21.42	0.76
3.433	1.11	9.433	6.51	15.433	1.31	21.43	0.76
3.450	1.11	9.450	6.51	15.450	1.31	21.45	0.76
3.467	1.11	9.467	6.51	15.467	1.31	21.47	0.76
3.483	1.11	9.483	6.51	15.483	1.31	21.48	0.76
3.500	1.11	9.500	6.51	15.500	1.31	21.50	0.76
3.517	1.15	9.517	5.82	15.517	1.28	21.52	0.75
3.533	1.15	9.533	5.82	15.533	1.28	21.53	0.75
3.550	1.15	9.550	5.82	15.550	1.28	21.55	0.75
3.567	1.15	9.567	5.82	15.567	1.28	21.57	0.75
3.583	1.15	9.583	5.82	15.583	1.28	21.58	0.75
3.600	1.15	9.600	5.82	15.600	1.28	21.60	0.75
3.617	1.15	9.617	5.82	15.617	1.28	21.62	0.75
3.633	1.15	9.633	5.82	15.633	1.28	21.63	0.75
3.650	1.15	9.650	5.82	15.650	1.28	21.65	0.75
3.667	1.15	9.667	5.82	15.667	1.28	21.67	0.75
3.683	1.20	9.683	5.26	15.683	1.26	21.68	0.75
3.700	1.20	9.700	5.26	15.700	1.26	21.70	0.75
3.717	1.20	9.717	5.26	15.717	1.26	21.72	0.75
3.733	1.20	9.733	5.26	15.733	1.26	21.73	0.75
3.750	1.20	9.750	5.26	15.750	1.26	21.75	0.75
3.767	1.20	9.767	5.26	15.767	1.26	21.77	0.75
3.783	1.20	9.783	5.26	15.783	1.26	21.78	0.75
3.800	1.20	9.800	5.26	15.800	1.26	21.80	0.75
3.817	1.20	9.817	5.26	15.817	1.26	21.82	0.75
3.833	1.20	9.833	5.26	15.833	1.26	21.83	0.75
3.850	1.24	9.850	4.80	15.850	1.23	21.85	0.74
3.867	1.24	9.867	4.80	15.867	1.23	21.87	0.74
3.883	1.24	9.883	4.80	15.883	1.23	21.88	0.74
3.900	1.24	9.900	4.80	15.900	1.23	21.90	0.74
3.917	1.24	9.917	4.80	15.917	1.23	21.92	0.74
3.933	1.24	9.933	4.80	15.933	1.23	21.93	0.74
3.950	1.24	9.950	4.80	15.950	1.23	21.95	0.74
3.967	1.24	9.967	4.80	15.967	1.23	21.97	0.74
3.983	1.24	9.983	4.80	15.983	1.23	21.98	0.74
4.000	1.24	10.000	4.80	16.000	1.23	22.00	0.74
4.017	1.29	10.017	4.42	16.017	1.21	22.02	0.73
4.033	1.29	10.033	4.42	16.033	1.21	22.03	0.73
4.050	1.29	10.050	4.42	16.050	1.21	22.05	0.73
4.067	1.29	10.067	4.42	16.067	1.21	22.07	0.73
4.083	1.29	10.083	4.42	16.083	1.21	22.08	0.73
4.100	1.29	10.100	4.42	16.100	1.21	22.10	0.73
4.117	1.29	10.117	4.42	16.117	1.21	22.12	0.73
4.133	1.29	10.133	4.42	16.133	1.21	22.13	0.73
4.150	1.29	10.150	4.42	16.150	1.21	22.15	0.73
4.167	1.29	10.167	4.42	16.167	1.21	22.17	0.73
4.183	1.35	10.183	4.09	16.183	1.19	22.18	0.72
4.200	1.35	10.200	4.09	16.200	1.19	22.20	0.72
4.217	1.35	10.217	4.09	16.217	1.19	22.22	0.72
4.233	1.35	10.233	4.09	16.233	1.19	22.23	0.72

4.250	1.35	10.250	4.09	16.250	1.19	22.25	0.72
4.267	1.35	10.267	4.09	16.267	1.19	22.27	0.72
4.283	1.35	10.283	4.09	16.283	1.19	22.28	0.72
4.300	1.35	10.300	4.09	16.300	1.19	22.30	0.72
4.317	1.35	10.317	4.09	16.317	1.19	22.32	0.72
4.333	1.35	10.333	4.09	16.333	1.19	22.33	0.72
4.350	1.41	10.350	3.81	16.350	1.16	22.35	0.72
4.367	1.41	10.367	3.81	16.367	1.16	22.37	0.72
4.383	1.41	10.383	3.81	16.383	1.16	22.38	0.72
4.400	1.41	10.400	3.81	16.400	1.16	22.40	0.72
4.417	1.41	10.417	3.81	16.417	1.16	22.42	0.72
4.433	1.41	10.433	3.81	16.433	1.16	22.43	0.72
4.450	1.41	10.450	3.81	16.450	1.16	22.45	0.72
4.467	1.41	10.467	3.81	16.467	1.16	22.47	0.72
4.483	1.41	10.483	3.81	16.483	1.16	22.48	0.72
4.500	1.41	10.500	3.81	16.500	1.16	22.50	0.72
4.517	1.48	10.517	3.57	16.517	1.14	22.52	0.71
4.533	1.48	10.533	3.57	16.533	1.14	22.53	0.71
4.550	1.48	10.550	3.57	16.550	1.14	22.55	0.71
4.567	1.48	10.567	3.57	16.567	1.14	22.57	0.71
4.583	1.48	10.583	3.57	16.583	1.14	22.58	0.71
4.600	1.48	10.600	3.57	16.600	1.14	22.60	0.71
4.617	1.48	10.617	3.57	16.617	1.14	22.62	0.71
4.633	1.48	10.633	3.57	16.633	1.14	22.63	0.71
4.650	1.48	10.650	3.57	16.650	1.14	22.65	0.71
4.667	1.48	10.667	3.57	16.667	1.14	22.67	0.71
4.683	1.55	10.683	3.36	16.683	1.12	22.68	0.70
4.700	1.55	10.700	3.36	16.700	1.12	22.70	0.70
4.717	1.55	10.717	3.36	16.717	1.12	22.72	0.70
4.733	1.55	10.733	3.36	16.733	1.12	22.73	0.70
4.750	1.55	10.750	3.36	16.750	1.12	22.75	0.70
4.767	1.55	10.767	3.36	16.767	1.12	22.77	0.70
4.783	1.55	10.783	3.36	16.783	1.12	22.78	0.70
4.800	1.55	10.800	3.36	16.800	1.12	22.80	0.70
4.817	1.55	10.817	3.36	16.817	1.12	22.82	0.70
4.833	1.55	10.833	3.36	16.833	1.12	22.83	0.70
4.850	1.63	10.850	3.17	16.850	1.10	22.85	0.69
4.867	1.63	10.867	3.17	16.867	1.10	22.87	0.69
4.883	1.63	10.883	3.17	16.883	1.10	22.88	0.69
4.900	1.63	10.900	3.17	16.900	1.10	22.90	0.69
4.917	1.63	10.917	3.17	16.917	1.10	22.92	0.69
4.933	1.63	10.933	3.17	16.933	1.10	22.93	0.69
4.950	1.63	10.950	3.17	16.950	1.10	22.95	0.69
4.967	1.63	10.967	3.17	16.967	1.10	22.97	0.69
4.983	1.63	10.983	3.17	16.983	1.10	22.98	0.69
5.000	1.63	11.000	3.17	17.000	1.10	23.00	0.69
5.017	1.72	11.017	3.00	17.017	1.09	23.02	0.69
5.033	1.72	11.033	3.00	17.033	1.09	23.03	0.69
5.050	1.72	11.050	3.00	17.050	1.09	23.05	0.69
5.067	1.72	11.067	3.00	17.067	1.09	23.07	0.69
5.083	1.72	11.083	3.00	17.083	1.09	23.08	0.69
5.100	1.72	11.100	3.00	17.100	1.09	23.10	0.69

5.117	1.72	11.117	3.00	17.117	1.09	23.12	0.69
5.133	1.72	11.133	3.00	17.133	1.09	23.13	0.69
5.150	1.72	11.150	3.00	17.150	1.09	23.15	0.69
5.167	1.72	11.167	3.00	17.167	1.09	23.17	0.69
5.183	1.83	11.183	2.85	17.183	1.07	23.18	0.68
5.200	1.83	11.200	2.85	17.200	1.07	23.20	0.68
5.217	1.83	11.217	2.85	17.217	1.07	23.22	0.68
5.233	1.83	11.233	2.85	17.233	1.07	23.23	0.68
5.250	1.83	11.250	2.85	17.250	1.07	23.25	0.68
5.267	1.83	11.267	2.85	17.267	1.07	23.27	0.68
5.283	1.83	11.283	2.85	17.283	1.07	23.28	0.68
5.300	1.83	11.300	2.85	17.300	1.07	23.30	0.68
5.317	1.83	11.317	2.85	17.317	1.07	23.32	0.68
5.333	1.83	11.333	2.85	17.333	1.07	23.33	0.68
5.350	1.95	11.350	2.72	17.350	1.05	23.35	0.67
5.367	1.95	11.367	2.72	17.367	1.05	23.37	0.67
5.383	1.95	11.383	2.72	17.383	1.05	23.38	0.67
5.400	1.95	11.400	2.72	17.400	1.05	23.40	0.67
5.417	1.95	11.417	2.72	17.417	1.05	23.42	0.67
5.433	1.95	11.433	2.72	17.433	1.05	23.43	0.67
5.450	1.95	11.450	2.72	17.450	1.05	23.45	0.67
5.467	1.95	11.467	2.72	17.467	1.05	23.47	0.67
5.483	1.95	11.483	2.72	17.483	1.05	23.48	0.67
5.500	1.95	11.500	2.72	17.500	1.05	23.50	0.67
5.517	2.08	11.517	2.59	17.517	1.03	23.52	0.67
5.533	2.08	11.533	2.59	17.533	1.03	23.53	0.67
5.550	2.08	11.550	2.59	17.550	1.03	23.55	0.67
5.567	2.08	11.567	2.59	17.567	1.03	23.57	0.67
5.583	2.08	11.583	2.59	17.583	1.03	23.58	0.67
5.600	2.08	11.600	2.59	17.600	1.03	23.60	0.67
5.617	2.08	11.617	2.59	17.617	1.03	23.62	0.67
5.633	2.08	11.633	2.59	17.633	1.03	23.63	0.67
5.650	2.08	11.650	2.59	17.650	1.03	23.65	0.67
5.667	2.08	11.667	2.59	17.667	1.03	23.67	0.67
5.683	2.24	11.683	2.48	17.683	1.02	23.68	0.66
5.700	2.24	11.700	2.48	17.700	1.02	23.70	0.66
5.717	2.24	11.717	2.48	17.717	1.02	23.72	0.66
5.733	2.24	11.733	2.48	17.733	1.02	23.73	0.66
5.750	2.24	11.750	2.48	17.750	1.02	23.75	0.66
5.767	2.24	11.767	2.48	17.767	1.02	23.77	0.66
5.783	2.24	11.783	2.48	17.783	1.02	23.78	0.66
5.800	2.24	11.800	2.48	17.800	1.02	23.80	0.66
5.817	2.24	11.817	2.48	17.817	1.02	23.82	0.66
5.833	2.24	11.833	2.48	17.833	1.02	23.83	0.66
5.850	2.43	11.850	2.38	17.850	1.00	23.85	0.65
5.867	2.43	11.867	2.38	17.867	1.00	23.87	0.65
5.883	2.43	11.883	2.38	17.883	1.00	23.88	0.65
5.900	2.43	11.900	2.38	17.900	1.00	23.90	0.65
5.917	2.43	11.917	2.38	17.917	1.00	23.92	0.65
5.933	2.43	11.933	2.38	17.933	1.00	23.93	0.65
5.950	2.43	11.950	2.38	17.950	1.00	23.95	0.65
5.967	2.43	11.967	2.38	17.967	1.00	23.97	0.65

5.983	2.43	11.983	2.38	17.983	1.00	23.98	0.65
6.000	2.43	12.000	2.38	18.000	1.00	24.00	0.65

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     Max.Eff.Inten.(mm/hr)=     172.68        44.73
               over (min)         5.00        11.00
     Storage Coeff.  (min)=       3.07 (ii)   10.06 (ii)
     Unit Hyd. Tpeak (min)=       5.00        11.00
     Unit Hyd. peak  (cms)=       0.30         0.11
                                                    *TOTALS*
     PEAK FLOW       (cms)=       0.45         0.14          0.535 (iii)
     TIME TO PEAK    (hrs)=       8.00         8.15            8.02
     RUNOFF VOLUME    (mm)=     107.05        30.33           57.19
     TOTAL RAINFALL   (mm)=     108.06       108.06          108.06
     RUNOFF COEFFICIENT   =       0.99         0.28            0.53


       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN*  =  48.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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--------------------
| DUHYD    (  0035)|
| Inlet Cap.= 0.202|
| #of Inlets=    1|
| Total(cms)=   0.2|      AREA     QPEAK     TPEAK    R.V.
--------------------      (ha)     (cms)     (hrs)    (mm)
     TOTAL HYD.(ID= 1):   2.86      0.53      8.02   57.19
     ================================================
     MAJOR SYS.(ID= 2):   0.48      0.33      8.02   57.19
     MINOR SYS.(ID= 3):   2.38      0.20      7.88   57.19

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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--------------------
| ADD HYD  (  0102)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
--------------------        (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  1021):     3.77   0.757     8.02    59.83
     + ID2= 2 (  0035):     0.48   0.333     8.02    57.19
       ================================================
       ID = 3 (  0102):     4.25   1.089     8.02    59.53

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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| ADD HYD  (  0903)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
--------------------        (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0102):     4.25   1.089     8.02    59.53
     + ID2= 2 (  0902):    18.55   5.398     8.03    60.14
       ================================================
       ID = 3 (  0903):    22.80   6.478     8.03    60.03

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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--------------------
| CALIB            |
| NASHYD   (  1051)|  Area    (ha)=   1.62   Curve Number   (CN)= 60.0
|ID= 1 DT= 5.0 min |  Ia      (mm)=   5.00   # of Linear Res.(N)= 3.00
--------------------  U.H. Tp(hrs)=   1.87

          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	0.67	6.083	2.65	12.083	2.29	18.08	0.99
0.167	0.67	6.167	2.65	12.167	2.29	18.17	0.99
0.250	0.68	6.250	2.92	12.250	2.20	18.25	0.97
0.333	0.68	6.333	2.92	12.333	2.20	18.33	0.97
0.417	0.70	6.417	3.26	12.417	2.12	18.42	0.96
0.500	0.70	6.500	3.26	12.500	2.12	18.50	0.96
0.583	0.71	6.583	3.69	12.583	2.05	18.58	0.94
0.667	0.71	6.667	3.69	12.667	2.05	18.67	0.94
0.750	0.73	6.750	4.25	12.750	1.98	18.75	0.93
0.833	0.73	6.833	4.25	12.833	1.98	18.83	0.93
0.917	0.74	6.917	5.02	12.917	1.92	18.92	0.92
1.000	0.74	7.000	5.02	13.000	1.92	19.00	0.92
1.083	0.76	7.083	6.15	13.083	1.86	19.08	0.91
1.167	0.76	7.167	6.15	13.167	1.86	19.17	0.91
1.250	0.77	7.250	7.95	13.250	1.80	19.25	0.89
1.333	0.77	7.333	7.95	13.333	1.80	19.33	0.89
1.417	0.79	7.417	11.22	13.417	1.75	19.42	0.88
1.500	0.79	7.500	11.22	13.500	1.75	19.50	0.88
1.583	0.81	7.583	18.75	13.583	1.70	19.58	0.87
1.667	0.81	7.667	18.76	13.667	1.70	19.67	0.87
1.750	0.83	7.750	49.66	13.750	1.66	19.75	0.86
1.833	0.83	7.833	49.67	13.833	1.66	19.83	0.86
1.917	0.85	7.917	172.68	13.917	1.61	19.92	0.85
2.000	0.85	8.000	172.67	14.000	1.61	20.00	0.85
2.083	0.88	8.083	65.83	14.083	1.57	20.08	0.84
2.167	0.88	8.167	65.83	14.167	1.57	20.17	0.84
2.250	0.90	8.250	33.57	14.250	1.53	20.25	0.83
2.333	0.90	8.333	33.56	14.333	1.53	20.33	0.83
2.417	0.92	8.417	21.73	14.417	1.50	20.42	0.82
2.500	0.92	8.500	21.73	14.500	1.50	20.50	0.82
2.583	0.95	8.583	15.83	14.583	1.46	20.58	0.81

2.667	0.95	8.667	15.83	14.667	1.46	20.67	0.81
2.750	0.98	8.750	12.37	14.750	1.43	20.75	0.80
2.833	0.98	8.833	12.37	14.833	1.43	20.83	0.80
2.917	1.01	8.917	10.11	14.917	1.39	20.92	0.79
3.000	1.01	9.000	10.11	15.000	1.39	21.00	0.79
3.083	1.04	9.083	8.54	15.083	1.36	21.08	0.78
3.167	1.04	9.167	8.54	15.167	1.36	21.17	0.78
3.250	1.08	9.250	7.39	15.250	1.34	21.25	0.77
3.333	1.08	9.333	7.39	15.333	1.34	21.33	0.77
3.417	1.11	9.417	6.51	15.417	1.31	21.42	0.76
3.500	1.11	9.500	6.51	15.500	1.31	21.50	0.76
3.583	1.15	9.583	5.82	15.583	1.28	21.58	0.75
3.667	1.15	9.667	5.82	15.667	1.28	21.67	0.75
3.750	1.20	9.750	5.26	15.750	1.26	21.75	0.75
3.833	1.20	9.833	5.26	15.833	1.26	21.83	0.75
3.917	1.24	9.917	4.80	15.917	1.23	21.92	0.74
4.000	1.24	10.000	4.80	16.000	1.23	22.00	0.74
4.083	1.29	10.083	4.42	16.083	1.21	22.08	0.73
4.167	1.29	10.167	4.42	16.167	1.21	22.17	0.73
4.250	1.35	10.250	4.09	16.250	1.19	22.25	0.72
4.333	1.35	10.333	4.09	16.333	1.19	22.33	0.72
4.417	1.41	10.417	3.81	16.417	1.16	22.42	0.72
4.500	1.41	10.500	3.81	16.500	1.16	22.50	0.72
4.583	1.48	10.583	3.57	16.583	1.14	22.58	0.71
4.667	1.48	10.667	3.57	16.667	1.14	22.67	0.71
4.750	1.55	10.750	3.36	16.750	1.12	22.75	0.70
4.833	1.55	10.833	3.36	16.833	1.12	22.83	0.70
4.917	1.63	10.917	3.17	16.917	1.10	22.92	0.69
5.000	1.63	11.000	3.17	17.000	1.10	23.00	0.69
5.083	1.72	11.083	3.00	17.083	1.09	23.08	0.69
5.167	1.72	11.167	3.00	17.167	1.09	23.17	0.69
5.250	1.83	11.250	2.85	17.250	1.07	23.25	0.68
5.333	1.83	11.333	2.85	17.333	1.07	23.33	0.68
5.417	1.95	11.417	2.72	17.417	1.05	23.42	0.67
5.500	1.95	11.500	2.72	17.500	1.05	23.50	0.67
5.583	2.08	11.583	2.59	17.583	1.03	23.58	0.67
5.667	2.08	11.667	2.59	17.667	1.03	23.67	0.67
5.750	2.24	11.750	2.48	17.750	1.02	23.75	0.66
5.833	2.24	11.833	2.48	17.833	1.02	23.83	0.66
5.917	2.43	11.917	2.38	17.917	1.00	23.92	0.65
6.000	2.43	12.000	2.38	18.000	1.00	24.00	0.65

```
Unit Hyd Qpeak  (cms)=   0.033

PEAK FLOW       (cms)=   0.032 (i)
TIME TO PEAK    (hrs)=  10.250
RUNOFF VOLUME    (mm)=  38.992
TOTAL RAINFALL   (mm)= 108.063
RUNOFF COEFFICIENT   =   0.361

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
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| ADD HYD  (  0105)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
--------------------        (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  1051):     1.62   0.032    10.25    38.99
     + ID2= 2 (  0037):     0.33   0.178     8.02    49.56
       ================================================
       ID = 3 (  0105):     1.95   0.179     8.02    40.78

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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--------------------
| ADD HYD  (  0906)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
--------------------        (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0105):     1.95   0.179     8.02    40.78
     + ID2= 2 (  0903):    22.80   6.478     8.03    60.03
       ================================================
       ID = 3 (  0906):    24.75   6.655     8.03    58.51

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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--------------------
| CALIB            |
| NASHYD   (  0201)|  Area     (ha)=   6.97   Curve Number   (CN)= 66.0
|ID= 1 DT= 5.0 min |  Ia       (mm)=   5.00   # of Linear Res.(N)= 3.00
--------------------  U.H. Tp(hrs)=   0.74

        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    0.67 | 6.083    2.65 |12.083    2.29 | 18.08    0.99
 0.167    0.67 | 6.167    2.65 |12.167    2.29 | 18.17    0.99
 0.250    0.68 | 6.250    2.92 |12.250    2.20 | 18.25    0.97
 0.333    0.68 | 6.333    2.92 |12.333    2.20 | 18.33    0.97
 0.417    0.70 | 6.417    3.26 |12.417    2.12 | 18.42    0.96
 0.500    0.70 | 6.500    3.26 |12.500    2.12 | 18.50    0.96
 0.583    0.71 | 6.583    3.69 |12.583    2.05 | 18.58    0.94
 0.667    0.71 | 6.667    3.69 |12.667    2.05 | 18.67    0.94
 0.750    0.73 | 6.750    4.25 |12.750    1.98 | 18.75    0.93
 0.833    0.73 | 6.833    4.25 |12.833    1.98 | 18.83    0.93
 0.917    0.74 | 6.917    5.02 |12.917    1.92 | 18.92    0.92
 1.000    0.74 | 7.000    5.02 |13.000    1.92 | 19.00    0.92
 1.083    0.76 | 7.083    6.15 |13.083    1.86 | 19.08    0.91
 1.167    0.76 | 7.167    6.15 |13.167    1.86 | 19.17    0.91
 1.250    0.77 | 7.250    7.95 |13.250    1.80 | 19.25    0.89
 1.333    0.77 | 7.333    7.95 |13.333    1.80 | 19.33    0.89
 1.417    0.79 | 7.417   11.22 |13.417    1.75 | 19.42    0.88
 1.500    0.79 | 7.500   11.22 |13.500    1.75 | 19.50    0.88
 1.583    0.81 | 7.583   18.75 |13.583    1.70 | 19.58    0.87
 1.667    0.81 | 7.667   18.76 |13.667    1.70 | 19.67    0.87
 1.750    0.83 | 7.750   49.66 |13.750    1.66 | 19.75    0.86
 1.833    0.83 | 7.833   49.67 |13.833    1.66 | 19.83    0.86
 1.917    0.85 | 7.917  172.68 |13.917    1.61 | 19.92    0.85
 2.000    0.85 | 8.000  172.67 |14.000    1.61 | 20.00    0.85
 2.083    0.88 | 8.083   65.83 |14.083    1.57 | 20.08    0.84
 2.167    0.88 | 8.167   65.83 |14.167    1.57 | 20.17    0.84
 2.250    0.90 | 8.250   33.57 |14.250    1.53 | 20.25    0.83
 2.333    0.90 | 8.333   33.56 |14.333    1.53 | 20.33    0.83
 2.417    0.92 | 8.417   21.73 |14.417    1.50 | 20.42    0.82
 2.500    0.92 | 8.500   21.73 |14.500    1.50 | 20.50    0.82
 2.583    0.95 | 8.583   15.83 |14.583    1.46 | 20.58    0.81
 2.667    0.95 | 8.667   15.83 |14.667    1.46 | 20.67    0.81
 2.750    0.98 | 8.750   12.37 |14.750    1.43 | 20.75    0.80
 2.833    0.98 | 8.833   12.37 |14.833    1.43 | 20.83    0.80
 2.917    1.01 | 8.917   10.11 |14.917    1.39 | 20.92    0.79
 3.000    1.01 | 9.000   10.11 |15.000    1.39 | 21.00    0.79
 3.083    1.04 | 9.083    8.54 |15.083    1.36 | 21.08    0.78
 3.167    1.04 | 9.167    8.54 |15.167    1.36 | 21.17    0.78
 3.250    1.08 | 9.250    7.39 |15.250    1.34 | 21.25    0.77
 3.333    1.08 | 9.333    7.39 |15.333    1.34 | 21.33    0.77
 3.417    1.11 | 9.417    6.51 |15.417    1.31 | 21.42    0.76
 3.500    1.11 | 9.500    6.51 |15.500    1.31 | 21.50    0.76
 3.583    1.15 | 9.583    5.82 |15.583    1.28 | 21.58    0.75
 3.667    1.15 | 9.667    5.82 |15.667    1.28 | 21.67    0.75
 3.750    1.20 | 9.750    5.26 |15.750    1.26 | 21.75    0.75
 3.833    1.20 | 9.833    5.26 |15.833    1.26 | 21.83    0.75
 3.917    1.24 | 9.917    4.80 |15.917    1.23 | 21.92    0.74
 4.000    1.24 |10.000    4.80 |16.000    1.23 | 22.00    0.74
 4.083    1.29 |10.083    4.42 |16.083    1.21 | 22.08    0.73
 4.167    1.29 |10.167    4.42 |16.167    1.21 | 22.17    0.73
 4.250    1.35 |10.250    4.09 |16.250    1.19 | 22.25    0.72
 4.333    1.35 |10.333    4.09 |16.333    1.19 | 22.33    0.72
 4.417    1.41 |10.417    3.81 |16.417    1.16 | 22.42    0.72
 4.500    1.41 |10.500    3.81 |16.500    1.16 | 22.50    0.72
 4.583    1.48 |10.583    3.57 |16.583    1.14 | 22.58    0.71
 4.667    1.48 |10.667    3.57 |16.667    1.14 | 22.67    0.71
 4.750    1.55 |10.750    3.36 |16.750    1.12 | 22.75    0.70
 4.833    1.55 |10.833    3.36 |16.833    1.12 | 22.83    0.70
 4.917    1.63 |10.917    3.17 |16.917    1.10 | 22.92    0.69
 5.000    1.63 |11.000    3.17 |17.000    1.10 | 23.00    0.69
 5.083    1.72 |11.083    3.00 |17.083    1.09 | 23.08    0.69
 5.167    1.72 |11.167    3.00 |17.167    1.09 | 23.17    0.69
 5.250    1.83 |11.250    2.85 |17.250    1.07 | 23.25    0.68
 5.333    1.83 |11.333    2.85 |17.333    1.07 | 23.33    0.68
 5.417    1.95 |11.417    2.72 |17.417    1.05 | 23.42    0.67
 5.500    1.95 |11.500    2.72 |17.500    1.05 | 23.50    0.67
 5.583    2.08 |11.583    2.59 |17.583    1.03 | 23.58    0.67
 5.667    2.08 |11.667    2.59 |17.667    1.03 | 23.67    0.67
 5.750    2.24 |11.750    2.48 |17.750    1.02 | 23.75    0.66
 5.833    2.24 |11.833    2.48 |17.833    1.02 | 23.83    0.66
 5.917    2.43 |11.917    2.38 |17.917    1.00 | 23.92    0.65
 6.000    2.43 |12.000    2.38 |18.000    1.00 | 24.00    0.65

    Unit Hyd Qpeak  (cms)=   0.111

    PEAK FLOW       (cms)=   0.115 (i)
    TIME TO PEAK    (hrs)=   9.083
    RUNOFF VOLUME    (mm)=  47.719
    TOTAL RAINFALL   (mm)= 108.063
    RUNOFF COEFFICIENT   =   0.442

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

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| ADD HYD  (  0904)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
--------------------        (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0201):     6.97   0.331     8.83    45.41
     + ID2= 2 (  0202):     2.71   0.115     9.08    47.72
       ================================================
       ID = 3 (  0904):     9.68   0.443     8.92    46.06

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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| CALIB            |
| NASHYD   (  0203)|  Area     (ha)=  34.30   Curve Number   (CN)= 42.0
|ID= 1 DT= 5.0 min |  Ia       (mm)=   5.00   # of Linear Res.(N)= 3.00
--------------------  U.H. Tp(hrs)=   1.40

        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    0.67 | 6.083    2.65 |12.083    2.29 | 18.08    0.99
 0.167    0.67 | 6.167    2.65 |12.167    2.29 | 18.17    0.99
 0.250    0.68 | 6.250    2.92 |12.250    2.20 | 18.25    0.97
 0.333    0.68 | 6.333    2.92 |12.333    2.20 | 18.33    0.97
 0.417    0.70 | 6.417    3.26 |12.417    2.12 | 18.42    0.96
 0.500    0.70 | 6.500    3.26 |12.500    2.12 | 18.50    0.96
 0.583    0.71 | 6.583    3.69 |12.583    2.05 | 18.58    0.94
 0.667    0.71 | 6.667    3.69 |12.667    2.05 | 18.67    0.94
 0.750    0.73 | 6.750    4.25 |12.750    1.98 | 18.75    0.93
 0.833    0.73 | 6.833    4.25 |12.833    1.98 | 18.83    0.93
 0.917    0.74 | 6.917    5.02 |12.917    1.92 | 18.92    0.92
 1.000    0.74 | 7.000    5.02 |13.000    1.92 | 19.00    0.92
 1.083    0.76 | 7.083    6.15 |13.083    1.86 | 19.08    0.91
 1.167    0.76 | 7.167    6.15 |13.167    1.86 | 19.17    0.91
 1.250    0.77 | 7.250    7.95 |13.250    1.80 | 19.25    0.89
 1.333    0.77 | 7.333    7.95 |13.333    1.80 | 19.33    0.89
 1.417    0.79 | 7.417   11.22 |13.417    1.75 | 19.42    0.88
 1.500    0.79 | 7.500   11.22 |13.500    1.75 | 19.50    0.88
 1.583    0.81 | 7.583   18.75 |13.583    1.70 | 19.58    0.87
 1.667    0.81 | 7.667   18.76 |13.667    1.70 | 19.67    0.87
 1.750    0.83 | 7.750   49.66 |13.750    1.66 | 19.75    0.86
 1.833    0.83 | 7.833   49.67 |13.833    1.66 | 19.83    0.86
 1.917    0.85 | 7.917  172.68 |13.917    1.61 | 19.92    0.85
 2.000    0.85 | 8.000  172.67 |14.000    1.61 | 20.00    0.85
 2.083    0.88 | 8.083   65.83 |14.083    1.57 | 20.08    0.84
 2.167    0.88 | 8.167   65.83 |14.167    1.57 | 20.17    0.84
 2.250    0.90 | 8.250   33.57 |14.250    1.53 | 20.25    0.83
 2.333    0.90 | 8.333   33.56 |14.333    1.53 | 20.33    0.83
 2.417    0.92 | 8.417   21.73 |14.417    1.50 | 20.42    0.82
 2.500    0.92 | 8.500   21.73 |14.500    1.50 | 20.50    0.82
 2.583    0.95 | 8.583   15.83 |14.583    1.46 | 20.58    0.81
 2.667    0.95 | 8.667   15.83 |14.667    1.46 | 20.67    0.81
 2.750    0.98 | 8.750   12.37 |14.750    1.43 | 20.75    0.80
 2.833    0.98 | 8.833   12.37 |14.833    1.43 | 20.83    0.80
 2.917    1.01 | 8.917   10.11 |14.917    1.39 | 20.92    0.79
 3.000    1.01 | 9.000   10.11 |15.000    1.39 | 21.00    0.79
 3.083    1.04 | 9.083    8.54 |15.083    1.36 | 21.08    0.78
 3.167    1.04 | 9.167    8.54 |15.167    1.36 | 21.17    0.78
 3.250    1.08 | 9.250    7.39 |15.250    1.34 | 21.25    0.77
 3.333    1.08 | 9.333    7.39 |15.333    1.34 | 21.33    0.77
 3.417    1.11 | 9.417    6.51 |15.417    1.31 | 21.42    0.76
 3.500    1.11 | 9.500    6.51 |15.500    1.31 | 21.50    0.76
 3.583    1.15 | 9.583    5.82 |15.583    1.28 | 21.58    0.75
 3.667    1.15 | 9.667    5.82 |15.667    1.28 | 21.67    0.75
 3.750    1.20 | 9.750    5.26 |15.750    1.26 | 21.75    0.75
 3.833    1.20 | 9.833    5.26 |15.833    1.26 | 21.83    0.75
 3.917    1.24 | 9.917    4.80 |15.917    1.23 | 21.92    0.74
 4.000    1.24 |10.000    4.80 |16.000    1.23 | 22.00    0.74
 4.083    1.29 |10.083    4.42 |16.083    1.21 | 22.08    0.73
 4.167    1.29 |10.167    4.42 |16.167    1.21 | 22.17    0.73
 4.250    1.35 |10.250    4.09 |16.250    1.19 | 22.25    0.72
 4.333    1.35 |10.333    4.09 |16.333    1.19 | 22.33    0.72
 4.417    1.41 |10.417    3.81 |16.417    1.16 | 22.42    0.72
 4.500    1.41 |10.500    3.81 |16.500    1.16 | 22.50    0.72
 4.583    1.48 |10.583    3.57 |16.583    1.14 | 22.58    0.71
 4.667    1.48 |10.667    3.57 |16.667    1.14 | 22.67    0.71
 4.750    1.55 |10.750    3.36 |16.750    1.12 | 22.75    0.70
 4.833    1.55 |10.833    3.36 |16.833    1.12 | 22.83    0.70
 4.917    1.63 |10.917    3.17 |16.917    1.10 | 22.92    0.69
 5.000    1.63 |11.000    3.17 |17.000    1.10 | 23.00    0.69
 5.083    1.72 |11.083    3.00 |17.083    1.09 | 23.08    0.69
 5.167    1.72 |11.167    3.00 |17.167    1.09 | 23.17    0.69
 5.250    1.83 |11.250    2.85 |17.250    1.07 | 23.25    0.68
 5.333    1.83 |11.333    2.85 |17.333    1.07 | 23.33    0.68
 5.417    1.95 |11.417    2.72 |17.417    1.05 | 23.42    0.67
 5.500    1.95 |11.500    2.72 |17.500    1.05 | 23.50    0.67
 5.583    2.08 |11.583    2.59 |17.583    1.03 | 23.58    0.67
 5.667    2.08 |11.667    2.59 |17.667    1.03 | 23.67    0.67
 5.750    2.24 |11.750    2.48 |17.750    1.02 | 23.75    0.66
 5.833    2.24 |11.833    2.48 |17.833    1.02 | 23.83    0.66
 5.917    2.43 |11.917    2.38 |17.917    1.00 | 23.92    0.65
 6.000    2.43 |12.000    2.38 |18.000    1.00 | 24.00    0.65

    Unit Hyd Qpeak  (cms)=   0.360

    PEAK FLOW       (cms)=   0.331 (i)
    TIME TO PEAK    (hrs)=   8.833
    RUNOFF VOLUME    (mm)=  45.410
    TOTAL RAINFALL   (mm)= 108.063
    RUNOFF COEFFICIENT   =   0.420

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

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| CALIB            |
| NASHYD   (  0202)|  Area     (ha)=   2.71   Curve Number   (CN)= 68.0
|ID= 1 DT= 5.0 min |  Ia       (mm)=   5.00   # of Linear Res.(N)= 3.00
--------------------  U.H. Tp(hrs)=   0.93

        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    0.67 | 6.083    2.65 |12.083    2.29 | 18.08    0.99
 0.167    0.67 | 6.167    2.65 |12.167    2.29 | 18.17    0.99
 0.250    0.68 | 6.250    2.92 |12.250    2.20 | 18.25    0.97
 0.333    0.68 | 6.333    2.92 |12.333    2.20 | 18.33    0.97
 0.417    0.70 | 6.417    3.26 |12.417    2.12 | 18.42    0.96
 0.500    0.70 | 6.500    3.26 |12.500    2.12 | 18.50    0.96
 0.583    0.71 | 6.583    3.69 |12.583    2.05 | 18.58    0.94
 0.667    0.71 | 6.667    3.69 |12.667    2.05 | 18.67    0.94
 0.750    0.73 | 6.750    4.25 |12.750    1.98 | 18.75    0.93
 0.833    0.73 | 6.833    4.25 |12.833    1.98 | 18.83    0.93
 0.917    0.74 | 6.917    5.02 |12.917    1.92 | 18.92    0.92
 1.000    0.74 | 7.000    5.02 |13.000    1.92 | 19.00    0.92
 1.083    0.76 | 7.083    6.15 |13.083    1.86 | 19.08    0.91
 1.167    0.76 | 7.167    6.15 |13.167    1.86 | 19.17    0.91
 1.250    0.77 | 7.250    7.95 |13.250    1.80 | 19.25    0.89
 1.333    0.77 | 7.333    7.95 |13.333    1.80 | 19.33    0.89
 1.417    0.79 | 7.417   11.22 |13.417    1.75 | 19.42    0.88
 1.500    0.79 | 7.500   11.22 |13.500    1.75 | 19.50    0.88
 1.583    0.81 | 7.583   18.75 |13.583    1.70 | 19.58    0.87
 1.667    0.81 | 7.667   18.76 |13.667    1.70 | 19.67    0.87
 1.750    0.83 | 7.750   49.66 |13.750    1.66 | 19.75    0.86
 1.833    0.83 | 7.833   49.67 |13.833    1.66 | 19.83    0.86
 1.917    0.85 | 7.917  172.68 |13.917    1.61 | 19.92    0.85
 2.000    0.85 | 8.000  172.67 |14.000    1.61 | 20.00    0.85
 2.083    0.88 | 8.083   65.83 |14.083    1.57 | 20.08    0.84
 2.167    0.88 | 8.167   65.83 |14.167    1.57 | 20.17    0.84
 2.250    0.90 | 8.250   33.57 |14.250    1.53 | 20.25    0.83
 2.333    0.90 | 8.333   33.56 |14.333    1.53 | 20.33    0.83
 2.417    0.92 | 8.417   21.73 |14.417    1.50 | 20.42    0.82
 2.500    0.92 | 8.500   21.73 |14.500    1.50 | 20.50    0.82
 2.583    0.95 | 8.583   15.83 |14.583    1.46 | 20.58    0.81
 2.667    0.95 | 8.667   15.83 |14.667    1.46 | 20.67    0.81
 2.750    0.98 | 8.750   12.37 |14.750    1.43 | 20.75    0.80
 2.833    0.98 | 8.833   12.37 |14.833    1.43 | 20.83    0.80
 2.917    1.01 | 8.917   10.11 |14.917    1.39 | 20.92    0.79
 3.000    1.01 | 9.000   10.11 |15.000    1.39 | 21.00    0.79
 3.083    1.04 | 9.083    8.54 |15.083    1.36 | 21.08    0.78
 3.167    1.04 | 9.167    8.54 |15.167    1.36 | 21.17    0.78
 3.250    1.08 | 9.250    7.39 |15.250    1.34 | 21.25    0.77
 3.333    1.08 | 9.333    7.39 |15.333    1.34 | 21.33    0.77
 3.417    1.11 | 9.417    6.51 |15.417    1.31 | 21.42    0.76
 3.500    1.11 | 9.500    6.51 |15.500    1.31 | 21.50    0.76
 3.583    1.15 | 9.583    5.82 |15.583    1.28 | 21.58    0.75
 3.667    1.15 | 9.667    5.82 |15.667    1.28 | 21.67    0.75
 3.750    1.20 | 9.750    5.26 |15.750    1.26 | 21.75    0.75
 3.833    1.20 | 9.833    5.26 |15.833    1.26 | 21.83    0.75
 3.917    1.24 | 9.917    4.80 |15.917    1.23 | 21.92    0.74
 4.000    1.24 |10.000    4.80 |16.000    1.23 | 22.00    0.74
 4.083    1.29 |10.083    4.42 |16.083    1.21 | 22.08    0.73
 4.167    1.29 |10.167    4.42 |16.167    1.21 | 22.17    0.73
 4.250    1.35 |10.250    4.09 |16.250    1.19 | 22.25    0.72
 4.333    1.35 |10.333    4.09 |16.333    1.19 | 22.33    0.72
 4.417    1.41 |10.417    3.81 |16.417    1.16 | 22.42    0.72
 4.500    1.41 |10.500    3.81 |16.500    1.16 | 22.50    0.72
 4.583    1.48 |10.583    3.57 |16.583    1.14 | 22.58    0.71
 4.667    1.48 |10.667    3.57 |16.667    1.14 | 22.67    0.71
 4.750    1.55 |10.750    3.36 |16.750    1.12 | 22.75    0.70
 4.833    1.55 |10.833    3.36 |16.833    1.12 | 22.83    0.70
 4.917    1.63 |10.917    3.17 |16.917    1.10 | 22.92    0.69
 5.000    1.63 |11.000    3.17 |17.000    1.10 | 23.00    0.69
 5.083    1.72 |11.083    3.00 |17.083    1.09 | 23.08    0.69
 5.167    1.72 |11.167    3.00 |17.167    1.09 | 23.17    0.69
 5.250    1.83 |11.250    2.85 |17.250    1.07 | 23.25    0.68
 5.333    1.83 |11.333    2.85 |17.333    1.07 | 23.33    0.68
 5.417    1.95 |11.417    2.72 |17.417    1.05 | 23.42    0.67
 5.500    1.95 |11.500    2.72 |17.500    1.05 | 23.50    0.67
 5.583    2.08 |11.583    2.59 |17.583    1.03 | 23.58    0.67
 5.667    2.08 |11.667    2.59 |17.667    1.03 | 23.67    0.67
 5.750    2.24 |11.750    2.48 |17.750    1.02 | 23.75    0.66
 5.833    2.24 |11.833    2.48 |17.833    1.02 | 23.83    0.66
 5.917    2.43 |11.917    2.38 |17.917    1.00 | 23.92    0.65
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              6.000    2.43 |12.000    2.38 |18.000    1.00 | 24.00    0.65

    Unit Hyd Qpeak  (cms)=   0.936

    PEAK FLOW      (cms)=   0.495 (i)
    TIME TO PEAK   (hrs)=   9.750
    RUNOFF VOLUME   (mm)=  23.405
    TOTAL RAINFALL  (mm)= 108.063
    RUNOFF COEFFICIENT   =   0.217

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

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| ADD HYD  (  0905)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
-------------------         (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0203):    34.30   0.495     9.75    23.41
     + ID2= 2 (  0904):     9.68   0.443     8.92    46.06
       ================================================
       ID = 3 (  0905):    43.98   0.861     9.25    28.39

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

  --------------------------
  | Junction Command(0907) |
  --------------------------

                        AREA     QPEAK   TPEAK     R.V.
                        (ha)     (cms)   (hrs)     (mm)
  INFLOW : ID= 1(  0905)   43.98     0.86    9.25    28.39
  OUTFLOW: ID= 2(  0907)   43.98     0.86    9.25    28.39

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-------------------
| ADD HYD  (  0908)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
-------------------         (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0906):    24.75   6.655     8.03    58.51
     + ID2= 2 (  0907):    43.98   0.861     9.25    28.39
       ================================================
       ID = 3 (  0908):    68.73   6.767     8.03    39.24

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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-------------------
| CALIB            |
| NASHYD   (  0204)|   Area    (ha)=   0.40   Curve Number   (CN)= 67.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   5.00   # of Linear Res.(N)= 3.00
```

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--------------------  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    0.67 | 6.083    2.65 |12.083    2.29 | 18.08    0.99
0.167    0.67 | 6.167    2.65 |12.167    2.29 | 18.17    0.99
0.250    0.68 | 6.250    2.92 |12.250    2.20 | 18.25    0.97
0.333    0.68 | 6.333    2.92 |12.333    2.20 | 18.33    0.97
0.417    0.70 | 6.417    3.26 |12.417    2.12 | 18.42    0.96
0.500    0.70 | 6.500    3.26 |12.500    2.12 | 18.50    0.96
0.583    0.71 | 6.583    3.69 |12.583    2.05 | 18.58    0.94
0.667    0.71 | 6.667    3.69 |12.667    2.05 | 18.67    0.94
0.750    0.73 | 6.750    4.25 |12.750    1.98 | 18.75    0.93
0.833    0.73 | 6.833    4.25 |12.833    1.98 | 18.83    0.93
0.917    0.74 | 6.917    5.02 |12.917    1.92 | 18.92    0.92
1.000    0.74 | 7.000    5.02 |13.000    1.92 | 19.00    0.92
1.083    0.76 | 7.083    6.15 |13.083    1.86 | 19.08    0.91
1.167    0.76 | 7.167    6.15 |13.167    1.86 | 19.17    0.91
1.250    0.77 | 7.250    7.95 |13.250    1.80 | 19.25    0.89
1.333    0.77 | 7.333    7.95 |13.333    1.80 | 19.33    0.89
1.417    0.79 | 7.417   11.22 |13.417    1.75 | 19.42    0.88
1.500    0.79 | 7.500   11.22 |13.500    1.75 | 19.50    0.88
1.583    0.81 | 7.583   18.75 |13.583    1.70 | 19.58    0.87
1.667    0.81 | 7.667   18.76 |13.667    1.70 | 19.67    0.87
1.750    0.83 | 7.750   49.66 |13.750    1.66 | 19.75    0.86
1.833    0.83 | 7.833   49.67 |13.833    1.66 | 19.83    0.86
1.917    0.85 | 7.917  172.68 |13.917    1.61 | 19.92    0.85
2.000    0.85 | 8.000  172.67 |14.000    1.61 | 20.00    0.85
2.083    0.88 | 8.083   65.83 |14.083    1.57 | 20.08    0.84
2.167    0.88 | 8.167   65.83 |14.167    1.57 | 20.17    0.84
2.250    0.90 | 8.250   33.57 |14.250    1.53 | 20.25    0.83
2.333    0.90 | 8.333   33.56 |14.333    1.53 | 20.33    0.83
2.417    0.92 | 8.417   21.73 |14.417    1.50 | 20.42    0.82
2.500    0.92 | 8.500   21.73 |14.500    1.50 | 20.50    0.82
2.583    0.95 | 8.583   15.83 |14.583    1.46 | 20.58    0.81
2.667    0.95 | 8.667   15.83 |14.667    1.46 | 20.67    0.81
2.750    0.98 | 8.750   12.37 |14.750    1.43 | 20.75    0.80
2.833    0.98 | 8.833   12.37 |14.833    1.43 | 20.83    0.80
2.917    1.01 | 8.917   10.11 |14.917    1.39 | 20.92    0.79
3.000    1.01 | 9.000   10.11 |15.000    1.39 | 21.00    0.79
3.083    1.04 | 9.083    8.54 |15.083    1.36 | 21.08    0.78
3.167    1.04 | 9.167    8.54 |15.167    1.36 | 21.17    0.78
3.250    1.08 | 9.250    7.39 |15.250    1.34 | 21.25    0.77
3.333    1.08 | 9.333    7.39 |15.333    1.34 | 21.33    0.77
3.417    1.11 | 9.417    6.51 |15.417    1.31 | 21.42    0.76
3.500    1.11 | 9.500    6.51 |15.500    1.31 | 21.50    0.76
3.583    1.15 | 9.583    5.82 |15.583    1.28 | 21.58    0.75
3.667    1.15 | 9.667    5.82 |15.667    1.28 | 21.67    0.75
3.750    1.20 | 9.750    5.26 |15.750    1.26 | 21.75    0.75
3.833    1.20 | 9.833    5.26 |15.833    1.26 | 21.83    0.75
3.917    1.24 | 9.917    4.80 |15.917    1.23 | 21.92    0.74
4.000    1.24 |10.000    4.80 |16.000    1.23 | 22.00    0.74
4.083    1.29 |10.083    4.42 |16.083    1.21 | 22.08    0.73
4.167    1.29 |10.167    4.42 |16.167    1.21 | 22.17    0.73
4.250    1.35 |10.250    4.09 |16.250    1.19 | 22.25    0.72
4.333    1.35 |10.333    4.09 |16.333    1.19 | 22.33    0.72
4.417    1.41 |10.417    3.81 |16.417    1.16 | 22.42    0.72
4.500    1.41 |10.500    3.81 |16.500    1.16 | 22.50    0.72
4.583    1.48 |10.583    3.57 |16.583    1.14 | 22.58    0.71
4.667    1.48 |10.667    3.57 |16.667    1.14 | 22.67    0.71
4.750    1.55 |10.750    3.36 |16.750    1.12 | 22.75    0.70
4.833    1.55 |10.833    3.36 |16.833    1.12 | 22.83    0.70
4.917    1.63 |10.917    3.17 |16.917    1.10 | 22.92    0.69
5.000    1.63 |11.000    3.17 |17.000    1.10 | 23.00    0.69
5.083    1.72 |11.083    3.00 |17.083    1.09 | 23.08    0.69
5.167    1.72 |11.167    3.00 |17.167    1.09 | 23.17    0.69
5.250    1.83 |11.250    2.85 |17.250    1.07 | 23.25    0.68
5.333    1.83 |11.333    2.85 |17.333    1.07 | 23.33    0.68
5.417    1.95 |11.417    2.72 |17.417    1.05 | 23.42    0.67
5.500    1.95 |11.500    2.72 |17.500    1.05 | 23.50    0.67
5.583    2.08 |11.583    2.59 |17.583    1.03 | 23.58    0.67
5.667    2.08 |11.667    2.59 |17.667    1.03 | 23.67    0.67
5.750    2.24 |11.750    2.48 |17.750    1.02 | 23.75    0.66
5.833    2.24 |11.833    2.48 |17.833    1.02 | 23.83    0.66
5.917    2.43 |11.917    2.38 |17.917    1.00 | 23.92    0.65
6.000    2.43 |12.000    2.38 |18.000    1.00 | 24.00    0.65

    Unit Hyd Qpeak  (cms)=   0.054

    PEAK FLOW      (cms)=   0.036 (i)
    TIME TO PEAK   (hrs)=   8.250
    RUNOFF VOLUME   (mm)=  46.528
    TOTAL RAINFALL  (mm)= 108.063
    RUNOFF COEFFICIENT   =   0.431

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

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-------------------
| ADD HYD  (  0909)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
-------------------         (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0204):     0.40   0.036     8.25    46.53
     + ID2= 2 (  0908):    68.73   6.767     8.03    39.24
       ================================================
       ID = 3 (  0909):    69.12   6.789     8.03    39.28

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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-------------------
| RESERVOIR(  0052)|     OVERFLOW IS ON
| IN= 2---> OUT= 1 |
| DT=  1.0 min     |     OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
-------------------      (cms)     (ha.m.)   |   (cms)     (ha.m.)
                         0.0000     0.0001   |   0.5350      0.0405
                         0.4630     0.0006   |   0.5440      0.0566
                         0.4740     0.0013   |   0.5540      0.0775
                         0.4840     0.0030   |   0.5630      0.1069
                         0.4950     0.0056   |   0.5720      0.1342
                         0.5050     0.0102   |   0.5810      0.1635
                         0.5150     0.0163   |   0.5900      0.1967
                         0.5250     0.0270   |   0.5980      0.2362

                              AREA     QPEAK     TPEAK       R.V.
                              (ha)     (cms)     (hrs)       (mm)
  INFLOW : ID= 2 (  0909)     69.123      6.789      8.03       39.28
  OUTFLOW: ID= 1 (  0052)     46.873      0.598      8.03       39.79
  OVERFLOW:ID= 3 (  0003)     22.250      9.117      8.03       39.79

                TOTAL NUMBER OF SIMULATION OVERFLOW  =   181
                CUMULATIVE TIME OF OVERFLOW  (HOURS) =  3.02
                PERCENTAGE OF TIME OVERFLOWING   (%) =  9.25

                PEAK   FLOW   REDUCTION [Qout/Qin](%)=  8.81
                TIME SHIFT OF PEAK FLOW       (min)=  0.00
                MAXIMUM  STORAGE   USED       (ha.m.)=  0.2362

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  --------------------------
  | Junction Command(0048) |
  --------------------------

                        AREA     QPEAK   TPEAK     R.V.
                        (ha)     (cms)   (hrs)     (mm)
  INFLOW : ID= 1(  0052)   46.87     0.60    8.03    39.79
  OUTFLOW: ID= 2(  0048)   46.87     0.60    8.03    39.79

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

  --------------------------
  | Junction Command(0053) |
  --------------------------

                        AREA     QPEAK   TPEAK     R.V.
                        (ha)     (cms)   (hrs)     (mm)
  INFLOW : ID= 3(  0052)   22.25     9.12    8.03    39.79
  OUTFLOW: ID= 2(  0053)   22.25     9.12    8.03    39.79

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-------------------
| ADD HYD  (  0051)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
-------------------         (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0048):    46.87   0.598     8.03    39.79
     + ID2= 2 (  0053):    22.25   9.117     8.03    39.79
       ================================================
       ID = 3 (  0051):    69.12   9.715     8.03    39.79

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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  --------------------------
  | Junction Command(0036) |
  --------------------------

                        AREA     QPEAK   TPEAK     R.V.
                        (ha)     (cms)   (hrs)     (mm)
  INFLOW : ID= 9(  0035)    2.38     0.20    7.88    57.19
  OUTFLOW: ID= 2(  0036)    2.38     0.20    7.88    57.19

  ---------------------------------------------------------------------------
================================================================================
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      V    V   I    SSSSS  U   U    A    L             (v 6.2.2015)
      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\cacp078589\AppData\Local\Civica\VH5\9ad0f7cd-9fe5-4b65-bb07-55a510b23afa\457c87d2-4582-441a-8aa2-daa209349564\s
    Summary filename:
C:\Users\cacp078589\AppData\Local\Civica\VH5\9ad0f7cd-9fe5-4b65-bb07-55a510b23afa\457c87d2-4582-441a-8aa2-daa209349564\s
```

```
DATE: 04-04-2025                          TIME: 09:55:03

USER:


COMMENTS: _____

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  ************************************************
  ** SIMULATION : 10yr 24hr 10min Chicago       **
  ************************************************

-----------------
| CHICAGO STORM   |    IDF curve parameters: A=1511.000
| Ptotal= 77.31 mm |                          B=   9.500
-----------------                           C=   0.845
                        used in:   INTENSITY =  A / (t + B)^C

                        Duration of storm  = 24.00 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    0.53 |  6.00    1.99 | 12.00    1.73 | 18.00    0.77
 0.17    0.54 |  6.17    2.18 | 12.17    1.67 | 18.17    0.76
 0.33    0.55 |  6.33    2.42 | 12.33    1.61 | 18.33    0.75
 0.50    0.56 |  6.50    2.72 | 12.50    1.56 | 18.50    0.74
 0.67    0.57 |  6.67    3.12 | 12.67    1.51 | 18.67    0.73
 0.83    0.58 |  6.83    3.66 | 12.83    1.46 | 18.83    0.72
 1.00    0.60 |  7.00    4.43 | 13.00    1.42 | 19.00    0.71
 1.17    0.61 |  7.17    5.66 | 13.17    1.38 | 19.17    0.70
 1.33    0.62 |  7.33    7.85 | 13.33    1.34 | 19.33    0.69
 1.50    0.64 |  7.50   12.85 | 13.50    1.30 | 19.50    0.68
 1.67    0.65 |  7.67   33.57 | 13.67    1.27 | 19.67    0.67
 1.83    0.67 |  7.83  122.80 | 13.83    1.24 | 19.83    0.66
 2.00    0.68 |  8.00   44.52 | 14.00    1.21 | 20.00    0.66
 2.17    0.70 |  8.17   22.67 | 14.17    1.18 | 20.17    0.65
 2.33    0.72 |  8.33   14.82 | 14.33    1.15 | 20.33    0.64
 2.50    0.74 |  8.50   10.92 | 14.50    1.12 | 20.50    0.63
 2.67    0.76 |  8.67    8.62 | 14.67    1.10 | 20.67    0.63
 2.83    0.79 |  8.83    7.11 | 14.83    1.07 | 20.83    0.62
 3.00    0.81 |  9.00    6.06 | 15.00    1.05 | 21.00    0.61
 3.17    0.84 |  9.17    5.28 | 15.17    1.03 | 21.17    0.61
 3.33    0.86 |  9.33    4.68 | 15.33    1.01 | 21.33    0.60
 3.50    0.89 |  9.50    4.20 | 15.50    0.99 | 21.50    0.59
 3.67    0.93 |  9.67    3.82 | 15.67    0.97 | 21.67    0.59
 3.83    0.96 |  9.83    3.50 | 15.83    0.95 | 21.83    0.58
```

4.00	1.00	10.00	3.24	16.00	0.94	22.00	0.57
4.17	1.04	10.17	3.01	16.17	0.92	22.17	0.57
4.33	1.08	10.33	2.81	16.33	0.90	22.33	0.56
4.50	1.13	10.50	2.64	16.50	0.89	22.50	0.56
4.67	1.19	10.67	2.49	16.67	0.87	22.67	0.55
4.83	1.25	10.83	2.36	16.83	0.86	22.83	0.55
5.00	1.32	11.00	2.24	17.00	0.84	23.00	0.54
5.17	1.39	11.17	2.13	17.17	0.83	23.17	0.54
5.33	1.48	11.33	2.04	17.33	0.82	23.33	0.53
5.50	1.58	11.50	1.95	17.50	0.80	23.50	0.53
5.67	1.70	11.67	1.87	17.67	0.79	23.67	0.52
5.83	1.83	11.83	1.80	17.83	0.78	23.83	0.52

CALIB			
STANDHYD (1012)	Area (ha)= 26.89		
ID= 1 DT= 1.0 min	Total Imp(%)= 57.00	Dir. Conn.(%)= 49.00	
	IMPERVIOUS	PERVIOUS (i)	
Surface Area (ha)=	15.33	11.56	
Dep. Storage (mm)=	1.00	5.00	
Average Slope (%)=	0.50	2.00	
Length (m)=	423.42	40.00	
Mannings n =	0.013	0.250	

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 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
0.017	0.53	6.017	1.99	12.017	1.73	18.02	0.77
0.033	0.53	6.033	1.99	12.033	1.73	18.03	0.77
0.050	0.53	6.050	1.99	12.050	1.73	18.05	0.77
0.067	0.53	6.067	1.99	12.067	1.73	18.07	0.77
0.083	0.53	6.083	1.99	12.083	1.73	18.08	0.77
0.100	0.53	6.100	1.99	12.100	1.73	18.10	0.77
0.117	0.53	6.117	1.99	12.117	1.73	18.12	0.77
0.133	0.53	6.133	1.99	12.133	1.73	18.13	0.77
0.150	0.53	6.150	1.99	12.150	1.73	18.15	0.77
0.167	0.53	6.167	1.99	12.167	1.73	18.17	0.77
0.183	0.54	6.183	2.18	12.183	1.67	18.18	0.76
0.200	0.54	6.200	2.18	12.200	1.67	18.20	0.76
0.217	0.54	6.217	2.18	12.217	1.67	18.22	0.76
0.233	0.54	6.233	2.18	12.233	1.67	18.23	0.76
0.250	0.54	6.250	2.18	12.250	1.67	18.25	0.76
0.267	0.54	6.267	2.18	12.267	1.67	18.27	0.76
0.283	0.54	6.283	2.18	12.283	1.67	18.28	0.76
0.300	0.54	6.300	2.18	12.300	1.67	18.30	0.76
0.317	0.54	6.317	2.18	12.317	1.67	18.32	0.76
0.333	0.54	6.333	2.18	12.333	1.67	18.33	0.76
0.350	0.55	6.350	2.42	12.350	1.61	18.35	0.75
0.367	0.55	6.367	2.42	12.367	1.61	18.37	0.75
0.383	0.55	6.383	2.42	12.383	1.61	18.38	0.75
0.400	0.55	6.400	2.42	12.400	1.61	18.40	0.75
0.417	0.55	6.417	2.42	12.417	1.61	18.42	0.75
0.433	0.55	6.433	2.42	12.433	1.61	18.43	0.75
0.450	0.55	6.450	2.42	12.450	1.61	18.45	0.75
0.467	0.55	6.467	2.42	12.467	1.61	18.47	0.75
0.483	0.55	6.483	2.42	12.483	1.61	18.48	0.75
0.500	0.55	6.500	2.42	12.500	1.61	18.50	0.75
0.517	0.56	6.517	2.72	12.517	1.56	18.52	0.74
0.533	0.56	6.533	2.72	12.533	1.56	18.53	0.74
0.550	0.56	6.550	2.72	12.550	1.56	18.55	0.74
0.567	0.56	6.567	2.72	12.567	1.56	18.57	0.74
0.583	0.56	6.583	2.72	12.583	1.56	18.58	0.74
0.600	0.56	6.600	2.72	12.600	1.56	18.60	0.74
0.617	0.56	6.617	2.72	12.617	1.56	18.62	0.74
0.633	0.56	6.633	2.72	12.633	1.56	18.63	0.74
0.650	0.56	6.650	2.72	12.650	1.56	18.65	0.74
0.667	0.56	6.667	2.72	12.667	1.56	18.67	0.74
0.683	0.57	6.683	3.12	12.683	1.51	18.68	0.73
0.700	0.57	6.700	3.12	12.700	1.51	18.70	0.73
0.717	0.57	6.717	3.12	12.717	1.51	18.72	0.73
0.733	0.57	6.733	3.12	12.733	1.51	18.73	0.73
0.750	0.57	6.750	3.12	12.750	1.51	18.75	0.73
0.767	0.57	6.767	3.12	12.767	1.51	18.77	0.73
0.783	0.57	6.783	3.12	12.783	1.51	18.78	0.73
0.800	0.57	6.800	3.12	12.800	1.51	18.80	0.73
0.817	0.57	6.817	3.12	12.817	1.51	18.82	0.73
0.833	0.57	6.833	3.12	12.833	1.51	18.83	0.73
0.850	0.58	6.850	3.66	12.850	1.46	18.85	0.72
0.867	0.58	6.867	3.66	12.867	1.46	18.87	0.72
0.883	0.58	6.883	3.66	12.883	1.46	18.88	0.72
0.900	0.58	6.900	3.66	12.900	1.46	18.90	0.72
0.917	0.58	6.917	3.66	12.917	1.46	18.92	0.72
0.933	0.58	6.933	3.66	12.933	1.46	18.93	0.72
0.950	0.58	6.950	3.66	12.950	1.46	18.95	0.72
0.967	0.58	6.967	3.66	12.967	1.46	18.97	0.72
0.983	0.58	6.983	3.66	12.983	1.46	18.98	0.72
1.000	0.58	7.000	3.66	13.000	1.46	19.00	0.72
1.017	0.60	7.017	4.43	13.017	1.42	19.02	0.71
1.033	0.60	7.033	4.43	13.033	1.42	19.03	0.71
1.050	0.60	7.050	4.43	13.050	1.42	19.05	0.71
1.067	0.60	7.067	4.43	13.067	1.42	19.07	0.71
1.083	0.60	7.083	4.43	13.083	1.42	19.08	0.71
1.100	0.60	7.100	4.43	13.100	1.42	19.10	0.71
1.117	0.60	7.117	4.43	13.117	1.42	19.12	0.71
1.133	0.60	7.133	4.43	13.133	1.42	19.13	0.71
1.150	0.60	7.150	4.43	13.150	1.42	19.15	0.71
1.167	0.60	7.167	4.44	13.167	1.42	19.17	0.71
1.183	0.61	7.183	5.66	13.183	1.38	19.18	0.70
1.200	0.61	7.200	5.66	13.200	1.38	19.20	0.70
1.217	0.61	7.217	5.66	13.217	1.38	19.22	0.70
1.233	0.61	7.233	5.66	13.233	1.38	19.23	0.70
1.250	0.61	7.250	5.66	13.250	1.38	19.25	0.70
1.267	0.61	7.267	5.66	13.267	1.38	19.27	0.70
1.283	0.61	7.283	5.66	13.283	1.38	19.28	0.70
1.300	0.61	7.300	5.66	13.300	1.38	19.30	0.70
1.317	0.61	7.317	5.66	13.317	1.38	19.32	0.70
1.333	0.61	7.333	5.66	13.333	1.38	19.33	0.70
1.350	0.62	7.350	7.85	13.350	1.34	19.35	0.69
1.367	0.62	7.367	7.85	13.367	1.34	19.37	0.69
1.383	0.62	7.383	7.85	13.383	1.34	19.38	0.69
1.400	0.62	7.400	7.85	13.400	1.34	19.40	0.69
1.417	0.62	7.417	7.85	13.417	1.34	19.42	0.69
1.433	0.62	7.433	7.85	13.433	1.34	19.43	0.69
1.450	0.62	7.450	7.85	13.450	1.34	19.45	0.69
1.467	0.62	7.467	7.85	13.467	1.34	19.47	0.69
1.483	0.62	7.483	7.85	13.483	1.34	19.48	0.69
1.500	0.62	7.500	7.87	13.500	1.34	19.50	0.69
1.517	0.64	7.517	12.85	13.517	1.30	19.52	0.68
1.533	0.64	7.533	12.85	13.533	1.30	19.53	0.68
1.550	0.64	7.550	12.85	13.550	1.30	19.55	0.68
1.567	0.64	7.567	12.85	13.567	1.30	19.57	0.68
1.583	0.64	7.583	12.85	13.583	1.30	19.58	0.68
1.600	0.64	7.600	12.85	13.600	1.30	19.60	0.68
1.617	0.64	7.617	12.85	13.617	1.30	19.62	0.68
1.633	0.64	7.633	12.85	13.633	1.30	19.63	0.68
1.650	0.64	7.650	12.85	13.650	1.30	19.65	0.68
1.667	0.64	7.667	12.91	13.667	1.30	19.67	0.68
1.683	0.65	7.683	33.57	13.683	1.27	19.68	0.67
1.700	0.65	7.700	33.57	13.700	1.27	19.70	0.67
1.717	0.65	7.717	33.57	13.717	1.27	19.72	0.67
1.733	0.65	7.733	33.57	13.733	1.27	19.73	0.67
1.750	0.65	7.750	33.57	13.750	1.27	19.75	0.67
1.767	0.65	7.767	33.57	13.767	1.27	19.77	0.67
1.783	0.65	7.783	33.57	13.783	1.27	19.78	0.67
1.800	0.65	7.800	33.57	13.800	1.27	19.80	0.67
1.817	0.65	7.817	33.57	13.817	1.27	19.82	0.67
1.833	0.65	7.833	33.83	13.833	1.27	19.83	0.67
1.850	0.67	7.850	122.80	13.850	1.24	19.85	0.66
1.867	0.67	7.867	122.80	13.867	1.24	19.87	0.66
1.883	0.67	7.883	122.80	13.883	1.24	19.88	0.66
1.900	0.67	7.900	122.80	13.900	1.24	19.90	0.66
1.917	0.67	7.917	122.80	13.917	1.24	19.92	0.66
1.933	0.67	7.933	122.80	13.933	1.24	19.93	0.66
1.950	0.67	7.950	122.80	13.950	1.24	19.95	0.66
1.967	0.67	7.967	122.80	13.967	1.24	19.97	0.66
1.983	0.67	7.983	122.80	13.983	1.24	19.98	0.66
2.000	0.67	8.000	122.56	14.000	1.24	20.00	0.66
2.017	0.68	8.017	44.52	14.017	1.21	20.02	0.66
2.033	0.68	8.033	44.52	14.033	1.21	20.03	0.66
2.050	0.68	8.050	44.52	14.050	1.21	20.05	0.66
2.067	0.68	8.067	44.52	14.067	1.21	20.07	0.66
2.083	0.68	8.083	44.52	14.083	1.21	20.08	0.66
2.100	0.68	8.100	44.52	14.100	1.21	20.10	0.66
2.117	0.68	8.117	44.52	14.117	1.21	20.12	0.66
2.133	0.68	8.133	44.52	14.133	1.21	20.13	0.66
2.150	0.68	8.150	44.52	14.150	1.21	20.15	0.66
2.167	0.68	8.167	44.45	14.167	1.21	20.17	0.66
2.183	0.70	8.183	22.67	14.183	1.18	20.18	0.65
2.200	0.70	8.200	22.67	14.200	1.18	20.20	0.65
2.217	0.70	8.217	22.67	14.217	1.18	20.22	0.65
2.233	0.70	8.233	22.67	14.233	1.18	20.23	0.65
2.250	0.70	8.250	22.67	14.250	1.18	20.25	0.65
2.267	0.70	8.267	22.67	14.267	1.18	20.27	0.65
2.283	0.70	8.283	22.67	14.283	1.18	20.28	0.65
2.300	0.70	8.300	22.67	14.300	1.18	20.30	0.65
2.317	0.70	8.317	22.67	14.317	1.18	20.32	0.65
2.333	0.70	8.333	22.65	14.333	1.18	20.33	0.65
2.350	0.72	8.350	14.82	14.350	1.15	20.35	0.64
2.367	0.72	8.367	14.82	14.367	1.15	20.37	0.64
2.383	0.72	8.383	14.82	14.383	1.15	20.38	0.64
2.400	0.72	8.400	14.82	14.400	1.15	20.40	0.64
2.417	0.72	8.417	14.82	14.417	1.15	20.42	0.64
2.433	0.72	8.433	14.82	14.433	1.15	20.43	0.64
2.450	0.72	8.450	14.82	14.450	1.15	20.45	0.64
2.467	0.72	8.467	14.82	14.467	1.15	20.47	0.64
2.483	0.72	8.483	14.82	14.483	1.15	20.48	0.64
2.500	0.72	8.500	14.81	14.500	1.15	20.50	0.64
2.517	0.74	8.517	10.92	14.517	1.12	20.52	0.63
2.533	0.74	8.533	10.92	14.533	1.12	20.53	0.63
2.550	0.74	8.550	10.92	14.550	1.12	20.55	0.63
2.567	0.74	8.567	10.92	14.567	1.12	20.57	0.63
2.583	0.74	8.583	10.92	14.583	1.12	20.58	0.63
2.600	0.74	8.600	10.92	14.600	1.12	20.60	0.63
2.617	0.74	8.617	10.92	14.617	1.12	20.62	0.63
2.633	0.74	8.633	10.92	14.633	1.12	20.63	0.63
2.650	0.74	8.650	10.92	14.650	1.12	20.65	0.63
2.667	0.74	8.667	10.91	14.667	1.12	20.67	0.63
2.683	0.76	8.683	8.62	14.683	1.10	20.68	0.63
2.700	0.76	8.700	8.62	14.700	1.10	20.70	0.63
2.717	0.76	8.717	8.62	14.717	1.10	20.72	0.63
2.733	0.76	8.733	8.62	14.733	1.10	20.73	0.63
2.750	0.76	8.750	8.62	14.750	1.10	20.75	0.63
2.767	0.76	8.767	8.62	14.767	1.10	20.77	0.63
2.783	0.76	8.783	8.62	14.783	1.10	20.78	0.63
2.800	0.76	8.800	8.62	14.800	1.10	20.80	0.63
2.817	0.76	8.817	8.62	14.817	1.10	20.82	0.63
2.833	0.76	8.833	8.61	14.833	1.10	20.83	0.63
2.850	0.79	8.850	7.11	14.850	1.07	20.85	0.62
2.867	0.79	8.867	7.11	14.867	1.07	20.87	0.62
2.883	0.79	8.883	7.11	14.883	1.07	20.88	0.62
2.900	0.79	8.900	7.11	14.900	1.07	20.90	0.62
2.917	0.79	8.917	7.11	14.917	1.07	20.92	0.62
2.933	0.79	8.933	7.11	14.933	1.07	20.93	0.62
2.950	0.79	8.950	7.11	14.950	1.07	20.95	0.62
2.967	0.79	8.967	7.11	14.967	1.07	20.97	0.62
2.983	0.79	8.983	7.11	14.983	1.07	20.98	0.62
3.000	0.79	9.000	7.11	15.000	1.07	21.00	0.62
3.017	0.81	9.017	6.06	15.017	1.05	21.02	0.61
3.033	0.81	9.033	6.06	15.033	1.05	21.03	0.61
3.050	0.81	9.050	6.06	15.050	1.05	21.05	0.61
3.067	0.81	9.067	6.06	15.067	1.05	21.07	0.61
3.083	0.81	9.083	6.06	15.083	1.05	21.08	0.61
3.100	0.81	9.100	6.06	15.100	1.05	21.10	0.61
3.117	0.81	9.117	6.06	15.117	1.05	21.12	0.61
3.133	0.81	9.133	6.06	15.133	1.05	21.13	0.61
3.150	0.81	9.150	6.06	15.150	1.05	21.15	0.61
3.167	0.81	9.167	6.05	15.167	1.05	21.17	0.61
3.183	0.84	9.183	5.28	15.183	1.03	21.18	0.61
3.200	0.84	9.200	5.28	15.200	1.03	21.20	0.61
3.217	0.84	9.217	5.28	15.217	1.03	21.22	0.61
3.233	0.84	9.233	5.28	15.233	1.03	21.23	0.61
3.250	0.84	9.250	5.28	15.250	1.03	21.25	0.61
3.267	0.84	9.267	5.28	15.267	1.03	21.27	0.61
3.283	0.84	9.283	5.28	15.283	1.03	21.28	0.61
3.300	0.84	9.300	5.28	15.300	1.03	21.30	0.61
3.317	0.84	9.317	5.28	15.317	1.03	21.32	0.61
3.333	0.84	9.333	5.27	15.333	1.03	21.33	0.61
3.350	0.86	9.350	4.68	15.350	1.01	21.35	0.60
3.367	0.86	9.367	4.68	15.367	1.01	21.37	0.60
3.383	0.86	9.383	4.68	15.383	1.01	21.38	0.60
3.400	0.86	9.400	4.68	15.400	1.01	21.40	0.60
3.417	0.86	9.417	4.68	15.417	1.01	21.42	0.60
3.433	0.86	9.433	4.68	15.433	1.01	21.43	0.60
3.450	0.86	9.450	4.68	15.450	1.01	21.45	0.60
3.467	0.86	9.467	4.68	15.467	1.01	21.47	0.60
3.483	0.86	9.483	4.68	15.483	1.01	21.48	0.60
3.500	0.86	9.500	4.68	15.500	1.01	21.50	0.60
3.517	0.89	9.517	4.20	15.517	0.99	21.52	0.59
3.533	0.89	9.533	4.20	15.533	0.99	21.53	0.59
3.550	0.89	9.550	4.20	15.550	0.99	21.55	0.59
3.567	0.89	9.567	4.20	15.567	0.99	21.57	0.59
3.583	0.89	9.583	4.20	15.583	0.99	21.58	0.59
3.600	0.89	9.600	4.20	15.600	0.99	21.60	0.59
3.617	0.89	9.617	4.20	15.617	0.99	21.62	0.59
3.633	0.89	9.633	4.20	15.633	0.99	21.63	0.59
3.650	0.89	9.650	4.20	15.650	0.99	21.65	0.59
3.667	0.89	9.667	4.20	15.667	0.99	21.67	0.59
3.683	0.93	9.683	3.82	15.683	0.97	21.68	0.59
3.700	0.93	9.700	3.82	15.700	0.97	21.70	0.59
3.717	0.93	9.717	3.82	15.717	0.97	21.72	0.59
3.733	0.93	9.733	3.82	15.733	0.97	21.73	0.59
3.750	0.93	9.750	3.82	15.750	0.97	21.75	0.59
3.767	0.93	9.767	3.82	15.767	0.97	21.77	0.59
3.783	0.93	9.783	3.82	15.783	0.97	21.78	0.59
3.800	0.93	9.800	3.82	15.800	0.97	21.80	0.59
3.817	0.93	9.817	3.82	15.817	0.97	21.82	0.59
3.833	0.93	9.833	3.82	15.833	0.97	21.83	0.59
3.850	0.96	9.850	3.50	15.850	0.95	21.85	0.58
3.867	0.96	9.867	3.50	15.867	0.95	21.87	0.58
3.883	0.96	9.883	3.50	15.883	0.95	21.88	0.58
3.900	0.96	9.900	3.50	15.900	0.95	21.90	0.58
3.917	0.96	9.917	3.50	15.917	0.95	21.92	0.58
3.933	0.96	9.933	3.50	15.933	0.95	21.93	0.58
3.950	0.96	9.950	3.50	15.950	0.95	21.95	0.58
3.967	0.96	9.967	3.50	15.967	0.95	21.97	0.58
3.983	0.96	9.983	3.50	15.983	0.95	21.98	0.58
4.000	0.96	10.000	3.50	16.000	0.95	22.00	0.58
4.017	1.00	10.017	3.24	16.017	0.94	22.02	0.57
4.033	1.00	10.033	3.24	16.033	0.94	22.03	0.57
4.050	1.00	10.050	3.24	16.050	0.94	22.05	0.57
4.067	1.00	10.067	3.24	16.067	0.94	22.07	0.57
4.083	1.00	10.083	3.24	16.083	0.94	22.08	0.57
4.100	1.00	10.100	3.24	16.100	0.94	22.10	0.57
4.117	1.00	10.117	3.24	16.117	0.94	22.12	0.57
4.133	1.00	10.133	3.24	16.133	0.94	22.13	0.57
4.150	1.00	10.150	3.24	16.150	0.94	22.15	0.57
4.167	1.00	10.167	3.24	16.167	0.94	22.17	0.57
4.183	1.04	10.183	3.01	16.183	0.92	22.18	0.57
4.200	1.04	10.200	3.01	16.200	0.92	22.20	0.57
4.217	1.04	10.217	3.01	16.217	0.92	22.22	0.57
4.233	1.04	10.233	3.01	16.233	0.92	22.23	0.57
4.250	1.04	10.250	3.01	16.250	0.92	22.25	0.57
4.267	1.04	10.267	3.01	16.267	0.92	22.27	0.57
4.283	1.04	10.283	3.01	16.283	0.92	22.28	0.57
4.300	1.04	10.300	3.01	16.300	0.92	22.30	0.57
4.317	1.04	10.317	3.01	16.317	0.92	22.32	0.57
4.333	1.04	10.333	3.01	16.333	0.92	22.33	0.57
4.350	1.08	10.350	2.81	16.350	0.90	22.35	0.56
4.367	1.08	10.367	2.81	16.367	0.90	22.37	0.56
4.383	1.08	10.383	2.81	16.383	0.90	22.38	0.56
4.400	1.08	10.400	2.81	16.400	0.90	22.40	0.56
4.417	1.08	10.417	2.81	16.417	0.90	22.42	0.56
4.433	1.08	10.433	2.81	16.433	0.90	22.43	0.56
4.450	1.08	10.450	2.81	16.450	0.90	22.45	0.56
4.467	1.08	10.467	2.81	16.467	0.90	22.47	0.56
4.483	1.08	10.483	2.81	16.483	0.90	22.48	0.56
4.500	1.08	10.500	2.81	16.500	0.90	22.50	0.56
4.517	1.13	10.517	2.64	16.517	0.89	22.52	0.56
4.533	1.13	10.533	2.64	16.533	0.89	22.53	0.56
4.550	1.13	10.550	2.64	16.550	0.89	22.55	0.56
4.567	1.13	10.567	2.64	16.567	0.89	22.57	0.56
4.583	1.13	10.583	2.64	16.583	0.89	22.58	0.56
4.600	1.13	10.600	2.64	16.600	0.89	22.60	0.56
4.617	1.13	10.617	2.64	16.617	0.89	22.62	0.56
4.633	1.13	10.633	2.64	16.633	0.89	22.63	0.56
4.650	1.13	10.650	2.64	16.650	0.89	22.65	0.56

4.667	1.13	10.667	2.64	16.667	0.89	22.67	0.56
4.683	1.19	10.683	2.49	16.683	0.87	22.68	0.55
4.700	1.19	10.700	2.49	16.700	0.87	22.70	0.55
4.717	1.19	10.717	2.49	16.717	0.87	22.72	0.55
4.733	1.19	10.733	2.49	16.733	0.87	22.73	0.55
4.750	1.19	10.750	2.49	16.750	0.87	22.75	0.55
4.767	1.19	10.767	2.49	16.767	0.87	22.77	0.55
4.783	1.19	10.783	2.49	16.783	0.87	22.78	0.55
4.800	1.19	10.800	2.49	16.800	0.87	22.80	0.55
4.817	1.19	10.817	2.49	16.817	0.87	22.82	0.55
4.833	1.19	10.833	2.49	16.833	0.87	22.83	0.55
4.850	1.25	10.850	2.36	16.850	0.86	22.85	0.55
4.867	1.25	10.867	2.36	16.867	0.86	22.87	0.55
4.883	1.25	10.883	2.36	16.883	0.86	22.88	0.55
4.900	1.25	10.900	2.36	16.900	0.86	22.90	0.55
4.917	1.25	10.917	2.36	16.917	0.86	22.92	0.55
4.933	1.25	10.933	2.36	16.933	0.86	22.93	0.55
4.950	1.25	10.950	2.36	16.950	0.86	22.95	0.55
4.967	1.25	10.967	2.36	16.967	0.86	22.97	0.55
4.983	1.25	10.983	2.36	16.983	0.86	22.98	0.55
5.000	1.25	11.000	2.36	17.000	0.86	23.00	0.55
5.017	1.32	11.017	2.24	17.017	0.84	23.02	0.54
5.033	1.32	11.033	2.24	17.033	0.84	23.03	0.54
5.050	1.32	11.050	2.24	17.050	0.84	23.05	0.54
5.067	1.32	11.067	2.24	17.067	0.84	23.07	0.54
5.083	1.32	11.083	2.24	17.083	0.84	23.08	0.54
5.100	1.32	11.100	2.24	17.100	0.84	23.10	0.54
5.117	1.32	11.117	2.24	17.117	0.84	23.12	0.54
5.133	1.32	11.133	2.24	17.133	0.84	23.13	0.54
5.150	1.32	11.150	2.24	17.150	0.84	23.15	0.54
5.167	1.32	11.167	2.24	17.167	0.84	23.17	0.54
5.183	1.39	11.183	2.13	17.183	0.83	23.18	0.54
5.200	1.39	11.200	2.13	17.200	0.83	23.20	0.54
5.217	1.39	11.217	2.13	17.217	0.83	23.22	0.54
5.233	1.39	11.233	2.13	17.233	0.83	23.23	0.54
5.250	1.39	11.250	2.13	17.250	0.83	23.25	0.54
5.267	1.39	11.267	2.13	17.267	0.83	23.27	0.54
5.283	1.39	11.283	2.13	17.283	0.83	23.28	0.54
5.300	1.39	11.300	2.13	17.300	0.83	23.30	0.54
5.317	1.39	11.317	2.13	17.317	0.83	23.32	0.54
5.333	1.39	11.333	2.13	17.333	0.83	23.33	0.54
5.350	1.48	11.350	2.04	17.350	0.82	23.35	0.53
5.367	1.48	11.367	2.04	17.367	0.82	23.37	0.53
5.383	1.48	11.383	2.04	17.383	0.82	23.38	0.53
5.400	1.48	11.400	2.04	17.400	0.82	23.40	0.53
5.417	1.48	11.417	2.04	17.417	0.82	23.42	0.53
5.433	1.48	11.433	2.04	17.433	0.82	23.43	0.53
5.450	1.48	11.450	2.04	17.450	0.82	23.45	0.53
5.467	1.48	11.467	2.04	17.467	0.82	23.47	0.53
5.483	1.48	11.483	2.04	17.483	0.82	23.48	0.53
5.500	1.48	11.500	2.04	17.500	0.82	23.50	0.53
5.517	1.58	11.517	1.95	17.517	0.80	23.52	0.53

5.533	1.58	11.533	1.95	17.533	0.80	23.53	0.53
5.550	1.58	11.550	1.95	17.550	0.80	23.55	0.53
5.567	1.58	11.567	1.95	17.567	0.80	23.57	0.53
5.583	1.58	11.583	1.95	17.583	0.80	23.58	0.53
5.600	1.58	11.600	1.95	17.600	0.80	23.60	0.53
5.617	1.58	11.617	1.95	17.617	0.80	23.62	0.53
5.633	1.58	11.633	1.95	17.633	0.80	23.63	0.53
5.650	1.58	11.650	1.95	17.650	0.80	23.65	0.53
5.667	1.58	11.667	1.95	17.667	0.80	23.67	0.53
5.683	1.70	11.683	1.87	17.683	0.79	23.68	0.52
5.700	1.70	11.700	1.87	17.700	0.79	23.70	0.52
5.717	1.70	11.717	1.87	17.717	0.79	23.72	0.52
5.733	1.70	11.733	1.87	17.733	0.79	23.73	0.52
5.750	1.70	11.750	1.87	17.750	0.79	23.75	0.52
5.767	1.70	11.767	1.87	17.767	0.79	23.77	0.52
5.783	1.70	11.783	1.87	17.783	0.79	23.78	0.52
5.800	1.70	11.800	1.87	17.800	0.79	23.80	0.52
5.817	1.70	11.817	1.87	17.817	0.79	23.82	0.52
5.833	1.70	11.833	1.87	17.833	0.79	23.83	0.52
5.850	1.83	11.850	1.80	17.850	0.78	23.85	0.52
5.867	1.83	11.867	1.80	17.867	0.78	23.87	0.52
5.883	1.83	11.883	1.80	17.883	0.78	23.88	0.52
5.900	1.83	11.900	1.80	17.900	0.78	23.90	0.52
5.917	1.83	11.917	1.80	17.917	0.78	23.92	0.52
5.933	1.83	11.933	1.80	17.933	0.78	23.93	0.52
5.950	1.83	11.950	1.80	17.950	0.78	23.95	0.52
5.967	1.83	11.967	1.80	17.967	0.78	23.97	0.52
5.983	1.83	11.983	1.80	17.983	0.78	23.98	0.52
6.000	1.83	12.000	1.80	18.000	0.78	24.00	0.52

Max.Eff.Inten.(mm/hr)=	122.80	26.67	
over (min)	7.00	14.00	
Storage Coeff. (min)=	6.89 (ii)	13.06 (ii)	
Unit Hyd. Tpeak (min)=	7.00	14.00	
Unit Hyd. peak (cms)=	0.16	0.08	
			TOTALS
PEAK FLOW (cms)=	3.37	0.49	3.672 (iii)
TIME TO PEAK (hrs)=	8.05	8.20	8.05
RUNOFF VOLUME (mm)=	76.30	17.51	46.32
TOTAL RAINFALL (mm)=	77.31	77.31	77.31
RUNOFF COEFFICIENT =	0.99	0.23	0.60

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 48.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| DUHYD (0034)|

Inlet Cap.= 3.057
#of Inlets= 1
Total(cms)= 3.1|

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
TOTAL HYD.(ID= 1):	26.89	3.67	8.05	46.32
MAJOR SYS.(ID= 2):	0.50	0.61	8.05	46.32
MINOR SYS.(ID= 3):	26.39	3.06	7.98	46.32

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

Junction Command(0033)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 9(0034)	26.39	3.06	7.98	46.32
OUTFLOW: ID= 2(0033)	26.39	3.06	7.98	46.32

CALIB	
STANDHYD (1052)	Area (ha)= 1.95
ID= 1 DT= 1.0 min	Total Imp(%)= 30.00 Dir. Conn.(%)= 26.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.58	1.36
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.50	2.00
Length (m)=	113.90	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 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
0.017	0.53	6.017	1.99	12.017	1.73	18.02	0.77
0.033	0.53	6.033	1.99	12.033	1.73	18.03	0.77
0.050	0.53	6.050	1.99	12.050	1.73	18.05	0.77
0.067	0.53	6.067	1.99	12.067	1.73	18.07	0.77
0.083	0.53	6.083	1.99	12.083	1.73	18.08	0.77
0.100	0.53	6.100	1.99	12.100	1.73	18.10	0.77
0.117	0.53	6.117	1.99	12.117	1.73	18.12	0.77
0.133	0.53	6.133	1.99	12.133	1.73	18.13	0.77
0.150	0.53	6.150	1.99	12.150	1.73	18.15	0.77
0.167	0.53	6.167	1.99	12.167	1.73	18.17	0.77
0.183	0.54	6.183	2.18	12.183	1.67	18.18	0.76

0.200	0.54	6.200	2.18	12.200	1.67	18.20	0.76
0.217	0.54	6.217	2.18	12.217	1.67	18.22	0.76
0.233	0.54	6.233	2.18	12.233	1.67	18.23	0.76
0.250	0.54	6.250	2.18	12.250	1.67	18.25	0.76
0.267	0.54	6.267	2.18	12.267	1.67	18.27	0.76
0.283	0.54	6.283	2.18	12.283	1.67	18.28	0.76
0.300	0.54	6.300	2.18	12.300	1.67	18.30	0.76
0.317	0.54	6.317	2.18	12.317	1.67	18.32	0.76
0.333	0.54	6.333	2.18	12.333	1.67	18.33	0.76
0.350	0.55	6.350	2.42	12.350	1.61	18.35	0.75
0.367	0.55	6.367	2.42	12.367	1.61	18.37	0.75
0.383	0.55	6.383	2.42	12.383	1.61	18.38	0.75
0.400	0.55	6.400	2.42	12.400	1.61	18.40	0.75
0.417	0.55	6.417	2.42	12.417	1.61	18.42	0.75
0.433	0.55	6.433	2.42	12.433	1.61	18.43	0.75
0.450	0.55	6.450	2.42	12.450	1.61	18.45	0.75
0.467	0.55	6.467	2.42	12.467	1.61	18.47	0.75
0.483	0.55	6.483	2.42	12.483	1.61	18.48	0.75
0.500	0.55	6.500	2.42	12.500	1.61	18.50	0.75
0.517	0.56	6.517	2.72	12.517	1.56	18.52	0.74
0.533	0.56	6.533	2.72	12.533	1.56	18.53	0.74
0.550	0.56	6.550	2.72	12.550	1.56	18.55	0.74
0.567	0.56	6.567	2.72	12.567	1.56	18.57	0.74
0.583	0.56	6.583	2.72	12.583	1.56	18.58	0.74
0.600	0.56	6.600	2.72	12.600	1.56	18.60	0.74
0.617	0.56	6.617	2.72	12.617	1.56	18.62	0.74
0.633	0.56	6.633	2.72	12.633	1.56	18.63	0.74
0.650	0.56	6.650	2.72	12.650	1.56	18.65	0.74
0.667	0.56	6.667	2.72	12.667	1.56	18.67	0.74
0.683	0.57	6.683	3.12	12.683	1.51	18.68	0.73
0.700	0.57	6.700	3.12	12.700	1.51	18.70	0.73
0.717	0.57	6.717	3.12	12.717	1.51	18.72	0.73
0.733	0.57	6.733	3.12	12.733	1.51	18.73	0.73
0.750	0.57	6.750	3.12	12.750	1.51	18.75	0.73
0.767	0.57	6.767	3.12	12.767	1.51	18.77	0.73
0.783	0.57	6.783	3.12	12.783	1.51	18.78	0.73
0.800	0.57	6.800	3.12	12.800	1.51	18.80	0.73
0.817	0.57	6.817	3.12	12.817	1.51	18.82	0.73
0.833	0.57	6.833	3.12	12.833	1.51	18.83	0.73
0.850	0.58	6.850	3.66	12.850	1.46	18.85	0.72
0.867	0.58	6.867	3.66	12.867	1.46	18.87	0.72
0.883	0.58	6.883	3.66	12.883	1.46	18.88	0.72
0.900	0.58	6.900	3.66	12.900	1.46	18.90	0.72
0.917	0.58	6.917	3.66	12.917	1.46	18.92	0.72
0.933	0.58	6.933	3.66	12.933	1.46	18.93	0.72
0.950	0.58	6.950	3.66	12.950	1.46	18.95	0.72
0.967	0.58	6.967	3.66	12.967	1.46	18.97	0.72
0.983	0.58	6.983	3.66	12.983	1.46	18.98	0.72
1.000	0.58	7.000	3.66	13.000	1.46	19.00	0.72
1.017	0.60	7.017	4.43	13.017	1.42	19.02	0.71
1.033	0.60	7.033	4.43	13.033	1.42	19.03	0.71
1.050	0.60	7.050	4.43	13.050	1.42	19.05	0.71

1.067	0.60	7.067	4.43	13.067	1.42	19.07	0.71
1.083	0.60	7.083	4.43	13.083	1.42	19.08	0.71
1.100	0.60	7.100	4.43	13.100	1.42	19.10	0.71
1.117	0.60	7.117	4.43	13.117	1.42	19.12	0.71
1.133	0.60	7.133	4.43	13.133	1.42	19.13	0.71
1.150	0.60	7.150	4.43	13.150	1.42	19.15	0.71
1.167	0.60	7.167	4.44	13.167	1.42	19.17	0.71
1.183	0.61	7.183	5.66	13.183	1.38	19.18	0.70
1.200	0.61	7.200	5.66	13.200	1.38	19.20	0.70
1.217	0.61	7.217	5.66	13.217	1.38	19.22	0.70
1.233	0.61	7.233	5.66	13.233	1.38	19.23	0.70
1.250	0.61	7.250	5.66	13.250	1.38	19.25	0.70
1.267	0.61	7.267	5.66	13.267	1.38	19.27	0.70
1.283	0.61	7.283	5.66	13.283	1.38	19.28	0.70
1.300	0.61	7.300	5.66	13.300	1.38	19.30	0.70
1.317	0.61	7.317	5.66	13.317	1.38	19.32	0.70
1.333	0.61	7.333	5.66	13.333	1.38	19.33	0.70
1.350	0.62	7.350	7.85	13.350	1.34	19.35	0.69
1.367	0.62	7.367	7.85	13.367	1.34	19.37	0.69
1.383	0.62	7.383	7.85	13.383	1.34	19.38	0.69
1.400	0.62	7.400	7.85	13.400	1.34	19.40	0.69
1.417	0.62	7.417	7.85	13.417	1.34	19.42	0.69
1.433	0.62	7.433	7.85	13.433	1.34	19.43	0.69
1.450	0.62	7.450	7.85	13.450	1.34	19.45	0.69
1.467	0.62	7.467	7.85	13.467	1.34	19.47	0.69
1.483	0.62	7.483	7.85	13.483	1.34	19.48	0.69
1.500	0.62	7.500	7.87	13.500	1.34	19.50	0.69
1.517	0.64	7.517	12.85	13.517	1.30	19.52	0.68
1.533	0.64	7.533	12.85	13.533	1.30	19.53	0.68
1.550	0.64	7.550	12.85	13.550	1.30	19.55	0.68
1.567	0.64	7.567	12.85	13.567	1.30	19.57	0.68
1.583	0.64	7.583	12.85	13.583	1.30	19.58	0.68
1.600	0.64	7.600	12.85	13.600	1.30	19.60	0.68
1.617	0.64	7.617	12.85	13.617	1.30	19.62	0.68
1.633	0.64	7.633	12.85	13.633	1.30	19.63	0.68
1.650	0.64	7.650	12.85	13.650	1.30	19.65	0.68
1.667	0.64	7.667	12.91	13.667	1.30	19.67	0.68
1.683	0.65	7.683	33.57	13.683	1.27	19.68	0.67
1.700	0.65	7.700	33.57	13.700	1.27	19.70	0.67
1.717	0.65	7.717	33.57	13.717	1.27	19.72	0.67
1.733	0.65	7.733	33.57	13.733	1.27	19.73	0.67
1.750	0.65	7.750	33.57	13.750	1.27	19.75	0.67
1.767	0.65	7.767	33.57	13.767	1.27	19.77	0.67
1.783	0.65	7.783	33.57	13.783	1.27	19.78	0.67
1.800	0.65	7.800	33.57	13.800	1.27	19.80	0.67
1.817	0.65	7.817	33.57	13.817	1.27	19.82	0.67
1.833	0.65	7.833	33.83	13.833	1.27	19.83	0.67
1.850	0.67	7.850	122.80	13.850	1.24	19.85	0.66
1.867	0.67	7.867	122.80	13.867	1.24	19.87	0.66
1.883	0.67	7.883	122.80	13.883	1.24	19.88	0.66
1.900	0.67	7.900	122.80	13.900	1.24	19.90	0.66
1.917	0.67	7.917	122.80	13.917	1.24	19.92	0.66

1.933	0.67	7.933	122.80	13.933	1.24	19.93	0.66
1.950	0.67	7.950	122.80	13.950	1.24	19.95	0.66
1.967	0.67	7.967	122.80	13.967	1.24	19.97	0.66
1.983	0.67	7.983	122.80	13.983	1.24	19.98	0.66
2.000	0.67	8.000	122.56	14.000	1.24	20.00	0.66
2.017	0.68	8.017	44.52	14.017	1.21	20.02	0.66
2.033	0.68	8.033	44.52	14.033	1.21	20.03	0.66
2.050	0.68	8.050	44.52	14.050	1.21	20.05	0.66
2.067	0.68	8.067	44.52	14.067	1.21	20.07	0.66
2.083	0.68	8.083	44.52	14.083	1.21	20.08	0.66
2.100	0.68	8.100	44.52	14.100	1.21	20.10	0.66
2.117	0.68	8.117	44.52	14.117	1.21	20.12	0.66
2.133	0.68	8.133	44.52	14.133	1.21	20.13	0.66
2.150	0.68	8.150	44.52	14.150	1.21	20.15	0.66
2.167	0.68	8.167	44.45	14.167	1.21	20.17	0.66
2.183	0.70	8.183	22.67	14.183	1.18	20.18	0.65
2.200	0.70	8.200	22.67	14.200	1.18	20.20	0.65
2.217	0.70	8.217	22.67	14.217	1.18	20.22	0.65
2.233	0.70	8.233	22.67	14.233	1.18	20.23	0.65
2.250	0.70	8.250	22.67	14.250	1.18	20.25	0.65
2.267	0.70	8.267	22.67	14.267	1.18	20.27	0.65
2.283	0.70	8.283	22.67	14.283	1.18	20.28	0.65
2.300	0.70	8.300	22.67	14.300	1.18	20.30	0.65
2.317	0.70	8.317	22.67	14.317	1.18	20.32	0.65
2.333	0.70	8.333	22.65	14.333	1.18	20.33	0.65
2.350	0.72	8.350	14.82	14.350	1.15	20.35	0.64
2.367	0.72	8.367	14.82	14.367	1.15	20.37	0.64
2.383	0.72	8.383	14.82	14.383	1.15	20.38	0.64
2.400	0.72	8.400	14.82	14.400	1.15	20.40	0.64
2.417	0.72	8.417	14.82	14.417	1.15	20.42	0.64
2.433	0.72	8.433	14.82	14.433	1.15	20.43	0.64
2.450	0.72	8.450	14.82	14.450	1.15	20.45	0.64
2.467	0.72	8.467	14.82	14.467	1.15	20.47	0.64
2.483	0.72	8.483	14.82	14.483	1.15	20.48	0.64
2.500	0.72	8.500	14.81	14.500	1.15	20.50	0.64
2.517	0.74	8.517	10.92	14.517	1.12	20.52	0.63
2.533	0.74	8.533	10.92	14.533	1.12	20.53	0.63
2.550	0.74	8.550	10.92	14.550	1.12	20.55	0.63
2.567	0.74	8.567	10.92	14.567	1.12	20.57	0.63
2.583	0.74	8.583	10.92	14.583	1.12	20.58	0.63
2.600	0.74	8.600	10.92	14.600	1.12	20.60	0.63
2.617	0.74	8.617	10.92	14.617	1.12	20.62	0.63
2.633	0.74	8.633	10.92	14.633	1.12	20.63	0.63
2.650	0.74	8.650	10.92	14.650	1.12	20.65	0.63
2.667	0.74	8.667	10.91	14.667	1.12	20.67	0.63
2.683	0.76	8.683	8.62	14.683	1.10	20.68	0.63
2.700	0.76	8.700	8.62	14.700	1.10	20.70	0.63
2.717	0.76	8.717	8.62	14.717	1.10	20.72	0.63
2.733	0.76	8.733	8.62	14.733	1.10	20.73	0.63
2.750	0.76	8.750	8.62	14.750	1.10	20.75	0.63
2.767	0.76	8.767	8.62	14.767	1.10	20.77	0.63
2.783	0.76	8.783	8.62	14.783	1.10	20.78	0.63

2.800	0.76	8.800	8.62	14.800	1.10	20.80	0.63
2.817	0.76	8.817	8.62	14.817	1.10	20.82	0.63
2.833	0.76	8.833	8.61	14.833	1.10	20.83	0.63
2.850	0.79	8.850	7.11	14.850	1.07	20.85	0.62
2.867	0.79	8.867	7.11	14.867	1.07	20.87	0.62
2.883	0.79	8.883	7.11	14.883	1.07	20.88	0.62
2.900	0.79	8.900	7.11	14.900	1.07	20.90	0.62
2.917	0.79	8.917	7.11	14.917	1.07	20.92	0.62
2.933	0.79	8.933	7.11	14.933	1.07	20.93	0.62
2.950	0.79	8.950	7.11	14.950	1.07	20.95	0.62
2.967	0.79	8.967	7.11	14.967	1.07	20.97	0.62
2.983	0.79	8.983	7.11	14.983	1.07	20.98	0.62
3.000	0.79	9.000	7.11	15.000	1.07	21.00	0.62
3.017	0.81	9.017	6.06	15.017	1.05	21.02	0.61
3.033	0.81	9.033	6.06	15.033	1.05	21.03	0.61
3.050	0.81	9.050	6.06	15.050	1.05	21.05	0.61
3.067	0.81	9.067	6.06	15.067	1.05	21.07	0.61
3.083	0.81	9.083	6.06	15.083	1.05	21.08	0.61
3.100	0.81	9.100	6.06	15.100	1.05	21.10	0.61
3.117	0.81	9.117	6.06	15.117	1.05	21.12	0.61
3.133	0.81	9.133	6.06	15.133	1.05	21.13	0.61
3.150	0.81	9.150	6.06	15.150	1.05	21.15	0.61
3.167	0.81	9.167	6.05	15.167	1.05	21.17	0.61
3.183	0.84	9.183	5.28	15.183	1.03	21.18	0.61
3.200	0.84	9.200	5.28	15.200	1.03	21.20	0.61
3.217	0.84	9.217	5.28	15.217	1.03	21.22	0.61
3.233	0.84	9.233	5.28	15.233	1.03	21.23	0.61
3.250	0.84	9.250	5.28	15.250	1.03	21.25	0.61
3.267	0.84	9.267	5.28	15.267	1.03	21.27	0.61
3.283	0.84	9.283	5.28	15.283	1.03	21.28	0.61
3.300	0.84	9.300	5.28	15.300	1.03	21.30	0.61
3.317	0.84	9.317	5.28	15.317	1.03	21.32	0.61
3.333	0.84	9.333	5.27	15.333	1.03	21.33	0.61
3.350	0.86	9.350	4.68	15.350	1.01	21.35	0.60
3.367	0.86	9.367	4.68	15.367	1.01	21.37	0.60
3.383	0.86	9.383	4.68	15.383	1.01	21.38	0.60
3.400	0.86	9.400	4.68	15.400	1.01	21.40	0.60
3.417	0.86	9.417	4.68	15.417	1.01	21.42	0.60
3.433	0.86	9.433	4.68	15.433	1.01	21.43	0.60
3.450	0.86	9.450	4.68	15.450	1.01	21.45	0.60
3.467	0.86	9.467	4.68	15.467	1.01	21.47	0.60
3.483	0.86	9.483	4.68	15.483	1.01	21.48	0.60
3.500	0.86	9.500	4.68	15.500	1.01	21.50	0.60
3.517	0.89	9.517	4.20	15.517	0.99	21.52	0.59
3.533	0.89	9.533	4.20	15.533	0.99	21.53	0.59
3.550	0.89	9.550	4.20	15.550	0.99	21.55	0.59
3.567	0.89	9.567	4.20	15.567	0.99	21.57	0.59
3.583	0.89	9.583	4.20	15.583	0.99	21.58	0.59
3.600	0.89	9.600	4.20	15.600	0.99	21.60	0.59
3.617	0.89	9.617	4.20	15.617	0.99	21.62	0.59
3.633	0.89	9.633	4.20	15.633	0.99	21.63	0.59
3.650	0.89	9.650	4.20	15.650	0.99	21.65	0.59

3.667	0.89	9.667	4.20	15.667	0.99	21.67	0.59
3.683	0.93	9.683	3.82	15.683	0.97	21.68	0.59
3.700	0.93	9.700	3.82	15.700	0.97	21.70	0.59
3.717	0.93	9.717	3.82	15.717	0.97	21.72	0.59
3.733	0.93	9.733	3.82	15.733	0.97	21.73	0.59
3.750	0.93	9.750	3.82	15.750	0.97	21.75	0.59
3.767	0.93	9.767	3.82	15.767	0.97	21.77	0.59
3.783	0.93	9.783	3.82	15.783	0.97	21.78	0.59
3.800	0.93	9.800	3.82	15.800	0.97	21.80	0.59
3.817	0.93	9.817	3.82	15.817	0.97	21.82	0.59
3.833	0.93	9.833	3.82	15.833	0.97	21.83	0.59
3.850	0.96	9.850	3.50	15.850	0.95	21.85	0.58
3.867	0.96	9.867	3.50	15.867	0.95	21.87	0.58
3.883	0.96	9.883	3.50	15.883	0.95	21.88	0.58
3.900	0.96	9.900	3.50	15.900	0.95	21.90	0.58
3.917	0.96	9.917	3.50	15.917	0.95	21.92	0.58
3.933	0.96	9.933	3.50	15.933	0.95	21.93	0.58
3.950	0.96	9.950	3.50	15.950	0.95	21.95	0.58
3.967	0.96	9.967	3.50	15.967	0.95	21.97	0.58
3.983	0.96	9.983	3.50	15.983	0.95	21.98	0.58
4.000	0.96	10.000	3.50	16.000	0.95	22.00	0.58
4.017	1.00	10.017	3.24	16.017	0.94	22.02	0.57
4.033	1.00	10.033	3.24	16.033	0.94	22.03	0.57
4.050	1.00	10.050	3.24	16.050	0.94	22.05	0.57
4.067	1.00	10.067	3.24	16.067	0.94	22.07	0.57
4.083	1.00	10.083	3.24	16.083	0.94	22.08	0.57
4.100	1.00	10.100	3.24	16.100	0.94	22.10	0.57
4.117	1.00	10.117	3.24	16.117	0.94	22.12	0.57
4.133	1.00	10.133	3.24	16.133	0.94	22.13	0.57
4.150	1.00	10.150	3.24	16.150	0.94	22.15	0.57
4.167	1.00	10.167	3.24	16.167	0.94	22.17	0.57
4.183	1.04	10.183	3.01	16.183	0.92	22.18	0.57
4.200	1.04	10.200	3.01	16.200	0.92	22.20	0.57
4.217	1.04	10.217	3.01	16.217	0.92	22.22	0.57
4.233	1.04	10.233	3.01	16.233	0.92	22.23	0.57
4.250	1.04	10.250	3.01	16.250	0.92	22.25	0.57
4.267	1.04	10.267	3.01	16.267	0.92	22.27	0.57
4.283	1.04	10.283	3.01	16.283	0.92	22.28	0.57
4.300	1.04	10.300	3.01	16.300	0.92	22.30	0.57
4.317	1.04	10.317	3.01	16.317	0.92	22.32	0.57
4.333	1.04	10.333	3.01	16.333	0.92	22.33	0.57
4.350	1.08	10.350	2.81	16.350	0.90	22.35	0.56
4.367	1.08	10.367	2.81	16.367	0.90	22.37	0.56
4.383	1.08	10.383	2.81	16.383	0.90	22.38	0.56
4.400	1.08	10.400	2.81	16.400	0.90	22.40	0.56
4.417	1.08	10.417	2.81	16.417	0.90	22.42	0.56
4.433	1.08	10.433	2.81	16.433	0.90	22.43	0.56
4.450	1.08	10.450	2.81	16.450	0.90	22.45	0.56
4.467	1.08	10.467	2.81	16.467	0.90	22.47	0.56
4.483	1.08	10.483	2.81	16.483	0.90	22.48	0.56
4.500	1.08	10.500	2.81	16.500	0.90	22.50	0.56
4.517	1.13	10.517	2.64	16.517	0.89	22.52	0.56

4.533	1.13	10.533	2.64	16.533	0.89	22.53	0.56
4.550	1.13	10.550	2.64	16.550	0.89	22.55	0.56
4.567	1.13	10.567	2.64	16.567	0.89	22.57	0.56
4.583	1.13	10.583	2.64	16.583	0.89	22.58	0.56
4.600	1.13	10.600	2.64	16.600	0.89	22.60	0.56
4.617	1.13	10.617	2.64	16.617	0.89	22.62	0.56
4.633	1.13	10.633	2.64	16.633	0.89	22.63	0.56
4.650	1.13	10.650	2.64	16.650	0.89	22.65	0.56
4.667	1.13	10.667	2.64	16.667	0.89	22.67	0.56
4.683	1.19	10.683	2.49	16.683	0.87	22.68	0.55
4.700	1.19	10.700	2.49	16.700	0.87	22.70	0.55
4.717	1.19	10.717	2.49	16.717	0.87	22.72	0.55
4.733	1.19	10.733	2.49	16.733	0.87	22.73	0.55
4.750	1.19	10.750	2.49	16.750	0.87	22.75	0.55
4.767	1.19	10.767	2.49	16.767	0.87	22.77	0.55
4.783	1.19	10.783	2.49	16.783	0.87	22.78	0.55
4.800	1.19	10.800	2.49	16.800	0.87	22.80	0.55
4.817	1.19	10.817	2.49	16.817	0.87	22.82	0.55
4.833	1.19	10.833	2.49	16.833	0.87	22.83	0.55
4.850	1.25	10.850	2.36	16.850	0.86	22.85	0.55
4.867	1.25	10.867	2.36	16.867	0.86	22.87	0.55
4.883	1.25	10.883	2.36	16.883	0.86	22.88	0.55
4.900	1.25	10.900	2.36	16.900	0.86	22.90	0.55
4.917	1.25	10.917	2.36	16.917	0.86	22.92	0.55
4.933	1.25	10.933	2.36	16.933	0.86	22.93	0.55
4.950	1.25	10.950	2.36	16.950	0.86	22.95	0.55
4.967	1.25	10.967	2.36	16.967	0.86	22.97	0.55
4.983	1.25	10.983	2.36	16.983	0.86	22.98	0.55
5.000	1.25	11.000	2.36	17.000	0.86	23.00	0.55
5.017	1.32	11.017	2.24	17.017	0.84	23.02	0.54
5.033	1.32	11.033	2.24	17.033	0.84	23.03	0.54
5.050	1.32	11.050	2.24	17.050	0.84	23.05	0.54
5.067	1.32	11.067	2.24	17.067	0.84	23.07	0.54
5.083	1.32	11.083	2.24	17.083	0.84	23.08	0.54
5.100	1.32	11.100	2.24	17.100	0.84	23.10	0.54
5.117	1.32	11.117	2.24	17.117	0.84	23.12	0.54
5.133	1.32	11.133	2.24	17.133	0.84	23.13	0.54
5.150	1.32	11.150	2.24	17.150	0.84	23.15	0.54
5.167	1.32	11.167	2.24	17.167	0.84	23.17	0.54
5.183	1.39	11.183	2.13	17.183	0.83	23.18	0.54
5.200	1.39	11.200	2.13	17.200	0.83	23.20	0.54
5.217	1.39	11.217	2.13	17.217	0.83	23.22	0.54
5.233	1.39	11.233	2.13	17.233	0.83	23.23	0.54
5.250	1.39	11.250	2.13	17.250	0.83	23.25	0.54
5.267	1.39	11.267	2.13	17.267	0.83	23.27	0.54
5.283	1.39	11.283	2.13	17.283	0.83	23.28	0.54
5.300	1.39	11.300	2.13	17.300	0.83	23.30	0.54
5.317	1.39	11.317	2.13	17.317	0.83	23.32	0.54
5.333	1.39	11.333	2.13	17.333	0.83	23.33	0.54
5.350	1.48	11.350	2.04	17.350	0.82	23.35	0.53
5.367	1.48	11.367	2.04	17.367	0.82	23.37	0.53
5.383	1.48	11.383	2.04	17.383	0.82	23.38	0.53

5.400	1.48	11.400	2.04	17.400	0.82	23.40	0.53
5.417	1.48	11.417	2.04	17.417	0.82	23.42	0.53
5.433	1.48	11.433	2.04	17.433	0.82	23.43	0.53
5.450	1.48	11.450	2.04	17.450	0.82	23.45	0.53
5.467	1.48	11.467	2.04	17.467	0.82	23.47	0.53
5.483	1.48	11.483	2.04	17.483	0.82	23.48	0.53
5.500	1.48	11.500	2.04	17.500	0.82	23.50	0.53
5.517	1.58	11.517	1.95	17.517	0.80	23.52	0.53
5.533	1.58	11.533	1.95	17.533	0.80	23.53	0.53
5.550	1.58	11.550	1.95	17.550	0.80	23.55	0.53
5.567	1.58	11.567	1.95	17.567	0.80	23.57	0.53
5.583	1.58	11.583	1.95	17.583	0.80	23.58	0.53
5.600	1.58	11.600	1.95	17.600	0.80	23.60	0.53
5.617	1.58	11.617	1.95	17.617	0.80	23.62	0.53
5.633	1.58	11.633	1.95	17.633	0.80	23.63	0.53
5.650	1.58	11.650	1.95	17.650	0.80	23.65	0.53
5.667	1.58	11.667	1.95	17.667	0.80	23.67	0.53
5.683	1.70	11.683	1.87	17.683	0.79	23.68	0.52
5.700	1.70	11.700	1.87	17.700	0.79	23.70	0.52
5.717	1.70	11.717	1.87	17.717	0.79	23.72	0.52
5.733	1.70	11.733	1.87	17.733	0.79	23.73	0.52
5.750	1.70	11.750	1.87	17.750	0.79	23.75	0.52
5.767	1.70	11.767	1.87	17.767	0.79	23.77	0.52
5.783	1.70	11.783	1.87	17.783	0.79	23.78	0.52
5.800	1.70	11.800	1.87	17.800	0.79	23.80	0.52
5.817	1.70	11.817	1.87	17.817	0.79	23.82	0.52
5.833	1.70	11.833	1.87	17.833	0.79	23.83	0.52
5.850	1.83	11.850	1.80	17.850	0.78	23.85	0.52
5.867	1.83	11.867	1.80	17.867	0.78	23.87	0.52
5.883	1.83	11.883	1.80	17.883	0.78	23.88	0.52
5.900	1.83	11.900	1.80	17.900	0.78	23.90	0.52
5.917	1.83	11.917	1.80	17.917	0.78	23.92	0.52
5.933	1.83	11.933	1.80	17.933	0.78	23.93	0.52
5.950	1.83	11.950	1.80	17.950	0.78	23.95	0.52
5.967	1.83	11.967	1.80	17.967	0.78	23.97	0.52
5.983	1.83	11.983	1.80	17.983	0.78	23.98	0.52
6.000	1.83	12.000	1.80	18.000	0.78	24.00	0.52

Max.Eff.Inten.(mm/hr)=	122.80	18.18	
over (min)	5.00	18.00	
Storage Coeff. (min)=	3.13 (ii)	17.09 (ii)	
Unit Hyd. Tpeak (min)=	5.00	18.00	
Unit Hyd. peak (cms)=	0.30	0.07	
			TOTALS
PEAK FLOW (cms)=	0.16	0.04	0.175 (iii)
TIME TO PEAK (hrs)=	8.00	8.28	8.02
RUNOFF VOLUME (mm)=	76.31	15.82	31.55
TOTAL RAINFALL (mm)=	77.31	77.31	77.31
RUNOFF COEFFICIENT =	0.99	0.20	0.41

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:

CN* = 48.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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| DUHYD    (  0037)|
| Inlet Cap.= 0.108|
| #of Inlets=     1|
| Total(cms)=   0.1|
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	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
TOTAL HYD.(ID= 1):	1.95	0.17	8.02	31.55
MAJOR SYS.(ID= 2):	0.10	0.07	8.02	31.55
MINOR SYS.(ID= 3):	1.84	0.11	7.92	31.55

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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| Junction Command(0038) |
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	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 9(0037)	1.84	0.11	7.92	31.55
OUTFLOW: ID= 2(0038)	1.84	0.11	7.92	31.55

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| CALIB          |
| NASHYD   (  0104)|  Area    (ha)=   0.77   Curve Number   (CN)= 53.0
|ID= 1 DT= 5.0 min |  Ia      (mm)=   5.00   # of Linear Res.(N)= 3.00
|------------------|  U.H. Tp(hrs)=   0.34
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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	0.53	6.083	1.99	12.083	1.73	18.08	0.77
0.167	0.53	6.167	1.99	12.167	1.73	18.17	0.77
0.250	0.54	6.250	2.18	12.250	1.67	18.25	0.76
0.333	0.54	6.333	2.18	12.333	1.67	18.33	0.76
0.417	0.55	6.417	2.42	12.417	1.61	18.42	0.75
0.500	0.55	6.500	2.42	12.500	1.61	18.50	0.75
0.583	0.56	6.583	2.72	12.583	1.56	18.58	0.74
0.667	0.56	6.667	2.72	12.667	1.56	18.67	0.74
0.750	0.57	6.750	3.12	12.750	1.51	18.75	0.73

0.833	0.57	6.833	3.12	12.833	1.51	18.83	0.73
0.917	0.58	6.917	3.66	12.917	1.46	18.92	0.72
1.000	0.58	7.000	3.66	13.000	1.46	19.00	0.72
1.083	0.60	7.083	4.43	13.083	1.42	19.08	0.71
1.167	0.60	7.167	4.43	13.167	1.42	19.17	0.71
1.250	0.61	7.250	5.66	13.250	1.38	19.25	0.70
1.333	0.61	7.333	5.66	13.333	1.38	19.33	0.70
1.417	0.62	7.417	7.85	13.417	1.34	19.42	0.69
1.500	0.62	7.500	7.85	13.500	1.34	19.50	0.69
1.583	0.64	7.583	12.85	13.583	1.30	19.58	0.68
1.667	0.64	7.667	12.86	13.667	1.30	19.67	0.68
1.750	0.65	7.750	33.57	13.750	1.27	19.75	0.67
1.833	0.65	7.833	33.58	13.833	1.27	19.83	0.67
1.917	0.67	7.917	122.80	13.917	1.24	19.92	0.66
2.000	0.67	8.000	122.79	14.000	1.24	20.00	0.66
2.083	0.68	8.083	44.52	14.083	1.21	20.08	0.66
2.167	0.68	8.167	44.52	14.167	1.21	20.17	0.66
2.250	0.70	8.250	22.67	14.250	1.18	20.25	0.65
2.333	0.70	8.333	22.67	14.333	1.18	20.33	0.65
2.417	0.72	8.417	14.82	14.417	1.15	20.42	0.64
2.500	0.72	8.500	14.82	14.500	1.15	20.50	0.64
2.583	0.74	8.583	10.92	14.583	1.12	20.58	0.63
2.667	0.74	8.667	10.92	14.667	1.12	20.67	0.63
2.750	0.76	8.750	8.62	14.750	1.10	20.75	0.63
2.833	0.76	8.833	8.62	14.833	1.10	20.83	0.63
2.917	0.79	8.917	7.11	14.917	1.07	20.92	0.62
3.000	0.79	9.000	7.11	15.000	1.07	21.00	0.62
3.083	0.81	9.083	6.06	15.083	1.05	21.08	0.61
3.167	0.81	9.167	6.06	15.167	1.05	21.17	0.61
3.250	0.84	9.250	5.28	15.250	1.03	21.25	0.61
3.333	0.84	9.333	5.28	15.333	1.03	21.33	0.61
3.417	0.86	9.417	4.68	15.417	1.01	21.42	0.60
3.500	0.86	9.500	4.68	15.500	1.01	21.50	0.60
3.583	0.89	9.583	4.20	15.583	0.99	21.58	0.59
3.667	0.89	9.667	4.20	15.667	0.99	21.67	0.59
3.750	0.93	9.750	3.82	15.750	0.97	21.75	0.59
3.833	0.93	9.833	3.82	15.833	0.97	21.83	0.59
3.917	0.96	9.917	3.50	15.917	0.95	21.92	0.58
4.000	0.96	10.000	3.50	16.000	0.95	22.00	0.58
4.083	1.00	10.083	3.24	16.083	0.94	22.08	0.57
4.167	1.00	10.167	3.24	16.167	0.94	22.17	0.57
4.250	1.04	10.250	3.01	16.250	0.92	22.25	0.57
4.333	1.04	10.333	3.01	16.333	0.92	22.33	0.57
4.417	1.08	10.417	2.81	16.417	0.90	22.42	0.56
4.500	1.08	10.500	2.81	16.500	0.90	22.50	0.56
4.583	1.13	10.583	2.64	16.583	0.89	22.58	0.56
4.667	1.13	10.667	2.64	16.667	0.89	22.67	0.56
4.750	1.19	10.750	2.49	16.750	0.87	22.75	0.55
4.833	1.19	10.833	2.49	16.833	0.87	22.83	0.55
4.917	1.25	10.917	2.36	16.917	0.86	22.92	0.55
5.000	1.25	11.000	2.36	17.000	0.86	23.00	0.55
5.083	1.32	11.083	2.24	17.083	0.84	23.08	0.54

5.167	1.32	11.167	2.24	17.167	0.84	23.17	0.54
5.250	1.39	11.250	2.13	17.250	0.83	23.25	0.54
5.333	1.39	11.333	2.13	17.333	0.83	23.33	0.54
5.417	1.48	11.417	2.04	17.417	0.82	23.42	0.53
5.500	1.48	11.500	2.04	17.500	0.82	23.50	0.53
5.583	1.58	11.583	1.95	17.583	0.80	23.58	0.53
5.667	1.58	11.667	1.95	17.667	0.80	23.67	0.53
5.750	1.70	11.750	1.87	17.750	0.79	23.75	0.52
5.833	1.70	11.833	1.87	17.833	0.79	23.83	0.52
5.917	1.83	11.917	1.80	17.917	0.78	23.92	0.52
6.000	1.83	12.000	1.80	18.000	0.78	24.00	0.52

Unit Hyd Qpeak (cms)= 0.086

PEAK FLOW (cms)= 0.021 (i)
TIME TO PEAK (hrs)= 8.333
RUNOFF VOLUME (mm)= 17.568
TOTAL RAINFALL (mm)= 77.311
RUNOFF COEFFICIENT = 0.227

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

CALIB								
STANDHYD (0103)	Area (ha)= 1.17							
ID= 1 DT= 1.0 min	Total Imp(%)= 24.00	Dir. Conn.(%)= 20.00						

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.28	0.89
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.50	2.00
Length (m)=	88.20	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 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
0.017	0.53	6.017	1.99	12.017	1.73	18.02	0.77
0.033	0.53	6.033	1.99	12.033	1.73	18.03	0.77
0.050	0.53	6.050	1.99	12.050	1.73	18.05	0.77
0.067	0.53	6.067	1.99	12.067	1.73	18.07	0.77
0.083	0.53	6.083	1.99	12.083	1.73	18.08	0.77
0.100	0.53	6.100	1.99	12.100	1.73	18.10	0.77
0.117	0.53	6.117	1.99	12.117	1.73	18.12	0.77
0.133	0.53	6.133	1.99	12.133	1.73	18.13	0.77
0.150	0.53	6.150	1.99	12.150	1.73	18.15	0.77
0.167	0.53	6.167	1.99	12.167	1.73	18.17	0.77
0.183	0.54	6.183	2.18	12.183	1.67	18.18	0.76
0.200	0.54	6.200	2.18	12.200	1.67	18.20	0.76
0.217	0.54	6.217	2.18	12.217	1.67	18.22	0.76
0.233	0.54	6.233	2.18	12.233	1.67	18.23	0.76
0.250	0.54	6.250	2.18	12.250	1.67	18.25	0.76
0.267	0.54	6.267	2.18	12.267	1.67	18.27	0.76
0.283	0.54	6.283	2.18	12.283	1.67	18.28	0.76
0.300	0.54	6.300	2.18	12.300	1.67	18.30	0.76
0.317	0.54	6.317	2.18	12.317	1.67	18.32	0.76
0.333	0.54	6.333	2.18	12.333	1.67	18.33	0.76
0.350	0.55	6.350	2.42	12.350	1.61	18.35	0.75
0.367	0.55	6.367	2.42	12.367	1.61	18.37	0.75
0.383	0.55	6.383	2.42	12.383	1.61	18.38	0.75
0.400	0.55	6.400	2.42	12.400	1.61	18.40	0.75
0.417	0.55	6.417	2.42	12.417	1.61	18.42	0.75
0.433	0.55	6.433	2.42	12.433	1.61	18.43	0.75
0.450	0.55	6.450	2.42	12.450	1.61	18.45	0.75
0.467	0.55	6.467	2.42	12.467	1.61	18.47	0.75
0.483	0.55	6.483	2.42	12.483	1.61	18.48	0.75
0.500	0.55	6.500	2.42	12.500	1.61	18.50	0.75
0.517	0.56	6.517	2.72	12.517	1.56	18.52	0.74
0.533	0.56	6.533	2.72	12.533	1.56	18.53	0.74
0.550	0.56	6.550	2.72	12.550	1.56	18.55	0.74
0.567	0.56	6.567	2.72	12.567	1.56	18.57	0.74
0.583	0.56	6.583	2.72	12.583	1.56	18.58	0.74
0.600	0.56	6.600	2.72	12.600	1.56	18.60	0.74
0.617	0.56	6.617	2.72	12.617	1.56	18.62	0.74
0.633	0.56	6.633	2.72	12.633	1.56	18.63	0.74
0.650	0.56	6.650	2.72	12.650	1.56	18.65	0.74
0.667	0.56	6.667	2.72	12.667	1.56	18.67	0.74
0.683	0.57	6.683	3.12	12.683	1.51	18.68	0.73
0.700	0.57	6.700	3.12	12.700	1.51	18.70	0.73
0.717	0.57	6.717	3.12	12.717	1.51	18.72	0.73
0.733	0.57	6.733	3.12	12.733	1.51	18.73	0.73
0.750	0.57	6.750	3.12	12.750	1.51	18.75	0.73
0.767	0.57	6.767	3.12	12.767	1.51	18.77	0.73
0.783	0.57	6.783	3.12	12.783	1.51	18.78	0.73
0.800	0.57	6.800	3.12	12.800	1.51	18.80	0.73
0.817	0.57	6.817	3.12	12.817	1.51	18.82	0.73
0.833	0.57	6.833	3.12	12.833	1.51	18.83	0.73
0.850	0.58	6.850	3.66	12.850	1.46	18.85	0.72
0.867	0.58	6.867	3.66	12.867	1.46	18.87	0.72
0.883	0.58	6.883	3.66	12.883	1.46	18.88	0.72
0.900	0.58	6.900	3.66	12.900	1.46	18.90	0.72
0.917	0.58	6.917	3.66	12.917	1.46	18.92	0.72
0.933	0.58	6.933	3.66	12.933	1.46	18.93	0.72
0.950	0.58	6.950	3.66	12.950	1.46	18.95	0.72
0.967	0.58	6.967	3.66	12.967	1.46	18.97	0.72
0.983	0.58	6.983	3.66	12.983	1.46	18.98	0.72
1.000	0.58	7.000	3.66	13.000	1.46	19.00	0.72
1.017	0.60	7.017	4.43	13.017	1.42	19.02	0.71
1.033	0.60	7.033	4.43	13.033	1.42	19.03	0.71
1.050	0.60	7.050	4.43	13.050	1.42	19.05	0.71
1.067	0.60	7.067	4.43	13.067	1.42	19.07	0.71
1.083	0.60	7.083	4.43	13.083	1.42	19.08	0.71
1.100	0.60	7.100	4.43	13.100	1.42	19.10	0.71
1.117	0.60	7.117	4.43	13.117	1.42	19.12	0.71
1.133	0.60	7.133	4.43	13.133	1.42	19.13	0.71
1.150	0.60	7.150	4.43	13.150	1.42	19.15	0.71
1.167	0.60	7.167	4.44	13.167	1.42	19.17	0.71
1.183	0.61	7.183	5.66	13.183	1.38	19.18	0.70
1.200	0.61	7.200	5.66	13.200	1.38	19.20	0.70
1.217	0.61	7.217	5.66	13.217	1.38	19.22	0.70
1.233	0.61	7.233	5.66	13.233	1.38	19.23	0.70
1.250	0.61	7.250	5.66	13.250	1.38	19.25	0.70
1.267	0.61	7.267	5.66	13.267	1.38	19.27	0.70
1.283	0.61	7.283	5.66	13.283	1.38	19.28	0.70
1.300	0.61	7.300	5.66	13.300	1.38	19.30	0.70
1.317	0.61	7.317	5.66	13.317	1.38	19.32	0.70
1.333	0.61	7.333	5.66	13.333	1.38	19.33	0.70
1.350	0.62	7.350	7.85	13.350	1.34	19.35	0.69
1.367	0.62	7.367	7.85	13.367	1.34	19.37	0.69
1.383	0.62	7.383	7.85	13.383	1.34	19.38	0.69
1.400	0.62	7.400	7.85	13.400	1.34	19.40	0.69
1.417	0.62	7.417	7.85	13.417	1.34	19.42	0.69
1.433	0.62	7.433	7.85	13.433	1.34	19.43	0.69
1.450	0.62	7.450	7.85	13.450	1.34	19.45	0.69
1.467	0.62	7.467	7.85	13.467	1.34	19.47	0.69
1.483	0.62	7.483	7.85	13.483	1.34	19.48	0.69
1.500	0.62	7.500	7.87	13.500	1.34	19.50	0.69
1.517	0.64	7.517	12.85	13.517	1.30	19.52	0.68
1.533	0.64	7.533	12.85	13.533	1.30	19.53	0.68
1.550	0.64	7.550	12.85	13.550	1.30	19.55	0.68
1.567	0.64	7.567	12.85	13.567	1.30	19.57	0.68
1.583	0.64	7.583	12.85	13.583	1.30	19.58	0.68
1.600	0.64	7.600	12.85	13.600	1.30	19.60	0.68
1.617	0.64	7.617	12.85	13.617	1.30	19.62	0.68
1.633	0.64	7.633	12.85	13.633	1.30	19.63	0.68
1.650	0.64	7.650	12.85	13.650	1.30	19.65	0.68
1.667	0.64	7.667	12.91	13.667	1.30	19.67	0.68
1.683	0.65	7.683	33.57	13.683	1.27	19.68	0.67
1.700	0.65	7.700	33.57	13.700	1.27	19.70	0.67
1.717	0.65	7.717	33.57	13.717	1.27	19.72	0.67
1.733	0.65	7.733	33.57	13.733	1.27	19.73	0.67
1.750	0.65	7.750	33.57	13.750	1.27	19.75	0.67
1.767	0.65	7.767	33.57	13.767	1.27	19.77	0.67
1.783	0.65	7.783	33.57	13.783	1.27	19.78	0.67
1.800	0.65	7.800	33.57	13.800	1.27	19.80	0.67
1.817	0.65	7.817	33.57	13.817	1.27	19.82	0.67
1.833	0.65	7.833	33.83	13.833	1.27	19.83	0.67
1.850	0.67	7.850	122.80	13.850	1.24	19.85	0.66
1.867	0.67	7.867	122.80	13.867	1.24	19.87	0.66
1.883	0.67	7.883	122.80	13.883	1.24	19.88	0.66
1.900	0.67	7.900	122.80	13.900	1.24	19.90	0.66
1.917	0.67	7.917	122.80	13.917	1.24	19.92	0.66
1.933	0.67	7.933	122.80	13.933	1.24	19.93	0.66
1.950	0.67	7.950	122.80	13.950	1.24	19.95	0.66
1.967	0.67	7.967	122.80	13.967	1.24	19.97	0.66
1.983	0.67	7.983	122.80	13.983	1.24	19.98	0.66
2.000	0.67	8.000	122.56	14.000	1.24	20.00	0.66
2.017	0.68	8.017	44.52	14.017	1.21	20.02	0.66
2.033	0.68	8.033	44.52	14.033	1.21	20.03	0.66
2.050	0.68	8.050	44.52	14.050	1.21	20.05	0.66
2.067	0.68	8.067	44.52	14.067	1.21	20.07	0.66
2.083	0.68	8.083	44.52	14.083	1.21	20.08	0.66
2.100	0.68	8.100	44.52	14.100	1.21	20.10	0.66
2.117	0.68	8.117	44.52	14.117	1.21	20.12	0.66
2.133	0.68	8.133	44.52	14.133	1.21	20.13	0.66
2.150	0.68	8.150	44.52	14.150	1.21	20.15	0.66
2.167	0.68	8.167	44.45	14.167	1.21	20.17	0.66
2.183	0.70	8.183	22.67	14.183	1.18	20.18	0.65
2.200	0.70	8.200	22.67	14.200	1.18	20.20	0.65
2.217	0.70	8.217	22.67	14.217	1.18	20.22	0.65
2.233	0.70	8.233	22.67	14.233	1.18	20.23	0.65
2.250	0.70	8.250	22.67	14.250	1.18	20.25	0.65
2.267	0.70	8.267	22.67	14.267	1.18	20.27	0.65
2.283	0.70	8.283	22.67	14.283	1.18	20.28	0.65
2.300	0.70	8.300	22.67	14.300	1.18	20.30	0.65
2.317	0.70	8.317	22.67	14.317	1.18	20.32	0.65
2.333	0.70	8.333	22.65	14.333	1.18	20.33	0.65
2.350	0.72	8.350	14.82	14.350	1.15	20.35	0.64
2.367	0.72	8.367	14.82	14.367	1.15	20.37	0.64
2.383	0.72	8.383	14.82	14.383	1.15	20.38	0.64
2.400	0.72	8.400	14.82	14.400	1.15	20.40	0.64
2.417	0.72	8.417	14.82	14.417	1.15	20.42	0.64
2.433	0.72	8.433	14.82	14.433	1.15	20.43	0.64
2.450	0.72	8.450	14.82	14.450	1.15	20.45	0.64
2.467	0.72	8.467	14.82	14.467	1.15	20.47	0.64
2.483	0.72	8.483	14.82	14.483	1.15	20.48	0.64
2.500	0.72	8.500	14.81	14.500	1.15	20.50	0.64
2.517	0.74	8.517	10.92	14.517	1.12	20.52	0.63
2.533	0.74	8.533	10.92	14.533	1.12	20.53	0.63
2.550	0.74	8.550	10.92	14.550	1.12	20.55	0.63
2.567	0.74	8.567	10.92	14.567	1.12	20.57	0.63
2.583	0.74	8.583	10.92	14.583	1.12	20.58	0.63
2.600	0.74	8.600	10.92	14.600	1.12	20.60	0.63
2.617	0.74	8.617	10.92	14.617	1.12	20.62	0.63
2.633	0.74	8.633	10.92	14.633	1.12	20.63	0.63
2.650	0.74	8.650	10.92	14.650	1.12	20.65	0.63
2.667	0.74	8.667	10.91	14.667	1.12	20.67	0.63
2.683	0.76	8.683	8.62	14.683	1.10	20.68	0.63
2.700	0.76	8.700	8.62	14.700	1.10	20.70	0.63
2.717	0.76	8.717	8.62	14.717	1.10	20.72	0.63
2.733	0.76	8.733	8.62	14.733	1.10	20.73	0.63
2.750	0.76	8.750	8.62	14.750	1.10	20.75	0.63
2.767	0.76	8.767	8.62	14.767	1.10	20.77	0.63
2.783	0.76	8.783	8.62	14.783	1.10	20.78	0.63
2.800	0.76	8.800	8.62	14.800	1.10	20.80	0.63
2.817	0.76	8.817	8.62	14.817	1.10	20.82	0.63
2.833	0.76	8.833	8.61	14.833	1.10	20.83	0.63
2.850	0.79	8.850	7.11	14.850	1.07	20.85	0.62
2.867	0.79	8.867	7.11	14.867	1.07	20.87	0.62
2.883	0.79	8.883	7.11	14.883	1.07	20.88	0.62
2.900	0.79	8.900	7.11	14.900	1.07	20.90	0.62
2.917	0.79	8.917	7.11	14.917	1.07	20.92	0.62
2.933	0.79	8.933	7.11	14.933	1.07	20.93	0.62
2.950	0.79	8.950	7.11	14.950	1.07	20.95	0.62
2.967	0.79	8.967	7.11	14.967	1.07	20.97	0.62
2.983	0.79	8.983	7.11	14.983	1.07	20.98	0.62
3.000	0.79	9.000	7.11	15.000	1.07	21.00	0.62
3.017	0.81	9.017	6.06	15.017	1.05	21.02	0.61
3.033	0.81	9.033	6.06	15.033	1.05	21.03	0.61
3.050	0.81	9.050	6.06	15.050	1.05	21.05	0.61
3.067	0.81	9.067	6.06	15.067	1.05	21.07	0.61
3.083	0.81	9.083	6.06	15.083	1.05	21.08	0.61
3.100	0.81	9.100	6.06	15.100	1.05	21.10	0.61
3.117	0.81	9.117	6.06	15.117	1.05	21.12	0.61
3.133	0.81	9.133	6.06	15.133	1.05	21.13	0.61
3.150	0.81	9.150	6.06	15.150	1.05	21.15	0.61
3.167	0.81	9.167	6.05	15.167	1.05	21.17	0.61
3.183	0.84	9.183	5.28	15.183	1.03	21.18	0.61
3.200	0.84	9.200	5.28	15.200	1.03	21.20	0.61
3.217	0.84	9.217	5.28	15.217	1.03	21.22	0.61
3.233	0.84	9.233	5.28	15.233	1.03	21.23	0.61
3.250	0.84	9.250	5.28	15.250	1.03	21.25	0.61
3.267	0.84	9.267	5.28	15.267	1.03	21.27	0.61
3.283	0.84	9.283	5.28	15.283	1.03	21.28	0.61
3.300	0.84	9.300	5.28	15.300	1.03	21.30	0.61
3.317	0.84	9.317	5.28	15.317	1.03	21.32	0.61
3.333	0.84	9.333	5.27	15.333	1.03	21.33	0.61
3.350	0.86	9.350	4.68	15.350	1.01	21.35	0.60
3.367	0.86	9.367	4.68	15.367	1.01	21.37	0.60
3.383	0.86	9.383	4.68	15.383	1.01	21.38	0.60
3.400	0.86	9.400	4.68	15.400	1.01	21.40	0.60
3.417	0.86	9.417	4.68	15.417	1.01	21.42	0.60
3.433	0.86	9.433	4.68	15.433	1.01	21.43	0.60
3.450	0.86	9.450	4.68	15.450	1.01	21.45	0.60
3.467	0.86	9.467	4.68	15.467	1.01	21.47	0.60
3.483	0.86	9.483	4.68	15.483	1.01	21.48	0.60
3.500	0.86	9.500	4.68	15.500	1.01	21.50	0.60
3.517	0.89	9.517	4.20	15.517	0.99	21.52	0.59
3.533	0.89	9.533	4.20	15.533	0.99	21.53	0.59
3.550	0.89	9.550	4.20	15.550	0.99	21.55	0.59
3.567	0.89	9.567	4.20	15.567	0.99	21.57	0.59
3.583	0.89	9.583	4.20	15.583	0.99	21.58	0.59
3.600	0.89	9.600	4.20	15.600	0.99	21.60	0.59
3.617	0.89	9.617	4.20	15.617	0.99	21.62	0.59
3.633	0.89	9.633	4.20	15.633	0.99	21.63	0.59
3.650	0.89	9.650	4.20	15.650	0.99	21.65	0.59
3.667	0.89	9.667	4.20	15.667	0.99	21.67	0.59
3.683	0.93	9.683	3.82	15.683	0.97	21.68	0.59
3.700	0.93	9.700	3.82	15.700	0.97	21.70	0.59
3.717	0.93	9.717	3.82	15.717	0.97	21.72	0.59
3.733	0.93	9.733	3.82	15.733	0.97	21.73	0.59
3.750	0.93	9.750	3.82	15.750	0.97	21.75	0.59
3.767	0.93	9.767	3.82	15.767	0.97	21.77	0.59
3.783	0.93	9.783	3.82	15.783	0.97	21.78	0.59
3.800	0.93	9.800	3.82	15.800	0.97	21.80	0.59
3.817	0.93	9.817	3.82	15.817	0.97	21.82	0.59
3.833	0.93	9.833	3.82	15.833	0.97	21.83	0.59
3.850	0.96	9.850	3.50	15.850	0.95	21.85	0.58
3.867	0.96	9.867	3.50	15.867	0.95	21.87	0.58
3.883	0.96	9.883	3.50	15.883	0.95	21.88	0.58
3.900	0.96	9.900	3.50	15.900	0.95	21.90	0.58
3.917	0.96	9.917	3.50	15.917	0.95	21.92	0.58
3.933	0.96	9.933	3.50	15.933	0.95	21.93	0.58
3.950	0.96	9.950	3.50	15.950	0.95	21.95	0.58
3.967	0.96	9.967	3.50	15.967	0.95	21.97	0.58
3.983	0.96	9.983	3.50	15.983	0.95	21.98	0.58
4.000	0.96	10.000	3.50	16.000	0.95	22.00	0.58
4.017	1.00	10.017	3.24	16.017	0.94	22.02	0.57
4.033	1.00	10.033	3.24	16.033	0.94	22.03	0.57
4.050	1.00	10.050	3.24	16.050	0.94	22.05	0.57
4.067	1.00	10.067	3.24	16.067	0.94	22.07	0.57
4.083	1.00	10.083	3.24	16.083	0.94	22.08	0.57
4.100	1.00	10.100	3.24	16.100	0.94	22.10	0.57
4.117	1.00	10.117	3.24	16.117	0.94	22.12	0.57
4.133	1.00	10.133	3.24	16.133	0.94	22.13	0.57
4.150	1.00	10.150	3.24	16.150	0.94	22.15	0.57
4.167	1.00	10.167	3.24	16.167	0.94	22.17	0.57
4.183	1.04	10.183	3.01	16.183	0.92	22.18	0.57
4.200	1.04	10.200	3.01	16.200	0.92	22.20	0.57
4.217	1.04	10.217	3.01	16.217	0.92	22.22	0.57
4.233	1.04	10.233	3.01	16.233	0.92	22.23	0.57
4.250	1.04	10.250	3.01	16.250	0.92	22.25	0.57
4.267	1.04	10.267	3.01	16.267	0.92	22.27	0.57
4.283	1.04	10.283	3.01	16.283	0.92	22.28	0.57
4.300	1.04	10.300	3.01	16.300	0.92	22.30	0.57
4.317	1.04	10.317	3.01	16.317	0.92	22.32	0.57
4.333	1.04	10.333	3.01	16.333	0.92	22.33	0.57
4.350	1.08	10.350	2.81	16.350	0.90	22.35	0.56
4.367	1.08	10.367	2.81	16.367	0.90	22.37	0.56
4.383	1.08	10.383	2.81	16.383	0.90	22.38	0.56
4.400	1.08	10.400	2.81	16.400	0.90	22.40	0.56
4.417	1.08	10.417	2.81	16.417	0.90	22.42	0.56
4.433	1.08	10.433	2.81	16.433	0.90	22.43	0.56
4.450	1.08	10.450	2.81	16.450	0.90	22.45	0.56
4.467	1.08	10.467	2.81	16.467	0.90	22.47	0.56
4.483	1.08	10.483	2.81	16.483	0.90	22.48	0.56
4.500	1.08	10.500	2.81	16.500	0.90	22.50	0.56
4.517	1.13	10.517	2.64	16.517	0.89	22.52	0.56

4.533	1.13	10.533	2.64	16.533	0.89	22.53	0.56
4.550	1.13	10.550	2.64	16.550	0.89	22.55	0.56
4.567	1.13	10.567	2.64	16.567	0.89	22.57	0.56
4.583	1.13	10.583	2.64	16.583	0.89	22.58	0.56
4.600	1.13	10.600	2.64	16.600	0.89	22.60	0.56
4.617	1.13	10.617	2.64	16.617	0.89	22.62	0.56
4.633	1.13	10.633	2.64	16.633	0.89	22.63	0.56
4.650	1.13	10.650	2.64	16.650	0.89	22.65	0.56
4.667	1.13	10.667	2.64	16.667	0.89	22.67	0.56
4.683	1.19	10.683	2.49	16.683	0.87	22.68	0.55
4.700	1.19	10.700	2.49	16.700	0.87	22.70	0.55
4.717	1.19	10.717	2.49	16.717	0.87	22.72	0.55
4.733	1.19	10.733	2.49	16.733	0.87	22.73	0.55
4.750	1.19	10.750	2.49	16.750	0.87	22.75	0.55
4.767	1.19	10.767	2.49	16.767	0.87	22.77	0.55
4.783	1.19	10.783	2.49	16.783	0.87	22.78	0.55
4.800	1.19	10.800	2.49	16.800	0.87	22.80	0.55
4.817	1.19	10.817	2.49	16.817	0.87	22.82	0.55
4.833	1.19	10.833	2.49	16.833	0.87	22.83	0.55
4.850	1.25	10.850	2.36	16.850	0.86	22.85	0.55
4.867	1.25	10.867	2.36	16.867	0.86	22.87	0.55
4.883	1.25	10.883	2.36	16.883	0.86	22.88	0.55
4.900	1.25	10.900	2.36	16.900	0.86	22.90	0.55
4.917	1.25	10.917	2.36	16.917	0.86	22.92	0.55
4.933	1.25	10.933	2.36	16.933	0.86	22.93	0.55
4.950	1.25	10.950	2.36	16.950	0.86	22.95	0.55
4.967	1.25	10.967	2.36	16.967	0.86	22.97	0.55
4.983	1.25	10.983	2.36	16.983	0.86	22.98	0.55
5.000	1.25	11.000	2.36	17.000	0.86	23.00	0.55
5.017	1.32	11.017	2.24	17.017	0.84	23.02	0.54
5.033	1.32	11.033	2.24	17.033	0.84	23.03	0.54
5.050	1.32	11.050	2.24	17.050	0.84	23.05	0.54
5.067	1.32	11.067	2.24	17.067	0.84	23.07	0.54
5.083	1.32	11.083	2.24	17.083	0.84	23.08	0.54
5.100	1.32	11.100	2.24	17.100	0.84	23.10	0.54
5.117	1.32	11.117	2.24	17.117	0.84	23.12	0.54
5.133	1.32	11.133	2.24	17.133	0.84	23.13	0.54
5.150	1.32	11.150	2.24	17.150	0.84	23.15	0.54
5.167	1.32	11.167	2.24	17.167	0.84	23.17	0.54
5.183	1.39	11.183	2.13	17.183	0.83	23.18	0.54
5.200	1.39	11.200	2.13	17.200	0.83	23.20	0.54
5.217	1.39	11.217	2.13	17.217	0.83	23.22	0.54
5.233	1.39	11.233	2.13	17.233	0.83	23.23	0.54
5.250	1.39	11.250	2.13	17.250	0.83	23.25	0.54
5.267	1.39	11.267	2.13	17.267	0.83	23.27	0.54
5.283	1.39	11.283	2.13	17.283	0.83	23.28	0.54
5.300	1.39	11.300	2.13	17.300	0.83	23.30	0.54
5.317	1.39	11.317	2.13	17.317	0.83	23.32	0.54
5.333	1.39	11.333	2.13	17.333	0.83	23.33	0.54
5.350	1.48	11.350	2.04	17.350	0.82	23.35	0.53
5.367	1.48	11.367	2.04	17.367	0.82	23.37	0.53
5.383	1.48	11.383	2.04	17.383	0.82	23.38	0.53
5.400	1.48	11.400	2.04	17.400	0.82	23.40	0.53
5.417	1.48	11.417	2.04	17.417	0.82	23.42	0.53
5.433	1.48	11.433	2.04	17.433	0.82	23.43	0.53
5.450	1.48	11.450	2.04	17.450	0.82	23.45	0.53
5.467	1.48	11.467	2.04	17.467	0.82	23.47	0.53
5.483	1.48	11.483	2.04	17.483	0.82	23.48	0.53
5.500	1.48	11.500	2.04	17.500	0.82	23.50	0.53
5.517	1.58	11.517	1.95	17.517	0.80	23.52	0.53
5.533	1.58	11.533	1.95	17.533	0.80	23.53	0.53
5.550	1.58	11.550	1.95	17.550	0.80	23.55	0.53
5.567	1.58	11.567	1.95	17.567	0.80	23.57	0.53
5.583	1.58	11.583	1.95	17.583	0.80	23.58	0.53
5.600	1.58	11.600	1.95	17.600	0.80	23.60	0.53
5.617	1.58	11.617	1.95	17.617	0.80	23.62	0.53
5.633	1.58	11.633	1.95	17.633	0.80	23.63	0.53
5.650	1.58	11.650	1.95	17.650	0.80	23.65	0.53
5.667	1.58	11.667	1.95	17.667	0.80	23.67	0.53
5.683	1.70	11.683	1.87	17.683	0.79	23.68	0.52
5.700	1.70	11.700	1.87	17.700	0.79	23.70	0.52
5.717	1.70	11.717	1.87	17.717	0.79	23.72	0.52
5.733	1.70	11.733	1.87	17.733	0.79	23.73	0.52
5.750	1.70	11.750	1.87	17.750	0.79	23.75	0.52
5.767	1.70	11.767	1.87	17.767	0.79	23.77	0.52
5.783	1.70	11.783	1.87	17.783	0.79	23.78	0.52
5.800	1.70	11.800	1.87	17.800	0.79	23.80	0.52
5.817	1.70	11.817	1.87	17.817	0.79	23.82	0.52
5.833	1.70	11.833	1.87	17.833	0.79	23.83	0.52
5.850	1.83	11.850	1.80	17.850	0.78	23.85	0.52
5.867	1.83	11.867	1.80	17.867	0.78	23.87	0.52
5.883	1.83	11.883	1.80	17.883	0.78	23.88	0.52
5.900	1.83	11.900	1.80	17.900	0.78	23.90	0.52
5.917	1.83	11.917	1.80	17.917	0.78	23.92	0.52
5.933	1.83	11.933	1.80	17.933	0.78	23.93	0.52
5.950	1.83	11.950	1.80	17.950	0.78	23.95	0.52
5.967	1.83	11.967	1.80	17.967	0.78	23.97	0.52
5.983	1.83	11.983	1.80	17.983	0.78	23.98	0.52
6.000	1.83	12.000	1.80	18.000	0.78	24.00	0.52

Max.Eff.Inten.(mm/hr)=	122.80	25.15	
over (min)	5.00	15.00	
Storage Coeff. (min)=	2.69 (ii)	14.95 (ii)	
Unit Hyd. Tpeak (min)=	5.00	15.00	
Unit Hyd. peak (cms)=	0.33	0.08	
			TOTALS
PEAK FLOW (cms)=	0.08	0.04	0.092 (iii)
TIME TO PEAK (hrs)=	8.00	8.23	8.02
RUNOFF VOLUME (mm)=	76.31	20.67	31.80
TOTAL RAINFALL (mm)=	77.31	77.31	77.31
RUNOFF COEFFICIENT =	0.99	0.27	0.41

***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
YOU SHOULD CONSIDER SPLITTING THE AREA.

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 57.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (1011)
ID= 1 DT= 1.0 min

Area (ha)= 13.73
Total Imp(%)= 46.00 Dir. Conn.(%)= 39.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	6.32	7.42
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	0.50	2.00
Length	(m)=	302.59	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 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
0.017	0.53	6.017	1.99	12.017	1.73	18.02	0.77
0.033	0.53	6.033	1.99	12.033	1.73	18.03	0.77
0.050	0.53	6.050	1.99	12.050	1.73	18.05	0.77
0.067	0.53	6.067	1.99	12.067	1.73	18.07	0.77
0.083	0.53	6.083	1.99	12.083	1.73	18.08	0.77
0.100	0.53	6.100	1.99	12.100	1.73	18.10	0.77
0.117	0.53	6.117	1.99	12.117	1.73	18.12	0.77
0.133	0.53	6.133	1.99	12.133	1.73	18.13	0.77
0.150	0.53	6.150	1.99	12.150	1.73	18.15	0.77
0.167	0.53	6.167	1.99	12.167	1.73	18.17	0.77
0.183	0.54	6.183	2.18	12.183	1.67	18.18	0.76
0.200	0.54	6.200	2.18	12.200	1.67	18.20	0.76
0.217	0.54	6.217	2.18	12.217	1.67	18.22	0.76
0.233	0.54	6.233	2.18	12.233	1.67	18.23	0.76
0.250	0.54	6.250	2.18	12.250	1.67	18.25	0.76
0.267	0.54	6.267	2.18	12.267	1.67	18.27	0.76
0.283	0.54	6.283	2.18	12.283	1.67	18.28	0.76
0.300	0.54	6.300	2.18	12.300	1.67	18.30	0.76
0.317	0.54	6.317	2.18	12.317	1.67	18.32	0.76
0.333	0.54	6.333	2.18	12.333	1.67	18.33	0.76
0.350	0.55	6.350	2.42	12.350	1.61	18.35	0.75
0.367	0.55	6.367	2.42	12.367	1.61	18.37	0.75
0.383	0.55	6.383	2.42	12.383	1.61	18.38	0.75
0.400	0.55	6.400	2.42	12.400	1.61	18.40	0.75
0.417	0.55	6.417	2.42	12.417	1.61	18.42	0.75
0.433	0.55	6.433	2.42	12.433	1.61	18.43	0.75
0.450	0.55	6.450	2.42	12.450	1.61	18.45	0.75
0.467	0.55	6.467	2.42	12.467	1.61	18.47	0.75
0.483	0.55	6.483	2.42	12.483	1.61	18.48	0.75
0.500	0.55	6.500	2.42	12.500	1.61	18.50	0.75
0.517	0.56	6.517	2.72	12.517	1.56	18.52	0.74
0.533	0.56	6.533	2.72	12.533	1.56	18.53	0.74
0.550	0.56	6.550	2.72	12.550	1.56	18.55	0.74
0.567	0.56	6.567	2.72	12.567	1.56	18.57	0.74
0.583	0.56	6.583	2.72	12.583	1.56	18.58	0.74
0.600	0.56	6.600	2.72	12.600	1.56	18.60	0.74
0.617	0.56	6.617	2.72	12.617	1.56	18.62	0.74
0.633	0.56	6.633	2.72	12.633	1.56	18.63	0.74
0.650	0.56	6.650	2.72	12.650	1.56	18.65	0.74
0.667	0.56	6.667	2.72	12.667	1.56	18.67	0.74
0.683	0.57	6.683	3.12	12.683	1.51	18.68	0.73
0.700	0.57	6.700	3.12	12.700	1.51	18.70	0.73
0.717	0.57	6.717	3.12	12.717	1.51	18.72	0.73
0.733	0.57	6.733	3.12	12.733	1.51	18.73	0.73
0.750	0.57	6.750	3.12	12.750	1.51	18.75	0.73
0.767	0.57	6.767	3.12	12.767	1.51	18.77	0.73
0.783	0.57	6.783	3.12	12.783	1.51	18.78	0.73
0.800	0.57	6.800	3.12	12.800	1.51	18.80	0.73
0.817	0.57	6.817	3.12	12.817	1.51	18.82	0.73
0.833	0.57	6.833	3.12	12.833	1.51	18.83	0.73
0.850	0.58	6.850	3.66	12.850	1.46	18.85	0.72
0.867	0.58	6.867	3.66	12.867	1.46	18.87	0.72
0.883	0.58	6.883	3.66	12.883	1.46	18.88	0.72
0.900	0.58	6.900	3.66	12.900	1.46	18.90	0.72
0.917	0.58	6.917	3.66	12.917	1.46	18.92	0.72
0.933	0.58	6.933	3.66	12.933	1.46	18.93	0.72
0.950	0.58	6.950	3.66	12.950	1.46	18.95	0.72
0.967	0.58	6.967	3.66	12.967	1.46	18.97	0.72
0.983	0.58	6.983	3.66	12.983	1.46	18.98	0.72
1.000	0.58	7.000	3.66	13.000	1.46	19.00	0.72
1.017	0.60	7.017	4.43	13.017	1.42	19.02	0.71
1.033	0.60	7.033	4.43	13.033	1.42	19.03	0.71
1.050	0.60	7.050	4.43	13.050	1.42	19.05	0.71
1.067	0.60	7.067	4.43	13.067	1.42	19.07	0.71
1.083	0.60	7.083	4.43	13.083	1.42	19.08	0.71
1.100	0.60	7.100	4.43	13.100	1.42	19.10	0.71
1.117	0.60	7.117	4.43	13.117	1.42	19.12	0.71
1.133	0.60	7.133	4.43	13.133	1.42	19.13	0.71
1.150	0.60	7.150	4.43	13.150	1.42	19.15	0.71
1.167	0.60	7.167	4.44	13.167	1.42	19.17	0.71
1.183	0.61	7.183	5.66	13.183	1.38	19.18	0.70
1.200	0.61	7.200	5.66	13.200	1.38	19.20	0.70
1.217	0.61	7.217	5.66	13.217	1.38	19.22	0.70
1.233	0.61	7.233	5.66	13.233	1.38	19.23	0.70
1.250	0.61	7.250	5.66	13.250	1.38	19.25	0.70
1.267	0.61	7.267	5.66	13.267	1.38	19.27	0.70
1.283	0.61	7.283	5.66	13.283	1.38	19.28	0.70
1.300	0.61	7.300	5.66	13.300	1.38	19.30	0.70
1.317	0.61	7.317	5.66	13.317	1.38	19.32	0.70
1.333	0.61	7.333	5.66	13.333	1.38	19.33	0.70
1.350	0.62	7.350	7.85	13.350	1.34	19.35	0.69
1.367	0.62	7.367	7.85	13.367	1.34	19.37	0.69
1.383	0.62	7.383	7.85	13.383	1.34	19.38	0.69
1.400	0.62	7.400	7.85	13.400	1.34	19.40	0.69
1.417	0.62	7.417	7.85	13.417	1.34	19.42	0.69
1.433	0.62	7.433	7.85	13.433	1.34	19.43	0.69
1.450	0.62	7.450	7.85	13.450	1.34	19.45	0.69
1.467	0.62	7.467	7.85	13.467	1.34	19.47	0.69
1.483	0.62	7.483	7.85	13.483	1.34	19.48	0.69
1.500	0.62	7.500	7.87	13.500	1.34	19.50	0.69
1.517	0.64	7.517	12.85	13.517	1.30	19.52	0.68
1.533	0.64	7.533	12.85	13.533	1.30	19.53	0.68
1.550	0.64	7.550	12.85	13.550	1.30	19.55	0.68
1.567	0.64	7.567	12.85	13.567	1.30	19.57	0.68
1.583	0.64	7.583	12.85	13.583	1.30	19.58	0.68
1.600	0.64	7.600	12.85	13.600	1.30	19.60	0.68
1.617	0.64	7.617	12.85	13.617	1.30	19.62	0.68
1.633	0.64	7.633	12.85	13.633	1.30	19.63	0.68
1.650	0.64	7.650	12.85	13.650	1.30	19.65	0.68
1.667	0.64	7.667	12.91	13.667	1.30	19.67	0.68
1.683	0.65	7.683	33.57	13.683	1.27	19.68	0.67
1.700	0.65	7.700	33.57	13.700	1.27	19.70	0.67
1.717	0.65	7.717	33.57	13.717	1.27	19.72	0.67
1.733	0.65	7.733	33.57	13.733	1.27	19.73	0.67
1.750	0.65	7.750	33.57	13.750	1.27	19.75	0.67
1.767	0.65	7.767	33.57	13.767	1.27	19.77	0.67
1.783	0.65	7.783	33.57	13.783	1.27	19.78	0.67
1.800	0.65	7.800	33.57	13.800	1.27	19.80	0.67
1.817	0.65	7.817	33.57	13.817	1.27	19.82	0.67
1.833	0.65	7.833	33.83	13.833	1.27	19.83	0.67
1.850	0.67	7.850	122.80	13.850	1.24	19.85	0.66
1.867	0.67	7.867	122.80	13.867	1.24	19.87	0.66
1.883	0.67	7.883	122.80	13.883	1.24	19.88	0.66
1.900	0.67	7.900	122.80	13.900	1.24	19.90	0.66
1.917	0.67	7.917	122.80	13.917	1.24	19.92	0.66
1.933	0.67	7.933	122.80	13.933	1.24	19.93	0.66
1.950	0.67	7.950	122.80	13.950	1.24	19.95	0.66
1.967	0.67	7.967	122.80	13.967	1.24	19.97	0.66
1.983	0.67	7.983	122.80	13.983	1.24	19.98	0.66
2.000	0.67	8.000	122.56	14.000	1.24	20.00	0.66
2.017	0.68	8.017	44.52	14.017	1.21	20.02	0.66
2.033	0.68	8.033	44.52	14.033	1.21	20.03	0.66
2.050	0.68	8.050	44.52	14.050	1.21	20.05	0.66
2.067	0.68	8.067	44.52	14.067	1.21	20.07	0.66
2.083	0.68	8.083	44.52	14.083	1.21	20.08	0.66
2.100	0.68	8.100	44.52	14.100	1.21	20.10	0.66
2.117	0.68	8.117	44.52	14.117	1.21	20.12	0.66
2.133	0.68	8.133	44.52	14.133	1.21	20.13	0.66
2.150	0.68	8.150	44.52	14.150	1.21	20.15	0.66
2.167	0.68	8.167	44.45	14.167	1.21	20.17	0.66
2.183	0.70	8.183	22.67	14.183	1.18	20.18	0.65
2.200	0.70	8.200	22.67	14.200	1.18	20.20	0.65
2.217	0.70	8.217	22.67	14.217	1.18	20.22	0.65
2.233	0.70	8.233	22.67	14.233	1.18	20.23	0.65
2.250	0.70	8.250	22.67	14.250	1.18	20.25	0.65
2.267	0.70	8.267	22.67	14.267	1.18	20.27	0.65
2.283	0.70	8.283	22.67	14.283	1.18	20.28	0.65
2.300	0.70	8.300	22.67	14.300	1.18	20.30	0.65
2.317	0.70	8.317	22.67	14.317	1.18	20.32	0.65
2.333	0.70	8.333	22.65	14.333	1.18	20.33	0.65
2.350	0.72	8.350	14.82	14.350	1.15	20.35	0.64
2.367	0.72	8.367	14.82	14.367	1.15	20.37	0.64
2.383	0.72	8.383	14.82	14.383	1.15	20.38	0.64
2.400	0.72	8.400	14.82	14.400	1.15	20.40	0.64
2.417	0.72	8.417	14.82	14.417	1.15	20.42	0.64
2.433	0.72	8.433	14.82	14.433	1.15	20.43	0.64
2.450	0.72	8.450	14.82	14.450	1.15	20.45	0.64
2.467	0.72	8.467	14.82	14.467	1.15	20.47	0.64
2.483	0.72	8.483	14.82	14.483	1.15	20.48	0.64
2.500	0.72	8.500	14.81	14.500	1.15	20.50	0.64
2.517	0.74	8.517	10.92	14.517	1.12	20.52	0.63
2.533	0.74	8.533	10.92	14.533	1.12	20.53	0.63
2.550	0.74	8.550	10.92	14.550	1.12	20.55	0.63
2.567	0.74	8.567	10.92	14.567	1.12	20.57	0.63
2.583	0.74	8.583	10.92	14.583	1.12	20.58	0.63
2.600	0.74	8.600	10.92	14.600	1.12	20.60	0.63
2.617	0.74	8.617	10.92	14.617	1.12	20.62	0.63
2.633	0.74	8.633	10.92	14.633	1.12	20.63	0.63
2.650	0.74	8.650	10.92	14.650	1.12	20.65	0.63
2.667	0.74	8.667	10.91	14.667	1.12	20.67	0.63
2.683	0.76	8.683	8.62	14.683	1.10	20.68	0.63
2.700	0.76	8.700	8.62	14.700	1.10	20.70	0.63
2.717	0.76	8.717	8.62	14.717	1.10	20.72	0.63
2.733	0.76	8.733	8.62	14.733	1.10	20.73	0.63
2.750	0.76	8.750	8.62	14.750	1.10	20.75	0.63
2.767	0.76	8.767	8.62	14.767	1.10	20.77	0.63
2.783	0.76	8.783	8.62	14.783	1.10	20.78	0.63
2.800	0.76	8.800	8.62	14.800	1.10	20.80	0.63
2.817	0.76	8.817	8.62	14.817	1.10	20.82	0.63
2.833	0.76	8.833	8.61	14.833	1.10	20.83	0.63
2.850	0.79	8.850	7.11	14.850	1.07	20.85	0.62
2.867	0.79	8.867	7.11	14.867	1.07	20.87	0.62
2.883	0.79	8.883	7.11	14.883	1.07	20.88	0.62
2.900	0.79	8.900	7.11	14.900	1.07	20.90	0.62
2.917	0.79	8.917	7.11	14.917	1.07	20.92	0.62
2.933	0.79	8.933	7.11	14.933	1.07	20.93	0.62
2.950	0.79	8.950	7.11	14.950	1.07	20.95	0.62
2.967	0.79	8.967	7.11	14.967	1.07	20.97	0.62
2.983	0.79	8.983	7.11	14.983	1.07	20.98	0.62
3.000	0.79	9.000	7.11	15.000	1.07	21.00	0.62
3.017	0.81	9.017	6.06	15.017	1.05	21.02	0.61
3.033	0.81	9.033	6.06	15.033	1.05	21.03	0.61

3.050	0.81	9.050	6.06	15.050	1.05	21.05	0.61
3.067	0.81	9.067	6.06	15.067	1.05	21.07	0.61
3.083	0.81	9.083	6.06	15.083	1.05	21.08	0.61
3.100	0.81	9.100	6.06	15.100	1.05	21.10	0.61
3.117	0.81	9.117	6.06	15.117	1.05	21.12	0.61
3.133	0.81	9.133	6.06	15.133	1.05	21.13	0.61
3.150	0.81	9.150	6.06	15.150	1.05	21.15	0.61
3.167	0.81	9.167	6.05	15.167	1.05	21.17	0.61
3.183	0.84	9.183	5.28	15.183	1.03	21.18	0.61
3.200	0.84	9.200	5.28	15.200	1.03	21.20	0.61
3.217	0.84	9.217	5.28	15.217	1.03	21.22	0.61
3.233	0.84	9.233	5.28	15.233	1.03	21.23	0.61
3.250	0.84	9.250	5.28	15.250	1.03	21.25	0.61
3.267	0.84	9.267	5.28	15.267	1.03	21.27	0.61
3.283	0.84	9.283	5.28	15.283	1.03	21.28	0.61
3.300	0.84	9.300	5.28	15.300	1.03	21.30	0.61
3.317	0.84	9.317	5.28	15.317	1.03	21.32	0.61
3.333	0.84	9.333	5.27	15.333	1.03	21.33	0.61
3.350	0.86	9.350	4.68	15.350	1.01	21.35	0.60
3.367	0.86	9.367	4.68	15.367	1.01	21.37	0.60
3.383	0.86	9.383	4.68	15.383	1.01	21.38	0.60
3.400	0.86	9.400	4.68	15.400	1.01	21.40	0.60
3.417	0.86	9.417	4.68	15.417	1.01	21.42	0.60
3.433	0.86	9.433	4.68	15.433	1.01	21.43	0.60
3.450	0.86	9.450	4.68	15.450	1.01	21.45	0.60
3.467	0.86	9.467	4.68	15.467	1.01	21.47	0.60
3.483	0.86	9.483	4.68	15.483	1.01	21.48	0.60
3.500	0.86	9.500	4.68	15.500	1.01	21.50	0.60
3.517	0.89	9.517	4.20	15.517	0.99	21.52	0.59
3.533	0.89	9.533	4.20	15.533	0.99	21.53	0.59
3.550	0.89	9.550	4.20	15.550	0.99	21.55	0.59
3.567	0.89	9.567	4.20	15.567	0.99	21.57	0.59
3.583	0.89	9.583	4.20	15.583	0.99	21.58	0.59
3.600	0.89	9.600	4.20	15.600	0.99	21.60	0.59
3.617	0.89	9.617	4.20	15.617	0.99	21.62	0.59
3.633	0.89	9.633	4.20	15.633	0.99	21.63	0.59
3.650	0.89	9.650	4.20	15.650	0.99	21.65	0.59
3.667	0.89	9.667	4.20	15.667	0.99	21.67	0.59
3.683	0.93	9.683	3.82	15.683	0.97	21.68	0.59
3.700	0.93	9.700	3.82	15.700	0.97	21.70	0.59
3.717	0.93	9.717	3.82	15.717	0.97	21.72	0.59
3.733	0.93	9.733	3.82	15.733	0.97	21.73	0.59
3.750	0.93	9.750	3.82	15.750	0.97	21.75	0.59
3.767	0.93	9.767	3.82	15.767	0.97	21.77	0.59
3.783	0.93	9.783	3.82	15.783	0.97	21.78	0.59
3.800	0.93	9.800	3.82	15.800	0.97	21.80	0.59
3.817	0.93	9.817	3.82	15.817	0.97	21.82	0.59
3.833	0.93	9.833	3.82	15.833	0.97	21.83	0.59
3.850	0.96	9.850	3.50	15.850	0.95	21.85	0.58
3.867	0.96	9.867	3.50	15.867	0.95	21.87	0.58
3.883	0.96	9.883	3.50	15.883	0.95	21.88	0.58
3.900	0.96	9.900	3.50	15.900	0.95	21.90	0.58

3.917	0.96	9.917	3.50	15.917	0.95	21.92	0.58
3.933	0.96	9.933	3.50	15.933	0.95	21.93	0.58
3.950	0.96	9.950	3.50	15.950	0.95	21.95	0.58
3.967	0.96	9.967	3.50	15.967	0.95	21.97	0.58
3.983	0.96	9.983	3.50	15.983	0.95	21.98	0.58
4.000	0.96	10.000	3.50	16.000	0.95	22.00	0.58
4.017	1.00	10.017	3.24	16.017	0.94	22.02	0.57
4.033	1.00	10.033	3.24	16.033	0.94	22.03	0.57
4.050	1.00	10.050	3.24	16.050	0.94	22.05	0.57
4.067	1.00	10.067	3.24	16.067	0.94	22.07	0.57
4.083	1.00	10.083	3.24	16.083	0.94	22.08	0.57
4.100	1.00	10.100	3.24	16.100	0.94	22.10	0.57
4.117	1.00	10.117	3.24	16.117	0.94	22.12	0.57
4.133	1.00	10.133	3.24	16.133	0.94	22.13	0.57
4.150	1.00	10.150	3.24	16.150	0.94	22.15	0.57
4.167	1.00	10.167	3.24	16.167	0.94	22.17	0.57
4.183	1.04	10.183	3.01	16.183	0.92	22.18	0.57
4.200	1.04	10.200	3.01	16.200	0.92	22.20	0.57
4.217	1.04	10.217	3.01	16.217	0.92	22.22	0.57
4.233	1.04	10.233	3.01	16.233	0.92	22.23	0.57
4.250	1.04	10.250	3.01	16.250	0.92	22.25	0.57
4.267	1.04	10.267	3.01	16.267	0.92	22.27	0.57
4.283	1.04	10.283	3.01	16.283	0.92	22.28	0.57
4.300	1.04	10.300	3.01	16.300	0.92	22.30	0.57
4.317	1.04	10.317	3.01	16.317	0.92	22.32	0.57
4.333	1.04	10.333	3.01	16.333	0.92	22.33	0.57
4.350	1.08	10.350	2.81	16.350	0.90	22.35	0.56
4.367	1.08	10.367	2.81	16.367	0.90	22.37	0.56
4.383	1.08	10.383	2.81	16.383	0.90	22.38	0.56
4.400	1.08	10.400	2.81	16.400	0.90	22.40	0.56
4.417	1.08	10.417	2.81	16.417	0.90	22.42	0.56
4.433	1.08	10.433	2.81	16.433	0.90	22.43	0.56
4.450	1.08	10.450	2.81	16.450	0.90	22.45	0.56
4.467	1.08	10.467	2.81	16.467	0.90	22.47	0.56
4.483	1.08	10.483	2.81	16.483	0.90	22.48	0.56
4.500	1.08	10.500	2.81	16.500	0.90	22.50	0.56
4.517	1.13	10.517	2.64	16.517	0.89	22.52	0.56
4.533	1.13	10.533	2.64	16.533	0.89	22.53	0.56
4.550	1.13	10.550	2.64	16.550	0.89	22.55	0.56
4.567	1.13	10.567	2.64	16.567	0.89	22.57	0.56
4.583	1.13	10.583	2.64	16.583	0.89	22.58	0.56
4.600	1.13	10.600	2.64	16.600	0.89	22.60	0.56
4.617	1.13	10.617	2.64	16.617	0.89	22.62	0.56
4.633	1.13	10.633	2.64	16.633	0.89	22.63	0.56
4.650	1.13	10.650	2.64	16.650	0.89	22.65	0.56
4.667	1.13	10.667	2.64	16.667	0.89	22.67	0.56
4.683	1.19	10.683	2.49	16.683	0.87	22.68	0.55
4.700	1.19	10.700	2.49	16.700	0.87	22.70	0.55
4.717	1.19	10.717	2.49	16.717	0.87	22.72	0.55
4.733	1.19	10.733	2.49	16.733	0.87	22.73	0.55
4.750	1.19	10.750	2.49	16.750	0.87	22.75	0.55
4.767	1.19	10.767	2.49	16.767	0.87	22.77	0.55

4.783	1.19	10.783	2.49	16.783	0.87	22.78	0.55
4.800	1.19	10.800	2.49	16.800	0.87	22.80	0.55
4.817	1.19	10.817	2.49	16.817	0.87	22.82	0.55
4.833	1.19	10.833	2.49	16.833	0.87	22.83	0.55
4.850	1.25	10.850	2.36	16.850	0.86	22.85	0.55
4.867	1.25	10.867	2.36	16.867	0.86	22.87	0.55
4.883	1.25	10.883	2.36	16.883	0.86	22.88	0.55
4.900	1.25	10.900	2.36	16.900	0.86	22.90	0.55
4.917	1.25	10.917	2.36	16.917	0.86	22.92	0.55
4.933	1.25	10.933	2.36	16.933	0.86	22.93	0.55
4.950	1.25	10.950	2.36	16.950	0.86	22.95	0.55
4.967	1.25	10.967	2.36	16.967	0.86	22.97	0.55
4.983	1.25	10.983	2.36	16.983	0.86	22.98	0.55
5.000	1.25	11.000	2.36	17.000	0.86	23.00	0.55
5.017	1.32	11.017	2.24	17.017	0.84	23.02	0.54
5.033	1.32	11.033	2.24	17.033	0.84	23.03	0.54
5.050	1.32	11.050	2.24	17.050	0.84	23.05	0.54
5.067	1.32	11.067	2.24	17.067	0.84	23.07	0.54
5.083	1.32	11.083	2.24	17.083	0.84	23.08	0.54
5.100	1.32	11.100	2.24	17.100	0.84	23.10	0.54
5.117	1.32	11.117	2.24	17.117	0.84	23.12	0.54
5.133	1.32	11.133	2.24	17.133	0.84	23.13	0.54
5.150	1.32	11.150	2.24	17.150	0.84	23.15	0.54
5.167	1.32	11.167	2.24	17.167	0.84	23.17	0.54
5.183	1.39	11.183	2.13	17.183	0.83	23.18	0.54
5.200	1.39	11.200	2.13	17.200	0.83	23.20	0.54
5.217	1.39	11.217	2.13	17.217	0.83	23.22	0.54
5.233	1.39	11.233	2.13	17.233	0.83	23.23	0.54
5.250	1.39	11.250	2.13	17.250	0.83	23.25	0.54
5.267	1.39	11.267	2.13	17.267	0.83	23.27	0.54
5.283	1.39	11.283	2.13	17.283	0.83	23.28	0.54
5.300	1.39	11.300	2.13	17.300	0.83	23.30	0.54
5.317	1.39	11.317	2.13	17.317	0.83	23.32	0.54
5.333	1.39	11.333	2.13	17.333	0.83	23.33	0.54
5.350	1.48	11.350	2.04	17.350	0.82	23.35	0.53
5.367	1.48	11.367	2.04	17.367	0.82	23.37	0.53
5.383	1.48	11.383	2.04	17.383	0.82	23.38	0.53
5.400	1.48	11.400	2.04	17.400	0.82	23.40	0.53
5.417	1.48	11.417	2.04	17.417	0.82	23.42	0.53
5.433	1.48	11.433	2.04	17.433	0.82	23.43	0.53
5.450	1.48	11.450	2.04	17.450	0.82	23.45	0.53
5.467	1.48	11.467	2.04	17.467	0.82	23.47	0.53
5.483	1.48	11.483	2.04	17.483	0.82	23.48	0.53
5.500	1.48	11.500	2.04	17.500	0.82	23.50	0.53
5.517	1.58	11.517	1.95	17.517	0.80	23.52	0.53
5.533	1.58	11.533	1.95	17.533	0.80	23.53	0.53
5.550	1.58	11.550	1.95	17.550	0.80	23.55	0.53
5.567	1.58	11.567	1.95	17.567	0.80	23.57	0.53
5.583	1.58	11.583	1.95	17.583	0.80	23.58	0.53
5.600	1.58	11.600	1.95	17.600	0.80	23.60	0.53
5.617	1.58	11.617	1.95	17.617	0.80	23.62	0.53
5.633	1.58	11.633	1.95	17.633	0.80	23.63	0.53

5.650	1.58	11.650	1.95	17.650	0.80	23.65	0.53
5.667	1.58	11.667	1.95	17.667	0.80	23.67	0.53
5.683	1.70	11.683	1.87	17.683	0.79	23.68	0.52
5.700	1.70	11.700	1.87	17.700	0.79	23.70	0.52
5.717	1.70	11.717	1.87	17.717	0.79	23.72	0.52
5.733	1.70	11.733	1.87	17.733	0.79	23.73	0.52
5.750	1.70	11.750	1.87	17.750	0.79	23.75	0.52
5.767	1.70	11.767	1.87	17.767	0.79	23.77	0.52
5.783	1.70	11.783	1.87	17.783	0.79	23.78	0.52
5.800	1.70	11.800	1.87	17.800	0.79	23.80	0.52
5.817	1.70	11.817	1.87	17.817	0.79	23.82	0.52
5.833	1.70	11.833	1.87	17.833	0.79	23.83	0.52
5.850	1.83	11.850	1.80	17.850	0.78	23.85	0.52
5.867	1.83	11.867	1.80	17.867	0.78	23.87	0.52
5.883	1.83	11.883	1.80	17.883	0.78	23.88	0.52
5.900	1.83	11.900	1.80	17.900	0.78	23.90	0.52
5.917	1.83	11.917	1.80	17.917	0.78	23.92	0.52
5.933	1.83	11.933	1.80	17.933	0.78	23.93	0.52
5.950	1.83	11.950	1.80	17.950	0.78	23.95	0.52
5.967	1.83	11.967	1.80	17.967	0.78	23.97	0.52
5.983	1.83	11.983	1.80	17.983	0.78	23.98	0.52
6.000	1.83	12.000	1.80	18.000	0.78	24.00	0.52

Max.Eff.Inten.(mm/hr)=	122.80	24.18	
over (min)	6.00	14.00	
Storage Coeff. (min)=	5.63 (ii)	13.03 (ii)	
Unit Hyd. Tpeak (min)=	6.00	14.00	
Unit Hyd. peak (cms)=	0.20	0.08	
			TOTALS
PEAK FLOW (cms)=	1.48	0.28	1.633 (iii)
TIME TO PEAK (hrs)=	8.03	8.20	8.03
RUNOFF VOLUME (mm)=	76.30	16.78	40.00
TOTAL RAINFALL (mm)=	77.31	77.31	77.31
RUNOFF COEFFICIENT =	0.99	0.22	0.52

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 48.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0101)				
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (1011):	13.73	1.633	8.03	40.00
+ ID2= 2 (0034):	0.50	0.615	8.05	46.32
ID = 3 (0101):	14.24	2.245	8.05	40.22

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0901)				
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0101):	14.24	2.245	8.05	40.22
+ ID2= 2 (0103):	1.17	0.092	8.02	31.80
ID = 3 (0901):	15.40	2.333	8.05	39.58

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0902)				
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0104):	0.77	0.021	8.33	17.57
+ ID2= 2 (0901):	15.40	2.333	8.05	39.58
ID = 3 (0902):	16.17	2.344	8.05	38.54

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB			
STANDHYD (1021)	Area (ha)= 3.77		
ID= 1 DT= 1.0 min	Total Imp(%)= 45.00	Dir. Conn.(%)= 38.00	
	IMPERVIOUS	PERVIOUS (i)	
Surface Area (ha)=	1.70	2.07	
Dep. Storage (mm)=	1.00	5.00	
Average Slope (%)=	0.50	2.00	
Length (m)=	158.56	40.00	
Mannings n =	0.013	0.250	

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 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
0.017	0.53	6.017	1.99	12.017	1.73	18.02	0.77
0.033	0.53	6.033	1.99	12.033	1.73	18.03	0.77
0.050	0.53	6.050	1.99	12.050	1.73	18.05	0.77
0.067	0.53	6.067	1.99	12.067	1.73	18.07	0.77
0.083	0.53	6.083	1.99	12.083	1.73	18.08	0.77
0.100	0.53	6.100	1.99	12.100	1.73	18.10	0.77
0.117	0.53	6.117	1.99	12.117	1.73	18.12	0.77

0.133	0.53	6.133	1.99	12.133	1.73	18.13	0.77
0.150	0.53	6.150	1.99	12.150	1.73	18.15	0.77
0.167	0.53	6.167	1.99	12.167	1.73	18.17	0.77
0.183	0.54	6.183	2.18	12.183	1.67	18.18	0.76
0.200	0.54	6.200	2.18	12.200	1.67	18.20	0.76
0.217	0.54	6.217	2.18	12.217	1.67	18.22	0.76
0.233	0.54	6.233	2.18	12.233	1.67	18.23	0.76
0.250	0.54	6.250	2.18	12.250	1.67	18.25	0.76
0.267	0.54	6.267	2.18	12.267	1.67	18.27	0.76
0.283	0.54	6.283	2.18	12.283	1.67	18.28	0.76
0.300	0.54	6.300	2.18	12.300	1.67	18.30	0.76
0.317	0.54	6.317	2.18	12.317	1.67	18.32	0.76
0.333	0.54	6.333	2.18	12.333	1.67	18.33	0.76
0.350	0.55	6.350	2.42	12.350	1.61	18.35	0.75
0.367	0.55	6.367	2.42	12.367	1.61	18.37	0.75
0.383	0.55	6.383	2.42	12.383	1.61	18.38	0.75
0.400	0.55	6.400	2.42	12.400	1.61	18.40	0.75
0.417	0.55	6.417	2.42	12.417	1.61	18.42	0.75
0.433	0.55	6.433	2.42	12.433	1.61	18.43	0.75
0.450	0.55	6.450	2.42	12.450	1.61	18.45	0.75
0.467	0.55	6.467	2.42	12.467	1.61	18.47	0.75
0.483	0.55	6.483	2.42	12.483	1.61	18.48	0.75
0.500	0.55	6.500	2.42	12.500	1.61	18.50	0.75
0.517	0.56	6.517	2.72	12.517	1.56	18.52	0.74
0.533	0.56	6.533	2.72	12.533	1.56	18.53	0.74
0.550	0.56	6.550	2.72	12.550	1.56	18.55	0.74
0.567	0.56	6.567	2.72	12.567	1.56	18.57	0.74
0.583	0.56	6.583	2.72	12.583	1.56	18.58	0.74
0.600	0.56	6.600	2.72	12.600	1.56	18.60	0.74
0.617	0.56	6.617	2.72	12.617	1.56	18.62	0.74
0.633	0.56	6.633	2.72	12.633	1.56	18.63	0.74
0.650	0.56	6.650	2.72	12.650	1.56	18.65	0.74
0.667	0.56	6.667	2.72	12.667	1.56	18.67	0.74
0.683	0.57	6.683	3.12	12.683	1.51	18.68	0.73
0.700	0.57	6.700	3.12	12.700	1.51	18.70	0.73
0.717	0.57	6.717	3.12	12.717	1.51	18.72	0.73
0.733	0.57	6.733	3.12	12.733	1.51	18.73	0.73
0.750	0.57	6.750	3.12	12.750	1.51	18.75	0.73
0.767	0.57	6.767	3.12	12.767	1.51	18.77	0.73
0.783	0.57	6.783	3.12	12.783	1.51	18.78	0.73
0.800	0.57	6.800	3.12	12.800	1.51	18.80	0.73
0.817	0.57	6.817	3.12	12.817	1.51	18.82	0.73
0.833	0.57	6.833	3.12	12.833	1.51	18.83	0.73
0.850	0.58	6.850	3.66	12.850	1.46	18.85	0.72
0.867	0.58	6.867	3.66	12.867	1.46	18.87	0.72
0.883	0.58	6.883	3.66	12.883	1.46	18.88	0.72
0.900	0.58	6.900	3.66	12.900	1.46	18.90	0.72
0.917	0.58	6.917	3.66	12.917	1.46	18.92	0.72
0.933	0.58	6.933	3.66	12.933	1.46	18.93	0.72
0.950	0.58	6.950	3.66	12.950	1.46	18.95	0.72
0.967	0.58	6.967	3.66	12.967	1.46	18.97	0.72
0.983	0.58	6.983	3.66	12.983	1.46	18.98	0.72

1.000	0.58	7.000	3.66	13.000	1.46	19.00	0.72
1.017	0.60	7.017	4.43	13.017	1.42	19.02	0.71
1.033	0.60	7.033	4.43	13.033	1.42	19.03	0.71
1.050	0.60	7.050	4.43	13.050	1.42	19.05	0.71
1.067	0.60	7.067	4.43	13.067	1.42	19.07	0.71
1.083	0.60	7.083	4.43	13.083	1.42	19.08	0.71
1.100	0.60	7.100	4.43	13.100	1.42	19.10	0.71
1.117	0.60	7.117	4.43	13.117	1.42	19.12	0.71
1.133	0.60	7.133	4.43	13.133	1.42	19.13	0.71
1.150	0.60	7.150	4.43	13.150	1.42	19.15	0.71
1.167	0.60	7.167	4.44	13.167	1.42	19.17	0.71
1.183	0.61	7.183	5.66	13.183	1.38	19.18	0.70
1.200	0.61	7.200	5.66	13.200	1.38	19.20	0.70
1.217	0.61	7.217	5.66	13.217	1.38	19.22	0.70
1.233	0.61	7.233	5.66	13.233	1.38	19.23	0.70
1.250	0.61	7.250	5.66	13.250	1.38	19.25	0.70
1.267	0.61	7.267	5.66	13.267	1.38	19.27	0.70
1.283	0.61	7.283	5.66	13.283	1.38	19.28	0.70
1.300	0.61	7.300	5.66	13.300	1.38	19.30	0.70
1.317	0.61	7.317	5.66	13.317	1.38	19.32	0.70
1.333	0.61	7.333	5.66	13.333	1.38	19.33	0.70
1.350	0.62	7.350	7.85	13.350	1.34	19.35	0.69
1.367	0.62	7.367	7.85	13.367	1.34	19.37	0.69
1.383	0.62	7.383	7.85	13.383	1.34	19.38	0.69
1.400	0.62	7.400	7.85	13.400	1.34	19.40	0.69
1.417	0.62	7.417	7.85	13.417	1.34	19.42	0.69
1.433	0.62	7.433	7.85	13.433	1.34	19.43	0.69
1.450	0.62	7.450	7.85	13.450	1.34	19.45	0.69
1.467	0.62	7.467	7.85	13.467	1.34	19.47	0.69
1.483	0.62	7.483	7.85	13.483	1.34	19.48	0.69
1.500	0.62	7.500	7.87	13.500	1.34	19.50	0.69
1.517	0.64	7.517	12.85	13.517	1.30	19.52	0.68
1.533	0.64	7.533	12.85	13.533	1.30	19.53	0.68
1.550	0.64	7.550	12.85	13.550	1.30	19.55	0.68
1.567	0.64	7.567	12.85	13.567	1.30	19.57	0.68
1.583	0.64	7.583	12.85	13.583	1.30	19.58	0.68
1.600	0.64	7.600	12.85	13.600	1.30	19.60	0.68
1.617	0.64	7.617	12.85	13.617	1.30	19.62	0.68
1.633	0.64	7.633	12.85	13.633	1.30	19.63	0.68
1.650	0.64	7.650	12.85	13.650	1.30	19.65	0.68
1.667	0.64	7.667	12.91	13.667	1.30	19.67	0.68
1.683	0.65	7.683	33.57	13.683	1.27	19.68	0.67
1.700	0.65	7.700	33.57	13.700	1.27	19.70	0.67
1.717	0.65	7.717	33.57	13.717	1.27	19.72	0.67
1.733	0.65	7.733	33.57	13.733	1.27	19.73	0.67
1.750	0.65	7.750	33.57	13.750	1.27	19.75	0.67
1.767	0.65	7.767	33.57	13.767	1.27	19.77	0.67
1.783	0.65	7.783	33.57	13.783	1.27	19.78	0.67
1.800	0.65	7.800	33.57	13.800	1.27	19.80	0.67
1.817	0.65	7.817	33.57	13.817	1.27	19.82	0.67
1.833	0.65	7.833	33.83	13.833	1.27	19.83	0.67
1.850	0.67	7.850	122.80	13.850	1.24	19.85	0.66

1.867	0.67	7.867	122.80	13.867	1.24	19.87	0.66
1.883	0.67	7.883	122.80	13.883	1.24	19.88	0.66
1.900	0.67	7.900	122.80	13.900	1.24	19.90	0.66
1.917	0.67	7.917	122.80	13.917	1.24	19.92	0.66
1.933	0.67	7.933	122.80	13.933	1.24	19.93	0.66
1.950	0.67	7.950	122.80	13.950	1.24	19.95	0.66
1.967	0.67	7.967	122.80	13.967	1.24	19.97	0.66
1.983	0.67	7.983	122.80	13.983	1.24	19.98	0.66
2.000	0.67	8.000	122.56	14.000	1.24	20.00	0.66
2.017	0.68	8.017	44.52	14.017	1.21	20.02	0.66
2.033	0.68	8.033	44.52	14.033	1.21	20.03	0.66
2.050	0.68	8.050	44.52	14.050	1.21	20.05	0.66
2.067	0.68	8.067	44.52	14.067	1.21	20.07	0.66
2.083	0.68	8.083	44.52	14.083	1.21	20.08	0.66
2.100	0.68	8.100	44.52	14.100	1.21	20.10	0.66
2.117	0.68	8.117	44.52	14.117	1.21	20.12	0.66
2.133	0.68	8.133	44.52	14.133	1.21	20.13	0.66
2.150	0.68	8.150	44.52	14.150	1.21	20.15	0.66
2.167	0.68	8.167	44.45	14.167	1.21	20.17	0.66
2.183	0.70	8.183	22.67	14.183	1.18	20.18	0.65
2.200	0.70	8.200	22.67	14.200	1.18	20.20	0.65
2.217	0.70	8.217	22.67	14.217	1.18	20.22	0.65
2.233	0.70	8.233	22.67	14.233	1.18	20.23	0.65
2.250	0.70	8.250	22.67	14.250	1.18	20.25	0.65
2.267	0.70	8.267	22.67	14.267	1.18	20.27	0.65
2.283	0.70	8.283	22.67	14.283	1.18	20.28	0.65
2.300	0.70	8.300	22.67	14.300	1.18	20.30	0.65
2.317	0.70	8.317	22.67	14.317	1.18	20.32	0.65
2.333	0.70	8.333	22.65	14.333	1.18	20.33	0.65
2.350	0.72	8.350	14.82	14.350	1.15	20.35	0.64
2.367	0.72	8.367	14.82	14.367	1.15	20.37	0.64
2.383	0.72	8.383	14.82	14.383	1.15	20.38	0.64
2.400	0.72	8.400	14.82	14.400	1.15	20.40	0.64
2.417	0.72	8.417	14.82	14.417	1.15	20.42	0.64
2.433	0.72	8.433	14.82	14.433	1.15	20.43	0.64
2.450	0.72	8.450	14.82	14.450	1.15	20.45	0.64
2.467	0.72	8.467	14.82	14.467	1.15	20.47	0.64
2.483	0.72	8.483	14.82	14.483	1.15	20.48	0.64
2.500	0.72	8.500	14.81	14.500	1.15	20.50	0.64
2.517	0.74	8.517	10.92	14.517	1.12	20.52	0.63
2.533	0.74	8.533	10.92	14.533	1.12	20.53	0.63
2.550	0.74	8.550	10.92	14.550	1.12	20.55	0.63
2.567	0.74	8.567	10.92	14.567	1.12	20.57	0.63
2.583	0.74	8.583	10.92	14.583	1.12	20.58	0.63
2.600	0.74	8.600	10.92	14.600	1.12	20.60	0.63
2.617	0.74	8.617	10.92	14.617	1.12	20.62	0.63
2.633	0.74	8.633	10.92	14.633	1.12	20.63	0.63
2.650	0.74	8.650	10.92	14.650	1.12	20.65	0.63
2.667	0.74	8.667	10.91	14.667	1.12	20.67	0.63
2.683	0.76	8.683	8.62	14.683	1.10	20.68	0.63
2.700	0.76	8.700	8.62	14.700	1.10	20.70	0.63
2.717	0.76	8.717	8.62	14.717	1.10	20.72	0.63

2.733	0.76	8.733	8.62	14.733	1.10	20.73	0.63
2.750	0.76	8.750	8.62	14.750	1.10	20.75	0.63
2.767	0.76	8.767	8.62	14.767	1.10	20.77	0.63
2.783	0.76	8.783	8.62	14.783	1.10	20.78	0.63
2.800	0.76	8.800	8.62	14.800	1.10	20.80	0.63
2.817	0.76	8.817	8.62	14.817	1.10	20.82	0.63
2.833	0.76	8.833	8.61	14.833	1.10	20.83	0.63
2.850	0.79	8.850	7.11	14.850	1.07	20.85	0.62
2.867	0.79	8.867	7.11	14.867	1.07	20.87	0.62
2.883	0.79	8.883	7.11	14.883	1.07	20.88	0.62
2.900	0.79	8.900	7.11	14.900	1.07	20.90	0.62
2.917	0.79	8.917	7.11	14.917	1.07	20.92	0.62
2.933	0.79	8.933	7.11	14.933	1.07	20.93	0.62
2.950	0.79	8.950	7.11	14.950	1.07	20.95	0.62
2.967	0.79	8.967	7.11	14.967	1.07	20.97	0.62
2.983	0.79	8.983	7.11	14.983	1.07	20.98	0.62
3.000	0.79	9.000	7.11	15.000	1.07	21.00	0.62
3.017	0.81	9.017	6.06	15.017	1.05	21.02	0.61
3.033	0.81	9.033	6.06	15.033	1.05	21.03	0.61
3.050	0.81	9.050	6.06	15.050	1.05	21.05	0.61
3.067	0.81	9.067	6.06	15.067	1.05	21.07	0.61
3.083	0.81	9.083	6.06	15.083	1.05	21.08	0.61
3.100	0.81	9.100	6.06	15.100	1.05	21.10	0.61
3.117	0.81	9.117	6.06	15.117	1.05	21.12	0.61
3.133	0.81	9.133	6.06	15.133	1.05	21.13	0.61
3.150	0.81	9.150	6.06	15.150	1.05	21.15	0.61
3.167	0.81	9.167	6.05	15.167	1.05	21.17	0.61
3.183	0.84	9.183	5.28	15.183	1.03	21.18	0.61
3.200	0.84	9.200	5.28	15.200	1.03	21.20	0.61
3.217	0.84	9.217	5.28	15.217	1.03	21.22	0.61
3.233	0.84	9.233	5.28	15.233	1.03	21.23	0.61
3.250	0.84	9.250	5.28	15.250	1.03	21.25	0.61
3.267	0.84	9.267	5.28	15.267	1.03	21.27	0.61
3.283	0.84	9.283	5.28	15.283	1.03	21.28	0.61
3.300	0.84	9.300	5.28	15.300	1.03	21.30	0.61
3.317	0.84	9.317	5.28	15.317	1.03	21.32	0.61
3.333	0.84	9.333	5.27	15.333	1.03	21.33	0.61
3.350	0.86	9.350	4.68	15.350	1.01	21.35	0.60
3.367	0.86	9.367	4.68	15.367	1.01	21.37	0.60
3.383	0.86	9.383	4.68	15.383	1.01	21.38	0.60
3.400	0.86	9.400	4.68	15.400	1.01	21.40	0.60
3.417	0.86	9.417	4.68	15.417	1.01	21.42	0.60
3.433	0.86	9.433	4.68	15.433	1.01	21.43	0.60
3.450	0.86	9.450	4.68	15.450	1.01	21.45	0.60
3.467	0.86	9.467	4.68	15.467	1.01	21.47	0.60
3.483	0.86	9.483	4.68	15.483	1.01	21.48	0.60
3.500	0.86	9.500	4.68	15.500	1.01	21.50	0.60
3.517	0.89	9.517	4.20	15.517	0.99	21.52	0.59
3.533	0.89	9.533	4.20	15.533	0.99	21.53	0.59
3.550	0.89	9.550	4.20	15.550	0.99	21.55	0.59
3.567	0.89	9.567	4.20	15.567	0.99	21.57	0.59
3.583	0.89	9.583	4.20	15.583	0.99	21.58	0.59

3.600	0.89	9.600	4.20	15.600	0.99	21.60	0.59
3.617	0.89	9.617	4.20	15.617	0.99	21.62	0.59
3.633	0.89	9.633	4.20	15.633	0.99	21.63	0.59
3.650	0.89	9.650	4.20	15.650	0.99	21.65	0.59
3.667	0.89	9.667	4.20	15.667	0.99	21.67	0.59
3.683	0.93	9.683	3.82	15.683	0.97	21.68	0.59
3.700	0.93	9.700	3.82	15.700	0.97	21.70	0.59
3.717	0.93	9.717	3.82	15.717	0.97	21.72	0.59
3.733	0.93	9.733	3.82	15.733	0.97	21.73	0.59
3.750	0.93	9.750	3.82	15.750	0.97	21.75	0.59
3.767	0.93	9.767	3.82	15.767	0.97	21.77	0.59
3.783	0.93	9.783	3.82	15.783	0.97	21.78	0.59
3.800	0.93	9.800	3.82	15.800	0.97	21.80	0.59
3.817	0.93	9.817	3.82	15.817	0.97	21.82	0.59
3.833	0.93	9.833	3.82	15.833	0.97	21.83	0.59
3.850	0.96	9.850	3.50	15.850	0.95	21.85	0.58
3.867	0.96	9.867	3.50	15.867	0.95	21.87	0.58
3.883	0.96	9.883	3.50	15.883	0.95	21.88	0.58
3.900	0.96	9.900	3.50	15.900	0.95	21.90	0.58
3.917	0.96	9.917	3.50	15.917	0.95	21.92	0.58
3.933	0.96	9.933	3.50	15.933	0.95	21.93	0.58
3.950	0.96	9.950	3.50	15.950	0.95	21.95	0.58
3.967	0.96	9.967	3.50	15.967	0.95	21.97	0.58
3.983	0.96	9.983	3.50	15.983	0.95	21.98	0.58
4.000	0.96	10.000	3.50	16.000	0.95	22.00	0.58
4.017	1.00	10.017	3.24	16.017	0.94	22.02	0.57
4.033	1.00	10.033	3.24	16.033	0.94	22.03	0.57
4.050	1.00	10.050	3.24	16.050	0.94	22.05	0.57
4.067	1.00	10.067	3.24	16.067	0.94	22.07	0.57
4.083	1.00	10.083	3.24	16.083	0.94	22.08	0.57
4.100	1.00	10.100	3.24	16.100	0.94	22.10	0.57
4.117	1.00	10.117	3.24	16.117	0.94	22.12	0.57
4.133	1.00	10.133	3.24	16.133	0.94	22.13	0.57
4.150	1.00	10.150	3.24	16.150	0.94	22.15	0.57
4.167	1.00	10.167	3.24	16.167	0.94	22.17	0.57
4.183	1.04	10.183	3.01	16.183	0.92	22.18	0.57
4.200	1.04	10.200	3.01	16.200	0.92	22.20	0.57
4.217	1.04	10.217	3.01	16.217	0.92	22.22	0.57
4.233	1.04	10.233	3.01	16.233	0.92	22.23	0.57
4.250	1.04	10.250	3.01	16.250	0.92	22.25	0.57
4.267	1.04	10.267	3.01	16.267	0.92	22.27	0.57
4.283	1.04	10.283	3.01	16.283	0.92	22.28	0.57
4.300	1.04	10.300	3.01	16.300	0.92	22.30	0.57
4.317	1.04	10.317	3.01	16.317	0.92	22.32	0.57
4.333	1.04	10.333	3.01	16.333	0.92	22.33	0.57
4.350	1.08	10.350	2.81	16.350	0.90	22.35	0.56
4.367	1.08	10.367	2.81	16.367	0.90	22.37	0.56
4.383	1.08	10.383	2.81	16.383	0.90	22.38	0.56
4.400	1.08	10.400	2.81	16.400	0.90	22.40	0.56
4.417	1.08	10.417	2.81	16.417	0.90	22.42	0.56
4.433	1.08	10.433	2.81	16.433	0.90	22.43	0.56
4.450	1.08	10.450	2.81	16.450	0.90	22.45	0.56

4.467	1.08	10.467	2.81	16.467	0.90	22.47	0.56
4.483	1.08	10.483	2.81	16.483	0.90	22.48	0.56
4.500	1.08	10.500	2.81	16.500	0.90	22.50	0.56
4.517	1.13	10.517	2.64	16.517	0.89	22.52	0.56
4.533	1.13	10.533	2.64	16.533	0.89	22.53	0.56
4.550	1.13	10.550	2.64	16.550	0.89	22.55	0.56
4.567	1.13	10.567	2.64	16.567	0.89	22.57	0.56
4.583	1.13	10.583	2.64	16.583	0.89	22.58	0.56
4.600	1.13	10.600	2.64	16.600	0.89	22.60	0.56
4.617	1.13	10.617	2.64	16.617	0.89	22.62	0.56
4.633	1.13	10.633	2.64	16.633	0.89	22.63	0.56
4.650	1.13	10.650	2.64	16.650	0.89	22.65	0.56
4.667	1.13	10.667	2.64	16.667	0.89	22.67	0.56
4.683	1.19	10.683	2.49	16.683	0.87	22.68	0.55
4.700	1.19	10.700	2.49	16.700	0.87	22.70	0.55
4.717	1.19	10.717	2.49	16.717	0.87	22.72	0.55
4.733	1.19	10.733	2.49	16.733	0.87	22.73	0.55
4.750	1.19	10.750	2.49	16.750	0.87	22.75	0.55
4.767	1.19	10.767	2.49	16.767	0.87	22.77	0.55
4.783	1.19	10.783	2.49	16.783	0.87	22.78	0.55
4.800	1.19	10.800	2.49	16.800	0.87	22.80	0.55
4.817	1.19	10.817	2.49	16.817	0.87	22.82	0.55
4.833	1.19	10.833	2.49	16.833	0.87	22.83	0.55
4.850	1.25	10.850	2.36	16.850	0.86	22.85	0.55
4.867	1.25	10.867	2.36	16.867	0.86	22.87	0.55
4.883	1.25	10.883	2.36	16.883	0.86	22.88	0.55
4.900	1.25	10.900	2.36	16.900	0.86	22.90	0.55
4.917	1.25	10.917	2.36	16.917	0.86	22.92	0.55
4.933	1.25	10.933	2.36	16.933	0.86	22.93	0.55
4.950	1.25	10.950	2.36	16.950	0.86	22.95	0.55
4.967	1.25	10.967	2.36	16.967	0.86	22.97	0.55
4.983	1.25	10.983	2.36	16.983	0.86	22.98	0.55
5.000	1.25	11.000	2.36	17.000	0.86	23.00	0.55
5.017	1.32	11.017	2.24	17.017	0.84	23.02	0.54
5.033	1.32	11.033	2.24	17.033	0.84	23.03	0.54
5.050	1.32	11.050	2.24	17.050	0.84	23.05	0.54
5.067	1.32	11.067	2.24	17.067	0.84	23.07	0.54
5.083	1.32	11.083	2.24	17.083	0.84	23.08	0.54
5.100	1.32	11.100	2.24	17.100	0.84	23.10	0.54
5.117	1.32	11.117	2.24	17.117	0.84	23.12	0.54
5.133	1.32	11.133	2.24	17.133	0.84	23.13	0.54
5.150	1.32	11.150	2.24	17.150	0.84	23.15	0.54
5.167	1.32	11.167	2.24	17.167	0.84	23.17	0.54
5.183	1.39	11.183	2.13	17.183	0.83	23.18	0.54
5.200	1.39	11.200	2.13	17.200	0.83	23.20	0.54
5.217	1.39	11.217	2.13	17.217	0.83	23.22	0.54
5.233	1.39	11.233	2.13	17.233	0.83	23.23	0.54
5.250	1.39	11.250	2.13	17.250	0.83	23.25	0.54
5.267	1.39	11.267	2.13	17.267	0.83	23.27	0.54
5.283	1.39	11.283	2.13	17.283	0.83	23.28	0.54
5.300	1.39	11.300	2.13	17.300	0.83	23.30	0.54
5.317	1.39	11.317	2.13	17.317	0.83	23.32	0.54

5.333	1.39	11.333	2.13	17.333	0.83	23.33	0.54
5.350	1.48	11.350	2.04	17.350	0.82	23.35	0.53
5.367	1.48	11.367	2.04	17.367	0.82	23.37	0.53
5.383	1.48	11.383	2.04	17.383	0.82	23.38	0.53
5.400	1.48	11.400	2.04	17.400	0.82	23.40	0.53
5.417	1.48	11.417	2.04	17.417	0.82	23.42	0.53
5.433	1.48	11.433	2.04	17.433	0.82	23.43	0.53
5.450	1.48	11.450	2.04	17.450	0.82	23.45	0.53
5.467	1.48	11.467	2.04	17.467	0.82	23.47	0.53
5.483	1.48	11.483	2.04	17.483	0.82	23.48	0.53
5.500	1.48	11.500	2.04	17.500	0.82	23.50	0.53
5.517	1.58	11.517	1.95	17.517	0.80	23.52	0.53
5.533	1.58	11.533	1.95	17.533	0.80	23.53	0.53
5.550	1.58	11.550	1.95	17.550	0.80	23.55	0.53
5.567	1.58	11.567	1.95	17.567	0.80	23.57	0.53
5.583	1.58	11.583	1.95	17.583	0.80	23.58	0.53
5.600	1.58	11.600	1.95	17.600	0.80	23.60	0.53
5.617	1.58	11.617	1.95	17.617	0.80	23.62	0.53
5.633	1.58	11.633	1.95	17.633	0.80	23.63	0.53
5.650	1.58	11.650	1.95	17.650	0.80	23.65	0.53
5.667	1.58	11.667	1.95	17.667	0.80	23.67	0.53
5.683	1.70	11.683	1.87	17.683	0.79	23.68	0.52
5.700	1.70	11.700	1.87	17.700	0.79	23.70	0.52
5.717	1.70	11.717	1.87	17.717	0.79	23.72	0.52
5.733	1.70	11.733	1.87	17.733	0.79	23.73	0.52
5.750	1.70	11.750	1.87	17.750	0.79	23.75	0.52
5.767	1.70	11.767	1.87	17.767	0.79	23.77	0.52
5.783	1.70	11.783	1.87	17.783	0.79	23.78	0.52
5.800	1.70	11.800	1.87	17.800	0.79	23.80	0.52
5.817	1.70	11.817	1.87	17.817	0.79	23.82	0.52
5.833	1.70	11.833	1.87	17.833	0.79	23.83	0.52
5.850	1.83	11.850	1.80	17.850	0.78	23.85	0.52
5.867	1.83	11.867	1.80	17.867	0.78	23.87	0.52
5.883	1.83	11.883	1.80	17.883	0.78	23.88	0.52
5.900	1.83	11.900	1.80	17.900	0.78	23.90	0.52
5.917	1.83	11.917	1.80	17.917	0.78	23.92	0.52
5.933	1.83	11.933	1.80	17.933	0.78	23.93	0.52
5.950	1.83	11.950	1.80	17.950	0.78	23.95	0.52
5.967	1.83	11.967	1.80	17.967	0.78	23.97	0.52
5.983	1.83	11.983	1.80	17.983	0.78	23.98	0.52
6.000	1.83	12.000	1.80	18.000	0.78	24.00	0.52

Max.Eff.Inten.(mm/hr)=	122.80	24.08	
over (min)	5.00	12.00	
Storage Coeff. (min)=	3.82 (ii)	11.36 (ii)	
Unit Hyd. Tpeak (min)=	5.00	12.00	
Unit Hyd. peak (cms)=	0.27	0.10	
			TOTALS
PEAK FLOW (cms)=	0.44	0.08	0.488 (iii)
TIME TO PEAK (hrs)=	8.02	8.17	8.02
RUNOFF VOLUME (mm)=	76.30	16.75	39.38
TOTAL RAINFALL (mm)=	77.31	77.31	77.31

RUNOFF COEFFICIENT = 0.99 0.22 0.51

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 48.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB					
STANDHYD (1022)	Area	(ha)=	2.86		
ID= 1 DT= 1.0 min	Total Imp(%)=	41.00	Dir. Conn.(%)=	35.00	

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	1.17	1.69
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	0.50	2.00
Length	(m)=	138.06	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 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
0.017	0.53	6.017	1.99	12.017	1.73	18.02	0.77
0.033	0.53	6.033	1.99	12.033	1.73	18.03	0.77
0.050	0.53	6.050	1.99	12.050	1.73	18.05	0.77
0.067	0.53	6.067	1.99	12.067	1.73	18.07	0.77
0.083	0.53	6.083	1.99	12.083	1.73	18.08	0.77
0.100	0.53	6.100	1.99	12.100	1.73	18.10	0.77
0.117	0.53	6.117	1.99	12.117	1.73	18.12	0.77
0.133	0.53	6.133	1.99	12.133	1.73	18.13	0.77
0.150	0.53	6.150	1.99	12.150	1.73	18.15	0.77
0.167	0.53	6.167	1.99	12.167	1.73	18.17	0.77
0.183	0.54	6.183	2.18	12.183	1.67	18.18	0.76
0.200	0.54	6.200	2.18	12.200	1.67	18.20	0.76
0.217	0.54	6.217	2.18	12.217	1.67	18.22	0.76
0.233	0.54	6.233	2.18	12.233	1.67	18.23	0.76
0.250	0.54	6.250	2.18	12.250	1.67	18.25	0.76
0.267	0.54	6.267	2.18	12.267	1.67	18.27	0.76
0.283	0.54	6.283	2.18	12.283	1.67	18.28	0.76
0.300	0.54	6.300	2.18	12.300	1.67	18.30	0.76
0.317	0.54	6.317	2.18	12.317	1.67	18.32	0.76
0.333	0.54	6.333	2.18	12.333	1.67	18.33	0.76
0.350	0.55	6.350	2.42	12.350	1.61	18.35	0.75
0.367	0.55	6.367	2.42	12.367	1.61	18.37	0.75
0.383	0.55	6.383	2.42	12.383	1.61	18.38	0.75
0.400	0.55	6.400	2.42	12.400	1.61	18.40	0.75
0.417	0.55	6.417	2.42	12.417	1.61	18.42	0.75
0.433	0.55	6.433	2.42	12.433	1.61	18.43	0.75
0.450	0.55	6.450	2.42	12.450	1.61	18.45	0.75
0.467	0.55	6.467	2.42	12.467	1.61	18.47	0.75
0.483	0.55	6.483	2.42	12.483	1.61	18.48	0.75
0.500	0.55	6.500	2.42	12.500	1.61	18.50	0.75
0.517	0.56	6.517	2.72	12.517	1.56	18.52	0.74
0.533	0.56	6.533	2.72	12.533	1.56	18.53	0.74
0.550	0.56	6.550	2.72	12.550	1.56	18.55	0.74
0.567	0.56	6.567	2.72	12.567	1.56	18.57	0.74
0.583	0.56	6.583	2.72	12.583	1.56	18.58	0.74
0.600	0.56	6.600	2.72	12.600	1.56	18.60	0.74
0.617	0.56	6.617	2.72	12.617	1.56	18.62	0.74
0.633	0.56	6.633	2.72	12.633	1.56	18.63	0.74
0.650	0.56	6.650	2.72	12.650	1.56	18.65	0.74
0.667	0.56	6.667	2.72	12.667	1.56	18.67	0.74
0.683	0.57	6.683	3.12	12.683	1.51	18.68	0.73
0.700	0.57	6.700	3.12	12.700	1.51	18.70	0.73
0.717	0.57	6.717	3.12	12.717	1.51	18.72	0.73
0.733	0.57	6.733	3.12	12.733	1.51	18.73	0.73
0.750	0.57	6.750	3.12	12.750	1.51	18.75	0.73
0.767	0.57	6.767	3.12	12.767	1.51	18.77	0.73
0.783	0.57	6.783	3.12	12.783	1.51	18.78	0.73
0.800	0.57	6.800	3.12	12.800	1.51	18.80	0.73
0.817	0.57	6.817	3.12	12.817	1.51	18.82	0.73
0.833	0.57	6.833	3.12	12.833	1.51	18.83	0.73
0.850	0.58	6.850	3.66	12.850	1.46	18.85	0.72
0.867	0.58	6.867	3.66	12.867	1.46	18.87	0.72
0.883	0.58	6.883	3.66	12.883	1.46	18.88	0.72
0.900	0.58	6.900	3.66	12.900	1.46	18.90	0.72
0.917	0.58	6.917	3.66	12.917	1.46	18.92	0.72
0.933	0.58	6.933	3.66	12.933	1.46	18.93	0.72
0.950	0.58	6.950	3.66	12.950	1.46	18.95	0.72
0.967	0.58	6.967	3.66	12.967	1.46	18.97	0.72
0.983	0.58	6.983	3.66	12.983	1.46	18.98	0.72
1.000	0.58	7.000	3.66	13.000	1.46	19.00	0.72
1.017	0.60	7.017	4.43	13.017	1.42	19.02	0.71
1.033	0.60	7.033	4.43	13.033	1.42	19.03	0.71
1.050	0.60	7.050	4.43	13.050	1.42	19.05	0.71
1.067	0.60	7.067	4.43	13.067	1.42	19.07	0.71
1.083	0.60	7.083	4.43	13.083	1.42	19.08	0.71
1.100	0.60	7.100	4.43	13.100	1.42	19.10	0.71
1.117	0.60	7.117	4.43	13.117	1.42	19.12	0.71
1.133	0.60	7.133	4.43	13.133	1.42	19.13	0.71
1.150	0.60	7.150	4.43	13.150	1.42	19.15	0.71
1.167	0.60	7.167	4.44	13.167	1.42	19.17	0.71
1.183	0.61	7.183	5.66	13.183	1.38	19.18	0.70
1.200	0.61	7.200	5.66	13.200	1.38	19.20	0.70
1.217	0.61	7.217	5.66	13.217	1.38	19.22	0.70
1.233	0.61	7.233	5.66	13.233	1.38	19.23	0.70
1.250	0.61	7.250	5.66	13.250	1.38	19.25	0.70
1.267	0.61	7.267	5.66	13.267	1.38	19.27	0.70
1.283	0.61	7.283	5.66	13.283	1.38	19.28	0.70
1.300	0.61	7.300	5.66	13.300	1.38	19.30	0.70
1.317	0.61	7.317	5.66	13.317	1.38	19.32	0.70
1.333	0.61	7.333	5.66	13.333	1.38	19.33	0.70
1.350	0.62	7.350	7.85	13.350	1.34	19.35	0.69
1.367	0.62	7.367	7.85	13.367	1.34	19.37	0.69
1.383	0.62	7.383	7.85	13.383	1.34	19.38	0.69
1.400	0.62	7.400	7.85	13.400	1.34	19.40	0.69
1.417	0.62	7.417	7.85	13.417	1.34	19.42	0.69
1.433	0.62	7.433	7.85	13.433	1.34	19.43	0.69
1.450	0.62	7.450	7.85	13.450	1.34	19.45	0.69
1.467	0.62	7.467	7.85	13.467	1.34	19.47	0.69
1.483	0.62	7.483	7.85	13.483	1.34	19.48	0.69
1.500	0.62	7.500	7.87	13.500	1.34	19.50	0.69
1.517	0.64	7.517	12.85	13.517	1.30	19.52	0.68
1.533	0.64	7.533	12.85	13.533	1.30	19.53	0.68
1.550	0.64	7.550	12.85	13.550	1.30	19.55	0.68
1.567	0.64	7.567	12.85	13.567	1.30	19.57	0.68
1.583	0.64	7.583	12.85	13.583	1.30	19.58	0.68
1.600	0.64	7.600	12.85	13.600	1.30	19.60	0.68
1.617	0.64	7.617	12.85	13.617	1.30	19.62	0.68
1.633	0.64	7.633	12.85	13.633	1.30	19.63	0.68
1.650	0.64	7.650	12.85	13.650	1.30	19.65	0.68
1.667	0.64	7.667	12.91	13.667	1.30	19.67	0.68
1.683	0.65	7.683	33.57	13.683	1.27	19.68	0.67
1.700	0.65	7.700	33.57	13.700	1.27	19.70	0.67
1.717	0.65	7.717	33.57	13.717	1.27	19.72	0.67
1.733	0.65	7.733	33.57	13.733	1.27	19.73	0.67
1.750	0.65	7.750	33.57	13.750	1.27	19.75	0.67
1.767	0.65	7.767	33.57	13.767	1.27	19.77	0.67
1.783	0.65	7.783	33.57	13.783	1.27	19.78	0.67
1.800	0.65	7.800	33.57	13.800	1.27	19.80	0.67
1.817	0.65	7.817	33.57	13.817	1.27	19.82	0.67
1.833	0.65	7.833	33.83	13.833	1.27	19.83	0.67
1.850	0.67	7.850	122.80	13.850	1.24	19.85	0.66
1.867	0.67	7.867	122.80	13.867	1.24	19.87	0.66
1.883	0.67	7.883	122.80	13.883	1.24	19.88	0.66
1.900	0.67	7.900	122.80	13.900	1.24	19.90	0.66
1.917	0.67	7.917	122.80	13.917	1.24	19.92	0.66
1.933	0.67	7.933	122.80	13.933	1.24	19.93	0.66
1.950	0.67	7.950	122.80	13.950	1.24	19.95	0.66
1.967	0.67	7.967	122.80	13.967	1.24	19.97	0.66
1.983	0.67	7.983	122.80	13.983	1.24	19.98	0.66
2.000	0.67	8.000	122.56	14.000	1.24	20.00	0.66
2.017	0.68	8.017	44.52	14.017	1.21	20.02	0.66
2.033	0.68	8.033	44.52	14.033	1.21	20.03	0.66
2.050	0.68	8.050	44.52	14.050	1.21	20.05	0.66
2.067	0.68	8.067	44.52	14.067	1.21	20.07	0.66
2.083	0.68	8.083	44.52	14.083	1.21	20.08	0.66
2.100	0.68	8.100	44.52	14.100	1.21	20.10	0.66
2.117	0.68	8.117	44.52	14.117	1.21	20.12	0.66
2.133	0.68	8.133	44.52	14.133	1.21	20.13	0.66
2.150	0.68	8.150	44.52	14.150	1.21	20.15	0.66
2.167	0.68	8.167	44.45	14.167	1.21	20.17	0.66
2.183	0.70	8.183	22.67	14.183	1.18	20.18	0.65
2.200	0.70	8.200	22.67	14.200	1.18	20.20	0.65
2.217	0.70	8.217	22.67	14.217	1.18	20.22	0.65
2.233	0.70	8.233	22.67	14.233	1.18	20.23	0.65
2.250	0.70	8.250	22.67	14.250	1.18	20.25	0.65
2.267	0.70	8.267	22.67	14.267	1.18	20.27	0.65
2.283	0.70	8.283	22.67	14.283	1.18	20.28	0.65
2.300	0.70	8.300	22.67	14.300	1.18	20.30	0.65
2.317	0.70	8.317	22.67	14.317	1.18	20.32	0.65
2.333	0.70	8.333	22.65	14.333	1.18	20.33	0.65
2.350	0.72	8.350	14.82	14.350	1.15	20.35	0.64
2.367	0.72	8.367	14.82	14.367	1.15	20.37	0.64
2.383	0.72	8.383	14.82	14.383	1.15	20.38	0.64
2.400	0.72	8.400	14.82	14.400	1.15	20.40	0.64
2.417	0.72	8.417	14.82	14.417	1.15	20.42	0.64
2.433	0.72	8.433	14.82	14.433	1.15	20.43	0.64
2.450	0.72	8.450	14.82	14.450	1.15	20.45	0.64
2.467	0.72	8.467	14.82	14.467	1.15	20.47	0.64
2.483	0.72	8.483	14.82	14.483	1.15	20.48	0.64
2.500	0.72	8.500	14.81	14.500	1.15	20.50	0.64
2.517	0.74	8.517	10.92	14.517	1.12	20.52	0.63
2.533	0.74	8.533	10.92	14.533	1.12	20.53	0.63
2.550	0.74	8.550	10.92	14.550	1.12	20.55	0.63
2.567	0.74	8.567	10.92	14.567	1.12	20.57	0.63
2.583	0.74	8.583	10.92	14.583	1.12	20.58	0.63
2.600	0.74	8.600	10.92	14.600	1.12	20.60	0.63
2.617	0.74	8.617	10.92	14.617	1.12	20.62	0.63
2.633	0.74	8.633	10.92	14.633	1.12	20.63	0.63
2.650	0.74	8.650	10.92	14.650	1.12	20.65	0.63
2.667	0.74	8.667	10.91	14.667	1.12	20.67	0.63
2.683	0.76	8.683	8.62	14.683	1.10	20.68	0.63
2.700	0.76	8.700	8.62	14.700	1.10	20.70	0.63
2.717	0.76	8.717	8.62	14.717	1.10	20.72	0.63
2.733	0.76	8.733	8.62	14.733	1.10	20.73	0.63
2.750	0.76	8.750	8.62	14.750	1.10	20.75	0.63
2.767	0.76	8.767	8.62	14.767	1.10	20.77	0.63
2.783	0.76	8.783	8.62	14.783	1.10	20.78	0.63
2.800	0.76	8.800	8.62	14.800	1.10	20.80	0.63
2.817	0.76	8.817	8.62	14.817	1.10	20.82	0.63
2.833	0.76	8.833	8.61	14.833	1.10	20.83	0.63
2.850	0.79	8.850	7.11	14.850	1.07	20.85	0.62
2.867	0.79	8.867	7.11	14.867	1.07	20.87	0.62
2.883	0.79	8.883	7.11	14.883	1.07	20.88	0.62
2.900	0.79	8.900	7.11	14.900	1.07	20.90	0.62
2.917	0.79	8.917	7.11	14.917	1.07	20.92	0.62
2.933	0.79	8.933	7.11	14.933	1.07	20.93	0.62
2.950	0.79	8.950	7.11	14.950	1.07	20.95	0.62
2.967	0.79	8.967	7.11	14.967	1.07	20.97	0.62
2.983	0.79	8.983	7.11	14.983	1.07	20.98	0.62
3.000	0.79	9.000	7.11	15.000	1.07	21.00	0.62
3.017	0.81	9.017	6.06	15.017	1.05	21.02	0.61
3.033	0.81	9.033	6.06	15.033	1.05	21.03	0.61
3.050	0.81	9.050	6.06	15.050	1.05	21.05	0.61
3.067	0.81	9.067	6.06	15.067	1.05	21.07	0.61
3.083	0.81	9.083	6.06	15.083	1.05	21.08	0.61
3.100	0.81	9.100	6.06	15.100	1.05	21.10	0.61
3.117	0.81	9.117	6.06	15.117	1.05	21.12	0.61
3.133	0.81	9.133	6.06	15.133	1.05	21.13	0.61
3.150	0.81	9.150	6.06	15.150	1.05	21.15	0.61
3.167	0.81	9.167	6.05	15.167	1.05	21.17	0.61
3.183	0.84	9.183	5.28	15.183	1.03	21.18	0.61
3.200	0.84	9.200	5.28	15.200	1.03	21.20	0.61
3.217	0.84	9.217	5.28	15.217	1.03	21.22	0.61
3.233	0.84	9.233	5.28	15.233	1.03	21.23	0.61
3.250	0.84	9.250	5.28	15.250	1.03	21.25	0.61
3.267	0.84	9.267	5.28	15.267	1.03	21.27	0.61
3.283	0.84	9.283	5.28	15.283	1.03	21.28	0.61
3.300	0.84	9.300	5.28	15.300	1.03	21.30	0.61
3.317	0.84	9.317	5.28	15.317	1.03	21.32	0.61
3.333	0.84	9.333	5.27	15.333	1.03	21.33	0.61
3.350	0.86	9.350	4.68	15.350	1.01	21.35	0.60
3.367	0.86	9.367	4.68	15.367	1.01	21.37	0.60
3.383	0.86	9.383	4.68	15.383	1.01	21.38	0.60
3.400	0.86	9.400	4.68	15.400	1.01	21.40	0.60
3.417	0.86	9.417	4.68	15.417	1.01	21.42	0.60
3.433	0.86	9.433	4.68	15.433	1.01	21.43	0.60
3.450	0.86	9.450	4.68	15.450	1.01	21.45	0.60
3.467	0.86	9.467	4.68	15.467	1.01	21.47	0.60
3.483	0.86	9.483	4.68	15.483	1.01	21.48	0.60
3.500	0.86	9.500	4.68	15.500	1.01	21.50	0.60
3.517	0.89	9.517	4.20	15.517	0.99	21.52	0.59
3.533	0.89	9.533	4.20	15.533	0.99	21.53	0.59
3.550	0.89	9.550	4.20	15.550	0.99	21.55	0.59
3.567	0.89	9.567	4.20	15.567	0.99	21.57	0.59
3.583	0.89	9.583	4.20	15.583	0.99	21.58	0.59
3.600	0.89	9.600	4.20	15.600	0.99	21.60	0.59
3.617	0.89	9.617	4.20	15.617	0.99	21.62	0.59
3.633	0.89	9.633	4.20	15.633	0.99	21.63	0.59
3.650	0.89	9.650	4.20	15.650	0.99	21.65	0.59
3.667	0.89	9.667	4.20	15.667	0.99	21.67	0.59
3.683	0.93	9.683	3.82	15.683	0.97	21.68	0.59
3.700	0.93	9.700	3.82	15.700	0.97	21.70	0.59
3.717	0.93	9.717	3.82	15.717	0.97	21.72	0.59
3.733	0.93	9.733	3.82	15.733	0.97	21.73	0.59
3.750	0.93	9.750	3.82	15.750	0.97	21.75	0.59
3.767	0.93	9.767	3.82	15.767	0.97	21.77	0.59
3.783	0.93	9.783	3.82	15.783	0.97	21.78	0.59
3.800	0.93	9.800	3.82	15.800	0.97	21.80	0.59
3.817	0.93	9.817	3.82	15.817	0.97	21.82	0.59
3.833	0.93	9.833	3.82	15.833	0.97	21.83	0.59
3.850	0.96	9.850	3.50	15.850	0.95	21.85	0.58
3.867	0.96	9.867	3.50	15.867	0.95	21.87	0.58
3.883	0.96	9.883	3.50	15.883	0.95	21.88	0.58
3.900	0.96	9.900	3.50	15.900	0.95	21.90	0.58
3.917	0.96	9.917	3.50	15.917	0.95	21.92	0.58
3.933	0.96	9.933	3.50	15.933	0.95	21.93	0.58
3.950	0.96	9.950	3.50	15.950	0.95	21.95	0.58
3.967	0.96	9.967	3.50	15.967	0.95	21.97	0.58
3.983	0.96	9.983	3.50	15.983	0.95	21.98	0.58
4.000	0.96	10.000	3.50	16.000	0.95	22.00	0.58
4.017	1.00	10.017	3.24	16.017	0.94	22.02	0.57
4.033	1.00	10.033	3.24	16.033	0.94	22.03	0.57
4.050	1.00	10.050	3.24	16.050	0.94	22.05	0.57
4.067	1.00	10.067	3.24	16.067	0.94	22.07	0.57
4.083	1.00	10.083	3.24	16.083	0.94	22.08	0.57
4.100	1.00	10.100	3.24	16.100	0.94	22.10	0.57
4.117	1.00	10.117	3.24	16.117	0.94	22.12	0.57
4.133	1.00	10.133	3.24	16.133	0.94	22.13	0.57
4.150	1.00	10.150	3.24	16.150	0.94	22.15	0.57
4.167	1.00	10.167	3.24	16.167	0.94	22.17	0.57
4.183	1.04	10.183	3.01	16.183	0.92	22.18	0.57
4.200	1.04	10.200	3.01	16.200	0.92	22.20	0.57
4.217	1.04	10.217	3.01	16.217	0.92	22.22	0.57
4.233	1.04	10.233	3.01	16.233	0.92	22.23	0.57
4.250	1.04	10.250	3.01	16.250	0.92	22.25	0.57
4.267	1.04	10.267	3.01	16.267	0.92	22.27	0.57
4.283	1.04	10.283	3.01	16.283	0.92	22.28	0.57
4.300	1.04	10.300	3.01	16.300	0.92	22.30	0.57
4.317	1.04	10.317	3.01	16.317	0.92	22.32	0.57
4.333	1.04	10.333	3.01	16.333	0.92	22.33	0.57
4.350	1.08	10.350	2.81	16.350	0.90	22.35	0.56
4.367	1.08	10.367	2.81	16.367	0.90	22.37	0.56
4.383	1.08	10.383	2.81	16.383	0.90	22.38	0.56
4.400	1.08	10.400	2.81	16.400	0.90	22.40	0.56
4.417	1.08	10.417	2.81	16.417	0.90	22.42	0.56
4.433	1.08	10.433	2.81	16.433	0.90	22.43	0.56
4.450	1.08	10.450	2.81	16.450	0.90	22.45	0.56
4.467	1.08	10.467	2.81	16.467	0.90	22.47	0.56
4.483	1.08	10.483	2.81	16.483	0.90	22.48	0.56
4.500	1.08	10.500	2.81	16.500	0.90	22.50	0.56
4.517	1.13	10.517	2.64	16.517	0.89	22.52	0.56
4.533	1.13	10.533	2.64	16.533	0.89	22.53	0.56
4.550	1.13	10.550	2.64	16.550	0.89	22.55	0.56
4.567	1.13	10.567	2.64	16.567	0.89	22.57	0.56
4.583	1.13	10.583	2.64	16.583	0.89	22.58	0.56
4.600	1.13	10.600	2.64	16.600	0.89	22.60	0.56
4.617	1.13	10.617	2.64	16.617	0.89	22.62	0.56
4.633	1.13	10.633	2.64	16.633	0.89	22.63	0.56
4.650	1.13	10.650	2.64	16.650	0.89	22.65	0.56
4.667	1.13	10.667	2.64	16.667	0.89	22.67	0.56
4.683	1.19	10.683	2.49	16.683	0.87	22.68	0.55
4.700	1.19	10.700	2.49	16.700	0.87	22.70	0.55
4.717	1.19	10.717	2.49	16.717	0.87	22.72	0.55
4.733	1.19	10.733	2.49	16.733	0.87	22.73	0.55

4.750	1.19	10.750	2.49	16.750	0.87	22.75	0.55
4.767	1.19	10.767	2.49	16.767	0.87	22.77	0.55
4.783	1.19	10.783	2.49	16.783	0.87	22.78	0.55
4.800	1.19	10.800	2.49	16.800	0.87	22.80	0.55
4.817	1.19	10.817	2.49	16.817	0.87	22.82	0.55
4.833	1.19	10.833	2.49	16.833	0.87	22.83	0.55
4.850	1.25	10.850	2.36	16.850	0.86	22.85	0.55
4.867	1.25	10.867	2.36	16.867	0.86	22.87	0.55
4.883	1.25	10.883	2.36	16.883	0.86	22.88	0.55
4.900	1.25	10.900	2.36	16.900	0.86	22.90	0.55
4.917	1.25	10.917	2.36	16.917	0.86	22.92	0.55
4.933	1.25	10.933	2.36	16.933	0.86	22.93	0.55
4.950	1.25	10.950	2.36	16.950	0.86	22.95	0.55
4.967	1.25	10.967	2.36	16.967	0.86	22.97	0.55
4.983	1.25	10.983	2.36	16.983	0.86	22.98	0.55
5.000	1.25	11.000	2.36	17.000	0.86	23.00	0.55
5.017	1.32	11.017	2.24	17.017	0.84	23.02	0.54
5.033	1.32	11.033	2.24	17.033	0.84	23.03	0.54
5.050	1.32	11.050	2.24	17.050	0.84	23.05	0.54
5.067	1.32	11.067	2.24	17.067	0.84	23.07	0.54
5.083	1.32	11.083	2.24	17.083	0.84	23.08	0.54
5.100	1.32	11.100	2.24	17.100	0.84	23.10	0.54
5.117	1.32	11.117	2.24	17.117	0.84	23.12	0.54
5.133	1.32	11.133	2.24	17.133	0.84	23.13	0.54
5.150	1.32	11.150	2.24	17.150	0.84	23.15	0.54
5.167	1.32	11.167	2.24	17.167	0.84	23.17	0.54
5.183	1.39	11.183	2.13	17.183	0.83	23.18	0.54
5.200	1.39	11.200	2.13	17.200	0.83	23.20	0.54
5.217	1.39	11.217	2.13	17.217	0.83	23.22	0.54
5.233	1.39	11.233	2.13	17.233	0.83	23.23	0.54
5.250	1.39	11.250	2.13	17.250	0.83	23.25	0.54
5.267	1.39	11.267	2.13	17.267	0.83	23.27	0.54
5.283	1.39	11.283	2.13	17.283	0.83	23.28	0.54
5.300	1.39	11.300	2.13	17.300	0.83	23.30	0.54
5.317	1.39	11.317	2.13	17.317	0.83	23.32	0.54
5.333	1.39	11.333	2.13	17.333	0.83	23.33	0.54
5.350	1.48	11.350	2.04	17.350	0.82	23.35	0.53
5.367	1.48	11.367	2.04	17.367	0.82	23.37	0.53
5.383	1.48	11.383	2.04	17.383	0.82	23.38	0.53
5.400	1.48	11.400	2.04	17.400	0.82	23.40	0.53
5.417	1.48	11.417	2.04	17.417	0.82	23.42	0.53
5.433	1.48	11.433	2.04	17.433	0.82	23.43	0.53
5.450	1.48	11.450	2.04	17.450	0.82	23.45	0.53
5.467	1.48	11.467	2.04	17.467	0.82	23.47	0.53
5.483	1.48	11.483	2.04	17.483	0.82	23.48	0.53
5.500	1.48	11.500	2.04	17.500	0.82	23.50	0.53
5.517	1.58	11.517	1.95	17.517	0.80	23.52	0.53
5.533	1.58	11.533	1.95	17.533	0.80	23.53	0.53
5.550	1.58	11.550	1.95	17.550	0.80	23.55	0.53
5.567	1.58	11.567	1.95	17.567	0.80	23.57	0.53
5.583	1.58	11.583	1.95	17.583	0.80	23.58	0.53
5.600	1.58	11.600	1.95	17.600	0.80	23.60	0.53

5.617	1.58	11.617	1.95	17.617	0.80	23.62	0.53
5.633	1.58	11.633	1.95	17.633	0.80	23.63	0.53
5.650	1.58	11.650	1.95	17.650	0.80	23.65	0.53
5.667	1.58	11.667	1.95	17.667	0.80	23.67	0.53
5.683	1.70	11.683	1.87	17.683	0.79	23.68	0.52
5.700	1.70	11.700	1.87	17.700	0.79	23.70	0.52
5.717	1.70	11.717	1.87	17.717	0.79	23.72	0.52
5.733	1.70	11.733	1.87	17.733	0.79	23.73	0.52
5.750	1.70	11.750	1.87	17.750	0.79	23.75	0.52
5.767	1.70	11.767	1.87	17.767	0.79	23.77	0.52
5.783	1.70	11.783	1.87	17.783	0.79	23.78	0.52
5.800	1.70	11.800	1.87	17.800	0.79	23.80	0.52
5.817	1.70	11.817	1.87	17.817	0.79	23.82	0.52
5.833	1.70	11.833	1.87	17.833	0.79	23.83	0.52
5.850	1.83	11.850	1.80	17.850	0.78	23.85	0.52
5.867	1.83	11.867	1.80	17.867	0.78	23.87	0.52
5.883	1.83	11.883	1.80	17.883	0.78	23.88	0.52
5.900	1.83	11.900	1.80	17.900	0.78	23.90	0.52
5.917	1.83	11.917	1.80	17.917	0.78	23.92	0.52
5.933	1.83	11.933	1.80	17.933	0.78	23.93	0.52
5.950	1.83	11.950	1.80	17.950	0.78	23.95	0.52
5.967	1.83	11.967	1.80	17.967	0.78	23.97	0.52
5.983	1.83	11.983	1.80	17.983	0.78	23.98	0.52
6.000	1.83	12.000	1.80	18.000	0.78	24.00	0.52

```
     Max.Eff.Inten.(mm/hr)=     122.80        22.99
                 over (min)        5.00        12.00
     Storage Coeff.  (min)=       3.52 (ii)   11.53 (ii)
     Unit Hyd. Tpeak (min)=       5.00        12.00
     Unit Hyd. peak  (cms)=       0.28         0.10
                                                      *TOTALS*
     PEAK FLOW       (cms)=       0.31         0.07          0.349 (iii)
     TIME TO PEAK    (hrs)=       8.02         8.17          8.02
     RUNOFF VOLUME    (mm)=      76.31        16.41         37.38
     TOTAL RAINFALL   (mm)=      77.31        77.31         77.31
     RUNOFF COEFFICIENT   =        0.99         0.21          0.48


       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN*  =  48.0    Ia = Dep. Storage  (Above)
       (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
       (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

--------------------------------------------------------------------------------
-------------------
| DUHYD   (  0035)|
| Inlet Cap.= 0.202|
| #of Inlets=     1|
| Total(cms)=   0.2|      AREA     QPEAK     TPEAK    R.V.
--------------------      (ha)     (cms)     (hrs)    (mm)
     TOTAL HYD.(ID= 1):   2.86      0.35      8.02   37.38
```

```
      ================================================
     MAJOR SYS.(ID= 2):   0.21      0.15      8.02   37.38
     MINOR SYS.(ID= 3):   2.65      0.20      7.92   37.38

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

--------------------------------------------------------------------------------
-------------------
| ADD HYD  (  0102)|
|  1 +  2 =  3     |        AREA    QPEAK     TPEAK     R.V.
-------------------         (ha)    (cms)     (hrs)     (mm)
       ID1= 1 (  1021):     3.77   0.488      8.02    39.38
     + ID2= 2 (  0035):     0.21   0.147      8.02    37.38
       ================================================
       ID = 3 (  0102):     3.98   0.635      8.02    39.28

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------
-------------------
| ADD HYD  (  0903)|
|  1 +  2 =  3     |        AREA    QPEAK     TPEAK     R.V.
-------------------         (ha)    (cms)     (hrs)     (mm)
       ID1= 1 (  0102):     3.98   0.635      8.02    39.28
     + ID2= 2 (  0902):    16.17   2.344      8.05    38.54
       ================================================
       ID = 3 (  0903):    20.15   2.942      8.05    38.69

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------
-------------------
| CALIB            |
| NASHYD   (  1051)|   Area     (ha)=   1.62   Curve Number   (CN)= 60.0
|ID= 1 DT= 5.0 min |   Ia       (mm)=   5.00   # of Linear Res.(N)= 3.00
-------------------   U.H. Tp(hrs)=   1.87

          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    0.53 | 6.083    1.99 |12.083    1.73 | 18.08    0.77
 0.167    0.53 | 6.167    1.99 |12.167    1.73 | 18.17    0.77
 0.250    0.54 | 6.250    2.18 |12.250    1.67 | 18.25    0.76
 0.333    0.54 | 6.333    2.18 |12.333    1.67 | 18.33    0.76
 0.417    0.55 | 6.417    2.42 |12.417    1.61 | 18.42    0.75
 0.500    0.55 | 6.500    2.42 |12.500    1.61 | 18.50    0.75
 0.583    0.56 | 6.583    2.72 |12.583    1.56 | 18.58    0.74
 0.667    0.56 | 6.667    2.72 |12.667    1.56 | 18.67    0.74
 0.750    0.57 | 6.750    3.12 |12.750    1.51 | 18.75    0.73
```

0.833	0.57	6.833	3.12	12.833	1.51	18.83	0.73
0.917	0.58	6.917	3.66	12.917	1.46	18.92	0.72
1.000	0.58	7.000	3.66	13.000	1.46	19.00	0.72
1.083	0.60	7.083	4.43	13.083	1.42	19.08	0.71
1.167	0.60	7.167	4.43	13.167	1.42	19.17	0.71
1.250	0.61	7.250	5.66	13.250	1.38	19.25	0.70
1.333	0.61	7.333	5.66	13.333	1.38	19.33	0.70
1.417	0.62	7.417	7.85	13.417	1.34	19.42	0.69
1.500	0.62	7.500	7.85	13.500	1.34	19.50	0.69
1.583	0.64	7.583	12.85	13.583	1.30	19.58	0.68
1.667	0.64	7.667	12.86	13.667	1.30	19.67	0.68
1.750	0.65	7.750	33.57	13.750	1.27	19.75	0.67
1.833	0.65	7.833	33.58	13.833	1.27	19.83	0.67
1.917	0.67	7.917	122.80	13.917	1.24	19.92	0.66
2.000	0.67	8.000	122.79	14.000	1.24	20.00	0.66
2.083	0.68	8.083	44.52	14.083	1.21	20.08	0.66
2.167	0.68	8.167	44.52	14.167	1.21	20.17	0.66
2.250	0.70	8.250	22.67	14.250	1.18	20.25	0.65
2.333	0.70	8.333	22.67	14.333	1.18	20.33	0.65
2.417	0.72	8.417	14.82	14.417	1.15	20.42	0.64
2.500	0.72	8.500	14.82	14.500	1.15	20.50	0.64
2.583	0.74	8.583	10.92	14.583	1.12	20.58	0.63
2.667	0.74	8.667	10.92	14.667	1.12	20.67	0.63
2.750	0.76	8.750	8.62	14.750	1.10	20.75	0.63
2.833	0.76	8.833	8.62	14.833	1.10	20.83	0.63
2.917	0.79	8.917	7.11	14.917	1.07	20.92	0.62
3.000	0.79	9.000	7.11	15.000	1.07	21.00	0.62
3.083	0.81	9.083	6.06	15.083	1.05	21.08	0.61
3.167	0.81	9.167	6.06	15.167	1.05	21.17	0.61
3.250	0.84	9.250	5.28	15.250	1.03	21.25	0.61
3.333	0.84	9.333	5.28	15.333	1.03	21.33	0.61
3.417	0.86	9.417	4.68	15.417	1.01	21.42	0.60
3.500	0.86	9.500	4.68	15.500	1.01	21.50	0.60
3.583	0.89	9.583	4.20	15.583	0.99	21.58	0.59
3.667	0.89	9.667	4.20	15.667	0.99	21.67	0.59
3.750	0.93	9.750	3.82	15.750	0.97	21.75	0.59
3.833	0.93	9.833	3.82	15.833	0.97	21.83	0.59
3.917	0.96	9.917	3.50	15.917	0.95	21.92	0.58
4.000	0.96	10.000	3.50	16.000	0.95	22.00	0.58
4.083	1.00	10.083	3.24	16.083	0.94	22.08	0.57
4.167	1.00	10.167	3.24	16.167	0.94	22.17	0.57
4.250	1.04	10.250	3.01	16.250	0.92	22.25	0.57
4.333	1.04	10.333	3.01	16.333	0.92	22.33	0.57
4.417	1.08	10.417	2.81	16.417	0.90	22.42	0.56
4.500	1.08	10.500	2.81	16.500	0.90	22.50	0.56
4.583	1.13	10.583	2.64	16.583	0.89	22.58	0.56
4.667	1.13	10.667	2.64	16.667	0.89	22.67	0.56
4.750	1.19	10.750	2.49	16.750	0.87	22.75	0.55
4.833	1.19	10.833	2.49	16.833	0.87	22.83	0.55
4.917	1.25	10.917	2.36	16.917	0.86	22.92	0.55
5.000	1.25	11.000	2.36	17.000	0.86	23.00	0.55
5.083	1.32	11.083	2.24	17.083	0.84	23.08	0.54

5.167	1.32	11.167	2.24	17.167	0.84	23.17	0.54
5.250	1.39	11.250	2.13	17.250	0.83	23.25	0.54
5.333	1.39	11.333	2.13	17.333	0.83	23.33	0.54
5.417	1.48	11.417	2.04	17.417	0.82	23.42	0.53
5.500	1.48	11.500	2.04	17.500	0.82	23.50	0.53
5.583	1.58	11.583	1.95	17.583	0.80	23.58	0.53
5.667	1.58	11.667	1.95	17.667	0.80	23.67	0.53
5.750	1.70	11.750	1.87	17.750	0.79	23.75	0.52
5.833	1.70	11.833	1.87	17.833	0.79	23.83	0.52
5.917	1.83	11.917	1.80	17.917	0.78	23.92	0.52
6.000	1.83	12.000	1.80	18.000	0.78	24.00	0.52

```
     Unit Hyd Qpeak  (cms)=   0.033

     PEAK FLOW       (cms)=   0.017 (i)
     TIME TO PEAK    (hrs)=  10.333
     RUNOFF VOLUME    (mm)=  21.636
     TOTAL RAINFALL   (mm)=  77.311
     RUNOFF COEFFICIENT   =   0.280

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

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-------------------
| ADD HYD  (  0105)|
|  1 +  2 =  3     |        AREA    QPEAK     TPEAK     R.V.
-------------------         (ha)    (cms)     (hrs)     (mm)
       ID1= 1 (  1051):     1.62   0.017    10.33     21.64
     + ID2= 2 (  0037):     0.10   0.067     8.02     31.55
       ================================================
       ID = 3 (  0105):     1.72   0.067     8.02     22.22

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------
-------------------
| ADD HYD  (  0906)|
|  1 +  2 =  3     |        AREA    QPEAK     TPEAK     R.V.
-------------------         (ha)    (cms)     (hrs)     (mm)
       ID1= 1 (  0105):     1.72   0.067     8.02     22.22
     + ID2= 2 (  0903):    20.15   2.942     8.05     38.69
       ================================================
       ID = 3 (  0906):    21.88   2.998     8.05     37.39

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------
-------------------
| CALIB            |
| NASHYD   (  0201)|   Area     (ha)=   6.97   Curve Number   (CN)= 66.0
|ID= 1 DT= 5.0 min |   Ia       (mm)=   5.00   # of Linear Res.(N)= 3.00
-------------------   U.H. Tp(hrs)=   0.74
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          NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.

                              ---- TRANSFORMED HYETOGRAPH ----
  TIME    RAIN |  TIME    RAIN |'  TIME    RAIN |  TIME    RAIN
   hrs   mm/hr |   hrs   mm/hr |'   hrs   mm/hr |   hrs   mm/hr
 0.083    0.53 | 6.083    1.99 |12.083    1.73 | 18.08    0.77
 0.167    0.53 | 6.167    1.99 |12.167    1.73 | 18.17    0.77
 0.250    0.54 | 6.250    2.18 |12.250    1.67 | 18.25    0.76
 0.333    0.54 | 6.333    2.18 |12.333    1.67 | 18.33    0.76
 0.417    0.55 | 6.417    2.42 |12.417    1.61 | 18.42    0.75
 0.500    0.55 | 6.500    2.42 |12.500    1.61 | 18.50    0.75
 0.583    0.56 | 6.583    2.72 |12.583    1.56 | 18.58    0.74
 0.667    0.56 | 6.667    2.72 |12.667    1.56 | 18.67    0.74
 0.750    0.57 | 6.750    3.12 |12.750    1.51 | 18.75    0.73
 0.833    0.57 | 6.833    3.12 |12.833    1.51 | 18.83    0.73
 0.917    0.58 | 6.917    3.66 |12.917    1.46 | 18.92    0.72
 1.000    0.58 | 7.000    3.66 |13.000    1.46 | 19.00    0.72
 1.083    0.60 | 7.083    4.43 |13.083    1.42 | 19.08    0.71
 1.167    0.60 | 7.167    4.43 |13.167    1.42 | 19.17    0.71
 1.250    0.61 | 7.250    5.66 |13.250    1.38 | 19.25    0.70
 1.333    0.61 | 7.333    5.66 |13.333    1.38 | 19.33    0.70
 1.417    0.62 | 7.417    7.85 |13.417    1.34 | 19.42    0.69
 1.500    0.62 | 7.500    7.85 |13.500    1.34 | 19.50    0.69
 1.583    0.64 | 7.583   12.85 |13.583    1.30 | 19.58    0.68
 1.667    0.64 | 7.667   12.86 |13.667    1.30 | 19.67    0.68
 1.750    0.65 | 7.750   33.57 |13.750    1.27 | 19.75    0.67
 1.833    0.65 | 7.833   33.58 |13.833    1.27 | 19.83    0.67
 1.917    0.67 | 7.917  122.80 |13.917    1.24 | 19.92    0.66
 2.000    0.67 | 8.000  122.79 |14.000    1.24 | 20.00    0.66
 2.083    0.68 | 8.083   44.52 |14.083    1.21 | 20.08    0.66
 2.167    0.68 | 8.167   44.52 |14.167    1.21 | 20.17    0.66
 2.250    0.70 | 8.250   22.67 |14.250    1.18 | 20.25    0.65
 2.333    0.70 | 8.333   22.67 |14.333    1.18 | 20.33    0.65
 2.417    0.72 | 8.417   14.82 |14.417    1.15 | 20.42    0.64
 2.500    0.72 | 8.500   14.82 |14.500    1.15 | 20.50    0.64
 2.583    0.74 | 8.583   10.92 |14.583    1.12 | 20.58    0.63
 2.667    0.74 | 8.667   10.92 |14.667    1.12 | 20.67    0.63
 2.750    0.76 | 8.750    8.62 |14.750    1.10 | 20.75    0.63
 2.833    0.76 | 8.833    8.62 |14.833    1.10 | 20.83    0.63
 2.917    0.79 | 8.917    7.11 |14.917    1.07 | 20.92    0.62
 3.000    0.79 | 9.000    7.11 |15.000    1.07 | 21.00    0.62
 3.083    0.81 | 9.083    6.06 |15.083    1.05 | 21.08    0.61
 3.167    0.81 | 9.167    6.06 |15.167    1.05 | 21.17    0.61
 3.250    0.84 | 9.250    5.28 |15.250    1.03 | 21.25    0.61
 3.333    0.84 | 9.333    5.28 |15.333    1.03 | 21.33    0.61
 3.417    0.86 | 9.417    4.68 |15.417    1.01 | 21.42    0.60
 3.500    0.86 | 9.500    4.68 |15.500    1.01 | 21.50    0.60
 3.583    0.89 | 9.583    4.20 |15.583    0.99 | 21.58    0.59
 3.667    0.89 | 9.667    4.20 |15.667    0.99 | 21.67    0.59
 3.750    0.93 | 9.750    3.82 |15.750    0.97 | 21.75    0.59
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3.833	0.93	9.833	3.82	15.833	0.97	21.83	0.59
3.917	0.96	9.917	3.50	15.917	0.95	21.92	0.58
4.000	0.96	10.000	3.50	16.000	0.95	22.00	0.58
4.083	1.00	10.083	3.24	16.083	0.94	22.08	0.57
4.167	1.00	10.167	3.24	16.167	0.94	22.17	0.57
4.250	1.04	10.250	3.01	16.250	0.92	22.25	0.57
4.333	1.04	10.333	3.01	16.333	0.92	22.33	0.57
4.417	1.08	10.417	2.81	16.417	0.90	22.42	0.56
4.500	1.08	10.500	2.81	16.500	0.90	22.50	0.56
4.583	1.13	10.583	2.64	16.583	0.89	22.58	0.56
4.667	1.13	10.667	2.64	16.667	0.89	22.67	0.56
4.750	1.19	10.750	2.49	16.750	0.87	22.75	0.55
4.833	1.19	10.833	2.49	16.833	0.87	22.83	0.55
4.917	1.25	10.917	2.36	16.917	0.86	22.92	0.55
5.000	1.25	11.000	2.36	17.000	0.86	23.00	0.55
5.083	1.32	11.083	2.24	17.083	0.84	23.08	0.54
5.167	1.32	11.167	2.24	17.167	0.84	23.17	0.54
5.250	1.39	11.250	2.13	17.250	0.83	23.25	0.54
5.333	1.39	11.333	2.13	17.333	0.83	23.33	0.54
5.417	1.48	11.417	2.04	17.417	0.82	23.42	0.53
5.500	1.48	11.500	2.04	17.500	0.82	23.50	0.53
5.583	1.58	11.583	1.95	17.583	0.80	23.58	0.53
5.667	1.58	11.667	1.95	17.667	0.80	23.67	0.53
5.750	1.70	11.750	1.87	17.750	0.79	23.75	0.52
5.833	1.70	11.833	1.87	17.833	0.79	23.83	0.52
5.917	1.83	11.917	1.80	17.917	0.78	23.92	0.52
6.000	1.83	12.000	1.80	18.000	0.78	24.00	0.52

Unit Hyd Qpeak (cms)= 0.360

PEAK FLOW (cms)= 0.175 (i)
TIME TO PEAK (hrs)= 8.833
RUNOFF VOLUME (mm)= 25.738
TOTAL RAINFALL (mm)= 77.311
RUNOFF COEFFICIENT = 0.333

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

CALIB					
NASHYD (0202)	Area (ha)= 2.71	Curve Number (CN)= 68.0			
ID= 1 DT= 5.0 min	Ia (mm)= 5.00	# of Linear Res.(N)= 3.00			
	U.H. Tp(hrs)= 0.93				

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	0.53	6.083	1.99	12.083	1.73	18.08	0.77
0.167	0.53	6.167	1.99	12.167	1.73	18.17	0.77
0.250	0.54	6.250	2.18	12.250	1.67	18.25	0.76
0.333	0.54	6.333	2.18	12.333	1.67	18.33	0.76
0.417	0.55	6.417	2.42	12.417	1.61	18.42	0.75
0.500	0.55	6.500	2.42	12.500	1.61	18.50	0.75
0.583	0.56	6.583	2.72	12.583	1.56	18.58	0.74
0.667	0.56	6.667	2.72	12.667	1.56	18.67	0.74
0.750	0.57	6.750	3.12	12.750	1.51	18.75	0.73
0.833	0.57	6.833	3.12	12.833	1.51	18.83	0.73
0.917	0.58	6.917	3.66	12.917	1.46	18.92	0.72
1.000	0.58	7.000	3.66	13.000	1.46	19.00	0.72
1.083	0.60	7.083	4.43	13.083	1.42	19.08	0.71
1.167	0.60	7.167	4.43	13.167	1.42	19.17	0.71
1.250	0.61	7.250	5.66	13.250	1.38	19.25	0.70
1.333	0.61	7.333	5.66	13.333	1.38	19.33	0.70
1.417	0.62	7.417	7.85	13.417	1.34	19.42	0.69
1.500	0.62	7.500	7.85	13.500	1.34	19.50	0.69
1.583	0.64	7.583	12.85	13.583	1.30	19.58	0.68
1.667	0.64	7.667	12.86	13.667	1.30	19.67	0.68
1.750	0.65	7.750	33.57	13.750	1.27	19.75	0.67
1.833	0.65	7.833	33.58	13.833	1.27	19.83	0.67
1.917	0.67	7.917	122.80	13.917	1.24	19.92	0.66
2.000	0.67	8.000	122.79	14.000	1.24	20.00	0.66
2.083	0.68	8.083	44.52	14.083	1.21	20.08	0.66
2.167	0.68	8.167	44.52	14.167	1.21	20.17	0.66
2.250	0.70	8.250	22.67	14.250	1.18	20.25	0.65
2.333	0.70	8.333	22.67	14.333	1.18	20.33	0.65
2.417	0.72	8.417	14.82	14.417	1.15	20.42	0.64
2.500	0.72	8.500	14.82	14.500	1.15	20.50	0.64
2.583	0.74	8.583	10.92	14.583	1.12	20.58	0.63
2.667	0.74	8.667	10.92	14.667	1.12	20.67	0.63
2.750	0.76	8.750	8.62	14.750	1.10	20.75	0.63
2.833	0.76	8.833	8.62	14.833	1.10	20.83	0.63
2.917	0.79	8.917	7.11	14.917	1.07	20.92	0.62
3.000	0.79	9.000	7.11	15.000	1.07	21.00	0.62
3.083	0.81	9.083	6.06	15.083	1.05	21.08	0.61
3.167	0.81	9.167	6.06	15.167	1.05	21.17	0.61
3.250	0.84	9.250	5.28	15.250	1.03	21.25	0.61
3.333	0.84	9.333	5.28	15.333	1.03	21.33	0.61
3.417	0.86	9.417	4.68	15.417	1.01	21.42	0.60
3.500	0.86	9.500	4.68	15.500	1.01	21.50	0.60
3.583	0.89	9.583	4.20	15.583	0.99	21.58	0.59
3.667	0.89	9.667	4.20	15.667	0.99	21.67	0.59
3.750	0.93	9.750	3.82	15.750	0.97	21.75	0.59
3.833	0.93	9.833	3.82	15.833	0.97	21.83	0.59
3.917	0.96	9.917	3.50	15.917	0.95	21.92	0.58
4.000	0.96	10.000	3.50	16.000	0.95	22.00	0.58
4.083	1.00	10.083	3.24	16.083	0.94	22.08	0.57
4.167	1.00	10.167	3.24	16.167	0.94	22.17	0.57
4.250	1.04	10.250	3.01	16.250	0.92	22.25	0.57
4.333	1.04	10.333	3.01	16.333	0.92	22.33	0.57
4.417	1.08	10.417	2.81	16.417	0.90	22.42	0.56
4.500	1.08	10.500	2.81	16.500	0.90	22.50	0.56
4.583	1.13	10.583	2.64	16.583	0.89	22.58	0.56
4.667	1.13	10.667	2.64	16.667	0.89	22.67	0.56
4.750	1.19	10.750	2.49	16.750	0.87	22.75	0.55
4.833	1.19	10.833	2.49	16.833	0.87	22.83	0.55
4.917	1.25	10.917	2.36	16.917	0.86	22.92	0.55
5.000	1.25	11.000	2.36	17.000	0.86	23.00	0.55
5.083	1.32	11.083	2.24	17.083	0.84	23.08	0.54
5.167	1.32	11.167	2.24	17.167	0.84	23.17	0.54
5.250	1.39	11.250	2.13	17.250	0.83	23.25	0.54
5.333	1.39	11.333	2.13	17.333	0.83	23.33	0.54
5.417	1.48	11.417	2.04	17.417	0.82	23.42	0.53
5.500	1.48	11.500	2.04	17.500	0.82	23.50	0.53
5.583	1.58	11.583	1.95	17.583	0.80	23.58	0.53
5.667	1.58	11.667	1.95	17.667	0.80	23.67	0.53
5.750	1.70	11.750	1.87	17.750	0.79	23.75	0.52
5.833	1.70	11.833	1.87	17.833	0.79	23.83	0.52
5.917	1.83	11.917	1.80	17.917	0.78	23.92	0.52
6.000	1.83	12.000	1.80	18.000	0.78	24.00	0.52

Unit Hyd Qpeak (cms)= 0.936

PEAK FLOW (cms)= 0.247 (i)
TIME TO PEAK (hrs)= 9.750
RUNOFF VOLUME (mm)= 12.359
TOTAL RAINFALL (mm)= 77.311
RUNOFF COEFFICIENT = 0.160

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

ADD HYD (0905)		AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3	ID1= 1 (0203):	34.30	0.247	9.75	12.36
	+ ID2= 2 (0904):	9.68	0.235	8.92	26.16
	ID = 3 (0905):	43.98	0.443	9.25	15.40

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

Junction Command(0907)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 1(0905)	43.98	0.44	9.25	15.40
OUTFLOW: ID= 2(0907)	43.98	0.44	9.25	15.40

ADD HYD (0908)		AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3	ID1= 1 (0906):	21.88	2.998	8.05	37.39
	+ ID2= 2 (0907):	43.98	0.443	9.25	15.40
	ID = 3 (0908):	65.85	3.058	8.05	22.70

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB					
NASHYD (0204)	Area (ha)= 0.40	Curve Number (CN)= 67.0			
ID= 1 DT= 5.0 min	Ia (mm)= 5.00	# 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	0.53	6.083	1.99	12.083	1.73	18.08	0.77
0.167	0.53	6.167	1.99	12.167	1.73	18.17	0.77
0.250	0.54	6.250	2.18	12.250	1.67	18.25	0.76
0.333	0.54	6.333	2.18	12.333	1.67	18.33	0.76
0.417	0.55	6.417	2.42	12.417	1.61	18.42	0.75
0.500	0.55	6.500	2.42	12.500	1.61	18.50	0.75
0.583	0.56	6.583	2.72	12.583	1.56	18.58	0.74
0.667	0.56	6.667	2.72	12.667	1.56	18.67	0.74
0.750	0.57	6.750	3.12	12.750	1.51	18.75	0.73
0.833	0.57	6.833	3.12	12.833	1.51	18.83	0.73
0.917	0.58	6.917	3.66	12.917	1.46	18.92	0.72
1.000	0.58	7.000	3.66	13.000	1.46	19.00	0.72
1.083	0.60	7.083	4.43	13.083	1.42	19.08	0.71
1.167	0.60	7.167	4.43	13.167	1.42	19.17	0.71
1.250	0.61	7.250	5.66	13.250	1.38	19.25	0.70
1.333	0.61	7.333	5.66	13.333	1.38	19.33	0.70
1.417	0.62	7.417	7.85	13.417	1.34	19.42	0.69
1.500	0.62	7.500	7.85	13.500	1.34	19.50	0.69
1.583	0.64	7.583	12.85	13.583	1.30	19.58	0.68
1.667	0.64	7.667	12.86	13.667	1.30	19.67	0.68
1.750	0.65	7.750	33.57	13.750	1.27	19.75	0.67
1.833	0.65	7.833	33.58	13.833	1.27	19.83	0.67

1.917	0.67	7.917	122.80	13.917	1.24	19.92	0.66
2.000	0.67	8.000	122.79	14.000	1.24	20.00	0.66
2.083	0.68	8.083	44.52	14.083	1.21	20.08	0.66
2.167	0.68	8.167	44.52	14.167	1.21	20.17	0.66
2.250	0.70	8.250	22.67	14.250	1.18	20.25	0.65
2.333	0.70	8.333	22.67	14.333	1.18	20.33	0.65
2.417	0.72	8.417	14.82	14.417	1.15	20.42	0.64
2.500	0.72	8.500	14.82	14.500	1.15	20.50	0.64
2.583	0.74	8.583	10.92	14.583	1.12	20.58	0.63
2.667	0.74	8.667	10.92	14.667	1.12	20.67	0.63
2.750	0.76	8.750	8.62	14.750	1.10	20.75	0.63
2.833	0.76	8.833	8.62	14.833	1.10	20.83	0.63
2.917	0.79	8.917	7.11	14.917	1.07	20.92	0.62
3.000	0.79	9.000	7.11	15.000	1.07	21.00	0.62
3.083	0.81	9.083	6.06	15.083	1.05	21.08	0.61
3.167	0.81	9.167	6.06	15.167	1.05	21.17	0.61
3.250	0.84	9.250	5.28	15.250	1.03	21.25	0.61
3.333	0.84	9.333	5.28	15.333	1.03	21.33	0.61
3.417	0.86	9.417	4.68	15.417	1.01	21.42	0.60
3.500	0.86	9.500	4.68	15.500	1.01	21.50	0.60
3.583	0.89	9.583	4.20	15.583	0.99	21.58	0.59
3.667	0.89	9.667	4.20	15.667	0.99	21.67	0.59
3.750	0.93	9.750	3.82	15.750	0.97	21.75	0.59
3.833	0.93	9.833	3.82	15.833	0.97	21.83	0.59
3.917	0.96	9.917	3.50	15.917	0.95	21.92	0.58
4.000	0.96	10.000	3.50	16.000	0.95	22.00	0.58
4.083	1.00	10.083	3.24	16.083	0.94	22.08	0.57
4.167	1.00	10.167	3.24	16.167	0.94	22.17	0.57
4.250	1.04	10.250	3.01	16.250	0.92	22.25	0.57
4.333	1.04	10.333	3.01	16.333	0.92	22.33	0.57
4.417	1.08	10.417	2.81	16.417	0.90	22.42	0.56
4.500	1.08	10.500	2.81	16.500	0.90	22.50	0.56
4.583	1.13	10.583	2.64	16.583	0.89	22.58	0.56
4.667	1.13	10.667	2.64	16.667	0.89	22.67	0.56
4.750	1.19	10.750	2.49	16.750	0.87	22.75	0.55
4.833	1.19	10.833	2.49	16.833	0.87	22.83	0.55
4.917	1.25	10.917	2.36	16.917	0.86	22.92	0.55
5.000	1.25	11.000	2.36	17.000	0.86	23.00	0.55
5.083	1.32	11.083	2.24	17.083	0.84	23.08	0.54
5.167	1.32	11.167	2.24	17.167	0.84	23.17	0.54
5.250	1.39	11.250	2.13	17.250	0.83	23.25	0.54
5.333	1.39	11.333	2.13	17.333	0.83	23.33	0.54
5.417	1.48	11.417	2.04	17.417	0.82	23.42	0.53
5.500	1.48	11.500	2.04	17.500	0.82	23.50	0.53
5.583	1.58	11.583	1.95	17.583	0.80	23.58	0.53
5.667	1.58	11.667	1.95	17.667	0.80	23.67	0.53
5.750	1.70	11.750	1.87	17.750	0.79	23.75	0.52
5.833	1.70	11.833	1.87	17.833	0.79	23.83	0.52
5.917	1.83	11.917	1.80	17.917	0.78	23.92	0.52
6.000	1.83	12.000	1.80	18.000	0.78	24.00	0.52

Unit Hyd Qpeak (cms)= 0.054

PEAK FLOW (cms)= 0.019 (i)
TIME TO PEAK (hrs)= 8.250
RUNOFF VOLUME (mm)= 26.472
TOTAL RAINFALL (mm)= 77.311
RUNOFF COEFFICIENT = 0.342

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

ADD HYD (0909)		AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3		(ha)	(cms)	(hrs)	(mm)
	ID1= 1 (0204):	0.40	0.019	8.25	26.47
	+ ID2= 2 (0908):	65.85	3.058	8.05	22.70
	ID = 3 (0909):	66.25	3.070	8.05	22.73

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR(0052)	OVERFLOW IS ON			
IN= 2---> OUT= 1				
DT= 1.0 min	OUTFLOW	STORAGE	OUTFLOW	STORAGE
	(cms)	(ha.m.)	(cms)	(ha.m.)
	0.0000	0.0001	0.5350	0.0405
	0.4630	0.0006	0.5440	0.0566
	0.4740	0.0013	0.5540	0.0775
	0.4840	0.0030	0.5630	0.1069
	0.4950	0.0056	0.5720	0.1342
	0.5050	0.0102	0.5810	0.1635
	0.5150	0.0163	0.5900	0.1967
	0.5250	0.0270	0.5980	0.2362

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (0909)	66.250	3.070	8.05	22.73
OUTFLOW: ID= 1 (0052)	63.163	0.598	8.38	22.75
OVERFLOW:ID= 3 (0003)	3.087	0.643	8.38	22.75

TOTAL NUMBER OF SIMULATION OVERFLOW = 71
CUMULATIVE TIME OF OVERFLOW (HOURS) = 1.18
PERCENTAGE OF TIME OVERFLOWING (%) = 3.67

PEAK FLOW REDUCTION [Qout/Qin](%)= 19.48
TIME SHIFT OF PEAK FLOW (min)= 20.00
MAXIMUM STORAGE USED (ha.m.)= 0.2362

Junction Command(0048)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 1(0052)	63.16	0.60	8.38	22.75
OUTFLOW: ID= 2(0048)	63.16	0.60	8.38	22.75

Junction Command(0053)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 3(0052)	3.09	0.64	8.38	22.75
OUTFLOW: ID= 2(0053)	3.09	0.64	8.38	22.75

ADD HYD (0051)		AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3		(ha)	(cms)	(hrs)	(mm)
	ID1= 1 (0048):	63.16	0.598	8.38	22.75
	+ ID2= 2 (0053):	3.09	0.643	8.38	22.75
	ID = 3 (0051):	66.25	1.241	8.38	22.75

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

Junction Command(0036)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 9(0035)	2.65	0.20	7.92	37.38
OUTFLOW: ID= 2(0036)	2.65	0.20	7.92	37.38

```
      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\cacp078589\AppData\Local\Civica\VH5\9ad0f7cd-9fe5-4b65-bb07-55a510b23afa\8
4328f0f-beba-4053-8ad3-0b9f26d097c8\s
  Summary filename:
C:\Users\cacp078589\AppData\Local\Civica\VH5\9ad0f7cd-9fe5-4b65-bb07-55a510b23afa\8
4328f0f-beba-4053-8ad3-0b9f26d097c8\s

DATE: 04-04-2025                          TIME: 09:55:06

USER:


COMMENTS: _____

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  ********************************************
  ** SIMULATION : 25yr 24hr 10min Chicago   **
  ********************************************

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| CHICAGO STORM   |    IDF curve parameters: A=1851.000
| Ptotal= 89.97 mm |                          B=  10.200
-------------------                          C=   0.852
                       used in:   INTENSITY =  A / (t + B)^C

                       Duration of storm  = 24.00 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	0.59	6.00	2.27	12.00	1.97	18.00	0.86
0.17	0.60	6.17	2.50	12.17	1.89	18.17	0.85
0.33	0.61	6.33	2.77	12.33	1.83	18.33	0.84
0.50	0.63	6.50	3.13	12.50	1.77	18.50	0.83
0.67	0.64	6.67	3.59	12.67	1.71	18.67	0.82
0.83	0.65	6.83	4.23	12.83	1.66	18.83	0.80
1.00	0.67	7.00	5.15	13.00	1.61	19.00	0.79
1.17	0.68	7.17	6.61	13.17	1.56	19.17	0.78
1.33	0.70	7.33	9.24	13.33	1.51	19.33	0.77
1.50	0.71	7.50	15.26	13.50	1.47	19.50	0.76
1.67	0.73	7.67	40.09	13.67	1.43	19.67	0.75
1.83	0.75	7.83	142.97	13.83	1.40	19.83	0.74
2.00	0.77	8.00	53.15	14.00	1.36	20.00	0.74
2.17	0.79	8.17	27.09	14.17	1.33	20.17	0.73
2.33	0.81	8.33	17.64	14.33	1.30	20.33	0.72
2.50	0.83	8.50	12.93	14.50	1.27	20.50	0.71
2.67	0.86	8.67	10.15	14.67	1.24	20.67	0.70
2.83	0.88	8.83	8.35	14.83	1.21	20.83	0.69
3.00	0.91	9.00	7.08	15.00	1.19	21.00	0.69
3.17	0.94	9.17	6.15	15.17	1.16	21.17	0.68
3.33	0.97	9.33	5.44	15.33	1.14	21.33	0.67
3.50	1.00	9.50	4.88	15.50	1.12	21.50	0.66
3.67	1.04	9.67	4.42	15.67	1.09	21.67	0.66
3.83	1.08	9.83	4.05	15.83	1.07	21.83	0.65
4.00	1.12	10.00	3.73	16.00	1.05	22.00	0.64
4.17	1.17	10.17	3.46	16.17	1.03	22.17	0.64
4.33	1.22	10.33	3.23	16.33	1.02	22.33	0.63
4.50	1.28	10.50	3.03	16.50	1.00	22.50	0.62
4.67	1.34	10.67	2.86	16.67	0.98	22.67	0.62
4.83	1.41	10.83	2.70	16.83	0.96	22.83	0.61
5.00	1.49	11.00	2.56	17.00	0.95	23.00	0.60
5.17	1.58	11.17	2.44	17.17	0.93	23.17	0.60
5.33	1.68	11.33	2.32	17.33	0.92	23.33	0.59
5.50	1.79	11.50	2.22	17.50	0.90	23.50	0.59
5.67	1.93	11.67	2.13	17.67	0.89	23.67	0.58
5.83	2.08	11.83	2.04	17.83	0.88	23.83	0.58

CALIB			
STANDHYD (1012)	Area (ha)= 26.89		
ID= 1 DT= 1.0 min	Total Imp(%)= 57.00	Dir. Conn.(%)= 49.00	
	IMPERVIOUS	PERVIOUS (i)	
Surface Area	(ha)= 15.33	11.56	
Dep. Storage	(mm)= 1.00	5.00	
Average Slope	(%)= 0.50	2.00	
Length	(m)= 423.42	40.00	
Mannings n	= 0.013	0.250	

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 MIN. TIME STEP.

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      V    V   I    SSSSS  U   U    A    L              (v 6.2.2015)
      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
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0.33	0.61	6.33	2.77	12.33	1.83	18.33	0.84
0.50	0.63	6.50	3.13	12.50	1.77	18.50	0.83
0.67	0.64	6.67	3.59	12.67	1.71	18.67	0.82
0.83	0.65	6.83	4.23	12.83	1.66	18.83	0.80
1.00	0.67	7.00	5.15	13.00	1.61	19.00	0.79
1.17	0.68	7.17	6.61	13.17	1.56	19.17	0.78
1.33	0.70	7.33	9.24	13.33	1.51	19.33	0.77
1.50	0.71	7.50	15.26	13.50	1.47	19.50	0.76
1.67	0.73	7.67	40.09	13.67	1.43	19.67	0.75
1.83	0.75	7.83	142.97	13.83	1.40	19.83	0.74
2.00	0.77	8.00	53.15	14.00	1.36	20.00	0.74
2.17	0.79	8.17	27.09	14.17	1.33	20.17	0.73
2.33	0.81	8.33	17.64	14.33	1.30	20.33	0.72
2.50	0.83	8.50	12.93	14.50	1.27	20.50	0.71
2.67	0.86	8.67	10.15	14.67	1.24	20.67	0.70
2.83	0.88	8.83	8.35	14.83	1.21	20.83	0.69
3.00	0.91	9.00	7.08	15.00	1.19	21.00	0.69
3.17	0.94	9.17	6.15	15.17	1.16	21.17	0.68
3.33	0.97	9.33	5.44	15.33	1.14	21.33	0.67
3.50	1.00	9.50	4.88	15.50	1.12	21.50	0.66
3.67	1.04	9.67	4.42	15.67	1.09	21.67	0.66
3.83	1.08	9.83	4.05	15.83	1.07	21.83	0.65
4.00	1.12	10.00	3.73	16.00	1.05	22.00	0.64
4.17	1.17	10.17	3.46	16.17	1.03	22.17	0.64
4.33	1.22	10.33	3.23	16.33	1.02	22.33	0.63
4.50	1.28	10.50	3.03	16.50	1.00	22.50	0.62
4.67	1.34	10.67	2.86	16.67	0.98	22.67	0.62
4.83	1.41	10.83	2.70	16.83	0.96	22.83	0.61
5.00	1.49	11.00	2.56	17.00	0.95	23.00	0.60
5.17	1.58	11.17	2.44	17.17	0.93	23.17	0.60
5.33	1.68	11.33	2.32	17.33	0.92	23.33	0.59
5.50	1.79	11.50	2.22	17.50	0.90	23.50	0.59
5.67	1.93	11.67	2.13	17.67	0.89	23.67	0.58
5.83	2.08	11.83	2.04	17.83	0.88	23.83	0.58

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.017	0.59	6.017	2.27	12.017	1.97	18.02	0.86
0.033	0.59	6.033	2.27	12.033	1.97	18.03	0.86
0.050	0.59	6.050	2.27	12.050	1.97	18.05	0.86
0.067	0.59	6.067	2.27	12.067	1.97	18.07	0.86
0.083	0.59	6.083	2.27	12.083	1.97	18.08	0.86
0.100	0.59	6.100	2.27	12.100	1.97	18.10	0.86
0.117	0.59	6.117	2.27	12.117	1.97	18.12	0.86
0.133	0.59	6.133	2.27	12.133	1.97	18.13	0.86
0.150	0.59	6.150	2.27	12.150	1.97	18.15	0.86
0.167	0.59	6.167	2.27	12.167	1.97	18.17	0.86
0.183	0.60	6.183	2.50	12.183	1.89	18.18	0.85
0.200	0.60	6.200	2.50	12.200	1.89	18.20	0.85
0.217	0.60	6.217	2.50	12.217	1.89	18.22	0.85
0.233	0.60	6.233	2.50	12.233	1.89	18.23	0.85
0.250	0.60	6.250	2.50	12.250	1.89	18.25	0.85
0.267	0.60	6.267	2.50	12.267	1.89	18.27	0.85
0.283	0.60	6.283	2.50	12.283	1.89	18.28	0.85
0.300	0.60	6.300	2.50	12.300	1.89	18.30	0.85
0.317	0.60	6.317	2.50	12.317	1.89	18.32	0.85
0.333	0.60	6.333	2.50	12.333	1.89	18.33	0.85
0.350	0.61	6.350	2.77	12.350	1.83	18.35	0.84
0.367	0.61	6.367	2.77	12.367	1.83	18.37	0.84
0.383	0.61	6.383	2.77	12.383	1.83	18.38	0.84
0.400	0.61	6.400	2.77	12.400	1.83	18.40	0.84
0.417	0.61	6.417	2.77	12.417	1.83	18.42	0.84
0.433	0.61	6.433	2.77	12.433	1.83	18.43	0.84
0.450	0.61	6.450	2.77	12.450	1.83	18.45	0.84
0.467	0.61	6.467	2.77	12.467	1.83	18.47	0.84
0.483	0.61	6.483	2.77	12.483	1.83	18.48	0.84
0.500	0.61	6.500	2.77	12.500	1.83	18.50	0.84
0.517	0.63	6.517	3.13	12.517	1.77	18.52	0.83
0.533	0.63	6.533	3.13	12.533	1.77	18.53	0.83
0.550	0.63	6.550	3.13	12.550	1.77	18.55	0.83
0.567	0.63	6.567	3.13	12.567	1.77	18.57	0.83
0.583	0.63	6.583	3.13	12.583	1.77	18.58	0.83
0.600	0.63	6.600	3.13	12.600	1.77	18.60	0.83
0.617	0.63	6.617	3.13	12.617	1.77	18.62	0.83
0.633	0.63	6.633	3.13	12.633	1.77	18.63	0.83
0.650	0.63	6.650	3.13	12.650	1.77	18.65	0.83
0.667	0.63	6.667	3.13	12.667	1.77	18.67	0.83
0.683	0.64	6.683	3.59	12.683	1.71	18.68	0.82
0.700	0.64	6.700	3.59	12.700	1.71	18.70	0.82
0.717	0.64	6.717	3.59	12.717	1.71	18.72	0.82
0.733	0.64	6.733	3.59	12.733	1.71	18.73	0.82
0.750	0.64	6.750	3.59	12.750	1.71	18.75	0.82
0.767	0.64	6.767	3.59	12.767	1.71	18.77	0.82
0.783	0.64	6.783	3.59	12.783	1.71	18.78	0.82
0.800	0.64	6.800	3.59	12.800	1.71	18.80	0.82
0.817	0.64	6.817	3.59	12.817	1.71	18.82	0.82

0.833	0.64	6.833	3.59	12.833	1.71	18.83	0.82
0.850	0.65	6.850	4.23	12.850	1.66	18.85	0.80
0.867	0.65	6.867	4.23	12.867	1.66	18.87	0.80
0.883	0.65	6.883	4.23	12.883	1.66	18.88	0.80
0.900	0.65	6.900	4.23	12.900	1.66	18.90	0.80
0.917	0.65	6.917	4.23	12.917	1.66	18.92	0.80
0.933	0.65	6.933	4.23	12.933	1.66	18.93	0.80
0.950	0.65	6.950	4.23	12.950	1.66	18.95	0.80
0.967	0.65	6.967	4.23	12.967	1.66	18.97	0.80
0.983	0.65	6.983	4.23	12.983	1.66	18.98	0.80
1.000	0.65	7.000	4.23	13.000	1.66	19.00	0.80
1.017	0.67	7.017	5.15	13.017	1.61	19.02	0.79
1.033	0.67	7.033	5.15	13.033	1.61	19.03	0.79
1.050	0.67	7.050	5.15	13.050	1.61	19.05	0.79
1.067	0.67	7.067	5.15	13.067	1.61	19.07	0.79
1.083	0.67	7.083	5.15	13.083	1.61	19.08	0.79
1.100	0.67	7.100	5.15	13.100	1.61	19.10	0.79
1.117	0.67	7.117	5.15	13.117	1.61	19.12	0.79
1.133	0.67	7.133	5.15	13.133	1.61	19.13	0.79
1.150	0.67	7.150	5.15	13.150	1.61	19.15	0.79
1.167	0.67	7.167	5.15	13.167	1.61	19.17	0.79
1.183	0.68	7.183	6.61	13.183	1.56	19.18	0.78
1.200	0.68	7.200	6.61	13.200	1.56	19.20	0.78
1.217	0.68	7.217	6.61	13.217	1.56	19.22	0.78
1.233	0.68	7.233	6.61	13.233	1.56	19.23	0.78
1.250	0.68	7.250	6.61	13.250	1.56	19.25	0.78
1.267	0.68	7.267	6.61	13.267	1.56	19.27	0.78
1.283	0.68	7.283	6.61	13.283	1.56	19.28	0.78
1.300	0.68	7.300	6.61	13.300	1.56	19.30	0.78
1.317	0.68	7.317	6.61	13.317	1.56	19.32	0.78
1.333	0.68	7.333	6.61	13.333	1.56	19.33	0.78
1.350	0.70	7.350	9.24	13.350	1.51	19.35	0.77
1.367	0.70	7.367	9.24	13.367	1.51	19.37	0.77
1.383	0.70	7.383	9.24	13.383	1.51	19.38	0.77
1.400	0.70	7.400	9.24	13.400	1.51	19.40	0.77
1.417	0.70	7.417	9.24	13.417	1.51	19.42	0.77
1.433	0.70	7.433	9.24	13.433	1.51	19.43	0.77
1.450	0.70	7.450	9.24	13.450	1.51	19.45	0.77
1.467	0.70	7.467	9.24	13.467	1.51	19.47	0.77
1.483	0.70	7.483	9.24	13.483	1.51	19.48	0.77
1.500	0.70	7.500	9.25	13.500	1.51	19.50	0.77
1.517	0.71	7.517	15.26	13.517	1.47	19.52	0.76
1.533	0.71	7.533	15.26	13.533	1.47	19.53	0.76
1.550	0.71	7.550	15.26	13.550	1.47	19.55	0.76
1.567	0.71	7.567	15.26	13.567	1.47	19.57	0.76
1.583	0.71	7.583	15.26	13.583	1.47	19.58	0.76
1.600	0.71	7.600	15.26	13.600	1.47	19.60	0.76
1.617	0.71	7.617	15.26	13.617	1.47	19.62	0.76
1.633	0.71	7.633	15.26	13.633	1.47	19.63	0.76
1.650	0.71	7.650	15.26	13.650	1.47	19.65	0.76
1.667	0.71	7.667	15.33	13.667	1.47	19.67	0.76
1.683	0.73	7.683	40.09	13.683	1.43	19.68	0.75

1.700	0.73	7.700	40.09	13.700	1.43	19.70	0.75
1.717	0.73	7.717	40.09	13.717	1.43	19.72	0.75
1.733	0.73	7.733	40.09	13.733	1.43	19.73	0.75
1.750	0.73	7.750	40.09	13.750	1.43	19.75	0.75
1.767	0.73	7.767	40.09	13.767	1.43	19.77	0.75
1.783	0.73	7.783	40.09	13.783	1.43	19.78	0.75
1.800	0.73	7.800	40.09	13.800	1.43	19.80	0.75
1.817	0.73	7.817	40.09	13.817	1.43	19.82	0.75
1.833	0.73	7.833	40.39	13.833	1.43	19.83	0.75
1.850	0.75	7.850	142.97	13.850	1.40	19.85	0.74
1.867	0.75	7.867	142.97	13.867	1.40	19.87	0.74
1.883	0.75	7.883	142.97	13.883	1.40	19.88	0.74
1.900	0.75	7.900	142.97	13.900	1.40	19.90	0.74
1.917	0.75	7.917	142.97	13.917	1.40	19.92	0.74
1.933	0.75	7.933	142.97	13.933	1.40	19.93	0.74
1.950	0.75	7.950	142.97	13.950	1.40	19.95	0.74
1.967	0.75	7.967	142.97	13.967	1.40	19.97	0.74
1.983	0.75	7.983	142.97	13.983	1.40	19.98	0.74
2.000	0.75	8.000	142.71	14.000	1.40	20.00	0.74
2.017	0.77	8.017	53.15	14.017	1.36	20.02	0.74
2.033	0.77	8.033	53.15	14.033	1.36	20.03	0.74
2.050	0.77	8.050	53.15	14.050	1.36	20.05	0.74
2.067	0.77	8.067	53.15	14.067	1.36	20.07	0.74
2.083	0.77	8.083	53.15	14.083	1.36	20.08	0.74
2.100	0.77	8.100	53.15	14.100	1.36	20.10	0.74
2.117	0.77	8.117	53.15	14.117	1.36	20.12	0.74
2.133	0.77	8.133	53.15	14.133	1.36	20.13	0.74
2.150	0.77	8.150	53.15	14.150	1.36	20.15	0.74
2.167	0.77	8.167	53.08	14.167	1.36	20.17	0.74
2.183	0.79	8.183	27.09	14.183	1.33	20.18	0.73
2.200	0.79	8.200	27.09	14.200	1.33	20.20	0.73
2.217	0.79	8.217	27.09	14.217	1.33	20.22	0.73
2.233	0.79	8.233	27.09	14.233	1.33	20.23	0.73
2.250	0.79	8.250	27.09	14.250	1.33	20.25	0.73
2.267	0.79	8.267	27.09	14.267	1.33	20.27	0.73
2.283	0.79	8.283	27.09	14.283	1.33	20.28	0.73
2.300	0.79	8.300	27.09	14.300	1.33	20.30	0.73
2.317	0.79	8.317	27.09	14.317	1.33	20.32	0.73
2.333	0.79	8.333	27.07	14.333	1.33	20.33	0.73
2.350	0.81	8.350	17.64	14.350	1.30	20.35	0.72
2.367	0.81	8.367	17.64	14.367	1.30	20.37	0.72
2.383	0.81	8.383	17.64	14.383	1.30	20.38	0.72
2.400	0.81	8.400	17.64	14.400	1.30	20.40	0.72
2.417	0.81	8.417	17.64	14.417	1.30	20.42	0.72
2.433	0.81	8.433	17.64	14.433	1.30	20.43	0.72
2.450	0.81	8.450	17.64	14.450	1.30	20.45	0.72
2.467	0.81	8.467	17.64	14.467	1.30	20.47	0.72
2.483	0.81	8.483	17.64	14.483	1.30	20.48	0.72
2.500	0.81	8.500	17.63	14.500	1.30	20.50	0.72
2.517	0.83	8.517	12.93	14.517	1.27	20.52	0.71
2.533	0.83	8.533	12.93	14.533	1.27	20.53	0.71
2.550	0.83	8.550	12.93	14.550	1.27	20.55	0.71

2.567	0.83	8.567	12.93	14.567	1.27	20.57	0.71
2.583	0.83	8.583	12.93	14.583	1.27	20.58	0.71
2.600	0.83	8.600	12.93	14.600	1.27	20.60	0.71
2.617	0.83	8.617	12.93	14.617	1.27	20.62	0.71
2.633	0.83	8.633	12.93	14.633	1.27	20.63	0.71
2.650	0.83	8.650	12.93	14.650	1.27	20.65	0.71
2.667	0.83	8.667	12.92	14.667	1.27	20.67	0.71
2.683	0.86	8.683	10.15	14.683	1.24	20.68	0.70
2.700	0.86	8.700	10.15	14.700	1.24	20.70	0.70
2.717	0.86	8.717	10.15	14.717	1.24	20.72	0.70
2.733	0.86	8.733	10.15	14.733	1.24	20.73	0.70
2.750	0.86	8.750	10.15	14.750	1.24	20.75	0.70
2.767	0.86	8.767	10.15	14.767	1.24	20.77	0.70
2.783	0.86	8.783	10.15	14.783	1.24	20.78	0.70
2.800	0.86	8.800	10.15	14.800	1.24	20.80	0.70
2.817	0.86	8.817	10.15	14.817	1.24	20.82	0.70
2.833	0.86	8.833	10.15	14.833	1.24	20.83	0.70
2.850	0.88	8.850	8.35	14.850	1.21	20.85	0.69
2.867	0.88	8.867	8.35	14.867	1.21	20.87	0.69
2.883	0.88	8.883	8.35	14.883	1.21	20.88	0.69
2.900	0.88	8.900	8.35	14.900	1.21	20.90	0.69
2.917	0.88	8.917	8.35	14.917	1.21	20.92	0.69
2.933	0.88	8.933	8.35	14.933	1.21	20.93	0.69
2.950	0.88	8.950	8.35	14.950	1.21	20.95	0.69
2.967	0.88	8.967	8.35	14.967	1.21	20.97	0.69
2.983	0.88	8.983	8.35	14.983	1.21	20.98	0.69
3.000	0.88	9.000	8.34	15.000	1.21	21.00	0.69
3.017	0.91	9.017	7.08	15.017	1.19	21.02	0.69
3.033	0.91	9.033	7.08	15.033	1.19	21.03	0.69
3.050	0.91	9.050	7.08	15.050	1.19	21.05	0.69
3.067	0.91	9.067	7.08	15.067	1.19	21.07	0.69
3.083	0.91	9.083	7.08	15.083	1.19	21.08	0.69
3.100	0.91	9.100	7.08	15.100	1.19	21.10	0.69
3.117	0.91	9.117	7.08	15.117	1.19	21.12	0.69
3.133	0.91	9.133	7.08	15.133	1.19	21.13	0.69
3.150	0.91	9.150	7.08	15.150	1.19	21.15	0.69
3.167	0.91	9.167	7.08	15.167	1.19	21.17	0.69
3.183	0.94	9.183	6.15	15.183	1.16	21.18	0.68
3.200	0.94	9.200	6.15	15.200	1.16	21.20	0.68
3.217	0.94	9.217	6.15	15.217	1.16	21.22	0.68
3.233	0.94	9.233	6.15	15.233	1.16	21.23	0.68
3.250	0.94	9.250	6.15	15.250	1.16	21.25	0.68
3.267	0.94	9.267	6.15	15.267	1.16	21.27	0.68
3.283	0.94	9.283	6.15	15.283	1.16	21.28	0.68
3.300	0.94	9.300	6.15	15.300	1.16	21.30	0.68
3.317	0.94	9.317	6.15	15.317	1.16	21.32	0.68
3.333	0.94	9.333	6.15	15.333	1.16	21.33	0.68
3.350	0.97	9.350	5.44	15.350	1.14	21.35	0.67
3.367	0.97	9.367	5.44	15.367	1.14	21.37	0.67
3.383	0.97	9.383	5.44	15.383	1.14	21.38	0.67
3.400	0.97	9.400	5.44	15.400	1.14	21.40	0.67
3.417	0.97	9.417	5.44	15.417	1.14	21.42	0.67

3.433	0.97	9.433	5.44	15.433	1.14	21.43	0.67
3.450	0.97	9.450	5.44	15.450	1.14	21.45	0.67
3.467	0.97	9.467	5.44	15.467	1.14	21.47	0.67
3.483	0.97	9.483	5.44	15.483	1.14	21.48	0.67
3.500	0.97	9.500	5.44	15.500	1.14	21.50	0.67
3.517	1.00	9.517	4.88	15.517	1.12	21.52	0.66
3.533	1.00	9.533	4.88	15.533	1.12	21.53	0.66
3.550	1.00	9.550	4.88	15.550	1.12	21.55	0.66
3.567	1.00	9.567	4.88	15.567	1.12	21.57	0.66
3.583	1.00	9.583	4.88	15.583	1.12	21.58	0.66
3.600	1.00	9.600	4.88	15.600	1.12	21.60	0.66
3.617	1.00	9.617	4.88	15.617	1.12	21.62	0.66
3.633	1.00	9.633	4.88	15.633	1.12	21.63	0.66
3.650	1.00	9.650	4.88	15.650	1.12	21.65	0.66
3.667	1.00	9.667	4.87	15.667	1.12	21.67	0.66
3.683	1.04	9.683	4.42	15.683	1.09	21.68	0.66
3.700	1.04	9.700	4.42	15.700	1.09	21.70	0.66
3.717	1.04	9.717	4.42	15.717	1.09	21.72	0.66
3.733	1.04	9.733	4.42	15.733	1.09	21.73	0.66
3.750	1.04	9.750	4.42	15.750	1.09	21.75	0.66
3.767	1.04	9.767	4.42	15.767	1.09	21.77	0.66
3.783	1.04	9.783	4.42	15.783	1.09	21.78	0.66
3.800	1.04	9.800	4.42	15.800	1.09	21.80	0.66
3.817	1.04	9.817	4.42	15.817	1.09	21.82	0.66
3.833	1.04	9.833	4.42	15.833	1.09	21.83	0.66
3.850	1.08	9.850	4.05	15.850	1.07	21.85	0.65
3.867	1.08	9.867	4.05	15.867	1.07	21.87	0.65
3.883	1.08	9.883	4.05	15.883	1.07	21.88	0.65
3.900	1.08	9.900	4.05	15.900	1.07	21.90	0.65
3.917	1.08	9.917	4.05	15.917	1.07	21.92	0.65
3.933	1.08	9.933	4.05	15.933	1.07	21.93	0.65
3.950	1.08	9.950	4.05	15.950	1.07	21.95	0.65
3.967	1.08	9.967	4.05	15.967	1.07	21.97	0.65
3.983	1.08	9.983	4.05	15.983	1.07	21.98	0.65
4.000	1.08	10.000	4.04	16.000	1.07	22.00	0.65
4.017	1.12	10.017	3.73	16.017	1.05	22.02	0.64
4.033	1.12	10.033	3.73	16.033	1.05	22.03	0.64
4.050	1.12	10.050	3.73	16.050	1.05	22.05	0.64
4.067	1.12	10.067	3.73	16.067	1.05	22.07	0.64
4.083	1.12	10.083	3.73	16.083	1.05	22.08	0.64
4.100	1.12	10.100	3.73	16.100	1.05	22.10	0.64
4.117	1.12	10.117	3.73	16.117	1.05	22.12	0.64
4.133	1.12	10.133	3.73	16.133	1.05	22.13	0.64
4.150	1.12	10.150	3.73	16.150	1.05	22.15	0.64
4.167	1.12	10.167	3.73	16.167	1.05	22.17	0.64
4.183	1.17	10.183	3.46	16.183	1.03	22.18	0.64
4.200	1.17	10.200	3.46	16.200	1.03	22.20	0.64
4.217	1.17	10.217	3.46	16.217	1.03	22.22	0.64
4.233	1.17	10.233	3.46	16.233	1.03	22.23	0.64
4.250	1.17	10.250	3.46	16.250	1.03	22.25	0.64
4.267	1.17	10.267	3.46	16.267	1.03	22.27	0.64
4.283	1.17	10.283	3.46	16.283	1.03	22.28	0.64

4.300	1.17	10.300	3.46	16.300	1.03	22.30	0.64
4.317	1.17	10.317	3.46	16.317	1.03	22.32	0.64
4.333	1.17	10.333	3.46	16.333	1.03	22.33	0.64
4.350	1.22	10.350	3.23	16.350	1.02	22.35	0.63
4.367	1.22	10.367	3.23	16.367	1.02	22.37	0.63
4.383	1.22	10.383	3.23	16.383	1.02	22.38	0.63
4.400	1.22	10.400	3.23	16.400	1.02	22.40	0.63
4.417	1.22	10.417	3.23	16.417	1.02	22.42	0.63
4.433	1.22	10.433	3.23	16.433	1.02	22.43	0.63
4.450	1.22	10.450	3.23	16.450	1.02	22.45	0.63
4.467	1.22	10.467	3.23	16.467	1.02	22.47	0.63
4.483	1.22	10.483	3.23	16.483	1.02	22.48	0.63
4.500	1.22	10.500	3.23	16.500	1.02	22.50	0.63
4.517	1.28	10.517	3.03	16.517	1.00	22.52	0.62
4.533	1.28	10.533	3.03	16.533	1.00	22.53	0.62
4.550	1.28	10.550	3.03	16.550	1.00	22.55	0.62
4.567	1.28	10.567	3.03	16.567	1.00	22.57	0.62
4.583	1.28	10.583	3.03	16.583	1.00	22.58	0.62
4.600	1.28	10.600	3.03	16.600	1.00	22.60	0.62
4.617	1.28	10.617	3.03	16.617	1.00	22.62	0.62
4.633	1.28	10.633	3.03	16.633	1.00	22.63	0.62
4.650	1.28	10.650	3.03	16.650	1.00	22.65	0.62
4.667	1.28	10.667	3.03	16.667	1.00	22.67	0.62
4.683	1.34	10.683	2.86	16.683	0.98	22.68	0.62
4.700	1.34	10.700	2.86	16.700	0.98	22.70	0.62
4.717	1.34	10.717	2.86	16.717	0.98	22.72	0.62
4.733	1.34	10.733	2.86	16.733	0.98	22.73	0.62
4.750	1.34	10.750	2.86	16.750	0.98	22.75	0.62
4.767	1.34	10.767	2.86	16.767	0.98	22.77	0.62
4.783	1.34	10.783	2.86	16.783	0.98	22.78	0.62
4.800	1.34	10.800	2.86	16.800	0.98	22.80	0.62
4.817	1.34	10.817	2.86	16.817	0.98	22.82	0.62
4.833	1.34	10.833	2.86	16.833	0.98	22.83	0.62
4.850	1.41	10.850	2.70	16.850	0.96	22.85	0.61
4.867	1.41	10.867	2.70	16.867	0.96	22.87	0.61
4.883	1.41	10.883	2.70	16.883	0.96	22.88	0.61
4.900	1.41	10.900	2.70	16.900	0.96	22.90	0.61
4.917	1.41	10.917	2.70	16.917	0.96	22.92	0.61
4.933	1.41	10.933	2.70	16.933	0.96	22.93	0.61
4.950	1.41	10.950	2.70	16.950	0.96	22.95	0.61
4.967	1.41	10.967	2.70	16.967	0.96	22.97	0.61
4.983	1.41	10.983	2.70	16.983	0.96	22.98	0.61
5.000	1.41	11.000	2.70	17.000	0.96	23.00	0.61
5.017	1.49	11.017	2.56	17.017	0.95	23.02	0.60
5.033	1.49	11.033	2.56	17.033	0.95	23.03	0.60
5.050	1.49	11.050	2.56	17.050	0.95	23.05	0.60
5.067	1.49	11.067	2.56	17.067	0.95	23.07	0.60
5.083	1.49	11.083	2.56	17.083	0.95	23.08	0.60
5.100	1.49	11.100	2.56	17.100	0.95	23.10	0.60
5.117	1.49	11.117	2.56	17.117	0.95	23.12	0.60
5.133	1.49	11.133	2.56	17.133	0.95	23.13	0.60
5.150	1.49	11.150	2.56	17.150	0.95	23.15	0.60

5.167	1.49	11.167	2.56	17.167	0.95	23.17	0.60
5.183	1.58	11.183	2.44	17.183	0.93	23.18	0.60
5.200	1.58	11.200	2.44	17.200	0.93	23.20	0.60
5.217	1.58	11.217	2.44	17.217	0.93	23.22	0.60
5.233	1.58	11.233	2.44	17.233	0.93	23.23	0.60
5.250	1.58	11.250	2.44	17.250	0.93	23.25	0.60
5.267	1.58	11.267	2.44	17.267	0.93	23.27	0.60
5.283	1.58	11.283	2.44	17.283	0.93	23.28	0.60
5.300	1.58	11.300	2.44	17.300	0.93	23.30	0.60
5.317	1.58	11.317	2.44	17.317	0.93	23.32	0.60
5.333	1.58	11.333	2.44	17.333	0.93	23.33	0.60
5.350	1.68	11.350	2.32	17.350	0.92	23.35	0.59
5.367	1.68	11.367	2.32	17.367	0.92	23.37	0.59
5.383	1.68	11.383	2.32	17.383	0.92	23.38	0.59
5.400	1.68	11.400	2.32	17.400	0.92	23.40	0.59
5.417	1.68	11.417	2.32	17.417	0.92	23.42	0.59
5.433	1.68	11.433	2.32	17.433	0.92	23.43	0.59
5.450	1.68	11.450	2.32	17.450	0.92	23.45	0.59
5.467	1.68	11.467	2.32	17.467	0.92	23.47	0.59
5.483	1.68	11.483	2.32	17.483	0.92	23.48	0.59
5.500	1.68	11.500	2.32	17.500	0.92	23.50	0.59
5.517	1.79	11.517	2.22	17.517	0.90	23.52	0.59
5.533	1.79	11.533	2.22	17.533	0.90	23.53	0.59
5.550	1.79	11.550	2.22	17.550	0.90	23.55	0.59
5.567	1.79	11.567	2.22	17.567	0.90	23.57	0.59
5.583	1.79	11.583	2.22	17.583	0.90	23.58	0.59
5.600	1.79	11.600	2.22	17.600	0.90	23.60	0.59
5.617	1.79	11.617	2.22	17.617	0.90	23.62	0.59
5.633	1.79	11.633	2.22	17.633	0.90	23.63	0.59
5.650	1.79	11.650	2.22	17.650	0.90	23.65	0.59
5.667	1.80	11.667	2.22	17.667	0.90	23.67	0.59
5.683	1.93	11.683	2.13	17.683	0.89	23.68	0.58
5.700	1.93	11.700	2.13	17.700	0.89	23.70	0.58
5.717	1.93	11.717	2.13	17.717	0.89	23.72	0.58
5.733	1.93	11.733	2.13	17.733	0.89	23.73	0.58
5.750	1.93	11.750	2.13	17.750	0.89	23.75	0.58
5.767	1.93	11.767	2.13	17.767	0.89	23.77	0.58
5.783	1.93	11.783	2.13	17.783	0.89	23.78	0.58
5.800	1.93	11.800	2.13	17.800	0.89	23.80	0.58
5.817	1.93	11.817	2.13	17.817	0.89	23.82	0.58
5.833	1.93	11.833	2.13	17.833	0.89	23.83	0.58
5.850	2.08	11.850	2.04	17.850	0.88	23.85	0.58
5.867	2.08	11.867	2.04	17.867	0.88	23.87	0.58
5.883	2.08	11.883	2.04	17.883	0.88	23.88	0.58
5.900	2.08	11.900	2.04	17.900	0.88	23.90	0.58
5.917	2.08	11.917	2.04	17.917	0.88	23.92	0.58
5.933	2.08	11.933	2.04	17.933	0.88	23.93	0.58
5.950	2.08	11.950	2.04	17.950	0.88	23.95	0.58
5.967	2.08	11.967	2.04	17.967	0.88	23.97	0.58
5.983	2.08	11.983	2.04	17.983	0.88	23.98	0.58
6.000	2.08	12.000	2.04	18.000	0.88	24.00	0.58

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    Max.Eff.Inten.(mm/hr)=     142.97        35.99
              over (min)        6.00        13.00
    Storage Coeff.  (min)=     6.48 (ii)   12.29 (ii)
    Unit Hyd. Tpeak (min)=     6.00        13.00
    Unit Hyd. peak  (cms)=     0.18         0.09
                                                    *TOTALS*
    PEAK FLOW       (cms)=     4.07         0.68      4.497 (iii)
    TIME TO PEAK    (hrs)=     8.03         8.18      8.05
    RUNOFF VOLUME    (mm)=    88.95        23.14     55.39
    TOTAL RAINFALL   (mm)=    89.97        89.97     89.97
    RUNOFF COEFFICIENT   =     0.99         0.26      0.62


      (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
          CN*  =  48.0    Ia = Dep. Storage  (Above)
     (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
          THAN THE STORAGE COEFFICIENT.
    (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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| DUHYD     (  0034)|
| Inlet Cap.= 3.057|
| #of Inlets=     1|
| Total(cms)=   3.1|      AREA     QPEAK     TPEAK    R.V.
-------------------       (ha)     (cms)     (hrs)    (mm)
    TOTAL HYD.(ID= 1):  26.89      4.50      8.05   55.39
    ==========================================================
    MAJOR SYS.(ID= 2):   1.45      1.44      8.05   55.39
    MINOR SYS.(ID= 3):  25.44      3.06      7.95   55.39

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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  | Junction Command(0033) |
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                         AREA     QPEAK   TPEAK     R.V.
                         (ha)     (cms)   (hrs)     (mm)
  INFLOW : ID= 9(  0034)   25.44     3.06    7.95    55.39
  OUTFLOW: ID= 2(  0033)   25.44     3.06    7.95    55.39

  ------------------------------------------------------------------------------
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| CALIB             |
| STANDHYD (  1052)|   Area    (ha)=   1.95
|ID= 1 DT= 1.0 min |   Total Imp(%)=  30.00   Dir. Conn.(%)=  26.00
-------------------
                         IMPERVIOUS    PERVIOUS (i)
    Surface Area     (ha)=      0.58         1.36

    Dep. Storage     (mm)=      1.00         5.00
    Average Slope     (%)=      0.50         2.00
    Length            (m)=    113.90        40.00
    Mannings n           =     0.013        0.250

        NOTE:  RAINFALL WAS TRANSFORMED TO   1.0 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
    0.017    0.59 | 6.017    2.27 |12.017    1.97 | 18.02    0.86
    0.033    0.59 | 6.033    2.27 |12.033    1.97 | 18.03    0.86
    0.050    0.59 | 6.050    2.27 |12.050    1.97 | 18.05    0.86
    0.067    0.59 | 6.067    2.27 |12.067    1.97 | 18.07    0.86
    0.083    0.59 | 6.083    2.27 |12.083    1.97 | 18.08    0.86
    0.100    0.59 | 6.100    2.27 |12.100    1.97 | 18.10    0.86
    0.117    0.59 | 6.117    2.27 |12.117    1.97 | 18.12    0.86
    0.133    0.59 | 6.133    2.27 |12.133    1.97 | 18.13    0.86
    0.150    0.59 | 6.150    2.27 |12.150    1.97 | 18.15    0.86
    0.167    0.59 | 6.167    2.27 |12.167    1.97 | 18.17    0.86
    0.183    0.60 | 6.183    2.50 |12.183    1.89 | 18.18    0.85
    0.200    0.60 | 6.200    2.50 |12.200    1.89 | 18.20    0.85
    0.217    0.60 | 6.217    2.50 |12.217    1.89 | 18.22    0.85
    0.233    0.60 | 6.233    2.50 |12.233    1.89 | 18.23    0.85
    0.250    0.60 | 6.250    2.50 |12.250    1.89 | 18.25    0.85
    0.267    0.60 | 6.267    2.50 |12.267    1.89 | 18.27    0.85
    0.283    0.60 | 6.283    2.50 |12.283    1.89 | 18.28    0.85
    0.300    0.60 | 6.300    2.50 |12.300    1.89 | 18.30    0.85
    0.317    0.60 | 6.317    2.50 |12.317    1.89 | 18.32    0.85
    0.333    0.60 | 6.333    2.50 |12.333    1.89 | 18.33    0.85
    0.350    0.61 | 6.350    2.77 |12.350    1.83 | 18.35    0.84
    0.367    0.61 | 6.367    2.77 |12.367    1.83 | 18.37    0.84
    0.383    0.61 | 6.383    2.77 |12.383    1.83 | 18.38    0.84
    0.400    0.61 | 6.400    2.77 |12.400    1.83 | 18.40    0.84
    0.417    0.61 | 6.417    2.77 |12.417    1.83 | 18.42    0.84
    0.433    0.61 | 6.433    2.77 |12.433    1.83 | 18.43    0.84
    0.450    0.61 | 6.450    2.77 |12.450    1.83 | 18.45    0.84
    0.467    0.61 | 6.467    2.77 |12.467    1.83 | 18.47    0.84
    0.483    0.61 | 6.483    2.77 |12.483    1.83 | 18.48    0.84
    0.500    0.61 | 6.500    2.77 |12.500    1.83 | 18.50    0.84
    0.517    0.63 | 6.517    3.13 |12.517    1.77 | 18.52    0.83
    0.533    0.63 | 6.533    3.13 |12.533    1.77 | 18.53    0.83
    0.550    0.63 | 6.550    3.13 |12.550    1.77 | 18.55    0.83
    0.567    0.63 | 6.567    3.13 |12.567    1.77 | 18.57    0.83
    0.583    0.63 | 6.583    3.13 |12.583    1.77 | 18.58    0.83
    0.600    0.63 | 6.600    3.13 |12.600    1.77 | 18.60    0.83
    0.617    0.63 | 6.617    3.13 |12.617    1.77 | 18.62    0.83
    0.633    0.63 | 6.633    3.13 |12.633    1.77 | 18.63    0.83
    0.650    0.63 | 6.650    3.13 |12.650    1.77 | 18.65    0.83
    0.667    0.63 | 6.667    3.13 |12.667    1.77 | 18.67    0.83
    0.683    0.64 | 6.683    3.59 |12.683    1.71 | 18.68    0.82
    0.700    0.64 | 6.700    3.59 |12.700    1.71 | 18.70    0.82
    0.717    0.64 | 6.717    3.59 |12.717    1.71 | 18.72    0.82
    0.733    0.64 | 6.733    3.59 |12.733    1.71 | 18.73    0.82
    0.750    0.64 | 6.750    3.59 |12.750    1.71 | 18.75    0.82
    0.767    0.64 | 6.767    3.59 |12.767    1.71 | 18.77    0.82
    0.783    0.64 | 6.783    3.59 |12.783    1.71 | 18.78    0.82
    0.800    0.64 | 6.800    3.59 |12.800    1.71 | 18.80    0.82
    0.817    0.64 | 6.817    3.59 |12.817    1.71 | 18.82    0.82
    0.833    0.64 | 6.833    3.59 |12.833    1.71 | 18.83    0.82
    0.850    0.65 | 6.850    4.23 |12.850    1.66 | 18.85    0.80
    0.867    0.65 | 6.867    4.23 |12.867    1.66 | 18.87    0.80
    0.883    0.65 | 6.883    4.23 |12.883    1.66 | 18.88    0.80
    0.900    0.65 | 6.900    4.23 |12.900    1.66 | 18.90    0.80
    0.917    0.65 | 6.917    4.23 |12.917    1.66 | 18.92    0.80
    0.933    0.65 | 6.933    4.23 |12.933    1.66 | 18.93    0.80
    0.950    0.65 | 6.950    4.23 |12.950    1.66 | 18.95    0.80
    0.967    0.65 | 6.967    4.23 |12.967    1.66 | 18.97    0.80
    0.983    0.65 | 6.983    4.23 |12.983    1.66 | 18.98    0.80
    1.000    0.65 | 7.000    4.23 |13.000    1.66 | 19.00    0.80
    1.017    0.67 | 7.017    5.15 |13.017    1.61 | 19.02    0.79
    1.033    0.67 | 7.033    5.15 |13.033    1.61 | 19.03    0.79
    1.050    0.67 | 7.050    5.15 |13.050    1.61 | 19.05    0.79
    1.067    0.67 | 7.067    5.15 |13.067    1.61 | 19.07    0.79
    1.083    0.67 | 7.083    5.15 |13.083    1.61 | 19.08    0.79
    1.100    0.67 | 7.100    5.15 |13.100    1.61 | 19.10    0.79
    1.117    0.67 | 7.117    5.15 |13.117    1.61 | 19.12    0.79
    1.133    0.67 | 7.133    5.15 |13.133    1.61 | 19.13    0.79
    1.150    0.67 | 7.150    5.15 |13.150    1.61 | 19.15    0.79
    1.167    0.67 | 7.167    5.15 |13.167    1.61 | 19.17    0.79
    1.183    0.68 | 7.183    6.61 |13.183    1.56 | 19.18    0.78
    1.200    0.68 | 7.200    6.61 |13.200    1.56 | 19.20    0.78
    1.217    0.68 | 7.217    6.61 |13.217    1.56 | 19.22    0.78
    1.233    0.68 | 7.233    6.61 |13.233    1.56 | 19.23    0.78
    1.250    0.68 | 7.250    6.61 |13.250    1.56 | 19.25    0.78
    1.267    0.68 | 7.267    6.61 |13.267    1.56 | 19.27    0.78
    1.283    0.68 | 7.283    6.61 |13.283    1.56 | 19.28    0.78
    1.300    0.68 | 7.300    6.61 |13.300    1.56 | 19.30    0.78
    1.317    0.68 | 7.317    6.61 |13.317    1.56 | 19.32    0.78
    1.333    0.68 | 7.333    6.61 |13.333    1.56 | 19.33    0.78
    1.350    0.70 | 7.350    9.24 |13.350    1.51 | 19.35    0.77
    1.367    0.70 | 7.367    9.24 |13.367    1.51 | 19.37    0.77
    1.383    0.70 | 7.383    9.24 |13.383    1.51 | 19.38    0.77
    1.400    0.70 | 7.400    9.24 |13.400    1.51 | 19.40    0.77
    1.417    0.70 | 7.417    9.24 |13.417    1.51 | 19.42    0.77
    1.433    0.70 | 7.433    9.24 |13.433    1.51 | 19.43    0.77
    1.450    0.70 | 7.450    9.24 |13.450    1.51 | 19.45    0.77
    1.467    0.70 | 7.467    9.24 |13.467    1.51 | 19.47    0.77
    1.483    0.70 | 7.483    9.24 |13.483    1.51 | 19.48    0.77
    1.500    0.70 | 7.500    9.25 |13.500    1.51 | 19.50    0.77
    1.517    0.71 | 7.517   15.26 |13.517    1.47 | 19.52    0.76
    1.533    0.71 | 7.533   15.26 |13.533    1.47 | 19.53    0.76
    1.550    0.71 | 7.550   15.26 |13.550    1.47 | 19.55    0.76
    1.567    0.71 | 7.567   15.26 |13.567    1.47 | 19.57    0.76
    1.583    0.71 | 7.583   15.26 |13.583    1.47 | 19.58    0.76
    1.600    0.71 | 7.600   15.26 |13.600    1.47 | 19.60    0.76
    1.617    0.71 | 7.617   15.26 |13.617    1.47 | 19.62    0.76
    1.633    0.71 | 7.633   15.26 |13.633    1.47 | 19.63    0.76
    1.650    0.71 | 7.650   15.26 |13.650    1.47 | 19.65    0.76
    1.667    0.71 | 7.667   15.33 |13.667    1.47 | 19.67    0.76
    1.683    0.73 | 7.683   40.09 |13.683    1.43 | 19.68    0.75
    1.700    0.73 | 7.700   40.09 |13.700    1.43 | 19.70    0.75
    1.717    0.73 | 7.717   40.09 |13.717    1.43 | 19.72    0.75
    1.733    0.73 | 7.733   40.09 |13.733    1.43 | 19.73    0.75
    1.750    0.73 | 7.750   40.09 |13.750    1.43 | 19.75    0.75
    1.767    0.73 | 7.767   40.09 |13.767    1.43 | 19.77    0.75
    1.783    0.73 | 7.783   40.09 |13.783    1.43 | 19.78    0.75
    1.800    0.73 | 7.800   40.09 |13.800    1.43 | 19.80    0.75
    1.817    0.73 | 7.817   40.09 |13.817    1.43 | 19.82    0.75
    1.833    0.73 | 7.833   40.39 |13.833    1.43 | 19.83    0.75
    1.850    0.75 | 7.850  142.97 |13.850    1.40 | 19.85    0.74
    1.867    0.75 | 7.867  142.97 |13.867    1.40 | 19.87    0.74
    1.883    0.75 | 7.883  142.97 |13.883    1.40 | 19.88    0.74
    1.900    0.75 | 7.900  142.97 |13.900    1.40 | 19.90    0.74
    1.917    0.75 | 7.917  142.97 |13.917    1.40 | 19.92    0.74
    1.933    0.75 | 7.933  142.97 |13.933    1.40 | 19.93    0.74
    1.950    0.75 | 7.950  142.97 |13.950    1.40 | 19.95    0.74
    1.967    0.75 | 7.967  142.97 |13.967    1.40 | 19.97    0.74
    1.983    0.75 | 7.983  142.97 |13.983    1.40 | 19.98    0.74
    2.000    0.75 | 8.000  142.71 |14.000    1.40 | 20.00    0.74
    2.017    0.77 | 8.017   53.15 |14.017    1.36 | 20.02    0.74
    2.033    0.77 | 8.033   53.15 |14.033    1.36 | 20.03    0.74
    2.050    0.77 | 8.050   53.15 |14.050    1.36 | 20.05    0.74
    2.067    0.77 | 8.067   53.15 |14.067    1.36 | 20.07    0.74
    2.083    0.77 | 8.083   53.15 |14.083    1.36 | 20.08    0.74
    2.100    0.77 | 8.100   53.15 |14.100    1.36 | 20.10    0.74
    2.117    0.77 | 8.117   53.15 |14.117    1.36 | 20.12    0.74
    2.133    0.77 | 8.133   53.15 |14.133    1.36 | 20.13    0.74
    2.150    0.77 | 8.150   53.15 |14.150    1.36 | 20.15    0.74
    2.167    0.77 | 8.167   53.08 |14.167    1.36 | 20.17    0.74
    2.183    0.79 | 8.183   27.09 |14.183    1.33 | 20.18    0.73
    2.200    0.79 | 8.200   27.09 |14.200    1.33 | 20.20    0.73
    2.217    0.79 | 8.217   27.09 |14.217    1.33 | 20.22    0.73
    2.233    0.79 | 8.233   27.09 |14.233    1.33 | 20.23    0.73
    2.250    0.79 | 8.250   27.09 |14.250    1.33 | 20.25    0.73
    2.267    0.79 | 8.267   27.09 |14.267    1.33 | 20.27    0.73
    2.283    0.79 | 8.283   27.09 |14.283    1.33 | 20.28    0.73
    2.300    0.79 | 8.300   27.09 |14.300    1.33 | 20.30    0.73
    2.317    0.79 | 8.317   27.09 |14.317    1.33 | 20.32    0.73
    2.333    0.79 | 8.333   27.07 |14.333    1.33 | 20.33    0.73
    2.350    0.81 | 8.350   17.64 |14.350    1.30 | 20.35    0.72
    2.367    0.81 | 8.367   17.64 |14.367    1.30 | 20.37    0.72
    2.383    0.81 | 8.383   17.64 |14.383    1.30 | 20.38    0.72
    2.400    0.81 | 8.400   17.64 |14.400    1.30 | 20.40    0.72
    2.417    0.81 | 8.417   17.64 |14.417    1.30 | 20.42    0.72
    2.433    0.81 | 8.433   17.64 |14.433    1.30 | 20.43    0.72
    2.450    0.81 | 8.450   17.64 |14.450    1.30 | 20.45    0.72
    2.467    0.81 | 8.467   17.64 |14.467    1.30 | 20.47    0.72
    2.483    0.81 | 8.483   17.64 |14.483    1.30 | 20.48    0.72
    2.500    0.81 | 8.500   17.63 |14.500    1.30 | 20.50    0.72
    2.517    0.83 | 8.517   12.93 |14.517    1.27 | 20.52    0.71
    2.533    0.83 | 8.533   12.93 |14.533    1.27 | 20.53    0.71
    2.550    0.83 | 8.550   12.93 |14.550    1.27 | 20.55    0.71
    2.567    0.83 | 8.567   12.93 |14.567    1.27 | 20.57    0.71
    2.583    0.83 | 8.583   12.93 |14.583    1.27 | 20.58    0.71
    2.600    0.83 | 8.600   12.93 |14.600    1.27 | 20.60    0.71
    2.617    0.83 | 8.617   12.93 |14.617    1.27 | 20.62    0.71
    2.633    0.83 | 8.633   12.93 |14.633    1.27 | 20.63    0.71
    2.650    0.83 | 8.650   12.93 |14.650    1.27 | 20.65    0.71
    2.667    0.83 | 8.667   12.92 |14.667    1.27 | 20.67    0.71
    2.683    0.86 | 8.683   10.15 |14.683    1.24 | 20.68    0.70
    2.700    0.86 | 8.700   10.15 |14.700    1.24 | 20.70    0.70
    2.717    0.86 | 8.717   10.15 |14.717    1.24 | 20.72    0.70
    2.733    0.86 | 8.733   10.15 |14.733    1.24 | 20.73    0.70
    2.750    0.86 | 8.750   10.15 |14.750    1.24 | 20.75    0.70
    2.767    0.86 | 8.767   10.15 |14.767    1.24 | 20.77    0.70
    2.783    0.86 | 8.783   10.15 |14.783    1.24 | 20.78    0.70
    2.800    0.86 | 8.800   10.15 |14.800    1.24 | 20.80    0.70
    2.817    0.86 | 8.817   10.15 |14.817    1.24 | 20.82    0.70
    2.833    0.86 | 8.833   10.15 |14.833    1.24 | 20.83    0.70
    2.850    0.88 | 8.850    8.35 |14.850    1.21 | 20.85    0.69
    2.867    0.88 | 8.867    8.35 |14.867    1.21 | 20.87    0.69
    2.883    0.88 | 8.883    8.35 |14.883    1.21 | 20.88    0.69
    2.900    0.88 | 8.900    8.35 |14.900    1.21 | 20.90    0.69
    2.917    0.88 | 8.917    8.35 |14.917    1.21 | 20.92    0.69
    2.933    0.88 | 8.933    8.35 |14.933    1.21 | 20.93    0.69
    2.950    0.88 | 8.950    8.35 |14.950    1.21 | 20.95    0.69
    2.967    0.88 | 8.967    8.35 |14.967    1.21 | 20.97    0.69
    2.983    0.88 | 8.983    8.35 |14.983    1.21 | 20.98    0.69
    3.000    0.88 | 9.000    8.34 |15.000    1.21 | 21.00    0.69
    3.017    0.91 | 9.017    7.08 |15.017    1.19 | 21.02    0.69
    3.033    0.91 | 9.033    7.08 |15.033    1.19 | 21.03    0.69
    3.050    0.91 | 9.050    7.08 |15.050    1.19 | 21.05    0.69
    3.067    0.91 | 9.067    7.08 |15.067    1.19 | 21.07    0.69
    3.083    0.91 | 9.083    7.08 |15.083    1.19 | 21.08    0.69
    3.100    0.91 | 9.100    7.08 |15.100    1.19 | 21.10    0.69
    3.117    0.91 | 9.117    7.08 |15.117    1.19 | 21.12    0.69
    3.133    0.91 | 9.133    7.08 |15.133    1.19 | 21.13    0.69
    3.150    0.91 | 9.150    7.08 |15.150    1.19 | 21.15    0.69
    3.167    0.91 | 9.167    7.08 |15.167    1.19 | 21.17    0.69
    3.183    0.94 | 9.183    6.15 |15.183    1.16 | 21.18    0.68
    3.200    0.94 | 9.200    6.15 |15.200    1.16 | 21.20    0.68
    3.217    0.94 | 9.217    6.15 |15.217    1.16 | 21.22    0.68
    3.233    0.94 | 9.233    6.15 |15.233    1.16 | 21.23    0.68
    3.250    0.94 | 9.250    6.15 |15.250    1.16 | 21.25    0.68
    3.267    0.94 | 9.267    6.15 |15.267    1.16 | 21.27    0.68
    3.283    0.94 | 9.283    6.15 |15.283    1.16 | 21.28    0.68
    3.300    0.94 | 9.300    6.15 |15.300    1.16 | 21.30    0.68
    3.317    0.94 | 9.317    6.15 |15.317    1.16 | 21.32    0.68
    3.333    0.94 | 9.333    6.15 |15.333    1.16 | 21.33    0.68
    3.350    0.97 | 9.350    5.44 |15.350    1.14 | 21.35    0.67
    3.367    0.97 | 9.367    5.44 |15.367    1.14 | 21.37    0.67
    3.383    0.97 | 9.383    5.44 |15.383    1.14 | 21.38    0.67
    3.400    0.97 | 9.400    5.44 |15.400    1.14 | 21.40    0.67
    3.417    0.97 | 9.417    5.44 |15.417    1.14 | 21.42    0.67
    3.433    0.97 | 9.433    5.44 |15.433    1.14 | 21.43    0.67
    3.450    0.97 | 9.450    5.44 |15.450    1.14 | 21.45    0.67
    3.467    0.97 | 9.467    5.44 |15.467    1.14 | 21.47    0.67
    3.483    0.97 | 9.483    5.44 |15.483    1.14 | 21.48    0.67
    3.500    0.97 | 9.500    5.44 |15.500    1.14 | 21.50    0.67
    3.517    1.00 | 9.517    4.88 |15.517    1.12 | 21.52    0.66
    3.533    1.00 | 9.533    4.88 |15.533    1.12 | 21.53    0.66
    3.550    1.00 | 9.550    4.88 |15.550    1.12 | 21.55    0.66
    3.567    1.00 | 9.567    4.88 |15.567    1.12 | 21.57    0.66
    3.583    1.00 | 9.583    4.88 |15.583    1.12 | 21.58    0.66
    3.600    1.00 | 9.600    4.88 |15.600    1.12 | 21.60    0.66
    3.617    1.00 | 9.617    4.88 |15.617    1.12 | 21.62    0.66
    3.633    1.00 | 9.633    4.88 |15.633    1.12 | 21.63    0.66
    3.650    1.00 | 9.650    4.88 |15.650    1.12 | 21.65    0.66
    3.667    1.00 | 9.667    4.87 |15.667    1.12 | 21.67    0.66
    3.683    1.04 | 9.683    4.42 |15.683    1.09 | 21.68    0.66
    3.700    1.04 | 9.700    4.42 |15.700    1.09 | 21.70    0.66
    3.717    1.04 | 9.717    4.42 |15.717    1.09 | 21.72    0.66
    3.733    1.04 | 9.733    4.42 |15.733    1.09 | 21.73    0.66
    3.750    1.04 | 9.750    4.42 |15.750    1.09 | 21.75    0.66
    3.767    1.04 | 9.767    4.42 |15.767    1.09 | 21.77    0.66
    3.783    1.04 | 9.783    4.42 |15.783    1.09 | 21.78    0.66
    3.800    1.04 | 9.800    4.42 |15.800    1.09 | 21.80    0.66
    3.817    1.04 | 9.817    4.42 |15.817    1.09 | 21.82    0.66
    3.833    1.04 | 9.833    4.42 |15.833    1.09 | 21.83    0.66
    3.850    1.08 | 9.850    4.05 |15.850    1.07 | 21.85    0.65
    3.867    1.08 | 9.867    4.05 |15.867    1.07 | 21.87    0.65
    3.883    1.08 | 9.883    4.05 |15.883    1.07 | 21.88    0.65
    3.900    1.08 | 9.900    4.05 |15.900    1.07 | 21.90    0.65
    3.917    1.08 | 9.917    4.05 |15.917    1.07 | 21.92    0.65
    3.933    1.08 | 9.933    4.05 |15.933    1.07 | 21.93    0.65
    3.950    1.08 | 9.950    4.05 |15.950    1.07 | 21.95    0.65
    3.967    1.08 | 9.967    4.05 |15.967    1.07 | 21.97    0.65
    3.983    1.08 | 9.983    4.05 |15.983    1.07 | 21.98    0.65
    4.000    1.08 |10.000    4.04 |16.000    1.07 | 22.00    0.65
    4.017    1.12 |10.017    3.73 |16.017    1.05 | 22.02    0.64
    4.033    1.12 |10.033    3.73 |16.033    1.05 | 22.03    0.64
    4.050    1.12 |10.050    3.73 |16.050    1.05 | 22.05    0.64
    4.067    1.12 |10.067    3.73 |16.067    1.05 | 22.07    0.64
    4.083    1.12 |10.083    3.73 |16.083    1.05 | 22.08    0.64
    4.100    1.12 |10.100    3.73 |16.100    1.05 | 22.10    0.64
    4.117    1.12 |10.117    3.73 |16.117    1.05 | 22.12    0.64
    4.133    1.12 |10.133    3.73 |16.133    1.05 | 22.13    0.64
    4.150    1.12 |10.150    3.73 |16.150    1.05 | 22.15    0.64
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4.167	1.12	10.167	3.73	16.167	1.05	22.17	0.64
4.183	1.17	10.183	3.46	16.183	1.03	22.18	0.64
4.200	1.17	10.200	3.46	16.200	1.03	22.20	0.64
4.217	1.17	10.217	3.46	16.217	1.03	22.22	0.64
4.233	1.17	10.233	3.46	16.233	1.03	22.23	0.64
4.250	1.17	10.250	3.46	16.250	1.03	22.25	0.64
4.267	1.17	10.267	3.46	16.267	1.03	22.27	0.64
4.283	1.17	10.283	3.46	16.283	1.03	22.28	0.64
4.300	1.17	10.300	3.46	16.300	1.03	22.30	0.64
4.317	1.17	10.317	3.46	16.317	1.03	22.32	0.64
4.333	1.17	10.333	3.46	16.333	1.03	22.33	0.64
4.350	1.22	10.350	3.23	16.350	1.02	22.35	0.63
4.367	1.22	10.367	3.23	16.367	1.02	22.37	0.63
4.383	1.22	10.383	3.23	16.383	1.02	22.38	0.63
4.400	1.22	10.400	3.23	16.400	1.02	22.40	0.63
4.417	1.22	10.417	3.23	16.417	1.02	22.42	0.63
4.433	1.22	10.433	3.23	16.433	1.02	22.43	0.63
4.450	1.22	10.450	3.23	16.450	1.02	22.45	0.63
4.467	1.22	10.467	3.23	16.467	1.02	22.47	0.63
4.483	1.22	10.483	3.23	16.483	1.02	22.48	0.63
4.500	1.22	10.500	3.23	16.500	1.02	22.50	0.63
4.517	1.28	10.517	3.03	16.517	1.00	22.52	0.62
4.533	1.28	10.533	3.03	16.533	1.00	22.53	0.62
4.550	1.28	10.550	3.03	16.550	1.00	22.55	0.62
4.567	1.28	10.567	3.03	16.567	1.00	22.57	0.62
4.583	1.28	10.583	3.03	16.583	1.00	22.58	0.62
4.600	1.28	10.600	3.03	16.600	1.00	22.60	0.62
4.617	1.28	10.617	3.03	16.617	1.00	22.62	0.62
4.633	1.28	10.633	3.03	16.633	1.00	22.63	0.62
4.650	1.28	10.650	3.03	16.650	1.00	22.65	0.62
4.667	1.28	10.667	3.03	16.667	1.00	22.67	0.62
4.683	1.34	10.683	2.86	16.683	0.98	22.68	0.62
4.700	1.34	10.700	2.86	16.700	0.98	22.70	0.62
4.717	1.34	10.717	2.86	16.717	0.98	22.72	0.62
4.733	1.34	10.733	2.86	16.733	0.98	22.73	0.62
4.750	1.34	10.750	2.86	16.750	0.98	22.75	0.62
4.767	1.34	10.767	2.86	16.767	0.98	22.77	0.62
4.783	1.34	10.783	2.86	16.783	0.98	22.78	0.62
4.800	1.34	10.800	2.86	16.800	0.98	22.80	0.62
4.817	1.34	10.817	2.86	16.817	0.98	22.82	0.62
4.833	1.34	10.833	2.86	16.833	0.98	22.83	0.62
4.850	1.41	10.850	2.70	16.850	0.96	22.85	0.61
4.867	1.41	10.867	2.70	16.867	0.96	22.87	0.61
4.883	1.41	10.883	2.70	16.883	0.96	22.88	0.61
4.900	1.41	10.900	2.70	16.900	0.96	22.90	0.61
4.917	1.41	10.917	2.70	16.917	0.96	22.92	0.61
4.933	1.41	10.933	2.70	16.933	0.96	22.93	0.61
4.950	1.41	10.950	2.70	16.950	0.96	22.95	0.61
4.967	1.41	10.967	2.70	16.967	0.96	22.97	0.61
4.983	1.41	10.983	2.70	16.983	0.96	22.98	0.61
5.000	1.41	11.000	2.70	17.000	0.96	23.00	0.61
5.017	1.49	11.017	2.56	17.017	0.95	23.02	0.60
5.033	1.49	11.033	2.56	17.033	0.95	23.03	0.60
5.050	1.49	11.050	2.56	17.050	0.95	23.05	0.60
5.067	1.49	11.067	2.56	17.067	0.95	23.07	0.60
5.083	1.49	11.083	2.56	17.083	0.95	23.08	0.60
5.100	1.49	11.100	2.56	17.100	0.95	23.10	0.60
5.117	1.49	11.117	2.56	17.117	0.95	23.12	0.60
5.133	1.49	11.133	2.56	17.133	0.95	23.13	0.60
5.150	1.49	11.150	2.56	17.150	0.95	23.15	0.60
5.167	1.49	11.167	2.56	17.167	0.95	23.17	0.60
5.183	1.58	11.183	2.44	17.183	0.93	23.18	0.60
5.200	1.58	11.200	2.44	17.200	0.93	23.20	0.60
5.217	1.58	11.217	2.44	17.217	0.93	23.22	0.60
5.233	1.58	11.233	2.44	17.233	0.93	23.23	0.60
5.250	1.58	11.250	2.44	17.250	0.93	23.25	0.60
5.267	1.58	11.267	2.44	17.267	0.93	23.27	0.60
5.283	1.58	11.283	2.44	17.283	0.93	23.28	0.60
5.300	1.58	11.300	2.44	17.300	0.93	23.30	0.60
5.317	1.58	11.317	2.44	17.317	0.93	23.32	0.60
5.333	1.58	11.333	2.44	17.333	0.93	23.33	0.60
5.350	1.68	11.350	2.32	17.350	0.92	23.35	0.59
5.367	1.68	11.367	2.32	17.367	0.92	23.37	0.59
5.383	1.68	11.383	2.32	17.383	0.92	23.38	0.59
5.400	1.68	11.400	2.32	17.400	0.92	23.40	0.59
5.417	1.68	11.417	2.32	17.417	0.92	23.42	0.59
5.433	1.68	11.433	2.32	17.433	0.92	23.43	0.59
5.450	1.68	11.450	2.32	17.450	0.92	23.45	0.59
5.467	1.68	11.467	2.32	17.467	0.92	23.47	0.59
5.483	1.68	11.483	2.32	17.483	0.92	23.48	0.59
5.500	1.68	11.500	2.32	17.500	0.92	23.50	0.59
5.517	1.79	11.517	2.22	17.517	0.90	23.52	0.59
5.533	1.79	11.533	2.22	17.533	0.90	23.53	0.59
5.550	1.79	11.550	2.22	17.550	0.90	23.55	0.59
5.567	1.79	11.567	2.22	17.567	0.90	23.57	0.59
5.583	1.79	11.583	2.22	17.583	0.90	23.58	0.59
5.600	1.79	11.600	2.22	17.600	0.90	23.60	0.59
5.617	1.79	11.617	2.22	17.617	0.90	23.62	0.59
5.633	1.79	11.633	2.22	17.633	0.90	23.63	0.59
5.650	1.79	11.650	2.22	17.650	0.90	23.65	0.59
5.667	1.80	11.667	2.22	17.667	0.90	23.67	0.59
5.683	1.93	11.683	2.13	17.683	0.89	23.68	0.58
5.700	1.93	11.700	2.13	17.700	0.89	23.70	0.58
5.717	1.93	11.717	2.13	17.717	0.89	23.72	0.58
5.733	1.93	11.733	2.13	17.733	0.89	23.73	0.58
5.750	1.93	11.750	2.13	17.750	0.89	23.75	0.58
5.767	1.93	11.767	2.13	17.767	0.89	23.77	0.58
5.783	1.93	11.783	2.13	17.783	0.89	23.78	0.58
5.800	1.93	11.800	2.13	17.800	0.89	23.80	0.58
5.817	1.93	11.817	2.13	17.817	0.89	23.82	0.58
5.833	1.93	11.833	2.13	17.833	0.89	23.83	0.58
5.850	2.08	11.850	2.04	17.850	0.88	23.85	0.58
5.867	2.08	11.867	2.04	17.867	0.88	23.87	0.58
5.883	2.08	11.883	2.04	17.883	0.88	23.88	0.58
5.900	2.08	11.900	2.04	17.900	0.88	23.90	0.58
5.917	2.08	11.917	2.04	17.917	0.88	23.92	0.58
5.933	2.08	11.933	2.04	17.933	0.88	23.93	0.58
5.950	2.08	11.950	2.04	17.950	0.88	23.95	0.58
5.967	2.08	11.967	2.04	17.967	0.88	23.97	0.58
5.983	2.08	11.983	2.04	17.983	0.88	23.98	0.58
6.000	2.08	12.000	2.04	18.000	0.88	24.00	0.58

```
   Max.Eff.Inten.(mm/hr)=     142.97          25.45
            over (min)        5.00          16.00
   Storage Coeff.  (min)=     2.95 (ii)     15.15 (ii)
   Unit Hyd. Tpeak (min)=     5.00          16.00
   Unit Hyd. peak  (cms)=     0.31           0.07
                                                      *TOTALS*
   PEAK FLOW       (cms)=     0.19           0.06       0.212 (iii)
   TIME TO PEAK    (hrs)=     8.00           8.25       8.02
   RUNOFF VOLUME    (mm)=    88.96          21.02      38.69
   TOTAL RAINFALL   (mm)=    89.97          89.97      89.97
   RUNOFF COEFFICIENT   =     0.99           0.23       0.43

     (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN*  =  48.0    Ia = Dep. Storage  (Above)
     (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
          THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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-------------------
| DUHYD    (  0037)|
| Inlet Cap.= 0.108|
| #of Inlets=     1|
| Total(cms)=   0.1|       AREA     QPEAK     TPEAK     R.V.
-------------------          (ha)     (cms)     (hrs)     (mm)
     TOTAL HYD.(ID= 1):    1.95      0.21      8.02     38.69
     ================================================================
     MAJOR SYS.(ID= 2):    0.18      0.10      8.02     38.69
     MINOR SYS.(ID= 3):    1.77      0.11      7.90     38.69

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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  | Junction Command(0038) |
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                          AREA     QPEAK    TPEAK     R.V.
                          (ha)     (cms)    (hrs)     (mm)
  INFLOW : ID= 9(  0037)    1.77     0.11     7.90     38.69
  OUTFLOW: ID= 2(  0038)    1.77     0.11     7.90     38.69
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  --------------------------------------------------------------------------------
-------------------
| CALIB             |
| NASHYD   (  0104)|   Area     (ha)=   0.77   Curve Number   (CN)= 53.0
|ID= 1 DT= 5.0 min |   Ia       (mm)=   5.00   # of Linear Res.(N)= 3.00
-------------------   U.H. Tp(hrs)=   0.34

        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    0.59 |  6.083    2.27 |12.083    1.97 | 18.08    0.86
0.167    0.59 |  6.167    2.27 |12.167    1.97 | 18.17    0.86
0.250    0.60 |  6.250    2.50 |12.250    1.89 | 18.25    0.85
0.333    0.60 |  6.333    2.50 |12.333    1.89 | 18.33    0.85
0.417    0.61 |  6.417    2.77 |12.417    1.83 | 18.42    0.84
0.500    0.61 |  6.500    2.77 |12.500    1.83 | 18.50    0.84
0.583    0.63 |  6.583    3.13 |12.583    1.77 | 18.58    0.83
0.667    0.63 |  6.667    3.13 |12.667    1.77 | 18.67    0.83
0.750    0.64 |  6.750    3.59 |12.750    1.71 | 18.75    0.82
0.833    0.64 |  6.833    3.59 |12.833    1.71 | 18.83    0.82
0.917    0.65 |  6.917    4.23 |12.917    1.66 | 18.92    0.80
1.000    0.65 |  7.000    4.23 |13.000    1.66 | 19.00    0.80
1.083    0.67 |  7.083    5.15 |13.083    1.61 | 19.08    0.79
1.167    0.67 |  7.167    5.15 |13.167    1.61 | 19.17    0.79
1.250    0.68 |  7.250    6.61 |13.250    1.56 | 19.25    0.78
1.333    0.68 |  7.333    6.61 |13.333    1.56 | 19.33    0.78
1.417    0.70 |  7.417    9.24 |13.417    1.51 | 19.42    0.77
1.500    0.70 |  7.500    9.24 |13.500    1.51 | 19.50    0.77
1.583    0.71 |  7.583   15.26 |13.583    1.47 | 19.58    0.76
1.667    0.71 |  7.667   15.26 |13.667    1.47 | 19.67    0.76
1.750    0.73 |  7.750   40.09 |13.750    1.43 | 19.75    0.75
1.833    0.73 |  7.833   40.10 |13.833    1.43 | 19.83    0.75
1.917    0.75 |  7.917  142.97 |13.917    1.40 | 19.92    0.74
2.000    0.75 |  8.000  142.96 |14.000    1.40 | 20.00    0.74
2.083    0.77 |  8.083   53.15 |14.083    1.36 | 20.08    0.74
2.167    0.77 |  8.167   53.15 |14.167    1.36 | 20.17    0.74
2.250    0.79 |  8.250   27.09 |14.250    1.33 | 20.25    0.73
2.333    0.79 |  8.333   27.09 |14.333    1.33 | 20.33    0.73
2.417    0.81 |  8.417   17.64 |14.417    1.30 | 20.42    0.72
2.500    0.81 |  8.500   17.64 |14.500    1.30 | 20.50    0.72
2.583    0.83 |  8.583   12.93 |14.583    1.27 | 20.58    0.71
2.667    0.83 |  8.667   12.93 |14.667    1.27 | 20.67    0.71
2.750    0.86 |  8.750   10.15 |14.750    1.24 | 20.75    0.70
2.833    0.86 |  8.833   10.15 |14.833    1.24 | 20.83    0.70
2.917    0.88 |  8.917    8.35 |14.917    1.21 | 20.92    0.69
3.000    0.88 |  9.000    8.35 |15.000    1.21 | 21.00    0.69
3.083    0.91 |  9.083    7.08 |15.083    1.19 | 21.08    0.69
3.167    0.91 |  9.167    7.08 |15.167    1.19 | 21.17    0.69
3.250    0.94 |  9.250    6.15 |15.250    1.16 | 21.25    0.68
3.333    0.94 |  9.333    6.15 |15.333    1.16 | 21.33    0.68
3.417    0.97 |  9.417    5.44 |15.417    1.14 | 21.42    0.67
3.500    0.97 |  9.500    5.44 |15.500    1.14 | 21.50    0.67
3.583    1.00 |  9.583    4.88 |15.583    1.12 | 21.58    0.66
3.667    1.00 |  9.667    4.88 |15.667    1.12 | 21.67    0.66
3.750    1.04 |  9.750    4.42 |15.750    1.09 | 21.75    0.66
3.833    1.04 |  9.833    4.42 |15.833    1.09 | 21.83    0.66
3.917    1.08 |  9.917    4.05 |15.917    1.07 | 21.92    0.65
4.000    1.08 | 10.000    4.05 |16.000    1.07 | 22.00    0.65
4.083    1.12 | 10.083    3.73 |16.083    1.05 | 22.08    0.64
4.167    1.12 | 10.167    3.73 |16.167    1.05 | 22.17    0.64
4.250    1.17 | 10.250    3.46 |16.250    1.03 | 22.25    0.64
4.333    1.17 | 10.333    3.46 |16.333    1.03 | 22.33    0.64
4.417    1.22 | 10.417    3.23 |16.417    1.02 | 22.42    0.63
4.500    1.22 | 10.500    3.23 |16.500    1.02 | 22.50    0.63
4.583    1.28 | 10.583    3.03 |16.583    1.00 | 22.58    0.62
4.667    1.28 | 10.667    3.03 |16.667    1.00 | 22.67    0.62
4.750    1.34 | 10.750    2.86 |16.750    0.98 | 22.75    0.62
4.833    1.34 | 10.833    2.86 |16.833    0.98 | 22.83    0.62
4.917    1.41 | 10.917    2.70 |16.917    0.96 | 22.92    0.61
5.000    1.41 | 11.000    2.70 |17.000    0.96 | 23.00    0.61
5.083    1.49 | 11.083    2.56 |17.083    0.95 | 23.08    0.60
5.167    1.49 | 11.167    2.56 |17.167    0.95 | 23.17    0.60
5.250    1.58 | 11.250    2.44 |17.250    0.93 | 23.25    0.60
5.333    1.58 | 11.333    2.44 |17.333    0.93 | 23.33    0.60
5.417    1.68 | 11.417    2.32 |17.417    0.92 | 23.42    0.59
5.500    1.68 | 11.500    2.32 |17.500    0.92 | 23.50    0.59
5.583    1.79 | 11.583    2.22 |17.583    0.90 | 23.58    0.59
5.667    1.80 | 11.667    2.22 |17.667    0.90 | 23.67    0.59
5.750    1.93 | 11.750    2.13 |17.750    0.89 | 23.75    0.58
5.833    1.93 | 11.833    2.13 |17.833    0.89 | 23.83    0.58
5.917    2.08 | 11.917    2.04 |17.917    0.88 | 23.92    0.58
6.000    2.08 | 12.000    2.04 |18.000    0.88 | 24.00    0.58

     Unit Hyd Qpeak  (cms)=   0.086

     PEAK FLOW       (cms)=   0.029 (i)
     TIME TO PEAK    (hrs)=   8.333
     RUNOFF VOLUME    (mm)=  23.266
     TOTAL RAINFALL   (mm)=  89.966
     RUNOFF COEFFICIENT   =   0.259

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

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| CALIB             |
| STANDHYD (  0103)|   Area     (ha)=   1.17
|ID= 1 DT= 1.0 min |   Total Imp(%)=  24.00   Dir. Conn.(%)=  20.00
-------------------          IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       0.28         0.89
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     Dep. Storage     (mm)=       1.00         5.00
     Average Slope     (%)=       0.50         2.00
     Length            (m)=      88.20        40.00
     Mannings n             =    0.013        0.250

         NOTE:  RAINFALL WAS TRANSFORMED TO   1.0 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
0.017    0.59 |  6.017    2.27 |12.017    1.97 | 18.02    0.86
0.033    0.59 |  6.033    2.27 |12.033    1.97 | 18.03    0.86
0.050    0.59 |  6.050    2.27 |12.050    1.97 | 18.05    0.86
0.067    0.59 |  6.067    2.27 |12.067    1.97 | 18.07    0.86
0.083    0.59 |  6.083    2.27 |12.083    1.97 | 18.08    0.86
0.100    0.59 |  6.100    2.27 |12.100    1.97 | 18.10    0.86
0.117    0.59 |  6.117    2.27 |12.117    1.97 | 18.12    0.86
0.133    0.59 |  6.133    2.27 |12.133    1.97 | 18.13    0.86
0.150    0.59 |  6.150    2.27 |12.150    1.97 | 18.15    0.86
0.167    0.59 |  6.167    2.27 |12.167    1.97 | 18.17    0.86
0.183    0.60 |  6.183    2.50 |12.183    1.89 | 18.18    0.85
0.200    0.60 |  6.200    2.50 |12.200    1.89 | 18.20    0.85
0.217    0.60 |  6.217    2.50 |12.217    1.89 | 18.22    0.85
0.233    0.60 |  6.233    2.50 |12.233    1.89 | 18.23    0.85
0.250    0.60 |  6.250    2.50 |12.250    1.89 | 18.25    0.85
0.267    0.60 |  6.267    2.50 |12.267    1.89 | 18.27    0.85
0.283    0.60 |  6.283    2.50 |12.283    1.89 | 18.28    0.85
0.300    0.60 |  6.300    2.50 |12.300    1.89 | 18.30    0.85
0.317    0.60 |  6.317    2.50 |12.317    1.89 | 18.32    0.85
0.333    0.60 |  6.333    2.50 |12.333    1.89 | 18.33    0.85
0.350    0.61 |  6.350    2.77 |12.350    1.83 | 18.35    0.84
0.367    0.61 |  6.367    2.77 |12.367    1.83 | 18.37    0.84
0.383    0.61 |  6.383    2.77 |12.383    1.83 | 18.38    0.84
0.400    0.61 |  6.400    2.77 |12.400    1.83 | 18.40    0.84
0.417    0.61 |  6.417    2.77 |12.417    1.83 | 18.42    0.84
0.433    0.61 |  6.433    2.77 |12.433    1.83 | 18.43    0.84
0.450    0.61 |  6.450    2.77 |12.450    1.83 | 18.45    0.84
0.467    0.61 |  6.467    2.77 |12.467    1.83 | 18.47    0.84
0.483    0.61 |  6.483    2.77 |12.483    1.83 | 18.48    0.84
0.500    0.61 |  6.500    2.77 |12.500    1.83 | 18.50    0.84
0.517    0.63 |  6.517    3.13 |12.517    1.77 | 18.52    0.83
0.533    0.63 |  6.533    3.13 |12.533    1.77 | 18.53    0.83
0.550    0.63 |  6.550    3.13 |12.550    1.77 | 18.55    0.83
0.567    0.63 |  6.567    3.13 |12.567    1.77 | 18.57    0.83
0.583    0.63 |  6.583    3.13 |12.583    1.77 | 18.58    0.83
0.600    0.63 |  6.600    3.13 |12.600    1.77 | 18.60    0.83
0.617    0.63 |  6.617    3.13 |12.617    1.77 | 18.62    0.83
0.633    0.63 |  6.633    3.13 |12.633    1.77 | 18.63    0.83
0.650    0.63 |  6.650    3.13 |12.650    1.77 | 18.65    0.83
0.667    0.63 |  6.667    3.13 |12.667    1.77 | 18.67    0.83
0.683    0.64 |  6.683    3.59 |12.683    1.71 | 18.68    0.82
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0.700	0.64	6.700	3.59	12.700	1.71	18.70	0.82
0.717	0.64	6.717	3.59	12.717	1.71	18.72	0.82
0.733	0.64	6.733	3.59	12.733	1.71	18.73	0.82
0.750	0.64	6.750	3.59	12.750	1.71	18.75	0.82
0.767	0.64	6.767	3.59	12.767	1.71	18.77	0.82
0.783	0.64	6.783	3.59	12.783	1.71	18.78	0.82
0.800	0.64	6.800	3.59	12.800	1.71	18.80	0.82
0.817	0.64	6.817	3.59	12.817	1.71	18.82	0.82
0.833	0.64	6.833	3.59	12.833	1.71	18.83	0.82
0.850	0.65	6.850	4.23	12.850	1.66	18.85	0.80
0.867	0.65	6.867	4.23	12.867	1.66	18.87	0.80
0.883	0.65	6.883	4.23	12.883	1.66	18.88	0.80
0.900	0.65	6.900	4.23	12.900	1.66	18.90	0.80
0.917	0.65	6.917	4.23	12.917	1.66	18.92	0.80
0.933	0.65	6.933	4.23	12.933	1.66	18.93	0.80
0.950	0.65	6.950	4.23	12.950	1.66	18.95	0.80
0.967	0.65	6.967	4.23	12.967	1.66	18.97	0.80
0.983	0.65	6.983	4.23	12.983	1.66	18.98	0.80
1.000	0.65	7.000	4.23	13.000	1.66	19.00	0.80
1.017	0.67	7.017	5.15	13.017	1.61	19.02	0.79
1.033	0.67	7.033	5.15	13.033	1.61	19.03	0.79
1.050	0.67	7.050	5.15	13.050	1.61	19.05	0.79
1.067	0.67	7.067	5.15	13.067	1.61	19.07	0.79
1.083	0.67	7.083	5.15	13.083	1.61	19.08	0.79
1.100	0.67	7.100	5.15	13.100	1.61	19.10	0.79
1.117	0.67	7.117	5.15	13.117	1.61	19.12	0.79
1.133	0.67	7.133	5.15	13.133	1.61	19.13	0.79
1.150	0.67	7.150	5.15	13.150	1.61	19.15	0.79
1.167	0.67	7.167	5.15	13.167	1.61	19.17	0.79
1.183	0.68	7.183	6.61	13.183	1.56	19.18	0.78
1.200	0.68	7.200	6.61	13.200	1.56	19.20	0.78
1.217	0.68	7.217	6.61	13.217	1.56	19.22	0.78
1.233	0.68	7.233	6.61	13.233	1.56	19.23	0.78
1.250	0.68	7.250	6.61	13.250	1.56	19.25	0.78
1.267	0.68	7.267	6.61	13.267	1.56	19.27	0.78
1.283	0.68	7.283	6.61	13.283	1.56	19.28	0.78
1.300	0.68	7.300	6.61	13.300	1.56	19.30	0.78
1.317	0.68	7.317	6.61	13.317	1.56	19.32	0.78
1.333	0.68	7.333	6.61	13.333	1.56	19.33	0.78
1.350	0.70	7.350	9.24	13.350	1.51	19.35	0.77
1.367	0.70	7.367	9.24	13.367	1.51	19.37	0.77
1.383	0.70	7.383	9.24	13.383	1.51	19.38	0.77
1.400	0.70	7.400	9.24	13.400	1.51	19.40	0.77
1.417	0.70	7.417	9.24	13.417	1.51	19.42	0.77
1.433	0.70	7.433	9.24	13.433	1.51	19.43	0.77
1.450	0.70	7.450	9.24	13.450	1.51	19.45	0.77
1.467	0.70	7.467	9.24	13.467	1.51	19.47	0.77
1.483	0.70	7.483	9.24	13.483	1.51	19.48	0.77
1.500	0.70	7.500	9.25	13.500	1.51	19.50	0.77
1.517	0.71	7.517	15.26	13.517	1.47	19.52	0.76
1.533	0.71	7.533	15.26	13.533	1.47	19.53	0.76
1.550	0.71	7.550	15.26	13.550	1.47	19.55	0.76
1.567	0.71	7.567	15.26	13.567	1.47	19.57	0.76
1.583	0.71	7.583	15.26	13.583	1.47	19.58	0.76
1.600	0.71	7.600	15.26	13.600	1.47	19.60	0.76
1.617	0.71	7.617	15.26	13.617	1.47	19.62	0.76
1.633	0.71	7.633	15.26	13.633	1.47	19.63	0.76
1.650	0.71	7.650	15.26	13.650	1.47	19.65	0.76
1.667	0.71	7.667	15.33	13.667	1.47	19.67	0.76
1.683	0.73	7.683	40.09	13.683	1.43	19.68	0.75
1.700	0.73	7.700	40.09	13.700	1.43	19.70	0.75
1.717	0.73	7.717	40.09	13.717	1.43	19.72	0.75
1.733	0.73	7.733	40.09	13.733	1.43	19.73	0.75
1.750	0.73	7.750	40.09	13.750	1.43	19.75	0.75
1.767	0.73	7.767	40.09	13.767	1.43	19.77	0.75
1.783	0.73	7.783	40.09	13.783	1.43	19.78	0.75
1.800	0.73	7.800	40.09	13.800	1.43	19.80	0.75
1.817	0.73	7.817	40.09	13.817	1.43	19.82	0.75
1.833	0.73	7.833	40.39	13.833	1.43	19.83	0.75
1.850	0.75	7.850	142.97	13.850	1.40	19.85	0.74
1.867	0.75	7.867	142.97	13.867	1.40	19.87	0.74
1.883	0.75	7.883	142.97	13.883	1.40	19.88	0.74
1.900	0.75	7.900	142.97	13.900	1.40	19.90	0.74
1.917	0.75	7.917	142.97	13.917	1.40	19.92	0.74
1.933	0.75	7.933	142.97	13.933	1.40	19.93	0.74
1.950	0.75	7.950	142.97	13.950	1.40	19.95	0.74
1.967	0.75	7.967	142.97	13.967	1.40	19.97	0.74
1.983	0.75	7.983	142.97	13.983	1.40	19.98	0.74
2.000	0.75	8.000	142.71	14.000	1.40	20.00	0.74
2.017	0.77	8.017	53.15	14.017	1.36	20.02	0.74
2.033	0.77	8.033	53.15	14.033	1.36	20.03	0.74
2.050	0.77	8.050	53.15	14.050	1.36	20.05	0.74
2.067	0.77	8.067	53.15	14.067	1.36	20.07	0.74
2.083	0.77	8.083	53.15	14.083	1.36	20.08	0.74
2.100	0.77	8.100	53.15	14.100	1.36	20.10	0.74
2.117	0.77	8.117	53.15	14.117	1.36	20.12	0.74
2.133	0.77	8.133	53.15	14.133	1.36	20.13	0.74
2.150	0.77	8.150	53.15	14.150	1.36	20.15	0.74
2.167	0.77	8.167	53.08	14.167	1.36	20.17	0.74
2.183	0.79	8.183	27.09	14.183	1.33	20.18	0.73
2.200	0.79	8.200	27.09	14.200	1.33	20.20	0.73
2.217	0.79	8.217	27.09	14.217	1.33	20.22	0.73
2.233	0.79	8.233	27.09	14.233	1.33	20.23	0.73
2.250	0.79	8.250	27.09	14.250	1.33	20.25	0.73
2.267	0.79	8.267	27.09	14.267	1.33	20.27	0.73
2.283	0.79	8.283	27.09	14.283	1.33	20.28	0.73
2.300	0.79	8.300	27.09	14.300	1.33	20.30	0.73
2.317	0.79	8.317	27.09	14.317	1.33	20.32	0.73
2.333	0.79	8.333	27.07	14.333	1.33	20.33	0.73
2.350	0.81	8.350	17.64	14.350	1.30	20.35	0.72
2.367	0.81	8.367	17.64	14.367	1.30	20.37	0.72
2.383	0.81	8.383	17.64	14.383	1.30	20.38	0.72
2.400	0.81	8.400	17.64	14.400	1.30	20.40	0.72
2.417	0.81	8.417	17.64	14.417	1.30	20.42	0.72
2.433	0.81	8.433	17.64	14.433	1.30	20.43	0.72
2.450	0.81	8.450	17.64	14.450	1.30	20.45	0.72
2.467	0.81	8.467	17.64	14.467	1.30	20.47	0.72
2.483	0.81	8.483	17.64	14.483	1.30	20.48	0.72
2.500	0.81	8.500	17.63	14.500	1.30	20.50	0.72
2.517	0.83	8.517	12.93	14.517	1.27	20.52	0.71
2.533	0.83	8.533	12.93	14.533	1.27	20.53	0.71
2.550	0.83	8.550	12.93	14.550	1.27	20.55	0.71
2.567	0.83	8.567	12.93	14.567	1.27	20.57	0.71
2.583	0.83	8.583	12.93	14.583	1.27	20.58	0.71
2.600	0.83	8.600	12.93	14.600	1.27	20.60	0.71
2.617	0.83	8.617	12.93	14.617	1.27	20.62	0.71
2.633	0.83	8.633	12.93	14.633	1.27	20.63	0.71
2.650	0.83	8.650	12.93	14.650	1.27	20.65	0.71
2.667	0.83	8.667	12.92	14.667	1.27	20.67	0.71
2.683	0.86	8.683	10.15	14.683	1.24	20.68	0.70
2.700	0.86	8.700	10.15	14.700	1.24	20.70	0.70
2.717	0.86	8.717	10.15	14.717	1.24	20.72	0.70
2.733	0.86	8.733	10.15	14.733	1.24	20.73	0.70
2.750	0.86	8.750	10.15	14.750	1.24	20.75	0.70
2.767	0.86	8.767	10.15	14.767	1.24	20.77	0.70
2.783	0.86	8.783	10.15	14.783	1.24	20.78	0.70
2.800	0.86	8.800	10.15	14.800	1.24	20.80	0.70
2.817	0.86	8.817	10.15	14.817	1.24	20.82	0.70
2.833	0.86	8.833	10.15	14.833	1.24	20.83	0.70
2.850	0.88	8.850	8.35	14.850	1.21	20.85	0.69
2.867	0.88	8.867	8.35	14.867	1.21	20.87	0.69
2.883	0.88	8.883	8.35	14.883	1.21	20.88	0.69
2.900	0.88	8.900	8.35	14.900	1.21	20.90	0.69
2.917	0.88	8.917	8.35	14.917	1.21	20.92	0.69
2.933	0.88	8.933	8.35	14.933	1.21	20.93	0.69
2.950	0.88	8.950	8.35	14.950	1.21	20.95	0.69
2.967	0.88	8.967	8.35	14.967	1.21	20.97	0.69
2.983	0.88	8.983	8.35	14.983	1.21	20.98	0.69
3.000	0.88	9.000	8.34	15.000	1.21	21.00	0.69
3.017	0.91	9.017	7.08	15.017	1.19	21.02	0.69
3.033	0.91	9.033	7.08	15.033	1.19	21.03	0.69
3.050	0.91	9.050	7.08	15.050	1.19	21.05	0.69
3.067	0.91	9.067	7.08	15.067	1.19	21.07	0.69
3.083	0.91	9.083	7.08	15.083	1.19	21.08	0.69
3.100	0.91	9.100	7.08	15.100	1.19	21.10	0.69
3.117	0.91	9.117	7.08	15.117	1.19	21.12	0.69
3.133	0.91	9.133	7.08	15.133	1.19	21.13	0.69
3.150	0.91	9.150	7.08	15.150	1.19	21.15	0.69
3.167	0.91	9.167	7.08	15.167	1.19	21.17	0.69
3.183	0.94	9.183	6.15	15.183	1.16	21.18	0.68
3.200	0.94	9.200	6.15	15.200	1.16	21.20	0.68
3.217	0.94	9.217	6.15	15.217	1.16	21.22	0.68
3.233	0.94	9.233	6.15	15.233	1.16	21.23	0.68
3.250	0.94	9.250	6.15	15.250	1.16	21.25	0.68
3.267	0.94	9.267	6.15	15.267	1.16	21.27	0.68
3.283	0.94	9.283	6.15	15.283	1.16	21.28	0.68
3.300	0.94	9.300	6.15	15.300	1.16	21.30	0.68
3.317	0.94	9.317	6.15	15.317	1.16	21.32	0.68
3.333	0.94	9.333	6.15	15.333	1.16	21.33	0.68
3.350	0.97	9.350	5.44	15.350	1.14	21.35	0.67
3.367	0.97	9.367	5.44	15.367	1.14	21.37	0.67
3.383	0.97	9.383	5.44	15.383	1.14	21.38	0.67
3.400	0.97	9.400	5.44	15.400	1.14	21.40	0.67
3.417	0.97	9.417	5.44	15.417	1.14	21.42	0.67
3.433	0.97	9.433	5.44	15.433	1.14	21.43	0.67
3.450	0.97	9.450	5.44	15.450	1.14	21.45	0.67
3.467	0.97	9.467	5.44	15.467	1.14	21.47	0.67
3.483	0.97	9.483	5.44	15.483	1.14	21.48	0.67
3.500	0.97	9.500	5.44	15.500	1.14	21.50	0.67
3.517	1.00	9.517	4.88	15.517	1.12	21.52	0.66
3.533	1.00	9.533	4.88	15.533	1.12	21.53	0.66
3.550	1.00	9.550	4.88	15.550	1.12	21.55	0.66
3.567	1.00	9.567	4.88	15.567	1.12	21.57	0.66
3.583	1.00	9.583	4.88	15.583	1.12	21.58	0.66
3.600	1.00	9.600	4.88	15.600	1.12	21.60	0.66
3.617	1.00	9.617	4.88	15.617	1.12	21.62	0.66
3.633	1.00	9.633	4.88	15.633	1.12	21.63	0.66
3.650	1.00	9.650	4.88	15.650	1.12	21.65	0.66
3.667	1.00	9.667	4.87	15.667	1.12	21.67	0.66
3.683	1.04	9.683	4.42	15.683	1.09	21.68	0.66
3.700	1.04	9.700	4.42	15.700	1.09	21.70	0.66
3.717	1.04	9.717	4.42	15.717	1.09	21.72	0.66
3.733	1.04	9.733	4.42	15.733	1.09	21.73	0.66
3.750	1.04	9.750	4.42	15.750	1.09	21.75	0.66
3.767	1.04	9.767	4.42	15.767	1.09	21.77	0.66
3.783	1.04	9.783	4.42	15.783	1.09	21.78	0.66
3.800	1.04	9.800	4.42	15.800	1.09	21.80	0.66
3.817	1.04	9.817	4.42	15.817	1.09	21.82	0.66
3.833	1.04	9.833	4.42	15.833	1.09	21.83	0.66
3.850	1.08	9.850	4.05	15.850	1.07	21.85	0.65
3.867	1.08	9.867	4.05	15.867	1.07	21.87	0.65
3.883	1.08	9.883	4.05	15.883	1.07	21.88	0.65
3.900	1.08	9.900	4.05	15.900	1.07	21.90	0.65
3.917	1.08	9.917	4.05	15.917	1.07	21.92	0.65
3.933	1.08	9.933	4.05	15.933	1.07	21.93	0.65
3.950	1.08	9.950	4.05	15.950	1.07	21.95	0.65
3.967	1.08	9.967	4.05	15.967	1.07	21.97	0.65
3.983	1.08	9.983	4.05	15.983	1.07	21.98	0.65
4.000	1.08	10.000	4.04	16.000	1.07	22.00	0.65
4.017	1.12	10.017	3.73	16.017	1.05	22.02	0.64
4.033	1.12	10.033	3.73	16.033	1.05	22.03	0.64
4.050	1.12	10.050	3.73	16.050	1.05	22.05	0.64
4.067	1.12	10.067	3.73	16.067	1.05	22.07	0.64
4.083	1.12	10.083	3.73	16.083	1.05	22.08	0.64
4.100	1.12	10.100	3.73	16.100	1.05	22.10	0.64
4.117	1.12	10.117	3.73	16.117	1.05	22.12	0.64
4.133	1.12	10.133	3.73	16.133	1.05	22.13	0.64
4.150	1.12	10.150	3.73	16.150	1.05	22.15	0.64
4.167	1.12	10.167	3.73	16.167	1.05	22.17	0.64
4.183	1.17	10.183	3.46	16.183	1.03	22.18	0.64
4.200	1.17	10.200	3.46	16.200	1.03	22.20	0.64
4.217	1.17	10.217	3.46	16.217	1.03	22.22	0.64
4.233	1.17	10.233	3.46	16.233	1.03	22.23	0.64
4.250	1.17	10.250	3.46	16.250	1.03	22.25	0.64
4.267	1.17	10.267	3.46	16.267	1.03	22.27	0.64
4.283	1.17	10.283	3.46	16.283	1.03	22.28	0.64
4.300	1.17	10.300	3.46	16.300	1.03	22.30	0.64
4.317	1.17	10.317	3.46	16.317	1.03	22.32	0.64
4.333	1.17	10.333	3.46	16.333	1.03	22.33	0.64
4.350	1.22	10.350	3.23	16.350	1.02	22.35	0.63
4.367	1.22	10.367	3.23	16.367	1.02	22.37	0.63
4.383	1.22	10.383	3.23	16.383	1.02	22.38	0.63
4.400	1.22	10.400	3.23	16.400	1.02	22.40	0.63
4.417	1.22	10.417	3.23	16.417	1.02	22.42	0.63
4.433	1.22	10.433	3.23	16.433	1.02	22.43	0.63
4.450	1.22	10.450	3.23	16.450	1.02	22.45	0.63
4.467	1.22	10.467	3.23	16.467	1.02	22.47	0.63
4.483	1.22	10.483	3.23	16.483	1.02	22.48	0.63
4.500	1.22	10.500	3.23	16.500	1.02	22.50	0.63
4.517	1.28	10.517	3.03	16.517	1.00	22.52	0.62
4.533	1.28	10.533	3.03	16.533	1.00	22.53	0.62
4.550	1.28	10.550	3.03	16.550	1.00	22.55	0.62
4.567	1.28	10.567	3.03	16.567	1.00	22.57	0.62
4.583	1.28	10.583	3.03	16.583	1.00	22.58	0.62
4.600	1.28	10.600	3.03	16.600	1.00	22.60	0.62
4.617	1.28	10.617	3.03	16.617	1.00	22.62	0.62
4.633	1.28	10.633	3.03	16.633	1.00	22.63	0.62
4.650	1.28	10.650	3.03	16.650	1.00	22.65	0.62
4.667	1.28	10.667	3.03	16.667	1.00	22.67	0.62
4.683	1.34	10.683	2.86	16.683	0.98	22.68	0.62
4.700	1.34	10.700	2.86	16.700	0.98	22.70	0.62
4.717	1.34	10.717	2.86	16.717	0.98	22.72	0.62
4.733	1.34	10.733	2.86	16.733	0.98	22.73	0.62
4.750	1.34	10.750	2.86	16.750	0.98	22.75	0.62
4.767	1.34	10.767	2.86	16.767	0.98	22.77	0.62
4.783	1.34	10.783	2.86	16.783	0.98	22.78	0.62
4.800	1.34	10.800	2.86	16.800	0.98	22.80	0.62
4.817	1.34	10.817	2.86	16.817	0.98	22.82	0.62
4.833	1.34	10.833	2.86	16.833	0.98	22.83	0.62
4.850	1.41	10.850	2.70	16.850	0.96	22.85	0.61
4.867	1.41	10.867	2.70	16.867	0.96	22.87	0.61
4.883	1.41	10.883	2.70	16.883	0.96	22.88	0.61
4.900	1.41	10.900	2.70	16.900	0.96	22.90	0.61
4.917	1.41	10.917	2.70	16.917	0.96	22.92	0.61
4.933	1.41	10.933	2.70	16.933	0.96	22.93	0.61
4.950	1.41	10.950	2.70	16.950	0.96	22.95	0.61
4.967	1.41	10.967	2.70	16.967	0.96	22.97	0.61
4.983	1.41	10.983	2.70	16.983	0.96	22.98	0.61
5.000	1.41	11.000	2.70	17.000	0.96	23.00	0.61
5.017	1.49	11.017	2.56	17.017	0.95	23.02	0.60
5.033	1.49	11.033	2.56	17.033	0.95	23.03	0.60
5.050	1.49	11.050	2.56	17.050	0.95	23.05	0.60
5.067	1.49	11.067	2.56	17.067	0.95	23.07	0.60
5.083	1.49	11.083	2.56	17.083	0.95	23.08	0.60
5.100	1.49	11.100	2.56	17.100	0.95	23.10	0.60
5.117	1.49	11.117	2.56	17.117	0.95	23.12	0.60
5.133	1.49	11.133	2.56	17.133	0.95	23.13	0.60
5.150	1.49	11.150	2.56	17.150	0.95	23.15	0.60
5.167	1.49	11.167	2.56	17.167	0.95	23.17	0.60
5.183	1.58	11.183	2.44	17.183	0.93	23.18	0.60
5.200	1.58	11.200	2.44	17.200	0.93	23.20	0.60
5.217	1.58	11.217	2.44	17.217	0.93	23.22	0.60
5.233	1.58	11.233	2.44	17.233	0.93	23.23	0.60
5.250	1.58	11.250	2.44	17.250	0.93	23.25	0.60
5.267	1.58	11.267	2.44	17.267	0.93	23.27	0.60
5.283	1.58	11.283	2.44	17.283	0.93	23.28	0.60
5.300	1.58	11.300	2.44	17.300	0.93	23.30	0.60
5.317	1.58	11.317	2.44	17.317	0.93	23.32	0.60
5.333	1.58	11.333	2.44	17.333	0.93	23.33	0.60
5.350	1.68	11.350	2.32	17.350	0.92	23.35	0.59
5.367	1.68	11.367	2.32	17.367	0.92	23.37	0.59
5.383	1.68	11.383	2.32	17.383	0.92	23.38	0.59
5.400	1.68	11.400	2.32	17.400	0.92	23.40	0.59
5.417	1.68	11.417	2.32	17.417	0.92	23.42	0.59
5.433	1.68	11.433	2.32	17.433	0.92	23.43	0.59
5.450	1.68	11.450	2.32	17.450	0.92	23.45	0.59
5.467	1.68	11.467	2.32	17.467	0.92	23.47	0.59
5.483	1.68	11.483	2.32	17.483	0.92	23.48	0.59
5.500	1.68	11.500	2.32	17.500	0.92	23.50	0.59
5.517	1.79	11.517	2.22	17.517	0.90	23.52	0.59
5.533	1.79	11.533	2.22	17.533	0.90	23.53	0.59
5.550	1.79	11.550	2.22	17.550	0.90	23.55	0.59
5.567	1.79	11.567	2.22	17.567	0.90	23.57	0.59
5.583	1.79	11.583	2.22	17.583	0.90	23.58	0.59
5.600	1.79	11.600	2.22	17.600	0.90	23.60	0.59
5.617	1.79	11.617	2.22	17.617	0.90	23.62	0.59
5.633	1.79	11.633	2.22	17.633	0.90	23.63	0.59
5.650	1.79	11.650	2.22	17.650	0.90	23.65	0.59
5.667	1.80	11.667	2.22	17.667	0.90	23.67	0.59
5.683	1.93	11.683	2.13	17.683	0.89	23.68	0.58
5.700	1.93	11.700	2.13	17.700	0.89	23.70	0.58
5.717	1.93	11.717	2.13	17.717	0.89	23.72	0.58
5.733	1.93	11.733	2.13	17.733	0.89	23.73	0.58
5.750	1.93	11.750	2.13	17.750	0.89	23.75	0.58
5.767	1.93	11.767	2.13	17.767	0.89	23.77	0.58
5.783	1.93	11.783	2.13	17.783	0.89	23.78	0.58
5.800	1.93	11.800	2.13	17.800	0.89	23.80	0.58
5.817	1.93	11.817	2.13	17.817	0.89	23.82	0.58
5.833	1.93	11.833	2.13	17.833	0.89	23.83	0.58
5.850	2.08	11.850	2.04	17.850	0.88	23.85	0.58
5.867	2.08	11.867	2.04	17.867	0.88	23.87	0.58
5.883	2.08	11.883	2.04	17.883	0.88	23.88	0.58

5.900	2.08	11.900	2.04	17.900	0.88	23.90	0.58
5.917	2.08	11.917	2.04	17.917	0.88	23.92	0.58
5.933	2.08	11.933	2.04	17.933	0.88	23.93	0.58
5.950	2.08	11.950	2.04	17.950	0.88	23.95	0.58
5.967	2.08	11.967	2.04	17.967	0.88	23.97	0.58
5.983	2.08	11.983	2.04	17.983	0.88	23.98	0.58
6.000	2.08	12.000	2.04	18.000	0.88	24.00	0.58

Max.Eff.Inten.(mm/hr)=	142.97	36.53	
over (min)	5.00	14.00	
Storage Coeff. (min)=	2.53 (ii)	13.09 (ii)	
Unit Hyd. Tpeak (min)=	5.00	14.00	
Unit Hyd. peak (cms)=	0.34	0.08	
			TOTALS
PEAK FLOW (cms)=	0.09	0.05	0.115 (iii)
TIME TO PEAK (hrs)=	8.00	8.20	8.02
RUNOFF VOLUME (mm)=	88.96	27.16	39.52
TOTAL RAINFALL (mm)=	89.97	89.97	89.97
RUNOFF COEFFICIENT =	0.99	0.30	0.44

***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
YOU SHOULD CONSIDER SPLITTING THE AREA.

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 57.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (1011) | Area (ha)= 13.73
ID= 1 DT= 1.0 min | Total Imp(%)= 46.00 Dir. Conn.(%)= 39.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	6.32	7.42
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	0.50	2.00
Length	(m)=	302.59	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 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
0.017	0.59	6.017	2.27	12.017	1.97	18.02	0.86
0.033	0.59	6.033	2.27	12.033	1.97	18.03	0.86
0.050	0.59	6.050	2.27	12.050	1.97	18.05	0.86
0.067	0.59	6.067	2.27	12.067	1.97	18.07	0.86
0.083	0.59	6.083	2.27	12.083	1.97	18.08	0.86
0.100	0.59	6.100	2.27	12.100	1.97	18.10	0.86
0.117	0.59	6.117	2.27	12.117	1.97	18.12	0.86
0.133	0.59	6.133	2.27	12.133	1.97	18.13	0.86
0.150	0.59	6.150	2.27	12.150	1.97	18.15	0.86
0.167	0.59	6.167	2.27	12.167	1.97	18.17	0.86
0.183	0.60	6.183	2.50	12.183	1.89	18.18	0.85
0.200	0.60	6.200	2.50	12.200	1.89	18.20	0.85
0.217	0.60	6.217	2.50	12.217	1.89	18.22	0.85
0.233	0.60	6.233	2.50	12.233	1.89	18.23	0.85
0.250	0.60	6.250	2.50	12.250	1.89	18.25	0.85
0.267	0.60	6.267	2.50	12.267	1.89	18.27	0.85
0.283	0.60	6.283	2.50	12.283	1.89	18.28	0.85
0.300	0.60	6.300	2.50	12.300	1.89	18.30	0.85
0.317	0.60	6.317	2.50	12.317	1.89	18.32	0.85
0.333	0.60	6.333	2.50	12.333	1.89	18.33	0.85
0.350	0.61	6.350	2.77	12.350	1.83	18.35	0.84
0.367	0.61	6.367	2.77	12.367	1.83	18.37	0.84
0.383	0.61	6.383	2.77	12.383	1.83	18.38	0.84
0.400	0.61	6.400	2.77	12.400	1.83	18.40	0.84
0.417	0.61	6.417	2.77	12.417	1.83	18.42	0.84
0.433	0.61	6.433	2.77	12.433	1.83	18.43	0.84
0.450	0.61	6.450	2.77	12.450	1.83	18.45	0.84
0.467	0.61	6.467	2.77	12.467	1.83	18.47	0.84
0.483	0.61	6.483	2.77	12.483	1.83	18.48	0.84
0.500	0.61	6.500	2.77	12.500	1.83	18.50	0.84
0.517	0.63	6.517	3.13	12.517	1.77	18.52	0.83
0.533	0.63	6.533	3.13	12.533	1.77	18.53	0.83
0.550	0.63	6.550	3.13	12.550	1.77	18.55	0.83
0.567	0.63	6.567	3.13	12.567	1.77	18.57	0.83
0.583	0.63	6.583	3.13	12.583	1.77	18.58	0.83
0.600	0.63	6.600	3.13	12.600	1.77	18.60	0.83
0.617	0.63	6.617	3.13	12.617	1.77	18.62	0.83
0.633	0.63	6.633	3.13	12.633	1.77	18.63	0.83
0.650	0.63	6.650	3.13	12.650	1.77	18.65	0.83
0.667	0.63	6.667	3.13	12.667	1.77	18.67	0.83
0.683	0.64	6.683	3.59	12.683	1.71	18.68	0.82
0.700	0.64	6.700	3.59	12.700	1.71	18.70	0.82
0.717	0.64	6.717	3.59	12.717	1.71	18.72	0.82
0.733	0.64	6.733	3.59	12.733	1.71	18.73	0.82
0.750	0.64	6.750	3.59	12.750	1.71	18.75	0.82
0.767	0.64	6.767	3.59	12.767	1.71	18.77	0.82
0.783	0.64	6.783	3.59	12.783	1.71	18.78	0.82
0.800	0.64	6.800	3.59	12.800	1.71	18.80	0.82
0.817	0.64	6.817	3.59	12.817	1.71	18.82	0.82
0.833	0.64	6.833	3.59	12.833	1.71	18.83	0.82
0.850	0.65	6.850	4.23	12.850	1.66	18.85	0.80
0.867	0.65	6.867	4.23	12.867	1.66	18.87	0.80
0.883	0.65	6.883	4.23	12.883	1.66	18.88	0.80
0.900	0.65	6.900	4.23	12.900	1.66	18.90	0.80
0.917	0.65	6.917	4.23	12.917	1.66	18.92	0.80
0.933	0.65	6.933	4.23	12.933	1.66	18.93	0.80
0.950	0.65	6.950	4.23	12.950	1.66	18.95	0.80
0.967	0.65	6.967	4.23	12.967	1.66	18.97	0.80
0.983	0.65	6.983	4.23	12.983	1.66	18.98	0.80
1.000	0.65	7.000	4.23	13.000	1.66	19.00	0.80
1.017	0.67	7.017	5.15	13.017	1.61	19.02	0.79
1.033	0.67	7.033	5.15	13.033	1.61	19.03	0.79
1.050	0.67	7.050	5.15	13.050	1.61	19.05	0.79
1.067	0.67	7.067	5.15	13.067	1.61	19.07	0.79
1.083	0.67	7.083	5.15	13.083	1.61	19.08	0.79
1.100	0.67	7.100	5.15	13.100	1.61	19.10	0.79
1.117	0.67	7.117	5.15	13.117	1.61	19.12	0.79
1.133	0.67	7.133	5.15	13.133	1.61	19.13	0.79
1.150	0.67	7.150	5.15	13.150	1.61	19.15	0.79
1.167	0.67	7.167	5.15	13.167	1.61	19.17	0.79
1.183	0.68	7.183	6.61	13.183	1.56	19.18	0.78
1.200	0.68	7.200	6.61	13.200	1.56	19.20	0.78
1.217	0.68	7.217	6.61	13.217	1.56	19.22	0.78
1.233	0.68	7.233	6.61	13.233	1.56	19.23	0.78
1.250	0.68	7.250	6.61	13.250	1.56	19.25	0.78
1.267	0.68	7.267	6.61	13.267	1.56	19.27	0.78
1.283	0.68	7.283	6.61	13.283	1.56	19.28	0.78
1.300	0.68	7.300	6.61	13.300	1.56	19.30	0.78
1.317	0.68	7.317	6.61	13.317	1.56	19.32	0.78
1.333	0.68	7.333	6.61	13.333	1.56	19.33	0.78
1.350	0.70	7.350	9.24	13.350	1.51	19.35	0.77
1.367	0.70	7.367	9.24	13.367	1.51	19.37	0.77
1.383	0.70	7.383	9.24	13.383	1.51	19.38	0.77
1.400	0.70	7.400	9.24	13.400	1.51	19.40	0.77
1.417	0.70	7.417	9.24	13.417	1.51	19.42	0.77
1.433	0.70	7.433	9.24	13.433	1.51	19.43	0.77
1.450	0.70	7.450	9.24	13.450	1.51	19.45	0.77
1.467	0.70	7.467	9.24	13.467	1.51	19.47	0.77
1.483	0.70	7.483	9.24	13.483	1.51	19.48	0.77
1.500	0.70	7.500	9.25	13.500	1.51	19.50	0.77
1.517	0.71	7.517	15.26	13.517	1.47	19.52	0.76
1.533	0.71	7.533	15.26	13.533	1.47	19.53	0.76
1.550	0.71	7.550	15.26	13.550	1.47	19.55	0.76
1.567	0.71	7.567	15.26	13.567	1.47	19.57	0.76
1.583	0.71	7.583	15.26	13.583	1.47	19.58	0.76
1.600	0.71	7.600	15.26	13.600	1.47	19.60	0.76
1.617	0.71	7.617	15.26	13.617	1.47	19.62	0.76
1.633	0.71	7.633	15.26	13.633	1.47	19.63	0.76
1.650	0.71	7.650	15.26	13.650	1.47	19.65	0.76
1.667	0.71	7.667	15.33	13.667	1.47	19.67	0.76
1.683	0.73	7.683	40.09	13.683	1.43	19.68	0.75
1.700	0.73	7.700	40.09	13.700	1.43	19.70	0.75
1.717	0.73	7.717	40.09	13.717	1.43	19.72	0.75
1.733	0.73	7.733	40.09	13.733	1.43	19.73	0.75
1.750	0.73	7.750	40.09	13.750	1.43	19.75	0.75
1.767	0.73	7.767	40.09	13.767	1.43	19.77	0.75
1.783	0.73	7.783	40.09	13.783	1.43	19.78	0.75
1.800	0.73	7.800	40.09	13.800	1.43	19.80	0.75
1.817	0.73	7.817	40.09	13.817	1.43	19.82	0.75
1.833	0.73	7.833	40.39	13.833	1.43	19.83	0.75
1.850	0.75	7.850	142.97	13.850	1.40	19.85	0.74
1.867	0.75	7.867	142.97	13.867	1.40	19.87	0.74
1.883	0.75	7.883	142.97	13.883	1.40	19.88	0.74
1.900	0.75	7.900	142.97	13.900	1.40	19.90	0.74
1.917	0.75	7.917	142.97	13.917	1.40	19.92	0.74
1.933	0.75	7.933	142.97	13.933	1.40	19.93	0.74
1.950	0.75	7.950	142.97	13.950	1.40	19.95	0.74
1.967	0.75	7.967	142.97	13.967	1.40	19.97	0.74
1.983	0.75	7.983	142.97	13.983	1.40	19.98	0.74
2.000	0.75	8.000	142.71	14.000	1.40	20.00	0.74
2.017	0.77	8.017	53.15	14.017	1.36	20.02	0.74
2.033	0.77	8.033	53.15	14.033	1.36	20.03	0.74
2.050	0.77	8.050	53.15	14.050	1.36	20.05	0.74
2.067	0.77	8.067	53.15	14.067	1.36	20.07	0.74
2.083	0.77	8.083	53.15	14.083	1.36	20.08	0.74
2.100	0.77	8.100	53.15	14.100	1.36	20.10	0.74
2.117	0.77	8.117	53.15	14.117	1.36	20.12	0.74
2.133	0.77	8.133	53.15	14.133	1.36	20.13	0.74
2.150	0.77	8.150	53.15	14.150	1.36	20.15	0.74
2.167	0.77	8.167	53.08	14.167	1.36	20.17	0.74
2.183	0.79	8.183	27.09	14.183	1.33	20.18	0.73
2.200	0.79	8.200	27.09	14.200	1.33	20.20	0.73
2.217	0.79	8.217	27.09	14.217	1.33	20.22	0.73
2.233	0.79	8.233	27.09	14.233	1.33	20.23	0.73
2.250	0.79	8.250	27.09	14.250	1.33	20.25	0.73
2.267	0.79	8.267	27.09	14.267	1.33	20.27	0.73
2.283	0.79	8.283	27.09	14.283	1.33	20.28	0.73
2.300	0.79	8.300	27.09	14.300	1.33	20.30	0.73
2.317	0.79	8.317	27.09	14.317	1.33	20.32	0.73
2.333	0.79	8.333	27.07	14.333	1.33	20.33	0.73
2.350	0.81	8.350	17.64	14.350	1.30	20.35	0.72
2.367	0.81	8.367	17.64	14.367	1.30	20.37	0.72
2.383	0.81	8.383	17.64	14.383	1.30	20.38	0.72
2.400	0.81	8.400	17.64	14.400	1.30	20.40	0.72
2.417	0.81	8.417	17.64	14.417	1.30	20.42	0.72
2.433	0.81	8.433	17.64	14.433	1.30	20.43	0.72
2.450	0.81	8.450	17.64	14.450	1.30	20.45	0.72
2.467	0.81	8.467	17.64	14.467	1.30	20.47	0.72
2.483	0.81	8.483	17.64	14.483	1.30	20.48	0.72
2.500	0.81	8.500	17.63	14.500	1.30	20.50	0.72
2.517	0.83	8.517	12.93	14.517	1.27	20.52	0.71
2.533	0.83	8.533	12.93	14.533	1.27	20.53	0.71
2.550	0.83	8.550	12.93	14.550	1.27	20.55	0.71
2.567	0.83	8.567	12.93	14.567	1.27	20.57	0.71
2.583	0.83	8.583	12.93	14.583	1.27	20.58	0.71
2.600	0.83	8.600	12.93	14.600	1.27	20.60	0.71
2.617	0.83	8.617	12.93	14.617	1.27	20.62	0.71
2.633	0.83	8.633	12.93	14.633	1.27	20.63	0.71
2.650	0.83	8.650	12.93	14.650	1.27	20.65	0.71
2.667	0.83	8.667	12.92	14.667	1.27	20.67	0.71
2.683	0.86	8.683	10.15	14.683	1.24	20.68	0.70
2.700	0.86	8.700	10.15	14.700	1.24	20.70	0.70
2.717	0.86	8.717	10.15	14.717	1.24	20.72	0.70
2.733	0.86	8.733	10.15	14.733	1.24	20.73	0.70
2.750	0.86	8.750	10.15	14.750	1.24	20.75	0.70
2.767	0.86	8.767	10.15	14.767	1.24	20.77	0.70
2.783	0.86	8.783	10.15	14.783	1.24	20.78	0.70
2.800	0.86	8.800	10.15	14.800	1.24	20.80	0.70
2.817	0.86	8.817	10.15	14.817	1.24	20.82	0.70
2.833	0.86	8.833	10.15	14.833	1.24	20.83	0.70
2.850	0.88	8.850	8.35	14.850	1.21	20.85	0.69
2.867	0.88	8.867	8.35	14.867	1.21	20.87	0.69
2.883	0.88	8.883	8.35	14.883	1.21	20.88	0.69
2.900	0.88	8.900	8.35	14.900	1.21	20.90	0.69
2.917	0.88	8.917	8.35	14.917	1.21	20.92	0.69
2.933	0.88	8.933	8.35	14.933	1.21	20.93	0.69
2.950	0.88	8.950	8.35	14.950	1.21	20.95	0.69
2.967	0.88	8.967	8.35	14.967	1.21	20.97	0.69
2.983	0.88	8.983	8.35	14.983	1.21	20.98	0.69
3.000	0.88	9.000	8.34	15.000	1.21	21.00	0.69
3.017	0.91	9.017	7.08	15.017	1.19	21.02	0.69
3.033	0.91	9.033	7.08	15.033	1.19	21.03	0.69
3.050	0.91	9.050	7.08	15.050	1.19	21.05	0.69
3.067	0.91	9.067	7.08	15.067	1.19	21.07	0.69
3.083	0.91	9.083	7.08	15.083	1.19	21.08	0.69
3.100	0.91	9.100	7.08	15.100	1.19	21.10	0.69
3.117	0.91	9.117	7.08	15.117	1.19	21.12	0.69
3.133	0.91	9.133	7.08	15.133	1.19	21.13	0.69
3.150	0.91	9.150	7.08	15.150	1.19	21.15	0.69
3.167	0.91	9.167	7.08	15.167	1.19	21.17	0.69
3.183	0.94	9.183	6.15	15.183	1.16	21.18	0.68
3.200	0.94	9.200	6.15	15.200	1.16	21.20	0.68
3.217	0.94	9.217	6.15	15.217	1.16	21.22	0.68
3.233	0.94	9.233	6.15	15.233	1.16	21.23	0.68
3.250	0.94	9.250	6.15	15.250	1.16	21.25	0.68
3.267	0.94	9.267	6.15	15.267	1.16	21.27	0.68
3.283	0.94	9.283	6.15	15.283	1.16	21.28	0.68
3.300	0.94	9.300	6.15	15.300	1.16	21.30	0.68
3.317	0.94	9.317	6.15	15.317	1.16	21.32	0.68
3.333	0.94	9.333	6.15	15.333	1.16	21.33	0.68
3.350	0.97	9.350	5.44	15.350	1.14	21.35	0.67
3.367	0.97	9.367	5.44	15.367	1.14	21.37	0.67
3.383	0.97	9.383	5.44	15.383	1.14	21.38	0.67
3.400	0.97	9.400	5.44	15.400	1.14	21.40	0.67
3.417	0.97	9.417	5.44	15.417	1.14	21.42	0.67
3.433	0.97	9.433	5.44	15.433	1.14	21.43	0.67
3.450	0.97	9.450	5.44	15.450	1.14	21.45	0.67
3.467	0.97	9.467	5.44	15.467	1.14	21.47	0.67
3.483	0.97	9.483	5.44	15.483	1.14	21.48	0.67
3.500	0.97	9.500	5.44	15.500	1.14	21.50	0.67
3.517	1.00	9.517	4.88	15.517	1.12	21.52	0.66
3.533	1.00	9.533	4.88	15.533	1.12	21.53	0.66
3.550	1.00	9.550	4.88	15.550	1.12	21.55	0.66
3.567	1.00	9.567	4.88	15.567	1.12	21.57	0.66
3.583	1.00	9.583	4.88	15.583	1.12	21.58	0.66
3.600	1.00	9.600	4.88	15.600	1.12	21.60	0.66
3.617	1.00	9.617	4.88	15.617	1.12	21.62	0.66
3.633	1.00	9.633	4.88	15.633	1.12	21.63	0.66
3.650	1.00	9.650	4.88	15.650	1.12	21.65	0.66
3.667	1.00	9.667	4.87	15.667	1.12	21.67	0.66
3.683	1.04	9.683	4.42	15.683	1.09	21.68	0.66
3.700	1.04	9.700	4.42	15.700	1.09	21.70	0.66
3.717	1.04	9.717	4.42	15.717	1.09	21.72	0.66
3.733	1.04	9.733	4.42	15.733	1.09	21.73	0.66
3.750	1.04	9.750	4.42	15.750	1.09	21.75	0.66
3.767	1.04	9.767	4.42	15.767	1.09	21.77	0.66
3.783	1.04	9.783	4.42	15.783	1.09	21.78	0.66
3.800	1.04	9.800	4.42	15.800	1.09	21.80	0.66
3.817	1.04	9.817	4.42	15.817	1.09	21.82	0.66
3.833	1.04	9.833	4.42	15.833	1.09	21.83	0.66
3.850	1.08	9.850	4.05	15.850	1.07	21.85	0.65
3.867	1.08	9.867	4.05	15.867	1.07	21.87	0.65
3.883	1.08	9.883	4.05	15.883	1.07	21.88	0.65
3.900	1.08	9.900	4.05	15.900	1.07	21.90	0.65
3.917	1.08	9.917	4.05	15.917	1.07	21.92	0.65
3.933	1.08	9.933	4.05	15.933	1.07	21.93	0.65
3.950	1.08	9.950	4.05	15.950	1.07	21.95	0.65
3.967	1.08	9.967	4.05	15.967	1.07	21.97	0.65
3.983	1.08	9.983	4.05	15.983	1.07	21.98	0.65
4.000	1.08	10.000	4.04	16.000	1.07	22.00	0.65
4.017	1.12	10.017	3.73	16.017	1.05	22.02	0.64
4.033	1.12	10.033	3.73	16.033	1.05	22.03	0.64
4.050	1.12	10.050	3.73	16.050	1.05	22.05	0.64
4.067	1.12	10.067	3.73	16.067	1.05	22.07	0.64
4.083	1.12	10.083	3.73	16.083	1.05	22.08	0.64
4.100	1.12	10.100	3.73	16.100	1.05	22.10	0.64
4.117	1.12	10.117	3.73	16.117	1.05	22.12	0.64
4.133	1.12	10.133	3.73	16.133	1.05	22.13	0.64
4.150	1.12	10.150	3.73	16.150	1.05	22.15	0.64
4.167	1.12	10.167	3.73	16.167	1.05	22.17	0.64
4.183	1.17	10.183	3.46	16.183	1.03	22.18	0.64
4.200	1.17	10.200	3.46	16.200	1.03	22.20	0.64
4.217	1.17	10.217	3.46	16.217	1.03	22.22	0.64
4.233	1.17	10.233	3.46	16.233	1.03	22.23	0.64
4.250	1.17	10.250	3.46	16.250	1.03	22.25	0.64
4.267	1.17	10.267	3.46	16.267	1.03	22.27	0.64
4.283	1.17	10.283	3.46	16.283	1.03	22.28	0.64
4.300	1.17	10.300	3.46	16.300	1.03	22.30	0.64
4.317	1.17	10.317	3.46	16.317	1.03	22.32	0.64
4.333	1.17	10.333	3.46	16.333	1.03	22.33	0.64
4.350	1.22	10.350	3.23	16.350	1.02	22.35	0.63
4.367	1.22	10.367	3.23	16.367	1.02	22.37	0.63
4.383	1.22	10.383	3.23	16.383	1.02	22.38	0.63
4.400	1.22	10.400	3.23	16.400	1.02	22.40	0.63

4.417	1.22	10.417	3.23	16.417	1.02	22.42	0.63
4.433	1.22	10.433	3.23	16.433	1.02	22.43	0.63
4.450	1.22	10.450	3.23	16.450	1.02	22.45	0.63
4.467	1.22	10.467	3.23	16.467	1.02	22.47	0.63
4.483	1.22	10.483	3.23	16.483	1.02	22.48	0.63
4.500	1.22	10.500	3.23	16.500	1.02	22.50	0.63
4.517	1.28	10.517	3.03	16.517	1.00	22.52	0.62
4.533	1.28	10.533	3.03	16.533	1.00	22.53	0.62
4.550	1.28	10.550	3.03	16.550	1.00	22.55	0.62
4.567	1.28	10.567	3.03	16.567	1.00	22.57	0.62
4.583	1.28	10.583	3.03	16.583	1.00	22.58	0.62
4.600	1.28	10.600	3.03	16.600	1.00	22.60	0.62
4.617	1.28	10.617	3.03	16.617	1.00	22.62	0.62
4.633	1.28	10.633	3.03	16.633	1.00	22.63	0.62
4.650	1.28	10.650	3.03	16.650	1.00	22.65	0.62
4.667	1.28	10.667	3.03	16.667	1.00	22.67	0.62
4.683	1.34	10.683	2.86	16.683	0.98	22.68	0.62
4.700	1.34	10.700	2.86	16.700	0.98	22.70	0.62
4.717	1.34	10.717	2.86	16.717	0.98	22.72	0.62
4.733	1.34	10.733	2.86	16.733	0.98	22.73	0.62
4.750	1.34	10.750	2.86	16.750	0.98	22.75	0.62
4.767	1.34	10.767	2.86	16.767	0.98	22.77	0.62
4.783	1.34	10.783	2.86	16.783	0.98	22.78	0.62
4.800	1.34	10.800	2.86	16.800	0.98	22.80	0.62
4.817	1.34	10.817	2.86	16.817	0.98	22.82	0.62
4.833	1.34	10.833	2.86	16.833	0.98	22.83	0.62
4.850	1.41	10.850	2.70	16.850	0.96	22.85	0.61
4.867	1.41	10.867	2.70	16.867	0.96	22.87	0.61
4.883	1.41	10.883	2.70	16.883	0.96	22.88	0.61
4.900	1.41	10.900	2.70	16.900	0.96	22.90	0.61
4.917	1.41	10.917	2.70	16.917	0.96	22.92	0.61
4.933	1.41	10.933	2.70	16.933	0.96	22.93	0.61
4.950	1.41	10.950	2.70	16.950	0.96	22.95	0.61
4.967	1.41	10.967	2.70	16.967	0.96	22.97	0.61
4.983	1.41	10.983	2.70	16.983	0.96	22.98	0.61
5.000	1.41	11.000	2.70	17.000	0.96	23.00	0.61
5.017	1.49	11.017	2.56	17.017	0.95	23.02	0.60
5.033	1.49	11.033	2.56	17.033	0.95	23.03	0.60
5.050	1.49	11.050	2.56	17.050	0.95	23.05	0.60
5.067	1.49	11.067	2.56	17.067	0.95	23.07	0.60
5.083	1.49	11.083	2.56	17.083	0.95	23.08	0.60
5.100	1.49	11.100	2.56	17.100	0.95	23.10	0.60
5.117	1.49	11.117	2.56	17.117	0.95	23.12	0.60
5.133	1.49	11.133	2.56	17.133	0.95	23.13	0.60
5.150	1.49	11.150	2.56	17.150	0.95	23.15	0.60
5.167	1.49	11.167	2.56	17.167	0.95	23.17	0.60
5.183	1.58	11.183	2.44	17.183	0.93	23.18	0.60
5.200	1.58	11.200	2.44	17.200	0.93	23.20	0.60
5.217	1.58	11.217	2.44	17.217	0.93	23.22	0.60
5.233	1.58	11.233	2.44	17.233	0.93	23.23	0.60
5.250	1.58	11.250	2.44	17.250	0.93	23.25	0.60
5.267	1.58	11.267	2.44	17.267	0.93	23.27	0.60

5.283	1.58	11.283	2.44	17.283	0.93	23.28	0.60
5.300	1.58	11.300	2.44	17.300	0.93	23.30	0.60
5.317	1.58	11.317	2.44	17.317	0.93	23.32	0.60
5.333	1.58	11.333	2.44	17.333	0.93	23.33	0.60
5.350	1.68	11.350	2.32	17.350	0.92	23.35	0.59
5.367	1.68	11.367	2.32	17.367	0.92	23.37	0.59
5.383	1.68	11.383	2.32	17.383	0.92	23.38	0.59
5.400	1.68	11.400	2.32	17.400	0.92	23.40	0.59
5.417	1.68	11.417	2.32	17.417	0.92	23.42	0.59
5.433	1.68	11.433	2.32	17.433	0.92	23.43	0.59
5.450	1.68	11.450	2.32	17.450	0.92	23.45	0.59
5.467	1.68	11.467	2.32	17.467	0.92	23.47	0.59
5.483	1.68	11.483	2.32	17.483	0.92	23.48	0.59
5.500	1.68	11.500	2.32	17.500	0.92	23.50	0.59
5.517	1.79	11.517	2.22	17.517	0.90	23.52	0.59
5.533	1.79	11.533	2.22	17.533	0.90	23.53	0.59
5.550	1.79	11.550	2.22	17.550	0.90	23.55	0.59
5.567	1.79	11.567	2.22	17.567	0.90	23.57	0.59
5.583	1.79	11.583	2.22	17.583	0.90	23.58	0.59
5.600	1.79	11.600	2.22	17.600	0.90	23.60	0.59
5.617	1.79	11.617	2.22	17.617	0.90	23.62	0.59
5.633	1.79	11.633	2.22	17.633	0.90	23.63	0.59
5.650	1.79	11.650	2.22	17.650	0.90	23.65	0.59
5.667	1.80	11.667	2.22	17.667	0.90	23.67	0.59
5.683	1.93	11.683	2.13	17.683	0.89	23.68	0.58
5.700	1.93	11.700	2.13	17.700	0.89	23.70	0.58
5.717	1.93	11.717	2.13	17.717	0.89	23.72	0.58
5.733	1.93	11.733	2.13	17.733	0.89	23.73	0.58
5.750	1.93	11.750	2.13	17.750	0.89	23.75	0.58
5.767	1.93	11.767	2.13	17.767	0.89	23.77	0.58
5.783	1.93	11.783	2.13	17.783	0.89	23.78	0.58
5.800	1.93	11.800	2.13	17.800	0.89	23.80	0.58
5.817	1.93	11.817	2.13	17.817	0.89	23.82	0.58
5.833	1.93	11.833	2.13	17.833	0.89	23.83	0.58
5.850	2.08	11.850	2.04	17.850	0.88	23.85	0.58
5.867	2.08	11.867	2.04	17.867	0.88	23.87	0.58
5.883	2.08	11.883	2.04	17.883	0.88	23.88	0.58
5.900	2.08	11.900	2.04	17.900	0.88	23.90	0.58
5.917	2.08	11.917	2.04	17.917	0.88	23.92	0.58
5.933	2.08	11.933	2.04	17.933	0.88	23.93	0.58
5.950	2.08	11.950	2.04	17.950	0.88	23.95	0.58
5.967	2.08	11.967	2.04	17.967	0.88	23.97	0.58
5.983	2.08	11.983	2.04	17.983	0.88	23.98	0.58
6.000	2.08	12.000	2.04	18.000	0.88	24.00	0.58

Max.Eff.Inten.(mm/hr)=	142.97	32.72	
over (min)	5.00	13.00	
Storage Coeff. (min)=	5.30 (ii)	12.27 (ii)	
Unit Hyd. Tpeak (min)=	5.00	13.00	
Unit Hyd. peak (cms)=	0.22	0.09	
			TOTALS
PEAK FLOW (cms)=	1.78	0.40	2.004 (iii)

```
      TIME TO PEAK    (hrs)=       8.02         8.18          8.03
      RUNOFF VOLUME    (mm)=      88.95        22.22         48.26
      TOTAL RAINFALL   (mm)=      89.97        89.97         89.97
      RUNOFF COEFFICIENT   =       0.99         0.25          0.54


        (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
              CN*  =  48.0     Ia = Dep. Storage  (Above)
       (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
            THAN THE STORAGE COEFFICIENT.
      (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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

-------------------
| ADD HYD  (  0101)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
-------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  1011):    13.73    2.004     8.03    48.26
     + ID2= 2 (  0034):     1.45    1.440     8.05    55.39
       ================================================
       ID = 3 (  0101):    15.19    3.427     8.03    48.94

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

-------------------
| ADD HYD  (  0901)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
-------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0101):    15.19    3.427     8.03    48.94
     + ID2= 2 (  0103):     1.17    0.115     8.02    39.52
       ================================================
       ID = 3 (  0901):    16.35    3.541     8.03    48.27

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

-------------------
| ADD HYD  (  0902)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
-------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0104):     0.77    0.029     8.33    23.27
     + ID2= 2 (  0901):    16.35    3.541     8.03    48.27
       ================================================
       ID = 3 (  0902):    17.12    3.555     8.03    47.15

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

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| CALIB            |
| STANDHYD (  1021)|   Area    (ha)=   3.77
```

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|ID= 1 DT= 1.0 min |   Total Imp(%)=  45.00   Dir. Conn.(%)=  38.00
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                        IMPERVIOUS     PERVIOUS (i)
     Surface Area     (ha)=       1.70         2.07
     Dep. Storage     (mm)=       1.00         5.00
     Average Slope     (%)=       0.50         2.00
     Length            (m)=     158.56        40.00
     Mannings n             =    0.013        0.250

        NOTE:  RAINFALL WAS TRANSFORMED TO   1.0 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
     0.017    0.59 | 6.017    2.27 |12.017    1.97 | 18.02    0.86
     0.033    0.59 | 6.033    2.27 |12.033    1.97 | 18.03    0.86
     0.050    0.59 | 6.050    2.27 |12.050    1.97 | 18.05    0.86
     0.067    0.59 | 6.067    2.27 |12.067    1.97 | 18.07    0.86
     0.083    0.59 | 6.083    2.27 |12.083    1.97 | 18.08    0.86
     0.100    0.59 | 6.100    2.27 |12.100    1.97 | 18.10    0.86
     0.117    0.59 | 6.117    2.27 |12.117    1.97 | 18.12    0.86
     0.133    0.59 | 6.133    2.27 |12.133    1.97 | 18.13    0.86
     0.150    0.59 | 6.150    2.27 |12.150    1.97 | 18.15    0.86
     0.167    0.59 | 6.167    2.27 |12.167    1.97 | 18.17    0.86
     0.183    0.60 | 6.183    2.50 |12.183    1.89 | 18.18    0.85
     0.200    0.60 | 6.200    2.50 |12.200    1.89 | 18.20    0.85
     0.217    0.60 | 6.217    2.50 |12.217    1.89 | 18.22    0.85
     0.233    0.60 | 6.233    2.50 |12.233    1.89 | 18.23    0.85
     0.250    0.60 | 6.250    2.50 |12.250    1.89 | 18.25    0.85
     0.267    0.60 | 6.267    2.50 |12.267    1.89 | 18.27    0.85
     0.283    0.60 | 6.283    2.50 |12.283    1.89 | 18.28    0.85
     0.300    0.60 | 6.300    2.50 |12.300    1.89 | 18.30    0.85
     0.317    0.60 | 6.317    2.50 |12.317    1.89 | 18.32    0.85
     0.333    0.60 | 6.333    2.50 |12.333    1.89 | 18.33    0.85
     0.350    0.61 | 6.350    2.77 |12.350    1.83 | 18.35    0.84
     0.367    0.61 | 6.367    2.77 |12.367    1.83 | 18.37    0.84
     0.383    0.61 | 6.383    2.77 |12.383    1.83 | 18.38    0.84
     0.400    0.61 | 6.400    2.77 |12.400    1.83 | 18.40    0.84
     0.417    0.61 | 6.417    2.77 |12.417    1.83 | 18.42    0.84
     0.433    0.61 | 6.433    2.77 |12.433    1.83 | 18.43    0.84
     0.450    0.61 | 6.450    2.77 |12.450    1.83 | 18.45    0.84
     0.467    0.61 | 6.467    2.77 |12.467    1.83 | 18.47    0.84
     0.483    0.61 | 6.483    2.77 |12.483    1.83 | 18.48    0.84
     0.500    0.61 | 6.500    2.77 |12.500    1.83 | 18.50    0.84
     0.517    0.63 | 6.517    3.13 |12.517    1.77 | 18.52    0.83
     0.533    0.63 | 6.533    3.13 |12.533    1.77 | 18.53    0.83
     0.550    0.63 | 6.550    3.13 |12.550    1.77 | 18.55    0.83
     0.567    0.63 | 6.567    3.13 |12.567    1.77 | 18.57    0.83
     0.583    0.63 | 6.583    3.13 |12.583    1.77 | 18.58    0.83
     0.600    0.63 | 6.600    3.13 |12.600    1.77 | 18.60    0.83
     0.617    0.63 | 6.617    3.13 |12.617    1.77 | 18.62    0.83
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0.633	0.63	6.633	3.13	12.633	1.77	18.63	0.83
0.650	0.63	6.650	3.13	12.650	1.77	18.65	0.83
0.667	0.63	6.667	3.13	12.667	1.77	18.67	0.83
0.683	0.64	6.683	3.59	12.683	1.71	18.68	0.82
0.700	0.64	6.700	3.59	12.700	1.71	18.70	0.82
0.717	0.64	6.717	3.59	12.717	1.71	18.72	0.82
0.733	0.64	6.733	3.59	12.733	1.71	18.73	0.82
0.750	0.64	6.750	3.59	12.750	1.71	18.75	0.82
0.767	0.64	6.767	3.59	12.767	1.71	18.77	0.82
0.783	0.64	6.783	3.59	12.783	1.71	18.78	0.82
0.800	0.64	6.800	3.59	12.800	1.71	18.80	0.82
0.817	0.64	6.817	3.59	12.817	1.71	18.82	0.82
0.833	0.64	6.833	3.59	12.833	1.71	18.83	0.82
0.850	0.65	6.850	4.23	12.850	1.66	18.85	0.80
0.867	0.65	6.867	4.23	12.867	1.66	18.87	0.80
0.883	0.65	6.883	4.23	12.883	1.66	18.88	0.80
0.900	0.65	6.900	4.23	12.900	1.66	18.90	0.80
0.917	0.65	6.917	4.23	12.917	1.66	18.92	0.80
0.933	0.65	6.933	4.23	12.933	1.66	18.93	0.80
0.950	0.65	6.950	4.23	12.950	1.66	18.95	0.80
0.967	0.65	6.967	4.23	12.967	1.66	18.97	0.80
0.983	0.65	6.983	4.23	12.983	1.66	18.98	0.80
1.000	0.65	7.000	4.23	13.000	1.66	19.00	0.80
1.017	0.67	7.017	5.15	13.017	1.61	19.02	0.79
1.033	0.67	7.033	5.15	13.033	1.61	19.03	0.79
1.050	0.67	7.050	5.15	13.050	1.61	19.05	0.79
1.067	0.67	7.067	5.15	13.067	1.61	19.07	0.79
1.083	0.67	7.083	5.15	13.083	1.61	19.08	0.79
1.100	0.67	7.100	5.15	13.100	1.61	19.10	0.79
1.117	0.67	7.117	5.15	13.117	1.61	19.12	0.79
1.133	0.67	7.133	5.15	13.133	1.61	19.13	0.79
1.150	0.67	7.150	5.15	13.150	1.61	19.15	0.79
1.167	0.67	7.167	5.15	13.167	1.61	19.17	0.79
1.183	0.68	7.183	6.61	13.183	1.56	19.18	0.78
1.200	0.68	7.200	6.61	13.200	1.56	19.20	0.78
1.217	0.68	7.217	6.61	13.217	1.56	19.22	0.78
1.233	0.68	7.233	6.61	13.233	1.56	19.23	0.78
1.250	0.68	7.250	6.61	13.250	1.56	19.25	0.78
1.267	0.68	7.267	6.61	13.267	1.56	19.27	0.78
1.283	0.68	7.283	6.61	13.283	1.56	19.28	0.78
1.300	0.68	7.300	6.61	13.300	1.56	19.30	0.78
1.317	0.68	7.317	6.61	13.317	1.56	19.32	0.78
1.333	0.68	7.333	6.61	13.333	1.56	19.33	0.78
1.350	0.70	7.350	9.24	13.350	1.51	19.35	0.77
1.367	0.70	7.367	9.24	13.367	1.51	19.37	0.77
1.383	0.70	7.383	9.24	13.383	1.51	19.38	0.77
1.400	0.70	7.400	9.24	13.400	1.51	19.40	0.77
1.417	0.70	7.417	9.24	13.417	1.51	19.42	0.77
1.433	0.70	7.433	9.24	13.433	1.51	19.43	0.77
1.450	0.70	7.450	9.24	13.450	1.51	19.45	0.77
1.467	0.70	7.467	9.24	13.467	1.51	19.47	0.77
1.483	0.70	7.483	9.24	13.483	1.51	19.48	0.77

1.500	0.70	7.500	9.25	13.500	1.51	19.50	0.77
1.517	0.71	7.517	15.26	13.517	1.47	19.52	0.76
1.533	0.71	7.533	15.26	13.533	1.47	19.53	0.76
1.550	0.71	7.550	15.26	13.550	1.47	19.55	0.76
1.567	0.71	7.567	15.26	13.567	1.47	19.57	0.76
1.583	0.71	7.583	15.26	13.583	1.47	19.58	0.76
1.600	0.71	7.600	15.26	13.600	1.47	19.60	0.76
1.617	0.71	7.617	15.26	13.617	1.47	19.62	0.76
1.633	0.71	7.633	15.26	13.633	1.47	19.63	0.76
1.650	0.71	7.650	15.26	13.650	1.47	19.65	0.76
1.667	0.71	7.667	15.33	13.667	1.47	19.67	0.76
1.683	0.73	7.683	40.09	13.683	1.43	19.68	0.75
1.700	0.73	7.700	40.09	13.700	1.43	19.70	0.75
1.717	0.73	7.717	40.09	13.717	1.43	19.72	0.75
1.733	0.73	7.733	40.09	13.733	1.43	19.73	0.75
1.750	0.73	7.750	40.09	13.750	1.43	19.75	0.75
1.767	0.73	7.767	40.09	13.767	1.43	19.77	0.75
1.783	0.73	7.783	40.09	13.783	1.43	19.78	0.75
1.800	0.73	7.800	40.09	13.800	1.43	19.80	0.75
1.817	0.73	7.817	40.09	13.817	1.43	19.82	0.75
1.833	0.73	7.833	40.39	13.833	1.43	19.83	0.75
1.850	0.75	7.850	142.97	13.850	1.40	19.85	0.74
1.867	0.75	7.867	142.97	13.867	1.40	19.87	0.74
1.883	0.75	7.883	142.97	13.883	1.40	19.88	0.74
1.900	0.75	7.900	142.97	13.900	1.40	19.90	0.74
1.917	0.75	7.917	142.97	13.917	1.40	19.92	0.74
1.933	0.75	7.933	142.97	13.933	1.40	19.93	0.74
1.950	0.75	7.950	142.97	13.950	1.40	19.95	0.74
1.967	0.75	7.967	142.97	13.967	1.40	19.97	0.74
1.983	0.75	7.983	142.97	13.983	1.40	19.98	0.74
2.000	0.75	8.000	142.71	14.000	1.40	20.00	0.74
2.017	0.77	8.017	53.15	14.017	1.36	20.02	0.74
2.033	0.77	8.033	53.15	14.033	1.36	20.03	0.74
2.050	0.77	8.050	53.15	14.050	1.36	20.05	0.74
2.067	0.77	8.067	53.15	14.067	1.36	20.07	0.74
2.083	0.77	8.083	53.15	14.083	1.36	20.08	0.74
2.100	0.77	8.100	53.15	14.100	1.36	20.10	0.74
2.117	0.77	8.117	53.15	14.117	1.36	20.12	0.74
2.133	0.77	8.133	53.15	14.133	1.36	20.13	0.74
2.150	0.77	8.150	53.15	14.150	1.36	20.15	0.74
2.167	0.77	8.167	53.08	14.167	1.36	20.17	0.74
2.183	0.79	8.183	27.09	14.183	1.33	20.18	0.73
2.200	0.79	8.200	27.09	14.200	1.33	20.20	0.73
2.217	0.79	8.217	27.09	14.217	1.33	20.22	0.73
2.233	0.79	8.233	27.09	14.233	1.33	20.23	0.73
2.250	0.79	8.250	27.09	14.250	1.33	20.25	0.73
2.267	0.79	8.267	27.09	14.267	1.33	20.27	0.73
2.283	0.79	8.283	27.09	14.283	1.33	20.28	0.73
2.300	0.79	8.300	27.09	14.300	1.33	20.30	0.73
2.317	0.79	8.317	27.09	14.317	1.33	20.32	0.73
2.333	0.79	8.333	27.07	14.333	1.33	20.33	0.73
2.350	0.81	8.350	17.64	14.350	1.30	20.35	0.72

2.367	0.81	8.367	17.64	14.367	1.30	20.37	0.72
2.383	0.81	8.383	17.64	14.383	1.30	20.38	0.72
2.400	0.81	8.400	17.64	14.400	1.30	20.40	0.72
2.417	0.81	8.417	17.64	14.417	1.30	20.42	0.72
2.433	0.81	8.433	17.64	14.433	1.30	20.43	0.72
2.450	0.81	8.450	17.64	14.450	1.30	20.45	0.72
2.467	0.81	8.467	17.64	14.467	1.30	20.47	0.72
2.483	0.81	8.483	17.64	14.483	1.30	20.48	0.72
2.500	0.81	8.500	17.63	14.500	1.30	20.50	0.72
2.517	0.83	8.517	12.93	14.517	1.27	20.52	0.71
2.533	0.83	8.533	12.93	14.533	1.27	20.53	0.71
2.550	0.83	8.550	12.93	14.550	1.27	20.55	0.71
2.567	0.83	8.567	12.93	14.567	1.27	20.57	0.71
2.583	0.83	8.583	12.93	14.583	1.27	20.58	0.71
2.600	0.83	8.600	12.93	14.600	1.27	20.60	0.71
2.617	0.83	8.617	12.93	14.617	1.27	20.62	0.71
2.633	0.83	8.633	12.93	14.633	1.27	20.63	0.71
2.650	0.83	8.650	12.93	14.650	1.27	20.65	0.71
2.667	0.83	8.667	12.92	14.667	1.27	20.67	0.71
2.683	0.86	8.683	10.15	14.683	1.24	20.68	0.70
2.700	0.86	8.700	10.15	14.700	1.24	20.70	0.70
2.717	0.86	8.717	10.15	14.717	1.24	20.72	0.70
2.733	0.86	8.733	10.15	14.733	1.24	20.73	0.70
2.750	0.86	8.750	10.15	14.750	1.24	20.75	0.70
2.767	0.86	8.767	10.15	14.767	1.24	20.77	0.70
2.783	0.86	8.783	10.15	14.783	1.24	20.78	0.70
2.800	0.86	8.800	10.15	14.800	1.24	20.80	0.70
2.817	0.86	8.817	10.15	14.817	1.24	20.82	0.70
2.833	0.86	8.833	10.15	14.833	1.24	20.83	0.70
2.850	0.88	8.850	8.35	14.850	1.21	20.85	0.69
2.867	0.88	8.867	8.35	14.867	1.21	20.87	0.69
2.883	0.88	8.883	8.35	14.883	1.21	20.88	0.69
2.900	0.88	8.900	8.35	14.900	1.21	20.90	0.69
2.917	0.88	8.917	8.35	14.917	1.21	20.92	0.69
2.933	0.88	8.933	8.35	14.933	1.21	20.93	0.69
2.950	0.88	8.950	8.35	14.950	1.21	20.95	0.69
2.967	0.88	8.967	8.35	14.967	1.21	20.97	0.69
2.983	0.88	8.983	8.35	14.983	1.21	20.98	0.69
3.000	0.88	9.000	8.34	15.000	1.21	21.00	0.69
3.017	0.91	9.017	7.08	15.017	1.19	21.02	0.69
3.033	0.91	9.033	7.08	15.033	1.19	21.03	0.69
3.050	0.91	9.050	7.08	15.050	1.19	21.05	0.69
3.067	0.91	9.067	7.08	15.067	1.19	21.07	0.69
3.083	0.91	9.083	7.08	15.083	1.19	21.08	0.69
3.100	0.91	9.100	7.08	15.100	1.19	21.10	0.69
3.117	0.91	9.117	7.08	15.117	1.19	21.12	0.69
3.133	0.91	9.133	7.08	15.133	1.19	21.13	0.69
3.150	0.91	9.150	7.08	15.150	1.19	21.15	0.69
3.167	0.91	9.167	7.08	15.167	1.19	21.17	0.69
3.183	0.94	9.183	6.15	15.183	1.16	21.18	0.68
3.200	0.94	9.200	6.15	15.200	1.16	21.20	0.68
3.217	0.94	9.217	6.15	15.217	1.16	21.22	0.68
3.233	0.94	9.233	6.15	15.233	1.16	21.23	0.68
3.250	0.94	9.250	6.15	15.250	1.16	21.25	0.68
3.267	0.94	9.267	6.15	15.267	1.16	21.27	0.68
3.283	0.94	9.283	6.15	15.283	1.16	21.28	0.68
3.300	0.94	9.300	6.15	15.300	1.16	21.30	0.68
3.317	0.94	9.317	6.15	15.317	1.16	21.32	0.68
3.333	0.94	9.333	6.15	15.333	1.16	21.33	0.68
3.350	0.97	9.350	5.44	15.350	1.14	21.35	0.67
3.367	0.97	9.367	5.44	15.367	1.14	21.37	0.67
3.383	0.97	9.383	5.44	15.383	1.14	21.38	0.67
3.400	0.97	9.400	5.44	15.400	1.14	21.40	0.67
3.417	0.97	9.417	5.44	15.417	1.14	21.42	0.67
3.433	0.97	9.433	5.44	15.433	1.14	21.43	0.67
3.450	0.97	9.450	5.44	15.450	1.14	21.45	0.67
3.467	0.97	9.467	5.44	15.467	1.14	21.47	0.67
3.483	0.97	9.483	5.44	15.483	1.14	21.48	0.67
3.500	0.97	9.500	5.44	15.500	1.14	21.50	0.67
3.517	1.00	9.517	4.88	15.517	1.12	21.52	0.66
3.533	1.00	9.533	4.88	15.533	1.12	21.53	0.66
3.550	1.00	9.550	4.88	15.550	1.12	21.55	0.66
3.567	1.00	9.567	4.88	15.567	1.12	21.57	0.66
3.583	1.00	9.583	4.88	15.583	1.12	21.58	0.66
3.600	1.00	9.600	4.88	15.600	1.12	21.60	0.66
3.617	1.00	9.617	4.88	15.617	1.12	21.62	0.66
3.633	1.00	9.633	4.88	15.633	1.12	21.63	0.66
3.650	1.00	9.650	4.88	15.650	1.12	21.65	0.66
3.667	1.00	9.667	4.87	15.667	1.12	21.67	0.66
3.683	1.04	9.683	4.42	15.683	1.09	21.68	0.66
3.700	1.04	9.700	4.42	15.700	1.09	21.70	0.66
3.717	1.04	9.717	4.42	15.717	1.09	21.72	0.66
3.733	1.04	9.733	4.42	15.733	1.09	21.73	0.66
3.750	1.04	9.750	4.42	15.750	1.09	21.75	0.66
3.767	1.04	9.767	4.42	15.767	1.09	21.77	0.66
3.783	1.04	9.783	4.42	15.783	1.09	21.78	0.66
3.800	1.04	9.800	4.42	15.800	1.09	21.80	0.66
3.817	1.04	9.817	4.42	15.817	1.09	21.82	0.66
3.833	1.04	9.833	4.42	15.833	1.09	21.83	0.66
3.850	1.08	9.850	4.05	15.850	1.07	21.85	0.65
3.867	1.08	9.867	4.05	15.867	1.07	21.87	0.65
3.883	1.08	9.883	4.05	15.883	1.07	21.88	0.65
3.900	1.08	9.900	4.05	15.900	1.07	21.90	0.65
3.917	1.08	9.917	4.05	15.917	1.07	21.92	0.65
3.933	1.08	9.933	4.05	15.933	1.07	21.93	0.65
3.950	1.08	9.950	4.05	15.950	1.07	21.95	0.65
3.967	1.08	9.967	4.05	15.967	1.07	21.97	0.65
3.983	1.08	9.983	4.05	15.983	1.07	21.98	0.65
4.000	1.08	10.000	4.04	16.000	1.07	22.00	0.65
4.017	1.12	10.017	3.73	16.017	1.05	22.02	0.64
4.033	1.12	10.033	3.73	16.033	1.05	22.03	0.64
4.050	1.12	10.050	3.73	16.050	1.05	22.05	0.64
4.067	1.12	10.067	3.73	16.067	1.05	22.07	0.64
4.083	1.12	10.083	3.73	16.083	1.05	22.08	0.64
4.100	1.12	10.100	3.73	16.100	1.05	22.10	0.64
4.117	1.12	10.117	3.73	16.117	1.05	22.12	0.64
4.133	1.12	10.133	3.73	16.133	1.05	22.13	0.64
4.150	1.12	10.150	3.73	16.150	1.05	22.15	0.64
4.167	1.12	10.167	3.73	16.167	1.05	22.17	0.64
4.183	1.17	10.183	3.46	16.183	1.03	22.18	0.64
4.200	1.17	10.200	3.46	16.200	1.03	22.20	0.64
4.217	1.17	10.217	3.46	16.217	1.03	22.22	0.64
4.233	1.17	10.233	3.46	16.233	1.03	22.23	0.64
4.250	1.17	10.250	3.46	16.250	1.03	22.25	0.64
4.267	1.17	10.267	3.46	16.267	1.03	22.27	0.64
4.283	1.17	10.283	3.46	16.283	1.03	22.28	0.64
4.300	1.17	10.300	3.46	16.300	1.03	22.30	0.64
4.317	1.17	10.317	3.46	16.317	1.03	22.32	0.64
4.333	1.17	10.333	3.46	16.333	1.03	22.33	0.64
4.350	1.22	10.350	3.23	16.350	1.02	22.35	0.63
4.367	1.22	10.367	3.23	16.367	1.02	22.37	0.63
4.383	1.22	10.383	3.23	16.383	1.02	22.38	0.63
4.400	1.22	10.400	3.23	16.400	1.02	22.40	0.63
4.417	1.22	10.417	3.23	16.417	1.02	22.42	0.63
4.433	1.22	10.433	3.23	16.433	1.02	22.43	0.63
4.450	1.22	10.450	3.23	16.450	1.02	22.45	0.63
4.467	1.22	10.467	3.23	16.467	1.02	22.47	0.63
4.483	1.22	10.483	3.23	16.483	1.02	22.48	0.63
4.500	1.22	10.500	3.23	16.500	1.02	22.50	0.63
4.517	1.28	10.517	3.03	16.517	1.00	22.52	0.62
4.533	1.28	10.533	3.03	16.533	1.00	22.53	0.62
4.550	1.28	10.550	3.03	16.550	1.00	22.55	0.62
4.567	1.28	10.567	3.03	16.567	1.00	22.57	0.62
4.583	1.28	10.583	3.03	16.583	1.00	22.58	0.62
4.600	1.28	10.600	3.03	16.600	1.00	22.60	0.62
4.617	1.28	10.617	3.03	16.617	1.00	22.62	0.62
4.633	1.28	10.633	3.03	16.633	1.00	22.63	0.62
4.650	1.28	10.650	3.03	16.650	1.00	22.65	0.62
4.667	1.28	10.667	3.03	16.667	1.00	22.67	0.62
4.683	1.34	10.683	2.86	16.683	0.98	22.68	0.62
4.700	1.34	10.700	2.86	16.700	0.98	22.70	0.62
4.717	1.34	10.717	2.86	16.717	0.98	22.72	0.62
4.733	1.34	10.733	2.86	16.733	0.98	22.73	0.62
4.750	1.34	10.750	2.86	16.750	0.98	22.75	0.62
4.767	1.34	10.767	2.86	16.767	0.98	22.77	0.62
4.783	1.34	10.783	2.86	16.783	0.98	22.78	0.62
4.800	1.34	10.800	2.86	16.800	0.98	22.80	0.62
4.817	1.34	10.817	2.86	16.817	0.98	22.82	0.62
4.833	1.34	10.833	2.86	16.833	0.98	22.83	0.62
4.850	1.41	10.850	2.70	16.850	0.96	22.85	0.61
4.867	1.41	10.867	2.70	16.867	0.96	22.87	0.61
4.883	1.41	10.883	2.70	16.883	0.96	22.88	0.61
4.900	1.41	10.900	2.70	16.900	0.96	22.90	0.61
4.917	1.41	10.917	2.70	16.917	0.96	22.92	0.61
4.933	1.41	10.933	2.70	16.933	0.96	22.93	0.61
4.950	1.41	10.950	2.70	16.950	0.96	22.95	0.61
4.967	1.41	10.967	2.70	16.967	0.96	22.97	0.61
4.983	1.41	10.983	2.70	16.983	0.96	22.98	0.61
5.000	1.41	11.000	2.70	17.000	0.96	23.00	0.61
5.017	1.49	11.017	2.56	17.017	0.95	23.02	0.60
5.033	1.49	11.033	2.56	17.033	0.95	23.03	0.60
5.050	1.49	11.050	2.56	17.050	0.95	23.05	0.60
5.067	1.49	11.067	2.56	17.067	0.95	23.07	0.60
5.083	1.49	11.083	2.56	17.083	0.95	23.08	0.60
5.100	1.49	11.100	2.56	17.100	0.95	23.10	0.60
5.117	1.49	11.117	2.56	17.117	0.95	23.12	0.60
5.133	1.49	11.133	2.56	17.133	0.95	23.13	0.60
5.150	1.49	11.150	2.56	17.150	0.95	23.15	0.60
5.167	1.49	11.167	2.56	17.167	0.95	23.17	0.60
5.183	1.58	11.183	2.44	17.183	0.93	23.18	0.60
5.200	1.58	11.200	2.44	17.200	0.93	23.20	0.60
5.217	1.58	11.217	2.44	17.217	0.93	23.22	0.60
5.233	1.58	11.233	2.44	17.233	0.93	23.23	0.60
5.250	1.58	11.250	2.44	17.250	0.93	23.25	0.60
5.267	1.58	11.267	2.44	17.267	0.93	23.27	0.60
5.283	1.58	11.283	2.44	17.283	0.93	23.28	0.60
5.300	1.58	11.300	2.44	17.300	0.93	23.30	0.60
5.317	1.58	11.317	2.44	17.317	0.93	23.32	0.60
5.333	1.58	11.333	2.44	17.333	0.93	23.33	0.60
5.350	1.68	11.350	2.32	17.350	0.92	23.35	0.59
5.367	1.68	11.367	2.32	17.367	0.92	23.37	0.59
5.383	1.68	11.383	2.32	17.383	0.92	23.38	0.59
5.400	1.68	11.400	2.32	17.400	0.92	23.40	0.59
5.417	1.68	11.417	2.32	17.417	0.92	23.42	0.59
5.433	1.68	11.433	2.32	17.433	0.92	23.43	0.59
5.450	1.68	11.450	2.32	17.450	0.92	23.45	0.59
5.467	1.68	11.467	2.32	17.467	0.92	23.47	0.59
5.483	1.68	11.483	2.32	17.483	0.92	23.48	0.59
5.500	1.68	11.500	2.32	17.500	0.92	23.50	0.59
5.517	1.79	11.517	2.22	17.517	0.90	23.52	0.59
5.533	1.79	11.533	2.22	17.533	0.90	23.53	0.59
5.550	1.79	11.550	2.22	17.550	0.90	23.55	0.59
5.567	1.79	11.567	2.22	17.567	0.90	23.57	0.59
5.583	1.79	11.583	2.22	17.583	0.90	23.58	0.59
5.600	1.79	11.600	2.22	17.600	0.90	23.60	0.59
5.617	1.79	11.617	2.22	17.617	0.90	23.62	0.59
5.633	1.79	11.633	2.22	17.633	0.90	23.63	0.59
5.650	1.79	11.650	2.22	17.650	0.90	23.65	0.59
5.667	1.80	11.667	2.22	17.667	0.90	23.67	0.59
5.683	1.93	11.683	2.13	17.683	0.89	23.68	0.58
5.700	1.93	11.700	2.13	17.700	0.89	23.70	0.58
5.717	1.93	11.717	2.13	17.717	0.89	23.72	0.58
5.733	1.93	11.733	2.13	17.733	0.89	23.73	0.58
5.750	1.93	11.750	2.13	17.750	0.89	23.75	0.58
5.767	1.93	11.767	2.13	17.767	0.89	23.77	0.58
5.783	1.93	11.783	2.13	17.783	0.89	23.78	0.58
5.800	1.93	11.800	2.13	17.800	0.89	23.80	0.58
5.817	1.93	11.817	2.13	17.817	0.89	23.82	0.58
5.833	1.93	11.833	2.13	17.833	0.89	23.83	0.58
5.850	2.08	11.850	2.04	17.850	0.88	23.85	0.58
5.867	2.08	11.867	2.04	17.867	0.88	23.87	0.58
5.883	2.08	11.883	2.04	17.883	0.88	23.88	0.58
5.900	2.08	11.900	2.04	17.900	0.88	23.90	0.58
5.917	2.08	11.917	2.04	17.917	0.88	23.92	0.58
5.933	2.08	11.933	2.04	17.933	0.88	23.93	0.58
5.950	2.08	11.950	2.04	17.950	0.88	23.95	0.58
5.967	2.08	11.967	2.04	17.967	0.88	23.97	0.58
5.983	2.08	11.983	2.04	17.983	0.88	23.98	0.58
6.000	2.08	12.000	2.04	18.000	0.88	24.00	0.58

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    Max.Eff.Inten.(mm/hr)=     142.97         32.58
          over (min)          5.00          11.00
    Storage Coeff.  (min)=     3.59 (ii)     10.69 (ii)
    Unit Hyd. Tpeak (min)=     5.00          11.00
    Unit Hyd. peak  (cms)=     0.28           0.10
                                                    *TOTALS*
    PEAK FLOW       (cms)=     0.52           0.12          0.593 (iii)
    TIME TO PEAK    (hrs)=     8.02           8.15          8.02
    RUNOFF VOLUME    (mm)=    88.96          22.19         47.57
    TOTAL RAINFALL   (mm)=    89.97          89.97         89.97
    RUNOFF COEFFICIENT   =     0.99           0.25          0.53

      (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
          CN*  =  48.0    Ia = Dep. Storage  (Above)
     (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
          THAN THE STORAGE COEFFICIENT.
    (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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| CALIB             |
| STANDHYD (  1022)|   Area    (ha)=   2.86
|ID= 1 DT= 1.0 min |   Total Imp(%)=  41.00   Dir. Conn.(%)=  35.00
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                        IMPERVIOUS    PERVIOUS (i)
    Surface Area     (ha)=      1.17          1.69
    Dep. Storage     (mm)=      1.00          5.00
    Average Slope     (%)=      0.50          2.00
    Length            (m)=    138.06         40.00
    Mannings n           =     0.013         0.250

        NOTE:  RAINFALL WAS TRANSFORMED TO   1.0 MIN. TIME STEP.
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---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.017	0.59	6.017	2.27	12.017	1.97	18.02	0.86
0.033	0.59	6.033	2.27	12.033	1.97	18.03	0.86
0.050	0.59	6.050	2.27	12.050	1.97	18.05	0.86
0.067	0.59	6.067	2.27	12.067	1.97	18.07	0.86
0.083	0.59	6.083	2.27	12.083	1.97	18.08	0.86
0.100	0.59	6.100	2.27	12.100	1.97	18.10	0.86
0.117	0.59	6.117	2.27	12.117	1.97	18.12	0.86
0.133	0.59	6.133	2.27	12.133	1.97	18.13	0.86
0.150	0.59	6.150	2.27	12.150	1.97	18.15	0.86
0.167	0.59	6.167	2.27	12.167	1.97	18.17	0.86
0.183	0.60	6.183	2.50	12.183	1.89	18.18	0.85
0.200	0.60	6.200	2.50	12.200	1.89	18.20	0.85
0.217	0.60	6.217	2.50	12.217	1.89	18.22	0.85
0.233	0.60	6.233	2.50	12.233	1.89	18.23	0.85
0.250	0.60	6.250	2.50	12.250	1.89	18.25	0.85
0.267	0.60	6.267	2.50	12.267	1.89	18.27	0.85
0.283	0.60	6.283	2.50	12.283	1.89	18.28	0.85
0.300	0.60	6.300	2.50	12.300	1.89	18.30	0.85
0.317	0.60	6.317	2.50	12.317	1.89	18.32	0.85
0.333	0.60	6.333	2.50	12.333	1.89	18.33	0.85
0.350	0.61	6.350	2.77	12.350	1.83	18.35	0.84
0.367	0.61	6.367	2.77	12.367	1.83	18.37	0.84
0.383	0.61	6.383	2.77	12.383	1.83	18.38	0.84
0.400	0.61	6.400	2.77	12.400	1.83	18.40	0.84
0.417	0.61	6.417	2.77	12.417	1.83	18.42	0.84
0.433	0.61	6.433	2.77	12.433	1.83	18.43	0.84
0.450	0.61	6.450	2.77	12.450	1.83	18.45	0.84
0.467	0.61	6.467	2.77	12.467	1.83	18.47	0.84
0.483	0.61	6.483	2.77	12.483	1.83	18.48	0.84
0.500	0.61	6.500	2.77	12.500	1.83	18.50	0.84
0.517	0.63	6.517	3.13	12.517	1.77	18.52	0.83
0.533	0.63	6.533	3.13	12.533	1.77	18.53	0.83
0.550	0.63	6.550	3.13	12.550	1.77	18.55	0.83
0.567	0.63	6.567	3.13	12.567	1.77	18.57	0.83
0.583	0.63	6.583	3.13	12.583	1.77	18.58	0.83
0.600	0.63	6.600	3.13	12.600	1.77	18.60	0.83
0.617	0.63	6.617	3.13	12.617	1.77	18.62	0.83
0.633	0.63	6.633	3.13	12.633	1.77	18.63	0.83
0.650	0.63	6.650	3.13	12.650	1.77	18.65	0.83
0.667	0.63	6.667	3.13	12.667	1.77	18.67	0.83
0.683	0.64	6.683	3.59	12.683	1.71	18.68	0.82
0.700	0.64	6.700	3.59	12.700	1.71	18.70	0.82
0.717	0.64	6.717	3.59	12.717	1.71	18.72	0.82
0.733	0.64	6.733	3.59	12.733	1.71	18.73	0.82
0.750	0.64	6.750	3.59	12.750	1.71	18.75	0.82
0.767	0.64	6.767	3.59	12.767	1.71	18.77	0.82
0.783	0.64	6.783	3.59	12.783	1.71	18.78	0.82
0.800	0.64	6.800	3.59	12.800	1.71	18.80	0.82
0.817	0.64	6.817	3.59	12.817	1.71	18.82	0.82
0.833	0.64	6.833	3.59	12.833	1.71	18.83	0.82
0.850	0.65	6.850	4.23	12.850	1.66	18.85	0.80
0.867	0.65	6.867	4.23	12.867	1.66	18.87	0.80
0.883	0.65	6.883	4.23	12.883	1.66	18.88	0.80
0.900	0.65	6.900	4.23	12.900	1.66	18.90	0.80

0.917	0.65	6.917	4.23	12.917	1.66	18.92	0.80
0.933	0.65	6.933	4.23	12.933	1.66	18.93	0.80
0.950	0.65	6.950	4.23	12.950	1.66	18.95	0.80
0.967	0.65	6.967	4.23	12.967	1.66	18.97	0.80
0.983	0.65	6.983	4.23	12.983	1.66	18.98	0.80
1.000	0.65	7.000	4.23	13.000	1.66	19.00	0.80
1.017	0.67	7.017	5.15	13.017	1.61	19.02	0.79
1.033	0.67	7.033	5.15	13.033	1.61	19.03	0.79
1.050	0.67	7.050	5.15	13.050	1.61	19.05	0.79
1.067	0.67	7.067	5.15	13.067	1.61	19.07	0.79
1.083	0.67	7.083	5.15	13.083	1.61	19.08	0.79
1.100	0.67	7.100	5.15	13.100	1.61	19.10	0.79
1.117	0.67	7.117	5.15	13.117	1.61	19.12	0.79
1.133	0.67	7.133	5.15	13.133	1.61	19.13	0.79
1.150	0.67	7.150	5.15	13.150	1.61	19.15	0.79
1.167	0.67	7.167	5.15	13.167	1.61	19.17	0.79
1.183	0.68	7.183	6.61	13.183	1.56	19.18	0.78
1.200	0.68	7.200	6.61	13.200	1.56	19.20	0.78
1.217	0.68	7.217	6.61	13.217	1.56	19.22	0.78
1.233	0.68	7.233	6.61	13.233	1.56	19.23	0.78
1.250	0.68	7.250	6.61	13.250	1.56	19.25	0.78
1.267	0.68	7.267	6.61	13.267	1.56	19.27	0.78
1.283	0.68	7.283	6.61	13.283	1.56	19.28	0.78
1.300	0.68	7.300	6.61	13.300	1.56	19.30	0.78
1.317	0.68	7.317	6.61	13.317	1.56	19.32	0.78
1.333	0.68	7.333	6.61	13.333	1.56	19.33	0.78
1.350	0.70	7.350	9.24	13.350	1.51	19.35	0.77
1.367	0.70	7.367	9.24	13.367	1.51	19.37	0.77
1.383	0.70	7.383	9.24	13.383	1.51	19.38	0.77
1.400	0.70	7.400	9.24	13.400	1.51	19.40	0.77
1.417	0.70	7.417	9.24	13.417	1.51	19.42	0.77
1.433	0.70	7.433	9.24	13.433	1.51	19.43	0.77
1.450	0.70	7.450	9.24	13.450	1.51	19.45	0.77
1.467	0.70	7.467	9.24	13.467	1.51	19.47	0.77
1.483	0.70	7.483	9.24	13.483	1.51	19.48	0.77
1.500	0.70	7.500	9.25	13.500	1.51	19.50	0.77
1.517	0.71	7.517	15.26	13.517	1.47	19.52	0.76
1.533	0.71	7.533	15.26	13.533	1.47	19.53	0.76
1.550	0.71	7.550	15.26	13.550	1.47	19.55	0.76
1.567	0.71	7.567	15.26	13.567	1.47	19.57	0.76
1.583	0.71	7.583	15.26	13.583	1.47	19.58	0.76
1.600	0.71	7.600	15.26	13.600	1.47	19.60	0.76
1.617	0.71	7.617	15.26	13.617	1.47	19.62	0.76
1.633	0.71	7.633	15.26	13.633	1.47	19.63	0.76
1.650	0.71	7.650	15.26	13.650	1.47	19.65	0.76
1.667	0.71	7.667	15.33	13.667	1.47	19.67	0.76
1.683	0.73	7.683	40.09	13.683	1.43	19.68	0.75
1.700	0.73	7.700	40.09	13.700	1.43	19.70	0.75
1.717	0.73	7.717	40.09	13.717	1.43	19.72	0.75
1.733	0.73	7.733	40.09	13.733	1.43	19.73	0.75
1.750	0.73	7.750	40.09	13.750	1.43	19.75	0.75
1.767	0.73	7.767	40.09	13.767	1.43	19.77	0.75

1.783	0.73	7.783	40.09	13.783	1.43	19.78	0.75
1.800	0.73	7.800	40.09	13.800	1.43	19.80	0.75
1.817	0.73	7.817	40.09	13.817	1.43	19.82	0.75
1.833	0.73	7.833	40.39	13.833	1.43	19.83	0.75
1.850	0.75	7.850	142.97	13.850	1.40	19.85	0.74
1.867	0.75	7.867	142.97	13.867	1.40	19.87	0.74
1.883	0.75	7.883	142.97	13.883	1.40	19.88	0.74
1.900	0.75	7.900	142.97	13.900	1.40	19.90	0.74
1.917	0.75	7.917	142.97	13.917	1.40	19.92	0.74
1.933	0.75	7.933	142.97	13.933	1.40	19.93	0.74
1.950	0.75	7.950	142.97	13.950	1.40	19.95	0.74
1.967	0.75	7.967	142.97	13.967	1.40	19.97	0.74
1.983	0.75	7.983	142.97	13.983	1.40	19.98	0.74
2.000	0.75	8.000	142.71	14.000	1.40	20.00	0.74
2.017	0.77	8.017	53.15	14.017	1.36	20.02	0.74
2.033	0.77	8.033	53.15	14.033	1.36	20.03	0.74
2.050	0.77	8.050	53.15	14.050	1.36	20.05	0.74
2.067	0.77	8.067	53.15	14.067	1.36	20.07	0.74
2.083	0.77	8.083	53.15	14.083	1.36	20.08	0.74
2.100	0.77	8.100	53.15	14.100	1.36	20.10	0.74
2.117	0.77	8.117	53.15	14.117	1.36	20.12	0.74
2.133	0.77	8.133	53.15	14.133	1.36	20.13	0.74
2.150	0.77	8.150	53.15	14.150	1.36	20.15	0.74
2.167	0.77	8.167	53.08	14.167	1.36	20.17	0.74
2.183	0.79	8.183	27.09	14.183	1.33	20.18	0.73
2.200	0.79	8.200	27.09	14.200	1.33	20.20	0.73
2.217	0.79	8.217	27.09	14.217	1.33	20.22	0.73
2.233	0.79	8.233	27.09	14.233	1.33	20.23	0.73
2.250	0.79	8.250	27.09	14.250	1.33	20.25	0.73
2.267	0.79	8.267	27.09	14.267	1.33	20.27	0.73
2.283	0.79	8.283	27.09	14.283	1.33	20.28	0.73
2.300	0.79	8.300	27.09	14.300	1.33	20.30	0.73
2.317	0.79	8.317	27.09	14.317	1.33	20.32	0.73
2.333	0.79	8.333	27.07	14.333	1.33	20.33	0.73
2.350	0.81	8.350	17.64	14.350	1.30	20.35	0.72
2.367	0.81	8.367	17.64	14.367	1.30	20.37	0.72
2.383	0.81	8.383	17.64	14.383	1.30	20.38	0.72
2.400	0.81	8.400	17.64	14.400	1.30	20.40	0.72
2.417	0.81	8.417	17.64	14.417	1.30	20.42	0.72
2.433	0.81	8.433	17.64	14.433	1.30	20.43	0.72
2.450	0.81	8.450	17.64	14.450	1.30	20.45	0.72
2.467	0.81	8.467	17.64	14.467	1.30	20.47	0.72
2.483	0.81	8.483	17.64	14.483	1.30	20.48	0.72
2.500	0.81	8.500	17.63	14.500	1.30	20.50	0.72
2.517	0.83	8.517	12.93	14.517	1.27	20.52	0.71
2.533	0.83	8.533	12.93	14.533	1.27	20.53	0.71
2.550	0.83	8.550	12.93	14.550	1.27	20.55	0.71
2.567	0.83	8.567	12.93	14.567	1.27	20.57	0.71
2.583	0.83	8.583	12.93	14.583	1.27	20.58	0.71
2.600	0.83	8.600	12.93	14.600	1.27	20.60	0.71
2.617	0.83	8.617	12.93	14.617	1.27	20.62	0.71
2.633	0.83	8.633	12.93	14.633	1.27	20.63	0.71

2.650	0.83	8.650	12.93	14.650	1.27	20.65	0.71
2.667	0.83	8.667	12.92	14.667	1.27	20.67	0.71
2.683	0.86	8.683	10.15	14.683	1.24	20.68	0.70
2.700	0.86	8.700	10.15	14.700	1.24	20.70	0.70
2.717	0.86	8.717	10.15	14.717	1.24	20.72	0.70
2.733	0.86	8.733	10.15	14.733	1.24	20.73	0.70
2.750	0.86	8.750	10.15	14.750	1.24	20.75	0.70
2.767	0.86	8.767	10.15	14.767	1.24	20.77	0.70
2.783	0.86	8.783	10.15	14.783	1.24	20.78	0.70
2.800	0.86	8.800	10.15	14.800	1.24	20.80	0.70
2.817	0.86	8.817	10.15	14.817	1.24	20.82	0.70
2.833	0.86	8.833	10.15	14.833	1.24	20.83	0.70
2.850	0.88	8.850	8.35	14.850	1.21	20.85	0.69
2.867	0.88	8.867	8.35	14.867	1.21	20.87	0.69
2.883	0.88	8.883	8.35	14.883	1.21	20.88	0.69
2.900	0.88	8.900	8.35	14.900	1.21	20.90	0.69
2.917	0.88	8.917	8.35	14.917	1.21	20.92	0.69
2.933	0.88	8.933	8.35	14.933	1.21	20.93	0.69
2.950	0.88	8.950	8.35	14.950	1.21	20.95	0.69
2.967	0.88	8.967	8.35	14.967	1.21	20.97	0.69
2.983	0.88	8.983	8.35	14.983	1.21	20.98	0.69
3.000	0.88	9.000	8.34	15.000	1.21	21.00	0.69
3.017	0.91	9.017	7.08	15.017	1.19	21.02	0.69
3.033	0.91	9.033	7.08	15.033	1.19	21.03	0.69
3.050	0.91	9.050	7.08	15.050	1.19	21.05	0.69
3.067	0.91	9.067	7.08	15.067	1.19	21.07	0.69
3.083	0.91	9.083	7.08	15.083	1.19	21.08	0.69
3.100	0.91	9.100	7.08	15.100	1.19	21.10	0.69
3.117	0.91	9.117	7.08	15.117	1.19	21.12	0.69
3.133	0.91	9.133	7.08	15.133	1.19	21.13	0.69
3.150	0.91	9.150	7.08	15.150	1.19	21.15	0.69
3.167	0.91	9.167	7.08	15.167	1.19	21.17	0.69
3.183	0.94	9.183	6.15	15.183	1.16	21.18	0.68
3.200	0.94	9.200	6.15	15.200	1.16	21.20	0.68
3.217	0.94	9.217	6.15	15.217	1.16	21.22	0.68
3.233	0.94	9.233	6.15	15.233	1.16	21.23	0.68
3.250	0.94	9.250	6.15	15.250	1.16	21.25	0.68
3.267	0.94	9.267	6.15	15.267	1.16	21.27	0.68
3.283	0.94	9.283	6.15	15.283	1.16	21.28	0.68
3.300	0.94	9.300	6.15	15.300	1.16	21.30	0.68
3.317	0.94	9.317	6.15	15.317	1.16	21.32	0.68
3.333	0.94	9.333	6.15	15.333	1.16	21.33	0.68
3.350	0.97	9.350	5.44	15.350	1.14	21.35	0.67
3.367	0.97	9.367	5.44	15.367	1.14	21.37	0.67
3.383	0.97	9.383	5.44	15.383	1.14	21.38	0.67
3.400	0.97	9.400	5.44	15.400	1.14	21.40	0.67
3.417	0.97	9.417	5.44	15.417	1.14	21.42	0.67
3.433	0.97	9.433	5.44	15.433	1.14	21.43	0.67
3.450	0.97	9.450	5.44	15.450	1.14	21.45	0.67
3.467	0.97	9.467	5.44	15.467	1.14	21.47	0.67
3.483	0.97	9.483	5.44	15.483	1.14	21.48	0.67
3.500	0.97	9.500	5.44	15.500	1.14	21.50	0.67

3.517	1.00	9.517	4.88	15.517	1.12	21.52	0.66
3.533	1.00	9.533	4.88	15.533	1.12	21.53	0.66
3.550	1.00	9.550	4.88	15.550	1.12	21.55	0.66
3.567	1.00	9.567	4.88	15.567	1.12	21.57	0.66
3.583	1.00	9.583	4.88	15.583	1.12	21.58	0.66
3.600	1.00	9.600	4.88	15.600	1.12	21.60	0.66
3.617	1.00	9.617	4.88	15.617	1.12	21.62	0.66
3.633	1.00	9.633	4.88	15.633	1.12	21.63	0.66
3.650	1.00	9.650	4.88	15.650	1.12	21.65	0.66
3.667	1.00	9.667	4.87	15.667	1.12	21.67	0.66
3.683	1.04	9.683	4.42	15.683	1.09	21.68	0.66
3.700	1.04	9.700	4.42	15.700	1.09	21.70	0.66
3.717	1.04	9.717	4.42	15.717	1.09	21.72	0.66
3.733	1.04	9.733	4.42	15.733	1.09	21.73	0.66
3.750	1.04	9.750	4.42	15.750	1.09	21.75	0.66
3.767	1.04	9.767	4.42	15.767	1.09	21.77	0.66
3.783	1.04	9.783	4.42	15.783	1.09	21.78	0.66
3.800	1.04	9.800	4.42	15.800	1.09	21.80	0.66
3.817	1.04	9.817	4.42	15.817	1.09	21.82	0.66
3.833	1.04	9.833	4.42	15.833	1.09	21.83	0.66
3.850	1.08	9.850	4.05	15.850	1.07	21.85	0.65
3.867	1.08	9.867	4.05	15.867	1.07	21.87	0.65
3.883	1.08	9.883	4.05	15.883	1.07	21.88	0.65
3.900	1.08	9.900	4.05	15.900	1.07	21.90	0.65
3.917	1.08	9.917	4.05	15.917	1.07	21.92	0.65
3.933	1.08	9.933	4.05	15.933	1.07	21.93	0.65
3.950	1.08	9.950	4.05	15.950	1.07	21.95	0.65
3.967	1.08	9.967	4.05	15.967	1.07	21.97	0.65
3.983	1.08	9.983	4.05	15.983	1.07	21.98	0.65
4.000	1.08	10.000	4.04	16.000	1.07	22.00	0.65
4.017	1.12	10.017	3.73	16.017	1.05	22.02	0.64
4.033	1.12	10.033	3.73	16.033	1.05	22.03	0.64
4.050	1.12	10.050	3.73	16.050	1.05	22.05	0.64
4.067	1.12	10.067	3.73	16.067	1.05	22.07	0.64
4.083	1.12	10.083	3.73	16.083	1.05	22.08	0.64
4.100	1.12	10.100	3.73	16.100	1.05	22.10	0.64
4.117	1.12	10.117	3.73	16.117	1.05	22.12	0.64
4.133	1.12	10.133	3.73	16.133	1.05	22.13	0.64
4.150	1.12	10.150	3.73	16.150	1.05	22.15	0.64
4.167	1.12	10.167	3.73	16.167	1.05	22.17	0.64
4.183	1.17	10.183	3.46	16.183	1.03	22.18	0.64
4.200	1.17	10.200	3.46	16.200	1.03	22.20	0.64
4.217	1.17	10.217	3.46	16.217	1.03	22.22	0.64
4.233	1.17	10.233	3.46	16.233	1.03	22.23	0.64
4.250	1.17	10.250	3.46	16.250	1.03	22.25	0.64
4.267	1.17	10.267	3.46	16.267	1.03	22.27	0.64
4.283	1.17	10.283	3.46	16.283	1.03	22.28	0.64
4.300	1.17	10.300	3.46	16.300	1.03	22.30	0.64
4.317	1.17	10.317	3.46	16.317	1.03	22.32	0.64
4.333	1.17	10.333	3.46	16.333	1.03	22.33	0.64
4.350	1.22	10.350	3.23	16.350	1.02	22.35	0.63
4.367	1.22	10.367	3.23	16.367	1.02	22.37	0.63

4.383	1.22	10.383	3.23	16.383	1.02	22.38	0.63
4.400	1.22	10.400	3.23	16.400	1.02	22.40	0.63
4.417	1.22	10.417	3.23	16.417	1.02	22.42	0.63
4.433	1.22	10.433	3.23	16.433	1.02	22.43	0.63
4.450	1.22	10.450	3.23	16.450	1.02	22.45	0.63
4.467	1.22	10.467	3.23	16.467	1.02	22.47	0.63
4.483	1.22	10.483	3.23	16.483	1.02	22.48	0.63
4.500	1.22	10.500	3.23	16.500	1.02	22.50	0.63
4.517	1.28	10.517	3.03	16.517	1.00	22.52	0.62
4.533	1.28	10.533	3.03	16.533	1.00	22.53	0.62
4.550	1.28	10.550	3.03	16.550	1.00	22.55	0.62
4.567	1.28	10.567	3.03	16.567	1.00	22.57	0.62
4.583	1.28	10.583	3.03	16.583	1.00	22.58	0.62
4.600	1.28	10.600	3.03	16.600	1.00	22.60	0.62
4.617	1.28	10.617	3.03	16.617	1.00	22.62	0.62
4.633	1.28	10.633	3.03	16.633	1.00	22.63	0.62
4.650	1.28	10.650	3.03	16.650	1.00	22.65	0.62
4.667	1.28	10.667	3.03	16.667	1.00	22.67	0.62
4.683	1.34	10.683	2.86	16.683	0.98	22.68	0.62
4.700	1.34	10.700	2.86	16.700	0.98	22.70	0.62
4.717	1.34	10.717	2.86	16.717	0.98	22.72	0.62
4.733	1.34	10.733	2.86	16.733	0.98	22.73	0.62
4.750	1.34	10.750	2.86	16.750	0.98	22.75	0.62
4.767	1.34	10.767	2.86	16.767	0.98	22.77	0.62
4.783	1.34	10.783	2.86	16.783	0.98	22.78	0.62
4.800	1.34	10.800	2.86	16.800	0.98	22.80	0.62
4.817	1.34	10.817	2.86	16.817	0.98	22.82	0.62
4.833	1.34	10.833	2.86	16.833	0.98	22.83	0.62
4.850	1.41	10.850	2.70	16.850	0.96	22.85	0.61
4.867	1.41	10.867	2.70	16.867	0.96	22.87	0.61
4.883	1.41	10.883	2.70	16.883	0.96	22.88	0.61
4.900	1.41	10.900	2.70	16.900	0.96	22.90	0.61
4.917	1.41	10.917	2.70	16.917	0.96	22.92	0.61
4.933	1.41	10.933	2.70	16.933	0.96	22.93	0.61
4.950	1.41	10.950	2.70	16.950	0.96	22.95	0.61
4.967	1.41	10.967	2.70	16.967	0.96	22.97	0.61
4.983	1.41	10.983	2.70	16.983	0.96	22.98	0.61
5.000	1.41	11.000	2.70	17.000	0.96	23.00	0.61
5.017	1.49	11.017	2.56	17.017	0.95	23.02	0.60
5.033	1.49	11.033	2.56	17.033	0.95	23.03	0.60
5.050	1.49	11.050	2.56	17.050	0.95	23.05	0.60
5.067	1.49	11.067	2.56	17.067	0.95	23.07	0.60
5.083	1.49	11.083	2.56	17.083	0.95	23.08	0.60
5.100	1.49	11.100	2.56	17.100	0.95	23.10	0.60
5.117	1.49	11.117	2.56	17.117	0.95	23.12	0.60
5.133	1.49	11.133	2.56	17.133	0.95	23.13	0.60
5.150	1.49	11.150	2.56	17.150	0.95	23.15	0.60
5.167	1.49	11.167	2.56	17.167	0.95	23.17	0.60
5.183	1.58	11.183	2.44	17.183	0.93	23.18	0.60
5.200	1.58	11.200	2.44	17.200	0.93	23.20	0.60
5.217	1.58	11.217	2.44	17.217	0.93	23.22	0.60
5.233	1.58	11.233	2.44	17.233	0.93	23.23	0.60

5.250	1.58	11.250	2.44	17.250	0.93	23.25	0.60
5.267	1.58	11.267	2.44	17.267	0.93	23.27	0.60
5.283	1.58	11.283	2.44	17.283	0.93	23.28	0.60
5.300	1.58	11.300	2.44	17.300	0.93	23.30	0.60
5.317	1.58	11.317	2.44	17.317	0.93	23.32	0.60
5.333	1.58	11.333	2.44	17.333	0.93	23.33	0.60
5.350	1.68	11.350	2.32	17.350	0.92	23.35	0.59
5.367	1.68	11.367	2.32	17.367	0.92	23.37	0.59
5.383	1.68	11.383	2.32	17.383	0.92	23.38	0.59
5.400	1.68	11.400	2.32	17.400	0.92	23.40	0.59
5.417	1.68	11.417	2.32	17.417	0.92	23.42	0.59
5.433	1.68	11.433	2.32	17.433	0.92	23.43	0.59
5.450	1.68	11.450	2.32	17.450	0.92	23.45	0.59
5.467	1.68	11.467	2.32	17.467	0.92	23.47	0.59
5.483	1.68	11.483	2.32	17.483	0.92	23.48	0.59
5.500	1.68	11.500	2.32	17.500	0.92	23.50	0.59
5.517	1.79	11.517	2.22	17.517	0.90	23.52	0.59
5.533	1.79	11.533	2.22	17.533	0.90	23.53	0.59
5.550	1.79	11.550	2.22	17.550	0.90	23.55	0.59
5.567	1.79	11.567	2.22	17.567	0.90	23.57	0.59
5.583	1.79	11.583	2.22	17.583	0.90	23.58	0.59
5.600	1.79	11.600	2.22	17.600	0.90	23.60	0.59
5.617	1.79	11.617	2.22	17.617	0.90	23.62	0.59
5.633	1.79	11.633	2.22	17.633	0.90	23.63	0.59
5.650	1.79	11.650	2.22	17.650	0.90	23.65	0.59
5.667	1.80	11.667	2.22	17.667	0.90	23.67	0.59
5.683	1.93	11.683	2.13	17.683	0.89	23.68	0.58
5.700	1.93	11.700	2.13	17.700	0.89	23.70	0.58
5.717	1.93	11.717	2.13	17.717	0.89	23.72	0.58
5.733	1.93	11.733	2.13	17.733	0.89	23.73	0.58
5.750	1.93	11.750	2.13	17.750	0.89	23.75	0.58
5.767	1.93	11.767	2.13	17.767	0.89	23.77	0.58
5.783	1.93	11.783	2.13	17.783	0.89	23.78	0.58
5.800	1.93	11.800	2.13	17.800	0.89	23.80	0.58
5.817	1.93	11.817	2.13	17.817	0.89	23.82	0.58
5.833	1.93	11.833	2.13	17.833	0.89	23.83	0.58
5.850	2.08	11.850	2.04	17.850	0.88	23.85	0.58
5.867	2.08	11.867	2.04	17.867	0.88	23.87	0.58
5.883	2.08	11.883	2.04	17.883	0.88	23.88	0.58
5.900	2.08	11.900	2.04	17.900	0.88	23.90	0.58
5.917	2.08	11.917	2.04	17.917	0.88	23.92	0.58
5.933	2.08	11.933	2.04	17.933	0.88	23.93	0.58
5.950	2.08	11.950	2.04	17.950	0.88	23.95	0.58
5.967	2.08	11.967	2.04	17.967	0.88	23.97	0.58
5.983	2.08	11.983	2.04	17.983	0.88	23.98	0.58
6.000	2.08	12.000	2.04	18.000	0.88	24.00	0.58

Max.Eff.Inten.(mm/hr)=	142.97		31.14
over (min)	5.00		11.00
Storage Coeff. (min)=	3.31 (ii)		10.85 (ii)
Unit Hyd. Tpeak (min)=	5.00		11.00
Unit Hyd. peak (cms)=	0.29		0.10

		TOTALS
PEAK FLOW	(cms)=	0.37 0.09 0.424 (iii)
TIME TO PEAK	(hrs)=	8.00 8.15 8.02
RUNOFF VOLUME	(mm)=	88.96 21.77 45.29
TOTAL RAINFALL	(mm)=	89.97 89.97 89.97
RUNOFF COEFFICIENT	=	0.99 0.24 0.50

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 48.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

DUHYD (0035)					
Inlet Cap.= 0.202					
#of Inlets= 1					
Total(cms)= 0.2		AREA	QPEAK	TPEAK	R.V.
		(ha)	(cms)	(hrs)	(mm)
TOTAL HYD.(ID= 1):		2.86	0.42	8.02	45.29
MAJOR SYS.(ID= 2):		0.33	0.22	8.02	45.29
MINOR SYS.(ID= 3):		2.53	0.20	7.90	45.29

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0102)					
1 + 2 = 3		AREA	QPEAK	TPEAK	R.V.
		(ha)	(cms)	(hrs)	(mm)
ID1= 1 (1021):		3.77	0.593	8.02	47.57
+ ID2= 2 (0035):		0.33	0.222	8.02	45.29
ID = 3 (0102):		4.10	0.815	8.02	47.38

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0903)					
1 + 2 = 3		AREA	QPEAK	TPEAK	R.V.
		(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0102):		4.10	0.815	8.02	47.38
+ ID2= 2 (0902):		17.12	3.555	8.03	47.15
ID = 3 (0903):		21.22	4.361	8.03	47.19

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB					
NASHYD (0201)	ID= 1 DT= 5.0 min	Area	(ha)=	6.97	Curve Number (CN)= 66.0
		Ia	(mm)=	5.00	# of Linear Res.(N)= 3.00
		U.H. Tp(hrs)=		0.74	

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	0.59	6.083	2.27	12.083	1.97	18.08	0.86
0.167	0.59	6.167	2.27	12.167	1.97	18.17	0.86
0.250	0.60	6.250	2.50	12.250	1.89	18.25	0.85
0.333	0.60	6.333	2.50	12.333	1.89	18.33	0.85
0.417	0.61	6.417	2.77	12.417	1.83	18.42	0.84
0.500	0.61	6.500	2.77	12.500	1.83	18.50	0.84
0.583	0.63	6.583	3.13	12.583	1.77	18.58	0.83
0.667	0.63	6.667	3.13	12.667	1.77	18.67	0.83
0.750	0.64	6.750	3.59	12.750	1.71	18.75	0.82
0.833	0.64	6.833	3.59	12.833	1.71	18.83	0.82
0.917	0.65	6.917	4.23	12.917	1.66	18.92	0.80
1.000	0.65	7.000	4.23	13.000	1.66	19.00	0.80
1.083	0.67	7.083	5.15	13.083	1.61	19.08	0.79
1.167	0.67	7.167	5.15	13.167	1.61	19.17	0.79
1.250	0.68	7.250	6.61	13.250	1.56	19.25	0.78
1.333	0.68	7.333	6.61	13.333	1.56	19.33	0.78
1.417	0.70	7.417	9.24	13.417	1.51	19.42	0.77
1.500	0.70	7.500	9.24	13.500	1.51	19.50	0.77
1.583	0.71	7.583	15.26	13.583	1.47	19.58	0.76
1.667	0.71	7.667	15.26	13.667	1.47	19.67	0.76
1.750	0.73	7.750	40.09	13.750	1.43	19.75	0.75
1.833	0.73	7.833	40.10	13.833	1.43	19.83	0.75
1.917	0.75	7.917	142.97	13.917	1.40	19.92	0.74
2.000	0.75	8.000	142.96	14.000	1.40	20.00	0.74
2.083	0.77	8.083	53.15	14.083	1.36	20.08	0.74
2.167	0.77	8.167	53.15	14.167	1.36	20.17	0.74
2.250	0.79	8.250	27.09	14.250	1.33	20.25	0.73
2.333	0.79	8.333	27.09	14.333	1.33	20.33	0.73
2.417	0.81	8.417	17.64	14.417	1.30	20.42	0.72
2.500	0.81	8.500	17.64	14.500	1.30	20.50	0.72
2.583	0.83	8.583	12.93	14.583	1.27	20.58	0.71
2.667	0.83	8.667	12.93	14.667	1.27	20.67	0.71
2.750	0.86	8.750	10.15	14.750	1.24	20.75	0.70
2.833	0.86	8.833	10.15	14.833	1.24	20.83	0.70
2.917	0.88	8.917	8.35	14.917	1.21	20.92	0.69
3.000	0.88	9.000	8.35	15.000	1.21	21.00	0.69
3.083	0.91	9.083	7.08	15.083	1.19	21.08	0.69
3.167	0.91	9.167	7.08	15.167	1.19	21.17	0.69
3.250	0.94	9.250	6.15	15.250	1.16	21.25	0.68
3.333	0.94	9.333	6.15	15.333	1.16	21.33	0.68
3.417	0.97	9.417	5.44	15.417	1.14	21.42	0.67
3.500	0.97	9.500	5.44	15.500	1.14	21.50	0.67
3.583	1.00	9.583	4.88	15.583	1.12	21.58	0.66
3.667	1.00	9.667	4.88	15.667	1.12	21.67	0.66
3.750	1.04	9.750	4.42	15.750	1.09	21.75	0.66
3.833	1.04	9.833	4.42	15.833	1.09	21.83	0.66
3.917	1.08	9.917	4.05	15.917	1.07	21.92	0.65
4.000	1.08	10.000	4.05	16.000	1.07	22.00	0.65
4.083	1.12	10.083	3.73	16.083	1.05	22.08	0.64
4.167	1.12	10.167	3.73	16.167	1.05	22.17	0.64
4.250	1.17	10.250	3.46	16.250	1.03	22.25	0.64
4.333	1.17	10.333	3.46	16.333	1.03	22.33	0.64
4.417	1.22	10.417	3.23	16.417	1.02	22.42	0.63
4.500	1.22	10.500	3.23	16.500	1.02	22.50	0.63
4.583	1.28	10.583	3.03	16.583	1.00	22.58	0.62
4.667	1.28	10.667	3.03	16.667	1.00	22.67	0.62
4.750	1.34	10.750	2.86	16.750	0.98	22.75	0.62
4.833	1.34	10.833	2.86	16.833	0.98	22.83	0.62
4.917	1.41	10.917	2.70	16.917	0.96	22.92	0.61
5.000	1.41	11.000	2.70	17.000	0.96	23.00	0.61
5.083	1.49	11.083	2.56	17.083	0.95	23.08	0.60
5.167	1.49	11.167	2.56	17.167	0.95	23.17	0.60
5.250	1.58	11.250	2.44	17.250	0.93	23.25	0.60
5.333	1.58	11.333	2.44	17.333	0.93	23.33	0.60
5.417	1.68	11.417	2.32	17.417	0.92	23.42	0.59
5.500	1.68	11.500	2.32	17.500	0.92	23.50	0.59
5.583	1.79	11.583	2.22	17.583	0.90	23.58	0.59
5.667	1.80	11.667	2.22	17.667	0.90	23.67	0.59
5.750	1.93	11.750	2.13	17.750	0.89	23.75	0.58
5.833	1.93	11.833	2.13	17.833	0.89	23.83	0.58
5.917	2.08	11.917	2.04	17.917	0.88	23.92	0.58
6.000	2.08	12.000	2.04	18.000	0.88	24.00	0.58

Unit Hyd Qpeak (cms)= 0.360

CALIB					
NASHYD (1051)	ID= 1 DT= 5.0 min	Area	(ha)=	1.62	Curve Number (CN)= 60.0
		Ia	(mm)=	5.00	# of Linear Res.(N)= 3.00
		U.H. Tp(hrs)=		1.87	

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	0.59	6.083	2.27	12.083	1.97	18.08	0.86
0.167	0.59	6.167	2.27	12.167	1.97	18.17	0.86
0.250	0.60	6.250	2.50	12.250	1.89	18.25	0.85
0.333	0.60	6.333	2.50	12.333	1.89	18.33	0.85
0.417	0.61	6.417	2.77	12.417	1.83	18.42	0.84
0.500	0.61	6.500	2.77	12.500	1.83	18.50	0.84
0.583	0.63	6.583	3.13	12.583	1.77	18.58	0.83
0.667	0.63	6.667	3.13	12.667	1.77	18.67	0.83
0.750	0.64	6.750	3.59	12.750	1.71	18.75	0.82
0.833	0.64	6.833	3.59	12.833	1.71	18.83	0.82
0.917	0.65	6.917	4.23	12.917	1.66	18.92	0.80
1.000	0.65	7.000	4.23	13.000	1.66	19.00	0.80
1.083	0.67	7.083	5.15	13.083	1.61	19.08	0.79
1.167	0.67	7.167	5.15	13.167	1.61	19.17	0.79
1.250	0.68	7.250	6.61	13.250	1.56	19.25	0.78
1.333	0.68	7.333	6.61	13.333	1.56	19.33	0.78
1.417	0.70	7.417	9.24	13.417	1.51	19.42	0.77
1.500	0.70	7.500	9.24	13.500	1.51	19.50	0.77
1.583	0.71	7.583	15.26	13.583	1.47	19.58	0.76
1.667	0.71	7.667	15.26	13.667	1.47	19.67	0.76
1.750	0.73	7.750	40.09	13.750	1.43	19.75	0.75
1.833	0.73	7.833	40.10	13.833	1.43	19.83	0.75
1.917	0.75	7.917	142.97	13.917	1.40	19.92	0.74
2.000	0.75	8.000	142.96	14.000	1.40	20.00	0.74
2.083	0.77	8.083	53.15	14.083	1.36	20.08	0.74
2.167	0.77	8.167	53.15	14.167	1.36	20.17	0.74
2.250	0.79	8.250	27.09	14.250	1.33	20.25	0.73
2.333	0.79	8.333	27.09	14.333	1.33	20.33	0.73
2.417	0.81	8.417	17.64	14.417	1.30	20.42	0.72
2.500	0.81	8.500	17.64	14.500	1.30	20.50	0.72
2.583	0.83	8.583	12.93	14.583	1.27	20.58	0.71
2.667	0.83	8.667	12.93	14.667	1.27	20.67	0.71
2.750	0.86	8.750	10.15	14.750	1.24	20.75	0.70
2.833	0.86	8.833	10.15	14.833	1.24	20.83	0.70
2.917	0.88	8.917	8.35	14.917	1.21	20.92	0.69
3.000	0.88	9.000	8.35	15.000	1.21	21.00	0.69
3.083	0.91	9.083	7.08	15.083	1.19	21.08	0.69
3.167	0.91	9.167	7.08	15.167	1.19	21.17	0.69
3.250	0.94	9.250	6.15	15.250	1.16	21.25	0.68
3.333	0.94	9.333	6.15	15.333	1.16	21.33	0.68
3.417	0.97	9.417	5.44	15.417	1.14	21.42	0.67
3.500	0.97	9.500	5.44	15.500	1.14	21.50	0.67
3.583	1.00	9.583	4.88	15.583	1.12	21.58	0.66
3.667	1.00	9.667	4.88	15.667	1.12	21.67	0.66
3.750	1.04	9.750	4.42	15.750	1.09	21.75	0.66
3.833	1.04	9.833	4.42	15.833	1.09	21.83	0.66
3.917	1.08	9.917	4.05	15.917	1.07	21.92	0.65
4.000	1.08	10.000	4.05	16.000	1.07	22.00	0.65
4.083	1.12	10.083	3.73	16.083	1.05	22.08	0.64
4.167	1.12	10.167	3.73	16.167	1.05	22.17	0.64
4.250	1.17	10.250	3.46	16.250	1.03	22.25	0.64
4.333	1.17	10.333	3.46	16.333	1.03	22.33	0.64
4.417	1.22	10.417	3.23	16.417	1.02	22.42	0.63
4.500	1.22	10.500	3.23	16.500	1.02	22.50	0.63
4.583	1.28	10.583	3.03	16.583	1.00	22.58	0.62
4.667	1.28	10.667	3.03	16.667	1.00	22.67	0.62
4.750	1.34	10.750	2.86	16.750	0.98	22.75	0.62
4.833	1.34	10.833	2.86	16.833	0.98	22.83	0.62
4.917	1.41	10.917	2.70	16.917	0.96	22.92	0.61
5.000	1.41	11.000	2.70	17.000	0.96	23.00	0.61
5.083	1.49	11.083	2.56	17.083	0.95	23.08	0.60
5.167	1.49	11.167	2.56	17.167	0.95	23.17	0.60
5.250	1.58	11.250	2.44	17.250	0.93	23.25	0.60
5.333	1.58	11.333	2.44	17.333	0.93	23.33	0.60
5.417	1.68	11.417	2.32	17.417	0.92	23.42	0.59
5.500	1.68	11.500	2.32	17.500	0.92	23.50	0.59
5.583	1.79	11.583	2.22	17.583	0.90	23.58	0.59
5.667	1.80	11.667	2.22	17.667	0.90	23.67	0.59
5.750	1.93	11.750	2.13	17.750	0.89	23.75	0.58
5.833	1.93	11.833	2.13	17.833	0.89	23.83	0.58
5.917	2.08	11.917	2.04	17.917	0.88	23.92	0.58
6.000	2.08	12.000	2.04	18.000	0.88	24.00	0.58

Unit Hyd Qpeak (cms)= 0.033

PEAK FLOW (cms)= 0.023 (i)
TIME TO PEAK (hrs)= 10.250
RUNOFF VOLUME (mm)= 28.386
TOTAL RAINFALL (mm)= 89.966
RUNOFF COEFFICIENT = 0.316

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

ADD HYD (0105)					
1 + 2 = 3		AREA	QPEAK	TPEAK	R.V.
		(ha)	(cms)	(hrs)	(mm)
ID1= 1 (1051):		1.62	0.023	10.25	28.39
+ ID2= 2 (0037):		0.18	0.104	8.02	38.69

PEAK FLOW (cms)= 0.235 (i)
TIME TO PEAK (hrs)= 8.833
RUNOFF VOLUME (mm)= 33.450
TOTAL RAINFALL (mm)= 89.966
RUNOFF COEFFICIENT = 0.372

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

CALIB					
NASHYD (0202)	ID= 1 DT= 5.0 min	Area	(ha)=	2.71	Curve Number (CN)= 68.0
		Ia	(mm)=	5.00	# of Linear Res.(N)= 3.00
		U.H. Tp(hrs)=		0.93	

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	0.59	6.083	2.27	12.083	1.97	18.08	0.86
0.167	0.59	6.167	2.27	12.167	1.97	18.17	0.86
0.250	0.60	6.250	2.50	12.250	1.89	18.25	0.85
0.333	0.60	6.333	2.50	12.333	1.89	18.33	0.85
0.417	0.61	6.417	2.77	12.417	1.83	18.42	0.84
0.500	0.61	6.500	2.77	12.500	1.83	18.50	0.84
0.583	0.63	6.583	3.13	12.583	1.77	18.58	0.83
0.667	0.63	6.667	3.13	12.667	1.77	18.67	0.83
0.750	0.64	6.750	3.59	12.750	1.71	18.75	0.82
0.833	0.64	6.833	3.59	12.833	1.71	18.83	0.82
0.917	0.65	6.917	4.23	12.917	1.66	18.92	0.80
1.000	0.65	7.000	4.23	13.000	1.66	19.00	0.80
1.083	0.67	7.083	5.15	13.083	1.61	19.08	0.79
1.167	0.67	7.167	5.15	13.167	1.61	19.17	0.79
1.250	0.68	7.250	6.61	13.250	1.56	19.25	0.78
1.333	0.68	7.333	6.61	13.333	1.56	19.33	0.78
1.417	0.70	7.417	9.24	13.417	1.51	19.42	0.77
1.500	0.70	7.500	9.24	13.500	1.51	19.50	0.77
1.583	0.71	7.583	15.26	13.583	1.47	19.58	0.76
1.667	0.71	7.667	15.26	13.667	1.47	19.67	0.76
1.750	0.73	7.750	40.09	13.750	1.43	19.75	0.75
1.833	0.73	7.833	40.10	13.833	1.43	19.83	0.75
1.917	0.75	7.917	142.97	13.917	1.40	19.92	0.74
2.000	0.75	8.000	142.96	14.000	1.40	20.00	0.74
2.083	0.77	8.083	53.15	14.083	1.36	20.08	0.74
2.167	0.77	8.167	53.15	14.167	1.36	20.17	0.74
2.250	0.79	8.250	27.09	14.250	1.33	20.25	0.73
2.333	0.79	8.333	27.09	14.333	1.33	20.33	0.73
2.417	0.81	8.417	17.64	14.417	1.30	20.42	0.72
2.500	0.81	8.500	17.64	14.500	1.30	20.50	0.72
2.583	0.83	8.583	12.93	14.583	1.27	20.58	0.71

2.667	0.83	8.667	12.93	14.667	1.27	20.67	0.71
2.750	0.86	8.750	10.15	14.750	1.24	20.75	0.70
2.833	0.86	8.833	10.15	14.833	1.24	20.83	0.70
2.917	0.88	8.917	8.35	14.917	1.21	20.92	0.69
3.000	0.88	9.000	8.35	15.000	1.21	21.00	0.69
3.083	0.91	9.083	7.08	15.083	1.19	21.08	0.69
3.167	0.91	9.167	7.08	15.167	1.19	21.17	0.69
3.250	0.94	9.250	6.15	15.250	1.16	21.25	0.68
3.333	0.94	9.333	6.15	15.333	1.16	21.33	0.68
3.417	0.97	9.417	5.44	15.417	1.14	21.42	0.67
3.500	0.97	9.500	5.44	15.500	1.14	21.50	0.67
3.583	1.00	9.583	4.88	15.583	1.12	21.58	0.66
3.667	1.00	9.667	4.88	15.667	1.12	21.67	0.66
3.750	1.04	9.750	4.42	15.750	1.09	21.75	0.66
3.833	1.04	9.833	4.42	15.833	1.09	21.83	0.66
3.917	1.08	9.917	4.05	15.917	1.07	21.92	0.65
4.000	1.08	10.000	4.05	16.000	1.07	22.00	0.65
4.083	1.12	10.083	3.73	16.083	1.05	22.08	0.64
4.167	1.12	10.167	3.73	16.167	1.05	22.17	0.64
4.250	1.17	10.250	3.46	16.250	1.03	22.25	0.64
4.333	1.17	10.333	3.46	16.333	1.03	22.33	0.64
4.417	1.22	10.417	3.23	16.417	1.02	22.42	0.63
4.500	1.22	10.500	3.23	16.500	1.02	22.50	0.63
4.583	1.28	10.583	3.03	16.583	1.00	22.58	0.62
4.667	1.28	10.667	3.03	16.667	1.00	22.67	0.62
4.750	1.34	10.750	2.86	16.750	0.98	22.75	0.62
4.833	1.34	10.833	2.86	16.833	0.98	22.83	0.62
4.917	1.41	10.917	2.70	16.917	0.96	22.92	0.61
5.000	1.41	11.000	2.70	17.000	0.96	23.00	0.61
5.083	1.49	11.083	2.56	17.083	0.95	23.08	0.60
5.167	1.49	11.167	2.56	17.167	0.95	23.17	0.60
5.250	1.58	11.250	2.44	17.250	0.93	23.25	0.60
5.333	1.58	11.333	2.44	17.333	0.93	23.33	0.60
5.417	1.68	11.417	2.32	17.417	0.92	23.42	0.59
5.500	1.68	11.500	2.32	17.500	0.92	23.50	0.59
5.583	1.79	11.583	2.22	17.583	0.90	23.58	0.59
5.667	1.80	11.667	2.22	17.667	0.90	23.67	0.59
5.750	1.93	11.750	2.13	17.750	0.89	23.75	0.58
5.833	1.93	11.833	2.13	17.833	0.89	23.83	0.58
5.917	2.08	11.917	2.04	17.917	0.88	23.92	0.58
6.000	2.08	12.000	2.04	18.000	0.88	24.00	0.58

Unit Hyd Qpeak (cms)= 0.111

PEAK FLOW (cms)= 0.082 (i)
TIME TO PEAK (hrs)= 9.083
RUNOFF VOLUME (mm)= 35.302
TOTAL RAINFALL (mm)= 89.966
RUNOFF COEFFICIENT = 0.392

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

ADD HYD (0904)		AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3		(ha)	(cms)	(hrs)	(mm)
	ID1= 1 (0201):	6.97	0.235	8.83	33.45
	+ ID2= 2 (0202):	2.71	0.082	9.08	35.30
	ID = 3 (0904):	9.68	0.315	8.92	33.97

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB				
NASHYD (0203)	Area	(ha)= 34.30	Curve Number	(CN)= 42.0
ID= 1 DT= 5.0 min	Ia	(mm)= 5.00	# of Linear Res.	(N)= 3.00
	U.H. Tp	(hrs)= 1.40		

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	0.59	6.083	2.27	12.083	1.97	18.08	0.86
0.167	0.59	6.167	2.27	12.167	1.97	18.17	0.86
0.250	0.60	6.250	2.50	12.250	1.89	18.25	0.85
0.333	0.60	6.333	2.50	12.333	1.89	18.33	0.85
0.417	0.61	6.417	2.77	12.417	1.83	18.42	0.84
0.500	0.61	6.500	2.77	12.500	1.83	18.50	0.84
0.583	0.63	6.583	3.13	12.583	1.77	18.58	0.83
0.667	0.63	6.667	3.13	12.667	1.77	18.67	0.83
0.750	0.64	6.750	3.59	12.750	1.71	18.75	0.82
0.833	0.64	6.833	3.59	12.833	1.71	18.83	0.82
0.917	0.65	6.917	4.23	12.917	1.66	18.92	0.80
1.000	0.65	7.000	4.23	13.000	1.66	19.00	0.80
1.083	0.67	7.083	5.15	13.083	1.61	19.08	0.79
1.167	0.67	7.167	5.15	13.167	1.61	19.17	0.79
1.250	0.68	7.250	6.61	13.250	1.56	19.25	0.78
1.333	0.68	7.333	6.61	13.333	1.56	19.33	0.78
1.417	0.70	7.417	9.24	13.417	1.51	19.42	0.77
1.500	0.70	7.500	9.24	13.500	1.51	19.50	0.77
1.583	0.71	7.583	15.26	13.583	1.47	19.58	0.76
1.667	0.71	7.667	15.26	13.667	1.47	19.67	0.76
1.750	0.73	7.750	40.09	13.750	1.43	19.75	0.75
1.833	0.73	7.833	40.10	13.833	1.43	19.83	0.75
1.917	0.75	7.917	142.97	13.917	1.40	19.92	0.74
2.000	0.75	8.000	142.96	14.000	1.40	20.00	0.74
2.083	0.77	8.083	53.15	14.083	1.36	20.08	0.74
2.167	0.77	8.167	53.15	14.167	1.36	20.17	0.74
2.250	0.79	8.250	27.09	14.250	1.33	20.25	0.73
2.333	0.79	8.333	27.09	14.333	1.33	20.33	0.73
2.417	0.81	8.417	17.64	14.417	1.30	20.42	0.72
2.500	0.81	8.500	17.64	14.500	1.30	20.50	0.72
2.583	0.83	8.583	12.93	14.583	1.27	20.58	0.71
2.667	0.83	8.667	12.93	14.667	1.27	20.67	0.71
2.750	0.86	8.750	10.15	14.750	1.24	20.75	0.70
2.833	0.86	8.833	10.15	14.833	1.24	20.83	0.70
2.917	0.88	8.917	8.35	14.917	1.21	20.92	0.69
3.000	0.88	9.000	8.35	15.000	1.21	21.00	0.69
3.083	0.91	9.083	7.08	15.083	1.19	21.08	0.69
3.167	0.91	9.167	7.08	15.167	1.19	21.17	0.69
3.250	0.94	9.250	6.15	15.250	1.16	21.25	0.68
3.333	0.94	9.333	6.15	15.333	1.16	21.33	0.68
3.417	0.97	9.417	5.44	15.417	1.14	21.42	0.67
3.500	0.97	9.500	5.44	15.500	1.14	21.50	0.67
3.583	1.00	9.583	4.88	15.583	1.12	21.58	0.66
3.667	1.00	9.667	4.88	15.667	1.12	21.67	0.66
3.750	1.04	9.750	4.42	15.750	1.09	21.75	0.66
3.833	1.04	9.833	4.42	15.833	1.09	21.83	0.66
3.917	1.08	9.917	4.05	15.917	1.07	21.92	0.65
4.000	1.08	10.000	4.05	16.000	1.07	22.00	0.65
4.083	1.12	10.083	3.73	16.083	1.05	22.08	0.64
4.167	1.12	10.167	3.73	16.167	1.05	22.17	0.64
4.250	1.17	10.250	3.46	16.250	1.03	22.25	0.64
4.333	1.17	10.333	3.46	16.333	1.03	22.33	0.64
4.417	1.22	10.417	3.23	16.417	1.02	22.42	0.63
4.500	1.22	10.500	3.23	16.500	1.02	22.50	0.63
4.583	1.28	10.583	3.03	16.583	1.00	22.58	0.62
4.667	1.28	10.667	3.03	16.667	1.00	22.67	0.62
4.750	1.34	10.750	2.86	16.750	0.98	22.75	0.62
4.833	1.34	10.833	2.86	16.833	0.98	22.83	0.62
4.917	1.41	10.917	2.70	16.917	0.96	22.92	0.61
5.000	1.41	11.000	2.70	17.000	0.96	23.00	0.61
5.083	1.49	11.083	2.56	17.083	0.95	23.08	0.60
5.167	1.49	11.167	2.56	17.167	0.95	23.17	0.60
5.250	1.58	11.250	2.44	17.250	0.93	23.25	0.60
5.333	1.58	11.333	2.44	17.333	0.93	23.33	0.60
5.417	1.68	11.417	2.32	17.417	0.92	23.42	0.59
5.500	1.68	11.500	2.32	17.500	0.92	23.50	0.59
5.583	1.79	11.583	2.22	17.583	0.90	23.58	0.59
5.667	1.80	11.667	2.22	17.667	0.90	23.67	0.59
5.750	1.93	11.750	2.13	17.750	0.89	23.75	0.58
5.833	1.93	11.833	2.13	17.833	0.89	23.83	0.58
5.917	2.08	11.917	2.04	17.917	0.88	23.92	0.58
6.000	2.08	12.000	2.04	18.000	0.88	24.00	0.58

Unit Hyd Qpeak (cms)= 0.936

PEAK FLOW (cms)= 0.340 (i)
TIME TO PEAK (hrs)= 9.750
RUNOFF VOLUME (mm)= 16.568
TOTAL RAINFALL (mm)= 89.966

RUNOFF COEFFICIENT = 0.184

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

ADD HYD (0905)		AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3		(ha)	(cms)	(hrs)	(mm)
	ID1= 1 (0203):	34.30	0.340	9.75	16.57
	+ ID2= 2 (0904):	9.68	0.315	8.92	33.97
	ID = 3 (0905):	43.98	0.601	9.25	20.40

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

Junction Command(0907)					
		AREA	QPEAK	TPEAK	R.V.
		(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 1(0905)		43.98	0.60	9.25	20.40
OUTFLOW: ID= 2(0907)		43.98	0.60	9.25	20.40

ADD HYD (0908)		AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3		(ha)	(cms)	(hrs)	(mm)
	ID1= 1 (0906):	23.02	4.463	8.03	45.80
	+ ID2= 2 (0907):	43.98	0.601	9.25	20.40
	ID = 3 (0908):	67.00	4.538	8.03	29.13

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB				
NASHYD (0204)	Area	(ha)= 0.40	Curve Number	(CN)= 67.0
ID= 1 DT= 5.0 min	Ia	(mm)= 5.00	# 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	0.59	6.083	2.27	12.083	1.97	18.08	0.86
0.167	0.59	6.167	2.27	12.167	1.97	18.17	0.86
0.250	0.60	6.250	2.50	12.250	1.89	18.25	0.85
0.333	0.60	6.333	2.50	12.333	1.89	18.33	0.85
0.417	0.61	6.417	2.77	12.417	1.83	18.42	0.84
0.500	0.61	6.500	2.77	12.500	1.83	18.50	0.84
0.583	0.63	6.583	3.13	12.583	1.77	18.58	0.83
0.667	0.63	6.667	3.13	12.667	1.77	18.67	0.83
0.750	0.64	6.750	3.59	12.750	1.71	18.75	0.82
0.833	0.64	6.833	3.59	12.833	1.71	18.83	0.82
0.917	0.65	6.917	4.23	12.917	1.66	18.92	0.80
1.000	0.65	7.000	4.23	13.000	1.66	19.00	0.80
1.083	0.67	7.083	5.15	13.083	1.61	19.08	0.79
1.167	0.67	7.167	5.15	13.167	1.61	19.17	0.79
1.250	0.68	7.250	6.61	13.250	1.56	19.25	0.78
1.333	0.68	7.333	6.61	13.333	1.56	19.33	0.78
1.417	0.70	7.417	9.24	13.417	1.51	19.42	0.77
1.500	0.70	7.500	9.24	13.500	1.51	19.50	0.77
1.583	0.71	7.583	15.26	13.583	1.47	19.58	0.76
1.667	0.71	7.667	15.26	13.667	1.47	19.67	0.76
1.750	0.73	7.750	40.09	13.750	1.43	19.75	0.75
1.833	0.73	7.833	40.10	13.833	1.43	19.83	0.75
1.917	0.75	7.917	142.97	13.917	1.40	19.92	0.74
2.000	0.75	8.000	142.96	14.000	1.40	20.00	0.74
2.083	0.77	8.083	53.15	14.083	1.36	20.08	0.74
2.167	0.77	8.167	53.15	14.167	1.36	20.17	0.74
2.250	0.79	8.250	27.09	14.250	1.33	20.25	0.73
2.333	0.79	8.333	27.09	14.333	1.33	20.33	0.73
2.417	0.81	8.417	17.64	14.417	1.30	20.42	0.72
2.500	0.81	8.500	17.64	14.500	1.30	20.50	0.72
2.583	0.83	8.583	12.93	14.583	1.27	20.58	0.71
2.667	0.83	8.667	12.93	14.667	1.27	20.67	0.71
2.750	0.86	8.750	10.15	14.750	1.24	20.75	0.70
2.833	0.86	8.833	10.15	14.833	1.24	20.83	0.70
2.917	0.88	8.917	8.35	14.917	1.21	20.92	0.69
3.000	0.88	9.000	8.35	15.000	1.21	21.00	0.69
3.083	0.91	9.083	7.08	15.083	1.19	21.08	0.69
3.167	0.91	9.167	7.08	15.167	1.19	21.17	0.69
3.250	0.94	9.250	6.15	15.250	1.16	21.25	0.68
3.333	0.94	9.333	6.15	15.333	1.16	21.33	0.68
3.417	0.97	9.417	5.44	15.417	1.14	21.42	0.67
3.500	0.97	9.500	5.44	15.500	1.14	21.50	0.67
3.583	1.00	9.583	4.88	15.583	1.12	21.58	0.66
3.667	1.00	9.667	4.88	15.667	1.12	21.67	0.66
3.750	1.04	9.750	4.42	15.750	1.09	21.75	0.66
3.833	1.04	9.833	4.42	15.833	1.09	21.83	0.66
3.917	1.08	9.917	4.05	15.917	1.07	21.92	0.65
4.000	1.08	10.000	4.05	16.000	1.07	22.00	0.65
4.083	1.12	10.083	3.73	16.083	1.05	22.08	0.64
4.167	1.12	10.167	3.73	16.167	1.05	22.17	0.64
4.250	1.17	10.250	3.46	16.250	1.03	22.25	0.64
4.333	1.17	10.333	3.46	16.333	1.03	22.33	0.64
4.417	1.22	10.417	3.23	16.417	1.02	22.42	0.63
4.500	1.22	10.500	3.23	16.500	1.02	22.50	0.63
4.583	1.28	10.583	3.03	16.583	1.00	22.58	0.62
4.667	1.28	10.667	3.03	16.667	1.00	22.67	0.62
4.750	1.34	10.750	2.86	16.750	0.98	22.75	0.62
4.833	1.34	10.833	2.86	16.833	0.98	22.83	0.62
4.917	1.41	10.917	2.70	16.917	0.96	22.92	0.61
5.000	1.41	11.000	2.70	17.000	0.96	23.00	0.61
5.083	1.49	11.083	2.56	17.083	0.95	23.08	0.60
5.167	1.49	11.167	2.56	17.167	0.95	23.17	0.60
5.250	1.58	11.250	2.44	17.250	0.93	23.25	0.60
5.333	1.58	11.333	2.44	17.333	0.93	23.33	0.60
5.417	1.68	11.417	2.32	17.417	0.92	23.42	0.59
5.500	1.68	11.500	2.32	17.500	0.92	23.50	0.59
5.583	1.79	11.583	2.22	17.583	0.90	23.58	0.59
5.667	1.80	11.667	2.22	17.667	0.90	23.67	0.59
5.750	1.93	11.750	2.13	17.750	0.89	23.75	0.58
5.833	1.93	11.833	2.13	17.833	0.89	23.83	0.58
5.917	2.08	11.917	2.04	17.917	0.88	23.92	0.58
6.000	2.08	12.000	2.04	18.000	0.88	24.00	0.58

Unit Hyd Qpeak (cms)= 0.054

PEAK FLOW (cms)= 0.026 (i)
TIME TO PEAK (hrs)= 8.250
RUNOFF VOLUME (mm)= 34.346
TOTAL RAINFALL (mm)= 89.966
RUNOFF COEFFICIENT = 0.382

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

ADD HYD (0909)		AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3		(ha)	(cms)	(hrs)	(mm)
	ID1= 1 (0204):	0.40	0.026	8.25	34.35
	+ ID2= 2 (0908):	67.00	4.538	8.03	29.13
	ID = 3 (0909):	67.40	4.553	8.03	29.16

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR(0052)		OVERFLOW IS ON			
IN= 2---> OUT= 1					
DT= 1.0 min		OUTFLOW	STORAGE	OUTFLOW	STORAGE
		(cms)	(ha.m.)	(cms)	(ha.m.)
		0.0000	0.0001	0.5350	0.0405
		0.4630	0.0006	0.5440	0.0566
		0.4740	0.0013	0.5540	0.0775

0.4840	0.0030	0.5630	0.1069
0.4950	0.0056	0.5720	0.1342
0.5050	0.0102	0.5810	0.1635
0.5150	0.0163	0.5900	0.1967
0.5250	0.0270	0.5980	0.2362

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (0099)	67.396	4.553	8.03	29.16
OUTFLOW: ID= 1 (0052)	55.982	0.598	8.12	29.16
OVERFLOW:ID= 3 (0003)	11.415	2.652	8.12	29.16

TOTAL NUMBER OF SIMULATION OVERFLOW = 132
CUMULATIVE TIME OF OVERFLOW (HOURS) = 2.20
PERCENTAGE OF TIME OVERFLOWING (%) = 6.80

PEAK FLOW REDUCTION [Qout/Qin](%)= 13.13
TIME SHIFT OF PEAK FLOW (min)= 5.00
MAXIMUM STORAGE USED (ha.m.)= 0.2362

Junction Command(0048)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 1(0052)	55.98	0.60	8.12	29.16
OUTFLOW: ID= 2(0048)	55.98	0.60	8.12	29.16

Junction Command(0053)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 3(0052)	11.41	2.65	8.12	29.16
OUTFLOW: ID= 2(0053)	11.41	2.65	8.12	29.16

ADD HYD (0051)				
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0048):	55.98	0.598	8.12	29.16
+ ID2= 2 (0053):	11.41	2.652	8.12	29.16
ID = 3 (0051):	67.40	3.250	8.12	29.16

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

Junction Command(0036)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 9(0035)	2.53	0.20	7.90	45.29
OUTFLOW: ID= 2(0036)	2.53	0.20	7.90	45.29

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      V    V   I    SSSSS  U   U    A    L              (v 6.2.2015)
      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\cacp078589\AppData\Local\Civica\VH5\9ad0f7cd-9fe5-4b65-bb07-55a510b23afa\7
6fda555-2558-43cb-b00c-f07f4088fc98\s
Summary filename:
C:\Users\cacp078589\AppData\Local\Civica\VH5\9ad0f7cd-9fe5-4b65-bb07-55a510b23afa\7
6fda555-2558-43cb-b00c-f07f4088fc98\s

DATE: 04-04-2025 TIME: 09:55:10

USER:

COMMENTS: _____

CHICAGO STORM	IDF curve parameters: A= 854.000
Ptotal= 53.26 mm	B= 7.000
	C= 0.818

used in: INTENSITY = A / (t + B)^C

Duration of storm = 24.00 hrs
Storm time step = 10.00 min
Time to peak ratio = 0.33

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.00	0.42	6.00	1.47	12.00	1.29	18.00	0.60
0.17	0.43	6.17	1.61	12.17	1.25	18.17	0.59
0.33	0.44	6.33	1.77	12.33	1.21	18.33	0.59
0.50	0.44	6.50	1.97	12.50	1.17	18.50	0.58
0.67	0.45	6.67	2.23	12.67	1.14	18.67	0.57
0.83	0.46	6.83	2.59	12.83	1.10	18.83	0.56
1.00	0.47	7.00	3.09	13.00	1.07	19.00	0.56
1.17	0.48	7.17	3.86	13.17	1.04	19.17	0.55
1.33	0.49	7.33	5.21	13.33	1.02	19.33	0.54
1.50	0.50	7.50	8.22	13.50	0.99	19.50	0.54
1.67	0.51	7.67	20.77	13.67	0.97	19.67	0.53
1.83	0.53	7.83	84.13	13.83	0.94	19.83	0.52
2.00	0.54	8.00	27.50	14.00	0.92	20.00	0.52
2.17	0.55	8.17	14.07	14.17	0.90	20.17	0.51
2.33	0.57	8.33	9.40	14.33	0.88	20.33	0.51
2.50	0.58	8.50	7.07	14.50	0.86	20.50	0.50
2.67	0.60	8.67	5.68	14.67	0.84	20.67	0.50
2.83	0.61	8.83	4.76	14.83	0.83	20.83	0.49
3.00	0.63	9.00	4.11	15.00	0.81	21.00	0.49
3.17	0.65	9.17	3.62	15.17	0.79	21.17	0.48
3.33	0.67	9.33	3.24	15.33	0.78	21.33	0.48
3.50	0.69	9.50	2.94	15.50	0.77	21.50	0.47
3.67	0.72	9.67	2.69	15.67	0.75	21.67	0.47
3.83	0.74	9.83	2.49	15.83	0.74	21.83	0.46
4.00	0.77	10.00	2.31	16.00	0.73	22.00	0.46
4.17	0.80	10.17	2.16	16.17	0.71	22.17	0.45
4.33	0.83	10.33	2.03	16.33	0.70	22.33	0.45
4.50	0.87	10.50	1.92	16.50	0.69	22.50	0.44
4.67	0.91	10.67	1.82	16.67	0.68	22.67	0.44
4.83	0.95	10.83	1.73	16.83	0.67	22.83	0.44
5.00	1.00	11.00	1.65	17.00	0.66	23.00	0.43
5.17	1.06	11.17	1.57	17.17	0.65	23.17	0.43
5.33	1.12	11.33	1.51	17.33	0.64	23.33	0.42
5.50	1.19	11.50	1.45	17.50	0.63	23.50	0.42
5.67	1.27	11.67	1.39	17.67	0.62	23.67	0.42
5.83	1.36	11.83	1.34	17.83	0.61	23.83	0.41

CALIB	
STANDHYD (1012)	Area (ha)= 26.89
ID= 1 DT= 1.0 min	Total Imp(%)= 57.00 Dir. Conn.(%)= 49.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	15.33	11.56
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.50	2.00
Length (m)=	423.42	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 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
0.017	0.42	6.017	1.47	12.017	1.29	18.02	0.60
0.033	0.42	6.033	1.47	12.033	1.29	18.03	0.60
0.050	0.42	6.050	1.47	12.050	1.29	18.05	0.60
0.067	0.42	6.067	1.47	12.067	1.29	18.07	0.60
0.083	0.42	6.083	1.47	12.083	1.29	18.08	0.60
0.100	0.42	6.100	1.47	12.100	1.29	18.10	0.60
0.117	0.42	6.117	1.47	12.117	1.29	18.12	0.60
0.133	0.42	6.133	1.47	12.133	1.29	18.13	0.60
0.150	0.42	6.150	1.47	12.150	1.29	18.15	0.60
0.167	0.42	6.167	1.47	12.167	1.29	18.17	0.60
0.183	0.43	6.183	1.61	12.183	1.25	18.18	0.59
0.200	0.43	6.200	1.61	12.200	1.25	18.20	0.59
0.217	0.43	6.217	1.61	12.217	1.25	18.22	0.59
0.233	0.43	6.233	1.61	12.233	1.25	18.23	0.59
0.250	0.43	6.250	1.61	12.250	1.25	18.25	0.59
0.267	0.43	6.267	1.61	12.267	1.25	18.27	0.59
0.283	0.43	6.283	1.61	12.283	1.25	18.28	0.59
0.300	0.43	6.300	1.61	12.300	1.25	18.30	0.59
0.317	0.43	6.317	1.61	12.317	1.25	18.32	0.59
0.333	0.43	6.333	1.61	12.333	1.25	18.33	0.59
0.350	0.44	6.350	1.77	12.350	1.21	18.35	0.59
0.367	0.44	6.367	1.77	12.367	1.21	18.37	0.59
0.383	0.44	6.383	1.77	12.383	1.21	18.38	0.59
0.400	0.44	6.400	1.77	12.400	1.21	18.40	0.59
0.417	0.44	6.417	1.77	12.417	1.21	18.42	0.59
0.433	0.44	6.433	1.77	12.433	1.21	18.43	0.59
0.450	0.44	6.450	1.77	12.450	1.21	18.45	0.59
0.467	0.44	6.467	1.77	12.467	1.21	18.47	0.59
0.483	0.44	6.483	1.77	12.483	1.21	18.48	0.59
0.500	0.44	6.500	1.77	12.500	1.21	18.50	0.59
0.517	0.44	6.517	1.97	12.517	1.17	18.52	0.58
0.533	0.44	6.533	1.97	12.533	1.17	18.53	0.58
0.550	0.44	6.550	1.97	12.550	1.17	18.55	0.58
0.567	0.44	6.567	1.97	12.567	1.17	18.57	0.58
0.583	0.44	6.583	1.97	12.583	1.17	18.58	0.58
0.600	0.44	6.600	1.97	12.600	1.17	18.60	0.58
0.617	0.44	6.617	1.97	12.617	1.17	18.62	0.58
0.633	0.44	6.633	1.97	12.633	1.17	18.63	0.58
0.650	0.44	6.650	1.97	12.650	1.17	18.65	0.58
0.667	0.44	6.667	1.97	12.667	1.17	18.67	0.58
0.683	0.45	6.683	2.23	12.683	1.14	18.68	0.57
0.700	0.45	6.700	2.23	12.700	1.14	18.70	0.57
0.717	0.45	6.717	2.23	12.717	1.14	18.72	0.57
0.733	0.45	6.733	2.23	12.733	1.14	18.73	0.57
0.750	0.45	6.750	2.23	12.750	1.14	18.75	0.57
0.767	0.45	6.767	2.23	12.767	1.14	18.77	0.57
0.783	0.45	6.783	2.23	12.783	1.14	18.78	0.57
0.800	0.45	6.800	2.23	12.800	1.14	18.80	0.57
0.817	0.45	6.817	2.23	12.817	1.14	18.82	0.57
0.833	0.45	6.833	2.23	12.833	1.14	18.83	0.57
0.850	0.46	6.850	2.59	12.850	1.10	18.85	0.56
0.867	0.46	6.867	2.59	12.867	1.10	18.87	0.56
0.883	0.46	6.883	2.59	12.883	1.10	18.88	0.56
0.900	0.46	6.900	2.59	12.900	1.10	18.90	0.56
0.917	0.46	6.917	2.59	12.917	1.10	18.92	0.56
0.933	0.46	6.933	2.59	12.933	1.10	18.93	0.56
0.950	0.46	6.950	2.59	12.950	1.10	18.95	0.56
0.967	0.46	6.967	2.59	12.967	1.10	18.97	0.56
0.983	0.46	6.983	2.59	12.983	1.10	18.98	0.56
1.000	0.46	7.000	2.59	13.000	1.10	19.00	0.56
1.017	0.47	7.017	3.09	13.017	1.07	19.02	0.56
1.033	0.47	7.033	3.09	13.033	1.07	19.03	0.56
1.050	0.47	7.050	3.09	13.050	1.07	19.05	0.56
1.067	0.47	7.067	3.09	13.067	1.07	19.07	0.56
1.083	0.47	7.083	3.09	13.083	1.07	19.08	0.56
1.100	0.47	7.100	3.09	13.100	1.07	19.10	0.56
1.117	0.47	7.117	3.09	13.117	1.07	19.12	0.56
1.133	0.47	7.133	3.09	13.133	1.07	19.13	0.56
1.150	0.47	7.150	3.09	13.150	1.07	19.15	0.56
1.167	0.47	7.167	3.09	13.167	1.07	19.17	0.56
1.183	0.48	7.183	3.86	13.183	1.04	19.18	0.55
1.200	0.48	7.200	3.86	13.200	1.04	19.20	0.55
1.217	0.48	7.217	3.86	13.217	1.04	19.22	0.55
1.233	0.48	7.233	3.86	13.233	1.04	19.23	0.55
1.250	0.48	7.250	3.86	13.250	1.04	19.25	0.55
1.267	0.48	7.267	3.86	13.267	1.04	19.27	0.55
1.283	0.48	7.283	3.86	13.283	1.04	19.28	0.55
1.300	0.48	7.300	3.86	13.300	1.04	19.30	0.55
1.317	0.48	7.317	3.86	13.317	1.04	19.32	0.55
1.333	0.48	7.333	3.86	13.333	1.04	19.33	0.55
1.350	0.49	7.350	5.21	13.350	1.02	19.35	0.54
1.367	0.49	7.367	5.21	13.367	1.02	19.37	0.54
1.383	0.49	7.383	5.21	13.383	1.02	19.38	0.54
1.400	0.49	7.400	5.21	13.400	1.02	19.40	0.54
1.417	0.49	7.417	5.21	13.417	1.02	19.42	0.54
1.433	0.49	7.433	5.21	13.433	1.02	19.43	0.54
1.450	0.49	7.450	5.21	13.450	1.02	19.45	0.54
1.467	0.49	7.467	5.21	13.467	1.02	19.47	0.54
1.483	0.49	7.483	5.21	13.483	1.02	19.48	0.54
1.500	0.49	7.500	5.22	13.500	1.02	19.50	0.54
1.517	0.50	7.517	8.22	13.517	0.99	19.52	0.54
1.533	0.50	7.533	8.22	13.533	0.99	19.53	0.54
1.550	0.50	7.550	8.22	13.550	0.99	19.55	0.54
1.567	0.50	7.567	8.22	13.567	0.99	19.57	0.54
1.583	0.50	7.583	8.22	13.583	0.99	19.58	0.54
1.600	0.50	7.600	8.22	13.600	0.99	19.60	0.54
1.617	0.50	7.617	8.22	13.617	0.99	19.62	0.54
1.633	0.50	7.633	8.22	13.633	0.99	19.63	0.54
1.650	0.50	7.650	8.22	13.650	0.99	19.65	0.54
1.667	0.50	7.667	8.26	13.667	0.99	19.67	0.54
1.683	0.51	7.683	20.77	13.683	0.97	19.68	0.53
1.700	0.51	7.700	20.77	13.700	0.97	19.70	0.53
1.717	0.51	7.717	20.77	13.717	0.97	19.72	0.53
1.733	0.51	7.733	20.77	13.733	0.97	19.73	0.53
1.750	0.51	7.750	20.77	13.750	0.97	19.75	0.53
1.767	0.51	7.767	20.77	13.767	0.97	19.77	0.53
1.783	0.51	7.783	20.77	13.783	0.97	19.78	0.53
1.800	0.51	7.800	20.77	13.800	0.97	19.80	0.53
1.817	0.51	7.817	20.77	13.817	0.97	19.82	0.53
1.833	0.51	7.833	20.95	13.833	0.97	19.83	0.53
1.850	0.53	7.850	84.13	13.850	0.94	19.85	0.52
1.867	0.53	7.867	84.13	13.867	0.94	19.87	0.52
1.883	0.53	7.883	84.13	13.883	0.94	19.88	0.52
1.900	0.53	7.900	84.13	13.900	0.94	19.90	0.52
1.917	0.53	7.917	84.13	13.917	0.94	19.92	0.52
1.933	0.53	7.933	84.13	13.933	0.94	19.93	0.52
1.950	0.53	7.950	84.13	13.950	0.94	19.95	0.52
1.967	0.53	7.967	84.13	13.967	0.94	19.97	0.52
1.983	0.53	7.983	84.13	13.983	0.94	19.98	0.52
2.000	0.53	8.000	83.96	14.000	0.94	20.00	0.52
2.017	0.54	8.017	27.50	14.017	0.92	20.02	0.52
2.033	0.54	8.033	27.50	14.033	0.92	20.03	0.52
2.050	0.54	8.050	27.50	14.050	0.92	20.05	0.52
2.067	0.54	8.067	27.50	14.067	0.92	20.07	0.52
2.083	0.54	8.083	27.50	14.083	0.92	20.08	0.52
2.100	0.54	8.100	27.50	14.100	0.92	20.10	0.52
2.117	0.54	8.117	27.50	14.117	0.92	20.12	0.52
2.133	0.54	8.133	27.50	14.133	0.92	20.13	0.52
2.150	0.54	8.150	27.50	14.150	0.92	20.15	0.52
2.167	0.54	8.167	27.46	14.167	0.92	20.17	0.52
2.183	0.55	8.183	14.07	14.183	0.90	20.18	0.51

2.200	0.55	8.200	14.07	14.200	0.90	20.20	0.51
2.217	0.55	8.217	14.07	14.217	0.90	20.22	0.51
2.233	0.55	8.233	14.07	14.233	0.90	20.23	0.51
2.250	0.55	8.250	14.07	14.250	0.90	20.25	0.51
2.267	0.55	8.267	14.07	14.267	0.90	20.27	0.51
2.283	0.55	8.283	14.07	14.283	0.90	20.28	0.51
2.300	0.55	8.300	14.07	14.300	0.90	20.30	0.51
2.317	0.55	8.317	14.07	14.317	0.90	20.32	0.51
2.333	0.55	8.333	14.06	14.333	0.90	20.33	0.51
2.350	0.57	8.350	9.40	14.350	0.88	20.35	0.51
2.367	0.57	8.367	9.40	14.367	0.88	20.37	0.51
2.383	0.57	8.383	9.40	14.383	0.88	20.38	0.51
2.400	0.57	8.400	9.40	14.400	0.88	20.40	0.51
2.417	0.57	8.417	9.40	14.417	0.88	20.42	0.51
2.433	0.57	8.433	9.40	14.433	0.88	20.43	0.51
2.450	0.57	8.450	9.40	14.450	0.88	20.45	0.51
2.467	0.57	8.467	9.40	14.467	0.88	20.47	0.51
2.483	0.57	8.483	9.40	14.483	0.88	20.48	0.51
2.500	0.57	8.500	9.39	14.500	0.88	20.50	0.51
2.517	0.58	8.517	7.07	14.517	0.86	20.52	0.50
2.533	0.58	8.533	7.07	14.533	0.86	20.53	0.50
2.550	0.58	8.550	7.07	14.550	0.86	20.55	0.50
2.567	0.58	8.567	7.07	14.567	0.86	20.57	0.50
2.583	0.58	8.583	7.07	14.583	0.86	20.58	0.50
2.600	0.58	8.600	7.07	14.600	0.86	20.60	0.50
2.617	0.58	8.617	7.07	14.617	0.86	20.62	0.50
2.633	0.58	8.633	7.07	14.633	0.86	20.63	0.50
2.650	0.58	8.650	7.07	14.650	0.86	20.65	0.50
2.667	0.58	8.667	7.07	14.667	0.86	20.67	0.50
2.683	0.60	8.683	5.68	14.683	0.84	20.68	0.50
2.700	0.60	8.700	5.68	14.700	0.84	20.70	0.50
2.717	0.60	8.717	5.68	14.717	0.84	20.72	0.50
2.733	0.60	8.733	5.68	14.733	0.84	20.73	0.50
2.750	0.60	8.750	5.68	14.750	0.84	20.75	0.50
2.767	0.60	8.767	5.68	14.767	0.84	20.77	0.50
2.783	0.60	8.783	5.68	14.783	0.84	20.78	0.50
2.800	0.60	8.800	5.68	14.800	0.84	20.80	0.50
2.817	0.60	8.817	5.68	14.817	0.84	20.82	0.50
2.833	0.60	8.833	5.68	14.833	0.84	20.83	0.50
2.850	0.61	8.850	4.76	14.850	0.83	20.85	0.49
2.867	0.61	8.867	4.76	14.867	0.83	20.87	0.49
2.883	0.61	8.883	4.76	14.883	0.83	20.88	0.49
2.900	0.61	8.900	4.76	14.900	0.83	20.90	0.49
2.917	0.61	8.917	4.76	14.917	0.83	20.92	0.49
2.933	0.61	8.933	4.76	14.933	0.83	20.93	0.49
2.950	0.61	8.950	4.76	14.950	0.83	20.95	0.49
2.967	0.61	8.967	4.76	14.967	0.83	20.97	0.49
2.983	0.61	8.983	4.76	14.983	0.83	20.98	0.49
3.000	0.61	9.000	4.76	15.000	0.83	21.00	0.49
3.017	0.63	9.017	4.11	15.017	0.81	21.02	0.49
3.033	0.63	9.033	4.11	15.033	0.81	21.03	0.49
3.050	0.63	9.050	4.11	15.050	0.81	21.05	0.49
3.067	0.63	9.067	4.11	15.067	0.81	21.07	0.49
3.083	0.63	9.083	4.11	15.083	0.81	21.08	0.49
3.100	0.63	9.100	4.11	15.100	0.81	21.10	0.49
3.117	0.63	9.117	4.11	15.117	0.81	21.12	0.49
3.133	0.63	9.133	4.11	15.133	0.81	21.13	0.49
3.150	0.63	9.150	4.11	15.150	0.81	21.15	0.49
3.167	0.63	9.167	4.11	15.167	0.81	21.17	0.49
3.183	0.65	9.183	3.62	15.183	0.79	21.18	0.48
3.200	0.65	9.200	3.62	15.200	0.79	21.20	0.48
3.217	0.65	9.217	3.62	15.217	0.79	21.22	0.48
3.233	0.65	9.233	3.62	15.233	0.79	21.23	0.48
3.250	0.65	9.250	3.62	15.250	0.79	21.25	0.48
3.267	0.65	9.267	3.62	15.267	0.79	21.27	0.48
3.283	0.65	9.283	3.62	15.283	0.79	21.28	0.48
3.300	0.65	9.300	3.62	15.300	0.79	21.30	0.48
3.317	0.65	9.317	3.62	15.317	0.79	21.32	0.48
3.333	0.65	9.333	3.62	15.333	0.79	21.33	0.48
3.350	0.67	9.350	3.24	15.350	0.78	21.35	0.48
3.367	0.67	9.367	3.24	15.367	0.78	21.37	0.48
3.383	0.67	9.383	3.24	15.383	0.78	21.38	0.48
3.400	0.67	9.400	3.24	15.400	0.78	21.40	0.48
3.417	0.67	9.417	3.24	15.417	0.78	21.42	0.48
3.433	0.67	9.433	3.24	15.433	0.78	21.43	0.48
3.450	0.67	9.450	3.24	15.450	0.78	21.45	0.48
3.467	0.67	9.467	3.24	15.467	0.78	21.47	0.48
3.483	0.67	9.483	3.24	15.483	0.78	21.48	0.48
3.500	0.67	9.500	3.24	15.500	0.78	21.50	0.48
3.517	0.69	9.517	2.94	15.517	0.77	21.52	0.47
3.533	0.69	9.533	2.94	15.533	0.77	21.53	0.47
3.550	0.69	9.550	2.94	15.550	0.77	21.55	0.47
3.567	0.69	9.567	2.94	15.567	0.77	21.57	0.47
3.583	0.69	9.583	2.94	15.583	0.77	21.58	0.47
3.600	0.69	9.600	2.94	15.600	0.77	21.60	0.47
3.617	0.69	9.617	2.94	15.617	0.77	21.62	0.47
3.633	0.69	9.633	2.94	15.633	0.77	21.63	0.47
3.650	0.69	9.650	2.94	15.650	0.77	21.65	0.47
3.667	0.69	9.667	2.94	15.667	0.77	21.67	0.47
3.683	0.72	9.683	2.69	15.683	0.75	21.68	0.47
3.700	0.72	9.700	2.69	15.700	0.75	21.70	0.47
3.717	0.72	9.717	2.69	15.717	0.75	21.72	0.47
3.733	0.72	9.733	2.69	15.733	0.75	21.73	0.47
3.750	0.72	9.750	2.69	15.750	0.75	21.75	0.47
3.767	0.72	9.767	2.69	15.767	0.75	21.77	0.47
3.783	0.72	9.783	2.69	15.783	0.75	21.78	0.47
3.800	0.72	9.800	2.69	15.800	0.75	21.80	0.47
3.817	0.72	9.817	2.69	15.817	0.75	21.82	0.47
3.833	0.72	9.833	2.69	15.833	0.75	21.83	0.47
3.850	0.74	9.850	2.49	15.850	0.74	21.85	0.46
3.867	0.74	9.867	2.49	15.867	0.74	21.87	0.46
3.883	0.74	9.883	2.49	15.883	0.74	21.88	0.46
3.900	0.74	9.900	2.49	15.900	0.74	21.90	0.46
3.917	0.74	9.917	2.49	15.917	0.74	21.92	0.46
3.933	0.74	9.933	2.49	15.933	0.74	21.93	0.46
3.950	0.74	9.950	2.49	15.950	0.74	21.95	0.46
3.967	0.74	9.967	2.49	15.967	0.74	21.97	0.46
3.983	0.74	9.983	2.49	15.983	0.74	21.98	0.46
4.000	0.74	10.000	2.49	16.000	0.74	22.00	0.46
4.017	0.77	10.017	2.31	16.017	0.73	22.02	0.46
4.033	0.77	10.033	2.31	16.033	0.73	22.03	0.46
4.050	0.77	10.050	2.31	16.050	0.73	22.05	0.46
4.067	0.77	10.067	2.31	16.067	0.73	22.07	0.46
4.083	0.77	10.083	2.31	16.083	0.73	22.08	0.46
4.100	0.77	10.100	2.31	16.100	0.73	22.10	0.46
4.117	0.77	10.117	2.31	16.117	0.73	22.12	0.46
4.133	0.77	10.133	2.31	16.133	0.73	22.13	0.46
4.150	0.77	10.150	2.31	16.150	0.73	22.15	0.46
4.167	0.77	10.167	2.31	16.167	0.73	22.17	0.46
4.183	0.80	10.183	2.16	16.183	0.71	22.18	0.45
4.200	0.80	10.200	2.16	16.200	0.71	22.20	0.45
4.217	0.80	10.217	2.16	16.217	0.71	22.22	0.45
4.233	0.80	10.233	2.16	16.233	0.71	22.23	0.45
4.250	0.80	10.250	2.16	16.250	0.71	22.25	0.45
4.267	0.80	10.267	2.16	16.267	0.71	22.27	0.45
4.283	0.80	10.283	2.16	16.283	0.71	22.28	0.45
4.300	0.80	10.300	2.16	16.300	0.71	22.30	0.45
4.317	0.80	10.317	2.16	16.317	0.71	22.32	0.45
4.333	0.80	10.333	2.16	16.333	0.71	22.33	0.45
4.350	0.83	10.350	2.03	16.350	0.70	22.35	0.45
4.367	0.83	10.367	2.03	16.367	0.70	22.37	0.45
4.383	0.83	10.383	2.03	16.383	0.70	22.38	0.45
4.400	0.83	10.400	2.03	16.400	0.70	22.40	0.45
4.417	0.83	10.417	2.03	16.417	0.70	22.42	0.45
4.433	0.83	10.433	2.03	16.433	0.70	22.43	0.45
4.450	0.83	10.450	2.03	16.450	0.70	22.45	0.45
4.467	0.83	10.467	2.03	16.467	0.70	22.47	0.45
4.483	0.83	10.483	2.03	16.483	0.70	22.48	0.45
4.500	0.83	10.500	2.03	16.500	0.70	22.50	0.45
4.517	0.87	10.517	1.92	16.517	0.69	22.52	0.44
4.533	0.87	10.533	1.92	16.533	0.69	22.53	0.44
4.550	0.87	10.550	1.92	16.550	0.69	22.55	0.44
4.567	0.87	10.567	1.92	16.567	0.69	22.57	0.44
4.583	0.87	10.583	1.92	16.583	0.69	22.58	0.44
4.600	0.87	10.600	1.92	16.600	0.69	22.60	0.44
4.617	0.87	10.617	1.92	16.617	0.69	22.62	0.44
4.633	0.87	10.633	1.92	16.633	0.69	22.63	0.44
4.650	0.87	10.650	1.92	16.650	0.69	22.65	0.44
4.667	0.87	10.667	1.92	16.667	0.69	22.67	0.44
4.683	0.91	10.683	1.82	16.683	0.68	22.68	0.44
4.700	0.91	10.700	1.82	16.700	0.68	22.70	0.44
4.717	0.91	10.717	1.82	16.717	0.68	22.72	0.44
4.733	0.91	10.733	1.82	16.733	0.68	22.73	0.44
4.750	0.91	10.750	1.82	16.750	0.68	22.75	0.44
4.767	0.91	10.767	1.82	16.767	0.68	22.77	0.44
4.783	0.91	10.783	1.82	16.783	0.68	22.78	0.44
4.800	0.91	10.800	1.82	16.800	0.68	22.80	0.44
4.817	0.91	10.817	1.82	16.817	0.68	22.82	0.44
4.833	0.91	10.833	1.82	16.833	0.68	22.83	0.44
4.850	0.95	10.850	1.73	16.850	0.67	22.85	0.44
4.867	0.95	10.867	1.73	16.867	0.67	22.87	0.44
4.883	0.95	10.883	1.73	16.883	0.67	22.88	0.44
4.900	0.95	10.900	1.73	16.900	0.67	22.90	0.44
4.917	0.95	10.917	1.73	16.917	0.67	22.92	0.44
4.933	0.95	10.933	1.73	16.933	0.67	22.93	0.44
4.950	0.95	10.950	1.73	16.950	0.67	22.95	0.44
4.967	0.95	10.967	1.73	16.967	0.67	22.97	0.44
4.983	0.95	10.983	1.73	16.983	0.67	22.98	0.44
5.000	0.95	11.000	1.73	17.000	0.67	23.00	0.44
5.017	1.00	11.017	1.65	17.017	0.66	23.02	0.43
5.033	1.00	11.033	1.65	17.033	0.66	23.03	0.43
5.050	1.00	11.050	1.65	17.050	0.66	23.05	0.43
5.067	1.00	11.067	1.65	17.067	0.66	23.07	0.43
5.083	1.00	11.083	1.65	17.083	0.66	23.08	0.43
5.100	1.00	11.100	1.65	17.100	0.66	23.10	0.43
5.117	1.00	11.117	1.65	17.117	0.66	23.12	0.43
5.133	1.00	11.133	1.65	17.133	0.66	23.13	0.43
5.150	1.00	11.150	1.65	17.150	0.66	23.15	0.43
5.167	1.00	11.167	1.64	17.167	0.66	23.17	0.43
5.183	1.06	11.183	1.57	17.183	0.65	23.18	0.43
5.200	1.06	11.200	1.57	17.200	0.65	23.20	0.43
5.217	1.06	11.217	1.57	17.217	0.65	23.22	0.43
5.233	1.06	11.233	1.57	17.233	0.65	23.23	0.43
5.250	1.06	11.250	1.57	17.250	0.65	23.25	0.43
5.267	1.06	11.267	1.57	17.267	0.65	23.27	0.43
5.283	1.06	11.283	1.57	17.283	0.65	23.28	0.43
5.300	1.06	11.300	1.57	17.300	0.65	23.30	0.43
5.317	1.06	11.317	1.57	17.317	0.65	23.32	0.43
5.333	1.06	11.333	1.57	17.333	0.65	23.33	0.43
5.350	1.12	11.350	1.51	17.350	0.64	23.35	0.42
5.367	1.12	11.367	1.51	17.367	0.64	23.37	0.42
5.383	1.12	11.383	1.51	17.383	0.64	23.38	0.42
5.400	1.12	11.400	1.51	17.400	0.64	23.40	0.42
5.417	1.12	11.417	1.51	17.417	0.64	23.42	0.42
5.433	1.12	11.433	1.51	17.433	0.64	23.43	0.42
5.450	1.12	11.450	1.51	17.450	0.64	23.45	0.42
5.467	1.12	11.467	1.51	17.467	0.64	23.47	0.42
5.483	1.12	11.483	1.51	17.483	0.64	23.48	0.42
5.500	1.12	11.500	1.51	17.500	0.64	23.50	0.42
5.517	1.19	11.517	1.45	17.517	0.63	23.52	0.42
5.533	1.19	11.533	1.45	17.533	0.63	23.53	0.42
5.550	1.19	11.550	1.45	17.550	0.63	23.55	0.42
5.567	1.19	11.567	1.45	17.567	0.63	23.57	0.42
5.583	1.19	11.583	1.45	17.583	0.63	23.58	0.42
5.600	1.19	11.600	1.45	17.600	0.63	23.60	0.42
5.617	1.19	11.617	1.45	17.617	0.63	23.62	0.42
5.633	1.19	11.633	1.45	17.633	0.63	23.63	0.42
5.650	1.19	11.650	1.45	17.650	0.63	23.65	0.42
5.667	1.19	11.667	1.45	17.667	0.63	23.67	0.42
5.683	1.27	11.683	1.39	17.683	0.62	23.68	0.42
5.700	1.27	11.700	1.39	17.700	0.62	23.70	0.42
5.717	1.27	11.717	1.39	17.717	0.62	23.72	0.42
5.733	1.27	11.733	1.39	17.733	0.62	23.73	0.42
5.750	1.27	11.750	1.39	17.750	0.62	23.75	0.42
5.767	1.27	11.767	1.39	17.767	0.62	23.77	0.42
5.783	1.27	11.783	1.39	17.783	0.62	23.78	0.42
5.800	1.27	11.800	1.39	17.800	0.62	23.80	0.42
5.817	1.27	11.817	1.39	17.817	0.62	23.82	0.42
5.833	1.27	11.833	1.39	17.833	0.62	23.83	0.42
5.850	1.36	11.850	1.34	17.850	0.61	23.85	0.41
5.867	1.36	11.867	1.34	17.867	0.61	23.87	0.41
5.883	1.36	11.883	1.34	17.883	0.61	23.88	0.41
5.900	1.36	11.900	1.34	17.900	0.61	23.90	0.41
5.917	1.36	11.917	1.34	17.917	0.61	23.92	0.41
5.933	1.36	11.933	1.34	17.933	0.61	23.93	0.41
5.950	1.36	11.950	1.34	17.950	0.61	23.95	0.41
5.967	1.36	11.967	1.34	17.967	0.61	23.97	0.41
5.983	1.36	11.983	1.34	17.983	0.61	23.98	0.41
6.000	1.36	12.000	1.34	18.000	0.61	24.00	0.41

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     Max.Eff.Inten.(mm/hr)=      84.13         12.26
           over (min)            8.00         16.00
     Storage Coeff.  (min)=      8.01 (ii)    15.19 (ii)
     Unit Hyd. Tpeak (min)=      8.00         16.00
     Unit Hyd. peak  (cms)=      0.14          0.07
                                                        *TOTALS*
     PEAK FLOW       (cms)=      2.14          0.20       2.254 (iii)
     TIME TO PEAK    (hrs)=      8.07          8.23       8.07
     RUNOFF VOLUME    (mm)=     52.25          8.56      29.97
     TOTAL RAINFALL   (mm)=     53.26         53.26      53.26
     RUNOFF COEFFICIENT   =      0.98          0.16       0.56


       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  48.0     Ia = Dep. Storage   (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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| DUHYD    (  0034)|
| Inlet Cap.= 3.057|
| #of Inlets=     1|
| Total(cms)=   3.1|      AREA     QPEAK     TPEAK    R.V.
-------------------      (ha)     (cms)     (hrs)    (mm)
     TOTAL HYD.(ID= 1):  26.89      2.25      8.07   29.97
                         ==========================================
     MAJOR SYS.(ID= 2):   0.00      0.00      0.00    0.00
     MINOR SYS.(ID= 3):  26.89      2.25      8.07   29.97
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NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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 | Junction Command(0033) |
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                            AREA     QPEAK    TPEAK      R.V.
                            (ha)     (cms)    (hrs)      (mm)
  INFLOW : ID= 9(  0034)   26.89      2.25     8.07     29.97
  OUTFLOW: ID= 2(  0033)   26.89      2.25     8.07     29.97

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| CALIB            |
| STANDHYD (  1052)|   Area    (ha)=   1.95
|ID= 1 DT= 1.0 min |   Total Imp(%)=  30.00   Dir. Conn.(%)=  26.00
--------------------
                          IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       0.58          1.36
     Dep. Storage     (mm)=       1.00          5.00
     Average Slope     (%)=       0.50          2.00
     Length            (m)=     113.90         40.00
     Mannings n           =      0.013         0.250

         NOTE:  RAINFALL WAS TRANSFORMED TO   1.0 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
      0.017    0.42 | 6.017    1.47 |12.017    1.29 | 18.02    0.60
      0.033    0.42 | 6.033    1.47 |12.033    1.29 | 18.03    0.60
      0.050    0.42 | 6.050    1.47 |12.050    1.29 | 18.05    0.60
      0.067    0.42 | 6.067    1.47 |12.067    1.29 | 18.07    0.60
      0.083    0.42 | 6.083    1.47 |12.083    1.29 | 18.08    0.60
      0.100    0.42 | 6.100    1.47 |12.100    1.29 | 18.10    0.60
      0.117    0.42 | 6.117    1.47 |12.117    1.29 | 18.12    0.60
      0.133    0.42 | 6.133    1.47 |12.133    1.29 | 18.13    0.60
      0.150    0.42 | 6.150    1.47 |12.150    1.29 | 18.15    0.60
      0.167    0.42 | 6.167    1.47 |12.167    1.29 | 18.17    0.60
      0.183    0.43 | 6.183    1.61 |12.183    1.25 | 18.18    0.59
      0.200    0.43 | 6.200    1.61 |12.200    1.25 | 18.20    0.59
      0.217    0.43 | 6.217    1.61 |12.217    1.25 | 18.22    0.59
      0.233    0.43 | 6.233    1.61 |12.233    1.25 | 18.23    0.59
      0.250    0.43 | 6.250    1.61 |12.250    1.25 | 18.25    0.59
      0.267    0.43 | 6.267    1.61 |12.267    1.25 | 18.27    0.59
      0.283    0.43 | 6.283    1.61 |12.283    1.25 | 18.28    0.59
      0.300    0.43 | 6.300    1.61 |12.300    1.25 | 18.30    0.59
      0.317    0.43 | 6.317    1.61 |12.317    1.25 | 18.32    0.59
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0.333	0.43	6.333	1.61	12.333	1.25	18.33	0.59
0.350	0.44	6.350	1.77	12.350	1.21	18.35	0.59
0.367	0.44	6.367	1.77	12.367	1.21	18.37	0.59
0.383	0.44	6.383	1.77	12.383	1.21	18.38	0.59
0.400	0.44	6.400	1.77	12.400	1.21	18.40	0.59
0.417	0.44	6.417	1.77	12.417	1.21	18.42	0.59
0.433	0.44	6.433	1.77	12.433	1.21	18.43	0.59
0.450	0.44	6.450	1.77	12.450	1.21	18.45	0.59
0.467	0.44	6.467	1.77	12.467	1.21	18.47	0.59
0.483	0.44	6.483	1.77	12.483	1.21	18.48	0.59
0.500	0.44	6.500	1.77	12.500	1.21	18.50	0.59
0.517	0.44	6.517	1.97	12.517	1.17	18.52	0.58
0.533	0.44	6.533	1.97	12.533	1.17	18.53	0.58
0.550	0.44	6.550	1.97	12.550	1.17	18.55	0.58
0.567	0.44	6.567	1.97	12.567	1.17	18.57	0.58
0.583	0.44	6.583	1.97	12.583	1.17	18.58	0.58
0.600	0.44	6.600	1.97	12.600	1.17	18.60	0.58
0.617	0.44	6.617	1.97	12.617	1.17	18.62	0.58
0.633	0.44	6.633	1.97	12.633	1.17	18.63	0.58
0.650	0.44	6.650	1.97	12.650	1.17	18.65	0.58
0.667	0.44	6.667	1.97	12.667	1.17	18.67	0.58
0.683	0.45	6.683	2.23	12.683	1.14	18.68	0.57
0.700	0.45	6.700	2.23	12.700	1.14	18.70	0.57
0.717	0.45	6.717	2.23	12.717	1.14	18.72	0.57
0.733	0.45	6.733	2.23	12.733	1.14	18.73	0.57
0.750	0.45	6.750	2.23	12.750	1.14	18.75	0.57
0.767	0.45	6.767	2.23	12.767	1.14	18.77	0.57
0.783	0.45	6.783	2.23	12.783	1.14	18.78	0.57
0.800	0.45	6.800	2.23	12.800	1.14	18.80	0.57
0.817	0.45	6.817	2.23	12.817	1.14	18.82	0.57
0.833	0.45	6.833	2.23	12.833	1.14	18.83	0.57
0.850	0.46	6.850	2.59	12.850	1.10	18.85	0.56
0.867	0.46	6.867	2.59	12.867	1.10	18.87	0.56
0.883	0.46	6.883	2.59	12.883	1.10	18.88	0.56
0.900	0.46	6.900	2.59	12.900	1.10	18.90	0.56
0.917	0.46	6.917	2.59	12.917	1.10	18.92	0.56
0.933	0.46	6.933	2.59	12.933	1.10	18.93	0.56
0.950	0.46	6.950	2.59	12.950	1.10	18.95	0.56
0.967	0.46	6.967	2.59	12.967	1.10	18.97	0.56
0.983	0.46	6.983	2.59	12.983	1.10	18.98	0.56
1.000	0.46	7.000	2.59	13.000	1.10	19.00	0.56
1.017	0.47	7.017	3.09	13.017	1.07	19.02	0.56
1.033	0.47	7.033	3.09	13.033	1.07	19.03	0.56
1.050	0.47	7.050	3.09	13.050	1.07	19.05	0.56
1.067	0.47	7.067	3.09	13.067	1.07	19.07	0.56
1.083	0.47	7.083	3.09	13.083	1.07	19.08	0.56
1.100	0.47	7.100	3.09	13.100	1.07	19.10	0.56
1.117	0.47	7.117	3.09	13.117	1.07	19.12	0.56
1.133	0.47	7.133	3.09	13.133	1.07	19.13	0.56
1.150	0.47	7.150	3.09	13.150	1.07	19.15	0.56
1.167	0.47	7.167	3.09	13.167	1.07	19.17	0.56
1.183	0.48	7.183	3.86	13.183	1.04	19.18	0.55

1.200	0.48	7.200	3.86	13.200	1.04	19.20	0.55
1.217	0.48	7.217	3.86	13.217	1.04	19.22	0.55
1.233	0.48	7.233	3.86	13.233	1.04	19.23	0.55
1.250	0.48	7.250	3.86	13.250	1.04	19.25	0.55
1.267	0.48	7.267	3.86	13.267	1.04	19.27	0.55
1.283	0.48	7.283	3.86	13.283	1.04	19.28	0.55
1.300	0.48	7.300	3.86	13.300	1.04	19.30	0.55
1.317	0.48	7.317	3.86	13.317	1.04	19.32	0.55
1.333	0.48	7.333	3.86	13.333	1.04	19.33	0.55
1.350	0.49	7.350	5.21	13.350	1.02	19.35	0.54
1.367	0.49	7.367	5.21	13.367	1.02	19.37	0.54
1.383	0.49	7.383	5.21	13.383	1.02	19.38	0.54
1.400	0.49	7.400	5.21	13.400	1.02	19.40	0.54
1.417	0.49	7.417	5.21	13.417	1.02	19.42	0.54
1.433	0.49	7.433	5.21	13.433	1.02	19.43	0.54
1.450	0.49	7.450	5.21	13.450	1.02	19.45	0.54
1.467	0.49	7.467	5.21	13.467	1.02	19.47	0.54
1.483	0.49	7.483	5.21	13.483	1.02	19.48	0.54
1.500	0.49	7.500	5.22	13.500	1.02	19.50	0.54
1.517	0.50	7.517	8.22	13.517	0.99	19.52	0.54
1.533	0.50	7.533	8.22	13.533	0.99	19.53	0.54
1.550	0.50	7.550	8.22	13.550	0.99	19.55	0.54
1.567	0.50	7.567	8.22	13.567	0.99	19.57	0.54
1.583	0.50	7.583	8.22	13.583	0.99	19.58	0.54
1.600	0.50	7.600	8.22	13.600	0.99	19.60	0.54
1.617	0.50	7.617	8.22	13.617	0.99	19.62	0.54
1.633	0.50	7.633	8.22	13.633	0.99	19.63	0.54
1.650	0.50	7.650	8.22	13.650	0.99	19.65	0.54
1.667	0.50	7.667	8.26	13.667	0.99	19.67	0.54
1.683	0.51	7.683	20.77	13.683	0.97	19.68	0.53
1.700	0.51	7.700	20.77	13.700	0.97	19.70	0.53
1.717	0.51	7.717	20.77	13.717	0.97	19.72	0.53
1.733	0.51	7.733	20.77	13.733	0.97	19.73	0.53
1.750	0.51	7.750	20.77	13.750	0.97	19.75	0.53
1.767	0.51	7.767	20.77	13.767	0.97	19.77	0.53
1.783	0.51	7.783	20.77	13.783	0.97	19.78	0.53
1.800	0.51	7.800	20.77	13.800	0.97	19.80	0.53
1.817	0.51	7.817	20.77	13.817	0.97	19.82	0.53
1.833	0.51	7.833	20.95	13.833	0.97	19.83	0.53
1.850	0.53	7.850	84.13	13.850	0.94	19.85	0.52
1.867	0.53	7.867	84.13	13.867	0.94	19.87	0.52
1.883	0.53	7.883	84.13	13.883	0.94	19.88	0.52
1.900	0.53	7.900	84.13	13.900	0.94	19.90	0.52
1.917	0.53	7.917	84.13	13.917	0.94	19.92	0.52
1.933	0.53	7.933	84.13	13.933	0.94	19.93	0.52
1.950	0.53	7.950	84.13	13.950	0.94	19.95	0.52
1.967	0.53	7.967	84.13	13.967	0.94	19.97	0.52
1.983	0.53	7.983	84.13	13.983	0.94	19.98	0.52
2.000	0.53	8.000	83.96	14.000	0.94	20.00	0.52
2.017	0.54	8.017	27.50	14.017	0.92	20.02	0.52
2.033	0.54	8.033	27.50	14.033	0.92	20.03	0.52
2.050	0.54	8.050	27.50	14.050	0.92	20.05	0.52

2.067	0.54	8.067	27.50	14.067	0.92	20.07	0.52
2.083	0.54	8.083	27.50	14.083	0.92	20.08	0.52
2.100	0.54	8.100	27.50	14.100	0.92	20.10	0.52
2.117	0.54	8.117	27.50	14.117	0.92	20.12	0.52
2.133	0.54	8.133	27.50	14.133	0.92	20.13	0.52
2.150	0.54	8.150	27.50	14.150	0.92	20.15	0.52
2.167	0.54	8.167	27.46	14.167	0.92	20.17	0.52
2.183	0.55	8.183	14.07	14.183	0.90	20.18	0.51
2.200	0.55	8.200	14.07	14.200	0.90	20.20	0.51
2.217	0.55	8.217	14.07	14.217	0.90	20.22	0.51
2.233	0.55	8.233	14.07	14.233	0.90	20.23	0.51
2.250	0.55	8.250	14.07	14.250	0.90	20.25	0.51
2.267	0.55	8.267	14.07	14.267	0.90	20.27	0.51
2.283	0.55	8.283	14.07	14.283	0.90	20.28	0.51
2.300	0.55	8.300	14.07	14.300	0.90	20.30	0.51
2.317	0.55	8.317	14.07	14.317	0.90	20.32	0.51
2.333	0.55	8.333	14.06	14.333	0.90	20.33	0.51
2.350	0.57	8.350	9.40	14.350	0.88	20.35	0.51
2.367	0.57	8.367	9.40	14.367	0.88	20.37	0.51
2.383	0.57	8.383	9.40	14.383	0.88	20.38	0.51
2.400	0.57	8.400	9.40	14.400	0.88	20.40	0.51
2.417	0.57	8.417	9.40	14.417	0.88	20.42	0.51
2.433	0.57	8.433	9.40	14.433	0.88	20.43	0.51
2.450	0.57	8.450	9.40	14.450	0.88	20.45	0.51
2.467	0.57	8.467	9.40	14.467	0.88	20.47	0.51
2.483	0.57	8.483	9.40	14.483	0.88	20.48	0.51
2.500	0.57	8.500	9.39	14.500	0.88	20.50	0.51
2.517	0.58	8.517	7.07	14.517	0.86	20.52	0.50
2.533	0.58	8.533	7.07	14.533	0.86	20.53	0.50
2.550	0.58	8.550	7.07	14.550	0.86	20.55	0.50
2.567	0.58	8.567	7.07	14.567	0.86	20.57	0.50
2.583	0.58	8.583	7.07	14.583	0.86	20.58	0.50
2.600	0.58	8.600	7.07	14.600	0.86	20.60	0.50
2.617	0.58	8.617	7.07	14.617	0.86	20.62	0.50
2.633	0.58	8.633	7.07	14.633	0.86	20.63	0.50
2.650	0.58	8.650	7.07	14.650	0.86	20.65	0.50
2.667	0.58	8.667	7.07	14.667	0.86	20.67	0.50
2.683	0.60	8.683	5.68	14.683	0.84	20.68	0.50
2.700	0.60	8.700	5.68	14.700	0.84	20.70	0.50
2.717	0.60	8.717	5.68	14.717	0.84	20.72	0.50
2.733	0.60	8.733	5.68	14.733	0.84	20.73	0.50
2.750	0.60	8.750	5.68	14.750	0.84	20.75	0.50
2.767	0.60	8.767	5.68	14.767	0.84	20.77	0.50
2.783	0.60	8.783	5.68	14.783	0.84	20.78	0.50
2.800	0.60	8.800	5.68	14.800	0.84	20.80	0.50
2.817	0.60	8.817	5.68	14.817	0.84	20.82	0.50
2.833	0.60	8.833	5.68	14.833	0.84	20.83	0.50
2.850	0.61	8.850	4.76	14.850	0.83	20.85	0.49
2.867	0.61	8.867	4.76	14.867	0.83	20.87	0.49
2.883	0.61	8.883	4.76	14.883	0.83	20.88	0.49
2.900	0.61	8.900	4.76	14.900	0.83	20.90	0.49
2.917	0.61	8.917	4.76	14.917	0.83	20.92	0.49

2.933	0.61	8.933	4.76	14.933	0.83	20.93	0.49
2.950	0.61	8.950	4.76	14.950	0.83	20.95	0.49
2.967	0.61	8.967	4.76	14.967	0.83	20.97	0.49
2.983	0.61	8.983	4.76	14.983	0.83	20.98	0.49
3.000	0.61	9.000	4.76	15.000	0.83	21.00	0.49
3.017	0.63	9.017	4.11	15.017	0.81	21.02	0.49
3.033	0.63	9.033	4.11	15.033	0.81	21.03	0.49
3.050	0.63	9.050	4.11	15.050	0.81	21.05	0.49
3.067	0.63	9.067	4.11	15.067	0.81	21.07	0.49
3.083	0.63	9.083	4.11	15.083	0.81	21.08	0.49
3.100	0.63	9.100	4.11	15.100	0.81	21.10	0.49
3.117	0.63	9.117	4.11	15.117	0.81	21.12	0.49
3.133	0.63	9.133	4.11	15.133	0.81	21.13	0.49
3.150	0.63	9.150	4.11	15.150	0.81	21.15	0.49
3.167	0.63	9.167	4.11	15.167	0.81	21.17	0.49
3.183	0.65	9.183	3.62	15.183	0.79	21.18	0.48
3.200	0.65	9.200	3.62	15.200	0.79	21.20	0.48
3.217	0.65	9.217	3.62	15.217	0.79	21.22	0.48
3.233	0.65	9.233	3.62	15.233	0.79	21.23	0.48
3.250	0.65	9.250	3.62	15.250	0.79	21.25	0.48
3.267	0.65	9.267	3.62	15.267	0.79	21.27	0.48
3.283	0.65	9.283	3.62	15.283	0.79	21.28	0.48
3.300	0.65	9.300	3.62	15.300	0.79	21.30	0.48
3.317	0.65	9.317	3.62	15.317	0.79	21.32	0.48
3.333	0.65	9.333	3.62	15.333	0.79	21.33	0.48
3.350	0.67	9.350	3.24	15.350	0.78	21.35	0.48
3.367	0.67	9.367	3.24	15.367	0.78	21.37	0.48
3.383	0.67	9.383	3.24	15.383	0.78	21.38	0.48
3.400	0.67	9.400	3.24	15.400	0.78	21.40	0.48
3.417	0.67	9.417	3.24	15.417	0.78	21.42	0.48
3.433	0.67	9.433	3.24	15.433	0.78	21.43	0.48
3.450	0.67	9.450	3.24	15.450	0.78	21.45	0.48
3.467	0.67	9.467	3.24	15.467	0.78	21.47	0.48
3.483	0.67	9.483	3.24	15.483	0.78	21.48	0.48
3.500	0.67	9.500	3.24	15.500	0.78	21.50	0.48
3.517	0.69	9.517	2.94	15.517	0.77	21.52	0.47
3.533	0.69	9.533	2.94	15.533	0.77	21.53	0.47
3.550	0.69	9.550	2.94	15.550	0.77	21.55	0.47
3.567	0.69	9.567	2.94	15.567	0.77	21.57	0.47
3.583	0.69	9.583	2.94	15.583	0.77	21.58	0.47
3.600	0.69	9.600	2.94	15.600	0.77	21.60	0.47
3.617	0.69	9.617	2.94	15.617	0.77	21.62	0.47
3.633	0.69	9.633	2.94	15.633	0.77	21.63	0.47
3.650	0.69	9.650	2.94	15.650	0.77	21.65	0.47
3.667	0.69	9.667	2.94	15.667	0.77	21.67	0.47
3.683	0.72	9.683	2.69	15.683	0.75	21.68	0.47
3.700	0.72	9.700	2.69	15.700	0.75	21.70	0.47
3.717	0.72	9.717	2.69	15.717	0.75	21.72	0.47
3.733	0.72	9.733	2.69	15.733	0.75	21.73	0.47
3.750	0.72	9.750	2.69	15.750	0.75	21.75	0.47
3.767	0.72	9.767	2.69	15.767	0.75	21.77	0.47
3.783	0.72	9.783	2.69	15.783	0.75	21.78	0.47

3.800	0.72	9.800	2.69	15.800	0.75	21.80	0.47
3.817	0.72	9.817	2.69	15.817	0.75	21.82	0.47
3.833	0.72	9.833	2.69	15.833	0.75	21.83	0.47
3.850	0.74	9.850	2.49	15.850	0.74	21.85	0.46
3.867	0.74	9.867	2.49	15.867	0.74	21.87	0.46
3.883	0.74	9.883	2.49	15.883	0.74	21.88	0.46
3.900	0.74	9.900	2.49	15.900	0.74	21.90	0.46
3.917	0.74	9.917	2.49	15.917	0.74	21.92	0.46
3.933	0.74	9.933	2.49	15.933	0.74	21.93	0.46
3.950	0.74	9.950	2.49	15.950	0.74	21.95	0.46
3.967	0.74	9.967	2.49	15.967	0.74	21.97	0.46
3.983	0.74	9.983	2.49	15.983	0.74	21.98	0.46
4.000	0.74	10.000	2.49	16.000	0.74	22.00	0.46
4.017	0.77	10.017	2.31	16.017	0.73	22.02	0.46
4.033	0.77	10.033	2.31	16.033	0.73	22.03	0.46
4.050	0.77	10.050	2.31	16.050	0.73	22.05	0.46
4.067	0.77	10.067	2.31	16.067	0.73	22.07	0.46
4.083	0.77	10.083	2.31	16.083	0.73	22.08	0.46
4.100	0.77	10.100	2.31	16.100	0.73	22.10	0.46
4.117	0.77	10.117	2.31	16.117	0.73	22.12	0.46
4.133	0.77	10.133	2.31	16.133	0.73	22.13	0.46
4.150	0.77	10.150	2.31	16.150	0.73	22.15	0.46
4.167	0.77	10.167	2.31	16.167	0.73	22.17	0.46
4.183	0.80	10.183	2.16	16.183	0.71	22.18	0.45
4.200	0.80	10.200	2.16	16.200	0.71	22.20	0.45
4.217	0.80	10.217	2.16	16.217	0.71	22.22	0.45
4.233	0.80	10.233	2.16	16.233	0.71	22.23	0.45
4.250	0.80	10.250	2.16	16.250	0.71	22.25	0.45
4.267	0.80	10.267	2.16	16.267	0.71	22.27	0.45
4.283	0.80	10.283	2.16	16.283	0.71	22.28	0.45
4.300	0.80	10.300	2.16	16.300	0.71	22.30	0.45
4.317	0.80	10.317	2.16	16.317	0.71	22.32	0.45
4.333	0.80	10.333	2.16	16.333	0.71	22.33	0.45
4.350	0.83	10.350	2.03	16.350	0.70	22.35	0.45
4.367	0.83	10.367	2.03	16.367	0.70	22.37	0.45
4.383	0.83	10.383	2.03	16.383	0.70	22.38	0.45
4.400	0.83	10.400	2.03	16.400	0.70	22.40	0.45
4.417	0.83	10.417	2.03	16.417	0.70	22.42	0.45
4.433	0.83	10.433	2.03	16.433	0.70	22.43	0.45
4.450	0.83	10.450	2.03	16.450	0.70	22.45	0.45
4.467	0.83	10.467	2.03	16.467	0.70	22.47	0.45
4.483	0.83	10.483	2.03	16.483	0.70	22.48	0.45
4.500	0.83	10.500	2.03	16.500	0.70	22.50	0.45
4.517	0.87	10.517	1.92	16.517	0.69	22.52	0.44
4.533	0.87	10.533	1.92	16.533	0.69	22.53	0.44
4.550	0.87	10.550	1.92	16.550	0.69	22.55	0.44
4.567	0.87	10.567	1.92	16.567	0.69	22.57	0.44
4.583	0.87	10.583	1.92	16.583	0.69	22.58	0.44
4.600	0.87	10.600	1.92	16.600	0.69	22.60	0.44
4.617	0.87	10.617	1.92	16.617	0.69	22.62	0.44
4.633	0.87	10.633	1.92	16.633	0.69	22.63	0.44
4.650	0.87	10.650	1.92	16.650	0.69	22.65	0.44

4.667	0.87	10.667	1.92	16.667	0.69	22.67	0.44
4.683	0.91	10.683	1.82	16.683	0.68	22.68	0.44
4.700	0.91	10.700	1.82	16.700	0.68	22.70	0.44
4.717	0.91	10.717	1.82	16.717	0.68	22.72	0.44
4.733	0.91	10.733	1.82	16.733	0.68	22.73	0.44
4.750	0.91	10.750	1.82	16.750	0.68	22.75	0.44
4.767	0.91	10.767	1.82	16.767	0.68	22.77	0.44
4.783	0.91	10.783	1.82	16.783	0.68	22.78	0.44
4.800	0.91	10.800	1.82	16.800	0.68	22.80	0.44
4.817	0.91	10.817	1.82	16.817	0.68	22.82	0.44
4.833	0.91	10.833	1.82	16.833	0.68	22.83	0.44
4.850	0.95	10.850	1.73	16.850	0.67	22.85	0.44
4.867	0.95	10.867	1.73	16.867	0.67	22.87	0.44
4.883	0.95	10.883	1.73	16.883	0.67	22.88	0.44
4.900	0.95	10.900	1.73	16.900	0.67	22.90	0.44
4.917	0.95	10.917	1.73	16.917	0.67	22.92	0.44
4.933	0.95	10.933	1.73	16.933	0.67	22.93	0.44
4.950	0.95	10.950	1.73	16.950	0.67	22.95	0.44
4.967	0.95	10.967	1.73	16.967	0.67	22.97	0.44
4.983	0.95	10.983	1.73	16.983	0.67	22.98	0.44
5.000	0.95	11.000	1.73	17.000	0.67	23.00	0.44
5.017	1.00	11.017	1.65	17.017	0.66	23.02	0.43
5.033	1.00	11.033	1.65	17.033	0.66	23.03	0.43
5.050	1.00	11.050	1.65	17.050	0.66	23.05	0.43
5.067	1.00	11.067	1.65	17.067	0.66	23.07	0.43
5.083	1.00	11.083	1.65	17.083	0.66	23.08	0.43
5.100	1.00	11.100	1.65	17.100	0.66	23.10	0.43
5.117	1.00	11.117	1.65	17.117	0.66	23.12	0.43
5.133	1.00	11.133	1.65	17.133	0.66	23.13	0.43
5.150	1.00	11.150	1.65	17.150	0.66	23.15	0.43
5.167	1.00	11.167	1.64	17.167	0.66	23.17	0.43
5.183	1.06	11.183	1.57	17.183	0.65	23.18	0.43
5.200	1.06	11.200	1.57	17.200	0.65	23.20	0.43
5.217	1.06	11.217	1.57	17.217	0.65	23.22	0.43
5.233	1.06	11.233	1.57	17.233	0.65	23.23	0.43
5.250	1.06	11.250	1.57	17.250	0.65	23.25	0.43
5.267	1.06	11.267	1.57	17.267	0.65	23.27	0.43
5.283	1.06	11.283	1.57	17.283	0.65	23.28	0.43
5.300	1.06	11.300	1.57	17.300	0.65	23.30	0.43
5.317	1.06	11.317	1.57	17.317	0.65	23.32	0.43
5.333	1.06	11.333	1.57	17.333	0.65	23.33	0.43
5.350	1.12	11.350	1.51	17.350	0.64	23.35	0.42
5.367	1.12	11.367	1.51	17.367	0.64	23.37	0.42
5.383	1.12	11.383	1.51	17.383	0.64	23.38	0.42
5.400	1.12	11.400	1.51	17.400	0.64	23.40	0.42
5.417	1.12	11.417	1.51	17.417	0.64	23.42	0.42
5.433	1.12	11.433	1.51	17.433	0.64	23.43	0.42
5.450	1.12	11.450	1.51	17.450	0.64	23.45	0.42
5.467	1.12	11.467	1.51	17.467	0.64	23.47	0.42
5.483	1.12	11.483	1.51	17.483	0.64	23.48	0.42
5.500	1.12	11.500	1.51	17.500	0.64	23.50	0.42
5.517	1.19	11.517	1.45	17.517	0.63	23.52	0.42

5.533	1.19	11.533	1.45	17.533	0.63	23.53	0.42
5.550	1.19	11.550	1.45	17.550	0.63	23.55	0.42
5.567	1.19	11.567	1.45	17.567	0.63	23.57	0.42
5.583	1.19	11.583	1.45	17.583	0.63	23.58	0.42
5.600	1.19	11.600	1.45	17.600	0.63	23.60	0.42
5.617	1.19	11.617	1.45	17.617	0.63	23.62	0.42
5.633	1.19	11.633	1.45	17.633	0.63	23.63	0.42
5.650	1.19	11.650	1.45	17.650	0.63	23.65	0.42
5.667	1.19	11.667	1.45	17.667	0.63	23.67	0.42
5.683	1.27	11.683	1.39	17.683	0.62	23.68	0.42
5.700	1.27	11.700	1.39	17.700	0.62	23.70	0.42
5.717	1.27	11.717	1.39	17.717	0.62	23.72	0.42
5.733	1.27	11.733	1.39	17.733	0.62	23.73	0.42
5.750	1.27	11.750	1.39	17.750	0.62	23.75	0.42
5.767	1.27	11.767	1.39	17.767	0.62	23.77	0.42
5.783	1.27	11.783	1.39	17.783	0.62	23.78	0.42
5.800	1.27	11.800	1.39	17.800	0.62	23.80	0.42
5.817	1.27	11.817	1.39	17.817	0.62	23.82	0.42
5.833	1.27	11.833	1.39	17.833	0.62	23.83	0.42
5.850	1.36	11.850	1.34	17.850	0.61	23.85	0.41
5.867	1.36	11.867	1.34	17.867	0.61	23.87	0.41
5.883	1.36	11.883	1.34	17.883	0.61	23.88	0.41
5.900	1.36	11.900	1.34	17.900	0.61	23.90	0.41
5.917	1.36	11.917	1.34	17.917	0.61	23.92	0.41
5.933	1.36	11.933	1.34	17.933	0.61	23.93	0.41
5.950	1.36	11.950	1.34	17.950	0.61	23.95	0.41
5.967	1.36	11.967	1.34	17.967	0.61	23.97	0.41
5.983	1.36	11.983	1.34	17.983	0.61	23.98	0.41
6.000	1.36	12.000	1.34	18.000	0.61	24.00	0.41

Max.Eff.Inten.(mm/hr)=	84.13	6.96	
over (min)	5.00	25.00	
Storage Coeff. (min)=	3.64 (ii)	24.14 (ii)	
Unit Hyd. Tpeak (min)=	5.00	25.00	
Unit Hyd. peak (cms)=	0.28	0.05	
			TOTALS
PEAK FLOW (cms)=	0.11	0.01	0.110 (iii)
TIME TO PEAK (hrs)=	8.02	8.40	8.02
RUNOFF VOLUME (mm)=	52.26	7.62	19.22
TOTAL RAINFALL (mm)=	53.26	53.26	53.26
RUNOFF COEFFICIENT =	0.98	0.14	0.36

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 48.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

DUHYD (0037)

Inlet Cap.= 0.108
#of Inlets= 1

Total(cms)= 0.1	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
TOTAL HYD.(ID= 1):	1.95	0.11	8.02	19.22
MAJOR SYS.(ID= 2):	0.00	0.00	8.02	19.22
MINOR SYS.(ID= 3):	1.94	0.11	8.00	19.22

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

Junction Command(0038)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 9(0037)	1.94	0.11	8.00	19.22
OUTFLOW: ID= 2(0038)	1.94	0.11	8.00	19.22

CALIB	
NASHYD (0104)	Area (ha)= 0.77 Curve Number (CN)= 53.0
ID= 1 DT= 5.0 min	Ia (mm)= 5.00 # of Linear Res.(N)= 3.00
	U.H. Tp(hrs)= 0.34

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	0.42	6.083	1.47	12.083	1.29	18.08	0.60
0.167	0.42	6.167	1.47	12.167	1.29	18.17	0.60
0.250	0.43	6.250	1.61	12.250	1.25	18.25	0.59
0.333	0.43	6.333	1.61	12.333	1.25	18.33	0.59
0.417	0.44	6.417	1.77	12.417	1.21	18.42	0.59
0.500	0.44	6.500	1.77	12.500	1.21	18.50	0.59
0.583	0.44	6.583	1.97	12.583	1.17	18.58	0.58
0.667	0.44	6.667	1.97	12.667	1.17	18.67	0.58
0.750	0.45	6.750	2.23	12.750	1.14	18.75	0.57
0.833	0.45	6.833	2.23	12.833	1.14	18.83	0.57
0.917	0.46	6.917	2.59	12.917	1.10	18.92	0.56
1.000	0.46	7.000	2.59	13.000	1.10	19.00	0.56
1.083	0.47	7.083	3.09	13.083	1.07	19.08	0.56
1.167	0.47	7.167	3.09	13.167	1.07	19.17	0.56
1.250	0.48	7.250	3.86	13.250	1.04	19.25	0.55
1.333	0.48	7.333	3.86	13.333	1.04	19.33	0.55
1.417	0.49	7.417	5.21	13.417	1.02	19.42	0.54
1.500	0.49	7.500	5.21	13.500	1.02	19.50	0.54
1.583	0.50	7.583	8.22	13.583	0.99	19.58	0.54
1.667	0.50	7.667	8.23	13.667	0.99	19.67	0.54
1.750	0.51	7.750	20.77	13.750	0.97	19.75	0.53
1.833	0.51	7.833	20.77	13.833	0.97	19.83	0.53
1.917	0.53	7.917	84.13	13.917	0.94	19.92	0.52
2.000	0.53	8.000	84.13	14.000	0.94	20.00	0.52
2.083	0.54	8.083	27.50	14.083	0.92	20.08	0.52
2.167	0.54	8.167	27.50	14.167	0.92	20.17	0.52
2.250	0.55	8.250	14.07	14.250	0.90	20.25	0.51
2.333	0.55	8.333	14.07	14.333	0.90	20.33	0.51
2.417	0.57	8.417	9.40	14.417	0.88	20.42	0.51
2.500	0.57	8.500	9.40	14.500	0.88	20.50	0.51
2.583	0.58	8.583	7.07	14.583	0.86	20.58	0.50
2.667	0.58	8.667	7.07	14.667	0.86	20.67	0.50
2.750	0.60	8.750	5.68	14.750	0.84	20.75	0.50
2.833	0.60	8.833	5.68	14.833	0.84	20.83	0.50
2.917	0.61	8.917	4.76	14.917	0.83	20.92	0.49
3.000	0.61	9.000	4.76	15.000	0.83	21.00	0.49
3.083	0.63	9.083	4.11	15.083	0.81	21.08	0.49
3.167	0.63	9.167	4.11	15.167	0.81	21.17	0.49
3.250	0.65	9.250	3.62	15.250	0.79	21.25	0.48
3.333	0.65	9.333	3.62	15.333	0.79	21.33	0.48
3.417	0.67	9.417	3.24	15.417	0.78	21.42	0.48
3.500	0.67	9.500	3.24	15.500	0.78	21.50	0.48
3.583	0.69	9.583	2.94	15.583	0.77	21.58	0.47
3.667	0.69	9.667	2.94	15.667	0.77	21.67	0.47
3.750	0.72	9.750	2.69	15.750	0.75	21.75	0.47
3.833	0.72	9.833	2.69	15.833	0.75	21.83	0.47
3.917	0.74	9.917	2.49	15.917	0.74	21.92	0.46
4.000	0.74	10.000	2.49	16.000	0.74	22.00	0.46
4.083	0.77	10.083	2.31	16.083	0.73	22.08	0.46
4.167	0.77	10.167	2.31	16.167	0.73	22.17	0.46
4.250	0.80	10.250	2.16	16.250	0.71	22.25	0.45
4.333	0.80	10.333	2.16	16.333	0.71	22.33	0.45
4.417	0.83	10.417	2.03	16.417	0.70	22.42	0.45
4.500	0.83	10.500	2.03	16.500	0.70	22.50	0.45
4.583	0.87	10.583	1.92	16.583	0.69	22.58	0.44
4.667	0.87	10.667	1.92	16.667	0.69	22.67	0.44
4.750	0.91	10.750	1.82	16.750	0.68	22.75	0.44
4.833	0.91	10.833	1.82	16.833	0.68	22.83	0.44
4.917	0.95	10.917	1.73	16.917	0.67	22.92	0.44
5.000	0.95	11.000	1.73	17.000	0.67	23.00	0.44
5.083	1.00	11.083	1.65	17.083	0.66	23.08	0.43
5.167	1.00	11.167	1.65	17.167	0.66	23.17	0.43
5.250	1.06	11.250	1.57	17.250	0.65	23.25	0.43
5.333	1.06	11.333	1.57	17.333	0.65	23.33	0.43
5.417	1.12	11.417	1.51	17.417	0.64	23.42	0.42
5.500	1.12	11.500	1.51	17.500	0.64	23.50	0.42
5.583	1.19	11.583	1.45	17.583	0.63	23.58	0.42
5.667	1.19	11.667	1.45	17.667	0.63	23.67	0.42
5.750	1.27	11.750	1.39	17.750	0.62	23.75	0.42

5.833	1.27	11.833	1.39	17.833	0.62	23.83	0.42
5.917	1.36	11.917	1.34	17.917	0.61	23.92	0.41
6.000	1.36	12.000	1.34	18.000	0.61	24.00	0.41

Unit Hyd Qpeak (cms)= 0.086

PEAK FLOW (cms)=	0.009 (i)
TIME TO PEAK (hrs)=	8.333
RUNOFF VOLUME (mm)=	8.513
TOTAL RAINFALL (mm)=	53.260
RUNOFF COEFFICIENT =	0.160

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

CALIB	
STANDHYD (0103)	Area (ha)= 1.17
ID= 1 DT= 1.0 min	Total Imp(%)= 24.00 Dir. Conn.(%)= 20.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.28	0.89
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.50	2.00
Length (m)=	88.20	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 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
0.017	0.42	6.017	1.47	12.017	1.29	18.02	0.60
0.033	0.42	6.033	1.47	12.033	1.29	18.03	0.60
0.050	0.42	6.050	1.47	12.050	1.29	18.05	0.60
0.067	0.42	6.067	1.47	12.067	1.29	18.07	0.60
0.083	0.42	6.083	1.47	12.083	1.29	18.08	0.60
0.100	0.42	6.100	1.47	12.100	1.29	18.10	0.60
0.117	0.42	6.117	1.47	12.117	1.29	18.12	0.60
0.133	0.42	6.133	1.47	12.133	1.29	18.13	0.60
0.150	0.42	6.150	1.47	12.150	1.29	18.15	0.60
0.167	0.42	6.167	1.47	12.167	1.29	18.17	0.60
0.183	0.43	6.183	1.61	12.183	1.25	18.18	0.59
0.200	0.43	6.200	1.61	12.200	1.25	18.20	0.59
0.217	0.43	6.217	1.61	12.217	1.25	18.22	0.59
0.233	0.43	6.233	1.61	12.233	1.25	18.23	0.59
0.250	0.43	6.250	1.61	12.250	1.25	18.25	0.59
0.267	0.43	6.267	1.61	12.267	1.25	18.27	0.59
0.283	0.43	6.283	1.61	12.283	1.25	18.28	0.59
0.300	0.43	6.300	1.61	12.300	1.25	18.30	0.59
0.317	0.43	6.317	1.61	12.317	1.25	18.32	0.59
0.333	0.43	6.333	1.61	12.333	1.25	18.33	0.59
0.350	0.44	6.350	1.77	12.350	1.21	18.35	0.59
0.367	0.44	6.367	1.77	12.367	1.21	18.37	0.59
0.383	0.44	6.383	1.77	12.383	1.21	18.38	0.59
0.400	0.44	6.400	1.77	12.400	1.21	18.40	0.59
0.417	0.44	6.417	1.77	12.417	1.21	18.42	0.59
0.433	0.44	6.433	1.77	12.433	1.21	18.43	0.59
0.450	0.44	6.450	1.77	12.450	1.21	18.45	0.59
0.467	0.44	6.467	1.77	12.467	1.21	18.47	0.59
0.483	0.44	6.483	1.77	12.483	1.21	18.48	0.59
0.500	0.44	6.500	1.77	12.500	1.21	18.50	0.59
0.517	0.44	6.517	1.97	12.517	1.17	18.52	0.58
0.533	0.44	6.533	1.97	12.533	1.17	18.53	0.58
0.550	0.44	6.550	1.97	12.550	1.17	18.55	0.58
0.567	0.44	6.567	1.97	12.567	1.17	18.57	0.58
0.583	0.44	6.583	1.97	12.583	1.17	18.58	0.58
0.600	0.44	6.600	1.97	12.600	1.17	18.60	0.58
0.617	0.44	6.617	1.97	12.617	1.17	18.62	0.58
0.633	0.44	6.633	1.97	12.633	1.17	18.63	0.58
0.650	0.44	6.650	1.97	12.650	1.17	18.65	0.58
0.667	0.44	6.667	1.97	12.667	1.17	18.67	0.58
0.683	0.45	6.683	2.23	12.683	1.14	18.68	0.57
0.700	0.45	6.700	2.23	12.700	1.14	18.70	0.57
0.717	0.45	6.717	2.23	12.717	1.14	18.72	0.57
0.733	0.45	6.733	2.23	12.733	1.14	18.73	0.57
0.750	0.45	6.750	2.23	12.750	1.14	18.75	0.57
0.767	0.45	6.767	2.23	12.767	1.14	18.77	0.57
0.783	0.45	6.783	2.23	12.783	1.14	18.78	0.57
0.800	0.45	6.800	2.23	12.800	1.14	18.80	0.57
0.817	0.45	6.817	2.23	12.817	1.14	18.82	0.57
0.833	0.45	6.833	2.23	12.833	1.14	18.83	0.57
0.850	0.46	6.850	2.59	12.850	1.10	18.85	0.56
0.867	0.46	6.867	2.59	12.867	1.10	18.87	0.56
0.883	0.46	6.883	2.59	12.883	1.10	18.88	0.56
0.900	0.46	6.900	2.59	12.900	1.10	18.90	0.56
0.917	0.46	6.917	2.59	12.917	1.10	18.92	0.56
0.933	0.46	6.933	2.59	12.933	1.10	18.93	0.56
0.950	0.46	6.950	2.59	12.950	1.10	18.95	0.56
0.967	0.46	6.967	2.59	12.967	1.10	18.97	0.56
0.983	0.46	6.983	2.59	12.983	1.10	18.98	0.56
1.000	0.46	7.000	2.59	13.000	1.10	19.00	0.56
1.017	0.47	7.017	3.09	13.017	1.07	19.02	0.56
1.033	0.47	7.033	3.09	13.033	1.07	19.03	0.56
1.050	0.47	7.050	3.09	13.050	1.07	19.05	0.56
1.067	0.47	7.067	3.09	13.067	1.07	19.07	0.56
1.083	0.47	7.083	3.09	13.083	1.07	19.08	0.56
1.100	0.47	7.100	3.09	13.100	1.07	19.10	0.56
1.117	0.47	7.117	3.09	13.117	1.07	19.12	0.56
1.133	0.47	7.133	3.09	13.133	1.07	19.13	0.56
1.150	0.47	7.150	3.09	13.150	1.07	19.15	0.56
1.167	0.47	7.167	3.09	13.167	1.07	19.17	0.56
1.183	0.48	7.183	3.86	13.183	1.04	19.18	0.55
1.200	0.48	7.200	3.86	13.200	1.04	19.20	0.55
1.217	0.48	7.217	3.86	13.217	1.04	19.22	0.55
1.233	0.48	7.233	3.86	13.233	1.04	19.23	0.55
1.250	0.48	7.250	3.86	13.250	1.04	19.25	0.55
1.267	0.48	7.267	3.86	13.267	1.04	19.27	0.55
1.283	0.48	7.283	3.86	13.283	1.04	19.28	0.55
1.300	0.48	7.300	3.86	13.300	1.04	19.30	0.55
1.317	0.48	7.317	3.86	13.317	1.04	19.32	0.55
1.333	0.48	7.333	3.86	13.333	1.04	19.33	0.55
1.350	0.49	7.350	5.21	13.350	1.02	19.35	0.54
1.367	0.49	7.367	5.21	13.367	1.02	19.37	0.54
1.383	0.49	7.383	5.21	13.383	1.02	19.38	0.54
1.400	0.49	7.400	5.21	13.400	1.02	19.40	0.54
1.417	0.49	7.417	5.21	13.417	1.02	19.42	0.54
1.433	0.49	7.433	5.21	13.433	1.02	19.43	0.54
1.450	0.49	7.450	5.21	13.450	1.02	19.45	0.54
1.467	0.49	7.467	5.21	13.467	1.02	19.47	0.54
1.483	0.49	7.483	5.21	13.483	1.02	19.48	0.54
1.500	0.49	7.500	5.22	13.500	1.02	19.50	0.54
1.517	0.50	7.517	8.22	13.517	0.99	19.52	0.54
1.533	0.50	7.533	8.22	13.533	0.99	19.53	0.54
1.550	0.50	7.550	8.22	13.550	0.99	19.55	0.54
1.567	0.50	7.567	8.22	13.567	0.99	19.57	0.54
1.583	0.50	7.583	8.22	13.583	0.99	19.58	0.54
1.600	0.50	7.600	8.22	13.600	0.99	19.60	0.54
1.617	0.50	7.617	8.22	13.617	0.99	19.62	0.54
1.633	0.50	7.633	8.22	13.633	0.99	19.63	0.54
1.650	0.50	7.650	8.22	13.650	0.99	19.65	0.54
1.667	0.50	7.667	8.26	13.667	0.99	19.67	0.54
1.683	0.51	7.683	20.77	13.683	0.97	19.68	0.53
1.700	0.51	7.700	20.77	13.700	0.97	19.70	0.53
1.717	0.51	7.717	20.77	13.717	0.97	19.72	0.53
1.733	0.51	7.733	20.77	13.733	0.97	19.73	0.53
1.750	0.51	7.750	20.77	13.750	0.97	19.75	0.53
1.767	0.51	7.767	20.77	13.767	0.97	19.77	0.53
1.783	0.51	7.783	20.77	13.783	0.97	19.78	0.53
1.800	0.51	7.800	20.77	13.800	0.97	19.80	0.53
1.817	0.51	7.817	20.77	13.817	0.97	19.82	0.53
1.833	0.51	7.833	20.95	13.833	0.97	19.83	0.53
1.850	0.53	7.850	84.13	13.850	0.94	19.85	0.52
1.867	0.53	7.867	84.13	13.867	0.94	19.87	0.52
1.883	0.53	7.883	84.13	13.883	0.94	19.88	0.52
1.900	0.53	7.900	84.13	13.900	0.94	19.90	0.52
1.917	0.53	7.917	84.13	13.917	0.94	19.92	0.52
1.933	0.53	7.933	84.13	13.933	0.94	19.93	0.52
1.950	0.53	7.950	84.13	13.950	0.94	19.95	0.52
1.967	0.53	7.967	84.13	13.967	0.94	19.97	0.52
1.983	0.53	7.983	84.13	13.983	0.94	19.98	0.52
2.000	0.53	8.000	83.96	14.000	0.94	20.00	0.52
2.017	0.54	8.017	27.50	14.017	0.92	20.02	0.52
2.033	0.54	8.033	27.50	14.033	0.92	20.03	0.52
2.050	0.54	8.050	27.50	14.050	0.92	20.05	0.52

2.067	0.54	8.067	27.50	14.067	0.92	20.07	0.52
2.083	0.54	8.083	27.50	14.083	0.92	20.08	0.52
2.100	0.54	8.100	27.50	14.100	0.92	20.10	0.52
2.117	0.54	8.117	27.50	14.117	0.92	20.12	0.52
2.133	0.54	8.133	27.50	14.133	0.92	20.13	0.52
2.150	0.54	8.150	27.50	14.150	0.92	20.15	0.52
2.167	0.54	8.167	27.46	14.167	0.92	20.17	0.52
2.183	0.55	8.183	14.07	14.183	0.90	20.18	0.51
2.200	0.55	8.200	14.07	14.200	0.90	20.20	0.51
2.217	0.55	8.217	14.07	14.217	0.90	20.22	0.51
2.233	0.55	8.233	14.07	14.233	0.90	20.23	0.51
2.250	0.55	8.250	14.07	14.250	0.90	20.25	0.51
2.267	0.55	8.267	14.07	14.267	0.90	20.27	0.51
2.283	0.55	8.283	14.07	14.283	0.90	20.28	0.51
2.300	0.55	8.300	14.07	14.300	0.90	20.30	0.51
2.317	0.55	8.317	14.07	14.317	0.90	20.32	0.51
2.333	0.55	8.333	14.06	14.333	0.90	20.33	0.51
2.350	0.57	8.350	9.40	14.350	0.88	20.35	0.51
2.367	0.57	8.367	9.40	14.367	0.88	20.37	0.51
2.383	0.57	8.383	9.40	14.383	0.88	20.38	0.51
2.400	0.57	8.400	9.40	14.400	0.88	20.40	0.51
2.417	0.57	8.417	9.40	14.417	0.88	20.42	0.51
2.433	0.57	8.433	9.40	14.433	0.88	20.43	0.51
2.450	0.57	8.450	9.40	14.450	0.88	20.45	0.51
2.467	0.57	8.467	9.40	14.467	0.88	20.47	0.51
2.483	0.57	8.483	9.40	14.483	0.88	20.48	0.51
2.500	0.57	8.500	9.39	14.500	0.88	20.50	0.51
2.517	0.58	8.517	7.07	14.517	0.86	20.52	0.50
2.533	0.58	8.533	7.07	14.533	0.86	20.53	0.50
2.550	0.58	8.550	7.07	14.550	0.86	20.55	0.50
2.567	0.58	8.567	7.07	14.567	0.86	20.57	0.50
2.583	0.58	8.583	7.07	14.583	0.86	20.58	0.50
2.600	0.58	8.600	7.07	14.600	0.86	20.60	0.50
2.617	0.58	8.617	7.07	14.617	0.86	20.62	0.50
2.633	0.58	8.633	7.07	14.633	0.86	20.63	0.50
2.650	0.58	8.650	7.07	14.650	0.86	20.65	0.50
2.667	0.58	8.667	7.07	14.667	0.86	20.67	0.50
2.683	0.60	8.683	5.68	14.683	0.84	20.68	0.50
2.700	0.60	8.700	5.68	14.700	0.84	20.70	0.50
2.717	0.60	8.717	5.68	14.717	0.84	20.72	0.50
2.733	0.60	8.733	5.68	14.733	0.84	20.73	0.50
2.750	0.60	8.750	5.68	14.750	0.84	20.75	0.50
2.767	0.60	8.767	5.68	14.767	0.84	20.77	0.50
2.783	0.60	8.783	5.68	14.783	0.84	20.78	0.50
2.800	0.60	8.800	5.68	14.800	0.84	20.80	0.50
2.817	0.60	8.817	5.68	14.817	0.84	20.82	0.50
2.833	0.60	8.833	5.68	14.833	0.84	20.83	0.50
2.850	0.61	8.850	4.76	14.850	0.83	20.85	0.49
2.867	0.61	8.867	4.76	14.867	0.83	20.87	0.49
2.883	0.61	8.883	4.76	14.883	0.83	20.88	0.49
2.900	0.61	8.900	4.76	14.900	0.83	20.90	0.49
2.917	0.61	8.917	4.76	14.917	0.83	20.92	0.49

2.933	0.61	8.933	4.76	14.933	0.83	20.93	0.49
2.950	0.61	8.950	4.76	14.950	0.83	20.95	0.49
2.967	0.61	8.967	4.76	14.967	0.83	20.97	0.49
2.983	0.61	8.983	4.76	14.983	0.83	20.98	0.49
3.000	0.61	9.000	4.76	15.000	0.83	21.00	0.49
3.017	0.63	9.017	4.11	15.017	0.81	21.02	0.49
3.033	0.63	9.033	4.11	15.033	0.81	21.03	0.49
3.050	0.63	9.050	4.11	15.050	0.81	21.05	0.49
3.067	0.63	9.067	4.11	15.067	0.81	21.07	0.49
3.083	0.63	9.083	4.11	15.083	0.81	21.08	0.49
3.100	0.63	9.100	4.11	15.100	0.81	21.10	0.49
3.117	0.63	9.117	4.11	15.117	0.81	21.12	0.49
3.133	0.63	9.133	4.11	15.133	0.81	21.13	0.49
3.150	0.63	9.150	4.11	15.150	0.81	21.15	0.49
3.167	0.63	9.167	4.11	15.167	0.81	21.17	0.49
3.183	0.65	9.183	3.62	15.183	0.79	21.18	0.48
3.200	0.65	9.200	3.62	15.200	0.79	21.20	0.48
3.217	0.65	9.217	3.62	15.217	0.79	21.22	0.48
3.233	0.65	9.233	3.62	15.233	0.79	21.23	0.48
3.250	0.65	9.250	3.62	15.250	0.79	21.25	0.48
3.267	0.65	9.267	3.62	15.267	0.79	21.27	0.48
3.283	0.65	9.283	3.62	15.283	0.79	21.28	0.48
3.300	0.65	9.300	3.62	15.300	0.79	21.30	0.48
3.317	0.65	9.317	3.62	15.317	0.79	21.32	0.48
3.333	0.65	9.333	3.62	15.333	0.79	21.33	0.48
3.350	0.67	9.350	3.24	15.350	0.78	21.35	0.48
3.367	0.67	9.367	3.24	15.367	0.78	21.37	0.48
3.383	0.67	9.383	3.24	15.383	0.78	21.38	0.48
3.400	0.67	9.400	3.24	15.400	0.78	21.40	0.48
3.417	0.67	9.417	3.24	15.417	0.78	21.42	0.48
3.433	0.67	9.433	3.24	15.433	0.78	21.43	0.48
3.450	0.67	9.450	3.24	15.450	0.78	21.45	0.48
3.467	0.67	9.467	3.24	15.467	0.78	21.47	0.48
3.483	0.67	9.483	3.24	15.483	0.78	21.48	0.48
3.500	0.67	9.500	3.24	15.500	0.78	21.50	0.48
3.517	0.69	9.517	2.94	15.517	0.77	21.52	0.47
3.533	0.69	9.533	2.94	15.533	0.77	21.53	0.47
3.550	0.69	9.550	2.94	15.550	0.77	21.55	0.47
3.567	0.69	9.567	2.94	15.567	0.77	21.57	0.47
3.583	0.69	9.583	2.94	15.583	0.77	21.58	0.47
3.600	0.69	9.600	2.94	15.600	0.77	21.60	0.47
3.617	0.69	9.617	2.94	15.617	0.77	21.62	0.47
3.633	0.69	9.633	2.94	15.633	0.77	21.63	0.47
3.650	0.69	9.650	2.94	15.650	0.77	21.65	0.47
3.667	0.69	9.667	2.94	15.667	0.77	21.67	0.47
3.683	0.72	9.683	2.69	15.683	0.75	21.68	0.47
3.700	0.72	9.700	2.69	15.700	0.75	21.70	0.47
3.717	0.72	9.717	2.69	15.717	0.75	21.72	0.47
3.733	0.72	9.733	2.69	15.733	0.75	21.73	0.47
3.750	0.72	9.750	2.69	15.750	0.75	21.75	0.47
3.767	0.72	9.767	2.69	15.767	0.75	21.77	0.47
3.783	0.72	9.783	2.69	15.783	0.75	21.78	0.47

3.800	0.72	9.800	2.69	15.800	0.75	21.80	0.47
3.817	0.72	9.817	2.69	15.817	0.75	21.82	0.47
3.833	0.72	9.833	2.69	15.833	0.75	21.83	0.47
3.850	0.74	9.850	2.49	15.850	0.74	21.85	0.46
3.867	0.74	9.867	2.49	15.867	0.74	21.87	0.46
3.883	0.74	9.883	2.49	15.883	0.74	21.88	0.46
3.900	0.74	9.900	2.49	15.900	0.74	21.90	0.46
3.917	0.74	9.917	2.49	15.917	0.74	21.92	0.46
3.933	0.74	9.933	2.49	15.933	0.74	21.93	0.46
3.950	0.74	9.950	2.49	15.950	0.74	21.95	0.46
3.967	0.74	9.967	2.49	15.967	0.74	21.97	0.46
3.983	0.74	9.983	2.49	15.983	0.74	21.98	0.46
4.000	0.74	10.000	2.49	16.000	0.74	22.00	0.46
4.017	0.77	10.017	2.31	16.017	0.73	22.02	0.46
4.033	0.77	10.033	2.31	16.033	0.73	22.03	0.46
4.050	0.77	10.050	2.31	16.050	0.73	22.05	0.46
4.067	0.77	10.067	2.31	16.067	0.73	22.07	0.46
4.083	0.77	10.083	2.31	16.083	0.73	22.08	0.46
4.100	0.77	10.100	2.31	16.100	0.73	22.10	0.46
4.117	0.77	10.117	2.31	16.117	0.73	22.12	0.46
4.133	0.77	10.133	2.31	16.133	0.73	22.13	0.46
4.150	0.77	10.150	2.31	16.150	0.73	22.15	0.46
4.167	0.77	10.167	2.31	16.167	0.73	22.17	0.46
4.183	0.80	10.183	2.16	16.183	0.71	22.18	0.45
4.200	0.80	10.200	2.16	16.200	0.71	22.20	0.45
4.217	0.80	10.217	2.16	16.217	0.71	22.22	0.45
4.233	0.80	10.233	2.16	16.233	0.71	22.23	0.45
4.250	0.80	10.250	2.16	16.250	0.71	22.25	0.45
4.267	0.80	10.267	2.16	16.267	0.71	22.27	0.45
4.283	0.80	10.283	2.16	16.283	0.71	22.28	0.45
4.300	0.80	10.300	2.16	16.300	0.71	22.30	0.45
4.317	0.80	10.317	2.16	16.317	0.71	22.32	0.45
4.333	0.80	10.333	2.16	16.333	0.71	22.33	0.45
4.350	0.83	10.350	2.03	16.350	0.70	22.35	0.45
4.367	0.83	10.367	2.03	16.367	0.70	22.37	0.45
4.383	0.83	10.383	2.03	16.383	0.70	22.38	0.45
4.400	0.83	10.400	2.03	16.400	0.70	22.40	0.45
4.417	0.83	10.417	2.03	16.417	0.70	22.42	0.45
4.433	0.83	10.433	2.03	16.433	0.70	22.43	0.45
4.450	0.83	10.450	2.03	16.450	0.70	22.45	0.45
4.467	0.83	10.467	2.03	16.467	0.70	22.47	0.45
4.483	0.83	10.483	2.03	16.483	0.70	22.48	0.45
4.500	0.83	10.500	2.03	16.500	0.70	22.50	0.45
4.517	0.87	10.517	1.92	16.517	0.69	22.52	0.44
4.533	0.87	10.533	1.92	16.533	0.69	22.53	0.44
4.550	0.87	10.550	1.92	16.550	0.69	22.55	0.44
4.567	0.87	10.567	1.92	16.567	0.69	22.57	0.44
4.583	0.87	10.583	1.92	16.583	0.69	22.58	0.44
4.600	0.87	10.600	1.92	16.600	0.69	22.60	0.44
4.617	0.87	10.617	1.92	16.617	0.69	22.62	0.44
4.633	0.87	10.633	1.92	16.633	0.69	22.63	0.44
4.650	0.87	10.650	1.92	16.650	0.69	22.65	0.44

4.667	0.87	10.667	1.92	16.667	0.69	22.67	0.44
4.683	0.91	10.683	1.82	16.683	0.68	22.68	0.44
4.700	0.91	10.700	1.82	16.700	0.68	22.70	0.44
4.717	0.91	10.717	1.82	16.717	0.68	22.72	0.44
4.733	0.91	10.733	1.82	16.733	0.68	22.73	0.44
4.750	0.91	10.750	1.82	16.750	0.68	22.75	0.44
4.767	0.91	10.767	1.82	16.767	0.68	22.77	0.44
4.783	0.91	10.783	1.82	16.783	0.68	22.78	0.44
4.800	0.91	10.800	1.82	16.800	0.68	22.80	0.44
4.817	0.91	10.817	1.82	16.817	0.68	22.82	0.44
4.833	0.91	10.833	1.82	16.833	0.68	22.83	0.44
4.850	0.95	10.850	1.73	16.850	0.67	22.85	0.44
4.867	0.95	10.867	1.73	16.867	0.67	22.87	0.44
4.883	0.95	10.883	1.73	16.883	0.67	22.88	0.44
4.900	0.95	10.900	1.73	16.900	0.67	22.90	0.44
4.917	0.95	10.917	1.73	16.917	0.67	22.92	0.44
4.933	0.95	10.933	1.73	16.933	0.67	22.93	0.44
4.950	0.95	10.950	1.73	16.950	0.67	22.95	0.44
4.967	0.95	10.967	1.73	16.967	0.67	22.97	0.44
4.983	0.95	10.983	1.73	16.983	0.67	22.98	0.44
5.000	0.95	11.000	1.73	17.000	0.67	23.00	0.44
5.017	1.00	11.017	1.65	17.017	0.66	23.02	0.43
5.033	1.00	11.033	1.65	17.033	0.66	23.03	0.43
5.050	1.00	11.050	1.65	17.050	0.66	23.05	0.43
5.067	1.00	11.067	1.65	17.067	0.66	23.07	0.43
5.083	1.00	11.083	1.65	17.083	0.66	23.08	0.43
5.100	1.00	11.100	1.65	17.100	0.66	23.10	0.43
5.117	1.00	11.117	1.65	17.117	0.66	23.12	0.43
5.133	1.00	11.133	1.65	17.133	0.66	23.13	0.43
5.150	1.00	11.150	1.65	17.150	0.66	23.15	0.43
5.167	1.00	11.167	1.64	17.167	0.66	23.17	0.43
5.183	1.06	11.183	1.57	17.183	0.65	23.18	0.43
5.200	1.06	11.200	1.57	17.200	0.65	23.20	0.43
5.217	1.06	11.217	1.57	17.217	0.65	23.22	0.43
5.233	1.06	11.233	1.57	17.233	0.65	23.23	0.43
5.250	1.06	11.250	1.57	17.250	0.65	23.25	0.43
5.267	1.06	11.267	1.57	17.267	0.65	23.27	0.43
5.283	1.06	11.283	1.57	17.283	0.65	23.28	0.43
5.300	1.06	11.300	1.57	17.300	0.65	23.30	0.43
5.317	1.06	11.317	1.57	17.317	0.65	23.32	0.43
5.333	1.06	11.333	1.57	17.333	0.65	23.33	0.43
5.350	1.12	11.350	1.51	17.350	0.64	23.35	0.42
5.367	1.12	11.367	1.51	17.367	0.64	23.37	0.42
5.383	1.12	11.383	1.51	17.383	0.64	23.38	0.42
5.400	1.12	11.400	1.51	17.400	0.64	23.40	0.42
5.417	1.12	11.417	1.51	17.417	0.64	23.42	0.42
5.433	1.12	11.433	1.51	17.433	0.64	23.43	0.42
5.450	1.12	11.450	1.51	17.450	0.64	23.45	0.42
5.467	1.12	11.467	1.51	17.467	0.64	23.47	0.42
5.483	1.12	11.483	1.51	17.483	0.64	23.48	0.42
5.500	1.12	11.500	1.51	17.500	0.64	23.50	0.42
5.517	1.19	11.517	1.45	17.517	0.63	23.52	0.42

5.533	1.19	11.533	1.45	17.533	0.63	23.53	0.42
5.550	1.19	11.550	1.45	17.550	0.63	23.55	0.42
5.567	1.19	11.567	1.45	17.567	0.63	23.57	0.42
5.583	1.19	11.583	1.45	17.583	0.63	23.58	0.42
5.600	1.19	11.600	1.45	17.600	0.63	23.60	0.42
5.617	1.19	11.617	1.45	17.617	0.63	23.62	0.42
5.633	1.19	11.633	1.45	17.633	0.63	23.63	0.42
5.650	1.19	11.650	1.45	17.650	0.63	23.65	0.42
5.667	1.19	11.667	1.45	17.667	0.63	23.67	0.42
5.683	1.27	11.683	1.39	17.683	0.62	23.68	0.42
5.700	1.27	11.700	1.39	17.700	0.62	23.70	0.42
5.717	1.27	11.717	1.39	17.717	0.62	23.72	0.42
5.733	1.27	11.733	1.39	17.733	0.62	23.73	0.42
5.750	1.27	11.750	1.39	17.750	0.62	23.75	0.42
5.767	1.27	11.767	1.39	17.767	0.62	23.77	0.42
5.783	1.27	11.783	1.39	17.783	0.62	23.78	0.42
5.800	1.27	11.800	1.39	17.800	0.62	23.80	0.42
5.817	1.27	11.817	1.39	17.817	0.62	23.82	0.42
5.833	1.27	11.833	1.39	17.833	0.62	23.83	0.42
5.850	1.36	11.850	1.34	17.850	0.61	23.85	0.41
5.867	1.36	11.867	1.34	17.867	0.61	23.87	0.41
5.883	1.36	11.883	1.34	17.883	0.61	23.88	0.41
5.900	1.36	11.900	1.34	17.900	0.61	23.90	0.41
5.917	1.36	11.917	1.34	17.917	0.61	23.92	0.41
5.933	1.36	11.933	1.34	17.933	0.61	23.93	0.41
5.950	1.36	11.950	1.34	17.950	0.61	23.95	0.41
5.967	1.36	11.967	1.34	17.967	0.61	23.97	0.41
5.983	1.36	11.983	1.34	17.983	0.61	23.98	0.41
6.000	1.36	12.000	1.34	18.000	0.61	24.00	0.41

Max.Eff.Inten.(mm/hr)=	84.13	10.11	
over (min)	5.00	21.00	
Storage Coeff. (min)=	3.13 (ii)	20.78 (ii)	
Unit Hyd. Tpeak (min)=	5.00	21.00	
Unit Hyd. peak (cms)=	0.30	0.05	
			TOTALS
PEAK FLOW (cms)=	0.05	0.01	0.055 (iii)
TIME TO PEAK (hrs)=	8.00	8.33	8.02
RUNOFF VOLUME (mm)=	52.26	10.20	18.61
TOTAL RAINFALL (mm)=	53.26	53.26	53.26
RUNOFF COEFFICIENT =	0.98	0.19	0.35

***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
YOU SHOULD CONSIDER SPLITTING THE AREA.

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 57.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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| CALIB           |
| STANDHYD (  1011)|   Area    (ha)=  13.73
|ID= 1 DT= 1.0 min |   Total Imp(%)=  46.00   Dir. Conn.(%)=  39.00
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                          IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       6.32         7.42
     Dep. Storage     (mm)=       1.00         5.00
     Average Slope     (%)=       0.50         2.00
     Length            (m)=     302.59        40.00
     Mannings n           =      0.013        0.250

        NOTE:  RAINFALL WAS TRANSFORMED TO   1.0 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
 0.017    0.42 | 6.017    1.47 |12.017    1.29 | 18.02    0.60
 0.033    0.42 | 6.033    1.47 |12.033    1.29 | 18.03    0.60
 0.050    0.42 | 6.050    1.47 |12.050    1.29 | 18.05    0.60
 0.067    0.42 | 6.067    1.47 |12.067    1.29 | 18.07    0.60
 0.083    0.42 | 6.083    1.47 |12.083    1.29 | 18.08    0.60
 0.100    0.42 | 6.100    1.47 |12.100    1.29 | 18.10    0.60
 0.117    0.42 | 6.117    1.47 |12.117    1.29 | 18.12    0.60
 0.133    0.42 | 6.133    1.47 |12.133    1.29 | 18.13    0.60
 0.150    0.42 | 6.150    1.47 |12.150    1.29 | 18.15    0.60
 0.167    0.42 | 6.167    1.47 |12.167    1.29 | 18.17    0.60
 0.183    0.43 | 6.183    1.61 |12.183    1.25 | 18.18    0.59
 0.200    0.43 | 6.200    1.61 |12.200    1.25 | 18.20    0.59
 0.217    0.43 | 6.217    1.61 |12.217    1.25 | 18.22    0.59
 0.233    0.43 | 6.233    1.61 |12.233    1.25 | 18.23    0.59
 0.250    0.43 | 6.250    1.61 |12.250    1.25 | 18.25    0.59
 0.267    0.43 | 6.267    1.61 |12.267    1.25 | 18.27    0.59
 0.283    0.43 | 6.283    1.61 |12.283    1.25 | 18.28    0.59
 0.300    0.43 | 6.300    1.61 |12.300    1.25 | 18.30    0.59
 0.317    0.43 | 6.317    1.61 |12.317    1.25 | 18.32    0.59
 0.333    0.43 | 6.333    1.61 |12.333    1.25 | 18.33    0.59
 0.350    0.44 | 6.350    1.77 |12.350    1.21 | 18.35    0.59
 0.367    0.44 | 6.367    1.77 |12.367    1.21 | 18.37    0.59
 0.383    0.44 | 6.383    1.77 |12.383    1.21 | 18.38    0.59
 0.400    0.44 | 6.400    1.77 |12.400    1.21 | 18.40    0.59
 0.417    0.44 | 6.417    1.77 |12.417    1.21 | 18.42    0.59
 0.433    0.44 | 6.433    1.77 |12.433    1.21 | 18.43    0.59
 0.450    0.44 | 6.450    1.77 |12.450    1.21 | 18.45    0.59
 0.467    0.44 | 6.467    1.77 |12.467    1.21 | 18.47    0.59
 0.483    0.44 | 6.483    1.77 |12.483    1.21 | 18.48    0.59
 0.500    0.44 | 6.500    1.77 |12.500    1.21 | 18.50    0.59
 0.517    0.44 | 6.517    1.97 |12.517    1.17 | 18.52    0.58
 0.533    0.44 | 6.533    1.97 |12.533    1.17 | 18.53    0.58
 0.550    0.44 | 6.550    1.97 |12.550    1.17 | 18.55    0.58
 0.567    0.44 | 6.567    1.97 |12.567    1.17 | 18.57    0.58
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0.583	0.44	6.583	1.97	12.583	1.17	18.58	0.58
0.600	0.44	6.600	1.97	12.600	1.17	18.60	0.58
0.617	0.44	6.617	1.97	12.617	1.17	18.62	0.58
0.633	0.44	6.633	1.97	12.633	1.17	18.63	0.58
0.650	0.44	6.650	1.97	12.650	1.17	18.65	0.58
0.667	0.44	6.667	1.97	12.667	1.17	18.67	0.58
0.683	0.45	6.683	2.23	12.683	1.14	18.68	0.57
0.700	0.45	6.700	2.23	12.700	1.14	18.70	0.57
0.717	0.45	6.717	2.23	12.717	1.14	18.72	0.57
0.733	0.45	6.733	2.23	12.733	1.14	18.73	0.57
0.750	0.45	6.750	2.23	12.750	1.14	18.75	0.57
0.767	0.45	6.767	2.23	12.767	1.14	18.77	0.57
0.783	0.45	6.783	2.23	12.783	1.14	18.78	0.57
0.800	0.45	6.800	2.23	12.800	1.14	18.80	0.57
0.817	0.45	6.817	2.23	12.817	1.14	18.82	0.57
0.833	0.45	6.833	2.23	12.833	1.14	18.83	0.57
0.850	0.46	6.850	2.59	12.850	1.10	18.85	0.56
0.867	0.46	6.867	2.59	12.867	1.10	18.87	0.56
0.883	0.46	6.883	2.59	12.883	1.10	18.88	0.56
0.900	0.46	6.900	2.59	12.900	1.10	18.90	0.56
0.917	0.46	6.917	2.59	12.917	1.10	18.92	0.56
0.933	0.46	6.933	2.59	12.933	1.10	18.93	0.56
0.950	0.46	6.950	2.59	12.950	1.10	18.95	0.56
0.967	0.46	6.967	2.59	12.967	1.10	18.97	0.56
0.983	0.46	6.983	2.59	12.983	1.10	18.98	0.56
1.000	0.46	7.000	2.59	13.000	1.10	19.00	0.56
1.017	0.47	7.017	3.09	13.017	1.07	19.02	0.56
1.033	0.47	7.033	3.09	13.033	1.07	19.03	0.56
1.050	0.47	7.050	3.09	13.050	1.07	19.05	0.56
1.067	0.47	7.067	3.09	13.067	1.07	19.07	0.56
1.083	0.47	7.083	3.09	13.083	1.07	19.08	0.56
1.100	0.47	7.100	3.09	13.100	1.07	19.10	0.56
1.117	0.47	7.117	3.09	13.117	1.07	19.12	0.56
1.133	0.47	7.133	3.09	13.133	1.07	19.13	0.56
1.150	0.47	7.150	3.09	13.150	1.07	19.15	0.56
1.167	0.47	7.167	3.09	13.167	1.07	19.17	0.56
1.183	0.48	7.183	3.86	13.183	1.04	19.18	0.55
1.200	0.48	7.200	3.86	13.200	1.04	19.20	0.55
1.217	0.48	7.217	3.86	13.217	1.04	19.22	0.55
1.233	0.48	7.233	3.86	13.233	1.04	19.23	0.55
1.250	0.48	7.250	3.86	13.250	1.04	19.25	0.55
1.267	0.48	7.267	3.86	13.267	1.04	19.27	0.55
1.283	0.48	7.283	3.86	13.283	1.04	19.28	0.55
1.300	0.48	7.300	3.86	13.300	1.04	19.30	0.55
1.317	0.48	7.317	3.86	13.317	1.04	19.32	0.55
1.333	0.48	7.333	3.86	13.333	1.04	19.33	0.55
1.350	0.49	7.350	5.21	13.350	1.02	19.35	0.54
1.367	0.49	7.367	5.21	13.367	1.02	19.37	0.54
1.383	0.49	7.383	5.21	13.383	1.02	19.38	0.54
1.400	0.49	7.400	5.21	13.400	1.02	19.40	0.54
1.417	0.49	7.417	5.21	13.417	1.02	19.42	0.54
1.433	0.49	7.433	5.21	13.433	1.02	19.43	0.54

1.450	0.49	7.450	5.21	13.450	1.02	19.45	0.54
1.467	0.49	7.467	5.21	13.467	1.02	19.47	0.54
1.483	0.49	7.483	5.21	13.483	1.02	19.48	0.54
1.500	0.49	7.500	5.22	13.500	1.02	19.50	0.54
1.517	0.50	7.517	8.22	13.517	0.99	19.52	0.54
1.533	0.50	7.533	8.22	13.533	0.99	19.53	0.54
1.550	0.50	7.550	8.22	13.550	0.99	19.55	0.54
1.567	0.50	7.567	8.22	13.567	0.99	19.57	0.54
1.583	0.50	7.583	8.22	13.583	0.99	19.58	0.54
1.600	0.50	7.600	8.22	13.600	0.99	19.60	0.54
1.617	0.50	7.617	8.22	13.617	0.99	19.62	0.54
1.633	0.50	7.633	8.22	13.633	0.99	19.63	0.54
1.650	0.50	7.650	8.22	13.650	0.99	19.65	0.54
1.667	0.50	7.667	8.26	13.667	0.99	19.67	0.54
1.683	0.51	7.683	20.77	13.683	0.97	19.68	0.53
1.700	0.51	7.700	20.77	13.700	0.97	19.70	0.53
1.717	0.51	7.717	20.77	13.717	0.97	19.72	0.53
1.733	0.51	7.733	20.77	13.733	0.97	19.73	0.53
1.750	0.51	7.750	20.77	13.750	0.97	19.75	0.53
1.767	0.51	7.767	20.77	13.767	0.97	19.77	0.53
1.783	0.51	7.783	20.77	13.783	0.97	19.78	0.53
1.800	0.51	7.800	20.77	13.800	0.97	19.80	0.53
1.817	0.51	7.817	20.77	13.817	0.97	19.82	0.53
1.833	0.51	7.833	20.95	13.833	0.97	19.83	0.53
1.850	0.53	7.850	84.13	13.850	0.94	19.85	0.52
1.867	0.53	7.867	84.13	13.867	0.94	19.87	0.52
1.883	0.53	7.883	84.13	13.883	0.94	19.88	0.52
1.900	0.53	7.900	84.13	13.900	0.94	19.90	0.52
1.917	0.53	7.917	84.13	13.917	0.94	19.92	0.52
1.933	0.53	7.933	84.13	13.933	0.94	19.93	0.52
1.950	0.53	7.950	84.13	13.950	0.94	19.95	0.52
1.967	0.53	7.967	84.13	13.967	0.94	19.97	0.52
1.983	0.53	7.983	84.13	13.983	0.94	19.98	0.52
2.000	0.53	8.000	83.96	14.000	0.94	20.00	0.52
2.017	0.54	8.017	27.50	14.017	0.92	20.02	0.52
2.033	0.54	8.033	27.50	14.033	0.92	20.03	0.52
2.050	0.54	8.050	27.50	14.050	0.92	20.05	0.52
2.067	0.54	8.067	27.50	14.067	0.92	20.07	0.52
2.083	0.54	8.083	27.50	14.083	0.92	20.08	0.52
2.100	0.54	8.100	27.50	14.100	0.92	20.10	0.52
2.117	0.54	8.117	27.50	14.117	0.92	20.12	0.52
2.133	0.54	8.133	27.50	14.133	0.92	20.13	0.52
2.150	0.54	8.150	27.50	14.150	0.92	20.15	0.52
2.167	0.54	8.167	27.46	14.167	0.92	20.17	0.52
2.183	0.55	8.183	14.07	14.183	0.90	20.18	0.51
2.200	0.55	8.200	14.07	14.200	0.90	20.20	0.51
2.217	0.55	8.217	14.07	14.217	0.90	20.22	0.51
2.233	0.55	8.233	14.07	14.233	0.90	20.23	0.51
2.250	0.55	8.250	14.07	14.250	0.90	20.25	0.51
2.267	0.55	8.267	14.07	14.267	0.90	20.27	0.51
2.283	0.55	8.283	14.07	14.283	0.90	20.28	0.51
2.300	0.55	8.300	14.07	14.300	0.90	20.30	0.51

2.317	0.55	8.317	14.07	14.317	0.90	20.32	0.51
2.333	0.55	8.333	14.06	14.333	0.90	20.33	0.51
2.350	0.57	8.350	9.40	14.350	0.88	20.35	0.51
2.367	0.57	8.367	9.40	14.367	0.88	20.37	0.51
2.383	0.57	8.383	9.40	14.383	0.88	20.38	0.51
2.400	0.57	8.400	9.40	14.400	0.88	20.40	0.51
2.417	0.57	8.417	9.40	14.417	0.88	20.42	0.51
2.433	0.57	8.433	9.40	14.433	0.88	20.43	0.51
2.450	0.57	8.450	9.40	14.450	0.88	20.45	0.51
2.467	0.57	8.467	9.40	14.467	0.88	20.47	0.51
2.483	0.57	8.483	9.40	14.483	0.88	20.48	0.51
2.500	0.57	8.500	9.39	14.500	0.88	20.50	0.51
2.517	0.58	8.517	7.07	14.517	0.86	20.52	0.50
2.533	0.58	8.533	7.07	14.533	0.86	20.53	0.50
2.550	0.58	8.550	7.07	14.550	0.86	20.55	0.50
2.567	0.58	8.567	7.07	14.567	0.86	20.57	0.50
2.583	0.58	8.583	7.07	14.583	0.86	20.58	0.50
2.600	0.58	8.600	7.07	14.600	0.86	20.60	0.50
2.617	0.58	8.617	7.07	14.617	0.86	20.62	0.50
2.633	0.58	8.633	7.07	14.633	0.86	20.63	0.50
2.650	0.58	8.650	7.07	14.650	0.86	20.65	0.50
2.667	0.58	8.667	7.07	14.667	0.86	20.67	0.50
2.683	0.60	8.683	5.68	14.683	0.84	20.68	0.50
2.700	0.60	8.700	5.68	14.700	0.84	20.70	0.50
2.717	0.60	8.717	5.68	14.717	0.84	20.72	0.50
2.733	0.60	8.733	5.68	14.733	0.84	20.73	0.50
2.750	0.60	8.750	5.68	14.750	0.84	20.75	0.50
2.767	0.60	8.767	5.68	14.767	0.84	20.77	0.50
2.783	0.60	8.783	5.68	14.783	0.84	20.78	0.50
2.800	0.60	8.800	5.68	14.800	0.84	20.80	0.50
2.817	0.60	8.817	5.68	14.817	0.84	20.82	0.50
2.833	0.60	8.833	5.68	14.833	0.84	20.83	0.50
2.850	0.61	8.850	4.76	14.850	0.83	20.85	0.49
2.867	0.61	8.867	4.76	14.867	0.83	20.87	0.49
2.883	0.61	8.883	4.76	14.883	0.83	20.88	0.49
2.900	0.61	8.900	4.76	14.900	0.83	20.90	0.49
2.917	0.61	8.917	4.76	14.917	0.83	20.92	0.49
2.933	0.61	8.933	4.76	14.933	0.83	20.93	0.49
2.950	0.61	8.950	4.76	14.950	0.83	20.95	0.49
2.967	0.61	8.967	4.76	14.967	0.83	20.97	0.49
2.983	0.61	8.983	4.76	14.983	0.83	20.98	0.49
3.000	0.61	9.000	4.76	15.000	0.83	21.00	0.49
3.017	0.63	9.017	4.11	15.017	0.81	21.02	0.49
3.033	0.63	9.033	4.11	15.033	0.81	21.03	0.49
3.050	0.63	9.050	4.11	15.050	0.81	21.05	0.49
3.067	0.63	9.067	4.11	15.067	0.81	21.07	0.49
3.083	0.63	9.083	4.11	15.083	0.81	21.08	0.49
3.100	0.63	9.100	4.11	15.100	0.81	21.10	0.49
3.117	0.63	9.117	4.11	15.117	0.81	21.12	0.49
3.133	0.63	9.133	4.11	15.133	0.81	21.13	0.49
3.150	0.63	9.150	4.11	15.150	0.81	21.15	0.49
3.167	0.63	9.167	4.11	15.167	0.81	21.17	0.49

3.183	0.65	9.183	3.62	15.183	0.79	21.18	0.48
3.200	0.65	9.200	3.62	15.200	0.79	21.20	0.48
3.217	0.65	9.217	3.62	15.217	0.79	21.22	0.48
3.233	0.65	9.233	3.62	15.233	0.79	21.23	0.48
3.250	0.65	9.250	3.62	15.250	0.79	21.25	0.48
3.267	0.65	9.267	3.62	15.267	0.79	21.27	0.48
3.283	0.65	9.283	3.62	15.283	0.79	21.28	0.48
3.300	0.65	9.300	3.62	15.300	0.79	21.30	0.48
3.317	0.65	9.317	3.62	15.317	0.79	21.32	0.48
3.333	0.65	9.333	3.62	15.333	0.79	21.33	0.48
3.350	0.67	9.350	3.24	15.350	0.78	21.35	0.48
3.367	0.67	9.367	3.24	15.367	0.78	21.37	0.48
3.383	0.67	9.383	3.24	15.383	0.78	21.38	0.48
3.400	0.67	9.400	3.24	15.400	0.78	21.40	0.48
3.417	0.67	9.417	3.24	15.417	0.78	21.42	0.48
3.433	0.67	9.433	3.24	15.433	0.78	21.43	0.48
3.450	0.67	9.450	3.24	15.450	0.78	21.45	0.48
3.467	0.67	9.467	3.24	15.467	0.78	21.47	0.48
3.483	0.67	9.483	3.24	15.483	0.78	21.48	0.48
3.500	0.67	9.500	3.24	15.500	0.78	21.50	0.48
3.517	0.69	9.517	2.94	15.517	0.77	21.52	0.47
3.533	0.69	9.533	2.94	15.533	0.77	21.53	0.47
3.550	0.69	9.550	2.94	15.550	0.77	21.55	0.47
3.567	0.69	9.567	2.94	15.567	0.77	21.57	0.47
3.583	0.69	9.583	2.94	15.583	0.77	21.58	0.47
3.600	0.69	9.600	2.94	15.600	0.77	21.60	0.47
3.617	0.69	9.617	2.94	15.617	0.77	21.62	0.47
3.633	0.69	9.633	2.94	15.633	0.77	21.63	0.47
3.650	0.69	9.650	2.94	15.650	0.77	21.65	0.47
3.667	0.69	9.667	2.94	15.667	0.77	21.67	0.47
3.683	0.72	9.683	2.69	15.683	0.75	21.68	0.47
3.700	0.72	9.700	2.69	15.700	0.75	21.70	0.47
3.717	0.72	9.717	2.69	15.717	0.75	21.72	0.47
3.733	0.72	9.733	2.69	15.733	0.75	21.73	0.47
3.750	0.72	9.750	2.69	15.750	0.75	21.75	0.47
3.767	0.72	9.767	2.69	15.767	0.75	21.77	0.47
3.783	0.72	9.783	2.69	15.783	0.75	21.78	0.47
3.800	0.72	9.800	2.69	15.800	0.75	21.80	0.47
3.817	0.72	9.817	2.69	15.817	0.75	21.82	0.47
3.833	0.72	9.833	2.69	15.833	0.75	21.83	0.47
3.850	0.74	9.850	2.49	15.850	0.74	21.85	0.46
3.867	0.74	9.867	2.49	15.867	0.74	21.87	0.46
3.883	0.74	9.883	2.49	15.883	0.74	21.88	0.46
3.900	0.74	9.900	2.49	15.900	0.74	21.90	0.46
3.917	0.74	9.917	2.49	15.917	0.74	21.92	0.46
3.933	0.74	9.933	2.49	15.933	0.74	21.93	0.46
3.950	0.74	9.950	2.49	15.950	0.74	21.95	0.46
3.967	0.74	9.967	2.49	15.967	0.74	21.97	0.46
3.983	0.74	9.983	2.49	15.983	0.74	21.98	0.46
4.000	0.74	10.000	2.49	16.000	0.74	22.00	0.46
4.017	0.77	10.017	2.31	16.017	0.73	22.02	0.46
4.033	0.77	10.033	2.31	16.033	0.73	22.03	0.46

4.050	0.77	10.050	2.31	16.050	0.73	22.05	0.46
4.067	0.77	10.067	2.31	16.067	0.73	22.07	0.46
4.083	0.77	10.083	2.31	16.083	0.73	22.08	0.46
4.100	0.77	10.100	2.31	16.100	0.73	22.10	0.46
4.117	0.77	10.117	2.31	16.117	0.73	22.12	0.46
4.133	0.77	10.133	2.31	16.133	0.73	22.13	0.46
4.150	0.77	10.150	2.31	16.150	0.73	22.15	0.46
4.167	0.77	10.167	2.31	16.167	0.73	22.17	0.46
4.183	0.80	10.183	2.16	16.183	0.71	22.18	0.45
4.200	0.80	10.200	2.16	16.200	0.71	22.20	0.45
4.217	0.80	10.217	2.16	16.217	0.71	22.22	0.45
4.233	0.80	10.233	2.16	16.233	0.71	22.23	0.45
4.250	0.80	10.250	2.16	16.250	0.71	22.25	0.45
4.267	0.80	10.267	2.16	16.267	0.71	22.27	0.45
4.283	0.80	10.283	2.16	16.283	0.71	22.28	0.45
4.300	0.80	10.300	2.16	16.300	0.71	22.30	0.45
4.317	0.80	10.317	2.16	16.317	0.71	22.32	0.45
4.333	0.80	10.333	2.16	16.333	0.71	22.33	0.45
4.350	0.83	10.350	2.03	16.350	0.70	22.35	0.45
4.367	0.83	10.367	2.03	16.367	0.70	22.37	0.45
4.383	0.83	10.383	2.03	16.383	0.70	22.38	0.45
4.400	0.83	10.400	2.03	16.400	0.70	22.40	0.45
4.417	0.83	10.417	2.03	16.417	0.70	22.42	0.45
4.433	0.83	10.433	2.03	16.433	0.70	22.43	0.45
4.450	0.83	10.450	2.03	16.450	0.70	22.45	0.45
4.467	0.83	10.467	2.03	16.467	0.70	22.47	0.45
4.483	0.83	10.483	2.03	16.483	0.70	22.48	0.45
4.500	0.83	10.500	2.03	16.500	0.70	22.50	0.45
4.517	0.87	10.517	1.92	16.517	0.69	22.52	0.44
4.533	0.87	10.533	1.92	16.533	0.69	22.53	0.44
4.550	0.87	10.550	1.92	16.550	0.69	22.55	0.44
4.567	0.87	10.567	1.92	16.567	0.69	22.57	0.44
4.583	0.87	10.583	1.92	16.583	0.69	22.58	0.44
4.600	0.87	10.600	1.92	16.600	0.69	22.60	0.44
4.617	0.87	10.617	1.92	16.617	0.69	22.62	0.44
4.633	0.87	10.633	1.92	16.633	0.69	22.63	0.44
4.650	0.87	10.650	1.92	16.650	0.69	22.65	0.44
4.667	0.87	10.667	1.92	16.667	0.69	22.67	0.44
4.683	0.91	10.683	1.82	16.683	0.68	22.68	0.44
4.700	0.91	10.700	1.82	16.700	0.68	22.70	0.44
4.717	0.91	10.717	1.82	16.717	0.68	22.72	0.44
4.733	0.91	10.733	1.82	16.733	0.68	22.73	0.44
4.750	0.91	10.750	1.82	16.750	0.68	22.75	0.44
4.767	0.91	10.767	1.82	16.767	0.68	22.77	0.44
4.783	0.91	10.783	1.82	16.783	0.68	22.78	0.44
4.800	0.91	10.800	1.82	16.800	0.68	22.80	0.44
4.817	0.91	10.817	1.82	16.817	0.68	22.82	0.44
4.833	0.91	10.833	1.82	16.833	0.68	22.83	0.44
4.850	0.95	10.850	1.73	16.850	0.67	22.85	0.44
4.867	0.95	10.867	1.73	16.867	0.67	22.87	0.44
4.883	0.95	10.883	1.73	16.883	0.67	22.88	0.44
4.900	0.95	10.900	1.73	16.900	0.67	22.90	0.44

4.917	0.95	10.917	1.73	16.917	0.67	22.92	0.44
4.933	0.95	10.933	1.73	16.933	0.67	22.93	0.44
4.950	0.95	10.950	1.73	16.950	0.67	22.95	0.44
4.967	0.95	10.967	1.73	16.967	0.67	22.97	0.44
4.983	0.95	10.983	1.73	16.983	0.67	22.98	0.44
5.000	0.95	11.000	1.73	17.000	0.67	23.00	0.44
5.017	1.00	11.017	1.65	17.017	0.66	23.02	0.43
5.033	1.00	11.033	1.65	17.033	0.66	23.03	0.43
5.050	1.00	11.050	1.65	17.050	0.66	23.05	0.43
5.067	1.00	11.067	1.65	17.067	0.66	23.07	0.43
5.083	1.00	11.083	1.65	17.083	0.66	23.08	0.43
5.100	1.00	11.100	1.65	17.100	0.66	23.10	0.43
5.117	1.00	11.117	1.65	17.117	0.66	23.12	0.43
5.133	1.00	11.133	1.65	17.133	0.66	23.13	0.43
5.150	1.00	11.150	1.65	17.150	0.66	23.15	0.43
5.167	1.00	11.167	1.64	17.167	0.66	23.17	0.43
5.183	1.06	11.183	1.57	17.183	0.65	23.18	0.43
5.200	1.06	11.200	1.57	17.200	0.65	23.20	0.43
5.217	1.06	11.217	1.57	17.217	0.65	23.22	0.43
5.233	1.06	11.233	1.57	17.233	0.65	23.23	0.43
5.250	1.06	11.250	1.57	17.250	0.65	23.25	0.43
5.267	1.06	11.267	1.57	17.267	0.65	23.27	0.43
5.283	1.06	11.283	1.57	17.283	0.65	23.28	0.43
5.300	1.06	11.300	1.57	17.300	0.65	23.30	0.43
5.317	1.06	11.317	1.57	17.317	0.65	23.32	0.43
5.333	1.06	11.333	1.57	17.333	0.65	23.33	0.43
5.350	1.12	11.350	1.51	17.350	0.64	23.35	0.42
5.367	1.12	11.367	1.51	17.367	0.64	23.37	0.42
5.383	1.12	11.383	1.51	17.383	0.64	23.38	0.42
5.400	1.12	11.400	1.51	17.400	0.64	23.40	0.42
5.417	1.12	11.417	1.51	17.417	0.64	23.42	0.42
5.433	1.12	11.433	1.51	17.433	0.64	23.43	0.42
5.450	1.12	11.450	1.51	17.450	0.64	23.45	0.42
5.467	1.12	11.467	1.51	17.467	0.64	23.47	0.42
5.483	1.12	11.483	1.51	17.483	0.64	23.48	0.42
5.500	1.12	11.500	1.51	17.500	0.64	23.50	0.42
5.517	1.19	11.517	1.45	17.517	0.63	23.52	0.42
5.533	1.19	11.533	1.45	17.533	0.63	23.53	0.42
5.550	1.19	11.550	1.45	17.550	0.63	23.55	0.42
5.567	1.19	11.567	1.45	17.567	0.63	23.57	0.42
5.583	1.19	11.583	1.45	17.583	0.63	23.58	0.42
5.600	1.19	11.600	1.45	17.600	0.63	23.60	0.42
5.617	1.19	11.617	1.45	17.617	0.63	23.62	0.42
5.633	1.19	11.633	1.45	17.633	0.63	23.63	0.42
5.650	1.19	11.650	1.45	17.650	0.63	23.65	0.42
5.667	1.19	11.667	1.45	17.667	0.63	23.67	0.42
5.683	1.27	11.683	1.39	17.683	0.62	23.68	0.42
5.700	1.27	11.700	1.39	17.700	0.62	23.70	0.42
5.717	1.27	11.717	1.39	17.717	0.62	23.72	0.42
5.733	1.27	11.733	1.39	17.733	0.62	23.73	0.42
5.750	1.27	11.750	1.39	17.750	0.62	23.75	0.42
5.767	1.27	11.767	1.39	17.767	0.62	23.77	0.42

5.783	1.27	11.783	1.39	17.783	0.62	23.78	0.42
5.800	1.27	11.800	1.39	17.800	0.62	23.80	0.42
5.817	1.27	11.817	1.39	17.817	0.62	23.82	0.42
5.833	1.27	11.833	1.39	17.833	0.62	23.83	0.42
5.850	1.36	11.850	1.34	17.850	0.61	23.85	0.41
5.867	1.36	11.867	1.34	17.867	0.61	23.87	0.41
5.883	1.36	11.883	1.34	17.883	0.61	23.88	0.41
5.900	1.36	11.900	1.34	17.900	0.61	23.90	0.41
5.917	1.36	11.917	1.34	17.917	0.61	23.92	0.41
5.933	1.36	11.933	1.34	17.933	0.61	23.93	0.41
5.950	1.36	11.950	1.34	17.950	0.61	23.95	0.41
5.967	1.36	11.967	1.34	17.967	0.61	23.97	0.41
5.983	1.36	11.983	1.34	17.983	0.61	23.98	0.41
6.000	1.36	12.000	1.34	18.000	0.61	24.00	0.41

```
     Max.Eff.Inten.(mm/hr)=      84.13        11.04
                over (min)        7.00        16.00
     Storage Coeff.  (min)=      6.55 (ii)   15.16 (ii)
     Unit Hyd. Tpeak (min)=      7.00        16.00
     Unit Hyd. peak  (cms)=      0.17         0.07
                                              *TOTALS*
     PEAK FLOW       (cms)=      0.94         0.12          1.003 (iii)
     TIME TO PEAK    (hrs)=      8.05         8.25          8.05
     RUNOFF VOLUME    (mm)=     52.25         8.15         25.36
     TOTAL RAINFALL   (mm)=     53.26        53.26         53.26
     RUNOFF COEFFICIENT   =      0.98         0.15          0.48


       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN*  =  48.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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

--------------------
| ADD HYD  (  0101)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
--------------------        (ha)    (cms)    (hrs)     (mm)
*** W A R N I N G :  HYDROGRAPH   0034 <ID= 2> IS DRY.
*** W A R N I N G :  HYDROGRAPH   0003 = HYDROGRAPH 0001
       ID1= 1 (  1011):    13.73   1.003     8.05    25.36
     + ID2= 2 (  0034):     0.00   0.000     0.00     0.00
       ==========================================
       ID = 3 (  0101):    13.73   1.003     8.05    25.36

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

--------------------
| ADD HYD  (  0901)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
--------------------        (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0101):    13.73   1.003     8.05    25.36
     + ID2= 2 (  0103):     1.17   0.055     8.02    18.61
       ==========================================
       ID = 3 (  0901):    14.90   1.054     8.05    24.83

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

--------------------
| ADD HYD  (  0902)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
--------------------        (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0104):     0.77   0.009     8.33     8.51
     + ID2= 2 (  0901):    14.90   1.054     8.05    24.83
       ==========================================
       ID = 3 (  0902):    15.67   1.058     8.05    24.03

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

--------------------
| CALIB            |
| STANDHYD (  1021)|   Area    (ha)=   3.77
|ID= 1 DT= 1.0 min |   Total Imp(%)=  45.00   Dir. Conn.(%)=  38.00
--------------------

                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       1.70          2.07
     Dep. Storage     (mm)=       1.00          5.00
     Average Slope     (%)=       0.50          2.00
     Length            (m)=     158.56         40.00
     Mannings n             =     0.013         0.250

        NOTE:  RAINFALL WAS TRANSFORMED TO   1.0 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
0.017	0.42	6.017	1.47	12.017	1.29	18.02	0.60
0.033	0.42	6.033	1.47	12.033	1.29	18.03	0.60
0.050	0.42	6.050	1.47	12.050	1.29	18.05	0.60
0.067	0.42	6.067	1.47	12.067	1.29	18.07	0.60
0.083	0.42	6.083	1.47	12.083	1.29	18.08	0.60
0.100	0.42	6.100	1.47	12.100	1.29	18.10	0.60
0.117	0.42	6.117	1.47	12.117	1.29	18.12	0.60
0.133	0.42	6.133	1.47	12.133	1.29	18.13	0.60
0.150	0.42	6.150	1.47	12.150	1.29	18.15	0.60
0.167	0.42	6.167	1.47	12.167	1.29	18.17	0.60
0.183	0.43	6.183	1.61	12.183	1.25	18.18	0.59
0.200	0.43	6.200	1.61	12.200	1.25	18.20	0.59
0.217	0.43	6.217	1.61	12.217	1.25	18.22	0.59
0.233	0.43	6.233	1.61	12.233	1.25	18.23	0.59
0.250	0.43	6.250	1.61	12.250	1.25	18.25	0.59
0.267	0.43	6.267	1.61	12.267	1.25	18.27	0.59
0.283	0.43	6.283	1.61	12.283	1.25	18.28	0.59
0.300	0.43	6.300	1.61	12.300	1.25	18.30	0.59
0.317	0.43	6.317	1.61	12.317	1.25	18.32	0.59
0.333	0.43	6.333	1.61	12.333	1.25	18.33	0.59
0.350	0.44	6.350	1.77	12.350	1.21	18.35	0.59
0.367	0.44	6.367	1.77	12.367	1.21	18.37	0.59
0.383	0.44	6.383	1.77	12.383	1.21	18.38	0.59
0.400	0.44	6.400	1.77	12.400	1.21	18.40	0.59
0.417	0.44	6.417	1.77	12.417	1.21	18.42	0.59
0.433	0.44	6.433	1.77	12.433	1.21	18.43	0.59
0.450	0.44	6.450	1.77	12.450	1.21	18.45	0.59
0.467	0.44	6.467	1.77	12.467	1.21	18.47	0.59
0.483	0.44	6.483	1.77	12.483	1.21	18.48	0.59
0.500	0.44	6.500	1.77	12.500	1.21	18.50	0.59
0.517	0.44	6.517	1.97	12.517	1.17	18.52	0.58
0.533	0.44	6.533	1.97	12.533	1.17	18.53	0.58
0.550	0.44	6.550	1.97	12.550	1.17	18.55	0.58
0.567	0.44	6.567	1.97	12.567	1.17	18.57	0.58
0.583	0.44	6.583	1.97	12.583	1.17	18.58	0.58
0.600	0.44	6.600	1.97	12.600	1.17	18.60	0.58
0.617	0.44	6.617	1.97	12.617	1.17	18.62	0.58
0.633	0.44	6.633	1.97	12.633	1.17	18.63	0.58
0.650	0.44	6.650	1.97	12.650	1.17	18.65	0.58
0.667	0.44	6.667	1.97	12.667	1.17	18.67	0.58
0.683	0.45	6.683	2.23	12.683	1.14	18.68	0.57
0.700	0.45	6.700	2.23	12.700	1.14	18.70	0.57
0.717	0.45	6.717	2.23	12.717	1.14	18.72	0.57
0.733	0.45	6.733	2.23	12.733	1.14	18.73	0.57
0.750	0.45	6.750	2.23	12.750	1.14	18.75	0.57
0.767	0.45	6.767	2.23	12.767	1.14	18.77	0.57
0.783	0.45	6.783	2.23	12.783	1.14	18.78	0.57
0.800	0.45	6.800	2.23	12.800	1.14	18.80	0.57
0.817	0.45	6.817	2.23	12.817	1.14	18.82	0.57
0.833	0.45	6.833	2.23	12.833	1.14	18.83	0.57
0.850	0.46	6.850	2.59	12.850	1.10	18.85	0.56
0.867	0.46	6.867	2.59	12.867	1.10	18.87	0.56
0.883	0.46	6.883	2.59	12.883	1.10	18.88	0.56
0.900	0.46	6.900	2.59	12.900	1.10	18.90	0.56
0.917	0.46	6.917	2.59	12.917	1.10	18.92	0.56
0.933	0.46	6.933	2.59	12.933	1.10	18.93	0.56
0.950	0.46	6.950	2.59	12.950	1.10	18.95	0.56
0.967	0.46	6.967	2.59	12.967	1.10	18.97	0.56
0.983	0.46	6.983	2.59	12.983	1.10	18.98	0.56
1.000	0.46	7.000	2.59	13.000	1.10	19.00	0.56
1.017	0.47	7.017	3.09	13.017	1.07	19.02	0.56
1.033	0.47	7.033	3.09	13.033	1.07	19.03	0.56
1.050	0.47	7.050	3.09	13.050	1.07	19.05	0.56
1.067	0.47	7.067	3.09	13.067	1.07	19.07	0.56
1.083	0.47	7.083	3.09	13.083	1.07	19.08	0.56
1.100	0.47	7.100	3.09	13.100	1.07	19.10	0.56
1.117	0.47	7.117	3.09	13.117	1.07	19.12	0.56
1.133	0.47	7.133	3.09	13.133	1.07	19.13	0.56
1.150	0.47	7.150	3.09	13.150	1.07	19.15	0.56
1.167	0.47	7.167	3.09	13.167	1.07	19.17	0.56
1.183	0.48	7.183	3.86	13.183	1.04	19.18	0.55
1.200	0.48	7.200	3.86	13.200	1.04	19.20	0.55
1.217	0.48	7.217	3.86	13.217	1.04	19.22	0.55
1.233	0.48	7.233	3.86	13.233	1.04	19.23	0.55
1.250	0.48	7.250	3.86	13.250	1.04	19.25	0.55
1.267	0.48	7.267	3.86	13.267	1.04	19.27	0.55
1.283	0.48	7.283	3.86	13.283	1.04	19.28	0.55
1.300	0.48	7.300	3.86	13.300	1.04	19.30	0.55
1.317	0.48	7.317	3.86	13.317	1.04	19.32	0.55
1.333	0.48	7.333	3.86	13.333	1.04	19.33	0.55
1.350	0.49	7.350	5.21	13.350	1.02	19.35	0.54
1.367	0.49	7.367	5.21	13.367	1.02	19.37	0.54
1.383	0.49	7.383	5.21	13.383	1.02	19.38	0.54
1.400	0.49	7.400	5.21	13.400	1.02	19.40	0.54
1.417	0.49	7.417	5.21	13.417	1.02	19.42	0.54
1.433	0.49	7.433	5.21	13.433	1.02	19.43	0.54
1.450	0.49	7.450	5.21	13.450	1.02	19.45	0.54
1.467	0.49	7.467	5.21	13.467	1.02	19.47	0.54
1.483	0.49	7.483	5.21	13.483	1.02	19.48	0.54
1.500	0.49	7.500	5.22	13.500	1.02	19.50	0.54
1.517	0.50	7.517	8.22	13.517	0.99	19.52	0.54
1.533	0.50	7.533	8.22	13.533	0.99	19.53	0.54
1.550	0.50	7.550	8.22	13.550	0.99	19.55	0.54
1.567	0.50	7.567	8.22	13.567	0.99	19.57	0.54
1.583	0.50	7.583	8.22	13.583	0.99	19.58	0.54
1.600	0.50	7.600	8.22	13.600	0.99	19.60	0.54
1.617	0.50	7.617	8.22	13.617	0.99	19.62	0.54
1.633	0.50	7.633	8.22	13.633	0.99	19.63	0.54
1.650	0.50	7.650	8.22	13.650	0.99	19.65	0.54
1.667	0.50	7.667	8.26	13.667	0.99	19.67	0.54
1.683	0.51	7.683	20.77	13.683	0.97	19.68	0.53
1.700	0.51	7.700	20.77	13.700	0.97	19.70	0.53
1.717	0.51	7.717	20.77	13.717	0.97	19.72	0.53
1.733	0.51	7.733	20.77	13.733	0.97	19.73	0.53
1.750	0.51	7.750	20.77	13.750	0.97	19.75	0.53
1.767	0.51	7.767	20.77	13.767	0.97	19.77	0.53
1.783	0.51	7.783	20.77	13.783	0.97	19.78	0.53
1.800	0.51	7.800	20.77	13.800	0.97	19.80	0.53
1.817	0.51	7.817	20.77	13.817	0.97	19.82	0.53
1.833	0.51	7.833	20.95	13.833	0.97	19.83	0.53
1.850	0.53	7.850	84.13	13.850	0.94	19.85	0.52
1.867	0.53	7.867	84.13	13.867	0.94	19.87	0.52
1.883	0.53	7.883	84.13	13.883	0.94	19.88	0.52
1.900	0.53	7.900	84.13	13.900	0.94	19.90	0.52
1.917	0.53	7.917	84.13	13.917	0.94	19.92	0.52
1.933	0.53	7.933	84.13	13.933	0.94	19.93	0.52
1.950	0.53	7.950	84.13	13.950	0.94	19.95	0.52
1.967	0.53	7.967	84.13	13.967	0.94	19.97	0.52
1.983	0.53	7.983	84.13	13.983	0.94	19.98	0.52
2.000	0.53	8.000	83.96	14.000	0.94	20.00	0.52
2.017	0.54	8.017	27.50	14.017	0.92	20.02	0.52
2.033	0.54	8.033	27.50	14.033	0.92	20.03	0.52
2.050	0.54	8.050	27.50	14.050	0.92	20.05	0.52
2.067	0.54	8.067	27.50	14.067	0.92	20.07	0.52
2.083	0.54	8.083	27.50	14.083	0.92	20.08	0.52
2.100	0.54	8.100	27.50	14.100	0.92	20.10	0.52
2.117	0.54	8.117	27.50	14.117	0.92	20.12	0.52
2.133	0.54	8.133	27.50	14.133	0.92	20.13	0.52
2.150	0.54	8.150	27.50	14.150	0.92	20.15	0.52
2.167	0.54	8.167	27.46	14.167	0.92	20.17	0.52
2.183	0.55	8.183	14.07	14.183	0.90	20.18	0.51
2.200	0.55	8.200	14.07	14.200	0.90	20.20	0.51
2.217	0.55	8.217	14.07	14.217	0.90	20.22	0.51
2.233	0.55	8.233	14.07	14.233	0.90	20.23	0.51
2.250	0.55	8.250	14.07	14.250	0.90	20.25	0.51
2.267	0.55	8.267	14.07	14.267	0.90	20.27	0.51
2.283	0.55	8.283	14.07	14.283	0.90	20.28	0.51
2.300	0.55	8.300	14.07	14.300	0.90	20.30	0.51
2.317	0.55	8.317	14.07	14.317	0.90	20.32	0.51
2.333	0.55	8.333	14.06	14.333	0.90	20.33	0.51
2.350	0.57	8.350	9.40	14.350	0.88	20.35	0.51
2.367	0.57	8.367	9.40	14.367	0.88	20.37	0.51
2.383	0.57	8.383	9.40	14.383	0.88	20.38	0.51
2.400	0.57	8.400	9.40	14.400	0.88	20.40	0.51
2.417	0.57	8.417	9.40	14.417	0.88	20.42	0.51
2.433	0.57	8.433	9.40	14.433	0.88	20.43	0.51
2.450	0.57	8.450	9.40	14.450	0.88	20.45	0.51
2.467	0.57	8.467	9.40	14.467	0.88	20.47	0.51
2.483	0.57	8.483	9.40	14.483	0.88	20.48	0.51
2.500	0.57	8.500	9.39	14.500	0.88	20.50	0.51
2.517	0.58	8.517	7.07	14.517	0.86	20.52	0.50
2.533	0.58	8.533	7.07	14.533	0.86	20.53	0.50
2.550	0.58	8.550	7.07	14.550	0.86	20.55	0.50
2.567	0.58	8.567	7.07	14.567	0.86	20.57	0.50
2.583	0.58	8.583	7.07	14.583	0.86	20.58	0.50
2.600	0.58	8.600	7.07	14.600	0.86	20.60	0.50
2.617	0.58	8.617	7.07	14.617	0.86	20.62	0.50
2.633	0.58	8.633	7.07	14.633	0.86	20.63	0.50
2.650	0.58	8.650	7.07	14.650	0.86	20.65	0.50
2.667	0.58	8.667	7.07	14.667	0.86	20.67	0.50
2.683	0.60	8.683	5.68	14.683	0.84	20.68	0.50
2.700	0.60	8.700	5.68	14.700	0.84	20.70	0.50
2.717	0.60	8.717	5.68	14.717	0.84	20.72	0.50
2.733	0.60	8.733	5.68	14.733	0.84	20.73	0.50
2.750	0.60	8.750	5.68	14.750	0.84	20.75	0.50
2.767	0.60	8.767	5.68	14.767	0.84	20.77	0.50
2.783	0.60	8.783	5.68	14.783	0.84	20.78	0.50
2.800	0.60	8.800	5.68	14.800	0.84	20.80	0.50
2.817	0.60	8.817	5.68	14.817	0.84	20.82	0.50
2.833	0.60	8.833	5.68	14.833	0.84	20.83	0.50
2.850	0.61	8.850	4.76	14.850	0.83	20.85	0.49
2.867	0.61	8.867	4.76	14.867	0.83	20.87	0.49
2.883	0.61	8.883	4.76	14.883	0.83	20.88	0.49
2.900	0.61	8.900	4.76	14.900	0.83	20.90	0.49
2.917	0.61	8.917	4.76	14.917	0.83	20.92	0.49
2.933	0.61	8.933	4.76	14.933	0.83	20.93	0.49
2.950	0.61	8.950	4.76	14.950	0.83	20.95	0.49
2.967	0.61	8.967	4.76	14.967	0.83	20.97	0.49
2.983	0.61	8.983	4.76	14.983	0.83	20.98	0.49
3.000	0.61	9.000	4.76	15.000	0.83	21.00	0.49
3.017	0.63	9.017	4.11	15.017	0.81	21.02	0.49
3.033	0.63	9.033	4.11	15.033	0.81	21.03	0.49
3.050	0.63	9.050	4.11	15.050	0.81	21.05	0.49
3.067	0.63	9.067	4.11	15.067	0.81	21.07	0.49
3.083	0.63	9.083	4.11	15.083	0.81	21.08	0.49
3.100	0.63	9.100	4.11	15.100	0.81	21.10	0.49
3.117	0.63	9.117	4.11	15.117	0.81	21.12	0.49
3.133	0.63	9.133	4.11	15.133	0.81	21.13	0.49
3.150	0.63	9.150	4.11	15.150	0.81	21.15	0.49
3.167	0.63	9.167	4.11	15.167	0.81	21.17	0.49
3.183	0.65	9.183	3.62	15.183	0.79	21.18	0.48
3.200	0.65	9.200	3.62	15.200	0.79	21.20	0.48
3.217	0.65	9.217	3.62	15.217	0.79	21.22	0.48
3.233	0.65	9.233	3.62	15.233	0.79	21.23	0.48
3.250	0.65	9.250	3.62	15.250	0.79	21.25	0.48
3.267	0.65	9.267	3.62	15.267	0.79	21.27	0.48
3.283	0.65	9.283	3.62	15.283	0.79	21.28	0.48
3.300	0.65	9.300	3.62	15.300	0.79	21.30	0.48
3.317	0.65	9.317	3.62	15.317	0.79	21.32	0.48
3.333	0.65	9.333	3.62	15.333	0.79	21.33	0.48
3.350	0.67	9.350	3.24	15.350	0.78	21.35	0.48
3.367	0.67	9.367	3.24	15.367	0.78	21.37	0.48
3.383	0.67	9.383	3.24	15.383	0.78	21.38	0.48
3.400	0.67	9.400	3.24	15.400	0.78	21.40	0.48
3.417	0.67	9.417	3.24	15.417	0.78	21.42	0.48
3.433	0.67	9.433	3.24	15.433	0.78	21.43	0.48
3.450	0.67	9.450	3.24	15.450	0.78	21.45	0.48
3.467	0.67	9.467	3.24	15.467	0.78	21.47	0.48
3.483	0.67	9.483	3.24	15.483	0.78	21.48	0.48
3.500	0.67	9.500	3.24	15.500	0.78	21.50	0.48
3.517	0.69	9.517	2.94	15.517	0.77	21.52	0.47
3.533	0.69	9.533	2.94	15.533	0.77	21.53	0.47
3.550	0.69	9.550	2.94	15.550	0.77	21.55	0.47
3.567	0.69	9.567	2.94	15.567	0.77	21.57	0.47
3.583	0.69	9.583	2.94	15.583	0.77	21.58	0.47
3.600	0.69	9.600	2.94	15.600	0.77	21.60	0.47
3.617	0.69	9.617	2.94	15.617	0.77	21.62	0.47
3.633	0.69	9.633	2.94	15.633	0.77	21.63	0.47
3.650	0.69	9.650	2.94	15.650	0.77	21.65	0.47
3.667	0.69	9.667	2.94	15.667	0.77	21.67	0.47
3.683	0.72	9.683	2.69	15.683	0.75	21.68	0.47

3.700	0.72	9.700	2.69	15.700	0.75	21.70	0.47
3.717	0.72	9.717	2.69	15.717	0.75	21.72	0.47
3.733	0.72	9.733	2.69	15.733	0.75	21.73	0.47
3.750	0.72	9.750	2.69	15.750	0.75	21.75	0.47
3.767	0.72	9.767	2.69	15.767	0.75	21.77	0.47
3.783	0.72	9.783	2.69	15.783	0.75	21.78	0.47
3.800	0.72	9.800	2.69	15.800	0.75	21.80	0.47
3.817	0.72	9.817	2.69	15.817	0.75	21.82	0.47
3.833	0.72	9.833	2.69	15.833	0.75	21.83	0.47
3.850	0.74	9.850	2.49	15.850	0.74	21.85	0.46
3.867	0.74	9.867	2.49	15.867	0.74	21.87	0.46
3.883	0.74	9.883	2.49	15.883	0.74	21.88	0.46
3.900	0.74	9.900	2.49	15.900	0.74	21.90	0.46
3.917	0.74	9.917	2.49	15.917	0.74	21.92	0.46
3.933	0.74	9.933	2.49	15.933	0.74	21.93	0.46
3.950	0.74	9.950	2.49	15.950	0.74	21.95	0.46
3.967	0.74	9.967	2.49	15.967	0.74	21.97	0.46
3.983	0.74	9.983	2.49	15.983	0.74	21.98	0.46
4.000	0.74	10.000	2.49	16.000	0.74	22.00	0.46
4.017	0.77	10.017	2.31	16.017	0.73	22.02	0.46
4.033	0.77	10.033	2.31	16.033	0.73	22.03	0.46
4.050	0.77	10.050	2.31	16.050	0.73	22.05	0.46
4.067	0.77	10.067	2.31	16.067	0.73	22.07	0.46
4.083	0.77	10.083	2.31	16.083	0.73	22.08	0.46
4.100	0.77	10.100	2.31	16.100	0.73	22.10	0.46
4.117	0.77	10.117	2.31	16.117	0.73	22.12	0.46
4.133	0.77	10.133	2.31	16.133	0.73	22.13	0.46
4.150	0.77	10.150	2.31	16.150	0.73	22.15	0.46
4.167	0.77	10.167	2.31	16.167	0.73	22.17	0.46
4.183	0.80	10.183	2.16	16.183	0.71	22.18	0.45
4.200	0.80	10.200	2.16	16.200	0.71	22.20	0.45
4.217	0.80	10.217	2.16	16.217	0.71	22.22	0.45
4.233	0.80	10.233	2.16	16.233	0.71	22.23	0.45
4.250	0.80	10.250	2.16	16.250	0.71	22.25	0.45
4.267	0.80	10.267	2.16	16.267	0.71	22.27	0.45
4.283	0.80	10.283	2.16	16.283	0.71	22.28	0.45
4.300	0.80	10.300	2.16	16.300	0.71	22.30	0.45
4.317	0.80	10.317	2.16	16.317	0.71	22.32	0.45
4.333	0.80	10.333	2.16	16.333	0.71	22.33	0.45
4.350	0.83	10.350	2.03	16.350	0.70	22.35	0.45
4.367	0.83	10.367	2.03	16.367	0.70	22.37	0.45
4.383	0.83	10.383	2.03	16.383	0.70	22.38	0.45
4.400	0.83	10.400	2.03	16.400	0.70	22.40	0.45
4.417	0.83	10.417	2.03	16.417	0.70	22.42	0.45
4.433	0.83	10.433	2.03	16.433	0.70	22.43	0.45
4.450	0.83	10.450	2.03	16.450	0.70	22.45	0.45
4.467	0.83	10.467	2.03	16.467	0.70	22.47	0.45
4.483	0.83	10.483	2.03	16.483	0.70	22.48	0.45
4.500	0.83	10.500	2.03	16.500	0.70	22.50	0.45
4.517	0.87	10.517	1.92	16.517	0.69	22.52	0.44
4.533	0.87	10.533	1.92	16.533	0.69	22.53	0.44
4.550	0.87	10.550	1.92	16.550	0.69	22.55	0.44

4.567	0.87	10.567	1.92	16.567	0.69	22.57	0.44
4.583	0.87	10.583	1.92	16.583	0.69	22.58	0.44
4.600	0.87	10.600	1.92	16.600	0.69	22.60	0.44
4.617	0.87	10.617	1.92	16.617	0.69	22.62	0.44
4.633	0.87	10.633	1.92	16.633	0.69	22.63	0.44
4.650	0.87	10.650	1.92	16.650	0.69	22.65	0.44
4.667	0.87	10.667	1.92	16.667	0.69	22.67	0.44
4.683	0.91	10.683	1.82	16.683	0.68	22.68	0.44
4.700	0.91	10.700	1.82	16.700	0.68	22.70	0.44
4.717	0.91	10.717	1.82	16.717	0.68	22.72	0.44
4.733	0.91	10.733	1.82	16.733	0.68	22.73	0.44
4.750	0.91	10.750	1.82	16.750	0.68	22.75	0.44
4.767	0.91	10.767	1.82	16.767	0.68	22.77	0.44
4.783	0.91	10.783	1.82	16.783	0.68	22.78	0.44
4.800	0.91	10.800	1.82	16.800	0.68	22.80	0.44
4.817	0.91	10.817	1.82	16.817	0.68	22.82	0.44
4.833	0.91	10.833	1.82	16.833	0.68	22.83	0.44
4.850	0.95	10.850	1.73	16.850	0.67	22.85	0.44
4.867	0.95	10.867	1.73	16.867	0.67	22.87	0.44
4.883	0.95	10.883	1.73	16.883	0.67	22.88	0.44
4.900	0.95	10.900	1.73	16.900	0.67	22.90	0.44
4.917	0.95	10.917	1.73	16.917	0.67	22.92	0.44
4.933	0.95	10.933	1.73	16.933	0.67	22.93	0.44
4.950	0.95	10.950	1.73	16.950	0.67	22.95	0.44
4.967	0.95	10.967	1.73	16.967	0.67	22.97	0.44
4.983	0.95	10.983	1.73	16.983	0.67	22.98	0.44
5.000	0.95	11.000	1.73	17.000	0.67	23.00	0.44
5.017	1.00	11.017	1.65	17.017	0.66	23.02	0.43
5.033	1.00	11.033	1.65	17.033	0.66	23.03	0.43
5.050	1.00	11.050	1.65	17.050	0.66	23.05	0.43
5.067	1.00	11.067	1.65	17.067	0.66	23.07	0.43
5.083	1.00	11.083	1.65	17.083	0.66	23.08	0.43
5.100	1.00	11.100	1.65	17.100	0.66	23.10	0.43
5.117	1.00	11.117	1.65	17.117	0.66	23.12	0.43
5.133	1.00	11.133	1.65	17.133	0.66	23.13	0.43
5.150	1.00	11.150	1.65	17.150	0.66	23.15	0.43
5.167	1.00	11.167	1.64	17.167	0.66	23.17	0.43
5.183	1.06	11.183	1.57	17.183	0.65	23.18	0.43
5.200	1.06	11.200	1.57	17.200	0.65	23.20	0.43
5.217	1.06	11.217	1.57	17.217	0.65	23.22	0.43
5.233	1.06	11.233	1.57	17.233	0.65	23.23	0.43
5.250	1.06	11.250	1.57	17.250	0.65	23.25	0.43
5.267	1.06	11.267	1.57	17.267	0.65	23.27	0.43
5.283	1.06	11.283	1.57	17.283	0.65	23.28	0.43
5.300	1.06	11.300	1.57	17.300	0.65	23.30	0.43
5.317	1.06	11.317	1.57	17.317	0.65	23.32	0.43
5.333	1.06	11.333	1.57	17.333	0.65	23.33	0.43
5.350	1.12	11.350	1.51	17.350	0.64	23.35	0.42
5.367	1.12	11.367	1.51	17.367	0.64	23.37	0.42
5.383	1.12	11.383	1.51	17.383	0.64	23.38	0.42
5.400	1.12	11.400	1.51	17.400	0.64	23.40	0.42
5.417	1.12	11.417	1.51	17.417	0.64	23.42	0.42

5.433	1.12	11.433	1.51	17.433	0.64	23.43	0.42
5.450	1.12	11.450	1.51	17.450	0.64	23.45	0.42
5.467	1.12	11.467	1.51	17.467	0.64	23.47	0.42
5.483	1.12	11.483	1.51	17.483	0.64	23.48	0.42
5.500	1.12	11.500	1.51	17.500	0.64	23.50	0.42
5.517	1.19	11.517	1.45	17.517	0.63	23.52	0.42
5.533	1.19	11.533	1.45	17.533	0.63	23.53	0.42
5.550	1.19	11.550	1.45	17.550	0.63	23.55	0.42
5.567	1.19	11.567	1.45	17.567	0.63	23.57	0.42
5.583	1.19	11.583	1.45	17.583	0.63	23.58	0.42
5.600	1.19	11.600	1.45	17.600	0.63	23.60	0.42
5.617	1.19	11.617	1.45	17.617	0.63	23.62	0.42
5.633	1.19	11.633	1.45	17.633	0.63	23.63	0.42
5.650	1.19	11.650	1.45	17.650	0.63	23.65	0.42
5.667	1.19	11.667	1.45	17.667	0.63	23.67	0.42
5.683	1.27	11.683	1.39	17.683	0.62	23.68	0.42
5.700	1.27	11.700	1.39	17.700	0.62	23.70	0.42
5.717	1.27	11.717	1.39	17.717	0.62	23.72	0.42
5.733	1.27	11.733	1.39	17.733	0.62	23.73	0.42
5.750	1.27	11.750	1.39	17.750	0.62	23.75	0.42
5.767	1.27	11.767	1.39	17.767	0.62	23.77	0.42
5.783	1.27	11.783	1.39	17.783	0.62	23.78	0.42
5.800	1.27	11.800	1.39	17.800	0.62	23.80	0.42
5.817	1.27	11.817	1.39	17.817	0.62	23.82	0.42
5.833	1.27	11.833	1.39	17.833	0.62	23.83	0.42
5.850	1.36	11.850	1.34	17.850	0.61	23.85	0.41
5.867	1.36	11.867	1.34	17.867	0.61	23.87	0.41
5.883	1.36	11.883	1.34	17.883	0.61	23.88	0.41
5.900	1.36	11.900	1.34	17.900	0.61	23.90	0.41
5.917	1.36	11.917	1.34	17.917	0.61	23.92	0.41
5.933	1.36	11.933	1.34	17.933	0.61	23.93	0.41
5.950	1.36	11.950	1.34	17.950	0.61	23.95	0.41
5.967	1.36	11.967	1.34	17.967	0.61	23.97	0.41
5.983	1.36	11.983	1.34	17.983	0.61	23.98	0.41
6.000	1.36	12.000	1.34	18.000	0.61	24.00	0.41

Max.Eff.Inten.(mm/hr)=	84.13	10.99	
over (min)	5.00	14.00	
Storage Coeff. (min)=	4.44 (ii)	13.21 (ii)	
Unit Hyd. Tpeak (min)=	5.00	14.00	
Unit Hyd. peak (cms)=	0.24	0.08	
			TOTALS
PEAK FLOW (cms)=	0.29	0.04	0.307 (iii)
TIME TO PEAK (hrs)=	8.02	8.20	8.02
RUNOFF VOLUME (mm)=	52.25	8.14	24.90
TOTAL RAINFALL (mm)=	53.26	53.26	53.26
RUNOFF COEFFICIENT =	0.98	0.15	0.47

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 48.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL

THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	
STANDHYD (1022)	Area (ha)= 2.86
ID= 1 DT= 1.0 min	Total Imp(%)= 41.00 Dir. Conn.(%)= 35.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	1.17	1.69
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	9.50	2.00
Length	(m)=	138.06	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 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
0.017	0.42	6.017	1.47	12.017	1.29	18.02	0.60
0.033	0.42	6.033	1.47	12.033	1.29	18.03	0.60
0.050	0.42	6.050	1.47	12.050	1.29	18.05	0.60
0.067	0.42	6.067	1.47	12.067	1.29	18.07	0.60
0.083	0.42	6.083	1.47	12.083	1.29	18.08	0.60
0.100	0.42	6.100	1.47	12.100	1.29	18.10	0.60
0.117	0.42	6.117	1.47	12.117	1.29	18.12	0.60
0.133	0.42	6.133	1.47	12.133	1.29	18.13	0.60
0.150	0.42	6.150	1.47	12.150	1.29	18.15	0.60
0.167	0.42	6.167	1.47	12.167	1.29	18.17	0.60
0.183	0.43	6.183	1.61	12.183	1.25	18.18	0.59
0.200	0.43	6.200	1.61	12.200	1.25	18.20	0.59
0.217	0.43	6.217	1.61	12.217	1.25	18.22	0.59
0.233	0.43	6.233	1.61	12.233	1.25	18.23	0.59
0.250	0.43	6.250	1.61	12.250	1.25	18.25	0.59
0.267	0.43	6.267	1.61	12.267	1.25	18.27	0.59
0.283	0.43	6.283	1.61	12.283	1.25	18.28	0.59
0.300	0.43	6.300	1.61	12.300	1.25	18.30	0.59
0.317	0.43	6.317	1.61	12.317	1.25	18.32	0.59
0.333	0.43	6.333	1.61	12.333	1.25	18.33	0.59
0.350	0.44	6.350	1.77	12.350	1.21	18.35	0.59
0.367	0.44	6.367	1.77	12.367	1.21	18.37	0.59
0.383	0.44	6.383	1.77	12.383	1.21	18.38	0.59
0.400	0.44	6.400	1.77	12.400	1.21	18.40	0.59
0.417	0.44	6.417	1.77	12.417	1.21	18.42	0.59
0.433	0.44	6.433	1.77	12.433	1.21	18.43	0.59
0.450	0.44	6.450	1.77	12.450	1.21	18.45	0.59
0.467	0.44	6.467	1.77	12.467	1.21	18.47	0.59
0.483	0.44	6.483	1.77	12.483	1.21	18.48	0.59
0.500	0.44	6.500	1.77	12.500	1.21	18.50	0.59

0.517	0.44	6.517	1.97	12.517	1.17	18.52	0.58
0.533	0.44	6.533	1.97	12.533	1.17	18.53	0.58
0.550	0.44	6.550	1.97	12.550	1.17	18.55	0.58
0.567	0.44	6.567	1.97	12.567	1.17	18.57	0.58
0.583	0.44	6.583	1.97	12.583	1.17	18.58	0.58
0.600	0.44	6.600	1.97	12.600	1.17	18.60	0.58
0.617	0.44	6.617	1.97	12.617	1.17	18.62	0.58
0.633	0.44	6.633	1.97	12.633	1.17	18.63	0.58
0.650	0.44	6.650	1.97	12.650	1.17	18.65	0.58
0.667	0.44	6.667	1.97	12.667	1.17	18.67	0.58
0.683	0.45	6.683	2.23	12.683	1.14	18.68	0.57
0.700	0.45	6.700	2.23	12.700	1.14	18.70	0.57
0.717	0.45	6.717	2.23	12.717	1.14	18.72	0.57
0.733	0.45	6.733	2.23	12.733	1.14	18.73	0.57
0.750	0.45	6.750	2.23	12.750	1.14	18.75	0.57
0.767	0.45	6.767	2.23	12.767	1.14	18.77	0.57
0.783	0.45	6.783	2.23	12.783	1.14	18.78	0.57
0.800	0.45	6.800	2.23	12.800	1.14	18.80	0.57
0.817	0.45	6.817	2.23	12.817	1.14	18.82	0.57
0.833	0.45	6.833	2.23	12.833	1.14	18.83	0.57
0.850	0.46	6.850	2.59	12.850	1.10	18.85	0.56
0.867	0.46	6.867	2.59	12.867	1.10	18.87	0.56
0.883	0.46	6.883	2.59	12.883	1.10	18.88	0.56
0.900	0.46	6.900	2.59	12.900	1.10	18.90	0.56
0.917	0.46	6.917	2.59	12.917	1.10	18.92	0.56
0.933	0.46	6.933	2.59	12.933	1.10	18.93	0.56
0.950	0.46	6.950	2.59	12.950	1.10	18.95	0.56
0.967	0.46	6.967	2.59	12.967	1.10	18.97	0.56
0.983	0.46	6.983	2.59	12.983	1.10	18.98	0.56
1.000	0.46	7.000	2.59	13.000	1.10	19.00	0.56
1.017	0.47	7.017	3.09	13.017	1.07	19.02	0.56
1.033	0.47	7.033	3.09	13.033	1.07	19.03	0.56
1.050	0.47	7.050	3.09	13.050	1.07	19.05	0.56
1.067	0.47	7.067	3.09	13.067	1.07	19.07	0.56
1.083	0.47	7.083	3.09	13.083	1.07	19.08	0.56
1.100	0.47	7.100	3.09	13.100	1.07	19.10	0.56
1.117	0.47	7.117	3.09	13.117	1.07	19.12	0.56
1.133	0.47	7.133	3.09	13.133	1.07	19.13	0.56
1.150	0.47	7.150	3.09	13.150	1.07	19.15	0.56
1.167	0.47	7.167	3.09	13.167	1.07	19.17	0.56
1.183	0.48	7.183	3.86	13.183	1.04	19.18	0.55
1.200	0.48	7.200	3.86	13.200	1.04	19.20	0.55
1.217	0.48	7.217	3.86	13.217	1.04	19.22	0.55
1.233	0.48	7.233	3.86	13.233	1.04	19.23	0.55
1.250	0.48	7.250	3.86	13.250	1.04	19.25	0.55
1.267	0.48	7.267	3.86	13.267	1.04	19.27	0.55
1.283	0.48	7.283	3.86	13.283	1.04	19.28	0.55
1.300	0.48	7.300	3.86	13.300	1.04	19.30	0.55
1.317	0.48	7.317	3.86	13.317	1.04	19.32	0.55
1.333	0.48	7.333	3.86	13.333	1.04	19.33	0.55
1.350	0.49	7.350	5.21	13.350	1.02	19.35	0.54
1.367	0.49	7.367	5.21	13.367	1.02	19.37	0.54

1.383	0.49	7.383	5.21	13.383	1.02	19.38	0.54
1.400	0.49	7.400	5.21	13.400	1.02	19.40	0.54
1.417	0.49	7.417	5.21	13.417	1.02	19.42	0.54
1.433	0.49	7.433	5.21	13.433	1.02	19.43	0.54
1.450	0.49	7.450	5.21	13.450	1.02	19.45	0.54
1.467	0.49	7.467	5.21	13.467	1.02	19.47	0.54
1.483	0.49	7.483	5.21	13.483	1.02	19.48	0.54
1.500	0.49	7.500	5.22	13.500	1.02	19.50	0.54
1.517	0.50	7.517	8.22	13.517	0.99	19.52	0.54
1.533	0.50	7.533	8.22	13.533	0.99	19.53	0.54
1.550	0.50	7.550	8.22	13.550	0.99	19.55	0.54
1.567	0.50	7.567	8.22	13.567	0.99	19.57	0.54
1.583	0.50	7.583	8.22	13.583	0.99	19.58	0.54
1.600	0.50	7.600	8.22	13.600	0.99	19.60	0.54
1.617	0.50	7.617	8.22	13.617	0.99	19.62	0.54
1.633	0.50	7.633	8.22	13.633	0.99	19.63	0.54
1.650	0.50	7.650	8.22	13.650	0.99	19.65	0.54
1.667	0.50	7.667	8.26	13.667	0.99	19.67	0.54
1.683	0.51	7.683	20.77	13.683	0.97	19.68	0.53
1.700	0.51	7.700	20.77	13.700	0.97	19.70	0.53
1.717	0.51	7.717	20.77	13.717	0.97	19.72	0.53
1.733	0.51	7.733	20.77	13.733	0.97	19.73	0.53
1.750	0.51	7.750	20.77	13.750	0.97	19.75	0.53
1.767	0.51	7.767	20.77	13.767	0.97	19.77	0.53
1.783	0.51	7.783	20.77	13.783	0.97	19.78	0.53
1.800	0.51	7.800	20.77	13.800	0.97	19.80	0.53
1.817	0.51	7.817	20.77	13.817	0.97	19.82	0.53
1.833	0.51	7.833	20.95	13.833	0.97	19.83	0.53
1.850	0.53	7.850	84.13	13.850	0.94	19.85	0.52
1.867	0.53	7.867	84.13	13.867	0.94	19.87	0.52
1.883	0.53	7.883	84.13	13.883	0.94	19.88	0.52
1.900	0.53	7.900	84.13	13.900	0.94	19.90	0.52
1.917	0.53	7.917	84.13	13.917	0.94	19.92	0.52
1.933	0.53	7.933	84.13	13.933	0.94	19.93	0.52
1.950	0.53	7.950	84.13	13.950	0.94	19.95	0.52
1.967	0.53	7.967	84.13	13.967	0.94	19.97	0.52
1.983	0.53	7.983	84.13	13.983	0.94	19.98	0.52
2.000	0.53	8.000	83.96	14.000	0.94	20.00	0.52
2.017	0.54	8.017	27.50	14.017	0.92	20.02	0.52
2.033	0.54	8.033	27.50	14.033	0.92	20.03	0.52
2.050	0.54	8.050	27.50	14.050	0.92	20.05	0.52
2.067	0.54	8.067	27.50	14.067	0.92	20.07	0.52
2.083	0.54	8.083	27.50	14.083	0.92	20.08	0.52
2.100	0.54	8.100	27.50	14.100	0.92	20.10	0.52
2.117	0.54	8.117	27.50	14.117	0.92	20.12	0.52
2.133	0.54	8.133	27.50	14.133	0.92	20.13	0.52
2.150	0.54	8.150	27.50	14.150	0.92	20.15	0.52
2.167	0.54	8.167	27.46	14.167	0.92	20.17	0.52
2.183	0.55	8.183	14.07	14.183	0.90	20.18	0.51
2.200	0.55	8.200	14.07	14.200	0.90	20.20	0.51
2.217	0.55	8.217	14.07	14.217	0.90	20.22	0.51
2.233	0.55	8.233	14.07	14.233	0.90	20.23	0.51

2.250	0.55	8.250	14.07	14.250	0.90	20.25	0.51
2.267	0.55	8.267	14.07	14.267	0.90	20.27	0.51
2.283	0.55	8.283	14.07	14.283	0.90	20.28	0.51
2.300	0.55	8.300	14.07	14.300	0.90	20.30	0.51
2.317	0.55	8.317	14.07	14.317	0.90	20.32	0.51
2.333	0.55	8.333	14.06	14.333	0.90	20.33	0.51
2.350	0.57	8.350	9.40	14.350	0.88	20.35	0.51
2.367	0.57	8.367	9.40	14.367	0.88	20.37	0.51
2.383	0.57	8.383	9.40	14.383	0.88	20.38	0.51
2.400	0.57	8.400	9.40	14.400	0.88	20.40	0.51
2.417	0.57	8.417	9.40	14.417	0.88	20.42	0.51
2.433	0.57	8.433	9.40	14.433	0.88	20.43	0.51
2.450	0.57	8.450	9.40	14.450	0.88	20.45	0.51
2.467	0.57	8.467	9.40	14.467	0.88	20.47	0.51
2.483	0.57	8.483	9.40	14.483	0.88	20.48	0.51
2.500	0.57	8.500	9.39	14.500	0.88	20.50	0.51
2.517	0.58	8.517	7.07	14.517	0.86	20.52	0.50
2.533	0.58	8.533	7.07	14.533	0.86	20.53	0.50
2.550	0.58	8.550	7.07	14.550	0.86	20.55	0.50
2.567	0.58	8.567	7.07	14.567	0.86	20.57	0.50
2.583	0.58	8.583	7.07	14.583	0.86	20.58	0.50
2.600	0.58	8.600	7.07	14.600	0.86	20.60	0.50
2.617	0.58	8.617	7.07	14.617	0.86	20.62	0.50
2.633	0.58	8.633	7.07	14.633	0.86	20.63	0.50
2.650	0.58	8.650	7.07	14.650	0.86	20.65	0.50
2.667	0.58	8.667	7.07	14.667	0.86	20.67	0.50
2.683	0.60	8.683	5.68	14.683	0.84	20.68	0.50
2.700	0.60	8.700	5.68	14.700	0.84	20.70	0.50
2.717	0.60	8.717	5.68	14.717	0.84	20.72	0.50
2.733	0.60	8.733	5.68	14.733	0.84	20.73	0.50
2.750	0.60	8.750	5.68	14.750	0.84	20.75	0.50
2.767	0.60	8.767	5.68	14.767	0.84	20.77	0.50
2.783	0.60	8.783	5.68	14.783	0.84	20.78	0.50
2.800	0.60	8.800	5.68	14.800	0.84	20.80	0.50
2.817	0.60	8.817	5.68	14.817	0.84	20.82	0.50
2.833	0.60	8.833	5.68	14.833	0.84	20.83	0.50
2.850	0.61	8.850	4.76	14.850	0.83	20.85	0.49
2.867	0.61	8.867	4.76	14.867	0.83	20.87	0.49
2.883	0.61	8.883	4.76	14.883	0.83	20.88	0.49
2.900	0.61	8.900	4.76	14.900	0.83	20.90	0.49
2.917	0.61	8.917	4.76	14.917	0.83	20.92	0.49
2.933	0.61	8.933	4.76	14.933	0.83	20.93	0.49
2.950	0.61	8.950	4.76	14.950	0.83	20.95	0.49
2.967	0.61	8.967	4.76	14.967	0.83	20.97	0.49
2.983	0.61	8.983	4.76	14.983	0.83	20.98	0.49
3.000	0.61	9.000	4.76	15.000	0.83	21.00	0.49
3.017	0.63	9.017	4.11	15.017	0.81	21.02	0.49
3.033	0.63	9.033	4.11	15.033	0.81	21.03	0.49
3.050	0.63	9.050	4.11	15.050	0.81	21.05	0.49
3.067	0.63	9.067	4.11	15.067	0.81	21.07	0.49
3.083	0.63	9.083	4.11	15.083	0.81	21.08	0.49
3.100	0.63	9.100	4.11	15.100	0.81	21.10	0.49
3.117	0.63	9.117	4.11	15.117	0.81	21.12	0.49
3.133	0.63	9.133	4.11	15.133	0.81	21.13	0.49
3.150	0.63	9.150	4.11	15.150	0.81	21.15	0.49
3.167	0.63	9.167	4.11	15.167	0.81	21.17	0.49
3.183	0.65	9.183	3.62	15.183	0.79	21.18	0.48
3.200	0.65	9.200	3.62	15.200	0.79	21.20	0.48
3.217	0.65	9.217	3.62	15.217	0.79	21.22	0.48
3.233	0.65	9.233	3.62	15.233	0.79	21.23	0.48
3.250	0.65	9.250	3.62	15.250	0.79	21.25	0.48
3.267	0.65	9.267	3.62	15.267	0.79	21.27	0.48
3.283	0.65	9.283	3.62	15.283	0.79	21.28	0.48
3.300	0.65	9.300	3.62	15.300	0.79	21.30	0.48
3.317	0.65	9.317	3.62	15.317	0.79	21.32	0.48
3.333	0.65	9.333	3.62	15.333	0.79	21.33	0.48
3.350	0.67	9.350	3.24	15.350	0.78	21.35	0.48
3.367	0.67	9.367	3.24	15.367	0.78	21.37	0.48
3.383	0.67	9.383	3.24	15.383	0.78	21.38	0.48
3.400	0.67	9.400	3.24	15.400	0.78	21.40	0.48
3.417	0.67	9.417	3.24	15.417	0.78	21.42	0.48
3.433	0.67	9.433	3.24	15.433	0.78	21.43	0.48
3.450	0.67	9.450	3.24	15.450	0.78	21.45	0.48
3.467	0.67	9.467	3.24	15.467	0.78	21.47	0.48
3.483	0.67	9.483	3.24	15.483	0.78	21.48	0.48
3.500	0.67	9.500	3.24	15.500	0.78	21.50	0.48
3.517	0.69	9.517	2.94	15.517	0.77	21.52	0.47
3.533	0.69	9.533	2.94	15.533	0.77	21.53	0.47
3.550	0.69	9.550	2.94	15.550	0.77	21.55	0.47
3.567	0.69	9.567	2.94	15.567	0.77	21.57	0.47
3.583	0.69	9.583	2.94	15.583	0.77	21.58	0.47
3.600	0.69	9.600	2.94	15.600	0.77	21.60	0.47
3.617	0.69	9.617	2.94	15.617	0.77	21.62	0.47
3.633	0.69	9.633	2.94	15.633	0.77	21.63	0.47
3.650	0.69	9.650	2.94	15.650	0.77	21.65	0.47
3.667	0.69	9.667	2.94	15.667	0.77	21.67	0.47
3.683	0.72	9.683	2.69	15.683	0.75	21.68	0.47
3.700	0.72	9.700	2.69	15.700	0.75	21.70	0.47
3.717	0.72	9.717	2.69	15.717	0.75	21.72	0.47
3.733	0.72	9.733	2.69	15.733	0.75	21.73	0.47
3.750	0.72	9.750	2.69	15.750	0.75	21.75	0.47
3.767	0.72	9.767	2.69	15.767	0.75	21.77	0.47
3.783	0.72	9.783	2.69	15.783	0.75	21.78	0.47
3.800	0.72	9.800	2.69	15.800	0.75	21.80	0.47
3.817	0.72	9.817	2.69	15.817	0.75	21.82	0.47
3.833	0.72	9.833	2.69	15.833	0.75	21.83	0.47
3.850	0.74	9.850	2.49	15.850	0.74	21.85	0.46
3.867	0.74	9.867	2.49	15.867	0.74	21.87	0.46
3.883	0.74	9.883	2.49	15.883	0.74	21.88	0.46
3.900	0.74	9.900	2.49	15.900	0.74	21.90	0.46
3.917	0.74	9.917	2.49	15.917	0.74	21.92	0.46
3.933	0.74	9.933	2.49	15.933	0.74	21.93	0.46
3.950	0.74	9.950	2.49	15.950	0.74	21.95	0.46
3.967	0.74	9.967	2.49	15.967	0.74	21.97	0.46
3.983	0.74	9.983	2.49	15.983	0.74	21.98	0.46
4.000	0.74	10.000	2.49	16.000	0.74	22.00	0.46
4.017	0.77	10.017	2.31	16.017	0.73	22.02	0.46
4.033	0.77	10.033	2.31	16.033	0.73	22.03	0.46
4.050	0.77	10.050	2.31	16.050	0.73	22.05	0.46
4.067	0.77	10.067	2.31	16.067	0.73	22.07	0.46
4.083	0.77	10.083	2.31	16.083	0.73	22.08	0.46
4.100	0.77	10.100	2.31	16.100	0.73	22.10	0.46
4.117	0.77	10.117	2.31	16.117	0.73	22.12	0.46
4.133	0.77	10.133	2.31	16.133	0.73	22.13	0.46
4.150	0.77	10.150	2.31	16.150	0.73	22.15	0.46
4.167	0.77	10.167	2.31	16.167	0.73	22.17	0.46
4.183	0.80	10.183	2.16	16.183	0.71	22.18	0.45
4.200	0.80	10.200	2.16	16.200	0.71	22.20	0.45
4.217	0.80	10.217	2.16	16.217	0.71	22.22	0.45
4.233	0.80	10.233	2.16	16.233	0.71	22.23	0.45
4.250	0.80	10.250	2.16	16.250	0.71	22.25	0.45
4.267	0.80	10.267	2.16	16.267	0.71	22.27	0.45
4.283	0.80	10.283	2.16	16.283	0.71	22.28	0.45
4.300	0.80	10.300	2.16	16.300	0.71	22.30	0.45
4.317	0.80	10.317	2.16	16.317	0.71	22.32	0.45
4.333	0.80	10.333	2.16	16.333	0.71	22.33	0.45
4.350	0.83	10.350	2.03	16.350	0.70	22.35	0.45
4.367	0.83	10.367	2.03	16.367	0.70	22.37	0.45
4.383	0.83	10.383	2.03	16.383	0.70	22.38	0.45
4.400	0.83	10.400	2.03	16.400	0.70	22.40	0.45
4.417	0.83	10.417	2.03	16.417	0.70	22.42	0.45
4.433	0.83	10.433	2.03	16.433	0.70	22.43	0.45
4.450	0.83	10.450	2.03	16.450	0.70	22.45	0.45
4.467	0.83	10.467	2.03	16.467	0.70	22.47	0.45
4.483	0.83	10.483	2.03	16.483	0.70	22.48	0.45
4.500	0.83	10.500	2.03	16.500	0.70	22.50	0.45
4.517	0.87	10.517	1.92	16.517	0.69	22.52	0.44
4.533	0.87	10.533	1.92	16.533	0.69	22.53	0.44
4.550	0.87	10.550	1.92	16.550	0.69	22.55	0.44
4.567	0.87	10.567	1.92	16.567	0.69	22.57	0.44
4.583	0.87	10.583	1.92	16.583	0.69	22.58	0.44
4.600	0.87	10.600	1.92	16.600	0.69	22.60	0.44
4.617	0.87	10.617	1.92	16.617	0.69	22.62	0.44
4.633	0.87	10.633	1.92	16.633	0.69	22.63	0.44
4.650	0.87	10.650	1.92	16.650	0.69	22.65	0.44
4.667	0.87	10.667	1.92	16.667	0.69	22.67	0.44
4.683	0.91	10.683	1.82	16.683	0.68	22.68	0.44
4.700	0.91	10.700	1.82	16.700	0.68	22.70	0.44
4.717	0.91	10.717	1.82	16.717	0.68	22.72	0.44
4.733	0.91	10.733	1.82	16.733	0.68	22.73	0.44
4.750	0.91	10.750	1.82	16.750	0.68	22.75	0.44
4.767	0.91	10.767	1.82	16.767	0.68	22.77	0.44
4.783	0.91	10.783	1.82	16.783	0.68	22.78	0.44
4.800	0.91	10.800	1.82	16.800	0.68	22.80	0.44
4.817	0.91	10.817	1.82	16.817	0.68	22.82	0.44
4.833	0.91	10.833	1.82	16.833	0.68	22.83	0.44
4.850	0.95	10.850	1.73	16.850	0.67	22.85	0.44
4.867	0.95	10.867	1.73	16.867	0.67	22.87	0.44
4.883	0.95	10.883	1.73	16.883	0.67	22.88	0.44
4.900	0.95	10.900	1.73	16.900	0.67	22.90	0.44
4.917	0.95	10.917	1.73	16.917	0.67	22.92	0.44
4.933	0.95	10.933	1.73	16.933	0.67	22.93	0.44
4.950	0.95	10.950	1.73	16.950	0.67	22.95	0.44
4.967	0.95	10.967	1.73	16.967	0.67	22.97	0.44
4.983	0.95	10.983	1.73	16.983	0.67	22.98	0.44
5.000	0.95	11.000	1.73	17.000	0.67	23.00	0.44
5.017	1.00	11.017	1.65	17.017	0.66	23.02	0.43
5.033	1.00	11.033	1.65	17.033	0.66	23.03	0.43
5.050	1.00	11.050	1.65	17.050	0.66	23.05	0.43
5.067	1.00	11.067	1.65	17.067	0.66	23.07	0.43
5.083	1.00	11.083	1.65	17.083	0.66	23.08	0.43
5.100	1.00	11.100	1.65	17.100	0.66	23.10	0.43
5.117	1.00	11.117	1.65	17.117	0.66	23.12	0.43
5.133	1.00	11.133	1.65	17.133	0.66	23.13	0.43
5.150	1.00	11.150	1.65	17.150	0.66	23.15	0.43
5.167	1.00	11.167	1.64	17.167	0.66	23.17	0.43
5.183	1.06	11.183	1.57	17.183	0.65	23.18	0.43
5.200	1.06	11.200	1.57	17.200	0.65	23.20	0.43
5.217	1.06	11.217	1.57	17.217	0.65	23.22	0.43
5.233	1.06	11.233	1.57	17.233	0.65	23.23	0.43
5.250	1.06	11.250	1.57	17.250	0.65	23.25	0.43
5.267	1.06	11.267	1.57	17.267	0.65	23.27	0.43
5.283	1.06	11.283	1.57	17.283	0.65	23.28	0.43
5.300	1.06	11.300	1.57	17.300	0.65	23.30	0.43
5.317	1.06	11.317	1.57	17.317	0.65	23.32	0.43
5.333	1.06	11.333	1.57	17.333	0.65	23.33	0.43
5.350	1.12	11.350	1.51	17.350	0.64	23.35	0.42
5.367	1.12	11.367	1.51	17.367	0.64	23.37	0.42
5.383	1.12	11.383	1.51	17.383	0.64	23.38	0.42
5.400	1.12	11.400	1.51	17.400	0.64	23.40	0.42
5.417	1.12	11.417	1.51	17.417	0.64	23.42	0.42
5.433	1.12	11.433	1.51	17.433	0.64	23.43	0.42
5.450	1.12	11.450	1.51	17.450	0.64	23.45	0.42
5.467	1.12	11.467	1.51	17.467	0.64	23.47	0.42
5.483	1.12	11.483	1.51	17.483	0.64	23.48	0.42
5.500	1.12	11.500	1.51	17.500	0.64	23.50	0.42
5.517	1.19	11.517	1.45	17.517	0.63	23.52	0.42
5.533	1.19	11.533	1.45	17.533	0.63	23.53	0.42
5.550	1.19	11.550	1.45	17.550	0.63	23.55	0.42
5.567	1.19	11.567	1.45	17.567	0.63	23.57	0.42
5.583	1.19	11.583	1.45	17.583	0.63	23.58	0.42
5.600	1.19	11.600	1.45	17.600	0.63	23.60	0.42
5.617	1.19	11.617	1.45	17.617	0.63	23.62	0.42
5.633	1.19	11.633	1.45	17.633	0.63	23.63	0.42
5.650	1.19	11.650	1.45	17.650	0.63	23.65	0.42
5.667	1.19	11.667	1.45	17.667	0.63	23.67	0.42
5.683	1.27	11.683	1.39	17.683	0.62	23.68	0.42
5.700	1.27	11.700	1.39	17.700	0.62	23.70	0.42
5.717	1.27	11.717	1.39	17.717	0.62	23.72	0.42
5.733	1.27	11.733	1.39	17.733	0.62	23.73	0.42
5.750	1.27	11.750	1.39	17.750	0.62	23.75	0.42
5.767	1.27	11.767	1.39	17.767	0.62	23.77	0.42
5.783	1.27	11.783	1.39	17.783	0.62	23.78	0.42
5.800	1.27	11.800	1.39	17.800	0.62	23.80	0.42
5.817	1.27	11.817	1.39	17.817	0.62	23.82	0.42
5.833	1.27	11.833	1.39	17.833	0.62	23.83	0.42
5.850	1.36	11.850	1.34	17.850	0.61	23.85	0.41
5.867	1.36	11.867	1.34	17.867	0.61	23.87	0.41
5.883	1.36	11.883	1.34	17.883	0.61	23.88	0.41
5.900	1.36	11.900	1.34	17.900	0.61	23.90	0.41
5.917	1.36	11.917	1.34	17.917	0.61	23.92	0.41
5.933	1.36	11.933	1.34	17.933	0.61	23.93	0.41
5.950	1.36	11.950	1.34	17.950	0.61	23.95	0.41
5.967	1.36	11.967	1.34	17.967	0.61	23.97	0.41
5.983	1.36	11.983	1.34	17.983	0.61	23.98	0.41
6.000	1.36	12.000	1.34	18.000	0.61	24.00	0.41

```
     Max.Eff.Inten.(mm/hr)=      84.13         7.84
                over (min)        5.00        24.00
     Storage Coeff.  (min)=      4.09 (ii)   23.63 (ii)
     Unit Hyd. Tpeak (min)=      5.00        24.00
     Unit Hyd. peak  (cms)=      0.26         0.05
                                                      *TOTALS*
     PEAK FLOW       (cms)=      0.21         0.02          0.211 (iii)
     TIME TO PEAK    (hrs)=      8.02         8.38          8.02
     RUNOFF VOLUME    (mm)=     52.25         7.95         23.46
     TOTAL RAINFALL   (mm)=     53.26        53.26         53.26
     RUNOFF COEFFICIENT   =      0.98         0.15          0.44


       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN*  =  48.0    Ia = Dep. Storage  (Above)
       (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
            THAN THE STORAGE COEFFICIENT.
       (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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-------------------
| DUHYD    (  0035)|
| Inlet Cap.= 0.202|
| #of Inlets=     1|
| Total(cms)=   0.2|      AREA     QPEAK     TPEAK    R.V.
-------------------      (ha)     (cms)     (hrs)    (mm)
     TOTAL HYD.(ID= 1):   2.86      0.21      8.02   23.46
     ================================================
     MAJOR SYS.(ID= 2):   0.01      0.01      8.02   23.46
     MINOR SYS.(ID= 3):   2.85      0.20      8.00   23.46

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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-------------------
| ADD HYD  (  0102)|
|   1 +  2 =  3    |        AREA     QPEAK     TPEAK     R.V.
-------------------        (ha)     (cms)     (hrs)     (mm)
       ID1= 1 (  1021):    3.77     0.307      8.02    24.90
     + ID2= 2 (  0035):    0.01     0.009      8.02    23.46
       ================================================
       ID = 3 (  0102):    3.78     0.316      8.02    24.90

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

-------------------
| ADD HYD  (  0903)|
|   1 +  2 =  3    |        AREA     QPEAK     TPEAK     R.V.
-------------------        (ha)     (cms)     (hrs)     (mm)
       ID1= 1 (  0102):    3.78     0.316      8.02    24.90
     + ID2= 2 (  0902):   15.67     1.058      8.05    24.03
       ================================================
       ID = 3 (  0903):   19.44     1.360      8.03    24.20

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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| CALIB            |
| NASHYD   (  1051)|   Area     (ha)=   1.62   Curve Number   (CN)= 60.0
|ID= 1 DT= 5.0 min |   Ia       (mm)=   5.00   # of Linear Res.(N)= 3.00
-------------------   U.H. Tp(hrs)=   1.87

        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   0.42 | 6.083   1.47 |12.083   1.29 | 18.08   0.60
 0.167   0.42 | 6.167   1.47 |12.167   1.29 | 18.17   0.60
 0.250   0.43 | 6.250   1.61 |12.250   1.25 | 18.25   0.59
 0.333   0.43 | 6.333   1.61 |12.333   1.25 | 18.33   0.59
 0.417   0.44 | 6.417   1.77 |12.417   1.21 | 18.42   0.59
 0.500   0.44 | 6.500   1.77 |12.500   1.21 | 18.50   0.59
 0.583   0.44 | 6.583   1.97 |12.583   1.17 | 18.58   0.58
 0.667   0.44 | 6.667   1.97 |12.667   1.17 | 18.67   0.58
 0.750   0.45 | 6.750   2.23 |12.750   1.14 | 18.75   0.57
 0.833   0.45 | 6.833   2.23 |12.833   1.14 | 18.83   0.57
 0.917   0.46 | 6.917   2.59 |12.917   1.10 | 18.92   0.56
 1.000   0.46 | 7.000   2.59 |13.000   1.10 | 19.00   0.56
 1.083   0.47 | 7.083   3.09 |13.083   1.07 | 19.08   0.56
 1.167   0.47 | 7.167   3.09 |13.167   1.07 | 19.17   0.56
 1.250   0.48 | 7.250   3.86 |13.250   1.04 | 19.25   0.55
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1.333	0.48	7.333	3.86	13.333	1.04	19.33	0.55
1.417	0.49	7.417	5.21	13.417	1.02	19.42	0.54
1.500	0.49	7.500	5.21	13.500	1.02	19.50	0.54
1.583	0.50	7.583	8.22	13.583	0.99	19.58	0.54
1.667	0.50	7.667	8.23	13.667	0.99	19.67	0.54
1.750	0.51	7.750	20.77	13.750	0.97	19.75	0.53
1.833	0.51	7.833	20.77	13.833	0.97	19.83	0.53
1.917	0.53	7.917	84.13	13.917	0.94	19.92	0.52
2.000	0.53	8.000	84.13	14.000	0.94	20.00	0.52
2.083	0.54	8.083	27.50	14.083	0.92	20.08	0.52
2.167	0.54	8.167	27.50	14.167	0.92	20.17	0.52
2.250	0.55	8.250	14.07	14.250	0.90	20.25	0.51
2.333	0.55	8.333	14.07	14.333	0.90	20.33	0.51
2.417	0.57	8.417	9.40	14.417	0.88	20.42	0.51
2.500	0.57	8.500	9.40	14.500	0.88	20.50	0.51
2.583	0.58	8.583	7.07	14.583	0.86	20.58	0.50
2.667	0.58	8.667	7.07	14.667	0.86	20.67	0.50
2.750	0.60	8.750	5.68	14.750	0.84	20.75	0.50
2.833	0.60	8.833	5.68	14.833	0.84	20.83	0.50
2.917	0.61	8.917	4.76	14.917	0.83	20.92	0.49
3.000	0.61	9.000	4.76	15.000	0.83	21.00	0.49
3.083	0.63	9.083	4.11	15.083	0.81	21.08	0.49
3.167	0.63	9.167	4.11	15.167	0.81	21.17	0.49
3.250	0.65	9.250	3.62	15.250	0.79	21.25	0.48
3.333	0.65	9.333	3.62	15.333	0.79	21.33	0.48
3.417	0.67	9.417	3.24	15.417	0.78	21.42	0.48
3.500	0.67	9.500	3.24	15.500	0.78	21.50	0.48
3.583	0.69	9.583	2.94	15.583	0.77	21.58	0.47
3.667	0.69	9.667	2.94	15.667	0.77	21.67	0.47
3.750	0.72	9.750	2.69	15.750	0.75	21.75	0.47
3.833	0.72	9.833	2.69	15.833	0.75	21.83	0.47
3.917	0.74	9.917	2.49	15.917	0.74	21.92	0.46
4.000	0.74	10.000	2.49	16.000	0.74	22.00	0.46
4.083	0.77	10.083	2.31	16.083	0.73	22.08	0.46
4.167	0.77	10.167	2.31	16.167	0.73	22.17	0.46
4.250	0.80	10.250	2.16	16.250	0.71	22.25	0.45
4.333	0.80	10.333	2.16	16.333	0.71	22.33	0.45
4.417	0.83	10.417	2.03	16.417	0.70	22.42	0.45
4.500	0.83	10.500	2.03	16.500	0.70	22.50	0.45
4.583	0.87	10.583	1.92	16.583	0.69	22.58	0.44
4.667	0.87	10.667	1.92	16.667	0.69	22.67	0.44
4.750	0.91	10.750	1.82	16.750	0.68	22.75	0.44
4.833	0.91	10.833	1.82	16.833	0.68	22.83	0.44
4.917	0.95	10.917	1.73	16.917	0.67	22.92	0.44
5.000	0.95	11.000	1.73	17.000	0.67	23.00	0.44
5.083	1.00	11.083	1.65	17.083	0.66	23.08	0.43
5.167	1.00	11.167	1.65	17.167	0.66	23.17	0.43
5.250	1.06	11.250	1.57	17.250	0.65	23.25	0.43
5.333	1.06	11.333	1.57	17.333	0.65	23.33	0.43
5.417	1.12	11.417	1.51	17.417	0.64	23.42	0.42
5.500	1.12	11.500	1.51	17.500	0.64	23.50	0.42
5.583	1.19	11.583	1.45	17.583	0.63	23.58	0.42
5.667	1.19	11.667	1.45	17.667	0.63	23.67	0.42
5.750	1.27	11.750	1.39	17.750	0.62	23.75	0.42
5.833	1.27	11.833	1.39	17.833	0.62	23.83	0.42
5.917	1.36	11.917	1.34	17.917	0.61	23.92	0.41
6.000	1.36	12.000	1.34	18.000	0.61	24.00	0.41

Unit Hyd Qpeak (cms)= 0.033

PEAK FLOW (cms)= 0.008 (i)
TIME TO PEAK (hrs)= 10.333
RUNOFF VOLUME (mm)= 10.701
TOTAL RAINFALL (mm)= 53.260
RUNOFF COEFFICIENT = 0.201

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

ADD HYD (0105)				
1 + 2 = 3	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (1051):	1.62	0.008	10.33	10.70
+ ID2= 2 (0037):	0.00	0.002	8.02	19.22
ID = 3 (0105):	1.62	0.008	10.33	10.71

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0906)				
1 + 2 = 3	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0105):	1.62	0.008	10.33	10.71
+ ID2= 2 (0903):	19.44	1.360	8.03	24.20
ID = 3 (0906):	21.07	1.360	8.03	23.16

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB			
NASHYD (0201)	Area	(ha)= 6.97	Curve Number (CN)= 66.0
ID= 1 DT= 5.0 min	Ia	(mm)= 5.00	# of Linear Res.(N)= 3.00
	U.H. Tp(hrs)= 0.74		

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	0.42	6.083	1.47	12.083	1.29	18.08	0.60
0.167	0.42	6.167	1.47	12.167	1.29	18.17	0.60
0.250	0.43	6.250	1.61	12.250	1.25	18.25	0.59
0.333	0.43	6.333	1.61	12.333	1.25	18.33	0.59
0.417	0.44	6.417	1.77	12.417	1.21	18.42	0.59
0.500	0.44	6.500	1.77	12.500	1.21	18.50	0.59
0.583	0.44	6.583	1.97	12.583	1.17	18.58	0.58
0.667	0.44	6.667	1.97	12.667	1.17	18.67	0.58
0.750	0.45	6.750	2.23	12.750	1.14	18.75	0.57
0.833	0.45	6.833	2.23	12.833	1.14	18.83	0.57
0.917	0.46	6.917	2.59	12.917	1.10	18.92	0.56
1.000	0.46	7.000	2.59	13.000	1.10	19.00	0.56
1.083	0.47	7.083	3.09	13.083	1.07	19.08	0.56
1.167	0.47	7.167	3.09	13.167	1.07	19.17	0.56
1.250	0.48	7.250	3.86	13.250	1.04	19.25	0.55
1.333	0.48	7.333	3.86	13.333	1.04	19.33	0.55
1.417	0.49	7.417	5.21	13.417	1.02	19.42	0.54
1.500	0.49	7.500	5.21	13.500	1.02	19.50	0.54
1.583	0.50	7.583	8.22	13.583	0.99	19.58	0.54
1.667	0.50	7.667	8.23	13.667	0.99	19.67	0.54
1.750	0.51	7.750	20.77	13.750	0.97	19.75	0.53
1.833	0.51	7.833	20.77	13.833	0.97	19.83	0.53
1.917	0.53	7.917	84.13	13.917	0.94	19.92	0.52
2.000	0.53	8.000	84.13	14.000	0.94	20.00	0.52
2.083	0.54	8.083	27.50	14.083	0.92	20.08	0.52
2.167	0.54	8.167	27.50	14.167	0.92	20.17	0.52
2.250	0.55	8.250	14.07	14.250	0.90	20.25	0.51
2.333	0.55	8.333	14.07	14.333	0.90	20.33	0.51
2.417	0.57	8.417	9.40	14.417	0.88	20.42	0.51
2.500	0.57	8.500	9.40	14.500	0.88	20.50	0.51
2.583	0.58	8.583	7.07	14.583	0.86	20.58	0.50
2.667	0.58	8.667	7.07	14.667	0.86	20.67	0.50
2.750	0.60	8.750	5.68	14.750	0.84	20.75	0.50
2.833	0.60	8.833	5.68	14.833	0.84	20.83	0.50
2.917	0.61	8.917	4.76	14.917	0.83	20.92	0.49
3.000	0.61	9.000	4.76	15.000	0.83	21.00	0.49
3.083	0.63	9.083	4.11	15.083	0.81	21.08	0.49
3.167	0.63	9.167	4.11	15.167	0.81	21.17	0.49
3.250	0.65	9.250	3.62	15.250	0.79	21.25	0.48
3.333	0.65	9.333	3.62	15.333	0.79	21.33	0.48
3.417	0.67	9.417	3.24	15.417	0.78	21.42	0.48
3.500	0.67	9.500	3.24	15.500	0.78	21.50	0.48
3.583	0.69	9.583	2.94	15.583	0.77	21.58	0.47
3.667	0.69	9.667	2.94	15.667	0.77	21.67	0.47
3.750	0.72	9.750	2.69	15.750	0.75	21.75	0.47
3.833	0.72	9.833	2.69	15.833	0.75	21.83	0.47
3.917	0.74	9.917	2.49	15.917	0.74	21.92	0.46
4.000	0.74	10.000	2.49	16.000	0.74	22.00	0.46
4.083	0.77	10.083	2.31	16.083	0.73	22.08	0.46
4.167	0.77	10.167	2.31	16.167	0.73	22.17	0.46
4.250	0.80	10.250	2.16	16.250	0.71	22.25	0.45
4.333	0.80	10.333	2.16	16.333	0.71	22.33	0.45
4.417	0.83	10.417	2.03	16.417	0.70	22.42	0.45
4.500	0.83	10.500	2.03	16.500	0.70	22.50	0.45
4.583	0.87	10.583	1.92	16.583	0.69	22.58	0.44
4.667	0.87	10.667	1.92	16.667	0.69	22.67	0.44
4.750	0.91	10.750	1.82	16.750	0.68	22.75	0.44
4.833	0.91	10.833	1.82	16.833	0.68	22.83	0.44
4.917	0.95	10.917	1.73	16.917	0.67	22.92	0.44
5.000	0.95	11.000	1.73	17.000	0.67	23.00	0.44
5.083	1.00	11.083	1.65	17.083	0.66	23.08	0.43
5.167	1.00	11.167	1.65	17.167	0.66	23.17	0.43
5.250	1.06	11.250	1.57	17.250	0.65	23.25	0.43
5.333	1.06	11.333	1.57	17.333	0.65	23.33	0.43
5.417	1.12	11.417	1.51	17.417	0.64	23.42	0.42
5.500	1.12	11.500	1.51	17.500	0.64	23.50	0.42
5.583	1.19	11.583	1.45	17.583	0.63	23.58	0.42
5.667	1.19	11.667	1.45	17.667	0.63	23.67	0.42
5.750	1.27	11.750	1.39	17.750	0.62	23.75	0.42
5.833	1.27	11.833	1.39	17.833	0.62	23.83	0.42
5.917	1.36	11.917	1.34	17.917	0.61	23.92	0.41
6.000	1.36	12.000	1.34	18.000	0.61	24.00	0.41

Unit Hyd Qpeak (cms)= 0.360

PEAK FLOW (cms)= 0.080 (i)
TIME TO PEAK (hrs)= 8.917
RUNOFF VOLUME (mm)= 13.003
TOTAL RAINFALL (mm)= 53.260
RUNOFF COEFFICIENT = 0.244

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

CALIB			
NASHYD (0202)	Area	(ha)= 2.71	Curve Number (CN)= 68.0
ID= 1 DT= 5.0 min	Ia	(mm)= 5.00	# of Linear Res.(N)= 3.00
	U.H. Tp(hrs)= 0.93		

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	0.42	6.083	1.47	12.083	1.29	18.08	0.60
0.167	0.42	6.167	1.47	12.167	1.29	18.17	0.60
0.250	0.43	6.250	1.61	12.250	1.25	18.25	0.59
0.333	0.43	6.333	1.61	12.333	1.25	18.33	0.59
0.417	0.44	6.417	1.77	12.417	1.21	18.42	0.59
0.500	0.44	6.500	1.77	12.500	1.21	18.50	0.59
0.583	0.44	6.583	1.97	12.583	1.17	18.58	0.58
0.667	0.44	6.667	1.97	12.667	1.17	18.67	0.58
0.750	0.45	6.750	2.23	12.750	1.14	18.75	0.57
0.833	0.45	6.833	2.23	12.833	1.14	18.83	0.57
0.917	0.46	6.917	2.59	12.917	1.10	18.92	0.56
1.000	0.46	7.000	2.59	13.000	1.10	19.00	0.56
1.083	0.47	7.083	3.09	13.083	1.07	19.08	0.56
1.167	0.47	7.167	3.09	13.167	1.07	19.17	0.56
1.250	0.48	7.250	3.86	13.250	1.04	19.25	0.55
1.333	0.48	7.333	3.86	13.333	1.04	19.33	0.55
1.417	0.49	7.417	5.21	13.417	1.02	19.42	0.54
1.500	0.49	7.500	5.21	13.500	1.02	19.50	0.54
1.583	0.50	7.583	8.22	13.583	0.99	19.58	0.54
1.667	0.50	7.667	8.23	13.667	0.99	19.67	0.54
1.750	0.51	7.750	20.77	13.750	0.97	19.75	0.53
1.833	0.51	7.833	20.77	13.833	0.97	19.83	0.53
1.917	0.53	7.917	84.13	13.917	0.94	19.92	0.52
2.000	0.53	8.000	84.13	14.000	0.94	20.00	0.52
2.083	0.54	8.083	27.50	14.083	0.92	20.08	0.52
2.167	0.54	8.167	27.50	14.167	0.92	20.17	0.52
2.250	0.55	8.250	14.07	14.250	0.90	20.25	0.51
2.333	0.55	8.333	14.07	14.333	0.90	20.33	0.51
2.417	0.57	8.417	9.40	14.417	0.88	20.42	0.51
2.500	0.57	8.500	9.40	14.500	0.88	20.50	0.51
2.583	0.58	8.583	7.07	14.583	0.86	20.58	0.50
2.667	0.58	8.667	7.07	14.667	0.86	20.67	0.50
2.750	0.60	8.750	5.68	14.750	0.84	20.75	0.50
2.833	0.60	8.833	5.68	14.833	0.84	20.83	0.50
2.917	0.61	8.917	4.76	14.917	0.83	20.92	0.49
3.000	0.61	9.000	4.76	15.000	0.83	21.00	0.49
3.083	0.63	9.083	4.11	15.083	0.81	21.08	0.49
3.167	0.63	9.167	4.11	15.167	0.81	21.17	0.49
3.250	0.65	9.250	3.62	15.250	0.79	21.25	0.48
3.333	0.65	9.333	3.62	15.333	0.79	21.33	0.48
3.417	0.67	9.417	3.24	15.417	0.78	21.42	0.48
3.500	0.67	9.500	3.24	15.500	0.78	21.50	0.48
3.583	0.69	9.583	2.94	15.583	0.77	21.58	0.47
3.667	0.69	9.667	2.94	15.667	0.77	21.67	0.47
3.750	0.72	9.750	2.69	15.750	0.75	21.75	0.47
3.833	0.72	9.833	2.69	15.833	0.75	21.83	0.47
3.917	0.74	9.917	2.49	15.917	0.74	21.92	0.46
4.000	0.74	10.000	2.49	16.000	0.74	22.00	0.46
4.083	0.77	10.083	2.31	16.083	0.73	22.08	0.46
4.167	0.77	10.167	2.31	16.167	0.73	22.17	0.46
4.250	0.80	10.250	2.16	16.250	0.71	22.25	0.45
4.333	0.80	10.333	2.16	16.333	0.71	22.33	0.45
4.417	0.83	10.417	2.03	16.417	0.70	22.42	0.45
4.500	0.83	10.500	2.03	16.500	0.70	22.50	0.45
4.583	0.87	10.583	1.92	16.583	0.69	22.58	0.44
4.667	0.87	10.667	1.92	16.667	0.69	22.67	0.44
4.750	0.91	10.750	1.82	16.750	0.68	22.75	0.44
4.833	0.91	10.833	1.82	16.833	0.68	22.83	0.44
4.917	0.95	10.917	1.73	16.917	0.67	22.92	0.44
5.000	0.95	11.000	1.73	17.000	0.67	23.00	0.44
5.083	1.00	11.083	1.65	17.083	0.66	23.08	0.43
5.167	1.00	11.167	1.65	17.167	0.66	23.17	0.43
5.250	1.06	11.250	1.57	17.250	0.65	23.25	0.43
5.333	1.06	11.333	1.57	17.333	0.65	23.33	0.43
5.417	1.12	11.417	1.51	17.417	0.64	23.42	0.42
5.500	1.12	11.500	1.51	17.500	0.64	23.50	0.42
5.583	1.19	11.583	1.45	17.583	0.63	23.58	0.42
5.667	1.19	11.667	1.45	17.667	0.63	23.67	0.42
5.750	1.27	11.750	1.39	17.750	0.62	23.75	0.42
5.833	1.27	11.833	1.39	17.833	0.62	23.83	0.42
5.917	1.36	11.917	1.34	17.917	0.61	23.92	0.41
6.000	1.36	12.000	1.34	18.000	0.61	24.00	0.41

Unit Hyd Qpeak (cms)= 0.111

PEAK FLOW (cms)= 0.028 (i)
TIME TO PEAK (hrs)= 9.167
RUNOFF VOLUME (mm)= 13.880
TOTAL RAINFALL (mm)= 53.260
RUNOFF COEFFICIENT = 0.261

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

ADD HYD (0904)				
1 + 2 = 3	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0201):	6.97	0.080	8.92	13.00
+ ID2= 2 (0202):	2.71	0.028	9.17	13.88
ID = 3 (0904):	9.68	0.107	8.92	13.25

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB			
NASHYD (0203)	Area	(ha)= 34.30	Curve Number (CN)= 42.0
ID= 1 DT= 5.0 min	Ia	(mm)= 5.00	# of Linear Res.(N)= 3.00
	U.H. Tp(hrs)= 1.40		

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	0.42	6.083	1.47	12.083	1.29	18.08	0.60
0.167	0.42	6.167	1.47	12.167	1.29	18.17	0.60
0.250	0.43	6.250	1.61	12.250	1.25	18.25	0.59

0.333	0.43	6.333	1.61	12.333	1.25	18.33	0.59
0.417	0.44	6.417	1.77	12.417	1.21	18.42	0.59
0.500	0.44	6.500	1.77	12.500	1.21	18.50	0.59
0.583	0.44	6.583	1.97	12.583	1.17	18.58	0.58
0.667	0.44	6.667	1.97	12.667	1.17	18.67	0.58
0.750	0.45	6.750	2.23	12.750	1.14	18.75	0.57
0.833	0.45	6.833	2.23	12.833	1.14	18.83	0.57
0.917	0.46	6.917	2.59	12.917	1.10	18.92	0.56
1.000	0.46	7.000	2.59	13.000	1.10	19.00	0.56
1.083	0.47	7.083	3.09	13.083	1.07	19.08	0.56
1.167	0.47	7.167	3.09	13.167	1.07	19.17	0.56
1.250	0.48	7.250	3.86	13.250	1.04	19.25	0.55
1.333	0.48	7.333	3.86	13.333	1.04	19.33	0.55
1.417	0.49	7.417	5.21	13.417	1.02	19.42	0.54
1.500	0.49	7.500	5.21	13.500	1.02	19.50	0.54
1.583	0.50	7.583	8.22	13.583	0.99	19.58	0.54
1.667	0.50	7.667	8.23	13.667	0.99	19.67	0.54
1.750	0.51	7.750	20.77	13.750	0.97	19.75	0.53
1.833	0.51	7.833	20.77	13.833	0.97	19.83	0.53
1.917	0.53	7.917	84.13	13.917	0.94	19.92	0.52
2.000	0.53	8.000	84.13	14.000	0.94	20.00	0.52
2.083	0.54	8.083	27.50	14.083	0.92	20.08	0.52
2.167	0.54	8.167	27.50	14.167	0.92	20.17	0.52
2.250	0.55	8.250	14.07	14.250	0.90	20.25	0.51
2.333	0.55	8.333	14.07	14.333	0.90	20.33	0.51
2.417	0.57	8.417	9.40	14.417	0.88	20.42	0.51
2.500	0.57	8.500	9.40	14.500	0.88	20.50	0.51
2.583	0.58	8.583	7.07	14.583	0.86	20.58	0.50
2.667	0.58	8.667	7.07	14.667	0.86	20.67	0.50
2.750	0.60	8.750	5.68	14.750	0.84	20.75	0.50
2.833	0.60	8.833	5.68	14.833	0.84	20.83	0.50
2.917	0.61	8.917	4.76	14.917	0.83	20.92	0.49
3.000	0.61	9.000	4.76	15.000	0.83	21.00	0.49
3.083	0.63	9.083	4.11	15.083	0.81	21.08	0.49
3.167	0.63	9.167	4.11	15.167	0.81	21.17	0.49
3.250	0.65	9.250	3.62	15.250	0.79	21.25	0.48
3.333	0.65	9.333	3.62	15.333	0.79	21.33	0.48
3.417	0.67	9.417	3.24	15.417	0.78	21.42	0.48
3.500	0.67	9.500	3.24	15.500	0.78	21.50	0.48
3.583	0.69	9.583	2.94	15.583	0.77	21.58	0.47
3.667	0.69	9.667	2.94	15.667	0.77	21.67	0.47
3.750	0.72	9.750	2.69	15.750	0.75	21.75	0.47
3.833	0.72	9.833	2.69	15.833	0.75	21.83	0.47
3.917	0.74	9.917	2.49	15.917	0.74	21.92	0.46
4.000	0.74	10.000	2.49	16.000	0.74	22.00	0.46
4.083	0.77	10.083	2.31	16.083	0.73	22.08	0.46
4.167	0.77	10.167	2.31	16.167	0.73	22.17	0.46
4.250	0.80	10.250	2.16	16.250	0.71	22.25	0.45
4.333	0.80	10.333	2.16	16.333	0.71	22.33	0.45
4.417	0.83	10.417	2.03	16.417	0.70	22.42	0.45
4.500	0.83	10.500	2.03	16.500	0.70	22.50	0.45
4.583	0.87	10.583	1.92	16.583	0.69	22.58	0.44

4.667	0.87	10.667	1.92	16.667	0.69	22.67	0.44
4.750	0.91	10.750	1.82	16.750	0.68	22.75	0.44
4.833	0.91	10.833	1.82	16.833	0.68	22.83	0.44
4.917	0.95	10.917	1.73	16.917	0.67	22.92	0.44
5.000	0.95	11.000	1.73	17.000	0.67	23.00	0.44
5.083	1.00	11.083	1.65	17.083	0.66	23.08	0.43
5.167	1.00	11.167	1.65	17.167	0.66	23.17	0.43
5.250	1.06	11.250	1.57	17.250	0.65	23.25	0.43
5.333	1.06	11.333	1.57	17.333	0.65	23.33	0.43
5.417	1.12	11.417	1.51	17.417	0.64	23.42	0.42
5.500	1.12	11.500	1.51	17.500	0.64	23.50	0.42
5.583	1.19	11.583	1.45	17.583	0.63	23.58	0.42
5.667	1.19	11.667	1.45	17.667	0.63	23.67	0.42
5.750	1.27	11.750	1.39	17.750	0.62	23.75	0.42
5.833	1.27	11.833	1.39	17.833	0.62	23.83	0.42
5.917	1.36	11.917	1.34	17.917	0.61	23.92	0.41
6.000	1.36	12.000	1.34	18.000	0.61	24.00	0.41

Unit Hyd Qpeak (cms)= 0.936

PEAK FLOW (cms)= 0.106 (i)
TIME TO PEAK (hrs)= 9.750
RUNOFF VOLUME (mm)= 5.837
TOTAL RAINFALL (mm)= 53.260
RUNOFF COEFFICIENT = 0.110

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

ADD HYD (0905)				
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0203):	34.30	0.106	9.75	5.84
+ ID2= 2 (0904):	9.68	0.107	8.92	13.25
ID = 3 (0905):	43.98	0.196	9.25	7.47

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

Junction Command(0907)				
	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 1(0905)	43.98	0.20	9.25	7.47
OUTFLOW: ID= 2(0907)	43.98	0.20	9.25	7.47

ADD HYD (0908)				
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0906):	21.07	1.360	8.03	23.16
+ ID2= 2 (0907):	43.98	0.196	9.25	7.47
ID = 3 (0908):	65.05	1.382	8.03	12.55

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB				
NASHYD (0204)	Area (ha)=	0.40	Curve Number (CN)=	67.0
ID= 1 DT= 5.0 min	Ia (mm)=	5.00	# 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	0.42	6.083	1.47	12.083	1.29	18.08	0.60
0.167	0.42	6.167	1.47	12.167	1.29	18.17	0.60
0.250	0.43	6.250	1.61	12.250	1.25	18.25	0.59
0.333	0.43	6.333	1.61	12.333	1.25	18.33	0.59
0.417	0.44	6.417	1.77	12.417	1.21	18.42	0.59
0.500	0.44	6.500	1.77	12.500	1.21	18.50	0.59
0.583	0.44	6.583	1.97	12.583	1.17	18.58	0.58
0.667	0.44	6.667	1.97	12.667	1.17	18.67	0.58
0.750	0.45	6.750	2.23	12.750	1.14	18.75	0.57
0.833	0.45	6.833	2.23	12.833	1.14	18.83	0.57
0.917	0.46	6.917	2.59	12.917	1.10	18.92	0.56
1.000	0.46	7.000	2.59	13.000	1.10	19.00	0.56
1.083	0.47	7.083	3.09	13.083	1.07	19.08	0.56
1.167	0.47	7.167	3.09	13.167	1.07	19.17	0.56
1.250	0.48	7.250	3.86	13.250	1.04	19.25	0.55
1.333	0.48	7.333	3.86	13.333	1.04	19.33	0.55
1.417	0.49	7.417	5.21	13.417	1.02	19.42	0.54
1.500	0.49	7.500	5.21	13.500	1.02	19.50	0.54
1.583	0.50	7.583	8.22	13.583	0.99	19.58	0.54
1.667	0.50	7.667	8.23	13.667	0.99	19.67	0.54
1.750	0.51	7.750	20.77	13.750	0.97	19.75	0.53
1.833	0.51	7.833	20.77	13.833	0.97	19.83	0.53
1.917	0.53	7.917	84.13	13.917	0.94	19.92	0.52
2.000	0.53	8.000	84.13	14.000	0.94	20.00	0.52
2.083	0.54	8.083	27.50	14.083	0.92	20.08	0.52
2.167	0.54	8.167	27.50	14.167	0.92	20.17	0.52
2.250	0.55	8.250	14.07	14.250	0.90	20.25	0.51
2.333	0.55	8.333	14.07	14.333	0.90	20.33	0.51

2.417	0.57	8.417	9.40	14.417	0.88	20.42	0.51
2.500	0.57	8.500	9.40	14.500	0.88	20.50	0.51
2.583	0.58	8.583	7.07	14.583	0.86	20.58	0.50
2.667	0.58	8.667	7.07	14.667	0.86	20.67	0.50
2.750	0.60	8.750	5.68	14.750	0.84	20.75	0.50
2.833	0.60	8.833	5.68	14.833	0.84	20.83	0.50
2.917	0.61	8.917	4.76	14.917	0.83	20.92	0.49
3.000	0.61	9.000	4.76	15.000	0.83	21.00	0.49
3.083	0.63	9.083	4.11	15.083	0.81	21.08	0.49
3.167	0.63	9.167	4.11	15.167	0.81	21.17	0.49
3.250	0.65	9.250	3.62	15.250	0.79	21.25	0.48
3.333	0.65	9.333	3.62	15.333	0.79	21.33	0.48
3.417	0.67	9.417	3.24	15.417	0.78	21.42	0.48
3.500	0.67	9.500	3.24	15.500	0.78	21.50	0.48
3.583	0.69	9.583	2.94	15.583	0.77	21.58	0.47
3.667	0.69	9.667	2.94	15.667	0.77	21.67	0.47
3.750	0.72	9.750	2.69	15.750	0.75	21.75	0.47
3.833	0.72	9.833	2.69	15.833	0.75	21.83	0.47
3.917	0.74	9.917	2.49	15.917	0.74	21.92	0.46
4.000	0.74	10.000	2.49	16.000	0.74	22.00	0.46
4.083	0.77	10.083	2.31	16.083	0.73	22.08	0.46
4.167	0.77	10.167	2.31	16.167	0.73	22.17	0.46
4.250	0.80	10.250	2.16	16.250	0.71	22.25	0.45
4.333	0.80	10.333	2.16	16.333	0.71	22.33	0.45
4.417	0.83	10.417	2.03	16.417	0.70	22.42	0.45
4.500	0.83	10.500	2.03	16.500	0.70	22.50	0.45
4.583	0.87	10.583	1.92	16.583	0.69	22.58	0.44
4.667	0.87	10.667	1.92	16.667	0.69	22.67	0.44
4.750	0.91	10.750	1.82	16.750	0.68	22.75	0.44
4.833	0.91	10.833	1.82	16.833	0.68	22.83	0.44
4.917	0.95	10.917	1.73	16.917	0.67	22.92	0.44
5.000	0.95	11.000	1.73	17.000	0.67	23.00	0.44
5.083	1.00	11.083	1.65	17.083	0.66	23.08	0.43
5.167	1.00	11.167	1.65	17.167	0.66	23.17	0.43
5.250	1.06	11.250	1.57	17.250	0.65	23.25	0.43
5.333	1.06	11.333	1.57	17.333	0.65	23.33	0.43
5.417	1.12	11.417	1.51	17.417	0.64	23.42	0.42
5.500	1.12	11.500	1.51	17.500	0.64	23.50	0.42
5.583	1.19	11.583	1.45	17.583	0.63	23.58	0.42
5.667	1.19	11.667	1.45	17.667	0.63	23.67	0.42
5.750	1.27	11.750	1.39	17.750	0.62	23.75	0.42
5.833	1.27	11.833	1.39	17.833	0.62	23.83	0.42
5.917	1.36	11.917	1.34	17.917	0.61	23.92	0.41
6.000	1.36	12.000	1.34	18.000	0.61	24.00	0.41

Unit Hyd Qpeak (cms)= 0.054

PEAK FLOW (cms)= 0.009 (i)
TIME TO PEAK (hrs)= 8.250
RUNOFF VOLUME (mm)= 13.426
TOTAL RAINFALL (mm)= 53.260
RUNOFF COEFFICIENT = 0.252

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

ADD HYD (0909)				
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0204):	0.40	0.009	8.25	13.43
+ ID2= 2 (0908):	65.05	1.382	8.03	12.55
ID = 3 (0909):	65.44	1.387	8.03	12.56

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR(0052)	OVERFLOW IS ON			
IN= 2---> OUT= 1				
DT= 1.0 min	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
	0.0000	0.0001	0.5350	0.0405
	0.4630	0.0006	0.5440	0.0566
	0.4740	0.0013	0.5540	0.0775
	0.4840	0.0030	0.5630	0.1069
	0.4950	0.0056	0.5720	0.1342
	0.5050	0.0102	0.5810	0.1635
	0.5150	0.0163	0.5900	0.1967
	0.5250	0.0270	0.5980	0.2362

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (0909)	65.441	1.387	8.03	12.56
OUTFLOW: ID= 1 (0052)	65.441	0.555	8.45	12.55
OVERFLOW:ID= 3 (0003)	0.000	0.000	0.00	0.00

TOTAL NUMBER OF SIMULATION OVERFLOW = 0
CUMULATIVE TIME OF OVERFLOW (HOURS) = 0.00
PERCENTAGE OF TIME OVERFLOWING (%) = 0.00

PEAK FLOW REDUCTION [Qout/Qin](%)= 40.03
TIME SHIFT OF PEAK FLOW (min)= 25.00
MAXIMUM STORAGE USED (ha.m.)= 0.0818

Junction Command(0048)				
	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)

INFLOW : ID= 1(0052)	65.44	0.56	8.45	12.55
OUTFLOW: ID= 2(0048)	65.44	0.56	8.45	12.55

Junction Command(0053)				
	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 3(0052)	0.00	0.00	0.00	0.00
OUTFLOW: ID= 2(0053)	0.00	0.00	0.00	0.00

ADD HYD (0051)				
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
*** W A R N I N G : HYDROGRAPH 0053 <ID= 2> IS DRY.				
*** W A R N I N G : HYDROGRAPH 0003 = HYDROGRAPH 0001				
ID1= 1 (0048):	65.44	0.555	8.45	12.55
+ ID2= 2 (0053):	0.00	0.000	0.00	0.00
ID = 3 (0051):	65.44	0.555	8.45	12.55

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

Junction Command(0036)				
	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 9(0035)	2.85	0.20	8.00	23.46
OUTFLOW: ID= 2(0036)	2.85	0.20	8.00	23.46

```
      V    V   I    SSSSS  U   U    A    L              (v 6.2.2015)
      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
```

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       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\cacp078589\AppData\Local\Civica\VH5\9ad0f7cd-9fe5-4b65-bb07-55a510b23afa\e
5a8225b-18ae-40cd-926a-465fc5d57ba3\s
  Summary filename:
C:\Users\cacp078589\AppData\Local\Civica\VH5\9ad0f7cd-9fe5-4b65-bb07-55a510b23afa\e
5a8225b-18ae-40cd-926a-465fc5d57ba3\s


DATE: 04-04-2025                          TIME: 09:55:13

USER:


COMMENTS: _____

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  ***********************************************
  ** SIMULATION : 50yr 24hr 10min Chicago      **
  ***********************************************

-------------------
| CHICAGO STORM    |    IDF curve parameters: A=2114.000
| Ptotal= 98.33 mm |                          B=  10.600
-------------------                          C=   0.858
                          used in:   INTENSITY =  A / (t + B)^C

                          Duration of storm  = 24.00 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    0.62 |  6.00    2.43 | 12.00    2.10 | 18.00    0.91
  0.17    0.63 |  6.17    2.68 | 12.17    2.02 | 18.17    0.90
  0.33    0.65 |  6.33    2.98 | 12.33    1.95 | 18.33    0.89
  0.50    0.66 |  6.50    3.37 | 12.50    1.89 | 18.50    0.87
  0.67    0.67 |  6.67    3.88 | 12.67    1.82 | 18.67    0.86
  0.83    0.69 |  6.83    4.58 | 12.83    1.77 | 18.83    0.85
  1.00    0.70 |  7.00    5.59 | 13.00    1.71 | 19.00    0.84
  1.17    0.72 |  7.17    7.21 | 13.17    1.66 | 19.17    0.83
  1.33    0.73 |  7.33   10.14 | 13.33    1.61 | 19.33    0.82
  1.50    0.75 |  7.50   16.88 | 13.50    1.57 | 19.50    0.81
  1.67    0.77 |  7.67   44.66 | 13.67    1.53 | 19.67    0.80
  1.83    0.79 |  7.83  157.69 | 13.83    1.49 | 19.83    0.79
  2.00    0.81 |  8.00   59.25 | 14.00    1.45 | 20.00    0.78
  2.17    0.83 |  8.17   30.14 | 14.17    1.41 | 20.17    0.77
  2.33    0.85 |  8.33   19.54 | 14.33    1.38 | 20.33    0.76
  2.50    0.88 |  8.50   14.26 | 14.50    1.35 | 20.50    0.75
  2.67    0.90 |  8.67   11.16 | 14.67    1.32 | 20.67    0.74
  2.83    0.93 |  8.83    9.15 | 14.83    1.29 | 20.83    0.73
  3.00    0.96 |  9.00    7.74 | 15.00    1.26 | 21.00    0.72
  3.17    0.99 |  9.17    6.70 | 15.17    1.23 | 21.17    0.71
  3.33    1.03 |  9.33    5.91 | 15.33    1.21 | 21.33    0.71
  3.50    1.06 |  9.50    5.29 | 15.50    1.18 | 21.50    0.70
  3.67    1.10 |  9.67    4.79 | 15.67    1.16 | 21.67    0.69
  3.83    1.15 |  9.83    4.38 | 15.83    1.14 | 21.83    0.68
  4.00    1.19 | 10.00    4.03 | 16.00    1.12 | 22.00    0.68
  4.17    1.24 | 10.17    3.74 | 16.17    1.09 | 22.17    0.67
  4.33    1.30 | 10.33    3.48 | 16.33    1.08 | 22.33    0.66
  4.50    1.36 | 10.50    3.26 | 16.50    1.06 | 22.50    0.66
  4.67    1.43 | 10.67    3.07 | 16.67    1.04 | 22.67    0.65
  4.83    1.50 | 10.83    2.90 | 16.83    1.02 | 22.83    0.64
  5.00    1.59 | 11.00    2.75 | 17.00    1.00 | 23.00    0.64
  5.17    1.68 | 11.17    2.61 | 17.17    0.99 | 23.17    0.63
  5.33    1.79 | 11.33    2.49 | 17.33    0.97 | 23.33    0.62
  5.50    1.92 | 11.50    2.38 | 17.50    0.96 | 23.50    0.62
  5.67    2.06 | 11.67    2.28 | 17.67    0.94 | 23.67    0.61
  5.83    2.23 | 11.83    2.19 | 17.83    0.93 | 23.83    0.61

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| CALIB            |
| STANDHYD (  1012)|   Area    (ha)=  26.89
|ID= 1 DT= 1.0 min |   Total Imp(%)=  57.00   Dir. Conn.(%)=  49.00
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                          IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=     15.33         11.56
     Dep. Storage     (mm)=      1.00          5.00
     Average Slope     (%)=      0.50          2.00
     Length            (m)=    423.42         40.00
     Mannings n             =     0.013         0.250

         NOTE:  RAINFALL WAS TRANSFORMED TO   1.0 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
 0.017    0.62 | 6.017    2.43 |12.017    2.10 | 18.02    0.91
  0.033    0.62 | 6.033    2.43 |12.033    2.10 | 18.03    0.91
  0.050    0.62 | 6.050    2.43 |12.050    2.10 | 18.05    0.91
  0.067    0.62 | 6.067    2.43 |12.067    2.10 | 18.07    0.91
  0.083    0.62 | 6.083    2.43 |12.083    2.10 | 18.08    0.91
  0.100    0.62 | 6.100    2.43 |12.100    2.10 | 18.10    0.91
  0.117    0.62 | 6.117    2.43 |12.117    2.10 | 18.12    0.91
  0.133    0.62 | 6.133    2.43 |12.133    2.10 | 18.13    0.91
  0.150    0.62 | 6.150    2.43 |12.150    2.10 | 18.15    0.91
  0.167    0.62 | 6.167    2.43 |12.167    2.10 | 18.17    0.91
  0.183    0.63 | 6.183    2.68 |12.183    2.02 | 18.18    0.90
  0.200    0.63 | 6.200    2.68 |12.200    2.02 | 18.20    0.90
  0.217    0.63 | 6.217    2.68 |12.217    2.02 | 18.22    0.90
  0.233    0.63 | 6.233    2.68 |12.233    2.02 | 18.23    0.90
  0.250    0.63 | 6.250    2.68 |12.250    2.02 | 18.25    0.90
  0.267    0.63 | 6.267    2.68 |12.267    2.02 | 18.27    0.90
  0.283    0.63 | 6.283    2.68 |12.283    2.02 | 18.28    0.90
  0.300    0.63 | 6.300    2.68 |12.300    2.02 | 18.30    0.90
  0.317    0.63 | 6.317    2.68 |12.317    2.02 | 18.32    0.90
  0.333    0.63 | 6.333    2.68 |12.333    2.02 | 18.33    0.90
  0.350    0.65 | 6.350    2.98 |12.350    1.95 | 18.35    0.89
  0.367    0.65 | 6.367    2.98 |12.367    1.95 | 18.37    0.89
  0.383    0.65 | 6.383    2.98 |12.383    1.95 | 18.38    0.89
  0.400    0.65 | 6.400    2.98 |12.400    1.95 | 18.40    0.89
  0.417    0.65 | 6.417    2.98 |12.417    1.95 | 18.42    0.89
  0.433    0.65 | 6.433    2.98 |12.433    1.95 | 18.43    0.89
  0.450    0.65 | 6.450    2.98 |12.450    1.95 | 18.45    0.89
  0.467    0.65 | 6.467    2.98 |12.467    1.95 | 18.47    0.89
  0.483    0.65 | 6.483    2.98 |12.483    1.95 | 18.48    0.89
  0.500    0.65 | 6.500    2.98 |12.500    1.95 | 18.50    0.89
  0.517    0.66 | 6.517    3.37 |12.517    1.89 | 18.52    0.87
  0.533    0.66 | 6.533    3.37 |12.533    1.89 | 18.53    0.87
  0.550    0.66 | 6.550    3.37 |12.550    1.89 | 18.55    0.87
  0.567    0.66 | 6.567    3.37 |12.567    1.89 | 18.57    0.87
  0.583    0.66 | 6.583    3.37 |12.583    1.89 | 18.58    0.87
  0.600    0.66 | 6.600    3.37 |12.600    1.89 | 18.60    0.87
  0.617    0.66 | 6.617    3.37 |12.617    1.89 | 18.62    0.87
  0.633    0.66 | 6.633    3.37 |12.633    1.89 | 18.63    0.87
  0.650    0.66 | 6.650    3.37 |12.650    1.89 | 18.65    0.87
  0.667    0.66 | 6.667    3.37 |12.667    1.89 | 18.67    0.87
  0.683    0.67 | 6.683    3.88 |12.683    1.82 | 18.68    0.86
  0.700    0.67 | 6.700    3.88 |12.700    1.82 | 18.70    0.86
  0.717    0.67 | 6.717    3.88 |12.717    1.82 | 18.72    0.86
  0.733    0.67 | 6.733    3.88 |12.733    1.82 | 18.73    0.86
  0.750    0.67 | 6.750    3.88 |12.750    1.82 | 18.75    0.86
  0.767    0.67 | 6.767    3.88 |12.767    1.82 | 18.77    0.86
  0.783    0.67 | 6.783    3.88 |12.783    1.82 | 18.78    0.86
  0.800    0.67 | 6.800    3.88 |12.800    1.82 | 18.80    0.86
  0.817    0.67 | 6.817    3.88 |12.817    1.82 | 18.82    0.86
  0.833    0.67 | 6.833    3.88 |12.833    1.82 | 18.83    0.86
  0.850    0.69 | 6.850    4.58 |12.850    1.77 | 18.85    0.85
  0.867    0.69 | 6.867    4.58 |12.867    1.77 | 18.87    0.85
  0.883    0.69 | 6.883    4.58 |12.883    1.77 | 18.88    0.85
  0.900    0.69 | 6.900    4.58 |12.900    1.77 | 18.90    0.85
  0.917    0.69 | 6.917    4.58 |12.917    1.77 | 18.92    0.85
  0.933    0.69 | 6.933    4.58 |12.933    1.77 | 18.93    0.85
  0.950    0.69 | 6.950    4.58 |12.950    1.77 | 18.95    0.85
  0.967    0.69 | 6.967    4.58 |12.967    1.77 | 18.97    0.85
  0.983    0.69 | 6.983    4.58 |12.983    1.77 | 18.98    0.85
  1.000    0.69 | 7.000    4.58 |13.000    1.77 | 19.00    0.85
  1.017    0.70 | 7.017    5.59 |13.017    1.71 | 19.02    0.84
  1.033    0.70 | 7.033    5.59 |13.033    1.71 | 19.03    0.84
  1.050    0.70 | 7.050    5.59 |13.050    1.71 | 19.05    0.84
  1.067    0.70 | 7.067    5.59 |13.067    1.71 | 19.07    0.84
  1.083    0.70 | 7.083    5.59 |13.083    1.71 | 19.08    0.84
  1.100    0.70 | 7.100    5.59 |13.100    1.71 | 19.10    0.84
  1.117    0.70 | 7.117    5.59 |13.117    1.71 | 19.12    0.84
  1.133    0.70 | 7.133    5.59 |13.133    1.71 | 19.13    0.84
  1.150    0.70 | 7.150    5.59 |13.150    1.71 | 19.15    0.84
  1.167    0.70 | 7.167    5.60 |13.167    1.71 | 19.17    0.84
  1.183    0.72 | 7.183    7.21 |13.183    1.66 | 19.18    0.83
  1.200    0.72 | 7.200    7.21 |13.200    1.66 | 19.20    0.83
  1.217    0.72 | 7.217    7.21 |13.217    1.66 | 19.22    0.83
  1.233    0.72 | 7.233    7.21 |13.233    1.66 | 19.23    0.83
  1.250    0.72 | 7.250    7.21 |13.250    1.66 | 19.25    0.83
  1.267    0.72 | 7.267    7.21 |13.267    1.66 | 19.27    0.83
  1.283    0.72 | 7.283    7.21 |13.283    1.66 | 19.28    0.83
  1.300    0.72 | 7.300    7.21 |13.300    1.66 | 19.30    0.83
  1.317    0.72 | 7.317    7.21 |13.317    1.66 | 19.32    0.83
  1.333    0.72 | 7.333    7.22 |13.333    1.66 | 19.33    0.83
  1.350    0.73 | 7.350   10.14 |13.350    1.61 | 19.35    0.82
  1.367    0.73 | 7.367   10.14 |13.367    1.61 | 19.37    0.82
  1.383    0.73 | 7.383   10.14 |13.383    1.61 | 19.38    0.82
  1.400    0.73 | 7.400   10.14 |13.400    1.61 | 19.40    0.82
  1.417    0.73 | 7.417   10.14 |13.417    1.61 | 19.42    0.82
  1.433    0.73 | 7.433   10.14 |13.433    1.61 | 19.43    0.82
  1.450    0.73 | 7.450   10.14 |13.450    1.61 | 19.45    0.82
  1.467    0.73 | 7.467   10.14 |13.467    1.61 | 19.47    0.82
  1.483    0.73 | 7.483   10.14 |13.483    1.61 | 19.48    0.82
  1.500    0.73 | 7.500   10.16 |13.500    1.61 | 19.50    0.82
  1.517    0.75 | 7.517   16.88 |13.517    1.57 | 19.52    0.81
  1.533    0.75 | 7.533   16.88 |13.533    1.57 | 19.53    0.81
  1.550    0.75 | 7.550   16.88 |13.550    1.57 | 19.55    0.81
  1.567    0.75 | 7.567   16.88 |13.567    1.57 | 19.57    0.81
  1.583    0.75 | 7.583   16.88 |13.583    1.57 | 19.58    0.81
  1.600    0.75 | 7.600   16.88 |13.600    1.57 | 19.60    0.81
  1.617    0.75 | 7.617   16.88 |13.617    1.57 | 19.62    0.81
  1.633    0.75 | 7.633   16.88 |13.633    1.57 | 19.63    0.81
  1.650    0.75 | 7.650   16.88 |13.650    1.57 | 19.65    0.81
  1.667    0.75 | 7.667   16.95 |13.667    1.57 | 19.67    0.81
  1.683    0.77 | 7.683   44.66 |13.683    1.53 | 19.68    0.80
  1.700    0.77 | 7.700   44.66 |13.700    1.53 | 19.70    0.80
  1.717    0.77 | 7.717   44.66 |13.717    1.53 | 19.72    0.80
  1.733    0.77 | 7.733   44.66 |13.733    1.53 | 19.73    0.80
  1.750    0.77 | 7.750   44.66 |13.750    1.53 | 19.75    0.80
  1.767    0.77 | 7.767   44.66 |13.767    1.53 | 19.77    0.80
  1.783    0.77 | 7.783   44.66 |13.783    1.53 | 19.78    0.80
  1.800    0.77 | 7.800   44.66 |13.800    1.53 | 19.80    0.80
  1.817    0.77 | 7.817   44.66 |13.817    1.53 | 19.82    0.80
  1.833    0.77 | 7.833   44.99 |13.833    1.53 | 19.83    0.80
  1.850    0.79 | 7.850  157.69 |13.850    1.49 | 19.85    0.79
  1.867    0.79 | 7.867  157.69 |13.867    1.49 | 19.87    0.79
  1.883    0.79 | 7.883  157.69 |13.883    1.49 | 19.88    0.79
  1.900    0.79 | 7.900  157.69 |13.900    1.49 | 19.90    0.79
  1.917    0.79 | 7.917  157.69 |13.917    1.49 | 19.92    0.79
  1.933    0.79 | 7.933  157.69 |13.933    1.49 | 19.93    0.79
  1.950    0.79 | 7.950  157.69 |13.950    1.49 | 19.95    0.79
  1.967    0.79 | 7.967  157.69 |13.967    1.49 | 19.97    0.79
  1.983    0.79 | 7.983  157.69 |13.983    1.49 | 19.98    0.79
  2.000    0.79 | 8.000  157.40 |14.000    1.49 | 20.00    0.79
  2.017    0.81 | 8.017   59.25 |14.017    1.45 | 20.02    0.78
  2.033    0.81 | 8.033   59.25 |14.033    1.45 | 20.03    0.78
  2.050    0.81 | 8.050   59.25 |14.050    1.45 | 20.05    0.78
  2.067    0.81 | 8.067   59.25 |14.067    1.45 | 20.07    0.78
  2.083    0.81 | 8.083   59.25 |14.083    1.45 | 20.08    0.78
  2.100    0.81 | 8.100   59.25 |14.100    1.45 | 20.10    0.78
  2.117    0.81 | 8.117   59.25 |14.117    1.45 | 20.12    0.78
  2.133    0.81 | 8.133   59.25 |14.133    1.45 | 20.13    0.78
  2.150    0.81 | 8.150   59.25 |14.150    1.45 | 20.15    0.78
  2.167    0.81 | 8.167   59.17 |14.167    1.45 | 20.17    0.78
  2.183    0.83 | 8.183   30.14 |14.183    1.41 | 20.18    0.77
  2.200    0.83 | 8.200   30.14 |14.200    1.41 | 20.20    0.77
  2.217    0.83 | 8.217   30.14 |14.217    1.41 | 20.22    0.77
  2.233    0.83 | 8.233   30.14 |14.233    1.41 | 20.23    0.77
  2.250    0.83 | 8.250   30.14 |14.250    1.41 | 20.25    0.77
  2.267    0.83 | 8.267   30.14 |14.267    1.41 | 20.27    0.77
  2.283    0.83 | 8.283   30.14 |14.283    1.41 | 20.28    0.77
  2.300    0.83 | 8.300   30.14 |14.300    1.41 | 20.30    0.77
  2.317    0.83 | 8.317   30.14 |14.317    1.41 | 20.32    0.77
  2.333    0.83 | 8.333   30.11 |14.333    1.41 | 20.33    0.77
  2.350    0.85 | 8.350   19.54 |14.350    1.38 | 20.35    0.76
  2.367    0.85 | 8.367   19.54 |14.367    1.38 | 20.37    0.76
  2.383    0.85 | 8.383   19.54 |14.383    1.38 | 20.38    0.76
  2.400    0.85 | 8.400   19.54 |14.400    1.38 | 20.40    0.76
  2.417    0.85 | 8.417   19.54 |14.417    1.38 | 20.42    0.76
  2.433    0.85 | 8.433   19.54 |14.433    1.38 | 20.43    0.76
  2.450    0.85 | 8.450   19.54 |14.450    1.38 | 20.45    0.76
  2.467    0.85 | 8.467   19.54 |14.467    1.38 | 20.47    0.76
  2.483    0.85 | 8.483   19.54 |14.483    1.38 | 20.48    0.76
  2.500    0.85 | 8.500   19.53 |14.500    1.38 | 20.50    0.76
  2.517    0.88 | 8.517   14.26 |14.517    1.35 | 20.52    0.75
  2.533    0.88 | 8.533   14.26 |14.533    1.35 | 20.53    0.75
  2.550    0.88 | 8.550   14.26 |14.550    1.35 | 20.55    0.75
  2.567    0.88 | 8.567   14.26 |14.567    1.35 | 20.57    0.75
  2.583    0.88 | 8.583   14.26 |14.583    1.35 | 20.58    0.75
  2.600    0.88 | 8.600   14.26 |14.600    1.35 | 20.60    0.75
  2.617    0.88 | 8.617   14.26 |14.617    1.35 | 20.62    0.75
  2.633    0.88 | 8.633   14.26 |14.633    1.35 | 20.63    0.75
  2.650    0.88 | 8.650   14.26 |14.650    1.35 | 20.65    0.75
  2.667    0.88 | 8.667   14.25 |14.667    1.35 | 20.67    0.75
  2.683    0.90 | 8.683   11.16 |14.683    1.32 | 20.68    0.74
  2.700    0.90 | 8.700   11.16 |14.700    1.32 | 20.70    0.74
  2.717    0.90 | 8.717   11.16 |14.717    1.32 | 20.72    0.74
  2.733    0.90 | 8.733   11.16 |14.733    1.32 | 20.73    0.74
  2.750    0.90 | 8.750   11.16 |14.750    1.32 | 20.75    0.74
  2.767    0.90 | 8.767   11.16 |14.767    1.32 | 20.77    0.74
  2.783    0.90 | 8.783   11.16 |14.783    1.32 | 20.78    0.74
  2.800    0.90 | 8.800   11.16 |14.800    1.32 | 20.80    0.74
  2.817    0.90 | 8.817   11.16 |14.817    1.32 | 20.82    0.74
  2.833    0.90 | 8.833   11.16 |14.833    1.32 | 20.83    0.74
  2.850    0.93 | 8.850    9.15 |14.850    1.29 | 20.85    0.73
  2.867    0.93 | 8.867    9.15 |14.867    1.29 | 20.87    0.73
  2.883    0.93 | 8.883    9.15 |14.883    1.29 | 20.88    0.73
  2.900    0.93 | 8.900    9.15 |14.900    1.29 | 20.90    0.73
  2.917    0.93 | 8.917    9.15 |14.917    1.29 | 20.92    0.73
  2.933    0.93 | 8.933    9.15 |14.933    1.29 | 20.93    0.73
  2.950    0.93 | 8.950    9.15 |14.950    1.29 | 20.95    0.73
  2.967    0.93 | 8.967    9.15 |14.967    1.29 | 20.97    0.73
  2.983    0.93 | 8.983    9.15 |14.983    1.29 | 20.98    0.73
  3.000    0.93 | 9.000    9.14 |15.000    1.29 | 21.00    0.73
  3.017    0.96 | 9.017    7.74 |15.017    1.26 | 21.02    0.72
  3.033    0.96 | 9.033    7.74 |15.033    1.26 | 21.03    0.72
  3.050    0.96 | 9.050    7.74 |15.050    1.26 | 21.05    0.72
  3.067    0.96 | 9.067    7.74 |15.067    1.26 | 21.07    0.72
  3.083    0.96 | 9.083    7.74 |15.083    1.26 | 21.08    0.72
  3.100    0.96 | 9.100    7.74 |15.100    1.26 | 21.10    0.72
  3.117    0.96 | 9.117    7.74 |15.117    1.26 | 21.12    0.72
  3.133    0.96 | 9.133    7.74 |15.133    1.26 | 21.13    0.72
  3.150    0.96 | 9.150    7.74 |15.150    1.26 | 21.15    0.72
  3.167    0.96 | 9.167    7.74 |15.167    1.26 | 21.17    0.72
  3.183    0.99 | 9.183    6.70 |15.183    1.23 | 21.18    0.71
  3.200    0.99 | 9.200    6.70 |15.200    1.23 | 21.20    0.71
  3.217    0.99 | 9.217    6.70 |15.217    1.23 | 21.22    0.71
  3.233    0.99 | 9.233    6.70 |15.233    1.23 | 21.23    0.71
  3.250    0.99 | 9.250    6.70 |15.250    1.23 | 21.25    0.71
  3.267    0.99 | 9.267    6.70 |15.267    1.23 | 21.27    0.71
  3.283    0.99 | 9.283    6.70 |15.283    1.23 | 21.28    0.71
  3.300    0.99 | 9.300    6.70 |15.300    1.23 | 21.30    0.71
  3.317    0.99 | 9.317    6.70 |15.317    1.23 | 21.32    0.71
  3.333    0.99 | 9.333    6.70 |15.333    1.23 | 21.33    0.71
  3.350    1.03 | 9.350    5.91 |15.350    1.21 | 21.35    0.71
  3.367    1.03 | 9.367    5.91 |15.367    1.21 | 21.37    0.71
  3.383    1.03 | 9.383    5.91 |15.383    1.21 | 21.38    0.71
  3.400    1.03 | 9.400    5.91 |15.400    1.21 | 21.40    0.71
  3.417    1.03 | 9.417    5.91 |15.417    1.21 | 21.42    0.71
  3.433    1.03 | 9.433    5.91 |15.433    1.21 | 21.43    0.71
  3.450    1.03 | 9.450    5.91 |15.450    1.21 | 21.45    0.71
  3.467    1.03 | 9.467    5.91 |15.467    1.21 | 21.47    0.71
  3.483    1.03 | 9.483    5.91 |15.483    1.21 | 21.48    0.71
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3.500	1.03	9.500	5.91	15.500	1.21	21.50	0.71
3.517	1.06	9.517	5.29	15.517	1.18	21.52	0.70
3.533	1.06	9.533	5.29	15.533	1.18	21.53	0.70
3.550	1.06	9.550	5.29	15.550	1.18	21.55	0.70
3.567	1.06	9.567	5.29	15.567	1.18	21.57	0.70
3.583	1.06	9.583	5.29	15.583	1.18	21.58	0.70
3.600	1.06	9.600	5.29	15.600	1.18	21.60	0.70
3.617	1.06	9.617	5.29	15.617	1.18	21.62	0.70
3.633	1.06	9.633	5.29	15.633	1.18	21.63	0.70
3.650	1.06	9.650	5.29	15.650	1.18	21.65	0.70
3.667	1.06	9.667	5.29	15.667	1.18	21.67	0.70
3.683	1.10	9.683	4.79	15.683	1.16	21.68	0.69
3.700	1.10	9.700	4.79	15.700	1.16	21.70	0.69
3.717	1.10	9.717	4.79	15.717	1.16	21.72	0.69
3.733	1.10	9.733	4.79	15.733	1.16	21.73	0.69
3.750	1.10	9.750	4.79	15.750	1.16	21.75	0.69
3.767	1.10	9.767	4.79	15.767	1.16	21.77	0.69
3.783	1.10	9.783	4.79	15.783	1.16	21.78	0.69
3.800	1.10	9.800	4.79	15.800	1.16	21.80	0.69
3.817	1.10	9.817	4.79	15.817	1.16	21.82	0.69
3.833	1.10	9.833	4.79	15.833	1.16	21.83	0.69
3.850	1.15	9.850	4.38	15.850	1.14	21.85	0.68
3.867	1.15	9.867	4.38	15.867	1.14	21.87	0.68
3.883	1.15	9.883	4.38	15.883	1.14	21.88	0.68
3.900	1.15	9.900	4.38	15.900	1.14	21.90	0.68
3.917	1.15	9.917	4.38	15.917	1.14	21.92	0.68
3.933	1.15	9.933	4.38	15.933	1.14	21.93	0.68
3.950	1.15	9.950	4.38	15.950	1.14	21.95	0.68
3.967	1.15	9.967	4.38	15.967	1.14	21.97	0.68
3.983	1.15	9.983	4.38	15.983	1.14	21.98	0.68
4.000	1.15	10.000	4.38	16.000	1.14	22.00	0.68
4.017	1.19	10.017	4.03	16.017	1.12	22.02	0.68
4.033	1.19	10.033	4.03	16.033	1.12	22.03	0.68
4.050	1.19	10.050	4.03	16.050	1.12	22.05	0.68
4.067	1.19	10.067	4.03	16.067	1.12	22.07	0.68
4.083	1.19	10.083	4.03	16.083	1.12	22.08	0.68
4.100	1.19	10.100	4.03	16.100	1.12	22.10	0.68
4.117	1.19	10.117	4.03	16.117	1.12	22.12	0.68
4.133	1.19	10.133	4.03	16.133	1.12	22.13	0.68
4.150	1.19	10.150	4.03	16.150	1.12	22.15	0.68
4.167	1.19	10.167	4.03	16.167	1.12	22.17	0.68
4.183	1.24	10.183	3.74	16.183	1.09	22.18	0.67
4.200	1.24	10.200	3.74	16.200	1.09	22.20	0.67
4.217	1.24	10.217	3.74	16.217	1.09	22.22	0.67
4.233	1.24	10.233	3.74	16.233	1.09	22.23	0.67
4.250	1.24	10.250	3.74	16.250	1.09	22.25	0.67
4.267	1.24	10.267	3.74	16.267	1.09	22.27	0.67
4.283	1.24	10.283	3.74	16.283	1.09	22.28	0.67
4.300	1.24	10.300	3.74	16.300	1.09	22.30	0.67
4.317	1.24	10.317	3.74	16.317	1.09	22.32	0.67
4.333	1.24	10.333	3.74	16.333	1.09	22.33	0.67
4.350	1.30	10.350	3.48	16.350	1.08	22.35	0.66

4.367	1.30	10.367	3.48	16.367	1.08	22.37	0.66
4.383	1.30	10.383	3.48	16.383	1.08	22.38	0.66
4.400	1.30	10.400	3.48	16.400	1.08	22.40	0.66
4.417	1.30	10.417	3.48	16.417	1.08	22.42	0.66
4.433	1.30	10.433	3.48	16.433	1.08	22.43	0.66
4.450	1.30	10.450	3.48	16.450	1.08	22.45	0.66
4.467	1.30	10.467	3.48	16.467	1.08	22.47	0.66
4.483	1.30	10.483	3.48	16.483	1.08	22.48	0.66
4.500	1.30	10.500	3.48	16.500	1.08	22.50	0.66
4.517	1.36	10.517	3.26	16.517	1.06	22.52	0.66
4.533	1.36	10.533	3.26	16.533	1.06	22.53	0.66
4.550	1.36	10.550	3.26	16.550	1.06	22.55	0.66
4.567	1.36	10.567	3.26	16.567	1.06	22.57	0.66
4.583	1.36	10.583	3.26	16.583	1.06	22.58	0.66
4.600	1.36	10.600	3.26	16.600	1.06	22.60	0.66
4.617	1.36	10.617	3.26	16.617	1.06	22.62	0.66
4.633	1.36	10.633	3.26	16.633	1.06	22.63	0.66
4.650	1.36	10.650	3.26	16.650	1.06	22.65	0.66
4.667	1.36	10.667	3.26	16.667	1.06	22.67	0.66
4.683	1.43	10.683	3.07	16.683	1.04	22.68	0.65
4.700	1.43	10.700	3.07	16.700	1.04	22.70	0.65
4.717	1.43	10.717	3.07	16.717	1.04	22.72	0.65
4.733	1.43	10.733	3.07	16.733	1.04	22.73	0.65
4.750	1.43	10.750	3.07	16.750	1.04	22.75	0.65
4.767	1.43	10.767	3.07	16.767	1.04	22.77	0.65
4.783	1.43	10.783	3.07	16.783	1.04	22.78	0.65
4.800	1.43	10.800	3.07	16.800	1.04	22.80	0.65
4.817	1.43	10.817	3.07	16.817	1.04	22.82	0.65
4.833	1.43	10.833	3.07	16.833	1.04	22.83	0.65
4.850	1.50	10.850	2.90	16.850	1.02	22.85	0.64
4.867	1.50	10.867	2.90	16.867	1.02	22.87	0.64
4.883	1.50	10.883	2.90	16.883	1.02	22.88	0.64
4.900	1.50	10.900	2.90	16.900	1.02	22.90	0.64
4.917	1.50	10.917	2.90	16.917	1.02	22.92	0.64
4.933	1.50	10.933	2.90	16.933	1.02	22.93	0.64
4.950	1.50	10.950	2.90	16.950	1.02	22.95	0.64
4.967	1.50	10.967	2.90	16.967	1.02	22.97	0.64
4.983	1.50	10.983	2.90	16.983	1.02	22.98	0.64
5.000	1.50	11.000	2.90	17.000	1.02	23.00	0.64
5.017	1.59	11.017	2.75	17.017	1.00	23.02	0.64
5.033	1.59	11.033	2.75	17.033	1.00	23.03	0.64
5.050	1.59	11.050	2.75	17.050	1.00	23.05	0.64
5.067	1.59	11.067	2.75	17.067	1.00	23.07	0.64
5.083	1.59	11.083	2.75	17.083	1.00	23.08	0.64
5.100	1.59	11.100	2.75	17.100	1.00	23.10	0.64
5.117	1.59	11.117	2.75	17.117	1.00	23.12	0.64
5.133	1.59	11.133	2.75	17.133	1.00	23.13	0.64
5.150	1.59	11.150	2.75	17.150	1.00	23.15	0.64
5.167	1.59	11.167	2.75	17.167	1.00	23.17	0.64
5.183	1.68	11.183	2.61	17.183	0.99	23.18	0.63
5.200	1.68	11.200	2.61	17.200	0.99	23.20	0.63
5.217	1.68	11.217	2.61	17.217	0.99	23.22	0.63

5.233	1.68	11.233	2.61	17.233	0.99	23.23	0.63
5.250	1.68	11.250	2.61	17.250	0.99	23.25	0.63
5.267	1.68	11.267	2.61	17.267	0.99	23.27	0.63
5.283	1.68	11.283	2.61	17.283	0.99	23.28	0.63
5.300	1.68	11.300	2.61	17.300	0.99	23.30	0.63
5.317	1.68	11.317	2.61	17.317	0.99	23.32	0.63
5.333	1.68	11.333	2.61	17.333	0.99	23.33	0.63
5.350	1.79	11.350	2.49	17.350	0.97	23.35	0.62
5.367	1.79	11.367	2.49	17.367	0.97	23.37	0.62
5.383	1.79	11.383	2.49	17.383	0.97	23.38	0.62
5.400	1.79	11.400	2.49	17.400	0.97	23.40	0.62
5.417	1.79	11.417	2.49	17.417	0.97	23.42	0.62
5.433	1.79	11.433	2.49	17.433	0.97	23.43	0.62
5.450	1.79	11.450	2.49	17.450	0.97	23.45	0.62
5.467	1.79	11.467	2.49	17.467	0.97	23.47	0.62
5.483	1.79	11.483	2.49	17.483	0.97	23.48	0.62
5.500	1.79	11.500	2.49	17.500	0.97	23.50	0.62
5.517	1.92	11.517	2.38	17.517	0.96	23.52	0.62
5.533	1.92	11.533	2.38	17.533	0.96	23.53	0.62
5.550	1.92	11.550	2.38	17.550	0.96	23.55	0.62
5.567	1.92	11.567	2.38	17.567	0.96	23.57	0.62
5.583	1.92	11.583	2.38	17.583	0.96	23.58	0.62
5.600	1.92	11.600	2.38	17.600	0.96	23.60	0.62
5.617	1.92	11.617	2.38	17.617	0.96	23.62	0.62
5.633	1.92	11.633	2.38	17.633	0.96	23.63	0.62
5.650	1.92	11.650	2.38	17.650	0.96	23.65	0.62
5.667	1.92	11.667	2.38	17.667	0.96	23.67	0.62
5.683	2.06	11.683	2.28	17.683	0.94	23.68	0.61
5.700	2.06	11.700	2.28	17.700	0.94	23.70	0.61
5.717	2.06	11.717	2.28	17.717	0.94	23.72	0.61
5.733	2.06	11.733	2.28	17.733	0.94	23.73	0.61
5.750	2.06	11.750	2.28	17.750	0.94	23.75	0.61
5.767	2.06	11.767	2.28	17.767	0.94	23.77	0.61
5.783	2.06	11.783	2.28	17.783	0.94	23.78	0.61
5.800	2.06	11.800	2.28	17.800	0.94	23.80	0.61
5.817	2.06	11.817	2.28	17.817	0.94	23.82	0.61
5.833	2.06	11.833	2.28	17.833	0.94	23.83	0.61
5.850	2.23	11.850	2.19	17.850	0.93	23.85	0.61
5.867	2.23	11.867	2.19	17.867	0.93	23.87	0.61
5.883	2.23	11.883	2.19	17.883	0.93	23.88	0.61
5.900	2.23	11.900	2.19	17.900	0.93	23.90	0.61
5.917	2.23	11.917	2.19	17.917	0.93	23.92	0.61
5.933	2.23	11.933	2.19	17.933	0.93	23.93	0.61
5.950	2.23	11.950	2.19	17.950	0.93	23.95	0.61
5.967	2.23	11.967	2.19	17.967	0.93	23.97	0.61
5.983	2.23	11.983	2.19	17.983	0.93	23.98	0.61
6.000	2.23	12.000	2.19	18.000	0.93	24.00	0.61

Max.Eff.Inten.(mm/hr)=	157.69	43.17
over (min)	6.00	12.00
Storage Coeff. (min)=	6.23 (ii)	11.81 (ii)
Unit Hyd. Tpeak (min)=	6.00	12.00

Unit Hyd. peak (cms)=	0.18	0.10	
			TOTALS
PEAK FLOW (cms)=	4.54	0.84	5.112 (iii)
TIME TO PEAK (hrs)=	8.03	8.17	8.05
RUNOFF VOLUME (mm)=	97.32	27.15	61.55
TOTAL RAINFALL (mm)=	98.33	98.33	98.33
RUNOFF COEFFICIENT =	0.99	0.28	0.63

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 48.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

DUHYD (0034)
Inlet Cap.= 3.057
#of Inlets= 1
Total(cms)= 3.1

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
TOTAL HYD.(ID= 1):	26.89	5.11	8.05	61.55
MAJOR SYS.(ID= 2):	2.20	2.06	8.05	61.55
MINOR SYS.(ID= 3):	24.69	3.06	7.93	61.55

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

Junction Command(0033)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 9(0034)	24.69	3.06	7.93	61.55
OUTFLOW: ID= 2(0033)	24.69	3.06	7.93	61.55

CALIB			
STANDHYD (1052)	Area (ha)= 1.95		
ID= 1 DT= 1.0 min	Total Imp(%)= 30.00	Dir. Conn.(%)= 26.00	

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.58	1.36
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.50	2.00
Length (m)=	113.90	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 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
0.017	0.62	6.017	2.43	12.017	2.10	18.02	0.91
0.033	0.62	6.033	2.43	12.033	2.10	18.03	0.91
0.050	0.62	6.050	2.43	12.050	2.10	18.05	0.91
0.067	0.62	6.067	2.43	12.067	2.10	18.07	0.91
0.083	0.62	6.083	2.43	12.083	2.10	18.08	0.91
0.100	0.62	6.100	2.43	12.100	2.10	18.10	0.91
0.117	0.62	6.117	2.43	12.117	2.10	18.12	0.91
0.133	0.62	6.133	2.43	12.133	2.10	18.13	0.91
0.150	0.62	6.150	2.43	12.150	2.10	18.15	0.91
0.167	0.62	6.167	2.43	12.167	2.10	18.17	0.91
0.183	0.63	6.183	2.68	12.183	2.02	18.18	0.90
0.200	0.63	6.200	2.68	12.200	2.02	18.20	0.90
0.217	0.63	6.217	2.68	12.217	2.02	18.22	0.90
0.233	0.63	6.233	2.68	12.233	2.02	18.23	0.90
0.250	0.63	6.250	2.68	12.250	2.02	18.25	0.90
0.267	0.63	6.267	2.68	12.267	2.02	18.27	0.90
0.283	0.63	6.283	2.68	12.283	2.02	18.28	0.90
0.300	0.63	6.300	2.68	12.300	2.02	18.30	0.90
0.317	0.63	6.317	2.68	12.317	2.02	18.32	0.90
0.333	0.63	6.333	2.68	12.333	2.02	18.33	0.90
0.350	0.65	6.350	2.98	12.350	1.95	18.35	0.89
0.367	0.65	6.367	2.98	12.367	1.95	18.37	0.89
0.383	0.65	6.383	2.98	12.383	1.95	18.38	0.89
0.400	0.65	6.400	2.98	12.400	1.95	18.40	0.89
0.417	0.65	6.417	2.98	12.417	1.95	18.42	0.89
0.433	0.65	6.433	2.98	12.433	1.95	18.43	0.89
0.450	0.65	6.450	2.98	12.450	1.95	18.45	0.89
0.467	0.65	6.467	2.98	12.467	1.95	18.47	0.89
0.483	0.65	6.483	2.98	12.483	1.95	18.48	0.89
0.500	0.65	6.500	2.98	12.500	1.95	18.50	0.89
0.517	0.66	6.517	3.37	12.517	1.89	18.52	0.87
0.533	0.66	6.533	3.37	12.533	1.89	18.53	0.87
0.550	0.66	6.550	3.37	12.550	1.89	18.55	0.87
0.567	0.66	6.567	3.37	12.567	1.89	18.57	0.87
0.583	0.66	6.583	3.37	12.583	1.89	18.58	0.87
0.600	0.66	6.600	3.37	12.600	1.89	18.60	0.87
0.617	0.66	6.617	3.37	12.617	1.89	18.62	0.87
0.633	0.66	6.633	3.37	12.633	1.89	18.63	0.87
0.650	0.66	6.650	3.37	12.650	1.89	18.65	0.87
0.667	0.66	6.667	3.37	12.667	1.89	18.67	0.87
0.683	0.67	6.683	3.88	12.683	1.82	18.68	0.86
0.700	0.67	6.700	3.88	12.700	1.82	18.70	0.86
0.717	0.67	6.717	3.88	12.717	1.82	18.72	0.86
0.733	0.67	6.733	3.88	12.733	1.82	18.73	0.86
0.750	0.67	6.750	3.88	12.750	1.82	18.75	0.86

0.767	0.67	6.767	3.88	12.767	1.82	18.77	0.86
0.783	0.67	6.783	3.88	12.783	1.82	18.78	0.86
0.800	0.67	6.800	3.88	12.800	1.82	18.80	0.86
0.817	0.67	6.817	3.88	12.817	1.82	18.82	0.86
0.833	0.67	6.833	3.88	12.833	1.82	18.83	0.86
0.850	0.69	6.850	4.58	12.850	1.77	18.85	0.85
0.867	0.69	6.867	4.58	12.867	1.77	18.87	0.85
0.883	0.69	6.883	4.58	12.883	1.77	18.88	0.85
0.900	0.69	6.900	4.58	12.900	1.77	18.90	0.85
0.917	0.69	6.917	4.58	12.917	1.77	18.92	0.85
0.933	0.69	6.933	4.58	12.933	1.77	18.93	0.85
0.950	0.69	6.950	4.58	12.950	1.77	18.95	0.85
0.967	0.69	6.967	4.58	12.967	1.77	18.97	0.85
0.983	0.69	6.983	4.58	12.983	1.77	18.98	0.85
1.000	0.69	7.000	4.58	13.000	1.77	19.00	0.85
1.017	0.70	7.017	5.59	13.017	1.71	19.02	0.84
1.033	0.70	7.033	5.59	13.033	1.71	19.03	0.84
1.050	0.70	7.050	5.59	13.050	1.71	19.05	0.84
1.067	0.70	7.067	5.59	13.067	1.71	19.07	0.84
1.083	0.70	7.083	5.59	13.083	1.71	19.08	0.84
1.100	0.70	7.100	5.59	13.100	1.71	19.10	0.84
1.117	0.70	7.117	5.59	13.117	1.71	19.12	0.84
1.133	0.70	7.133	5.59	13.133	1.71	19.13	0.84
1.150	0.70	7.150	5.59	13.150	1.71	19.15	0.84
1.167	0.70	7.167	5.60	13.167	1.71	19.17	0.84
1.183	0.72	7.183	7.21	13.183	1.66	19.18	0.83
1.200	0.72	7.200	7.21	13.200	1.66	19.20	0.83
1.217	0.72	7.217	7.21	13.217	1.66	19.22	0.83
1.233	0.72	7.233	7.21	13.233	1.66	19.23	0.83
1.250	0.72	7.250	7.21	13.250	1.66	19.25	0.83
1.267	0.72	7.267	7.21	13.267	1.66	19.27	0.83
1.283	0.72	7.283	7.21	13.283	1.66	19.28	0.83
1.300	0.72	7.300	7.21	13.300	1.66	19.30	0.83
1.317	0.72	7.317	7.21	13.317	1.66	19.32	0.83
1.333	0.72	7.333	7.22	13.333	1.66	19.33	0.83
1.350	0.73	7.350	10.14	13.350	1.61	19.35	0.82
1.367	0.73	7.367	10.14	13.367	1.61	19.37	0.82
1.383	0.73	7.383	10.14	13.383	1.61	19.38	0.82
1.400	0.73	7.400	10.14	13.400	1.61	19.40	0.82
1.417	0.73	7.417	10.14	13.417	1.61	19.42	0.82
1.433	0.73	7.433	10.14	13.433	1.61	19.43	0.82
1.450	0.73	7.450	10.14	13.450	1.61	19.45	0.82
1.467	0.73	7.467	10.14	13.467	1.61	19.47	0.82
1.483	0.73	7.483	10.14	13.483	1.61	19.48	0.82
1.500	0.73	7.500	10.16	13.500	1.61	19.50	0.82
1.517	0.75	7.517	16.88	13.517	1.57	19.52	0.81
1.533	0.75	7.533	16.88	13.533	1.57	19.53	0.81
1.550	0.75	7.550	16.88	13.550	1.57	19.55	0.81
1.567	0.75	7.567	16.88	13.567	1.57	19.57	0.81
1.583	0.75	7.583	16.88	13.583	1.57	19.58	0.81
1.600	0.75	7.600	16.88	13.600	1.57	19.60	0.81
1.617	0.75	7.617	16.88	13.617	1.57	19.62	0.81

1.633	0.75	7.633	16.88	13.633	1.57	19.63	0.81
1.650	0.75	7.650	16.88	13.650	1.57	19.65	0.81
1.667	0.75	7.667	16.95	13.667	1.57	19.67	0.81
1.683	0.77	7.683	44.66	13.683	1.53	19.68	0.80
1.700	0.77	7.700	44.66	13.700	1.53	19.70	0.80
1.717	0.77	7.717	44.66	13.717	1.53	19.72	0.80
1.733	0.77	7.733	44.66	13.733	1.53	19.73	0.80
1.750	0.77	7.750	44.66	13.750	1.53	19.75	0.80
1.767	0.77	7.767	44.66	13.767	1.53	19.77	0.80
1.783	0.77	7.783	44.66	13.783	1.53	19.78	0.80
1.800	0.77	7.800	44.66	13.800	1.53	19.80	0.80
1.817	0.77	7.817	44.66	13.817	1.53	19.82	0.80
1.833	0.77	7.833	44.99	13.833	1.53	19.83	0.80
1.850	0.79	7.850	157.69	13.850	1.49	19.85	0.79
1.867	0.79	7.867	157.69	13.867	1.49	19.87	0.79
1.883	0.79	7.883	157.69	13.883	1.49	19.88	0.79
1.900	0.79	7.900	157.69	13.900	1.49	19.90	0.79
1.917	0.79	7.917	157.69	13.917	1.49	19.92	0.79
1.933	0.79	7.933	157.69	13.933	1.49	19.93	0.79
1.950	0.79	7.950	157.69	13.950	1.49	19.95	0.79
1.967	0.79	7.967	157.69	13.967	1.49	19.97	0.79
1.983	0.79	7.983	157.69	13.983	1.49	19.98	0.79
2.000	0.79	8.000	157.40	14.000	1.49	20.00	0.79
2.017	0.81	8.017	59.25	14.017	1.45	20.02	0.78
2.033	0.81	8.033	59.25	14.033	1.45	20.03	0.78
2.050	0.81	8.050	59.25	14.050	1.45	20.05	0.78
2.067	0.81	8.067	59.25	14.067	1.45	20.07	0.78
2.083	0.81	8.083	59.25	14.083	1.45	20.08	0.78
2.100	0.81	8.100	59.25	14.100	1.45	20.10	0.78
2.117	0.81	8.117	59.25	14.117	1.45	20.12	0.78
2.133	0.81	8.133	59.25	14.133	1.45	20.13	0.78
2.150	0.81	8.150	59.25	14.150	1.45	20.15	0.78
2.167	0.81	8.167	59.17	14.167	1.45	20.17	0.78
2.183	0.83	8.183	30.14	14.183	1.41	20.18	0.77
2.200	0.83	8.200	30.14	14.200	1.41	20.20	0.77
2.217	0.83	8.217	30.14	14.217	1.41	20.22	0.77
2.233	0.83	8.233	30.14	14.233	1.41	20.23	0.77
2.250	0.83	8.250	30.14	14.250	1.41	20.25	0.77
2.267	0.83	8.267	30.14	14.267	1.41	20.27	0.77
2.283	0.83	8.283	30.14	14.283	1.41	20.28	0.77
2.300	0.83	8.300	30.14	14.300	1.41	20.30	0.77
2.317	0.83	8.317	30.14	14.317	1.41	20.32	0.77
2.333	0.83	8.333	30.11	14.333	1.41	20.33	0.77
2.350	0.85	8.350	19.54	14.350	1.38	20.35	0.76
2.367	0.85	8.367	19.54	14.367	1.38	20.37	0.76
2.383	0.85	8.383	19.54	14.383	1.38	20.38	0.76
2.400	0.85	8.400	19.54	14.400	1.38	20.40	0.76
2.417	0.85	8.417	19.54	14.417	1.38	20.42	0.76
2.433	0.85	8.433	19.54	14.433	1.38	20.43	0.76
2.450	0.85	8.450	19.54	14.450	1.38	20.45	0.76
2.467	0.85	8.467	19.54	14.467	1.38	20.47	0.76
2.483	0.85	8.483	19.54	14.483	1.38	20.48	0.76

2.500	0.85	8.500	19.53	14.500	1.38	20.50	0.76
2.517	0.88	8.517	14.26	14.517	1.35	20.52	0.75
2.533	0.88	8.533	14.26	14.533	1.35	20.53	0.75
2.550	0.88	8.550	14.26	14.550	1.35	20.55	0.75
2.567	0.88	8.567	14.26	14.567	1.35	20.57	0.75
2.583	0.88	8.583	14.26	14.583	1.35	20.58	0.75
2.600	0.88	8.600	14.26	14.600	1.35	20.60	0.75
2.617	0.88	8.617	14.26	14.617	1.35	20.62	0.75
2.633	0.88	8.633	14.26	14.633	1.35	20.63	0.75
2.650	0.88	8.650	14.26	14.650	1.35	20.65	0.75
2.667	0.88	8.667	14.25	14.667	1.35	20.67	0.75
2.683	0.90	8.683	11.16	14.683	1.32	20.68	0.74
2.700	0.90	8.700	11.16	14.700	1.32	20.70	0.74
2.717	0.90	8.717	11.16	14.717	1.32	20.72	0.74
2.733	0.90	8.733	11.16	14.733	1.32	20.73	0.74
2.750	0.90	8.750	11.16	14.750	1.32	20.75	0.74
2.767	0.90	8.767	11.16	14.767	1.32	20.77	0.74
2.783	0.90	8.783	11.16	14.783	1.32	20.78	0.74
2.800	0.90	8.800	11.16	14.800	1.32	20.80	0.74
2.817	0.90	8.817	11.16	14.817	1.32	20.82	0.74
2.833	0.90	8.833	11.16	14.833	1.32	20.83	0.74
2.850	0.93	8.850	9.15	14.850	1.29	20.85	0.73
2.867	0.93	8.867	9.15	14.867	1.29	20.87	0.73
2.883	0.93	8.883	9.15	14.883	1.29	20.88	0.73
2.900	0.93	8.900	9.15	14.900	1.29	20.90	0.73
2.917	0.93	8.917	9.15	14.917	1.29	20.92	0.73
2.933	0.93	8.933	9.15	14.933	1.29	20.93	0.73
2.950	0.93	8.950	9.15	14.950	1.29	20.95	0.73
2.967	0.93	8.967	9.15	14.967	1.29	20.97	0.73
2.983	0.93	8.983	9.15	14.983	1.29	20.98	0.73
3.000	0.93	9.000	9.14	15.000	1.29	21.00	0.73
3.017	0.96	9.017	7.74	15.017	1.26	21.02	0.72
3.033	0.96	9.033	7.74	15.033	1.26	21.03	0.72
3.050	0.96	9.050	7.74	15.050	1.26	21.05	0.72
3.067	0.96	9.067	7.74	15.067	1.26	21.07	0.72
3.083	0.96	9.083	7.74	15.083	1.26	21.08	0.72
3.100	0.96	9.100	7.74	15.100	1.26	21.10	0.72
3.117	0.96	9.117	7.74	15.117	1.26	21.12	0.72
3.133	0.96	9.133	7.74	15.133	1.26	21.13	0.72
3.150	0.96	9.150	7.74	15.150	1.26	21.15	0.72
3.167	0.96	9.167	7.74	15.167	1.26	21.17	0.72
3.183	0.99	9.183	6.70	15.183	1.23	21.18	0.71
3.200	0.99	9.200	6.70	15.200	1.23	21.20	0.71
3.217	0.99	9.217	6.70	15.217	1.23	21.22	0.71
3.233	0.99	9.233	6.70	15.233	1.23	21.23	0.71
3.250	0.99	9.250	6.70	15.250	1.23	21.25	0.71
3.267	0.99	9.267	6.70	15.267	1.23	21.27	0.71
3.283	0.99	9.283	6.70	15.283	1.23	21.28	0.71
3.300	0.99	9.300	6.70	15.300	1.23	21.30	0.71
3.317	0.99	9.317	6.70	15.317	1.23	21.32	0.71
3.333	0.99	9.333	6.70	15.333	1.23	21.33	0.71
3.350	1.03	9.350	5.91	15.350	1.21	21.35	0.71

3.367	1.03	9.367	5.91	15.367	1.21	21.37	0.71
3.383	1.03	9.383	5.91	15.383	1.21	21.38	0.71
3.400	1.03	9.400	5.91	15.400	1.21	21.40	0.71
3.417	1.03	9.417	5.91	15.417	1.21	21.42	0.71
3.433	1.03	9.433	5.91	15.433	1.21	21.43	0.71
3.450	1.03	9.450	5.91	15.450	1.21	21.45	0.71
3.467	1.03	9.467	5.91	15.467	1.21	21.47	0.71
3.483	1.03	9.483	5.91	15.483	1.21	21.48	0.71
3.500	1.03	9.500	5.91	15.500	1.21	21.50	0.71
3.517	1.06	9.517	5.29	15.517	1.18	21.52	0.70
3.533	1.06	9.533	5.29	15.533	1.18	21.53	0.70
3.550	1.06	9.550	5.29	15.550	1.18	21.55	0.70
3.567	1.06	9.567	5.29	15.567	1.18	21.57	0.70
3.583	1.06	9.583	5.29	15.583	1.18	21.58	0.70
3.600	1.06	9.600	5.29	15.600	1.18	21.60	0.70
3.617	1.06	9.617	5.29	15.617	1.18	21.62	0.70
3.633	1.06	9.633	5.29	15.633	1.18	21.63	0.70
3.650	1.06	9.650	5.29	15.650	1.18	21.65	0.70
3.667	1.06	9.667	5.29	15.667	1.18	21.67	0.70
3.683	1.10	9.683	4.79	15.683	1.16	21.68	0.69
3.700	1.10	9.700	4.79	15.700	1.16	21.70	0.69
3.717	1.10	9.717	4.79	15.717	1.16	21.72	0.69
3.733	1.10	9.733	4.79	15.733	1.16	21.73	0.69
3.750	1.10	9.750	4.79	15.750	1.16	21.75	0.69
3.767	1.10	9.767	4.79	15.767	1.16	21.77	0.69
3.783	1.10	9.783	4.79	15.783	1.16	21.78	0.69
3.800	1.10	9.800	4.79	15.800	1.16	21.80	0.69
3.817	1.10	9.817	4.79	15.817	1.16	21.82	0.69
3.833	1.10	9.833	4.79	15.833	1.16	21.83	0.69
3.850	1.15	9.850	4.38	15.850	1.14	21.85	0.68
3.867	1.15	9.867	4.38	15.867	1.14	21.87	0.68
3.883	1.15	9.883	4.38	15.883	1.14	21.88	0.68
3.900	1.15	9.900	4.38	15.900	1.14	21.90	0.68
3.917	1.15	9.917	4.38	15.917	1.14	21.92	0.68
3.933	1.15	9.933	4.38	15.933	1.14	21.93	0.68
3.950	1.15	9.950	4.38	15.950	1.14	21.95	0.68
3.967	1.15	9.967	4.38	15.967	1.14	21.97	0.68
3.983	1.15	9.983	4.38	15.983	1.14	21.98	0.68
4.000	1.15	10.000	4.38	16.000	1.14	22.00	0.68
4.017	1.19	10.017	4.03	16.017	1.12	22.02	0.68
4.033	1.19	10.033	4.03	16.033	1.12	22.03	0.68
4.050	1.19	10.050	4.03	16.050	1.12	22.05	0.68
4.067	1.19	10.067	4.03	16.067	1.12	22.07	0.68
4.083	1.19	10.083	4.03	16.083	1.12	22.08	0.68
4.100	1.19	10.100	4.03	16.100	1.12	22.10	0.68
4.117	1.19	10.117	4.03	16.117	1.12	22.12	0.68
4.133	1.19	10.133	4.03	16.133	1.12	22.13	0.68
4.150	1.19	10.150	4.03	16.150	1.12	22.15	0.68
4.167	1.19	10.167	4.03	16.167	1.12	22.17	0.68
4.183	1.24	10.183	3.74	16.183	1.09	22.18	0.67
4.200	1.24	10.200	3.74	16.200	1.09	22.20	0.67
4.217	1.24	10.217	3.74	16.217	1.09	22.22	0.67

4.233	1.24	10.233	3.74	16.233	1.09	22.23	0.67
4.250	1.24	10.250	3.74	16.250	1.09	22.25	0.67
4.267	1.24	10.267	3.74	16.267	1.09	22.27	0.67
4.283	1.24	10.283	3.74	16.283	1.09	22.28	0.67
4.300	1.24	10.300	3.74	16.300	1.09	22.30	0.67
4.317	1.24	10.317	3.74	16.317	1.09	22.32	0.67
4.333	1.24	10.333	3.74	16.333	1.09	22.33	0.67
4.350	1.30	10.350	3.48	16.350	1.08	22.35	0.66
4.367	1.30	10.367	3.48	16.367	1.08	22.37	0.66
4.383	1.30	10.383	3.48	16.383	1.08	22.38	0.66
4.400	1.30	10.400	3.48	16.400	1.08	22.40	0.66
4.417	1.30	10.417	3.48	16.417	1.08	22.42	0.66
4.433	1.30	10.433	3.48	16.433	1.08	22.43	0.66
4.450	1.30	10.450	3.48	16.450	1.08	22.45	0.66
4.467	1.30	10.467	3.48	16.467	1.08	22.47	0.66
4.483	1.30	10.483	3.48	16.483	1.08	22.48	0.66
4.500	1.30	10.500	3.48	16.500	1.08	22.50	0.66
4.517	1.36	10.517	3.26	16.517	1.06	22.52	0.66
4.533	1.36	10.533	3.26	16.533	1.06	22.53	0.66
4.550	1.36	10.550	3.26	16.550	1.06	22.55	0.66
4.567	1.36	10.567	3.26	16.567	1.06	22.57	0.66
4.583	1.36	10.583	3.26	16.583	1.06	22.58	0.66
4.600	1.36	10.600	3.26	16.600	1.06	22.60	0.66
4.617	1.36	10.617	3.26	16.617	1.06	22.62	0.66
4.633	1.36	10.633	3.26	16.633	1.06	22.63	0.66
4.650	1.36	10.650	3.26	16.650	1.06	22.65	0.66
4.667	1.36	10.667	3.26	16.667	1.06	22.67	0.66
4.683	1.43	10.683	3.07	16.683	1.04	22.68	0.65
4.700	1.43	10.700	3.07	16.700	1.04	22.70	0.65
4.717	1.43	10.717	3.07	16.717	1.04	22.72	0.65
4.733	1.43	10.733	3.07	16.733	1.04	22.73	0.65
4.750	1.43	10.750	3.07	16.750	1.04	22.75	0.65
4.767	1.43	10.767	3.07	16.767	1.04	22.77	0.65
4.783	1.43	10.783	3.07	16.783	1.04	22.78	0.65
4.800	1.43	10.800	3.07	16.800	1.04	22.80	0.65
4.817	1.43	10.817	3.07	16.817	1.04	22.82	0.65
4.833	1.43	10.833	3.07	16.833	1.04	22.83	0.65
4.850	1.50	10.850	2.90	16.850	1.02	22.85	0.64
4.867	1.50	10.867	2.90	16.867	1.02	22.87	0.64
4.883	1.50	10.883	2.90	16.883	1.02	22.88	0.64
4.900	1.50	10.900	2.90	16.900	1.02	22.90	0.64
4.917	1.50	10.917	2.90	16.917	1.02	22.92	0.64
4.933	1.50	10.933	2.90	16.933	1.02	22.93	0.64
4.950	1.50	10.950	2.90	16.950	1.02	22.95	0.64
4.967	1.50	10.967	2.90	16.967	1.02	22.97	0.64
4.983	1.50	10.983	2.90	16.983	1.02	22.98	0.64
5.000	1.50	11.000	2.90	17.000	1.02	23.00	0.64
5.017	1.59	11.017	2.75	17.017	1.00	23.02	0.64
5.033	1.59	11.033	2.75	17.033	1.00	23.03	0.64
5.050	1.59	11.050	2.75	17.050	1.00	23.05	0.64
5.067	1.59	11.067	2.75	17.067	1.00	23.07	0.64
5.083	1.59	11.083	2.75	17.083	1.00	23.08	0.64

5.100	1.59	11.100	2.75	17.100	1.00	23.10	0.64
5.117	1.59	11.117	2.75	17.117	1.00	23.12	0.64
5.133	1.59	11.133	2.75	17.133	1.00	23.13	0.64
5.150	1.59	11.150	2.75	17.150	1.00	23.15	0.64
5.167	1.59	11.167	2.75	17.167	1.00	23.17	0.64
5.183	1.68	11.183	2.61	17.183	0.99	23.18	0.63
5.200	1.68	11.200	2.61	17.200	0.99	23.20	0.63
5.217	1.68	11.217	2.61	17.217	0.99	23.22	0.63
5.233	1.68	11.233	2.61	17.233	0.99	23.23	0.63
5.250	1.68	11.250	2.61	17.250	0.99	23.25	0.63
5.267	1.68	11.267	2.61	17.267	0.99	23.27	0.63
5.283	1.68	11.283	2.61	17.283	0.99	23.28	0.63
5.300	1.68	11.300	2.61	17.300	0.99	23.30	0.63
5.317	1.68	11.317	2.61	17.317	0.99	23.32	0.63
5.333	1.68	11.333	2.61	17.333	0.99	23.33	0.63
5.350	1.79	11.350	2.49	17.350	0.97	23.35	0.62
5.367	1.79	11.367	2.49	17.367	0.97	23.37	0.62
5.383	1.79	11.383	2.49	17.383	0.97	23.38	0.62
5.400	1.79	11.400	2.49	17.400	0.97	23.40	0.62
5.417	1.79	11.417	2.49	17.417	0.97	23.42	0.62
5.433	1.79	11.433	2.49	17.433	0.97	23.43	0.62
5.450	1.79	11.450	2.49	17.450	0.97	23.45	0.62
5.467	1.79	11.467	2.49	17.467	0.97	23.47	0.62
5.483	1.79	11.483	2.49	17.483	0.97	23.48	0.62
5.500	1.79	11.500	2.49	17.500	0.97	23.50	0.62
5.517	1.92	11.517	2.38	17.517	0.96	23.52	0.62
5.533	1.92	11.533	2.38	17.533	0.96	23.53	0.62
5.550	1.92	11.550	2.38	17.550	0.96	23.55	0.62
5.567	1.92	11.567	2.38	17.567	0.96	23.57	0.62
5.583	1.92	11.583	2.38	17.583	0.96	23.58	0.62
5.600	1.92	11.600	2.38	17.600	0.96	23.60	0.62
5.617	1.92	11.617	2.38	17.617	0.96	23.62	0.62
5.633	1.92	11.633	2.38	17.633	0.96	23.63	0.62
5.650	1.92	11.650	2.38	17.650	0.96	23.65	0.62
5.667	1.92	11.667	2.38	17.667	0.96	23.67	0.62
5.683	2.06	11.683	2.28	17.683	0.94	23.68	0.61
5.700	2.06	11.700	2.28	17.700	0.94	23.70	0.61
5.717	2.06	11.717	2.28	17.717	0.94	23.72	0.61
5.733	2.06	11.733	2.28	17.733	0.94	23.73	0.61
5.750	2.06	11.750	2.28	17.750	0.94	23.75	0.61
5.767	2.06	11.767	2.28	17.767	0.94	23.77	0.61
5.783	2.06	11.783	2.28	17.783	0.94	23.78	0.61
5.800	2.06	11.800	2.28	17.800	0.94	23.80	0.61
5.817	2.06	11.817	2.28	17.817	0.94	23.82	0.61
5.833	2.06	11.833	2.28	17.833	0.94	23.83	0.61
5.850	2.23	11.850	2.19	17.850	0.93	23.85	0.61
5.867	2.23	11.867	2.19	17.867	0.93	23.87	0.61
5.883	2.23	11.883	2.19	17.883	0.93	23.88	0.61
5.900	2.23	11.900	2.19	17.900	0.93	23.90	0.61
5.917	2.23	11.917	2.19	17.917	0.93	23.92	0.61
5.933	2.23	11.933	2.19	17.933	0.93	23.93	0.61
5.950	2.23	11.950	2.19	17.950	0.93	23.95	0.61

		5.967	2.23	11.967	2.19	17.967	0.93	23.97	0.61
		5.983	2.23	11.983	2.19	17.983	0.93	23.98	0.61
		6.000	2.23	12.000	2.19	18.000	0.93	24.00	0.61

Max.Eff.Inten.(mm/hr)=	157.69	34.54	
over (min)	5.00	12.00	
Storage Coeff. (min)=	2.83 (ii)	11.58 (ii)	
Unit Hyd. Tpeak (min)=	5.00	12.00	
Unit Hyd. peak (cms)=	0.32	0.10	
			TOTALS
PEAK FLOW (cms)=	0.21	0.08	0.254 (iii)
TIME TO PEAK (hrs)=	8.00	8.17	8.02
RUNOFF VOLUME (mm)=	97.33	24.75	43.62
TOTAL RAINFALL (mm)=	98.33	98.33	98.33
RUNOFF COEFFICIENT =	0.99	0.25	0.44

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 48.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
TOTAL HYD.(ID= 1):	1.95	0.25	8.02	43.62
MAJOR SYS.(ID= 2):	0.27	0.15	8.02	43.62
MINOR SYS.(ID= 3):	1.67	0.11	7.88	43.62

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

Junction Command(0038)

	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 9(0037)	1.67	0.11	7.88	43.62
OUTFLOW: ID= 2(0038)	1.67	0.11	7.88	43.62

CALIB	
NASHYD (0104)	Area (ha)= 0.77 Curve Number (CN)= 53.0

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

U.H. Tp(hrs)= 0.34

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	0.62	6.083	2.43	12.083	2.10	18.08	0.91
0.167	0.62	6.167	2.43	12.167	2.10	18.17	0.91
0.250	0.63	6.250	2.68	12.250	2.02	18.25	0.90
0.333	0.63	6.333	2.68	12.333	2.02	18.33	0.90
0.417	0.65	6.417	2.98	12.417	1.95	18.42	0.89
0.500	0.65	6.500	2.98	12.500	1.95	18.50	0.89
0.583	0.66	6.583	3.37	12.583	1.89	18.58	0.87
0.667	0.66	6.667	3.37	12.667	1.89	18.67	0.87
0.750	0.67	6.750	3.88	12.750	1.82	18.75	0.86
0.833	0.67	6.833	3.88	12.833	1.82	18.83	0.86
0.917	0.69	6.917	4.58	12.917	1.77	18.92	0.85
1.000	0.69	7.000	4.58	13.000	1.77	19.00	0.85
1.083	0.70	7.083	5.59	13.083	1.71	19.08	0.84
1.167	0.70	7.167	5.59	13.167	1.71	19.17	0.84
1.250	0.72	7.250	7.21	13.250	1.66	19.25	0.83
1.333	0.72	7.333	7.21	13.333	1.66	19.33	0.83
1.417	0.73	7.417	10.14	13.417	1.61	19.42	0.82
1.500	0.73	7.500	10.14	13.500	1.61	19.50	0.82
1.583	0.75	7.583	16.88	13.583	1.57	19.58	0.81
1.667	0.75	7.667	16.88	13.667	1.57	19.67	0.81
1.750	0.77	7.750	44.66	13.750	1.53	19.75	0.80
1.833	0.77	7.833	44.67	13.833	1.53	19.83	0.80
1.917	0.79	7.917	157.69	13.917	1.49	19.92	0.79
2.000	0.79	8.000	157.68	14.000	1.49	20.00	0.79
2.083	0.81	8.083	59.25	14.083	1.45	20.08	0.78
2.167	0.81	8.167	59.25	14.167	1.45	20.17	0.78
2.250	0.83	8.250	30.14	14.250	1.41	20.25	0.77
2.333	0.83	8.333	30.14	14.333	1.41	20.33	0.77
2.417	0.85	8.417	19.54	14.417	1.38	20.42	0.76
2.500	0.85	8.500	19.54	14.500	1.38	20.50	0.76
2.583	0.88	8.583	14.26	14.583	1.35	20.58	0.75
2.667	0.88	8.667	14.26	14.667	1.35	20.67	0.75
2.750	0.90	8.750	11.16	14.750	1.32	20.75	0.74
2.833	0.90	8.833	11.16	14.833	1.32	20.83	0.74
2.917	0.93	8.917	9.15	14.917	1.29	20.92	0.73
3.000	0.93	9.000	9.15	15.000	1.29	21.00	0.73
3.083	0.96	9.083	7.74	15.083	1.26	21.08	0.72
3.167	0.96	9.167	7.74	15.167	1.26	21.17	0.72
3.250	0.99	9.250	6.70	15.250	1.23	21.25	0.71
3.333	0.99	9.333	6.70	15.333	1.23	21.33	0.71
3.417	1.03	9.417	5.91	15.417	1.21	21.42	0.71
3.500	1.03	9.500	5.91	15.500	1.21	21.50	0.71
3.583	1.06	9.583	5.29	15.583	1.18	21.58	0.70
3.667	1.06	9.667	5.29	15.667	1.18	21.67	0.70
3.750	1.10	9.750	4.79	15.750	1.16	21.75	0.69
3.833	1.10	9.833	4.79	15.833	1.16	21.83	0.69
3.917	1.15	9.917	4.38	15.917	1.14	21.92	0.68
4.000	1.15	10.000	4.38	16.000	1.14	22.00	0.68
4.083	1.19	10.083	4.03	16.083	1.12	22.08	0.68
4.167	1.19	10.167	4.03	16.167	1.12	22.17	0.68
4.250	1.24	10.250	3.74	16.250	1.09	22.25	0.67
4.333	1.24	10.333	3.74	16.333	1.09	22.33	0.67
4.417	1.30	10.417	3.48	16.417	1.08	22.42	0.66
4.500	1.30	10.500	3.48	16.500	1.08	22.50	0.66
4.583	1.36	10.583	3.26	16.583	1.06	22.58	0.66
4.667	1.36	10.667	3.26	16.667	1.06	22.67	0.66
4.750	1.43	10.750	3.07	16.750	1.04	22.75	0.65
4.833	1.43	10.833	3.07	16.833	1.04	22.83	0.65
4.917	1.50	10.917	2.90	16.917	1.02	22.92	0.64
5.000	1.50	11.000	2.90	17.000	1.02	23.00	0.64
5.083	1.59	11.083	2.75	17.083	1.00	23.08	0.64
5.167	1.59	11.167	2.75	17.167	1.00	23.17	0.64
5.250	1.68	11.250	2.61	17.250	0.99	23.25	0.63
5.333	1.68	11.333	2.61	17.333	0.99	23.33	0.63
5.417	1.79	11.417	2.49	17.417	0.97	23.42	0.62
5.500	1.79	11.500	2.49	17.500	0.97	23.50	0.62
5.583	1.92	11.583	2.38	17.583	0.96	23.58	0.62
5.667	1.92	11.667	2.38	17.667	0.96	23.67	0.62
5.750	2.06	11.750	2.28	17.750	0.94	23.75	0.61
5.833	2.06	11.833	2.28	17.833	0.94	23.83	0.61
5.917	2.23	11.917	2.19	17.917	0.93	23.92	0.61
6.000	2.23	12.000	2.19	18.000	0.93	24.00	0.61

Unit Hyd Qpeak (cms)= 0.086

PEAK FLOW (cms)= 0.035 (i)
TIME TO PEAK (hrs)= 8.333
RUNOFF VOLUME (mm)= 27.337
TOTAL RAINFALL (mm)= 98.335
RUNOFF COEFFICIENT = 0.278

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

CALIB	STANDHYD (0103)	Area (ha)= 1.17
ID= 1 DT= 1.0 min	Total Imp(%)= 24.00	Dir. Conn.(%)= 20.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	0.28	0.89
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	0.50	2.00
Length	(m)=	88.20	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 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
0.017	0.62	6.017	2.43	12.017	2.10	18.02	0.91
0.033	0.62	6.033	2.43	12.033	2.10	18.03	0.91
0.050	0.62	6.050	2.43	12.050	2.10	18.05	0.91
0.067	0.62	6.067	2.43	12.067	2.10	18.07	0.91
0.083	0.62	6.083	2.43	12.083	2.10	18.08	0.91
0.100	0.62	6.100	2.43	12.100	2.10	18.10	0.91
0.117	0.62	6.117	2.43	12.117	2.10	18.12	0.91
0.133	0.62	6.133	2.43	12.133	2.10	18.13	0.91
0.150	0.62	6.150	2.43	12.150	2.10	18.15	0.91
0.167	0.62	6.167	2.43	12.167	2.10	18.17	0.91
0.183	0.63	6.183	2.68	12.183	2.02	18.18	0.90
0.200	0.63	6.200	2.68	12.200	2.02	18.20	0.90
0.217	0.63	6.217	2.68	12.217	2.02	18.22	0.90
0.233	0.63	6.233	2.68	12.233	2.02	18.23	0.90
0.250	0.63	6.250	2.68	12.250	2.02	18.25	0.90
0.267	0.63	6.267	2.68	12.267	2.02	18.27	0.90
0.283	0.63	6.283	2.68	12.283	2.02	18.28	0.90
0.300	0.63	6.300	2.68	12.300	2.02	18.30	0.90
0.317	0.63	6.317	2.68	12.317	2.02	18.32	0.90
0.333	0.63	6.333	2.68	12.333	2.02	18.33	0.90
0.350	0.65	6.350	2.98	12.350	1.95	18.35	0.89
0.367	0.65	6.367	2.98	12.367	1.95	18.37	0.89
0.383	0.65	6.383	2.98	12.383	1.95	18.38	0.89
0.400	0.65	6.400	2.98	12.400	1.95	18.40	0.89
0.417	0.65	6.417	2.98	12.417	1.95	18.42	0.89
0.433	0.65	6.433	2.98	12.433	1.95	18.43	0.89
0.450	0.65	6.450	2.98	12.450	1.95	18.45	0.89
0.467	0.65	6.467	2.98	12.467	1.95	18.47	0.89
0.483	0.65	6.483	2.98	12.483	1.95	18.48	0.89
0.500	0.65	6.500	2.98	12.500	1.95	18.50	0.89
0.517	0.66	6.517	3.37	12.517	1.89	18.52	0.87
0.533	0.66	6.533	3.37	12.533	1.89	18.53	0.87
0.550	0.66	6.550	3.37	12.550	1.89	18.55	0.87
0.567	0.66	6.567	3.37	12.567	1.89	18.57	0.87
0.583	0.66	6.583	3.37	12.583	1.89	18.58	0.87
0.600	0.66	6.600	3.37	12.600	1.89	18.60	0.87
0.617	0.66	6.617	3.37	12.617	1.89	18.62	0.87
0.633	0.66	6.633	3.37	12.633	1.89	18.63	0.87
0.650	0.66	6.650	3.37	12.650	1.89	18.65	0.87
0.667	0.66	6.667	3.37	12.667	1.89	18.67	0.87
0.683	0.67	6.683	3.88	12.683	1.82	18.68	0.86
0.700	0.67	6.700	3.88	12.700	1.82	18.70	0.86
0.717	0.67	6.717	3.88	12.717	1.82	18.72	0.86
0.733	0.67	6.733	3.88	12.733	1.82	18.73	0.86
0.750	0.67	6.750	3.88	12.750	1.82	18.75	0.86
0.767	0.67	6.767	3.88	12.767	1.82	18.77	0.86
0.783	0.67	6.783	3.88	12.783	1.82	18.78	0.86
0.800	0.67	6.800	3.88	12.800	1.82	18.80	0.86
0.817	0.67	6.817	3.88	12.817	1.82	18.82	0.86
0.833	0.67	6.833	3.88	12.833	1.82	18.83	0.86
0.850	0.69	6.850	4.58	12.850	1.77	18.85	0.85
0.867	0.69	6.867	4.58	12.867	1.77	18.87	0.85
0.883	0.69	6.883	4.58	12.883	1.77	18.88	0.85
0.900	0.69	6.900	4.58	12.900	1.77	18.90	0.85
0.917	0.69	6.917	4.58	12.917	1.77	18.92	0.85
0.933	0.69	6.933	4.58	12.933	1.77	18.93	0.85
0.950	0.69	6.950	4.58	12.950	1.77	18.95	0.85
0.967	0.69	6.967	4.58	12.967	1.77	18.97	0.85
0.983	0.69	6.983	4.58	12.983	1.77	18.98	0.85
1.000	0.69	7.000	4.58	13.000	1.77	19.00	0.85
1.017	0.70	7.017	5.59	13.017	1.71	19.02	0.84
1.033	0.70	7.033	5.59	13.033	1.71	19.03	0.84
1.050	0.70	7.050	5.59	13.050	1.71	19.05	0.84
1.067	0.70	7.067	5.59	13.067	1.71	19.07	0.84
1.083	0.70	7.083	5.59	13.083	1.71	19.08	0.84
1.100	0.70	7.100	5.59	13.100	1.71	19.10	0.84
1.117	0.70	7.117	5.59	13.117	1.71	19.12	0.84
1.133	0.70	7.133	5.59	13.133	1.71	19.13	0.84
1.150	0.70	7.150	5.59	13.150	1.71	19.15	0.84
1.167	0.70	7.167	5.60	13.167	1.71	19.17	0.84
1.183	0.72	7.183	7.21	13.183	1.66	19.18	0.83
1.200	0.72	7.200	7.21	13.200	1.66	19.20	0.83
1.217	0.72	7.217	7.21	13.217	1.66	19.22	0.83
1.233	0.72	7.233	7.21	13.233	1.66	19.23	0.83
1.250	0.72	7.250	7.21	13.250	1.66	19.25	0.83
1.267	0.72	7.267	7.21	13.267	1.66	19.27	0.83
1.283	0.72	7.283	7.21	13.283	1.66	19.28	0.83
1.300	0.72	7.300	7.21	13.300	1.66	19.30	0.83
1.317	0.72	7.317	7.21	13.317	1.66	19.32	0.83
1.333	0.72	7.333	7.22	13.333	1.66	19.33	0.83
1.350	0.73	7.350	10.14	13.350	1.61	19.35	0.82
1.367	0.73	7.367	10.14	13.367	1.61	19.37	0.82
1.383	0.73	7.383	10.14	13.383	1.61	19.38	0.82
1.400	0.73	7.400	10.14	13.400	1.61	19.40	0.82
1.417	0.73	7.417	10.14	13.417	1.61	19.42	0.82
1.433	0.73	7.433	10.14	13.433	1.61	19.43	0.82
1.450	0.73	7.450	10.14	13.450	1.61	19.45	0.82
1.467	0.73	7.467	10.14	13.467	1.61	19.47	0.82
1.483	0.73	7.483	10.14	13.483	1.61	19.48	0.82
1.500	0.73	7.500	10.16	13.500	1.61	19.50	0.82
1.517	0.75	7.517	16.88	13.517	1.57	19.52	0.81
1.533	0.75	7.533	16.88	13.533	1.57	19.53	0.81
1.550	0.75	7.550	16.88	13.550	1.57	19.55	0.81
1.567	0.75	7.567	16.88	13.567	1.57	19.57	0.81
1.583	0.75	7.583	16.88	13.583	1.57	19.58	0.81
1.600	0.75	7.600	16.88	13.600	1.57	19.60	0.81
1.617	0.75	7.617	16.88	13.617	1.57	19.62	0.81
1.633	0.75	7.633	16.88	13.633	1.57	19.63	0.81
1.650	0.75	7.650	16.88	13.650	1.57	19.65	0.81
1.667	0.75	7.667	16.95	13.667	1.57	19.67	0.81
1.683	0.77	7.683	44.66	13.683	1.53	19.68	0.80
1.700	0.77	7.700	44.66	13.700	1.53	19.70	0.80
1.717	0.77	7.717	44.66	13.717	1.53	19.72	0.80
1.733	0.77	7.733	44.66	13.733	1.53	19.73	0.80
1.750	0.77	7.750	44.66	13.750	1.53	19.75	0.80
1.767	0.77	7.767	44.66	13.767	1.53	19.77	0.80
1.783	0.77	7.783	44.66	13.783	1.53	19.78	0.80
1.800	0.77	7.800	44.66	13.800	1.53	19.80	0.80
1.817	0.77	7.817	44.66	13.817	1.53	19.82	0.80
1.833	0.77	7.833	44.99	13.833	1.53	19.83	0.80
1.850	0.79	7.850	157.69	13.850	1.49	19.85	0.79
1.867	0.79	7.867	157.69	13.867	1.49	19.87	0.79
1.883	0.79	7.883	157.69	13.883	1.49	19.88	0.79
1.900	0.79	7.900	157.69	13.900	1.49	19.90	0.79
1.917	0.79	7.917	157.69	13.917	1.49	19.92	0.79
1.933	0.79	7.933	157.69	13.933	1.49	19.93	0.79
1.950	0.79	7.950	157.69	13.950	1.49	19.95	0.79
1.967	0.79	7.967	157.69	13.967	1.49	19.97	0.79
1.983	0.79	7.983	157.69	13.983	1.49	19.98	0.79
2.000	0.79	8.000	157.40	14.000	1.49	20.00	0.79
2.017	0.81	8.017	59.25	14.017	1.45	20.02	0.78
2.033	0.81	8.033	59.25	14.033	1.45	20.03	0.78
2.050	0.81	8.050	59.25	14.050	1.45	20.05	0.78
2.067	0.81	8.067	59.25	14.067	1.45	20.07	0.78
2.083	0.81	8.083	59.25	14.083	1.45	20.08	0.78
2.100	0.81	8.100	59.25	14.100	1.45	20.10	0.78
2.117	0.81	8.117	59.25	14.117	1.45	20.12	0.78
2.133	0.81	8.133	59.25	14.133	1.45	20.13	0.78
2.150	0.81	8.150	59.25	14.150	1.45	20.15	0.78
2.167	0.81	8.167	59.17	14.167	1.45	20.17	0.78
2.183	0.83	8.183	30.14	14.183	1.41	20.18	0.77
2.200	0.83	8.200	30.14	14.200	1.41	20.20	0.77
2.217	0.83	8.217	30.14	14.217	1.41	20.22	0.77
2.233	0.83	8.233	30.14	14.233	1.41	20.23	0.77
2.250	0.83	8.250	30.14	14.250	1.41	20.25	0.77
2.267	0.83	8.267	30.14	14.267	1.41	20.27	0.77
2.283	0.83	8.283	30.14	14.283	1.41	20.28	0.77
2.300	0.83	8.300	30.14	14.300	1.41	20.30	0.77
2.317	0.83	8.317	30.14	14.317	1.41	20.32	0.77
2.333	0.83	8.333	30.11	14.333	1.41	20.33	0.77
2.350	0.85	8.350	19.54	14.350	1.38	20.35	0.76
2.367	0.85	8.367	19.54	14.367	1.38	20.37	0.76
2.383	0.85	8.383	19.54	14.383	1.38	20.38	0.76
2.400	0.85	8.400	19.54	14.400	1.38	20.40	0.76
2.417	0.85	8.417	19.54	14.417	1.38	20.42	0.76
2.433	0.85	8.433	19.54	14.433	1.38	20.43	0.76
2.450	0.85	8.450	19.54	14.450	1.38	20.45	0.76
2.467	0.85	8.467	19.54	14.467	1.38	20.47	0.76
2.483	0.85	8.483	19.54	14.483	1.38	20.48	0.76
2.500	0.85	8.500	19.53	14.500	1.38	20.50	0.76
2.517	0.88	8.517	14.26	14.517	1.35	20.52	0.75
2.533	0.88	8.533	14.26	14.533	1.35	20.53	0.75
2.550	0.88	8.550	14.26	14.550	1.35	20.55	0.75
2.567	0.88	8.567	14.26	14.567	1.35	20.57	0.75
2.583	0.88	8.583	14.26	14.583	1.35	20.58	0.75
2.600	0.88	8.600	14.26	14.600	1.35	20.60	0.75
2.617	0.88	8.617	14.26	14.617	1.35	20.62	0.75
2.633	0.88	8.633	14.26	14.633	1.35	20.63	0.75
2.650	0.88	8.650	14.26	14.650	1.35	20.65	0.75
2.667	0.88	8.667	14.25	14.667	1.35	20.67	0.75
2.683	0.90	8.683	11.16	14.683	1.32	20.68	0.74
2.700	0.90	8.700	11.16	14.700	1.32	20.70	0.74
2.717	0.90	8.717	11.16	14.717	1.32	20.72	0.74
2.733	0.90	8.733	11.16	14.733	1.32	20.73	0.74
2.750	0.90	8.750	11.16	14.750	1.32	20.75	0.74
2.767	0.90	8.767	11.16	14.767	1.32	20.77	0.74
2.783	0.90	8.783	11.16	14.783	1.32	20.78	0.74
2.800	0.90	8.800	11.16	14.800	1.32	20.80	0.74
2.817	0.90	8.817	11.16	14.817	1.32	20.82	0.74
2.833	0.90	8.833	11.16	14.833	1.32	20.83	0.74
2.850	0.93	8.850	9.15	14.850	1.29	20.85	0.73
2.867	0.93	8.867	9.15	14.867	1.29	20.87	0.73
2.883	0.93	8.883	9.15	14.883	1.29	20.88	0.73
2.900	0.93	8.900	9.15	14.900	1.29	20.90	0.73
2.917	0.93	8.917	9.15	14.917	1.29	20.92	0.73
2.933	0.93	8.933	9.15	14.933	1.29	20.93	0.73
2.950	0.93	8.950	9.15	14.950	1.29	20.95	0.73
2.967	0.93	8.967	9.15	14.967	1.29	20.97	0.73
2.983	0.93	8.983	9.15	14.983	1.29	20.98	0.73
3.000	0.93	9.000	9.14	15.000	1.29	21.00	0.73
3.017	0.96	9.017	7.74	15.017	1.26	21.02	0.72
3.033	0.96	9.033	7.74	15.033	1.26	21.03	0.72
3.050	0.96	9.050	7.74	15.050	1.26	21.05	0.72
3.067	0.96	9.067	7.74	15.067	1.26	21.07	0.72
3.083	0.96	9.083	7.74	15.083	1.26	21.08	0.72
3.100	0.96	9.100	7.74	15.100	1.26	21.10	0.72
3.117	0.96	9.117	7.74	15.117	1.26	21.12	0.72
3.133	0.96	9.133	7.74	15.133	1.26	21.13	0.72
3.150	0.96	9.150	7.74	15.150	1.26	21.15	0.72
3.167	0.96	9.167	7.74	15.167	1.26	21.17	0.72
3.183	0.99	9.183	6.70	15.183	1.23	21.18	0.71
3.200	0.99	9.200	6.70	15.200	1.23	21.20	0.71
3.217	0.99	9.217	6.70	15.217	1.23	21.22	0.71
3.233	0.99	9.233	6.70	15.233	1.23	21.23	0.71
3.250	0.99	9.250	6.70	15.250	1.23	21.25	0.71
3.267	0.99	9.267	6.70	15.267	1.23	21.27	0.71
3.283	0.99	9.283	6.70	15.283	1.23	21.28	0.71
3.300	0.99	9.300	6.70	15.300	1.23	21.30	0.71
3.317	0.99	9.317	6.70	15.317	1.23	21.32	0.71
3.333	0.99	9.333	6.70	15.333	1.23	21.33	0.71
3.350	1.03	9.350	5.91	15.350	1.21	21.35	0.71

3.367	1.03	9.367	5.91	15.367	1.21	21.37	0.71
3.383	1.03	9.383	5.91	15.383	1.21	21.38	0.71
3.400	1.03	9.400	5.91	15.400	1.21	21.40	0.71
3.417	1.03	9.417	5.91	15.417	1.21	21.42	0.71
3.433	1.03	9.433	5.91	15.433	1.21	21.43	0.71
3.450	1.03	9.450	5.91	15.450	1.21	21.45	0.71
3.467	1.03	9.467	5.91	15.467	1.21	21.47	0.71
3.483	1.03	9.483	5.91	15.483	1.21	21.48	0.71
3.500	1.03	9.500	5.91	15.500	1.21	21.50	0.71
3.517	1.06	9.517	5.29	15.517	1.18	21.52	0.70
3.533	1.06	9.533	5.29	15.533	1.18	21.53	0.70
3.550	1.06	9.550	5.29	15.550	1.18	21.55	0.70
3.567	1.06	9.567	5.29	15.567	1.18	21.57	0.70
3.583	1.06	9.583	5.29	15.583	1.18	21.58	0.70
3.600	1.06	9.600	5.29	15.600	1.18	21.60	0.70
3.617	1.06	9.617	5.29	15.617	1.18	21.62	0.70
3.633	1.06	9.633	5.29	15.633	1.18	21.63	0.70
3.650	1.06	9.650	5.29	15.650	1.18	21.65	0.70
3.667	1.06	9.667	5.29	15.667	1.18	21.67	0.70
3.683	1.10	9.683	4.79	15.683	1.16	21.68	0.69
3.700	1.10	9.700	4.79	15.700	1.16	21.70	0.69
3.717	1.10	9.717	4.79	15.717	1.16	21.72	0.69
3.733	1.10	9.733	4.79	15.733	1.16	21.73	0.69
3.750	1.10	9.750	4.79	15.750	1.16	21.75	0.69
3.767	1.10	9.767	4.79	15.767	1.16	21.77	0.69
3.783	1.10	9.783	4.79	15.783	1.16	21.78	0.69
3.800	1.10	9.800	4.79	15.800	1.16	21.80	0.69
3.817	1.10	9.817	4.79	15.817	1.16	21.82	0.69
3.833	1.10	9.833	4.79	15.833	1.16	21.83	0.69
3.850	1.15	9.850	4.38	15.850	1.14	21.85	0.68
3.867	1.15	9.867	4.38	15.867	1.14	21.87	0.68
3.883	1.15	9.883	4.38	15.883	1.14	21.88	0.68
3.900	1.15	9.900	4.38	15.900	1.14	21.90	0.68
3.917	1.15	9.917	4.38	15.917	1.14	21.92	0.68
3.933	1.15	9.933	4.38	15.933	1.14	21.93	0.68
3.950	1.15	9.950	4.38	15.950	1.14	21.95	0.68
3.967	1.15	9.967	4.38	15.967	1.14	21.97	0.68
3.983	1.15	9.983	4.38	15.983	1.14	21.98	0.68
4.000	1.15	10.000	4.38	16.000	1.14	22.00	0.68
4.017	1.19	10.017	4.03	16.017	1.12	22.02	0.68
4.033	1.19	10.033	4.03	16.033	1.12	22.03	0.68
4.050	1.19	10.050	4.03	16.050	1.12	22.05	0.68
4.067	1.19	10.067	4.03	16.067	1.12	22.07	0.68
4.083	1.19	10.083	4.03	16.083	1.12	22.08	0.68
4.100	1.19	10.100	4.03	16.100	1.12	22.10	0.68
4.117	1.19	10.117	4.03	16.117	1.12	22.12	0.68
4.133	1.19	10.133	4.03	16.133	1.12	22.13	0.68
4.150	1.19	10.150	4.03	16.150	1.12	22.15	0.68
4.167	1.19	10.167	4.03	16.167	1.12	22.17	0.68
4.183	1.24	10.183	3.74	16.183	1.09	22.18	0.67
4.200	1.24	10.200	3.74	16.200	1.09	22.20	0.67
4.217	1.24	10.217	3.74	16.217	1.09	22.22	0.67

4.233	1.24	10.233	3.74	16.233	1.09	22.23	0.67
4.250	1.24	10.250	3.74	16.250	1.09	22.25	0.67
4.267	1.24	10.267	3.74	16.267	1.09	22.27	0.67
4.283	1.24	10.283	3.74	16.283	1.09	22.28	0.67
4.300	1.24	10.300	3.74	16.300	1.09	22.30	0.67
4.317	1.24	10.317	3.74	16.317	1.09	22.32	0.67
4.333	1.24	10.333	3.74	16.333	1.09	22.33	0.67
4.350	1.30	10.350	3.48	16.350	1.08	22.35	0.66
4.367	1.30	10.367	3.48	16.367	1.08	22.37	0.66
4.383	1.30	10.383	3.48	16.383	1.08	22.38	0.66
4.400	1.30	10.400	3.48	16.400	1.08	22.40	0.66
4.417	1.30	10.417	3.48	16.417	1.08	22.42	0.66
4.433	1.30	10.433	3.48	16.433	1.08	22.43	0.66
4.450	1.30	10.450	3.48	16.450	1.08	22.45	0.66
4.467	1.30	10.467	3.48	16.467	1.08	22.47	0.66
4.483	1.30	10.483	3.48	16.483	1.08	22.48	0.66
4.500	1.30	10.500	3.48	16.500	1.08	22.50	0.66
4.517	1.36	10.517	3.26	16.517	1.06	22.52	0.66
4.533	1.36	10.533	3.26	16.533	1.06	22.53	0.66
4.550	1.36	10.550	3.26	16.550	1.06	22.55	0.66
4.567	1.36	10.567	3.26	16.567	1.06	22.57	0.66
4.583	1.36	10.583	3.26	16.583	1.06	22.58	0.66
4.600	1.36	10.600	3.26	16.600	1.06	22.60	0.66
4.617	1.36	10.617	3.26	16.617	1.06	22.62	0.66
4.633	1.36	10.633	3.26	16.633	1.06	22.63	0.66
4.650	1.36	10.650	3.26	16.650	1.06	22.65	0.66
4.667	1.36	10.667	3.26	16.667	1.06	22.67	0.66
4.683	1.43	10.683	3.07	16.683	1.04	22.68	0.65
4.700	1.43	10.700	3.07	16.700	1.04	22.70	0.65
4.717	1.43	10.717	3.07	16.717	1.04	22.72	0.65
4.733	1.43	10.733	3.07	16.733	1.04	22.73	0.65
4.750	1.43	10.750	3.07	16.750	1.04	22.75	0.65
4.767	1.43	10.767	3.07	16.767	1.04	22.77	0.65
4.783	1.43	10.783	3.07	16.783	1.04	22.78	0.65
4.800	1.43	10.800	3.07	16.800	1.04	22.80	0.65
4.817	1.43	10.817	3.07	16.817	1.04	22.82	0.65
4.833	1.43	10.833	3.07	16.833	1.04	22.83	0.65
4.850	1.50	10.850	2.90	16.850	1.02	22.85	0.64
4.867	1.50	10.867	2.90	16.867	1.02	22.87	0.64
4.883	1.50	10.883	2.90	16.883	1.02	22.88	0.64
4.900	1.50	10.900	2.90	16.900	1.02	22.90	0.64
4.917	1.50	10.917	2.90	16.917	1.02	22.92	0.64
4.933	1.50	10.933	2.90	16.933	1.02	22.93	0.64
4.950	1.50	10.950	2.90	16.950	1.02	22.95	0.64
4.967	1.50	10.967	2.90	16.967	1.02	22.97	0.64
4.983	1.50	10.983	2.90	16.983	1.02	22.98	0.64
5.000	1.50	11.000	2.90	17.000	1.02	23.00	0.64
5.017	1.59	11.017	2.75	17.017	1.00	23.02	0.64
5.033	1.59	11.033	2.75	17.033	1.00	23.03	0.64
5.050	1.59	11.050	2.75	17.050	1.00	23.05	0.64
5.067	1.59	11.067	2.75	17.067	1.00	23.07	0.64
5.083	1.59	11.083	2.75	17.083	1.00	23.08	0.64

5.100	1.59	11.100	2.75	17.100	1.00	23.10	0.64
5.117	1.59	11.117	2.75	17.117	1.00	23.12	0.64
5.133	1.59	11.133	2.75	17.133	1.00	23.13	0.64
5.150	1.59	11.150	2.75	17.150	1.00	23.15	0.64
5.167	1.59	11.167	2.75	17.167	1.00	23.17	0.64
5.183	1.68	11.183	2.61	17.183	0.99	23.18	0.63
5.200	1.68	11.200	2.61	17.200	0.99	23.20	0.63
5.217	1.68	11.217	2.61	17.217	0.99	23.22	0.63
5.233	1.68	11.233	2.61	17.233	0.99	23.23	0.63
5.250	1.68	11.250	2.61	17.250	0.99	23.25	0.63
5.267	1.68	11.267	2.61	17.267	0.99	23.27	0.63
5.283	1.68	11.283	2.61	17.283	0.99	23.28	0.63
5.300	1.68	11.300	2.61	17.300	0.99	23.30	0.63
5.317	1.68	11.317	2.61	17.317	0.99	23.32	0.63
5.333	1.68	11.333	2.61	17.333	0.99	23.33	0.63
5.350	1.79	11.350	2.49	17.350	0.97	23.35	0.62
5.367	1.79	11.367	2.49	17.367	0.97	23.37	0.62
5.383	1.79	11.383	2.49	17.383	0.97	23.38	0.62
5.400	1.79	11.400	2.49	17.400	0.97	23.40	0.62
5.417	1.79	11.417	2.49	17.417	0.97	23.42	0.62
5.433	1.79	11.433	2.49	17.433	0.97	23.43	0.62
5.450	1.79	11.450	2.49	17.450	0.97	23.45	0.62
5.467	1.79	11.467	2.49	17.467	0.97	23.47	0.62
5.483	1.79	11.483	2.49	17.483	0.97	23.48	0.62
5.500	1.79	11.500	2.49	17.500	0.97	23.50	0.62
5.517	1.92	11.517	2.38	17.517	0.96	23.52	0.62
5.533	1.92	11.533	2.38	17.533	0.96	23.53	0.62
5.550	1.92	11.550	2.38	17.550	0.96	23.55	0.62
5.567	1.92	11.567	2.38	17.567	0.96	23.57	0.62
5.583	1.92	11.583	2.38	17.583	0.96	23.58	0.62
5.600	1.92	11.600	2.38	17.600	0.96	23.60	0.62
5.617	1.92	11.617	2.38	17.617	0.96	23.62	0.62
5.633	1.92	11.633	2.38	17.633	0.96	23.63	0.62
5.650	1.92	11.650	2.38	17.650	0.96	23.65	0.62
5.667	1.92	11.667	2.38	17.667	0.96	23.67	0.62
5.683	2.06	11.683	2.28	17.683	0.94	23.68	0.61
5.700	2.06	11.700	2.28	17.700	0.94	23.70	0.61
5.717	2.06	11.717	2.28	17.717	0.94	23.72	0.61
5.733	2.06	11.733	2.28	17.733	0.94	23.73	0.61
5.750	2.06	11.750	2.28	17.750	0.94	23.75	0.61
5.767	2.06	11.767	2.28	17.767	0.94	23.77	0.61
5.783	2.06	11.783	2.28	17.783	0.94	23.78	0.61
5.800	2.06	11.800	2.28	17.800	0.94	23.80	0.61
5.817	2.06	11.817	2.28	17.817	0.94	23.82	0.61
5.833	2.06	11.833	2.28	17.833	0.94	23.83	0.61
5.850	2.23	11.850	2.19	17.850	0.93	23.85	0.61
5.867	2.23	11.867	2.19	17.867	0.93	23.87	0.61
5.883	2.23	11.883	2.19	17.883	0.93	23.88	0.61
5.900	2.23	11.900	2.19	17.900	0.93	23.90	0.61
5.917	2.23	11.917	2.19	17.917	0.93	23.92	0.61
5.933	2.23	11.933	2.19	17.933	0.93	23.93	0.61
5.950	2.23	11.950	2.19	17.950	0.93	23.95	0.61

5.967	2.23	11.967	2.19	17.967	0.93	23.97	0.61
5.983	2.23	11.983	2.19	17.983	0.93	23.98	0.61
6.000	2.23	12.000	2.19	18.000	0.93	24.00	0.61

Max.Eff.Inten.(mm/hr)=	157.69	45.83	
over (min)	5.00	13.00	
Storage Coeff. (min)=	2.43 (ii)	12.07 (ii)	
Unit Hyd. Tpeak (min)=	5.00	13.00	
Unit Hyd. peak (cms)=	0.34	0.09	
			TOTALS
PEAK FLOW (cms)=	0.10	0.07	0.134 (iii)
TIME TO PEAK (hrs)=	8.00	8.18	8.03
RUNOFF VOLUME (mm)=	97.33	31.77	44.88
TOTAL RAINFALL (mm)=	98.33	98.33	98.33
RUNOFF COEFFICIENT =	0.99	0.32	0.46

***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
YOU SHOULD CONSIDER SPLITTING THE AREA.

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 57.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (1011)	Area (ha)=	13.73	
ID= 1 DT= 1.0 min	Total Imp(%)=	46.00	Dir. Conn.(%)= 39.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	6.32	7.42
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	0.50	2.00
Length	(m)=	302.59	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 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
0.017	0.62	6.017	2.43	12.017	2.10	18.02	0.91
0.033	0.62	6.033	2.43	12.033	2.10	18.03	0.91
0.050	0.62	6.050	2.43	12.050	2.10	18.05	0.91
0.067	0.62	6.067	2.43	12.067	2.10	18.07	0.91
0.083	0.62	6.083	2.43	12.083	2.10	18.08	0.91
0.100	0.62	6.100	2.43	12.100	2.10	18.10	0.91
0.117	0.62	6.117	2.43	12.117	2.10	18.12	0.91
0.133	0.62	6.133	2.43	12.133	2.10	18.13	0.91

0.150	0.62	6.150	2.43	12.150	2.10	18.15	0.91
0.167	0.62	6.167	2.43	12.167	2.10	18.17	0.91
0.183	0.63	6.183	2.68	12.183	2.02	18.18	0.90
0.200	0.63	6.200	2.68	12.200	2.02	18.20	0.90
0.217	0.63	6.217	2.68	12.217	2.02	18.22	0.90
0.233	0.63	6.233	2.68	12.233	2.02	18.23	0.90
0.250	0.63	6.250	2.68	12.250	2.02	18.25	0.90
0.267	0.63	6.267	2.68	12.267	2.02	18.27	0.90
0.283	0.63	6.283	2.68	12.283	2.02	18.28	0.90
0.300	0.63	6.300	2.68	12.300	2.02	18.30	0.90
0.317	0.63	6.317	2.68	12.317	2.02	18.32	0.90
0.333	0.63	6.333	2.68	12.333	2.02	18.33	0.90
0.350	0.65	6.350	2.98	12.350	1.95	18.35	0.89
0.367	0.65	6.367	2.98	12.367	1.95	18.37	0.89
0.383	0.65	6.383	2.98	12.383	1.95	18.38	0.89
0.400	0.65	6.400	2.98	12.400	1.95	18.40	0.89
0.417	0.65	6.417	2.98	12.417	1.95	18.42	0.89
0.433	0.65	6.433	2.98	12.433	1.95	18.43	0.89
0.450	0.65	6.450	2.98	12.450	1.95	18.45	0.89
0.467	0.65	6.467	2.98	12.467	1.95	18.47	0.89
0.483	0.65	6.483	2.98	12.483	1.95	18.48	0.89
0.500	0.65	6.500	2.98	12.500	1.95	18.50	0.89
0.517	0.66	6.517	3.37	12.517	1.89	18.52	0.87
0.533	0.66	6.533	3.37	12.533	1.89	18.53	0.87
0.550	0.66	6.550	3.37	12.550	1.89	18.55	0.87
0.567	0.66	6.567	3.37	12.567	1.89	18.57	0.87
0.583	0.66	6.583	3.37	12.583	1.89	18.58	0.87
0.600	0.66	6.600	3.37	12.600	1.89	18.60	0.87
0.617	0.66	6.617	3.37	12.617	1.89	18.62	0.87
0.633	0.66	6.633	3.37	12.633	1.89	18.63	0.87
0.650	0.66	6.650	3.37	12.650	1.89	18.65	0.87
0.667	0.66	6.667	3.37	12.667	1.89	18.67	0.87
0.683	0.67	6.683	3.88	12.683	1.82	18.68	0.86
0.700	0.67	6.700	3.88	12.700	1.82	18.70	0.86
0.717	0.67	6.717	3.88	12.717	1.82	18.72	0.86
0.733	0.67	6.733	3.88	12.733	1.82	18.73	0.86
0.750	0.67	6.750	3.88	12.750	1.82	18.75	0.86
0.767	0.67	6.767	3.88	12.767	1.82	18.77	0.86
0.783	0.67	6.783	3.88	12.783	1.82	18.78	0.86
0.800	0.67	6.800	3.88	12.800	1.82	18.80	0.86
0.817	0.67	6.817	3.88	12.817	1.82	18.82	0.86
0.833	0.67	6.833	3.88	12.833	1.82	18.83	0.86
0.850	0.69	6.850	4.58	12.850	1.77	18.85	0.85
0.867	0.69	6.867	4.58	12.867	1.77	18.87	0.85
0.883	0.69	6.883	4.58	12.883	1.77	18.88	0.85
0.900	0.69	6.900	4.58	12.900	1.77	18.90	0.85
0.917	0.69	6.917	4.58	12.917	1.77	18.92	0.85
0.933	0.69	6.933	4.58	12.933	1.77	18.93	0.85
0.950	0.69	6.950	4.58	12.950	1.77	18.95	0.85
0.967	0.69	6.967	4.58	12.967	1.77	18.97	0.85
0.983	0.69	6.983	4.58	12.983	1.77	18.98	0.85
1.000	0.69	7.000	4.58	13.000	1.77	19.00	0.85

1.017	0.70	7.017	5.59	13.017	1.71	19.02	0.84
1.033	0.70	7.033	5.59	13.033	1.71	19.03	0.84
1.050	0.70	7.050	5.59	13.050	1.71	19.05	0.84
1.067	0.70	7.067	5.59	13.067	1.71	19.07	0.84
1.083	0.70	7.083	5.59	13.083	1.71	19.08	0.84
1.100	0.70	7.100	5.59	13.100	1.71	19.10	0.84
1.117	0.70	7.117	5.59	13.117	1.71	19.12	0.84
1.133	0.70	7.133	5.59	13.133	1.71	19.13	0.84
1.150	0.70	7.150	5.59	13.150	1.71	19.15	0.84
1.167	0.70	7.167	5.60	13.167	1.71	19.17	0.84
1.183	0.72	7.183	7.21	13.183	1.66	19.18	0.83
1.200	0.72	7.200	7.21	13.200	1.66	19.20	0.83
1.217	0.72	7.217	7.21	13.217	1.66	19.22	0.83
1.233	0.72	7.233	7.21	13.233	1.66	19.23	0.83
1.250	0.72	7.250	7.21	13.250	1.66	19.25	0.83
1.267	0.72	7.267	7.21	13.267	1.66	19.27	0.83
1.283	0.72	7.283	7.21	13.283	1.66	19.28	0.83
1.300	0.72	7.300	7.21	13.300	1.66	19.30	0.83
1.317	0.72	7.317	7.21	13.317	1.66	19.32	0.83
1.333	0.72	7.333	7.22	13.333	1.66	19.33	0.83
1.350	0.73	7.350	10.14	13.350	1.61	19.35	0.82
1.367	0.73	7.367	10.14	13.367	1.61	19.37	0.82
1.383	0.73	7.383	10.14	13.383	1.61	19.38	0.82
1.400	0.73	7.400	10.14	13.400	1.61	19.40	0.82
1.417	0.73	7.417	10.14	13.417	1.61	19.42	0.82
1.433	0.73	7.433	10.14	13.433	1.61	19.43	0.82
1.450	0.73	7.450	10.14	13.450	1.61	19.45	0.82
1.467	0.73	7.467	10.14	13.467	1.61	19.47	0.82
1.483	0.73	7.483	10.14	13.483	1.61	19.48	0.82
1.500	0.73	7.500	10.16	13.500	1.61	19.50	0.82
1.517	0.75	7.517	16.88	13.517	1.57	19.52	0.81
1.533	0.75	7.533	16.88	13.533	1.57	19.53	0.81
1.550	0.75	7.550	16.88	13.550	1.57	19.55	0.81
1.567	0.75	7.567	16.88	13.567	1.57	19.57	0.81
1.583	0.75	7.583	16.88	13.583	1.57	19.58	0.81
1.600	0.75	7.600	16.88	13.600	1.57	19.60	0.81
1.617	0.75	7.617	16.88	13.617	1.57	19.62	0.81
1.633	0.75	7.633	16.88	13.633	1.57	19.63	0.81
1.650	0.75	7.650	16.88	13.650	1.57	19.65	0.81
1.667	0.75	7.667	16.95	13.667	1.57	19.67	0.81
1.683	0.77	7.683	44.66	13.683	1.53	19.68	0.80
1.700	0.77	7.700	44.66	13.700	1.53	19.70	0.80
1.717	0.77	7.717	44.66	13.717	1.53	19.72	0.80
1.733	0.77	7.733	44.66	13.733	1.53	19.73	0.80
1.750	0.77	7.750	44.66	13.750	1.53	19.75	0.80
1.767	0.77	7.767	44.66	13.767	1.53	19.77	0.80
1.783	0.77	7.783	44.66	13.783	1.53	19.78	0.80
1.800	0.77	7.800	44.66	13.800	1.53	19.80	0.80
1.817	0.77	7.817	44.66	13.817	1.53	19.82	0.80
1.833	0.77	7.833	44.99	13.833	1.53	19.83	0.80
1.850	0.79	7.850	157.69	13.850	1.49	19.85	0.79
1.867	0.79	7.867	157.69	13.867	1.49	19.87	0.79

1.883	0.79	7.883	157.69	13.883	1.49	19.88	0.79
1.900	0.79	7.900	157.69	13.900	1.49	19.90	0.79
1.917	0.79	7.917	157.69	13.917	1.49	19.92	0.79
1.933	0.79	7.933	157.69	13.933	1.49	19.93	0.79
1.950	0.79	7.950	157.69	13.950	1.49	19.95	0.79
1.967	0.79	7.967	157.69	13.967	1.49	19.97	0.79
1.983	0.79	7.983	157.69	13.983	1.49	19.98	0.79
2.000	0.79	8.000	157.40	14.000	1.49	20.00	0.79
2.017	0.81	8.017	59.25	14.017	1.45	20.02	0.78
2.033	0.81	8.033	59.25	14.033	1.45	20.03	0.78
2.050	0.81	8.050	59.25	14.050	1.45	20.05	0.78
2.067	0.81	8.067	59.25	14.067	1.45	20.07	0.78
2.083	0.81	8.083	59.25	14.083	1.45	20.08	0.78
2.100	0.81	8.100	59.25	14.100	1.45	20.10	0.78
2.117	0.81	8.117	59.25	14.117	1.45	20.12	0.78
2.133	0.81	8.133	59.25	14.133	1.45	20.13	0.78
2.150	0.81	8.150	59.25	14.150	1.45	20.15	0.78
2.167	0.81	8.167	59.17	14.167	1.45	20.17	0.78
2.183	0.83	8.183	30.14	14.183	1.41	20.18	0.77
2.200	0.83	8.200	30.14	14.200	1.41	20.20	0.77
2.217	0.83	8.217	30.14	14.217	1.41	20.22	0.77
2.233	0.83	8.233	30.14	14.233	1.41	20.23	0.77
2.250	0.83	8.250	30.14	14.250	1.41	20.25	0.77
2.267	0.83	8.267	30.14	14.267	1.41	20.27	0.77
2.283	0.83	8.283	30.14	14.283	1.41	20.28	0.77
2.300	0.83	8.300	30.14	14.300	1.41	20.30	0.77
2.317	0.83	8.317	30.14	14.317	1.41	20.32	0.77
2.333	0.83	8.333	30.11	14.333	1.41	20.33	0.77
2.350	0.85	8.350	19.54	14.350	1.38	20.35	0.76
2.367	0.85	8.367	19.54	14.367	1.38	20.37	0.76
2.383	0.85	8.383	19.54	14.383	1.38	20.38	0.76
2.400	0.85	8.400	19.54	14.400	1.38	20.40	0.76
2.417	0.85	8.417	19.54	14.417	1.38	20.42	0.76
2.433	0.85	8.433	19.54	14.433	1.38	20.43	0.76
2.450	0.85	8.450	19.54	14.450	1.38	20.45	0.76
2.467	0.85	8.467	19.54	14.467	1.38	20.47	0.76
2.483	0.85	8.483	19.54	14.483	1.38	20.48	0.76
2.500	0.85	8.500	19.53	14.500	1.38	20.50	0.76
2.517	0.88	8.517	14.26	14.517	1.35	20.52	0.75
2.533	0.88	8.533	14.26	14.533	1.35	20.53	0.75
2.550	0.88	8.550	14.26	14.550	1.35	20.55	0.75
2.567	0.88	8.567	14.26	14.567	1.35	20.57	0.75
2.583	0.88	8.583	14.26	14.583	1.35	20.58	0.75
2.600	0.88	8.600	14.26	14.600	1.35	20.60	0.75
2.617	0.88	8.617	14.26	14.617	1.35	20.62	0.75
2.633	0.88	8.633	14.26	14.633	1.35	20.63	0.75
2.650	0.88	8.650	14.26	14.650	1.35	20.65	0.75
2.667	0.88	8.667	14.25	14.667	1.35	20.67	0.75
2.683	0.90	8.683	11.16	14.683	1.32	20.68	0.74
2.700	0.90	8.700	11.16	14.700	1.32	20.70	0.74
2.717	0.90	8.717	11.16	14.717	1.32	20.72	0.74
2.733	0.90	8.733	11.16	14.733	1.32	20.73	0.74
2.750	0.90	8.750	11.16	14.750	1.32	20.75	0.74
2.767	0.90	8.767	11.16	14.767	1.32	20.77	0.74
2.783	0.90	8.783	11.16	14.783	1.32	20.78	0.74
2.800	0.90	8.800	11.16	14.800	1.32	20.80	0.74
2.817	0.90	8.817	11.16	14.817	1.32	20.82	0.74
2.833	0.90	8.833	11.16	14.833	1.32	20.83	0.74
2.850	0.93	8.850	9.15	14.850	1.29	20.85	0.73
2.867	0.93	8.867	9.15	14.867	1.29	20.87	0.73
2.883	0.93	8.883	9.15	14.883	1.29	20.88	0.73
2.900	0.93	8.900	9.15	14.900	1.29	20.90	0.73
2.917	0.93	8.917	9.15	14.917	1.29	20.92	0.73
2.933	0.93	8.933	9.15	14.933	1.29	20.93	0.73
2.950	0.93	8.950	9.15	14.950	1.29	20.95	0.73
2.967	0.93	8.967	9.15	14.967	1.29	20.97	0.73
2.983	0.93	8.983	9.15	14.983	1.29	20.98	0.73
3.000	0.93	9.000	9.14	15.000	1.29	21.00	0.73
3.017	0.96	9.017	7.74	15.017	1.26	21.02	0.72
3.033	0.96	9.033	7.74	15.033	1.26	21.03	0.72
3.050	0.96	9.050	7.74	15.050	1.26	21.05	0.72
3.067	0.96	9.067	7.74	15.067	1.26	21.07	0.72
3.083	0.96	9.083	7.74	15.083	1.26	21.08	0.72
3.100	0.96	9.100	7.74	15.100	1.26	21.10	0.72
3.117	0.96	9.117	7.74	15.117	1.26	21.12	0.72
3.133	0.96	9.133	7.74	15.133	1.26	21.13	0.72
3.150	0.96	9.150	7.74	15.150	1.26	21.15	0.72
3.167	0.96	9.167	7.74	15.167	1.26	21.17	0.72
3.183	0.99	9.183	6.70	15.183	1.23	21.18	0.71
3.200	0.99	9.200	6.70	15.200	1.23	21.20	0.71
3.217	0.99	9.217	6.70	15.217	1.23	21.22	0.71
3.233	0.99	9.233	6.70	15.233	1.23	21.23	0.71
3.250	0.99	9.250	6.70	15.250	1.23	21.25	0.71
3.267	0.99	9.267	6.70	15.267	1.23	21.27	0.71
3.283	0.99	9.283	6.70	15.283	1.23	21.28	0.71
3.300	0.99	9.300	6.70	15.300	1.23	21.30	0.71
3.317	0.99	9.317	6.70	15.317	1.23	21.32	0.71
3.333	0.99	9.333	6.70	15.333	1.23	21.33	0.71
3.350	1.03	9.350	5.91	15.350	1.21	21.35	0.71
3.367	1.03	9.367	5.91	15.367	1.21	21.37	0.71
3.383	1.03	9.383	5.91	15.383	1.21	21.38	0.71
3.400	1.03	9.400	5.91	15.400	1.21	21.40	0.71
3.417	1.03	9.417	5.91	15.417	1.21	21.42	0.71
3.433	1.03	9.433	5.91	15.433	1.21	21.43	0.71
3.450	1.03	9.450	5.91	15.450	1.21	21.45	0.71
3.467	1.03	9.467	5.91	15.467	1.21	21.47	0.71
3.483	1.03	9.483	5.91	15.483	1.21	21.48	0.71
3.500	1.03	9.500	5.91	15.500	1.21	21.50	0.71
3.517	1.06	9.517	5.29	15.517	1.18	21.52	0.70
3.533	1.06	9.533	5.29	15.533	1.18	21.53	0.70
3.550	1.06	9.550	5.29	15.550	1.18	21.55	0.70
3.567	1.06	9.567	5.29	15.567	1.18	21.57	0.70
3.583	1.06	9.583	5.29	15.583	1.18	21.58	0.70
3.600	1.06	9.600	5.29	15.600	1.18	21.60	0.70
3.617	1.06	9.617	5.29	15.617	1.18	21.62	0.70
3.633	1.06	9.633	5.29	15.633	1.18	21.63	0.70
3.650	1.06	9.650	5.29	15.650	1.18	21.65	0.70
3.667	1.06	9.667	5.29	15.667	1.18	21.67	0.70
3.683	1.10	9.683	4.79	15.683	1.16	21.68	0.69
3.700	1.10	9.700	4.79	15.700	1.16	21.70	0.69
3.717	1.10	9.717	4.79	15.717	1.16	21.72	0.69
3.733	1.10	9.733	4.79	15.733	1.16	21.73	0.69
3.750	1.10	9.750	4.79	15.750	1.16	21.75	0.69
3.767	1.10	9.767	4.79	15.767	1.16	21.77	0.69
3.783	1.10	9.783	4.79	15.783	1.16	21.78	0.69
3.800	1.10	9.800	4.79	15.800	1.16	21.80	0.69
3.817	1.10	9.817	4.79	15.817	1.16	21.82	0.69
3.833	1.10	9.833	4.79	15.833	1.16	21.83	0.69
3.850	1.15	9.850	4.38	15.850	1.14	21.85	0.68
3.867	1.15	9.867	4.38	15.867	1.14	21.87	0.68
3.883	1.15	9.883	4.38	15.883	1.14	21.88	0.68
3.900	1.15	9.900	4.38	15.900	1.14	21.90	0.68
3.917	1.15	9.917	4.38	15.917	1.14	21.92	0.68
3.933	1.15	9.933	4.38	15.933	1.14	21.93	0.68
3.950	1.15	9.950	4.38	15.950	1.14	21.95	0.68
3.967	1.15	9.967	4.38	15.967	1.14	21.97	0.68
3.983	1.15	9.983	4.38	15.983	1.14	21.98	0.68
4.000	1.15	10.000	4.38	16.000	1.14	22.00	0.68
4.017	1.19	10.017	4.03	16.017	1.12	22.02	0.68
4.033	1.19	10.033	4.03	16.033	1.12	22.03	0.68
4.050	1.19	10.050	4.03	16.050	1.12	22.05	0.68
4.067	1.19	10.067	4.03	16.067	1.12	22.07	0.68
4.083	1.19	10.083	4.03	16.083	1.12	22.08	0.68
4.100	1.19	10.100	4.03	16.100	1.12	22.10	0.68
4.117	1.19	10.117	4.03	16.117	1.12	22.12	0.68
4.133	1.19	10.133	4.03	16.133	1.12	22.13	0.68
4.150	1.19	10.150	4.03	16.150	1.12	22.15	0.68
4.167	1.19	10.167	4.03	16.167	1.12	22.17	0.68
4.183	1.24	10.183	3.74	16.183	1.09	22.18	0.67
4.200	1.24	10.200	3.74	16.200	1.09	22.20	0.67
4.217	1.24	10.217	3.74	16.217	1.09	22.22	0.67
4.233	1.24	10.233	3.74	16.233	1.09	22.23	0.67
4.250	1.24	10.250	3.74	16.250	1.09	22.25	0.67
4.267	1.24	10.267	3.74	16.267	1.09	22.27	0.67
4.283	1.24	10.283	3.74	16.283	1.09	22.28	0.67
4.300	1.24	10.300	3.74	16.300	1.09	22.30	0.67
4.317	1.24	10.317	3.74	16.317	1.09	22.32	0.67
4.333	1.24	10.333	3.74	16.333	1.09	22.33	0.67
4.350	1.30	10.350	3.48	16.350	1.08	22.35	0.66
4.367	1.30	10.367	3.48	16.367	1.08	22.37	0.66
4.383	1.30	10.383	3.48	16.383	1.08	22.38	0.66
4.400	1.30	10.400	3.48	16.400	1.08	22.40	0.66
4.417	1.30	10.417	3.48	16.417	1.08	22.42	0.66
4.433	1.30	10.433	3.48	16.433	1.08	22.43	0.66
4.450	1.30	10.450	3.48	16.450	1.08	22.45	0.66
4.467	1.30	10.467	3.48	16.467	1.08	22.47	0.66
4.483	1.30	10.483	3.48	16.483	1.08	22.48	0.66
4.500	1.30	10.500	3.48	16.500	1.08	22.50	0.66
4.517	1.36	10.517	3.26	16.517	1.06	22.52	0.66
4.533	1.36	10.533	3.26	16.533	1.06	22.53	0.66
4.550	1.36	10.550	3.26	16.550	1.06	22.55	0.66
4.567	1.36	10.567	3.26	16.567	1.06	22.57	0.66
4.583	1.36	10.583	3.26	16.583	1.06	22.58	0.66
4.600	1.36	10.600	3.26	16.600	1.06	22.60	0.66
4.617	1.36	10.617	3.26	16.617	1.06	22.62	0.66
4.633	1.36	10.633	3.26	16.633	1.06	22.63	0.66
4.650	1.36	10.650	3.26	16.650	1.06	22.65	0.66
4.667	1.36	10.667	3.26	16.667	1.06	22.67	0.66
4.683	1.43	10.683	3.07	16.683	1.04	22.68	0.65
4.700	1.43	10.700	3.07	16.700	1.04	22.70	0.65
4.717	1.43	10.717	3.07	16.717	1.04	22.72	0.65
4.733	1.43	10.733	3.07	16.733	1.04	22.73	0.65
4.750	1.43	10.750	3.07	16.750	1.04	22.75	0.65
4.767	1.43	10.767	3.07	16.767	1.04	22.77	0.65
4.783	1.43	10.783	3.07	16.783	1.04	22.78	0.65
4.800	1.43	10.800	3.07	16.800	1.04	22.80	0.65
4.817	1.43	10.817	3.07	16.817	1.04	22.82	0.65
4.833	1.43	10.833	3.07	16.833	1.04	22.83	0.65
4.850	1.50	10.850	2.90	16.850	1.02	22.85	0.64
4.867	1.50	10.867	2.90	16.867	1.02	22.87	0.64
4.883	1.50	10.883	2.90	16.883	1.02	22.88	0.64
4.900	1.50	10.900	2.90	16.900	1.02	22.90	0.64
4.917	1.50	10.917	2.90	16.917	1.02	22.92	0.64
4.933	1.50	10.933	2.90	16.933	1.02	22.93	0.64
4.950	1.50	10.950	2.90	16.950	1.02	22.95	0.64
4.967	1.50	10.967	2.90	16.967	1.02	22.97	0.64
4.983	1.50	10.983	2.90	16.983	1.02	22.98	0.64
5.000	1.50	11.000	2.90	17.000	1.02	23.00	0.64
5.017	1.59	11.017	2.75	17.017	1.00	23.02	0.64
5.033	1.59	11.033	2.75	17.033	1.00	23.03	0.64
5.050	1.59	11.050	2.75	17.050	1.00	23.05	0.64
5.067	1.59	11.067	2.75	17.067	1.00	23.07	0.64
5.083	1.59	11.083	2.75	17.083	1.00	23.08	0.64
5.100	1.59	11.100	2.75	17.100	1.00	23.10	0.64
5.117	1.59	11.117	2.75	17.117	1.00	23.12	0.64
5.133	1.59	11.133	2.75	17.133	1.00	23.13	0.64
5.150	1.59	11.150	2.75	17.150	1.00	23.15	0.64
5.167	1.59	11.167	2.75	17.167	1.00	23.17	0.64
5.183	1.68	11.183	2.61	17.183	0.99	23.18	0.63
5.200	1.68	11.200	2.61	17.200	0.99	23.20	0.63
5.217	1.68	11.217	2.61	17.217	0.99	23.22	0.63
5.233	1.68	11.233	2.61	17.233	0.99	23.23	0.63
5.250	1.68	11.250	2.61	17.250	0.99	23.25	0.63
5.267	1.68	11.267	2.61	17.267	0.99	23.27	0.63
5.283	1.68	11.283	2.61	17.283	0.99	23.28	0.63
5.300	1.68	11.300	2.61	17.300	0.99	23.30	0.63
5.317	1.68	11.317	2.61	17.317	0.99	23.32	0.63
5.333	1.68	11.333	2.61	17.333	0.99	23.33	0.63
5.350	1.79	11.350	2.49	17.350	0.97	23.35	0.62
5.367	1.79	11.367	2.49	17.367	0.97	23.37	0.62
5.383	1.79	11.383	2.49	17.383	0.97	23.38	0.62
5.400	1.79	11.400	2.49	17.400	0.97	23.40	0.62
5.417	1.79	11.417	2.49	17.417	0.97	23.42	0.62
5.433	1.79	11.433	2.49	17.433	0.97	23.43	0.62
5.450	1.79	11.450	2.49	17.450	0.97	23.45	0.62
5.467	1.79	11.467	2.49	17.467	0.97	23.47	0.62
5.483	1.79	11.483	2.49	17.483	0.97	23.48	0.62
5.500	1.79	11.500	2.49	17.500	0.97	23.50	0.62
5.517	1.92	11.517	2.38	17.517	0.96	23.52	0.62
5.533	1.92	11.533	2.38	17.533	0.96	23.53	0.62
5.550	1.92	11.550	2.38	17.550	0.96	23.55	0.62
5.567	1.92	11.567	2.38	17.567	0.96	23.57	0.62
5.583	1.92	11.583	2.38	17.583	0.96	23.58	0.62
5.600	1.92	11.600	2.38	17.600	0.96	23.60	0.62
5.617	1.92	11.617	2.38	17.617	0.96	23.62	0.62
5.633	1.92	11.633	2.38	17.633	0.96	23.63	0.62
5.650	1.92	11.650	2.38	17.650	0.96	23.65	0.62
5.667	1.92	11.667	2.38	17.667	0.96	23.67	0.62
5.683	2.06	11.683	2.28	17.683	0.94	23.68	0.61
5.700	2.06	11.700	2.28	17.700	0.94	23.70	0.61
5.717	2.06	11.717	2.28	17.717	0.94	23.72	0.61
5.733	2.06	11.733	2.28	17.733	0.94	23.73	0.61
5.750	2.06	11.750	2.28	17.750	0.94	23.75	0.61
5.767	2.06	11.767	2.28	17.767	0.94	23.77	0.61
5.783	2.06	11.783	2.28	17.783	0.94	23.78	0.61
5.800	2.06	11.800	2.28	17.800	0.94	23.80	0.61
5.817	2.06	11.817	2.28	17.817	0.94	23.82	0.61
5.833	2.06	11.833	2.28	17.833	0.94	23.83	0.61
5.850	2.23	11.850	2.19	17.850	0.93	23.85	0.61
5.867	2.23	11.867	2.19	17.867	0.93	23.87	0.61
5.883	2.23	11.883	2.19	17.883	0.93	23.88	0.61
5.900	2.23	11.900	2.19	17.900	0.93	23.90	0.61
5.917	2.23	11.917	2.19	17.917	0.93	23.92	0.61
5.933	2.23	11.933	2.19	17.933	0.93	23.93	0.61
5.950	2.23	11.950	2.19	17.950	0.93	23.95	0.61
5.967	2.23	11.967	2.19	17.967	0.93	23.97	0.61
5.983	2.23	11.983	2.19	17.983	0.93	23.98	0.61
6.000	2.23	12.000	2.19	18.000	0.93	24.00	0.61

Max.Eff.Inten.(mm/hr)=	157.69	39.30	
over (min)	5.00	12.00	
Storage Coeff. (min)=	5.09 (ii)	11.79 (ii)	
Unit Hyd. Tpeak (min)=	5.00	12.00	
Unit Hyd. peak (cms)=	0.22	0.10	
			TOTALS
PEAK FLOW (cms)=	1.98	0.49	2.285 (iii)
TIME TO PEAK (hrs)=	8.02	8.17	8.03
RUNOFF VOLUME (mm)=	97.32	26.12	53.90
TOTAL RAINFALL (mm)=	98.33	98.33	98.33
RUNOFF COEFFICIENT =	0.99	0.27	0.55

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 48.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0101)					
1 + 2 = 3	AREA	QPEAK	TPEAK	R.V.	
	(ha)	(cms)	(hrs)	(mm)	
ID1= 1 (1011):	13.73	2.285	8.03	53.90	
+ ID2= 2 (0034):	2.20	2.055	8.05	61.55	
ID = 3 (0101):	15.93	4.324	8.03	54.96	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0901)					
1 + 2 = 3	AREA	QPEAK	TPEAK	R.V.	
	(ha)	(cms)	(hrs)	(mm)	
ID1= 1 (0101):	15.93	4.324	8.03	54.96	
+ ID2= 2 (0103):	1.17	0.134	8.03	44.88	
ID = 3 (0901):	17.10	4.458	8.03	54.27	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0902)					
1 + 2 = 3	AREA	QPEAK	TPEAK	R.V.	
	(ha)	(cms)	(hrs)	(mm)	
ID1= 1 (0104):	0.77	0.035	8.33	27.34	
+ ID2= 2 (0901):	17.10	4.458	8.03	54.27	
ID = 3 (0902):	17.87	4.474	8.03	53.11	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB			
STANDHYD (1021)	Area (ha)= 3.77		
ID= 1 DT= 1.0 min	Total Imp(%)= 45.00	Dir. Conn.(%)= 38.00	

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.70	2.07

Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	0.50	2.00
Length	(m)=	158.56	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 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
0.017	0.62	6.017	2.43	12.017	2.10	18.02	0.91
0.033	0.62	6.033	2.43	12.033	2.10	18.03	0.91
0.050	0.62	6.050	2.43	12.050	2.10	18.05	0.91
0.067	0.62	6.067	2.43	12.067	2.10	18.07	0.91
0.083	0.62	6.083	2.43	12.083	2.10	18.08	0.91
0.100	0.62	6.100	2.43	12.100	2.10	18.10	0.91
0.117	0.62	6.117	2.43	12.117	2.10	18.12	0.91
0.133	0.62	6.133	2.43	12.133	2.10	18.13	0.91
0.150	0.62	6.150	2.43	12.150	2.10	18.15	0.91
0.167	0.62	6.167	2.43	12.167	2.10	18.17	0.91
0.183	0.63	6.183	2.68	12.183	2.02	18.18	0.90
0.200	0.63	6.200	2.68	12.200	2.02	18.20	0.90
0.217	0.63	6.217	2.68	12.217	2.02	18.22	0.90
0.233	0.63	6.233	2.68	12.233	2.02	18.23	0.90
0.250	0.63	6.250	2.68	12.250	2.02	18.25	0.90
0.267	0.63	6.267	2.68	12.267	2.02	18.27	0.90
0.283	0.63	6.283	2.68	12.283	2.02	18.28	0.90
0.300	0.63	6.300	2.68	12.300	2.02	18.30	0.90
0.317	0.63	6.317	2.68	12.317	2.02	18.32	0.90
0.333	0.63	6.333	2.68	12.333	2.02	18.33	0.90
0.350	0.65	6.350	2.98	12.350	1.95	18.35	0.89
0.367	0.65	6.367	2.98	12.367	1.95	18.37	0.89
0.383	0.65	6.383	2.98	12.383	1.95	18.38	0.89
0.400	0.65	6.400	2.98	12.400	1.95	18.40	0.89
0.417	0.65	6.417	2.98	12.417	1.95	18.42	0.89
0.433	0.65	6.433	2.98	12.433	1.95	18.43	0.89
0.450	0.65	6.450	2.98	12.450	1.95	18.45	0.89
0.467	0.65	6.467	2.98	12.467	1.95	18.47	0.89
0.483	0.65	6.483	2.98	12.483	1.95	18.48	0.89
0.500	0.65	6.500	2.98	12.500	1.95	18.50	0.89
0.517	0.66	6.517	3.37	12.517	1.89	18.52	0.87
0.533	0.66	6.533	3.37	12.533	1.89	18.53	0.87
0.550	0.66	6.550	3.37	12.550	1.89	18.55	0.87
0.567	0.66	6.567	3.37	12.567	1.89	18.57	0.87
0.583	0.66	6.583	3.37	12.583	1.89	18.58	0.87
0.600	0.66	6.600	3.37	12.600	1.89	18.60	0.87
0.617	0.66	6.617	3.37	12.617	1.89	18.62	0.87
0.633	0.66	6.633	3.37	12.633	1.89	18.63	0.87
0.650	0.66	6.650	3.37	12.650	1.89	18.65	0.87
0.667	0.66	6.667	3.37	12.667	1.89	18.67	0.87
0.683	0.67	6.683	3.88	12.683	1.82	18.68	0.86
0.700	0.67	6.700	3.88	12.700	1.82	18.70	0.86
0.717	0.67	6.717	3.88	12.717	1.82	18.72	0.86
0.733	0.67	6.733	3.88	12.733	1.82	18.73	0.86
0.750	0.67	6.750	3.88	12.750	1.82	18.75	0.86
0.767	0.67	6.767	3.88	12.767	1.82	18.77	0.86
0.783	0.67	6.783	3.88	12.783	1.82	18.78	0.86
0.800	0.67	6.800	3.88	12.800	1.82	18.80	0.86
0.817	0.67	6.817	3.88	12.817	1.82	18.82	0.86
0.833	0.67	6.833	3.88	12.833	1.82	18.83	0.86
0.850	0.69	6.850	4.58	12.850	1.77	18.85	0.85
0.867	0.69	6.867	4.58	12.867	1.77	18.87	0.85
0.883	0.69	6.883	4.58	12.883	1.77	18.88	0.85
0.900	0.69	6.900	4.58	12.900	1.77	18.90	0.85
0.917	0.69	6.917	4.58	12.917	1.77	18.92	0.85
0.933	0.69	6.933	4.58	12.933	1.77	18.93	0.85
0.950	0.69	6.950	4.58	12.950	1.77	18.95	0.85
0.967	0.69	6.967	4.58	12.967	1.77	18.97	0.85
0.983	0.69	6.983	4.58	12.983	1.77	18.98	0.85
1.000	0.69	7.000	4.58	13.000	1.77	19.00	0.85
1.017	0.70	7.017	5.59	13.017	1.71	19.02	0.84
1.033	0.70	7.033	5.59	13.033	1.71	19.03	0.84
1.050	0.70	7.050	5.59	13.050	1.71	19.05	0.84
1.067	0.70	7.067	5.59	13.067	1.71	19.07	0.84
1.083	0.70	7.083	5.59	13.083	1.71	19.08	0.84
1.100	0.70	7.100	5.59	13.100	1.71	19.10	0.84
1.117	0.70	7.117	5.59	13.117	1.71	19.12	0.84
1.133	0.70	7.133	5.59	13.133	1.71	19.13	0.84
1.150	0.70	7.150	5.59	13.150	1.71	19.15	0.84
1.167	0.70	7.167	5.60	13.167	1.71	19.17	0.84
1.183	0.72	7.183	7.21	13.183	1.66	19.18	0.83
1.200	0.72	7.200	7.21	13.200	1.66	19.20	0.83
1.217	0.72	7.217	7.21	13.217	1.66	19.22	0.83
1.233	0.72	7.233	7.21	13.233	1.66	19.23	0.83
1.250	0.72	7.250	7.21	13.250	1.66	19.25	0.83
1.267	0.72	7.267	7.21	13.267	1.66	19.27	0.83
1.283	0.72	7.283	7.21	13.283	1.66	19.28	0.83
1.300	0.72	7.300	7.21	13.300	1.66	19.30	0.83
1.317	0.72	7.317	7.21	13.317	1.66	19.32	0.83
1.333	0.72	7.333	7.22	13.333	1.66	19.33	0.83
1.350	0.73	7.350	10.14	13.350	1.61	19.35	0.82
1.367	0.73	7.367	10.14	13.367	1.61	19.37	0.82
1.383	0.73	7.383	10.14	13.383	1.61	19.38	0.82
1.400	0.73	7.400	10.14	13.400	1.61	19.40	0.82
1.417	0.73	7.417	10.14	13.417	1.61	19.42	0.82
1.433	0.73	7.433	10.14	13.433	1.61	19.43	0.82
1.450	0.73	7.450	10.14	13.450	1.61	19.45	0.82
1.467	0.73	7.467	10.14	13.467	1.61	19.47	0.82
1.483	0.73	7.483	10.14	13.483	1.61	19.48	0.82
1.500	0.73	7.500	10.16	13.500	1.61	19.50	0.82
1.517	0.75	7.517	16.88	13.517	1.57	19.52	0.81
1.533	0.75	7.533	16.88	13.533	1.57	19.53	0.81
1.550	0.75	7.550	16.88	13.550	1.57	19.55	0.81
1.567	0.75	7.567	16.88	13.567	1.57	19.57	0.81
1.583	0.75	7.583	16.88	13.583	1.57	19.58	0.81
1.600	0.75	7.600	16.88	13.600	1.57	19.60	0.81
1.617	0.75	7.617	16.88	13.617	1.57	19.62	0.81
1.633	0.75	7.633	16.88	13.633	1.57	19.63	0.81
1.650	0.75	7.650	16.88	13.650	1.57	19.65	0.81
1.667	0.75	7.667	16.95	13.667	1.57	19.67	0.81
1.683	0.77	7.683	44.66	13.683	1.53	19.68	0.80
1.700	0.77	7.700	44.66	13.700	1.53	19.70	0.80
1.717	0.77	7.717	44.66	13.717	1.53	19.72	0.80
1.733	0.77	7.733	44.66	13.733	1.53	19.73	0.80
1.750	0.77	7.750	44.66	13.750	1.53	19.75	0.80
1.767	0.77	7.767	44.66	13.767	1.53	19.77	0.80
1.783	0.77	7.783	44.66	13.783	1.53	19.78	0.80
1.800	0.77	7.800	44.66	13.800	1.53	19.80	0.80
1.817	0.77	7.817	44.66	13.817	1.53	19.82	0.80
1.833	0.77	7.833	44.99	13.833	1.53	19.83	0.80
1.850	0.79	7.850	157.69	13.850	1.49	19.85	0.79
1.867	0.79	7.867	157.69	13.867	1.49	19.87	0.79
1.883	0.79	7.883	157.69	13.883	1.49	19.88	0.79
1.900	0.79	7.900	157.69	13.900	1.49	19.90	0.79
1.917	0.79	7.917	157.69	13.917	1.49	19.92	0.79
1.933	0.79	7.933	157.69	13.933	1.49	19.93	0.79
1.950	0.79	7.950	157.69	13.950	1.49	19.95	0.79
1.967	0.79	7.967	157.69	13.967	1.49	19.97	0.79
1.983	0.79	7.983	157.69	13.983	1.49	19.98	0.79
2.000	0.79	8.000	157.40	14.000	1.49	20.00	0.79
2.017	0.81	8.017	59.25	14.017	1.45	20.02	0.78
2.033	0.81	8.033	59.25	14.033	1.45	20.03	0.78
2.050	0.81	8.050	59.25	14.050	1.45	20.05	0.78
2.067	0.81	8.067	59.25	14.067	1.45	20.07	0.78
2.083	0.81	8.083	59.25	14.083	1.45	20.08	0.78
2.100	0.81	8.100	59.25	14.100	1.45	20.10	0.78
2.117	0.81	8.117	59.25	14.117	1.45	20.12	0.78
2.133	0.81	8.133	59.25	14.133	1.45	20.13	0.78
2.150	0.81	8.150	59.25	14.150	1.45	20.15	0.78
2.167	0.81	8.167	59.17	14.167	1.45	20.17	0.78
2.183	0.83	8.183	30.14	14.183	1.41	20.18	0.77
2.200	0.83	8.200	30.14	14.200	1.41	20.20	0.77
2.217	0.83	8.217	30.14	14.217	1.41	20.22	0.77
2.233	0.83	8.233	30.14	14.233	1.41	20.23	0.77
2.250	0.83	8.250	30.14	14.250	1.41	20.25	0.77
2.267	0.83	8.267	30.14	14.267	1.41	20.27	0.77
2.283	0.83	8.283	30.14	14.283	1.41	20.28	0.77
2.300	0.83	8.300	30.14	14.300	1.41	20.30	0.77
2.317	0.83	8.317	30.14	14.317	1.41	20.32	0.77
2.333	0.83	8.333	30.11	14.333	1.41	20.33	0.77
2.350	0.85	8.350	19.54	14.350	1.38	20.35	0.76
2.367	0.85	8.367	19.54	14.367	1.38	20.37	0.76
2.383	0.85	8.383	19.54	14.383	1.38	20.38	0.76
2.400	0.85	8.400	19.54	14.400	1.38	20.40	0.76
2.417	0.85	8.417	19.54	14.417	1.38	20.42	0.76
2.433	0.85	8.433	19.54	14.433	1.38	20.43	0.76
2.450	0.85	8.450	19.54	14.450	1.38	20.45	0.76
2.467	0.85	8.467	19.54	14.467	1.38	20.47	0.76
2.483	0.85	8.483	19.54	14.483	1.38	20.48	0.76
2.500	0.85	8.500	19.53	14.500	1.38	20.50	0.76
2.517	0.88	8.517	14.26	14.517	1.35	20.52	0.75
2.533	0.88	8.533	14.26	14.533	1.35	20.53	0.75
2.550	0.88	8.550	14.26	14.550	1.35	20.55	0.75
2.567	0.88	8.567	14.26	14.567	1.35	20.57	0.75
2.583	0.88	8.583	14.26	14.583	1.35	20.58	0.75
2.600	0.88	8.600	14.26	14.600	1.35	20.60	0.75
2.617	0.88	8.617	14.26	14.617	1.35	20.62	0.75
2.633	0.88	8.633	14.26	14.633	1.35	20.63	0.75
2.650	0.88	8.650	14.26	14.650	1.35	20.65	0.75
2.667	0.88	8.667	14.25	14.667	1.35	20.67	0.75
2.683	0.90	8.683	11.16	14.683	1.32	20.68	0.74
2.700	0.90	8.700	11.16	14.700	1.32	20.70	0.74
2.717	0.90	8.717	11.16	14.717	1.32	20.72	0.74
2.733	0.90	8.733	11.16	14.733	1.32	20.73	0.74
2.750	0.90	8.750	11.16	14.750	1.32	20.75	0.74
2.767	0.90	8.767	11.16	14.767	1.32	20.77	0.74
2.783	0.90	8.783	11.16	14.783	1.32	20.78	0.74
2.800	0.90	8.800	11.16	14.800	1.32	20.80	0.74
2.817	0.90	8.817	11.16	14.817	1.32	20.82	0.74
2.833	0.90	8.833	11.16	14.833	1.32	20.83	0.74
2.850	0.93	8.850	9.15	14.850	1.29	20.85	0.73
2.867	0.93	8.867	9.15	14.867	1.29	20.87	0.73
2.883	0.93	8.883	9.15	14.883	1.29	20.88	0.73
2.900	0.93	8.900	9.15	14.900	1.29	20.90	0.73
2.917	0.93	8.917	9.15	14.917	1.29	20.92	0.73
2.933	0.93	8.933	9.15	14.933	1.29	20.93	0.73
2.950	0.93	8.950	9.15	14.950	1.29	20.95	0.73
2.967	0.93	8.967	9.15	14.967	1.29	20.97	0.73
2.983	0.93	8.983	9.15	14.983	1.29	20.98	0.73
3.000	0.93	9.000	9.14	15.000	1.29	21.00	0.73
3.017	0.96	9.017	7.74	15.017	1.26	21.02	0.72
3.033	0.96	9.033	7.74	15.033	1.26	21.03	0.72
3.050	0.96	9.050	7.74	15.050	1.26	21.05	0.72
3.067	0.96	9.067	7.74	15.067	1.26	21.07	0.72
3.083	0.96	9.083	7.74	15.083	1.26	21.08	0.72
3.100	0.96	9.100	7.74	15.100	1.26	21.10	0.72
3.117	0.96	9.117	7.74	15.117	1.26	21.12	0.72
3.133	0.96	9.133	7.74	15.133	1.26	21.13	0.72
3.150	0.96	9.150	7.74	15.150	1.26	21.15	0.72
3.167	0.96	9.167	7.74	15.167	1.26	21.17	0.72
3.183	0.99	9.183	6.70	15.183	1.23	21.18	0.71
3.200	0.99	9.200	6.70	15.200	1.23	21.20	0.71
3.217	0.99	9.217	6.70	15.217	1.23	21.22	0.71
3.233	0.99	9.233	6.70	15.233	1.23	21.23	0.71
3.250	0.99	9.250	6.70	15.250	1.23	21.25	0.71
3.267	0.99	9.267	6.70	15.267	1.23	21.27	0.71
3.283	0.99	9.283	6.70	15.283	1.23	21.28	0.71
3.300	0.99	9.300	6.70	15.300	1.23	21.30	0.71
3.317	0.99	9.317	6.70	15.317	1.23	21.32	0.71
3.333	0.99	9.333	6.70	15.333	1.23	21.33	0.71
3.350	1.03	9.350	5.91	15.350	1.21	21.35	0.71
3.367	1.03	9.367	5.91	15.367	1.21	21.37	0.71
3.383	1.03	9.383	5.91	15.383	1.21	21.38	0.71
3.400	1.03	9.400	5.91	15.400	1.21	21.40	0.71
3.417	1.03	9.417	5.91	15.417	1.21	21.42	0.71
3.433	1.03	9.433	5.91	15.433	1.21	21.43	0.71
3.450	1.03	9.450	5.91	15.450	1.21	21.45	0.71
3.467	1.03	9.467	5.91	15.467	1.21	21.47	0.71
3.483	1.03	9.483	5.91	15.483	1.21	21.48	0.71
3.500	1.03	9.500	5.91	15.500	1.21	21.50	0.71
3.517	1.06	9.517	5.29	15.517	1.18	21.52	0.70
3.533	1.06	9.533	5.29	15.533	1.18	21.53	0.70
3.550	1.06	9.550	5.29	15.550	1.18	21.55	0.70
3.567	1.06	9.567	5.29	15.567	1.18	21.57	0.70
3.583	1.06	9.583	5.29	15.583	1.18	21.58	0.70
3.600	1.06	9.600	5.29	15.600	1.18	21.60	0.70
3.617	1.06	9.617	5.29	15.617	1.18	21.62	0.70
3.633	1.06	9.633	5.29	15.633	1.18	21.63	0.70
3.650	1.06	9.650	5.29	15.650	1.18	21.65	0.70
3.667	1.06	9.667	5.29	15.667	1.18	21.67	0.70
3.683	1.10	9.683	4.79	15.683	1.16	21.68	0.69
3.700	1.10	9.700	4.79	15.700	1.16	21.70	0.69
3.717	1.10	9.717	4.79	15.717	1.16	21.72	0.69
3.733	1.10	9.733	4.79	15.733	1.16	21.73	0.69
3.750	1.10	9.750	4.79	15.750	1.16	21.75	0.69
3.767	1.10	9.767	4.79	15.767	1.16	21.77	0.69
3.783	1.10	9.783	4.79	15.783	1.16	21.78	0.69
3.800	1.10	9.800	4.79	15.800	1.16	21.80	0.69
3.817	1.10	9.817	4.79	15.817	1.16	21.82	0.69
3.833	1.10	9.833	4.79	15.833	1.16	21.83	0.69
3.850	1.15	9.850	4.38	15.850	1.14	21.85	0.68
3.867	1.15	9.867	4.38	15.867	1.14	21.87	0.68
3.883	1.15	9.883	4.38	15.883	1.14	21.88	0.68
3.900	1.15	9.900	4.38	15.900	1.14	21.90	0.68
3.917	1.15	9.917	4.38	15.917	1.14	21.92	0.68
3.933	1.15	9.933	4.38	15.933	1.14	21.93	0.68
3.950	1.15	9.950	4.38	15.950	1.14	21.95	0.68
3.967	1.15	9.967	4.38	15.967	1.14	21.97	0.68
3.983	1.15	9.983	4.38	15.983	1.14	21.98	0.68
4.000	1.15	10.000	4.38	16.000	1.14	22.00	0.68
4.017	1.19	10.017	4.03	16.017	1.12	22.02	0.68
4.033	1.19	10.033	4.03	16.033	1.12	22.03	0.68
4.050	1.19	10.050	4.03	16.050	1.12	22.05	0.68
4.067	1.19	10.067	4.03	16.067	1.12	22.07	0.68
4.083	1.19	10.083	4.03	16.083	1.12	22.08	0.68
4.100	1.19	10.100	4.03	16.100	1.12	22.10	0.68
4.117	1.19	10.117	4.03	16.117	1.12	22.12	0.68
4.133	1.19	10.133	4.03	16.133	1.12	22.13	0.68
4.150	1.19	10.150	4.03	16.150	1.12	22.15	0.68
4.167	1.19	10.167	4.03	16.167	1.12	22.17	0.68
4.183	1.24	10.183	3.74	16.183	1.09	22.18	0.67
4.200	1.24	10.200	3.74	16.200	1.09	22.20	0.67
4.217	1.24	10.217	3.74	16.217	1.09	22.22	0.67
4.233	1.24	10.233	3.74	16.233	1.09	22.23	0.67
4.250	1.24	10.250	3.74	16.250	1.09	22.25	0.67
4.267	1.24	10.267	3.74	16.267	1.09	22.27	0.67
4.283	1.24	10.283	3.74	16.283	1.09	22.28	0.67
4.300	1.24	10.300	3.74	16.300	1.09	22.30	0.67
4.317	1.24	10.317	3.74	16.317	1.09	22.32	0.67
4.333	1.24	10.333	3.74	16.333	1.09	22.33	0.67
4.350	1.30	10.350	3.48	16.350	1.08	22.35	0.66
4.367	1.30	10.367	3.48	16.367	1.08	22.37	0.66
4.383	1.30	10.383	3.48	16.383	1.08	22.38	0.66
4.400	1.30	10.400	3.48	16.400	1.08	22.40	0.66
4.417	1.30	10.417	3.48	16.417	1.08	22.42	0.66
4.433	1.30	10.433	3.48	16.433	1.08	22.43	0.66
4.450	1.30	10.450	3.48	16.450	1.08	22.45	0.66
4.467	1.30	10.467	3.48	16.467	1.08	22.47	0.66
4.483	1.30	10.483	3.48	16.483	1.08	22.48	0.66
4.500	1.30	10.500	3.48	16.500	1.08	22.50	0.66
4.517	1.36	10.517	3.26	16.517	1.06	22.52	0.66
4.533	1.36	10.533	3.26	16.533	1.06	22.53	0.66
4.550	1.36	10.550	3.26	16.550	1.06	22.55	0.66
4.567	1.36	10.567	3.26	16.567	1.06	22.57	0.66
4.583	1.36	10.583	3.26	16.583	1.06	22.58	0.66
4.600	1.36	10.600	3.26	16.600	1.06	22.60	0.66
4.617	1.36	10.617	3.26	16.617	1.06	22.62	0.66
4.633	1.36	10.633	3.26	16.633	1.06	22.63	0.66
4.650	1.36	10.650	3.26	16.650	1.06	22.65	0.66
4.667	1.36	10.667	3.26	16.667	1.06	22.67	0.66
4.683	1.43	10.683	3.07	16.683	1.04	22.68	0.65
4.700	1.43	10.700	3.07	16.700	1.04	22.70	0.65
4.717	1.43	10.717	3.07	16.717	1.04	22.72	0.65
4.733	1.43	10.733	3.07	16.733	1.04	22.73	0.65
4.750	1.43	10.750	3.07	16.750	1.04	22.75	0.65
4.767	1.43	10.767	3.07	16.767	1.04	22.77	0.65
4.783	1.43	10.783	3.07	16.783	1.04	22.78	0.65
4.800	1.43	10.800	3.07	16.800	1.04	22.80	0.65
4.817	1.43	10.817	3.07	16.817	1.04	22.82	0.65
4.833	1.43	10.833	3.07	16.833	1.04	22.83	0.65
4.850	1.50	10.850	2.90	16.850	1.02	22.85	0.64
4.867	1.50	10.867	2.90	16.867	1.02	22.87	0.64
4.883	1.50	10.883	2.90	16.883	1.02	22.88	0.64
4.900	1.50	10.900	2.90	16.900	1.02	22.90	0.64
4.917	1.50	10.917	2.90	16.917	1.02	22.92	0.64
4.933	1.50	10.933	2.90	16.933	1.02	22.93	0.64
4.950	1.50	10.950	2.90	16.950	1.02	22.95	0.64
4.967	1.50	10.967	2.90	16.967	1.02	22.97	0.64
4.983	1.50	10.983	2.90	16.983	1.02	22.98	0.64
5.000	1.50	11.000	2.90	17.000	1.02	23.00	0.64
5.017	1.59	11.017	2.75	17.017	1.00	23.02	0.64

5.033	1.59	11.033	2.75	17.033	1.00	23.03	0.64
5.050	1.59	11.050	2.75	17.050	1.00	23.05	0.64
5.067	1.59	11.067	2.75	17.067	1.00	23.07	0.64
5.083	1.59	11.083	2.75	17.083	1.00	23.08	0.64
5.100	1.59	11.100	2.75	17.100	1.00	23.10	0.64
5.117	1.59	11.117	2.75	17.117	1.00	23.12	0.64
5.133	1.59	11.133	2.75	17.133	1.00	23.13	0.64
5.150	1.59	11.150	2.75	17.150	1.00	23.15	0.64
5.167	1.59	11.167	2.75	17.167	1.00	23.17	0.64
5.183	1.68	11.183	2.61	17.183	0.99	23.18	0.63
5.200	1.68	11.200	2.61	17.200	0.99	23.20	0.63
5.217	1.68	11.217	2.61	17.217	0.99	23.22	0.63
5.233	1.68	11.233	2.61	17.233	0.99	23.23	0.63
5.250	1.68	11.250	2.61	17.250	0.99	23.25	0.63
5.267	1.68	11.267	2.61	17.267	0.99	23.27	0.63
5.283	1.68	11.283	2.61	17.283	0.99	23.28	0.63
5.300	1.68	11.300	2.61	17.300	0.99	23.30	0.63
5.317	1.68	11.317	2.61	17.317	0.99	23.32	0.63
5.333	1.68	11.333	2.61	17.333	0.99	23.33	0.63
5.350	1.79	11.350	2.49	17.350	0.97	23.35	0.62
5.367	1.79	11.367	2.49	17.367	0.97	23.37	0.62
5.383	1.79	11.383	2.49	17.383	0.97	23.38	0.62
5.400	1.79	11.400	2.49	17.400	0.97	23.40	0.62
5.417	1.79	11.417	2.49	17.417	0.97	23.42	0.62
5.433	1.79	11.433	2.49	17.433	0.97	23.43	0.62
5.450	1.79	11.450	2.49	17.450	0.97	23.45	0.62
5.467	1.79	11.467	2.49	17.467	0.97	23.47	0.62
5.483	1.79	11.483	2.49	17.483	0.97	23.48	0.62
5.500	1.79	11.500	2.49	17.500	0.97	23.50	0.62
5.517	1.92	11.517	2.38	17.517	0.96	23.52	0.62
5.533	1.92	11.533	2.38	17.533	0.96	23.53	0.62
5.550	1.92	11.550	2.38	17.550	0.96	23.55	0.62
5.567	1.92	11.567	2.38	17.567	0.96	23.57	0.62
5.583	1.92	11.583	2.38	17.583	0.96	23.58	0.62
5.600	1.92	11.600	2.38	17.600	0.96	23.60	0.62
5.617	1.92	11.617	2.38	17.617	0.96	23.62	0.62
5.633	1.92	11.633	2.38	17.633	0.96	23.63	0.62
5.650	1.92	11.650	2.38	17.650	0.96	23.65	0.62
5.667	1.92	11.667	2.38	17.667	0.96	23.67	0.62
5.683	2.06	11.683	2.28	17.683	0.94	23.68	0.61
5.700	2.06	11.700	2.28	17.700	0.94	23.70	0.61
5.717	2.06	11.717	2.28	17.717	0.94	23.72	0.61
5.733	2.06	11.733	2.28	17.733	0.94	23.73	0.61
5.750	2.06	11.750	2.28	17.750	0.94	23.75	0.61
5.767	2.06	11.767	2.28	17.767	0.94	23.77	0.61
5.783	2.06	11.783	2.28	17.783	0.94	23.78	0.61
5.800	2.06	11.800	2.28	17.800	0.94	23.80	0.61
5.817	2.06	11.817	2.28	17.817	0.94	23.82	0.61
5.833	2.06	11.833	2.28	17.833	0.94	23.83	0.61
5.850	2.23	11.850	2.19	17.850	0.93	23.85	0.61
5.867	2.23	11.867	2.19	17.867	0.93	23.87	0.61
5.883	2.23	11.883	2.19	17.883	0.93	23.88	0.61

5.900	2.23	11.900	2.19	17.900	0.93	23.90	0.61
5.917	2.23	11.917	2.19	17.917	0.93	23.92	0.61
5.933	2.23	11.933	2.19	17.933	0.93	23.93	0.61
5.950	2.23	11.950	2.19	17.950	0.93	23.95	0.61
5.967	2.23	11.967	2.19	17.967	0.93	23.97	0.61
5.983	2.23	11.983	2.19	17.983	0.93	23.98	0.61
6.000	2.23	12.000	2.19	18.000	0.93	24.00	0.61

Max.Eff.Inten.(mm/hr)=	157.69	39.14	
over (min)	5.00	11.00	
Storage Coeff. (min)=	3.46 (ii)	10.28 (ii)	
Unit Hyd. Tpeak (min)=	5.00	11.00	
Unit Hyd. peak (cms)=	0.28	0.11	
			TOTALS
PEAK FLOW (cms)=	0.57	0.15	0.668 (iii)
TIME TO PEAK (hrs)=	8.02	8.15	8.02
RUNOFF VOLUME (mm)=	97.33	26.08	53.16
TOTAL RAINFALL (mm)=	98.33	98.33	98.33
RUNOFF COEFFICIENT =	0.99	0.27	0.54

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 48.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (1022)	Area (ha)=	2.86	
ID= 1 DT= 1.0 min	Total Imp(%)=	41.00	Dir. Conn.(%)= 35.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	1.17	1.69
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	0.50	2.00
Length	(m)=	138.06	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 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
0.017	0.62	6.017	2.43	12.017	2.10	18.02	0.91
0.033	0.62	6.033	2.43	12.033	2.10	18.03	0.91
0.050	0.62	6.050	2.43	12.050	2.10	18.05	0.91
0.067	0.62	6.067	2.43	12.067	2.10	18.07	0.91
0.083	0.62	6.083	2.43	12.083	2.10	18.08	0.91
0.100	0.62	6.100	2.43	12.100	2.10	18.10	0.91

0.117	0.62	6.117	2.43	12.117	2.10	18.12	0.91
0.133	0.62	6.133	2.43	12.133	2.10	18.13	0.91
0.150	0.62	6.150	2.43	12.150	2.10	18.15	0.91
0.167	0.62	6.167	2.43	12.167	2.10	18.17	0.91
0.183	0.63	6.183	2.68	12.183	2.02	18.18	0.90
0.200	0.63	6.200	2.68	12.200	2.02	18.20	0.90
0.217	0.63	6.217	2.68	12.217	2.02	18.22	0.90
0.233	0.63	6.233	2.68	12.233	2.02	18.23	0.90
0.250	0.63	6.250	2.68	12.250	2.02	18.25	0.90
0.267	0.63	6.267	2.68	12.267	2.02	18.27	0.90
0.283	0.63	6.283	2.68	12.283	2.02	18.28	0.90
0.300	0.63	6.300	2.68	12.300	2.02	18.30	0.90
0.317	0.63	6.317	2.68	12.317	2.02	18.32	0.90
0.333	0.63	6.333	2.68	12.333	2.02	18.33	0.90
0.350	0.65	6.350	2.98	12.350	1.95	18.35	0.89
0.367	0.65	6.367	2.98	12.367	1.95	18.37	0.89
0.383	0.65	6.383	2.98	12.383	1.95	18.38	0.89
0.400	0.65	6.400	2.98	12.400	1.95	18.40	0.89
0.417	0.65	6.417	2.98	12.417	1.95	18.42	0.89
0.433	0.65	6.433	2.98	12.433	1.95	18.43	0.89
0.450	0.65	6.450	2.98	12.450	1.95	18.45	0.89
0.467	0.65	6.467	2.98	12.467	1.95	18.47	0.89
0.483	0.65	6.483	2.98	12.483	1.95	18.48	0.89
0.500	0.65	6.500	2.98	12.500	1.95	18.50	0.89
0.517	0.66	6.517	3.37	12.517	1.89	18.52	0.87
0.533	0.66	6.533	3.37	12.533	1.89	18.53	0.87
0.550	0.66	6.550	3.37	12.550	1.89	18.55	0.87
0.567	0.66	6.567	3.37	12.567	1.89	18.57	0.87
0.583	0.66	6.583	3.37	12.583	1.89	18.58	0.87
0.600	0.66	6.600	3.37	12.600	1.89	18.60	0.87
0.617	0.66	6.617	3.37	12.617	1.89	18.62	0.87
0.633	0.66	6.633	3.37	12.633	1.89	18.63	0.87
0.650	0.66	6.650	3.37	12.650	1.89	18.65	0.87
0.667	0.66	6.667	3.37	12.667	1.89	18.67	0.87
0.683	0.67	6.683	3.88	12.683	1.82	18.68	0.86
0.700	0.67	6.700	3.88	12.700	1.82	18.70	0.86
0.717	0.67	6.717	3.88	12.717	1.82	18.72	0.86
0.733	0.67	6.733	3.88	12.733	1.82	18.73	0.86
0.750	0.67	6.750	3.88	12.750	1.82	18.75	0.86
0.767	0.67	6.767	3.88	12.767	1.82	18.77	0.86
0.783	0.67	6.783	3.88	12.783	1.82	18.78	0.86
0.800	0.67	6.800	3.88	12.800	1.82	18.80	0.86
0.817	0.67	6.817	3.88	12.817	1.82	18.82	0.86
0.833	0.67	6.833	3.88	12.833	1.82	18.83	0.86
0.850	0.69	6.850	4.58	12.850	1.77	18.85	0.85
0.867	0.69	6.867	4.58	12.867	1.77	18.87	0.85
0.883	0.69	6.883	4.58	12.883	1.77	18.88	0.85
0.900	0.69	6.900	4.58	12.900	1.77	18.90	0.85
0.917	0.69	6.917	4.58	12.917	1.77	18.92	0.85
0.933	0.69	6.933	4.58	12.933	1.77	18.93	0.85
0.950	0.69	6.950	4.58	12.950	1.77	18.95	0.85
0.967	0.69	6.967	4.58	12.967	1.77	18.97	0.85

0.983	0.69	6.983	4.58	12.983	1.77	18.98	0.85
1.000	0.69	7.000	4.58	13.000	1.77	19.00	0.85
1.017	0.70	7.017	5.59	13.017	1.71	19.02	0.84
1.033	0.70	7.033	5.59	13.033	1.71	19.03	0.84
1.050	0.70	7.050	5.59	13.050	1.71	19.05	0.84
1.067	0.70	7.067	5.59	13.067	1.71	19.07	0.84
1.083	0.70	7.083	5.59	13.083	1.71	19.08	0.84
1.100	0.70	7.100	5.59	13.100	1.71	19.10	0.84
1.117	0.70	7.117	5.59	13.117	1.71	19.12	0.84
1.133	0.70	7.133	5.59	13.133	1.71	19.13	0.84
1.150	0.70	7.150	5.59	13.150	1.71	19.15	0.84
1.167	0.70	7.167	5.60	13.167	1.71	19.17	0.84
1.183	0.72	7.183	7.21	13.183	1.66	19.18	0.83
1.200	0.72	7.200	7.21	13.200	1.66	19.20	0.83
1.217	0.72	7.217	7.21	13.217	1.66	19.22	0.83
1.233	0.72	7.233	7.21	13.233	1.66	19.23	0.83
1.250	0.72	7.250	7.21	13.250	1.66	19.25	0.83
1.267	0.72	7.267	7.21	13.267	1.66	19.27	0.83
1.283	0.72	7.283	7.21	13.283	1.66	19.28	0.83
1.300	0.72	7.300	7.21	13.300	1.66	19.30	0.83
1.317	0.72	7.317	7.21	13.317	1.66	19.32	0.83
1.333	0.72	7.333	7.22	13.333	1.66	19.33	0.83
1.350	0.73	7.350	10.14	13.350	1.61	19.35	0.82
1.367	0.73	7.367	10.14	13.367	1.61	19.37	0.82
1.383	0.73	7.383	10.14	13.383	1.61	19.38	0.82
1.400	0.73	7.400	10.14	13.400	1.61	19.40	0.82
1.417	0.73	7.417	10.14	13.417	1.61	19.42	0.82
1.433	0.73	7.433	10.14	13.433	1.61	19.43	0.82
1.450	0.73	7.450	10.14	13.450	1.61	19.45	0.82
1.467	0.73	7.467	10.14	13.467	1.61	19.47	0.82
1.483	0.73	7.483	10.14	13.483	1.61	19.48	0.82
1.500	0.73	7.500	10.16	13.500	1.61	19.50	0.82
1.517	0.75	7.517	16.88	13.517	1.57	19.52	0.81
1.533	0.75	7.533	16.88	13.533	1.57	19.53	0.81
1.550	0.75	7.550	16.88	13.550	1.57	19.55	0.81
1.567	0.75	7.567	16.88	13.567	1.57	19.57	0.81
1.583	0.75	7.583	16.88	13.583	1.57	19.58	0.81
1.600	0.75	7.600	16.88	13.600	1.57	19.60	0.81
1.617	0.75	7.617	16.88	13.617	1.57	19.62	0.81
1.633	0.75	7.633	16.88	13.633	1.57	19.63	0.81
1.650	0.75	7.650	16.88	13.650	1.57	19.65	0.81
1.667	0.75	7.667	16.95	13.667	1.57	19.67	0.81
1.683	0.77	7.683	44.66	13.683	1.53	19.68	0.80
1.700	0.77	7.700	44.66	13.700	1.53	19.70	0.80
1.717	0.77	7.717	44.66	13.717	1.53	19.72	0.80
1.733	0.77	7.733	44.66	13.733	1.53	19.73	0.80
1.750	0.77	7.750	44.66	13.750	1.53	19.75	0.80
1.767	0.77	7.767	44.66	13.767	1.53	19.77	0.80
1.783	0.77	7.783	44.66	13.783	1.53	19.78	0.80
1.800	0.77	7.800	44.66	13.800	1.53	19.80	0.80
1.817	0.77	7.817	44.66	13.817	1.53	19.82	0.80
1.833	0.77	7.833	44.99	13.833	1.53	19.83	0.80

1.850	0.79	7.850	157.69	13.850	1.49	19.85	0.79
1.867	0.79	7.867	157.69	13.867	1.49	19.87	0.79
1.883	0.79	7.883	157.69	13.883	1.49	19.88	0.79
1.900	0.79	7.900	157.69	13.900	1.49	19.90	0.79
1.917	0.79	7.917	157.69	13.917	1.49	19.92	0.79
1.933	0.79	7.933	157.69	13.933	1.49	19.93	0.79
1.950	0.79	7.950	157.69	13.950	1.49	19.95	0.79
1.967	0.79	7.967	157.69	13.967	1.49	19.97	0.79
1.983	0.79	7.983	157.69	13.983	1.49	19.98	0.79
2.000	0.79	8.000	157.40	14.000	1.49	20.00	0.79
2.017	0.81	8.017	59.25	14.017	1.45	20.02	0.78
2.033	0.81	8.033	59.25	14.033	1.45	20.03	0.78
2.050	0.81	8.050	59.25	14.050	1.45	20.05	0.78
2.067	0.81	8.067	59.25	14.067	1.45	20.07	0.78
2.083	0.81	8.083	59.25	14.083	1.45	20.08	0.78
2.100	0.81	8.100	59.25	14.100	1.45	20.10	0.78
2.117	0.81	8.117	59.25	14.117	1.45	20.12	0.78
2.133	0.81	8.133	59.25	14.133	1.45	20.13	0.78
2.150	0.81	8.150	59.25	14.150	1.45	20.15	0.78
2.167	0.81	8.167	59.17	14.167	1.45	20.17	0.78
2.183	0.83	8.183	30.14	14.183	1.41	20.18	0.77
2.200	0.83	8.200	30.14	14.200	1.41	20.20	0.77
2.217	0.83	8.217	30.14	14.217	1.41	20.22	0.77
2.233	0.83	8.233	30.14	14.233	1.41	20.23	0.77
2.250	0.83	8.250	30.14	14.250	1.41	20.25	0.77
2.267	0.83	8.267	30.14	14.267	1.41	20.27	0.77
2.283	0.83	8.283	30.14	14.283	1.41	20.28	0.77
2.300	0.83	8.300	30.14	14.300	1.41	20.30	0.77
2.317	0.83	8.317	30.14	14.317	1.41	20.32	0.77
2.333	0.83	8.333	30.11	14.333	1.41	20.33	0.77
2.350	0.85	8.350	19.54	14.350	1.38	20.35	0.76
2.367	0.85	8.367	19.54	14.367	1.38	20.37	0.76
2.383	0.85	8.383	19.54	14.383	1.38	20.38	0.76
2.400	0.85	8.400	19.54	14.400	1.38	20.40	0.76
2.417	0.85	8.417	19.54	14.417	1.38	20.42	0.76
2.433	0.85	8.433	19.54	14.433	1.38	20.43	0.76
2.450	0.85	8.450	19.54	14.450	1.38	20.45	0.76
2.467	0.85	8.467	19.54	14.467	1.38	20.47	0.76
2.483	0.85	8.483	19.54	14.483	1.38	20.48	0.76
2.500	0.85	8.500	19.53	14.500	1.38	20.50	0.76
2.517	0.88	8.517	14.26	14.517	1.35	20.52	0.75
2.533	0.88	8.533	14.26	14.533	1.35	20.53	0.75
2.550	0.88	8.550	14.26	14.550	1.35	20.55	0.75
2.567	0.88	8.567	14.26	14.567	1.35	20.57	0.75
2.583	0.88	8.583	14.26	14.583	1.35	20.58	0.75
2.600	0.88	8.600	14.26	14.600	1.35	20.60	0.75
2.617	0.88	8.617	14.26	14.617	1.35	20.62	0.75
2.633	0.88	8.633	14.26	14.633	1.35	20.63	0.75
2.650	0.88	8.650	14.26	14.650	1.35	20.65	0.75
2.667	0.88	8.667	14.25	14.667	1.35	20.67	0.75
2.683	0.90	8.683	11.16	14.683	1.32	20.68	0.74
2.700	0.90	8.700	11.16	14.700	1.32	20.70	0.74

2.717	0.90	8.717	11.16	14.717	1.32	20.72	0.74
2.733	0.90	8.733	11.16	14.733	1.32	20.73	0.74
2.750	0.90	8.750	11.16	14.750	1.32	20.75	0.74
2.767	0.90	8.767	11.16	14.767	1.32	20.77	0.74
2.783	0.90	8.783	11.16	14.783	1.32	20.78	0.74
2.800	0.90	8.800	11.16	14.800	1.32	20.80	0.74
2.817	0.90	8.817	11.16	14.817	1.32	20.82	0.74
2.833	0.90	8.833	11.16	14.833	1.32	20.83	0.74
2.850	0.93	8.850	9.15	14.850	1.29	20.85	0.73
2.867	0.93	8.867	9.15	14.867	1.29	20.87	0.73
2.883	0.93	8.883	9.15	14.883	1.29	20.88	0.73
2.900	0.93	8.900	9.15	14.900	1.29	20.90	0.73
2.917	0.93	8.917	9.15	14.917	1.29	20.92	0.73
2.933	0.93	8.933	9.15	14.933	1.29	20.93	0.73
2.950	0.93	8.950	9.15	14.950	1.29	20.95	0.73
2.967	0.93	8.967	9.15	14.967	1.29	20.97	0.73
2.983	0.93	8.983	9.15	14.983	1.29	20.98	0.73
3.000	0.93	9.000	9.14	15.000	1.29	21.00	0.73
3.017	0.96	9.017	7.74	15.017	1.26	21.02	0.72
3.033	0.96	9.033	7.74	15.033	1.26	21.03	0.72
3.050	0.96	9.050	7.74	15.050	1.26	21.05	0.72
3.067	0.96	9.067	7.74	15.067	1.26	21.07	0.72
3.083	0.96	9.083	7.74	15.083	1.26	21.08	0.72
3.100	0.96	9.100	7.74	15.100	1.26	21.10	0.72
3.117	0.96	9.117	7.74	15.117	1.26	21.12	0.72
3.133	0.96	9.133	7.74	15.133	1.26	21.13	0.72
3.150	0.96	9.150	7.74	15.150	1.26	21.15	0.72
3.167	0.96	9.167	7.74	15.167	1.26	21.17	0.72
3.183	0.99	9.183	6.70	15.183	1.23	21.18	0.71
3.200	0.99	9.200	6.70	15.200	1.23	21.20	0.71
3.217	0.99	9.217	6.70	15.217	1.23	21.22	0.71
3.233	0.99	9.233	6.70	15.233	1.23	21.23	0.71
3.250	0.99	9.250	6.70	15.250	1.23	21.25	0.71
3.267	0.99	9.267	6.70	15.267	1.23	21.27	0.71
3.283	0.99	9.283	6.70	15.283	1.23	21.28	0.71
3.300	0.99	9.300	6.70	15.300	1.23	21.30	0.71
3.317	0.99	9.317	6.70	15.317	1.23	21.32	0.71
3.333	0.99	9.333	6.70	15.333	1.23	21.33	0.71
3.350	1.03	9.350	5.91	15.350	1.21	21.35	0.71
3.367	1.03	9.367	5.91	15.367	1.21	21.37	0.71
3.383	1.03	9.383	5.91	15.383	1.21	21.38	0.71
3.400	1.03	9.400	5.91	15.400	1.21	21.40	0.71
3.417	1.03	9.417	5.91	15.417	1.21	21.42	0.71
3.433	1.03	9.433	5.91	15.433	1.21	21.43	0.71
3.450	1.03	9.450	5.91	15.450	1.21	21.45	0.71
3.467	1.03	9.467	5.91	15.467	1.21	21.47	0.71
3.483	1.03	9.483	5.91	15.483	1.21	21.48	0.71
3.500	1.03	9.500	5.91	15.500	1.21	21.50	0.71
3.517	1.06	9.517	5.29	15.517	1.18	21.52	0.70
3.533	1.06	9.533	5.29	15.533	1.18	21.53	0.70
3.550	1.06	9.550	5.29	15.550	1.18	21.55	0.70
3.567	1.06	9.567	5.29	15.567	1.18	21.57	0.70

3.583	1.06	9.583	5.29	15.583	1.18	21.58	0.70
3.600	1.06	9.600	5.29	15.600	1.18	21.60	0.70
3.617	1.06	9.617	5.29	15.617	1.18	21.62	0.70
3.633	1.06	9.633	5.29	15.633	1.18	21.63	0.70
3.650	1.06	9.650	5.29	15.650	1.18	21.65	0.70
3.667	1.06	9.667	5.29	15.667	1.18	21.67	0.70
3.683	1.10	9.683	4.79	15.683	1.16	21.68	0.69
3.700	1.10	9.700	4.79	15.700	1.16	21.70	0.69
3.717	1.10	9.717	4.79	15.717	1.16	21.72	0.69
3.733	1.10	9.733	4.79	15.733	1.16	21.73	0.69
3.750	1.10	9.750	4.79	15.750	1.16	21.75	0.69
3.767	1.10	9.767	4.79	15.767	1.16	21.77	0.69
3.783	1.10	9.783	4.79	15.783	1.16	21.78	0.69
3.800	1.10	9.800	4.79	15.800	1.16	21.80	0.69
3.817	1.10	9.817	4.79	15.817	1.16	21.82	0.69
3.833	1.10	9.833	4.79	15.833	1.16	21.83	0.69
3.850	1.15	9.850	4.38	15.850	1.14	21.85	0.68
3.867	1.15	9.867	4.38	15.867	1.14	21.87	0.68
3.883	1.15	9.883	4.38	15.883	1.14	21.88	0.68
3.900	1.15	9.900	4.38	15.900	1.14	21.90	0.68
3.917	1.15	9.917	4.38	15.917	1.14	21.92	0.68
3.933	1.15	9.933	4.38	15.933	1.14	21.93	0.68
3.950	1.15	9.950	4.38	15.950	1.14	21.95	0.68
3.967	1.15	9.967	4.38	15.967	1.14	21.97	0.68
3.983	1.15	9.983	4.38	15.983	1.14	21.98	0.68
4.000	1.15	10.000	4.38	16.000	1.14	22.00	0.68
4.017	1.19	10.017	4.03	16.017	1.12	22.02	0.68
4.033	1.19	10.033	4.03	16.033	1.12	22.03	0.68
4.050	1.19	10.050	4.03	16.050	1.12	22.05	0.68
4.067	1.19	10.067	4.03	16.067	1.12	22.07	0.68
4.083	1.19	10.083	4.03	16.083	1.12	22.08	0.68
4.100	1.19	10.100	4.03	16.100	1.12	22.10	0.68
4.117	1.19	10.117	4.03	16.117	1.12	22.12	0.68
4.133	1.19	10.133	4.03	16.133	1.12	22.13	0.68
4.150	1.19	10.150	4.03	16.150	1.12	22.15	0.68
4.167	1.19	10.167	4.03	16.167	1.12	22.17	0.68
4.183	1.24	10.183	3.74	16.183	1.09	22.18	0.67
4.200	1.24	10.200	3.74	16.200	1.09	22.20	0.67
4.217	1.24	10.217	3.74	16.217	1.09	22.22	0.67
4.233	1.24	10.233	3.74	16.233	1.09	22.23	0.67
4.250	1.24	10.250	3.74	16.250	1.09	22.25	0.67
4.267	1.24	10.267	3.74	16.267	1.09	22.27	0.67
4.283	1.24	10.283	3.74	16.283	1.09	22.28	0.67
4.300	1.24	10.300	3.74	16.300	1.09	22.30	0.67
4.317	1.24	10.317	3.74	16.317	1.09	22.32	0.67
4.333	1.24	10.333	3.74	16.333	1.09	22.33	0.67
4.350	1.30	10.350	3.48	16.350	1.08	22.35	0.66
4.367	1.30	10.367	3.48	16.367	1.08	22.37	0.66
4.383	1.30	10.383	3.48	16.383	1.08	22.38	0.66
4.400	1.30	10.400	3.48	16.400	1.08	22.40	0.66
4.417	1.30	10.417	3.48	16.417	1.08	22.42	0.66
4.433	1.30	10.433	3.48	16.433	1.08	22.43	0.66

4.450	1.30	10.450	3.48	16.450	1.08	22.45	0.66
4.467	1.30	10.467	3.48	16.467	1.08	22.47	0.66
4.483	1.30	10.483	3.48	16.483	1.08	22.48	0.66
4.500	1.30	10.500	3.48	16.500	1.08	22.50	0.66
4.517	1.36	10.517	3.26	16.517	1.06	22.52	0.66
4.533	1.36	10.533	3.26	16.533	1.06	22.53	0.66
4.550	1.36	10.550	3.26	16.550	1.06	22.55	0.66
4.567	1.36	10.567	3.26	16.567	1.06	22.57	0.66
4.583	1.36	10.583	3.26	16.583	1.06	22.58	0.66
4.600	1.36	10.600	3.26	16.600	1.06	22.60	0.66
4.617	1.36	10.617	3.26	16.617	1.06	22.62	0.66
4.633	1.36	10.633	3.26	16.633	1.06	22.63	0.66
4.650	1.36	10.650	3.26	16.650	1.06	22.65	0.66
4.667	1.36	10.667	3.26	16.667	1.06	22.67	0.66
4.683	1.43	10.683	3.07	16.683	1.04	22.68	0.65
4.700	1.43	10.700	3.07	16.700	1.04	22.70	0.65
4.717	1.43	10.717	3.07	16.717	1.04	22.72	0.65
4.733	1.43	10.733	3.07	16.733	1.04	22.73	0.65
4.750	1.43	10.750	3.07	16.750	1.04	22.75	0.65
4.767	1.43	10.767	3.07	16.767	1.04	22.77	0.65
4.783	1.43	10.783	3.07	16.783	1.04	22.78	0.65
4.800	1.43	10.800	3.07	16.800	1.04	22.80	0.65
4.817	1.43	10.817	3.07	16.817	1.04	22.82	0.65
4.833	1.43	10.833	3.07	16.833	1.04	22.83	0.65
4.850	1.50	10.850	2.90	16.850	1.02	22.85	0.64
4.867	1.50	10.867	2.90	16.867	1.02	22.87	0.64
4.883	1.50	10.883	2.90	16.883	1.02	22.88	0.64
4.900	1.50	10.900	2.90	16.900	1.02	22.90	0.64
4.917	1.50	10.917	2.90	16.917	1.02	22.92	0.64
4.933	1.50	10.933	2.90	16.933	1.02	22.93	0.64
4.950	1.50	10.950	2.90	16.950	1.02	22.95	0.64
4.967	1.50	10.967	2.90	16.967	1.02	22.97	0.64
4.983	1.50	10.983	2.90	16.983	1.02	22.98	0.64
5.000	1.50	11.000	2.90	17.000	1.02	23.00	0.64
5.017	1.59	11.017	2.75	17.017	1.00	23.02	0.64
5.033	1.59	11.033	2.75	17.033	1.00	23.03	0.64
5.050	1.59	11.050	2.75	17.050	1.00	23.05	0.64
5.067	1.59	11.067	2.75	17.067	1.00	23.07	0.64
5.083	1.59	11.083	2.75	17.083	1.00	23.08	0.64
5.100	1.59	11.100	2.75	17.100	1.00	23.10	0.64
5.117	1.59	11.117	2.75	17.117	1.00	23.12	0.64
5.133	1.59	11.133	2.75	17.133	1.00	23.13	0.64
5.150	1.59	11.150	2.75	17.150	1.00	23.15	0.64
5.167	1.59	11.167	2.75	17.167	1.00	23.17	0.64
5.183	1.68	11.183	2.61	17.183	0.99	23.18	0.63
5.200	1.68	11.200	2.61	17.200	0.99	23.20	0.63
5.217	1.68	11.217	2.61	17.217	0.99	23.22	0.63
5.233	1.68	11.233	2.61	17.233	0.99	23.23	0.63
5.250	1.68	11.250	2.61	17.250	0.99	23.25	0.63
5.267	1.68	11.267	2.61	17.267	0.99	23.27	0.63
5.283	1.68	11.283	2.61	17.283	0.99	23.28	0.63
5.300	1.68	11.300	2.61	17.300	0.99	23.30	0.63

5.317	1.68	11.317	2.61	17.317	0.99	23.32	0.63
5.333	1.68	11.333	2.61	17.333	0.99	23.33	0.63
5.350	1.79	11.350	2.49	17.350	0.97	23.35	0.62
5.367	1.79	11.367	2.49	17.367	0.97	23.37	0.62
5.383	1.79	11.383	2.49	17.383	0.97	23.38	0.62
5.400	1.79	11.400	2.49	17.400	0.97	23.40	0.62
5.417	1.79	11.417	2.49	17.417	0.97	23.42	0.62
5.433	1.79	11.433	2.49	17.433	0.97	23.43	0.62
5.450	1.79	11.450	2.49	17.450	0.97	23.45	0.62
5.467	1.79	11.467	2.49	17.467	0.97	23.47	0.62
5.483	1.79	11.483	2.49	17.483	0.97	23.48	0.62
5.500	1.79	11.500	2.49	17.500	0.97	23.50	0.62
5.517	1.92	11.517	2.38	17.517	0.96	23.52	0.62
5.533	1.92	11.533	2.38	17.533	0.96	23.53	0.62
5.550	1.92	11.550	2.38	17.550	0.96	23.55	0.62
5.567	1.92	11.567	2.38	17.567	0.96	23.57	0.62
5.583	1.92	11.583	2.38	17.583	0.96	23.58	0.62
5.600	1.92	11.600	2.38	17.600	0.96	23.60	0.62
5.617	1.92	11.617	2.38	17.617	0.96	23.62	0.62
5.633	1.92	11.633	2.38	17.633	0.96	23.63	0.62
5.650	1.92	11.650	2.38	17.650	0.96	23.65	0.62
5.667	1.92	11.667	2.38	17.667	0.96	23.67	0.62
5.683	2.06	11.683	2.28	17.683	0.94	23.68	0.61
5.700	2.06	11.700	2.28	17.700	0.94	23.70	0.61
5.717	2.06	11.717	2.28	17.717	0.94	23.72	0.61
5.733	2.06	11.733	2.28	17.733	0.94	23.73	0.61
5.750	2.06	11.750	2.28	17.750	0.94	23.75	0.61
5.767	2.06	11.767	2.28	17.767	0.94	23.77	0.61
5.783	2.06	11.783	2.28	17.783	0.94	23.78	0.61
5.800	2.06	11.800	2.28	17.800	0.94	23.80	0.61
5.817	2.06	11.817	2.28	17.817	0.94	23.82	0.61
5.833	2.06	11.833	2.28	17.833	0.94	23.83	0.61
5.850	2.23	11.850	2.19	17.850	0.93	23.85	0.61
5.867	2.23	11.867	2.19	17.867	0.93	23.87	0.61
5.883	2.23	11.883	2.19	17.883	0.93	23.88	0.61
5.900	2.23	11.900	2.19	17.900	0.93	23.90	0.61
5.917	2.23	11.917	2.19	17.917	0.93	23.92	0.61
5.933	2.23	11.933	2.19	17.933	0.93	23.93	0.61
5.950	2.23	11.950	2.19	17.950	0.93	23.95	0.61
5.967	2.23	11.967	2.19	17.967	0.93	23.97	0.61
5.983	2.23	11.983	2.19	17.983	0.93	23.98	0.61
6.000	2.23	12.000	2.19	18.000	0.93	24.00	0.61

Max.Eff.Inten.(mm/hr)=	157.69	37.44	
over (min)	5.00	11.00	
Storage Coeff. (min)=	3.18 (ii)	10.43 (ii)	
Unit Hyd. Tpeak (min)=	5.00	11.00	
Unit Hyd. peak (cms)=	0.30	0.11	
			TOTALS
PEAK FLOW (cms)=	0.41	0.11	0.478 (iii)
TIME TO PEAK (hrs)=	8.00	8.15	8.02
RUNOFF VOLUME (mm)=	97.33	25.60	50.71

TOTAL RAINFALL (mm)= 98.33 98.33 98.33
RUNOFF COEFFICIENT = 0.99 0.26 0.52

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 48.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

DUHYD (0035)					
Inlet Cap.= 0.202					
#of Inlets= 1					
Total(cms)= 0.2		AREA	QPEAK	TPEAK	R.V.
		(ha)	(cms)	(hrs)	(mm)
TOTAL HYD.(ID= 1):		2.86	0.48	8.02	50.71
MAJOR SYS.(ID= 2):		0.40	0.28	8.02	50.71
MINOR SYS.(ID= 3):		2.45	0.20	7.88	50.71

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0102)					
1 + 2 = 3	AREA	QPEAK	TPEAK	R.V.	
	(ha)	(cms)	(hrs)	(mm)	
ID1= 1 (1021):	3.77	0.668	8.02	53.16	
+ ID2= 2 (0035):	0.40	0.276	8.02	50.71	
ID = 3 (0102):	4.18	0.943	8.02	52.92	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0903)					
1 + 2 = 3	AREA	QPEAK	TPEAK	R.V.	
	(ha)	(cms)	(hrs)	(mm)	
ID1= 1 (0102):	4.18	0.943	8.02	52.92	
+ ID2= 2 (0902):	17.87	4.474	8.03	53.11	
ID = 3 (0903):	22.04	5.408	8.03	53.08	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB					
NASHYD (1051)	Area	(ha)=	1.62	Curve Number	(CN)= 60.0

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

U.H. Tp(hrs)= 1.87

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	0.62	6.083	2.43	12.083	2.10	18.08	0.91
0.167	0.62	6.167	2.43	12.167	2.10	18.17	0.91
0.250	0.63	6.250	2.68	12.250	2.02	18.25	0.90
0.333	0.63	6.333	2.68	12.333	2.02	18.33	0.90
0.417	0.65	6.417	2.98	12.417	1.95	18.42	0.89
0.500	0.65	6.500	2.98	12.500	1.95	18.50	0.89
0.583	0.66	6.583	3.37	12.583	1.89	18.58	0.87
0.667	0.66	6.667	3.37	12.667	1.89	18.67	0.87
0.750	0.67	6.750	3.88	12.750	1.82	18.75	0.86
0.833	0.67	6.833	3.88	12.833	1.82	18.83	0.86
0.917	0.69	6.917	4.58	12.917	1.77	18.92	0.85
1.000	0.69	7.000	4.58	13.000	1.77	19.00	0.85
1.083	0.70	7.083	5.59	13.083	1.71	19.08	0.84
1.167	0.70	7.167	5.59	13.167	1.71	19.17	0.84
1.250	0.72	7.250	7.21	13.250	1.66	19.25	0.83
1.333	0.72	7.333	7.21	13.333	1.66	19.33	0.83
1.417	0.73	7.417	10.14	13.417	1.61	19.42	0.82
1.500	0.73	7.500	10.14	13.500	1.61	19.50	0.82
1.583	0.75	7.583	16.88	13.583	1.57	19.58	0.81
1.667	0.75	7.667	16.88	13.667	1.57	19.67	0.81
1.750	0.77	7.750	44.66	13.750	1.53	19.75	0.80
1.833	0.77	7.833	44.67	13.833	1.53	19.83	0.80
1.917	0.79	7.917	157.69	13.917	1.49	19.92	0.79
2.000	0.79	8.000	157.68	14.000	1.49	20.00	0.79
2.083	0.81	8.083	59.25	14.083	1.45	20.08	0.78
2.167	0.81	8.167	59.25	14.167	1.45	20.17	0.78
2.250	0.83	8.250	30.14	14.250	1.41	20.25	0.77
2.333	0.83	8.333	30.14	14.333	1.41	20.33	0.77
2.417	0.85	8.417	19.54	14.417	1.38	20.42	0.76
2.500	0.85	8.500	19.54	14.500	1.38	20.50	0.76
2.583	0.88	8.583	14.26	14.583	1.35	20.58	0.75
2.667	0.88	8.667	14.26	14.667	1.35	20.67	0.75
2.750	0.90	8.750	11.16	14.750	1.32	20.75	0.74
2.833	0.90	8.833	11.16	14.833	1.32	20.83	0.74
2.917	0.93	8.917	9.15	14.917	1.29	20.92	0.73
3.000	0.93	9.000	9.15	15.000	1.29	21.00	0.73
3.083	0.96	9.083	7.74	15.083	1.26	21.08	0.72
3.167	0.96	9.167	7.74	15.167	1.26	21.17	0.72
3.250	0.99	9.250	6.70	15.250	1.23	21.25	0.71
3.333	0.99	9.333	6.70	15.333	1.23	21.33	0.71
3.417	1.03	9.417	5.91	15.417	1.21	21.42	0.71
3.500	1.03	9.500	5.91	15.500	1.21	21.50	0.71
3.583	1.06	9.583	5.29	15.583	1.18	21.58	0.70

3.667	1.06	9.667	5.29	15.667	1.18	21.67	0.70
3.750	1.10	9.750	4.79	15.750	1.16	21.75	0.69
3.833	1.10	9.833	4.79	15.833	1.16	21.83	0.69
3.917	1.15	9.917	4.38	15.917	1.14	21.92	0.68
4.000	1.15	10.000	4.38	16.000	1.14	22.00	0.68
4.083	1.19	10.083	4.03	16.083	1.12	22.08	0.68
4.167	1.19	10.167	4.03	16.167	1.12	22.17	0.68
4.250	1.24	10.250	3.74	16.250	1.09	22.25	0.67
4.333	1.24	10.333	3.74	16.333	1.09	22.33	0.67
4.417	1.30	10.417	3.48	16.417	1.08	22.42	0.66
4.500	1.30	10.500	3.48	16.500	1.08	22.50	0.66
4.583	1.36	10.583	3.26	16.583	1.06	22.58	0.66
4.667	1.36	10.667	3.26	16.667	1.06	22.67	0.66
4.750	1.43	10.750	3.07	16.750	1.04	22.75	0.65
4.833	1.43	10.833	3.07	16.833	1.04	22.83	0.65
4.917	1.50	10.917	2.90	16.917	1.02	22.92	0.64
5.000	1.50	11.000	2.90	17.000	1.02	23.00	0.64
5.083	1.59	11.083	2.75	17.083	1.00	23.08	0.64
5.167	1.59	11.167	2.75	17.167	1.00	23.17	0.64
5.250	1.68	11.250	2.61	17.250	0.99	23.25	0.63
5.333	1.68	11.333	2.61	17.333	0.99	23.33	0.63
5.417	1.79	11.417	2.49	17.417	0.97	23.42	0.62
5.500	1.79	11.500	2.49	17.500	0.97	23.50	0.62
5.583	1.92	11.583	2.38	17.583	0.96	23.58	0.62
5.667	1.92	11.667	2.38	17.667	0.96	23.67	0.62
5.750	2.06	11.750	2.28	17.750	0.94	23.75	0.61
5.833	2.06	11.833	2.28	17.833	0.94	23.83	0.61
5.917	2.23	11.917	2.19	17.917	0.93	23.92	0.61
6.000	2.23	12.000	2.19	18.000	0.93	24.00	0.61

Unit Hyd Qpeak (cms)= 0.033

PEAK FLOW (cms)= 0.027 (i)
TIME TO PEAK (hrs)= 10.250
RUNOFF VOLUME (mm)= 33.162
TOTAL RAINFALL (mm)= 98.335
RUNOFF COEFFICIENT = 0.337

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

ADD HYD (0105)					
1 + 2 = 3	AREA	QPEAK	TPEAK	R.V.	
	(ha)	(cms)	(hrs)	(mm)	
ID1= 1 (1051):	1.62	0.027	10.25	33.16	
+ ID2= 2 (0037):	0.27	0.146	8.02	43.62	
ID = 3 (0105):	1.90	0.147	8.02	34.67	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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| ADD HYD  (  0906)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
--------------------        (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0105):    1.90   0.147     8.02    34.67
     + ID2= 2 (  0903):   22.04   5.408     8.03    53.08
       ================================================
       ID = 3 (  0906):   23.94   5.553     8.03    51.62

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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| CALIB            |
| NASHYD   (  0201)|  Area    (ha)=   6.97   Curve Number   (CN)= 66.0
|ID= 1 DT= 5.0 min |  Ia      (mm)=   5.00   # of Linear Res.(N)= 3.00
-------------------  U.H. Tp(hrs)=   0.74

        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    0.62 | 6.083    2.43 |12.083    2.10 | 18.08    0.91
 0.167    0.62 | 6.167    2.43 |12.167    2.10 | 18.17    0.91
 0.250    0.63 | 6.250    2.68 |12.250    2.02 | 18.25    0.90
 0.333    0.63 | 6.333    2.68 |12.333    2.02 | 18.33    0.90
 0.417    0.65 | 6.417    2.98 |12.417    1.95 | 18.42    0.89
 0.500    0.65 | 6.500    2.98 |12.500    1.95 | 18.50    0.89
 0.583    0.66 | 6.583    3.37 |12.583    1.89 | 18.58    0.87
 0.667    0.66 | 6.667    3.37 |12.667    1.89 | 18.67    0.87
 0.750    0.67 | 6.750    3.88 |12.750    1.82 | 18.75    0.86
 0.833    0.67 | 6.833    3.88 |12.833    1.82 | 18.83    0.86
 0.917    0.69 | 6.917    4.58 |12.917    1.77 | 18.92    0.85
 1.000    0.69 | 7.000    4.58 |13.000    1.77 | 19.00    0.85
 1.083    0.70 | 7.083    5.59 |13.083    1.71 | 19.08    0.84
 1.167    0.70 | 7.167    5.59 |13.167    1.71 | 19.17    0.84
 1.250    0.72 | 7.250    7.21 |13.250    1.66 | 19.25    0.83
 1.333    0.72 | 7.333    7.21 |13.333    1.66 | 19.33    0.83
 1.417    0.73 | 7.417   10.14 |13.417    1.61 | 19.42    0.82
 1.500    0.73 | 7.500   10.14 |13.500    1.61 | 19.50    0.82
 1.583    0.75 | 7.583   16.88 |13.583    1.57 | 19.58    0.81
 1.667    0.75 | 7.667   16.88 |13.667    1.57 | 19.67    0.81
 1.750    0.77 | 7.750   44.66 |13.750    1.53 | 19.75    0.80
 1.833    0.77 | 7.833   44.67 |13.833    1.53 | 19.83    0.80
 1.917    0.79 | 7.917  157.69 |13.917    1.49 | 19.92    0.79
 2.000    0.79 | 8.000  157.68 |14.000    1.49 | 20.00    0.79
 2.083    0.81 | 8.083   59.25 |14.083    1.45 | 20.08    0.78
 2.167    0.81 | 8.167   59.25 |14.167    1.45 | 20.17    0.78
 2.250    0.83 | 8.250   30.14 |14.250    1.41 | 20.25    0.77
 2.333    0.83 | 8.333   30.14 |14.333    1.41 | 20.33    0.77
 2.417    0.85 | 8.417   19.54 |14.417    1.38 | 20.42    0.76
 2.500    0.85 | 8.500   19.54 |14.500    1.38 | 20.50    0.76
 2.583    0.88 | 8.583   14.26 |14.583    1.35 | 20.58    0.75
 2.667    0.88 | 8.667   14.26 |14.667    1.35 | 20.67    0.75
 2.750    0.90 | 8.750   11.16 |14.750    1.32 | 20.75    0.74
 2.833    0.90 | 8.833   11.16 |14.833    1.32 | 20.83    0.74
 2.917    0.93 | 8.917    9.15 |14.917    1.29 | 20.92    0.73
 3.000    0.93 | 9.000    9.15 |15.000    1.29 | 21.00    0.73
 3.083    0.96 | 9.083    7.74 |15.083    1.26 | 21.08    0.72
 3.167    0.96 | 9.167    7.74 |15.167    1.26 | 21.17    0.72
 3.250    0.99 | 9.250    6.70 |15.250    1.23 | 21.25    0.71
 3.333    0.99 | 9.333    6.70 |15.333    1.23 | 21.33    0.71
 3.417    1.03 | 9.417    5.91 |15.417    1.21 | 21.42    0.71
 3.500    1.03 | 9.500    5.91 |15.500    1.21 | 21.50    0.71
 3.583    1.06 | 9.583    5.29 |15.583    1.18 | 21.58    0.70
 3.667    1.06 | 9.667    5.29 |15.667    1.18 | 21.67    0.70
 3.750    1.10 | 9.750    4.79 |15.750    1.16 | 21.75    0.69
 3.833    1.10 | 9.833    4.79 |15.833    1.16 | 21.83    0.69
 3.917    1.15 | 9.917    4.38 |15.917    1.14 | 21.92    0.68
 4.000    1.15 |10.000    4.38 |16.000    1.14 | 22.00    0.68
 4.083    1.19 |10.083    4.03 |16.083    1.12 | 22.08    0.68
 4.167    1.19 |10.167    4.03 |16.167    1.12 | 22.17    0.68
 4.250    1.24 |10.250    3.74 |16.250    1.09 | 22.25    0.67
 4.333    1.24 |10.333    3.74 |16.333    1.09 | 22.33    0.67
 4.417    1.30 |10.417    3.48 |16.417    1.08 | 22.42    0.66
 4.500    1.30 |10.500    3.48 |16.500    1.08 | 22.50    0.66
 4.583    1.36 |10.583    3.26 |16.583    1.06 | 22.58    0.66
 4.667    1.36 |10.667    3.26 |16.667    1.06 | 22.67    0.66
 4.750    1.43 |10.750    3.07 |16.750    1.04 | 22.75    0.65
 4.833    1.43 |10.833    3.07 |16.833    1.04 | 22.83    0.65
 4.917    1.50 |10.917    2.90 |16.917    1.02 | 22.92    0.64
 5.000    1.50 |11.000    2.90 |17.000    1.02 | 23.00    0.64
 5.083    1.59 |11.083    2.75 |17.083    1.00 | 23.08    0.64
 5.167    1.59 |11.167    2.75 |17.167    1.00 | 23.17    0.64
 5.250    1.68 |11.250    2.61 |17.250    0.99 | 23.25    0.63
 5.333    1.68 |11.333    2.61 |17.333    0.99 | 23.33    0.63
 5.417    1.79 |11.417    2.49 |17.417    0.97 | 23.42    0.62
 5.500    1.79 |11.500    2.49 |17.500    0.97 | 23.50    0.62
 5.583    1.92 |11.583    2.38 |17.583    0.96 | 23.58    0.62
 5.667    1.92 |11.667    2.38 |17.667    0.96 | 23.67    0.62
 5.750    2.06 |11.750    2.28 |17.750    0.94 | 23.75    0.61
 5.833    2.06 |11.833    2.28 |17.833    0.94 | 23.83    0.61
 5.917    2.23 |11.917    2.19 |17.917    0.93 | 23.92    0.61
 6.000    2.23 |12.000    2.19 |18.000    0.93 | 24.00    0.61

    Unit Hyd Qpeak  (cms)=   0.111

    PEAK FLOW       (cms)=   0.098 (i)
    TIME TO PEAK    (hrs)=   9.083
    RUNOFF VOLUME    (mm)=  40.924
    TOTAL RAINFALL   (mm)=  98.335
    RUNOFF COEFFICIENT   =   0.416

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

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| ADD HYD  (  0904)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
--------------------        (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0201):    6.97   0.280     8.83    38.86
     + ID2= 2 (  0202):    2.71   0.098     9.08    40.92
       ================================================
       ID = 3 (  0904):    9.68   0.374     8.92    39.44

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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| CALIB            |
| NASHYD   (  0203)|  Area    (ha)=  34.30   Curve Number   (CN)= 42.0
|ID= 1 DT= 5.0 min |  Ia      (mm)=   5.00   # of Linear Res.(N)= 3.00
-------------------  U.H. Tp(hrs)=   1.40

        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    0.62 | 6.083    2.43 |12.083    2.10 | 18.08    0.91
 0.167    0.62 | 6.167    2.43 |12.167    2.10 | 18.17    0.91
 0.250    0.63 | 6.250    2.68 |12.250    2.02 | 18.25    0.90
 0.333    0.63 | 6.333    2.68 |12.333    2.02 | 18.33    0.90
 0.417    0.65 | 6.417    2.98 |12.417    1.95 | 18.42    0.89
 0.500    0.65 | 6.500    2.98 |12.500    1.95 | 18.50    0.89
 0.583    0.66 | 6.583    3.37 |12.583    1.89 | 18.58    0.87
 0.667    0.66 | 6.667    3.37 |12.667    1.89 | 18.67    0.87
 0.750    0.67 | 6.750    3.88 |12.750    1.82 | 18.75    0.86
 0.833    0.67 | 6.833    3.88 |12.833    1.82 | 18.83    0.86
 0.917    0.69 | 6.917    4.58 |12.917    1.77 | 18.92    0.85
 1.000    0.69 | 7.000    4.58 |13.000    1.77 | 19.00    0.85
 1.083    0.70 | 7.083    5.59 |13.083    1.71 | 19.08    0.84
 1.167    0.70 | 7.167    5.59 |13.167    1.71 | 19.17    0.84
 1.250    0.72 | 7.250    7.21 |13.250    1.66 | 19.25    0.83
 1.333    0.72 | 7.333    7.21 |13.333    1.66 | 19.33    0.83
 1.417    0.73 | 7.417   10.14 |13.417    1.61 | 19.42    0.82
 1.500    0.73 | 7.500   10.14 |13.500    1.61 | 19.50    0.82
 1.583    0.75 | 7.583   16.88 |13.583    1.57 | 19.58    0.81
 1.667    0.75 | 7.667   16.88 |13.667    1.57 | 19.67    0.81
 1.750    0.77 | 7.750   44.66 |13.750    1.53 | 19.75    0.80
 1.833    0.77 | 7.833   44.67 |13.833    1.53 | 19.83    0.80
 1.917    0.79 | 7.917  157.69 |13.917    1.49 | 19.92    0.79
 2.000    0.79 | 8.000  157.68 |14.000    1.49 | 20.00    0.79
 2.083    0.81 | 8.083   59.25 |14.083    1.45 | 20.08    0.78
 2.167    0.81 | 8.167   59.25 |14.167    1.45 | 20.17    0.78
 2.250    0.83 | 8.250   30.14 |14.250    1.41 | 20.25    0.77
 2.333    0.83 | 8.333   30.14 |14.333    1.41 | 20.33    0.77
 2.417    0.85 | 8.417   19.54 |14.417    1.38 | 20.42    0.76
 2.500    0.85 | 8.500   19.54 |14.500    1.38 | 20.50    0.76
 2.583    0.88 | 8.583   14.26 |14.583    1.35 | 20.58    0.75
 2.667    0.88 | 8.667   14.26 |14.667    1.35 | 20.67    0.75
 2.750    0.90 | 8.750   11.16 |14.750    1.32 | 20.75    0.74
 2.833    0.90 | 8.833   11.16 |14.833    1.32 | 20.83    0.74
 2.917    0.93 | 8.917    9.15 |14.917    1.29 | 20.92    0.73
 3.000    0.93 | 9.000    9.15 |15.000    1.29 | 21.00    0.73
 3.083    0.96 | 9.083    7.74 |15.083    1.26 | 21.08    0.72
 3.167    0.96 | 9.167    7.74 |15.167    1.26 | 21.17    0.72
 3.250    0.99 | 9.250    6.70 |15.250    1.23 | 21.25    0.71
 3.333    0.99 | 9.333    6.70 |15.333    1.23 | 21.33    0.71
 3.417    1.03 | 9.417    5.91 |15.417    1.21 | 21.42    0.71
 3.500    1.03 | 9.500    5.91 |15.500    1.21 | 21.50    0.71
 3.583    1.06 | 9.583    5.29 |15.583    1.18 | 21.58    0.70
 3.667    1.06 | 9.667    5.29 |15.667    1.18 | 21.67    0.70
 3.750    1.10 | 9.750    4.79 |15.750    1.16 | 21.75    0.69
 3.833    1.10 | 9.833    4.79 |15.833    1.16 | 21.83    0.69
 3.917    1.15 | 9.917    4.38 |15.917    1.14 | 21.92    0.68
 4.000    1.15 |10.000    4.38 |16.000    1.14 | 22.00    0.68
 4.083    1.19 |10.083    4.03 |16.083    1.12 | 22.08    0.68
 4.167    1.19 |10.167    4.03 |16.167    1.12 | 22.17    0.68
 4.250    1.24 |10.250    3.74 |16.250    1.09 | 22.25    0.67
 4.333    1.24 |10.333    3.74 |16.333    1.09 | 22.33    0.67
 4.417    1.30 |10.417    3.48 |16.417    1.08 | 22.42    0.66
 4.500    1.30 |10.500    3.48 |16.500    1.08 | 22.50    0.66
 4.583    1.36 |10.583    3.26 |16.583    1.06 | 22.58    0.66
 4.667    1.36 |10.667    3.26 |16.667    1.06 | 22.67    0.66
 4.750    1.43 |10.750    3.07 |16.750    1.04 | 22.75    0.65
 4.833    1.43 |10.833    3.07 |16.833    1.04 | 22.83    0.65
 4.917    1.50 |10.917    2.90 |16.917    1.02 | 22.92    0.64
 5.000    1.50 |11.000    2.90 |17.000    1.02 | 23.00    0.64
 5.083    1.59 |11.083    2.75 |17.083    1.00 | 23.08    0.64
 5.167    1.59 |11.167    2.75 |17.167    1.00 | 23.17    0.64
 5.250    1.68 |11.250    2.61 |17.250    0.99 | 23.25    0.63
 5.333    1.68 |11.333    2.61 |17.333    0.99 | 23.33    0.63
 5.417    1.79 |11.417    2.49 |17.417    0.97 | 23.42    0.62
 5.500    1.79 |11.500    2.49 |17.500    0.97 | 23.50    0.62
 5.583    1.92 |11.583    2.38 |17.583    0.96 | 23.58    0.62
 5.667    1.92 |11.667    2.38 |17.667    0.96 | 23.67    0.62
 5.750    2.06 |11.750    2.28 |17.750    0.94 | 23.75    0.61
 5.833    2.06 |11.833    2.28 |17.833    0.94 | 23.83    0.61
 5.917    2.23 |11.917    2.19 |17.917    0.93 | 23.92    0.61
 6.000    2.23 |12.000    2.19 |18.000    0.93 | 24.00    0.61

    Unit Hyd Qpeak  (cms)=   0.360

    PEAK FLOW       (cms)=   0.280 (i)
    TIME TO PEAK    (hrs)=   8.833
    RUNOFF VOLUME    (mm)=  38.858
    TOTAL RAINFALL   (mm)=  98.335

    RUNOFF COEFFICIENT   =   0.395

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

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| CALIB            |
| NASHYD   (  0202)|  Area    (ha)=   2.71   Curve Number   (CN)= 68.0
|ID= 1 DT= 5.0 min |  Ia      (mm)=   5.00   # of Linear Res.(N)= 3.00
-------------------  U.H. Tp(hrs)=   0.93

        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    0.62 | 6.083    2.43 |12.083    2.10 | 18.08    0.91
 0.167    0.62 | 6.167    2.43 |12.167    2.10 | 18.17    0.91
 0.250    0.63 | 6.250    2.68 |12.250    2.02 | 18.25    0.90
 0.333    0.63 | 6.333    2.68 |12.333    2.02 | 18.33    0.90
 0.417    0.65 | 6.417    2.98 |12.417    1.95 | 18.42    0.89
 0.500    0.65 | 6.500    2.98 |12.500    1.95 | 18.50    0.89
 0.583    0.66 | 6.583    3.37 |12.583    1.89 | 18.58    0.87
 0.667    0.66 | 6.667    3.37 |12.667    1.89 | 18.67    0.87
 0.750    0.67 | 6.750    3.88 |12.750    1.82 | 18.75    0.86
 0.833    0.67 | 6.833    3.88 |12.833    1.82 | 18.83    0.86
 0.917    0.69 | 6.917    4.58 |12.917    1.77 | 18.92    0.85
 1.000    0.69 | 7.000    4.58 |13.000    1.77 | 19.00    0.85
 1.083    0.70 | 7.083    5.59 |13.083    1.71 | 19.08    0.84
 1.167    0.70 | 7.167    5.59 |13.167    1.71 | 19.17    0.84
 1.250    0.72 | 7.250    7.21 |13.250    1.66 | 19.25    0.83
 1.333    0.72 | 7.333    7.21 |13.333    1.66 | 19.33    0.83
 1.417    0.73 | 7.417   10.14 |13.417    1.61 | 19.42    0.82
 1.500    0.73 | 7.500   10.14 |13.500    1.61 | 19.50    0.82
 1.583    0.75 | 7.583   16.88 |13.583    1.57 | 19.58    0.81
 1.667    0.75 | 7.667   16.88 |13.667    1.57 | 19.67    0.81
 1.750    0.77 | 7.750   44.66 |13.750    1.53 | 19.75    0.80
 1.833    0.77 | 7.833   44.67 |13.833    1.53 | 19.83    0.80
 1.917    0.79 | 7.917  157.69 |13.917    1.49 | 19.92    0.79
 2.000    0.79 | 8.000  157.68 |14.000    1.49 | 20.00    0.79
 2.083    0.81 | 8.083   59.25 |14.083    1.45 | 20.08    0.78
 2.167    0.81 | 8.167   59.25 |14.167    1.45 | 20.17    0.78
 2.250    0.83 | 8.250   30.14 |14.250    1.41 | 20.25    0.77
 2.333    0.83 | 8.333   30.14 |14.333    1.41 | 20.33    0.77
 2.417    0.85 | 8.417   19.54 |14.417    1.38 | 20.42    0.76
 2.500    0.85 | 8.500   19.54 |14.500    1.38 | 20.50    0.76
 2.583    0.88 | 8.583   14.26 |14.583    1.35 | 20.58    0.75
 2.667    0.88 | 8.667   14.26 |14.667    1.35 | 20.67    0.75
 2.750    0.90 | 8.750   11.16 |14.750    1.32 | 20.75    0.74
 2.833    0.90 | 8.833   11.16 |14.833    1.32 | 20.83    0.74
 2.917    0.93 | 8.917    9.15 |14.917    1.29 | 20.92    0.73
 3.000    0.93 | 9.000    9.15 |15.000    1.29 | 21.00    0.73
 3.083    0.96 | 9.083    7.74 |15.083    1.26 | 21.08    0.72
 3.167    0.96 | 9.167    7.74 |15.167    1.26 | 21.17    0.72
 3.250    0.99 | 9.250    6.70 |15.250    1.23 | 21.25    0.71
 3.333    0.99 | 9.333    6.70 |15.333    1.23 | 21.33    0.71
 3.417    1.03 | 9.417    5.91 |15.417    1.21 | 21.42    0.71
 3.500    1.03 | 9.500    5.91 |15.500    1.21 | 21.50    0.71
 3.583    1.06 | 9.583    5.29 |15.583    1.18 | 21.58    0.70
 3.667    1.06 | 9.667    5.29 |15.667    1.18 | 21.67    0.70
 3.750    1.10 | 9.750    4.79 |15.750    1.16 | 21.75    0.69
 3.833    1.10 | 9.833    4.79 |15.833    1.16 | 21.83    0.69
 3.917    1.15 | 9.917    4.38 |15.917    1.14 | 21.92    0.68
 4.000    1.15 |10.000    4.38 |16.000    1.14 | 22.00    0.68
 4.083    1.19 |10.083    4.03 |16.083    1.12 | 22.08    0.68
 4.167    1.19 |10.167    4.03 |16.167    1.12 | 22.17    0.68
 4.250    1.24 |10.250    3.74 |16.250    1.09 | 22.25    0.67
 4.333    1.24 |10.333    3.74 |16.333    1.09 | 22.33    0.67
 4.417    1.30 |10.417    3.48 |16.417    1.08 | 22.42    0.66
 4.500    1.30 |10.500    3.48 |16.500    1.08 | 22.50    0.66
 4.583    1.36 |10.583    3.26 |16.583    1.06 | 22.58    0.66
 4.667    1.36 |10.667    3.26 |16.667    1.06 | 22.67    0.66
 4.750    1.43 |10.750    3.07 |16.750    1.04 | 22.75    0.65
 4.833    1.43 |10.833    3.07 |16.833    1.04 | 22.83    0.65
 4.917    1.50 |10.917    2.90 |16.917    1.02 | 22.92    0.64
 5.000    1.50 |11.000    2.90 |17.000    1.02 | 23.00    0.64
 5.083    1.59 |11.083    2.75 |17.083    1.00 | 23.08    0.64
 5.167    1.59 |11.167    2.75 |17.167    1.00 | 23.17    0.64
 5.250    1.68 |11.250    2.61 |17.250    0.99 | 23.25    0.63
 5.333    1.68 |11.333    2.61 |17.333    0.99 | 23.33    0.63
 5.417    1.79 |11.417    2.49 |17.417    0.97 | 23.42    0.62
 5.500    1.79 |11.500    2.49 |17.500    0.97 | 23.50    0.62
 5.583    1.92 |11.583    2.38 |17.583    0.96 | 23.58    0.62
 5.667    1.92 |11.667    2.38 |17.667    0.96 | 23.67    0.62
 5.750    2.06 |11.750    2.28 |17.750    0.94 | 23.75    0.61
 5.833    2.06 |11.833    2.28 |17.833    0.94 | 23.83    0.61
 5.917    2.23 |11.917    2.19 |17.917    0.93 | 23.92    0.61
 6.000    2.23 |12.000    2.19 |18.000    0.93 | 24.00    0.61

    Unit Hyd Qpeak  (cms)=   0.936

    PEAK FLOW       (cms)=   0.410 (i)
    TIME TO PEAK    (hrs)=   9.750
    RUNOFF VOLUME    (mm)=  19.616
    TOTAL RAINFALL   (mm)=  98.335
    RUNOFF COEFFICIENT   =   0.199

    (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
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| ADD HYD  (  0905)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
-------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0203):    34.30   0.410     9.75    19.62
     + ID2= 2 (  0904):     9.68   0.374     8.92    39.44
       ================================================
       ID = 3 (  0905):    43.98   0.720     9.25    23.98

   NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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  | Junction Command(0907) |
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                          AREA     QPEAK   TPEAK     R.V.
                          (ha)     (cms)   (hrs)     (mm)
  INFLOW : ID= 1(  0905)   43.98     0.72    9.25    23.98
  OUTFLOW: ID= 2(  0907)   43.98     0.72    9.25    23.98

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| ADD HYD  (  0908)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
-------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0906):    23.94   5.553     8.03    51.62
     + ID2= 2 (  0907):    43.98   0.720     9.25    23.98
       ================================================
       ID = 3 (  0908):    67.92   5.645     8.03    33.72

   NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF AN
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-------------------
| CALIB            |
| NASHYD   (  0204)|   Area     (ha)=   0.40   Curve Number   (CN)= 67.0
|ID= 1 DT= 5.0 min |   Ia       (mm)=   5.00   # 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    0.62 | 6.083    2.43 |12.083    2.10 | 18.08    0.91
         0.167    0.62 | 6.167    2.43 |12.167    2.10 | 18.17    0.91
         0.250    0.63 | 6.250    2.68 |12.250    2.02 | 18.25    0.90
         0.333    0.63 | 6.333    2.68 |12.333    2.02 | 18.33    0.90
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         0.417    0.65 | 6.417    2.98 |12.417    1.95 | 18.42    0.89
         0.500    0.65 | 6.500    2.98 |12.500    1.95 | 18.50    0.89
         0.583    0.66 | 6.583    3.37 |12.583    1.89 | 18.58    0.87
         0.667    0.66 | 6.667    3.37 |12.667    1.89 | 18.67    0.87
         0.750    0.67 | 6.750    3.88 |12.750    1.82 | 18.75    0.86
         0.833    0.67 | 6.833    3.88 |12.833    1.82 | 18.83    0.86
         0.917    0.69 | 6.917    4.58 |12.917    1.77 | 18.92    0.85
         1.000    0.69 | 7.000    4.58 |13.000    1.77 | 19.00    0.85
         1.083    0.70 | 7.083    5.59 |13.083    1.71 | 19.08    0.84
         1.167    0.70 | 7.167    5.59 |13.167    1.71 | 19.17    0.84
         1.250    0.72 | 7.250    7.21 |13.250    1.66 | 19.25    0.83
         1.333    0.72 | 7.333    7.21 |13.333    1.66 | 19.33    0.83
         1.417    0.73 | 7.417   10.14 |13.417    1.61 | 19.42    0.82
         1.500    0.73 | 7.500   10.14 |13.500    1.61 | 19.50    0.82
         1.583    0.75 | 7.583   16.88 |13.583    1.57 | 19.58    0.81
         1.667    0.75 | 7.667   16.88 |13.667    1.57 | 19.67    0.81
         1.750    0.77 | 7.750   44.66 |13.750    1.53 | 19.75    0.80
         1.833    0.77 | 7.833   44.67 |13.833    1.53 | 19.83    0.80
         1.917    0.79 | 7.917  157.69 |13.917    1.49 | 19.92    0.79
         2.000    0.79 | 8.000  157.68 |14.000    1.49 | 20.00    0.79
         2.083    0.81 | 8.083   59.25 |14.083    1.45 | 20.08    0.78
         2.167    0.81 | 8.167   59.25 |14.167    1.45 | 20.17    0.78
         2.250    0.83 | 8.250   30.14 |14.250    1.41 | 20.25    0.77
         2.333    0.83 | 8.333   30.14 |14.333    1.41 | 20.33    0.77
         2.417    0.85 | 8.417   19.54 |14.417    1.38 | 20.42    0.76
         2.500    0.85 | 8.500   19.54 |14.500    1.38 | 20.50    0.76
         2.583    0.88 | 8.583   14.26 |14.583    1.35 | 20.58    0.75
         2.667    0.88 | 8.667   14.26 |14.667    1.35 | 20.67    0.75
         2.750    0.90 | 8.750   11.16 |14.750    1.32 | 20.75    0.74
         2.833    0.90 | 8.833   11.16 |14.833    1.32 | 20.83    0.74
         2.917    0.93 | 8.917    9.15 |14.917    1.29 | 20.92    0.73
         3.000    0.93 | 9.000    9.15 |15.000    1.29 | 21.00    0.73
         3.083    0.96 | 9.083    7.74 |15.083    1.26 | 21.08    0.72
         3.167    0.96 | 9.167    7.74 |15.167    1.26 | 21.17    0.72
         3.250    0.99 | 9.250    6.70 |15.250    1.23 | 21.25    0.71
         3.333    0.99 | 9.333    6.70 |15.333    1.23 | 21.33    0.71
         3.417    1.03 | 9.417    5.91 |15.417    1.21 | 21.42    0.71
         3.500    1.03 | 9.500    5.91 |15.500    1.21 | 21.50    0.71
         3.583    1.06 | 9.583    5.29 |15.583    1.18 | 21.58    0.70
         3.667    1.06 | 9.667    5.29 |15.667    1.18 | 21.67    0.70
         3.750    1.10 | 9.750    4.79 |15.750    1.16 | 21.75    0.69
         3.833    1.10 | 9.833    4.79 |15.833    1.16 | 21.83    0.69
         3.917    1.15 | 9.917    4.38 |15.917    1.14 | 21.92    0.68
         4.000    1.15 |10.000    4.38 |16.000    1.14 | 22.00    0.68
         4.083    1.19 |10.083    4.03 |16.083    1.12 | 22.08    0.68
         4.167    1.19 |10.167    4.03 |16.167    1.12 | 22.17    0.68
         4.250    1.24 |10.250    3.74 |16.250    1.09 | 22.25    0.67
         4.333    1.24 |10.333    3.74 |16.333    1.09 | 22.33    0.67
         4.417    1.30 |10.417    3.48 |16.417    1.08 | 22.42    0.66
         4.500    1.30 |10.500    3.48 |16.500    1.08 | 22.50    0.66
         4.583    1.36 |10.583    3.26 |16.583    1.06 | 22.58    0.66
         4.667    1.36 |10.667    3.26 |16.667    1.06 | 22.67    0.66
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         4.750    1.43 |10.750    3.07 |16.750    1.04 | 22.75    0.65
         4.833    1.43 |10.833    3.07 |16.833    1.04 | 22.83    0.65
         4.917    1.50 |10.917    2.90 |16.917    1.02 | 22.92    0.64
         5.000    1.50 |11.000    2.90 |17.000    1.02 | 23.00    0.64
         5.083    1.59 |11.083    2.75 |17.083    1.00 | 23.08    0.64
         5.167    1.59 |11.167    2.75 |17.167    1.00 | 23.17    0.64
         5.250    1.68 |11.250    2.61 |17.250    0.99 | 23.25    0.63
         5.333    1.68 |11.333    2.61 |17.333    0.99 | 23.33    0.63
         5.417    1.79 |11.417    2.49 |17.417    0.97 | 23.42    0.62
         5.500    1.79 |11.500    2.49 |17.500    0.97 | 23.50    0.62
         5.583    1.92 |11.583    2.38 |17.583    0.96 | 23.58    0.62
         5.667    1.92 |11.667    2.38 |17.667    0.96 | 23.67    0.62
         5.750    2.06 |11.750    2.28 |17.750    0.94 | 23.75    0.61
         5.833    2.06 |11.833    2.28 |17.833    0.94 | 23.83    0.61
         5.917    2.23 |11.917    2.19 |17.917    0.93 | 23.92    0.61
         6.000    2.23 |12.000    2.19 |18.000    0.93 | 24.00    0.61

     Unit Hyd Qpeak  (cms)=   0.054

     PEAK FLOW       (cms)=   0.031 (i)
     TIME TO PEAK    (hrs)=   8.250
     RUNOFF VOLUME    (mm)=  39.858
     TOTAL RAINFALL   (mm)=  98.335
     RUNOFF COEFFICIENT   =   0.405

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

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

-------------------
| ADD HYD  (  0909)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
-------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0204):     0.40   0.031     8.25    39.86
     + ID2= 2 (  0908):    67.92   5.645     8.03    33.72
       ================================================
       ID = 3 (  0909):    68.31   5.663     8.03    33.76

   NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
--------------------------------------------------------------------------------
-------------------
| RESERVOIR(  0052)|     OVERFLOW IS ON
| IN= 2---> OUT= 1 |
| DT=  1.0 min     |     OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
-------------------      (cms)     (ha.m.)   |   (cms)     (ha.m.)
                         0.0000    0.0001    |  0.5350     0.0405
                         0.4630    0.0006    |  0.5440     0.0566
                         0.4740    0.0013    |  0.5540     0.0775
                         0.4840    0.0030    |  0.5630     0.1069
                         0.4950    0.0056    |  0.5720     0.1342
                         0.5050    0.0102    |  0.5810     0.1635
                         0.5150    0.0163    |  0.5900     0.1967
```

```
                      0.5250     0.0270   |   0.5980      0.2362

                           AREA     QPEAK     TPEAK       R.V.
                           (ha)     (cms)     (hrs)       (mm)
  INFLOW : ID= 2 (  0909)     68.312      5.663      8.03      33.76
  OUTFLOW: ID= 1 (  0052)     51.448      0.598      8.07      33.82
  OVERFLOW:ID= 3 (  0003)     16.865      5.169      8.07      33.82

                TOTAL NUMBER OF SIMULATION OVERFLOW  =   157
                CUMULATIVE TIME OF OVERFLOW  (HOURS) =  2.62
                PERCENTAGE OF TIME OVERFLOWING   (%) =  8.06

                PEAK   FLOW   REDUCTION [Qout/Qin](%)= 10.56
                TIME SHIFT OF PEAK FLOW       (min)=  2.00
                MAXIMUM  STORAGE   USED       (ha.m.)=  0.2362

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  -------------------------
  | Junction Command(0048) |
  -------------------------

                          AREA     QPEAK   TPEAK     R.V.
                          (ha)     (cms)   (hrs)     (mm)
  INFLOW : ID= 1(  0052)   51.45     0.60    8.07    33.82
  OUTFLOW: ID= 2(  0048)   51.45     0.60    8.07    33.82

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

  -------------------------
  | Junction Command(0053) |
  -------------------------

                          AREA     QPEAK   TPEAK     R.V.
                          (ha)     (cms)   (hrs)     (mm)
  INFLOW : ID= 3(  0052)   16.86     5.17    8.07    33.82
  OUTFLOW: ID= 2(  0053)   16.86     5.17    8.07    33.82

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

-------------------
| ADD HYD  (  0051)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
-------------------          (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0048):    51.45   0.598     8.07    33.82
     + ID2= 2 (  0053):    16.86   5.169     8.07    33.82
       ================================================
       ID = 3 (  0051):    68.31   5.767     8.07    33.82

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

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  -------------------------
  | Junction Command(0036) |
  -------------------------

                          AREA     QPEAK   TPEAK     R.V.
                          (ha)     (cms)   (hrs)     (mm)
  INFLOW : ID= 9(  0035)    2.45     0.20    7.88    50.71
  OUTFLOW: ID= 2(  0036)    2.45     0.20    7.88    50.71

  --------------------------------------------------------------------------------
================================================================================
========================

      V    V   I    SSSSS  U   U    A    L              (v 6.2.2015)
      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\cacp078589\AppData\Local\Civica\VH5\9ad0f7cd-9fe5-4b65-bb07-55a510b23afa\f
6264b08-c50d-47f2-b6e2-9dd527522551\s
   Summary filename:
C:\Users\cacp078589\AppData\Local\Civica\VH5\9ad0f7cd-9fe5-4b65-bb07-55a510b23afa\f
6264b08-c50d-47f2-b6e2-9dd527522551\s


DATE: 04-04-2025                          TIME: 09:55:16

USER:


COMMENTS: _____

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```

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  ********************************************
  ** SIMULATION : 5yr 24hr 10min Chicago     **
  ********************************************

-------------------
| CHICAGO STORM    |    IDF curve parameters: A=1259.000
| Ptotal= 67.81 mm |                          B=   8.800
-------------------                          C=   0.838
                         used in:   INTENSITY =  A / (t + B)^C

                         Duration of storm  = 24.00 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    0.48 |  6.00    1.78 | 12.00    1.55 | 18.00    0.70
          0.17    0.49 |  6.17    1.95 | 12.17    1.50 | 18.17    0.69
          0.33    0.50 |  6.33    2.16 | 12.33    1.44 | 18.33    0.68
          0.50    0.51 |  6.50    2.42 | 12.50    1.40 | 18.50    0.67
          0.67    0.52 |  6.67    2.76 | 12.67    1.35 | 18.67    0.66
          0.83    0.53 |  6.83    3.23 | 12.83    1.31 | 18.83    0.65
          1.00    0.54 |  7.00    3.90 | 13.00    1.27 | 19.00    0.64
          1.17    0.55 |  7.17    4.94 | 13.17    1.24 | 19.17    0.64
          1.33    0.57 |  7.33    6.81 | 13.33    1.20 | 19.33    0.63
          1.50    0.58 |  7.50   11.05 | 13.50    1.17 | 19.50    0.62
          1.67    0.59 |  7.67   28.66 | 13.67    1.14 | 19.67    0.61
          1.83    0.61 |  7.83  107.72 | 13.83    1.11 | 19.83    0.60
          2.00    0.62 |  8.00   38.01 | 14.00    1.09 | 20.00    0.60
          2.17    0.64 |  8.17   19.35 | 14.17    1.06 | 20.17    0.59
          2.33    0.66 |  8.33   12.71 | 14.33    1.04 | 20.33    0.58
          2.50    0.67 |  8.50    9.41 | 14.50    1.01 | 20.50    0.58
          2.67    0.69 |  8.67    7.46 | 14.67    0.99 | 20.67    0.57
          2.83    0.71 |  8.83    6.18 | 14.83    0.97 | 20.83    0.56
          3.00    0.74 |  9.00    5.28 | 15.00    0.95 | 21.00    0.56
          3.17    0.76 |  9.17    4.62 | 15.17    0.93 | 21.17    0.55
          3.33    0.78 |  9.33    4.11 | 15.33    0.91 | 21.33    0.55
          3.50    0.81 |  9.50    3.70 | 15.50    0.90 | 21.50    0.54
          3.67    0.84 |  9.67    3.37 | 15.67    0.88 | 21.67    0.53
          3.83    0.87 |  9.83    3.09 | 15.83    0.86 | 21.83    0.53
          4.00    0.90 | 10.00    2.86 | 16.00    0.85 | 22.00    0.52
          4.17    0.94 | 10.17    2.67 | 16.17    0.83 | 22.17    0.52
          4.33    0.98 | 10.33    2.50 | 16.33    0.82 | 22.33    0.51
          4.50    1.02 | 10.50    2.35 | 16.50    0.80 | 22.50    0.51
          4.67    1.07 | 10.67    2.22 | 16.67    0.79 | 22.67    0.50
          4.83    1.13 | 10.83    2.10 | 16.83    0.78 | 22.83    0.50
          5.00    1.19 | 11.00    2.00 | 17.00    0.77 | 23.00    0.49
          5.17    1.25 | 11.17    1.90 | 17.17    0.75 | 23.17    0.49
          5.33    1.33 | 11.33    1.82 | 17.33    0.74 | 23.33    0.48
          5.50    1.42 | 11.50    1.74 | 17.50    0.73 | 23.50    0.48
          5.67    1.52 | 11.67    1.67 | 17.67    0.72 | 23.67    0.48
          5.83    1.64 | 11.83    1.61 | 17.83    0.71 | 23.83    0.47
```

CALIB							
STANDHYD (1012)	Area (ha)= 26.89						
ID= 1 DT= 1.0 min	Total Imp(%)= 57.00	Dir. Conn.(%)= 49.00					

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	15.33	11.56
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.50	2.00
Length (m)=	423.42	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 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
0.017	0.48	6.017	1.78	12.017	1.55	18.02	0.70
0.033	0.48	6.033	1.78	12.033	1.55	18.03	0.70
0.050	0.48	6.050	1.78	12.050	1.55	18.05	0.70
0.067	0.48	6.067	1.78	12.067	1.55	18.07	0.70
0.083	0.48	6.083	1.78	12.083	1.55	18.08	0.70
0.100	0.48	6.100	1.78	12.100	1.55	18.10	0.70
0.117	0.48	6.117	1.78	12.117	1.55	18.12	0.70
0.133	0.48	6.133	1.78	12.133	1.55	18.13	0.70
0.150	0.48	6.150	1.78	12.150	1.55	18.15	0.70
0.167	0.48	6.167	1.78	12.167	1.55	18.17	0.70
0.183	0.49	6.183	1.95	12.183	1.50	18.18	0.69
0.200	0.49	6.200	1.95	12.200	1.50	18.20	0.69
0.217	0.49	6.217	1.95	12.217	1.50	18.22	0.69
0.233	0.49	6.233	1.95	12.233	1.50	18.23	0.69
0.250	0.49	6.250	1.95	12.250	1.50	18.25	0.69
0.267	0.49	6.267	1.95	12.267	1.50	18.27	0.69
0.283	0.49	6.283	1.95	12.283	1.50	18.28	0.69
0.300	0.49	6.300	1.95	12.300	1.50	18.30	0.69
0.317	0.49	6.317	1.95	12.317	1.50	18.32	0.69
0.333	0.49	6.333	1.95	12.333	1.50	18.33	0.69
0.350	0.50	6.350	2.16	12.350	1.44	18.35	0.68
0.367	0.50	6.367	2.16	12.367	1.44	18.37	0.68
0.383	0.50	6.383	2.16	12.383	1.44	18.38	0.68
0.400	0.50	6.400	2.16	12.400	1.44	18.40	0.68
0.417	0.50	6.417	2.16	12.417	1.44	18.42	0.68
0.433	0.50	6.433	2.16	12.433	1.44	18.43	0.68
0.450	0.50	6.450	2.16	12.450	1.44	18.45	0.68
0.467	0.50	6.467	2.16	12.467	1.44	18.47	0.68
0.483	0.50	6.483	2.16	12.483	1.44	18.48	0.68
0.500	0.50	6.500	2.16	12.500	1.44	18.50	0.68
0.517	0.51	6.517	2.42	12.517	1.40	18.52	0.67
0.533	0.51	6.533	2.42	12.533	1.40	18.53	0.67
0.550	0.51	6.550	2.42	12.550	1.40	18.55	0.67
0.567	0.51	6.567	2.42	12.567	1.40	18.57	0.67
0.583	0.51	6.583	2.42	12.583	1.40	18.58	0.67
0.600	0.51	6.600	2.42	12.600	1.40	18.60	0.67
0.617	0.51	6.617	2.42	12.617	1.40	18.62	0.67
0.633	0.51	6.633	2.42	12.633	1.40	18.63	0.67
0.650	0.51	6.650	2.42	12.650	1.40	18.65	0.67
0.667	0.51	6.667	2.42	12.667	1.40	18.67	0.67
0.683	0.52	6.683	2.76	12.683	1.35	18.68	0.66
0.700	0.52	6.700	2.76	12.700	1.35	18.70	0.66
0.717	0.52	6.717	2.76	12.717	1.35	18.72	0.66
0.733	0.52	6.733	2.76	12.733	1.35	18.73	0.66
0.750	0.52	6.750	2.76	12.750	1.35	18.75	0.66
0.767	0.52	6.767	2.76	12.767	1.35	18.77	0.66
0.783	0.52	6.783	2.76	12.783	1.35	18.78	0.66
0.800	0.52	6.800	2.76	12.800	1.35	18.80	0.66
0.817	0.52	6.817	2.76	12.817	1.35	18.82	0.66
0.833	0.52	6.833	2.76	12.833	1.35	18.83	0.66
0.850	0.53	6.850	3.23	12.850	1.31	18.85	0.65
0.867	0.53	6.867	3.23	12.867	1.31	18.87	0.65
0.883	0.53	6.883	3.23	12.883	1.31	18.88	0.65
0.900	0.53	6.900	3.23	12.900	1.31	18.90	0.65
0.917	0.53	6.917	3.23	12.917	1.31	18.92	0.65
0.933	0.53	6.933	3.23	12.933	1.31	18.93	0.65
0.950	0.53	6.950	3.23	12.950	1.31	18.95	0.65
0.967	0.53	6.967	3.23	12.967	1.31	18.97	0.65
0.983	0.53	6.983	3.23	12.983	1.31	18.98	0.65
1.000	0.53	7.000	3.23	13.000	1.31	19.00	0.65
1.017	0.54	7.017	3.90	13.017	1.27	19.02	0.64
1.033	0.54	7.033	3.90	13.033	1.27	19.03	0.64
1.050	0.54	7.050	3.90	13.050	1.27	19.05	0.64
1.067	0.54	7.067	3.90	13.067	1.27	19.07	0.64
1.083	0.54	7.083	3.90	13.083	1.27	19.08	0.64
1.100	0.54	7.100	3.90	13.100	1.27	19.10	0.64
1.117	0.54	7.117	3.90	13.117	1.27	19.12	0.64
1.133	0.54	7.133	3.90	13.133	1.27	19.13	0.64
1.150	0.54	7.150	3.90	13.150	1.27	19.15	0.64
1.167	0.54	7.167	3.90	13.167	1.27	19.17	0.64
1.183	0.55	7.183	4.94	13.183	1.24	19.18	0.64
1.200	0.55	7.200	4.94	13.200	1.24	19.20	0.64
1.217	0.55	7.217	4.94	13.217	1.24	19.22	0.64
1.233	0.55	7.233	4.94	13.233	1.24	19.23	0.64
1.250	0.55	7.250	4.94	13.250	1.24	19.25	0.64
1.267	0.55	7.267	4.94	13.267	1.24	19.27	0.64
1.283	0.55	7.283	4.94	13.283	1.24	19.28	0.64
1.300	0.55	7.300	4.94	13.300	1.24	19.30	0.64
1.317	0.55	7.317	4.94	13.317	1.24	19.32	0.64
1.333	0.55	7.333	4.95	13.333	1.24	19.33	0.64
1.350	0.57	7.350	6.81	13.350	1.20	19.35	0.63
1.367	0.57	7.367	6.81	13.367	1.20	19.37	0.63
1.383	0.57	7.383	6.81	13.383	1.20	19.38	0.63
1.400	0.57	7.400	6.81	13.400	1.20	19.40	0.63
1.417	0.57	7.417	6.81	13.417	1.20	19.42	0.63
1.433	0.57	7.433	6.81	13.433	1.20	19.43	0.63
1.450	0.57	7.450	6.81	13.450	1.20	19.45	0.63
1.467	0.57	7.467	6.81	13.467	1.20	19.47	0.63
1.483	0.57	7.483	6.81	13.483	1.20	19.48	0.63
1.500	0.57	7.500	6.82	13.500	1.20	19.50	0.63
1.517	0.58	7.517	11.05	13.517	1.17	19.52	0.62
1.533	0.58	7.533	11.05	13.533	1.17	19.53	0.62
1.550	0.58	7.550	11.05	13.550	1.17	19.55	0.62
1.567	0.58	7.567	11.05	13.567	1.17	19.57	0.62
1.583	0.58	7.583	11.05	13.583	1.17	19.58	0.62
1.600	0.58	7.600	11.05	13.600	1.17	19.60	0.62
1.617	0.58	7.617	11.05	13.617	1.17	19.62	0.62
1.633	0.58	7.633	11.05	13.633	1.17	19.63	0.62
1.650	0.58	7.650	11.05	13.650	1.17	19.65	0.62
1.667	0.58	7.667	11.10	13.667	1.17	19.67	0.62
1.683	0.59	7.683	28.66	13.683	1.14	19.68	0.61
1.700	0.59	7.700	28.66	13.700	1.14	19.70	0.61
1.717	0.59	7.717	28.66	13.717	1.14	19.72	0.61
1.733	0.59	7.733	28.66	13.733	1.14	19.73	0.61
1.750	0.59	7.750	28.66	13.750	1.14	19.75	0.61
1.767	0.59	7.767	28.66	13.767	1.14	19.77	0.61
1.783	0.59	7.783	28.66	13.783	1.14	19.78	0.61
1.800	0.59	7.800	28.66	13.800	1.14	19.80	0.61
1.817	0.59	7.817	28.66	13.817	1.14	19.82	0.61
1.833	0.59	7.833	28.88	13.833	1.14	19.83	0.61
1.850	0.61	7.850	107.72	13.850	1.11	19.85	0.60
1.867	0.61	7.867	107.72	13.867	1.11	19.87	0.60
1.883	0.61	7.883	107.72	13.883	1.11	19.88	0.60
1.900	0.61	7.900	107.72	13.900	1.11	19.90	0.60
1.917	0.61	7.917	107.72	13.917	1.11	19.92	0.60
1.933	0.61	7.933	107.72	13.933	1.11	19.93	0.60
1.950	0.61	7.950	107.72	13.950	1.11	19.95	0.60
1.967	0.61	7.967	107.72	13.967	1.11	19.97	0.60
1.983	0.61	7.983	107.72	13.983	1.11	19.98	0.60
2.000	0.61	8.000	107.51	14.000	1.11	20.00	0.60
2.017	0.62	8.017	38.01	14.017	1.09	20.02	0.60
2.033	0.62	8.033	38.01	14.033	1.09	20.03	0.60
2.050	0.62	8.050	38.01	14.050	1.09	20.05	0.60
2.067	0.62	8.067	38.01	14.067	1.09	20.07	0.60
2.083	0.62	8.083	38.01	14.083	1.09	20.08	0.60
2.100	0.62	8.100	38.01	14.100	1.09	20.10	0.60
2.117	0.62	8.117	38.01	14.117	1.09	20.12	0.60
2.133	0.62	8.133	38.01	14.133	1.09	20.13	0.60
2.150	0.62	8.150	38.01	14.150	1.09	20.15	0.60
2.167	0.62	8.167	37.95	14.167	1.09	20.17	0.60
2.183	0.64	8.183	19.35	14.183	1.06	20.18	0.59
2.200	0.64	8.200	19.35	14.200	1.06	20.20	0.59
2.217	0.64	8.217	19.35	14.217	1.06	20.22	0.59
2.233	0.64	8.233	19.35	14.233	1.06	20.23	0.59
2.250	0.64	8.250	19.35	14.250	1.06	20.25	0.59
2.267	0.64	8.267	19.35	14.267	1.06	20.27	0.59
2.283	0.64	8.283	19.35	14.283	1.06	20.28	0.59
2.300	0.64	8.300	19.35	14.300	1.06	20.30	0.59
2.317	0.64	8.317	19.35	14.317	1.06	20.32	0.59
2.333	0.64	8.333	19.33	14.333	1.06	20.33	0.59
2.350	0.66	8.350	12.71	14.350	1.04	20.35	0.58
2.367	0.66	8.367	12.71	14.367	1.04	20.37	0.58
2.383	0.66	8.383	12.71	14.383	1.04	20.38	0.58
2.400	0.66	8.400	12.71	14.400	1.04	20.40	0.58
2.417	0.66	8.417	12.71	14.417	1.04	20.42	0.58
2.433	0.66	8.433	12.71	14.433	1.04	20.43	0.58
2.450	0.66	8.450	12.71	14.450	1.04	20.45	0.58
2.467	0.66	8.467	12.71	14.467	1.04	20.47	0.58
2.483	0.66	8.483	12.71	14.483	1.04	20.48	0.58
2.500	0.66	8.500	12.70	14.500	1.04	20.50	0.58
2.517	0.67	8.517	9.41	14.517	1.01	20.52	0.58
2.533	0.67	8.533	9.41	14.533	1.01	20.53	0.58
2.550	0.67	8.550	9.41	14.550	1.01	20.55	0.58
2.567	0.67	8.567	9.41	14.567	1.01	20.57	0.58
2.583	0.67	8.583	9.41	14.583	1.01	20.58	0.58
2.600	0.67	8.600	9.41	14.600	1.01	20.60	0.58
2.617	0.67	8.617	9.41	14.617	1.01	20.62	0.58
2.633	0.67	8.633	9.41	14.633	1.01	20.63	0.58
2.650	0.67	8.650	9.41	14.650	1.01	20.65	0.58
2.667	0.67	8.667	9.41	14.667	1.01	20.67	0.58
2.683	0.69	8.683	7.46	14.683	0.99	20.68	0.57
2.700	0.69	8.700	7.46	14.700	0.99	20.70	0.57
2.717	0.69	8.717	7.46	14.717	0.99	20.72	0.57
2.733	0.69	8.733	7.46	14.733	0.99	20.73	0.57
2.750	0.69	8.750	7.46	14.750	0.99	20.75	0.57
2.767	0.69	8.767	7.46	14.767	0.99	20.77	0.57
2.783	0.69	8.783	7.46	14.783	0.99	20.78	0.57
2.800	0.69	8.800	7.46	14.800	0.99	20.80	0.57
2.817	0.69	8.817	7.46	14.817	0.99	20.82	0.57
2.833	0.69	8.833	7.46	14.833	0.99	20.83	0.57
2.850	0.71	8.850	6.18	14.850	0.97	20.85	0.56
2.867	0.71	8.867	6.18	14.867	0.97	20.87	0.56
2.883	0.71	8.883	6.18	14.883	0.97	20.88	0.56
2.900	0.71	8.900	6.18	14.900	0.97	20.90	0.56
2.917	0.71	8.917	6.18	14.917	0.97	20.92	0.56
2.933	0.71	8.933	6.18	14.933	0.97	20.93	0.56
2.950	0.71	8.950	6.18	14.950	0.97	20.95	0.56
2.967	0.71	8.967	6.18	14.967	0.97	20.97	0.56
2.983	0.71	8.983	6.18	14.983	0.97	20.98	0.56
3.000	0.71	9.000	6.18	15.000	0.97	21.00	0.56
3.017	0.74	9.017	5.28	15.017	0.95	21.02	0.56
3.033	0.74	9.033	5.28	15.033	0.95	21.03	0.56
3.050	0.74	9.050	5.28	15.050	0.95	21.05	0.56
3.067	0.74	9.067	5.28	15.067	0.95	21.07	0.56
3.083	0.74	9.083	5.28	15.083	0.95	21.08	0.56
3.100	0.74	9.100	5.28	15.100	0.95	21.10	0.56
3.117	0.74	9.117	5.28	15.117	0.95	21.12	0.56
3.133	0.74	9.133	5.28	15.133	0.95	21.13	0.56
3.150	0.74	9.150	5.28	15.150	0.95	21.15	0.56
3.167	0.74	9.167	5.28	15.167	0.95	21.17	0.56
3.183	0.76	9.183	4.62	15.183	0.93	21.18	0.55
3.200	0.76	9.200	4.62	15.200	0.93	21.20	0.55
3.217	0.76	9.217	4.62	15.217	0.93	21.22	0.55
3.233	0.76	9.233	4.62	15.233	0.93	21.23	0.55
3.250	0.76	9.250	4.62	15.250	0.93	21.25	0.55
3.267	0.76	9.267	4.62	15.267	0.93	21.27	0.55
3.283	0.76	9.283	4.62	15.283	0.93	21.28	0.55
3.300	0.76	9.300	4.62	15.300	0.93	21.30	0.55
3.317	0.76	9.317	4.62	15.317	0.93	21.32	0.55
3.333	0.76	9.333	4.62	15.333	0.93	21.33	0.55
3.350	0.78	9.350	4.11	15.350	0.91	21.35	0.55
3.367	0.78	9.367	4.11	15.367	0.91	21.37	0.55
3.383	0.78	9.383	4.11	15.383	0.91	21.38	0.55
3.400	0.78	9.400	4.11	15.400	0.91	21.40	0.55
3.417	0.78	9.417	4.11	15.417	0.91	21.42	0.55
3.433	0.78	9.433	4.11	15.433	0.91	21.43	0.55
3.450	0.78	9.450	4.11	15.450	0.91	21.45	0.55
3.467	0.78	9.467	4.11	15.467	0.91	21.47	0.55
3.483	0.78	9.483	4.11	15.483	0.91	21.48	0.55
3.500	0.78	9.500	4.10	15.500	0.91	21.50	0.55
3.517	0.81	9.517	3.70	15.517	0.90	21.52	0.54
3.533	0.81	9.533	3.70	15.533	0.90	21.53	0.54
3.550	0.81	9.550	3.70	15.550	0.90	21.55	0.54
3.567	0.81	9.567	3.70	15.567	0.90	21.57	0.54
3.583	0.81	9.583	3.70	15.583	0.90	21.58	0.54
3.600	0.81	9.600	3.70	15.600	0.90	21.60	0.54
3.617	0.81	9.617	3.70	15.617	0.90	21.62	0.54
3.633	0.81	9.633	3.70	15.633	0.90	21.63	0.54
3.650	0.81	9.650	3.70	15.650	0.90	21.65	0.54
3.667	0.81	9.667	3.70	15.667	0.90	21.67	0.54
3.683	0.84	9.683	3.37	15.683	0.88	21.68	0.53
3.700	0.84	9.700	3.37	15.700	0.88	21.70	0.53
3.717	0.84	9.717	3.37	15.717	0.88	21.72	0.53
3.733	0.84	9.733	3.37	15.733	0.88	21.73	0.53
3.750	0.84	9.750	3.37	15.750	0.88	21.75	0.53
3.767	0.84	9.767	3.37	15.767	0.88	21.77	0.53
3.783	0.84	9.783	3.37	15.783	0.88	21.78	0.53
3.800	0.84	9.800	3.37	15.800	0.88	21.80	0.53
3.817	0.84	9.817	3.37	15.817	0.88	21.82	0.53
3.833	0.84	9.833	3.37	15.833	0.88	21.83	0.53
3.850	0.87	9.850	3.09	15.850	0.86	21.85	0.53
3.867	0.87	9.867	3.09	15.867	0.86	21.87	0.53
3.883	0.87	9.883	3.09	15.883	0.86	21.88	0.53
3.900	0.87	9.900	3.09	15.900	0.86	21.90	0.53
3.917	0.87	9.917	3.09	15.917	0.86	21.92	0.53
3.933	0.87	9.933	3.09	15.933	0.86	21.93	0.53
3.950	0.87	9.950	3.09	15.950	0.86	21.95	0.53
3.967	0.87	9.967	3.09	15.967	0.86	21.97	0.53
3.983	0.87	9.983	3.09	15.983	0.86	21.98	0.53
4.000	0.87	10.000	3.09	16.000	0.86	22.00	0.53
4.017	0.90	10.017	2.86	16.017	0.85	22.02	0.52
4.033	0.90	10.033	2.86	16.033	0.85	22.03	0.52
4.050	0.90	10.050	2.86	16.050	0.85	22.05	0.52
4.067	0.90	10.067	2.86	16.067	0.85	22.07	0.52
4.083	0.90	10.083	2.86	16.083	0.85	22.08	0.52
4.100	0.90	10.100	2.86	16.100	0.85	22.10	0.52
4.117	0.90	10.117	2.86	16.117	0.85	22.12	0.52
4.133	0.90	10.133	2.86	16.133	0.85	22.13	0.52
4.150	0.90	10.150	2.86	16.150	0.85	22.15	0.52
4.167	0.90	10.167	2.86	16.167	0.85	22.17	0.52
4.183	0.94	10.183	2.67	16.183	0.83	22.18	0.52
4.200	0.94	10.200	2.67	16.200	0.83	22.20	0.52
4.217	0.94	10.217	2.67	16.217	0.83	22.22	0.52
4.233	0.94	10.233	2.67	16.233	0.83	22.23	0.52
4.250	0.94	10.250	2.67	16.250	0.83	22.25	0.52
4.267	0.94	10.267	2.67	16.267	0.83	22.27	0.52
4.283	0.94	10.283	2.67	16.283	0.83	22.28	0.52
4.300	0.94	10.300	2.67	16.300	0.83	22.30	0.52
4.317	0.94	10.317	2.67	16.317	0.83	22.32	0.52
4.333	0.94	10.333	2.67	16.333	0.83	22.33	0.52
4.350	0.98	10.350	2.50	16.350	0.82	22.35	0.51
4.367	0.98	10.367	2.50	16.367	0.82	22.37	0.51
4.383	0.98	10.383	2.50	16.383	0.82	22.38	0.51
4.400	0.98	10.400	2.50	16.400	0.82	22.40	0.51
4.417	0.98	10.417	2.50	16.417	0.82	22.42	0.51
4.433	0.98	10.433	2.50	16.433	0.82	22.43	0.51
4.450	0.98	10.450	2.50	16.450	0.82	22.45	0.51
4.467	0.98	10.467	2.50	16.467	0.82	22.47	0.51
4.483	0.98	10.483	2.50	16.483	0.82	22.48	0.51
4.500	0.98	10.500	2.50	16.500	0.82	22.50	0.51
4.517	1.02	10.517	2.35	16.517	0.80	22.52	0.51
4.533	1.02	10.533	2.35	16.533	0.80	22.53	0.51
4.550	1.02	10.550	2.35	16.550	0.80	22.55	0.51
4.567	1.02	10.567	2.35	16.567	0.80	22.57	0.51
4.583	1.02	10.583	2.35	16.583	0.80	22.58	0.51
4.600	1.02	10.600	2.35	16.600	0.80	22.60	0.51
4.617	1.02	10.617	2.35	16.617	0.80	22.62	0.51
4.633	1.02	10.633	2.35	16.633	0.80	22.63	0.51
4.650	1.02	10.650	2.35	16.650	0.80	22.65	0.51
4.667	1.02	10.667	2.35	16.667	0.80	22.67	0.51
4.683	1.07	10.683	2.22	16.683	0.79	22.68	0.50
4.700	1.07	10.700	2.22	16.700	0.79	22.70	0.50
4.717	1.07	10.717	2.22	16.717	0.79	22.72	0.50
4.733	1.07	10.733	2.22	16.733	0.79	22.73	0.50
4.750	1.07	10.750	2.22	16.750	0.79	22.75	0.50
4.767	1.07	10.767	2.22	16.767	0.79	22.77	0.50
4.783	1.07	10.783	2.22	16.783	0.79	22.78	0.50
4.800	1.07	10.800	2.22	16.800	0.79	22.80	0.50
4.817	1.07	10.817	2.22	16.817	0.79	22.82	0.50
4.833	1.07	10.833	2.22	16.833	0.79	22.83	0.50
4.850	1.13	10.850	2.10	16.850	0.78	22.85	0.50

4.867	1.13	10.867	2.10	16.867	0.78	22.87	0.50
4.883	1.13	10.883	2.10	16.883	0.78	22.88	0.50
4.900	1.13	10.900	2.10	16.900	0.78	22.90	0.50
4.917	1.13	10.917	2.10	16.917	0.78	22.92	0.50
4.933	1.13	10.933	2.10	16.933	0.78	22.93	0.50
4.950	1.13	10.950	2.10	16.950	0.78	22.95	0.50
4.967	1.13	10.967	2.10	16.967	0.78	22.97	0.50
4.983	1.13	10.983	2.10	16.983	0.78	22.98	0.50
5.000	1.13	11.000	2.10	17.000	0.78	23.00	0.50
5.017	1.19	11.017	2.00	17.017	0.77	23.02	0.49
5.033	1.19	11.033	2.00	17.033	0.77	23.03	0.49
5.050	1.19	11.050	2.00	17.050	0.77	23.05	0.49
5.067	1.19	11.067	2.00	17.067	0.77	23.07	0.49
5.083	1.19	11.083	2.00	17.083	0.77	23.08	0.49
5.100	1.19	11.100	2.00	17.100	0.77	23.10	0.49
5.117	1.19	11.117	2.00	17.117	0.77	23.12	0.49
5.133	1.19	11.133	2.00	17.133	0.77	23.13	0.49
5.150	1.19	11.150	2.00	17.150	0.77	23.15	0.49
5.167	1.19	11.167	2.00	17.167	0.77	23.17	0.49
5.183	1.25	11.183	1.90	17.183	0.75	23.18	0.49
5.200	1.25	11.200	1.90	17.200	0.75	23.20	0.49
5.217	1.25	11.217	1.90	17.217	0.75	23.22	0.49
5.233	1.25	11.233	1.90	17.233	0.75	23.23	0.49
5.250	1.25	11.250	1.90	17.250	0.75	23.25	0.49
5.267	1.25	11.267	1.90	17.267	0.75	23.27	0.49
5.283	1.25	11.283	1.90	17.283	0.75	23.28	0.49
5.300	1.25	11.300	1.90	17.300	0.75	23.30	0.49
5.317	1.25	11.317	1.90	17.317	0.75	23.32	0.49
5.333	1.25	11.333	1.90	17.333	0.75	23.33	0.49
5.350	1.33	11.350	1.82	17.350	0.74	23.35	0.48
5.367	1.33	11.367	1.82	17.367	0.74	23.37	0.48
5.383	1.33	11.383	1.82	17.383	0.74	23.38	0.48
5.400	1.33	11.400	1.82	17.400	0.74	23.40	0.48
5.417	1.33	11.417	1.82	17.417	0.74	23.42	0.48
5.433	1.33	11.433	1.82	17.433	0.74	23.43	0.48
5.450	1.33	11.450	1.82	17.450	0.74	23.45	0.48
5.467	1.33	11.467	1.82	17.467	0.74	23.47	0.48
5.483	1.33	11.483	1.82	17.483	0.74	23.48	0.48
5.500	1.33	11.500	1.82	17.500	0.74	23.50	0.48
5.517	1.42	11.517	1.74	17.517	0.73	23.52	0.48
5.533	1.42	11.533	1.74	17.533	0.73	23.53	0.48
5.550	1.42	11.550	1.74	17.550	0.73	23.55	0.48
5.567	1.42	11.567	1.74	17.567	0.73	23.57	0.48
5.583	1.42	11.583	1.74	17.583	0.73	23.58	0.48
5.600	1.42	11.600	1.74	17.600	0.73	23.60	0.48
5.617	1.42	11.617	1.74	17.617	0.73	23.62	0.48
5.633	1.42	11.633	1.74	17.633	0.73	23.63	0.48
5.650	1.42	11.650	1.74	17.650	0.73	23.65	0.48
5.667	1.42	11.667	1.74	17.667	0.73	23.67	0.48
5.683	1.52	11.683	1.67	17.683	0.72	23.68	0.48
5.700	1.52	11.700	1.67	17.700	0.72	23.70	0.48
5.717	1.52	11.717	1.67	17.717	0.72	23.72	0.48

5.733	1.52	11.733	1.67	17.733	0.72	23.73	0.48
5.750	1.52	11.750	1.67	17.750	0.72	23.75	0.48
5.767	1.52	11.767	1.67	17.767	0.72	23.77	0.48
5.783	1.52	11.783	1.67	17.783	0.72	23.78	0.48
5.800	1.52	11.800	1.67	17.800	0.72	23.80	0.48
5.817	1.52	11.817	1.67	17.817	0.72	23.82	0.48
5.833	1.52	11.833	1.67	17.833	0.72	23.83	0.48
5.850	1.64	11.850	1.61	17.850	0.71	23.85	0.47
5.867	1.64	11.867	1.61	17.867	0.71	23.87	0.47
5.883	1.64	11.883	1.61	17.883	0.71	23.88	0.47
5.900	1.64	11.900	1.61	17.900	0.71	23.90	0.47
5.917	1.64	11.917	1.61	17.917	0.71	23.92	0.47
5.933	1.64	11.933	1.61	17.933	0.71	23.93	0.47
5.950	1.64	11.950	1.61	17.950	0.71	23.95	0.47
5.967	1.64	11.967	1.61	17.967	0.71	23.97	0.47
5.983	1.64	11.983	1.61	17.983	0.71	23.98	0.47
6.000	1.64	12.000	1.61	18.000	0.71	24.00	0.47

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     Max.Eff.Inten.(mm/hr)=     107.72         20.46
           over (min)           7.00          14.00
     Storage Coeff.  (min)=     7.26 (ii)     13.76 (ii)
     Unit Hyd. Tpeak (min)=     7.00          14.00
     Unit Hyd. peak  (cms)=     0.16          0.08
                                                        *TOTALS*
     PEAK FLOW       (cms)=     2.90          0.36        3.119 (iii)
     TIME TO PEAK    (hrs)=     8.05          8.22        8.05
     RUNOFF VOLUME    (mm)=    66.80         13.68       39.72
     TOTAL RAINFALL   (mm)=    67.81         67.81       67.81
     RUNOFF COEFFICIENT   =     0.99          0.20        0.59


       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  48.0     Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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| DUHYD    (  0034)|
| Inlet Cap.= 3.057|
| #of Inlets=     1|
| Total(cms)=   3.1|      AREA     QPEAK     TPEAK    R.V.
--------------------      (ha)     (cms)     (hrs)    (mm)
     TOTAL HYD.(ID= 1):  26.89      3.12      8.05   39.72
                         ==========================================
     MAJOR SYS.(ID= 2):   0.02      0.06      8.05   39.72
     MINOR SYS.(ID= 3):  26.87      3.06      8.03   39.72

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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  | Junction Command(0033) |
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                                AREA     QPEAK   TPEAK     R.V.
                                (ha)     (cms)   (hrs)     (mm)
  INFLOW : ID= 9(  0034)   26.87     3.06    8.03     39.72
  OUTFLOW: ID= 2(  0033)   26.87     3.06    8.03     39.72

  -------------------------------------------------------------------------------
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| CALIB            |
| STANDHYD (  1052)|   Area    (ha)=   1.95
|ID= 1 DT= 1.0 min |   Total Imp(%)=  30.00   Dir. Conn.(%)=  26.00
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                              IMPERVIOUS    PERVIOUS (i)
       Surface Area     (ha)=       0.58          1.36
       Dep. Storage     (mm)=       1.00          5.00
       Average Slope     (%)=       0.50          2.00
       Length            (m)=     113.90         40.00
       Mannings n            =      0.013         0.250

           NOTE:  RAINFALL WAS TRANSFORMED TO   1.0 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
         0.017    0.48 | 6.017    1.78 |12.017    1.55 | 18.02    0.70
         0.033    0.48 | 6.033    1.78 |12.033    1.55 | 18.03    0.70
         0.050    0.48 | 6.050    1.78 |12.050    1.55 | 18.05    0.70
         0.067    0.48 | 6.067    1.78 |12.067    1.55 | 18.07    0.70
         0.083    0.48 | 6.083    1.78 |12.083    1.55 | 18.08    0.70
         0.100    0.48 | 6.100    1.78 |12.100    1.55 | 18.10    0.70
         0.117    0.48 | 6.117    1.78 |12.117    1.55 | 18.12    0.70
         0.133    0.48 | 6.133    1.78 |12.133    1.55 | 18.13    0.70
         0.150    0.48 | 6.150    1.78 |12.150    1.55 | 18.15    0.70
         0.167    0.48 | 6.167    1.78 |12.167    1.55 | 18.17    0.70
         0.183    0.49 | 6.183    1.95 |12.183    1.50 | 18.18    0.69
         0.200    0.49 | 6.200    1.95 |12.200    1.50 | 18.20    0.69
         0.217    0.49 | 6.217    1.95 |12.217    1.50 | 18.22    0.69
         0.233    0.49 | 6.233    1.95 |12.233    1.50 | 18.23    0.69
         0.250    0.49 | 6.250    1.95 |12.250    1.50 | 18.25    0.69
         0.267    0.49 | 6.267    1.95 |12.267    1.50 | 18.27    0.69
         0.283    0.49 | 6.283    1.95 |12.283    1.50 | 18.28    0.69
         0.300    0.49 | 6.300    1.95 |12.300    1.50 | 18.30    0.69
         0.317    0.49 | 6.317    1.95 |12.317    1.50 | 18.32    0.69
         0.333    0.49 | 6.333    1.95 |12.333    1.50 | 18.33    0.69
         0.350    0.50 | 6.350    2.16 |12.350    1.44 | 18.35    0.68
         0.367    0.50 | 6.367    2.16 |12.367    1.44 | 18.37    0.68
         0.383    0.50 | 6.383    2.16 |12.383    1.44 | 18.38    0.68
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0.400	0.50	6.400	2.16	12.400	1.44	18.40	0.68
0.417	0.50	6.417	2.16	12.417	1.44	18.42	0.68
0.433	0.50	6.433	2.16	12.433	1.44	18.43	0.68
0.450	0.50	6.450	2.16	12.450	1.44	18.45	0.68
0.467	0.50	6.467	2.16	12.467	1.44	18.47	0.68
0.483	0.50	6.483	2.16	12.483	1.44	18.48	0.68
0.500	0.50	6.500	2.16	12.500	1.44	18.50	0.68
0.517	0.51	6.517	2.42	12.517	1.40	18.52	0.67
0.533	0.51	6.533	2.42	12.533	1.40	18.53	0.67
0.550	0.51	6.550	2.42	12.550	1.40	18.55	0.67
0.567	0.51	6.567	2.42	12.567	1.40	18.57	0.67
0.583	0.51	6.583	2.42	12.583	1.40	18.58	0.67
0.600	0.51	6.600	2.42	12.600	1.40	18.60	0.67
0.617	0.51	6.617	2.42	12.617	1.40	18.62	0.67
0.633	0.51	6.633	2.42	12.633	1.40	18.63	0.67
0.650	0.51	6.650	2.42	12.650	1.40	18.65	0.67
0.667	0.51	6.667	2.42	12.667	1.40	18.67	0.67
0.683	0.52	6.683	2.76	12.683	1.35	18.68	0.66
0.700	0.52	6.700	2.76	12.700	1.35	18.70	0.66
0.717	0.52	6.717	2.76	12.717	1.35	18.72	0.66
0.733	0.52	6.733	2.76	12.733	1.35	18.73	0.66
0.750	0.52	6.750	2.76	12.750	1.35	18.75	0.66
0.767	0.52	6.767	2.76	12.767	1.35	18.77	0.66
0.783	0.52	6.783	2.76	12.783	1.35	18.78	0.66
0.800	0.52	6.800	2.76	12.800	1.35	18.80	0.66
0.817	0.52	6.817	2.76	12.817	1.35	18.82	0.66
0.833	0.52	6.833	2.76	12.833	1.35	18.83	0.66
0.850	0.53	6.850	3.23	12.850	1.31	18.85	0.65
0.867	0.53	6.867	3.23	12.867	1.31	18.87	0.65
0.883	0.53	6.883	3.23	12.883	1.31	18.88	0.65
0.900	0.53	6.900	3.23	12.900	1.31	18.90	0.65
0.917	0.53	6.917	3.23	12.917	1.31	18.92	0.65
0.933	0.53	6.933	3.23	12.933	1.31	18.93	0.65
0.950	0.53	6.950	3.23	12.950	1.31	18.95	0.65
0.967	0.53	6.967	3.23	12.967	1.31	18.97	0.65
0.983	0.53	6.983	3.23	12.983	1.31	18.98	0.65
1.000	0.53	7.000	3.23	13.000	1.31	19.00	0.65
1.017	0.54	7.017	3.90	13.017	1.27	19.02	0.64
1.033	0.54	7.033	3.90	13.033	1.27	19.03	0.64
1.050	0.54	7.050	3.90	13.050	1.27	19.05	0.64
1.067	0.54	7.067	3.90	13.067	1.27	19.07	0.64
1.083	0.54	7.083	3.90	13.083	1.27	19.08	0.64
1.100	0.54	7.100	3.90	13.100	1.27	19.10	0.64
1.117	0.54	7.117	3.90	13.117	1.27	19.12	0.64
1.133	0.54	7.133	3.90	13.133	1.27	19.13	0.64
1.150	0.54	7.150	3.90	13.150	1.27	19.15	0.64
1.167	0.54	7.167	3.90	13.167	1.27	19.17	0.64
1.183	0.55	7.183	4.94	13.183	1.24	19.18	0.64
1.200	0.55	7.200	4.94	13.200	1.24	19.20	0.64
1.217	0.55	7.217	4.94	13.217	1.24	19.22	0.64
1.233	0.55	7.233	4.94	13.233	1.24	19.23	0.64
1.250	0.55	7.250	4.94	13.250	1.24	19.25	0.64

1.267	0.55	7.267	4.94	13.267	1.24	19.27	0.64
1.283	0.55	7.283	4.94	13.283	1.24	19.28	0.64
1.300	0.55	7.300	4.94	13.300	1.24	19.30	0.64
1.317	0.55	7.317	4.94	13.317	1.24	19.32	0.64
1.333	0.55	7.333	4.95	13.333	1.24	19.33	0.64
1.350	0.57	7.350	6.81	13.350	1.20	19.35	0.63
1.367	0.57	7.367	6.81	13.367	1.20	19.37	0.63
1.383	0.57	7.383	6.81	13.383	1.20	19.38	0.63
1.400	0.57	7.400	6.81	13.400	1.20	19.40	0.63
1.417	0.57	7.417	6.81	13.417	1.20	19.42	0.63
1.433	0.57	7.433	6.81	13.433	1.20	19.43	0.63
1.450	0.57	7.450	6.81	13.450	1.20	19.45	0.63
1.467	0.57	7.467	6.81	13.467	1.20	19.47	0.63
1.483	0.57	7.483	6.81	13.483	1.20	19.48	0.63
1.500	0.57	7.500	6.82	13.500	1.20	19.50	0.63
1.517	0.58	7.517	11.05	13.517	1.17	19.52	0.62
1.533	0.58	7.533	11.05	13.533	1.17	19.53	0.62
1.550	0.58	7.550	11.05	13.550	1.17	19.55	0.62
1.567	0.58	7.567	11.05	13.567	1.17	19.57	0.62
1.583	0.58	7.583	11.05	13.583	1.17	19.58	0.62
1.600	0.58	7.600	11.05	13.600	1.17	19.60	0.62
1.617	0.58	7.617	11.05	13.617	1.17	19.62	0.62
1.633	0.58	7.633	11.05	13.633	1.17	19.63	0.62
1.650	0.58	7.650	11.05	13.650	1.17	19.65	0.62
1.667	0.58	7.667	11.10	13.667	1.17	19.67	0.62
1.683	0.59	7.683	28.66	13.683	1.14	19.68	0.61
1.700	0.59	7.700	28.66	13.700	1.14	19.70	0.61
1.717	0.59	7.717	28.66	13.717	1.14	19.72	0.61
1.733	0.59	7.733	28.66	13.733	1.14	19.73	0.61
1.750	0.59	7.750	28.66	13.750	1.14	19.75	0.61
1.767	0.59	7.767	28.66	13.767	1.14	19.77	0.61
1.783	0.59	7.783	28.66	13.783	1.14	19.78	0.61
1.800	0.59	7.800	28.66	13.800	1.14	19.80	0.61
1.817	0.59	7.817	28.66	13.817	1.14	19.82	0.61
1.833	0.59	7.833	28.88	13.833	1.14	19.83	0.61
1.850	0.61	7.850	107.72	13.850	1.11	19.85	0.60
1.867	0.61	7.867	107.72	13.867	1.11	19.87	0.60
1.883	0.61	7.883	107.72	13.883	1.11	19.88	0.60
1.900	0.61	7.900	107.72	13.900	1.11	19.90	0.60
1.917	0.61	7.917	107.72	13.917	1.11	19.92	0.60
1.933	0.61	7.933	107.72	13.933	1.11	19.93	0.60
1.950	0.61	7.950	107.72	13.950	1.11	19.95	0.60
1.967	0.61	7.967	107.72	13.967	1.11	19.97	0.60
1.983	0.61	7.983	107.72	13.983	1.11	19.98	0.60
2.000	0.61	8.000	107.51	14.000	1.11	20.00	0.60
2.017	0.62	8.017	38.01	14.017	1.09	20.02	0.60
2.033	0.62	8.033	38.01	14.033	1.09	20.03	0.60
2.050	0.62	8.050	38.01	14.050	1.09	20.05	0.60
2.067	0.62	8.067	38.01	14.067	1.09	20.07	0.60
2.083	0.62	8.083	38.01	14.083	1.09	20.08	0.60
2.100	0.62	8.100	38.01	14.100	1.09	20.10	0.60
2.117	0.62	8.117	38.01	14.117	1.09	20.12	0.60

2.133	0.62	8.133	38.01	14.133	1.09	20.13	0.60
2.150	0.62	8.150	38.01	14.150	1.09	20.15	0.60
2.167	0.62	8.167	37.95	14.167	1.09	20.17	0.60
2.183	0.64	8.183	19.35	14.183	1.06	20.18	0.59
2.200	0.64	8.200	19.35	14.200	1.06	20.20	0.59
2.217	0.64	8.217	19.35	14.217	1.06	20.22	0.59
2.233	0.64	8.233	19.35	14.233	1.06	20.23	0.59
2.250	0.64	8.250	19.35	14.250	1.06	20.25	0.59
2.267	0.64	8.267	19.35	14.267	1.06	20.27	0.59
2.283	0.64	8.283	19.35	14.283	1.06	20.28	0.59
2.300	0.64	8.300	19.35	14.300	1.06	20.30	0.59
2.317	0.64	8.317	19.35	14.317	1.06	20.32	0.59
2.333	0.64	8.333	19.33	14.333	1.06	20.33	0.59
2.350	0.66	8.350	12.71	14.350	1.04	20.35	0.58
2.367	0.66	8.367	12.71	14.367	1.04	20.37	0.58
2.383	0.66	8.383	12.71	14.383	1.04	20.38	0.58
2.400	0.66	8.400	12.71	14.400	1.04	20.40	0.58
2.417	0.66	8.417	12.71	14.417	1.04	20.42	0.58
2.433	0.66	8.433	12.71	14.433	1.04	20.43	0.58
2.450	0.66	8.450	12.71	14.450	1.04	20.45	0.58
2.467	0.66	8.467	12.71	14.467	1.04	20.47	0.58
2.483	0.66	8.483	12.71	14.483	1.04	20.48	0.58
2.500	0.66	8.500	12.70	14.500	1.04	20.50	0.58
2.517	0.67	8.517	9.41	14.517	1.01	20.52	0.58
2.533	0.67	8.533	9.41	14.533	1.01	20.53	0.58
2.550	0.67	8.550	9.41	14.550	1.01	20.55	0.58
2.567	0.67	8.567	9.41	14.567	1.01	20.57	0.58
2.583	0.67	8.583	9.41	14.583	1.01	20.58	0.58
2.600	0.67	8.600	9.41	14.600	1.01	20.60	0.58
2.617	0.67	8.617	9.41	14.617	1.01	20.62	0.58
2.633	0.67	8.633	9.41	14.633	1.01	20.63	0.58
2.650	0.67	8.650	9.41	14.650	1.01	20.65	0.58
2.667	0.67	8.667	9.41	14.667	1.01	20.67	0.58
2.683	0.69	8.683	7.46	14.683	0.99	20.68	0.57
2.700	0.69	8.700	7.46	14.700	0.99	20.70	0.57
2.717	0.69	8.717	7.46	14.717	0.99	20.72	0.57
2.733	0.69	8.733	7.46	14.733	0.99	20.73	0.57
2.750	0.69	8.750	7.46	14.750	0.99	20.75	0.57
2.767	0.69	8.767	7.46	14.767	0.99	20.77	0.57
2.783	0.69	8.783	7.46	14.783	0.99	20.78	0.57
2.800	0.69	8.800	7.46	14.800	0.99	20.80	0.57
2.817	0.69	8.817	7.46	14.817	0.99	20.82	0.57
2.833	0.69	8.833	7.46	14.833	0.99	20.83	0.57
2.850	0.71	8.850	6.18	14.850	0.97	20.85	0.56
2.867	0.71	8.867	6.18	14.867	0.97	20.87	0.56
2.883	0.71	8.883	6.18	14.883	0.97	20.88	0.56
2.900	0.71	8.900	6.18	14.900	0.97	20.90	0.56
2.917	0.71	8.917	6.18	14.917	0.97	20.92	0.56
2.933	0.71	8.933	6.18	14.933	0.97	20.93	0.56
2.950	0.71	8.950	6.18	14.950	0.97	20.95	0.56
2.967	0.71	8.967	6.18	14.967	0.97	20.97	0.56
2.983	0.71	8.983	6.18	14.983	0.97	20.98	0.56

3.000	0.71	9.000	6.18	15.000	0.97	21.00	0.56
3.017	0.74	9.017	5.28	15.017	0.95	21.02	0.56
3.033	0.74	9.033	5.28	15.033	0.95	21.03	0.56
3.050	0.74	9.050	5.28	15.050	0.95	21.05	0.56
3.067	0.74	9.067	5.28	15.067	0.95	21.07	0.56
3.083	0.74	9.083	5.28	15.083	0.95	21.08	0.56
3.100	0.74	9.100	5.28	15.100	0.95	21.10	0.56
3.117	0.74	9.117	5.28	15.117	0.95	21.12	0.56
3.133	0.74	9.133	5.28	15.133	0.95	21.13	0.56
3.150	0.74	9.150	5.28	15.150	0.95	21.15	0.56
3.167	0.74	9.167	5.28	15.167	0.95	21.17	0.56
3.183	0.76	9.183	4.62	15.183	0.93	21.18	0.55
3.200	0.76	9.200	4.62	15.200	0.93	21.20	0.55
3.217	0.76	9.217	4.62	15.217	0.93	21.22	0.55
3.233	0.76	9.233	4.62	15.233	0.93	21.23	0.55
3.250	0.76	9.250	4.62	15.250	0.93	21.25	0.55
3.267	0.76	9.267	4.62	15.267	0.93	21.27	0.55
3.283	0.76	9.283	4.62	15.283	0.93	21.28	0.55
3.300	0.76	9.300	4.62	15.300	0.93	21.30	0.55
3.317	0.76	9.317	4.62	15.317	0.93	21.32	0.55
3.333	0.76	9.333	4.62	15.333	0.93	21.33	0.55
3.350	0.78	9.350	4.11	15.350	0.91	21.35	0.55
3.367	0.78	9.367	4.11	15.367	0.91	21.37	0.55
3.383	0.78	9.383	4.11	15.383	0.91	21.38	0.55
3.400	0.78	9.400	4.11	15.400	0.91	21.40	0.55
3.417	0.78	9.417	4.11	15.417	0.91	21.42	0.55
3.433	0.78	9.433	4.11	15.433	0.91	21.43	0.55
3.450	0.78	9.450	4.11	15.450	0.91	21.45	0.55
3.467	0.78	9.467	4.11	15.467	0.91	21.47	0.55
3.483	0.78	9.483	4.11	15.483	0.91	21.48	0.55
3.500	0.78	9.500	4.10	15.500	0.91	21.50	0.55
3.517	0.81	9.517	3.70	15.517	0.90	21.52	0.54
3.533	0.81	9.533	3.70	15.533	0.90	21.53	0.54
3.550	0.81	9.550	3.70	15.550	0.90	21.55	0.54
3.567	0.81	9.567	3.70	15.567	0.90	21.57	0.54
3.583	0.81	9.583	3.70	15.583	0.90	21.58	0.54
3.600	0.81	9.600	3.70	15.600	0.90	21.60	0.54
3.617	0.81	9.617	3.70	15.617	0.90	21.62	0.54
3.633	0.81	9.633	3.70	15.633	0.90	21.63	0.54
3.650	0.81	9.650	3.70	15.650	0.90	21.65	0.54
3.667	0.81	9.667	3.70	15.667	0.90	21.67	0.54
3.683	0.84	9.683	3.37	15.683	0.88	21.68	0.53
3.700	0.84	9.700	3.37	15.700	0.88	21.70	0.53
3.717	0.84	9.717	3.37	15.717	0.88	21.72	0.53
3.733	0.84	9.733	3.37	15.733	0.88	21.73	0.53
3.750	0.84	9.750	3.37	15.750	0.88	21.75	0.53
3.767	0.84	9.767	3.37	15.767	0.88	21.77	0.53
3.783	0.84	9.783	3.37	15.783	0.88	21.78	0.53
3.800	0.84	9.800	3.37	15.800	0.88	21.80	0.53
3.817	0.84	9.817	3.37	15.817	0.88	21.82	0.53
3.833	0.84	9.833	3.37	15.833	0.88	21.83	0.53
3.850	0.87	9.850	3.09	15.850	0.86	21.85	0.53

3.867	0.87	9.867	3.09	15.867	0.86	21.87	0.53
3.883	0.87	9.883	3.09	15.883	0.86	21.88	0.53
3.900	0.87	9.900	3.09	15.900	0.86	21.90	0.53
3.917	0.87	9.917	3.09	15.917	0.86	21.92	0.53
3.933	0.87	9.933	3.09	15.933	0.86	21.93	0.53
3.950	0.87	9.950	3.09	15.950	0.86	21.95	0.53
3.967	0.87	9.967	3.09	15.967	0.86	21.97	0.53
3.983	0.87	9.983	3.09	15.983	0.86	21.98	0.53
4.000	0.87	10.000	3.09	16.000	0.86	22.00	0.53
4.017	0.90	10.017	2.86	16.017	0.85	22.02	0.52
4.033	0.90	10.033	2.86	16.033	0.85	22.03	0.52
4.050	0.90	10.050	2.86	16.050	0.85	22.05	0.52
4.067	0.90	10.067	2.86	16.067	0.85	22.07	0.52
4.083	0.90	10.083	2.86	16.083	0.85	22.08	0.52
4.100	0.90	10.100	2.86	16.100	0.85	22.10	0.52
4.117	0.90	10.117	2.86	16.117	0.85	22.12	0.52
4.133	0.90	10.133	2.86	16.133	0.85	22.13	0.52
4.150	0.90	10.150	2.86	16.150	0.85	22.15	0.52
4.167	0.90	10.167	2.86	16.167	0.85	22.17	0.52
4.183	0.94	10.183	2.67	16.183	0.83	22.18	0.52
4.200	0.94	10.200	2.67	16.200	0.83	22.20	0.52
4.217	0.94	10.217	2.67	16.217	0.83	22.22	0.52
4.233	0.94	10.233	2.67	16.233	0.83	22.23	0.52
4.250	0.94	10.250	2.67	16.250	0.83	22.25	0.52
4.267	0.94	10.267	2.67	16.267	0.83	22.27	0.52
4.283	0.94	10.283	2.67	16.283	0.83	22.28	0.52
4.300	0.94	10.300	2.67	16.300	0.83	22.30	0.52
4.317	0.94	10.317	2.67	16.317	0.83	22.32	0.52
4.333	0.94	10.333	2.67	16.333	0.83	22.33	0.52
4.350	0.98	10.350	2.50	16.350	0.82	22.35	0.51
4.367	0.98	10.367	2.50	16.367	0.82	22.37	0.51
4.383	0.98	10.383	2.50	16.383	0.82	22.38	0.51
4.400	0.98	10.400	2.50	16.400	0.82	22.40	0.51
4.417	0.98	10.417	2.50	16.417	0.82	22.42	0.51
4.433	0.98	10.433	2.50	16.433	0.82	22.43	0.51
4.450	0.98	10.450	2.50	16.450	0.82	22.45	0.51
4.467	0.98	10.467	2.50	16.467	0.82	22.47	0.51
4.483	0.98	10.483	2.50	16.483	0.82	22.48	0.51
4.500	0.98	10.500	2.50	16.500	0.82	22.50	0.51
4.517	1.02	10.517	2.35	16.517	0.80	22.52	0.51
4.533	1.02	10.533	2.35	16.533	0.80	22.53	0.51
4.550	1.02	10.550	2.35	16.550	0.80	22.55	0.51
4.567	1.02	10.567	2.35	16.567	0.80	22.57	0.51
4.583	1.02	10.583	2.35	16.583	0.80	22.58	0.51
4.600	1.02	10.600	2.35	16.600	0.80	22.60	0.51
4.617	1.02	10.617	2.35	16.617	0.80	22.62	0.51
4.633	1.02	10.633	2.35	16.633	0.80	22.63	0.51
4.650	1.02	10.650	2.35	16.650	0.80	22.65	0.51
4.667	1.02	10.667	2.35	16.667	0.80	22.67	0.51
4.683	1.07	10.683	2.22	16.683	0.79	22.68	0.50
4.700	1.07	10.700	2.22	16.700	0.79	22.70	0.50
4.717	1.07	10.717	2.22	16.717	0.79	22.72	0.50

4.733	1.07	10.733	2.22	16.733	0.79	22.73	0.50
4.750	1.07	10.750	2.22	16.750	0.79	22.75	0.50
4.767	1.07	10.767	2.22	16.767	0.79	22.77	0.50
4.783	1.07	10.783	2.22	16.783	0.79	22.78	0.50
4.800	1.07	10.800	2.22	16.800	0.79	22.80	0.50
4.817	1.07	10.817	2.22	16.817	0.79	22.82	0.50
4.833	1.07	10.833	2.22	16.833	0.79	22.83	0.50
4.850	1.13	10.850	2.10	16.850	0.78	22.85	0.50
4.867	1.13	10.867	2.10	16.867	0.78	22.87	0.50
4.883	1.13	10.883	2.10	16.883	0.78	22.88	0.50
4.900	1.13	10.900	2.10	16.900	0.78	22.90	0.50
4.917	1.13	10.917	2.10	16.917	0.78	22.92	0.50
4.933	1.13	10.933	2.10	16.933	0.78	22.93	0.50
4.950	1.13	10.950	2.10	16.950	0.78	22.95	0.50
4.967	1.13	10.967	2.10	16.967	0.78	22.97	0.50
4.983	1.13	10.983	2.10	16.983	0.78	22.98	0.50
5.000	1.13	11.000	2.10	17.000	0.78	23.00	0.50
5.017	1.19	11.017	2.00	17.017	0.77	23.02	0.49
5.033	1.19	11.033	2.00	17.033	0.77	23.03	0.49
5.050	1.19	11.050	2.00	17.050	0.77	23.05	0.49
5.067	1.19	11.067	2.00	17.067	0.77	23.07	0.49
5.083	1.19	11.083	2.00	17.083	0.77	23.08	0.49
5.100	1.19	11.100	2.00	17.100	0.77	23.10	0.49
5.117	1.19	11.117	2.00	17.117	0.77	23.12	0.49
5.133	1.19	11.133	2.00	17.133	0.77	23.13	0.49
5.150	1.19	11.150	2.00	17.150	0.77	23.15	0.49
5.167	1.19	11.167	2.00	17.167	0.77	23.17	0.49
5.183	1.25	11.183	1.90	17.183	0.75	23.18	0.49
5.200	1.25	11.200	1.90	17.200	0.75	23.20	0.49
5.217	1.25	11.217	1.90	17.217	0.75	23.22	0.49
5.233	1.25	11.233	1.90	17.233	0.75	23.23	0.49
5.250	1.25	11.250	1.90	17.250	0.75	23.25	0.49
5.267	1.25	11.267	1.90	17.267	0.75	23.27	0.49
5.283	1.25	11.283	1.90	17.283	0.75	23.28	0.49
5.300	1.25	11.300	1.90	17.300	0.75	23.30	0.49
5.317	1.25	11.317	1.90	17.317	0.75	23.32	0.49
5.333	1.25	11.333	1.90	17.333	0.75	23.33	0.49
5.350	1.33	11.350	1.82	17.350	0.74	23.35	0.48
5.367	1.33	11.367	1.82	17.367	0.74	23.37	0.48
5.383	1.33	11.383	1.82	17.383	0.74	23.38	0.48
5.400	1.33	11.400	1.82	17.400	0.74	23.40	0.48
5.417	1.33	11.417	1.82	17.417	0.74	23.42	0.48
5.433	1.33	11.433	1.82	17.433	0.74	23.43	0.48
5.450	1.33	11.450	1.82	17.450	0.74	23.45	0.48
5.467	1.33	11.467	1.82	17.467	0.74	23.47	0.48
5.483	1.33	11.483	1.82	17.483	0.74	23.48	0.48
5.500	1.33	11.500	1.82	17.500	0.74	23.50	0.48
5.517	1.42	11.517	1.74	17.517	0.73	23.52	0.48
5.533	1.42	11.533	1.74	17.533	0.73	23.53	0.48
5.550	1.42	11.550	1.74	17.550	0.73	23.55	0.48
5.567	1.42	11.567	1.74	17.567	0.73	23.57	0.48
5.583	1.42	11.583	1.74	17.583	0.73	23.58	0.48

5.600	1.42	11.600	1.74	17.600	0.73	23.60	0.48
5.617	1.42	11.617	1.74	17.617	0.73	23.62	0.48
5.633	1.42	11.633	1.74	17.633	0.73	23.63	0.48
5.650	1.42	11.650	1.74	17.650	0.73	23.65	0.48
5.667	1.42	11.667	1.74	17.667	0.73	23.67	0.48
5.683	1.52	11.683	1.67	17.683	0.72	23.68	0.48
5.700	1.52	11.700	1.67	17.700	0.72	23.70	0.48
5.717	1.52	11.717	1.67	17.717	0.72	23.72	0.48
5.733	1.52	11.733	1.67	17.733	0.72	23.73	0.48
5.750	1.52	11.750	1.67	17.750	0.72	23.75	0.48
5.767	1.52	11.767	1.67	17.767	0.72	23.77	0.48
5.783	1.52	11.783	1.67	17.783	0.72	23.78	0.48
5.800	1.52	11.800	1.67	17.800	0.72	23.80	0.48
5.817	1.52	11.817	1.67	17.817	0.72	23.82	0.48
5.833	1.52	11.833	1.67	17.833	0.72	23.83	0.48
5.850	1.64	11.850	1.61	17.850	0.71	23.85	0.47
5.867	1.64	11.867	1.61	17.867	0.71	23.87	0.47
5.883	1.64	11.883	1.61	17.883	0.71	23.88	0.47
5.900	1.64	11.900	1.61	17.900	0.71	23.90	0.47
5.917	1.64	11.917	1.61	17.917	0.71	23.92	0.47
5.933	1.64	11.933	1.61	17.933	0.71	23.93	0.47
5.950	1.64	11.950	1.61	17.950	0.71	23.95	0.47
5.967	1.64	11.967	1.61	17.967	0.71	23.97	0.47
5.983	1.64	11.983	1.61	17.983	0.71	23.98	0.47
6.000	1.64	12.000	1.61	18.000	0.71	24.00	0.47

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Max.Eff.Inten.(mm/hr)=     107.72        13.17
          over (min)         5.00        20.00
Storage Coeff.  (min)=       3.30 (ii)   19.18 (ii)
Unit Hyd. Tpeak (min)=       5.00        20.00
Unit Hyd. peak  (cms)=       0.29         0.06
                                                  *TOTALS*
PEAK FLOW       (cms)=       0.14         0.03       0.148 (iii)
TIME TO PEAK    (hrs)=       8.00         8.32       8.02
RUNOFF VOLUME    (mm)=      66.81        12.30      26.47
TOTAL RAINFALL   (mm)=      67.81        67.81      67.81
RUNOFF COEFFICIENT   =        0.99         0.18       0.39


  (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
      CN*  =  48.0    Ia = Dep. Storage  (Above)
 (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
      THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
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| DUHYD     (  0037)|
| Inlet Cap.= 0.108 |
| #of Inlets=     1 |
| Total(cms)=   0.1 |      AREA     QPEAK     TPEAK    R.V.
--------------------      (ha)     (cms)     (hrs)    (mm)
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TOTAL HYD.(ID= 1):    1.95      0.15      8.02    26.47
  ================================================
MAJOR SYS.(ID= 2):    0.06      0.04      8.02    26.47
MINOR SYS.(ID= 3):    1.89      0.11      7.93    26.47

  NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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 | Junction Command(0038) |
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                          AREA     QPEAK    TPEAK     R.V.
                          (ha)     (cms)    (hrs)     (mm)
 INFLOW : ID= 9(  0037)    1.89      0.11     7.93    26.47
 OUTFLOW: ID= 2(  0038)    1.89      0.11     7.93    26.47

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| CALIB             |
| NASHYD   (  0104)|  Area    (ha)=   0.77   Curve Number   (CN)= 53.0
|ID= 1 DT= 5.0 min |  Ia      (mm)=   5.00   # of Linear Res.(N)= 3.00
--------------------  U.H. Tp(hrs)=   0.34

        NOTE:  RAINFALL WAS TRANSFORMED TO   5.0 MIN. TIME STEP.
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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	0.48	6.083	1.78	12.083	1.55	18.08	0.70
0.167	0.48	6.167	1.78	12.167	1.55	18.17	0.70
0.250	0.49	6.250	1.95	12.250	1.50	18.25	0.69
0.333	0.49	6.333	1.95	12.333	1.50	18.33	0.69
0.417	0.50	6.417	2.16	12.417	1.44	18.42	0.68
0.500	0.50	6.500	2.16	12.500	1.44	18.50	0.68
0.583	0.51	6.583	2.42	12.583	1.40	18.58	0.67
0.667	0.51	6.667	2.42	12.667	1.40	18.67	0.67
0.750	0.52	6.750	2.76	12.750	1.35	18.75	0.66
0.833	0.52	6.833	2.76	12.833	1.35	18.83	0.66
0.917	0.53	6.917	3.23	12.917	1.31	18.92	0.65
1.000	0.53	7.000	3.23	13.000	1.31	19.00	0.65
1.083	0.54	7.083	3.90	13.083	1.27	19.08	0.64
1.167	0.54	7.167	3.90	13.167	1.27	19.17	0.64
1.250	0.55	7.250	4.94	13.250	1.24	19.25	0.64
1.333	0.55	7.333	4.94	13.333	1.24	19.33	0.64
1.417	0.57	7.417	6.81	13.417	1.20	19.42	0.63
1.500	0.57	7.500	6.81	13.500	1.20	19.50	0.63
1.583	0.58	7.583	11.05	13.583	1.17	19.58	0.62
1.667	0.58	7.667	11.05	13.667	1.17	19.67	0.62
1.750	0.59	7.750	28.66	13.750	1.14	19.75	0.61

1.833	0.59	7.833	28.66	13.833	1.14	19.83	0.61
1.917	0.61	7.917	107.72	13.917	1.11	19.92	0.60
2.000	0.61	8.000	107.71	14.000	1.11	20.00	0.60
2.083	0.62	8.083	38.01	14.083	1.09	20.08	0.60
2.167	0.62	8.167	38.00	14.167	1.09	20.17	0.60
2.250	0.64	8.250	19.35	14.250	1.06	20.25	0.59
2.333	0.64	8.333	19.35	14.333	1.06	20.33	0.59
2.417	0.66	8.417	12.71	14.417	1.04	20.42	0.58
2.500	0.66	8.500	12.71	14.500	1.04	20.50	0.58
2.583	0.67	8.583	9.41	14.583	1.01	20.58	0.58
2.667	0.67	8.667	9.41	14.667	1.01	20.67	0.58
2.750	0.69	8.750	7.46	14.750	0.99	20.75	0.57
2.833	0.69	8.833	7.46	14.833	0.99	20.83	0.57
2.917	0.71	8.917	6.18	14.917	0.97	20.92	0.56
3.000	0.71	9.000	6.18	15.000	0.97	21.00	0.56
3.083	0.74	9.083	5.28	15.083	0.95	21.08	0.56
3.167	0.74	9.167	5.28	15.167	0.95	21.17	0.56
3.250	0.76	9.250	4.62	15.250	0.93	21.25	0.55
3.333	0.76	9.333	4.62	15.333	0.93	21.33	0.55
3.417	0.78	9.417	4.11	15.417	0.91	21.42	0.55
3.500	0.78	9.500	4.11	15.500	0.91	21.50	0.55
3.583	0.81	9.583	3.70	15.583	0.90	21.58	0.54
3.667	0.81	9.667	3.70	15.667	0.90	21.67	0.54
3.750	0.84	9.750	3.37	15.750	0.88	21.75	0.53
3.833	0.84	9.833	3.37	15.833	0.88	21.83	0.53
3.917	0.87	9.917	3.09	15.917	0.86	21.92	0.53
4.000	0.87	10.000	3.09	16.000	0.86	22.00	0.53
4.083	0.90	10.083	2.86	16.083	0.85	22.08	0.52
4.167	0.90	10.167	2.86	16.167	0.85	22.17	0.52
4.250	0.94	10.250	2.67	16.250	0.83	22.25	0.52
4.333	0.94	10.333	2.67	16.333	0.83	22.33	0.52
4.417	0.98	10.417	2.50	16.417	0.82	22.42	0.51
4.500	0.98	10.500	2.50	16.500	0.82	22.50	0.51
4.583	1.02	10.583	2.35	16.583	0.80	22.58	0.51
4.667	1.02	10.667	2.35	16.667	0.80	22.67	0.51
4.750	1.07	10.750	2.22	16.750	0.79	22.75	0.50
4.833	1.07	10.833	2.22	16.833	0.79	22.83	0.50
4.917	1.13	10.917	2.10	16.917	0.78	22.92	0.50
5.000	1.13	11.000	2.10	17.000	0.78	23.00	0.50
5.083	1.19	11.083	2.00	17.083	0.77	23.08	0.49
5.167	1.19	11.167	2.00	17.167	0.77	23.17	0.49
5.250	1.25	11.250	1.90	17.250	0.75	23.25	0.49
5.333	1.25	11.333	1.90	17.333	0.75	23.33	0.49
5.417	1.33	11.417	1.82	17.417	0.74	23.42	0.48
5.500	1.33	11.500	1.82	17.500	0.74	23.50	0.48
5.583	1.42	11.583	1.74	17.583	0.73	23.58	0.48
5.667	1.42	11.667	1.74	17.667	0.73	23.67	0.48
5.750	1.52	11.750	1.67	17.750	0.72	23.75	0.48
5.833	1.52	11.833	1.67	17.833	0.72	23.83	0.48
5.917	1.64	11.917	1.61	17.917	0.71	23.92	0.47
6.000	1.64	12.000	1.61	18.000	0.71	24.00	0.47

Unit Hyd Qpeak (cms)= 0.086

PEAK FLOW (cms)= 0.016 (i)
TIME TO PEAK (hrs)= 8.333
RUNOFF VOLUME (mm)= 13.692
TOTAL RAINFALL (mm)= 67.812
RUNOFF COEFFICIENT = 0.202

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

CALIB			
STANDHYD (0103)	Area (ha)= 1.17		
ID= 1 DT= 1.0 min	Total Imp(%)= 24.00	Dir. Conn.(%)= 20.00	

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.28	0.89
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.50	2.00
Length (m)=	88.20	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 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
0.017	0.48	6.017	1.78	12.017	1.55	18.02	0.70
0.033	0.48	6.033	1.78	12.033	1.55	18.03	0.70
0.050	0.48	6.050	1.78	12.050	1.55	18.05	0.70
0.067	0.48	6.067	1.78	12.067	1.55	18.07	0.70
0.083	0.48	6.083	1.78	12.083	1.55	18.08	0.70
0.100	0.48	6.100	1.78	12.100	1.55	18.10	0.70
0.117	0.48	6.117	1.78	12.117	1.55	18.12	0.70
0.133	0.48	6.133	1.78	12.133	1.55	18.13	0.70
0.150	0.48	6.150	1.78	12.150	1.55	18.15	0.70
0.167	0.48	6.167	1.78	12.167	1.55	18.17	0.70
0.183	0.49	6.183	1.95	12.183	1.50	18.18	0.69
0.200	0.49	6.200	1.95	12.200	1.50	18.20	0.69
0.217	0.49	6.217	1.95	12.217	1.50	18.22	0.69
0.233	0.49	6.233	1.95	12.233	1.50	18.23	0.69
0.250	0.49	6.250	1.95	12.250	1.50	18.25	0.69
0.267	0.49	6.267	1.95	12.267	1.50	18.27	0.69
0.283	0.49	6.283	1.95	12.283	1.50	18.28	0.69
0.300	0.49	6.300	1.95	12.300	1.50	18.30	0.69
0.317	0.49	6.317	1.95	12.317	1.50	18.32	0.69
0.333	0.49	6.333	1.95	12.333	1.50	18.33	0.69
0.350	0.50	6.350	2.16	12.350	1.44	18.35	0.68
0.367	0.50	6.367	2.16	12.367	1.44	18.37	0.68
0.383	0.50	6.383	2.16	12.383	1.44	18.38	0.68
0.400	0.50	6.400	2.16	12.400	1.44	18.40	0.68
0.417	0.50	6.417	2.16	12.417	1.44	18.42	0.68
0.433	0.50	6.433	2.16	12.433	1.44	18.43	0.68
0.450	0.50	6.450	2.16	12.450	1.44	18.45	0.68
0.467	0.50	6.467	2.16	12.467	1.44	18.47	0.68
0.483	0.50	6.483	2.16	12.483	1.44	18.48	0.68
0.500	0.50	6.500	2.16	12.500	1.44	18.50	0.68
0.517	0.51	6.517	2.42	12.517	1.40	18.52	0.67
0.533	0.51	6.533	2.42	12.533	1.40	18.53	0.67
0.550	0.51	6.550	2.42	12.550	1.40	18.55	0.67
0.567	0.51	6.567	2.42	12.567	1.40	18.57	0.67
0.583	0.51	6.583	2.42	12.583	1.40	18.58	0.67
0.600	0.51	6.600	2.42	12.600	1.40	18.60	0.67
0.617	0.51	6.617	2.42	12.617	1.40	18.62	0.67
0.633	0.51	6.633	2.42	12.633	1.40	18.63	0.67
0.650	0.51	6.650	2.42	12.650	1.40	18.65	0.67
0.667	0.51	6.667	2.42	12.667	1.40	18.67	0.67
0.683	0.52	6.683	2.76	12.683	1.35	18.68	0.66
0.700	0.52	6.700	2.76	12.700	1.35	18.70	0.66
0.717	0.52	6.717	2.76	12.717	1.35	18.72	0.66
0.733	0.52	6.733	2.76	12.733	1.35	18.73	0.66
0.750	0.52	6.750	2.76	12.750	1.35	18.75	0.66
0.767	0.52	6.767	2.76	12.767	1.35	18.77	0.66
0.783	0.52	6.783	2.76	12.783	1.35	18.78	0.66
0.800	0.52	6.800	2.76	12.800	1.35	18.80	0.66
0.817	0.52	6.817	2.76	12.817	1.35	18.82	0.66
0.833	0.52	6.833	2.76	12.833	1.35	18.83	0.66
0.850	0.53	6.850	3.23	12.850	1.31	18.85	0.65
0.867	0.53	6.867	3.23	12.867	1.31	18.87	0.65
0.883	0.53	6.883	3.23	12.883	1.31	18.88	0.65
0.900	0.53	6.900	3.23	12.900	1.31	18.90	0.65
0.917	0.53	6.917	3.23	12.917	1.31	18.92	0.65
0.933	0.53	6.933	3.23	12.933	1.31	18.93	0.65
0.950	0.53	6.950	3.23	12.950	1.31	18.95	0.65
0.967	0.53	6.967	3.23	12.967	1.31	18.97	0.65
0.983	0.53	6.983	3.23	12.983	1.31	18.98	0.65
1.000	0.53	7.000	3.23	13.000	1.31	19.00	0.65
1.017	0.54	7.017	3.90	13.017	1.27	19.02	0.64
1.033	0.54	7.033	3.90	13.033	1.27	19.03	0.64
1.050	0.54	7.050	3.90	13.050	1.27	19.05	0.64
1.067	0.54	7.067	3.90	13.067	1.27	19.07	0.64
1.083	0.54	7.083	3.90	13.083	1.27	19.08	0.64
1.100	0.54	7.100	3.90	13.100	1.27	19.10	0.64
1.117	0.54	7.117	3.90	13.117	1.27	19.12	0.64
1.133	0.54	7.133	3.90	13.133	1.27	19.13	0.64
1.150	0.54	7.150	3.90	13.150	1.27	19.15	0.64
1.167	0.54	7.167	3.90	13.167	1.27	19.17	0.64
1.183	0.55	7.183	4.94	13.183	1.24	19.18	0.64
1.200	0.55	7.200	4.94	13.200	1.24	19.20	0.64
1.217	0.55	7.217	4.94	13.217	1.24	19.22	0.64
1.233	0.55	7.233	4.94	13.233	1.24	19.23	0.64
1.250	0.55	7.250	4.94	13.250	1.24	19.25	0.64
1.267	0.55	7.267	4.94	13.267	1.24	19.27	0.64
1.283	0.55	7.283	4.94	13.283	1.24	19.28	0.64
1.300	0.55	7.300	4.94	13.300	1.24	19.30	0.64
1.317	0.55	7.317	4.94	13.317	1.24	19.32	0.64
1.333	0.55	7.333	4.95	13.333	1.24	19.33	0.64
1.350	0.57	7.350	6.81	13.350	1.20	19.35	0.63
1.367	0.57	7.367	6.81	13.367	1.20	19.37	0.63
1.383	0.57	7.383	6.81	13.383	1.20	19.38	0.63
1.400	0.57	7.400	6.81	13.400	1.20	19.40	0.63
1.417	0.57	7.417	6.81	13.417	1.20	19.42	0.63
1.433	0.57	7.433	6.81	13.433	1.20	19.43	0.63
1.450	0.57	7.450	6.81	13.450	1.20	19.45	0.63
1.467	0.57	7.467	6.81	13.467	1.20	19.47	0.63
1.483	0.57	7.483	6.81	13.483	1.20	19.48	0.63
1.500	0.57	7.500	6.82	13.500	1.20	19.50	0.63
1.517	0.58	7.517	11.05	13.517	1.17	19.52	0.62
1.533	0.58	7.533	11.05	13.533	1.17	19.53	0.62
1.550	0.58	7.550	11.05	13.550	1.17	19.55	0.62
1.567	0.58	7.567	11.05	13.567	1.17	19.57	0.62
1.583	0.58	7.583	11.05	13.583	1.17	19.58	0.62
1.600	0.58	7.600	11.05	13.600	1.17	19.60	0.62
1.617	0.58	7.617	11.05	13.617	1.17	19.62	0.62
1.633	0.58	7.633	11.05	13.633	1.17	19.63	0.62
1.650	0.58	7.650	11.05	13.650	1.17	19.65	0.62
1.667	0.58	7.667	11.10	13.667	1.17	19.67	0.62
1.683	0.59	7.683	28.66	13.683	1.14	19.68	0.61
1.700	0.59	7.700	28.66	13.700	1.14	19.70	0.61
1.717	0.59	7.717	28.66	13.717	1.14	19.72	0.61
1.733	0.59	7.733	28.66	13.733	1.14	19.73	0.61
1.750	0.59	7.750	28.66	13.750	1.14	19.75	0.61
1.767	0.59	7.767	28.66	13.767	1.14	19.77	0.61
1.783	0.59	7.783	28.66	13.783	1.14	19.78	0.61
1.800	0.59	7.800	28.66	13.800	1.14	19.80	0.61
1.817	0.59	7.817	28.66	13.817	1.14	19.82	0.61
1.833	0.59	7.833	28.88	13.833	1.14	19.83	0.61
1.850	0.61	7.850	107.72	13.850	1.11	19.85	0.60
1.867	0.61	7.867	107.72	13.867	1.11	19.87	0.60
1.883	0.61	7.883	107.72	13.883	1.11	19.88	0.60
1.900	0.61	7.900	107.72	13.900	1.11	19.90	0.60
1.917	0.61	7.917	107.72	13.917	1.11	19.92	0.60
1.933	0.61	7.933	107.72	13.933	1.11	19.93	0.60
1.950	0.61	7.950	107.72	13.950	1.11	19.95	0.60
1.967	0.61	7.967	107.72	13.967	1.11	19.97	0.60
1.983	0.61	7.983	107.72	13.983	1.11	19.98	0.60
2.000	0.61	8.000	107.51	14.000	1.11	20.00	0.60
2.017	0.62	8.017	38.01	14.017	1.09	20.02	0.60
2.033	0.62	8.033	38.01	14.033	1.09	20.03	0.60
2.050	0.62	8.050	38.01	14.050	1.09	20.05	0.60
2.067	0.62	8.067	38.01	14.067	1.09	20.07	0.60
2.083	0.62	8.083	38.01	14.083	1.09	20.08	0.60
2.100	0.62	8.100	38.01	14.100	1.09	20.10	0.60
2.117	0.62	8.117	38.01	14.117	1.09	20.12	0.60
2.133	0.62	8.133	38.01	14.133	1.09	20.13	0.60
2.150	0.62	8.150	38.01	14.150	1.09	20.15	0.60
2.167	0.62	8.167	37.95	14.167	1.09	20.17	0.60
2.183	0.64	8.183	19.35	14.183	1.06	20.18	0.59
2.200	0.64	8.200	19.35	14.200	1.06	20.20	0.59
2.217	0.64	8.217	19.35	14.217	1.06	20.22	0.59
2.233	0.64	8.233	19.35	14.233	1.06	20.23	0.59
2.250	0.64	8.250	19.35	14.250	1.06	20.25	0.59
2.267	0.64	8.267	19.35	14.267	1.06	20.27	0.59
2.283	0.64	8.283	19.35	14.283	1.06	20.28	0.59
2.300	0.64	8.300	19.35	14.300	1.06	20.30	0.59
2.317	0.64	8.317	19.35	14.317	1.06	20.32	0.59
2.333	0.64	8.333	19.33	14.333	1.06	20.33	0.59
2.350	0.66	8.350	12.71	14.350	1.04	20.35	0.58
2.367	0.66	8.367	12.71	14.367	1.04	20.37	0.58
2.383	0.66	8.383	12.71	14.383	1.04	20.38	0.58
2.400	0.66	8.400	12.71	14.400	1.04	20.40	0.58
2.417	0.66	8.417	12.71	14.417	1.04	20.42	0.58
2.433	0.66	8.433	12.71	14.433	1.04	20.43	0.58
2.450	0.66	8.450	12.71	14.450	1.04	20.45	0.58
2.467	0.66	8.467	12.71	14.467	1.04	20.47	0.58
2.483	0.66	8.483	12.71	14.483	1.04	20.48	0.58
2.500	0.66	8.500	12.70	14.500	1.04	20.50	0.58
2.517	0.67	8.517	9.41	14.517	1.01	20.52	0.58
2.533	0.67	8.533	9.41	14.533	1.01	20.53	0.58
2.550	0.67	8.550	9.41	14.550	1.01	20.55	0.58
2.567	0.67	8.567	9.41	14.567	1.01	20.57	0.58
2.583	0.67	8.583	9.41	14.583	1.01	20.58	0.58
2.600	0.67	8.600	9.41	14.600	1.01	20.60	0.58
2.617	0.67	8.617	9.41	14.617	1.01	20.62	0.58
2.633	0.67	8.633	9.41	14.633	1.01	20.63	0.58
2.650	0.67	8.650	9.41	14.650	1.01	20.65	0.58
2.667	0.67	8.667	9.41	14.667	1.01	20.67	0.58
2.683	0.69	8.683	7.46	14.683	0.99	20.68	0.57
2.700	0.69	8.700	7.46	14.700	0.99	20.70	0.57
2.717	0.69	8.717	7.46	14.717	0.99	20.72	0.57
2.733	0.69	8.733	7.46	14.733	0.99	20.73	0.57
2.750	0.69	8.750	7.46	14.750	0.99	20.75	0.57
2.767	0.69	8.767	7.46	14.767	0.99	20.77	0.57
2.783	0.69	8.783	7.46	14.783	0.99	20.78	0.57
2.800	0.69	8.800	7.46	14.800	0.99	20.80	0.57
2.817	0.69	8.817	7.46	14.817	0.99	20.82	0.57
2.833	0.69	8.833	7.46	14.833	0.99	20.83	0.57
2.850	0.71	8.850	6.18	14.850	0.97	20.85	0.56
2.867	0.71	8.867	6.18	14.867	0.97	20.87	0.56
2.883	0.71	8.883	6.18	14.883	0.97	20.88	0.56
2.900	0.71	8.900	6.18	14.900	0.97	20.90	0.56
2.917	0.71	8.917	6.18	14.917	0.97	20.92	0.56
2.933	0.71	8.933	6.18	14.933	0.97	20.93	0.56
2.950	0.71	8.950	6.18	14.950	0.97	20.95	0.56
2.967	0.71	8.967	6.18	14.967	0.97	20.97	0.56
2.983	0.71	8.983	6.18	14.983	0.97	20.98	0.56
3.000	0.71	9.000	6.18	15.000	0.97	21.00	0.56
3.017	0.74	9.017	5.28	15.017	0.95	21.02	0.56
3.033	0.74	9.033	5.28	15.033	0.95	21.03	0.56
3.050	0.74	9.050	5.28	15.050	0.95	21.05	0.56
3.067	0.74	9.067	5.28	15.067	0.95	21.07	0.56
3.083	0.74	9.083	5.28	15.083	0.95	21.08	0.56
3.100	0.74	9.100	5.28	15.100	0.95	21.10	0.56
3.117	0.74	9.117	5.28	15.117	0.95	21.12	0.56
3.133	0.74	9.133	5.28	15.133	0.95	21.13	0.56
3.150	0.74	9.150	5.28	15.150	0.95	21.15	0.56
3.167	0.74	9.167	5.28	15.167	0.95	21.17	0.56
3.183	0.76	9.183	4.62	15.183	0.93	21.18	0.55
3.200	0.76	9.200	4.62	15.200	0.93	21.20	0.55
3.217	0.76	9.217	4.62	15.217	0.93	21.22	0.55
3.233	0.76	9.233	4.62	15.233	0.93	21.23	0.55
3.250	0.76	9.250	4.62	15.250	0.93	21.25	0.55
3.267	0.76	9.267	4.62	15.267	0.93	21.27	0.55
3.283	0.76	9.283	4.62	15.283	0.93	21.28	0.55
3.300	0.76	9.300	4.62	15.300	0.93	21.30	0.55
3.317	0.76	9.317	4.62	15.317	0.93	21.32	0.55
3.333	0.76	9.333	4.62	15.333	0.93	21.33	0.55
3.350	0.78	9.350	4.11	15.350	0.91	21.35	0.55
3.367	0.78	9.367	4.11	15.367	0.91	21.37	0.55
3.383	0.78	9.383	4.11	15.383	0.91	21.38	0.55
3.400	0.78	9.400	4.11	15.400	0.91	21.40	0.55
3.417	0.78	9.417	4.11	15.417	0.91	21.42	0.55
3.433	0.78	9.433	4.11	15.433	0.91	21.43	0.55
3.450	0.78	9.450	4.11	15.450	0.91	21.45	0.55
3.467	0.78	9.467	4.11	15.467	0.91	21.47	0.55
3.483	0.78	9.483	4.11	15.483	0.91	21.48	0.55
3.500	0.78	9.500	4.10	15.500	0.91	21.50	0.55
3.517	0.81	9.517	3.70	15.517	0.90	21.52	0.54
3.533	0.81	9.533	3.70	15.533	0.90	21.53	0.54
3.550	0.81	9.550	3.70	15.550	0.90	21.55	0.54
3.567	0.81	9.567	3.70	15.567	0.90	21.57	0.54
3.583	0.81	9.583	3.70	15.583	0.90	21.58	0.54
3.600	0.81	9.600	3.70	15.600	0.90	21.60	0.54
3.617	0.81	9.617	3.70	15.617	0.90	21.62	0.54
3.633	0.81	9.633	3.70	15.633	0.90	21.63	0.54
3.650	0.81	9.650	3.70	15.650	0.90	21.65	0.54
3.667	0.81	9.667	3.70	15.667	0.90	21.67	0.54
3.683	0.84	9.683	3.37	15.683	0.88	21.68	0.53
3.700	0.84	9.700	3.37	15.700	0.88	21.70	0.53
3.717	0.84	9.717	3.37	15.717	0.88	21.72	0.53
3.733	0.84	9.733	3.37	15.733	0.88	21.73	0.53
3.750	0.84	9.750	3.37	15.750	0.88	21.75	0.53
3.767	0.84	9.767	3.37	15.767	0.88	21.77	0.53
3.783	0.84	9.783	3.37	15.783	0.88	21.78	0.53
3.800	0.84	9.800	3.37	15.800	0.88	21.80	0.53
3.817	0.84	9.817	3.37	15.817	0.88	21.82	0.53
3.833	0.84	9.833	3.37	15.833	0.88	21.83	0.53
3.850	0.87	9.850	3.09	15.850	0.86	21.85	0.53
3.867	0.87	9.867	3.09	15.867	0.86	21.87	0.53
3.883	0.87	9.883	3.09	15.883	0.86	21.88	0.53
3.900	0.87	9.900	3.09	15.900	0.86	21.90	0.53
3.917	0.87	9.917	3.09	15.917	0.86	21.92	0.53
3.933	0.87	9.933	3.09	15.933	0.86	21.93	0.53
3.950	0.87	9.950	3.09	15.950	0.86	21.95	0.53
3.967	0.87	9.967	3.09	15.967	0.86	21.97	0.53
3.983	0.87	9.983	3.09	15.983	0.86	21.98	0.53
4.000	0.87	10.000	3.09	16.000	0.86	22.00	0.53
4.017	0.90	10.017	2.86	16.017	0.85	22.02	0.52
4.033	0.90	10.033	2.86	16.033	0.85	22.03	0.52
4.050	0.90	10.050	2.86	16.050	0.85	22.05	0.52
4.067	0.90	10.067	2.86	16.067	0.85	22.07	0.52
4.083	0.90	10.083	2.86	16.083	0.85	22.08	0.52
4.100	0.90	10.100	2.86	16.100	0.85	22.10	0.52
4.117	0.90	10.117	2.86	16.117	0.85	22.12	0.52
4.133	0.90	10.133	2.86	16.133	0.85	22.13	0.52
4.150	0.90	10.150	2.86	16.150	0.85	22.15	0.52
4.167	0.90	10.167	2.86	16.167	0.85	22.17	0.52
4.183	0.94	10.183	2.67	16.183	0.83	22.18	0.52
4.200	0.94	10.200	2.67	16.200	0.83	22.20	0.52
4.217	0.94	10.217	2.67	16.217	0.83	22.22	0.52
4.233	0.94	10.233	2.67	16.233	0.83	22.23	0.52
4.250	0.94	10.250	2.67	16.250	0.83	22.25	0.52
4.267	0.94	10.267	2.67	16.267	0.83	22.27	0.52
4.283	0.94	10.283	2.67	16.283	0.83	22.28	0.52
4.300	0.94	10.300	2.67	16.300	0.83	22.30	0.52
4.317	0.94	10.317	2.67	16.317	0.83	22.32	0.52
4.333	0.94	10.333	2.67	16.333	0.83	22.33	0.52
4.350	0.98	10.350	2.50	16.350	0.82	22.35	0.51
4.367	0.98	10.367	2.50	16.367	0.82	22.37	0.51
4.383	0.98	10.383	2.50	16.383	0.82	22.38	0.51
4.400	0.98	10.400	2.50	16.400	0.82	22.40	0.51
4.417	0.98	10.417	2.50	16.417	0.82	22.42	0.51
4.433	0.98	10.433	2.50	16.433	0.82	22.43	0.51
4.450	0.98	10.450	2.50	16.450	0.82	22.45	0.51
4.467	0.98	10.467	2.50	16.467	0.82	22.47	0.51
4.483	0.98	10.483	2.50	16.483	0.82	22.48	0.51
4.500	0.98	10.500	2.50	16.500	0.82	22.50	0.51
4.517	1.02	10.517	2.35	16.517	0.80	22.52	0.51
4.533	1.02	10.533	2.35	16.533	0.80	22.53	0.51
4.550	1.02	10.550	2.35	16.550	0.80	22.55	0.51
4.567	1.02	10.567	2.35	16.567	0.80	22.57	0.51
4.583	1.02	10.583	2.35	16.583	0.80	22.58	0.51
4.600	1.02	10.600	2.35	16.600	0.80	22.60	0.51
4.617	1.02	10.617	2.35	16.617	0.80	22.62	0.51
4.633	1.02	10.633	2.35	16.633	0.80	22.63	0.51
4.650	1.02	10.650	2.35	16.650	0.80	22.65	0.51
4.667	1.02	10.667	2.35	16.667	0.80	22.67	0.51
4.683	1.07	10.683	2.22	16.683	0.79	22.68	0.50
4.700	1.07	10.700	2.22	16.700	0.79	22.70	0.50
4.717	1.07	10.717	2.22	16.717	0.79	22.72	0.50

4.733	1.07	10.733	2.22	16.733	0.79	22.73	0.50
4.750	1.07	10.750	2.22	16.750	0.79	22.75	0.50
4.767	1.07	10.767	2.22	16.767	0.79	22.77	0.50
4.783	1.07	10.783	2.22	16.783	0.79	22.78	0.50
4.800	1.07	10.800	2.22	16.800	0.79	22.80	0.50
4.817	1.07	10.817	2.22	16.817	0.79	22.82	0.50
4.833	1.07	10.833	2.22	16.833	0.79	22.83	0.50
4.850	1.13	10.850	2.10	16.850	0.78	22.85	0.50
4.867	1.13	10.867	2.10	16.867	0.78	22.87	0.50
4.883	1.13	10.883	2.10	16.883	0.78	22.88	0.50
4.900	1.13	10.900	2.10	16.900	0.78	22.90	0.50
4.917	1.13	10.917	2.10	16.917	0.78	22.92	0.50
4.933	1.13	10.933	2.10	16.933	0.78	22.93	0.50
4.950	1.13	10.950	2.10	16.950	0.78	22.95	0.50
4.967	1.13	10.967	2.10	16.967	0.78	22.97	0.50
4.983	1.13	10.983	2.10	16.983	0.78	22.98	0.50
5.000	1.13	11.000	2.10	17.000	0.78	23.00	0.50
5.017	1.19	11.017	2.00	17.017	0.77	23.02	0.49
5.033	1.19	11.033	2.00	17.033	0.77	23.03	0.49
5.050	1.19	11.050	2.00	17.050	0.77	23.05	0.49
5.067	1.19	11.067	2.00	17.067	0.77	23.07	0.49
5.083	1.19	11.083	2.00	17.083	0.77	23.08	0.49
5.100	1.19	11.100	2.00	17.100	0.77	23.10	0.49
5.117	1.19	11.117	2.00	17.117	0.77	23.12	0.49
5.133	1.19	11.133	2.00	17.133	0.77	23.13	0.49
5.150	1.19	11.150	2.00	17.150	0.77	23.15	0.49
5.167	1.19	11.167	2.00	17.167	0.77	23.17	0.49
5.183	1.25	11.183	1.90	17.183	0.75	23.18	0.49
5.200	1.25	11.200	1.90	17.200	0.75	23.20	0.49
5.217	1.25	11.217	1.90	17.217	0.75	23.22	0.49
5.233	1.25	11.233	1.90	17.233	0.75	23.23	0.49
5.250	1.25	11.250	1.90	17.250	0.75	23.25	0.49
5.267	1.25	11.267	1.90	17.267	0.75	23.27	0.49
5.283	1.25	11.283	1.90	17.283	0.75	23.28	0.49
5.300	1.25	11.300	1.90	17.300	0.75	23.30	0.49
5.317	1.25	11.317	1.90	17.317	0.75	23.32	0.49
5.333	1.25	11.333	1.90	17.333	0.75	23.33	0.49
5.350	1.33	11.350	1.82	17.350	0.74	23.35	0.48
5.367	1.33	11.367	1.82	17.367	0.74	23.37	0.48
5.383	1.33	11.383	1.82	17.383	0.74	23.38	0.48
5.400	1.33	11.400	1.82	17.400	0.74	23.40	0.48
5.417	1.33	11.417	1.82	17.417	0.74	23.42	0.48
5.433	1.33	11.433	1.82	17.433	0.74	23.43	0.48
5.450	1.33	11.450	1.82	17.450	0.74	23.45	0.48
5.467	1.33	11.467	1.82	17.467	0.74	23.47	0.48
5.483	1.33	11.483	1.82	17.483	0.74	23.48	0.48
5.500	1.33	11.500	1.82	17.500	0.74	23.50	0.48
5.517	1.42	11.517	1.74	17.517	0.73	23.52	0.48
5.533	1.42	11.533	1.74	17.533	0.73	23.53	0.48
5.550	1.42	11.550	1.74	17.550	0.73	23.55	0.48
5.567	1.42	11.567	1.74	17.567	0.73	23.57	0.48
5.583	1.42	11.583	1.74	17.583	0.73	23.58	0.48

5.600	1.42	11.600	1.74	17.600	0.73	23.60	0.48
5.617	1.42	11.617	1.74	17.617	0.73	23.62	0.48
5.633	1.42	11.633	1.74	17.633	0.73	23.63	0.48
5.650	1.42	11.650	1.74	17.650	0.73	23.65	0.48
5.667	1.42	11.667	1.74	17.667	0.73	23.67	0.48
5.683	1.52	11.683	1.67	17.683	0.72	23.68	0.48
5.700	1.52	11.700	1.67	17.700	0.72	23.70	0.48
5.717	1.52	11.717	1.67	17.717	0.72	23.72	0.48
5.733	1.52	11.733	1.67	17.733	0.72	23.73	0.48
5.750	1.52	11.750	1.67	17.750	0.72	23.75	0.48
5.767	1.52	11.767	1.67	17.767	0.72	23.77	0.48
5.783	1.52	11.783	1.67	17.783	0.72	23.78	0.48
5.800	1.52	11.800	1.67	17.800	0.72	23.80	0.48
5.817	1.52	11.817	1.67	17.817	0.72	23.82	0.48
5.833	1.52	11.833	1.67	17.833	0.72	23.83	0.48
5.850	1.64	11.850	1.61	17.850	0.71	23.85	0.47
5.867	1.64	11.867	1.61	17.867	0.71	23.87	0.47
5.883	1.64	11.883	1.61	17.883	0.71	23.88	0.47
5.900	1.64	11.900	1.61	17.900	0.71	23.90	0.47
5.917	1.64	11.917	1.61	17.917	0.71	23.92	0.47
5.933	1.64	11.933	1.61	17.933	0.71	23.93	0.47
5.950	1.64	11.950	1.61	17.950	0.71	23.95	0.47
5.967	1.64	11.967	1.61	17.967	0.71	23.97	0.47
5.983	1.64	11.983	1.61	17.983	0.71	23.98	0.47
6.000	1.64	12.000	1.61	18.000	0.71	24.00	0.47

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     Max.Eff.Inten.(mm/hr)=     107.72        18.70
                  over (min)       5.00        17.00
     Storage Coeff.  (min)=       2.83 (ii)   16.63 (ii)
     Unit Hyd. Tpeak (min)=       5.00        17.00
     Unit Hyd. peak  (cms)=       0.32         0.07
                                                        *TOTALS*
     PEAK FLOW       (cms)=       0.07         0.03          0.076 (iii)
     TIME TO PEAK    (hrs)=       8.00         8.27          8.02
     RUNOFF VOLUME    (mm)=      66.81        16.22         26.33
     TOTAL RAINFALL   (mm)=      67.81        67.81         67.81
     RUNOFF COEFFICIENT   =       0.99         0.24          0.39

***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
              YOU SHOULD CONSIDER SPLITTING THE AREA.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
             CN*  =  57.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
             THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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| CALIB            |
| STANDHYD (  1011)|   Area    (ha)=  13.73
|ID= 1 DT= 1.0 min |   Total Imp(%)=  46.00   Dir. Conn.(%)=  39.00
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                                IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       6.32          7.42
     Dep. Storage     (mm)=       1.00          5.00
     Average Slope     (%)=       0.50          2.00
     Length            (m)=     302.59         40.00
     Mannings n             =     0.013         0.250

        NOTE:  RAINFALL WAS TRANSFORMED TO   1.0 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
     0.017    0.48 | 6.017    1.78 |12.017    1.55 | 18.02    0.70
     0.033    0.48 | 6.033    1.78 |12.033    1.55 | 18.03    0.70
     0.050    0.48 | 6.050    1.78 |12.050    1.55 | 18.05    0.70
     0.067    0.48 | 6.067    1.78 |12.067    1.55 | 18.07    0.70
     0.083    0.48 | 6.083    1.78 |12.083    1.55 | 18.08    0.70
     0.100    0.48 | 6.100    1.78 |12.100    1.55 | 18.10    0.70
     0.117    0.48 | 6.117    1.78 |12.117    1.55 | 18.12    0.70
     0.133    0.48 | 6.133    1.78 |12.133    1.55 | 18.13    0.70
     0.150    0.48 | 6.150    1.78 |12.150    1.55 | 18.15    0.70
     0.167    0.48 | 6.167    1.78 |12.167    1.55 | 18.17    0.70
     0.183    0.49 | 6.183    1.95 |12.183    1.50 | 18.18    0.69
     0.200    0.49 | 6.200    1.95 |12.200    1.50 | 18.20    0.69
     0.217    0.49 | 6.217    1.95 |12.217    1.50 | 18.22    0.69
     0.233    0.49 | 6.233    1.95 |12.233    1.50 | 18.23    0.69
     0.250    0.49 | 6.250    1.95 |12.250    1.50 | 18.25    0.69
     0.267    0.49 | 6.267    1.95 |12.267    1.50 | 18.27    0.69
     0.283    0.49 | 6.283    1.95 |12.283    1.50 | 18.28    0.69
     0.300    0.49 | 6.300    1.95 |12.300    1.50 | 18.30    0.69
     0.317    0.49 | 6.317    1.95 |12.317    1.50 | 18.32    0.69
     0.333    0.49 | 6.333    1.95 |12.333    1.50 | 18.33    0.69
     0.350    0.50 | 6.350    2.16 |12.350    1.44 | 18.35    0.68
     0.367    0.50 | 6.367    2.16 |12.367    1.44 | 18.37    0.68
     0.383    0.50 | 6.383    2.16 |12.383    1.44 | 18.38    0.68
     0.400    0.50 | 6.400    2.16 |12.400    1.44 | 18.40    0.68
     0.417    0.50 | 6.417    2.16 |12.417    1.44 | 18.42    0.68
     0.433    0.50 | 6.433    2.16 |12.433    1.44 | 18.43    0.68
     0.450    0.50 | 6.450    2.16 |12.450    1.44 | 18.45    0.68
     0.467    0.50 | 6.467    2.16 |12.467    1.44 | 18.47    0.68
     0.483    0.50 | 6.483    2.16 |12.483    1.44 | 18.48    0.68
     0.500    0.50 | 6.500    2.16 |12.500    1.44 | 18.50    0.68
     0.517    0.51 | 6.517    2.42 |12.517    1.40 | 18.52    0.67
     0.533    0.51 | 6.533    2.42 |12.533    1.40 | 18.53    0.67
     0.550    0.51 | 6.550    2.42 |12.550    1.40 | 18.55    0.67
     0.567    0.51 | 6.567    2.42 |12.567    1.40 | 18.57    0.67
     0.583    0.51 | 6.583    2.42 |12.583    1.40 | 18.58    0.67
     0.600    0.51 | 6.600    2.42 |12.600    1.40 | 18.60    0.67
     0.617    0.51 | 6.617    2.42 |12.617    1.40 | 18.62    0.67
     0.633    0.51 | 6.633    2.42 |12.633    1.40 | 18.63    0.67
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0.650	0.51	6.650	2.42	12.650	1.40	18.65	0.67
0.667	0.51	6.667	2.42	12.667	1.40	18.67	0.67
0.683	0.52	6.683	2.76	12.683	1.35	18.68	0.66
0.700	0.52	6.700	2.76	12.700	1.35	18.70	0.66
0.717	0.52	6.717	2.76	12.717	1.35	18.72	0.66
0.733	0.52	6.733	2.76	12.733	1.35	18.73	0.66
0.750	0.52	6.750	2.76	12.750	1.35	18.75	0.66
0.767	0.52	6.767	2.76	12.767	1.35	18.77	0.66
0.783	0.52	6.783	2.76	12.783	1.35	18.78	0.66
0.800	0.52	6.800	2.76	12.800	1.35	18.80	0.66
0.817	0.52	6.817	2.76	12.817	1.35	18.82	0.66
0.833	0.52	6.833	2.76	12.833	1.35	18.83	0.66
0.850	0.53	6.850	3.23	12.850	1.31	18.85	0.65
0.867	0.53	6.867	3.23	12.867	1.31	18.87	0.65
0.883	0.53	6.883	3.23	12.883	1.31	18.88	0.65
0.900	0.53	6.900	3.23	12.900	1.31	18.90	0.65
0.917	0.53	6.917	3.23	12.917	1.31	18.92	0.65
0.933	0.53	6.933	3.23	12.933	1.31	18.93	0.65
0.950	0.53	6.950	3.23	12.950	1.31	18.95	0.65
0.967	0.53	6.967	3.23	12.967	1.31	18.97	0.65
0.983	0.53	6.983	3.23	12.983	1.31	18.98	0.65
1.000	0.53	7.000	3.23	13.000	1.31	19.00	0.65
1.017	0.54	7.017	3.90	13.017	1.27	19.02	0.64
1.033	0.54	7.033	3.90	13.033	1.27	19.03	0.64
1.050	0.54	7.050	3.90	13.050	1.27	19.05	0.64
1.067	0.54	7.067	3.90	13.067	1.27	19.07	0.64
1.083	0.54	7.083	3.90	13.083	1.27	19.08	0.64
1.100	0.54	7.100	3.90	13.100	1.27	19.10	0.64
1.117	0.54	7.117	3.90	13.117	1.27	19.12	0.64
1.133	0.54	7.133	3.90	13.133	1.27	19.13	0.64
1.150	0.54	7.150	3.90	13.150	1.27	19.15	0.64
1.167	0.54	7.167	3.90	13.167	1.27	19.17	0.64
1.183	0.55	7.183	4.94	13.183	1.24	19.18	0.64
1.200	0.55	7.200	4.94	13.200	1.24	19.20	0.64
1.217	0.55	7.217	4.94	13.217	1.24	19.22	0.64
1.233	0.55	7.233	4.94	13.233	1.24	19.23	0.64
1.250	0.55	7.250	4.94	13.250	1.24	19.25	0.64
1.267	0.55	7.267	4.94	13.267	1.24	19.27	0.64
1.283	0.55	7.283	4.94	13.283	1.24	19.28	0.64
1.300	0.55	7.300	4.94	13.300	1.24	19.30	0.64
1.317	0.55	7.317	4.94	13.317	1.24	19.32	0.64
1.333	0.55	7.333	4.95	13.333	1.24	19.33	0.64
1.350	0.57	7.350	6.81	13.350	1.20	19.35	0.63
1.367	0.57	7.367	6.81	13.367	1.20	19.37	0.63
1.383	0.57	7.383	6.81	13.383	1.20	19.38	0.63
1.400	0.57	7.400	6.81	13.400	1.20	19.40	0.63
1.417	0.57	7.417	6.81	13.417	1.20	19.42	0.63
1.433	0.57	7.433	6.81	13.433	1.20	19.43	0.63
1.450	0.57	7.450	6.81	13.450	1.20	19.45	0.63
1.467	0.57	7.467	6.81	13.467	1.20	19.47	0.63
1.483	0.57	7.483	6.81	13.483	1.20	19.48	0.63
1.500	0.57	7.500	6.82	13.500	1.20	19.50	0.63

1.517	0.58	7.517	11.05	13.517	1.17	19.52	0.62
1.533	0.58	7.533	11.05	13.533	1.17	19.53	0.62
1.550	0.58	7.550	11.05	13.550	1.17	19.55	0.62
1.567	0.58	7.567	11.05	13.567	1.17	19.57	0.62
1.583	0.58	7.583	11.05	13.583	1.17	19.58	0.62
1.600	0.58	7.600	11.05	13.600	1.17	19.60	0.62
1.617	0.58	7.617	11.05	13.617	1.17	19.62	0.62
1.633	0.58	7.633	11.05	13.633	1.17	19.63	0.62
1.650	0.58	7.650	11.05	13.650	1.17	19.65	0.62
1.667	0.58	7.667	11.10	13.667	1.17	19.67	0.62
1.683	0.59	7.683	28.66	13.683	1.14	19.68	0.61
1.700	0.59	7.700	28.66	13.700	1.14	19.70	0.61
1.717	0.59	7.717	28.66	13.717	1.14	19.72	0.61
1.733	0.59	7.733	28.66	13.733	1.14	19.73	0.61
1.750	0.59	7.750	28.66	13.750	1.14	19.75	0.61
1.767	0.59	7.767	28.66	13.767	1.14	19.77	0.61
1.783	0.59	7.783	28.66	13.783	1.14	19.78	0.61
1.800	0.59	7.800	28.66	13.800	1.14	19.80	0.61
1.817	0.59	7.817	28.66	13.817	1.14	19.82	0.61
1.833	0.59	7.833	28.88	13.833	1.14	19.83	0.61
1.850	0.61	7.850	107.72	13.850	1.11	19.85	0.60
1.867	0.61	7.867	107.72	13.867	1.11	19.87	0.60
1.883	0.61	7.883	107.72	13.883	1.11	19.88	0.60
1.900	0.61	7.900	107.72	13.900	1.11	19.90	0.60
1.917	0.61	7.917	107.72	13.917	1.11	19.92	0.60
1.933	0.61	7.933	107.72	13.933	1.11	19.93	0.60
1.950	0.61	7.950	107.72	13.950	1.11	19.95	0.60
1.967	0.61	7.967	107.72	13.967	1.11	19.97	0.60
1.983	0.61	7.983	107.72	13.983	1.11	19.98	0.60
2.000	0.61	8.000	107.51	14.000	1.11	20.00	0.60
2.017	0.62	8.017	38.01	14.017	1.09	20.02	0.60
2.033	0.62	8.033	38.01	14.033	1.09	20.03	0.60
2.050	0.62	8.050	38.01	14.050	1.09	20.05	0.60
2.067	0.62	8.067	38.01	14.067	1.09	20.07	0.60
2.083	0.62	8.083	38.01	14.083	1.09	20.08	0.60
2.100	0.62	8.100	38.01	14.100	1.09	20.10	0.60
2.117	0.62	8.117	38.01	14.117	1.09	20.12	0.60
2.133	0.62	8.133	38.01	14.133	1.09	20.13	0.60
2.150	0.62	8.150	38.01	14.150	1.09	20.15	0.60
2.167	0.62	8.167	37.95	14.167	1.09	20.17	0.60
2.183	0.64	8.183	19.35	14.183	1.06	20.18	0.59
2.200	0.64	8.200	19.35	14.200	1.06	20.20	0.59
2.217	0.64	8.217	19.35	14.217	1.06	20.22	0.59
2.233	0.64	8.233	19.35	14.233	1.06	20.23	0.59
2.250	0.64	8.250	19.35	14.250	1.06	20.25	0.59
2.267	0.64	8.267	19.35	14.267	1.06	20.27	0.59
2.283	0.64	8.283	19.35	14.283	1.06	20.28	0.59
2.300	0.64	8.300	19.35	14.300	1.06	20.30	0.59
2.317	0.64	8.317	19.35	14.317	1.06	20.32	0.59
2.333	0.64	8.333	19.33	14.333	1.06	20.33	0.59
2.350	0.66	8.350	12.71	14.350	1.04	20.35	0.58
2.367	0.66	8.367	12.71	14.367	1.04	20.37	0.58

2.383	0.66	8.383	12.71	14.383	1.04	20.38	0.58
2.400	0.66	8.400	12.71	14.400	1.04	20.40	0.58
2.417	0.66	8.417	12.71	14.417	1.04	20.42	0.58
2.433	0.66	8.433	12.71	14.433	1.04	20.43	0.58
2.450	0.66	8.450	12.71	14.450	1.04	20.45	0.58
2.467	0.66	8.467	12.71	14.467	1.04	20.47	0.58
2.483	0.66	8.483	12.71	14.483	1.04	20.48	0.58
2.500	0.66	8.500	12.70	14.500	1.04	20.50	0.58
2.517	0.67	8.517	9.41	14.517	1.01	20.52	0.58
2.533	0.67	8.533	9.41	14.533	1.01	20.53	0.58
2.550	0.67	8.550	9.41	14.550	1.01	20.55	0.58
2.567	0.67	8.567	9.41	14.567	1.01	20.57	0.58
2.583	0.67	8.583	9.41	14.583	1.01	20.58	0.58
2.600	0.67	8.600	9.41	14.600	1.01	20.60	0.58
2.617	0.67	8.617	9.41	14.617	1.01	20.62	0.58
2.633	0.67	8.633	9.41	14.633	1.01	20.63	0.58
2.650	0.67	8.650	9.41	14.650	1.01	20.65	0.58
2.667	0.67	8.667	9.41	14.667	1.01	20.67	0.58
2.683	0.69	8.683	7.46	14.683	0.99	20.68	0.57
2.700	0.69	8.700	7.46	14.700	0.99	20.70	0.57
2.717	0.69	8.717	7.46	14.717	0.99	20.72	0.57
2.733	0.69	8.733	7.46	14.733	0.99	20.73	0.57
2.750	0.69	8.750	7.46	14.750	0.99	20.75	0.57
2.767	0.69	8.767	7.46	14.767	0.99	20.77	0.57
2.783	0.69	8.783	7.46	14.783	0.99	20.78	0.57
2.800	0.69	8.800	7.46	14.800	0.99	20.80	0.57
2.817	0.69	8.817	7.46	14.817	0.99	20.82	0.57
2.833	0.69	8.833	7.46	14.833	0.99	20.83	0.57
2.850	0.71	8.850	6.18	14.850	0.97	20.85	0.56
2.867	0.71	8.867	6.18	14.867	0.97	20.87	0.56
2.883	0.71	8.883	6.18	14.883	0.97	20.88	0.56
2.900	0.71	8.900	6.18	14.900	0.97	20.90	0.56
2.917	0.71	8.917	6.18	14.917	0.97	20.92	0.56
2.933	0.71	8.933	6.18	14.933	0.97	20.93	0.56
2.950	0.71	8.950	6.18	14.950	0.97	20.95	0.56
2.967	0.71	8.967	6.18	14.967	0.97	20.97	0.56
2.983	0.71	8.983	6.18	14.983	0.97	20.98	0.56
3.000	0.71	9.000	6.18	15.000	0.97	21.00	0.56
3.017	0.74	9.017	5.28	15.017	0.95	21.02	0.56
3.033	0.74	9.033	5.28	15.033	0.95	21.03	0.56
3.050	0.74	9.050	5.28	15.050	0.95	21.05	0.56
3.067	0.74	9.067	5.28	15.067	0.95	21.07	0.56
3.083	0.74	9.083	5.28	15.083	0.95	21.08	0.56
3.100	0.74	9.100	5.28	15.100	0.95	21.10	0.56
3.117	0.74	9.117	5.28	15.117	0.95	21.12	0.56
3.133	0.74	9.133	5.28	15.133	0.95	21.13	0.56
3.150	0.74	9.150	5.28	15.150	0.95	21.15	0.56
3.167	0.74	9.167	5.28	15.167	0.95	21.17	0.56
3.183	0.76	9.183	4.62	15.183	0.93	21.18	0.55
3.200	0.76	9.200	4.62	15.200	0.93	21.20	0.55
3.217	0.76	9.217	4.62	15.217	0.93	21.22	0.55
3.233	0.76	9.233	4.62	15.233	0.93	21.23	0.55

3.250	0.76	9.250	4.62	15.250	0.93	21.25	0.55
3.267	0.76	9.267	4.62	15.267	0.93	21.27	0.55
3.283	0.76	9.283	4.62	15.283	0.93	21.28	0.55
3.300	0.76	9.300	4.62	15.300	0.93	21.30	0.55
3.317	0.76	9.317	4.62	15.317	0.93	21.32	0.55
3.333	0.76	9.333	4.62	15.333	0.93	21.33	0.55
3.350	0.78	9.350	4.11	15.350	0.91	21.35	0.55
3.367	0.78	9.367	4.11	15.367	0.91	21.37	0.55
3.383	0.78	9.383	4.11	15.383	0.91	21.38	0.55
3.400	0.78	9.400	4.11	15.400	0.91	21.40	0.55
3.417	0.78	9.417	4.11	15.417	0.91	21.42	0.55
3.433	0.78	9.433	4.11	15.433	0.91	21.43	0.55
3.450	0.78	9.450	4.11	15.450	0.91	21.45	0.55
3.467	0.78	9.467	4.11	15.467	0.91	21.47	0.55
3.483	0.78	9.483	4.11	15.483	0.91	21.48	0.55
3.500	0.78	9.500	4.10	15.500	0.91	21.50	0.55
3.517	0.81	9.517	3.70	15.517	0.90	21.52	0.54
3.533	0.81	9.533	3.70	15.533	0.90	21.53	0.54
3.550	0.81	9.550	3.70	15.550	0.90	21.55	0.54
3.567	0.81	9.567	3.70	15.567	0.90	21.57	0.54
3.583	0.81	9.583	3.70	15.583	0.90	21.58	0.54
3.600	0.81	9.600	3.70	15.600	0.90	21.60	0.54
3.617	0.81	9.617	3.70	15.617	0.90	21.62	0.54
3.633	0.81	9.633	3.70	15.633	0.90	21.63	0.54
3.650	0.81	9.650	3.70	15.650	0.90	21.65	0.54
3.667	0.81	9.667	3.70	15.667	0.90	21.67	0.54
3.683	0.84	9.683	3.37	15.683	0.88	21.68	0.53
3.700	0.84	9.700	3.37	15.700	0.88	21.70	0.53
3.717	0.84	9.717	3.37	15.717	0.88	21.72	0.53
3.733	0.84	9.733	3.37	15.733	0.88	21.73	0.53
3.750	0.84	9.750	3.37	15.750	0.88	21.75	0.53
3.767	0.84	9.767	3.37	15.767	0.88	21.77	0.53
3.783	0.84	9.783	3.37	15.783	0.88	21.78	0.53
3.800	0.84	9.800	3.37	15.800	0.88	21.80	0.53
3.817	0.84	9.817	3.37	15.817	0.88	21.82	0.53
3.833	0.84	9.833	3.37	15.833	0.88	21.83	0.53
3.850	0.87	9.850	3.09	15.850	0.86	21.85	0.53
3.867	0.87	9.867	3.09	15.867	0.86	21.87	0.53
3.883	0.87	9.883	3.09	15.883	0.86	21.88	0.53
3.900	0.87	9.900	3.09	15.900	0.86	21.90	0.53
3.917	0.87	9.917	3.09	15.917	0.86	21.92	0.53
3.933	0.87	9.933	3.09	15.933	0.86	21.93	0.53
3.950	0.87	9.950	3.09	15.950	0.86	21.95	0.53
3.967	0.87	9.967	3.09	15.967	0.86	21.97	0.53
3.983	0.87	9.983	3.09	15.983	0.86	21.98	0.53
4.000	0.87	10.000	3.09	16.000	0.86	22.00	0.53
4.017	0.90	10.017	2.86	16.017	0.85	22.02	0.52
4.033	0.90	10.033	2.86	16.033	0.85	22.03	0.52
4.050	0.90	10.050	2.86	16.050	0.85	22.05	0.52
4.067	0.90	10.067	2.86	16.067	0.85	22.07	0.52
4.083	0.90	10.083	2.86	16.083	0.85	22.08	0.52
4.100	0.90	10.100	2.86	16.100	0.85	22.10	0.52

4.117	0.90	10.117	2.86	16.117	0.85	22.12	0.52
4.133	0.90	10.133	2.86	16.133	0.85	22.13	0.52
4.150	0.90	10.150	2.86	16.150	0.85	22.15	0.52
4.167	0.90	10.167	2.86	16.167	0.85	22.17	0.52
4.183	0.94	10.183	2.67	16.183	0.83	22.18	0.52
4.200	0.94	10.200	2.67	16.200	0.83	22.20	0.52
4.217	0.94	10.217	2.67	16.217	0.83	22.22	0.52
4.233	0.94	10.233	2.67	16.233	0.83	22.23	0.52
4.250	0.94	10.250	2.67	16.250	0.83	22.25	0.52
4.267	0.94	10.267	2.67	16.267	0.83	22.27	0.52
4.283	0.94	10.283	2.67	16.283	0.83	22.28	0.52
4.300	0.94	10.300	2.67	16.300	0.83	22.30	0.52
4.317	0.94	10.317	2.67	16.317	0.83	22.32	0.52
4.333	0.94	10.333	2.67	16.333	0.83	22.33	0.52
4.350	0.98	10.350	2.50	16.350	0.82	22.35	0.51
4.367	0.98	10.367	2.50	16.367	0.82	22.37	0.51
4.383	0.98	10.383	2.50	16.383	0.82	22.38	0.51
4.400	0.98	10.400	2.50	16.400	0.82	22.40	0.51
4.417	0.98	10.417	2.50	16.417	0.82	22.42	0.51
4.433	0.98	10.433	2.50	16.433	0.82	22.43	0.51
4.450	0.98	10.450	2.50	16.450	0.82	22.45	0.51
4.467	0.98	10.467	2.50	16.467	0.82	22.47	0.51
4.483	0.98	10.483	2.50	16.483	0.82	22.48	0.51
4.500	0.98	10.500	2.50	16.500	0.82	22.50	0.51
4.517	1.02	10.517	2.35	16.517	0.80	22.52	0.51
4.533	1.02	10.533	2.35	16.533	0.80	22.53	0.51
4.550	1.02	10.550	2.35	16.550	0.80	22.55	0.51
4.567	1.02	10.567	2.35	16.567	0.80	22.57	0.51
4.583	1.02	10.583	2.35	16.583	0.80	22.58	0.51
4.600	1.02	10.600	2.35	16.600	0.80	22.60	0.51
4.617	1.02	10.617	2.35	16.617	0.80	22.62	0.51
4.633	1.02	10.633	2.35	16.633	0.80	22.63	0.51
4.650	1.02	10.650	2.35	16.650	0.80	22.65	0.51
4.667	1.02	10.667	2.35	16.667	0.80	22.67	0.51
4.683	1.07	10.683	2.22	16.683	0.79	22.68	0.50
4.700	1.07	10.700	2.22	16.700	0.79	22.70	0.50
4.717	1.07	10.717	2.22	16.717	0.79	22.72	0.50
4.733	1.07	10.733	2.22	16.733	0.79	22.73	0.50
4.750	1.07	10.750	2.22	16.750	0.79	22.75	0.50
4.767	1.07	10.767	2.22	16.767	0.79	22.77	0.50
4.783	1.07	10.783	2.22	16.783	0.79	22.78	0.50
4.800	1.07	10.800	2.22	16.800	0.79	22.80	0.50
4.817	1.07	10.817	2.22	16.817	0.79	22.82	0.50
4.833	1.07	10.833	2.22	16.833	0.79	22.83	0.50
4.850	1.13	10.850	2.10	16.850	0.78	22.85	0.50
4.867	1.13	10.867	2.10	16.867	0.78	22.87	0.50
4.883	1.13	10.883	2.10	16.883	0.78	22.88	0.50
4.900	1.13	10.900	2.10	16.900	0.78	22.90	0.50
4.917	1.13	10.917	2.10	16.917	0.78	22.92	0.50
4.933	1.13	10.933	2.10	16.933	0.78	22.93	0.50
4.950	1.13	10.950	2.10	16.950	0.78	22.95	0.50
4.967	1.13	10.967	2.10	16.967	0.78	22.97	0.50

4.983	1.13	10.983	2.10	16.983	0.78	22.98	0.50
5.000	1.13	11.000	2.10	17.000	0.78	23.00	0.50
5.017	1.19	11.017	2.00	17.017	0.77	23.02	0.49
5.033	1.19	11.033	2.00	17.033	0.77	23.03	0.49
5.050	1.19	11.050	2.00	17.050	0.77	23.05	0.49
5.067	1.19	11.067	2.00	17.067	0.77	23.07	0.49
5.083	1.19	11.083	2.00	17.083	0.77	23.08	0.49
5.100	1.19	11.100	2.00	17.100	0.77	23.10	0.49
5.117	1.19	11.117	2.00	17.117	0.77	23.12	0.49
5.133	1.19	11.133	2.00	17.133	0.77	23.13	0.49
5.150	1.19	11.150	2.00	17.150	0.77	23.15	0.49
5.167	1.19	11.167	2.00	17.167	0.77	23.17	0.49
5.183	1.25	11.183	1.90	17.183	0.75	23.18	0.49
5.200	1.25	11.200	1.90	17.200	0.75	23.20	0.49
5.217	1.25	11.217	1.90	17.217	0.75	23.22	0.49
5.233	1.25	11.233	1.90	17.233	0.75	23.23	0.49
5.250	1.25	11.250	1.90	17.250	0.75	23.25	0.49
5.267	1.25	11.267	1.90	17.267	0.75	23.27	0.49
5.283	1.25	11.283	1.90	17.283	0.75	23.28	0.49
5.300	1.25	11.300	1.90	17.300	0.75	23.30	0.49
5.317	1.25	11.317	1.90	17.317	0.75	23.32	0.49
5.333	1.25	11.333	1.90	17.333	0.75	23.33	0.49
5.350	1.33	11.350	1.82	17.350	0.74	23.35	0.48
5.367	1.33	11.367	1.82	17.367	0.74	23.37	0.48
5.383	1.33	11.383	1.82	17.383	0.74	23.38	0.48
5.400	1.33	11.400	1.82	17.400	0.74	23.40	0.48
5.417	1.33	11.417	1.82	17.417	0.74	23.42	0.48
5.433	1.33	11.433	1.82	17.433	0.74	23.43	0.48
5.450	1.33	11.450	1.82	17.450	0.74	23.45	0.48
5.467	1.33	11.467	1.82	17.467	0.74	23.47	0.48
5.483	1.33	11.483	1.82	17.483	0.74	23.48	0.48
5.500	1.33	11.500	1.82	17.500	0.74	23.50	0.48
5.517	1.42	11.517	1.74	17.517	0.73	23.52	0.48
5.533	1.42	11.533	1.74	17.533	0.73	23.53	0.48
5.550	1.42	11.550	1.74	17.550	0.73	23.55	0.48
5.567	1.42	11.567	1.74	17.567	0.73	23.57	0.48
5.583	1.42	11.583	1.74	17.583	0.73	23.58	0.48
5.600	1.42	11.600	1.74	17.600	0.73	23.60	0.48
5.617	1.42	11.617	1.74	17.617	0.73	23.62	0.48
5.633	1.42	11.633	1.74	17.633	0.73	23.63	0.48
5.650	1.42	11.650	1.74	17.650	0.73	23.65	0.48
5.667	1.42	11.667	1.74	17.667	0.73	23.67	0.48
5.683	1.52	11.683	1.67	17.683	0.72	23.68	0.48
5.700	1.52	11.700	1.67	17.700	0.72	23.70	0.48
5.717	1.52	11.717	1.67	17.717	0.72	23.72	0.48
5.733	1.52	11.733	1.67	17.733	0.72	23.73	0.48
5.750	1.52	11.750	1.67	17.750	0.72	23.75	0.48
5.767	1.52	11.767	1.67	17.767	0.72	23.77	0.48
5.783	1.52	11.783	1.67	17.783	0.72	23.78	0.48
5.800	1.52	11.800	1.67	17.800	0.72	23.80	0.48
5.817	1.52	11.817	1.67	17.817	0.72	23.82	0.48
5.833	1.52	11.833	1.67	17.833	0.72	23.83	0.48

5.850	1.64	11.850	1.61	17.850	0.71	23.85	0.47
5.867	1.64	11.867	1.61	17.867	0.71	23.87	0.47
5.883	1.64	11.883	1.61	17.883	0.71	23.88	0.47
5.900	1.64	11.900	1.61	17.900	0.71	23.90	0.47
5.917	1.64	11.917	1.61	17.917	0.71	23.92	0.47
5.933	1.64	11.933	1.61	17.933	0.71	23.93	0.47
5.950	1.64	11.950	1.61	17.950	0.71	23.95	0.47
5.967	1.64	11.967	1.61	17.967	0.71	23.97	0.47
5.983	1.64	11.983	1.61	17.983	0.71	23.98	0.47
6.000	1.64	12.000	1.61	18.000	0.71	24.00	0.47

Max.Eff.Inten.(mm/hr)=	107.72	18.51	
over (min)	6.00	14.00	
Storage Coeff. (min)=	5.93 (ii)	13.74 (ii)	
Unit Hyd. Tpeak (min)=	6.00	14.00	
Unit Hyd. peak (cms)=	0.19	0.08	
			TOTALS
PEAK FLOW (cms)=	1.27	0.21	1.388 (iii)
TIME TO PEAK (hrs)=	8.03	8.22	8.03
RUNOFF VOLUME (mm)=	66.80	13.08	34.04
TOTAL RAINFALL (mm)=	67.81	67.81	67.81
RUNOFF COEFFICIENT =	0.99	0.19	0.50

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 48.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0101)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (1011):	13.73	1.388	8.03	34.04
+ ID2= 2 (0034):	0.02	0.062	8.05	39.72
ID = 3 (0101):	13.76	1.447	8.05	34.05

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0901)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0101):	13.76	1.447	8.05	34.05
+ ID2= 2 (0103):	1.17	0.076	8.02	26.33
ID = 3 (0901):	14.92	1.519	8.05	33.45

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0902)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0104):	0.77	0.016	8.33	13.69
+ ID2= 2 (0901):	14.92	1.519	8.05	33.45
ID = 3 (0902):	15.69	1.527	8.05	32.48

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB
STANDHYD (1021) | Area (ha)= 3.77
ID= 1 DT= 1.0 min | Total Imp(%)= 45.00 Dir. Conn.(%)= 38.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.70	2.07
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.50	2.00
Length (m)=	158.56	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 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
0.017	0.48	6.017	1.78	12.017	1.55	18.02	0.70
0.033	0.48	6.033	1.78	12.033	1.55	18.03	0.70
0.050	0.48	6.050	1.78	12.050	1.55	18.05	0.70
0.067	0.48	6.067	1.78	12.067	1.55	18.07	0.70
0.083	0.48	6.083	1.78	12.083	1.55	18.08	0.70
0.100	0.48	6.100	1.78	12.100	1.55	18.10	0.70
0.117	0.48	6.117	1.78	12.117	1.55	18.12	0.70
0.133	0.48	6.133	1.78	12.133	1.55	18.13	0.70
0.150	0.48	6.150	1.78	12.150	1.55	18.15	0.70
0.167	0.48	6.167	1.78	12.167	1.55	18.17	0.70
0.183	0.49	6.183	1.95	12.183	1.50	18.18	0.69
0.200	0.49	6.200	1.95	12.200	1.50	18.20	0.69
0.217	0.49	6.217	1.95	12.217	1.50	18.22	0.69
0.233	0.49	6.233	1.95	12.233	1.50	18.23	0.69
0.250	0.49	6.250	1.95	12.250	1.50	18.25	0.69
0.267	0.49	6.267	1.95	12.267	1.50	18.27	0.69
0.283	0.49	6.283	1.95	12.283	1.50	18.28	0.69
0.300	0.49	6.300	1.95	12.300	1.50	18.30	0.69
0.317	0.49	6.317	1.95	12.317	1.50	18.32	0.69

0.333	0.49	6.333	1.95	12.333	1.50	18.33	0.69
0.350	0.50	6.350	2.16	12.350	1.44	18.35	0.68
0.367	0.50	6.367	2.16	12.367	1.44	18.37	0.68
0.383	0.50	6.383	2.16	12.383	1.44	18.38	0.68
0.400	0.50	6.400	2.16	12.400	1.44	18.40	0.68
0.417	0.50	6.417	2.16	12.417	1.44	18.42	0.68
0.433	0.50	6.433	2.16	12.433	1.44	18.43	0.68
0.450	0.50	6.450	2.16	12.450	1.44	18.45	0.68
0.467	0.50	6.467	2.16	12.467	1.44	18.47	0.68
0.483	0.50	6.483	2.16	12.483	1.44	18.48	0.68
0.500	0.50	6.500	2.16	12.500	1.44	18.50	0.68
0.517	0.51	6.517	2.42	12.517	1.40	18.52	0.67
0.533	0.51	6.533	2.42	12.533	1.40	18.53	0.67
0.550	0.51	6.550	2.42	12.550	1.40	18.55	0.67
0.567	0.51	6.567	2.42	12.567	1.40	18.57	0.67
0.583	0.51	6.583	2.42	12.583	1.40	18.58	0.67
0.600	0.51	6.600	2.42	12.600	1.40	18.60	0.67
0.617	0.51	6.617	2.42	12.617	1.40	18.62	0.67
0.633	0.51	6.633	2.42	12.633	1.40	18.63	0.67
0.650	0.51	6.650	2.42	12.650	1.40	18.65	0.67
0.667	0.51	6.667	2.42	12.667	1.40	18.67	0.67
0.683	0.52	6.683	2.76	12.683	1.35	18.68	0.66
0.700	0.52	6.700	2.76	12.700	1.35	18.70	0.66
0.717	0.52	6.717	2.76	12.717	1.35	18.72	0.66
0.733	0.52	6.733	2.76	12.733	1.35	18.73	0.66
0.750	0.52	6.750	2.76	12.750	1.35	18.75	0.66
0.767	0.52	6.767	2.76	12.767	1.35	18.77	0.66
0.783	0.52	6.783	2.76	12.783	1.35	18.78	0.66
0.800	0.52	6.800	2.76	12.800	1.35	18.80	0.66
0.817	0.52	6.817	2.76	12.817	1.35	18.82	0.66
0.833	0.52	6.833	2.76	12.833	1.35	18.83	0.66
0.850	0.53	6.850	3.23	12.850	1.31	18.85	0.65
0.867	0.53	6.867	3.23	12.867	1.31	18.87	0.65
0.883	0.53	6.883	3.23	12.883	1.31	18.88	0.65
0.900	0.53	6.900	3.23	12.900	1.31	18.90	0.65
0.917	0.53	6.917	3.23	12.917	1.31	18.92	0.65
0.933	0.53	6.933	3.23	12.933	1.31	18.93	0.65
0.950	0.53	6.950	3.23	12.950	1.31	18.95	0.65
0.967	0.53	6.967	3.23	12.967	1.31	18.97	0.65
0.983	0.53	6.983	3.23	12.983	1.31	18.98	0.65
1.000	0.53	7.000	3.23	13.000	1.31	19.00	0.65
1.017	0.54	7.017	3.90	13.017	1.27	19.02	0.64
1.033	0.54	7.033	3.90	13.033	1.27	19.03	0.64
1.050	0.54	7.050	3.90	13.050	1.27	19.05	0.64
1.067	0.54	7.067	3.90	13.067	1.27	19.07	0.64
1.083	0.54	7.083	3.90	13.083	1.27	19.08	0.64
1.100	0.54	7.100	3.90	13.100	1.27	19.10	0.64
1.117	0.54	7.117	3.90	13.117	1.27	19.12	0.64
1.133	0.54	7.133	3.90	13.133	1.27	19.13	0.64
1.150	0.54	7.150	3.90	13.150	1.27	19.15	0.64
1.167	0.54	7.167	3.90	13.167	1.27	19.17	0.64
1.183	0.55	7.183	4.94	13.183	1.24	19.18	0.64

1.200	0.55	7.200	4.94	13.200	1.24	19.20	0.64
1.217	0.55	7.217	4.94	13.217	1.24	19.22	0.64
1.233	0.55	7.233	4.94	13.233	1.24	19.23	0.64
1.250	0.55	7.250	4.94	13.250	1.24	19.25	0.64
1.267	0.55	7.267	4.94	13.267	1.24	19.27	0.64
1.283	0.55	7.283	4.94	13.283	1.24	19.28	0.64
1.300	0.55	7.300	4.94	13.300	1.24	19.30	0.64
1.317	0.55	7.317	4.94	13.317	1.24	19.32	0.64
1.333	0.55	7.333	4.95	13.333	1.24	19.33	0.64
1.350	0.57	7.350	6.81	13.350	1.20	19.35	0.63
1.367	0.57	7.367	6.81	13.367	1.20	19.37	0.63
1.383	0.57	7.383	6.81	13.383	1.20	19.38	0.63
1.400	0.57	7.400	6.81	13.400	1.20	19.40	0.63
1.417	0.57	7.417	6.81	13.417	1.20	19.42	0.63
1.433	0.57	7.433	6.81	13.433	1.20	19.43	0.63
1.450	0.57	7.450	6.81	13.450	1.20	19.45	0.63
1.467	0.57	7.467	6.81	13.467	1.20	19.47	0.63
1.483	0.57	7.483	6.81	13.483	1.20	19.48	0.63
1.500	0.57	7.500	6.82	13.500	1.20	19.50	0.63
1.517	0.58	7.517	11.05	13.517	1.17	19.52	0.62
1.533	0.58	7.533	11.05	13.533	1.17	19.53	0.62
1.550	0.58	7.550	11.05	13.550	1.17	19.55	0.62
1.567	0.58	7.567	11.05	13.567	1.17	19.57	0.62
1.583	0.58	7.583	11.05	13.583	1.17	19.58	0.62
1.600	0.58	7.600	11.05	13.600	1.17	19.60	0.62
1.617	0.58	7.617	11.05	13.617	1.17	19.62	0.62
1.633	0.58	7.633	11.05	13.633	1.17	19.63	0.62
1.650	0.58	7.650	11.05	13.650	1.17	19.65	0.62
1.667	0.58	7.667	11.10	13.667	1.17	19.67	0.62
1.683	0.59	7.683	28.66	13.683	1.14	19.68	0.61
1.700	0.59	7.700	28.66	13.700	1.14	19.70	0.61
1.717	0.59	7.717	28.66	13.717	1.14	19.72	0.61
1.733	0.59	7.733	28.66	13.733	1.14	19.73	0.61
1.750	0.59	7.750	28.66	13.750	1.14	19.75	0.61
1.767	0.59	7.767	28.66	13.767	1.14	19.77	0.61
1.783	0.59	7.783	28.66	13.783	1.14	19.78	0.61
1.800	0.59	7.800	28.66	13.800	1.14	19.80	0.61
1.817	0.59	7.817	28.66	13.817	1.14	19.82	0.61
1.833	0.59	7.833	28.88	13.833	1.14	19.83	0.61
1.850	0.61	7.850	107.72	13.850	1.11	19.85	0.60
1.867	0.61	7.867	107.72	13.867	1.11	19.87	0.60
1.883	0.61	7.883	107.72	13.883	1.11	19.88	0.60
1.900	0.61	7.900	107.72	13.900	1.11	19.90	0.60
1.917	0.61	7.917	107.72	13.917	1.11	19.92	0.60
1.933	0.61	7.933	107.72	13.933	1.11	19.93	0.60
1.950	0.61	7.950	107.72	13.950	1.11	19.95	0.60
1.967	0.61	7.967	107.72	13.967	1.11	19.97	0.60
1.983	0.61	7.983	107.72	13.983	1.11	19.98	0.60
2.000	0.61	8.000	107.51	14.000	1.11	20.00	0.60
2.017	0.62	8.017	38.01	14.017	1.09	20.02	0.60
2.033	0.62	8.033	38.01	14.033	1.09	20.03	0.60
2.050	0.62	8.050	38.01	14.050	1.09	20.05	0.60
2.067	0.62	8.067	38.01	14.067	1.09	20.07	0.60
2.083	0.62	8.083	38.01	14.083	1.09	20.08	0.60
2.100	0.62	8.100	38.01	14.100	1.09	20.10	0.60
2.117	0.62	8.117	38.01	14.117	1.09	20.12	0.60
2.133	0.62	8.133	38.01	14.133	1.09	20.13	0.60
2.150	0.62	8.150	38.01	14.150	1.09	20.15	0.60
2.167	0.62	8.167	37.95	14.167	1.09	20.17	0.60
2.183	0.64	8.183	19.35	14.183	1.06	20.18	0.59
2.200	0.64	8.200	19.35	14.200	1.06	20.20	0.59
2.217	0.64	8.217	19.35	14.217	1.06	20.22	0.59
2.233	0.64	8.233	19.35	14.233	1.06	20.23	0.59
2.250	0.64	8.250	19.35	14.250	1.06	20.25	0.59
2.267	0.64	8.267	19.35	14.267	1.06	20.27	0.59
2.283	0.64	8.283	19.35	14.283	1.06	20.28	0.59
2.300	0.64	8.300	19.35	14.300	1.06	20.30	0.59
2.317	0.64	8.317	19.35	14.317	1.06	20.32	0.59
2.333	0.64	8.333	19.33	14.333	1.06	20.33	0.59
2.350	0.66	8.350	12.71	14.350	1.04	20.35	0.58
2.367	0.66	8.367	12.71	14.367	1.04	20.37	0.58
2.383	0.66	8.383	12.71	14.383	1.04	20.38	0.58
2.400	0.66	8.400	12.71	14.400	1.04	20.40	0.58
2.417	0.66	8.417	12.71	14.417	1.04	20.42	0.58
2.433	0.66	8.433	12.71	14.433	1.04	20.43	0.58
2.450	0.66	8.450	12.71	14.450	1.04	20.45	0.58
2.467	0.66	8.467	12.71	14.467	1.04	20.47	0.58
2.483	0.66	8.483	12.71	14.483	1.04	20.48	0.58
2.500	0.66	8.500	12.70	14.500	1.04	20.50	0.58
2.517	0.67	8.517	9.41	14.517	1.01	20.52	0.58
2.533	0.67	8.533	9.41	14.533	1.01	20.53	0.58
2.550	0.67	8.550	9.41	14.550	1.01	20.55	0.58
2.567	0.67	8.567	9.41	14.567	1.01	20.57	0.58
2.583	0.67	8.583	9.41	14.583	1.01	20.58	0.58
2.600	0.67	8.600	9.41	14.600	1.01	20.60	0.58
2.617	0.67	8.617	9.41	14.617	1.01	20.62	0.58
2.633	0.67	8.633	9.41	14.633	1.01	20.63	0.58
2.650	0.67	8.650	9.41	14.650	1.01	20.65	0.58
2.667	0.67	8.667	9.41	14.667	1.01	20.67	0.58
2.683	0.69	8.683	7.46	14.683	0.99	20.68	0.57
2.700	0.69	8.700	7.46	14.700	0.99	20.70	0.57
2.717	0.69	8.717	7.46	14.717	0.99	20.72	0.57
2.733	0.69	8.733	7.46	14.733	0.99	20.73	0.57
2.750	0.69	8.750	7.46	14.750	0.99	20.75	0.57
2.767	0.69	8.767	7.46	14.767	0.99	20.77	0.57
2.783	0.69	8.783	7.46	14.783	0.99	20.78	0.57
2.800	0.69	8.800	7.46	14.800	0.99	20.80	0.57
2.817	0.69	8.817	7.46	14.817	0.99	20.82	0.57
2.833	0.69	8.833	7.46	14.833	0.99	20.83	0.57
2.850	0.71	8.850	6.18	14.850	0.97	20.85	0.56
2.867	0.71	8.867	6.18	14.867	0.97	20.87	0.56
2.883	0.71	8.883	6.18	14.883	0.97	20.88	0.56
2.900	0.71	8.900	6.18	14.900	0.97	20.90	0.56
2.917	0.71	8.917	6.18	14.917	0.97	20.92	0.56
2.933	0.71	8.933	6.18	14.933	0.97	20.93	0.56
2.950	0.71	8.950	6.18	14.950	0.97	20.95	0.56
2.967	0.71	8.967	6.18	14.967	0.97	20.97	0.56
2.983	0.71	8.983	6.18	14.983	0.97	20.98	0.56
3.000	0.71	9.000	6.18	15.000	0.97	21.00	0.56
3.017	0.74	9.017	5.28	15.017	0.95	21.02	0.56
3.033	0.74	9.033	5.28	15.033	0.95	21.03	0.56
3.050	0.74	9.050	5.28	15.050	0.95	21.05	0.56
3.067	0.74	9.067	5.28	15.067	0.95	21.07	0.56
3.083	0.74	9.083	5.28	15.083	0.95	21.08	0.56
3.100	0.74	9.100	5.28	15.100	0.95	21.10	0.56
3.117	0.74	9.117	5.28	15.117	0.95	21.12	0.56
3.133	0.74	9.133	5.28	15.133	0.95	21.13	0.56
3.150	0.74	9.150	5.28	15.150	0.95	21.15	0.56
3.167	0.74	9.167	5.28	15.167	0.95	21.17	0.56
3.183	0.76	9.183	4.62	15.183	0.93	21.18	0.55
3.200	0.76	9.200	4.62	15.200	0.93	21.20	0.55
3.217	0.76	9.217	4.62	15.217	0.93	21.22	0.55
3.233	0.76	9.233	4.62	15.233	0.93	21.23	0.55
3.250	0.76	9.250	4.62	15.250	0.93	21.25	0.55
3.267	0.76	9.267	4.62	15.267	0.93	21.27	0.55
3.283	0.76	9.283	4.62	15.283	0.93	21.28	0.55
3.300	0.76	9.300	4.62	15.300	0.93	21.30	0.55
3.317	0.76	9.317	4.62	15.317	0.93	21.32	0.55
3.333	0.76	9.333	4.62	15.333	0.93	21.33	0.55
3.350	0.78	9.350	4.11	15.350	0.91	21.35	0.55
3.367	0.78	9.367	4.11	15.367	0.91	21.37	0.55
3.383	0.78	9.383	4.11	15.383	0.91	21.38	0.55
3.400	0.78	9.400	4.11	15.400	0.91	21.40	0.55
3.417	0.78	9.417	4.11	15.417	0.91	21.42	0.55
3.433	0.78	9.433	4.11	15.433	0.91	21.43	0.55
3.450	0.78	9.450	4.11	15.450	0.91	21.45	0.55
3.467	0.78	9.467	4.11	15.467	0.91	21.47	0.55
3.483	0.78	9.483	4.11	15.483	0.91	21.48	0.55
3.500	0.78	9.500	4.10	15.500	0.91	21.50	0.55
3.517	0.81	9.517	3.70	15.517	0.90	21.52	0.54
3.533	0.81	9.533	3.70	15.533	0.90	21.53	0.54
3.550	0.81	9.550	3.70	15.550	0.90	21.55	0.54
3.567	0.81	9.567	3.70	15.567	0.90	21.57	0.54
3.583	0.81	9.583	3.70	15.583	0.90	21.58	0.54
3.600	0.81	9.600	3.70	15.600	0.90	21.60	0.54
3.617	0.81	9.617	3.70	15.617	0.90	21.62	0.54
3.633	0.81	9.633	3.70	15.633	0.90	21.63	0.54
3.650	0.81	9.650	3.70	15.650	0.90	21.65	0.54
3.667	0.81	9.667	3.70	15.667	0.90	21.67	0.54
3.683	0.84	9.683	3.37	15.683	0.88	21.68	0.53
3.700	0.84	9.700	3.37	15.700	0.88	21.70	0.53
3.717	0.84	9.717	3.37	15.717	0.88	21.72	0.53
3.733	0.84	9.733	3.37	15.733	0.88	21.73	0.53
3.750	0.84	9.750	3.37	15.750	0.88	21.75	0.53
3.767	0.84	9.767	3.37	15.767	0.88	21.77	0.53
3.783	0.84	9.783	3.37	15.783	0.88	21.78	0.53
3.800	0.84	9.800	3.37	15.800	0.88	21.80	0.53
3.817	0.84	9.817	3.37	15.817	0.88	21.82	0.53
3.833	0.84	9.833	3.37	15.833	0.88	21.83	0.53
3.850	0.87	9.850	3.09	15.850	0.86	21.85	0.53
3.867	0.87	9.867	3.09	15.867	0.86	21.87	0.53
3.883	0.87	9.883	3.09	15.883	0.86	21.88	0.53
3.900	0.87	9.900	3.09	15.900	0.86	21.90	0.53
3.917	0.87	9.917	3.09	15.917	0.86	21.92	0.53
3.933	0.87	9.933	3.09	15.933	0.86	21.93	0.53
3.950	0.87	9.950	3.09	15.950	0.86	21.95	0.53
3.967	0.87	9.967	3.09	15.967	0.86	21.97	0.53
3.983	0.87	9.983	3.09	15.983	0.86	21.98	0.53
4.000	0.87	10.000	3.09	16.000	0.86	22.00	0.53
4.017	0.90	10.017	2.86	16.017	0.85	22.02	0.52
4.033	0.90	10.033	2.86	16.033	0.85	22.03	0.52
4.050	0.90	10.050	2.86	16.050	0.85	22.05	0.52
4.067	0.90	10.067	2.86	16.067	0.85	22.07	0.52
4.083	0.90	10.083	2.86	16.083	0.85	22.08	0.52
4.100	0.90	10.100	2.86	16.100	0.85	22.10	0.52
4.117	0.90	10.117	2.86	16.117	0.85	22.12	0.52
4.133	0.90	10.133	2.86	16.133	0.85	22.13	0.52
4.150	0.90	10.150	2.86	16.150	0.85	22.15	0.52
4.167	0.90	10.167	2.86	16.167	0.85	22.17	0.52
4.183	0.94	10.183	2.67	16.183	0.83	22.18	0.52
4.200	0.94	10.200	2.67	16.200	0.83	22.20	0.52
4.217	0.94	10.217	2.67	16.217	0.83	22.22	0.52
4.233	0.94	10.233	2.67	16.233	0.83	22.23	0.52
4.250	0.94	10.250	2.67	16.250	0.83	22.25	0.52
4.267	0.94	10.267	2.67	16.267	0.83	22.27	0.52
4.283	0.94	10.283	2.67	16.283	0.83	22.28	0.52
4.300	0.94	10.300	2.67	16.300	0.83	22.30	0.52
4.317	0.94	10.317	2.67	16.317	0.83	22.32	0.52
4.333	0.94	10.333	2.67	16.333	0.83	22.33	0.52
4.350	0.98	10.350	2.50	16.350	0.82	22.35	0.51
4.367	0.98	10.367	2.50	16.367	0.82	22.37	0.51
4.383	0.98	10.383	2.50	16.383	0.82	22.38	0.51
4.400	0.98	10.400	2.50	16.400	0.82	22.40	0.51
4.417	0.98	10.417	2.50	16.417	0.82	22.42	0.51
4.433	0.98	10.433	2.50	16.433	0.82	22.43	0.51
4.450	0.98	10.450	2.50	16.450	0.82	22.45	0.51
4.467	0.98	10.467	2.50	16.467	0.82	22.47	0.51
4.483	0.98	10.483	2.50	16.483	0.82	22.48	0.51
4.500	0.98	10.500	2.50	16.500	0.82	22.50	0.51
4.517	1.02	10.517	2.35	16.517	0.80	22.52	0.51
4.533	1.02	10.533	2.35	16.533	0.80	22.53	0.51
4.550	1.02	10.550	2.35	16.550	0.80	22.55	0.51
4.567	1.02	10.567	2.35	16.567	0.80	22.57	0.51
4.583	1.02	10.583	2.35	16.583	0.80	22.58	0.51
4.600	1.02	10.600	2.35	16.600	0.80	22.60	0.51
4.617	1.02	10.617	2.35	16.617	0.80	22.62	0.51
4.633	1.02	10.633	2.35	16.633	0.80	22.63	0.51
4.650	1.02	10.650	2.35	16.650	0.80	22.65	0.51
4.667	1.02	10.667	2.35	16.667	0.80	22.67	0.51
4.683	1.07	10.683	2.22	16.683	0.79	22.68	0.50
4.700	1.07	10.700	2.22	16.700	0.79	22.70	0.50
4.717	1.07	10.717	2.22	16.717	0.79	22.72	0.50
4.733	1.07	10.733	2.22	16.733	0.79	22.73	0.50
4.750	1.07	10.750	2.22	16.750	0.79	22.75	0.50
4.767	1.07	10.767	2.22	16.767	0.79	22.77	0.50
4.783	1.07	10.783	2.22	16.783	0.79	22.78	0.50
4.800	1.07	10.800	2.22	16.800	0.79	22.80	0.50
4.817	1.07	10.817	2.22	16.817	0.79	22.82	0.50
4.833	1.07	10.833	2.22	16.833	0.79	22.83	0.50
4.850	1.13	10.850	2.10	16.850	0.78	22.85	0.50
4.867	1.13	10.867	2.10	16.867	0.78	22.87	0.50
4.883	1.13	10.883	2.10	16.883	0.78	22.88	0.50
4.900	1.13	10.900	2.10	16.900	0.78	22.90	0.50
4.917	1.13	10.917	2.10	16.917	0.78	22.92	0.50
4.933	1.13	10.933	2.10	16.933	0.78	22.93	0.50
4.950	1.13	10.950	2.10	16.950	0.78	22.95	0.50
4.967	1.13	10.967	2.10	16.967	0.78	22.97	0.50
4.983	1.13	10.983	2.10	16.983	0.78	22.98	0.50
5.000	1.13	11.000	2.10	17.000	0.78	23.00	0.50
5.017	1.19	11.017	2.00	17.017	0.77	23.02	0.49
5.033	1.19	11.033	2.00	17.033	0.77	23.03	0.49
5.050	1.19	11.050	2.00	17.050	0.77	23.05	0.49
5.067	1.19	11.067	2.00	17.067	0.77	23.07	0.49
5.083	1.19	11.083	2.00	17.083	0.77	23.08	0.49
5.100	1.19	11.100	2.00	17.100	0.77	23.10	0.49
5.117	1.19	11.117	2.00	17.117	0.77	23.12	0.49
5.133	1.19	11.133	2.00	17.133	0.77	23.13	0.49
5.150	1.19	11.150	2.00	17.150	0.77	23.15	0.49
5.167	1.19	11.167	2.00	17.167	0.77	23.17	0.49
5.183	1.25	11.183	1.90	17.183	0.75	23.18	0.49
5.200	1.25	11.200	1.90	17.200	0.75	23.20	0.49
5.217	1.25	11.217	1.90	17.217	0.75	23.22	0.49
5.233	1.25	11.233	1.90	17.233	0.75	23.23	0.49
5.250	1.25	11.250	1.90	17.250	0.75	23.25	0.49
5.267	1.25	11.267	1.90	17.267	0.75	23.27	0.49
5.283	1.25	11.283	1.90	17.283	0.75	23.28	0.49
5.300	1.25	11.300	1.90	17.300	0.75	23.30	0.49
5.317	1.25	11.317	1.90	17.317	0.75	23.32	0.49
5.333	1.25	11.333	1.90	17.333	0.75	23.33	0.49
5.350	1.33	11.350	1.82	17.350	0.74	23.35	0.48
5.367	1.33	11.367	1.82	17.367	0.74	23.37	0.48
5.383	1.33	11.383	1.82	17.383	0.74	23.38	0.48
5.400	1.33	11.400	1.82	17.400	0.74	23.40	0.48
5.417	1.33	11.417	1.82	17.417	0.74	23.42	0.48
5.433	1.33	11.433	1.82	17.433	0.74	23.43	0.48
5.450	1.33	11.450	1.82	17.450	0.74	23.45	0.48
5.467	1.33	11.467	1.82	17.467	0.74	23.47	0.48
5.483	1.33	11.483	1.82	17.483	0.74	23.48	0.48
5.500	1.33	11.500	1.82	17.500	0.74	23.50	0.48
5.517	1.42	11.517	1.74	17.517	0.73	23.52	0.48
5.533	1.42	11.533	1.74	17.533	0.73	23.53	0.48
5.550	1.42	11.550	1.74	17.550	0.73	23.55	0.48
5.567	1.42	11.567	1.74	17.567	0.73	23.57	0.48
5.583	1.42	11.583	1.74	17.583	0.73	23.58	0.48
5.600	1.42	11.600	1.74	17.600	0.73	23.60	0.48
5.617	1.42	11.617	1.74	17.617	0.73	23.62	0.48
5.633	1.42	11.633	1.74	17.633	0.73	23.63	0.48
5.650	1.42	11.650	1.74	17.650	0.73	23.65	0.48
5.667	1.42	11.667	1.74	17.667	0.73	23.67	0.48
5.683	1.52	11.683	1.67	17.683	0.72	23.68	0.48
5.700	1.52	11.700	1.67	17.700	0.72	23.70	0.48
5.717	1.52	11.717	1.67	17.717	0.72	23.72	0.48
5.733	1.52	11.733	1.67	17.733	0.72	23.73	0.48
5.750	1.52	11.750	1.67	17.750	0.72	23.75	0.48
5.767	1.52	11.767	1.67	17.767	0.72	23.77	0.48
5.783	1.52	11.783	1.67	17.783	0.72	23.78	0.48
5.800	1.52	11.800	1.67	17.800	0.72	23.80	0.48
5.817	1.52	11.817	1.67	17.817	0.72	23.82	0.48
5.833	1.52	11.833	1.67	17.833	0.72	23.83	0.48
5.850	1.64	11.850	1.61	17.850	0.71	23.85	0.47
5.867	1.64	11.867	1.61	17.867	0.71	23.87	0.47
5.883	1.64	11.883	1.61	17.883	0.71	23.88	0.47
5.900	1.64	11.900	1.61	17.900	0.71	23.90	0.47
5.917	1.64	11.917	1.61	17.917	0.71	23.92	0.47
5.933	1.64	11.933	1.61	17.933	0.71	23.93	0.47
5.950	1.64	11.950	1.61	17.950	0.71	23.95	0.47
5.967	1.64	11.967	1.61	17.967	0.71	23.97	0.47
5.983	1.64	11.983	1.61	17.983	0.71	23.98	0.47
6.000	1.64	12.000	1.61	18.000	0.71	24.00	0.47

Max.Eff.Inten.(mm/hr)=	107.72	18.43	
over (min)	5.00	12.00	
Storage Coeff. (min)=	4.03 (ii)	11.97 (ii)	
Unit Hyd. Tpeak (min)=	5.00	12.00	
Unit Hyd. peak (cms)=	0.26	0.09	
			TOTALS
PEAK FLOW (cms)=	0.38	0.06	0.417 (iii)
TIME TO PEAK (hrs)=	8.02	8.17	8.02
RUNOFF VOLUME (mm)=	66.80	13.06	33.49
TOTAL RAINFALL (mm)=	67.81	67.81	67.81
RUNOFF COEFFICIENT =	0.99	0.19	0.49

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 48.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB

| STANDHYD (1022)| Area (ha)= 2.86
|ID= 1 DT= 1.0 min | Total Imp(%)= 41.00 Dir. Conn.(%)= 35.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	1.17	1.69
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	0.50	2.00
Length	(m)=	138.06	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 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
0.017	0.48	6.017	1.78	12.017	1.55	18.02	0.70
0.033	0.48	6.033	1.78	12.033	1.55	18.03	0.70
0.050	0.48	6.050	1.78	12.050	1.55	18.05	0.70
0.067	0.48	6.067	1.78	12.067	1.55	18.07	0.70
0.083	0.48	6.083	1.78	12.083	1.55	18.08	0.70
0.100	0.48	6.100	1.78	12.100	1.55	18.10	0.70
0.117	0.48	6.117	1.78	12.117	1.55	18.12	0.70
0.133	0.48	6.133	1.78	12.133	1.55	18.13	0.70
0.150	0.48	6.150	1.78	12.150	1.55	18.15	0.70
0.167	0.48	6.167	1.78	12.167	1.55	18.17	0.70
0.183	0.49	6.183	1.95	12.183	1.50	18.18	0.69
0.200	0.49	6.200	1.95	12.200	1.50	18.20	0.69
0.217	0.49	6.217	1.95	12.217	1.50	18.22	0.69
0.233	0.49	6.233	1.95	12.233	1.50	18.23	0.69
0.250	0.49	6.250	1.95	12.250	1.50	18.25	0.69
0.267	0.49	6.267	1.95	12.267	1.50	18.27	0.69
0.283	0.49	6.283	1.95	12.283	1.50	18.28	0.69
0.300	0.49	6.300	1.95	12.300	1.50	18.30	0.69
0.317	0.49	6.317	1.95	12.317	1.50	18.32	0.69
0.333	0.49	6.333	1.95	12.333	1.50	18.33	0.69
0.350	0.50	6.350	2.16	12.350	1.44	18.35	0.68
0.367	0.50	6.367	2.16	12.367	1.44	18.37	0.68
0.383	0.50	6.383	2.16	12.383	1.44	18.38	0.68
0.400	0.50	6.400	2.16	12.400	1.44	18.40	0.68
0.417	0.50	6.417	2.16	12.417	1.44	18.42	0.68
0.433	0.50	6.433	2.16	12.433	1.44	18.43	0.68
0.450	0.50	6.450	2.16	12.450	1.44	18.45	0.68
0.467	0.50	6.467	2.16	12.467	1.44	18.47	0.68
0.483	0.50	6.483	2.16	12.483	1.44	18.48	0.68
0.500	0.50	6.500	2.16	12.500	1.44	18.50	0.68
0.517	0.51	6.517	2.42	12.517	1.40	18.52	0.67
0.533	0.51	6.533	2.42	12.533	1.40	18.53	0.67
0.550	0.51	6.550	2.42	12.550	1.40	18.55	0.67
0.567	0.51	6.567	2.42	12.567	1.40	18.57	0.67
0.583	0.51	6.583	2.42	12.583	1.40	18.58	0.67
0.600	0.51	6.600	2.42	12.600	1.40	18.60	0.67
0.617	0.51	6.617	2.42	12.617	1.40	18.62	0.67
0.633	0.51	6.633	2.42	12.633	1.40	18.63	0.67
0.650	0.51	6.650	2.42	12.650	1.40	18.65	0.67
0.667	0.51	6.667	2.42	12.667	1.40	18.67	0.67
0.683	0.52	6.683	2.76	12.683	1.35	18.68	0.66
0.700	0.52	6.700	2.76	12.700	1.35	18.70	0.66
0.717	0.52	6.717	2.76	12.717	1.35	18.72	0.66
0.733	0.52	6.733	2.76	12.733	1.35	18.73	0.66
0.750	0.52	6.750	2.76	12.750	1.35	18.75	0.66
0.767	0.52	6.767	2.76	12.767	1.35	18.77	0.66
0.783	0.52	6.783	2.76	12.783	1.35	18.78	0.66
0.800	0.52	6.800	2.76	12.800	1.35	18.80	0.66
0.817	0.52	6.817	2.76	12.817	1.35	18.82	0.66
0.833	0.52	6.833	2.76	12.833	1.35	18.83	0.66
0.850	0.53	6.850	3.23	12.850	1.31	18.85	0.65
0.867	0.53	6.867	3.23	12.867	1.31	18.87	0.65
0.883	0.53	6.883	3.23	12.883	1.31	18.88	0.65
0.900	0.53	6.900	3.23	12.900	1.31	18.90	0.65
0.917	0.53	6.917	3.23	12.917	1.31	18.92	0.65
0.933	0.53	6.933	3.23	12.933	1.31	18.93	0.65
0.950	0.53	6.950	3.23	12.950	1.31	18.95	0.65
0.967	0.53	6.967	3.23	12.967	1.31	18.97	0.65
0.983	0.53	6.983	3.23	12.983	1.31	18.98	0.65
1.000	0.53	7.000	3.23	13.000	1.31	19.00	0.65
1.017	0.54	7.017	3.90	13.017	1.27	19.02	0.64
1.033	0.54	7.033	3.90	13.033	1.27	19.03	0.64
1.050	0.54	7.050	3.90	13.050	1.27	19.05	0.64
1.067	0.54	7.067	3.90	13.067	1.27	19.07	0.64
1.083	0.54	7.083	3.90	13.083	1.27	19.08	0.64
1.100	0.54	7.100	3.90	13.100	1.27	19.10	0.64
1.117	0.54	7.117	3.90	13.117	1.27	19.12	0.64
1.133	0.54	7.133	3.90	13.133	1.27	19.13	0.64
1.150	0.54	7.150	3.90	13.150	1.27	19.15	0.64
1.167	0.54	7.167	3.90	13.167	1.27	19.17	0.64
1.183	0.55	7.183	4.94	13.183	1.24	19.18	0.64
1.200	0.55	7.200	4.94	13.200	1.24	19.20	0.64
1.217	0.55	7.217	4.94	13.217	1.24	19.22	0.64
1.233	0.55	7.233	4.94	13.233	1.24	19.23	0.64
1.250	0.55	7.250	4.94	13.250	1.24	19.25	0.64
1.267	0.55	7.267	4.94	13.267	1.24	19.27	0.64
1.283	0.55	7.283	4.94	13.283	1.24	19.28	0.64
1.300	0.55	7.300	4.94	13.300	1.24	19.30	0.64
1.317	0.55	7.317	4.94	13.317	1.24	19.32	0.64
1.333	0.55	7.333	4.95	13.333	1.24	19.33	0.64
1.350	0.57	7.350	6.81	13.350	1.20	19.35	0.63
1.367	0.57	7.367	6.81	13.367	1.20	19.37	0.63
1.383	0.57	7.383	6.81	13.383	1.20	19.38	0.63
1.400	0.57	7.400	6.81	13.400	1.20	19.40	0.63
1.417	0.57	7.417	6.81	13.417	1.20	19.42	0.63
1.433	0.57	7.433	6.81	13.433	1.20	19.43	0.63
1.450	0.57	7.450	6.81	13.450	1.20	19.45	0.63
1.467	0.57	7.467	6.81	13.467	1.20	19.47	0.63
1.483	0.57	7.483	6.81	13.483	1.20	19.48	0.63
1.500	0.57	7.500	6.82	13.500	1.20	19.50	0.63
1.517	0.58	7.517	11.05	13.517	1.17	19.52	0.62
1.533	0.58	7.533	11.05	13.533	1.17	19.53	0.62
1.550	0.58	7.550	11.05	13.550	1.17	19.55	0.62
1.567	0.58	7.567	11.05	13.567	1.17	19.57	0.62
1.583	0.58	7.583	11.05	13.583	1.17	19.58	0.62
1.600	0.58	7.600	11.05	13.600	1.17	19.60	0.62
1.617	0.58	7.617	11.05	13.617	1.17	19.62	0.62
1.633	0.58	7.633	11.05	13.633	1.17	19.63	0.62
1.650	0.58	7.650	11.05	13.650	1.17	19.65	0.62
1.667	0.58	7.667	11.10	13.667	1.17	19.67	0.62
1.683	0.59	7.683	28.66	13.683	1.14	19.68	0.61
1.700	0.59	7.700	28.66	13.700	1.14	19.70	0.61
1.717	0.59	7.717	28.66	13.717	1.14	19.72	0.61
1.733	0.59	7.733	28.66	13.733	1.14	19.73	0.61
1.750	0.59	7.750	28.66	13.750	1.14	19.75	0.61
1.767	0.59	7.767	28.66	13.767	1.14	19.77	0.61
1.783	0.59	7.783	28.66	13.783	1.14	19.78	0.61
1.800	0.59	7.800	28.66	13.800	1.14	19.80	0.61
1.817	0.59	7.817	28.66	13.817	1.14	19.82	0.61
1.833	0.59	7.833	28.88	13.833	1.14	19.83	0.61
1.850	0.61	7.850	107.72	13.850	1.11	19.85	0.60
1.867	0.61	7.867	107.72	13.867	1.11	19.87	0.60
1.883	0.61	7.883	107.72	13.883	1.11	19.88	0.60
1.900	0.61	7.900	107.72	13.900	1.11	19.90	0.60
1.917	0.61	7.917	107.72	13.917	1.11	19.92	0.60
1.933	0.61	7.933	107.72	13.933	1.11	19.93	0.60
1.950	0.61	7.950	107.72	13.950	1.11	19.95	0.60
1.967	0.61	7.967	107.72	13.967	1.11	19.97	0.60
1.983	0.61	7.983	107.72	13.983	1.11	19.98	0.60
2.000	0.61	8.000	107.51	14.000	1.11	20.00	0.60
2.017	0.62	8.017	38.01	14.017	1.09	20.02	0.60
2.033	0.62	8.033	38.01	14.033	1.09	20.03	0.60
2.050	0.62	8.050	38.01	14.050	1.09	20.05	0.60
2.067	0.62	8.067	38.01	14.067	1.09	20.07	0.60
2.083	0.62	8.083	38.01	14.083	1.09	20.08	0.60
2.100	0.62	8.100	38.01	14.100	1.09	20.10	0.60
2.117	0.62	8.117	38.01	14.117	1.09	20.12	0.60
2.133	0.62	8.133	38.01	14.133	1.09	20.13	0.60
2.150	0.62	8.150	38.01	14.150	1.09	20.15	0.60
2.167	0.62	8.167	37.95	14.167	1.09	20.17	0.60
2.183	0.64	8.183	19.35	14.183	1.06	20.18	0.59
2.200	0.64	8.200	19.35	14.200	1.06	20.20	0.59
2.217	0.64	8.217	19.35	14.217	1.06	20.22	0.59
2.233	0.64	8.233	19.35	14.233	1.06	20.23	0.59
2.250	0.64	8.250	19.35	14.250	1.06	20.25	0.59
2.267	0.64	8.267	19.35	14.267	1.06	20.27	0.59
2.283	0.64	8.283	19.35	14.283	1.06	20.28	0.59
2.300	0.64	8.300	19.35	14.300	1.06	20.30	0.59
2.317	0.64	8.317	19.35	14.317	1.06	20.32	0.59
2.333	0.64	8.333	19.33	14.333	1.06	20.33	0.59
2.350	0.66	8.350	12.71	14.350	1.04	20.35	0.58
2.367	0.66	8.367	12.71	14.367	1.04	20.37	0.58
2.383	0.66	8.383	12.71	14.383	1.04	20.38	0.58
2.400	0.66	8.400	12.71	14.400	1.04	20.40	0.58
2.417	0.66	8.417	12.71	14.417	1.04	20.42	0.58
2.433	0.66	8.433	12.71	14.433	1.04	20.43	0.58
2.450	0.66	8.450	12.71	14.450	1.04	20.45	0.58
2.467	0.66	8.467	12.71	14.467	1.04	20.47	0.58
2.483	0.66	8.483	12.71	14.483	1.04	20.48	0.58
2.500	0.66	8.500	12.70	14.500	1.04	20.50	0.58
2.517	0.67	8.517	9.41	14.517	1.01	20.52	0.58
2.533	0.67	8.533	9.41	14.533	1.01	20.53	0.58
2.550	0.67	8.550	9.41	14.550	1.01	20.55	0.58
2.567	0.67	8.567	9.41	14.567	1.01	20.57	0.58
2.583	0.67	8.583	9.41	14.583	1.01	20.58	0.58
2.600	0.67	8.600	9.41	14.600	1.01	20.60	0.58
2.617	0.67	8.617	9.41	14.617	1.01	20.62	0.58
2.633	0.67	8.633	9.41	14.633	1.01	20.63	0.58
2.650	0.67	8.650	9.41	14.650	1.01	20.65	0.58
2.667	0.67	8.667	9.41	14.667	1.01	20.67	0.58
2.683	0.69	8.683	7.46	14.683	0.99	20.68	0.57
2.700	0.69	8.700	7.46	14.700	0.99	20.70	0.57
2.717	0.69	8.717	7.46	14.717	0.99	20.72	0.57
2.733	0.69	8.733	7.46	14.733	0.99	20.73	0.57
2.750	0.69	8.750	7.46	14.750	0.99	20.75	0.57
2.767	0.69	8.767	7.46	14.767	0.99	20.77	0.57
2.783	0.69	8.783	7.46	14.783	0.99	20.78	0.57
2.800	0.69	8.800	7.46	14.800	0.99	20.80	0.57
2.817	0.69	8.817	7.46	14.817	0.99	20.82	0.57
2.833	0.69	8.833	7.46	14.833	0.99	20.83	0.57
2.850	0.71	8.850	6.18	14.850	0.97	20.85	0.56
2.867	0.71	8.867	6.18	14.867	0.97	20.87	0.56
2.883	0.71	8.883	6.18	14.883	0.97	20.88	0.56
2.900	0.71	8.900	6.18	14.900	0.97	20.90	0.56
2.917	0.71	8.917	6.18	14.917	0.97	20.92	0.56
2.933	0.71	8.933	6.18	14.933	0.97	20.93	0.56
2.950	0.71	8.950	6.18	14.950	0.97	20.95	0.56
2.967	0.71	8.967	6.18	14.967	0.97	20.97	0.56
2.983	0.71	8.983	6.18	14.983	0.97	20.98	0.56
3.000	0.71	9.000	6.18	15.000	0.97	21.00	0.56
3.017	0.74	9.017	5.28	15.017	0.95	21.02	0.56
3.033	0.74	9.033	5.28	15.033	0.95	21.03	0.56
3.050	0.74	9.050	5.28	15.050	0.95	21.05	0.56
3.067	0.74	9.067	5.28	15.067	0.95	21.07	0.56
3.083	0.74	9.083	5.28	15.083	0.95	21.08	0.56
3.100	0.74	9.100	5.28	15.100	0.95	21.10	0.56
3.117	0.74	9.117	5.28	15.117	0.95	21.12	0.56
3.133	0.74	9.133	5.28	15.133	0.95	21.13	0.56
3.150	0.74	9.150	5.28	15.150	0.95	21.15	0.56
3.167	0.74	9.167	5.28	15.167	0.95	21.17	0.56
3.183	0.76	9.183	4.62	15.183	0.93	21.18	0.55
3.200	0.76	9.200	4.62	15.200	0.93	21.20	0.55
3.217	0.76	9.217	4.62	15.217	0.93	21.22	0.55
3.233	0.76	9.233	4.62	15.233	0.93	21.23	0.55
3.250	0.76	9.250	4.62	15.250	0.93	21.25	0.55
3.267	0.76	9.267	4.62	15.267	0.93	21.27	0.55
3.283	0.76	9.283	4.62	15.283	0.93	21.28	0.55
3.300	0.76	9.300	4.62	15.300	0.93	21.30	0.55
3.317	0.76	9.317	4.62	15.317	0.93	21.32	0.55
3.333	0.76	9.333	4.62	15.333	0.93	21.33	0.55
3.350	0.78	9.350	4.11	15.350	0.91	21.35	0.55
3.367	0.78	9.367	4.11	15.367	0.91	21.37	0.55
3.383	0.78	9.383	4.11	15.383	0.91	21.38	0.55
3.400	0.78	9.400	4.11	15.400	0.91	21.40	0.55
3.417	0.78	9.417	4.11	15.417	0.91	21.42	0.55
3.433	0.78	9.433	4.11	15.433	0.91	21.43	0.55
3.450	0.78	9.450	4.11	15.450	0.91	21.45	0.55
3.467	0.78	9.467	4.11	15.467	0.91	21.47	0.55
3.483	0.78	9.483	4.11	15.483	0.91	21.48	0.55
3.500	0.78	9.500	4.10	15.500	0.91	21.50	0.55
3.517	0.81	9.517	3.70	15.517	0.90	21.52	0.54
3.533	0.81	9.533	3.70	15.533	0.90	21.53	0.54
3.550	0.81	9.550	3.70	15.550	0.90	21.55	0.54
3.567	0.81	9.567	3.70	15.567	0.90	21.57	0.54
3.583	0.81	9.583	3.70	15.583	0.90	21.58	0.54
3.600	0.81	9.600	3.70	15.600	0.90	21.60	0.54
3.617	0.81	9.617	3.70	15.617	0.90	21.62	0.54
3.633	0.81	9.633	3.70	15.633	0.90	21.63	0.54
3.650	0.81	9.650	3.70	15.650	0.90	21.65	0.54
3.667	0.81	9.667	3.70	15.667	0.90	21.67	0.54
3.683	0.84	9.683	3.37	15.683	0.88	21.68	0.53
3.700	0.84	9.700	3.37	15.700	0.88	21.70	0.53
3.717	0.84	9.717	3.37	15.717	0.88	21.72	0.53
3.733	0.84	9.733	3.37	15.733	0.88	21.73	0.53
3.750	0.84	9.750	3.37	15.750	0.88	21.75	0.53
3.767	0.84	9.767	3.37	15.767	0.88	21.77	0.53
3.783	0.84	9.783	3.37	15.783	0.88	21.78	0.53
3.800	0.84	9.800	3.37	15.800	0.88	21.80	0.53
3.817	0.84	9.817	3.37	15.817	0.88	21.82	0.53
3.833	0.84	9.833	3.37	15.833	0.88	21.83	0.53
3.850	0.87	9.850	3.09	15.850	0.86	21.85	0.53
3.867	0.87	9.867	3.09	15.867	0.86	21.87	0.53
3.883	0.87	9.883	3.09	15.883	0.86	21.88	0.53
3.900	0.87	9.900	3.09	15.900	0.86	21.90	0.53
3.917	0.87	9.917	3.09	15.917	0.86	21.92	0.53
3.933	0.87	9.933	3.09	15.933	0.86	21.93	0.53
3.950	0.87	9.950	3.09	15.950	0.86	21.95	0.53
3.967	0.87	9.967	3.09	15.967	0.86	21.97	0.53
3.983	0.87	9.983	3.09	15.983	0.86	21.98	0.53
4.000	0.87	10.000	3.09	16.000	0.86	22.00	0.53
4.017	0.90	10.017	2.86	16.017	0.85	22.02	0.52
4.033	0.90	10.033	2.86	16.033	0.85	22.03	0.52
4.050	0.90	10.050	2.86	16.050	0.85	22.05	0.52
4.067	0.90	10.067	2.86	16.067	0.85	22.07	0.52
4.083	0.90	10.083	2.86	16.083	0.85	22.08	0.52
4.100	0.90	10.100	2.86	16.100	0.85	22.10	0.52
4.117	0.90	10.117	2.86	16.117	0.85	22.12	0.52
4.133	0.90	10.133	2.86	16.133	0.85	22.13	0.52
4.150	0.90	10.150	2.86	16.150	0.85	22.15	0.52
4.167	0.90	10.167	2.86	16.167	0.85	22.17	0.52
4.183	0.94	10.183	2.67	16.183	0.83	22.18	0.52
4.200	0.94	10.200	2.67	16.200	0.83	22.20	0.52
4.217	0.94	10.217	2.67	16.217	0.83	22.22	0.52
4.233	0.94	10.233	2.67	16.233	0.83	22.23	0.52
4.250	0.94	10.250	2.67	16.250	0.83	22.25	0.52
4.267	0.94	10.267	2.67	16.267	0.83	22.27	0.52
4.283	0.94	10.283	2.67	16.283	0.83	22.28	0.52
4.300	0.94	10.300	2.67	16.300	0.83	22.30	0.52
4.317	0.94	10.317	2.67	16.317	0.83	22.32	0.52
4.333	0.94	10.333	2.67	16.333	0.83	22.33	0.52
4.350	0.98	10.350	2.50	16.350	0.82	22.35	0.51
4.367	0.98	10.367	2.50	16.367	0.82	22.37	0.51
4.383	0.98	10.383	2.50	16.383	0.82	22.38	0.51
4.400	0.98	10.400	2.50	16.400	0.82	22.40	0.51
4.417	0.98	10.417	2.50	16.417	0.82	22.42	0.51
4.433	0.98	10.433	2.50	16.433	0.82	22.43	0.51
4.450	0.98	10.450	2.50	16.450	0.82	22.45	0.51
4.467	0.98	10.467	2.50	16.467	0.82	22.47	0.51
4.483	0.98	10.483	2.50	16.483	0.82	22.48	0.51
4.500	0.98	10.500	2.50	16.500	0.82	22.50	0.51
4.517	1.02	10.517	2.35	16.517	0.80	22.52	0.51
4.533	1.02	10.533	2.35	16.533	0.80	22.53	0.51
4.550	1.02	10.550	2.35	16.550	0.80	22.55	0.51
4.567	1.02	10.567	2.35	16.567	0.80	22.57	0.51
4.583	1.02	10.583	2.35	16.583	0.80	22.58	0.51
4.600	1.02	10.600	2.35	16.600	0.80	22.60	0.51
4.617	1.02	10.617	2.35	16.617	0.80	22.62	0.51
4.633	1.02	10.633	2.35	16.633	0.80	22.63	0.51
4.650	1.02	10.650	2.35	16.650	0.80	22.65	0.51
4.667	1.02	10.667	2.35	16.667	0.80	22.67	0.51
4.683	1.07	10.683	2.22	16.683	0.79	22.68	0.50
4.700	1.07	10.700	2.22	16.700	0.79	22.70	0.50
4.717	1.07	10.717	2.22	16.717	0.79	22.72	0.50
4.733	1.07	10.733	2.22	16.733	0.79	22.73	0.50
4.750	1.07	10.750	2.22	16.750	0.79	22.75	0.50
4.767	1.07	10.767	2.22	16.767	0.79	22.77	0.50
4.783	1.07	10.783	2.22	16.783	0.79	22.78	0.50
4.800	1.07	10.800	2.22	16.800	0.79	22.80	0.50
4.817	1.07	10.817	2.22	16.817	0.79	22.82	0.50
4.833	1.07	10.833	2.22	16.833	0.79	22.83	0.50
4.850	1.13	10.850	2.10	16.850	0.78	22.85	0.50
4.867	1.13	10.867	2.10	16.867	0.78	22.87	0.50
4.883	1.13	10.883	2.10	16.883	0.78	22.88	0.50
4.900	1.13	10.900	2.10	16.900	0.78	22.90	0.50
4.917	1.13	10.917	2.10	16.917	0.78	22.92	0.50
4.933	1.13	10.933	2.10	16.933	0.78	22.93	0.50

4.950	1.13	10.950	2.10	16.950	0.78	22.95	0.50
4.967	1.13	10.967	2.10	16.967	0.78	22.97	0.50
4.983	1.13	10.983	2.10	16.983	0.78	22.98	0.50
5.000	1.13	11.000	2.10	17.000	0.78	23.00	0.50
5.017	1.19	11.017	2.00	17.017	0.77	23.02	0.49
5.033	1.19	11.033	2.00	17.033	0.77	23.03	0.49
5.050	1.19	11.050	2.00	17.050	0.77	23.05	0.49
5.067	1.19	11.067	2.00	17.067	0.77	23.07	0.49
5.083	1.19	11.083	2.00	17.083	0.77	23.08	0.49
5.100	1.19	11.100	2.00	17.100	0.77	23.10	0.49
5.117	1.19	11.117	2.00	17.117	0.77	23.12	0.49
5.133	1.19	11.133	2.00	17.133	0.77	23.13	0.49
5.150	1.19	11.150	2.00	17.150	0.77	23.15	0.49
5.167	1.19	11.167	2.00	17.167	0.77	23.17	0.49
5.183	1.25	11.183	1.90	17.183	0.75	23.18	0.49
5.200	1.25	11.200	1.90	17.200	0.75	23.20	0.49
5.217	1.25	11.217	1.90	17.217	0.75	23.22	0.49
5.233	1.25	11.233	1.90	17.233	0.75	23.23	0.49
5.250	1.25	11.250	1.90	17.250	0.75	23.25	0.49
5.267	1.25	11.267	1.90	17.267	0.75	23.27	0.49
5.283	1.25	11.283	1.90	17.283	0.75	23.28	0.49
5.300	1.25	11.300	1.90	17.300	0.75	23.30	0.49
5.317	1.25	11.317	1.90	17.317	0.75	23.32	0.49
5.333	1.25	11.333	1.90	17.333	0.75	23.33	0.49
5.350	1.33	11.350	1.82	17.350	0.74	23.35	0.48
5.367	1.33	11.367	1.82	17.367	0.74	23.37	0.48
5.383	1.33	11.383	1.82	17.383	0.74	23.38	0.48
5.400	1.33	11.400	1.82	17.400	0.74	23.40	0.48
5.417	1.33	11.417	1.82	17.417	0.74	23.42	0.48
5.433	1.33	11.433	1.82	17.433	0.74	23.43	0.48
5.450	1.33	11.450	1.82	17.450	0.74	23.45	0.48
5.467	1.33	11.467	1.82	17.467	0.74	23.47	0.48
5.483	1.33	11.483	1.82	17.483	0.74	23.48	0.48
5.500	1.33	11.500	1.82	17.500	0.74	23.50	0.48
5.517	1.42	11.517	1.74	17.517	0.73	23.52	0.48
5.533	1.42	11.533	1.74	17.533	0.73	23.53	0.48
5.550	1.42	11.550	1.74	17.550	0.73	23.55	0.48
5.567	1.42	11.567	1.74	17.567	0.73	23.57	0.48
5.583	1.42	11.583	1.74	17.583	0.73	23.58	0.48
5.600	1.42	11.600	1.74	17.600	0.73	23.60	0.48
5.617	1.42	11.617	1.74	17.617	0.73	23.62	0.48
5.633	1.42	11.633	1.74	17.633	0.73	23.63	0.48
5.650	1.42	11.650	1.74	17.650	0.73	23.65	0.48
5.667	1.42	11.667	1.74	17.667	0.73	23.67	0.48
5.683	1.52	11.683	1.67	17.683	0.72	23.68	0.48
5.700	1.52	11.700	1.67	17.700	0.72	23.70	0.48
5.717	1.52	11.717	1.67	17.717	0.72	23.72	0.48
5.733	1.52	11.733	1.67	17.733	0.72	23.73	0.48
5.750	1.52	11.750	1.67	17.750	0.72	23.75	0.48
5.767	1.52	11.767	1.67	17.767	0.72	23.77	0.48
5.783	1.52	11.783	1.67	17.783	0.72	23.78	0.48
5.800	1.52	11.800	1.67	17.800	0.72	23.80	0.48

5.817	1.52	11.817	1.67	17.817	0.72	23.82	0.48
5.833	1.52	11.833	1.67	17.833	0.72	23.83	0.48
5.850	1.64	11.850	1.61	17.850	0.71	23.85	0.47
5.867	1.64	11.867	1.61	17.867	0.71	23.87	0.47
5.883	1.64	11.883	1.61	17.883	0.71	23.88	0.47
5.900	1.64	11.900	1.61	17.900	0.71	23.90	0.47
5.917	1.64	11.917	1.61	17.917	0.71	23.92	0.47
5.933	1.64	11.933	1.61	17.933	0.71	23.93	0.47
5.950	1.64	11.950	1.61	17.950	0.71	23.95	0.47
5.967	1.64	11.967	1.61	17.967	0.71	23.97	0.47
5.983	1.64	11.983	1.61	17.983	0.71	23.98	0.47
6.000	1.64	12.000	1.61	18.000	0.71	24.00	0.47

```
     Max.Eff.Inten.(mm/hr)=     107.72        17.58
               over (min)        5.00        13.00
     Storage Coeff.  (min)=      3.70 (ii)   12.15 (ii)
     Unit Hyd. Tpeak (min)=      5.00        13.00
     Unit Hyd. peak  (cms)=      0.27         0.09
                                                    *TOTALS*
     PEAK FLOW       (cms)=      0.27         0.05      0.296 (iii)
     TIME TO PEAK    (hrs)=      8.02         8.18       8.02
     RUNOFF VOLUME    (mm)=     66.81        12.79      31.69
     TOTAL RAINFALL   (mm)=     67.81        67.81      67.81
     RUNOFF COEFFICIENT   =      0.99         0.19       0.47


       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN*  =  48.0    Ia = Dep. Storage  (Above)
       (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
       (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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-------------------
| DUHYD    (  0035)|
| Inlet Cap.= 0.202|
| #of Inlets=     1|
| Total(cms)=   0.2|      AREA     QPEAK     TPEAK    R.V.
-------------------      (ha)     (cms)     (hrs)    (mm)
     TOTAL HYD.(ID= 1):   2.86      0.30      8.02   31.69
     ==========================================================
     MAJOR SYS.(ID= 2):   0.13      0.09      8.02   31.69
     MINOR SYS.(ID= 3):   2.73      0.20      7.93   31.69

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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-------------------
| ADD HYD  (  0102)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
-------------------         (ha)    (cms)    (hrs)     (mm)
```

```
       ID1= 1 (  1021):     3.77   0.417     8.02    33.49
     + ID2= 2 (  0035):     0.13   0.094     8.02    31.69
       ==========================================================
       ID = 3 (  0102):     3.90   0.510     8.02    33.43

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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-------------------
| ADD HYD  (  0903)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
-------------------         (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0102):     3.90   0.510     8.02    33.43
     + ID2= 2 (  0902):    15.69   1.527     8.05    32.48
       ==========================================================
       ID = 3 (  0903):    19.59   2.005     8.05    32.67

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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-------------------
| CALIB            |
| NASHYD   (  1051)|   Area     (ha)=   1.62   Curve Number   (CN)= 60.0
|ID= 1 DT= 5.0 min |   Ia       (mm)=   5.00   # of Linear Res.(N)= 3.00
-------------------   U.H. Tp(hrs)=   1.87

        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	0.48	6.083	1.78	12.083	1.55	18.08	0.70
0.167	0.48	6.167	1.78	12.167	1.55	18.17	0.70
0.250	0.49	6.250	1.95	12.250	1.50	18.25	0.69
0.333	0.49	6.333	1.95	12.333	1.50	18.33	0.69
0.417	0.50	6.417	2.16	12.417	1.44	18.42	0.68
0.500	0.50	6.500	2.16	12.500	1.44	18.50	0.68
0.583	0.51	6.583	2.42	12.583	1.40	18.58	0.67
0.667	0.51	6.667	2.42	12.667	1.40	18.67	0.67
0.750	0.52	6.750	2.76	12.750	1.35	18.75	0.66
0.833	0.52	6.833	2.76	12.833	1.35	18.83	0.66
0.917	0.53	6.917	3.23	12.917	1.31	18.92	0.65
1.000	0.53	7.000	3.23	13.000	1.31	19.00	0.65
1.083	0.54	7.083	3.90	13.083	1.27	19.08	0.64
1.167	0.54	7.167	3.90	13.167	1.27	19.17	0.64
1.250	0.55	7.250	4.94	13.250	1.24	19.25	0.64
1.333	0.55	7.333	4.94	13.333	1.24	19.33	0.64
1.417	0.57	7.417	6.81	13.417	1.20	19.42	0.63
1.500	0.57	7.500	6.81	13.500	1.20	19.50	0.63
1.583	0.58	7.583	11.05	13.583	1.17	19.58	0.62
1.667	0.58	7.667	11.05	13.667	1.17	19.67	0.62
1.750	0.59	7.750	28.66	13.750	1.14	19.75	0.61

1.833	0.59	7.833	28.66	13.833	1.14	19.83	0.61
1.917	0.61	7.917	107.72	13.917	1.11	19.92	0.60
2.000	0.61	8.000	107.71	14.000	1.11	20.00	0.60
2.083	0.62	8.083	38.01	14.083	1.09	20.08	0.60
2.167	0.62	8.167	38.00	14.167	1.09	20.17	0.60
2.250	0.64	8.250	19.35	14.250	1.06	20.25	0.59
2.333	0.64	8.333	19.35	14.333	1.06	20.33	0.59
2.417	0.66	8.417	12.71	14.417	1.04	20.42	0.58
2.500	0.66	8.500	12.71	14.500	1.04	20.50	0.58
2.583	0.67	8.583	9.41	14.583	1.01	20.58	0.58
2.667	0.67	8.667	9.41	14.667	1.01	20.67	0.58
2.750	0.69	8.750	7.46	14.750	0.99	20.75	0.57
2.833	0.69	8.833	7.46	14.833	0.99	20.83	0.57
2.917	0.71	8.917	6.18	14.917	0.97	20.92	0.56
3.000	0.71	9.000	6.18	15.000	0.97	21.00	0.56
3.083	0.74	9.083	5.28	15.083	0.95	21.08	0.56
3.167	0.74	9.167	5.28	15.167	0.95	21.17	0.56
3.250	0.76	9.250	4.62	15.250	0.93	21.25	0.55
3.333	0.76	9.333	4.62	15.333	0.93	21.33	0.55
3.417	0.78	9.417	4.11	15.417	0.91	21.42	0.55
3.500	0.78	9.500	4.11	15.500	0.91	21.50	0.55
3.583	0.81	9.583	3.70	15.583	0.90	21.58	0.54
3.667	0.81	9.667	3.70	15.667	0.90	21.67	0.54
3.750	0.84	9.750	3.37	15.750	0.88	21.75	0.53
3.833	0.84	9.833	3.37	15.833	0.88	21.83	0.53
3.917	0.87	9.917	3.09	15.917	0.86	21.92	0.53
4.000	0.87	10.000	3.09	16.000	0.86	22.00	0.53
4.083	0.90	10.083	2.86	16.083	0.85	22.08	0.52
4.167	0.90	10.167	2.86	16.167	0.85	22.17	0.52
4.250	0.94	10.250	2.67	16.250	0.83	22.25	0.52
4.333	0.94	10.333	2.67	16.333	0.83	22.33	0.52
4.417	0.98	10.417	2.50	16.417	0.82	22.42	0.51
4.500	0.98	10.500	2.50	16.500	0.82	22.50	0.51
4.583	1.02	10.583	2.35	16.583	0.80	22.58	0.51
4.667	1.02	10.667	2.35	16.667	0.80	22.67	0.51
4.750	1.07	10.750	2.22	16.750	0.79	22.75	0.50
4.833	1.07	10.833	2.22	16.833	0.79	22.83	0.50
4.917	1.13	10.917	2.10	16.917	0.78	22.92	0.50
5.000	1.13	11.000	2.10	17.000	0.78	23.00	0.50
5.083	1.19	11.083	2.00	17.083	0.77	23.08	0.49
5.167	1.19	11.167	2.00	17.167	0.77	23.17	0.49
5.250	1.25	11.250	1.90	17.250	0.75	23.25	0.49
5.333	1.25	11.333	1.90	17.333	0.75	23.33	0.49
5.417	1.33	11.417	1.82	17.417	0.74	23.42	0.48
5.500	1.33	11.500	1.82	17.500	0.74	23.50	0.48
5.583	1.42	11.583	1.74	17.583	0.73	23.58	0.48
5.667	1.42	11.667	1.74	17.667	0.73	23.67	0.48
5.750	1.52	11.750	1.67	17.750	0.72	23.75	0.48
5.833	1.52	11.833	1.67	17.833	0.72	23.83	0.48
5.917	1.64	11.917	1.61	17.917	0.71	23.92	0.47
6.000	1.64	12.000	1.61	18.000	0.71	24.00	0.47

```
     Unit Hyd Qpeak  (cms)=   0.033

     PEAK FLOW       (cms)=   0.013 (i)
     TIME TO PEAK    (hrs)=  10.333
     RUNOFF VOLUME    (mm)=  16.993
     TOTAL RAINFALL   (mm)=  67.812
     RUNOFF COEFFICIENT   =   0.251

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

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-------------------
| ADD HYD  (  0105)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
-------------------         (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  1051):     1.62   0.013    10.33    16.99
     + ID2= 2 (  0037):     0.06   0.040     8.02    26.47
       ==========================================================
       ID = 3 (  0105):     1.68   0.041     8.02    17.32

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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-------------------
| ADD HYD  (  0906)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
-------------------         (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0105):     1.68   0.041     8.02    17.32
     + ID2= 2 (  0903):    19.59   2.005     8.05    32.67
       ==========================================================
       ID = 3 (  0906):    21.27   2.035     8.05    31.46

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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-------------------
| CALIB            |
| NASHYD   (  0201)|   Area     (ha)=   6.97   Curve Number   (CN)= 66.0
|ID= 1 DT= 5.0 min |   Ia       (mm)=   5.00   # of Linear Res.(N)= 3.00
-------------------   U.H. Tp(hrs)=   0.74

        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	0.48	6.083	1.78	12.083	1.55	18.08	0.70
0.167	0.48	6.167	1.78	12.167	1.55	18.17	0.70
0.250	0.49	6.250	1.95	12.250	1.50	18.25	0.69
0.333	0.49	6.333	1.95	12.333	1.50	18.33	0.69
0.417	0.50	6.417	2.16	12.417	1.44	18.42	0.68

0.500	0.50	6.500	2.16	12.500	1.44	18.50	0.68
0.583	0.51	6.583	2.42	12.583	1.40	18.58	0.67
0.667	0.51	6.667	2.42	12.667	1.40	18.67	0.67
0.750	0.52	6.750	2.76	12.750	1.35	18.75	0.66
0.833	0.52	6.833	2.76	12.833	1.35	18.83	0.66
0.917	0.53	6.917	3.23	12.917	1.31	18.92	0.65
1.000	0.53	7.000	3.23	13.000	1.31	19.00	0.65
1.083	0.54	7.083	3.90	13.083	1.27	19.08	0.64
1.167	0.54	7.167	3.90	13.167	1.27	19.17	0.64
1.250	0.55	7.250	4.94	13.250	1.24	19.25	0.64
1.333	0.55	7.333	4.94	13.333	1.24	19.33	0.64
1.417	0.57	7.417	6.81	13.417	1.20	19.42	0.63
1.500	0.57	7.500	6.81	13.500	1.20	19.50	0.63
1.583	0.58	7.583	11.05	13.583	1.17	19.58	0.62
1.667	0.58	7.667	11.05	13.667	1.17	19.67	0.62
1.750	0.59	7.750	28.66	13.750	1.14	19.75	0.61
1.833	0.59	7.833	28.66	13.833	1.14	19.83	0.61
1.917	0.61	7.917	107.72	13.917	1.11	19.92	0.60
2.000	0.61	8.000	107.71	14.000	1.11	20.00	0.60
2.083	0.62	8.083	38.01	14.083	1.09	20.08	0.60
2.167	0.62	8.167	38.00	14.167	1.09	20.17	0.60
2.250	0.64	8.250	19.35	14.250	1.06	20.25	0.59
2.333	0.64	8.333	19.35	14.333	1.06	20.33	0.59
2.417	0.66	8.417	12.71	14.417	1.04	20.42	0.58
2.500	0.66	8.500	12.71	14.500	1.04	20.50	0.58
2.583	0.67	8.583	9.41	14.583	1.01	20.58	0.58
2.667	0.67	8.667	9.41	14.667	1.01	20.67	0.58
2.750	0.69	8.750	7.46	14.750	0.99	20.75	0.57
2.833	0.69	8.833	7.46	14.833	0.99	20.83	0.57
2.917	0.71	8.917	6.18	14.917	0.97	20.92	0.56
3.000	0.71	9.000	6.18	15.000	0.97	21.00	0.56
3.083	0.74	9.083	5.28	15.083	0.95	21.08	0.56
3.167	0.74	9.167	5.28	15.167	0.95	21.17	0.56
3.250	0.76	9.250	4.62	15.250	0.93	21.25	0.55
3.333	0.76	9.333	4.62	15.333	0.93	21.33	0.55
3.417	0.78	9.417	4.11	15.417	0.91	21.42	0.55
3.500	0.78	9.500	4.11	15.500	0.91	21.50	0.55
3.583	0.81	9.583	3.70	15.583	0.90	21.58	0.54
3.667	0.81	9.667	3.70	15.667	0.90	21.67	0.54
3.750	0.84	9.750	3.37	15.750	0.88	21.75	0.53
3.833	0.84	9.833	3.37	15.833	0.88	21.83	0.53
3.917	0.87	9.917	3.09	15.917	0.86	21.92	0.53
4.000	0.87	10.000	3.09	16.000	0.86	22.00	0.53
4.083	0.90	10.083	2.86	16.083	0.85	22.08	0.52
4.167	0.90	10.167	2.86	16.167	0.85	22.17	0.52
4.250	0.94	10.250	2.67	16.250	0.83	22.25	0.52
4.333	0.94	10.333	2.67	16.333	0.83	22.33	0.52
4.417	0.98	10.417	2.50	16.417	0.82	22.42	0.51
4.500	0.98	10.500	2.50	16.500	0.82	22.50	0.51
4.583	1.02	10.583	2.35	16.583	0.80	22.58	0.51
4.667	1.02	10.667	2.35	16.667	0.80	22.67	0.51
4.750	1.07	10.750	2.22	16.750	0.79	22.75	0.50

4.833	1.07	10.833	2.22	16.833	0.79	22.83	0.50
4.917	1.13	10.917	2.10	16.917	0.78	22.92	0.50
5.000	1.13	11.000	2.10	17.000	0.78	23.00	0.50
5.083	1.19	11.083	2.00	17.083	0.77	23.08	0.49
5.167	1.19	11.167	2.00	17.167	0.77	23.17	0.49
5.250	1.25	11.250	1.90	17.250	0.75	23.25	0.49
5.333	1.25	11.333	1.90	17.333	0.75	23.33	0.49
5.417	1.33	11.417	1.82	17.417	0.74	23.42	0.48
5.500	1.33	11.500	1.82	17.500	0.74	23.50	0.48
5.583	1.42	11.583	1.74	17.583	0.73	23.58	0.48
5.667	1.42	11.667	1.74	17.667	0.73	23.67	0.48
5.750	1.52	11.750	1.67	17.750	0.72	23.75	0.48
5.833	1.52	11.833	1.67	17.833	0.72	23.83	0.48
5.917	1.64	11.917	1.61	17.917	0.71	23.92	0.47
6.000	1.64	12.000	1.61	18.000	0.71	24.00	0.47

Unit Hyd Qpeak (cms)= 0.360

PEAK FLOW (cms)= 0.135 (i)
TIME TO PEAK (hrs)= 8.833
RUNOFF VOLUME (mm)= 20.372
TOTAL RAINFALL (mm)= 67.812
RUNOFF COEFFICIENT = 0.300

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

CALIB					
NASHYD (0202)	Area	(ha)=	2.71	Curve Number (CN)=	68.0
ID= 1 DT= 5.0 min	Ia	(mm)=	5.00	# of Linear Res.(N)=	3.00
	U.H. Tp(hrs)=		0.93		

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	0.48	6.083	1.78	12.083	1.55	18.08	0.70
0.167	0.48	6.167	1.78	12.167	1.55	18.17	0.70
0.250	0.49	6.250	1.95	12.250	1.50	18.25	0.69
0.333	0.49	6.333	1.95	12.333	1.50	18.33	0.69
0.417	0.50	6.417	2.16	12.417	1.44	18.42	0.68
0.500	0.50	6.500	2.16	12.500	1.44	18.50	0.68
0.583	0.51	6.583	2.42	12.583	1.40	18.58	0.67
0.667	0.51	6.667	2.42	12.667	1.40	18.67	0.67
0.750	0.52	6.750	2.76	12.750	1.35	18.75	0.66
0.833	0.52	6.833	2.76	12.833	1.35	18.83	0.66
0.917	0.53	6.917	3.23	12.917	1.31	18.92	0.65
1.000	0.53	7.000	3.23	13.000	1.31	19.00	0.65
1.083	0.54	7.083	3.90	13.083	1.27	19.08	0.64
1.167	0.54	7.167	3.90	13.167	1.27	19.17	0.64
1.250	0.55	7.250	4.94	13.250	1.24	19.25	0.64
1.333	0.55	7.333	4.94	13.333	1.24	19.33	0.64
1.417	0.57	7.417	6.81	13.417	1.20	19.42	0.63
1.500	0.57	7.500	6.81	13.500	1.20	19.50	0.63
1.583	0.58	7.583	11.05	13.583	1.17	19.58	0.62
1.667	0.58	7.667	11.05	13.667	1.17	19.67	0.62
1.750	0.59	7.750	28.66	13.750	1.14	19.75	0.61
1.833	0.59	7.833	28.66	13.833	1.14	19.83	0.61
1.917	0.61	7.917	107.72	13.917	1.11	19.92	0.60
2.000	0.61	8.000	107.71	14.000	1.11	20.00	0.60
2.083	0.62	8.083	38.01	14.083	1.09	20.08	0.60
2.167	0.62	8.167	38.00	14.167	1.09	20.17	0.60
2.250	0.64	8.250	19.35	14.250	1.06	20.25	0.59
2.333	0.64	8.333	19.35	14.333	1.06	20.33	0.59
2.417	0.66	8.417	12.71	14.417	1.04	20.42	0.58
2.500	0.66	8.500	12.71	14.500	1.04	20.50	0.58
2.583	0.67	8.583	9.41	14.583	1.01	20.58	0.58
2.667	0.67	8.667	9.41	14.667	1.01	20.67	0.58
2.750	0.69	8.750	7.46	14.750	0.99	20.75	0.57
2.833	0.69	8.833	7.46	14.833	0.99	20.83	0.57
2.917	0.71	8.917	6.18	14.917	0.97	20.92	0.56
3.000	0.71	9.000	6.18	15.000	0.97	21.00	0.56
3.083	0.74	9.083	5.28	15.083	0.95	21.08	0.56
3.167	0.74	9.167	5.28	15.167	0.95	21.17	0.56
3.250	0.76	9.250	4.62	15.250	0.93	21.25	0.55
3.333	0.76	9.333	4.62	15.333	0.93	21.33	0.55
3.417	0.78	9.417	4.11	15.417	0.91	21.42	0.55
3.500	0.78	9.500	4.11	15.500	0.91	21.50	0.55
3.583	0.81	9.583	3.70	15.583	0.90	21.58	0.54
3.667	0.81	9.667	3.70	15.667	0.90	21.67	0.54
3.750	0.84	9.750	3.37	15.750	0.88	21.75	0.53
3.833	0.84	9.833	3.37	15.833	0.88	21.83	0.53
3.917	0.87	9.917	3.09	15.917	0.86	21.92	0.53
4.000	0.87	10.000	3.09	16.000	0.86	22.00	0.53
4.083	0.90	10.083	2.86	16.083	0.85	22.08	0.52
4.167	0.90	10.167	2.86	16.167	0.85	22.17	0.52
4.250	0.94	10.250	2.67	16.250	0.83	22.25	0.52
4.333	0.94	10.333	2.67	16.333	0.83	22.33	0.52
4.417	0.98	10.417	2.50	16.417	0.82	22.42	0.51
4.500	0.98	10.500	2.50	16.500	0.82	22.50	0.51
4.583	1.02	10.583	2.35	16.583	0.80	22.58	0.51
4.667	1.02	10.667	2.35	16.667	0.80	22.67	0.51
4.750	1.07	10.750	2.22	16.750	0.79	22.75	0.50
4.833	1.07	10.833	2.22	16.833	0.79	22.83	0.50
4.917	1.13	10.917	2.10	16.917	0.78	22.92	0.50
5.000	1.13	11.000	2.10	17.000	0.78	23.00	0.50
5.083	1.19	11.083	2.00	17.083	0.77	23.08	0.49
1.167	0.54	7.167	3.90	13.167	1.27	19.17	0.64
1.250	0.55	7.250	4.94	13.250	1.24	19.25	0.64
1.333	0.55	7.333	4.94	13.333	1.24	19.33	0.64
1.417	0.57	7.417	6.81	13.417	1.20	19.42	0.63
1.500	0.57	7.500	6.81	13.500	1.20	19.50	0.63
1.583	0.58	7.583	11.05	13.583	1.17	19.58	0.62
1.667	0.58	7.667	11.05	13.667	1.17	19.67	0.62
1.750	0.59	7.750	28.66	13.750	1.14	19.75	0.61
1.833	0.59	7.833	28.66	13.833	1.14	19.83	0.61
1.917	0.61	7.917	107.72	13.917	1.11	19.92	0.60
2.000	0.61	8.000	107.71	14.000	1.11	20.00	0.60
2.083	0.62	8.083	38.01	14.083	1.09	20.08	0.60
2.167	0.62	8.167	38.00	14.167	1.09	20.17	0.60
2.250	0.64	8.250	19.35	14.250	1.06	20.25	0.59
2.333	0.64	8.333	19.35	14.333	1.06	20.33	0.59
2.417	0.66	8.417	12.71	14.417	1.04	20.42	0.58
2.500	0.66	8.500	12.71	14.500	1.04	20.50	0.58
2.583	0.67	8.583	9.41	14.583	1.01	20.58	0.58
2.667	0.67	8.667	9.41	14.667	1.01	20.67	0.58
2.750	0.69	8.750	7.46	14.750	0.99	20.75	0.57
2.833	0.69	8.833	7.46	14.833	0.99	20.83	0.57
2.917	0.71	8.917	6.18	14.917	0.97	20.92	0.56
3.000	0.71	9.000	6.18	15.000	0.97	21.00	0.56
3.083	0.74	9.083	5.28	15.083	0.95	21.08	0.56
3.167	0.74	9.167	5.28	15.167	0.95	21.17	0.56
3.250	0.76	9.250	4.62	15.250	0.93	21.25	0.55
3.333	0.76	9.333	4.62	15.333	0.93	21.33	0.55
3.417	0.78	9.417	4.11	15.417	0.91	21.42	0.55
3.500	0.78	9.500	4.11	15.500	0.91	21.50	0.55
3.583	0.81	9.583	3.70	15.583	0.90	21.58	0.54
3.667	0.81	9.667	3.70	15.667	0.90	21.67	0.54
3.750	0.84	9.750	3.37	15.750	0.88	21.75	0.53
3.833	0.84	9.833	3.37	15.833	0.88	21.83	0.53
3.917	0.87	9.917	3.09	15.917	0.86	21.92	0.53
4.000	0.87	10.000	3.09	16.000	0.86	22.00	0.53
4.083	0.90	10.083	2.86	16.083	0.85	22.08	0.52
4.167	0.90	10.167	2.86	16.167	0.85	22.17	0.52
4.250	0.94	10.250	2.67	16.250	0.83	22.25	0.52
4.333	0.94	10.333	2.67	16.333	0.83	22.33	0.52
4.417	0.98	10.417	2.50	16.417	0.82	22.42	0.51
4.500	0.98	10.500	2.50	16.500	0.82	22.50	0.51
4.583	1.02	10.583	2.35	16.583	0.80	22.58	0.51
4.667	1.02	10.667	2.35	16.667	0.80	22.67	0.51
4.750	1.07	10.750	2.22	16.750	0.79	22.75	0.50
4.833	1.07	10.833	2.22	16.833	0.79	22.83	0.50
4.917	1.13	10.917	2.10	16.917	0.78	22.92	0.50
5.000	1.13	11.000	2.10	17.000	0.78	23.00	0.50
5.083	1.19	11.083	2.00	17.083	0.77	23.08	0.49
5.167	1.19	11.167	2.00	17.167	0.77	23.17	0.49
5.250	1.25	11.250	1.90	17.250	0.75	23.25	0.49
5.333	1.25	11.333	1.90	17.333	0.75	23.33	0.49
5.417	1.33	11.417	1.82	17.417	0.74	23.42	0.48
5.500	1.33	11.500	1.82	17.500	0.74	23.50	0.48
5.583	1.42	11.583	1.74	17.583	0.73	23.58	0.48
5.667	1.42	11.667	1.74	17.667	0.73	23.67	0.48
5.750	1.52	11.750	1.67	17.750	0.72	23.75	0.48
5.833	1.52	11.833	1.67	17.833	0.72	23.83	0.48
5.917	1.64	11.917	1.61	17.917	0.71	23.92	0.47
6.000	1.64	12.000	1.61	18.000	0.71	24.00	0.47

Unit Hyd Qpeak (cms)= 0.111

PEAK FLOW (cms)= 0.048 (i)
TIME TO PEAK (hrs)= 9.083
RUNOFF VOLUME (mm)= 21.637
TOTAL RAINFALL (mm)= 67.812
RUNOFF COEFFICIENT = 0.319

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

ADD HYD (0904)				
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0201):	6.97	0.135	8.83	20.37
+ ID2= 2 (0202):	2.71	0.048	9.08	21.64
ID = 3 (0904):	9.68	0.181	8.92	20.73

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB					
NASHYD (0203)	Area	(ha)=	34.30	Curve Number (CN)=	42.0
ID= 1 DT= 5.0 min	Ia	(mm)=	5.00	# of Linear Res.(N)=	3.00
	U.H. Tp(hrs)=		1.40		

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	0.48	6.083	1.78	12.083	1.55	18.08	0.70
0.167	0.48	6.167	1.78	12.167	1.55	18.17	0.70
0.250	0.49	6.250	1.95	12.250	1.50	18.25	0.69
0.333	0.49	6.333	1.95	12.333	1.50	18.33	0.69
0.417	0.50	6.417	2.16	12.417	1.44	18.42	0.68
0.500	0.50	6.500	2.16	12.500	1.44	18.50	0.68
0.583	0.51	6.583	2.42	12.583	1.40	18.58	0.67
0.667	0.51	6.667	2.42	12.667	1.40	18.67	0.67
0.750	0.52	6.750	2.76	12.750	1.35	18.75	0.66
0.833	0.52	6.833	2.76	12.833	1.35	18.83	0.66
0.917	0.53	6.917	3.23	12.917	1.31	18.92	0.65
1.000	0.53	7.000	3.23	13.000	1.31	19.00	0.65
1.083	0.54	7.083	3.90	13.083	1.27	19.08	0.64
1.167	0.54	7.167	3.90	13.167	1.27	19.17	0.64
1.250	0.55	7.250	4.94	13.250	1.24	19.25	0.64
1.333	0.55	7.333	4.94	13.333	1.24	19.33	0.64
1.417	0.57	7.417	6.81	13.417	1.20	19.42	0.63
1.500	0.57	7.500	6.81	13.500	1.20	19.50	0.63
1.583	0.58	7.583	11.05	13.583	1.17	19.58	0.62
1.667	0.58	7.667	11.05	13.667	1.17	19.67	0.62
1.750	0.59	7.750	28.66	13.750	1.14	19.75	0.61
1.833	0.59	7.833	28.66	13.833	1.14	19.83	0.61
1.917	0.61	7.917	107.72	13.917	1.11	19.92	0.60
2.000	0.61	8.000	107.71	14.000	1.11	20.00	0.60
2.083	0.62	8.083	38.01	14.083	1.09	20.08	0.60
2.167	0.62	8.167	38.00	14.167	1.09	20.17	0.60
2.250	0.64	8.250	19.35	14.250	1.06	20.25	0.59
2.333	0.64	8.333	19.35	14.333	1.06	20.33	0.59
2.417	0.66	8.417	12.71	14.417	1.04	20.42	0.58
2.500	0.66	8.500	12.71	14.500	1.04	20.50	0.58
2.583	0.67	8.583	9.41	14.583	1.01	20.58	0.58
2.667	0.67	8.667	9.41	14.667	1.01	20.67	0.58
2.750	0.69	8.750	7.46	14.750	0.99	20.75	0.57
2.833	0.69	8.833	7.46	14.833	0.99	20.83	0.57
2.917	0.71	8.917	6.18	14.917	0.97	20.92	0.56
3.000	0.71	9.000	6.18	15.000	0.97	21.00	0.56
3.083	0.74	9.083	5.28	15.083	0.95	21.08	0.56
3.167	0.74	9.167	5.28	15.167	0.95	21.17	0.56
3.250	0.76	9.250	4.62	15.250	0.93	21.25	0.55
3.333	0.76	9.333	4.62	15.333	0.93	21.33	0.55
3.417	0.78	9.417	4.11	15.417	0.91	21.42	0.55
3.500	0.78	9.500	4.11	15.500	0.91	21.50	0.55
3.583	0.81	9.583	3.70	15.583	0.90	21.58	0.54
3.667	0.81	9.667	3.70	15.667	0.90	21.67	0.54
3.750	0.84	9.750	3.37	15.750	0.88	21.75	0.53
3.833	0.84	9.833	3.37	15.833	0.88	21.83	0.53
3.917	0.87	9.917	3.09	15.917	0.86	21.92	0.53
4.000	0.87	10.000	3.09	16.000	0.86	22.00	0.53
4.083	0.90	10.083	2.86	16.083	0.85	22.08	0.52
4.167	0.90	10.167	2.86	16.167	0.85	22.17	0.52
4.250	0.94	10.250	2.67	16.250	0.83	22.25	0.52
4.333	0.94	10.333	2.67	16.333	0.83	22.33	0.52
4.417	0.98	10.417	2.50	16.417	0.82	22.42	0.51
4.500	0.98	10.500	2.50	16.500	0.82	22.50	0.51
4.583	1.02	10.583	2.35	16.583	0.80	22.58	0.51
4.667	1.02	10.667	2.35	16.667	0.80	22.67	0.51
4.750	1.07	10.750	2.22	16.750	0.79	22.75	0.50
4.833	1.07	10.833	2.22	16.833	0.79	22.83	0.50
4.917	1.13	10.917	2.10	16.917	0.78	22.92	0.50
5.000	1.13	11.000	2.10	17.000	0.78	23.00	0.50
5.083	1.19	11.083	2.00	17.083	0.77	23.08	0.49
5.167	1.19	11.167	2.00	17.167	0.77	23.17	0.49
5.250	1.25	11.250	1.90	17.250	0.75	23.25	0.49
5.333	1.25	11.333	1.90	17.333	0.75	23.33	0.49
5.417	1.33	11.417	1.82	17.417	0.74	23.42	0.48
5.500	1.33	11.500	1.82	17.500	0.74	23.50	0.48
5.583	1.42	11.583	1.74	17.583	0.73	23.58	0.48
5.667	1.42	11.667	1.74	17.667	0.73	23.67	0.48
5.750	1.52	11.750	1.67	17.750	0.72	23.75	0.48
5.833	1.52	11.833	1.67	17.833	0.72	23.83	0.48
5.917	1.64	11.917	1.61	17.917	0.71	23.92	0.47
6.000	1.64	12.000	1.61	18.000	0.71	24.00	0.47

Unit Hyd Qpeak (cms)= 0.936

PEAK FLOW (cms)= 0.186 (i)
TIME TO PEAK (hrs)= 9.750
RUNOFF VOLUME (mm)= 9.540
TOTAL RAINFALL (mm)= 67.812
RUNOFF COEFFICIENT = 0.141

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

ADD HYD (0905)				
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0203):	34.30	0.186	9.75	9.54
+ ID2= 2 (0904):	9.68	0.181	8.92	20.73
ID = 3 (0905):	43.98	0.337	9.25	12.00

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

Junction Command(0907)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 1(0905)	43.98	0.34	9.25	12.00
OUTFLOW: ID= 2(0907)	43.98	0.34	9.25	12.00

ADD HYD (0908)				
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0906):	21.27	2.035	8.05	31.46
+ ID2= 2 (0907):	43.98	0.337	9.25	12.00
ID = 3 (0908):	65.24	2.080	8.05	18.34

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB					
NASHYD (0204)	Area	(ha)=	0.40	Curve Number (CN)=	67.0
ID= 1 DT= 5.0 min	Ia	(mm)=	5.00	# 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	0.48	6.083	1.78	12.083	1.55	18.08	0.70
0.167	0.48	6.167	1.78	12.167	1.55	18.17	0.70
0.250	0.49	6.250	1.95	12.250	1.50	18.25	0.69
0.333	0.49	6.333	1.95	12.333	1.50	18.33	0.69
0.417	0.50	6.417	2.16	12.417	1.44	18.42	0.68
0.500	0.50	6.500	2.16	12.500	1.44	18.50	0.68
0.583	0.51	6.583	2.42	12.583	1.40	18.58	0.67
0.667	0.51	6.667	2.42	12.667	1.40	18.67	0.67
0.750	0.52	6.750	2.76	12.750	1.35	18.75	0.66
0.833	0.52	6.833	2.76	12.833	1.35	18.83	0.66
0.917	0.53	6.917	3.23	12.917	1.31	18.92	0.65
1.000	0.53	7.000	3.23	13.000	1.31	19.00	0.65
1.083	0.54	7.083	3.90	13.083	1.27	19.08	0.64
1.167	0.54	7.167	3.90	13.167	1.27	19.17	0.64
1.250	0.55	7.250	4.94	13.250	1.24	19.25	0.64
1.333	0.55	7.333	4.94	13.333	1.24	19.33	0.64
1.417	0.57	7.417	6.81	13.417	1.20	19.42	0.63
1.500	0.57	7.500	6.81	13.500	1.20	19.50	0.63
1.583	0.58	7.583	11.05	13.583	1.17	19.58	0.62
1.667	0.58	7.667	11.05	13.667	1.17	19.67	0.62
1.750	0.59	7.750	28.66	13.750	1.14	19.75	0.61
1.833	0.59	7.833	28.66	13.833	1.14	19.83	0.61
1.917	0.61	7.917	107.72	13.917	1.11	19.92	0.60
2.000	0.61	8.000	107.71	14.000	1.11	20.00	0.60
2.083	0.62	8.083	38.01	14.083	1.09	20.08	0.60
2.167	0.62	8.167	38.00	14.167	1.09	20.17	0.60
2.250	0.64	8.250	19.35	14.250	1.06	20.25	0.59
2.333	0.64	8.333	19.35	14.333	1.06	20.33	0.59
2.417	0.66	8.417	12.71	14.417	1.04	20.42	0.58
2.500	0.66	8.500	12.71	14.500	1.04	20.50	0.58
2.583	0.67	8.583	9.41	14.583	1.01	20.58	0.58
2.667	0.67	8.667	9.41	14.667	1.01	20.67	0.58
2.750	0.69	8.750	7.46	14.750	0.99	20.75	0.57
2.833	0.69	8.833	7.46	14.833	0.99	20.83	0.57

2.917	0.71	8.917	6.18	14.917	0.97	20.92	0.56
3.000	0.71	9.000	6.18	15.000	0.97	21.00	0.56
3.083	0.74	9.083	5.28	15.083	0.95	21.08	0.56
3.167	0.74	9.167	5.28	15.167	0.95	21.17	0.56
3.250	0.76	9.250	4.62	15.250	0.93	21.25	0.55
3.333	0.76	9.333	4.62	15.333	0.93	21.33	0.55
3.417	0.78	9.417	4.11	15.417	0.91	21.42	0.55
3.500	0.78	9.500	4.11	15.500	0.91	21.50	0.55
3.583	0.81	9.583	3.70	15.583	0.90	21.58	0.54
3.667	0.81	9.667	3.70	15.667	0.90	21.67	0.54
3.750	0.84	9.750	3.37	15.750	0.88	21.75	0.53
3.833	0.84	9.833	3.37	15.833	0.88	21.83	0.53
3.917	0.87	9.917	3.09	15.917	0.86	21.92	0.53
4.000	0.87	10.000	3.09	16.000	0.86	22.00	0.53
4.083	0.90	10.083	2.86	16.083	0.85	22.08	0.52
4.167	0.90	10.167	2.86	16.167	0.85	22.17	0.52
4.250	0.94	10.250	2.67	16.250	0.83	22.25	0.52
4.333	0.94	10.333	2.67	16.333	0.83	22.33	0.52
4.417	0.98	10.417	2.50	16.417	0.82	22.42	0.51
4.500	0.98	10.500	2.50	16.500	0.82	22.50	0.51
4.583	1.02	10.583	2.35	16.583	0.80	22.58	0.51
4.667	1.02	10.667	2.35	16.667	0.80	22.67	0.51
4.750	1.07	10.750	2.22	16.750	0.79	22.75	0.50
4.833	1.07	10.833	2.22	16.833	0.79	22.83	0.50
4.917	1.13	10.917	2.10	16.917	0.78	22.92	0.50
5.000	1.13	11.000	2.10	17.000	0.78	23.00	0.50
5.083	1.19	11.083	2.00	17.083	0.77	23.08	0.49
5.167	1.19	11.167	2.00	17.167	0.77	23.17	0.49
5.250	1.25	11.250	1.90	17.250	0.75	23.25	0.49
5.333	1.25	11.333	1.90	17.333	0.75	23.33	0.49
5.417	1.33	11.417	1.82	17.417	0.74	23.42	0.48
5.500	1.33	11.500	1.82	17.500	0.74	23.50	0.48
5.583	1.42	11.583	1.74	17.583	0.73	23.58	0.48
5.667	1.42	11.667	1.74	17.667	0.73	23.67	0.48
5.750	1.52	11.750	1.67	17.750	0.72	23.75	0.48
5.833	1.52	11.833	1.67	17.833	0.72	23.83	0.48
5.917	1.64	11.917	1.61	17.917	0.71	23.92	0.47
6.000	1.64	12.000	1.61	18.000	0.71	24.00	0.47

Unit Hyd Qpeak (cms)= 0.054

PEAK FLOW (cms)= 0.015 (i)
TIME TO PEAK (hrs)= 8.250
RUNOFF VOLUME (mm)= 20.983
TOTAL RAINFALL (mm)= 67.812
RUNOFF COEFFICIENT = 0.309

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

ADD HYD (0909)					
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0204):	0.40	0.015	8.25	20.98
+ ID2= 2 (0908):	65.24	2.080	8.05	18.34
ID = 3 (0909):	65.64	2.089	8.05	18.36

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR(0052)| IN= 2---> OUT= 1 | DT= 1.0 min	OVERFLOW IS ON				
	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)	
	0.0000	0.0001	0.5350	0.0405	
	0.4630	0.0006	0.5440	0.0566	
	0.4740	0.0013	0.5540	0.0775	
	0.4840	0.0030	0.5630	0.1069	
	0.4950	0.0056	0.5720	0.1342	
	0.5050	0.0102	0.5810	0.1635	
	0.5150	0.0163	0.5900	0.1967	
	0.5250	0.0270	0.5980	0.2362	

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (0909)	65.640	2.089	8.05	18.36
OUTFLOW: ID= 1 (0052)	65.640	0.585	8.92	18.36
OVERFLOW:ID= 3 (0003)	0.000	0.000	0.00	0.00

TOTAL NUMBER OF SIMULATION OVERFLOW = 0
CUMULATIVE TIME OF OVERFLOW (HOURS) = 0.00
PERCENTAGE OF TIME OVERFLOWING (%) = 0.00

PEAK FLOW REDUCTION [Qout/Qin](%)= 28.02
TIME SHIFT OF PEAK FLOW (min)= 52.00
MAXIMUM STORAGE USED (ha.m.)= 0.1797

Junction Command(0048)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 1(0052)	65.64	0.59	8.92	18.36
OUTFLOW: ID= 2(0048)	65.64	0.59	8.92	18.36

Junction Command(0053)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 3(0052)	0.00	0.00	0.00	0.00
OUTFLOW: ID= 2(0053)	0.00	0.00	0.00	0.00

ADD HYD (0051)| 1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
*** W A R N I N G : HYDROGRAPH 0053 <ID= 2> IS DRY.				
*** W A R N I N G : HYDROGRAPH 0003 = HYDROGRAPH 0001				
ID1= 1 (0048):	65.64	0.585	8.92	18.36
+ ID2= 2 (0053):	0.00	0.000	0.00	0.00
ID = 3 (0051):	65.64	0.585	8.92	18.36

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

Junction Command(0036)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 9(0035)	2.73	0.20	7.93	31.69
OUTFLOW: ID= 2(0036)	2.73	0.20	7.93	31.69

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      V    V   I    SSSSS  U   U    A    L              (v 6.2.2015)
      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\cacp078589\AppData\Local\Civica\VH5\9ad0f7cd-9fe5-4b65-bb07-55a510b23afa\b4a37e8a-a4da-4fd4-9ae3-d82925ac5ace\s
Summary filename:
C:\Users\cacp078589\AppData\Local\Civica\VH5\9ad0f7cd-9fe5-4b65-bb07-55a510b23afa\b4a37e8a-a4da-4fd4-9ae3-d82925ac5ace\s

DATE: 04-04-2025 TIME: 09:55:19

USER:

COMMENTS: _____

** SIMULATION : Hazel **

READ STORM	Filename: C:\Users\cacp078589\AppData\Local\Temp\3e0a7d87-fdbb-4c2d-b5a1-12df70e7bafa\bd619df1
Ptotal=212.00 mm	Comments: Hazel

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN 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

CALIB | STANDHYD (1012)| ID= 1 DT= 1.0 min	Area (ha)= 26.89 | Total Imp(%)= 57.00 Dir. Conn.(%)= 49.00		
	IMPERVIOUS	PERVIOUS (i)	
Surface Area (ha)=	15.33	11.56	
Dep. Storage (mm)=	1.00	5.00	
Average Slope (%)=	0.50	2.00	

Length (m)=	423.42	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 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
0.017	6.00	3.017	13.00	6.017	23.00	9.02	53.00
0.033	6.00	3.033	13.00	6.033	23.00	9.03	53.00
0.050	6.00	3.050	13.00	6.050	23.00	9.05	53.00
0.067	6.00	3.067	13.00	6.067	23.00	9.07	53.00
0.083	6.00	3.083	13.00	6.083	23.00	9.08	53.00
0.100	6.00	3.100	13.00	6.100	23.00	9.10	53.00
0.117	6.00	3.117	13.00	6.117	23.00	9.12	53.00
0.133	6.00	3.133	13.00	6.133	23.00	9.13	53.00
0.150	6.00	3.150	13.00	6.150	23.00	9.15	53.00
0.167	6.00	3.167	13.00	6.167	23.00	9.17	53.00
0.183	6.00	3.183	13.00	6.183	23.00	9.18	53.00
0.200	6.00	3.200	13.00	6.200	23.00	9.20	53.00
0.217	6.00	3.217	13.00	6.217	23.00	9.22	53.00
0.233	6.00	3.233	13.00	6.233	23.00	9.23	53.00
0.250	6.00	3.250	13.00	6.250	23.00	9.25	53.00
0.267	6.00	3.267	13.00	6.267	23.00	9.27	53.00
0.283	6.00	3.283	13.00	6.283	23.00	9.28	53.00
0.300	6.00	3.300	13.00	6.300	23.00	9.30	53.00
0.317	6.00	3.317	13.00	6.317	23.00	9.32	53.00
0.333	6.00	3.333	13.00	6.333	23.00	9.33	53.00
0.350	6.00	3.350	13.00	6.350	23.00	9.35	53.00
0.367	6.00	3.367	13.00	6.367	23.00	9.37	53.00
0.383	6.00	3.383	13.00	6.383	23.00	9.38	53.00
0.400	6.00	3.400	13.00	6.400	23.00	9.40	53.00
0.417	6.00	3.417	13.00	6.417	23.00	9.42	53.00
0.433	6.00	3.433	13.00	6.433	23.00	9.43	53.00
0.450	6.00	3.450	13.00	6.450	23.00	9.45	53.00
0.467	6.00	3.467	13.00	6.467	23.00	9.47	53.00
0.483	6.00	3.483	13.00	6.483	23.00	9.48	53.00
0.500	6.00	3.500	13.00	6.500	23.00	9.50	53.00
0.517	6.00	3.517	13.00	6.517	23.00	9.52	53.00
0.533	6.00	3.533	13.00	6.533	23.00	9.53	53.00
0.550	6.00	3.550	13.00	6.550	23.00	9.55	53.00
0.567	6.00	3.567	13.00	6.567	23.00	9.57	53.00
0.583	6.00	3.583	13.00	6.583	23.00	9.58	53.00
0.600	6.00	3.600	13.00	6.600	23.00	9.60	53.00
0.617	6.00	3.617	13.00	6.617	23.00	9.62	53.00
0.633	6.00	3.633	13.00	6.633	23.00	9.63	53.00
0.650	6.00	3.650	13.00	6.650	23.00	9.65	53.00
0.667	6.00	3.667	13.00	6.667	23.00	9.67	53.00
0.683	6.00	3.683	13.00	6.683	23.00	9.68	53.00
0.700	6.00	3.700	13.00	6.700	23.00	9.70	53.00
0.717	6.00	3.717	13.00	6.717	23.00	9.72	53.00
0.733	6.00	3.733	13.00	6.733	23.00	9.73	53.00
0.750	6.00	3.750	13.00	6.750	23.00	9.75	53.00
0.767	6.00	3.767	13.00	6.767	23.00	9.77	53.00
0.783	6.00	3.783	13.00	6.783	23.00	9.78	53.00
0.800	6.00	3.800	13.00	6.800	23.00	9.80	53.00
0.817	6.00	3.817	13.00	6.817	23.00	9.82	53.00
0.833	6.00	3.833	13.00	6.833	23.00	9.83	53.00
0.850	6.00	3.850	13.00	6.850	23.00	9.85	53.00
0.867	6.00	3.867	13.00	6.867	23.00	9.87	53.00
0.883	6.00	3.883	13.00	6.883	23.00	9.88	53.00
0.900	6.00	3.900	13.00	6.900	23.00	9.90	53.00
0.917	6.00	3.917	13.00	6.917	23.00	9.92	53.00
0.933	6.00	3.933	13.00	6.933	23.00	9.93	53.00
0.950	6.00	3.950	13.00	6.950	23.00	9.95	53.00
0.967	6.00	3.967	13.00	6.967	23.00	9.97	53.00
0.983	6.00	3.983	13.00	6.983	23.00	9.98	53.00
1.000	6.00	4.000	13.00	7.000	22.98	10.00	52.98
1.017	4.00	4.017	17.00	7.017	13.00	10.02	38.00
1.033	4.00	4.033	17.00	7.033	13.00	10.03	38.00
1.050	4.00	4.050	17.00	7.050	13.00	10.05	38.00
1.067	4.00	4.067	17.00	7.067	13.00	10.07	38.00
1.083	4.00	4.083	17.00	7.083	13.00	10.08	38.00
1.100	4.00	4.100	17.00	7.100	13.00	10.10	38.00
1.117	4.00	4.117	17.00	7.117	13.00	10.12	38.00
1.133	4.00	4.133	17.00	7.133	13.00	10.13	38.00
1.150	4.00	4.150	17.00	7.150	13.00	10.15	38.00
1.167	4.00	4.167	17.00	7.167	13.00	10.17	38.00
1.183	4.00	4.183	17.00	7.183	13.00	10.18	38.00
1.200	4.00	4.200	17.00	7.200	13.00	10.20	38.00
1.217	4.00	4.217	17.00	7.217	13.00	10.22	38.00
1.233	4.00	4.233	17.00	7.233	13.00	10.23	38.00
1.250	4.00	4.250	17.00	7.250	13.00	10.25	38.00
1.267	4.00	4.267	17.00	7.267	13.00	10.27	38.00
1.283	4.00	4.283	17.00	7.283	13.00	10.28	38.00
1.300	4.00	4.300	17.00	7.300	13.00	10.30	38.00
1.317	4.00	4.317	17.00	7.317	13.00	10.32	38.00
1.333	4.00	4.333	17.00	7.333	13.00	10.33	38.00
1.350	4.00	4.350	17.00	7.350	13.00	10.35	38.00
1.367	4.00	4.367	17.00	7.367	13.00	10.37	38.00
1.383	4.00	4.383	17.00	7.383	13.00	10.38	38.00
1.400	4.00	4.400	17.00	7.400	13.00	10.40	38.00
1.417	4.00	4.417	17.00	7.417	13.00	10.42	38.00
1.433	4.00	4.433	17.00	7.433	13.00	10.43	38.00
1.450	4.00	4.450	17.00	7.450	13.00	10.45	38.00
1.467	4.00	4.467	17.00	7.467	13.00	10.47	38.00
1.483	4.00	4.483	17.00	7.483	13.00	10.48	38.00
1.500	4.00	4.500	17.00	7.500	13.00	10.50	38.00
1.517	4.00	4.517	17.00	7.517	13.00	10.52	38.00
1.533	4.00	4.533	17.00	7.533	13.00	10.53	38.00
1.550	4.00	4.550	17.00	7.550	13.00	10.55	38.00
1.567	4.00	4.567	17.00	7.567	13.00	10.57	38.00
1.583	4.00	4.583	17.00	7.583	13.00	10.58	38.00

1.600	4.00	4.600	17.00	7.600	13.00	10.60	38.00
1.617	4.00	4.617	17.00	7.617	13.00	10.62	38.00
1.633	4.00	4.633	17.00	7.633	13.00	10.63	38.00
1.650	4.00	4.650	17.00	7.650	13.00	10.65	38.00
1.667	4.00	4.667	17.00	7.667	13.00	10.67	38.00
1.683	4.00	4.683	17.00	7.683	13.00	10.68	38.00
1.700	4.00	4.700	17.00	7.700	13.00	10.70	38.00
1.717	4.00	4.717	17.00	7.717	13.00	10.72	38.00
1.733	4.00	4.733	17.00	7.733	13.00	10.73	38.00
1.750	4.00	4.750	17.00	7.750	13.00	10.75	38.00
1.767	4.00	4.767	17.00	7.767	13.00	10.77	38.00
1.783	4.00	4.783	17.00	7.783	13.00	10.78	38.00
1.800	4.00	4.800	17.00	7.800	13.00	10.80	38.00
1.817	4.00	4.817	17.00	7.817	13.00	10.82	38.00
1.833	4.00	4.833	17.00	7.833	13.00	10.83	38.00
1.850	4.00	4.850	17.00	7.850	13.00	10.85	38.00
1.867	4.00	4.867	17.00	7.867	13.00	10.87	38.00
1.883	4.00	4.883	17.00	7.883	13.00	10.88	38.00
1.900	4.00	4.900	17.00	7.900	13.00	10.90	38.00
1.917	4.00	4.917	17.00	7.917	13.00	10.92	38.00
1.933	4.00	4.933	17.00	7.933	13.00	10.93	38.00
1.950	4.00	4.950	17.00	7.950	13.00	10.95	38.00
1.967	4.00	4.967	17.00	7.967	13.00	10.97	38.00
1.983	4.00	4.983	17.00	7.983	13.00	10.98	38.00
2.000	4.00	5.000	17.00	8.000	13.00	11.00	37.99
2.017	6.00	5.017	13.00	8.017	13.00	11.02	13.00
2.033	6.00	5.033	13.00	8.033	13.00	11.03	13.00
2.050	6.00	5.050	13.00	8.050	13.00	11.05	13.00
2.067	6.00	5.067	13.00	8.067	13.00	11.07	13.00
2.083	6.00	5.083	13.00	8.083	13.00	11.08	13.00
2.100	6.00	5.100	13.00	8.100	13.00	11.10	13.00
2.117	6.00	5.117	13.00	8.117	13.00	11.12	13.00
2.133	6.00	5.133	13.00	8.133	13.00	11.13	13.00
2.150	6.00	5.150	13.00	8.150	13.00	11.15	13.00
2.167	6.00	5.167	13.00	8.167	13.00	11.17	13.00
2.183	6.00	5.183	13.00	8.183	13.00	11.18	13.00
2.200	6.00	5.200	13.00	8.200	13.00	11.20	13.00
2.217	6.00	5.217	13.00	8.217	13.00	11.22	13.00
2.233	6.00	5.233	13.00	8.233	13.00	11.23	13.00
2.250	6.00	5.250	13.00	8.250	13.00	11.25	13.00
2.267	6.00	5.267	13.00	8.267	13.00	11.27	13.00
2.283	6.00	5.283	13.00	8.283	13.00	11.28	13.00
2.300	6.00	5.300	13.00	8.300	13.00	11.30	13.00
2.317	6.00	5.317	13.00	8.317	13.00	11.32	13.00
2.333	6.00	5.333	13.00	8.333	13.00	11.33	13.00
2.350	6.00	5.350	13.00	8.350	13.00	11.35	13.00
2.367	6.00	5.367	13.00	8.367	13.00	11.37	13.00
2.383	6.00	5.383	13.00	8.383	13.00	11.38	13.00
2.400	6.00	5.400	13.00	8.400	13.00	11.40	13.00
2.417	6.00	5.417	13.00	8.417	13.00	11.42	13.00
2.433	6.00	5.433	13.00	8.433	13.00	11.43	13.00
2.450	6.00	5.450	13.00	8.450	13.00	11.45	13.00

2.467	6.00	5.467	13.00	8.467	13.00	11.47	13.00
2.483	6.00	5.483	13.00	8.483	13.00	11.48	13.00
2.500	6.00	5.500	13.00	8.500	13.00	11.50	13.00
2.517	6.00	5.517	13.00	8.517	13.00	11.52	13.00
2.533	6.00	5.533	13.00	8.533	13.00	11.53	13.00
2.550	6.00	5.550	13.00	8.550	13.00	11.55	13.00
2.567	6.00	5.567	13.00	8.567	13.00	11.57	13.00
2.583	6.00	5.583	13.00	8.583	13.00	11.58	13.00
2.600	6.00	5.600	13.00	8.600	13.00	11.60	13.00
2.617	6.00	5.617	13.00	8.617	13.00	11.62	13.00
2.633	6.00	5.633	13.00	8.633	13.00	11.63	13.00
2.650	6.00	5.650	13.00	8.650	13.00	11.65	13.00
2.667	6.00	5.667	13.00	8.667	13.00	11.67	13.00
2.683	6.00	5.683	13.00	8.683	13.00	11.68	13.00
2.700	6.00	5.700	13.00	8.700	13.00	11.70	13.00
2.717	6.00	5.717	13.00	8.717	13.00	11.72	13.00
2.733	6.00	5.733	13.00	8.733	13.00	11.73	13.00
2.750	6.00	5.750	13.00	8.750	13.00	11.75	13.00
2.767	6.00	5.767	13.00	8.767	13.00	11.77	13.00
2.783	6.00	5.783	13.00	8.783	13.00	11.78	13.00
2.800	6.00	5.800	13.00	8.800	13.00	11.80	13.00
2.817	6.00	5.817	13.00	8.817	13.00	11.82	13.00
2.833	6.00	5.833	13.00	8.833	13.00	11.83	13.00
2.850	6.00	5.850	13.00	8.850	13.00	11.85	13.00
2.867	6.00	5.867	13.00	8.867	13.00	11.87	13.00
2.883	6.00	5.883	13.00	8.883	13.00	11.88	13.00
2.900	6.00	5.900	13.00	8.900	13.00	11.90	13.00
2.917	6.00	5.917	13.00	8.917	13.00	11.92	13.00
2.933	6.00	5.933	13.00	8.933	13.00	11.93	13.00
2.950	6.00	5.950	13.00	8.950	13.00	11.95	13.00
2.967	6.00	5.967	13.00	8.967	13.00	11.97	13.00
2.983	6.00	5.983	13.00	8.983	13.00	11.98	13.00
3.000	6.00	6.000	13.01	9.000	13.08	12.00	13.00

Max.Eff.Inten.(mm/hr)=	53.00	39.95	
over (min)	10.00	19.00	
Storage Coeff. (min)=	9.64 (ii)	18.27 (ii)	
Unit Hyd. Tpeak (min)=	10.00	19.00	
Unit Hyd. peak (cms)=	0.12	0.06	
			TOTALS
PEAK FLOW (cms)=	1.93	1.17	3.082 (iii)
TIME TO PEAK (hrs)=	10.00	10.12	10.02
RUNOFF VOLUME (mm)=	210.99	98.16	153.46
TOTAL RAINFALL (mm)=	212.00	212.00	212.00
RUNOFF COEFFICIENT =	1.00	0.46	0.72

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 48.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

DUHYD (0034)
Inlet Cap.= 3.057
#of Inlets= 1
Total(cms)= 3.1

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
TOTAL HYD.(ID= 1):	26.89	3.08	10.02	153.46
MAJOR SYS.(ID= 2):	0.00	0.03	10.02	153.46
MINOR SYS.(ID= 3):	26.89	3.06	9.95	153.46

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

Junction Command(0033)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 9(0034)	26.89	3.06	9.95	153.46
OUTFLOW: ID= 2(0033)	26.89	3.06	9.95	153.46

CALIB
STANDHYD (1052)
ID= 1 DT= 1.0 min

Area (ha)= 1.95
Total Imp(%)= 30.00 Dir. Conn.(%)= 26.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	0.58	1.36
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	0.50	2.00
Length	(m)=	113.90	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 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
0.017	6.00	3.017	13.00	6.017	23.00	9.02	53.00
0.033	6.00	3.033	13.00	6.033	23.00	9.03	53.00
0.050	6.00	3.050	13.00	6.050	23.00	9.05	53.00
0.067	6.00	3.067	13.00	6.067	23.00	9.07	53.00
0.083	6.00	3.083	13.00	6.083	23.00	9.08	53.00
0.100	6.00	3.100	13.00	6.100	23.00	9.10	53.00
0.117	6.00	3.117	13.00	6.117	23.00	9.12	53.00

0.133	6.00	3.133	13.00	6.133	23.00	9.13	53.00
0.150	6.00	3.150	13.00	6.150	23.00	9.15	53.00
0.167	6.00	3.167	13.00	6.167	23.00	9.17	53.00
0.183	6.00	3.183	13.00	6.183	23.00	9.18	53.00
0.200	6.00	3.200	13.00	6.200	23.00	9.20	53.00
0.217	6.00	3.217	13.00	6.217	23.00	9.22	53.00
0.233	6.00	3.233	13.00	6.233	23.00	9.23	53.00
0.250	6.00	3.250	13.00	6.250	23.00	9.25	53.00
0.267	6.00	3.267	13.00	6.267	23.00	9.27	53.00
0.283	6.00	3.283	13.00	6.283	23.00	9.28	53.00
0.300	6.00	3.300	13.00	6.300	23.00	9.30	53.00
0.317	6.00	3.317	13.00	6.317	23.00	9.32	53.00
0.333	6.00	3.333	13.00	6.333	23.00	9.33	53.00
0.350	6.00	3.350	13.00	6.350	23.00	9.35	53.00
0.367	6.00	3.367	13.00	6.367	23.00	9.37	53.00
0.383	6.00	3.383	13.00	6.383	23.00	9.38	53.00
0.400	6.00	3.400	13.00	6.400	23.00	9.40	53.00
0.417	6.00	3.417	13.00	6.417	23.00	9.42	53.00
0.433	6.00	3.433	13.00	6.433	23.00	9.43	53.00
0.450	6.00	3.450	13.00	6.450	23.00	9.45	53.00
0.467	6.00	3.467	13.00	6.467	23.00	9.47	53.00
0.483	6.00	3.483	13.00	6.483	23.00	9.48	53.00
0.500	6.00	3.500	13.00	6.500	23.00	9.50	53.00
0.517	6.00	3.517	13.00	6.517	23.00	9.52	53.00
0.533	6.00	3.533	13.00	6.533	23.00	9.53	53.00
0.550	6.00	3.550	13.00	6.550	23.00	9.55	53.00
0.567	6.00	3.567	13.00	6.567	23.00	9.57	53.00
0.583	6.00	3.583	13.00	6.583	23.00	9.58	53.00
0.600	6.00	3.600	13.00	6.600	23.00	9.60	53.00
0.617	6.00	3.617	13.00	6.617	23.00	9.62	53.00
0.633	6.00	3.633	13.00	6.633	23.00	9.63	53.00
0.650	6.00	3.650	13.00	6.650	23.00	9.65	53.00
0.667	6.00	3.667	13.00	6.667	23.00	9.67	53.00
0.683	6.00	3.683	13.00	6.683	23.00	9.68	53.00
0.700	6.00	3.700	13.00	6.700	23.00	9.70	53.00
0.717	6.00	3.717	13.00	6.717	23.00	9.72	53.00
0.733	6.00	3.733	13.00	6.733	23.00	9.73	53.00
0.750	6.00	3.750	13.00	6.750	23.00	9.75	53.00
0.767	6.00	3.767	13.00	6.767	23.00	9.77	53.00
0.783	6.00	3.783	13.00	6.783	23.00	9.78	53.00
0.800	6.00	3.800	13.00	6.800	23.00	9.80	53.00
0.817	6.00	3.817	13.00	6.817	23.00	9.82	53.00
0.833	6.00	3.833	13.00	6.833	23.00	9.83	53.00
0.850	6.00	3.850	13.00	6.850	23.00	9.85	53.00
0.867	6.00	3.867	13.00	6.867	23.00	9.87	53.00
0.883	6.00	3.883	13.00	6.883	23.00	9.88	53.00
0.900	6.00	3.900	13.00	6.900	23.00	9.90	53.00
0.917	6.00	3.917	13.00	6.917	23.00	9.92	53.00
0.933	6.00	3.933	13.00	6.933	23.00	9.93	53.00
0.950	6.00	3.950	13.00	6.950	23.00	9.95	53.00
0.967	6.00	3.967	13.00	6.967	23.00	9.97	53.00
0.983	6.00	3.983	13.00	6.983	23.00	9.98	53.00

1.000	6.00	4.000	13.00	7.000	22.98	10.00	52.98
1.017	4.00	4.017	17.00	7.017	13.00	10.02	38.00
1.033	4.00	4.033	17.00	7.033	13.00	10.03	38.00
1.050	4.00	4.050	17.00	7.050	13.00	10.05	38.00
1.067	4.00	4.067	17.00	7.067	13.00	10.07	38.00
1.083	4.00	4.083	17.00	7.083	13.00	10.08	38.00
1.100	4.00	4.100	17.00	7.100	13.00	10.10	38.00
1.117	4.00	4.117	17.00	7.117	13.00	10.12	38.00
1.133	4.00	4.133	17.00	7.133	13.00	10.13	38.00
1.150	4.00	4.150	17.00	7.150	13.00	10.15	38.00
1.167	4.00	4.167	17.00	7.167	13.00	10.17	38.00
1.183	4.00	4.183	17.00	7.183	13.00	10.18	38.00
1.200	4.00	4.200	17.00	7.200	13.00	10.20	38.00
1.217	4.00	4.217	17.00	7.217	13.00	10.22	38.00
1.233	4.00	4.233	17.00	7.233	13.00	10.23	38.00
1.250	4.00	4.250	17.00	7.250	13.00	10.25	38.00
1.267	4.00	4.267	17.00	7.267	13.00	10.27	38.00
1.283	4.00	4.283	17.00	7.283	13.00	10.28	38.00
1.300	4.00	4.300	17.00	7.300	13.00	10.30	38.00
1.317	4.00	4.317	17.00	7.317	13.00	10.32	38.00
1.333	4.00	4.333	17.00	7.333	13.00	10.33	38.00
1.350	4.00	4.350	17.00	7.350	13.00	10.35	38.00
1.367	4.00	4.367	17.00	7.367	13.00	10.37	38.00
1.383	4.00	4.383	17.00	7.383	13.00	10.38	38.00
1.400	4.00	4.400	17.00	7.400	13.00	10.40	38.00
1.417	4.00	4.417	17.00	7.417	13.00	10.42	38.00
1.433	4.00	4.433	17.00	7.433	13.00	10.43	38.00
1.450	4.00	4.450	17.00	7.450	13.00	10.45	38.00
1.467	4.00	4.467	17.00	7.467	13.00	10.47	38.00
1.483	4.00	4.483	17.00	7.483	13.00	10.48	38.00
1.500	4.00	4.500	17.00	7.500	13.00	10.50	38.00
1.517	4.00	4.517	17.00	7.517	13.00	10.52	38.00
1.533	4.00	4.533	17.00	7.533	13.00	10.53	38.00
1.550	4.00	4.550	17.00	7.550	13.00	10.55	38.00
1.567	4.00	4.567	17.00	7.567	13.00	10.57	38.00
1.583	4.00	4.583	17.00	7.583	13.00	10.58	38.00
1.600	4.00	4.600	17.00	7.600	13.00	10.60	38.00
1.617	4.00	4.617	17.00	7.617	13.00	10.62	38.00
1.633	4.00	4.633	17.00	7.633	13.00	10.63	38.00
1.650	4.00	4.650	17.00	7.650	13.00	10.65	38.00
1.667	4.00	4.667	17.00	7.667	13.00	10.67	38.00
1.683	4.00	4.683	17.00	7.683	13.00	10.68	38.00
1.700	4.00	4.700	17.00	7.700	13.00	10.70	38.00
1.717	4.00	4.717	17.00	7.717	13.00	10.72	38.00
1.733	4.00	4.733	17.00	7.733	13.00	10.73	38.00
1.750	4.00	4.750	17.00	7.750	13.00	10.75	38.00
1.767	4.00	4.767	17.00	7.767	13.00	10.77	38.00
1.783	4.00	4.783	17.00	7.783	13.00	10.78	38.00
1.800	4.00	4.800	17.00	7.800	13.00	10.80	38.00
1.817	4.00	4.817	17.00	7.817	13.00	10.82	38.00
1.833	4.00	4.833	17.00	7.833	13.00	10.83	38.00
1.850	4.00	4.850	17.00	7.850	13.00	10.85	38.00

1.867	4.00	4.867	17.00	7.867	13.00	10.87	38.00
1.883	4.00	4.883	17.00	7.883	13.00	10.88	38.00
1.900	4.00	4.900	17.00	7.900	13.00	10.90	38.00
1.917	4.00	4.917	17.00	7.917	13.00	10.92	38.00
1.933	4.00	4.933	17.00	7.933	13.00	10.93	38.00
1.950	4.00	4.950	17.00	7.950	13.00	10.95	38.00
1.967	4.00	4.967	17.00	7.967	13.00	10.97	38.00
1.983	4.00	4.983	17.00	7.983	13.00	10.98	38.00
2.000	4.00	5.000	17.00	8.000	13.00	11.00	37.99
2.017	6.00	5.017	13.00	8.017	13.00	11.02	13.00
2.033	6.00	5.033	13.00	8.033	13.00	11.03	13.00
2.050	6.00	5.050	13.00	8.050	13.00	11.05	13.00
2.067	6.00	5.067	13.00	8.067	13.00	11.07	13.00
2.083	6.00	5.083	13.00	8.083	13.00	11.08	13.00
2.100	6.00	5.100	13.00	8.100	13.00	11.10	13.00
2.117	6.00	5.117	13.00	8.117	13.00	11.12	13.00
2.133	6.00	5.133	13.00	8.133	13.00	11.13	13.00
2.150	6.00	5.150	13.00	8.150	13.00	11.15	13.00
2.167	6.00	5.167	13.00	8.167	13.00	11.17	13.00
2.183	6.00	5.183	13.00	8.183	13.00	11.18	13.00
2.200	6.00	5.200	13.00	8.200	13.00	11.20	13.00
2.217	6.00	5.217	13.00	8.217	13.00	11.22	13.00
2.233	6.00	5.233	13.00	8.233	13.00	11.23	13.00
2.250	6.00	5.250	13.00	8.250	13.00	11.25	13.00
2.267	6.00	5.267	13.00	8.267	13.00	11.27	13.00
2.283	6.00	5.283	13.00	8.283	13.00	11.28	13.00
2.300	6.00	5.300	13.00	8.300	13.00	11.30	13.00
2.317	6.00	5.317	13.00	8.317	13.00	11.32	13.00
2.333	6.00	5.333	13.00	8.333	13.00	11.33	13.00
2.350	6.00	5.350	13.00	8.350	13.00	11.35	13.00
2.367	6.00	5.367	13.00	8.367	13.00	11.37	13.00
2.383	6.00	5.383	13.00	8.383	13.00	11.38	13.00
2.400	6.00	5.400	13.00	8.400	13.00	11.40	13.00
2.417	6.00	5.417	13.00	8.417	13.00	11.42	13.00
2.433	6.00	5.433	13.00	8.433	13.00	11.43	13.00
2.450	6.00	5.450	13.00	8.450	13.00	11.45	13.00
2.467	6.00	5.467	13.00	8.467	13.00	11.47	13.00
2.483	6.00	5.483	13.00	8.483	13.00	11.48	13.00
2.500	6.00	5.500	13.00	8.500	13.00	11.50	13.00
2.517	6.00	5.517	13.00	8.517	13.00	11.52	13.00
2.533	6.00	5.533	13.00	8.533	13.00	11.53	13.00
2.550	6.00	5.550	13.00	8.550	13.00	11.55	13.00
2.567	6.00	5.567	13.00	8.567	13.00	11.57	13.00
2.583	6.00	5.583	13.00	8.583	13.00	11.58	13.00
2.600	6.00	5.600	13.00	8.600	13.00	11.60	13.00
2.617	6.00	5.617	13.00	8.617	13.00	11.62	13.00
2.633	6.00	5.633	13.00	8.633	13.00	11.63	13.00
2.650	6.00	5.650	13.00	8.650	13.00	11.65	13.00
2.667	6.00	5.667	13.00	8.667	13.00	11.67	13.00
2.683	6.00	5.683	13.00	8.683	13.00	11.68	13.00
2.700	6.00	5.700	13.00	8.700	13.00	11.70	13.00
2.717	6.00	5.717	13.00	8.717	13.00	11.72	13.00

2.733	6.00	5.733	13.00	8.733	13.00	11.73	13.00
2.750	6.00	5.750	13.00	8.750	13.00	11.75	13.00
2.767	6.00	5.767	13.00	8.767	13.00	11.77	13.00
2.783	6.00	5.783	13.00	8.783	13.00	11.78	13.00
2.800	6.00	5.800	13.00	8.800	13.00	11.80	13.00
2.817	6.00	5.817	13.00	8.817	13.00	11.82	13.00
2.833	6.00	5.833	13.00	8.833	13.00	11.83	13.00
2.850	6.00	5.850	13.00	8.850	13.00	11.85	13.00
2.867	6.00	5.867	13.00	8.867	13.00	11.87	13.00
2.883	6.00	5.883	13.00	8.883	13.00	11.88	13.00
2.900	6.00	5.900	13.00	8.900	13.00	11.90	13.00
2.917	6.00	5.917	13.00	8.917	13.00	11.92	13.00
2.933	6.00	5.933	13.00	8.933	13.00	11.93	13.00
2.950	6.00	5.950	13.00	8.950	13.00	11.95	13.00
2.967	6.00	5.967	13.00	8.967	13.00	11.97	13.00
2.983	6.00	5.983	13.00	8.983	13.00	11.98	13.00
3.000	6.00	6.000	13.01	9.000	13.08	12.00	13.00

Max.Eff.Inten.(mm/hr)= 53.00 33.63
over (min) 5.00 16.00
Storage Coeff. (min)= 4.38 (ii) 15.30 (ii)
Unit Hyd. Tpeak (min)= 5.00 16.00
Unit Hyd. peak (cms)= 0.25 0.07

			TOTALS
PEAK FLOW (cms)=	0.07	0.12	0.192 (iii)
TIME TO PEAK (hrs)=	9.98	10.08	10.00
RUNOFF VOLUME (mm)=	210.99	91.88	122.85
TOTAL RAINFALL (mm)=	212.00	212.00	212.00
RUNOFF COEFFICIENT =	1.00	0.43	0.58

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 48.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

DUHYD (0037) Inlet Cap.= 0.108 #of Inlets= 1 Total(cms)= 0.1	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
TOTAL HYD.(ID= 1):	1.95	0.19	10.00	122.85
MAJOR SYS.(ID= 2):	0.30	0.08	10.00	122.85
MINOR SYS.(ID= 3):	1.64	0.11	9.20	122.85

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

Junction Command(0038)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 9(0037)	1.64	0.11	9.20	122.85
OUTFLOW: ID= 2(0038)	1.64	0.11	9.20	122.85

CALIB NASHYD (0104) ID= 1 DT= 5.0 min	Area (ha)= 0.77	Curve Number (CN)= 53.0
	Ia (mm)= 5.00	# of Linear Res.(N)= 3.00
	U.H. Tp(hrs)= 0.34	

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)= 0.086

PEAK FLOW (cms)= 0.066 (i)
TIME TO PEAK (hrs)= 10.083
RUNOFF VOLUME (mm)= 99.107
TOTAL RAINFALL (mm)= 212.000
RUNOFF COEFFICIENT = 0.467

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

CALIB STANDHYD (0103) ID= 1 DT= 1.0 min	Area (ha)= 1.17	
	Total Imp(%)= 24.00	Dir. Conn.(%)= 20.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	0.28	0.89
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	0.50	2.00
Length	(m)=	88.20	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 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
0.017	6.00	3.017	13.00	6.017	23.00	9.02	53.00
0.033	6.00	3.033	13.00	6.033	23.00	9.03	53.00
0.050	6.00	3.050	13.00	6.050	23.00	9.05	53.00
0.067	6.00	3.067	13.00	6.067	23.00	9.07	53.00
0.083	6.00	3.083	13.00	6.083	23.00	9.08	53.00
0.100	6.00	3.100	13.00	6.100	23.00	9.10	53.00
0.117	6.00	3.117	13.00	6.117	23.00	9.12	53.00
0.133	6.00	3.133	13.00	6.133	23.00	9.13	53.00
0.150	6.00	3.150	13.00	6.150	23.00	9.15	53.00
0.167	6.00	3.167	13.00	6.167	23.00	9.17	53.00
0.183	6.00	3.183	13.00	6.183	23.00	9.18	53.00
0.200	6.00	3.200	13.00	6.200	23.00	9.20	53.00
0.217	6.00	3.217	13.00	6.217	23.00	9.22	53.00
0.233	6.00	3.233	13.00	6.233	23.00	9.23	53.00
0.250	6.00	3.250	13.00	6.250	23.00	9.25	53.00
0.267	6.00	3.267	13.00	6.267	23.00	9.27	53.00
0.283	6.00	3.283	13.00	6.283	23.00	9.28	53.00
0.300	6.00	3.300	13.00	6.300	23.00	9.30	53.00
0.317	6.00	3.317	13.00	6.317	23.00	9.32	53.00
0.333	6.00	3.333	13.00	6.333	23.00	9.33	53.00
0.350	6.00	3.350	13.00	6.350	23.00	9.35	53.00
0.367	6.00	3.367	13.00	6.367	23.00	9.37	53.00
0.383	6.00	3.383	13.00	6.383	23.00	9.38	53.00
0.400	6.00	3.400	13.00	6.400	23.00	9.40	53.00
0.417	6.00	3.417	13.00	6.417	23.00	9.42	53.00
0.433	6.00	3.433	13.00	6.433	23.00	9.43	53.00
0.450	6.00	3.450	13.00	6.450	23.00	9.45	53.00
0.467	6.00	3.467	13.00	6.467	23.00	9.47	53.00
0.483	6.00	3.483	13.00	6.483	23.00	9.48	53.00
0.500	6.00	3.500	13.00	6.500	23.00	9.50	53.00
0.517	6.00	3.517	13.00	6.517	23.00	9.52	53.00
0.533	6.00	3.533	13.00	6.533	23.00	9.53	53.00
0.550	6.00	3.550	13.00	6.550	23.00	9.55	53.00
0.567	6.00	3.567	13.00	6.567	23.00	9.57	53.00
0.583	6.00	3.583	13.00	6.583	23.00	9.58	53.00
0.600	6.00	3.600	13.00	6.600	23.00	9.60	53.00
0.617	6.00	3.617	13.00	6.617	23.00	9.62	53.00
0.633	6.00	3.633	13.00	6.633	23.00	9.63	53.00
0.650	6.00	3.650	13.00	6.650	23.00	9.65	53.00
0.667	6.00	3.667	13.00	6.667	23.00	9.67	53.00
0.683	6.00	3.683	13.00	6.683	23.00	9.68	53.00
0.700	6.00	3.700	13.00	6.700	23.00	9.70	53.00
0.717	6.00	3.717	13.00	6.717	23.00	9.72	53.00
0.733	6.00	3.733	13.00	6.733	23.00	9.73	53.00
0.750	6.00	3.750	13.00	6.750	23.00	9.75	53.00
0.767	6.00	3.767	13.00	6.767	23.00	9.77	53.00
0.783	6.00	3.783	13.00	6.783	23.00	9.78	53.00
0.800	6.00	3.800	13.00	6.800	23.00	9.80	53.00
0.817	6.00	3.817	13.00	6.817	23.00	9.82	53.00
0.833	6.00	3.833	13.00	6.833	23.00	9.83	53.00
0.850	6.00	3.850	13.00	6.850	23.00	9.85	53.00
0.867	6.00	3.867	13.00	6.867	23.00	9.87	53.00
0.883	6.00	3.883	13.00	6.883	23.00	9.88	53.00
0.900	6.00	3.900	13.00	6.900	23.00	9.90	53.00
0.917	6.00	3.917	13.00	6.917	23.00	9.92	53.00
0.933	6.00	3.933	13.00	6.933	23.00	9.93	53.00
0.950	6.00	3.950	13.00	6.950	23.00	9.95	53.00
0.967	6.00	3.967	13.00	6.967	23.00	9.97	53.00
0.983	6.00	3.983	13.00	6.983	23.00	9.98	53.00
1.000	6.00	4.000	13.00	7.000	22.98	10.00	52.98
1.017	4.00	4.017	17.00	7.017	13.00	10.02	38.00
1.033	4.00	4.033	17.00	7.033	13.00	10.03	38.00
1.050	4.00	4.050	17.00	7.050	13.00	10.05	38.00
1.067	4.00	4.067	17.00	7.067	13.00	10.07	38.00
1.083	4.00	4.083	17.00	7.083	13.00	10.08	38.00
1.100	4.00	4.100	17.00	7.100	13.00	10.10	38.00
1.117	4.00	4.117	17.00	7.117	13.00	10.12	38.00
1.133	4.00	4.133	17.00	7.133	13.00	10.13	38.00
1.150	4.00	4.150	17.00	7.150	13.00	10.15	38.00
1.167	4.00	4.167	17.00	7.167	13.00	10.17	38.00
1.183	4.00	4.183	17.00	7.183	13.00	10.18	38.00
1.200	4.00	4.200	17.00	7.200	13.00	10.20	38.00
1.217	4.00	4.217	17.00	7.217	13.00	10.22	38.00
1.233	4.00	4.233	17.00	7.233	13.00	10.23	38.00
1.250	4.00	4.250	17.00	7.250	13.00	10.25	38.00
1.267	4.00	4.267	17.00	7.267	13.00	10.27	38.00
1.283	4.00	4.283	17.00	7.283	13.00	10.28	38.00
1.300	4.00	4.300	17.00	7.300	13.00	10.30	38.00
1.317	4.00	4.317	17.00	7.317	13.00	10.32	38.00
1.333	4.00	4.333	17.00	7.333	13.00	10.33	38.00
1.350	4.00	4.350	17.00	7.350	13.00	10.35	38.00
1.367	4.00	4.367	17.00	7.367	13.00	10.37	38.00
1.383	4.00	4.383	17.00	7.383	13.00	10.38	38.00
1.400	4.00	4.400	17.00	7.400	13.00	10.40	38.00
1.417	4.00	4.417	17.00	7.417	13.00	10.42	38.00
1.433	4.00	4.433	17.00	7.433	13.00	10.43	38.00
1.450	4.00	4.450	17.00	7.450	13.00	10.45	38.00
1.467	4.00	4.467	17.00	7.467	13.00	10.47	38.00
1.483	4.00	4.483	17.00	7.483	13.00	10.48	38.00
1.500	4.00	4.500	17.00	7.500	13.00	10.50	38.00
1.517	4.00	4.517	17.00	7.517	13.00	10.52	38.00
1.533	4.00	4.533	17.00	7.533	13.00	10.53	38.00
1.550	4.00	4.550	17.00	7.550	13.00	10.55	38.00
1.567	4.00	4.567	17.00	7.567	13.00	10.57	38.00
1.583	4.00	4.583	17.00	7.583	13.00	10.58	38.00
1.600	4.00	4.600	17.00	7.600	13.00	10.60	38.00
1.617	4.00	4.617	17.00	7.617	13.00	10.62	38.00
1.633	4.00	4.633	17.00	7.633	13.00	10.63	38.00
1.650	4.00	4.650	17.00	7.650	13.00	10.65	38.00
1.667	4.00	4.667	17.00	7.667	13.00	10.67	38.00
1.683	4.00	4.683	17.00	7.683	13.00	10.68	38.00
1.700	4.00	4.700	17.00	7.700	13.00	10.70	38.00
1.717	4.00	4.717	17.00	7.717	13.00	10.72	38.00
1.733	4.00	4.733	17.00	7.733	13.00	10.73	38.00
1.750	4.00	4.750	17.00	7.750	13.00	10.75	38.00
1.767	4.00	4.767	17.00	7.767	13.00	10.77	38.00
1.783	4.00	4.783	17.00	7.783	13.00	10.78	38.00
1.800	4.00	4.800	17.00	7.800	13.00	10.80	38.00
1.817	4.00	4.817	17.00	7.817	13.00	10.82	38.00
1.833	4.00	4.833	17.00	7.833	13.00	10.83	38.00
1.850	4.00	4.850	17.00	7.850	13.00	10.85	38.00
1.867	4.00	4.867	17.00	7.867	13.00	10.87	38.00
1.883	4.00	4.883	17.00	7.883	13.00	10.88	38.00
1.900	4.00	4.900	17.00	7.900	13.00	10.90	38.00
1.917	4.00	4.917	17.00	7.917	13.00	10.92	38.00
1.933	4.00	4.933	17.00	7.933	13.00	10.93	38.00
1.950	4.00	4.950	17.00	7.950	13.00	10.95	38.00
1.967	4.00	4.967	17.00	7.967	13.00	10.97	38.00
1.983	4.00	4.983	17.00	7.983	13.00	10.98	38.00
2.000	4.00	5.000	17.00	8.000	13.00	11.00	37.99
2.017	6.00	5.017	13.00	8.017	13.00	11.02	13.00
2.033	6.00	5.033	13.00	8.033	13.00	11.03	13.00
2.050	6.00	5.050	13.00	8.050	13.00	11.05	13.00
2.067	6.00	5.067	13.00	8.067	13.00	11.07	13.00
2.083	6.00	5.083	13.00	8.083	13.00	11.08	13.00
2.100	6.00	5.100	13.00	8.100	13.00	11.10	13.00
2.117	6.00	5.117	13.00	8.117	13.00	11.12	13.00
2.133	6.00	5.133	13.00	8.133	13.00	11.13	13.00
2.150	6.00	5.150	13.00	8.150	13.00	11.15	13.00
2.167	6.00	5.167	13.00	8.167	13.00	11.17	13.00
2.183	6.00	5.183	13.00	8.183	13.00	11.18	13.00
2.200	6.00	5.200	13.00	8.200	13.00	11.20	13.00
2.217	6.00	5.217	13.00	8.217	13.00	11.22	13.00
2.233	6.00	5.233	13.00	8.233	13.00	11.23	13.00
2.250	6.00	5.250	13.00	8.250	13.00	11.25	13.00
2.267	6.00	5.267	13.00	8.267	13.00	11.27	13.00
2.283	6.00	5.283	13.00	8.283	13.00	11.28	13.00
2.300	6.00	5.300	13.00	8.300	13.00	11.30	13.00
2.317	6.00	5.317	13.00	8.317	13.00	11.32	13.00
2.333	6.00	5.333	13.00	8.333	13.00	11.33	13.00
2.350	6.00	5.350	13.00	8.350	13.00	11.35	13.00
2.367	6.00	5.367	13.00	8.367	13.00	11.37	13.00
2.383	6.00	5.383	13.00	8.383	13.00	11.38	13.00
2.400	6.00	5.400	13.00	8.400	13.00	11.40	13.00
2.417	6.00	5.417	13.00	8.417	13.00	11.42	13.00
2.433	6.00	5.433	13.00	8.433	13.00	11.43	13.00
2.450	6.00	5.450	13.00	8.450	13.00	11.45	13.00
2.467	6.00	5.467	13.00	8.467	13.00	11.47	13.00
2.483	6.00	5.483	13.00	8.483	13.00	11.48	13.00
2.500	6.00	5.500	13.00	8.500	13.00	11.50	13.00
2.517	6.00	5.517	13.00	8.517	13.00	11.52	13.00
2.533	6.00	5.533	13.00	8.533	13.00	11.53	13.00
2.550	6.00	5.550	13.00	8.550	13.00	11.55	13.00
2.567	6.00	5.567	13.00	8.567	13.00	11.57	13.00
2.583	6.00	5.583	13.00	8.583	13.00	11.58	13.00
2.600	6.00	5.600	13.00	8.600	13.00	11.60	13.00
2.617	6.00	5.617	13.00	8.617	13.00	11.62	13.00
2.633	6.00	5.633	13.00	8.633	13.00	11.63	13.00
2.650	6.00	5.650	13.00	8.650	13.00	11.65	13.00
2.667	6.00	5.667	13.00	8.667	13.00	11.67	13.00
2.683	6.00	5.683	13.00	8.683	13.00	11.68	13.00
2.700	6.00	5.700	13.00	8.700	13.00	11.70	13.00
2.717	6.00	5.717	13.00	8.717	13.00	11.72	13.00
2.733	6.00	5.733	13.00	8.733	13.00	11.73	13.00
2.750	6.00	5.750	13.00	8.750	13.00	11.75	13.00
2.767	6.00	5.767	13.00	8.767	13.00	11.77	13.00
2.783	6.00	5.783	13.00	8.783	13.00	11.78	13.00
2.800	6.00	5.800	13.00	8.800	13.00	11.80	13.00
2.817	6.00	5.817	13.00	8.817	13.00	11.82	13.00
2.833	6.00	5.833	13.00	8.833	13.00	11.83	13.00
2.850	6.00	5.850	13.00	8.850	13.00	11.85	13.00

2.867	6.00	5.867	13.00	8.867	13.00	11.87	13.00
2.883	6.00	5.883	13.00	8.883	13.00	11.88	13.00
2.900	6.00	5.900	13.00	8.900	13.00	11.90	13.00
2.917	6.00	5.917	13.00	8.917	13.00	11.92	13.00
2.933	6.00	5.933	13.00	8.933	13.00	11.93	13.00
2.950	6.00	5.950	13.00	8.950	13.00	11.95	13.00
2.967	6.00	5.967	13.00	8.967	13.00	11.97	13.00
2.983	6.00	5.983	13.00	8.983	13.00	11.98	13.00
3.000	6.00	6.000	13.01	9.000	13.08	12.00	13.00

Max.Eff.Inten.(mm/hr)=	53.00	39.16	
over (min)	5.00	15.00	
Storage Coeff. (min)=	3.76 (ii)	14.03 (ii)	
Unit Hyd. Tpeak (min)=	5.00	15.00	
Unit Hyd. peak (cms)=	0.27	0.08	
			TOTALS
PEAK FLOW (cms)=	0.03	0.09	0.125 (iii)
TIME TO PEAK (hrs)=	9.83	10.05	10.00
RUNOFF VOLUME (mm)=	211.00	110.33	130.46
TOTAL RAINFALL (mm)=	212.00	212.00	212.00
RUNOFF COEFFICIENT =	1.00	0.52	0.62

***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
YOU SHOULD CONSIDER SPLITTING THE AREA.

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 57.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (1011) | Area (ha)= 13.73
ID= 1 DT= 1.0 min | Total Imp(%)= 46.00 Dir. Conn.(%)= 39.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	6.32	7.42
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	0.50	2.00
Length	(m)=	302.59	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 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
0.017	6.00	3.017	13.00	6.017	23.00	9.02	53.00
0.033	6.00	3.033	13.00	6.033	23.00	9.03	53.00
0.050	6.00	3.050	13.00	6.050	23.00	9.05	53.00
0.067	6.00	3.067	13.00	6.067	23.00	9.07	53.00
0.083	6.00	3.083	13.00	6.083	23.00	9.08	53.00
0.100	6.00	3.100	13.00	6.100	23.00	9.10	53.00
0.117	6.00	3.117	13.00	6.117	23.00	9.12	53.00
0.133	6.00	3.133	13.00	6.133	23.00	9.13	53.00
0.150	6.00	3.150	13.00	6.150	23.00	9.15	53.00
0.167	6.00	3.167	13.00	6.167	23.00	9.17	53.00
0.183	6.00	3.183	13.00	6.183	23.00	9.18	53.00
0.200	6.00	3.200	13.00	6.200	23.00	9.20	53.00
0.217	6.00	3.217	13.00	6.217	23.00	9.22	53.00
0.233	6.00	3.233	13.00	6.233	23.00	9.23	53.00
0.250	6.00	3.250	13.00	6.250	23.00	9.25	53.00
0.267	6.00	3.267	13.00	6.267	23.00	9.27	53.00
0.283	6.00	3.283	13.00	6.283	23.00	9.28	53.00
0.300	6.00	3.300	13.00	6.300	23.00	9.30	53.00
0.317	6.00	3.317	13.00	6.317	23.00	9.32	53.00
0.333	6.00	3.333	13.00	6.333	23.00	9.33	53.00
0.350	6.00	3.350	13.00	6.350	23.00	9.35	53.00
0.367	6.00	3.367	13.00	6.367	23.00	9.37	53.00
0.383	6.00	3.383	13.00	6.383	23.00	9.38	53.00
0.400	6.00	3.400	13.00	6.400	23.00	9.40	53.00
0.417	6.00	3.417	13.00	6.417	23.00	9.42	53.00
0.433	6.00	3.433	13.00	6.433	23.00	9.43	53.00
0.450	6.00	3.450	13.00	6.450	23.00	9.45	53.00
0.467	6.00	3.467	13.00	6.467	23.00	9.47	53.00
0.483	6.00	3.483	13.00	6.483	23.00	9.48	53.00
0.500	6.00	3.500	13.00	6.500	23.00	9.50	53.00
0.517	6.00	3.517	13.00	6.517	23.00	9.52	53.00
0.533	6.00	3.533	13.00	6.533	23.00	9.53	53.00
0.550	6.00	3.550	13.00	6.550	23.00	9.55	53.00
0.567	6.00	3.567	13.00	6.567	23.00	9.57	53.00
0.583	6.00	3.583	13.00	6.583	23.00	9.58	53.00
0.600	6.00	3.600	13.00	6.600	23.00	9.60	53.00
0.617	6.00	3.617	13.00	6.617	23.00	9.62	53.00
0.633	6.00	3.633	13.00	6.633	23.00	9.63	53.00
0.650	6.00	3.650	13.00	6.650	23.00	9.65	53.00
0.667	6.00	3.667	13.00	6.667	23.00	9.67	53.00
0.683	6.00	3.683	13.00	6.683	23.00	9.68	53.00
0.700	6.00	3.700	13.00	6.700	23.00	9.70	53.00
0.717	6.00	3.717	13.00	6.717	23.00	9.72	53.00
0.733	6.00	3.733	13.00	6.733	23.00	9.73	53.00
0.750	6.00	3.750	13.00	6.750	23.00	9.75	53.00
0.767	6.00	3.767	13.00	6.767	23.00	9.77	53.00
0.783	6.00	3.783	13.00	6.783	23.00	9.78	53.00
0.800	6.00	3.800	13.00	6.800	23.00	9.80	53.00
0.817	6.00	3.817	13.00	6.817	23.00	9.82	53.00
0.833	6.00	3.833	13.00	6.833	23.00	9.83	53.00
0.850	6.00	3.850	13.00	6.850	23.00	9.85	53.00
0.867	6.00	3.867	13.00	6.867	23.00	9.87	53.00
0.883	6.00	3.883	13.00	6.883	23.00	9.88	53.00
0.900	6.00	3.900	13.00	6.900	23.00	9.90	53.00
0.917	6.00	3.917	13.00	6.917	23.00	9.92	53.00
0.933	6.00	3.933	13.00	6.933	23.00	9.93	53.00
0.950	6.00	3.950	13.00	6.950	23.00	9.95	53.00
0.967	6.00	3.967	13.00	6.967	23.00	9.97	53.00
0.983	6.00	3.983	13.00	6.983	23.00	9.98	53.00
1.000	6.00	4.000	13.00	7.000	22.98	10.00	52.98
1.017	4.00	4.017	17.00	7.017	13.00	10.02	38.00
1.033	4.00	4.033	17.00	7.033	13.00	10.03	38.00
1.050	4.00	4.050	17.00	7.050	13.00	10.05	38.00
1.067	4.00	4.067	17.00	7.067	13.00	10.07	38.00
1.083	4.00	4.083	17.00	7.083	13.00	10.08	38.00
1.100	4.00	4.100	17.00	7.100	13.00	10.10	38.00
1.117	4.00	4.117	17.00	7.117	13.00	10.12	38.00
1.133	4.00	4.133	17.00	7.133	13.00	10.13	38.00
1.150	4.00	4.150	17.00	7.150	13.00	10.15	38.00
1.167	4.00	4.167	17.00	7.167	13.00	10.17	38.00
1.183	4.00	4.183	17.00	7.183	13.00	10.18	38.00
1.200	4.00	4.200	17.00	7.200	13.00	10.20	38.00
1.217	4.00	4.217	17.00	7.217	13.00	10.22	38.00
1.233	4.00	4.233	17.00	7.233	13.00	10.23	38.00
1.250	4.00	4.250	17.00	7.250	13.00	10.25	38.00
1.267	4.00	4.267	17.00	7.267	13.00	10.27	38.00
1.283	4.00	4.283	17.00	7.283	13.00	10.28	38.00
1.300	4.00	4.300	17.00	7.300	13.00	10.30	38.00
1.317	4.00	4.317	17.00	7.317	13.00	10.32	38.00
1.333	4.00	4.333	17.00	7.333	13.00	10.33	38.00
1.350	4.00	4.350	17.00	7.350	13.00	10.35	38.00
1.367	4.00	4.367	17.00	7.367	13.00	10.37	38.00
1.383	4.00	4.383	17.00	7.383	13.00	10.38	38.00
1.400	4.00	4.400	17.00	7.400	13.00	10.40	38.00
1.417	4.00	4.417	17.00	7.417	13.00	10.42	38.00
1.433	4.00	4.433	17.00	7.433	13.00	10.43	38.00
1.450	4.00	4.450	17.00	7.450	13.00	10.45	38.00
1.467	4.00	4.467	17.00	7.467	13.00	10.47	38.00
1.483	4.00	4.483	17.00	7.483	13.00	10.48	38.00
1.500	4.00	4.500	17.00	7.500	13.00	10.50	38.00
1.517	4.00	4.517	17.00	7.517	13.00	10.52	38.00
1.533	4.00	4.533	17.00	7.533	13.00	10.53	38.00
1.550	4.00	4.550	17.00	7.550	13.00	10.55	38.00
1.567	4.00	4.567	17.00	7.567	13.00	10.57	38.00
1.583	4.00	4.583	17.00	7.583	13.00	10.58	38.00
1.600	4.00	4.600	17.00	7.600	13.00	10.60	38.00
1.617	4.00	4.617	17.00	7.617	13.00	10.62	38.00
1.633	4.00	4.633	17.00	7.633	13.00	10.63	38.00
1.650	4.00	4.650	17.00	7.650	13.00	10.65	38.00
1.667	4.00	4.667	17.00	7.667	13.00	10.67	38.00
1.683	4.00	4.683	17.00	7.683	13.00	10.68	38.00
1.700	4.00	4.700	17.00	7.700	13.00	10.70	38.00
1.717	4.00	4.717	17.00	7.717	13.00	10.72	38.00
1.733	4.00	4.733	17.00	7.733	13.00	10.73	38.00
1.750	4.00	4.750	17.00	7.750	13.00	10.75	38.00
1.767	4.00	4.767	17.00	7.767	13.00	10.77	38.00
1.783	4.00	4.783	17.00	7.783	13.00	10.78	38.00
1.800	4.00	4.800	17.00	7.800	13.00	10.80	38.00
1.817	4.00	4.817	17.00	7.817	13.00	10.82	38.00
1.833	4.00	4.833	17.00	7.833	13.00	10.83	38.00
1.850	4.00	4.850	17.00	7.850	13.00	10.85	38.00
1.867	4.00	4.867	17.00	7.867	13.00	10.87	38.00
1.883	4.00	4.883	17.00	7.883	13.00	10.88	38.00
1.900	4.00	4.900	17.00	7.900	13.00	10.90	38.00
1.917	4.00	4.917	17.00	7.917	13.00	10.92	38.00
1.933	4.00	4.933	17.00	7.933	13.00	10.93	38.00
1.950	4.00	4.950	17.00	7.950	13.00	10.95	38.00
1.967	4.00	4.967	17.00	7.967	13.00	10.97	38.00
1.983	4.00	4.983	17.00	7.983	13.00	10.98	38.00
2.000	4.00	5.000	17.00	8.000	13.00	11.00	37.99
2.017	6.00	5.017	13.00	8.017	13.00	11.02	13.00
2.033	6.00	5.033	13.00	8.033	13.00	11.03	13.00
2.050	6.00	5.050	13.00	8.050	13.00	11.05	13.00
2.067	6.00	5.067	13.00	8.067	13.00	11.07	13.00
2.083	6.00	5.083	13.00	8.083	13.00	11.08	13.00
2.100	6.00	5.100	13.00	8.100	13.00	11.10	13.00
2.117	6.00	5.117	13.00	8.117	13.00	11.12	13.00
2.133	6.00	5.133	13.00	8.133	13.00	11.13	13.00
2.150	6.00	5.150	13.00	8.150	13.00	11.15	13.00
2.167	6.00	5.167	13.00	8.167	13.00	11.17	13.00
2.183	6.00	5.183	13.00	8.183	13.00	11.18	13.00
2.200	6.00	5.200	13.00	8.200	13.00	11.20	13.00
2.217	6.00	5.217	13.00	8.217	13.00	11.22	13.00
2.233	6.00	5.233	13.00	8.233	13.00	11.23	13.00
2.250	6.00	5.250	13.00	8.250	13.00	11.25	13.00
2.267	6.00	5.267	13.00	8.267	13.00	11.27	13.00
2.283	6.00	5.283	13.00	8.283	13.00	11.28	13.00
2.300	6.00	5.300	13.00	8.300	13.00	11.30	13.00
2.317	6.00	5.317	13.00	8.317	13.00	11.32	13.00
2.333	6.00	5.333	13.00	8.333	13.00	11.33	13.00
2.350	6.00	5.350	13.00	8.350	13.00	11.35	13.00
2.367	6.00	5.367	13.00	8.367	13.00	11.37	13.00
2.383	6.00	5.383	13.00	8.383	13.00	11.38	13.00
2.400	6.00	5.400	13.00	8.400	13.00	11.40	13.00
2.417	6.00	5.417	13.00	8.417	13.00	11.42	13.00
2.433	6.00	5.433	13.00	8.433	13.00	11.43	13.00
2.450	6.00	5.450	13.00	8.450	13.00	11.45	13.00
2.467	6.00	5.467	13.00	8.467	13.00	11.47	13.00
2.483	6.00	5.483	13.00	8.483	13.00	11.48	13.00
2.500	6.00	5.500	13.00	8.500	13.00	11.50	13.00
2.517	6.00	5.517	13.00	8.517	13.00	11.52	13.00
2.533	6.00	5.533	13.00	8.533	13.00	11.53	13.00
2.550	6.00	5.550	13.00	8.550	13.00	11.55	13.00
2.567	6.00	5.567	13.00	8.567	13.00	11.57	13.00
2.583	6.00	5.583	13.00	8.583	13.00	11.58	13.00
2.600	6.00	5.600	13.00	8.600	13.00	11.60	13.00
2.617	6.00	5.617	13.00	8.617	13.00	11.62	13.00
2.633	6.00	5.633	13.00	8.633	13.00	11.63	13.00
2.650	6.00	5.650	13.00	8.650	13.00	11.65	13.00
2.667	6.00	5.667	13.00	8.667	13.00	11.67	13.00
2.683	6.00	5.683	13.00	8.683	13.00	11.68	13.00
2.700	6.00	5.700	13.00	8.700	13.00	11.70	13.00
2.717	6.00	5.717	13.00	8.717	13.00	11.72	13.00
2.733	6.00	5.733	13.00	8.733	13.00	11.73	13.00
2.750	6.00	5.750	13.00	8.750	13.00	11.75	13.00
2.767	6.00	5.767	13.00	8.767	13.00	11.77	13.00
2.783	6.00	5.783	13.00	8.783	13.00	11.78	13.00
2.800	6.00	5.800	13.00	8.800	13.00	11.80	13.00
2.817	6.00	5.817	13.00	8.817	13.00	11.82	13.00
2.833	6.00	5.833	13.00	8.833	13.00	11.83	13.00
2.850	6.00	5.850	13.00	8.850	13.00	11.85	13.00
2.867	6.00	5.867	13.00	8.867	13.00	11.87	13.00
2.883	6.00	5.883	13.00	8.883	13.00	11.88	13.00
2.900	6.00	5.900	13.00	8.900	13.00	11.90	13.00
2.917	6.00	5.917	13.00	8.917	13.00	11.92	13.00
2.933	6.00	5.933	13.00	8.933	13.00	11.93	13.00
2.950	6.00	5.950	13.00	8.950	13.00	11.95	13.00
2.967	6.00	5.967	13.00	8.967	13.00	11.97	13.00
2.983	6.00	5.983	13.00	8.983	13.00	11.98	13.00
3.000	6.00	6.000	13.01	9.000	13.08	12.00	13.00

Max.Eff.Inten.(mm/hr)=	53.00	37.13	
over (min)	8.00	19.00	
Storage Coeff. (min)=	7.88 (ii)	18.37 (ii)	
Unit Hyd. Tpeak (min)=	8.00	19.00	
Unit Hyd. peak (cms)=	0.14	0.06	
			TOTALS
PEAK FLOW (cms)=	0.79	0.70	1.471 (iii)
TIME TO PEAK (hrs)=	10.00	10.12	10.02
RUNOFF VOLUME (mm)=	210.98	95.49	140.55
TOTAL RAINFALL (mm)=	212.00	212.00	212.00
RUNOFF COEFFICIENT =	1.00	0.45	0.66

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 48.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0101) |	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (1011):	13.73	1.471	10.02	140.55
+ ID2= 2 (0034):	0.00	0.025	10.02	153.46
ID = 3 (0101):	13.74	1.496	10.02	140.55

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0901) |	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0101):	13.74	1.496	10.02	140.55
+ ID2= 2 (0103):	1.17	0.125	10.00	130.46
ID = 3 (0901):	14.91	1.621	10.02	139.76

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0902) |	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0104):	0.77	0.066	10.08	99.11
+ ID2= 2 (0901):	14.91	1.621	10.02	139.76
ID = 3 (0902):	15.67	1.687	10.02	137.77

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB
STANDHYD (1021) | Area (ha)= 3.77
ID= 1 DT= 1.0 min | Total Imp(%)= 45.00 Dir. Conn.(%)= 38.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	1.70	2.07
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	0.50	2.00
Length	(m)=	158.56	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 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
0.017	6.00	3.017	13.00	6.017	23.00	9.02	53.00
0.033	6.00	3.033	13.00	6.033	23.00	9.03	53.00
0.050	6.00	3.050	13.00	6.050	23.00	9.05	53.00
0.067	6.00	3.067	13.00	6.067	23.00	9.07	53.00
0.083	6.00	3.083	13.00	6.083	23.00	9.08	53.00
0.100	6.00	3.100	13.00	6.100	23.00	9.10	53.00
0.117	6.00	3.117	13.00	6.117	23.00	9.12	53.00

0.133	6.00	3.133	13.00	6.133	23.00	9.13	53.00
0.150	6.00	3.150	13.00	6.150	23.00	9.15	53.00
0.167	6.00	3.167	13.00	6.167	23.00	9.17	53.00
0.183	6.00	3.183	13.00	6.183	23.00	9.18	53.00
0.200	6.00	3.200	13.00	6.200	23.00	9.20	53.00
0.217	6.00	3.217	13.00	6.217	23.00	9.22	53.00
0.233	6.00	3.233	13.00	6.233	23.00	9.23	53.00
0.250	6.00	3.250	13.00	6.250	23.00	9.25	53.00
0.267	6.00	3.267	13.00	6.267	23.00	9.27	53.00
0.283	6.00	3.283	13.00	6.283	23.00	9.28	53.00
0.300	6.00	3.300	13.00	6.300	23.00	9.30	53.00
0.317	6.00	3.317	13.00	6.317	23.00	9.32	53.00
0.333	6.00	3.333	13.00	6.333	23.00	9.33	53.00
0.350	6.00	3.350	13.00	6.350	23.00	9.35	53.00
0.367	6.00	3.367	13.00	6.367	23.00	9.37	53.00
0.383	6.00	3.383	13.00	6.383	23.00	9.38	53.00
0.400	6.00	3.400	13.00	6.400	23.00	9.40	53.00
0.417	6.00	3.417	13.00	6.417	23.00	9.42	53.00
0.433	6.00	3.433	13.00	6.433	23.00	9.43	53.00
0.450	6.00	3.450	13.00	6.450	23.00	9.45	53.00
0.467	6.00	3.467	13.00	6.467	23.00	9.47	53.00
0.483	6.00	3.483	13.00	6.483	23.00	9.48	53.00
0.500	6.00	3.500	13.00	6.500	23.00	9.50	53.00
0.517	6.00	3.517	13.00	6.517	23.00	9.52	53.00
0.533	6.00	3.533	13.00	6.533	23.00	9.53	53.00
0.550	6.00	3.550	13.00	6.550	23.00	9.55	53.00
0.567	6.00	3.567	13.00	6.567	23.00	9.57	53.00
0.583	6.00	3.583	13.00	6.583	23.00	9.58	53.00
0.600	6.00	3.600	13.00	6.600	23.00	9.60	53.00
0.617	6.00	3.617	13.00	6.617	23.00	9.62	53.00
0.633	6.00	3.633	13.00	6.633	23.00	9.63	53.00
0.650	6.00	3.650	13.00	6.650	23.00	9.65	53.00
0.667	6.00	3.667	13.00	6.667	23.00	9.67	53.00
0.683	6.00	3.683	13.00	6.683	23.00	9.68	53.00
0.700	6.00	3.700	13.00	6.700	23.00	9.70	53.00
0.717	6.00	3.717	13.00	6.717	23.00	9.72	53.00
0.733	6.00	3.733	13.00	6.733	23.00	9.73	53.00
0.750	6.00	3.750	13.00	6.750	23.00	9.75	53.00
0.767	6.00	3.767	13.00	6.767	23.00	9.77	53.00
0.783	6.00	3.783	13.00	6.783	23.00	9.78	53.00
0.800	6.00	3.800	13.00	6.800	23.00	9.80	53.00
0.817	6.00	3.817	13.00	6.817	23.00	9.82	53.00
0.833	6.00	3.833	13.00	6.833	23.00	9.83	53.00
0.850	6.00	3.850	13.00	6.850	23.00	9.85	53.00
0.867	6.00	3.867	13.00	6.867	23.00	9.87	53.00
0.883	6.00	3.883	13.00	6.883	23.00	9.88	53.00
0.900	6.00	3.900	13.00	6.900	23.00	9.90	53.00
0.917	6.00	3.917	13.00	6.917	23.00	9.92	53.00
0.933	6.00	3.933	13.00	6.933	23.00	9.93	53.00
0.950	6.00	3.950	13.00	6.950	23.00	9.95	53.00
0.967	6.00	3.967	13.00	6.967	23.00	9.97	53.00
0.983	6.00	3.983	13.00	6.983	23.00	9.98	53.00
1.000	6.00	4.000	13.00	7.000	22.98	10.00	52.98
1.017	4.00	4.017	17.00	7.017	13.00	10.02	38.00
1.033	4.00	4.033	17.00	7.033	13.00	10.03	38.00
1.050	4.00	4.050	17.00	7.050	13.00	10.05	38.00
1.067	4.00	4.067	17.00	7.067	13.00	10.07	38.00
1.083	4.00	4.083	17.00	7.083	13.00	10.08	38.00
1.100	4.00	4.100	17.00	7.100	13.00	10.10	38.00
1.117	4.00	4.117	17.00	7.117	13.00	10.12	38.00
1.133	4.00	4.133	17.00	7.133	13.00	10.13	38.00
1.150	4.00	4.150	17.00	7.150	13.00	10.15	38.00
1.167	4.00	4.167	17.00	7.167	13.00	10.17	38.00
1.183	4.00	4.183	17.00	7.183	13.00	10.18	38.00
1.200	4.00	4.200	17.00	7.200	13.00	10.20	38.00
1.217	4.00	4.217	17.00	7.217	13.00	10.22	38.00
1.233	4.00	4.233	17.00	7.233	13.00	10.23	38.00
1.250	4.00	4.250	17.00	7.250	13.00	10.25	38.00
1.267	4.00	4.267	17.00	7.267	13.00	10.27	38.00
1.283	4.00	4.283	17.00	7.283	13.00	10.28	38.00
1.300	4.00	4.300	17.00	7.300	13.00	10.30	38.00
1.317	4.00	4.317	17.00	7.317	13.00	10.32	38.00
1.333	4.00	4.333	17.00	7.333	13.00	10.33	38.00
1.350	4.00	4.350	17.00	7.350	13.00	10.35	38.00
1.367	4.00	4.367	17.00	7.367	13.00	10.37	38.00
1.383	4.00	4.383	17.00	7.383	13.00	10.38	38.00
1.400	4.00	4.400	17.00	7.400	13.00	10.40	38.00
1.417	4.00	4.417	17.00	7.417	13.00	10.42	38.00
1.433	4.00	4.433	17.00	7.433	13.00	10.43	38.00
1.450	4.00	4.450	17.00	7.450	13.00	10.45	38.00
1.467	4.00	4.467	17.00	7.467	13.00	10.47	38.00
1.483	4.00	4.483	17.00	7.483	13.00	10.48	38.00
1.500	4.00	4.500	17.00	7.500	13.00	10.50	38.00
1.517	4.00	4.517	17.00	7.517	13.00	10.52	38.00
1.533	4.00	4.533	17.00	7.533	13.00	10.53	38.00
1.550	4.00	4.550	17.00	7.550	13.00	10.55	38.00
1.567	4.00	4.567	17.00	7.567	13.00	10.57	38.00
1.583	4.00	4.583	17.00	7.583	13.00	10.58	38.00
1.600	4.00	4.600	17.00	7.600	13.00	10.60	38.00
1.617	4.00	4.617	17.00	7.617	13.00	10.62	38.00
1.633	4.00	4.633	17.00	7.633	13.00	10.63	38.00
1.650	4.00	4.650	17.00	7.650	13.00	10.65	38.00
1.667	4.00	4.667	17.00	7.667	13.00	10.67	38.00
1.683	4.00	4.683	17.00	7.683	13.00	10.68	38.00
1.700	4.00	4.700	17.00	7.700	13.00	10.70	38.00
1.717	4.00	4.717	17.00	7.717	13.00	10.72	38.00
1.733	4.00	4.733	17.00	7.733	13.00	10.73	38.00
1.750	4.00	4.750	17.00	7.750	13.00	10.75	38.00
1.767	4.00	4.767	17.00	7.767	13.00	10.77	38.00
1.783	4.00	4.783	17.00	7.783	13.00	10.78	38.00
1.800	4.00	4.800	17.00	7.800	13.00	10.80	38.00
1.817	4.00	4.817	17.00	7.817	13.00	10.82	38.00
1.833	4.00	4.833	17.00	7.833	13.00	10.83	38.00
1.850	4.00	4.850	17.00	7.850	13.00	10.85	38.00
1.867	4.00	4.867	17.00	7.867	13.00	10.87	38.00
1.883	4.00	4.883	17.00	7.883	13.00	10.88	38.00
1.900	4.00	4.900	17.00	7.900	13.00	10.90	38.00
1.917	4.00	4.917	17.00	7.917	13.00	10.92	38.00
1.933	4.00	4.933	17.00	7.933	13.00	10.93	38.00
1.950	4.00	4.950	17.00	7.950	13.00	10.95	38.00
1.967	4.00	4.967	17.00	7.967	13.00	10.97	38.00
1.983	4.00	4.983	17.00	7.983	13.00	10.98	38.00
2.000	4.00	5.000	17.00	8.000	13.00	11.00	37.99
2.017	6.00	5.017	13.00	8.017	13.00	11.02	13.00
2.033	6.00	5.033	13.00	8.033	13.00	11.03	13.00
2.050	6.00	5.050	13.00	8.050	13.00	11.05	13.00
2.067	6.00	5.067	13.00	8.067	13.00	11.07	13.00
2.083	6.00	5.083	13.00	8.083	13.00	11.08	13.00
2.100	6.00	5.100	13.00	8.100	13.00	11.10	13.00
2.117	6.00	5.117	13.00	8.117	13.00	11.12	13.00
2.133	6.00	5.133	13.00	8.133	13.00	11.13	13.00
2.150	6.00	5.150	13.00	8.150	13.00	11.15	13.00
2.167	6.00	5.167	13.00	8.167	13.00	11.17	13.00
2.183	6.00	5.183	13.00	8.183	13.00	11.18	13.00
2.200	6.00	5.200	13.00	8.200	13.00	11.20	13.00
2.217	6.00	5.217	13.00	8.217	13.00	11.22	13.00
2.233	6.00	5.233	13.00	8.233	13.00	11.23	13.00
2.250	6.00	5.250	13.00	8.250	13.00	11.25	13.00
2.267	6.00	5.267	13.00	8.267	13.00	11.27	13.00
2.283	6.00	5.283	13.00	8.283	13.00	11.28	13.00
2.300	6.00	5.300	13.00	8.300	13.00	11.30	13.00
2.317	6.00	5.317	13.00	8.317	13.00	11.32	13.00
2.333	6.00	5.333	13.00	8.333	13.00	11.33	13.00
2.350	6.00	5.350	13.00	8.350	13.00	11.35	13.00
2.367	6.00	5.367	13.00	8.367	13.00	11.37	13.00
2.383	6.00	5.383	13.00	8.383	13.00	11.38	13.00
2.400	6.00	5.400	13.00	8.400	13.00	11.40	13.00
2.417	6.00	5.417	13.00	8.417	13.00	11.42	13.00
2.433	6.00	5.433	13.00	8.433	13.00	11.43	13.00
2.450	6.00	5.450	13.00	8.450	13.00	11.45	13.00
2.467	6.00	5.467	13.00	8.467	13.00	11.47	13.00
2.483	6.00	5.483	13.00	8.483	13.00	11.48	13.00
2.500	6.00	5.500	13.00	8.500	13.00	11.50	13.00
2.517	6.00	5.517	13.00	8.517	13.00	11.52	13.00
2.533	6.00	5.533	13.00	8.533	13.00	11.53	13.00
2.550	6.00	5.550	13.00	8.550	13.00	11.55	13.00
2.567	6.00	5.567	13.00	8.567	13.00	11.57	13.00
2.583	6.00	5.583	13.00	8.583	13.00	11.58	13.00
2.600	6.00	5.600	13.00	8.600	13.00	11.60	13.00
2.617	6.00	5.617	13.00	8.617	13.00	11.62	13.00
2.633	6.00	5.633	13.00	8.633	13.00	11.63	13.00
2.650	6.00	5.650	13.00	8.650	13.00	11.65	13.00
2.667	6.00	5.667	13.00	8.667	13.00	11.67	13.00
2.683	6.00	5.683	13.00	8.683	13.00	11.68	13.00
2.700	6.00	5.700	13.00	8.700	13.00	11.70	13.00
2.717	6.00	5.717	13.00	8.717	13.00	11.72	13.00
2.733	6.00	5.733	13.00	8.733	13.00	11.73	13.00
2.750	6.00	5.750	13.00	8.750	13.00	11.75	13.00
2.767	6.00	5.767	13.00	8.767	13.00	11.77	13.00
2.783	6.00	5.783	13.00	8.783	13.00	11.78	13.00
2.800	6.00	5.800	13.00	8.800	13.00	11.80	13.00
2.817	6.00	5.817	13.00	8.817	13.00	11.82	13.00
2.833	6.00	5.833	13.00	8.833	13.00	11.83	13.00
2.850	6.00	5.850	13.00	8.850	13.00	11.85	13.00
2.867	6.00	5.867	13.00	8.867	13.00	11.87	13.00
2.883	6.00	5.883	13.00	8.883	13.00	11.88	13.00
2.900	6.00	5.900	13.00	8.900	13.00	11.90	13.00
2.917	6.00	5.917	13.00	8.917	13.00	11.92	13.00
2.933	6.00	5.933	13.00	8.933	13.00	11.93	13.00
2.950	6.00	5.950	13.00	8.950	13.00	11.95	13.00
2.967	6.00	5.967	13.00	8.967	13.00	11.97	13.00
2.983	6.00	5.983	13.00	8.983	13.00	11.98	13.00
3.000	6.00	6.000	13.01	9.000	13.08	12.00	13.00

Max.Eff.Inten.(mm/hr)=	53.00	37.02	
over (min)	5.00	16.00	
Storage Coeff. (min)=	5.35 (ii)	15.85 (ii)	
Unit Hyd. Tpeak (min)=	5.00	16.00	
Unit Hyd. peak (cms)=	0.22	0.07	
		TOTALS	
PEAK FLOW (cms)=	0.21	0.20	0.407 (iii)
TIME TO PEAK (hrs)=	9.98	10.08	10.00
RUNOFF VOLUME (mm)=	210.99	95.38	139.32
TOTAL RAINFALL (mm)=	212.00	212.00	212.00
RUNOFF COEFFICIENT =	1.00	0.45	0.66

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 48.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (1022)
ID= 1 DT= 1.0 min

Area (ha)= 2.86
Total Imp(%)= 41.00 Dir. Conn.(%)= 35.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	1.17	1.69
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	0.50	2.00
Length	(m)=	138.06	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 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
0.017	6.00	3.017	13.00	6.017	23.00	9.02	53.00
0.033	6.00	3.033	13.00	6.033	23.00	9.03	53.00
0.050	6.00	3.050	13.00	6.050	23.00	9.05	53.00
0.067	6.00	3.067	13.00	6.067	23.00	9.07	53.00
0.083	6.00	3.083	13.00	6.083	23.00	9.08	53.00
0.100	6.00	3.100	13.00	6.100	23.00	9.10	53.00
0.117	6.00	3.117	13.00	6.117	23.00	9.12	53.00
0.133	6.00	3.133	13.00	6.133	23.00	9.13	53.00
0.150	6.00	3.150	13.00	6.150	23.00	9.15	53.00
0.167	6.00	3.167	13.00	6.167	23.00	9.17	53.00
0.183	6.00	3.183	13.00	6.183	23.00	9.18	53.00
0.200	6.00	3.200	13.00	6.200	23.00	9.20	53.00
0.217	6.00	3.217	13.00	6.217	23.00	9.22	53.00
0.233	6.00	3.233	13.00	6.233	23.00	9.23	53.00
0.250	6.00	3.250	13.00	6.250	23.00	9.25	53.00
0.267	6.00	3.267	13.00	6.267	23.00	9.27	53.00
0.283	6.00	3.283	13.00	6.283	23.00	9.28	53.00
0.300	6.00	3.300	13.00	6.300	23.00	9.30	53.00
0.317	6.00	3.317	13.00	6.317	23.00	9.32	53.00
0.333	6.00	3.333	13.00	6.333	23.00	9.33	53.00
0.350	6.00	3.350	13.00	6.350	23.00	9.35	53.00
0.367	6.00	3.367	13.00	6.367	23.00	9.37	53.00
0.383	6.00	3.383	13.00	6.383	23.00	9.38	53.00
0.400	6.00	3.400	13.00	6.400	23.00	9.40	53.00
0.417	6.00	3.417	13.00	6.417	23.00	9.42	53.00
0.433	6.00	3.433	13.00	6.433	23.00	9.43	53.00
0.450	6.00	3.450	13.00	6.450	23.00	9.45	53.00
0.467	6.00	3.467	13.00	6.467	23.00	9.47	53.00
0.483	6.00	3.483	13.00	6.483	23.00	9.48	53.00
0.500	6.00	3.500	13.00	6.500	23.00	9.50	53.00
0.517	6.00	3.517	13.00	6.517	23.00	9.52	53.00
0.533	6.00	3.533	13.00	6.533	23.00	9.53	53.00
0.550	6.00	3.550	13.00	6.550	23.00	9.55	53.00
0.567	6.00	3.567	13.00	6.567	23.00	9.57	53.00
0.583	6.00	3.583	13.00	6.583	23.00	9.58	53.00
0.600	6.00	3.600	13.00	6.600	23.00	9.60	53.00
0.617	6.00	3.617	13.00	6.617	23.00	9.62	53.00
0.633	6.00	3.633	13.00	6.633	23.00	9.63	53.00
0.650	6.00	3.650	13.00	6.650	23.00	9.65	53.00
0.667	6.00	3.667	13.00	6.667	23.00	9.67	53.00
0.683	6.00	3.683	13.00	6.683	23.00	9.68	53.00
0.700	6.00	3.700	13.00	6.700	23.00	9.70	53.00
0.717	6.00	3.717	13.00	6.717	23.00	9.72	53.00
0.733	6.00	3.733	13.00	6.733	23.00	9.73	53.00
0.750	6.00	3.750	13.00	6.750	23.00	9.75	53.00
0.767	6.00	3.767	13.00	6.767	23.00	9.77	53.00
0.783	6.00	3.783	13.00	6.783	23.00	9.78	53.00
0.800	6.00	3.800	13.00	6.800	23.00	9.80	53.00
0.817	6.00	3.817	13.00	6.817	23.00	9.82	53.00
0.833	6.00	3.833	13.00	6.833	23.00	9.83	53.00
0.850	6.00	3.850	13.00	6.850	23.00	9.85	53.00
0.867	6.00	3.867	13.00	6.867	23.00	9.87	53.00
0.883	6.00	3.883	13.00	6.883	23.00	9.88	53.00
0.900	6.00	3.900	13.00	6.900	23.00	9.90	53.00
0.917	6.00	3.917	13.00	6.917	23.00	9.92	53.00
0.933	6.00	3.933	13.00	6.933	23.00	9.93	53.00
0.950	6.00	3.950	13.00	6.950	23.00	9.95	53.00
0.967	6.00	3.967	13.00	6.967	23.00	9.97	53.00
0.983	6.00	3.983	13.00	6.983	23.00	9.98	53.00
1.000	6.00	4.000	13.00	7.000	22.98	10.00	52.98
1.017	4.00	4.017	17.00	7.017	13.00	10.02	38.00
1.033	4.00	4.033	17.00	7.033	13.00	10.03	38.00
1.050	4.00	4.050	17.00	7.050	13.00	10.05	38.00
1.067	4.00	4.067	17.00	7.067	13.00	10.07	38.00
1.083	4.00	4.083	17.00	7.083	13.00	10.08	38.00
1.100	4.00	4.100	17.00	7.100	13.00	10.10	38.00
1.117	4.00	4.117	17.00	7.117	13.00	10.12	38.00
1.133	4.00	4.133	17.00	7.133	13.00	10.13	38.00
1.150	4.00	4.150	17.00	7.150	13.00	10.15	38.00
1.167	4.00	4.167	17.00	7.167	13.00	10.17	38.00
1.183	4.00	4.183	17.00	7.183	13.00	10.18	38.00
1.200	4.00	4.200	17.00	7.200	13.00	10.20	38.00
1.217	4.00	4.217	17.00	7.217	13.00	10.22	38.00
1.233	4.00	4.233	17.00	7.233	13.00	10.23	38.00
1.250	4.00	4.250	17.00	7.250	13.00	10.25	38.00
1.267	4.00	4.267	17.00	7.267	13.00	10.27	38.00
1.283	4.00	4.283	17.00	7.283	13.00	10.28	38.00
1.300	4.00	4.300	17.00	7.300	13.00	10.30	38.00
1.317	4.00	4.317	17.00	7.317	13.00	10.32	38.00
1.333	4.00	4.333	17.00	7.333	13.00	10.33	38.00
1.350	4.00	4.350	17.00	7.350	13.00	10.35	38.00
1.367	4.00	4.367	17.00	7.367	13.00	10.37	38.00
1.383	4.00	4.383	17.00	7.383	13.00	10.38	38.00
1.400	4.00	4.400	17.00	7.400	13.00	10.40	38.00
1.417	4.00	4.417	17.00	7.417	13.00	10.42	38.00
1.433	4.00	4.433	17.00	7.433	13.00	10.43	38.00
1.450	4.00	4.450	17.00	7.450	13.00	10.45	38.00
1.467	4.00	4.467	17.00	7.467	13.00	10.47	38.00
1.483	4.00	4.483	17.00	7.483	13.00	10.48	38.00
1.500	4.00	4.500	17.00	7.500	13.00	10.50	38.00
1.517	4.00	4.517	17.00	7.517	13.00	10.52	38.00
1.533	4.00	4.533	17.00	7.533	13.00	10.53	38.00
1.550	4.00	4.550	17.00	7.550	13.00	10.55	38.00
1.567	4.00	4.567	17.00	7.567	13.00	10.57	38.00
1.583	4.00	4.583	17.00	7.583	13.00	10.58	38.00
1.600	4.00	4.600	17.00	7.600	13.00	10.60	38.00
1.617	4.00	4.617	17.00	7.617	13.00	10.62	38.00
1.633	4.00	4.633	17.00	7.633	13.00	10.63	38.00
1.650	4.00	4.650	17.00	7.650	13.00	10.65	38.00
1.667	4.00	4.667	17.00	7.667	13.00	10.67	38.00

1.683	4.00	4.683	17.00	7.683	13.00	10.68	38.00
1.700	4.00	4.700	17.00	7.700	13.00	10.70	38.00
1.717	4.00	4.717	17.00	7.717	13.00	10.72	38.00
1.733	4.00	4.733	17.00	7.733	13.00	10.73	38.00
1.750	4.00	4.750	17.00	7.750	13.00	10.75	38.00
1.767	4.00	4.767	17.00	7.767	13.00	10.77	38.00
1.783	4.00	4.783	17.00	7.783	13.00	10.78	38.00
1.800	4.00	4.800	17.00	7.800	13.00	10.80	38.00
1.817	4.00	4.817	17.00	7.817	13.00	10.82	38.00
1.833	4.00	4.833	17.00	7.833	13.00	10.83	38.00
1.850	4.00	4.850	17.00	7.850	13.00	10.85	38.00
1.867	4.00	4.867	17.00	7.867	13.00	10.87	38.00
1.883	4.00	4.883	17.00	7.883	13.00	10.88	38.00
1.900	4.00	4.900	17.00	7.900	13.00	10.90	38.00
1.917	4.00	4.917	17.00	7.917	13.00	10.92	38.00
1.933	4.00	4.933	17.00	7.933	13.00	10.93	38.00
1.950	4.00	4.950	17.00	7.950	13.00	10.95	38.00
1.967	4.00	4.967	17.00	7.967	13.00	10.97	38.00
1.983	4.00	4.983	17.00	7.983	13.00	10.98	38.00
2.000	4.00	5.000	17.00	8.000	13.00	11.00	37.99
2.017	6.00	5.017	13.00	8.017	13.00	11.02	13.00
2.033	6.00	5.033	13.00	8.033	13.00	11.03	13.00
2.050	6.00	5.050	13.00	8.050	13.00	11.05	13.00
2.067	6.00	5.067	13.00	8.067	13.00	11.07	13.00
2.083	6.00	5.083	13.00	8.083	13.00	11.08	13.00
2.100	6.00	5.100	13.00	8.100	13.00	11.10	13.00
2.117	6.00	5.117	13.00	8.117	13.00	11.12	13.00
2.133	6.00	5.133	13.00	8.133	13.00	11.13	13.00
2.150	6.00	5.150	13.00	8.150	13.00	11.15	13.00
2.167	6.00	5.167	13.00	8.167	13.00	11.17	13.00
2.183	6.00	5.183	13.00	8.183	13.00	11.18	13.00
2.200	6.00	5.200	13.00	8.200	13.00	11.20	13.00
2.217	6.00	5.217	13.00	8.217	13.00	11.22	13.00
2.233	6.00	5.233	13.00	8.233	13.00	11.23	13.00
2.250	6.00	5.250	13.00	8.250	13.00	11.25	13.00
2.267	6.00	5.267	13.00	8.267	13.00	11.27	13.00
2.283	6.00	5.283	13.00	8.283	13.00	11.28	13.00
2.300	6.00	5.300	13.00	8.300	13.00	11.30	13.00
2.317	6.00	5.317	13.00	8.317	13.00	11.32	13.00
2.333	6.00	5.333	13.00	8.333	13.00	11.33	13.00
2.350	6.00	5.350	13.00	8.350	13.00	11.35	13.00
2.367	6.00	5.367	13.00	8.367	13.00	11.37	13.00
2.383	6.00	5.383	13.00	8.383	13.00	11.38	13.00
2.400	6.00	5.400	13.00	8.400	13.00	11.40	13.00
2.417	6.00	5.417	13.00	8.417	13.00	11.42	13.00
2.433	6.00	5.433	13.00	8.433	13.00	11.43	13.00
2.450	6.00	5.450	13.00	8.450	13.00	11.45	13.00
2.467	6.00	5.467	13.00	8.467	13.00	11.47	13.00
2.483	6.00	5.483	13.00	8.483	13.00	11.48	13.00
2.500	6.00	5.500	13.00	8.500	13.00	11.50	13.00
2.517	6.00	5.517	13.00	8.517	13.00	11.52	13.00
2.533	6.00	5.533	13.00	8.533	13.00	11.53	13.00

2.550	6.00	5.550	13.00	8.550	13.00	11.55	13.00
2.567	6.00	5.567	13.00	8.567	13.00	11.57	13.00
2.583	6.00	5.583	13.00	8.583	13.00	11.58	13.00
2.600	6.00	5.600	13.00	8.600	13.00	11.60	13.00
2.617	6.00	5.617	13.00	8.617	13.00	11.62	13.00
2.633	6.00	5.633	13.00	8.633	13.00	11.63	13.00
2.650	6.00	5.650	13.00	8.650	13.00	11.65	13.00
2.667	6.00	5.667	13.00	8.667	13.00	11.67	13.00
2.683	6.00	5.683	13.00	8.683	13.00	11.68	13.00
2.700	6.00	5.700	13.00	8.700	13.00	11.70	13.00
2.717	6.00	5.717	13.00	8.717	13.00	11.72	13.00
2.733	6.00	5.733	13.00	8.733	13.00	11.73	13.00
2.750	6.00	5.750	13.00	8.750	13.00	11.75	13.00
2.767	6.00	5.767	13.00	8.767	13.00	11.77	13.00
2.783	6.00	5.783	13.00	8.783	13.00	11.78	13.00
2.800	6.00	5.800	13.00	8.800	13.00	11.80	13.00
2.817	6.00	5.817	13.00	8.817	13.00	11.82	13.00
2.833	6.00	5.833	13.00	8.833	13.00	11.83	13.00
2.850	6.00	5.850	13.00	8.850	13.00	11.85	13.00
2.867	6.00	5.867	13.00	8.867	13.00	11.87	13.00
2.883	6.00	5.883	13.00	8.883	13.00	11.88	13.00
2.900	6.00	5.900	13.00	8.900	13.00	11.90	13.00
2.917	6.00	5.917	13.00	8.917	13.00	11.92	13.00
2.933	6.00	5.933	13.00	8.933	13.00	11.93	13.00
2.950	6.00	5.950	13.00	8.950	13.00	11.95	13.00
2.967	6.00	5.967	13.00	8.967	13.00	11.97	13.00
2.983	6.00	5.983	13.00	8.983	13.00	11.98	13.00
3.000	6.00	6.000	13.01	9.000	13.08	12.00	13.00

```
     Max.Eff.Inten.(mm/hr)=      53.00       35.77
                   over (min)       5.00       16.00
     Storage Coeff.  (min)=      4.92 (ii)  15.57 (ii)
     Unit Hyd. Tpeak (min)=      5.00       16.00
     Unit Hyd. peak  (cms)=      0.23        0.07
                                                      *TOTALS*
     PEAK FLOW       (cms)=      0.15        0.16       0.302 (iii)
     TIME TO PEAK    (hrs)=      9.98       10.08      10.00
     RUNOFF VOLUME    (mm)=    210.99       94.13     135.03
     TOTAL RAINFALL   (mm)=    212.00      212.00     212.00
     RUNOFF COEFFICIENT   =      1.00        0.44       0.64


       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN*  =  48.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
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------------------
| DUHYD    (  0035)|
| Inlet Cap.= 0.202|
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| #of Inlets=     1|
| Total(cms)=   0.2|      AREA     QPEAK     TPEAK     R.V.
--------------------      (ha)      (cms)     (hrs)     (mm)
     TOTAL HYD.(ID= 1):   2.86      0.30     10.00  135.03
     ================================================
     MAJOR SYS.(ID= 2):   0.27      0.10     10.00  135.03
     MINOR SYS.(ID= 3):   2.59      0.20      9.25  135.03

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

```
------------------
| ADD HYD  (  0102)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
--------------------        (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  1021):     3.77   0.407    10.00   139.32
     + ID2= 2 (  0035):     0.27   0.100    10.00   135.03
       ================================================
       ID = 3 (  0102):     4.04   0.507    10.00   139.03

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

```
------------------
| ADD HYD  (  0903)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
--------------------        (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0102):     4.04   0.507    10.00   139.03
     + ID2= 2 (  0902):    15.67   1.687    10.02   137.77
       ================================================
       ID = 3 (  0903):    19.71   2.192    10.02   138.03

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

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------------------
| CALIB            |
| NASHYD   (  1051)|   Area     (ha)=   1.62   Curve Number   (CN)= 60.0
|ID= 1 DT= 5.0 min |   Ia       (mm)=   5.00   # of Linear Res.(N)= 3.00
------------------   U.H. Tp(hrs)=   1.87

        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)=   0.033

     PEAK FLOW       (cms)=   0.094 (i)
     TIME TO PEAK    (hrs)=  12.000
     RUNOFF VOLUME    (mm)= 113.857
     TOTAL RAINFALL   (mm)= 212.000
     RUNOFF COEFFICIENT   =   0.537

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
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------------------
| ADD HYD  (  0105)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
--------------------        (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  1051):     1.62   0.094    12.00   113.86
     + ID2= 2 (  0037):     0.30   0.084    10.00   122.85
       ================================================
       ID = 3 (  0105):     1.93   0.130    10.02   115.28
```

```
     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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```
------------------
| ADD HYD  (  0906)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
--------------------        (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0105):     1.93   0.130    10.02   115.28
     + ID2= 2 (  0903):    19.71   2.192    10.02   138.03
       ================================================
       ID = 3 (  0906):    21.64   2.323    10.02   136.00

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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------------------
| CALIB            |
| NASHYD   (  0201)|   Area     (ha)=   6.97   Curve Number   (CN)= 66.0
|ID= 1 DT= 5.0 min |   Ia       (mm)=   5.00   # of Linear Res.(N)= 3.00
------------------   U.H. Tp(hrs)=   0.74

        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)=   0.360

     PEAK FLOW       (cms)=   0.627 (i)
     TIME TO PEAK    (hrs)=  11.000
     RUNOFF VOLUME    (mm)= 126.828
     TOTAL RAINFALL   (mm)= 212.000
     RUNOFF COEFFICIENT   =   0.598

     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
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------------------
| CALIB            |
| NASHYD   (  0202)|   Area     (ha)=   2.71   Curve Number   (CN)= 68.0
|ID= 1 DT= 5.0 min |   Ia       (mm)=   5.00   # of Linear Res.(N)= 3.00
------------------   U.H. Tp(hrs)=   0.93

        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)= 0.111

PEAK FLOW (cms)= 0.238 (i)
TIME TO PEAK (hrs)= 11.167
RUNOFF VOLUME (mm)= 131.224
TOTAL RAINFALL (mm)= 212.000
RUNOFF COEFFICIENT = 0.619

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

ADD HYD (0904)				
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0201):	6.97	0.627	11.00	126.83
+ ID2= 2 (0202):	2.71	0.238	11.17	131.22
ID = 3 (0904):	9.68	0.864	11.00	128.06

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB			
NASHYD (0203)	Area (ha)= 34.30	Curve Number (CN)= 42.0	
ID= 1 DT= 5.0 min	Ia (mm)= 5.00	# of Linear Res.(N)= 3.00	
	U.H. Tp(hrs)= 1.40		

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)= 0.936

PEAK FLOW (cms)= 1.615 (i)
TIME TO PEAK (hrs)= 11.583
RUNOFF VOLUME (mm)= 76.823
TOTAL RAINFALL (mm)= 212.000
RUNOFF COEFFICIENT = 0.362

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

ADD HYD (0905)				
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0203):	34.30	1.615	11.58	76.82
+ ID2= 2 (0904):	9.68	0.864	11.00	128.06
ID = 3 (0905):	43.98	2.405	11.33	88.10

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

Junction Command(0907)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 1(0905)	43.98	2.41	11.33	88.10
OUTFLOW: ID= 2(0907)	43.98	2.41	11.33	88.10

ADD HYD (0908)				
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0906):	21.64	2.323	10.02	136.00
+ ID2= 2 (0907):	43.98	2.405	11.33	88.10
ID = 3 (0908):	65.62	4.108	11.00	103.90

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB			
NASHYD (0204)	Area (ha)= 0.40	Curve Number (CN)= 67.0	
ID= 1 DT= 5.0 min	Ia (mm)= 5.00	# 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)= 0.054

PEAK FLOW (cms)= 0.044 (i)
TIME TO PEAK (hrs)= 10.000
RUNOFF VOLUME (mm)= 128.955
TOTAL RAINFALL (mm)= 212.000
RUNOFF COEFFICIENT = 0.608

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

ADD HYD (0909)				
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0204):	0.40	0.044	10.00	128.96
+ ID2= 2 (0908):	65.62	4.108	11.00	103.90
ID = 3 (0909):	66.01	4.143	11.00	104.05

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR(0052) | IN= 2---> OUT= 1 | DT= 1.0 min	OVERFLOW IS ON			
	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
	0.0000	0.0001	0.5350	0.0405
	0.4630	0.0006	0.5440	0.0566
	0.4740	0.0013	0.5540	0.0775
	0.4840	0.0030	0.5630	0.1069
	0.4950	0.0056	0.5720	0.1342
	0.5050	0.0102	0.5810	0.1635
	0.5150	0.0163	0.5900	0.1967
	0.5250	0.0270	0.5980	0.2362

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (0909)	66.013	4.143	11.00	104.05
OUTFLOW: ID= 1 (0052)	26.829	0.598	6.88	104.05
OVERFLOW:ID= 3 (0003)	39.185	3.545	11.00	104.05

TOTAL NUMBER OF SIMULATION OVERFLOW = 434
CUMULATIVE TIME OF OVERFLOW (HOURS) = 7.23
PERCENTAGE OF TIME OVERFLOWING (%) = 29.28

PEAK FLOW REDUCTION [Qout/Qin](%)= 14.43
TIME SHIFT OF PEAK FLOW (min)=******
MAXIMUM STORAGE USED (ha.m.)= 0.2362

Junction Command(0048)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 1(0052)	26.83	0.60	6.88	104.05
OUTFLOW: ID= 2(0048)	26.83	0.60	6.88	104.05

Junction Command(0053)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 3(0052)	39.18	3.55	11.00	104.05
OUTFLOW: ID= 2(0053)	39.18	3.55	11.00	104.05

ADD HYD (0051)				
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0048):	26.83	0.598	6.88	104.05
+ ID2= 2 (0053):	39.18	3.545	11.00	104.05
ID = 3 (0051):	66.01	4.143	11.00	104.05

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

Junction Command(0036)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 9(0035)	2.59	0.20	9.25	135.03
OUTFLOW: ID= 2(0036)	2.59	0.20	9.25	135.03

FINISH

	Stormwater Management Calculations	Project:	Dawson and O'Neil Drains	No.:	231-00563-00	
	Area Breakdown	By:	CP	Date:	2025-01-09	Page
		Checked:	EK	Date:	2025-01-09	1

1.0 Area and Land Use Statistics

Catchment	% Impervious	Dawson Drain Catchments (Table 1)											
		D1_O		D2_O		D3		D4		D5_O		-	
LULC Category		Area (m2)	Coverage	Area (m2)	Coverage	Area (m2)	Coverage	Area (m2)	Coverage	Area (m2)	Coverage	-	-
GD1.3/W 1/2 NS ALY - RD1.1/GD1.4/GD1.1/RD1.1/GD1.1	0	1,461	1%	769	2%	3,228	28%	2,700	35%	9,569	59%	-	-
RD1.1	25	91,055	66%	26,751	71%	3,859	33%	4,759	62%	6,016	37%	-	-
RD1.2	30	0	0%	0	0%	0	0%	0	0%	632	4%	-	-
RD3.1/RD2.1/RD2.3	40	7,979	6%	7	0%	4,553	39%	0	0%	0	0%	-	-
CD3.3/CD4.1/E-CD4.1, W-RD1.1	85	0	0%	0	0%	0	0%	0	0%	0	0%	-	-
ROAD	100	36,845	27%	10,179	27%	26	0%	206	3%	13	0%	-	-
Total	-	137,340	100%	37,706	100%	11,666	100%	7,665	100%	16,230	100%	-	-
Total Area (ha)	-	13.734		3.771		1.167		0.767		1.623		-	
% Imperviousness	-	46		45		24		18		11		-	

Catchment	% Impervious	Dawson Drain Catchments (Table 2)											
		D1_Ex		D2_Ex		D5_Ex		D6				Sub Total	
LULC Category		Area (m2)	Coverage	Area (m2)	Coverage	Area (m2)	Coverage	Area (m2)	Coverage			Area (m2)	Coverage
GD1.3/W 1/2 NS ALY - RD1.1/GD1.4/GD1.1/RD1.1/GD1.1	0	2,031	1%	677	2%	50	0%	3,180	81%			23,665	4%
RD1.1	25	141,937	53%	20,121	70%	0	0%	0	0%			294,498	55%
RD1.2	30	0	0%	0	0%	19,307	99%	0	0%			19,939	4%
RD3.1/RD2.1/RD2.3	40	0	0%	1,774	6%	0	0%	0	0%			14,313	3%
CD3.3/CD4.1/E-CD4.1, W-RD1.1	85	44,899	17%	0	0%	0	0%	0	0%			44,899	8%
ROAD	100	80,058	30%	6,014	21%	102	1%	766	19%			134,209	25%
Total	-	268,925	100%	28,586	100%	19,459	100%	3,946	100%			531,523	100%
Total Area (ha)	-	26.893		2.859		1.946		0.395				53.152	
% Imperviousness	-	57		41		30		19				48	

Catchment	% Impervious	O'Neil Drain Catchments											
		O1		O2		O3				Sub -Total		Total	
LULC Category		Area (m2)	Coverage	Area (m2)	Coverage	Area (m2)	Coverage			Area (m2)	Coverage	Area (m2)	Coverage
GD1.3/W 1/2 NS ALY - RD1.1/GD1.4/GD1.1/RD1.1/GD1.1	0	60,841	87%	23,357	86%	340,757	99%			424,955	97%	448,620	46%
RD1.1	25	0	0%	0	0%	0	0%			0	0%	294,498	30%
RD1.2	30	0	0%	0	0%	0	0%			0	0%	19,939	2%
RD3.1/RD2.1/RD2.3	40	0	0%	0	0%	1	0%			1	0%	14,314	1%
CD3.3/CD4.1/E-CD4.1, W-RD1.1	85	0	0%	0	0%	0	0%			0	0%	44,899	5%
ROAD	100	8,871	13%	3,729	14%	2,216	1%			14,816	3%	149,025	15%
Total	-	69,712	100%	27,086	100%	342,974	100%			439,772	100%	971,295	100%
Total Area (ha)	-	6.971		2.709		34.297				43.977		97.130	
% Imperviousness	-	13		14		1				3		28	

Pages 2 to 12 remain unchanged between Existing and Proposed Conditions as the downstream most O'Neil Reach is renamed and made a part of Dawson Reach

5.1 Design Storm Selection

Visual OTTHYMO model is simulated for the Chicago and SCS storm for the 3 , 6, 12 and 24 hour durations as presented and were compared to select the design storm.

Return Period (Years)	Proposed Peak Flows on O'Neil Drain NHYD : 907 (m3/s)				
	3hr Chicago	6hr Chicago	12 hr SCS	24 hr Chicago	Hazel
2	0.137	0.155	0.194	0.196	-
5	0.248	0.276	0.326	0.337	-
10	0.333	0.368	0.425	0.443	-
25	0.461	0.507	0.572	0.601	-
50	0.560	0.613	0.680	0.720	-
100	0.675	0.738	0.812	0.861	-
Regional	-	-	-	-	2.405

Return Period (Years)	Proposed Peak Flows on Dawson Drain NHYD : 909 (m3/s)				
	3hr Chicago	6hr Chicago	12 hr SCS	24 hr Chicago	Hazel
2	1.324	1.342	1.181	1.387	-
5	1.936	1.973	1.771	2.089	-
10	2.780	2.874	2.320	3.070	-
25	4.176	4.300	3.668	4.553	-
50	5.200	5.358	4.569	5.663	-
100	6.237	6.428	5.673	6.789	-
Regional	-	-	-	-	4.143

Return Period (Years)	Proposed Peak Flows to the 525 mm Outlet and Overland System NHYD : 51 (m3/s)				
	3hr Chicago	6hr Chicago	12 hr SCS	24 hr Chicago	Hazel
2	0.524	0.529	0.518	0.542	-
5	0.598	0.605	0.604	0.624	-
10	0.649	0.660	0.653	0.683	-
25	0.722	0.735	0.730	0.763	-
50	0.771	0.786	0.777	0.811	-
100	0.817	0.830	0.824	0.853	-
Regional	-	-	-	-	4.143

5.2 Proposed Conditions Flows

Visual OTTHYMO model is simulated for the 24 hour Chicago and results are presented below.

NHYD	Proposed Peak Flows on Dawson Drain (m3/s)						
	2-y	5-yr	10-yr	25-yr	50-yr	100-yr	Hazel
Catchments							
101	1.003	1.447	2.245	3.427	4.324	5.221	1.496
102	0.316	0.510	0.635	0.815	0.943	1.089	0.507
103	0.055	0.076	0.092	0.115	0.134	0.157	0.125
104	0.009	0.016	0.021	0.029	0.035	0.042	0.066
105	0.008	0.041	0.067	0.105	0.147	0.179	0.130
Nodes							
901	1.054	1.519	2.333	3.541	4.458	5.379	1.621
902	1.058	1.527	2.344	3.555	4.474	5.398	1.687
903	1.360	2.005	2.942	4.361	5.408	6.478	2.192
906	1.360	2.035	2.998	4.463	5.553	6.655	2.323
908	1.382	2.080	3.058	4.538	5.645	6.767	4.108
909	1.387	2.089	3.070	4.553	5.663	6.789	4.143

NHYD	Proposed Peak Flows on O'Neil Drain (m3/s)						
	2-y	5-yr	10-yr	25-yr	50-yr	100-yr	Hazel
Catchments							
201	0.080	0.135	0.175	0.235	0.280	0.331	0.627
202	0.028	0.048	0.062	0.082	0.098	0.115	0.238
203	0.106	0.186	0.247	0.340	0.410	0.495	1.615
204	0.009	0.015	0.019	0.026	0.031	0.036	0.044
Nodes							
904	0.107	0.181	0.235	0.315	0.374	0.443	0.864
905	0.196	0.337	0.443	0.601	0.720	0.861	2.405
907	0.196	0.337	0.443	0.601	0.720	0.861	2.405

NHYD	Proposed Peak Flows entering the 525 mm pipe and overland flow system (m3/s)						
	2-y	5-yr	10-yr	25-yr	50-yr	100-yr	Hazel
51	0.542	0.624	0.683	0.763	0.811	0.853	4.143

Project : 221-00563-00 Dawson and O'Neil Creeks

Rating Curve for Hydrologic Model (Proposed Conditions) - Free Flow Curve

Prepared by: CP
Checked by: EK
Date: 2025-04-07

Elevation of Base of System :	185.726	*(Invert of existing 600 mm Pipe)*
Total Height of System (m):	2.274	*(Assumed, to get a maximum WL of 188.0 m in CGVD2013)*

Outlet #1 - 525 mm HDPE pipe - Free Flow

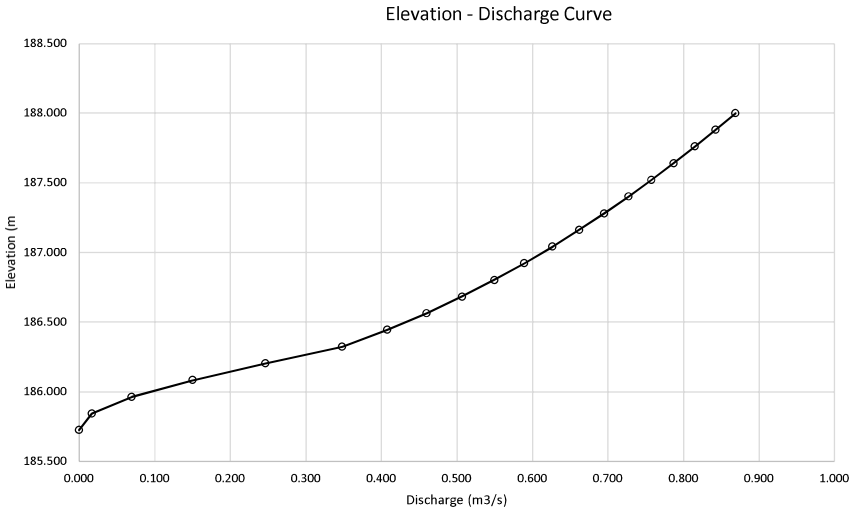
Type	Circular Orifice	Diameter (mm):	525
Invert Elevation of Lowest Outflow/Orifice (m)	185.74	Length - perpendicular to flow (m) :	-
Height of invert above base (m):	0.01	Width - parallel to flow (m)	-
Height of system above invert (m):	2.26	Discharge Coefficient (m^0.5/s) :	0.63
So each ordinate (m)	0.120	Weir Coefficient:	-

Outlet #2 - Overland Flowroute (cemetery open area, west of the drain)

Type	Broad-Crested Weir	Diameter (mm):	-
Invert Elevation:	188.056	Length - perpendicular to flow (m) :	100
Height of Invert above Base (m):	2.33	Width - parallel to flow (m)	-
		Discharge Coefficient (m^0.5/s) :	-
		Weir Coefficient:	0.2

Outlet #3 - Overland Flowroute (Hallee Crescent once Top of Berm is overtopped)

Type	Broad-Crested Weir	Diameter (mm):	-
Invert Elevation:	188.336	Length - perpendicular to flow (m) :	8
Height of Invert above Base (m):	2.61	Width - parallel to flow (m)	-
		Discharge Coefficient (m^0.5/s) :	-
		Weir Coefficient:	1.44



Ordinate	Total Depth from Base (m)	Outlet # 1 Head Above Invert (m)	Outlet # 1 Discharge (m3/s)	Outlet # 1 Discharge (L/s)	Outlet # 2 Head Above Invert (m)	Outlet # 2 Discharge (m3/s)	Outlet # 2 Discharge (L/s)	Outlet # 3 Head Above Invert (m)	Outlet # 3 Discharge (m3/s)	Outlet # 3 Discharge (L/s)	For VO Discharge (m3/s)	For VO Elevation (m)	For VO Volume (m3)
1	0	0.000	0.000	0.0							0.000	185.726	0.00
2	0.120	0.106	0.017	16.7							0.017	185.846	4.24
3	0.239	0.225	0.069	69.3							0.069	185.965	18.88
4	0.359	0.345	0.150	149.9							0.150	186.085	51.98
5	0.479	0.465	0.247	246.6							0.247	186.205	111.12
6	0.598	0.584	0.348	347.8							0.348	186.324	209.81
7	0.718	0.704	0.408	407.7							0.408	186.444	351.61
8	0.838	0.824	0.460	460.0							0.460	186.564	543.87
9	0.957	0.943	0.507	506.8							0.507	186.683	794.04
10	1.077	1.063	0.550	549.7							0.550	186.803	1109.63
11	1.197	1.183	0.590	589.5							0.590	186.923	1507.77
12	1.317	1.303	0.627	626.8							0.627	187.043	1980.36
13	1.436	1.422	0.662	661.9							0.662	187.162	2528.99
14	1.556	1.542	0.695	695.3							0.695	187.282	3160.98
15	1.676	1.662	0.727	727.2							0.727	187.402	3886.03
16	1.795	1.781	0.758	757.7							0.758	187.521	4732.22
17	1.915	1.901	0.787	787.0							0.787	187.641	5703.45
18	2.035	2.021	0.815	815.3							0.815	187.761	6833.80
19	2.154	2.140	0.843	842.7							0.843	187.880	8225.71
20	2.274	2.260	0.869	869.1							0.869	188.000	9974.13

Outlet #1 - 525 mm HDPE pipe
Proposed Invert at 185.74 m (datum CGVD2013).

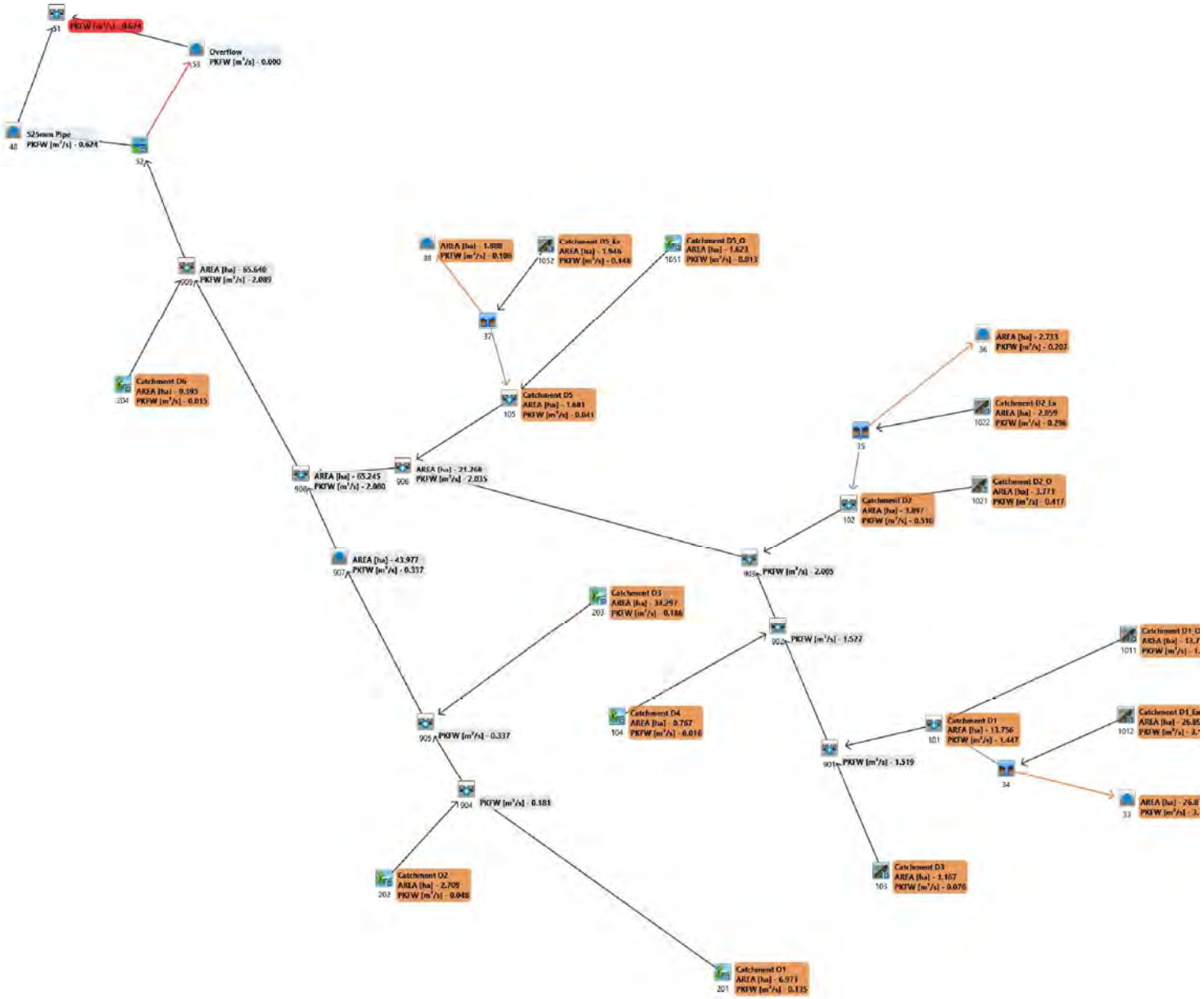
Outlet #2 - Overland Flowroute (cemetery open area, west of the drain)
Approx ground elevation near DICB27 = 188.52m.(IGLD85). CGVD2013 = 188.056 m.
Assumed weir length of 100 m.
(currently not modelled)

Outlet #3 - Overland Flowroute (Hallee Crescent once Top of Berm is overtopped)
Approx Top of Berm = 188.80m.(IGLD85). CGVD2013 = 188.386 m.
Road width = 8 m
(currently not modelled)

Source
R. C. Spencer Associates (2016). Southwid Subdivision, As-constructed Phase 1 & 2 Drawings.
Prepared for Tru Land Developments Inc. City of Windsor Reference # S-2018. Sheets 4 and 13.

Overland Weir Coefficients
https://www.kleinschmidtgroup.com/ras-post/weir-equations-in-hec-ras/

Volumes extracted in AutoCAD


51
PKFW [m³/s] - 0.624
Overflow
PKFW [m³/s] - 0.000
53
525mm Pipe
PKFW [m³/s] - 0.624
40
52
AREA [ha] - 55.640
PKFW [m³/s] - 2.089
900
Catchment D6
AREA [ha] - 0.385
PKFW [m³/s] - 0.015
204
AREA [ha] - 1.888
PKFW [m³/s] - 0.109
38
Catchment D5_Ex
AREA [ha] - 1.946
PKFW [m³/s] - 0.448
1052
Catchment D5_O
AREA [ha] - 1.623
PKFW [m³/s] - 0.013
1051
37
Catchment D5
AREA [ha] - 1.681
PKFW [m³/s] - 0.041
105
AREA [ha] - 2.733
PKFW [m³/s] - 0.202
36
Catchment D2_Ex
AREA [ha] - 2.059
PKFW [m³/s] - 0.296
1022
35
Catchment D2_O
AREA [ha] - 3.771
PKFW [m³/s] - 0.417
1021
Catchment D7
AREA [ha] - 3.897
PKFW [m³/s] - 0.510
102
AREA [ha] - 65.245
PKFW [m³/s] - 2.080
908
AREA [ha] - 21.268
PKFW [m³/s] - 2.035
906
AREA [ha] - 43.977
PKFW [m³/s] - 0.337
907
PKFW [m³/s] - 2.005
Catchment D3
AREA [ha] - 34.297
PKFW [m³/s] - 0.186
203
902
PKFW [m³/s] - 1.522
Catchment D4
AREA [ha] - 0.767
PKFW [m³/s] - 0.016
104
905
PKFW [m³/s] - 0.337
Catchment D1
AREA [ha] - 13.756
PKFW [m³/s] - 1.447
101
901
PKFW [m³/s] - 1.519
34
33
904
PKFW [m³/s] - 0.181
Catchment D3
AREA [ha] - 1.167
PKFW [m³/s] - 0.076
103
Catchment O2
AREA [ha] - 2.709
PKFW [m³/s] - 0.045
202
Catchment O1
AREA [ha] - 6.971
PKFW [m³/s] - 0.135
201

```
================================================================================
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      V    V   I    SSSSS  U   U    A    L              (v 6.2.2015)
      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 *****


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DATE: 04-07-2025                          TIME: 09:18:38

USER:


COMMENTS: _____


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------------------------
  ************************************************
  ** SIMULATION : 100yr 24hr 10min Chicago      **
  ************************************************

-------------------
| CHICAGO STORM    |    IDF curve parameters: A=2375.000
| Ptotal=108.06 mm |                          B=  11.000
-------------------                          C=   0.861
                        used in:   INTENSITY =  A / (t + B)^C

                  Duration of storm  = 24.00 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    0.67 |  6.00    2.65 | 12.00    2.29 | 18.00    0.99
 0.17    0.68 |  6.17    2.92 | 12.17    2.20 | 18.17    0.97
 0.33    0.70 |  6.33    3.26 | 12.33    2.12 | 18.33    0.96
 0.50    0.71 |  6.50    3.69 | 12.50    2.05 | 18.50    0.94
 0.67    0.73 |  6.67    4.25 | 12.67    1.98 | 18.67    0.93
 0.83    0.74 |  6.83    5.02 | 12.83    1.92 | 18.83    0.92
 1.00    0.76 |  7.00    6.15 | 13.00    1.86 | 19.00    0.91
 1.17    0.77 |  7.17    7.95 | 13.17    1.80 | 19.17    0.89
 1.33    0.79 |  7.33   11.22 | 13.33    1.75 | 19.33    0.88
 1.50    0.81 |  7.50   18.75 | 13.50    1.70 | 19.50    0.87
 1.67    0.83 |  7.67   49.66 | 13.67    1.66 | 19.67    0.86
 1.83    0.85 |  7.83  172.68 | 13.83    1.61 | 19.83    0.85
 2.00    0.88 |  8.00   65.83 | 14.00    1.57 | 20.00    0.84
 2.17    0.90 |  8.17   33.57 | 14.17    1.53 | 20.17    0.83
 2.33    0.92 |  8.33   21.73 | 14.33    1.50 | 20.33    0.82
 2.50    0.95 |  8.50   15.83 | 14.50    1.46 | 20.50    0.81
 2.67    0.98 |  8.67   12.37 | 14.67    1.43 | 20.67    0.80
 2.83    1.01 |  8.83   10.11 | 14.83    1.39 | 20.83    0.79
 3.00    1.04 |  9.00    8.54 | 15.00    1.36 | 21.00    0.78
 3.17    1.08 |  9.17    7.39 | 15.17    1.34 | 21.17    0.77
 3.33    1.11 |  9.33    6.51 | 15.33    1.31 | 21.33    0.76
 3.50    1.15 |  9.50    5.82 | 15.50    1.28 | 21.50    0.75
 3.67    1.20 |  9.67    5.26 | 15.67    1.26 | 21.67    0.75
 3.83    1.24 |  9.83    4.80 | 15.83    1.23 | 21.83    0.74
 4.00    1.29 | 10.00    4.42 | 16.00    1.21 | 22.00    0.73
 4.17    1.35 | 10.17    4.09 | 16.17    1.19 | 22.17    0.72
 4.33    1.41 | 10.33    3.81 | 16.33    1.16 | 22.33    0.72
 4.50    1.48 | 10.50    3.57 | 16.50    1.14 | 22.50    0.71
 4.67    1.55 | 10.67    3.36 | 16.67    1.12 | 22.67    0.70
 4.83    1.63 | 10.83    3.17 | 16.83    1.10 | 22.83    0.69
 5.00    1.72 | 11.00    3.00 | 17.00    1.09 | 23.00    0.69
 5.17    1.83 | 11.17    2.85 | 17.17    1.07 | 23.17    0.68
 5.33    1.95 | 11.33    2.72 | 17.33    1.05 | 23.33    0.67
 5.50    2.08 | 11.50    2.59 | 17.50    1.03 | 23.50    0.67
 5.67    2.24 | 11.67    2.48 | 17.67    1.02 | 23.67    0.66
 5.83    2.43 | 11.83    2.38 | 17.83    1.00 | 23.83    0.65

--------------------------------------------------------------------------------
-------------------
| CALIB            |
| STANDHYD (  1012)|   Area    (ha)=  26.89
|ID= 1 DT= 1.0 min |   Total Imp(%)=  57.00   Dir. Conn.(%)=  49.00
-------------------

                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       15.33         11.56

Dep. Storage     (mm)=        1.00          5.00
Average Slope     (%)=        0.50          2.00
Length            (m)=      423.42         40.00
Mannings n             =       0.013         0.250

    NOTE:  RAINFALL WAS TRANSFORMED TO   1.0 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
0.017    0.67 | 6.017    2.65 |12.017    2.29 | 18.02    0.99
0.033    0.67 | 6.033    2.65 |12.033    2.29 | 18.03    0.99
0.050    0.67 | 6.050    2.65 |12.050    2.29 | 18.05    0.99
0.067    0.67 | 6.067    2.65 |12.067    2.29 | 18.07    0.99
0.083    0.67 | 6.083    2.65 |12.083    2.29 | 18.08    0.99
0.100    0.67 | 6.100    2.65 |12.100    2.29 | 18.10    0.99
0.117    0.67 | 6.117    2.65 |12.117    2.29 | 18.12    0.99
0.133    0.67 | 6.133    2.65 |12.133    2.29 | 18.13    0.99
0.150    0.67 | 6.150    2.65 |12.150    2.29 | 18.15    0.99
0.167    0.67 | 6.167    2.65 |12.167    2.29 | 18.17    0.99
0.183    0.68 | 6.183    2.92 |12.183    2.20 | 18.18    0.97
0.200    0.68 | 6.200    2.92 |12.200    2.20 | 18.20    0.97
0.217    0.68 | 6.217    2.92 |12.217    2.20 | 18.22    0.97
0.233    0.68 | 6.233    2.92 |12.233    2.20 | 18.23    0.97
0.250    0.68 | 6.250    2.92 |12.250    2.20 | 18.25    0.97
0.267    0.68 | 6.267    2.92 |12.267    2.20 | 18.27    0.97
0.283    0.68 | 6.283    2.92 |12.283    2.20 | 18.28    0.97
0.300    0.68 | 6.300    2.92 |12.300    2.20 | 18.30    0.97
0.317    0.68 | 6.317    2.92 |12.317    2.20 | 18.32    0.97
0.333    0.68 | 6.333    2.92 |12.333    2.20 | 18.33    0.97
0.350    0.70 | 6.350    3.26 |12.350    2.12 | 18.35    0.96
0.367    0.70 | 6.367    3.26 |12.367    2.12 | 18.37    0.96
0.383    0.70 | 6.383    3.26 |12.383    2.12 | 18.38    0.96
0.400    0.70 | 6.400    3.26 |12.400    2.12 | 18.40    0.96
0.417    0.70 | 6.417    3.26 |12.417    2.12 | 18.42    0.96
0.433    0.70 | 6.433    3.26 |12.433    2.12 | 18.43    0.96
0.450    0.70 | 6.450    3.26 |12.450    2.12 | 18.45    0.96
0.467    0.70 | 6.467    3.26 |12.467    2.12 | 18.47    0.96
0.483    0.70 | 6.483    3.26 |12.483    2.12 | 18.48    0.96
0.500    0.70 | 6.500    3.26 |12.500    2.12 | 18.50    0.96
0.517    0.71 | 6.517    3.69 |12.517    2.05 | 18.52    0.94
0.533    0.71 | 6.533    3.69 |12.533    2.05 | 18.53    0.94
0.550    0.71 | 6.550    3.69 |12.550    2.05 | 18.55    0.94
0.567    0.71 | 6.567    3.69 |12.567    2.05 | 18.57    0.94
0.583    0.71 | 6.583    3.69 |12.583    2.05 | 18.58    0.94
0.600    0.71 | 6.600    3.69 |12.600    2.05 | 18.60    0.94
0.617    0.71 | 6.617    3.69 |12.617    2.05 | 18.62    0.94
0.633    0.71 | 6.633    3.69 |12.633    2.05 | 18.63    0.94
0.650    0.71 | 6.650    3.69 |12.650    2.05 | 18.65    0.94
0.667    0.71 | 6.667    3.69 |12.667    2.05 | 18.67    0.94
0.683    0.73 | 6.683    4.25 |12.683    1.98 | 18.68    0.93
0.700    0.73 | 6.700    4.25 |12.700    1.98 | 18.70    0.93
0.717    0.73 | 6.717    4.25 |12.717    1.98 | 18.72    0.93
0.733    0.73 | 6.733    4.25 |12.733    1.98 | 18.73    0.93
0.750    0.73 | 6.750    4.25 |12.750    1.98 | 18.75    0.93
0.767    0.73 | 6.767    4.25 |12.767    1.98 | 18.77    0.93
0.783    0.73 | 6.783    4.25 |12.783    1.98 | 18.78    0.93
0.800    0.73 | 6.800    4.25 |12.800    1.98 | 18.80    0.93
0.817    0.73 | 6.817    4.25 |12.817    1.98 | 18.82    0.93
0.833    0.73 | 6.833    4.25 |12.833    1.98 | 18.83    0.93
0.850    0.74 | 6.850    5.02 |12.850    1.92 | 18.85    0.92
0.867    0.74 | 6.867    5.02 |12.867    1.92 | 18.87    0.92
0.883    0.74 | 6.883    5.02 |12.883    1.92 | 18.88    0.92
0.900    0.74 | 6.900    5.02 |12.900    1.92 | 18.90    0.92
0.917    0.74 | 6.917    5.02 |12.917    1.92 | 18.92    0.92
0.933    0.74 | 6.933    5.02 |12.933    1.92 | 18.93    0.92
0.950    0.74 | 6.950    5.02 |12.950    1.92 | 18.95    0.92
0.967    0.74 | 6.967    5.02 |12.967    1.92 | 18.97    0.92
0.983    0.74 | 6.983    5.02 |12.983    1.92 | 18.98    0.92
1.000    0.74 | 7.000    5.03 |13.000    1.92 | 19.00    0.92
1.017    0.76 | 7.017    6.15 |13.017    1.86 | 19.02    0.91
1.033    0.76 | 7.033    6.15 |13.033    1.86 | 19.03    0.91
1.050    0.76 | 7.050    6.15 |13.050    1.86 | 19.05    0.91
1.067    0.76 | 7.067    6.15 |13.067    1.86 | 19.07    0.91
1.083    0.76 | 7.083    6.15 |13.083    1.86 | 19.08    0.91
1.100    0.76 | 7.100    6.15 |13.100    1.86 | 19.10    0.91
1.117    0.76 | 7.117    6.15 |13.117    1.86 | 19.12    0.91
1.133    0.76 | 7.133    6.15 |13.133    1.86 | 19.13    0.91
1.150    0.76 | 7.150    6.15 |13.150    1.86 | 19.15    0.91
1.167    0.76 | 7.167    6.16 |13.167    1.86 | 19.17    0.91
1.183    0.77 | 7.183    7.95 |13.183    1.80 | 19.18    0.89
1.200    0.77 | 7.200    7.95 |13.200    1.80 | 19.20    0.89
1.217    0.77 | 7.217    7.95 |13.217    1.80 | 19.22    0.89
1.233    0.77 | 7.233    7.95 |13.233    1.80 | 19.23    0.89
1.250    0.77 | 7.250    7.95 |13.250    1.80 | 19.25    0.89
1.267    0.77 | 7.267    7.95 |13.267    1.80 | 19.27    0.89
1.283    0.77 | 7.283    7.95 |13.283    1.80 | 19.28    0.89
1.300    0.77 | 7.300    7.95 |13.300    1.80 | 19.30    0.89
1.317    0.77 | 7.317    7.95 |13.317    1.80 | 19.32    0.89
1.333    0.77 | 7.333    7.96 |13.333    1.80 | 19.33    0.89
1.350    0.79 | 7.350   11.22 |13.350    1.75 | 19.35    0.88
1.367    0.79 | 7.367   11.22 |13.367    1.75 | 19.37    0.88
1.383    0.79 | 7.383   11.22 |13.383    1.75 | 19.38    0.88
1.400    0.79 | 7.400   11.22 |13.400    1.75 | 19.40    0.88
1.417    0.79 | 7.417   11.22 |13.417    1.75 | 19.42    0.88
1.433    0.79 | 7.433   11.22 |13.433    1.75 | 19.43    0.88
1.450    0.79 | 7.450   11.22 |13.450    1.75 | 19.45    0.88
1.467    0.79 | 7.467   11.22 |13.467    1.75 | 19.47    0.88
1.483    0.79 | 7.483   11.22 |13.483    1.75 | 19.48    0.88
1.500    0.79 | 7.500   11.24 |13.500    1.75 | 19.50    0.88
1.517    0.81 | 7.517   18.75 |13.517    1.70 | 19.52    0.87
1.533    0.81 | 7.533   18.75 |13.533    1.70 | 19.53    0.87
1.550    0.81 | 7.550   18.75 |13.550    1.70 | 19.55    0.87
1.567    0.81 | 7.567   18.75 |13.567    1.70 | 19.57    0.87
1.583    0.81 | 7.583   18.75 |13.583    1.70 | 19.58    0.87
1.600    0.81 | 7.600   18.75 |13.600    1.70 | 19.60    0.87
1.617    0.81 | 7.617   18.75 |13.617    1.70 | 19.62    0.87
1.633    0.81 | 7.633   18.75 |13.633    1.70 | 19.63    0.87
1.650    0.81 | 7.650   18.75 |13.650    1.70 | 19.65    0.87
1.667    0.81 | 7.667   18.84 |13.667    1.70 | 19.67    0.87
1.683    0.83 | 7.683   49.66 |13.683    1.66 | 19.68    0.86
1.700    0.83 | 7.700   49.66 |13.700    1.66 | 19.70    0.86
1.717    0.83 | 7.717   49.66 |13.717    1.66 | 19.72    0.86
1.733    0.83 | 7.733   49.66 |13.733    1.66 | 19.73    0.86
1.750    0.83 | 7.750   49.66 |13.750    1.66 | 19.75    0.86
1.767    0.83 | 7.767   49.66 |13.767    1.66 | 19.77    0.86
1.783    0.83 | 7.783   49.66 |13.783    1.66 | 19.78    0.86
1.800    0.83 | 7.800   49.66 |13.800    1.66 | 19.80    0.86
1.817    0.83 | 7.817   49.66 |13.817    1.66 | 19.82    0.86
1.833    0.83 | 7.833   50.02 |13.833    1.66 | 19.83    0.86
1.850    0.85 | 7.850  172.68 |13.850    1.61 | 19.85    0.85
1.867    0.85 | 7.867  172.68 |13.867    1.61 | 19.87    0.85
1.883    0.85 | 7.883  172.68 |13.883    1.61 | 19.88    0.85
1.900    0.85 | 7.900  172.68 |13.900    1.61 | 19.90    0.85
1.917    0.85 | 7.917  172.68 |13.917    1.61 | 19.92    0.85
1.933    0.85 | 7.933  172.68 |13.933    1.61 | 19.93    0.85
1.950    0.85 | 7.950  172.68 |13.950    1.61 | 19.95    0.85
1.967    0.85 | 7.967  172.68 |13.967    1.61 | 19.97    0.85
1.983    0.85 | 7.983  172.68 |13.983    1.61 | 19.98    0.85
2.000    0.85 | 8.000  172.36 |14.000    1.61 | 20.00    0.85
2.017    0.88 | 8.017   65.83 |14.017    1.57 | 20.02    0.84
2.033    0.88 | 8.033   65.83 |14.033    1.57 | 20.03    0.84
2.050    0.88 | 8.050   65.83 |14.050    1.57 | 20.05    0.84
2.067    0.88 | 8.067   65.83 |14.067    1.57 | 20.07    0.84
2.083    0.88 | 8.083   65.83 |14.083    1.57 | 20.08    0.84
2.100    0.88 | 8.100   65.83 |14.100    1.57 | 20.10    0.84
2.117    0.88 | 8.117   65.83 |14.117    1.57 | 20.12    0.84
2.133    0.88 | 8.133   65.83 |14.133    1.57 | 20.13    0.84
2.150    0.88 | 8.150   65.83 |14.150    1.57 | 20.15    0.84
2.167    0.88 | 8.167   65.74 |14.167    1.57 | 20.17    0.84
2.183    0.90 | 8.183   33.57 |14.183    1.53 | 20.18    0.83
2.200    0.90 | 8.200   33.57 |14.200    1.53 | 20.20    0.83
2.217    0.90 | 8.217   33.57 |14.217    1.53 | 20.22    0.83
2.233    0.90 | 8.233   33.57 |14.233    1.53 | 20.23    0.83
2.250    0.90 | 8.250   33.57 |14.250    1.53 | 20.25    0.83
2.267    0.90 | 8.267   33.57 |14.267    1.53 | 20.27    0.83
2.283    0.90 | 8.283   33.57 |14.283    1.53 | 20.28    0.83
2.300    0.90 | 8.300   33.57 |14.300    1.53 | 20.30    0.83
2.317    0.90 | 8.317   33.57 |14.317    1.53 | 20.32    0.83
2.333    0.90 | 8.333   33.53 |14.333    1.53 | 20.33    0.83
2.350    0.92 | 8.350   21.73 |14.350    1.50 | 20.35    0.82
2.367    0.92 | 8.367   21.73 |14.367    1.50 | 20.37    0.82
2.383    0.92 | 8.383   21.73 |14.383    1.50 | 20.38    0.82
2.400    0.92 | 8.400   21.73 |14.400    1.50 | 20.40    0.82
2.417    0.92 | 8.417   21.73 |14.417    1.50 | 20.42    0.82
2.433    0.92 | 8.433   21.73 |14.433    1.50 | 20.43    0.82
2.450    0.92 | 8.450   21.73 |14.450    1.50 | 20.45    0.82
2.467    0.92 | 8.467   21.73 |14.467    1.50 | 20.47    0.82
2.483    0.92 | 8.483   21.73 |14.483    1.50 | 20.48    0.82
2.500    0.92 | 8.500   21.72 |14.500    1.50 | 20.50    0.82
2.517    0.95 | 8.517   15.83 |14.517    1.46 | 20.52    0.81
2.533    0.95 | 8.533   15.83 |14.533    1.46 | 20.53    0.81
2.550    0.95 | 8.550   15.83 |14.550    1.46 | 20.55    0.81
2.567    0.95 | 8.567   15.83 |14.567    1.46 | 20.57    0.81
2.583    0.95 | 8.583   15.83 |14.583    1.46 | 20.58    0.81
2.600    0.95 | 8.600   15.83 |14.600    1.46 | 20.60    0.81
2.617    0.95 | 8.617   15.83 |14.617    1.46 | 20.62    0.81
2.633    0.95 | 8.633   15.83 |14.633    1.46 | 20.63    0.81
2.650    0.95 | 8.650   15.83 |14.650    1.46 | 20.65    0.81
2.667    0.95 | 8.667   15.82 |14.667    1.46 | 20.67    0.81
2.683    0.98 | 8.683   12.37 |14.683    1.43 | 20.68    0.80
2.700    0.98 | 8.700   12.37 |14.700    1.43 | 20.70    0.80
2.717    0.98 | 8.717   12.37 |14.717    1.43 | 20.72    0.80
2.733    0.98 | 8.733   12.37 |14.733    1.43 | 20.73    0.80
2.750    0.98 | 8.750   12.37 |14.750    1.43 | 20.75    0.80
2.767    0.98 | 8.767   12.37 |14.767    1.43 | 20.77    0.80
2.783    0.98 | 8.783   12.37 |14.783    1.43 | 20.78    0.80
2.800    0.98 | 8.800   12.37 |14.800    1.43 | 20.80    0.80
2.817    0.98 | 8.817   12.37 |14.817    1.43 | 20.82    0.80
2.833    0.98 | 8.833   12.36 |14.833    1.43 | 20.83    0.80
2.850    1.01 | 8.850   10.11 |14.850    1.39 | 20.85    0.79
2.867    1.01 | 8.867   10.11 |14.867    1.39 | 20.87    0.79
2.883    1.01 | 8.883   10.11 |14.883    1.39 | 20.88    0.79
2.900    1.01 | 8.900   10.11 |14.900    1.39 | 20.90    0.79
2.917    1.01 | 8.917   10.11 |14.917    1.39 | 20.92    0.79
2.933    1.01 | 8.933   10.11 |14.933    1.39 | 20.93    0.79
2.950    1.01 | 8.950   10.11 |14.950    1.39 | 20.95    0.79
2.967    1.01 | 8.967   10.11 |14.967    1.39 | 20.97    0.79
2.983    1.01 | 8.983   10.11 |14.983    1.39 | 20.98    0.79
3.000    1.01 | 9.000   10.11 |15.000    1.39 | 21.00    0.79
3.017    1.04 | 9.017    8.54 |15.017    1.36 | 21.02    0.78
3.033    1.04 | 9.033    8.54 |15.033    1.36 | 21.03    0.78
3.050    1.04 | 9.050    8.54 |15.050    1.36 | 21.05    0.78
3.067    1.04 | 9.067    8.54 |15.067    1.36 | 21.07    0.78
3.083    1.04 | 9.083    8.54 |15.083    1.36 | 21.08    0.78
3.100    1.04 | 9.100    8.54 |15.100    1.36 | 21.10    0.78
3.117    1.04 | 9.117    8.54 |15.117    1.36 | 21.12    0.78
3.133    1.04 | 9.133    8.54 |15.133    1.36 | 21.13    0.78
3.150    1.04 | 9.150    8.54 |15.150    1.36 | 21.15    0.78
3.167    1.04 | 9.167    8.54 |15.167    1.36 | 21.17    0.78
3.183    1.08 | 9.183    7.39 |15.183    1.34 | 21.18    0.77
3.200    1.08 | 9.200    7.39 |15.200    1.34 | 21.20    0.77
3.217    1.08 | 9.217    7.39 |15.217    1.34 | 21.22    0.77
3.233    1.08 | 9.233    7.39 |15.233    1.34 | 21.23    0.77
3.250    1.08 | 9.250    7.39 |15.250    1.34 | 21.25    0.77
3.267    1.08 | 9.267    7.39 |15.267    1.34 | 21.27    0.77
3.283    1.08 | 9.283    7.39 |15.283    1.34 | 21.28    0.77
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3.300	1.08	9.300	7.39	15.300	1.34	21.30	0.77
3.317	1.08	9.317	7.39	15.317	1.34	21.32	0.77
3.333	1.08	9.333	7.39	15.333	1.34	21.33	0.77
3.350	1.11	9.350	6.51	15.350	1.31	21.35	0.76
3.367	1.11	9.367	6.51	15.367	1.31	21.37	0.76
3.383	1.11	9.383	6.51	15.383	1.31	21.38	0.76
3.400	1.11	9.400	6.51	15.400	1.31	21.40	0.76
3.417	1.11	9.417	6.51	15.417	1.31	21.42	0.76
3.433	1.11	9.433	6.51	15.433	1.31	21.43	0.76
3.450	1.11	9.450	6.51	15.450	1.31	21.45	0.76
3.467	1.11	9.467	6.51	15.467	1.31	21.47	0.76
3.483	1.11	9.483	6.51	15.483	1.31	21.48	0.76
3.500	1.11	9.500	6.51	15.500	1.31	21.50	0.76
3.517	1.15	9.517	5.82	15.517	1.28	21.52	0.75
3.533	1.15	9.533	5.82	15.533	1.28	21.53	0.75
3.550	1.15	9.550	5.82	15.550	1.28	21.55	0.75
3.567	1.15	9.567	5.82	15.567	1.28	21.57	0.75
3.583	1.15	9.583	5.82	15.583	1.28	21.58	0.75
3.600	1.15	9.600	5.82	15.600	1.28	21.60	0.75
3.617	1.15	9.617	5.82	15.617	1.28	21.62	0.75
3.633	1.15	9.633	5.82	15.633	1.28	21.63	0.75
3.650	1.15	9.650	5.82	15.650	1.28	21.65	0.75
3.667	1.15	9.667	5.82	15.667	1.28	21.67	0.75
3.683	1.20	9.683	5.26	15.683	1.26	21.68	0.75
3.700	1.20	9.700	5.26	15.700	1.26	21.70	0.75
3.717	1.20	9.717	5.26	15.717	1.26	21.72	0.75
3.733	1.20	9.733	5.26	15.733	1.26	21.73	0.75
3.750	1.20	9.750	5.26	15.750	1.26	21.75	0.75
3.767	1.20	9.767	5.26	15.767	1.26	21.77	0.75
3.783	1.20	9.783	5.26	15.783	1.26	21.78	0.75
3.800	1.20	9.800	5.26	15.800	1.26	21.80	0.75
3.817	1.20	9.817	5.26	15.817	1.26	21.82	0.75
3.833	1.20	9.833	5.26	15.833	1.26	21.83	0.75
3.850	1.24	9.850	4.80	15.850	1.23	21.85	0.74
3.867	1.24	9.867	4.80	15.867	1.23	21.87	0.74
3.883	1.24	9.883	4.80	15.883	1.23	21.88	0.74
3.900	1.24	9.900	4.80	15.900	1.23	21.90	0.74
3.917	1.24	9.917	4.80	15.917	1.23	21.92	0.74
3.933	1.24	9.933	4.80	15.933	1.23	21.93	0.74
3.950	1.24	9.950	4.80	15.950	1.23	21.95	0.74
3.967	1.24	9.967	4.80	15.967	1.23	21.97	0.74
3.983	1.24	9.983	4.80	15.983	1.23	21.98	0.74
4.000	1.24	10.000	4.80	16.000	1.23	22.00	0.74
4.017	1.29	10.017	4.42	16.017	1.21	22.02	0.73
4.033	1.29	10.033	4.42	16.033	1.21	22.03	0.73
4.050	1.29	10.050	4.42	16.050	1.21	22.05	0.73
4.067	1.29	10.067	4.42	16.067	1.21	22.07	0.73
4.083	1.29	10.083	4.42	16.083	1.21	22.08	0.73
4.100	1.29	10.100	4.42	16.100	1.21	22.10	0.73
4.117	1.29	10.117	4.42	16.117	1.21	22.12	0.73
4.133	1.29	10.133	4.42	16.133	1.21	22.13	0.73
4.150	1.29	10.150	4.42	16.150	1.21	22.15	0.73

4.167	1.29	10.167	4.42	16.167	1.21	22.17	0.73
4.183	1.35	10.183	4.09	16.183	1.19	22.18	0.72
4.200	1.35	10.200	4.09	16.200	1.19	22.20	0.72
4.217	1.35	10.217	4.09	16.217	1.19	22.22	0.72
4.233	1.35	10.233	4.09	16.233	1.19	22.23	0.72
4.250	1.35	10.250	4.09	16.250	1.19	22.25	0.72
4.267	1.35	10.267	4.09	16.267	1.19	22.27	0.72
4.283	1.35	10.283	4.09	16.283	1.19	22.28	0.72
4.300	1.35	10.300	4.09	16.300	1.19	22.30	0.72
4.317	1.35	10.317	4.09	16.317	1.19	22.32	0.72
4.333	1.35	10.333	4.09	16.333	1.19	22.33	0.72
4.350	1.41	10.350	3.81	16.350	1.16	22.35	0.72
4.367	1.41	10.367	3.81	16.367	1.16	22.37	0.72
4.383	1.41	10.383	3.81	16.383	1.16	22.38	0.72
4.400	1.41	10.400	3.81	16.400	1.16	22.40	0.72
4.417	1.41	10.417	3.81	16.417	1.16	22.42	0.72
4.433	1.41	10.433	3.81	16.433	1.16	22.43	0.72
4.450	1.41	10.450	3.81	16.450	1.16	22.45	0.72
4.467	1.41	10.467	3.81	16.467	1.16	22.47	0.72
4.483	1.41	10.483	3.81	16.483	1.16	22.48	0.72
4.500	1.41	10.500	3.81	16.500	1.16	22.50	0.72
4.517	1.48	10.517	3.57	16.517	1.14	22.52	0.71
4.533	1.48	10.533	3.57	16.533	1.14	22.53	0.71
4.550	1.48	10.550	3.57	16.550	1.14	22.55	0.71
4.567	1.48	10.567	3.57	16.567	1.14	22.57	0.71
4.583	1.48	10.583	3.57	16.583	1.14	22.58	0.71
4.600	1.48	10.600	3.57	16.600	1.14	22.60	0.71
4.617	1.48	10.617	3.57	16.617	1.14	22.62	0.71
4.633	1.48	10.633	3.57	16.633	1.14	22.63	0.71
4.650	1.48	10.650	3.57	16.650	1.14	22.65	0.71
4.667	1.48	10.667	3.57	16.667	1.14	22.67	0.71
4.683	1.55	10.683	3.36	16.683	1.12	22.68	0.70
4.700	1.55	10.700	3.36	16.700	1.12	22.70	0.70
4.717	1.55	10.717	3.36	16.717	1.12	22.72	0.70
4.733	1.55	10.733	3.36	16.733	1.12	22.73	0.70
4.750	1.55	10.750	3.36	16.750	1.12	22.75	0.70
4.767	1.55	10.767	3.36	16.767	1.12	22.77	0.70
4.783	1.55	10.783	3.36	16.783	1.12	22.78	0.70
4.800	1.55	10.800	3.36	16.800	1.12	22.80	0.70
4.817	1.55	10.817	3.36	16.817	1.12	22.82	0.70
4.833	1.55	10.833	3.36	16.833	1.12	22.83	0.70
4.850	1.63	10.850	3.17	16.850	1.10	22.85	0.69
4.867	1.63	10.867	3.17	16.867	1.10	22.87	0.69
4.883	1.63	10.883	3.17	16.883	1.10	22.88	0.69
4.900	1.63	10.900	3.17	16.900	1.10	22.90	0.69
4.917	1.63	10.917	3.17	16.917	1.10	22.92	0.69
4.933	1.63	10.933	3.17	16.933	1.10	22.93	0.69
4.950	1.63	10.950	3.17	16.950	1.10	22.95	0.69
4.967	1.63	10.967	3.17	16.967	1.10	22.97	0.69
4.983	1.63	10.983	3.17	16.983	1.10	22.98	0.69
5.000	1.63	11.000	3.17	17.000	1.10	23.00	0.69
5.017	1.72	11.017	3.00	17.017	1.09	23.02	0.69

5.033	1.72	11.033	3.00	17.033	1.09	23.03	0.69
5.050	1.72	11.050	3.00	17.050	1.09	23.05	0.69
5.067	1.72	11.067	3.00	17.067	1.09	23.07	0.69
5.083	1.72	11.083	3.00	17.083	1.09	23.08	0.69
5.100	1.72	11.100	3.00	17.100	1.09	23.10	0.69
5.117	1.72	11.117	3.00	17.117	1.09	23.12	0.69
5.133	1.72	11.133	3.00	17.133	1.09	23.13	0.69
5.150	1.72	11.150	3.00	17.150	1.09	23.15	0.69
5.167	1.72	11.167	3.00	17.167	1.09	23.17	0.69
5.183	1.83	11.183	2.85	17.183	1.07	23.18	0.68
5.200	1.83	11.200	2.85	17.200	1.07	23.20	0.68
5.217	1.83	11.217	2.85	17.217	1.07	23.22	0.68
5.233	1.83	11.233	2.85	17.233	1.07	23.23	0.68
5.250	1.83	11.250	2.85	17.250	1.07	23.25	0.68
5.267	1.83	11.267	2.85	17.267	1.07	23.27	0.68
5.283	1.83	11.283	2.85	17.283	1.07	23.28	0.68
5.300	1.83	11.300	2.85	17.300	1.07	23.30	0.68
5.317	1.83	11.317	2.85	17.317	1.07	23.32	0.68
5.333	1.83	11.333	2.85	17.333	1.07	23.33	0.68
5.350	1.95	11.350	2.72	17.350	1.05	23.35	0.67
5.367	1.95	11.367	2.72	17.367	1.05	23.37	0.67
5.383	1.95	11.383	2.72	17.383	1.05	23.38	0.67
5.400	1.95	11.400	2.72	17.400	1.05	23.40	0.67
5.417	1.95	11.417	2.72	17.417	1.05	23.42	0.67
5.433	1.95	11.433	2.72	17.433	1.05	23.43	0.67
5.450	1.95	11.450	2.72	17.450	1.05	23.45	0.67
5.467	1.95	11.467	2.72	17.467	1.05	23.47	0.67
5.483	1.95	11.483	2.72	17.483	1.05	23.48	0.67
5.500	1.95	11.500	2.72	17.500	1.05	23.50	0.67
5.517	2.08	11.517	2.59	17.517	1.03	23.52	0.67
5.533	2.08	11.533	2.59	17.533	1.03	23.53	0.67
5.550	2.08	11.550	2.59	17.550	1.03	23.55	0.67
5.567	2.08	11.567	2.59	17.567	1.03	23.57	0.67
5.583	2.08	11.583	2.59	17.583	1.03	23.58	0.67
5.600	2.08	11.600	2.59	17.600	1.03	23.60	0.67
5.617	2.08	11.617	2.59	17.617	1.03	23.62	0.67
5.633	2.08	11.633	2.59	17.633	1.03	23.63	0.67
5.650	2.08	11.650	2.59	17.650	1.03	23.65	0.67
5.667	2.08	11.667	2.59	17.667	1.03	23.67	0.67
5.683	2.24	11.683	2.48	17.683	1.02	23.68	0.66
5.700	2.24	11.700	2.48	17.700	1.02	23.70	0.66
5.717	2.24	11.717	2.48	17.717	1.02	23.72	0.66
5.733	2.24	11.733	2.48	17.733	1.02	23.73	0.66
5.750	2.24	11.750	2.48	17.750	1.02	23.75	0.66
5.767	2.24	11.767	2.48	17.767	1.02	23.77	0.66
5.783	2.24	11.783	2.48	17.783	1.02	23.78	0.66
5.800	2.24	11.800	2.48	17.800	1.02	23.80	0.66
5.817	2.24	11.817	2.48	17.817	1.02	23.82	0.66
5.833	2.24	11.833	2.48	17.833	1.02	23.83	0.66
5.850	2.43	11.850	2.38	17.850	1.00	23.85	0.65
5.867	2.43	11.867	2.38	17.867	1.00	23.87	0.65
5.883	2.43	11.883	2.38	17.883	1.00	23.88	0.65

5.900	2.43	11.900	2.38	17.900	1.00	23.90	0.65
5.917	2.43	11.917	2.38	17.917	1.00	23.92	0.65
5.933	2.43	11.933	2.38	17.933	1.00	23.93	0.65
5.950	2.43	11.950	2.38	17.950	1.00	23.95	0.65
5.967	2.43	11.967	2.38	17.967	1.00	23.97	0.65
5.983	2.43	11.983	2.38	17.983	1.00	23.98	0.65
6.000	2.43	12.000	2.38	18.000	1.00	24.00	0.65

Max.Eff.Inten.(mm/hr)=	172.68	51.46	
over (min)	6.00	12.00	
Storage Coeff. (min)=	6.01 (ii)	11.39 (ii)	
Unit Hyd. Tpeak (min)=	6.00	12.00	
Unit Hyd. peak (cms)=	0.19	0.10	
			TOTALS
PEAK FLOW (cms)=	5.04	1.02	5.731 (iii)
TIME TO PEAK (hrs)=	8.03	8.17	8.05
RUNOFF VOLUME (mm)=	107.05	32.10	68.84
TOTAL RAINFALL (mm)=	108.06	108.06	108.06
RUNOFF COEFFICIENT =	0.99	0.30	0.64

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 48.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	
STANDHYD (1052)	Area (ha)= 1.95
ID= 1 DT= 1.0 min	Total Imp(%)= 30.00 Dir. Conn.(%)= 26.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.58	1.36
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.50	2.00
Length (m)=	113.90	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 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
0.017	0.67	6.017	2.65	12.017	2.29	18.02	0.99
0.033	0.67	6.033	2.65	12.033	2.29	18.03	0.99
0.050	0.67	6.050	2.65	12.050	2.29	18.05	0.99
0.067	0.67	6.067	2.65	12.067	2.29	18.07	0.99
0.083	0.67	6.083	2.65	12.083	2.29	18.08	0.99
0.100	0.67	6.100	2.65	12.100	2.29	18.10	0.99
0.117	0.67	6.117	2.65	12.117	2.29	18.12	0.99
0.133	0.67	6.133	2.65	12.133	2.29	18.13	0.99
0.150	0.67	6.150	2.65	12.150	2.29	18.15	0.99
0.167	0.67	6.167	2.65	12.167	2.29	18.17	0.99
0.183	0.68	6.183	2.92	12.183	2.20	18.18	0.97
0.200	0.68	6.200	2.92	12.200	2.20	18.20	0.97
0.217	0.68	6.217	2.92	12.217	2.20	18.22	0.97
0.233	0.68	6.233	2.92	12.233	2.20	18.23	0.97
0.250	0.68	6.250	2.92	12.250	2.20	18.25	0.97
0.267	0.68	6.267	2.92	12.267	2.20	18.27	0.97
0.283	0.68	6.283	2.92	12.283	2.20	18.28	0.97
0.300	0.68	6.300	2.92	12.300	2.20	18.30	0.97
0.317	0.68	6.317	2.92	12.317	2.20	18.32	0.97
0.333	0.68	6.333	2.92	12.333	2.20	18.33	0.97
0.350	0.70	6.350	3.26	12.350	2.12	18.35	0.96
0.367	0.70	6.367	3.26	12.367	2.12	18.37	0.96
0.383	0.70	6.383	3.26	12.383	2.12	18.38	0.96
0.400	0.70	6.400	3.26	12.400	2.12	18.40	0.96
0.417	0.70	6.417	3.26	12.417	2.12	18.42	0.96
0.433	0.70	6.433	3.26	12.433	2.12	18.43	0.96
0.450	0.70	6.450	3.26	12.450	2.12	18.45	0.96
0.467	0.70	6.467	3.26	12.467	2.12	18.47	0.96
0.483	0.70	6.483	3.26	12.483	2.12	18.48	0.96
0.500	0.70	6.500	3.26	12.500	2.12	18.50	0.96
0.517	0.71	6.517	3.69	12.517	2.05	18.52	0.94
0.533	0.71	6.533	3.69	12.533	2.05	18.53	0.94
0.550	0.71	6.550	3.69	12.550	2.05	18.55	0.94

0.567	0.71	6.567	3.69	12.567	2.05	18.57	0.94
0.583	0.71	6.583	3.69	12.583	2.05	18.58	0.94
0.600	0.71	6.600	3.69	12.600	2.05	18.60	0.94
0.617	0.71	6.617	3.69	12.617	2.05	18.62	0.94
0.633	0.71	6.633	3.69	12.633	2.05	18.63	0.94
0.650	0.71	6.650	3.69	12.650	2.05	18.65	0.94
0.667	0.71	6.667	3.69	12.667	2.05	18.67	0.94
0.683	0.73	6.683	4.25	12.683	1.98	18.68	0.93
0.700	0.73	6.700	4.25	12.700	1.98	18.70	0.93
0.717	0.73	6.717	4.25	12.717	1.98	18.72	0.93
0.733	0.73	6.733	4.25	12.733	1.98	18.73	0.93
0.750	0.73	6.750	4.25	12.750	1.98	18.75	0.93
0.767	0.73	6.767	4.25	12.767	1.98	18.77	0.93
0.783	0.73	6.783	4.25	12.783	1.98	18.78	0.93
0.800	0.73	6.800	4.25	12.800	1.98	18.80	0.93
0.817	0.73	6.817	4.25	12.817	1.98	18.82	0.93
0.833	0.73	6.833	4.25	12.833	1.98	18.83	0.93
0.850	0.74	6.850	5.02	12.850	1.92	18.85	0.92
0.867	0.74	6.867	5.02	12.867	1.92	18.87	0.92
0.883	0.74	6.883	5.02	12.883	1.92	18.88	0.92
0.900	0.74	6.900	5.02	12.900	1.92	18.90	0.92
0.917	0.74	6.917	5.02	12.917	1.92	18.92	0.92
0.933	0.74	6.933	5.02	12.933	1.92	18.93	0.92
0.950	0.74	6.950	5.02	12.950	1.92	18.95	0.92
0.967	0.74	6.967	5.02	12.967	1.92	18.97	0.92
0.983	0.74	6.983	5.02	12.983	1.92	18.98	0.92
1.000	0.74	7.000	5.03	13.000	1.92	19.00	0.92
1.017	0.76	7.017	6.15	13.017	1.86	19.02	0.91
1.033	0.76	7.033	6.15	13.033	1.86	19.03	0.91
1.050	0.76	7.050	6.15	13.050	1.86	19.05	0.91
1.067	0.76	7.067	6.15	13.067	1.86	19.07	0.91
1.083	0.76	7.083	6.15	13.083	1.86	19.08	0.91
1.100	0.76	7.100	6.15	13.100	1.86	19.10	0.91
1.117	0.76	7.117	6.15	13.117	1.86	19.12	0.91
1.133	0.76	7.133	6.15	13.133	1.86	19.13	0.91
1.150	0.76	7.150	6.15	13.150	1.86	19.15	0.91
1.167	0.76	7.167	6.16	13.167	1.86	19.17	0.91
1.183	0.77	7.183	7.95	13.183	1.80	19.18	0.89
1.200	0.77	7.200	7.95	13.200	1.80	19.20	0.89
1.217	0.77	7.217	7.95	13.217	1.80	19.22	0.89
1.233	0.77	7.233	7.95	13.233	1.80	19.23	0.89
1.250	0.77	7.250	7.95	13.250	1.80	19.25	0.89
1.267	0.77	7.267	7.95	13.267	1.80	19.27	0.89
1.283	0.77	7.283	7.95	13.283	1.80	19.28	0.89
1.300	0.77	7.300	7.95	13.300	1.80	19.30	0.89
1.317	0.77	7.317	7.95	13.317	1.80	19.32	0.89
1.333	0.77	7.333	7.96	13.333	1.80	19.33	0.89
1.350	0.79	7.350	11.22	13.350	1.75	19.35	0.88
1.367	0.79	7.367	11.22	13.367	1.75	19.37	0.88
1.383	0.79	7.383	11.22	13.383	1.75	19.38	0.88
1.400	0.79	7.400	11.22	13.400	1.75	19.40	0.88
1.417	0.79	7.417	11.22	13.417	1.75	19.42	0.88

DUHYD (0034)					
Inlet Cap.= 3.057					
#of Inlets= 1					
Total(cms)= 3.1		AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
TOTAL HYD.(ID= 1):		26.89	5.73	8.05	68.84
MAJOR SYS.(ID= 2):		2.88	2.67	8.05	68.84
MINOR SYS.(ID= 3):		24.01	3.06	7.92	68.84

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

Junction Command(0033)				
	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 9(0034)	24.01	3.06	7.92	68.84
OUTFLOW: ID= 2(0033)	24.01	3.06	7.92	68.84

1.433	0.79	7.433	11.22	13.433	1.75	19.43	0.88
1.450	0.79	7.450	11.22	13.450	1.75	19.45	0.88
1.467	0.79	7.467	11.22	13.467	1.75	19.47	0.88
1.483	0.79	7.483	11.22	13.483	1.75	19.48	0.88
1.500	0.79	7.500	11.24	13.500	1.75	19.50	0.88
1.517	0.81	7.517	18.75	13.517	1.70	19.52	0.87
1.533	0.81	7.533	18.75	13.533	1.70	19.53	0.87
1.550	0.81	7.550	18.75	13.550	1.70	19.55	0.87
1.567	0.81	7.567	18.75	13.567	1.70	19.57	0.87
1.583	0.81	7.583	18.75	13.583	1.70	19.58	0.87
1.600	0.81	7.600	18.75	13.600	1.70	19.60	0.87
1.617	0.81	7.617	18.75	13.617	1.70	19.62	0.87
1.633	0.81	7.633	18.75	13.633	1.70	19.63	0.87
1.650	0.81	7.650	18.75	13.650	1.70	19.65	0.87
1.667	0.81	7.667	18.84	13.667	1.70	19.67	0.87
1.683	0.83	7.683	49.66	13.683	1.66	19.68	0.86
1.700	0.83	7.700	49.66	13.700	1.66	19.70	0.86
1.717	0.83	7.717	49.66	13.717	1.66	19.72	0.86
1.733	0.83	7.733	49.66	13.733	1.66	19.73	0.86
1.750	0.83	7.750	49.66	13.750	1.66	19.75	0.86
1.767	0.83	7.767	49.66	13.767	1.66	19.77	0.86
1.783	0.83	7.783	49.66	13.783	1.66	19.78	0.86
1.800	0.83	7.800	49.66	13.800	1.66	19.80	0.86
1.817	0.83	7.817	49.66	13.817	1.66	19.82	0.86
1.833	0.83	7.833	50.02	13.833	1.66	19.83	0.86
1.850	0.85	7.850	172.68	13.850	1.61	19.85	0.85
1.867	0.85	7.867	172.68	13.867	1.61	19.87	0.85
1.883	0.85	7.883	172.68	13.883	1.61	19.88	0.85
1.900	0.85	7.900	172.68	13.900	1.61	19.90	0.85
1.917	0.85	7.917	172.68	13.917	1.61	19.92	0.85
1.933	0.85	7.933	172.68	13.933	1.61	19.93	0.85
1.950	0.85	7.950	172.68	13.950	1.61	19.95	0.85
1.967	0.85	7.967	172.68	13.967	1.61	19.97	0.85
1.983	0.85	7.983	172.68	13.983	1.61	19.98	0.85
2.000	0.85	8.000	172.36	14.000	1.61	20.00	0.85
2.017	0.88	8.017	65.83	14.017	1.57	20.02	0.84
2.033	0.88	8.033	65.83	14.033	1.57	20.03	0.84
2.050	0.88	8.050	65.83	14.050	1.57	20.05	0.84
2.067	0.88	8.067	65.83	14.067	1.57	20.07	0.84
2.083	0.88	8.083	65.83	14.083	1.57	20.08	0.84
2.100	0.88	8.100	65.83	14.100	1.57	20.10	0.84
2.117	0.88	8.117	65.83	14.117	1.57	20.12	0.84
2.133	0.88	8.133	65.83	14.133	1.57	20.13	0.84
2.150	0.88	8.150	65.83	14.150	1.57	20.15	0.84
2.167	0.88	8.167	65.74	14.167	1.57	20.17	0.84
2.183	0.90	8.183	33.57	14.183	1.53	20.18	0.83
2.200	0.90	8.200	33.57	14.200	1.53	20.20	0.83
2.217	0.90	8.217	33.57	14.217	1.53	20.22	0.83
2.233	0.90	8.233	33.57	14.233	1.53	20.23	0.83
2.250	0.90	8.250	33.57	14.250	1.53	20.25	0.83
2.267	0.90	8.267	33.57	14.267	1.53	20.27	0.83
2.283	0.90	8.283	33.57	14.283	1.53	20.28	0.83

2.300	0.90	8.300	33.57	14.300	1.53	20.30	0.83
2.317	0.90	8.317	33.57	14.317	1.53	20.32	0.83
2.333	0.90	8.333	33.53	14.333	1.53	20.33	0.83
2.350	0.92	8.350	21.73	14.350	1.50	20.35	0.82
2.367	0.92	8.367	21.73	14.367	1.50	20.37	0.82
2.383	0.92	8.383	21.73	14.383	1.50	20.38	0.82
2.400	0.92	8.400	21.73	14.400	1.50	20.40	0.82
2.417	0.92	8.417	21.73	14.417	1.50	20.42	0.82
2.433	0.92	8.433	21.73	14.433	1.50	20.43	0.82
2.450	0.92	8.450	21.73	14.450	1.50	20.45	0.82
2.467	0.92	8.467	21.73	14.467	1.50	20.47	0.82
2.483	0.92	8.483	21.73	14.483	1.50	20.48	0.82
2.500	0.92	8.500	21.72	14.500	1.50	20.50	0.82
2.517	0.95	8.517	15.83	14.517	1.46	20.52	0.81
2.533	0.95	8.533	15.83	14.533	1.46	20.53	0.81
2.550	0.95	8.550	15.83	14.550	1.46	20.55	0.81
2.567	0.95	8.567	15.83	14.567	1.46	20.57	0.81
2.583	0.95	8.583	15.83	14.583	1.46	20.58	0.81
2.600	0.95	8.600	15.83	14.600	1.46	20.60	0.81
2.617	0.95	8.617	15.83	14.617	1.46	20.62	0.81
2.633	0.95	8.633	15.83	14.633	1.46	20.63	0.81
2.650	0.95	8.650	15.83	14.650	1.46	20.65	0.81
2.667	0.95	8.667	15.82	14.667	1.46	20.67	0.81
2.683	0.98	8.683	12.37	14.683	1.43	20.68	0.80
2.700	0.98	8.700	12.37	14.700	1.43	20.70	0.80
2.717	0.98	8.717	12.37	14.717	1.43	20.72	0.80
2.733	0.98	8.733	12.37	14.733	1.43	20.73	0.80
2.750	0.98	8.750	12.37	14.750	1.43	20.75	0.80
2.767	0.98	8.767	12.37	14.767	1.43	20.77	0.80
2.783	0.98	8.783	12.37	14.783	1.43	20.78	0.80
2.800	0.98	8.800	12.37	14.800	1.43	20.80	0.80
2.817	0.98	8.817	12.37	14.817	1.43	20.82	0.80
2.833	0.98	8.833	12.36	14.833	1.43	20.83	0.80
2.850	1.01	8.850	10.11	14.850	1.39	20.85	0.79
2.867	1.01	8.867	10.11	14.867	1.39	20.87	0.79
2.883	1.01	8.883	10.11	14.883	1.39	20.88	0.79
2.900	1.01	8.900	10.11	14.900	1.39	20.90	0.79
2.917	1.01	8.917	10.11	14.917	1.39	20.92	0.79
2.933	1.01	8.933	10.11	14.933	1.39	20.93	0.79
2.950	1.01	8.950	10.11	14.950	1.39	20.95	0.79
2.967	1.01	8.967	10.11	14.967	1.39	20.97	0.79
2.983	1.01	8.983	10.11	14.983	1.39	20.98	0.79
3.000	1.01	9.000	10.11	15.000	1.39	21.00	0.79
3.017	1.04	9.017	8.54	15.017	1.36	21.02	0.78
3.033	1.04	9.033	8.54	15.033	1.36	21.03	0.78
3.050	1.04	9.050	8.54	15.050	1.36	21.05	0.78
3.067	1.04	9.067	8.54	15.067	1.36	21.07	0.78
3.083	1.04	9.083	8.54	15.083	1.36	21.08	0.78
3.100	1.04	9.100	8.54	15.100	1.36	21.10	0.78
3.117	1.04	9.117	8.54	15.117	1.36	21.12	0.78
3.133	1.04	9.133	8.54	15.133	1.36	21.13	0.78
3.150	1.04	9.150	8.54	15.150	1.36	21.15	0.78

3.167	1.04	9.167	8.54	15.167	1.36	21.17	0.78
3.183	1.08	9.183	7.39	15.183	1.34	21.18	0.77
3.200	1.08	9.200	7.39	15.200	1.34	21.20	0.77
3.217	1.08	9.217	7.39	15.217	1.34	21.22	0.77
3.233	1.08	9.233	7.39	15.233	1.34	21.23	0.77
3.250	1.08	9.250	7.39	15.250	1.34	21.25	0.77
3.267	1.08	9.267	7.39	15.267	1.34	21.27	0.77
3.283	1.08	9.283	7.39	15.283	1.34	21.28	0.77
3.300	1.08	9.300	7.39	15.300	1.34	21.30	0.77
3.317	1.08	9.317	7.39	15.317	1.34	21.32	0.77
3.333	1.08	9.333	7.39	15.333	1.34	21.33	0.77
3.350	1.11	9.350	6.51	15.350	1.31	21.35	0.76
3.367	1.11	9.367	6.51	15.367	1.31	21.37	0.76
3.383	1.11	9.383	6.51	15.383	1.31	21.38	0.76
3.400	1.11	9.400	6.51	15.400	1.31	21.40	0.76
3.417	1.11	9.417	6.51	15.417	1.31	21.42	0.76
3.433	1.11	9.433	6.51	15.433	1.31	21.43	0.76
3.450	1.11	9.450	6.51	15.450	1.31	21.45	0.76
3.467	1.11	9.467	6.51	15.467	1.31	21.47	0.76
3.483	1.11	9.483	6.51	15.483	1.31	21.48	0.76
3.500	1.11	9.500	6.51	15.500	1.31	21.50	0.76
3.517	1.15	9.517	5.82	15.517	1.28	21.52	0.75
3.533	1.15	9.533	5.82	15.533	1.28	21.53	0.75
3.550	1.15	9.550	5.82	15.550	1.28	21.55	0.75
3.567	1.15	9.567	5.82	15.567	1.28	21.57	0.75
3.583	1.15	9.583	5.82	15.583	1.28	21.58	0.75
3.600	1.15	9.600	5.82	15.600	1.28	21.60	0.75
3.617	1.15	9.617	5.82	15.617	1.28	21.62	0.75
3.633	1.15	9.633	5.82	15.633	1.28	21.63	0.75
3.650	1.15	9.650	5.82	15.650	1.28	21.65	0.75
3.667	1.15	9.667	5.82	15.667	1.28	21.67	0.75
3.683	1.20	9.683	5.26	15.683	1.26	21.68	0.75
3.700	1.20	9.700	5.26	15.700	1.26	21.70	0.75
3.717	1.20	9.717	5.26	15.717	1.26	21.72	0.75
3.733	1.20	9.733	5.26	15.733	1.26	21.73	0.75
3.750	1.20	9.750	5.26	15.750	1.26	21.75	0.75
3.767	1.20	9.767	5.26	15.767	1.26	21.77	0.75
3.783	1.20	9.783	5.26	15.783	1.26	21.78	0.75
3.800	1.20	9.800	5.26	15.800	1.26	21.80	0.75
3.817	1.20	9.817	5.26	15.817	1.26	21.82	0.75
3.833	1.20	9.833	5.26	15.833	1.26	21.83	0.75
3.850	1.24	9.850	4.80	15.850	1.23	21.85	0.74
3.867	1.24	9.867	4.80	15.867	1.23	21.87	0.74
3.883	1.24	9.883	4.80	15.883	1.23	21.88	0.74
3.900	1.24	9.900	4.80	15.900	1.23	21.90	0.74
3.917	1.24	9.917	4.80	15.917	1.23	21.92	0.74
3.933	1.24	9.933	4.80	15.933	1.23	21.93	0.74
3.950	1.24	9.950	4.80	15.950	1.23	21.95	0.74
3.967	1.24	9.967	4.80	15.967	1.23	21.97	0.74
3.983	1.24	9.983	4.80	15.983	1.23	21.98	0.74
4.000	1.24	10.000	4.80	16.000	1.23	22.00	0.74
4.017	1.29	10.017	4.42	16.017	1.21	22.02	0.73

4.033	1.29	10.033	4.42	16.033	1.21	22.03	0.73
4.050	1.29	10.050	4.42	16.050	1.21	22.05	0.73
4.067	1.29	10.067	4.42	16.067	1.21	22.07	0.73
4.083	1.29	10.083	4.42	16.083	1.21	22.08	0.73
4.100	1.29	10.100	4.42	16.100	1.21	22.10	0.73
4.117	1.29	10.117	4.42	16.117	1.21	22.12	0.73
4.133	1.29	10.133	4.42	16.133	1.21	22.13	0.73
4.150	1.29	10.150	4.42	16.150	1.21	22.15	0.73
4.167	1.29	10.167	4.42	16.167	1.21	22.17	0.73
4.183	1.35	10.183	4.09	16.183	1.19	22.18	0.72
4.200	1.35	10.200	4.09	16.200	1.19	22.20	0.72
4.217	1.35	10.217	4.09	16.217	1.19	22.22	0.72
4.233	1.35	10.233	4.09	16.233	1.19	22.23	0.72
4.250	1.35	10.250	4.09	16.250	1.19	22.25	0.72
4.267	1.35	10.267	4.09	16.267	1.19	22.27	0.72
4.283	1.35	10.283	4.09	16.283	1.19	22.28	0.72
4.300	1.35	10.300	4.09	16.300	1.19	22.30	0.72
4.317	1.35	10.317	4.09	16.317	1.19	22.32	0.72
4.333	1.35	10.333	4.09	16.333	1.19	22.33	0.72
4.350	1.41	10.350	3.81	16.350	1.16	22.35	0.72
4.367	1.41	10.367	3.81	16.367	1.16	22.37	0.72
4.383	1.41	10.383	3.81	16.383	1.16	22.38	0.72
4.400	1.41	10.400	3.81	16.400	1.16	22.40	0.72
4.417	1.41	10.417	3.81	16.417	1.16	22.42	0.72
4.433	1.41	10.433	3.81	16.433	1.16	22.43	0.72
4.450	1.41	10.450	3.81	16.450	1.16	22.45	0.72
4.467	1.41	10.467	3.81	16.467	1.16	22.47	0.72
4.483	1.41	10.483	3.81	16.483	1.16	22.48	0.72
4.500	1.41	10.500	3.81	16.500	1.16	22.50	0.72
4.517	1.48	10.517	3.57	16.517	1.14	22.52	0.71
4.533	1.48	10.533	3.57	16.533	1.14	22.53	0.71
4.550	1.48	10.550	3.57	16.550	1.14	22.55	0.71
4.567	1.48	10.567	3.57	16.567	1.14	22.57	0.71
4.583	1.48	10.583	3.57	16.583	1.14	22.58	0.71
4.600	1.48	10.600	3.57	16.600	1.14	22.60	0.71
4.617	1.48	10.617	3.57	16.617	1.14	22.62	0.71
4.633	1.48	10.633	3.57	16.633	1.14	22.63	0.71
4.650	1.48	10.650	3.57	16.650	1.14	22.65	0.71
4.667	1.48	10.667	3.57	16.667	1.14	22.67	0.71
4.683	1.55	10.683	3.36	16.683	1.12	22.68	0.70
4.700	1.55	10.700	3.36	16.700	1.12	22.70	0.70
4.717	1.55	10.717	3.36	16.717	1.12	22.72	0.70
4.733	1.55	10.733	3.36	16.733	1.12	22.73	0.70
4.750	1.55	10.750	3.36	16.750	1.12	22.75	0.70
4.767	1.55	10.767	3.36	16.767	1.12	22.77	0.70
4.783	1.55	10.783	3.36	16.783	1.12	22.78	0.70
4.800	1.55	10.800	3.36	16.800	1.12	22.80	0.70
4.817	1.55	10.817	3.36	16.817	1.12	22.82	0.70
4.833	1.55	10.833	3.36	16.833	1.12	22.83	0.70
4.850	1.63	10.850	3.17	16.850	1.10	22.85	0.69
4.867	1.63	10.867	3.17	16.867	1.10	22.87	0.69
4.883	1.63	10.883	3.17	16.883	1.10	22.88	0.69

4.900	1.63	10.900	3.17	16.900	1.10	22.90	0.69
4.917	1.63	10.917	3.17	16.917	1.10	22.92	0.69
4.933	1.63	10.933	3.17	16.933	1.10	22.93	0.69
4.950	1.63	10.950	3.17	16.950	1.10	22.95	0.69
4.967	1.63	10.967	3.17	16.967	1.10	22.97	0.69
4.983	1.63	10.983	3.17	16.983	1.10	22.98	0.69
5.000	1.63	11.000	3.17	17.000	1.10	23.00	0.69
5.017	1.72	11.017	3.00	17.017	1.09	23.02	0.69
5.033	1.72	11.033	3.00	17.033	1.09	23.03	0.69
5.050	1.72	11.050	3.00	17.050	1.09	23.05	0.69
5.067	1.72	11.067	3.00	17.067	1.09	23.07	0.69
5.083	1.72	11.083	3.00	17.083	1.09	23.08	0.69
5.100	1.72	11.100	3.00	17.100	1.09	23.10	0.69
5.117	1.72	11.117	3.00	17.117	1.09	23.12	0.69
5.133	1.72	11.133	3.00	17.133	1.09	23.13	0.69
5.150	1.72	11.150	3.00	17.150	1.09	23.15	0.69
5.167	1.72	11.167	3.00	17.167	1.09	23.17	0.69
5.183	1.83	11.183	2.85	17.183	1.07	23.18	0.68
5.200	1.83	11.200	2.85	17.200	1.07	23.20	0.68
5.217	1.83	11.217	2.85	17.217	1.07	23.22	0.68
5.233	1.83	11.233	2.85	17.233	1.07	23.23	0.68
5.250	1.83	11.250	2.85	17.250	1.07	23.25	0.68
5.267	1.83	11.267	2.85	17.267	1.07	23.27	0.68
5.283	1.83	11.283	2.85	17.283	1.07	23.28	0.68
5.300	1.83	11.300	2.85	17.300	1.07	23.30	0.68
5.317	1.83	11.317	2.85	17.317	1.07	23.32	0.68
5.333	1.83	11.333	2.85	17.333	1.07	23.33	0.68
5.350	1.95	11.350	2.72	17.350	1.05	23.35	0.67
5.367	1.95	11.367	2.72	17.367	1.05	23.37	0.67
5.383	1.95	11.383	2.72	17.383	1.05	23.38	0.67
5.400	1.95	11.400	2.72	17.400	1.05	23.40	0.67
5.417	1.95	11.417	2.72	17.417	1.05	23.42	0.67
5.433	1.95	11.433	2.72	17.433	1.05	23.43	0.67
5.450	1.95	11.450	2.72	17.450	1.05	23.45	0.67
5.467	1.95	11.467	2.72	17.467	1.05	23.47	0.67
5.483	1.95	11.483	2.72	17.483	1.05	23.48	0.67
5.500	1.95	11.500	2.72	17.500	1.05	23.50	0.67
5.517	2.08	11.517	2.59	17.517	1.03	23.52	0.67
5.533	2.08	11.533	2.59	17.533	1.03	23.53	0.67
5.550	2.08	11.550	2.59	17.550	1.03	23.55	0.67
5.567	2.08	11.567	2.59	17.567	1.03	23.57	0.67
5.583	2.08	11.583	2.59	17.583	1.03	23.58	0.67
5.600	2.08	11.600	2.59	17.600	1.03	23.60	0.67
5.617	2.08	11.617	2.59	17.617	1.03	23.62	0.67
5.633	2.08	11.633	2.59	17.633	1.03	23.63	0.67
5.650	2.08	11.650	2.59	17.650	1.03	23.65	0.67
5.667	2.08	11.667	2.59	17.667	1.03	23.67	0.67
5.683	2.24	11.683	2.48	17.683	1.02	23.68	0.66
5.700	2.24	11.700	2.48	17.700	1.02	23.70	0.66
5.717	2.24	11.717	2.48	17.717	1.02	23.72	0.66
5.733	2.24	11.733	2.48	17.733	1.02	23.73	0.66
5.750	2.24	11.750	2.48	17.750	1.02	23.75	0.66

5.767	2.24	11.767	2.48	17.767	1.02	23.77	0.66
5.783	2.24	11.783	2.48	17.783	1.02	23.78	0.66
5.800	2.24	11.800	2.48	17.800	1.02	23.80	0.66
5.817	2.24	11.817	2.48	17.817	1.02	23.82	0.66
5.833	2.24	11.833	2.48	17.833	1.02	23.83	0.66
5.850	2.43	11.850	2.38	17.850	1.00	23.85	0.65
5.867	2.43	11.867	2.38	17.867	1.00	23.87	0.65
5.883	2.43	11.883	2.38	17.883	1.00	23.88	0.65
5.900	2.43	11.900	2.38	17.900	1.00	23.90	0.65
5.917	2.43	11.917	2.38	17.917	1.00	23.92	0.65
5.933	2.43	11.933	2.38	17.933	1.00	23.93	0.65
5.950	2.43	11.950	2.38	17.950	1.00	23.95	0.65
5.967	2.43	11.967	2.38	17.967	1.00	23.97	0.65
5.983	2.43	11.983	2.38	17.983	1.00	23.98	0.65
6.000	2.43	12.000	2.38	18.000	1.00	24.00	0.65

Max.Eff.Inten.(mm/hr)=	172.68	41.32	
over (min)	5.00	12.00	
Storage Coeff. (min)=	2.73 (ii)	11.16 (ii)	
Unit Hyd. Tpeak (min)=	5.00	12.00	
Unit Hyd. peak (cms)=	0.32	0.10	
			TOTALS
PEAK FLOW (cms)=	0.23	0.10	0.286 (iii)
TIME TO PEAK (hrs)=	8.00	8.17	8.02
RUNOFF VOLUME (mm)=	107.06	29.36	49.56
TOTAL RAINFALL (mm)=	108.06	108.06	108.06
RUNOFF COEFFICIENT =	0.99	0.27	0.46

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 48.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

DUHYD (0037)
Inlet Cap.= 0.108
#of Inlets= 1
Total(cms)= 0.1

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
TOTAL HYD.(ID= 1):	1.95	0.29	8.02	49.56
MAJOR SYS.(ID= 2):	0.33	0.18	8.02	49.56
MINOR SYS.(ID= 3):	1.62	0.11	7.88	49.56

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| Junction Command(0038) |

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 9(0037)	1.62	0.11	7.88	49.56
OUTFLOW: ID= 2(0038)	1.62	0.11	7.88	49.56

CALIB	NASHYD (0104)	ID= 1 DT= 5.0 min
Area (ha)= 0.77	Curve Number (CN)= 53.0	
Ia (mm)= 5.00	# of Linear Res.(N)= 3.00	
U.H. Tp(hrs)= 0.34		

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	0.67	6.083	2.65	12.083	2.29	18.08	0.99
0.167	0.67	6.167	2.65	12.167	2.29	18.17	0.99
0.250	0.68	6.250	2.92	12.250	2.20	18.25	0.97
0.333	0.68	6.333	2.92	12.333	2.20	18.33	0.97
0.417	0.70	6.417	3.26	12.417	2.12	18.42	0.96
0.500	0.70	6.500	3.26	12.500	2.12	18.50	0.96
0.583	0.71	6.583	3.69	12.583	2.05	18.58	0.94
0.667	0.71	6.667	3.69	12.667	2.05	18.67	0.94
0.750	0.73	6.750	4.25	12.750	1.98	18.75	0.93
0.833	0.73	6.833	4.25	12.833	1.98	18.83	0.93
0.917	0.74	6.917	5.02	12.917	1.92	18.92	0.92
1.000	0.74	7.000	5.02	13.000	1.92	19.00	0.92
1.083	0.76	7.083	6.15	13.083	1.86	19.08	0.91
1.167	0.76	7.167	6.15	13.167	1.86	19.17	0.91
1.250	0.77	7.250	7.95	13.250	1.80	19.25	0.89
1.333	0.77	7.333	7.95	13.333	1.80	19.33	0.89
1.417	0.79	7.417	11.22	13.417	1.75	19.42	0.88
1.500	0.79	7.500	11.22	13.500	1.75	19.50	0.88
1.583	0.81	7.583	18.75	13.583	1.70	19.58	0.87
1.667	0.81	7.667	18.76	13.667	1.70	19.67	0.87
1.750	0.83	7.750	49.66	13.750	1.66	19.75	0.86
1.833	0.83	7.833	49.67	13.833	1.66	19.83	0.86
1.917	0.85	7.917	172.68	13.917	1.61	19.92	0.85
2.000	0.85	8.000	172.67	14.000	1.61	20.00	0.85
2.083	0.88	8.083	65.83	14.083	1.57	20.08	0.84
2.167	0.88	8.167	65.83	14.167	1.57	20.17	0.84
2.250	0.90	8.250	33.57	14.250	1.53	20.25	0.83
2.333	0.90	8.333	33.56	14.333	1.53	20.33	0.83
2.417	0.92	8.417	21.73	14.417	1.50	20.42	0.82
2.500	0.92	8.500	21.73	14.500	1.50	20.50	0.82
2.583	0.95	8.583	15.83	14.583	1.46	20.58	0.81
2.667	0.95	8.667	15.83	14.667	1.46	20.67	0.81
2.750	0.98	8.750	12.37	14.750	1.43	20.75	0.80
2.833	0.98	8.833	12.37	14.833	1.43	20.83	0.80
2.917	1.01	8.917	10.11	14.917	1.39	20.92	0.79
3.000	1.01	9.000	10.11	15.000	1.39	21.00	0.79
3.083	1.04	9.083	8.54	15.083	1.36	21.08	0.78
3.167	1.04	9.167	8.54	15.167	1.36	21.17	0.78
3.250	1.08	9.250	7.39	15.250	1.34	21.25	0.77
3.333	1.08	9.333	7.39	15.333	1.34	21.33	0.77
3.417	1.11	9.417	6.51	15.417	1.31	21.42	0.76
3.500	1.11	9.500	6.51	15.500	1.31	21.50	0.76
3.583	1.15	9.583	5.82	15.583	1.28	21.58	0.75
3.667	1.15	9.667	5.82	15.667	1.28	21.67	0.75
3.750	1.20	9.750	5.26	15.750	1.26	21.75	0.75
3.833	1.20	9.833	5.26	15.833	1.26	21.83	0.75
3.917	1.24	9.917	4.80	15.917	1.23	21.92	0.74
4.000	1.24	10.000	4.80	16.000	1.23	22.00	0.74
4.083	1.29	10.083	4.42	16.083	1.21	22.08	0.73
4.167	1.29	10.167	4.42	16.167	1.21	22.17	0.73
4.250	1.35	10.250	4.09	16.250	1.19	22.25	0.72
4.333	1.35	10.333	4.09	16.333	1.19	22.33	0.72
4.417	1.41	10.417	3.81	16.417	1.16	22.42	0.72
4.500	1.41	10.500	3.81	16.500	1.16	22.50	0.72
4.583	1.48	10.583	3.57	16.583	1.14	22.58	0.71
4.667	1.48	10.667	3.57	16.667	1.14	22.67	0.71
4.750	1.55	10.750	3.36	16.750	1.12	22.75	0.70
4.833	1.55	10.833	3.36	16.833	1.12	22.83	0.70
4.917	1.63	10.917	3.17	16.917	1.10	22.92	0.69
5.000	1.63	11.000	3.17	17.000	1.10	23.00	0.69
5.083	1.72	11.083	3.00	17.083	1.09	23.08	0.69
5.167	1.72	11.167	3.00	17.167	1.09	23.17	0.69
5.250	1.83	11.250	2.85	17.250	1.07	23.25	0.68
5.333	1.83	11.333	2.85	17.333	1.07	23.33	0.68
5.417	1.95	11.417	2.72	17.417	1.05	23.42	0.67
5.500	1.95	11.500	2.72	17.500	1.05	23.50	0.67
5.583	2.08	11.583	2.59	17.583	1.03	23.58	0.67
5.667	2.08	11.667	2.59	17.667	1.03	23.67	0.67
5.750	2.24	11.750	2.48	17.750	1.02	23.75	0.66
5.833	2.24	11.833	2.48	17.833	1.02	23.83	0.66
5.917	2.43	11.917	2.38	17.917	1.00	23.92	0.65
6.000	2.43	12.000	2.38	18.000	1.00	24.00	0.65

Unit Hyd Qpeak (cms)= 0.086

PEAK FLOW (cms)= 0.042 (i)
TIME TO PEAK (hrs)= 8.333
RUNOFF VOLUME (mm)= 32.345
TOTAL RAINFALL (mm)= 108.063
RUNOFF COEFFICIENT = 0.299

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

CALIB	STANDHYD (0103)	ID= 1 DT= 1.0 min
Area (ha)= 1.17	Total Imp(%)= 24.00	Dir. Conn.(%)= 20.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.28	0.89
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.50	2.00
Length (m)=	88.20	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 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
0.017	0.67	6.017	2.65	12.017	2.29	18.02	0.99
0.033	0.67	6.033	2.65	12.033	2.29	18.03	0.99
0.050	0.67	6.050	2.65	12.050	2.29	18.05	0.99
0.067	0.67	6.067	2.65	12.067	2.29	18.07	0.99
0.083	0.67	6.083	2.65	12.083	2.29	18.08	0.99
0.100	0.67	6.100	2.65	12.100	2.29	18.10	0.99
0.117	0.67	6.117	2.65	12.117	2.29	18.12	0.99
0.133	0.67	6.133	2.65	12.133	2.29	18.13	0.99
0.150	0.67	6.150	2.65	12.150	2.29	18.15	0.99
0.167	0.67	6.167	2.65	12.167	2.29	18.17	0.99
0.183	0.68	6.183	2.92	12.183	2.20	18.18	0.97
0.200	0.68	6.200	2.92	12.200	2.20	18.20	0.97
0.217	0.68	6.217	2.92	12.217	2.20	18.22	0.97
0.233	0.68	6.233	2.92	12.233	2.20	18.23	0.97
0.250	0.68	6.250	2.92	12.250	2.20	18.25	0.97
0.267	0.68	6.267	2.92	12.267	2.20	18.27	0.97
0.283	0.68	6.283	2.92	12.283	2.20	18.28	0.97
0.300	0.68	6.300	2.92	12.300	2.20	18.30	0.97
0.317	0.68	6.317	2.92	12.317	2.20	18.32	0.97
0.333	0.68	6.333	2.92	12.333	2.20	18.33	0.97
0.350	0.70	6.350	3.26	12.350	2.12	18.35	0.96
0.367	0.70	6.367	3.26	12.367	2.12	18.37	0.96
0.383	0.70	6.383	3.26	12.383	2.12	18.38	0.96
0.400	0.70	6.400	3.26	12.400	2.12	18.40	0.96
0.417	0.70	6.417	3.26	12.417	2.12	18.42	0.96
0.433	0.70	6.433	3.26	12.433	2.12	18.43	0.96
0.450	0.70	6.450	3.26	12.450	2.12	18.45	0.96
0.467	0.70	6.467	3.26	12.467	2.12	18.47	0.96
0.483	0.70	6.483	3.26	12.483	2.12	18.48	0.96
0.500	0.70	6.500	3.26	12.500	2.12	18.50	0.96
0.517	0.71	6.517	3.69	12.517	2.05	18.52	0.94
0.533	0.71	6.533	3.69	12.533	2.05	18.53	0.94
0.550	0.71	6.550	3.69	12.550	2.05	18.55	0.94
0.567	0.71	6.567	3.69	12.567	2.05	18.57	0.94
0.583	0.71	6.583	3.69	12.583	2.05	18.58	0.94
0.600	0.71	6.600	3.69	12.600	2.05	18.60	0.94
0.617	0.71	6.617	3.69	12.617	2.05	18.62	0.94
0.633	0.71	6.633	3.69	12.633	2.05	18.63	0.94
0.650	0.71	6.650	3.69	12.650	2.05	18.65	0.94
0.667	0.71	6.667	3.69	12.667	2.05	18.67	0.94
0.683	0.73	6.683	4.25	12.683	1.98	18.68	0.93
0.700	0.73	6.700	4.25	12.700	1.98	18.70	0.93
0.717	0.73	6.717	4.25	12.717	1.98	18.72	0.93
0.733	0.73	6.733	4.25	12.733	1.98	18.73	0.93
0.750	0.73	6.750	4.25	12.750	1.98	18.75	0.93
0.767	0.73	6.767	4.25	12.767	1.98	18.77	0.93
0.783	0.73	6.783	4.25	12.783	1.98	18.78	0.93
0.800	0.73	6.800	4.25	12.800	1.98	18.80	0.93
0.817	0.73	6.817	4.25	12.817	1.98	18.82	0.93
0.833	0.73	6.833	4.25	12.833	1.98	18.83	0.93
0.850	0.74	6.850	5.02	12.850	1.92	18.85	0.92
0.867	0.74	6.867	5.02	12.867	1.92	18.87	0.92
0.883	0.74	6.883	5.02	12.883	1.92	18.88	0.92
0.900	0.74	6.900	5.02	12.900	1.92	18.90	0.92
0.917	0.74	6.917	5.02	12.917	1.92	18.92	0.92
0.933	0.74	6.933	5.02	12.933	1.92	18.93	0.92
0.950	0.74	6.950	5.02	12.950	1.92	18.95	0.92
0.967	0.74	6.967	5.02	12.967	1.92	18.97	0.92
0.983	0.74	6.983	5.02	12.983	1.92	18.98	0.92
1.000	0.74	7.000	5.03	13.000	1.92	19.00	0.92
1.017	0.76	7.017	6.15	13.017	1.86	19.02	0.91
1.033	0.76	7.033	6.15	13.033	1.86	19.03	0.91
1.050	0.76	7.050	6.15	13.050	1.86	19.05	0.91
1.067	0.76	7.067	6.15	13.067	1.86	19.07	0.91
1.083	0.76	7.083	6.15	13.083	1.86	19.08	0.91
1.100	0.76	7.100	6.15	13.100	1.86	19.10	0.91
1.117	0.76	7.117	6.15	13.117	1.86	19.12	0.91
1.133	0.76	7.133	6.15	13.133	1.86	19.13	0.91
1.150	0.76	7.150	6.15	13.150	1.86	19.15	0.91
1.167	0.76	7.167	6.16	13.167	1.86	19.17	0.91
1.183	0.77	7.183	7.95	13.183	1.80	19.18	0.89
1.200	0.77	7.200	7.95	13.200	1.80	19.20	0.89
1.217	0.77	7.217	7.95	13.217	1.80	19.22	0.89
1.233	0.77	7.233	7.95	13.233	1.80	19.23	0.89
1.250	0.77	7.250	7.95	13.250	1.80	19.25	0.89
1.267	0.77	7.267	7.95	13.267	1.80	19.27	0.89
1.283	0.77	7.283	7.95	13.283	1.80	19.28	0.89
1.300	0.77	7.300	7.95	13.300	1.80	19.30	0.89
1.317	0.77	7.317	7.95	13.317	1.80	19.32	0.89
1.333	0.77	7.333	7.96	13.333	1.80	19.33	0.89
1.350	0.79	7.350	11.22	13.350	1.75	19.35	0.88
1.367	0.79	7.367	11.22	13.367	1.75	19.37	0.88
1.383	0.79	7.383	11.22	13.383	1.75	19.38	0.88
1.400	0.79	7.400	11.22	13.400	1.75	19.40	0.88
1.417	0.79	7.417	11.22	13.417	1.75	19.42	0.88
1.433	0.79	7.433	11.22	13.433	1.75	19.43	0.88
1.450	0.79	7.450	11.22	13.450	1.75	19.45	0.88
1.467	0.79	7.467	11.22	13.467	1.75	19.47	0.88
1.483	0.79	7.483	11.22	13.483	1.75	19.48	0.88
1.500	0.79	7.500	11.24	13.500	1.75	19.50	0.88
1.517	0.81	7.517	18.75	13.517	1.70	19.52	0.87
1.533	0.81	7.533	18.75	13.533	1.70	19.53	0.87
1.550	0.81	7.550	18.75	13.550	1.70	19.55	0.87
1.567	0.81	7.567	18.75	13.567	1.70	19.57	0.87
1.583	0.81	7.583	18.75	13.583	1.70	19.58	0.87
1.600	0.81	7.600	18.75	13.600	1.70	19.60	0.87
1.617	0.81	7.617	18.75	13.617	1.70	19.62	0.87
1.633	0.81	7.633	18.75	13.633	1.70	19.63	0.87
1.650	0.81	7.650	18.75	13.650	1.70	19.65	0.87
1.667	0.81	7.667	18.84	13.667	1.70	19.67	0.87
1.683	0.83	7.683	49.66	13.683	1.66	19.68	0.86
1.700	0.83	7.700	49.66	13.700	1.66	19.70	0.86
1.717	0.83	7.717	49.66	13.717	1.66	19.72	0.86
1.733	0.83	7.733	49.66	13.733	1.66	19.73	0.86
1.750	0.83	7.750	49.66	13.750	1.66	19.75	0.86
1.767	0.83	7.767	49.66	13.767	1.66	19.77	0.86
1.783	0.83	7.783	49.66	13.783	1.66	19.78	0.86
1.800	0.83	7.800	49.66	13.800	1.66	19.80	0.86
1.817	0.83	7.817	49.66	13.817	1.66	19.82	0.86
1.833	0.83	7.833	50.02	13.833	1.66	19.83	0.86
1.850	0.85	7.850	172.68	13.850	1.61	19.85	0.85
1.867	0.85	7.867	172.68	13.867	1.61	19.87	0.85
1.883	0.85	7.883	172.68	13.883	1.61	19.88	0.85
1.900	0.85	7.900	172.68	13.900	1.61	19.90	0.85
1.917	0.85	7.917	172.68	13.917	1.61	19.92	0.85
1.933	0.85	7.933	172.68	13.933	1.61	19.93	0.85
1.950	0.85	7.950	172.68	13.950	1.61	19.95	0.85
1.967	0.85	7.967	172.68	13.967	1.61	19.97	0.85
1.983	0.85	7.983	172.68	13.983	1.61	19.98	0.85
2.000	0.85	8.000	172.36	14.000	1.61	20.00	0.85
2.017	0.88	8.017	65.83	14.017	1.57	20.02	0.84
2.033	0.88	8.033	65.83	14.033	1.57	20.03	0.84
2.050	0.88	8.050	65.83	14.050	1.57	20.05	0.84
2.067	0.88	8.067	65.83	14.067	1.57	20.07	0.84
2.083	0.88	8.083	65.83	14.083	1.57	20.08	0.84
2.100	0.88	8.100	65.83	14.100	1.57	20.10	0.84
2.117	0.88	8.117	65.83	14.117	1.57	20.12	0.84
2.133	0.88	8.133	65.83	14.133	1.57	20.13	0.84
2.150	0.88	8.150	65.83	14.150	1.57	20.15	0.84
2.167	0.88	8.167	65.74	14.167	1.57	20.17	0.84
2.183	0.90	8.183	33.57	14.183	1.53	20.18	0.83
2.200	0.90	8.200	33.57	14.200	1.53	20.20	0.83
2.217	0.90	8.217	33.57	14.217	1.53	20.22	0.83
2.233	0.90	8.233	33.57	14.233	1.53	20.23	0.83
2.250	0.90	8.250	33.57	14.250	1.53	20.25	0.83
2.267	0.90	8.267	33.57	14.267	1.53	20.27	0.83
2.283	0.90	8.283	33.57	14.283	1.53	20.28	0.83
2.300	0.90	8.300	33.57	14.300	1.53	20.30	0.83
2.317	0.90	8.317	33.57	14.317	1.53	20.32	0.83
2.333	0.90	8.333	33.53	14.333	1.53	20.33	0.83
2.350	0.92	8.350	21.73	14.350	1.50	20.35	0.82
2.367	0.92	8.367	21.73	14.367	1.50	20.37	0.82
2.383	0.92	8.383	21.73	14.383	1.50	20.38	0.82
2.400	0.92	8.400	21.73	14.400	1.50	20.40	0.82
2.417	0.92	8.417	21.73	14.417	1.50	20.42	0.82
2.433	0.92	8.433	21.73	14.433	1.50	20.43	0.82
2.450	0.92	8.450	21.73	14.450	1.50	20.45	0.82
2.467	0.92	8.467	21.73	14.467	1.50	20.47	0.82
2.483	0.92	8.483	21.73	14.483	1.50	20.48	0.82
2.500	0.92	8.500	21.72	14.500	1.50	20.50	0.82
2.517	0.95	8.517	15.83	14.517	1.46	20.52	0.81
2.533	0.95	8.533	15.83	14.533	1.46	20.53	0.81
2.550	0.95	8.550	15.83	14.550	1.46	20.55	0.81
2.567	0.95	8.567	15.83	14.567	1.46	20.57	0.81
2.583	0.95	8.583	15.83	14.583	1.46	20.58	0.81
2.600	0.95	8.600	15.83	14.600	1.46	20.60	0.81
2.617	0.95	8.617	15.83	14.617	1.46	20.62	0.81
2.633	0.95	8.633	15.83	14.633	1.46	20.63	0.81
2.650	0.95	8.650	15.83	14.650	1.46	20.65	0.81
2.667	0.95	8.667	15.82	14.667	1.46	20.67	0.81
2.683	0.98	8.683	12.37	14.683	1.43	20.68	0.80
2.700	0.98	8.700	12.37	14.700	1.43	20.70	0.80
2.717	0.98	8.717	12.37	14.717	1.43	20.72	0.80
2.733	0.98	8.733	12.37	14.733	1.43	20.73	0.80
2.750	0.98	8.750	12.37	14.750	1.43	20.75	0.80
2.767	0.98	8.767	12.37	14.767	1.43	20.77	0.80
2.783	0.98	8.783	12.37	14.783	1.43	20.78	0.80
2.800	0.98	8.800	12.37	14.800	1.43	20.80	0.80
2.817	0.98	8.817	12.37	14.817	1.43	20.82	0.80
2.833	0.98	8.833	12.36	14.833	1.43	20.83	0.80
2.850	1.01	8.850	10.11	14.850	1.39	20.85	0.79
2.867	1.01	8.867	10.11	14.867	1.39	20.87	0.79
2.883	1.01	8.883	10.11	14.883	1.39	20.88	0.79
2.900	1.01	8.900	10.11	14.900	1.39	20.90	0.79
2.917	1.01	8.917	10.11	14.917	1.39	20.92	0.79
2.933	1.01	8.933	10.11	14.933	1.39	20.93	0.79
2.950	1.01	8.950	10.11	14.950	1.39	20.95	0.79
2.967	1.01	8.967	10.11	14.967	1.39	20.97	0.79
2.983	1.01	8.983	10.11	14.983	1.39	20.98	0.79
3.000	1.01	9.000	10.11	15.000	1.39	21.00	0.79
3.017	1.04	9.017	8.54	15.017	1.36	21.02	0.78
3.033	1.04	9.033	8.54	15.033	1.36	21.03	0.78
3.050	1.04	9.050	8.54	15.050	1.36	21.05	0.78
3.067	1.04	9.067	8.54	15.067	1.36	21.07	0.78
3.083	1.04	9.083	8.54	15.083	1.36	21.08	0.78
3.100	1.04	9.100	8.54	15.100	1.36	21.10	0.78
3.117	1.04	9.117	8.54	15.117	1.36	21.12	0.78
3.133	1.04	9.133	8.54	15.133	1.36	21.13	0.78
3.150	1.04	9.150	8.54	15.150	1.36	21.15	0.78

3.167	1.04	9.167	8.54	15.167	1.36	21.17	0.78
3.183	1.08	9.183	7.39	15.183	1.34	21.18	0.77
3.200	1.08	9.200	7.39	15.200	1.34	21.20	0.77
3.217	1.08	9.217	7.39	15.217	1.34	21.22	0.77
3.233	1.08	9.233	7.39	15.233	1.34	21.23	0.77
3.250	1.08	9.250	7.39	15.250	1.34	21.25	0.77
3.267	1.08	9.267	7.39	15.267	1.34	21.27	0.77
3.283	1.08	9.283	7.39	15.283	1.34	21.28	0.77
3.300	1.08	9.300	7.39	15.300	1.34	21.30	0.77
3.317	1.08	9.317	7.39	15.317	1.34	21.32	0.77
3.333	1.08	9.333	7.39	15.333	1.34	21.33	0.77
3.350	1.11	9.350	6.51	15.350	1.31	21.35	0.76
3.367	1.11	9.367	6.51	15.367	1.31	21.37	0.76
3.383	1.11	9.383	6.51	15.383	1.31	21.38	0.76
3.400	1.11	9.400	6.51	15.400	1.31	21.40	0.76
3.417	1.11	9.417	6.51	15.417	1.31	21.42	0.76
3.433	1.11	9.433	6.51	15.433	1.31	21.43	0.76
3.450	1.11	9.450	6.51	15.450	1.31	21.45	0.76
3.467	1.11	9.467	6.51	15.467	1.31	21.47	0.76
3.483	1.11	9.483	6.51	15.483	1.31	21.48	0.76
3.500	1.11	9.500	6.51	15.500	1.31	21.50	0.76
3.517	1.15	9.517	5.82	15.517	1.28	21.52	0.75
3.533	1.15	9.533	5.82	15.533	1.28	21.53	0.75
3.550	1.15	9.550	5.82	15.550	1.28	21.55	0.75
3.567	1.15	9.567	5.82	15.567	1.28	21.57	0.75
3.583	1.15	9.583	5.82	15.583	1.28	21.58	0.75
3.600	1.15	9.600	5.82	15.600	1.28	21.60	0.75
3.617	1.15	9.617	5.82	15.617	1.28	21.62	0.75
3.633	1.15	9.633	5.82	15.633	1.28	21.63	0.75
3.650	1.15	9.650	5.82	15.650	1.28	21.65	0.75
3.667	1.15	9.667	5.82	15.667	1.28	21.67	0.75
3.683	1.20	9.683	5.26	15.683	1.26	21.68	0.75
3.700	1.20	9.700	5.26	15.700	1.26	21.70	0.75
3.717	1.20	9.717	5.26	15.717	1.26	21.72	0.75
3.733	1.20	9.733	5.26	15.733	1.26	21.73	0.75
3.750	1.20	9.750	5.26	15.750	1.26	21.75	0.75
3.767	1.20	9.767	5.26	15.767	1.26	21.77	0.75
3.783	1.20	9.783	5.26	15.783	1.26	21.78	0.75
3.800	1.20	9.800	5.26	15.800	1.26	21.80	0.75
3.817	1.20	9.817	5.26	15.817	1.26	21.82	0.75
3.833	1.20	9.833	5.26	15.833	1.26	21.83	0.75
3.850	1.24	9.850	4.80	15.850	1.23	21.85	0.74
3.867	1.24	9.867	4.80	15.867	1.23	21.87	0.74
3.883	1.24	9.883	4.80	15.883	1.23	21.88	0.74
3.900	1.24	9.900	4.80	15.900	1.23	21.90	0.74
3.917	1.24	9.917	4.80	15.917	1.23	21.92	0.74
3.933	1.24	9.933	4.80	15.933	1.23	21.93	0.74
3.950	1.24	9.950	4.80	15.950	1.23	21.95	0.74
3.967	1.24	9.967	4.80	15.967	1.23	21.97	0.74
3.983	1.24	9.983	4.80	15.983	1.23	21.98	0.74
4.000	1.24	10.000	4.80	16.000	1.23	22.00	0.74
4.017	1.29	10.017	4.42	16.017	1.21	22.02	0.73

4.033	1.29	10.033	4.42	16.033	1.21	22.03	0.73
4.050	1.29	10.050	4.42	16.050	1.21	22.05	0.73
4.067	1.29	10.067	4.42	16.067	1.21	22.07	0.73
4.083	1.29	10.083	4.42	16.083	1.21	22.08	0.73
4.100	1.29	10.100	4.42	16.100	1.21	22.10	0.73
4.117	1.29	10.117	4.42	16.117	1.21	22.12	0.73
4.133	1.29	10.133	4.42	16.133	1.21	22.13	0.73
4.150	1.29	10.150	4.42	16.150	1.21	22.15	0.73
4.167	1.29	10.167	4.42	16.167	1.21	22.17	0.73
4.183	1.35	10.183	4.09	16.183	1.19	22.18	0.72
4.200	1.35	10.200	4.09	16.200	1.19	22.20	0.72
4.217	1.35	10.217	4.09	16.217	1.19	22.22	0.72
4.233	1.35	10.233	4.09	16.233	1.19	22.23	0.72
4.250	1.35	10.250	4.09	16.250	1.19	22.25	0.72
4.267	1.35	10.267	4.09	16.267	1.19	22.27	0.72
4.283	1.35	10.283	4.09	16.283	1.19	22.28	0.72
4.300	1.35	10.300	4.09	16.300	1.19	22.30	0.72
4.317	1.35	10.317	4.09	16.317	1.19	22.32	0.72
4.333	1.35	10.333	4.09	16.333	1.19	22.33	0.72
4.350	1.41	10.350	3.81	16.350	1.16	22.35	0.72
4.367	1.41	10.367	3.81	16.367	1.16	22.37	0.72
4.383	1.41	10.383	3.81	16.383	1.16	22.38	0.72
4.400	1.41	10.400	3.81	16.400	1.16	22.40	0.72
4.417	1.41	10.417	3.81	16.417	1.16	22.42	0.72
4.433	1.41	10.433	3.81	16.433	1.16	22.43	0.72
4.450	1.41	10.450	3.81	16.450	1.16	22.45	0.72
4.467	1.41	10.467	3.81	16.467	1.16	22.47	0.72
4.483	1.41	10.483	3.81	16.483	1.16	22.48	0.72
4.500	1.41	10.500	3.81	16.500	1.16	22.50	0.72
4.517	1.48	10.517	3.57	16.517	1.14	22.52	0.71
4.533	1.48	10.533	3.57	16.533	1.14	22.53	0.71
4.550	1.48	10.550	3.57	16.550	1.14	22.55	0.71
4.567	1.48	10.567	3.57	16.567	1.14	22.57	0.71
4.583	1.48	10.583	3.57	16.583	1.14	22.58	0.71
4.600	1.48	10.600	3.57	16.600	1.14	22.60	0.71
4.617	1.48	10.617	3.57	16.617	1.14	22.62	0.71
4.633	1.48	10.633	3.57	16.633	1.14	22.63	0.71
4.650	1.48	10.650	3.57	16.650	1.14	22.65	0.71
4.667	1.48	10.667	3.57	16.667	1.14	22.67	0.71
4.683	1.55	10.683	3.36	16.683	1.12	22.68	0.70
4.700	1.55	10.700	3.36	16.700	1.12	22.70	0.70
4.717	1.55	10.717	3.36	16.717	1.12	22.72	0.70
4.733	1.55	10.733	3.36	16.733	1.12	22.73	0.70
4.750	1.55	10.750	3.36	16.750	1.12	22.75	0.70
4.767	1.55	10.767	3.36	16.767	1.12	22.77	0.70
4.783	1.55	10.783	3.36	16.783	1.12	22.78	0.70
4.800	1.55	10.800	3.36	16.800	1.12	22.80	0.70
4.817	1.55	10.817	3.36	16.817	1.12	22.82	0.70
4.833	1.55	10.833	3.36	16.833	1.12	22.83	0.70
4.850	1.63	10.850	3.17	16.850	1.10	22.85	0.69
4.867	1.63	10.867	3.17	16.867	1.10	22.87	0.69
4.883	1.63	10.883	3.17	16.883	1.10	22.88	0.69

4.900	1.63	10.900	3.17	16.900	1.10	22.90	0.69
4.917	1.63	10.917	3.17	16.917	1.10	22.92	0.69
4.933	1.63	10.933	3.17	16.933	1.10	22.93	0.69
4.950	1.63	10.950	3.17	16.950	1.10	22.95	0.69
4.967	1.63	10.967	3.17	16.967	1.10	22.97	0.69
4.983	1.63	10.983	3.17	16.983	1.10	22.98	0.69
5.000	1.63	11.000	3.17	17.000	1.10	23.00	0.69
5.017	1.72	11.017	3.00	17.017	1.09	23.02	0.69
5.033	1.72	11.033	3.00	17.033	1.09	23.03	0.69
5.050	1.72	11.050	3.00	17.050	1.09	23.05	0.69
5.067	1.72	11.067	3.00	17.067	1.09	23.07	0.69
5.083	1.72	11.083	3.00	17.083	1.09	23.08	0.69
5.100	1.72	11.100	3.00	17.100	1.09	23.10	0.69
5.117	1.72	11.117	3.00	17.117	1.09	23.12	0.69
5.133	1.72	11.133	3.00	17.133	1.09	23.13	0.69
5.150	1.72	11.150	3.00	17.150	1.09	23.15	0.69
5.167	1.72	11.167	3.00	17.167	1.09	23.17	0.69
5.183	1.83	11.183	2.85	17.183	1.07	23.18	0.68
5.200	1.83	11.200	2.85	17.200	1.07	23.20	0.68
5.217	1.83	11.217	2.85	17.217	1.07	23.22	0.68
5.233	1.83	11.233	2.85	17.233	1.07	23.23	0.68
5.250	1.83	11.250	2.85	17.250	1.07	23.25	0.68
5.267	1.83	11.267	2.85	17.267	1.07	23.27	0.68
5.283	1.83	11.283	2.85	17.283	1.07	23.28	0.68
5.300	1.83	11.300	2.85	17.300	1.07	23.30	0.68
5.317	1.83	11.317	2.85	17.317	1.07	23.32	0.68
5.333	1.83	11.333	2.85	17.333	1.07	23.33	0.68
5.350	1.95	11.350	2.72	17.350	1.05	23.35	0.67
5.367	1.95	11.367	2.72	17.367	1.05	23.37	0.67
5.383	1.95	11.383	2.72	17.383	1.05	23.38	0.67
5.400	1.95	11.400	2.72	17.400	1.05	23.40	0.67
5.417	1.95	11.417	2.72	17.417	1.05	23.42	0.67
5.433	1.95	11.433	2.72	17.433	1.05	23.43	0.67
5.450	1.95	11.450	2.72	17.450	1.05	23.45	0.67
5.467	1.95	11.467	2.72	17.467	1.05	23.47	0.67
5.483	1.95	11.483	2.72	17.483	1.05	23.48	0.67
5.500	1.95	11.500	2.72	17.500	1.05	23.50	0.67
5.517	2.08	11.517	2.59	17.517	1.03	23.52	0.67
5.533	2.08	11.533	2.59	17.533	1.03	23.53	0.67
5.550	2.08	11.550	2.59	17.550	1.03	23.55	0.67
5.567	2.08	11.567	2.59	17.567	1.03	23.57	0.67
5.583	2.08	11.583	2.59	17.583	1.03	23.58	0.67
5.600	2.08	11.600	2.59	17.600	1.03	23.60	0.67
5.617	2.08	11.617	2.59	17.617	1.03	23.62	0.67
5.633	2.08	11.633	2.59	17.633	1.03	23.63	0.67
5.650	2.08	11.650	2.59	17.650	1.03	23.65	0.67
5.667	2.08	11.667	2.59	17.667	1.03	23.67	0.67
5.683	2.24	11.683	2.48	17.683	1.02	23.68	0.66
5.700	2.24	11.700	2.48	17.700	1.02	23.70	0.66
5.717	2.24	11.717	2.48	17.717	1.02	23.72	0.66
5.733	2.24	11.733	2.48	17.733	1.02	23.73	0.66
5.750	2.24	11.750	2.48	17.750	1.02	23.75	0.66

5.767	2.24	11.767	2.48	17.767	1.02	23.77	0.66
5.783	2.24	11.783	2.48	17.783	1.02	23.78	0.66
5.800	2.24	11.800	2.48	17.800	1.02	23.80	0.66
5.817	2.24	11.817	2.48	17.817	1.02	23.82	0.66
5.833	2.24	11.833	2.48	17.833	1.02	23.83	0.66
5.850	2.43	11.850	2.38	17.850	1.00	23.85	0.65
5.867	2.43	11.867	2.38	17.867	1.00	23.87	0.65
5.883	2.43	11.883	2.38	17.883	1.00	23.88	0.65
5.900	2.43	11.900	2.38	17.900	1.00	23.90	0.65
5.917	2.43	11.917	2.38	17.917	1.00	23.92	0.65
5.933	2.43	11.933	2.38	17.933	1.00	23.93	0.65
5.950	2.43	11.950	2.38	17.950	1.00	23.95	0.65
5.967	2.43	11.967	2.38	17.967	1.00	23.97	0.65
5.983	2.43	11.983	2.38	17.983	1.00	23.98	0.65
6.000	2.43	12.000	2.38	18.000	1.00	24.00	0.65

Max.Eff.Inten.(mm/hr)=	172.68	54.48	
over (min)	5.00	12.00	
Storage Coeff. (min)=	2.34 (ii)	11.34 (ii)	
Unit Hyd. Tpeak (min)=	5.00	12.00	
Unit Hyd. peak (cms)=	0.35	0.10	
			TOTALS
PEAK FLOW (cms)=	0.11	0.08	0.157 (iii)
TIME TO PEAK (hrs)=	8.00	8.17	8.03
RUNOFF VOLUME (mm)=	107.06	37.40	51.33
TOTAL RAINFALL (mm)=	108.06	108.06	108.06
RUNOFF COEFFICIENT =	0.99	0.35	0.48

***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
YOU SHOULD CONSIDER SPLITTING THE AREA.

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 57.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB					
STANDHYD (1011)	Area	(ha)=	13.73		
ID= 1 DT= 1.0 min	Total Imp(%)=		46.00	Dir. Conn.(%)=	39.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	6.32	7.42
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	0.50	2.00
Length	(m)=	302.59	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 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
0.017	0.67	6.017	2.65	12.017	2.29	18.02	0.99
0.033	0.67	6.033	2.65	12.033	2.29	18.03	0.99
0.050	0.67	6.050	2.65	12.050	2.29	18.05	0.99
0.067	0.67	6.067	2.65	12.067	2.29	18.07	0.99
0.083	0.67	6.083	2.65	12.083	2.29	18.08	0.99
0.100	0.67	6.100	2.65	12.100	2.29	18.10	0.99
0.117	0.67	6.117	2.65	12.117	2.29	18.12	0.99
0.133	0.67	6.133	2.65	12.133	2.29	18.13	0.99
0.150	0.67	6.150	2.65	12.150	2.29	18.15	0.99
0.167	0.67	6.167	2.65	12.167	2.29	18.17	0.99
0.183	0.68	6.183	2.92	12.183	2.20	18.18	0.97
0.200	0.68	6.200	2.92	12.200	2.20	18.20	0.97
0.217	0.68	6.217	2.92	12.217	2.20	18.22	0.97
0.233	0.68	6.233	2.92	12.233	2.20	18.23	0.97
0.250	0.68	6.250	2.92	12.250	2.20	18.25	0.97
0.267	0.68	6.267	2.92	12.267	2.20	18.27	0.97
0.283	0.68	6.283	2.92	12.283	2.20	18.28	0.97
0.300	0.68	6.300	2.92	12.300	2.20	18.30	0.97
0.317	0.68	6.317	2.92	12.317	2.20	18.32	0.97
0.333	0.68	6.333	2.92	12.333	2.20	18.33	0.97
0.350	0.70	6.350	3.26	12.350	2.12	18.35	0.96
0.367	0.70	6.367	3.26	12.367	2.12	18.37	0.96
0.383	0.70	6.383	3.26	12.383	2.12	18.38	0.96
0.400	0.70	6.400	3.26	12.400	2.12	18.40	0.96
0.417	0.70	6.417	3.26	12.417	2.12	18.42	0.96
0.433	0.70	6.433	3.26	12.433	2.12	18.43	0.96
0.450	0.70	6.450	3.26	12.450	2.12	18.45	0.96
0.467	0.70	6.467	3.26	12.467	2.12	18.47	0.96
0.483	0.70	6.483	3.26	12.483	2.12	18.48	0.96
0.500	0.70	6.500	3.26	12.500	2.12	18.50	0.96
0.517	0.71	6.517	3.69	12.517	2.05	18.52	0.94
0.533	0.71	6.533	3.69	12.533	2.05	18.53	0.94
0.550	0.71	6.550	3.69	12.550	2.05	18.55	0.94
0.567	0.71	6.567	3.69	12.567	2.05	18.57	0.94
0.583	0.71	6.583	3.69	12.583	2.05	18.58	0.94
0.600	0.71	6.600	3.69	12.600	2.05	18.60	0.94
0.617	0.71	6.617	3.69	12.617	2.05	18.62	0.94
0.633	0.71	6.633	3.69	12.633	2.05	18.63	0.94
0.650	0.71	6.650	3.69	12.650	2.05	18.65	0.94
0.667	0.71	6.667	3.69	12.667	2.05	18.67	0.94
0.683	0.73	6.683	4.25	12.683	1.98	18.68	0.93
0.700	0.73	6.700	4.25	12.700	1.98	18.70	0.93
0.717	0.73	6.717	4.25	12.717	1.98	18.72	0.93
0.733	0.73	6.733	4.25	12.733	1.98	18.73	0.93
0.750	0.73	6.750	4.25	12.750	1.98	18.75	0.93
0.767	0.73	6.767	4.25	12.767	1.98	18.77	0.93
0.783	0.73	6.783	4.25	12.783	1.98	18.78	0.93
0.800	0.73	6.800	4.25	12.800	1.98	18.80	0.93

0.817	0.73	6.817	4.25	12.817	1.98	18.82	0.93
0.833	0.73	6.833	4.25	12.833	1.98	18.83	0.93
0.850	0.74	6.850	5.02	12.850	1.92	18.85	0.92
0.867	0.74	6.867	5.02	12.867	1.92	18.87	0.92
0.883	0.74	6.883	5.02	12.883	1.92	18.88	0.92
0.900	0.74	6.900	5.02	12.900	1.92	18.90	0.92
0.917	0.74	6.917	5.02	12.917	1.92	18.92	0.92
0.933	0.74	6.933	5.02	12.933	1.92	18.93	0.92
0.950	0.74	6.950	5.02	12.950	1.92	18.95	0.92
0.967	0.74	6.967	5.02	12.967	1.92	18.97	0.92
0.983	0.74	6.983	5.02	12.983	1.92	18.98	0.92
1.000	0.74	7.000	5.03	13.000	1.92	19.00	0.92
1.017	0.76	7.017	6.15	13.017	1.86	19.02	0.91
1.033	0.76	7.033	6.15	13.033	1.86	19.03	0.91
1.050	0.76	7.050	6.15	13.050	1.86	19.05	0.91
1.067	0.76	7.067	6.15	13.067	1.86	19.07	0.91
1.083	0.76	7.083	6.15	13.083	1.86	19.08	0.91
1.100	0.76	7.100	6.15	13.100	1.86	19.10	0.91
1.117	0.76	7.117	6.15	13.117	1.86	19.12	0.91
1.133	0.76	7.133	6.15	13.133	1.86	19.13	0.91
1.150	0.76	7.150	6.15	13.150	1.86	19.15	0.91
1.167	0.76	7.167	6.16	13.167	1.86	19.17	0.91
1.183	0.77	7.183	7.95	13.183	1.80	19.18	0.89
1.200	0.77	7.200	7.95	13.200	1.80	19.20	0.89
1.217	0.77	7.217	7.95	13.217	1.80	19.22	0.89
1.233	0.77	7.233	7.95	13.233	1.80	19.23	0.89
1.250	0.77	7.250	7.95	13.250	1.80	19.25	0.89
1.267	0.77	7.267	7.95	13.267	1.80	19.27	0.89
1.283	0.77	7.283	7.95	13.283	1.80	19.28	0.89
1.300	0.77	7.300	7.95	13.300	1.80	19.30	0.89
1.317	0.77	7.317	7.95	13.317	1.80	19.32	0.89
1.333	0.77	7.333	7.96	13.333	1.80	19.33	0.89
1.350	0.79	7.350	11.22	13.350	1.75	19.35	0.88
1.367	0.79	7.367	11.22	13.367	1.75	19.37	0.88
1.383	0.79	7.383	11.22	13.383	1.75	19.38	0.88
1.400	0.79	7.400	11.22	13.400	1.75	19.40	0.88
1.417	0.79	7.417	11.22	13.417	1.75	19.42	0.88
1.433	0.79	7.433	11.22	13.433	1.75	19.43	0.88
1.450	0.79	7.450	11.22	13.450	1.75	19.45	0.88
1.467	0.79	7.467	11.22	13.467	1.75	19.47	0.88
1.483	0.79	7.483	11.22	13.483	1.75	19.48	0.88
1.500	0.79	7.500	11.24	13.500	1.75	19.50	0.88
1.517	0.81	7.517	18.75	13.517	1.70	19.52	0.87
1.533	0.81	7.533	18.75	13.533	1.70	19.53	0.87
1.550	0.81	7.550	18.75	13.550	1.70	19.55	0.87
1.567	0.81	7.567	18.75	13.567	1.70	19.57	0.87
1.583	0.81	7.583	18.75	13.583	1.70	19.58	0.87
1.600	0.81	7.600	18.75	13.600	1.70	19.60	0.87
1.617	0.81	7.617	18.75	13.617	1.70	19.62	0.87
1.633	0.81	7.633	18.75	13.633	1.70	19.63	0.87
1.650	0.81	7.650	18.75	13.650	1.70	19.65	0.87
1.667	0.81	7.667	18.84	13.667	1.70	19.67	0.87

1.683	0.83	7.683	49.66	13.683	1.66	19.68	0.86
1.700	0.83	7.700	49.66	13.700	1.66	19.70	0.86
1.717	0.83	7.717	49.66	13.717	1.66	19.72	0.86
1.733	0.83	7.733	49.66	13.733	1.66	19.73	0.86
1.750	0.83	7.750	49.66	13.750	1.66	19.75	0.86
1.767	0.83	7.767	49.66	13.767	1.66	19.77	0.86
1.783	0.83	7.783	49.66	13.783	1.66	19.78	0.86
1.800	0.83	7.800	49.66	13.800	1.66	19.80	0.86
1.817	0.83	7.817	49.66	13.817	1.66	19.82	0.86
1.833	0.83	7.833	50.02	13.833	1.66	19.83	0.86
1.850	0.85	7.850	172.68	13.850	1.61	19.85	0.85
1.867	0.85	7.867	172.68	13.867	1.61	19.87	0.85
1.883	0.85	7.883	172.68	13.883	1.61	19.88	0.85
1.900	0.85	7.900	172.68	13.900	1.61	19.90	0.85
1.917	0.85	7.917	172.68	13.917	1.61	19.92	0.85
1.933	0.85	7.933	172.68	13.933	1.61	19.93	0.85
1.950	0.85	7.950	172.68	13.950	1.61	19.95	0.85
1.967	0.85	7.967	172.68	13.967	1.61	19.97	0.85
1.983	0.85	7.983	172.68	13.983	1.61	19.98	0.85
2.000	0.85	8.000	172.36	14.000	1.61	20.00	0.85
2.017	0.88	8.017	65.83	14.017	1.57	20.02	0.84
2.033	0.88	8.033	65.83	14.033	1.57	20.03	0.84
2.050	0.88	8.050	65.83	14.050	1.57	20.05	0.84
2.067	0.88	8.067	65.83	14.067	1.57	20.07	0.84
2.083	0.88	8.083	65.83	14.083	1.57	20.08	0.84
2.100	0.88	8.100	65.83	14.100	1.57	20.10	0.84
2.117	0.88	8.117	65.83	14.117	1.57	20.12	0.84
2.133	0.88	8.133	65.83	14.133	1.57	20.13	0.84
2.150	0.88	8.150	65.83	14.150	1.57	20.15	0.84
2.167	0.88	8.167	65.74	14.167	1.57	20.17	0.84
2.183	0.90	8.183	33.57	14.183	1.53	20.18	0.83
2.200	0.90	8.200	33.57	14.200	1.53	20.20	0.83
2.217	0.90	8.217	33.57	14.217	1.53	20.22	0.83
2.233	0.90	8.233	33.57	14.233	1.53	20.23	0.83
2.250	0.90	8.250	33.57	14.250	1.53	20.25	0.83
2.267	0.90	8.267	33.57	14.267	1.53	20.27	0.83
2.283	0.90	8.283	33.57	14.283	1.53	20.28	0.83
2.300	0.90	8.300	33.57	14.300	1.53	20.30	0.83
2.317	0.90	8.317	33.57	14.317	1.53	20.32	0.83
2.333	0.90	8.333	33.53	14.333	1.53	20.33	0.83
2.350	0.92	8.350	21.73	14.350	1.50	20.35	0.82
2.367	0.92	8.367	21.73	14.367	1.50	20.37	0.82
2.383	0.92	8.383	21.73	14.383	1.50	20.38	0.82
2.400	0.92	8.400	21.73	14.400	1.50	20.40	0.82
2.417	0.92	8.417	21.73	14.417	1.50	20.42	0.82
2.433	0.92	8.433	21.73	14.433	1.50	20.43	0.82
2.450	0.92	8.450	21.73	14.450	1.50	20.45	0.82
2.467	0.92	8.467	21.73	14.467	1.50	20.47	0.82
2.483	0.92	8.483	21.73	14.483	1.50	20.48	0.82
2.500	0.92	8.500	21.72	14.500	1.50	20.50	0.82
2.517	0.95	8.517	15.83	14.517	1.46	20.52	0.81
2.533	0.95	8.533	15.83	14.533	1.46	20.53	0.81
2.550	0.95	8.550	15.83	14.550	1.46	20.55	0.81
2.567	0.95	8.567	15.83	14.567	1.46	20.57	0.81
2.583	0.95	8.583	15.83	14.583	1.46	20.58	0.81
2.600	0.95	8.600	15.83	14.600	1.46	20.60	0.81
2.617	0.95	8.617	15.83	14.617	1.46	20.62	0.81
2.633	0.95	8.633	15.83	14.633	1.46	20.63	0.81
2.650	0.95	8.650	15.83	14.650	1.46	20.65	0.81
2.667	0.95	8.667	15.82	14.667	1.46	20.67	0.81
2.683	0.98	8.683	12.37	14.683	1.43	20.68	0.80
2.700	0.98	8.700	12.37	14.700	1.43	20.70	0.80
2.717	0.98	8.717	12.37	14.717	1.43	20.72	0.80
2.733	0.98	8.733	12.37	14.733	1.43	20.73	0.80
2.750	0.98	8.750	12.37	14.750	1.43	20.75	0.80
2.767	0.98	8.767	12.37	14.767	1.43	20.77	0.80
2.783	0.98	8.783	12.37	14.783	1.43	20.78	0.80
2.800	0.98	8.800	12.37	14.800	1.43	20.80	0.80
2.817	0.98	8.817	12.37	14.817	1.43	20.82	0.80
2.833	0.98	8.833	12.36	14.833	1.43	20.83	0.80
2.850	1.01	8.850	10.11	14.850	1.39	20.85	0.79
2.867	1.01	8.867	10.11	14.867	1.39	20.87	0.79
2.883	1.01	8.883	10.11	14.883	1.39	20.88	0.79
2.900	1.01	8.900	10.11	14.900	1.39	20.90	0.79
2.917	1.01	8.917	10.11	14.917	1.39	20.92	0.79
2.933	1.01	8.933	10.11	14.933	1.39	20.93	0.79
2.950	1.01	8.950	10.11	14.950	1.39	20.95	0.79
2.967	1.01	8.967	10.11	14.967	1.39	20.97	0.79
2.983	1.01	8.983	10.11	14.983	1.39	20.98	0.79
3.000	1.01	9.000	10.11	15.000	1.39	21.00	0.79
3.017	1.04	9.017	8.54	15.017	1.36	21.02	0.78
3.033	1.04	9.033	8.54	15.033	1.36	21.03	0.78
3.050	1.04	9.050	8.54	15.050	1.36	21.05	0.78
3.067	1.04	9.067	8.54	15.067	1.36	21.07	0.78
3.083	1.04	9.083	8.54	15.083	1.36	21.08	0.78
3.100	1.04	9.100	8.54	15.100	1.36	21.10	0.78
3.117	1.04	9.117	8.54	15.117	1.36	21.12	0.78
3.133	1.04	9.133	8.54	15.133	1.36	21.13	0.78
3.150	1.04	9.150	8.54	15.150	1.36	21.15	0.78
3.167	1.04	9.167	8.54	15.167	1.36	21.17	0.78
3.183	1.08	9.183	7.39	15.183	1.34	21.18	0.77
3.200	1.08	9.200	7.39	15.200	1.34	21.20	0.77
3.217	1.08	9.217	7.39	15.217	1.34	21.22	0.77
3.233	1.08	9.233	7.39	15.233	1.34	21.23	0.77
3.250	1.08	9.250	7.39	15.250	1.34	21.25	0.77
3.267	1.08	9.267	7.39	15.267	1.34	21.27	0.77
3.283	1.08	9.283	7.39	15.283	1.34	21.28	0.77
3.300	1.08	9.300	7.39	15.300	1.34	21.30	0.77
3.317	1.08	9.317	7.39	15.317	1.34	21.32	0.77
3.333	1.08	9.333	7.39	15.333	1.34	21.33	0.77
3.350	1.11	9.350	6.51	15.350	1.31	21.35	0.76
3.367	1.11	9.367	6.51	15.367	1.31	21.37	0.76
3.383	1.11	9.383	6.51	15.383	1.31	21.38	0.76
3.400	1.11	9.400	6.51	15.400	1.31	21.40	0.76
3.417	1.11	9.417	6.51	15.417	1.31	21.42	0.76
3.433	1.11	9.433	6.51	15.433	1.31	21.43	0.76
3.450	1.11	9.450	6.51	15.450	1.31	21.45	0.76
3.467	1.11	9.467	6.51	15.467	1.31	21.47	0.76
3.483	1.11	9.483	6.51	15.483	1.31	21.48	0.76
3.500	1.11	9.500	6.51	15.500	1.31	21.50	0.76
3.517	1.15	9.517	5.82	15.517	1.28	21.52	0.75
3.533	1.15	9.533	5.82	15.533	1.28	21.53	0.75
3.550	1.15	9.550	5.82	15.550	1.28	21.55	0.75
3.567	1.15	9.567	5.82	15.567	1.28	21.57	0.75
3.583	1.15	9.583	5.82	15.583	1.28	21.58	0.75
3.600	1.15	9.600	5.82	15.600	1.28	21.60	0.75
3.617	1.15	9.617	5.82	15.617	1.28	21.62	0.75
3.633	1.15	9.633	5.82	15.633	1.28	21.63	0.75
3.650	1.15	9.650	5.82	15.650	1.28	21.65	0.75
3.667	1.15	9.667	5.82	15.667	1.28	21.67	0.75
3.683	1.20	9.683	5.26	15.683	1.26	21.68	0.75
3.700	1.20	9.700	5.26	15.700	1.26	21.70	0.75
3.717	1.20	9.717	5.26	15.717	1.26	21.72	0.75
3.733	1.20	9.733	5.26	15.733	1.26	21.73	0.75
3.750	1.20	9.750	5.26	15.750	1.26	21.75	0.75
3.767	1.20	9.767	5.26	15.767	1.26	21.77	0.75
3.783	1.20	9.783	5.26	15.783	1.26	21.78	0.75
3.800	1.20	9.800	5.26	15.800	1.26	21.80	0.75
3.817	1.20	9.817	5.26	15.817	1.26	21.82	0.75
3.833	1.20	9.833	5.26	15.833	1.26	21.83	0.75
3.850	1.24	9.850	4.80	15.850	1.23	21.85	0.74
3.867	1.24	9.867	4.80	15.867	1.23	21.87	0.74
3.883	1.24	9.883	4.80	15.883	1.23	21.88	0.74
3.900	1.24	9.900	4.80	15.900	1.23	21.90	0.74
3.917	1.24	9.917	4.80	15.917	1.23	21.92	0.74
3.933	1.24	9.933	4.80	15.933	1.23	21.93	0.74
3.950	1.24	9.950	4.80	15.950	1.23	21.95	0.74
3.967	1.24	9.967	4.80	15.967	1.23	21.97	0.74
3.983	1.24	9.983	4.80	15.983	1.23	21.98	0.74
4.000	1.24	10.000	4.80	16.000	1.23	22.00	0.74
4.017	1.29	10.017	4.42	16.017	1.21	22.02	0.73
4.033	1.29	10.033	4.42	16.033	1.21	22.03	0.73
4.050	1.29	10.050	4.42	16.050	1.21	22.05	0.73
4.067	1.29	10.067	4.42	16.067	1.21	22.07	0.73
4.083	1.29	10.083	4.42	16.083	1.21	22.08	0.73
4.100	1.29	10.100	4.42	16.100	1.21	22.10	0.73
4.117	1.29	10.117	4.42	16.117	1.21	22.12	0.73
4.133	1.29	10.133	4.42	16.133	1.21	22.13	0.73
4.150	1.29	10.150	4.42	16.150	1.21	22.15	0.73
4.167	1.29	10.167	4.42	16.167	1.21	22.17	0.73
4.183	1.35	10.183	4.09	16.183	1.19	22.18	0.72
4.200	1.35	10.200	4.09	16.200	1.19	22.20	0.72
4.217	1.35	10.217	4.09	16.217	1.19	22.22	0.72
4.233	1.35	10.233	4.09	16.233	1.19	22.23	0.72
4.250	1.35	10.250	4.09	16.250	1.19	22.25	0.72
4.267	1.35	10.267	4.09	16.267	1.19	22.27	0.72
4.283	1.35	10.283	4.09	16.283	1.19	22.28	0.72
4.300	1.35	10.300	4.09	16.300	1.19	22.30	0.72
4.317	1.35	10.317	4.09	16.317	1.19	22.32	0.72
4.333	1.35	10.333	4.09	16.333	1.19	22.33	0.72
4.350	1.41	10.350	3.81	16.350	1.16	22.35	0.72
4.367	1.41	10.367	3.81	16.367	1.16	22.37	0.72
4.383	1.41	10.383	3.81	16.383	1.16	22.38	0.72
4.400	1.41	10.400	3.81	16.400	1.16	22.40	0.72
4.417	1.41	10.417	3.81	16.417	1.16	22.42	0.72
4.433	1.41	10.433	3.81	16.433	1.16	22.43	0.72
4.450	1.41	10.450	3.81	16.450	1.16	22.45	0.72
4.467	1.41	10.467	3.81	16.467	1.16	22.47	0.72
4.483	1.41	10.483	3.81	16.483	1.16	22.48	0.72
4.500	1.41	10.500	3.81	16.500	1.16	22.50	0.72
4.517	1.48	10.517	3.57	16.517	1.14	22.52	0.71
4.533	1.48	10.533	3.57	16.533	1.14	22.53	0.71
4.550	1.48	10.550	3.57	16.550	1.14	22.55	0.71
4.567	1.48	10.567	3.57	16.567	1.14	22.57	0.71
4.583	1.48	10.583	3.57	16.583	1.14	22.58	0.71
4.600	1.48	10.600	3.57	16.600	1.14	22.60	0.71
4.617	1.48	10.617	3.57	16.617	1.14	22.62	0.71
4.633	1.48	10.633	3.57	16.633	1.14	22.63	0.71
4.650	1.48	10.650	3.57	16.650	1.14	22.65	0.71
4.667	1.48	10.667	3.57	16.667	1.14	22.67	0.71
4.683	1.55	10.683	3.36	16.683	1.12	22.68	0.70
4.700	1.55	10.700	3.36	16.700	1.12	22.70	0.70
4.717	1.55	10.717	3.36	16.717	1.12	22.72	0.70
4.733	1.55	10.733	3.36	16.733	1.12	22.73	0.70
4.750	1.55	10.750	3.36	16.750	1.12	22.75	0.70
4.767	1.55	10.767	3.36	16.767	1.12	22.77	0.70
4.783	1.55	10.783	3.36	16.783	1.12	22.78	0.70
4.800	1.55	10.800	3.36	16.800	1.12	22.80	0.70
4.817	1.55	10.817	3.36	16.817	1.12	22.82	0.70
4.833	1.55	10.833	3.36	16.833	1.12	22.83	0.70
4.850	1.63	10.850	3.17	16.850	1.10	22.85	0.69
4.867	1.63	10.867	3.17	16.867	1.10	22.87	0.69
4.883	1.63	10.883	3.17	16.883	1.10	22.88	0.69
4.900	1.63	10.900	3.17	16.900	1.10	22.90	0.69
4.917	1.63	10.917	3.17	16.917	1.10	22.92	0.69
4.933	1.63	10.933	3.17	16.933	1.10	22.93	0.69
4.950	1.63	10.950	3.17	16.950	1.10	22.95	0.69
4.967	1.63	10.967	3.17	16.967	1.10	22.97	0.69
4.983	1.63	10.983	3.17	16.983	1.10	22.98	0.69
5.000	1.63	11.000	3.17	17.000	1.10	23.00	0.69
5.017	1.72	11.017	3.00	17.017	1.09	23.02	0.69
5.033	1.72	11.033	3.00	17.033	1.09	23.03	0.69
5.050	1.72	11.050	3.00	17.050	1.09	23.05	0.69
5.067	1.72	11.067	3.00	17.067	1.09	23.07	0.69
5.083	1.72	11.083	3.00	17.083	1.09	23.08	0.69
5.100	1.72	11.100	3.00	17.100	1.09	23.10	0.69
5.117	1.72	11.117	3.00	17.117	1.09	23.12	0.69
5.133	1.72	11.133	3.00	17.133	1.09	23.13	0.69
5.150	1.72	11.150	3.00	17.150	1.09	23.15	0.69
5.167	1.72	11.167	3.00	17.167	1.09	23.17	0.69
5.183	1.83	11.183	2.85	17.183	1.07	23.18	0.68
5.200	1.83	11.200	2.85	17.200	1.07	23.20	0.68
5.217	1.83	11.217	2.85	17.217	1.07	23.22	0.68
5.233	1.83	11.233	2.85	17.233	1.07	23.23	0.68
5.250	1.83	11.250	2.85	17.250	1.07	23.25	0.68
5.267	1.83	11.267	2.85	17.267	1.07	23.27	0.68
5.283	1.83	11.283	2.85	17.283	1.07	23.28	0.68
5.300	1.83	11.300	2.85	17.300	1.07	23.30	0.68
5.317	1.83	11.317	2.85	17.317	1.07	23.32	0.68
5.333	1.83	11.333	2.85	17.333	1.07	23.33	0.68
5.350	1.95	11.350	2.72	17.350	1.05	23.35	0.67
5.367	1.95	11.367	2.72	17.367	1.05	23.37	0.67
5.383	1.95	11.383	2.72	17.383	1.05	23.38	0.67
5.400	1.95	11.400	2.72	17.400	1.05	23.40	0.67
5.417	1.95	11.417	2.72	17.417	1.05	23.42	0.67
5.433	1.95	11.433	2.72	17.433	1.05	23.43	0.67
5.450	1.95	11.450	2.72	17.450	1.05	23.45	0.67
5.467	1.95	11.467	2.72	17.467	1.05	23.47	0.67
5.483	1.95	11.483	2.72	17.483	1.05	23.48	0.67
5.500	1.95	11.500	2.72	17.500	1.05	23.50	0.67
5.517	2.08	11.517	2.59	17.517	1.03	23.52	0.67
5.533	2.08	11.533	2.59	17.533	1.03	23.53	0.67
5.550	2.08	11.550	2.59	17.550	1.03	23.55	0.67
5.567	2.08	11.567	2.59	17.567	1.03	23.57	0.67
5.583	2.08	11.583	2.59	17.583	1.03	23.58	0.67
5.600	2.08	11.600	2.59	17.600	1.03	23.60	0.67
5.617	2.08	11.617	2.59	17.617	1.03	23.62	0.67
5.633	2.08	11.633	2.59	17.633	1.03	23.63	0.67
5.650	2.08	11.650	2.59	17.650	1.03	23.65	0.67
5.667	2.08	11.667	2.59	17.667	1.03	23.67	0.67
5.683	2.24	11.683	2.48	17.683	1.02	23.68	0.66
5.700	2.24	11.700	2.48	17.700	1.02	23.70	0.66
5.717	2.24	11.717	2.48	17.717	1.02	23.72	0.66
5.733	2.24	11.733	2.48	17.733	1.02	23.73	0.66
5.750	2.24	11.750	2.48	17.750	1.02	23.75	0.66
5.767	2.24	11.767	2.48	17.767	1.02	23.77	0.66
5.783	2.24	11.783	2.48	17.783	1.02	23.78	0.66
5.800	2.24	11.800	2.48	17.800	1.02	23.80	0.66
5.817	2.24	11.817	2.48	17.817	1.02	23.82	0.66
5.833	2.24	11.833	2.48	17.833	1.02	23.83	0.66
5.850	2.43	11.850	2.38	17.850	1.00	23.85	0.65
5.867	2.43	11.867	2.38	17.867	1.00	23.87	0.65
5.883	2.43	11.883	2.38	17.883	1.00	23.88	0.65
5.900	2.43	11.900	2.38	17.900	1.00	23.90	0.65
5.917	2.43	11.917	2.38	17.917	1.00	23.92	0.65
5.933	2.43	11.933	2.38	17.933	1.00	23.93	0.65
5.950	2.43	11.950	2.38	17.950	1.00	23.95	0.65
5.967	2.43	11.967	2.38	17.967	1.00	23.97	0.65
5.983	2.43	11.983	2.38	17.983	1.00	23.98	0.65
6.000	2.43	12.000	2.38	18.000	1.00	24.00	0.65

Max.Eff.Inten.(mm/hr)=	172.68	46.92	
over (min)	5.00	12.00	
Storage Coeff. (min)=	4.91 (ii)	11.37 (ii)	
Unit Hyd. Tpeak (min)=	5.00	12.00	
Unit Hyd. peak (cms)=	0.23	0.10	
			TOTALS
PEAK FLOW (cms)=	2.19	0.60	2.564 (iii)
TIME TO PEAK (hrs)=	8.02	8.17	8.03
RUNOFF VOLUME (mm)=	107.05	30.92	60.62
TOTAL RAINFALL (mm)=	108.06	108.06	108.06
RUNOFF COEFFICIENT =	0.99	0.29	0.56

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 48.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0101)					
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	
ID1= 1 (1011):	13.73	2.564	8.03	60.62	
+ ID2= 2 (0034):	2.88	2.674	8.05	68.84	
ID = 3 (0101):	16.61	5.221	8.03	62.05	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0901)					
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	
ID1= 1 (0101):	16.61	5.221	8.03	62.05	
+ ID2= 2 (0103):	1.17	0.157	8.03	51.33	
ID = 3 (0901):	17.78	5.379	8.03	61.34	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0902)					
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	
ID1= 1 (0104):	0.77	0.042	8.33	32.34	
+ ID2= 2 (0901):	17.78	5.379	8.03	61.34	

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      ==================================================
      ID = 3 (  0902):    18.55   5.398     8.03    60.14

   NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
-------------------------------------------------------------------------------
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| CALIB             |
| STANDHYD (  1021)|   Area     (ha)=   3.77
|ID= 1 DT= 1.0 min |   Total Imp(%)=  45.00   Dir. Conn.(%)=  38.00
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                        IMPERVIOUS     PERVIOUS (i)
     Surface Area     (ha)=        1.70          2.07
     Dep. Storage     (mm)=        1.00          5.00
     Average Slope     (%)=        0.50          2.00
     Length            (m)=      158.56         40.00
     Mannings n             =      0.013         0.250

       NOTE:  RAINFALL WAS TRANSFORMED TO   1.0 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
 0.017    0.67 | 6.017    2.65 |12.017    2.29 | 18.02    0.99
 0.033    0.67 | 6.033    2.65 |12.033    2.29 | 18.03    0.99
 0.050    0.67 | 6.050    2.65 |12.050    2.29 | 18.05    0.99
 0.067    0.67 | 6.067    2.65 |12.067    2.29 | 18.07    0.99
 0.083    0.67 | 6.083    2.65 |12.083    2.29 | 18.08    0.99
 0.100    0.67 | 6.100    2.65 |12.100    2.29 | 18.10    0.99
 0.117    0.67 | 6.117    2.65 |12.117    2.29 | 18.12    0.99
 0.133    0.67 | 6.133    2.65 |12.133    2.29 | 18.13    0.99
 0.150    0.67 | 6.150    2.65 |12.150    2.29 | 18.15    0.99
 0.167    0.67 | 6.167    2.65 |12.167    2.29 | 18.17    0.99
 0.183    0.68 | 6.183    2.92 |12.183    2.20 | 18.18    0.97
 0.200    0.68 | 6.200    2.92 |12.200    2.20 | 18.20    0.97
 0.217    0.68 | 6.217    2.92 |12.217    2.20 | 18.22    0.97
 0.233    0.68 | 6.233    2.92 |12.233    2.20 | 18.23    0.97
 0.250    0.68 | 6.250    2.92 |12.250    2.20 | 18.25    0.97
 0.267    0.68 | 6.267    2.92 |12.267    2.20 | 18.27    0.97
 0.283    0.68 | 6.283    2.92 |12.283    2.20 | 18.28    0.97
 0.300    0.68 | 6.300    2.92 |12.300    2.20 | 18.30    0.97
 0.317    0.68 | 6.317    2.92 |12.317    2.20 | 18.32    0.97
 0.333    0.68 | 6.333    2.92 |12.333    2.20 | 18.33    0.97
 0.350    0.70 | 6.350    3.26 |12.350    2.12 | 18.35    0.96
 0.367    0.70 | 6.367    3.26 |12.367    2.12 | 18.37    0.96
 0.383    0.70 | 6.383    3.26 |12.383    2.12 | 18.38    0.96
 0.400    0.70 | 6.400    3.26 |12.400    2.12 | 18.40    0.96
 0.417    0.70 | 6.417    3.26 |12.417    2.12 | 18.42    0.96
 0.433    0.70 | 6.433    3.26 |12.433    2.12 | 18.43    0.96
 0.450    0.70 | 6.450    3.26 |12.450    2.12 | 18.45    0.96
 0.467    0.70 | 6.467    3.26 |12.467    2.12 | 18.47    0.96
 0.483    0.70 | 6.483    3.26 |12.483    2.12 | 18.48    0.96
 0.500    0.70 | 6.500    3.26 |12.500    2.12 | 18.50    0.96
 0.517    0.71 | 6.517    3.69 |12.517    2.05 | 18.52    0.94
 0.533    0.71 | 6.533    3.69 |12.533    2.05 | 18.53    0.94
 0.550    0.71 | 6.550    3.69 |12.550    2.05 | 18.55    0.94
 0.567    0.71 | 6.567    3.69 |12.567    2.05 | 18.57    0.94
 0.583    0.71 | 6.583    3.69 |12.583    2.05 | 18.58    0.94
 0.600    0.71 | 6.600    3.69 |12.600    2.05 | 18.60    0.94
 0.617    0.71 | 6.617    3.69 |12.617    2.05 | 18.62    0.94
 0.633    0.71 | 6.633    3.69 |12.633    2.05 | 18.63    0.94
 0.650    0.71 | 6.650    3.69 |12.650    2.05 | 18.65    0.94
 0.667    0.71 | 6.667    3.69 |12.667    2.05 | 18.67    0.94
 0.683    0.73 | 6.683    4.25 |12.683    1.98 | 18.68    0.93
 0.700    0.73 | 6.700    4.25 |12.700    1.98 | 18.70    0.93
 0.717    0.73 | 6.717    4.25 |12.717    1.98 | 18.72    0.93
 0.733    0.73 | 6.733    4.25 |12.733    1.98 | 18.73    0.93
 0.750    0.73 | 6.750    4.25 |12.750    1.98 | 18.75    0.93
 0.767    0.73 | 6.767    4.25 |12.767    1.98 | 18.77    0.93
 0.783    0.73 | 6.783    4.25 |12.783    1.98 | 18.78    0.93
 0.800    0.73 | 6.800    4.25 |12.800    1.98 | 18.80    0.93
 0.817    0.73 | 6.817    4.25 |12.817    1.98 | 18.82    0.93
 0.833    0.73 | 6.833    4.25 |12.833    1.98 | 18.83    0.93
 0.850    0.74 | 6.850    5.02 |12.850    1.92 | 18.85    0.92
 0.867    0.74 | 6.867    5.02 |12.867    1.92 | 18.87    0.92
 0.883    0.74 | 6.883    5.02 |12.883    1.92 | 18.88    0.92
 0.900    0.74 | 6.900    5.02 |12.900    1.92 | 18.90    0.92
 0.917    0.74 | 6.917    5.02 |12.917    1.92 | 18.92    0.92
 0.933    0.74 | 6.933    5.02 |12.933    1.92 | 18.93    0.92
 0.950    0.74 | 6.950    5.02 |12.950    1.92 | 18.95    0.92
 0.967    0.74 | 6.967    5.02 |12.967    1.92 | 18.97    0.92
 0.983    0.74 | 6.983    5.02 |12.983    1.92 | 18.98    0.92
 1.000    0.74 | 7.000    5.03 |13.000    1.92 | 19.00    0.92
 1.017    0.76 | 7.017    6.15 |13.017    1.86 | 19.02    0.91
 1.033    0.76 | 7.033    6.15 |13.033    1.86 | 19.03    0.91
 1.050    0.76 | 7.050    6.15 |13.050    1.86 | 19.05    0.91
 1.067    0.76 | 7.067    6.15 |13.067    1.86 | 19.07    0.91
 1.083    0.76 | 7.083    6.15 |13.083    1.86 | 19.08    0.91
 1.100    0.76 | 7.100    6.15 |13.100    1.86 | 19.10    0.91
 1.117    0.76 | 7.117    6.15 |13.117    1.86 | 19.12    0.91
 1.133    0.76 | 7.133    6.15 |13.133    1.86 | 19.13    0.91
 1.150    0.76 | 7.150    6.15 |13.150    1.86 | 19.15    0.91
 1.167    0.76 | 7.167    6.16 |13.167    1.86 | 19.17    0.91
 1.183    0.77 | 7.183    7.95 |13.183    1.80 | 19.18    0.89
 1.200    0.77 | 7.200    7.95 |13.200    1.80 | 19.20    0.89
 1.217    0.77 | 7.217    7.95 |13.217    1.80 | 19.22    0.89
 1.233    0.77 | 7.233    7.95 |13.233    1.80 | 19.23    0.89
 1.250    0.77 | 7.250    7.95 |13.250    1.80 | 19.25    0.89
 1.267    0.77 | 7.267    7.95 |13.267    1.80 | 19.27    0.89
 1.283    0.77 | 7.283    7.95 |13.283    1.80 | 19.28    0.89
 1.300    0.77 | 7.300    7.95 |13.300    1.80 | 19.30    0.89
 1.317    0.77 | 7.317    7.95 |13.317    1.80 | 19.32    0.89
 1.333    0.77 | 7.333    7.96 |13.333    1.80 | 19.33    0.89
 1.350    0.79 | 7.350   11.22 |13.350    1.75 | 19.35    0.88
 1.367    0.79 | 7.367   11.22 |13.367    1.75 | 19.37    0.88
 1.383    0.79 | 7.383   11.22 |13.383    1.75 | 19.38    0.88
 1.400    0.79 | 7.400   11.22 |13.400    1.75 | 19.40    0.88
 1.417    0.79 | 7.417   11.22 |13.417    1.75 | 19.42    0.88
 1.433    0.79 | 7.433   11.22 |13.433    1.75 | 19.43    0.88
 1.450    0.79 | 7.450   11.22 |13.450    1.75 | 19.45    0.88
 1.467    0.79 | 7.467   11.22 |13.467    1.75 | 19.47    0.88
 1.483    0.79 | 7.483   11.22 |13.483    1.75 | 19.48    0.88
 1.500    0.79 | 7.500   11.24 |13.500    1.75 | 19.50    0.88
 1.517    0.81 | 7.517   18.75 |13.517    1.70 | 19.52    0.87
 1.533    0.81 | 7.533   18.75 |13.533    1.70 | 19.53    0.87
 1.550    0.81 | 7.550   18.75 |13.550    1.70 | 19.55    0.87
 1.567    0.81 | 7.567   18.75 |13.567    1.70 | 19.57    0.87
 1.583    0.81 | 7.583   18.75 |13.583    1.70 | 19.58    0.87
 1.600    0.81 | 7.600   18.75 |13.600    1.70 | 19.60    0.87
 1.617    0.81 | 7.617   18.75 |13.617    1.70 | 19.62    0.87
 1.633    0.81 | 7.633   18.75 |13.633    1.70 | 19.63    0.87
 1.650    0.81 | 7.650   18.75 |13.650    1.70 | 19.65    0.87
 1.667    0.81 | 7.667   18.84 |13.667    1.70 | 19.67    0.87
 1.683    0.83 | 7.683   49.66 |13.683    1.66 | 19.68    0.86
 1.700    0.83 | 7.700   49.66 |13.700    1.66 | 19.70    0.86
 1.717    0.83 | 7.717   49.66 |13.717    1.66 | 19.72    0.86
 1.733    0.83 | 7.733   49.66 |13.733    1.66 | 19.73    0.86
 1.750    0.83 | 7.750   49.66 |13.750    1.66 | 19.75    0.86
 1.767    0.83 | 7.767   49.66 |13.767    1.66 | 19.77    0.86
 1.783    0.83 | 7.783   49.66 |13.783    1.66 | 19.78    0.86
 1.800    0.83 | 7.800   49.66 |13.800    1.66 | 19.80    0.86
 1.817    0.83 | 7.817   49.66 |13.817    1.66 | 19.82    0.86
 1.833    0.83 | 7.833   50.02 |13.833    1.66 | 19.83    0.86
 1.850    0.85 | 7.850  172.68 |13.850    1.61 | 19.85    0.85
 1.867    0.85 | 7.867  172.68 |13.867    1.61 | 19.87    0.85
 1.883    0.85 | 7.883  172.68 |13.883    1.61 | 19.88    0.85
 1.900    0.85 | 7.900  172.68 |13.900    1.61 | 19.90    0.85
 1.917    0.85 | 7.917  172.68 |13.917    1.61 | 19.92    0.85
 1.933    0.85 | 7.933  172.68 |13.933    1.61 | 19.93    0.85
 1.950    0.85 | 7.950  172.68 |13.950    1.61 | 19.95    0.85
 1.967    0.85 | 7.967  172.68 |13.967    1.61 | 19.97    0.85
 1.983    0.85 | 7.983  172.68 |13.983    1.61 | 19.98    0.85
 2.000    0.85 | 8.000  172.36 |14.000    1.61 | 20.00    0.85
 2.017    0.88 | 8.017   65.83 |14.017    1.57 | 20.02    0.84
 2.033    0.88 | 8.033   65.83 |14.033    1.57 | 20.03    0.84
 2.050    0.88 | 8.050   65.83 |14.050    1.57 | 20.05    0.84
 2.067    0.88 | 8.067   65.83 |14.067    1.57 | 20.07    0.84
 2.083    0.88 | 8.083   65.83 |14.083    1.57 | 20.08    0.84
 2.100    0.88 | 8.100   65.83 |14.100    1.57 | 20.10    0.84
 2.117    0.88 | 8.117   65.83 |14.117    1.57 | 20.12    0.84
 2.133    0.88 | 8.133   65.83 |14.133    1.57 | 20.13    0.84
 2.150    0.88 | 8.150   65.83 |14.150    1.57 | 20.15    0.84
 2.167    0.88 | 8.167   65.74 |14.167    1.57 | 20.17    0.84
 2.183    0.90 | 8.183   33.57 |14.183    1.53 | 20.18    0.83
 2.200    0.90 | 8.200   33.57 |14.200    1.53 | 20.20    0.83
 2.217    0.90 | 8.217   33.57 |14.217    1.53 | 20.22    0.83
 2.233    0.90 | 8.233   33.57 |14.233    1.53 | 20.23    0.83
 2.250    0.90 | 8.250   33.57 |14.250    1.53 | 20.25    0.83
 2.267    0.90 | 8.267   33.57 |14.267    1.53 | 20.27    0.83
 2.283    0.90 | 8.283   33.57 |14.283    1.53 | 20.28    0.83
 2.300    0.90 | 8.300   33.57 |14.300    1.53 | 20.30    0.83
 2.317    0.90 | 8.317   33.57 |14.317    1.53 | 20.32    0.83
 2.333    0.90 | 8.333   33.53 |14.333    1.53 | 20.33    0.83
 2.350    0.92 | 8.350   21.73 |14.350    1.50 | 20.35    0.82
 2.367    0.92 | 8.367   21.73 |14.367    1.50 | 20.37    0.82
 2.383    0.92 | 8.383   21.73 |14.383    1.50 | 20.38    0.82
 2.400    0.92 | 8.400   21.73 |14.400    1.50 | 20.40    0.82
 2.417    0.92 | 8.417   21.73 |14.417    1.50 | 20.42    0.82
 2.433    0.92 | 8.433   21.73 |14.433    1.50 | 20.43    0.82
 2.450    0.92 | 8.450   21.73 |14.450    1.50 | 20.45    0.82
 2.467    0.92 | 8.467   21.73 |14.467    1.50 | 20.47    0.82
 2.483    0.92 | 8.483   21.73 |14.483    1.50 | 20.48    0.82
 2.500    0.92 | 8.500   21.72 |14.500    1.50 | 20.50    0.82
 2.517    0.95 | 8.517   15.83 |14.517    1.46 | 20.52    0.81
 2.533    0.95 | 8.533   15.83 |14.533    1.46 | 20.53    0.81
 2.550    0.95 | 8.550   15.83 |14.550    1.46 | 20.55    0.81
 2.567    0.95 | 8.567   15.83 |14.567    1.46 | 20.57    0.81
 2.583    0.95 | 8.583   15.83 |14.583    1.46 | 20.58    0.81
 2.600    0.95 | 8.600   15.83 |14.600    1.46 | 20.60    0.81
 2.617    0.95 | 8.617   15.83 |14.617    1.46 | 20.62    0.81
 2.633    0.95 | 8.633   15.82 |14.633    1.46 | 20.63    0.81
 2.650    0.95 | 8.650   15.83 |14.650    1.46 | 20.65    0.81
 2.667    0.95 | 8.667   15.82 |14.667    1.46 | 20.67    0.81
 2.683    0.98 | 8.683   12.37 |14.683    1.43 | 20.68    0.80
 2.700    0.98 | 8.700   12.37 |14.700    1.43 | 20.70    0.80
 2.717    0.98 | 8.717   12.37 |14.717    1.43 | 20.72    0.80
 2.733    0.98 | 8.733   12.37 |14.733    1.43 | 20.73    0.80
 2.750    0.98 | 8.750   12.37 |14.750    1.43 | 20.75    0.80
 2.767    0.98 | 8.767   12.37 |14.767    1.43 | 20.77    0.80
 2.783    0.98 | 8.783   12.37 |14.783    1.43 | 20.78    0.80
 2.800    0.98 | 8.800   12.37 |14.800    1.43 | 20.80    0.80
 2.817    0.98 | 8.817   12.37 |14.817    1.43 | 20.82    0.80
 2.833    0.98 | 8.833   12.36 |14.833    1.43 | 20.83    0.80
 2.850    1.01 | 8.850   10.11 |14.850    1.39 | 20.85    0.79
 2.867    1.01 | 8.867   10.11 |14.867    1.39 | 20.87    0.79
 2.883    1.01 | 8.883   10.11 |14.883    1.39 | 20.88    0.79
 2.900    1.01 | 8.900   10.11 |14.900    1.39 | 20.90    0.79
 2.917    1.01 | 8.917   10.11 |14.917    1.39 | 20.92    0.79
 2.933    1.01 | 8.933   10.11 |14.933    1.39 | 20.93    0.79
 2.950    1.01 | 8.950   10.11 |14.950    1.39 | 20.95    0.79
 2.967    1.01 | 8.967   10.11 |14.967    1.39 | 20.97    0.79
 2.983    1.01 | 8.983   10.11 |14.983    1.39 | 20.98    0.79
 3.000    1.01 | 9.000   10.11 |15.000    1.39 | 21.00    0.79
 3.017    1.04 | 9.017    8.54 |15.017    1.36 | 21.02    0.78
 3.033    1.04 | 9.033    8.54 |15.033    1.36 | 21.03    0.78
 3.050    1.04 | 9.050    8.54 |15.050    1.36 | 21.05    0.78
 3.067    1.04 | 9.067    8.54 |15.067    1.36 | 21.07    0.78
 3.083    1.04 | 9.083    8.54 |15.083    1.36 | 21.08    0.78
 3.100    1.04 | 9.100    8.54 |15.100    1.36 | 21.10    0.78
 3.117    1.04 | 9.117    8.54 |15.117    1.36 | 21.12    0.78
 3.133    1.04 | 9.133    8.54 |15.133    1.36 | 21.13    0.78
 3.150    1.04 | 9.150    8.54 |15.150    1.36 | 21.15    0.78
 3.167    1.04 | 9.167    8.54 |15.167    1.36 | 21.17    0.78
 3.183    1.08 | 9.183    7.39 |15.183    1.34 | 21.18    0.77
 3.200    1.08 | 9.200    7.39 |15.200    1.34 | 21.20    0.77
 3.217    1.08 | 9.217    7.39 |15.217    1.34 | 21.22    0.77
 3.233    1.08 | 9.233    7.39 |15.233    1.34 | 21.23    0.77
 3.250    1.08 | 9.250    7.39 |15.250    1.34 | 21.25    0.77
 3.267    1.08 | 9.267    7.39 |15.267    1.34 | 21.27    0.77
 3.283    1.08 | 9.283    7.39 |15.283    1.34 | 21.28    0.77
 3.300    1.08 | 9.300    7.39 |15.300    1.34 | 21.30    0.77
 3.317    1.08 | 9.317    7.39 |15.317    1.34 | 21.32    0.77
 3.333    1.08 | 9.333    7.39 |15.333    1.34 | 21.33    0.77
 3.350    1.11 | 9.350    6.51 |15.350    1.31 | 21.35    0.76
 3.367    1.11 | 9.367    6.51 |15.367    1.31 | 21.37    0.76
 3.383    1.11 | 9.383    6.51 |15.383    1.31 | 21.38    0.76
 3.400    1.11 | 9.400    6.51 |15.400    1.31 | 21.40    0.76
 3.417    1.11 | 9.417    6.51 |15.417    1.31 | 21.42    0.76
 3.433    1.11 | 9.433    6.51 |15.433    1.31 | 21.43    0.76
 3.450    1.11 | 9.450    6.51 |15.450    1.31 | 21.45    0.76
 3.467    1.11 | 9.467    6.51 |15.467    1.31 | 21.47    0.76
 3.483    1.11 | 9.483    6.51 |15.483    1.31 | 21.48    0.76
 3.500    1.11 | 9.500    6.51 |15.500    1.31 | 21.50    0.76
 3.517    1.15 | 9.517    5.82 |15.517    1.28 | 21.52    0.75
 3.533    1.15 | 9.533    5.82 |15.533    1.28 | 21.53    0.75
 3.550    1.15 | 9.550    5.82 |15.550    1.28 | 21.55    0.75
 3.567    1.15 | 9.567    5.82 |15.567    1.28 | 21.57    0.75
 3.583    1.15 | 9.583    5.82 |15.583    1.28 | 21.58    0.75
 3.600    1.15 | 9.600    5.82 |15.600    1.28 | 21.60    0.75
 3.617    1.15 | 9.617    5.82 |15.617    1.28 | 21.62    0.75
 3.633    1.15 | 9.633    5.82 |15.633    1.28 | 21.63    0.75
 3.650    1.15 | 9.650    5.82 |15.650    1.28 | 21.65    0.75
 3.667    1.15 | 9.667    5.82 |15.667    1.28 | 21.67    0.75
 3.683    1.20 | 9.683    5.26 |15.683    1.26 | 21.68    0.75
 3.700    1.20 | 9.700    5.26 |15.700    1.26 | 21.70    0.75
 3.717    1.20 | 9.717    5.26 |15.717    1.26 | 21.72    0.75
 3.733    1.20 | 9.733    5.26 |15.733    1.26 | 21.73    0.75
 3.750    1.20 | 9.750    5.26 |15.750    1.26 | 21.75    0.75
 3.767    1.20 | 9.767    5.26 |15.767    1.26 | 21.77    0.75
 3.783    1.20 | 9.783    5.26 |15.783    1.26 | 21.78    0.75
 3.800    1.20 | 9.800    5.26 |15.800    1.26 | 21.80    0.75
 3.817    1.20 | 9.817    5.26 |15.817    1.26 | 21.82    0.75
 3.833    1.20 | 9.833    5.26 |15.833    1.26 | 21.83    0.75
 3.850    1.24 | 9.850    4.80 |15.850    1.23 | 21.85    0.74
 3.867    1.24 | 9.867    4.80 |15.867    1.23 | 21.87    0.74
 3.883    1.24 | 9.883    4.80 |15.883    1.23 | 21.88    0.74
 3.900    1.24 | 9.900    4.80 |15.900    1.23 | 21.90    0.74
 3.917    1.24 | 9.917    4.80 |15.917    1.23 | 21.92    0.74
 3.933    1.24 | 9.933    4.80 |15.933    1.23 | 21.93    0.74
 3.950    1.24 | 9.950    4.80 |15.950    1.23 | 21.95    0.74
 3.967    1.24 | 9.967    4.80 |15.967    1.23 | 21.97    0.74
 3.983    1.24 | 9.983    4.80 |15.983    1.23 | 21.98    0.74
 4.000    1.24 |10.000    4.80 |16.000    1.23 | 22.00    0.74
 4.017    1.29 |10.017    4.42 |16.017    1.21 | 22.02    0.73
 4.033    1.29 |10.033    4.42 |16.033    1.21 | 22.03    0.73
 4.050    1.29 |10.050    4.42 |16.050    1.21 | 22.05    0.73
 4.067    1.29 |10.067    4.42 |16.067    1.21 | 22.07    0.73
 4.083    1.29 |10.083    4.42 |16.083    1.21 | 22.08    0.73
 4.100    1.29 |10.100    4.42 |16.100    1.21 | 22.10    0.73
 4.117    1.29 |10.117    4.42 |16.117    1.21 | 22.12    0.73
 4.133    1.29 |10.133    4.42 |16.133    1.21 | 22.13    0.73
 4.150    1.29 |10.150    4.42 |16.150    1.21 | 22.15    0.73
 4.167    1.29 |10.167    4.42 |16.167    1.21 | 22.17    0.73
 4.183    1.35 |10.183    4.09 |16.183    1.19 | 22.18    0.72
 4.200    1.35 |10.200    4.09 |16.200    1.19 | 22.20    0.72
 4.217    1.35 |10.217    4.09 |16.217    1.19 | 22.22    0.72
 4.233    1.35 |10.233    4.09 |16.233    1.19 | 22.23    0.72
 4.250    1.35 |10.250    4.09 |16.250    1.19 | 22.25    0.72
 4.267    1.35 |10.267    4.09 |16.267    1.19 | 22.27    0.72
 4.283    1.35 |10.283    4.09 |16.283    1.19 | 22.28    0.72
 4.300    1.35 |10.300    4.09 |16.300    1.19 | 22.30    0.72
 4.317    1.35 |10.317    4.09 |16.317    1.19 | 22.32    0.72
 4.333    1.35 |10.333    4.09 |16.333    1.19 | 22.33    0.72
 4.350    1.41 |10.350    3.81 |16.350    1.16 | 22.35    0.72
 4.367    1.41 |10.367    3.81 |16.367    1.16 | 22.37    0.72
 4.383    1.41 |10.383    3.81 |16.383    1.16 | 22.38    0.72
 4.400    1.41 |10.400    3.81 |16.400    1.16 | 22.40    0.72
 4.417    1.41 |10.417    3.81 |16.417    1.16 | 22.42    0.72
 4.433    1.41 |10.433    3.81 |16.433    1.16 | 22.43    0.72
 4.450    1.41 |10.450    3.81 |16.450    1.16 | 22.45    0.72
 4.467    1.41 |10.467    3.81 |16.467    1.16 | 22.47    0.72
 4.483    1.41 |10.483    3.81 |16.483    1.16 | 22.48    0.72
 4.500    1.41 |10.500    3.81 |16.500    1.16 | 22.50    0.72
 4.517    1.48 |10.517    3.57 |16.517    1.14 | 22.52    0.71
 4.533    1.48 |10.533    3.57 |16.533    1.14 | 22.53    0.71
 4.550    1.48 |10.550    3.57 |16.550    1.14 | 22.55    0.71
 4.567    1.48 |10.567    3.57 |16.567    1.14 | 22.57    0.71
 4.583    1.48 |10.583    3.57 |16.583    1.14 | 22.58    0.71
 4.600    1.48 |10.600    3.57 |16.600    1.14 | 22.60    0.71
 4.617    1.48 |10.617    3.57 |16.617    1.14 | 22.62    0.71
 4.633    1.48 |10.633    3.57 |16.633    1.14 | 22.63    0.71
 4.650    1.48 |10.650    3.57 |16.650    1.14 | 22.65    0.71
 4.667    1.48 |10.667    3.57 |16.667    1.14 | 22.67    0.71
 4.683    1.55 |10.683    3.36 |16.683    1.12 | 22.68    0.70
 4.700    1.55 |10.700    3.36 |16.700    1.12 | 22.70    0.70
 4.717    1.55 |10.717    3.36 |16.717    1.12 | 22.72    0.70
 4.733    1.55 |10.733    3.36 |16.733    1.12 | 22.73    0.70
 4.750    1.55 |10.750    3.36 |16.750    1.12 | 22.75    0.70
 4.767    1.55 |10.767    3.36 |16.767    1.12 | 22.77    0.70
 4.783    1.55 |10.783    3.36 |16.783    1.12 | 22.78    0.70
 4.800    1.55 |10.800    3.36 |16.800    1.12 | 22.80    0.70
 4.817    1.55 |10.817    3.36 |16.817    1.12 | 22.82    0.70
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4.833	1.55	10.833	3.36	16.833	1.12	22.83	0.70
4.850	1.63	10.850	3.17	16.850	1.10	22.85	0.69
4.867	1.63	10.867	3.17	16.867	1.10	22.87	0.69
4.883	1.63	10.883	3.17	16.883	1.10	22.88	0.69
4.900	1.63	10.900	3.17	16.900	1.10	22.90	0.69
4.917	1.63	10.917	3.17	16.917	1.10	22.92	0.69
4.933	1.63	10.933	3.17	16.933	1.10	22.93	0.69
4.950	1.63	10.950	3.17	16.950	1.10	22.95	0.69
4.967	1.63	10.967	3.17	16.967	1.10	22.97	0.69
4.983	1.63	10.983	3.17	16.983	1.10	22.98	0.69
5.000	1.63	11.000	3.17	17.000	1.10	23.00	0.69
5.017	1.72	11.017	3.00	17.017	1.09	23.02	0.69
5.033	1.72	11.033	3.00	17.033	1.09	23.03	0.69
5.050	1.72	11.050	3.00	17.050	1.09	23.05	0.69
5.067	1.72	11.067	3.00	17.067	1.09	23.07	0.69
5.083	1.72	11.083	3.00	17.083	1.09	23.08	0.69
5.100	1.72	11.100	3.00	17.100	1.09	23.10	0.69
5.117	1.72	11.117	3.00	17.117	1.09	23.12	0.69
5.133	1.72	11.133	3.00	17.133	1.09	23.13	0.69
5.150	1.72	11.150	3.00	17.150	1.09	23.15	0.69
5.167	1.72	11.167	3.00	17.167	1.09	23.17	0.69
5.183	1.83	11.183	2.85	17.183	1.07	23.18	0.68
5.200	1.83	11.200	2.85	17.200	1.07	23.20	0.68
5.217	1.83	11.217	2.85	17.217	1.07	23.22	0.68
5.233	1.83	11.233	2.85	17.233	1.07	23.23	0.68
5.250	1.83	11.250	2.85	17.250	1.07	23.25	0.68
5.267	1.83	11.267	2.85	17.267	1.07	23.27	0.68
5.283	1.83	11.283	2.85	17.283	1.07	23.28	0.68
5.300	1.83	11.300	2.85	17.300	1.07	23.30	0.68
5.317	1.83	11.317	2.85	17.317	1.07	23.32	0.68
5.333	1.83	11.333	2.85	17.333	1.07	23.33	0.68
5.350	1.95	11.350	2.72	17.350	1.05	23.35	0.67
5.367	1.95	11.367	2.72	17.367	1.05	23.37	0.67
5.383	1.95	11.383	2.72	17.383	1.05	23.38	0.67
5.400	1.95	11.400	2.72	17.400	1.05	23.40	0.67
5.417	1.95	11.417	2.72	17.417	1.05	23.42	0.67
5.433	1.95	11.433	2.72	17.433	1.05	23.43	0.67
5.450	1.95	11.450	2.72	17.450	1.05	23.45	0.67
5.467	1.95	11.467	2.72	17.467	1.05	23.47	0.67
5.483	1.95	11.483	2.72	17.483	1.05	23.48	0.67
5.500	1.95	11.500	2.72	17.500	1.05	23.50	0.67
5.517	2.08	11.517	2.59	17.517	1.03	23.52	0.67
5.533	2.08	11.533	2.59	17.533	1.03	23.53	0.67
5.550	2.08	11.550	2.59	17.550	1.03	23.55	0.67
5.567	2.08	11.567	2.59	17.567	1.03	23.57	0.67
5.583	2.08	11.583	2.59	17.583	1.03	23.58	0.67
5.600	2.08	11.600	2.59	17.600	1.03	23.60	0.67
5.617	2.08	11.617	2.59	17.617	1.03	23.62	0.67
5.633	2.08	11.633	2.59	17.633	1.03	23.63	0.67
5.650	2.08	11.650	2.59	17.650	1.03	23.65	0.67
5.667	2.08	11.667	2.59	17.667	1.03	23.67	0.67
5.683	2.24	11.683	2.48	17.683	1.02	23.68	0.66
5.700	2.24	11.700	2.48	17.700	1.02	23.70	0.66
5.717	2.24	11.717	2.48	17.717	1.02	23.72	0.66
5.733	2.24	11.733	2.48	17.733	1.02	23.73	0.66
5.750	2.24	11.750	2.48	17.750	1.02	23.75	0.66
5.767	2.24	11.767	2.48	17.767	1.02	23.77	0.66
5.783	2.24	11.783	2.48	17.783	1.02	23.78	0.66
5.800	2.24	11.800	2.48	17.800	1.02	23.80	0.66
5.817	2.24	11.817	2.48	17.817	1.02	23.82	0.66
5.833	2.24	11.833	2.48	17.833	1.02	23.83	0.66
5.850	2.43	11.850	2.38	17.850	1.00	23.85	0.65
5.867	2.43	11.867	2.38	17.867	1.00	23.87	0.65
5.883	2.43	11.883	2.38	17.883	1.00	23.88	0.65
5.900	2.43	11.900	2.38	17.900	1.00	23.90	0.65
5.917	2.43	11.917	2.38	17.917	1.00	23.92	0.65
5.933	2.43	11.933	2.38	17.933	1.00	23.93	0.65
5.950	2.43	11.950	2.38	17.950	1.00	23.95	0.65
5.967	2.43	11.967	2.38	17.967	1.00	23.97	0.65
5.983	2.43	11.983	2.38	17.983	1.00	23.98	0.65
6.000	2.43	12.000	2.38	18.000	1.00	24.00	0.65

Max.Eff.Inten.(mm/hr)=	172.68	46.73	
over (min)	5.00	10.00	
Storage Coeff. (min)=	3.33 (ii)	9.91 (ii)	
Unit Hyd. Tpeak (min)=	5.00	10.00	
Unit Hyd. peak (cms)=	0.29	0.11	
			TOTALS
PEAK FLOW (cms)=	0.63	0.18	0.757 (iii)
TIME TO PEAK (hrs)=	8.00	8.13	8.02
RUNOFF VOLUME (mm)=	107.06	30.88	59.83
TOTAL RAINFALL (mm)=	108.06	108.06	108.06
RUNOFF COEFFICIENT =	0.99	0.29	0.55

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 48.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (1022)	Area (ha)=	2.86	
ID= 1 DT= 1.0 min	Total Imp(%)=	41.00	Dir. Conn.(%)= 35.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.17	1.69
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.50	2.00
Length (m)=	138.06	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 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
0.017	0.67	6.017	2.65	12.017	2.29	18.02	0.99
0.033	0.67	6.033	2.65	12.033	2.29	18.03	0.99
0.050	0.67	6.050	2.65	12.050	2.29	18.05	0.99
0.067	0.67	6.067	2.65	12.067	2.29	18.07	0.99
0.083	0.67	6.083	2.65	12.083	2.29	18.08	0.99
0.100	0.67	6.100	2.65	12.100	2.29	18.10	0.99
0.117	0.67	6.117	2.65	12.117	2.29	18.12	0.99
0.133	0.67	6.133	2.65	12.133	2.29	18.13	0.99
0.150	0.67	6.150	2.65	12.150	2.29	18.15	0.99
0.167	0.67	6.167	2.65	12.167	2.29	18.17	0.99
0.183	0.68	6.183	2.92	12.183	2.20	18.18	0.97
0.200	0.68	6.200	2.92	12.200	2.20	18.20	0.97
0.217	0.68	6.217	2.92	12.217	2.20	18.22	0.97
0.233	0.68	6.233	2.92	12.233	2.20	18.23	0.97
0.250	0.68	6.250	2.92	12.250	2.20	18.25	0.97
0.267	0.68	6.267	2.92	12.267	2.20	18.27	0.97
0.283	0.68	6.283	2.92	12.283	2.20	18.28	0.97
0.300	0.68	6.300	2.92	12.300	2.20	18.30	0.97
0.317	0.68	6.317	2.92	12.317	2.20	18.32	0.97
0.333	0.68	6.333	2.92	12.333	2.20	18.33	0.97
0.350	0.70	6.350	3.26	12.350	2.12	18.35	0.96
0.367	0.70	6.367	3.26	12.367	2.12	18.37	0.96
0.383	0.70	6.383	3.26	12.383	2.12	18.38	0.96
0.400	0.70	6.400	3.26	12.400	2.12	18.40	0.96
0.417	0.70	6.417	3.26	12.417	2.12	18.42	0.96
0.433	0.70	6.433	3.26	12.433	2.12	18.43	0.96
0.450	0.70	6.450	3.26	12.450	2.12	18.45	0.96
0.467	0.70	6.467	3.26	12.467	2.12	18.47	0.96
0.483	0.70	6.483	3.26	12.483	2.12	18.48	0.96
0.500	0.70	6.500	3.26	12.500	2.12	18.50	0.96
0.517	0.71	6.517	3.69	12.517	2.05	18.52	0.94
0.533	0.71	6.533	3.69	12.533	2.05	18.53	0.94
0.550	0.71	6.550	3.69	12.550	2.05	18.55	0.94
0.567	0.71	6.567	3.69	12.567	2.05	18.57	0.94
0.583	0.71	6.583	3.69	12.583	2.05	18.58	0.94
0.600	0.71	6.600	3.69	12.600	2.05	18.60	0.94
0.617	0.71	6.617	3.69	12.617	2.05	18.62	0.94
0.633	0.71	6.633	3.69	12.633	2.05	18.63	0.94
0.650	0.71	6.650	3.69	12.650	2.05	18.65	0.94
0.667	0.71	6.667	3.69	12.667	2.05	18.67	0.94
0.683	0.73	6.683	4.25	12.683	1.98	18.68	0.93
0.700	0.73	6.700	4.25	12.700	1.98	18.70	0.93
0.717	0.73	6.717	4.25	12.717	1.98	18.72	0.93
0.733	0.73	6.733	4.25	12.733	1.98	18.73	0.93
0.750	0.73	6.750	4.25	12.750	1.98	18.75	0.93
0.767	0.73	6.767	4.25	12.767	1.98	18.77	0.93
0.783	0.73	6.783	4.25	12.783	1.98	18.78	0.93
0.800	0.73	6.800	4.25	12.800	1.98	18.80	0.93
0.817	0.73	6.817	4.25	12.817	1.98	18.82	0.93
0.833	0.73	6.833	4.25	12.833	1.98	18.83	0.93
0.850	0.74	6.850	5.02	12.850	1.92	18.85	0.92
0.867	0.74	6.867	5.02	12.867	1.92	18.87	0.92
0.883	0.74	6.883	5.02	12.883	1.92	18.88	0.92
0.900	0.74	6.900	5.02	12.900	1.92	18.90	0.92
0.917	0.74	6.917	5.02	12.917	1.92	18.92	0.92
0.933	0.74	6.933	5.02	12.933	1.92	18.93	0.92
0.950	0.74	6.950	5.02	12.950	1.92	18.95	0.92
0.967	0.74	6.967	5.02	12.967	1.92	18.97	0.92
0.983	0.74	6.983	5.02	12.983	1.92	18.98	0.92
1.000	0.74	7.000	5.83	13.000	1.92	19.00	0.92
1.017	0.76	7.017	6.15	13.017	1.86	19.02	0.91
1.033	0.76	7.033	6.15	13.033	1.86	19.03	0.91
1.050	0.76	7.050	6.15	13.050	1.86	19.05	0.91
1.067	0.76	7.067	6.15	13.067	1.86	19.07	0.91
1.083	0.76	7.083	6.15	13.083	1.86	19.08	0.91
1.100	0.76	7.100	6.15	13.100	1.86	19.10	0.91
1.117	0.76	7.117	6.15	13.117	1.86	19.12	0.91
1.133	0.76	7.133	6.15	13.133	1.86	19.13	0.91
1.150	0.76	7.150	6.15	13.150	1.86	19.15	0.91
1.167	0.76	7.167	6.16	13.167	1.86	19.17	0.91
1.183	0.77	7.183	7.95	13.183	1.80	19.18	0.89
1.200	0.77	7.200	7.95	13.200	1.80	19.20	0.89
1.217	0.77	7.217	7.95	13.217	1.80	19.22	0.89
1.233	0.77	7.233	7.95	13.233	1.80	19.23	0.89
1.250	0.77	7.250	7.95	13.250	1.80	19.25	0.89
1.267	0.77	7.267	7.95	13.267	1.80	19.27	0.89
1.283	0.77	7.283	7.95	13.283	1.80	19.28	0.89
1.300	0.77	7.300	7.95	13.300	1.80	19.30	0.89
1.317	0.77	7.317	7.95	13.317	1.80	19.32	0.89
1.333	0.77	7.333	7.96	13.333	1.80	19.33	0.89
1.350	0.79	7.350	11.22	13.350	1.75	19.35	0.88
1.367	0.79	7.367	11.22	13.367	1.75	19.37	0.88
1.383	0.79	7.383	11.22	13.383	1.75	19.38	0.88
1.400	0.79	7.400	11.22	13.400	1.75	19.40	0.88
1.417	0.79	7.417	11.22	13.417	1.75	19.42	0.88
1.433	0.79	7.433	11.22	13.433	1.75	19.43	0.88
1.450	0.79	7.450	11.22	13.450	1.75	19.45	0.88
1.467	0.79	7.467	11.22	13.467	1.75	19.47	0.88
1.483	0.79	7.483	11.22	13.483	1.75	19.48	0.88
1.500	0.79	7.500	11.24	13.500	1.75	19.50	0.88
1.517	0.81	7.517	18.75	13.517	1.70	19.52	0.87
1.533	0.81	7.533	18.75	13.533	1.70	19.53	0.87
1.550	0.81	7.550	18.75	13.550	1.70	19.55	0.87
1.567	0.81	7.567	18.75	13.567	1.70	19.57	0.87
1.583	0.81	7.583	18.75	13.583	1.70	19.58	0.87
1.600	0.81	7.600	18.75	13.600	1.70	19.60	0.87
1.617	0.81	7.617	18.75	13.617	1.70	19.62	0.87
1.633	0.81	7.633	18.75	13.633	1.70	19.63	0.87
1.650	0.81	7.650	18.75	13.650	1.70	19.65	0.87
1.667	0.81	7.667	18.84	13.667	1.70	19.67	0.87
1.683	0.83	7.683	49.66	13.683	1.66	19.68	0.86
1.700	0.83	7.700	49.66	13.700	1.66	19.70	0.86
1.717	0.83	7.717	49.66	13.717	1.66	19.72	0.86
1.733	0.83	7.733	49.66	13.733	1.66	19.73	0.86
1.750	0.83	7.750	49.66	13.750	1.66	19.75	0.86
1.767	0.83	7.767	49.66	13.767	1.66	19.77	0.86
1.783	0.83	7.783	49.66	13.783	1.66	19.78	0.86
1.800	0.83	7.800	49.66	13.800	1.66	19.80	0.86
1.817	0.83	7.817	49.66	13.817	1.66	19.82	0.86
1.833	0.83	7.833	50.02	13.833	1.66	19.83	0.86
1.850	0.85	7.850	172.68	13.850	1.61	19.85	0.85
1.867	0.85	7.867	172.68	13.867	1.61	19.87	0.85
1.883	0.85	7.883	172.68	13.883	1.61	19.88	0.85
1.900	0.85	7.900	172.68	13.900	1.61	19.90	0.85
1.917	0.85	7.917	172.68	13.917	1.61	19.92	0.85
1.933	0.85	7.933	172.68	13.933	1.61	19.93	0.85
1.950	0.85	7.950	172.68	13.950	1.61	19.95	0.85
1.967	0.85	7.967	172.68	13.967	1.61	19.97	0.85
1.983	0.85	7.983	172.68	13.983	1.61	19.98	0.85
2.000	0.85	8.000	172.36	14.000	1.61	20.00	0.85
2.017	0.88	8.017	65.83	14.017	1.57	20.02	0.84
2.033	0.88	8.033	65.83	14.033	1.57	20.03	0.84
2.050	0.88	8.050	65.83	14.050	1.57	20.05	0.84
2.067	0.88	8.067	65.83	14.067	1.57	20.07	0.84
2.083	0.88	8.083	65.83	14.083	1.57	20.08	0.84
2.100	0.88	8.100	65.83	14.100	1.57	20.10	0.84
2.117	0.88	8.117	65.83	14.117	1.57	20.12	0.84
2.133	0.88	8.133	65.83	14.133	1.57	20.13	0.84
2.150	0.88	8.150	65.83	14.150	1.57	20.15	0.84
2.167	0.88	8.167	65.74	14.167	1.57	20.17	0.84
2.183	0.90	8.183	33.57	14.183	1.53	20.18	0.83
2.200	0.90	8.200	33.57	14.200	1.53	20.20	0.83
2.217	0.90	8.217	33.57	14.217	1.53	20.22	0.83
2.233	0.90	8.233	33.57	14.233	1.53	20.23	0.83
2.250	0.90	8.250	33.57	14.250	1.53	20.25	0.83
2.267	0.90	8.267	33.57	14.267	1.53	20.27	0.83
2.283	0.90	8.283	33.57	14.283	1.53	20.28	0.83
2.300	0.90	8.300	33.57	14.300	1.53	20.30	0.83
2.317	0.90	8.317	33.57	14.317	1.53	20.32	0.83
2.333	0.90	8.333	33.53	14.333	1.53	20.33	0.83
2.350	0.92	8.350	21.73	14.350	1.50	20.35	0.82
2.367	0.92	8.367	21.73	14.367	1.50	20.37	0.82
2.383	0.92	8.383	21.73	14.383	1.50	20.38	0.82
2.400	0.92	8.400	21.73	14.400	1.50	20.40	0.82
2.417	0.92	8.417	21.73	14.417	1.50	20.42	0.82
2.433	0.92	8.433	21.73	14.433	1.50	20.43	0.82
2.450	0.92	8.450	21.73	14.450	1.50	20.45	0.82
2.467	0.92	8.467	21.73	14.467	1.50	20.47	0.82
2.483	0.92	8.483	21.73	14.483	1.50	20.48	0.82
2.500	0.92	8.500	21.72	14.500	1.50	20.50	0.82
2.517	0.95	8.517	15.83	14.517	1.46	20.52	0.81
2.533	0.95	8.533	15.83	14.533	1.46	20.53	0.81
2.550	0.95	8.550	15.83	14.550	1.46	20.55	0.81
2.567	0.95	8.567	15.83	14.567	1.46	20.57	0.81
2.583	0.95	8.583	15.83	14.583	1.46	20.58	0.81
2.600	0.95	8.600	15.83	14.600	1.46	20.60	0.81
2.617	0.95	8.617	15.83	14.617	1.46	20.62	0.81
2.633	0.95	8.633	15.83	14.633	1.46	20.63	0.81
2.650	0.95	8.650	15.83	14.650	1.46	20.65	0.81
2.667	0.95	8.667	15.82	14.667	1.46	20.67	0.81
2.683	0.98	8.683	12.37	14.683	1.43	20.68	0.80
2.700	0.98	8.700	12.37	14.700	1.43	20.70	0.80
2.717	0.98	8.717	12.37	14.717	1.43	20.72	0.80
2.733	0.98	8.733	12.37	14.733	1.43	20.73	0.80
2.750	0.98	8.750	12.37	14.750	1.43	20.75	0.80
2.767	0.98	8.767	12.37	14.767	1.43	20.77	0.80
2.783	0.98	8.783	12.37	14.783	1.43	20.78	0.80
2.800	0.98	8.800	12.37	14.800	1.43	20.80	0.80
2.817	0.98	8.817	12.37	14.817	1.43	20.82	0.80
2.833	0.98	8.833	12.36	14.833	1.43	20.83	0.80
2.850	1.01	8.850	10.11	14.850	1.39	20.85	0.79
2.867	1.01	8.867	10.11	14.867	1.39	20.87	0.79
2.883	1.01	8.883	10.11	14.883	1.39	20.88	0.79
2.900	1.01	8.900	10.11	14.900	1.39	20.90	0.79
2.917	1.01	8.917	10.11	14.917	1.39	20.92	0.79
2.933	1.01	8.933	10.11	14.933	1.39	20.93	0.79
2.950	1.01	8.950	10.11	14.950	1.39	20.95	0.79
2.967	1.01	8.967	10.11	14.967	1.39	20.97	0.79
2.983	1.01	8.983	10.11	14.983	1.39	20.98	0.79
3.000	1.01	9.000	10.11	15.000	1.39	21.00	0.79
3.017	1.04	9.017	8.54	15.017	1.36	21.02	0.78
3.033	1.04	9.033	8.54	15.033	1.36	21.03	0.78
3.050	1.04	9.050	8.54	15.050	1.36	21.05	0.78
3.067	1.04	9.067	8.54	15.067	1.36	21.07	0.78
3.083	1.04	9.083	8.54	15.083	1.36	21.08	0.78
3.100	1.04	9.100	8.54	15.100	1.36	21.10	0.78
3.117	1.04	9.117	8.54	15.117	1.36	21.12	0.78
3.133	1.04	9.133	8.54	15.133	1.36	21.13	0.78
3.150	1.04	9.150	8.54	15.150	1.36	21.15	0.78
3.167	1.04	9.167	8.54	15.167	1.36	21.17	0.78
3.183	1.08	9.183	7.39	15.183	1.34	21.18	0.77
3.200	1.08	9.200	7.39	15.200	1.34	21.20	0.77
3.217	1.08	9.217	7.39	15.217	1.34	21.22	0.77
3.233	1.08	9.233	7.39	15.233	1.34	21.23	0.77
3.250	1.08	9.250	7.39	15.250	1.34	21.25	0.77
3.267	1.08	9.267	7.39	15.267	1.34	21.27	0.77
3.283	1.08	9.283	7.39	15.283	1.34	21.28	0.77
3.300	1.08	9.300	7.39	15.300	1.34	21.30	0.77
3.317	1.08	9.317	7.39	15.317	1.34	21.32	0.77
3.333	1.08	9.333	7.39	15.333	1.34	21.33	0.77
3.350	1.11	9.350	6.51	15.350	1.31	21.35	0.76
3.367	1.11	9.367	6.51	15.367	1.31	21.37	0.76

3.383	1.11	9.383	6.51	15.383	1.31	21.38	0.76
3.400	1.11	9.400	6.51	15.400	1.31	21.40	0.76
3.417	1.11	9.417	6.51	15.417	1.31	21.42	0.76
3.433	1.11	9.433	6.51	15.433	1.31	21.43	0.76
3.450	1.11	9.450	6.51	15.450	1.31	21.45	0.76
3.467	1.11	9.467	6.51	15.467	1.31	21.47	0.76
3.483	1.11	9.483	6.51	15.483	1.31	21.48	0.76
3.500	1.11	9.500	6.51	15.500	1.31	21.50	0.76
3.517	1.15	9.517	5.82	15.517	1.28	21.52	0.75
3.533	1.15	9.533	5.82	15.533	1.28	21.53	0.75
3.550	1.15	9.550	5.82	15.550	1.28	21.55	0.75
3.567	1.15	9.567	5.82	15.567	1.28	21.57	0.75
3.583	1.15	9.583	5.82	15.583	1.28	21.58	0.75
3.600	1.15	9.600	5.82	15.600	1.28	21.60	0.75
3.617	1.15	9.617	5.82	15.617	1.28	21.62	0.75
3.633	1.15	9.633	5.82	15.633	1.28	21.63	0.75
3.650	1.15	9.650	5.82	15.650	1.28	21.65	0.75
3.667	1.15	9.667	5.82	15.667	1.28	21.67	0.75
3.683	1.20	9.683	5.26	15.683	1.26	21.68	0.75
3.700	1.20	9.700	5.26	15.700	1.26	21.70	0.75
3.717	1.20	9.717	5.26	15.717	1.26	21.72	0.75
3.733	1.20	9.733	5.26	15.733	1.26	21.73	0.75
3.750	1.20	9.750	5.26	15.750	1.26	21.75	0.75
3.767	1.20	9.767	5.26	15.767	1.26	21.77	0.75
3.783	1.20	9.783	5.26	15.783	1.26	21.78	0.75
3.800	1.20	9.800	5.26	15.800	1.26	21.80	0.75
3.817	1.20	9.817	5.26	15.817	1.26	21.82	0.75
3.833	1.20	9.833	5.26	15.833	1.26	21.83	0.75
3.850	1.24	9.850	4.80	15.850	1.23	21.85	0.74
3.867	1.24	9.867	4.80	15.867	1.23	21.87	0.74
3.883	1.24	9.883	4.80	15.883	1.23	21.88	0.74
3.900	1.24	9.900	4.80	15.900	1.23	21.90	0.74
3.917	1.24	9.917	4.80	15.917	1.23	21.92	0.74
3.933	1.24	9.933	4.80	15.933	1.23	21.93	0.74
3.950	1.24	9.950	4.80	15.950	1.23	21.95	0.74
3.967	1.24	9.967	4.80	15.967	1.23	21.97	0.74
3.983	1.24	9.983	4.80	15.983	1.23	21.98	0.74
4.000	1.24	10.000	4.80	16.000	1.23	22.00	0.74
4.017	1.29	10.017	4.42	16.017	1.21	22.02	0.73
4.033	1.29	10.033	4.42	16.033	1.21	22.03	0.73
4.050	1.29	10.050	4.42	16.050	1.21	22.05	0.73
4.067	1.29	10.067	4.42	16.067	1.21	22.07	0.73
4.083	1.29	10.083	4.42	16.083	1.21	22.08	0.73
4.100	1.29	10.100	4.42	16.100	1.21	22.10	0.73
4.117	1.29	10.117	4.42	16.117	1.21	22.12	0.73
4.133	1.29	10.133	4.42	16.133	1.21	22.13	0.73
4.150	1.29	10.150	4.42	16.150	1.21	22.15	0.73
4.167	1.29	10.167	4.42	16.167	1.21	22.17	0.73
4.183	1.35	10.183	4.09	16.183	1.19	22.18	0.72
4.200	1.35	10.200	4.09	16.200	1.19	22.20	0.72
4.217	1.35	10.217	4.09	16.217	1.19	22.22	0.72
4.233	1.35	10.233	4.09	16.233	1.19	22.23	0.72

4.250	1.35	10.250	4.09	16.250	1.19	22.25	0.72
4.267	1.35	10.267	4.09	16.267	1.19	22.27	0.72
4.283	1.35	10.283	4.09	16.283	1.19	22.28	0.72
4.300	1.35	10.300	4.09	16.300	1.19	22.30	0.72
4.317	1.35	10.317	4.09	16.317	1.19	22.32	0.72
4.333	1.35	10.333	4.09	16.333	1.19	22.33	0.72
4.350	1.41	10.350	3.81	16.350	1.16	22.35	0.72
4.367	1.41	10.367	3.81	16.367	1.16	22.37	0.72
4.383	1.41	10.383	3.81	16.383	1.16	22.38	0.72
4.400	1.41	10.400	3.81	16.400	1.16	22.40	0.72
4.417	1.41	10.417	3.81	16.417	1.16	22.42	0.72
4.433	1.41	10.433	3.81	16.433	1.16	22.43	0.72
4.450	1.41	10.450	3.81	16.450	1.16	22.45	0.72
4.467	1.41	10.467	3.81	16.467	1.16	22.47	0.72
4.483	1.41	10.483	3.81	16.483	1.16	22.48	0.72
4.500	1.41	10.500	3.81	16.500	1.16	22.50	0.72
4.517	1.48	10.517	3.57	16.517	1.14	22.52	0.71
4.533	1.48	10.533	3.57	16.533	1.14	22.53	0.71
4.550	1.48	10.550	3.57	16.550	1.14	22.55	0.71
4.567	1.48	10.567	3.57	16.567	1.14	22.57	0.71
4.583	1.48	10.583	3.57	16.583	1.14	22.58	0.71
4.600	1.48	10.600	3.57	16.600	1.14	22.60	0.71
4.617	1.48	10.617	3.57	16.617	1.14	22.62	0.71
4.633	1.48	10.633	3.57	16.633	1.14	22.63	0.71
4.650	1.48	10.650	3.57	16.650	1.14	22.65	0.71
4.667	1.48	10.667	3.57	16.667	1.14	22.67	0.71
4.683	1.55	10.683	3.36	16.683	1.12	22.68	0.70
4.700	1.55	10.700	3.36	16.700	1.12	22.70	0.70
4.717	1.55	10.717	3.36	16.717	1.12	22.72	0.70
4.733	1.55	10.733	3.36	16.733	1.12	22.73	0.70
4.750	1.55	10.750	3.36	16.750	1.12	22.75	0.70
4.767	1.55	10.767	3.36	16.767	1.12	22.77	0.70
4.783	1.55	10.783	3.36	16.783	1.12	22.78	0.70
4.800	1.55	10.800	3.36	16.800	1.12	22.80	0.70
4.817	1.55	10.817	3.36	16.817	1.12	22.82	0.70
4.833	1.55	10.833	3.36	16.833	1.12	22.83	0.70
4.850	1.63	10.850	3.17	16.850	1.10	22.85	0.69
4.867	1.63	10.867	3.17	16.867	1.10	22.87	0.69
4.883	1.63	10.883	3.17	16.883	1.10	22.88	0.69
4.900	1.63	10.900	3.17	16.900	1.10	22.90	0.69
4.917	1.63	10.917	3.17	16.917	1.10	22.92	0.69
4.933	1.63	10.933	3.17	16.933	1.10	22.93	0.69
4.950	1.63	10.950	3.17	16.950	1.10	22.95	0.69
4.967	1.63	10.967	3.17	16.967	1.10	22.97	0.69
4.983	1.63	10.983	3.17	16.983	1.10	22.98	0.69
5.000	1.63	11.000	3.17	17.000	1.10	23.00	0.69
5.017	1.72	11.017	3.00	17.017	1.09	23.02	0.69
5.033	1.72	11.033	3.00	17.033	1.09	23.03	0.69
5.050	1.72	11.050	3.00	17.050	1.09	23.05	0.69
5.067	1.72	11.067	3.00	17.067	1.09	23.07	0.69
5.083	1.72	11.083	3.00	17.083	1.09	23.08	0.69
5.100	1.72	11.100	3.00	17.100	1.09	23.10	0.69

5.117	1.72	11.117	3.00	17.117	1.09	23.12	0.69
5.133	1.72	11.133	3.00	17.133	1.09	23.13	0.69
5.150	1.72	11.150	3.00	17.150	1.09	23.15	0.69
5.167	1.72	11.167	3.00	17.167	1.09	23.17	0.69
5.183	1.83	11.183	2.85	17.183	1.07	23.18	0.68
5.200	1.83	11.200	2.85	17.200	1.07	23.20	0.68
5.217	1.83	11.217	2.85	17.217	1.07	23.22	0.68
5.233	1.83	11.233	2.85	17.233	1.07	23.23	0.68
5.250	1.83	11.250	2.85	17.250	1.07	23.25	0.68
5.267	1.83	11.267	2.85	17.267	1.07	23.27	0.68
5.283	1.83	11.283	2.85	17.283	1.07	23.28	0.68
5.300	1.83	11.300	2.85	17.300	1.07	23.30	0.68
5.317	1.83	11.317	2.85	17.317	1.07	23.32	0.68
5.333	1.83	11.333	2.85	17.333	1.07	23.33	0.68
5.350	1.95	11.350	2.72	17.350	1.05	23.35	0.67
5.367	1.95	11.367	2.72	17.367	1.05	23.37	0.67
5.383	1.95	11.383	2.72	17.383	1.05	23.38	0.67
5.400	1.95	11.400	2.72	17.400	1.05	23.40	0.67
5.417	1.95	11.417	2.72	17.417	1.05	23.42	0.67
5.433	1.95	11.433	2.72	17.433	1.05	23.43	0.67
5.450	1.95	11.450	2.72	17.450	1.05	23.45	0.67
5.467	1.95	11.467	2.72	17.467	1.05	23.47	0.67
5.483	1.95	11.483	2.72	17.483	1.05	23.48	0.67
5.500	1.95	11.500	2.72	17.500	1.05	23.50	0.67
5.517	2.08	11.517	2.59	17.517	1.03	23.52	0.67
5.533	2.08	11.533	2.59	17.533	1.03	23.53	0.67
5.550	2.08	11.550	2.59	17.550	1.03	23.55	0.67
5.567	2.08	11.567	2.59	17.567	1.03	23.57	0.67
5.583	2.08	11.583	2.59	17.583	1.03	23.58	0.67
5.600	2.08	11.600	2.59	17.600	1.03	23.60	0.67
5.617	2.08	11.617	2.59	17.617	1.03	23.62	0.67
5.633	2.08	11.633	2.59	17.633	1.03	23.63	0.67
5.650	2.08	11.650	2.59	17.650	1.03	23.65	0.67
5.667	2.08	11.667	2.59	17.667	1.03	23.67	0.67
5.683	2.24	11.683	2.48	17.683	1.02	23.68	0.66
5.700	2.24	11.700	2.48	17.700	1.02	23.70	0.66
5.717	2.24	11.717	2.48	17.717	1.02	23.72	0.66
5.733	2.24	11.733	2.48	17.733	1.02	23.73	0.66
5.750	2.24	11.750	2.48	17.750	1.02	23.75	0.66
5.767	2.24	11.767	2.48	17.767	1.02	23.77	0.66
5.783	2.24	11.783	2.48	17.783	1.02	23.78	0.66
5.800	2.24	11.800	2.48	17.800	1.02	23.80	0.66
5.817	2.24	11.817	2.48	17.817	1.02	23.82	0.66
5.833	2.24	11.833	2.48	17.833	1.02	23.83	0.66
5.850	2.43	11.850	2.38	17.850	1.00	23.85	0.65
5.867	2.43	11.867	2.38	17.867	1.00	23.87	0.65
5.883	2.43	11.883	2.38	17.883	1.00	23.88	0.65
5.900	2.43	11.900	2.38	17.900	1.00	23.90	0.65
5.917	2.43	11.917	2.38	17.917	1.00	23.92	0.65
5.933	2.43	11.933	2.38	17.933	1.00	23.93	0.65
5.950	2.43	11.950	2.38	17.950	1.00	23.95	0.65
5.967	2.43	11.967	2.38	17.967	1.00	23.97	0.65

5.983	2.43	11.983	2.38	17.983	1.00	23.98	0.65
6.000	2.43	12.000	2.38	18.000	1.00	24.00	0.65

```
     Max.Eff.Inten.(mm/hr)=     172.68        44.73
               over (min)         5.00        11.00
     Storage Coeff.  (min)=       3.07 (ii)   10.06 (ii)
     Unit Hyd. Tpeak (min)=       5.00        11.00
     Unit Hyd. peak  (cms)=       0.30         0.11
                                                    *TOTALS*
     PEAK FLOW       (cms)=       0.45         0.14          0.535 (iii)
     TIME TO PEAK    (hrs)=       8.00         8.15            8.02
     RUNOFF VOLUME    (mm)=     107.05        30.33           57.19
     TOTAL RAINFALL   (mm)=     108.06       108.06          108.06
     RUNOFF COEFFICIENT   =       0.99         0.28            0.53


       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN*  =  48.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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--------------------
| DUHYD    (  0035)|
| Inlet Cap.= 0.202|
| #of Inlets=    1|
| Total(cms)=   0.2|      AREA     QPEAK     TPEAK    R.V.
--------------------      (ha)     (cms)     (hrs)    (mm)
     TOTAL HYD.(ID= 1):   2.86      0.53      8.02   57.19
     ================================================
     MAJOR SYS.(ID= 2):   0.48      0.33      8.02   57.19
     MINOR SYS.(ID= 3):   2.38      0.20      7.88   57.19

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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--------------------
| ADD HYD  (  0102)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
--------------------        (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  1021):     3.77   0.757     8.02    59.83
     + ID2= 2 (  0035):     0.48   0.333     8.02    57.19
       ================================================
       ID = 3 (  0102):     4.25   1.089     8.02    59.53

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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--------------------
| ADD HYD  (  0903)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
--------------------        (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0102):     4.25   1.089     8.02    59.53
     + ID2= 2 (  0902):    18.55   5.398     8.03    60.14
       ================================================
       ID = 3 (  0903):    22.80   6.478     8.03    60.03

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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--------------------
| CALIB            |
| NASHYD   (  1051)|  Area    (ha)=   1.62   Curve Number   (CN)= 60.0
|ID= 1 DT= 5.0 min |  Ia      (mm)=   5.00   # of Linear Res.(N)= 3.00
--------------------  U.H. Tp(hrs)=   1.87

          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	0.67	6.083	2.65	12.083	2.29	18.08	0.99
0.167	0.67	6.167	2.65	12.167	2.29	18.17	0.99
0.250	0.68	6.250	2.92	12.250	2.20	18.25	0.97
0.333	0.68	6.333	2.92	12.333	2.20	18.33	0.97
0.417	0.70	6.417	3.26	12.417	2.12	18.42	0.96
0.500	0.70	6.500	3.26	12.500	2.12	18.50	0.96
0.583	0.71	6.583	3.69	12.583	2.05	18.58	0.94
0.667	0.71	6.667	3.69	12.667	2.05	18.67	0.94
0.750	0.73	6.750	4.25	12.750	1.98	18.75	0.93
0.833	0.73	6.833	4.25	12.833	1.98	18.83	0.93
0.917	0.74	6.917	5.02	12.917	1.92	18.92	0.92
1.000	0.74	7.000	5.02	13.000	1.92	19.00	0.92
1.083	0.76	7.083	6.15	13.083	1.86	19.08	0.91
1.167	0.76	7.167	6.15	13.167	1.86	19.17	0.91
1.250	0.77	7.250	7.95	13.250	1.80	19.25	0.89
1.333	0.77	7.333	7.95	13.333	1.80	19.33	0.89
1.417	0.79	7.417	11.22	13.417	1.75	19.42	0.88
1.500	0.79	7.500	11.22	13.500	1.75	19.50	0.88
1.583	0.81	7.583	18.75	13.583	1.70	19.58	0.87
1.667	0.81	7.667	18.76	13.667	1.70	19.67	0.87
1.750	0.83	7.750	49.66	13.750	1.66	19.75	0.86
1.833	0.83	7.833	49.67	13.833	1.66	19.83	0.86
1.917	0.85	7.917	172.68	13.917	1.61	19.92	0.85
2.000	0.85	8.000	172.67	14.000	1.61	20.00	0.85
2.083	0.88	8.083	65.83	14.083	1.57	20.08	0.84
2.167	0.88	8.167	65.83	14.167	1.57	20.17	0.84
2.250	0.90	8.250	33.57	14.250	1.53	20.25	0.83
2.333	0.90	8.333	33.56	14.333	1.53	20.33	0.83
2.417	0.92	8.417	21.73	14.417	1.50	20.42	0.82
2.500	0.92	8.500	21.73	14.500	1.50	20.50	0.82
2.583	0.95	8.583	15.83	14.583	1.46	20.58	0.81

2.667	0.95	8.667	15.83	14.667	1.46	20.67	0.81
2.750	0.98	8.750	12.37	14.750	1.43	20.75	0.80
2.833	0.98	8.833	12.37	14.833	1.43	20.83	0.80
2.917	1.01	8.917	10.11	14.917	1.39	20.92	0.79
3.000	1.01	9.000	10.11	15.000	1.39	21.00	0.79
3.083	1.04	9.083	8.54	15.083	1.36	21.08	0.78
3.167	1.04	9.167	8.54	15.167	1.36	21.17	0.78
3.250	1.08	9.250	7.39	15.250	1.34	21.25	0.77
3.333	1.08	9.333	7.39	15.333	1.34	21.33	0.77
3.417	1.11	9.417	6.51	15.417	1.31	21.42	0.76
3.500	1.11	9.500	6.51	15.500	1.31	21.50	0.76
3.583	1.15	9.583	5.82	15.583	1.28	21.58	0.75
3.667	1.15	9.667	5.82	15.667	1.28	21.67	0.75
3.750	1.20	9.750	5.26	15.750	1.26	21.75	0.75
3.833	1.20	9.833	5.26	15.833	1.26	21.83	0.75
3.917	1.24	9.917	4.80	15.917	1.23	21.92	0.74
4.000	1.24	10.000	4.80	16.000	1.23	22.00	0.74
4.083	1.29	10.083	4.42	16.083	1.21	22.08	0.73
4.167	1.29	10.167	4.42	16.167	1.21	22.17	0.73
4.250	1.35	10.250	4.09	16.250	1.19	22.25	0.72
4.333	1.35	10.333	4.09	16.333	1.19	22.33	0.72
4.417	1.41	10.417	3.81	16.417	1.16	22.42	0.72
4.500	1.41	10.500	3.81	16.500	1.16	22.50	0.72
4.583	1.48	10.583	3.57	16.583	1.14	22.58	0.71
4.667	1.48	10.667	3.57	16.667	1.14	22.67	0.71
4.750	1.55	10.750	3.36	16.750	1.12	22.75	0.70
4.833	1.55	10.833	3.36	16.833	1.12	22.83	0.70
4.917	1.63	10.917	3.17	16.917	1.10	22.92	0.69
5.000	1.63	11.000	3.17	17.000	1.10	23.00	0.69
5.083	1.72	11.083	3.00	17.083	1.09	23.08	0.69
5.167	1.72	11.167	3.00	17.167	1.09	23.17	0.69
5.250	1.83	11.250	2.85	17.250	1.07	23.25	0.68
5.333	1.83	11.333	2.85	17.333	1.07	23.33	0.68
5.417	1.95	11.417	2.72	17.417	1.05	23.42	0.67
5.500	1.95	11.500	2.72	17.500	1.05	23.50	0.67
5.583	2.08	11.583	2.59	17.583	1.03	23.58	0.67
5.667	2.08	11.667	2.59	17.667	1.03	23.67	0.67
5.750	2.24	11.750	2.48	17.750	1.02	23.75	0.66
5.833	2.24	11.833	2.48	17.833	1.02	23.83	0.66
5.917	2.43	11.917	2.38	17.917	1.00	23.92	0.65
6.000	2.43	12.000	2.38	18.000	1.00	24.00	0.65

```
Unit Hyd Qpeak  (cms)=   0.033

PEAK FLOW       (cms)=   0.032 (i)
TIME TO PEAK    (hrs)=  10.250
RUNOFF VOLUME    (mm)=  38.992
TOTAL RAINFALL   (mm)= 108.063
RUNOFF COEFFICIENT   =   0.361

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
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| ADD HYD  (  0105)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
--------------------        (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  1051):     1.62   0.032    10.25    38.99
     + ID2= 2 (  0037):     0.33   0.178     8.02    49.56
       ================================================
       ID = 3 (  0105):     1.95   0.179     8.02    40.78

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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--------------------
| ADD HYD  (  0906)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
--------------------        (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0105):     1.95   0.179     8.02    40.78
     + ID2= 2 (  0903):    22.80   6.478     8.03    60.03
       ================================================
       ID = 3 (  0906):    24.75   6.655     8.03    58.51

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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--------------------
| CALIB            |
| NASHYD   (  0201)|  Area     (ha)=   6.97   Curve Number   (CN)= 66.0
|ID= 1 DT= 5.0 min |  Ia       (mm)=   5.00   # of Linear Res.(N)= 3.00
--------------------  U.H. Tp(hrs)=   0.74

        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    0.67 | 6.083    2.65 |12.083    2.29 | 18.08    0.99
 0.167    0.67 | 6.167    2.65 |12.167    2.29 | 18.17    0.99
 0.250    0.68 | 6.250    2.92 |12.250    2.20 | 18.25    0.97
 0.333    0.68 | 6.333    2.92 |12.333    2.20 | 18.33    0.97
 0.417    0.70 | 6.417    3.26 |12.417    2.12 | 18.42    0.96
 0.500    0.70 | 6.500    3.26 |12.500    2.12 | 18.50    0.96
 0.583    0.71 | 6.583    3.69 |12.583    2.05 | 18.58    0.94
 0.667    0.71 | 6.667    3.69 |12.667    2.05 | 18.67    0.94
 0.750    0.73 | 6.750    4.25 |12.750    1.98 | 18.75    0.93
 0.833    0.73 | 6.833    4.25 |12.833    1.98 | 18.83    0.93
 0.917    0.74 | 6.917    5.02 |12.917    1.92 | 18.92    0.92
 1.000    0.74 | 7.000    5.02 |13.000    1.92 | 19.00    0.92
 1.083    0.76 | 7.083    6.15 |13.083    1.86 | 19.08    0.91
 1.167    0.76 | 7.167    6.15 |13.167    1.86 | 19.17    0.91
 1.250    0.77 | 7.250    7.95 |13.250    1.80 | 19.25    0.89
 1.333    0.77 | 7.333    7.95 |13.333    1.80 | 19.33    0.89
 1.417    0.79 | 7.417   11.22 |13.417    1.75 | 19.42    0.88
 1.500    0.79 | 7.500   11.22 |13.500    1.75 | 19.50    0.88
 1.583    0.81 | 7.583   18.75 |13.583    1.70 | 19.58    0.87
 1.667    0.81 | 7.667   18.76 |13.667    1.70 | 19.67    0.87
 1.750    0.83 | 7.750   49.66 |13.750    1.66 | 19.75    0.86
 1.833    0.83 | 7.833   49.67 |13.833    1.66 | 19.83    0.86
 1.917    0.85 | 7.917  172.68 |13.917    1.61 | 19.92    0.85
 2.000    0.85 | 8.000  172.67 |14.000    1.61 | 20.00    0.85
 2.083    0.88 | 8.083   65.83 |14.083    1.57 | 20.08    0.84
 2.167    0.88 | 8.167   65.83 |14.167    1.57 | 20.17    0.84
 2.250    0.90 | 8.250   33.57 |14.250    1.53 | 20.25    0.83
 2.333    0.90 | 8.333   33.56 |14.333    1.53 | 20.33    0.83
 2.417    0.92 | 8.417   21.73 |14.417    1.50 | 20.42    0.82
 2.500    0.92 | 8.500   21.73 |14.500    1.50 | 20.50    0.82
 2.583    0.95 | 8.583   15.83 |14.583    1.46 | 20.58    0.81
 2.667    0.95 | 8.667   15.83 |14.667    1.46 | 20.67    0.81
 2.750    0.98 | 8.750   12.37 |14.750    1.43 | 20.75    0.80
 2.833    0.98 | 8.833   12.37 |14.833    1.43 | 20.83    0.80
 2.917    1.01 | 8.917   10.11 |14.917    1.39 | 20.92    0.79
 3.000    1.01 | 9.000   10.11 |15.000    1.39 | 21.00    0.79
 3.083    1.04 | 9.083    8.54 |15.083    1.36 | 21.08    0.78
 3.167    1.04 | 9.167    8.54 |15.167    1.36 | 21.17    0.78
 3.250    1.08 | 9.250    7.39 |15.250    1.34 | 21.25    0.77
 3.333    1.08 | 9.333    7.39 |15.333    1.34 | 21.33    0.77
 3.417    1.11 | 9.417    6.51 |15.417    1.31 | 21.42    0.76
 3.500    1.11 | 9.500    6.51 |15.500    1.31 | 21.50    0.76
 3.583    1.15 | 9.583    5.82 |15.583    1.28 | 21.58    0.75
 3.667    1.15 | 9.667    5.82 |15.667    1.28 | 21.67    0.75
 3.750    1.20 | 9.750    5.26 |15.750    1.26 | 21.75    0.75
 3.833    1.20 | 9.833    5.26 |15.833    1.26 | 21.83    0.75
 3.917    1.24 | 9.917    4.80 |15.917    1.23 | 21.92    0.74
 4.000    1.24 |10.000    4.80 |16.000    1.23 | 22.00    0.74
 4.083    1.29 |10.083    4.42 |16.083    1.21 | 22.08    0.73
 4.167    1.29 |10.167    4.42 |16.167    1.21 | 22.17    0.73
 4.250    1.35 |10.250    4.09 |16.250    1.19 | 22.25    0.72
 4.333    1.35 |10.333    4.09 |16.333    1.19 | 22.33    0.72
 4.417    1.41 |10.417    3.81 |16.417    1.16 | 22.42    0.72
 4.500    1.41 |10.500    3.81 |16.500    1.16 | 22.50    0.72
 4.583    1.48 |10.583    3.57 |16.583    1.14 | 22.58    0.71
 4.667    1.48 |10.667    3.57 |16.667    1.14 | 22.67    0.71
 4.750    1.55 |10.750    3.36 |16.750    1.12 | 22.75    0.70
 4.833    1.55 |10.833    3.36 |16.833    1.12 | 22.83    0.70
 4.917    1.63 |10.917    3.17 |16.917    1.10 | 22.92    0.69
 5.000    1.63 |11.000    3.17 |17.000    1.10 | 23.00    0.69
 5.083    1.72 |11.083    3.00 |17.083    1.09 | 23.08    0.69
 5.167    1.72 |11.167    3.00 |17.167    1.09 | 23.17    0.69
 5.250    1.83 |11.250    2.85 |17.250    1.07 | 23.25    0.68
 5.333    1.83 |11.333    2.85 |17.333    1.07 | 23.33    0.68
 5.417    1.95 |11.417    2.72 |17.417    1.05 | 23.42    0.67
 5.500    1.95 |11.500    2.72 |17.500    1.05 | 23.50    0.67
 5.583    2.08 |11.583    2.59 |17.583    1.03 | 23.58    0.67
 5.667    2.08 |11.667    2.59 |17.667    1.03 | 23.67    0.67
 5.750    2.24 |11.750    2.48 |17.750    1.02 | 23.75    0.66
 5.833    2.24 |11.833    2.48 |17.833    1.02 | 23.83    0.66
 5.917    2.43 |11.917    2.38 |17.917    1.00 | 23.92    0.65
 6.000    2.43 |12.000    2.38 |18.000    1.00 | 24.00    0.65

    Unit Hyd Qpeak  (cms)=   0.111

    PEAK FLOW       (cms)=   0.115 (i)
    TIME TO PEAK    (hrs)=   9.083
    RUNOFF VOLUME    (mm)=  47.719
    TOTAL RAINFALL   (mm)= 108.063
    RUNOFF COEFFICIENT   =   0.442

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

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| ADD HYD  (  0904)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
--------------------        (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0201):     6.97   0.331     8.83    45.41
     + ID2= 2 (  0202):     2.71   0.115     9.08    47.72
       ================================================
       ID = 3 (  0904):     9.68   0.443     8.92    46.06

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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| CALIB            |
| NASHYD   (  0203)|  Area     (ha)=  34.30   Curve Number   (CN)= 42.0
|ID= 1 DT= 5.0 min |  Ia       (mm)=   5.00   # of Linear Res.(N)= 3.00
--------------------  U.H. Tp(hrs)=   1.40

        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    0.67 | 6.083    2.65 |12.083    2.29 | 18.08    0.99
 0.167    0.67 | 6.167    2.65 |12.167    2.29 | 18.17    0.99
 0.250    0.68 | 6.250    2.92 |12.250    2.20 | 18.25    0.97
 0.333    0.68 | 6.333    2.92 |12.333    2.20 | 18.33    0.97
 0.417    0.70 | 6.417    3.26 |12.417    2.12 | 18.42    0.96
 0.500    0.70 | 6.500    3.26 |12.500    2.12 | 18.50    0.96
 0.583    0.71 | 6.583    3.69 |12.583    2.05 | 18.58    0.94
 0.667    0.71 | 6.667    3.69 |12.667    2.05 | 18.67    0.94
 0.750    0.73 | 6.750    4.25 |12.750    1.98 | 18.75    0.93
 0.833    0.73 | 6.833    4.25 |12.833    1.98 | 18.83    0.93
 0.917    0.74 | 6.917    5.02 |12.917    1.92 | 18.92    0.92
 1.000    0.74 | 7.000    5.02 |13.000    1.92 | 19.00    0.92
 1.083    0.76 | 7.083    6.15 |13.083    1.86 | 19.08    0.91
 1.167    0.76 | 7.167    6.15 |13.167    1.86 | 19.17    0.91
 1.250    0.77 | 7.250    7.95 |13.250    1.80 | 19.25    0.89
 1.333    0.77 | 7.333    7.95 |13.333    1.80 | 19.33    0.89
 1.417    0.79 | 7.417   11.22 |13.417    1.75 | 19.42    0.88
 1.500    0.79 | 7.500   11.22 |13.500    1.75 | 19.50    0.88
 1.583    0.81 | 7.583   18.75 |13.583    1.70 | 19.58    0.87
 1.667    0.81 | 7.667   18.76 |13.667    1.70 | 19.67    0.87
 1.750    0.83 | 7.750   49.66 |13.750    1.66 | 19.75    0.86
 1.833    0.83 | 7.833   49.67 |13.833    1.66 | 19.83    0.86
 1.917    0.85 | 7.917  172.68 |13.917    1.61 | 19.92    0.85
 2.000    0.85 | 8.000  172.67 |14.000    1.61 | 20.00    0.85
 2.083    0.88 | 8.083   65.83 |14.083    1.57 | 20.08    0.84
 2.167    0.88 | 8.167   65.83 |14.167    1.57 | 20.17    0.84
 2.250    0.90 | 8.250   33.57 |14.250    1.53 | 20.25    0.83
 2.333    0.90 | 8.333   33.56 |14.333    1.53 | 20.33    0.83
 2.417    0.92 | 8.417   21.73 |14.417    1.50 | 20.42    0.82
 2.500    0.92 | 8.500   21.73 |14.500    1.50 | 20.50    0.82
 2.583    0.95 | 8.583   15.83 |14.583    1.46 | 20.58    0.81
 2.667    0.95 | 8.667   15.83 |14.667    1.46 | 20.67    0.81
 2.750    0.98 | 8.750   12.37 |14.750    1.43 | 20.75    0.80
 2.833    0.98 | 8.833   12.37 |14.833    1.43 | 20.83    0.80
 2.917    1.01 | 8.917   10.11 |14.917    1.39 | 20.92    0.79
 3.000    1.01 | 9.000   10.11 |15.000    1.39 | 21.00    0.79
 3.083    1.04 | 9.083    8.54 |15.083    1.36 | 21.08    0.78
 3.167    1.04 | 9.167    8.54 |15.167    1.36 | 21.17    0.78
 3.250    1.08 | 9.250    7.39 |15.250    1.34 | 21.25    0.77
 3.333    1.08 | 9.333    7.39 |15.333    1.34 | 21.33    0.77
 3.417    1.11 | 9.417    6.51 |15.417    1.31 | 21.42    0.76
 3.500    1.11 | 9.500    6.51 |15.500    1.31 | 21.50    0.76
 3.583    1.15 | 9.583    5.82 |15.583    1.28 | 21.58    0.75
 3.667    1.15 | 9.667    5.82 |15.667    1.28 | 21.67    0.75
 3.750    1.20 | 9.750    5.26 |15.750    1.26 | 21.75    0.75
 3.833    1.20 | 9.833    5.26 |15.833    1.26 | 21.83    0.75
 3.917    1.24 | 9.917    4.80 |15.917    1.23 | 21.92    0.74
 4.000    1.24 |10.000    4.80 |16.000    1.23 | 22.00    0.74
 4.083    1.29 |10.083    4.42 |16.083    1.21 | 22.08    0.73
 4.167    1.29 |10.167    4.42 |16.167    1.21 | 22.17    0.73
 4.250    1.35 |10.250    4.09 |16.250    1.19 | 22.25    0.72
 4.333    1.35 |10.333    4.09 |16.333    1.19 | 22.33    0.72
 4.417    1.41 |10.417    3.81 |16.417    1.16 | 22.42    0.72
 4.500    1.41 |10.500    3.81 |16.500    1.16 | 22.50    0.72
 4.583    1.48 |10.583    3.57 |16.583    1.14 | 22.58    0.71
 4.667    1.48 |10.667    3.57 |16.667    1.14 | 22.67    0.71
 4.750    1.55 |10.750    3.36 |16.750    1.12 | 22.75    0.70
 4.833    1.55 |10.833    3.36 |16.833    1.12 | 22.83    0.70
 4.917    1.63 |10.917    3.17 |16.917    1.10 | 22.92    0.69
 5.000    1.63 |11.000    3.17 |17.000    1.10 | 23.00    0.69
 5.083    1.72 |11.083    3.00 |17.083    1.09 | 23.08    0.69
 5.167    1.72 |11.167    3.00 |17.167    1.09 | 23.17    0.69
 5.250    1.83 |11.250    2.85 |17.250    1.07 | 23.25    0.68
 5.333    1.83 |11.333    2.85 |17.333    1.07 | 23.33    0.68
 5.417    1.95 |11.417    2.72 |17.417    1.05 | 23.42    0.67
 5.500    1.95 |11.500    2.72 |17.500    1.05 | 23.50    0.67
 5.583    2.08 |11.583    2.59 |17.583    1.03 | 23.58    0.67
 5.667    2.08 |11.667    2.59 |17.667    1.03 | 23.67    0.67
 5.750    2.24 |11.750    2.48 |17.750    1.02 | 23.75    0.66
 5.833    2.24 |11.833    2.48 |17.833    1.02 | 23.83    0.66
 5.917    2.43 |11.917    2.38 |17.917    1.00 | 23.92    0.65
 6.000    2.43 |12.000    2.38 |18.000    1.00 | 24.00    0.65

    Unit Hyd Qpeak  (cms)=   0.360

    PEAK FLOW       (cms)=   0.331 (i)
    TIME TO PEAK    (hrs)=   8.833
    RUNOFF VOLUME    (mm)=  45.410
    TOTAL RAINFALL   (mm)= 108.063
    RUNOFF COEFFICIENT   =   0.420

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

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| CALIB            |
| NASHYD   (  0202)|  Area     (ha)=   2.71   Curve Number   (CN)= 68.0
|ID= 1 DT= 5.0 min |  Ia       (mm)=   5.00   # of Linear Res.(N)= 3.00
--------------------  U.H. Tp(hrs)=   0.93

        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    0.67 | 6.083    2.65 |12.083    2.29 | 18.08    0.99
 0.167    0.67 | 6.167    2.65 |12.167    2.29 | 18.17    0.99
 0.250    0.68 | 6.250    2.92 |12.250    2.20 | 18.25    0.97
 0.333    0.68 | 6.333    2.92 |12.333    2.20 | 18.33    0.97
 0.417    0.70 | 6.417    3.26 |12.417    2.12 | 18.42    0.96
 0.500    0.70 | 6.500    3.26 |12.500    2.12 | 18.50    0.96
 0.583    0.71 | 6.583    3.69 |12.583    2.05 | 18.58    0.94
 0.667    0.71 | 6.667    3.69 |12.667    2.05 | 18.67    0.94
 0.750    0.73 | 6.750    4.25 |12.750    1.98 | 18.75    0.93
 0.833    0.73 | 6.833    4.25 |12.833    1.98 | 18.83    0.93
 0.917    0.74 | 6.917    5.02 |12.917    1.92 | 18.92    0.92
 1.000    0.74 | 7.000    5.02 |13.000    1.92 | 19.00    0.92
 1.083    0.76 | 7.083    6.15 |13.083    1.86 | 19.08    0.91
 1.167    0.76 | 7.167    6.15 |13.167    1.86 | 19.17    0.91
 1.250    0.77 | 7.250    7.95 |13.250    1.80 | 19.25    0.89
 1.333    0.77 | 7.333    7.95 |13.333    1.80 | 19.33    0.89
 1.417    0.79 | 7.417   11.22 |13.417    1.75 | 19.42    0.88
 1.500    0.79 | 7.500   11.22 |13.500    1.75 | 19.50    0.88
 1.583    0.81 | 7.583   18.75 |13.583    1.70 | 19.58    0.87
 1.667    0.81 | 7.667   18.76 |13.667    1.70 | 19.67    0.87
 1.750    0.83 | 7.750   49.66 |13.750    1.66 | 19.75    0.86
 1.833    0.83 | 7.833   49.67 |13.833    1.66 | 19.83    0.86
 1.917    0.85 | 7.917  172.68 |13.917    1.61 | 19.92    0.85
 2.000    0.85 | 8.000  172.67 |14.000    1.61 | 20.00    0.85
 2.083    0.88 | 8.083   65.83 |14.083    1.57 | 20.08    0.84
 2.167    0.88 | 8.167   65.83 |14.167    1.57 | 20.17    0.84
 2.250    0.90 | 8.250   33.57 |14.250    1.53 | 20.25    0.83
 2.333    0.90 | 8.333   33.56 |14.333    1.53 | 20.33    0.83
 2.417    0.92 | 8.417   21.73 |14.417    1.50 | 20.42    0.82
 2.500    0.92 | 8.500   21.73 |14.500    1.50 | 20.50    0.82
 2.583    0.95 | 8.583   15.83 |14.583    1.46 | 20.58    0.81
 2.667    0.95 | 8.667   15.83 |14.667    1.46 | 20.67    0.81
 2.750    0.98 | 8.750   12.37 |14.750    1.43 | 20.75    0.80
 2.833    0.98 | 8.833   12.37 |14.833    1.43 | 20.83    0.80
 2.917    1.01 | 8.917   10.11 |14.917    1.39 | 20.92    0.79
 3.000    1.01 | 9.000   10.11 |15.000    1.39 | 21.00    0.79
 3.083    1.04 | 9.083    8.54 |15.083    1.36 | 21.08    0.78
 3.167    1.04 | 9.167    8.54 |15.167    1.36 | 21.17    0.78
 3.250    1.08 | 9.250    7.39 |15.250    1.34 | 21.25    0.77
 3.333    1.08 | 9.333    7.39 |15.333    1.34 | 21.33    0.77
 3.417    1.11 | 9.417    6.51 |15.417    1.31 | 21.42    0.76
 3.500    1.11 | 9.500    6.51 |15.500    1.31 | 21.50    0.76
 3.583    1.15 | 9.583    5.82 |15.583    1.28 | 21.58    0.75
 3.667    1.15 | 9.667    5.82 |15.667    1.28 | 21.67    0.75
 3.750    1.20 | 9.750    5.26 |15.750    1.26 | 21.75    0.75
 3.833    1.20 | 9.833    5.26 |15.833    1.26 | 21.83    0.75
 3.917    1.24 | 9.917    4.80 |15.917    1.23 | 21.92    0.74
 4.000    1.24 |10.000    4.80 |16.000    1.23 | 22.00    0.74
 4.083    1.29 |10.083    4.42 |16.083    1.21 | 22.08    0.73
 4.167    1.29 |10.167    4.42 |16.167    1.21 | 22.17    0.73
 4.250    1.35 |10.250    4.09 |16.250    1.19 | 22.25    0.72
 4.333    1.35 |10.333    4.09 |16.333    1.19 | 22.33    0.72
 4.417    1.41 |10.417    3.81 |16.417    1.16 | 22.42    0.72
 4.500    1.41 |10.500    3.81 |16.500    1.16 | 22.50    0.72
 4.583    1.48 |10.583    3.57 |16.583    1.14 | 22.58    0.71
 4.667    1.48 |10.667    3.57 |16.667    1.14 | 22.67    0.71
 4.750    1.55 |10.750    3.36 |16.750    1.12 | 22.75    0.70
 4.833    1.55 |10.833    3.36 |16.833    1.12 | 22.83    0.70
 4.917    1.63 |10.917    3.17 |16.917    1.10 | 22.92    0.69
 5.000    1.63 |11.000    3.17 |17.000    1.10 | 23.00    0.69
 5.083    1.72 |11.083    3.00 |17.083    1.09 | 23.08    0.69
 5.167    1.72 |11.167    3.00 |17.167    1.09 | 23.17    0.69
 5.250    1.83 |11.250    2.85 |17.250    1.07 | 23.25    0.68
 5.333    1.83 |11.333    2.85 |17.333    1.07 | 23.33    0.68
 5.417    1.95 |11.417    2.72 |17.417    1.05 | 23.42    0.67
 5.500    1.95 |11.500    2.72 |17.500    1.05 | 23.50    0.67
 5.583    2.08 |11.583    2.59 |17.583    1.03 | 23.58    0.67
 5.667    2.08 |11.667    2.59 |17.667    1.03 | 23.67    0.67
 5.750    2.24 |11.750    2.48 |17.750    1.02 | 23.75    0.66
 5.833    2.24 |11.833    2.48 |17.833    1.02 | 23.83    0.66
 5.917    2.43 |11.917    2.38 |17.917    1.00 | 23.92    0.65
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              6.000    2.43 |12.000    2.38 |18.000    1.00 | 24.00    0.65

    Unit Hyd Qpeak  (cms)=   0.936

    PEAK FLOW       (cms)=   0.495 (i)
    TIME TO PEAK    (hrs)=   9.750
    RUNOFF VOLUME    (mm)=  23.405
    TOTAL RAINFALL   (mm)= 108.063
    RUNOFF COEFFICIENT   =   0.217

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

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--------------------
| ADD HYD  (  0905)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
--------------------         (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0203):    34.30   0.495     9.75    23.41
     + ID2= 2 (  0904):     9.68   0.443     8.92    46.06
       ================================================
       ID = 3 (  0905):    43.98   0.861     9.25    28.39

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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  | Junction Command(0907) |
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                        AREA     QPEAK   TPEAK     R.V.
                        (ha)     (cms)   (hrs)     (mm)
  INFLOW : ID= 1(  0905)   43.98     0.86    9.25    28.39
  OUTFLOW: ID= 2(  0907)   43.98     0.86    9.25    28.39

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--------------------
| ADD HYD  (  0908)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
--------------------         (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0906):    24.75   6.655     8.03    58.51
     + ID2= 2 (  0907):    43.98   0.861     9.25    28.39
       ================================================
       ID = 3 (  0908):    68.73   6.767     8.03    39.24

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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--------------------
| CALIB            |
| NASHYD   (  0204)|   Area    (ha)=   0.40   Curve Number   (CN)= 67.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   5.00   # 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    0.67 | 6.083    2.65 |12.083    2.29 | 18.08    0.99
 0.167    0.67 | 6.167    2.65 |12.167    2.29 | 18.17    0.99
 0.250    0.68 | 6.250    2.92 |12.250    2.20 | 18.25    0.97
 0.333    0.68 | 6.333    2.92 |12.333    2.20 | 18.33    0.97
 0.417    0.70 | 6.417    3.26 |12.417    2.12 | 18.42    0.96
 0.500    0.70 | 6.500    3.26 |12.500    2.12 | 18.50    0.96
 0.583    0.71 | 6.583    3.69 |12.583    2.05 | 18.58    0.94
 0.667    0.71 | 6.667    3.69 |12.667    2.05 | 18.67    0.94
 0.750    0.73 | 6.750    4.25 |12.750    1.98 | 18.75    0.93
 0.833    0.73 | 6.833    4.25 |12.833    1.98 | 18.83    0.93
 0.917    0.74 | 6.917    5.02 |12.917    1.92 | 18.92    0.92
 1.000    0.74 | 7.000    5.02 |13.000    1.92 | 19.00    0.92
 1.083    0.76 | 7.083    6.15 |13.083    1.86 | 19.08    0.91
 1.167    0.76 | 7.167    6.15 |13.167    1.86 | 19.17    0.91
 1.250    0.77 | 7.250    7.95 |13.250    1.80 | 19.25    0.89
 1.333    0.77 | 7.333    7.95 |13.333    1.80 | 19.33    0.89
 1.417    0.79 | 7.417   11.22 |13.417    1.75 | 19.42    0.88
 1.500    0.79 | 7.500   11.22 |13.500    1.75 | 19.50    0.88
 1.583    0.81 | 7.583   18.75 |13.583    1.70 | 19.58    0.87
 1.667    0.81 | 7.667   18.76 |13.667    1.70 | 19.67    0.87
 1.750    0.83 | 7.750   49.66 |13.750    1.66 | 19.75    0.86
 1.833    0.83 | 7.833   49.67 |13.833    1.66 | 19.83    0.86
 1.917    0.85 | 7.917  172.68 |13.917    1.61 | 19.92    0.85
 2.000    0.85 | 8.000  172.67 |14.000    1.61 | 20.00    0.85
 2.083    0.88 | 8.083   65.83 |14.083    1.57 | 20.08    0.84
 2.167    0.88 | 8.167   65.83 |14.167    1.57 | 20.17    0.84
 2.250    0.90 | 8.250   33.57 |14.250    1.53 | 20.25    0.83
 2.333    0.90 | 8.333   33.56 |14.333    1.53 | 20.33    0.83
 2.417    0.92 | 8.417   21.73 |14.417    1.50 | 20.42    0.82
 2.500    0.92 | 8.500   21.73 |14.500    1.50 | 20.50    0.82
 2.583    0.95 | 8.583   15.83 |14.583    1.46 | 20.58    0.81
 2.667    0.95 | 8.667   15.83 |14.667    1.46 | 20.67    0.81
 2.750    0.98 | 8.750   12.37 |14.750    1.43 | 20.75    0.80
 2.833    0.98 | 8.833   12.37 |14.833    1.43 | 20.83    0.80
 2.917    1.01 | 8.917   10.11 |14.917    1.39 | 20.92    0.79
 3.000    1.01 | 9.000   10.11 |15.000    1.39 | 21.00    0.79
 3.083    1.04 | 9.083    8.54 |15.083    1.36 | 21.08    0.78
 3.167    1.04 | 9.167    8.54 |15.167    1.36 | 21.17    0.78
 3.250    1.08 | 9.250    7.39 |15.250    1.34 | 21.25    0.77
 3.333    1.08 | 9.333    7.39 |15.333    1.34 | 21.33    0.77
 3.417    1.11 | 9.417    6.51 |15.417    1.31 | 21.42    0.76
 3.500    1.11 | 9.500    6.51 |15.500    1.31 | 21.50    0.76
 3.583    1.15 | 9.583    5.82 |15.583    1.28 | 21.58    0.75
 3.667    1.15 | 9.667    5.82 |15.667    1.28 | 21.67    0.75
 3.750    1.20 | 9.750    5.26 |15.750    1.26 | 21.75    0.75
 3.833    1.20 | 9.833    5.26 |15.833    1.26 | 21.83    0.75
 3.917    1.24 | 9.917    4.80 |15.917    1.23 | 21.92    0.74
 4.000    1.24 |10.000    4.80 |16.000    1.23 | 22.00    0.74
 4.083    1.29 |10.083    4.42 |16.083    1.21 | 22.08    0.73
 4.167    1.29 |10.167    4.42 |16.167    1.21 | 22.17    0.73
 4.250    1.35 |10.250    4.09 |16.250    1.19 | 22.25    0.72
 4.333    1.35 |10.333    4.09 |16.333    1.19 | 22.33    0.72
 4.417    1.41 |10.417    3.81 |16.417    1.16 | 22.42    0.72
 4.500    1.41 |10.500    3.81 |16.500    1.16 | 22.50    0.72
 4.583    1.48 |10.583    3.57 |16.583    1.14 | 22.58    0.71
 4.667    1.48 |10.667    3.57 |16.667    1.14 | 22.67    0.71
 4.750    1.55 |10.750    3.36 |16.750    1.12 | 22.75    0.70
 4.833    1.55 |10.833    3.36 |16.833    1.12 | 22.83    0.70
 4.917    1.63 |10.917    3.17 |16.917    1.10 | 22.92    0.69
 5.000    1.63 |11.000    3.17 |17.000    1.10 | 23.00    0.69
 5.083    1.72 |11.083    3.00 |17.083    1.09 | 23.08    0.69
 5.167    1.72 |11.167    3.00 |17.167    1.09 | 23.17    0.69
 5.250    1.83 |11.250    2.85 |17.250    1.07 | 23.25    0.68
 5.333    1.83 |11.333    2.85 |17.333    1.07 | 23.33    0.68
 5.417    1.95 |11.417    2.72 |17.417    1.05 | 23.42    0.67
 5.500    1.95 |11.500    2.72 |17.500    1.05 | 23.50    0.67
 5.583    2.08 |11.583    2.59 |17.583    1.03 | 23.58    0.67
 5.667    2.08 |11.667    2.59 |17.667    1.03 | 23.67    0.67
 5.750    2.24 |11.750    2.48 |17.750    1.02 | 23.75    0.66
 5.833    2.24 |11.833    2.48 |17.833    1.02 | 23.83    0.66
 5.917    2.43 |11.917    2.38 |17.917    1.00 | 23.92    0.65
 6.000    2.43 |12.000    2.38 |18.000    1.00 | 24.00    0.65

    Unit Hyd Qpeak  (cms)=   0.054

    PEAK FLOW       (cms)=   0.036 (i)
    TIME TO PEAK    (hrs)=   8.250
    RUNOFF VOLUME    (mm)=  46.528
    TOTAL RAINFALL   (mm)= 108.063
    RUNOFF COEFFICIENT   =   0.431

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

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

--------------------
| ADD HYD  (  0909)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
--------------------         (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0204):     0.40   0.036     8.25    46.53
     + ID2= 2 (  0908):    68.73   6.767     8.03    39.24
       ================================================
       ID = 3 (  0909):    69.12   6.789     8.03    39.28

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

```
--------------------
| RESERVOIR(  0052)|     OVERFLOW IS ON
| IN= 2---> OUT= 1 |
| DT=  1.0 min     |     OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
--------------------      (cms)     (ha.m.)   |   (cms)     (ha.m.)
                          0.0000     0.0004   |  0.6270      0.1980
                          0.0690     0.0019   |  0.6620      0.2529
                          0.1500     0.0052   |  0.6950      0.3161
                          0.2470     0.0111   |  0.7270      0.3886
                          0.3480     0.0210   |  0.7580      0.4732
                          0.4080     0.0352   |  0.7870      0.5703
                          0.4600     0.0544   |  0.8150      0.6834
                          0.5070     0.0794   |  0.8430      0.8226
                          0.5500     0.1110   |  0.8690      0.9974
                          0.5900     0.1508   |  0.0000      0.0000

                               AREA     QPEAK     TPEAK       R.V.
                               (ha)     (cms)     (hrs)       (mm)
  INFLOW : ID= 2 (  0909)     69.123     6.789      8.03      39.28
  OUTFLOW: ID= 1 (  0052)     69.123     0.853     10.25      39.27
  OVERFLOW:ID= 3 (  0003)      0.000     0.000      0.00       0.00

              TOTAL NUMBER OF SIMULATION OVERFLOW  =     0
              CUMULATIVE TIME OF OVERFLOW  (HOURS) =  0.00
              PERCENTAGE OF TIME OVERFLOWING   (%) =  0.00

              PEAK   FLOW   REDUCTION [Qout/Qin](%)= 12.57
              TIME SHIFT OF PEAK FLOW          (min)=133.00
              MAXIMUM  STORAGE   USED       (ha.m.)=  0.8900

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

  --------------------------
  | Junction Command(0048) |
  --------------------------

                        AREA     QPEAK   TPEAK     R.V.
                        (ha)     (cms)   (hrs)     (mm)
  INFLOW : ID= 1(  0052)   69.12     0.85    10.25    39.27
  OUTFLOW: ID= 2(  0048)   69.12     0.85    10.25    39.27

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

  --------------------------
  | Junction Command(0053) |
  --------------------------

                        AREA     QPEAK   TPEAK     R.V.
                        (ha)     (cms)   (hrs)     (mm)
  INFLOW : ID= 3(  0052)    0.00     0.00    0.00     0.00
  OUTFLOW: ID= 2(  0053)    0.00     0.00    0.00     0.00
```

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

--------------------
| ADD HYD  (  0051)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
--------------------         (ha)    (cms)    (hrs)     (mm)
*** W A R N I N G :  HYDROGRAPH   0053 <ID= 2> IS DRY.
*** W A R N I N G :  HYDROGRAPH   0003 = HYDROGRAPH 0001
       ID1= 1 (  0048):    69.12   0.853    10.25    39.27
     + ID2= 2 (  0053):     0.00   0.000     0.00     0.00
       ================================================
       ID = 3 (  0051):    69.12   0.853    10.25    39.27

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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  --------------------------
  | Junction Command(0036) |
  --------------------------

                        AREA     QPEAK   TPEAK     R.V.
                        (ha)     (cms)   (hrs)     (mm)
  INFLOW : ID= 9(  0035)    2.38     0.20    7.88    57.19
  OUTFLOW: ID= 2(  0036)    2.38     0.20    7.88    57.19

  ---------------------------------------------------------------------------
===============================================================================
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      V    V   I    SSSSS  U   U    A    L              (v 6.2.2015)
      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\cacp078589\AppData\Local\Civica\VH5\9ad0f7cd-9fe5-4b65-bb07-55a510b23afa\3
ebfc4de-0a6e-4777-ad99-c8f5c395921d\s
```

```
  Summary filename:
C:\Users\cacp078589\AppData\Local\Civica\VH5\9ad0f7cd-9fe5-4b65-bb07-55a510b23afa\3
ebfc4de-0a6e-4777-ad99-c8f5c395921d\s


DATE: 04-07-2025                          TIME: 09:18:22

USER:


COMMENTS: _____

-------------------------------------------------------------------------------
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  ************************************************
  ** SIMULATION : 10yr 24hr 10min Chicago       **
  ************************************************

--------------------
| CHICAGO STORM    |    IDF curve parameters: A=1511.000
| Ptotal= 77.31 mm |                          B=   9.500
--------------------                          C=   0.845
                         used in:   INTENSITY =  A / (t + B)^C

                         Duration of storm  = 24.00 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    0.53 |  6.00    1.99 |12.00    1.73 | 18.00    0.77
  0.17    0.54 |  6.17    2.18 |12.17    1.67 | 18.17    0.76
  0.33    0.55 |  6.33    2.42 |12.33    1.61 | 18.33    0.75
  0.50    0.56 |  6.50    2.72 |12.50    1.56 | 18.50    0.74
  0.67    0.57 |  6.67    3.12 |12.67    1.51 | 18.67    0.73
  0.83    0.58 |  6.83    3.66 |12.83    1.46 | 18.83    0.72
  1.00    0.60 |  7.00    4.43 |13.00    1.42 | 19.00    0.71
  1.17    0.61 |  7.17    5.66 |13.17    1.38 | 19.17    0.70
  1.33    0.62 |  7.33    7.85 |13.33    1.34 | 19.33    0.69
  1.50    0.64 |  7.50   12.85 |13.50    1.30 | 19.50    0.68
  1.67    0.65 |  7.67   33.57 |13.67    1.27 | 19.67    0.67
  1.83    0.67 |  7.83  122.80 |13.83    1.24 | 19.83    0.66
  2.00    0.68 |  8.00   44.52 |14.00    1.21 | 20.00    0.66
  2.17    0.70 |  8.17   22.67 |14.17    1.18 | 20.17    0.65
  2.33    0.72 |  8.33   14.82 |14.33    1.15 | 20.33    0.64
  2.50    0.74 |  8.50   10.92 |14.50    1.12 | 20.50    0.63
  2.67    0.76 |  8.67    8.62 |14.67    1.10 | 20.67    0.63
  2.83    0.79 |  8.83    7.11 |14.83    1.07 | 20.83    0.62
  3.00    0.81 |  9.00    6.06 |15.00    1.05 | 21.00    0.61
  3.17    0.84 |  9.17    5.28 |15.17    1.03 | 21.17    0.61
```

3.33	0.86	9.33	4.68	15.33	1.01	21.33	0.60
3.50	0.89	9.50	4.20	15.50	0.99	21.50	0.59
3.67	0.93	9.67	3.82	15.67	0.97	21.67	0.59
3.83	0.96	9.83	3.50	15.83	0.95	21.83	0.58
4.00	1.00	10.00	3.24	16.00	0.94	22.00	0.57
4.17	1.04	10.17	3.01	16.17	0.92	22.17	0.57
4.33	1.08	10.33	2.81	16.33	0.90	22.33	0.56
4.50	1.13	10.50	2.64	16.50	0.89	22.50	0.56
4.67	1.19	10.67	2.49	16.67	0.87	22.67	0.55
4.83	1.25	10.83	2.36	16.83	0.86	22.83	0.55
5.00	1.32	11.00	2.24	17.00	0.84	23.00	0.54
5.17	1.39	11.17	2.13	17.17	0.83	23.17	0.54
5.33	1.48	11.33	2.04	17.33	0.82	23.33	0.53
5.50	1.58	11.50	1.95	17.50	0.80	23.50	0.53
5.67	1.70	11.67	1.87	17.67	0.79	23.67	0.52
5.83	1.83	11.83	1.80	17.83	0.78	23.83	0.52

CALIB	
STANDHYD (1012)	Area (ha)= 26.89
ID= 1 DT= 1.0 min	Total Imp(%)= 57.00 Dir. Conn.(%)= 49.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	15.33	11.56
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	0.50	2.00
Length	(m)=	423.42	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 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
0.017	0.53	6.017	1.99	12.017	1.73	18.02	0.77
0.033	0.53	6.033	1.99	12.033	1.73	18.03	0.77
0.050	0.53	6.050	1.99	12.050	1.73	18.05	0.77
0.067	0.53	6.067	1.99	12.067	1.73	18.07	0.77
0.083	0.53	6.083	1.99	12.083	1.73	18.08	0.77
0.100	0.53	6.100	1.99	12.100	1.73	18.10	0.77
0.117	0.53	6.117	1.99	12.117	1.73	18.12	0.77
0.133	0.53	6.133	1.99	12.133	1.73	18.13	0.77
0.150	0.53	6.150	1.99	12.150	1.73	18.15	0.77
0.167	0.53	6.167	1.99	12.167	1.73	18.17	0.77
0.183	0.54	6.183	2.18	12.183	1.67	18.18	0.76
0.200	0.54	6.200	2.18	12.200	1.67	18.20	0.76
0.217	0.54	6.217	2.18	12.217	1.67	18.22	0.76
0.233	0.54	6.233	2.18	12.233	1.67	18.23	0.76
0.250	0.54	6.250	2.18	12.250	1.67	18.25	0.76
0.267	0.54	6.267	2.18	12.267	1.67	18.27	0.76
0.283	0.54	6.283	2.18	12.283	1.67	18.28	0.76
0.300	0.54	6.300	2.18	12.300	1.67	18.30	0.76
0.317	0.54	6.317	2.18	12.317	1.67	18.32	0.76
0.333	0.54	6.333	2.18	12.333	1.67	18.33	0.76
0.350	0.55	6.350	2.42	12.350	1.61	18.35	0.75
0.367	0.55	6.367	2.42	12.367	1.61	18.37	0.75
0.383	0.55	6.383	2.42	12.383	1.61	18.38	0.75
0.400	0.55	6.400	2.42	12.400	1.61	18.40	0.75
0.417	0.55	6.417	2.42	12.417	1.61	18.42	0.75
0.433	0.55	6.433	2.42	12.433	1.61	18.43	0.75
0.450	0.55	6.450	2.42	12.450	1.61	18.45	0.75
0.467	0.55	6.467	2.42	12.467	1.61	18.47	0.75
0.483	0.55	6.483	2.42	12.483	1.61	18.48	0.75
0.500	0.55	6.500	2.42	12.500	1.61	18.50	0.75
0.517	0.56	6.517	2.72	12.517	1.56	18.52	0.74
0.533	0.56	6.533	2.72	12.533	1.56	18.53	0.74
0.550	0.56	6.550	2.72	12.550	1.56	18.55	0.74
0.567	0.56	6.567	2.72	12.567	1.56	18.57	0.74
0.583	0.56	6.583	2.72	12.583	1.56	18.58	0.74
0.600	0.56	6.600	2.72	12.600	1.56	18.60	0.74
0.617	0.56	6.617	2.72	12.617	1.56	18.62	0.74
0.633	0.56	6.633	2.72	12.633	1.56	18.63	0.74
0.650	0.56	6.650	2.72	12.650	1.56	18.65	0.74
0.667	0.56	6.667	2.72	12.667	1.56	18.67	0.74
0.683	0.57	6.683	3.12	12.683	1.51	18.68	0.73
0.700	0.57	6.700	3.12	12.700	1.51	18.70	0.73
0.717	0.57	6.717	3.12	12.717	1.51	18.72	0.73
0.733	0.57	6.733	3.12	12.733	1.51	18.73	0.73
0.750	0.57	6.750	3.12	12.750	1.51	18.75	0.73
0.767	0.57	6.767	3.12	12.767	1.51	18.77	0.73
0.783	0.57	6.783	3.12	12.783	1.51	18.78	0.73
0.800	0.57	6.800	3.12	12.800	1.51	18.80	0.73
0.817	0.57	6.817	3.12	12.817	1.51	18.82	0.73
0.833	0.57	6.833	3.12	12.833	1.51	18.83	0.73
0.850	0.58	6.850	3.66	12.850	1.46	18.85	0.72
0.867	0.58	6.867	3.66	12.867	1.46	18.87	0.72
0.883	0.58	6.883	3.66	12.883	1.46	18.88	0.72
0.900	0.58	6.900	3.66	12.900	1.46	18.90	0.72
0.917	0.58	6.917	3.66	12.917	1.46	18.92	0.72
0.933	0.58	6.933	3.66	12.933	1.46	18.93	0.72
0.950	0.58	6.950	3.66	12.950	1.46	18.95	0.72
0.967	0.58	6.967	3.66	12.967	1.46	18.97	0.72
0.983	0.58	6.983	3.66	12.983	1.46	18.98	0.72
1.000	0.58	7.000	3.66	13.000	1.46	19.00	0.72
1.017	0.60	7.017	4.43	13.017	1.42	19.02	0.71
1.033	0.60	7.033	4.43	13.033	1.42	19.03	0.71
1.050	0.60	7.050	4.43	13.050	1.42	19.05	0.71
1.067	0.60	7.067	4.43	13.067	1.42	19.07	0.71
1.083	0.60	7.083	4.43	13.083	1.42	19.08	0.71
1.100	0.60	7.100	4.43	13.100	1.42	19.10	0.71
1.117	0.60	7.117	4.43	13.117	1.42	19.12	0.71
1.133	0.60	7.133	4.43	13.133	1.42	19.13	0.71
1.150	0.60	7.150	4.43	13.150	1.42	19.15	0.71
1.167	0.60	7.167	4.44	13.167	1.42	19.17	0.71
1.183	0.61	7.183	5.66	13.183	1.38	19.18	0.70
1.200	0.61	7.200	5.66	13.200	1.38	19.20	0.70
1.217	0.61	7.217	5.66	13.217	1.38	19.22	0.70
1.233	0.61	7.233	5.66	13.233	1.38	19.23	0.70
1.250	0.61	7.250	5.66	13.250	1.38	19.25	0.70
1.267	0.61	7.267	5.66	13.267	1.38	19.27	0.70
1.283	0.61	7.283	5.66	13.283	1.38	19.28	0.70
1.300	0.61	7.300	5.66	13.300	1.38	19.30	0.70
1.317	0.61	7.317	5.66	13.317	1.38	19.32	0.70
1.333	0.61	7.333	5.66	13.333	1.38	19.33	0.70
1.350	0.62	7.350	7.85	13.350	1.34	19.35	0.69
1.367	0.62	7.367	7.85	13.367	1.34	19.37	0.69
1.383	0.62	7.383	7.85	13.383	1.34	19.38	0.69
1.400	0.62	7.400	7.85	13.400	1.34	19.40	0.69
1.417	0.62	7.417	7.85	13.417	1.34	19.42	0.69
1.433	0.62	7.433	7.85	13.433	1.34	19.43	0.69
1.450	0.62	7.450	7.85	13.450	1.34	19.45	0.69
1.467	0.62	7.467	7.85	13.467	1.34	19.47	0.69
1.483	0.62	7.483	7.85	13.483	1.34	19.48	0.69
1.500	0.62	7.500	7.87	13.500	1.34	19.50	0.69
1.517	0.64	7.517	12.85	13.517	1.30	19.52	0.68
1.533	0.64	7.533	12.85	13.533	1.30	19.53	0.68
1.550	0.64	7.550	12.85	13.550	1.30	19.55	0.68
1.567	0.64	7.567	12.85	13.567	1.30	19.57	0.68
1.583	0.64	7.583	12.85	13.583	1.30	19.58	0.68
1.600	0.64	7.600	12.85	13.600	1.30	19.60	0.68
1.617	0.64	7.617	12.85	13.617	1.30	19.62	0.68
1.633	0.64	7.633	12.85	13.633	1.30	19.63	0.68
1.650	0.64	7.650	12.85	13.650	1.30	19.65	0.68
1.667	0.64	7.667	12.91	13.667	1.30	19.67	0.68
1.683	0.65	7.683	33.57	13.683	1.27	19.68	0.67
1.700	0.65	7.700	33.57	13.700	1.27	19.70	0.67
1.717	0.65	7.717	33.57	13.717	1.27	19.72	0.67
1.733	0.65	7.733	33.57	13.733	1.27	19.73	0.67
1.750	0.65	7.750	33.57	13.750	1.27	19.75	0.67
1.767	0.65	7.767	33.57	13.767	1.27	19.77	0.67
1.783	0.65	7.783	33.57	13.783	1.27	19.78	0.67
1.800	0.65	7.800	33.57	13.800	1.27	19.80	0.67
1.817	0.65	7.817	33.57	13.817	1.27	19.82	0.67
1.833	0.65	7.833	33.83	13.833	1.27	19.83	0.67
1.850	0.67	7.850	122.80	13.850	1.24	19.85	0.66
1.867	0.67	7.867	122.80	13.867	1.24	19.87	0.66
1.883	0.67	7.883	122.80	13.883	1.24	19.88	0.66
1.900	0.67	7.900	122.80	13.900	1.24	19.90	0.66
1.917	0.67	7.917	122.80	13.917	1.24	19.92	0.66
1.933	0.67	7.933	122.80	13.933	1.24	19.93	0.66
1.950	0.67	7.950	122.80	13.950	1.24	19.95	0.66
1.967	0.67	7.967	122.80	13.967	1.24	19.97	0.66
1.983	0.67	7.983	122.80	13.983	1.24	19.98	0.66
2.000	0.67	8.000	122.56	14.000	1.24	20.00	0.66
2.017	0.68	8.017	44.52	14.017	1.21	20.02	0.66
2.033	0.68	8.033	44.52	14.033	1.21	20.03	0.66
2.050	0.68	8.050	44.52	14.050	1.21	20.05	0.66
2.067	0.68	8.067	44.52	14.067	1.21	20.07	0.66
2.083	0.68	8.083	44.52	14.083	1.21	20.08	0.66
2.100	0.68	8.100	44.52	14.100	1.21	20.10	0.66
2.117	0.68	8.117	44.52	14.117	1.21	20.12	0.66
2.133	0.68	8.133	44.52	14.133	1.21	20.13	0.66
2.150	0.68	8.150	44.52	14.150	1.21	20.15	0.66
2.167	0.68	8.167	44.45	14.167	1.21	20.17	0.66
2.183	0.70	8.183	22.67	14.183	1.18	20.18	0.65
2.200	0.70	8.200	22.67	14.200	1.18	20.20	0.65
2.217	0.70	8.217	22.67	14.217	1.18	20.22	0.65
2.233	0.70	8.233	22.67	14.233	1.18	20.23	0.65
2.250	0.70	8.250	22.67	14.250	1.18	20.25	0.65
2.267	0.70	8.267	22.67	14.267	1.18	20.27	0.65
2.283	0.70	8.283	22.67	14.283	1.18	20.28	0.65
2.300	0.70	8.300	22.67	14.300	1.18	20.30	0.65
2.317	0.70	8.317	22.67	14.317	1.18	20.32	0.65
2.333	0.70	8.333	22.65	14.333	1.18	20.33	0.65
2.350	0.72	8.350	14.82	14.350	1.15	20.35	0.64
2.367	0.72	8.367	14.82	14.367	1.15	20.37	0.64
2.383	0.72	8.383	14.82	14.383	1.15	20.38	0.64
2.400	0.72	8.400	14.82	14.400	1.15	20.40	0.64
2.417	0.72	8.417	14.82	14.417	1.15	20.42	0.64
2.433	0.72	8.433	14.82	14.433	1.15	20.43	0.64
2.450	0.72	8.450	14.82	14.450	1.15	20.45	0.64
2.467	0.72	8.467	14.82	14.467	1.15	20.47	0.64
2.483	0.72	8.483	14.82	14.483	1.15	20.48	0.64
2.500	0.72	8.500	14.81	14.500	1.15	20.50	0.64
2.517	0.74	8.517	10.92	14.517	1.12	20.52	0.63
2.533	0.74	8.533	10.92	14.533	1.12	20.53	0.63
2.550	0.74	8.550	10.92	14.550	1.12	20.55	0.63
2.567	0.74	8.567	10.92	14.567	1.12	20.57	0.63
2.583	0.74	8.583	10.92	14.583	1.12	20.58	0.63
2.600	0.74	8.600	10.92	14.600	1.12	20.60	0.63
2.617	0.74	8.617	10.92	14.617	1.12	20.62	0.63
2.633	0.74	8.633	10.92	14.633	1.12	20.63	0.63
2.650	0.74	8.650	10.92	14.650	1.12	20.65	0.63
2.667	0.74	8.667	10.91	14.667	1.12	20.67	0.63
2.683	0.76	8.683	8.62	14.683	1.10	20.68	0.63
2.700	0.76	8.700	8.62	14.700	1.10	20.70	0.63
2.717	0.76	8.717	8.62	14.717	1.10	20.72	0.63
2.733	0.76	8.733	8.62	14.733	1.10	20.73	0.63
2.750	0.76	8.750	8.62	14.750	1.10	20.75	0.63
2.767	0.76	8.767	8.62	14.767	1.10	20.77	0.63
2.783	0.76	8.783	8.62	14.783	1.10	20.78	0.63
2.800	0.76	8.800	8.62	14.800	1.10	20.80	0.63
2.817	0.76	8.817	8.62	14.817	1.10	20.82	0.63
2.833	0.76	8.833	8.61	14.833	1.10	20.83	0.63
2.850	0.79	8.850	7.11	14.850	1.07	20.85	0.62
2.867	0.79	8.867	7.11	14.867	1.07	20.87	0.62
2.883	0.79	8.883	7.11	14.883	1.07	20.88	0.62
2.900	0.79	8.900	7.11	14.900	1.07	20.90	0.62
2.917	0.79	8.917	7.11	14.917	1.07	20.92	0.62
2.933	0.79	8.933	7.11	14.933	1.07	20.93	0.62
2.950	0.79	8.950	7.11	14.950	1.07	20.95	0.62
2.967	0.79	8.967	7.11	14.967	1.07	20.97	0.62
2.983	0.79	8.983	7.11	14.983	1.07	20.98	0.62
3.000	0.79	9.000	7.11	15.000	1.07	21.00	0.62
3.017	0.81	9.017	6.06	15.017	1.05	21.02	0.61
3.033	0.81	9.033	6.06	15.033	1.05	21.03	0.61
3.050	0.81	9.050	6.06	15.050	1.05	21.05	0.61
3.067	0.81	9.067	6.06	15.067	1.05	21.07	0.61
3.083	0.81	9.083	6.06	15.083	1.05	21.08	0.61
3.100	0.81	9.100	6.06	15.100	1.05	21.10	0.61
3.117	0.81	9.117	6.06	15.117	1.05	21.12	0.61
3.133	0.81	9.133	6.06	15.133	1.05	21.13	0.61
3.150	0.81	9.150	6.06	15.150	1.05	21.15	0.61
3.167	0.81	9.167	6.05	15.167	1.05	21.17	0.61
3.183	0.84	9.183	5.28	15.183	1.03	21.18	0.61
3.200	0.84	9.200	5.28	15.200	1.03	21.20	0.61
3.217	0.84	9.217	5.28	15.217	1.03	21.22	0.61
3.233	0.84	9.233	5.28	15.233	1.03	21.23	0.61
3.250	0.84	9.250	5.28	15.250	1.03	21.25	0.61
3.267	0.84	9.267	5.28	15.267	1.03	21.27	0.61
3.283	0.84	9.283	5.28	15.283	1.03	21.28	0.61
3.300	0.84	9.300	5.28	15.300	1.03	21.30	0.61
3.317	0.84	9.317	5.28	15.317	1.03	21.32	0.61
3.333	0.84	9.333	5.27	15.333	1.03	21.33	0.61
3.350	0.86	9.350	4.68	15.350	1.01	21.35	0.60
3.367	0.86	9.367	4.68	15.367	1.01	21.37	0.60
3.383	0.86	9.383	4.68	15.383	1.01	21.38	0.60
3.400	0.86	9.400	4.68	15.400	1.01	21.40	0.60
3.417	0.86	9.417	4.68	15.417	1.01	21.42	0.60
3.433	0.86	9.433	4.68	15.433	1.01	21.43	0.60
3.450	0.86	9.450	4.68	15.450	1.01	21.45	0.60
3.467	0.86	9.467	4.68	15.467	1.01	21.47	0.60
3.483	0.86	9.483	4.68	15.483	1.01	21.48	0.60
3.500	0.86	9.500	4.68	15.500	1.01	21.50	0.60
3.517	0.89	9.517	4.20	15.517	0.99	21.52	0.59
3.533	0.89	9.533	4.20	15.533	0.99	21.53	0.59
3.550	0.89	9.550	4.20	15.550	0.99	21.55	0.59
3.567	0.89	9.567	4.20	15.567	0.99	21.57	0.59
3.583	0.89	9.583	4.20	15.583	0.99	21.58	0.59
3.600	0.89	9.600	4.20	15.600	0.99	21.60	0.59
3.617	0.89	9.617	4.20	15.617	0.99	21.62	0.59
3.633	0.89	9.633	4.20	15.633	0.99	21.63	0.59
3.650	0.89	9.650	4.20	15.650	0.99	21.65	0.59
3.667	0.89	9.667	4.20	15.667	0.99	21.67	0.59
3.683	0.93	9.683	3.82	15.683	0.97	21.68	0.59
3.700	0.93	9.700	3.82	15.700	0.97	21.70	0.59
3.717	0.93	9.717	3.82	15.717	0.97	21.72	0.59
3.733	0.93	9.733	3.82	15.733	0.97	21.73	0.59
3.750	0.93	9.750	3.82	15.750	0.97	21.75	0.59
3.767	0.93	9.767	3.82	15.767	0.97	21.77	0.59
3.783	0.93	9.783	3.82	15.783	0.97	21.78	0.59
3.800	0.93	9.800	3.82	15.800	0.97	21.80	0.59
3.817	0.93	9.817	3.82	15.817	0.97	21.82	0.59
3.833	0.93	9.833	3.82	15.833	0.97	21.83	0.59
3.850	0.96	9.850	3.50	15.850	0.95	21.85	0.58
3.867	0.96	9.867	3.50	15.867	0.95	21.87	0.58
3.883	0.96	9.883	3.50	15.883	0.95	21.88	0.58
3.900	0.96	9.900	3.50	15.900	0.95	21.90	0.58
3.917	0.96	9.917	3.50	15.917	0.95	21.92	0.58
3.933	0.96	9.933	3.50	15.933	0.95	21.93	0.58
3.950	0.96	9.950	3.50	15.950	0.95	21.95	0.58
3.967	0.96	9.967	3.50	15.967	0.95	21.97	0.58
3.983	0.96	9.983	3.50	15.983	0.95	21.98	0.58
4.000	0.96	10.000	3.50	16.000	0.95	22.00	0.58
4.017	1.00	10.017	3.24	16.017	0.94	22.02	0.57
4.033	1.00	10.033	3.24	16.033	0.94	22.03	0.57
4.050	1.00	10.050	3.24	16.050	0.94	22.05	0.57
4.067	1.00	10.067	3.24	16.067	0.94	22.07	0.57
4.083	1.00	10.083	3.24	16.083	0.94	22.08	0.57
4.100	1.00	10.100	3.24	16.100	0.94	22.10	0.57
4.117	1.00	10.117	3.24	16.117	0.94	22.12	0.57
4.133	1.00	10.133	3.24	16.133	0.94	22.13	0.57
4.150	1.00	10.150	3.24	16.150	0.94	22.15	0.57
4.167	1.00	10.167	3.24	16.167	0.94	22.17	0.57
4.183	1.04	10.183	3.01	16.183	0.92	22.18	0.57
4.200	1.04	10.200	3.01	16.200	0.92	22.20	0.57
4.217	1.04	10.217	3.01	16.217	0.92	22.22	0.57
4.233	1.04	10.233	3.01	16.233	0.92	22.23	0.57
4.250	1.04	10.250	3.01	16.250	0.92	22.25	0.57
4.267	1.04	10.267	3.01	16.267	0.92	22.27	0.57
4.283	1.04	10.283	3.01	16.283	0.92	22.28	0.57
4.300	1.04	10.300	3.01	16.300	0.92	22.30	0.57
4.317	1.04	10.317	3.01	16.317	0.92	22.32	0.57
4.333	1.04	10.333	3.01	16.333	0.92	22.33	0.57
4.350	1.08	10.350	2.81	16.350	0.90	22.35	0.56
4.367	1.08	10.367	2.81	16.367	0.90	22.37	0.56
4.383	1.08	10.383	2.81	16.383	0.90	22.38	0.56
4.400	1.08	10.400	2.81	16.400	0.90	22.40	0.56
4.417	1.08	10.417	2.81	16.417	0.90	22.42	0.56
4.433	1.08	10.433	2.81	16.433	0.90	22.43	0.56
4.450	1.08	10.450	2.81	16.450	0.90	22.45	0.56
4.467	1.08	10.467	2.81	16.467	0.90	22.47	0.56
4.483	1.08	10.483	2.81	16.483	0.90	22.48	0.56
4.500	1.08	10.500	2.81	16.500	0.90	22.50	0.56
4.517	1.13	10.517	2.64	16.517	0.89	22.52	0.56
4.533	1.13	10.533	2.64	16.533	0.89	22.53	0.56
4.550	1.13	10.550	2.64	16.550	0.89	22.55	0.56
4.567	1.13	10.567	2.64	16.567	0.89	22.57	0.56
4.583	1.13	10.583	2.64	16.583	0.89	22.58	0.56

4.600	1.13	10.600	2.64	16.600	0.89	22.60	0.56
4.617	1.13	10.617	2.64	16.617	0.89	22.62	0.56
4.633	1.13	10.633	2.64	16.633	0.89	22.63	0.56
4.650	1.13	10.650	2.64	16.650	0.89	22.65	0.56
4.667	1.13	10.667	2.64	16.667	0.89	22.67	0.56
4.683	1.19	10.683	2.49	16.683	0.87	22.68	0.55
4.700	1.19	10.700	2.49	16.700	0.87	22.70	0.55
4.717	1.19	10.717	2.49	16.717	0.87	22.72	0.55
4.733	1.19	10.733	2.49	16.733	0.87	22.73	0.55
4.750	1.19	10.750	2.49	16.750	0.87	22.75	0.55
4.767	1.19	10.767	2.49	16.767	0.87	22.77	0.55
4.783	1.19	10.783	2.49	16.783	0.87	22.78	0.55
4.800	1.19	10.800	2.49	16.800	0.87	22.80	0.55
4.817	1.19	10.817	2.49	16.817	0.87	22.82	0.55
4.833	1.19	10.833	2.49	16.833	0.87	22.83	0.55
4.850	1.25	10.850	2.36	16.850	0.86	22.85	0.55
4.867	1.25	10.867	2.36	16.867	0.86	22.87	0.55
4.883	1.25	10.883	2.36	16.883	0.86	22.88	0.55
4.900	1.25	10.900	2.36	16.900	0.86	22.90	0.55
4.917	1.25	10.917	2.36	16.917	0.86	22.92	0.55
4.933	1.25	10.933	2.36	16.933	0.86	22.93	0.55
4.950	1.25	10.950	2.36	16.950	0.86	22.95	0.55
4.967	1.25	10.967	2.36	16.967	0.86	22.97	0.55
4.983	1.25	10.983	2.36	16.983	0.86	22.98	0.55
5.000	1.25	11.000	2.36	17.000	0.86	23.00	0.55
5.017	1.32	11.017	2.24	17.017	0.84	23.02	0.54
5.033	1.32	11.033	2.24	17.033	0.84	23.03	0.54
5.050	1.32	11.050	2.24	17.050	0.84	23.05	0.54
5.067	1.32	11.067	2.24	17.067	0.84	23.07	0.54
5.083	1.32	11.083	2.24	17.083	0.84	23.08	0.54
5.100	1.32	11.100	2.24	17.100	0.84	23.10	0.54
5.117	1.32	11.117	2.24	17.117	0.84	23.12	0.54
5.133	1.32	11.133	2.24	17.133	0.84	23.13	0.54
5.150	1.32	11.150	2.24	17.150	0.84	23.15	0.54
5.167	1.32	11.167	2.24	17.167	0.84	23.17	0.54
5.183	1.39	11.183	2.13	17.183	0.83	23.18	0.54
5.200	1.39	11.200	2.13	17.200	0.83	23.20	0.54
5.217	1.39	11.217	2.13	17.217	0.83	23.22	0.54
5.233	1.39	11.233	2.13	17.233	0.83	23.23	0.54
5.250	1.39	11.250	2.13	17.250	0.83	23.25	0.54
5.267	1.39	11.267	2.13	17.267	0.83	23.27	0.54
5.283	1.39	11.283	2.13	17.283	0.83	23.28	0.54
5.300	1.39	11.300	2.13	17.300	0.83	23.30	0.54
5.317	1.39	11.317	2.13	17.317	0.83	23.32	0.54
5.333	1.39	11.333	2.13	17.333	0.83	23.33	0.54
5.350	1.48	11.350	2.04	17.350	0.82	23.35	0.53
5.367	1.48	11.367	2.04	17.367	0.82	23.37	0.53
5.383	1.48	11.383	2.04	17.383	0.82	23.38	0.53
5.400	1.48	11.400	2.04	17.400	0.82	23.40	0.53
5.417	1.48	11.417	2.04	17.417	0.82	23.42	0.53
5.433	1.48	11.433	2.04	17.433	0.82	23.43	0.53
5.450	1.48	11.450	2.04	17.450	0.82	23.45	0.53
5.467	1.48	11.467	2.04	17.467	0.82	23.47	0.53
5.483	1.48	11.483	2.04	17.483	0.82	23.48	0.53
5.500	1.48	11.500	2.04	17.500	0.82	23.50	0.53
5.517	1.58	11.517	1.95	17.517	0.80	23.52	0.53
5.533	1.58	11.533	1.95	17.533	0.80	23.53	0.53
5.550	1.58	11.550	1.95	17.550	0.80	23.55	0.53
5.567	1.58	11.567	1.95	17.567	0.80	23.57	0.53
5.583	1.58	11.583	1.95	17.583	0.80	23.58	0.53
5.600	1.58	11.600	1.95	17.600	0.80	23.60	0.53
5.617	1.58	11.617	1.95	17.617	0.80	23.62	0.53
5.633	1.58	11.633	1.95	17.633	0.80	23.63	0.53
5.650	1.58	11.650	1.95	17.650	0.80	23.65	0.53
5.667	1.58	11.667	1.95	17.667	0.80	23.67	0.53
5.683	1.70	11.683	1.87	17.683	0.79	23.68	0.52
5.700	1.70	11.700	1.87	17.700	0.79	23.70	0.52
5.717	1.70	11.717	1.87	17.717	0.79	23.72	0.52
5.733	1.70	11.733	1.87	17.733	0.79	23.73	0.52
5.750	1.70	11.750	1.87	17.750	0.79	23.75	0.52
5.767	1.70	11.767	1.87	17.767	0.79	23.77	0.52
5.783	1.70	11.783	1.87	17.783	0.79	23.78	0.52
5.800	1.70	11.800	1.87	17.800	0.79	23.80	0.52
5.817	1.70	11.817	1.87	17.817	0.79	23.82	0.52
5.833	1.70	11.833	1.87	17.833	0.79	23.83	0.52
5.850	1.83	11.850	1.80	17.850	0.78	23.85	0.52
5.867	1.83	11.867	1.80	17.867	0.78	23.87	0.52
5.883	1.83	11.883	1.80	17.883	0.78	23.88	0.52
5.900	1.83	11.900	1.80	17.900	0.78	23.90	0.52
5.917	1.83	11.917	1.80	17.917	0.78	23.92	0.52
5.933	1.83	11.933	1.80	17.933	0.78	23.93	0.52
5.950	1.83	11.950	1.80	17.950	0.78	23.95	0.52
5.967	1.83	11.967	1.80	17.967	0.78	23.97	0.52
5.983	1.83	11.983	1.80	17.983	0.78	23.98	0.52
6.000	1.83	12.000	1.80	18.000	0.78	24.00	0.52

Max.Eff.Inten.(mm/hr)=	122.80	26.67	
over (min)	7.00	14.00	
Storage Coeff. (min)=	6.89 (ii)	13.06 (ii)	
Unit Hyd. Tpeak (min)=	7.00	14.00	
Unit Hyd. peak (cms)=	0.16	0.08	
			TOTALS
PEAK FLOW (cms)=	3.37	0.49	3.672 (iii)
TIME TO PEAK (hrs)=	8.05	8.20	8.05
RUNOFF VOLUME (mm)=	76.30	17.51	46.32
TOTAL RAINFALL (mm)=	77.31	77.31	77.31
RUNOFF COEFFICIENT =	0.99	0.23	0.60

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 48.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

DUHYD (0034)
Inlet Cap.= 3.057
#of Inlets= 1
Total(cms)= 3.1

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
TOTAL HYD.(ID= 1):	26.89	3.67	8.05	46.32
MAJOR SYS.(ID= 2):	0.50	0.61	8.05	46.32
MINOR SYS.(ID= 3):	26.39	3.06	7.98	46.32

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

Junction Command(0033)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 9(0034)	26.39	3.06	7.98	46.32
OUTFLOW: ID= 2(0033)	26.39	3.06	7.98	46.32

CALIB
STANDHYD (1052)
ID= 1 DT= 1.0 min

Area (ha)= 1.95
Total Imp(%)= 30.00 Dir. Conn.(%)= 26.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	0.58	1.36
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	0.50	2.00
Length	(m)=	113.90	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 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
0.017	0.53	6.017	1.99	12.017	1.73	18.02	0.77
0.033	0.53	6.033	1.99	12.033	1.73	18.03	0.77
0.050	0.53	6.050	1.99	12.050	1.73	18.05	0.77
0.067	0.53	6.067	1.99	12.067	1.73	18.07	0.77
0.083	0.53	6.083	1.99	12.083	1.73	18.08	0.77
0.100	0.53	6.100	1.99	12.100	1.73	18.10	0.77
0.117	0.53	6.117	1.99	12.117	1.73	18.12	0.77
0.133	0.53	6.133	1.99	12.133	1.73	18.13	0.77
0.150	0.53	6.150	1.99	12.150	1.73	18.15	0.77
0.167	0.53	6.167	1.99	12.167	1.73	18.17	0.77
0.183	0.54	6.183	2.18	12.183	1.67	18.18	0.76
0.200	0.54	6.200	2.18	12.200	1.67	18.20	0.76
0.217	0.54	6.217	2.18	12.217	1.67	18.22	0.76
0.233	0.54	6.233	2.18	12.233	1.67	18.23	0.76
0.250	0.54	6.250	2.18	12.250	1.67	18.25	0.76
0.267	0.54	6.267	2.18	12.267	1.67	18.27	0.76
0.283	0.54	6.283	2.18	12.283	1.67	18.28	0.76
0.300	0.54	6.300	2.18	12.300	1.67	18.30	0.76
0.317	0.54	6.317	2.18	12.317	1.67	18.32	0.76
0.333	0.54	6.333	2.18	12.333	1.67	18.33	0.76
0.350	0.55	6.350	2.42	12.350	1.61	18.35	0.75
0.367	0.55	6.367	2.42	12.367	1.61	18.37	0.75
0.383	0.55	6.383	2.42	12.383	1.61	18.38	0.75
0.400	0.55	6.400	2.42	12.400	1.61	18.40	0.75
0.417	0.55	6.417	2.42	12.417	1.61	18.42	0.75
0.433	0.55	6.433	2.42	12.433	1.61	18.43	0.75
0.450	0.55	6.450	2.42	12.450	1.61	18.45	0.75
0.467	0.55	6.467	2.42	12.467	1.61	18.47	0.75
0.483	0.55	6.483	2.42	12.483	1.61	18.48	0.75
0.500	0.55	6.500	2.42	12.500	1.61	18.50	0.75
0.517	0.56	6.517	2.72	12.517	1.56	18.52	0.74
0.533	0.56	6.533	2.72	12.533	1.56	18.53	0.74
0.550	0.56	6.550	2.72	12.550	1.56	18.55	0.74
0.567	0.56	6.567	2.72	12.567	1.56	18.57	0.74
0.583	0.56	6.583	2.72	12.583	1.56	18.58	0.74
0.600	0.56	6.600	2.72	12.600	1.56	18.60	0.74
0.617	0.56	6.617	2.72	12.617	1.56	18.62	0.74
0.633	0.56	6.633	2.72	12.633	1.56	18.63	0.74
0.650	0.56	6.650	2.72	12.650	1.56	18.65	0.74
0.667	0.56	6.667	2.72	12.667	1.56	18.67	0.74
0.683	0.57	6.683	3.12	12.683	1.51	18.68	0.73
0.700	0.57	6.700	3.12	12.700	1.51	18.70	0.73
0.717	0.57	6.717	3.12	12.717	1.51	18.72	0.73
0.733	0.57	6.733	3.12	12.733	1.51	18.73	0.73
0.750	0.57	6.750	3.12	12.750	1.51	18.75	0.73
0.767	0.57	6.767	3.12	12.767	1.51	18.77	0.73
0.783	0.57	6.783	3.12	12.783	1.51	18.78	0.73
0.800	0.57	6.800	3.12	12.800	1.51	18.80	0.73
0.817	0.57	6.817	3.12	12.817	1.51	18.82	0.73
0.833	0.57	6.833	3.12	12.833	1.51	18.83	0.73
0.850	0.58	6.850	3.66	12.850	1.46	18.85	0.72
0.867	0.58	6.867	3.66	12.867	1.46	18.87	0.72
0.883	0.58	6.883	3.66	12.883	1.46	18.88	0.72
0.900	0.58	6.900	3.66	12.900	1.46	18.90	0.72
0.917	0.58	6.917	3.66	12.917	1.46	18.92	0.72
0.933	0.58	6.933	3.66	12.933	1.46	18.93	0.72
0.950	0.58	6.950	3.66	12.950	1.46	18.95	0.72
0.967	0.58	6.967	3.66	12.967	1.46	18.97	0.72
0.983	0.58	6.983	3.66	12.983	1.46	18.98	0.72
1.000	0.58	7.000	3.66	13.000	1.46	19.00	0.72
1.017	0.60	7.017	4.43	13.017	1.42	19.02	0.71
1.033	0.60	7.033	4.43	13.033	1.42	19.03	0.71
1.050	0.60	7.050	4.43	13.050	1.42	19.05	0.71
1.067	0.60	7.067	4.43	13.067	1.42	19.07	0.71
1.083	0.60	7.083	4.43	13.083	1.42	19.08	0.71
1.100	0.60	7.100	4.43	13.100	1.42	19.10	0.71
1.117	0.60	7.117	4.43	13.117	1.42	19.12	0.71
1.133	0.60	7.133	4.43	13.133	1.42	19.13	0.71
1.150	0.60	7.150	4.43	13.150	1.42	19.15	0.71
1.167	0.60	7.167	4.44	13.167	1.42	19.17	0.71
1.183	0.61	7.183	5.66	13.183	1.38	19.18	0.70
1.200	0.61	7.200	5.66	13.200	1.38	19.20	0.70
1.217	0.61	7.217	5.66	13.217	1.38	19.22	0.70
1.233	0.61	7.233	5.66	13.233	1.38	19.23	0.70
1.250	0.61	7.250	5.66	13.250	1.38	19.25	0.70
1.267	0.61	7.267	5.66	13.267	1.38	19.27	0.70
1.283	0.61	7.283	5.66	13.283	1.38	19.28	0.70
1.300	0.61	7.300	5.66	13.300	1.38	19.30	0.70
1.317	0.61	7.317	5.66	13.317	1.38	19.32	0.70
1.333	0.61	7.333	5.66	13.333	1.38	19.33	0.70
1.350	0.62	7.350	7.85	13.350	1.34	19.35	0.69
1.367	0.62	7.367	7.85	13.367	1.34	19.37	0.69
1.383	0.62	7.383	7.85	13.383	1.34	19.38	0.69
1.400	0.62	7.400	7.85	13.400	1.34	19.40	0.69
1.417	0.62	7.417	7.85	13.417	1.34	19.42	0.69
1.433	0.62	7.433	7.85	13.433	1.34	19.43	0.69
1.450	0.62	7.450	7.85	13.450	1.34	19.45	0.69
1.467	0.62	7.467	7.85	13.467	1.34	19.47	0.69
1.483	0.62	7.483	7.85	13.483	1.34	19.48	0.69
1.500	0.62	7.500	7.87	13.500	1.34	19.50	0.69
1.517	0.64	7.517	12.85	13.517	1.30	19.52	0.68
1.533	0.64	7.533	12.85	13.533	1.30	19.53	0.68
1.550	0.64	7.550	12.85	13.550	1.30	19.55	0.68
1.567	0.64	7.567	12.85	13.567	1.30	19.57	0.68
1.583	0.64	7.583	12.85	13.583	1.30	19.58	0.68
1.600	0.64	7.600	12.85	13.600	1.30	19.60	0.68
1.617	0.64	7.617	12.85	13.617	1.30	19.62	0.68
1.633	0.64	7.633	12.85	13.633	1.30	19.63	0.68
1.650	0.64	7.650	12.85	13.650	1.30	19.65	0.68
1.667	0.64	7.667	12.91	13.667	1.30	19.67	0.68
1.683	0.65	7.683	33.57	13.683	1.27	19.68	0.67
1.700	0.65	7.700	33.57	13.700	1.27	19.70	0.67
1.717	0.65	7.717	33.57	13.717	1.27	19.72	0.67
1.733	0.65	7.733	33.57	13.733	1.27	19.73	0.67
1.750	0.65	7.750	33.57	13.750	1.27	19.75	0.67
1.767	0.65	7.767	33.57	13.767	1.27	19.77	0.67
1.783	0.65	7.783	33.57	13.783	1.27	19.78	0.67
1.800	0.65	7.800	33.57	13.800	1.27	19.80	0.67
1.817	0.65	7.817	33.57	13.817	1.27	19.82	0.67
1.833	0.65	7.833	33.83	13.833	1.27	19.83	0.67
1.850	0.67	7.850	122.80	13.850	1.24	19.85	0.66
1.867	0.67	7.867	122.80	13.867	1.24	19.87	0.66
1.883	0.67	7.883	122.80	13.883	1.24	19.88	0.66
1.900	0.67	7.900	122.80	13.900	1.24	19.90	0.66
1.917	0.67	7.917	122.80	13.917	1.24	19.92	0.66
1.933	0.67	7.933	122.80	13.933	1.24	19.93	0.66
1.950	0.67	7.950	122.80	13.950	1.24	19.95	0.66
1.967	0.67	7.967	122.80	13.967	1.24	19.97	0.66
1.983	0.67	7.983	122.80	13.983	1.24	19.98	0.66
2.000	0.67	8.000	122.56	14.000	1.24	20.00	0.66
2.017	0.68	8.017	44.52	14.017	1.21	20.02	0.66
2.033	0.68	8.033	44.52	14.033	1.21	20.03	0.66
2.050	0.68	8.050	44.52	14.050	1.21	20.05	0.66
2.067	0.68	8.067	44.52	14.067	1.21	20.07	0.66
2.083	0.68	8.083	44.52	14.083	1.21	20.08	0.66
2.100	0.68	8.100	44.52	14.100	1.21	20.10	0.66
2.117	0.68	8.117	44.52	14.117	1.21	20.12	0.66
2.133	0.68	8.133	44.52	14.133	1.21	20.13	0.66
2.150	0.68	8.150	44.52	14.150	1.21	20.15	0.66
2.167	0.68	8.167	44.45	14.167	1.21	20.17	0.66
2.183	0.70	8.183	22.67	14.183	1.18	20.18	0.65
2.200	0.70	8.200	22.67	14.200	1.18	20.20	0.65
2.217	0.70	8.217	22.67	14.217	1.18	20.22	0.65
2.233	0.70	8.233	22.67	14.233	1.18	20.23	0.65
2.250	0.70	8.250	22.67	14.250	1.18	20.25	0.65
2.267	0.70	8.267	22.67	14.267	1.18	20.27	0.65
2.283	0.70	8.283	22.67	14.283	1.18	20.28	0.65
2.300	0.70	8.300	22.67	14.300	1.18	20.30	0.65
2.317	0.70	8.317	22.67	14.317	1.18	20.32	0.65
2.333	0.70	8.333	22.65	14.333	1.18	20.33	0.65
2.350	0.72	8.350	14.82	14.350	1.15	20.35	0.64
2.367	0.72	8.367	14.82	14.367	1.15	20.37	0.64
2.383	0.72	8.383	14.82	14.383	1.15	20.38	0.64
2.400	0.72	8.400	14.82	14.400	1.15	20.40	0.64
2.417	0.72	8.417	14.82	14.417	1.15	20.42	0.64
2.433	0.72	8.433	14.82	14.433	1.15	20.43	0.64
2.450	0.72	8.450	14.82	14.450	1.15	20.45	0.64
2.467	0.72	8.467	14.82	14.467	1.15	20.47	0.64
2.483	0.72	8.483	14.82	14.483	1.15	20.48	0.64
2.500	0.72	8.500	14.81	14.500	1.15	20.50	0.64
2.517	0.74	8.517	10.92	14.517	1.12	20.52	0.63
2.533	0.74	8.533	10.92	14.533	1.12	20.53	0.63
2.550	0.74	8.550	10.92	14.550	1.12	20.55	0.63
2.567	0.74	8.567	10.92	14.567	1.12	20.57	0.63
2.583	0.74	8.583	10.92	14.583	1.12	20.58	0.63
2.600	0.74	8.600	10.92	14.600	1.12	20.60	0.63
2.617	0.74	8.617	10.92	14.617	1.12	20.62	0.63
2.633	0.74	8.633	10.92	14.633	1.12	20.63	0.63
2.650	0.74	8.650	10.92	14.650	1.12	20.65	0.63
2.667	0.74	8.667	10.91	14.667	1.12	20.67	0.63
2.683	0.76	8.683	8.62	14.683	1.10	20.68	0.63
2.700	0.76	8.700	8.62	14.700	1.10	20.70	0.63
2.717	0.76	8.717	8.62	14.717	1.10	20.72	0.63

2.733	0.76	8.733	8.62	14.733	1.10	20.73	0.63
2.750	0.76	8.750	8.62	14.750	1.10	20.75	0.63
2.767	0.76	8.767	8.62	14.767	1.10	20.77	0.63
2.783	0.76	8.783	8.62	14.783	1.10	20.78	0.63
2.800	0.76	8.800	8.62	14.800	1.10	20.80	0.63
2.817	0.76	8.817	8.62	14.817	1.10	20.82	0.63
2.833	0.76	8.833	8.61	14.833	1.10	20.83	0.63
2.850	0.79	8.850	7.11	14.850	1.07	20.85	0.62
2.867	0.79	8.867	7.11	14.867	1.07	20.87	0.62
2.883	0.79	8.883	7.11	14.883	1.07	20.88	0.62
2.900	0.79	8.900	7.11	14.900	1.07	20.90	0.62
2.917	0.79	8.917	7.11	14.917	1.07	20.92	0.62
2.933	0.79	8.933	7.11	14.933	1.07	20.93	0.62
2.950	0.79	8.950	7.11	14.950	1.07	20.95	0.62
2.967	0.79	8.967	7.11	14.967	1.07	20.97	0.62
2.983	0.79	8.983	7.11	14.983	1.07	20.98	0.62
3.000	0.79	9.000	7.11	15.000	1.07	21.00	0.62
3.017	0.81	9.017	6.06	15.017	1.05	21.02	0.61
3.033	0.81	9.033	6.06	15.033	1.05	21.03	0.61
3.050	0.81	9.050	6.06	15.050	1.05	21.05	0.61
3.067	0.81	9.067	6.06	15.067	1.05	21.07	0.61
3.083	0.81	9.083	6.06	15.083	1.05	21.08	0.61
3.100	0.81	9.100	6.06	15.100	1.05	21.10	0.61
3.117	0.81	9.117	6.06	15.117	1.05	21.12	0.61
3.133	0.81	9.133	6.06	15.133	1.05	21.13	0.61
3.150	0.81	9.150	6.06	15.150	1.05	21.15	0.61
3.167	0.81	9.167	6.05	15.167	1.05	21.17	0.61
3.183	0.84	9.183	5.28	15.183	1.03	21.18	0.61
3.200	0.84	9.200	5.28	15.200	1.03	21.20	0.61
3.217	0.84	9.217	5.28	15.217	1.03	21.22	0.61
3.233	0.84	9.233	5.28	15.233	1.03	21.23	0.61
3.250	0.84	9.250	5.28	15.250	1.03	21.25	0.61
3.267	0.84	9.267	5.28	15.267	1.03	21.27	0.61
3.283	0.84	9.283	5.28	15.283	1.03	21.28	0.61
3.300	0.84	9.300	5.28	15.300	1.03	21.30	0.61
3.317	0.84	9.317	5.28	15.317	1.03	21.32	0.61
3.333	0.84	9.333	5.27	15.333	1.03	21.33	0.61
3.350	0.86	9.350	4.68	15.350	1.01	21.35	0.60
3.367	0.86	9.367	4.68	15.367	1.01	21.37	0.60
3.383	0.86	9.383	4.68	15.383	1.01	21.38	0.60
3.400	0.86	9.400	4.68	15.400	1.01	21.40	0.60
3.417	0.86	9.417	4.68	15.417	1.01	21.42	0.60
3.433	0.86	9.433	4.68	15.433	1.01	21.43	0.60
3.450	0.86	9.450	4.68	15.450	1.01	21.45	0.60
3.467	0.86	9.467	4.68	15.467	1.01	21.47	0.60
3.483	0.86	9.483	4.68	15.483	1.01	21.48	0.60
3.500	0.86	9.500	4.68	15.500	1.01	21.50	0.60
3.517	0.89	9.517	4.20	15.517	0.99	21.52	0.59
3.533	0.89	9.533	4.20	15.533	0.99	21.53	0.59
3.550	0.89	9.550	4.20	15.550	0.99	21.55	0.59
3.567	0.89	9.567	4.20	15.567	0.99	21.57	0.59
3.583	0.89	9.583	4.20	15.583	0.99	21.58	0.59

3.600	0.89	9.600	4.20	15.600	0.99	21.60	0.59
3.617	0.89	9.617	4.20	15.617	0.99	21.62	0.59
3.633	0.89	9.633	4.20	15.633	0.99	21.63	0.59
3.650	0.89	9.650	4.20	15.650	0.99	21.65	0.59
3.667	0.89	9.667	4.20	15.667	0.99	21.67	0.59
3.683	0.93	9.683	3.82	15.683	0.97	21.68	0.59
3.700	0.93	9.700	3.82	15.700	0.97	21.70	0.59
3.717	0.93	9.717	3.82	15.717	0.97	21.72	0.59
3.733	0.93	9.733	3.82	15.733	0.97	21.73	0.59
3.750	0.93	9.750	3.82	15.750	0.97	21.75	0.59
3.767	0.93	9.767	3.82	15.767	0.97	21.77	0.59
3.783	0.93	9.783	3.82	15.783	0.97	21.78	0.59
3.800	0.93	9.800	3.82	15.800	0.97	21.80	0.59
3.817	0.93	9.817	3.82	15.817	0.97	21.82	0.59
3.833	0.93	9.833	3.82	15.833	0.97	21.83	0.59
3.850	0.96	9.850	3.50	15.850	0.95	21.85	0.58
3.867	0.96	9.867	3.50	15.867	0.95	21.87	0.58
3.883	0.96	9.883	3.50	15.883	0.95	21.88	0.58
3.900	0.96	9.900	3.50	15.900	0.95	21.90	0.58
3.917	0.96	9.917	3.50	15.917	0.95	21.92	0.58
3.933	0.96	9.933	3.50	15.933	0.95	21.93	0.58
3.950	0.96	9.950	3.50	15.950	0.95	21.95	0.58
3.967	0.96	9.967	3.50	15.967	0.95	21.97	0.58
3.983	0.96	9.983	3.50	15.983	0.95	21.98	0.58
4.000	0.96	10.000	3.50	16.000	0.95	22.00	0.58
4.017	1.00	10.017	3.24	16.017	0.94	22.02	0.57
4.033	1.00	10.033	3.24	16.033	0.94	22.03	0.57
4.050	1.00	10.050	3.24	16.050	0.94	22.05	0.57
4.067	1.00	10.067	3.24	16.067	0.94	22.07	0.57
4.083	1.00	10.083	3.24	16.083	0.94	22.08	0.57
4.100	1.00	10.100	3.24	16.100	0.94	22.10	0.57
4.117	1.00	10.117	3.24	16.117	0.94	22.12	0.57
4.133	1.00	10.133	3.24	16.133	0.94	22.13	0.57
4.150	1.00	10.150	3.24	16.150	0.94	22.15	0.57
4.167	1.00	10.167	3.24	16.167	0.94	22.17	0.57
4.183	1.04	10.183	3.01	16.183	0.92	22.18	0.57
4.200	1.04	10.200	3.01	16.200	0.92	22.20	0.57
4.217	1.04	10.217	3.01	16.217	0.92	22.22	0.57
4.233	1.04	10.233	3.01	16.233	0.92	22.23	0.57
4.250	1.04	10.250	3.01	16.250	0.92	22.25	0.57
4.267	1.04	10.267	3.01	16.267	0.92	22.27	0.57
4.283	1.04	10.283	3.01	16.283	0.92	22.28	0.57
4.300	1.04	10.300	3.01	16.300	0.92	22.30	0.57
4.317	1.04	10.317	3.01	16.317	0.92	22.32	0.57
4.333	1.04	10.333	3.01	16.333	0.92	22.33	0.57
4.350	1.08	10.350	2.81	16.350	0.90	22.35	0.56
4.367	1.08	10.367	2.81	16.367	0.90	22.37	0.56
4.383	1.08	10.383	2.81	16.383	0.90	22.38	0.56
4.400	1.08	10.400	2.81	16.400	0.90	22.40	0.56
4.417	1.08	10.417	2.81	16.417	0.90	22.42	0.56
4.433	1.08	10.433	2.81	16.433	0.90	22.43	0.56
4.450	1.08	10.450	2.81	16.450	0.90	22.45	0.56

4.467	1.08	10.467	2.81	16.467	0.90	22.47	0.56
4.483	1.08	10.483	2.81	16.483	0.90	22.48	0.56
4.500	1.08	10.500	2.81	16.500	0.90	22.50	0.56
4.517	1.13	10.517	2.64	16.517	0.89	22.52	0.56
4.533	1.13	10.533	2.64	16.533	0.89	22.53	0.56
4.550	1.13	10.550	2.64	16.550	0.89	22.55	0.56
4.567	1.13	10.567	2.64	16.567	0.89	22.57	0.56
4.583	1.13	10.583	2.64	16.583	0.89	22.58	0.56
4.600	1.13	10.600	2.64	16.600	0.89	22.60	0.56
4.617	1.13	10.617	2.64	16.617	0.89	22.62	0.56
4.633	1.13	10.633	2.64	16.633	0.89	22.63	0.56
4.650	1.13	10.650	2.64	16.650	0.89	22.65	0.56
4.667	1.13	10.667	2.64	16.667	0.89	22.67	0.56
4.683	1.19	10.683	2.49	16.683	0.87	22.68	0.55
4.700	1.19	10.700	2.49	16.700	0.87	22.70	0.55
4.717	1.19	10.717	2.49	16.717	0.87	22.72	0.55
4.733	1.19	10.733	2.49	16.733	0.87	22.73	0.55
4.750	1.19	10.750	2.49	16.750	0.87	22.75	0.55
4.767	1.19	10.767	2.49	16.767	0.87	22.77	0.55
4.783	1.19	10.783	2.49	16.783	0.87	22.78	0.55
4.800	1.19	10.800	2.49	16.800	0.87	22.80	0.55
4.817	1.19	10.817	2.49	16.817	0.87	22.82	0.55
4.833	1.19	10.833	2.49	16.833	0.87	22.83	0.55
4.850	1.25	10.850	2.36	16.850	0.86	22.85	0.55
4.867	1.25	10.867	2.36	16.867	0.86	22.87	0.55
4.883	1.25	10.883	2.36	16.883	0.86	22.88	0.55
4.900	1.25	10.900	2.36	16.900	0.86	22.90	0.55
4.917	1.25	10.917	2.36	16.917	0.86	22.92	0.55
4.933	1.25	10.933	2.36	16.933	0.86	22.93	0.55
4.950	1.25	10.950	2.36	16.950	0.86	22.95	0.55
4.967	1.25	10.967	2.36	16.967	0.86	22.97	0.55
4.983	1.25	10.983	2.36	16.983	0.86	22.98	0.55
5.000	1.25	11.000	2.36	17.000	0.86	23.00	0.55
5.017	1.32	11.017	2.24	17.017	0.84	23.02	0.54
5.033	1.32	11.033	2.24	17.033	0.84	23.03	0.54
5.050	1.32	11.050	2.24	17.050	0.84	23.05	0.54
5.067	1.32	11.067	2.24	17.067	0.84	23.07	0.54
5.083	1.32	11.083	2.24	17.083	0.84	23.08	0.54
5.100	1.32	11.100	2.24	17.100	0.84	23.10	0.54
5.117	1.32	11.117	2.24	17.117	0.84	23.12	0.54
5.133	1.32	11.133	2.24	17.133	0.84	23.13	0.54
5.150	1.32	11.150	2.24	17.150	0.84	23.15	0.54
5.167	1.32	11.167	2.24	17.167	0.84	23.17	0.54
5.183	1.39	11.183	2.13	17.183	0.83	23.18	0.54
5.200	1.39	11.200	2.13	17.200	0.83	23.20	0.54
5.217	1.39	11.217	2.13	17.217	0.83	23.22	0.54
5.233	1.39	11.233	2.13	17.233	0.83	23.23	0.54
5.250	1.39	11.250	2.13	17.250	0.83	23.25	0.54
5.267	1.39	11.267	2.13	17.267	0.83	23.27	0.54
5.283	1.39	11.283	2.13	17.283	0.83	23.28	0.54
5.300	1.39	11.300	2.13	17.300	0.83	23.30	0.54
5.317	1.39	11.317	2.13	17.317	0.83	23.32	0.54

5.333	1.39	11.333	2.13	17.333	0.83	23.33	0.54
5.350	1.48	11.350	2.04	17.350	0.82	23.35	0.53
5.367	1.48	11.367	2.04	17.367	0.82	23.37	0.53
5.383	1.48	11.383	2.04	17.383	0.82	23.38	0.53
5.400	1.48	11.400	2.04	17.400	0.82	23.40	0.53
5.417	1.48	11.417	2.04	17.417	0.82	23.42	0.53
5.433	1.48	11.433	2.04	17.433	0.82	23.43	0.53
5.450	1.48	11.450	2.04	17.450	0.82	23.45	0.53
5.467	1.48	11.467	2.04	17.467	0.82	23.47	0.53
5.483	1.48	11.483	2.04	17.483	0.82	23.48	0.53
5.500	1.48	11.500	2.04	17.500	0.82	23.50	0.53
5.517	1.58	11.517	1.95	17.517	0.80	23.52	0.53
5.533	1.58	11.533	1.95	17.533	0.80	23.53	0.53
5.550	1.58	11.550	1.95	17.550	0.80	23.55	0.53
5.567	1.58	11.567	1.95	17.567	0.80	23.57	0.53
5.583	1.58	11.583	1.95	17.583	0.80	23.58	0.53
5.600	1.58	11.600	1.95	17.600	0.80	23.60	0.53
5.617	1.58	11.617	1.95	17.617	0.80	23.62	0.53
5.633	1.58	11.633	1.95	17.633	0.80	23.63	0.53
5.650	1.58	11.650	1.95	17.650	0.80	23.65	0.53
5.667	1.58	11.667	1.95	17.667	0.80	23.67	0.53
5.683	1.70	11.683	1.87	17.683	0.79	23.68	0.52
5.700	1.70	11.700	1.87	17.700	0.79	23.70	0.52
5.717	1.70	11.717	1.87	17.717	0.79	23.72	0.52
5.733	1.70	11.733	1.87	17.733	0.79	23.73	0.52
5.750	1.70	11.750	1.87	17.750	0.79	23.75	0.52
5.767	1.70	11.767	1.87	17.767	0.79	23.77	0.52
5.783	1.70	11.783	1.87	17.783	0.79	23.78	0.52
5.800	1.70	11.800	1.87	17.800	0.79	23.80	0.52
5.817	1.70	11.817	1.87	17.817	0.79	23.82	0.52
5.833	1.70	11.833	1.87	17.833	0.79	23.83	0.52
5.850	1.83	11.850	1.80	17.850	0.78	23.85	0.52
5.867	1.83	11.867	1.80	17.867	0.78	23.87	0.52
5.883	1.83	11.883	1.80	17.883	0.78	23.88	0.52
5.900	1.83	11.900	1.80	17.900	0.78	23.90	0.52
5.917	1.83	11.917	1.80	17.917	0.78	23.92	0.52
5.933	1.83	11.933	1.80	17.933	0.78	23.93	0.52
5.950	1.83	11.950	1.80	17.950	0.78	23.95	0.52
5.967	1.83	11.967	1.80	17.967	0.78	23.97	0.52
5.983	1.83	11.983	1.80	17.983	0.78	23.98	0.52
6.000	1.83	12.000	1.80	18.000	0.78	24.00	0.52

Max.Eff.Inten.(mm/hr)=	122.80	18.18	
over (min)	5.00	18.00	
Storage Coeff. (min)=	3.13 (ii)	17.09 (ii)	
Unit Hyd. Tpeak (min)=	5.00	18.00	
Unit Hyd. peak (cms)=	0.30	0.07	
		TOTALS	
PEAK FLOW (cms)=	0.16	0.04	0.175 (iii)
TIME TO PEAK (hrs)=	8.00	8.28	8.02
RUNOFF VOLUME (mm)=	76.31	15.82	31.55
TOTAL RAINFALL (mm)=	77.31	77.31	77.31

RUNOFF COEFFICIENT = 0.99 0.20 0.41

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 48.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

DUHYD (0037)
Inlet Cap.= 0.108
#of Inlets= 1
Total(cms)= 0.1

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
TOTAL HYD.(ID= 1):	1.95	0.17	8.02	31.55
MAJOR SYS.(ID= 2):	0.10	0.07	8.02	31.55
MINOR SYS.(ID= 3):	1.84	0.11	7.92	31.55

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

Junction Command(0038)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 9(0037)	1.84	0.11	7.92	31.55
OUTFLOW: ID= 2(0038)	1.84	0.11	7.92	31.55

CALIB					
NASHYD (0104)	Area	(ha)=	0.77	Curve Number (CN)=	53.0
ID= 1 DT= 5.0 min	Ia	(mm)=	5.00	# of Linear Res.(N)=	3.00
	U.H. Tp(hrs)=		0.34		

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	0.53	6.083	1.99	12.083	1.73	18.08	0.77
0.167	0.53	6.167	1.99	12.167	1.73	18.17	0.77
0.250	0.54	6.250	2.18	12.250	1.67	18.25	0.76
0.333	0.54	6.333	2.18	12.333	1.67	18.33	0.76
0.417	0.55	6.417	2.42	12.417	1.61	18.42	0.75

0.500	0.55	6.500	2.42	12.500	1.61	18.50	0.75
0.583	0.56	6.583	2.72	12.583	1.56	18.58	0.74
0.667	0.56	6.667	2.72	12.667	1.56	18.67	0.74
0.750	0.57	6.750	3.12	12.750	1.51	18.75	0.73
0.833	0.57	6.833	3.12	12.833	1.51	18.83	0.73
0.917	0.58	6.917	3.66	12.917	1.46	18.92	0.72
1.000	0.58	7.000	3.66	13.000	1.46	19.00	0.72
1.083	0.60	7.083	4.43	13.083	1.42	19.08	0.71
1.167	0.60	7.167	4.43	13.167	1.42	19.17	0.71
1.250	0.61	7.250	5.66	13.250	1.38	19.25	0.70
1.333	0.61	7.333	5.66	13.333	1.38	19.33	0.70
1.417	0.62	7.417	7.85	13.417	1.34	19.42	0.69
1.500	0.62	7.500	7.85	13.500	1.34	19.50	0.69
1.583	0.64	7.583	12.85	13.583	1.30	19.58	0.68
1.667	0.64	7.667	12.86	13.667	1.30	19.67	0.68
1.750	0.65	7.750	33.57	13.750	1.27	19.75	0.67
1.833	0.65	7.833	33.58	13.833	1.27	19.83	0.67
1.917	0.67	7.917	122.80	13.917	1.24	19.92	0.66
2.000	0.67	8.000	122.79	14.000	1.24	20.00	0.66
2.083	0.68	8.083	44.52	14.083	1.21	20.08	0.66
2.167	0.68	8.167	44.52	14.167	1.21	20.17	0.66
2.250	0.70	8.250	22.67	14.250	1.18	20.25	0.65
2.333	0.70	8.333	22.67	14.333	1.18	20.33	0.65
2.417	0.72	8.417	14.82	14.417	1.15	20.42	0.64
2.500	0.72	8.500	14.82	14.500	1.15	20.50	0.64
2.583	0.74	8.583	10.92	14.583	1.12	20.58	0.63
2.667	0.74	8.667	10.92	14.667	1.12	20.67	0.63
2.750	0.76	8.750	8.62	14.750	1.10	20.75	0.63
2.833	0.76	8.833	8.62	14.833	1.10	20.83	0.63
2.917	0.79	8.917	7.11	14.917	1.07	20.92	0.62
3.000	0.79	9.000	7.11	15.000	1.07	21.00	0.62
3.083	0.81	9.083	6.06	15.083	1.05	21.08	0.61
3.167	0.81	9.167	6.06	15.167	1.05	21.17	0.61
3.250	0.84	9.250	5.28	15.250	1.03	21.25	0.61
3.333	0.84	9.333	5.28	15.333	1.03	21.33	0.61
3.417	0.86	9.417	4.68	15.417	1.01	21.42	0.60
3.500	0.86	9.500	4.68	15.500	1.01	21.50	0.60
3.583	0.89	9.583	4.20	15.583	0.99	21.58	0.59
3.667	0.89	9.667	4.20	15.667	0.99	21.67	0.59
3.750	0.93	9.750	3.82	15.750	0.97	21.75	0.59
3.833	0.93	9.833	3.82	15.833	0.97	21.83	0.59
3.917	0.96	9.917	3.50	15.917	0.95	21.92	0.58
4.000	0.96	10.000	3.50	16.000	0.95	22.00	0.58
4.083	1.00	10.083	3.24	16.083	0.94	22.08	0.57
4.167	1.00	10.167	3.24	16.167	0.94	22.17	0.57
4.250	1.04	10.250	3.01	16.250	0.92	22.25	0.57
4.333	1.04	10.333	3.01	16.333	0.92	22.33	0.57
4.417	1.08	10.417	2.81	16.417	0.90	22.42	0.56
4.500	1.08	10.500	2.81	16.500	0.90	22.50	0.56
4.583	1.13	10.583	2.64	16.583	0.89	22.58	0.56
4.667	1.13	10.667	2.64	16.667	0.89	22.67	0.56
4.750	1.19	10.750	2.49	16.750	0.87	22.75	0.55

4.833	1.19	10.833	2.49	16.833	0.87	22.83	0.55
4.917	1.25	10.917	2.36	16.917	0.86	22.92	0.55
5.000	1.25	11.000	2.36	17.000	0.86	23.00	0.55
5.083	1.32	11.083	2.24	17.083	0.84	23.08	0.54
5.167	1.32	11.167	2.24	17.167	0.84	23.17	0.54
5.250	1.39	11.250	2.13	17.250	0.83	23.25	0.54
5.333	1.39	11.333	2.13	17.333	0.83	23.33	0.54
5.417	1.48	11.417	2.04	17.417	0.82	23.42	0.53
5.500	1.48	11.500	2.04	17.500	0.82	23.50	0.53
5.583	1.58	11.583	1.95	17.583	0.80	23.58	0.53
5.667	1.58	11.667	1.95	17.667	0.80	23.67	0.53
5.750	1.70	11.750	1.87	17.750	0.79	23.75	0.52
5.833	1.70	11.833	1.87	17.833	0.79	23.83	0.52
5.917	1.83	11.917	1.80	17.917	0.78	23.92	0.52
6.000	1.83	12.000	1.80	18.000	0.78	24.00	0.52

Unit Hyd Qpeak (cms)= 0.086

PEAK FLOW (cms)= 0.021 (i)
TIME TO PEAK (hrs)= 8.333
RUNOFF VOLUME (mm)= 17.568
TOTAL RAINFALL (mm)= 77.311
RUNOFF COEFFICIENT = 0.227

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

CALIB			
STANDHYD (0103)	Area (ha)= 1.17		
ID= 1 DT= 1.0 min	Total Imp(%)= 24.00	Dir. Conn.(%)= 20.00	

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.28	0.89
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.50	2.00
Length (m)=	88.20	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 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
0.017	0.53	6.017	1.99	12.017	1.73	18.02	0.77
0.033	0.53	6.033	1.99	12.033	1.73	18.03	0.77
0.050	0.53	6.050	1.99	12.050	1.73	18.05	0.77
0.067	0.53	6.067	1.99	12.067	1.73	18.07	0.77
0.083	0.53	6.083	1.99	12.083	1.73	18.08	0.77
0.100	0.53	6.100	1.99	12.100	1.73	18.10	0.77
0.117	0.53	6.117	1.99	12.117	1.73	18.12	0.77
0.133	0.53	6.133	1.99	12.133	1.73	18.13	0.77
0.150	0.53	6.150	1.99	12.150	1.73	18.15	0.77
0.167	0.53	6.167	1.99	12.167	1.73	18.17	0.77
0.183	0.54	6.183	2.18	12.183	1.67	18.18	0.76
0.200	0.54	6.200	2.18	12.200	1.67	18.20	0.76
0.217	0.54	6.217	2.18	12.217	1.67	18.22	0.76
0.233	0.54	6.233	2.18	12.233	1.67	18.23	0.76
0.250	0.54	6.250	2.18	12.250	1.67	18.25	0.76
0.267	0.54	6.267	2.18	12.267	1.67	18.27	0.76
0.283	0.54	6.283	2.18	12.283	1.67	18.28	0.76
0.300	0.54	6.300	2.18	12.300	1.67	18.30	0.76
0.317	0.54	6.317	2.18	12.317	1.67	18.32	0.76
0.333	0.54	6.333	2.18	12.333	1.67	18.33	0.76
0.350	0.55	6.350	2.42	12.350	1.61	18.35	0.75
0.367	0.55	6.367	2.42	12.367	1.61	18.37	0.75
0.383	0.55	6.383	2.42	12.383	1.61	18.38	0.75
0.400	0.55	6.400	2.42	12.400	1.61	18.40	0.75
0.417	0.55	6.417	2.42	12.417	1.61	18.42	0.75
0.433	0.55	6.433	2.42	12.433	1.61	18.43	0.75
0.450	0.55	6.450	2.42	12.450	1.61	18.45	0.75
0.467	0.55	6.467	2.42	12.467	1.61	18.47	0.75
0.483	0.55	6.483	2.42	12.483	1.61	18.48	0.75
0.500	0.55	6.500	2.42	12.500	1.61	18.50	0.75
0.517	0.56	6.517	2.72	12.517	1.56	18.52	0.74
0.533	0.56	6.533	2.72	12.533	1.56	18.53	0.74
0.550	0.56	6.550	2.72	12.550	1.56	18.55	0.74
0.567	0.56	6.567	2.72	12.567	1.56	18.57	0.74
0.583	0.56	6.583	2.72	12.583	1.56	18.58	0.74
0.600	0.56	6.600	2.72	12.600	1.56	18.60	0.74
0.617	0.56	6.617	2.72	12.617	1.56	18.62	0.74
0.633	0.56	6.633	2.72	12.633	1.56	18.63	0.74
0.650	0.56	6.650	2.72	12.650	1.56	18.65	0.74
0.667	0.56	6.667	2.72	12.667	1.56	18.67	0.74
0.683	0.57	6.683	3.12	12.683	1.51	18.68	0.73
0.700	0.57	6.700	3.12	12.700	1.51	18.70	0.73
0.717	0.57	6.717	3.12	12.717	1.51	18.72	0.73
0.733	0.57	6.733	3.12	12.733	1.51	18.73	0.73
0.750	0.57	6.750	3.12	12.750	1.51	18.75	0.73
0.767	0.57	6.767	3.12	12.767	1.51	18.77	0.73
0.783	0.57	6.783	3.12	12.783	1.51	18.78	0.73
0.800	0.57	6.800	3.12	12.800	1.51	18.80	0.73
0.817	0.57	6.817	3.12	12.817	1.51	18.82	0.73
0.833	0.57	6.833	3.12	12.833	1.51	18.83	0.73
0.850	0.58	6.850	3.66	12.850	1.46	18.85	0.72
0.867	0.58	6.867	3.66	12.867	1.46	18.87	0.72
0.883	0.58	6.883	3.66	12.883	1.46	18.88	0.72
0.900	0.58	6.900	3.66	12.900	1.46	18.90	0.72
0.917	0.58	6.917	3.66	12.917	1.46	18.92	0.72
0.933	0.58	6.933	3.66	12.933	1.46	18.93	0.72
0.950	0.58	6.950	3.66	12.950	1.46	18.95	0.72
0.967	0.58	6.967	3.66	12.967	1.46	18.97	0.72
0.983	0.58	6.983	3.66	12.983	1.46	18.98	0.72
1.000	0.58	7.000	3.66	13.000	1.46	19.00	0.72
1.017	0.60	7.017	4.43	13.017	1.42	19.02	0.71
1.033	0.60	7.033	4.43	13.033	1.42	19.03	0.71
1.050	0.60	7.050	4.43	13.050	1.42	19.05	0.71
1.067	0.60	7.067	4.43	13.067	1.42	19.07	0.71
1.083	0.60	7.083	4.43	13.083	1.42	19.08	0.71
1.100	0.60	7.100	4.43	13.100	1.42	19.10	0.71
1.117	0.60	7.117	4.43	13.117	1.42	19.12	0.71
1.133	0.60	7.133	4.43	13.133	1.42	19.13	0.71
1.150	0.60	7.150	4.43	13.150	1.42	19.15	0.71
1.167	0.60	7.167	4.44	13.167	1.42	19.17	0.71
1.183	0.61	7.183	5.66	13.183	1.38	19.18	0.70
1.200	0.61	7.200	5.66	13.200	1.38	19.20	0.70
1.217	0.61	7.217	5.66	13.217	1.38	19.22	0.70
1.233	0.61	7.233	5.66	13.233	1.38	19.23	0.70
1.250	0.61	7.250	5.66	13.250	1.38	19.25	0.70
1.267	0.61	7.267	5.66	13.267	1.38	19.27	0.70
1.283	0.61	7.283	5.66	13.283	1.38	19.28	0.70
1.300	0.61	7.300	5.66	13.300	1.38	19.30	0.70
1.317	0.61	7.317	5.66	13.317	1.38	19.32	0.70
1.333	0.61	7.333	5.66	13.333	1.38	19.33	0.70
1.350	0.62	7.350	7.85	13.350	1.34	19.35	0.69
1.367	0.62	7.367	7.85	13.367	1.34	19.37	0.69
1.383	0.62	7.383	7.85	13.383	1.34	19.38	0.69
1.400	0.62	7.400	7.85	13.400	1.34	19.40	0.69
1.417	0.62	7.417	7.85	13.417	1.34	19.42	0.69
1.433	0.62	7.433	7.85	13.433	1.34	19.43	0.69
1.450	0.62	7.450	7.85	13.450	1.34	19.45	0.69
1.467	0.62	7.467	7.85	13.467	1.34	19.47	0.69
1.483	0.62	7.483	7.85	13.483	1.34	19.48	0.69
1.500	0.62	7.500	7.87	13.500	1.34	19.50	0.69
1.517	0.64	7.517	12.85	13.517	1.30	19.52	0.68
1.533	0.64	7.533	12.85	13.533	1.30	19.53	0.68
1.550	0.64	7.550	12.85	13.550	1.30	19.55	0.68
1.567	0.64	7.567	12.85	13.567	1.30	19.57	0.68
1.583	0.64	7.583	12.85	13.583	1.30	19.58	0.68
1.600	0.64	7.600	12.85	13.600	1.30	19.60	0.68
1.617	0.64	7.617	12.85	13.617	1.30	19.62	0.68
1.633	0.64	7.633	12.85	13.633	1.30	19.63	0.68
1.650	0.64	7.650	12.85	13.650	1.30	19.65	0.68
1.667	0.64	7.667	12.91	13.667	1.30	19.67	0.68
1.683	0.65	7.683	33.57	13.683	1.27	19.68	0.67
1.700	0.65	7.700	33.57	13.700	1.27	19.70	0.67
1.717	0.65	7.717	33.57	13.717	1.27	19.72	0.67
1.733	0.65	7.733	33.57	13.733	1.27	19.73	0.67
1.750	0.65	7.750	33.57	13.750	1.27	19.75	0.67
1.767	0.65	7.767	33.57	13.767	1.27	19.77	0.67
1.783	0.65	7.783	33.57	13.783	1.27	19.78	0.67
1.800	0.65	7.800	33.57	13.800	1.27	19.80	0.67
1.817	0.65	7.817	33.57	13.817	1.27	19.82	0.67
1.833	0.65	7.833	33.83	13.833	1.27	19.83	0.67
1.850	0.67	7.850	122.80	13.850	1.24	19.85	0.66
1.867	0.67	7.867	122.80	13.867	1.24	19.87	0.66
1.883	0.67	7.883	122.80	13.883	1.24	19.88	0.66
1.900	0.67	7.900	122.80	13.900	1.24	19.90	0.66
1.917	0.67	7.917	122.80	13.917	1.24	19.92	0.66
1.933	0.67	7.933	122.80	13.933	1.24	19.93	0.66
1.950	0.67	7.950	122.80	13.950	1.24	19.95	0.66
1.967	0.67	7.967	122.80	13.967	1.24	19.97	0.66
1.983	0.67	7.983	122.80	13.983	1.24	19.98	0.66
2.000	0.67	8.000	122.56	14.000	1.24	20.00	0.66
2.017	0.68	8.017	44.52	14.017	1.21	20.02	0.66
2.033	0.68	8.033	44.52	14.033	1.21	20.03	0.66
2.050	0.68	8.050	44.52	14.050	1.21	20.05	0.66
2.067	0.68	8.067	44.52	14.067	1.21	20.07	0.66
2.083	0.68	8.083	44.52	14.083	1.21	20.08	0.66
2.100	0.68	8.100	44.52	14.100	1.21	20.10	0.66
2.117	0.68	8.117	44.52	14.117	1.21	20.12	0.66
2.133	0.68	8.133	44.52	14.133	1.21	20.13	0.66
2.150	0.68	8.150	44.52	14.150	1.21	20.15	0.66
2.167	0.68	8.167	44.45	14.167	1.21	20.17	0.66
2.183	0.70	8.183	22.67	14.183	1.18	20.18	0.65
2.200	0.70	8.200	22.67	14.200	1.18	20.20	0.65
2.217	0.70	8.217	22.67	14.217	1.18	20.22	0.65
2.233	0.70	8.233	22.67	14.233	1.18	20.23	0.65
2.250	0.70	8.250	22.67	14.250	1.18	20.25	0.65
2.267	0.70	8.267	22.67	14.267	1.18	20.27	0.65
2.283	0.70	8.283	22.67	14.283	1.18	20.28	0.65
2.300	0.70	8.300	22.67	14.300	1.18	20.30	0.65
2.317	0.70	8.317	22.67	14.317	1.18	20.32	0.65
2.333	0.70	8.333	22.65	14.333	1.18	20.33	0.65
2.350	0.72	8.350	14.82	14.350	1.15	20.35	0.64
2.367	0.72	8.367	14.82	14.367	1.15	20.37	0.64
2.383	0.72	8.383	14.82	14.383	1.15	20.38	0.64
2.400	0.72	8.400	14.82	14.400	1.15	20.40	0.64
2.417	0.72	8.417	14.82	14.417	1.15	20.42	0.64
2.433	0.72	8.433	14.82	14.433	1.15	20.43	0.64
2.450	0.72	8.450	14.82	14.450	1.15	20.45	0.64
2.467	0.72	8.467	14.82	14.467	1.15	20.47	0.64
2.483	0.72	8.483	14.82	14.483	1.15	20.48	0.64
2.500	0.72	8.500	14.81	14.500	1.15	20.50	0.64
2.517	0.74	8.517	10.92	14.517	1.12	20.52	0.63
2.533	0.74	8.533	10.92	14.533	1.12	20.53	0.63
2.550	0.74	8.550	10.92	14.550	1.12	20.55	0.63
2.567	0.74	8.567	10.92	14.567	1.12	20.57	0.63
2.583	0.74	8.583	10.92	14.583	1.12	20.58	0.63
2.600	0.74	8.600	10.92	14.600	1.12	20.60	0.63
2.617	0.74	8.617	10.92	14.617	1.12	20.62	0.63
2.633	0.74	8.633	10.92	14.633	1.12	20.63	0.63
2.650	0.74	8.650	10.92	14.650	1.12	20.65	0.63
2.667	0.74	8.667	10.91	14.667	1.12	20.67	0.63
2.683	0.76	8.683	8.62	14.683	1.10	20.68	0.63
2.700	0.76	8.700	8.62	14.700	1.10	20.70	0.63
2.717	0.76	8.717	8.62	14.717	1.10	20.72	0.63
2.733	0.76	8.733	8.62	14.733	1.10	20.73	0.63
2.750	0.76	8.750	8.62	14.750	1.10	20.75	0.63
2.767	0.76	8.767	8.62	14.767	1.10	20.77	0.63
2.783	0.76	8.783	8.62	14.783	1.10	20.78	0.63
2.800	0.76	8.800	8.62	14.800	1.10	20.80	0.63
2.817	0.76	8.817	8.62	14.817	1.10	20.82	0.63
2.833	0.76	8.833	8.61	14.833	1.10	20.83	0.63
2.850	0.79	8.850	7.11	14.850	1.07	20.85	0.62
2.867	0.79	8.867	7.11	14.867	1.07	20.87	0.62
2.883	0.79	8.883	7.11	14.883	1.07	20.88	0.62
2.900	0.79	8.900	7.11	14.900	1.07	20.90	0.62
2.917	0.79	8.917	7.11	14.917	1.07	20.92	0.62
2.933	0.79	8.933	7.11	14.933	1.07	20.93	0.62
2.950	0.79	8.950	7.11	14.950	1.07	20.95	0.62
2.967	0.79	8.967	7.11	14.967	1.07	20.97	0.62
2.983	0.79	8.983	7.11	14.983	1.07	20.98	0.62
3.000	0.79	9.000	7.11	15.000	1.07	21.00	0.62
3.017	0.81	9.017	6.06	15.017	1.05	21.02	0.61
3.033	0.81	9.033	6.06	15.033	1.05	21.03	0.61
3.050	0.81	9.050	6.06	15.050	1.05	21.05	0.61
3.067	0.81	9.067	6.06	15.067	1.05	21.07	0.61
3.083	0.81	9.083	6.06	15.083	1.05	21.08	0.61
3.100	0.81	9.100	6.06	15.100	1.05	21.10	0.61
3.117	0.81	9.117	6.06	15.117	1.05	21.12	0.61
3.133	0.81	9.133	6.06	15.133	1.05	21.13	0.61
3.150	0.81	9.150	6.06	15.150	1.05	21.15	0.61
3.167	0.81	9.167	6.05	15.167	1.05	21.17	0.61
3.183	0.84	9.183	5.28	15.183	1.03	21.18	0.61
3.200	0.84	9.200	5.28	15.200	1.03	21.20	0.61
3.217	0.84	9.217	5.28	15.217	1.03	21.22	0.61
3.233	0.84	9.233	5.28	15.233	1.03	21.23	0.61
3.250	0.84	9.250	5.28	15.250	1.03	21.25	0.61
3.267	0.84	9.267	5.28	15.267	1.03	21.27	0.61
3.283	0.84	9.283	5.28	15.283	1.03	21.28	0.61
3.300	0.84	9.300	5.28	15.300	1.03	21.30	0.61
3.317	0.84	9.317	5.28	15.317	1.03	21.32	0.61
3.333	0.84	9.333	5.27	15.333	1.03	21.33	0.61
3.350	0.86	9.350	4.68	15.350	1.01	21.35	0.60
3.367	0.86	9.367	4.68	15.367	1.01	21.37	0.60
3.383	0.86	9.383	4.68	15.383	1.01	21.38	0.60
3.400	0.86	9.400	4.68	15.400	1.01	21.40	0.60
3.417	0.86	9.417	4.68	15.417	1.01	21.42	0.60
3.433	0.86	9.433	4.68	15.433	1.01	21.43	0.60
3.450	0.86	9.450	4.68	15.450	1.01	21.45	0.60
3.467	0.86	9.467	4.68	15.467	1.01	21.47	0.60
3.483	0.86	9.483	4.68	15.483	1.01	21.48	0.60
3.500	0.86	9.500	4.68	15.500	1.01	21.50	0.60
3.517	0.89	9.517	4.20	15.517	0.99	21.52	0.59
3.533	0.89	9.533	4.20	15.533	0.99	21.53	0.59
3.550	0.89	9.550	4.20	15.550	0.99	21.55	0.59
3.567	0.89	9.567	4.20	15.567	0.99	21.57	0.59
3.583	0.89	9.583	4.20	15.583	0.99	21.58	0.59
3.600	0.89	9.600	4.20	15.600	0.99	21.60	0.59
3.617	0.89	9.617	4.20	15.617	0.99	21.62	0.59
3.633	0.89	9.633	4.20	15.633	0.99	21.63	0.59
3.650	0.89	9.650	4.20	15.650	0.99	21.65	0.59
3.667	0.89	9.667	4.20	15.667	0.99	21.67	0.59
3.683	0.93	9.683	3.82	15.683	0.97	21.68	0.59
3.700	0.93	9.700	3.82	15.700	0.97	21.70	0.59
3.717	0.93	9.717	3.82	15.717	0.97	21.72	0.59
3.733	0.93	9.733	3.82	15.733	0.97	21.73	0.59
3.750	0.93	9.750	3.82	15.750	0.97	21.75	0.59
3.767	0.93	9.767	3.82	15.767	0.97	21.77	0.59
3.783	0.93	9.783	3.82	15.783	0.97	21.78	0.59
3.800	0.93	9.800	3.82	15.800	0.97	21.80	0.59
3.817	0.93	9.817	3.82	15.817	0.97	21.82	0.59
3.833	0.93	9.833	3.82	15.833	0.97	21.83	0.59
3.850	0.96	9.850	3.50	15.850	0.95	21.85	0.58
3.867	0.96	9.867	3.50	15.867	0.95	21.87	0.58
3.883	0.96	9.883	3.50	15.883	0.95	21.88	0.58
3.900	0.96	9.900	3.50	15.900	0.95	21.90	0.58
3.917	0.96	9.917	3.50	15.917	0.95	21.92	0.58
3.933	0.96	9.933	3.50	15.933	0.95	21.93	0.58
3.950	0.96	9.950	3.50	15.950	0.95	21.95	0.58
3.967	0.96	9.967	3.50	15.967	0.95	21.97	0.58
3.983	0.96	9.983	3.50	15.983	0.95	21.98	0.58
4.000	0.96	10.000	3.50	16.000	0.95	22.00	0.58
4.017	1.00	10.017	3.24	16.017	0.94	22.02	0.57
4.033	1.00	10.033	3.24	16.033	0.94	22.03	0.57
4.050	1.00	10.050	3.24	16.050	0.94	22.05	0.57
4.067	1.00	10.067	3.24	16.067	0.94	22.07	0.57
4.083	1.00	10.083	3.24	16.083	0.94	22.08	0.57
4.100	1.00	10.100	3.24	16.100	0.94	22.10	0.57
4.117	1.00	10.117	3.24	16.117	0.94	22.12	0.57
4.133	1.00	10.133	3.24	16.133	0.94	22.13	0.57
4.150	1.00	10.150	3.24	16.150	0.94	22.15	0.57
4.167	1.00	10.167	3.24	16.167	0.94	22.17	0.57
4.183	1.04	10.183	3.01	16.183	0.92	22.18	0.57
4.200	1.04	10.200	3.01	16.200	0.92	22.20	0.57
4.217	1.04	10.217	3.01	16.217	0.92	22.22	0.57
4.233	1.04	10.233	3.01	16.233	0.92	22.23	0.57
4.250	1.04	10.250	3.01	16.250	0.92	22.25	0.57
4.267	1.04	10.267	3.01	16.267	0.92	22.27	0.57
4.283	1.04	10.283	3.01	16.283	0.92	22.28	0.57
4.300	1.04	10.300	3.01	16.300	0.92	22.30	0.57
4.317	1.04	10.317	3.01	16.317	0.92	22.32	0.57
4.333	1.04	10.333	3.01	16.333	0.92	22.33	0.57
4.350	1.08	10.350	2.81	16.350	0.90	22.35	0.56
4.367	1.08	10.367	2.81	16.367	0.90	22.37	0.56
4.383	1.08	10.383	2.81	16.383	0.90	22.38	0.56
4.400	1.08	10.400	2.81	16.400	0.90	22.40	0.56
4.417	1.08	10.417	2.81	16.417	0.90	22.42	0.56
4.433	1.08	10.433	2.81	16.433	0.90	22.43	0.56
4.450	1.08	10.450	2.81	16.450	0.90	22.45	0.56

4.467	1.08	10.467	2.81	16.467	0.90	22.47	0.56
4.483	1.08	10.483	2.81	16.483	0.90	22.48	0.56
4.500	1.08	10.500	2.81	16.500	0.90	22.50	0.56
4.517	1.13	10.517	2.64	16.517	0.89	22.52	0.56
4.533	1.13	10.533	2.64	16.533	0.89	22.53	0.56
4.550	1.13	10.550	2.64	16.550	0.89	22.55	0.56
4.567	1.13	10.567	2.64	16.567	0.89	22.57	0.56
4.583	1.13	10.583	2.64	16.583	0.89	22.58	0.56
4.600	1.13	10.600	2.64	16.600	0.89	22.60	0.56
4.617	1.13	10.617	2.64	16.617	0.89	22.62	0.56
4.633	1.13	10.633	2.64	16.633	0.89	22.63	0.56
4.650	1.13	10.650	2.64	16.650	0.89	22.65	0.56
4.667	1.13	10.667	2.64	16.667	0.89	22.67	0.56
4.683	1.19	10.683	2.49	16.683	0.87	22.68	0.55
4.700	1.19	10.700	2.49	16.700	0.87	22.70	0.55
4.717	1.19	10.717	2.49	16.717	0.87	22.72	0.55
4.733	1.19	10.733	2.49	16.733	0.87	22.73	0.55
4.750	1.19	10.750	2.49	16.750	0.87	22.75	0.55
4.767	1.19	10.767	2.49	16.767	0.87	22.77	0.55
4.783	1.19	10.783	2.49	16.783	0.87	22.78	0.55
4.800	1.19	10.800	2.49	16.800	0.87	22.80	0.55
4.817	1.19	10.817	2.49	16.817	0.87	22.82	0.55
4.833	1.19	10.833	2.49	16.833	0.87	22.83	0.55
4.850	1.25	10.850	2.36	16.850	0.86	22.85	0.55
4.867	1.25	10.867	2.36	16.867	0.86	22.87	0.55
4.883	1.25	10.883	2.36	16.883	0.86	22.88	0.55
4.900	1.25	10.900	2.36	16.900	0.86	22.90	0.55
4.917	1.25	10.917	2.36	16.917	0.86	22.92	0.55
4.933	1.25	10.933	2.36	16.933	0.86	22.93	0.55
4.950	1.25	10.950	2.36	16.950	0.86	22.95	0.55
4.967	1.25	10.967	2.36	16.967	0.86	22.97	0.55
4.983	1.25	10.983	2.36	16.983	0.86	22.98	0.55
5.000	1.25	11.000	2.36	17.000	0.86	23.00	0.55
5.017	1.32	11.017	2.24	17.017	0.84	23.02	0.54
5.033	1.32	11.033	2.24	17.033	0.84	23.03	0.54
5.050	1.32	11.050	2.24	17.050	0.84	23.05	0.54
5.067	1.32	11.067	2.24	17.067	0.84	23.07	0.54
5.083	1.32	11.083	2.24	17.083	0.84	23.08	0.54
5.100	1.32	11.100	2.24	17.100	0.84	23.10	0.54
5.117	1.32	11.117	2.24	17.117	0.84	23.12	0.54
5.133	1.32	11.133	2.24	17.133	0.84	23.13	0.54
5.150	1.32	11.150	2.24	17.150	0.84	23.15	0.54
5.167	1.32	11.167	2.24	17.167	0.84	23.17	0.54
5.183	1.39	11.183	2.13	17.183	0.83	23.18	0.54
5.200	1.39	11.200	2.13	17.200	0.83	23.20	0.54
5.217	1.39	11.217	2.13	17.217	0.83	23.22	0.54
5.233	1.39	11.233	2.13	17.233	0.83	23.23	0.54
5.250	1.39	11.250	2.13	17.250	0.83	23.25	0.54
5.267	1.39	11.267	2.13	17.267	0.83	23.27	0.54
5.283	1.39	11.283	2.13	17.283	0.83	23.28	0.54
5.300	1.39	11.300	2.13	17.300	0.83	23.30	0.54
5.317	1.39	11.317	2.13	17.317	0.83	23.32	0.54

5.333	1.39	11.333	2.13	17.333	0.83	23.33	0.54
5.350	1.48	11.350	2.04	17.350	0.82	23.35	0.53
5.367	1.48	11.367	2.04	17.367	0.82	23.37	0.53
5.383	1.48	11.383	2.04	17.383	0.82	23.38	0.53
5.400	1.48	11.400	2.04	17.400	0.82	23.40	0.53
5.417	1.48	11.417	2.04	17.417	0.82	23.42	0.53
5.433	1.48	11.433	2.04	17.433	0.82	23.43	0.53
5.450	1.48	11.450	2.04	17.450	0.82	23.45	0.53
5.467	1.48	11.467	2.04	17.467	0.82	23.47	0.53
5.483	1.48	11.483	2.04	17.483	0.82	23.48	0.53
5.500	1.48	11.500	2.04	17.500	0.82	23.50	0.53
5.517	1.58	11.517	1.95	17.517	0.80	23.52	0.53
5.533	1.58	11.533	1.95	17.533	0.80	23.53	0.53
5.550	1.58	11.550	1.95	17.550	0.80	23.55	0.53
5.567	1.58	11.567	1.95	17.567	0.80	23.57	0.53
5.583	1.58	11.583	1.95	17.583	0.80	23.58	0.53
5.600	1.58	11.600	1.95	17.600	0.80	23.60	0.53
5.617	1.58	11.617	1.95	17.617	0.80	23.62	0.53
5.633	1.58	11.633	1.95	17.633	0.80	23.63	0.53
5.650	1.58	11.650	1.95	17.650	0.80	23.65	0.53
5.667	1.58	11.667	1.95	17.667	0.80	23.67	0.53
5.683	1.70	11.683	1.87	17.683	0.79	23.68	0.52
5.700	1.70	11.700	1.87	17.700	0.79	23.70	0.52
5.717	1.70	11.717	1.87	17.717	0.79	23.72	0.52
5.733	1.70	11.733	1.87	17.733	0.79	23.73	0.52
5.750	1.70	11.750	1.87	17.750	0.79	23.75	0.52
5.767	1.70	11.767	1.87	17.767	0.79	23.77	0.52
5.783	1.70	11.783	1.87	17.783	0.79	23.78	0.52
5.800	1.70	11.800	1.87	17.800	0.79	23.80	0.52
5.817	1.70	11.817	1.87	17.817	0.79	23.82	0.52
5.833	1.70	11.833	1.87	17.833	0.79	23.83	0.52
5.850	1.83	11.850	1.80	17.850	0.78	23.85	0.52
5.867	1.83	11.867	1.80	17.867	0.78	23.87	0.52
5.883	1.83	11.883	1.80	17.883	0.78	23.88	0.52
5.900	1.83	11.900	1.80	17.900	0.78	23.90	0.52
5.917	1.83	11.917	1.80	17.917	0.78	23.92	0.52
5.933	1.83	11.933	1.80	17.933	0.78	23.93	0.52
5.950	1.83	11.950	1.80	17.950	0.78	23.95	0.52
5.967	1.83	11.967	1.80	17.967	0.78	23.97	0.52
5.983	1.83	11.983	1.80	17.983	0.78	23.98	0.52
6.000	1.83	12.000	1.80	18.000	0.78	24.00	0.52

Max.Eff.Inten.(mm/hr)=	122.80	25.15	
over (min)	5.00	15.00	
Storage Coeff. (min)=	2.69 (ii)	14.95 (ii)	
Unit Hyd. Tpeak (min)=	5.00	15.00	
Unit Hyd. peak (cms)=	0.33	0.08	
			TOTALS
PEAK FLOW (cms)=	0.08	0.04	0.092 (iii)
TIME TO PEAK (hrs)=	8.00	8.23	8.02
RUNOFF VOLUME (mm)=	76.31	20.67	31.80
TOTAL RAINFALL (mm)=	77.31	77.31	77.31

RUNOFF COEFFICIENT = 0.99 0.27 0.41

***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
YOU SHOULD CONSIDER SPLITTING THE AREA.

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 57.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	
STANDHYD (1011)	Area (ha)= 13.73
ID= 1 DT= 1.0 min	Total Imp(%)= 46.00 Dir. Conn.(%)= 39.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	6.32	7.42
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	0.50	2.00
Length	(m)=	302.59	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 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
0.017	0.53	6.017	1.99	12.017	1.73	18.02	0.77
0.033	0.53	6.033	1.99	12.033	1.73	18.03	0.77
0.050	0.53	6.050	1.99	12.050	1.73	18.05	0.77
0.067	0.53	6.067	1.99	12.067	1.73	18.07	0.77
0.083	0.53	6.083	1.99	12.083	1.73	18.08	0.77
0.100	0.53	6.100	1.99	12.100	1.73	18.10	0.77
0.117	0.53	6.117	1.99	12.117	1.73	18.12	0.77
0.133	0.53	6.133	1.99	12.133	1.73	18.13	0.77
0.150	0.53	6.150	1.99	12.150	1.73	18.15	0.77
0.167	0.53	6.167	1.99	12.167	1.73	18.17	0.77
0.183	0.54	6.183	2.18	12.183	1.67	18.18	0.76
0.200	0.54	6.200	2.18	12.200	1.67	18.20	0.76
0.217	0.54	6.217	2.18	12.217	1.67	18.22	0.76
0.233	0.54	6.233	2.18	12.233	1.67	18.23	0.76
0.250	0.54	6.250	2.18	12.250	1.67	18.25	0.76
0.267	0.54	6.267	2.18	12.267	1.67	18.27	0.76
0.283	0.54	6.283	2.18	12.283	1.67	18.28	0.76
0.300	0.54	6.300	2.18	12.300	1.67	18.30	0.76
0.317	0.54	6.317	2.18	12.317	1.67	18.32	0.76
0.333	0.54	6.333	2.18	12.333	1.67	18.33	0.76
0.350	0.55	6.350	2.42	12.350	1.61	18.35	0.75
0.367	0.55	6.367	2.42	12.367	1.61	18.37	0.75

0.383	0.55	6.383	2.42	12.383	1.61	18.38	0.75
0.400	0.55	6.400	2.42	12.400	1.61	18.40	0.75
0.417	0.55	6.417	2.42	12.417	1.61	18.42	0.75
0.433	0.55	6.433	2.42	12.433	1.61	18.43	0.75
0.450	0.55	6.450	2.42	12.450	1.61	18.45	0.75
0.467	0.55	6.467	2.42	12.467	1.61	18.47	0.75
0.483	0.55	6.483	2.42	12.483	1.61	18.48	0.75
0.500	0.55	6.500	2.42	12.500	1.61	18.50	0.75
0.517	0.56	6.517	2.72	12.517	1.56	18.52	0.74
0.533	0.56	6.533	2.72	12.533	1.56	18.53	0.74
0.550	0.56	6.550	2.72	12.550	1.56	18.55	0.74
0.567	0.56	6.567	2.72	12.567	1.56	18.57	0.74
0.583	0.56	6.583	2.72	12.583	1.56	18.58	0.74
0.600	0.56	6.600	2.72	12.600	1.56	18.60	0.74
0.617	0.56	6.617	2.72	12.617	1.56	18.62	0.74
0.633	0.56	6.633	2.72	12.633	1.56	18.63	0.74
0.650	0.56	6.650	2.72	12.650	1.56	18.65	0.74
0.667	0.56	6.667	2.72	12.667	1.56	18.67	0.74
0.683	0.57	6.683	3.12	12.683	1.51	18.68	0.73
0.700	0.57	6.700	3.12	12.700	1.51	18.70	0.73
0.717	0.57	6.717	3.12	12.717	1.51	18.72	0.73
0.733	0.57	6.733	3.12	12.733	1.51	18.73	0.73
0.750	0.57	6.750	3.12	12.750	1.51	18.75	0.73
0.767	0.57	6.767	3.12	12.767	1.51	18.77	0.73
0.783	0.57	6.783	3.12	12.783	1.51	18.78	0.73
0.800	0.57	6.800	3.12	12.800	1.51	18.80	0.73
0.817	0.57	6.817	3.12	12.817	1.51	18.82	0.73
0.833	0.57	6.833	3.12	12.833	1.51	18.83	0.73
0.850	0.58	6.850	3.66	12.850	1.46	18.85	0.72
0.867	0.58	6.867	3.66	12.867	1.46	18.87	0.72
0.883	0.58	6.883	3.66	12.883	1.46	18.88	0.72
0.900	0.58	6.900	3.66	12.900	1.46	18.90	0.72
0.917	0.58	6.917	3.66	12.917	1.46	18.92	0.72
0.933	0.58	6.933	3.66	12.933	1.46	18.93	0.72
0.950	0.58	6.950	3.66	12.950	1.46	18.95	0.72
0.967	0.58	6.967	3.66	12.967	1.46	18.97	0.72
0.983	0.58	6.983	3.66	12.983	1.46	18.98	0.72
1.000	0.58	7.000	3.66	13.000	1.46	19.00	0.72
1.017	0.60	7.017	4.43	13.017	1.42	19.02	0.71
1.033	0.60	7.033	4.43	13.033	1.42	19.03	0.71
1.050	0.60	7.050	4.43	13.050	1.42	19.05	0.71
1.067	0.60	7.067	4.43	13.067	1.42	19.07	0.71
1.083	0.60	7.083	4.43	13.083	1.42	19.08	0.71
1.100	0.60	7.100	4.43	13.100	1.42	19.10	0.71
1.117	0.60	7.117	4.43	13.117	1.42	19.12	0.71
1.133	0.60	7.133	4.43	13.133	1.42	19.13	0.71
1.150	0.60	7.150	4.43	13.150	1.42	19.15	0.71
1.167	0.60	7.167	4.44	13.167	1.42	19.17	0.71
1.183	0.61	7.183	5.66	13.183	1.38	19.18	0.70
1.200	0.61	7.200	5.66	13.200	1.38	19.20	0.70
1.217	0.61	7.217	5.66	13.217	1.38	19.22	0.70
1.233	0.61	7.233	5.66	13.233	1.38	19.23	0.70

1.250	0.61	7.250	5.66	13.250	1.38	19.25	0.70
1.267	0.61	7.267	5.66	13.267	1.38	19.27	0.70
1.283	0.61	7.283	5.66	13.283	1.38	19.28	0.70
1.300	0.61	7.300	5.66	13.300	1.38	19.30	0.70
1.317	0.61	7.317	5.66	13.317	1.38	19.32	0.70
1.333	0.61	7.333	5.66	13.333	1.38	19.33	0.70
1.350	0.62	7.350	7.85	13.350	1.34	19.35	0.69
1.367	0.62	7.367	7.85	13.367	1.34	19.37	0.69
1.383	0.62	7.383	7.85	13.383	1.34	19.38	0.69
1.400	0.62	7.400	7.85	13.400	1.34	19.40	0.69
1.417	0.62	7.417	7.85	13.417	1.34	19.42	0.69
1.433	0.62	7.433	7.85	13.433	1.34	19.43	0.69
1.450	0.62	7.450	7.85	13.450	1.34	19.45	0.69
1.467	0.62	7.467	7.85	13.467	1.34	19.47	0.69
1.483	0.62	7.483	7.85	13.483	1.34	19.48	0.69
1.500	0.62	7.500	7.87	13.500	1.34	19.50	0.69
1.517	0.64	7.517	12.85	13.517	1.30	19.52	0.68
1.533	0.64	7.533	12.85	13.533	1.30	19.53	0.68
1.550	0.64	7.550	12.85	13.550	1.30	19.55	0.68
1.567	0.64	7.567	12.85	13.567	1.30	19.57	0.68
1.583	0.64	7.583	12.85	13.583	1.30	19.58	0.68
1.600	0.64	7.600	12.85	13.600	1.30	19.60	0.68
1.617	0.64	7.617	12.85	13.617	1.30	19.62	0.68
1.633	0.64	7.633	12.85	13.633	1.30	19.63	0.68
1.650	0.64	7.650	12.85	13.650	1.30	19.65	0.68
1.667	0.64	7.667	12.91	13.667	1.30	19.67	0.68
1.683	0.65	7.683	33.57	13.683	1.27	19.68	0.67
1.700	0.65	7.700	33.57	13.700	1.27	19.70	0.67
1.717	0.65	7.717	33.57	13.717	1.27	19.72	0.67
1.733	0.65	7.733	33.57	13.733	1.27	19.73	0.67
1.750	0.65	7.750	33.57	13.750	1.27	19.75	0.67
1.767	0.65	7.767	33.57	13.767	1.27	19.77	0.67
1.783	0.65	7.783	33.57	13.783	1.27	19.78	0.67
1.800	0.65	7.800	33.57	13.800	1.27	19.80	0.67
1.817	0.65	7.817	33.57	13.817	1.27	19.82	0.67
1.833	0.65	7.833	33.83	13.833	1.27	19.83	0.67
1.850	0.67	7.850	122.80	13.850	1.24	19.85	0.66
1.867	0.67	7.867	122.80	13.867	1.24	19.87	0.66
1.883	0.67	7.883	122.80	13.883	1.24	19.88	0.66
1.900	0.67	7.900	122.80	13.900	1.24	19.90	0.66
1.917	0.67	7.917	122.80	13.917	1.24	19.92	0.66
1.933	0.67	7.933	122.80	13.933	1.24	19.93	0.66
1.950	0.67	7.950	122.80	13.950	1.24	19.95	0.66
1.967	0.67	7.967	122.80	13.967	1.24	19.97	0.66
1.983	0.67	7.983	122.80	13.983	1.24	19.98	0.66
2.000	0.67	8.000	122.56	14.000	1.24	20.00	0.66
2.017	0.68	8.017	44.52	14.017	1.21	20.02	0.66
2.033	0.68	8.033	44.52	14.033	1.21	20.03	0.66
2.050	0.68	8.050	44.52	14.050	1.21	20.05	0.66
2.067	0.68	8.067	44.52	14.067	1.21	20.07	0.66
2.083	0.68	8.083	44.52	14.083	1.21	20.08	0.66
2.100	0.68	8.100	44.52	14.100	1.21	20.10	0.66

2.117	0.68	8.117	44.52	14.117	1.21	20.12	0.66
2.133	0.68	8.133	44.52	14.133	1.21	20.13	0.66
2.150	0.68	8.150	44.52	14.150	1.21	20.15	0.66
2.167	0.68	8.167	44.45	14.167	1.21	20.17	0.66
2.183	0.70	8.183	22.67	14.183	1.18	20.18	0.65
2.200	0.70	8.200	22.67	14.200	1.18	20.20	0.65
2.217	0.70	8.217	22.67	14.217	1.18	20.22	0.65
2.233	0.70	8.233	22.67	14.233	1.18	20.23	0.65
2.250	0.70	8.250	22.67	14.250	1.18	20.25	0.65
2.267	0.70	8.267	22.67	14.267	1.18	20.27	0.65
2.283	0.70	8.283	22.67	14.283	1.18	20.28	0.65
2.300	0.70	8.300	22.67	14.300	1.18	20.30	0.65
2.317	0.70	8.317	22.67	14.317	1.18	20.32	0.65
2.333	0.70	8.333	22.65	14.333	1.18	20.33	0.65
2.350	0.72	8.350	14.82	14.350	1.15	20.35	0.64
2.367	0.72	8.367	14.82	14.367	1.15	20.37	0.64
2.383	0.72	8.383	14.82	14.383	1.15	20.38	0.64
2.400	0.72	8.400	14.82	14.400	1.15	20.40	0.64
2.417	0.72	8.417	14.82	14.417	1.15	20.42	0.64
2.433	0.72	8.433	14.82	14.433	1.15	20.43	0.64
2.450	0.72	8.450	14.82	14.450	1.15	20.45	0.64
2.467	0.72	8.467	14.82	14.467	1.15	20.47	0.64
2.483	0.72	8.483	14.82	14.483	1.15	20.48	0.64
2.500	0.72	8.500	14.81	14.500	1.15	20.50	0.64
2.517	0.74	8.517	10.92	14.517	1.12	20.52	0.63
2.533	0.74	8.533	10.92	14.533	1.12	20.53	0.63
2.550	0.74	8.550	10.92	14.550	1.12	20.55	0.63
2.567	0.74	8.567	10.92	14.567	1.12	20.57	0.63
2.583	0.74	8.583	10.92	14.583	1.12	20.58	0.63
2.600	0.74	8.600	10.92	14.600	1.12	20.60	0.63
2.617	0.74	8.617	10.92	14.617	1.12	20.62	0.63
2.633	0.74	8.633	10.92	14.633	1.12	20.63	0.63
2.650	0.74	8.650	10.92	14.650	1.12	20.65	0.63
2.667	0.74	8.667	10.91	14.667	1.12	20.67	0.63
2.683	0.76	8.683	8.62	14.683	1.10	20.68	0.63
2.700	0.76	8.700	8.62	14.700	1.10	20.70	0.63
2.717	0.76	8.717	8.62	14.717	1.10	20.72	0.63
2.733	0.76	8.733	8.62	14.733	1.10	20.73	0.63
2.750	0.76	8.750	8.62	14.750	1.10	20.75	0.63
2.767	0.76	8.767	8.62	14.767	1.10	20.77	0.63
2.783	0.76	8.783	8.62	14.783	1.10	20.78	0.63
2.800	0.76	8.800	8.62	14.800	1.10	20.80	0.63
2.817	0.76	8.817	8.62	14.817	1.10	20.82	0.63
2.833	0.76	8.833	8.61	14.833	1.10	20.83	0.63
2.850	0.79	8.850	7.11	14.850	1.07	20.85	0.62
2.867	0.79	8.867	7.11	14.867	1.07	20.87	0.62
2.883	0.79	8.883	7.11	14.883	1.07	20.88	0.62
2.900	0.79	8.900	7.11	14.900	1.07	20.90	0.62
2.917	0.79	8.917	7.11	14.917	1.07	20.92	0.62
2.933	0.79	8.933	7.11	14.933	1.07	20.93	0.62
2.950	0.79	8.950	7.11	14.950	1.07	20.95	0.62
2.967	0.79	8.967	7.11	14.967	1.07	20.97	0.62

2.983	0.79	8.983	7.11	14.983	1.07	20.98	0.62
3.000	0.79	9.000	7.11	15.000	1.07	21.00	0.62
3.017	0.81	9.017	6.06	15.017	1.05	21.02	0.61
3.033	0.81	9.033	6.06	15.033	1.05	21.03	0.61
3.050	0.81	9.050	6.06	15.050	1.05	21.05	0.61
3.067	0.81	9.067	6.06	15.067	1.05	21.07	0.61
3.083	0.81	9.083	6.06	15.083	1.05	21.08	0.61
3.100	0.81	9.100	6.06	15.100	1.05	21.10	0.61
3.117	0.81	9.117	6.06	15.117	1.05	21.12	0.61
3.133	0.81	9.133	6.06	15.133	1.05	21.13	0.61
3.150	0.81	9.150	6.06	15.150	1.05	21.15	0.61
3.167	0.81	9.167	6.05	15.167	1.05	21.17	0.61
3.183	0.84	9.183	5.28	15.183	1.03	21.18	0.61
3.200	0.84	9.200	5.28	15.200	1.03	21.20	0.61
3.217	0.84	9.217	5.28	15.217	1.03	21.22	0.61
3.233	0.84	9.233	5.28	15.233	1.03	21.23	0.61
3.250	0.84	9.250	5.28	15.250	1.03	21.25	0.61
3.267	0.84	9.267	5.28	15.267	1.03	21.27	0.61
3.283	0.84	9.283	5.28	15.283	1.03	21.28	0.61
3.300	0.84	9.300	5.28	15.300	1.03	21.30	0.61
3.317	0.84	9.317	5.28	15.317	1.03	21.32	0.61
3.333	0.84	9.333	5.27	15.333	1.03	21.33	0.61
3.350	0.86	9.350	4.68	15.350	1.01	21.35	0.60
3.367	0.86	9.367	4.68	15.367	1.01	21.37	0.60
3.383	0.86	9.383	4.68	15.383	1.01	21.38	0.60
3.400	0.86	9.400	4.68	15.400	1.01	21.40	0.60
3.417	0.86	9.417	4.68	15.417	1.01	21.42	0.60
3.433	0.86	9.433	4.68	15.433	1.01	21.43	0.60
3.450	0.86	9.450	4.68	15.450	1.01	21.45	0.60
3.467	0.86	9.467	4.68	15.467	1.01	21.47	0.60
3.483	0.86	9.483	4.68	15.483	1.01	21.48	0.60
3.500	0.86	9.500	4.68	15.500	1.01	21.50	0.60
3.517	0.89	9.517	4.20	15.517	0.99	21.52	0.59
3.533	0.89	9.533	4.20	15.533	0.99	21.53	0.59
3.550	0.89	9.550	4.20	15.550	0.99	21.55	0.59
3.567	0.89	9.567	4.20	15.567	0.99	21.57	0.59
3.583	0.89	9.583	4.20	15.583	0.99	21.58	0.59
3.600	0.89	9.600	4.20	15.600	0.99	21.60	0.59
3.617	0.89	9.617	4.20	15.617	0.99	21.62	0.59
3.633	0.89	9.633	4.20	15.633	0.99	21.63	0.59
3.650	0.89	9.650	4.20	15.650	0.99	21.65	0.59
3.667	0.89	9.667	4.20	15.667	0.99	21.67	0.59
3.683	0.93	9.683	3.82	15.683	0.97	21.68	0.59
3.700	0.93	9.700	3.82	15.700	0.97	21.70	0.59
3.717	0.93	9.717	3.82	15.717	0.97	21.72	0.59
3.733	0.93	9.733	3.82	15.733	0.97	21.73	0.59
3.750	0.93	9.750	3.82	15.750	0.97	21.75	0.59
3.767	0.93	9.767	3.82	15.767	0.97	21.77	0.59
3.783	0.93	9.783	3.82	15.783	0.97	21.78	0.59
3.800	0.93	9.800	3.82	15.800	0.97	21.80	0.59
3.817	0.93	9.817	3.82	15.817	0.97	21.82	0.59
3.833	0.93	9.833	3.82	15.833	0.97	21.83	0.59

3.850	0.96	9.850	3.50	15.850	0.95	21.85	0.58
3.867	0.96	9.867	3.50	15.867	0.95	21.87	0.58
3.883	0.96	9.883	3.50	15.883	0.95	21.88	0.58
3.900	0.96	9.900	3.50	15.900	0.95	21.90	0.58
3.917	0.96	9.917	3.50	15.917	0.95	21.92	0.58
3.933	0.96	9.933	3.50	15.933	0.95	21.93	0.58
3.950	0.96	9.950	3.50	15.950	0.95	21.95	0.58
3.967	0.96	9.967	3.50	15.967	0.95	21.97	0.58
3.983	0.96	9.983	3.50	15.983	0.95	21.98	0.58
4.000	0.96	10.000	3.50	16.000	0.95	22.00	0.58
4.017	1.00	10.017	3.24	16.017	0.94	22.02	0.57
4.033	1.00	10.033	3.24	16.033	0.94	22.03	0.57
4.050	1.00	10.050	3.24	16.050	0.94	22.05	0.57
4.067	1.00	10.067	3.24	16.067	0.94	22.07	0.57
4.083	1.00	10.083	3.24	16.083	0.94	22.08	0.57
4.100	1.00	10.100	3.24	16.100	0.94	22.10	0.57
4.117	1.00	10.117	3.24	16.117	0.94	22.12	0.57
4.133	1.00	10.133	3.24	16.133	0.94	22.13	0.57
4.150	1.00	10.150	3.24	16.150	0.94	22.15	0.57
4.167	1.00	10.167	3.24	16.167	0.94	22.17	0.57
4.183	1.04	10.183	3.01	16.183	0.92	22.18	0.57
4.200	1.04	10.200	3.01	16.200	0.92	22.20	0.57
4.217	1.04	10.217	3.01	16.217	0.92	22.22	0.57
4.233	1.04	10.233	3.01	16.233	0.92	22.23	0.57
4.250	1.04	10.250	3.01	16.250	0.92	22.25	0.57
4.267	1.04	10.267	3.01	16.267	0.92	22.27	0.57
4.283	1.04	10.283	3.01	16.283	0.92	22.28	0.57
4.300	1.04	10.300	3.01	16.300	0.92	22.30	0.57
4.317	1.04	10.317	3.01	16.317	0.92	22.32	0.57
4.333	1.04	10.333	3.01	16.333	0.92	22.33	0.57
4.350	1.08	10.350	2.81	16.350	0.90	22.35	0.56
4.367	1.08	10.367	2.81	16.367	0.90	22.37	0.56
4.383	1.08	10.383	2.81	16.383	0.90	22.38	0.56
4.400	1.08	10.400	2.81	16.400	0.90	22.40	0.56
4.417	1.08	10.417	2.81	16.417	0.90	22.42	0.56
4.433	1.08	10.433	2.81	16.433	0.90	22.43	0.56
4.450	1.08	10.450	2.81	16.450	0.90	22.45	0.56
4.467	1.08	10.467	2.81	16.467	0.90	22.47	0.56
4.483	1.08	10.483	2.81	16.483	0.90	22.48	0.56
4.500	1.08	10.500	2.81	16.500	0.90	22.50	0.56
4.517	1.13	10.517	2.64	16.517	0.89	22.52	0.56
4.533	1.13	10.533	2.64	16.533	0.89	22.53	0.56
4.550	1.13	10.550	2.64	16.550	0.89	22.55	0.56
4.567	1.13	10.567	2.64	16.567	0.89	22.57	0.56
4.583	1.13	10.583	2.64	16.583	0.89	22.58	0.56
4.600	1.13	10.600	2.64	16.600	0.89	22.60	0.56
4.617	1.13	10.617	2.64	16.617	0.89	22.62	0.56
4.633	1.13	10.633	2.64	16.633	0.89	22.63	0.56
4.650	1.13	10.650	2.64	16.650	0.89	22.65	0.56
4.667	1.13	10.667	2.64	16.667	0.89	22.67	0.56
4.683	1.19	10.683	2.49	16.683	0.87	22.68	0.55
4.700	1.19	10.700	2.49	16.700	0.87	22.70	0.55

4.717	1.19	10.717	2.49	16.717	0.87	22.72	0.55
4.733	1.19	10.733	2.49	16.733	0.87	22.73	0.55
4.750	1.19	10.750	2.49	16.750	0.87	22.75	0.55
4.767	1.19	10.767	2.49	16.767	0.87	22.77	0.55
4.783	1.19	10.783	2.49	16.783	0.87	22.78	0.55
4.800	1.19	10.800	2.49	16.800	0.87	22.80	0.55
4.817	1.19	10.817	2.49	16.817	0.87	22.82	0.55
4.833	1.19	10.833	2.49	16.833	0.87	22.83	0.55
4.850	1.25	10.850	2.36	16.850	0.86	22.85	0.55
4.867	1.25	10.867	2.36	16.867	0.86	22.87	0.55
4.883	1.25	10.883	2.36	16.883	0.86	22.88	0.55
4.900	1.25	10.900	2.36	16.900	0.86	22.90	0.55
4.917	1.25	10.917	2.36	16.917	0.86	22.92	0.55
4.933	1.25	10.933	2.36	16.933	0.86	22.93	0.55
4.950	1.25	10.950	2.36	16.950	0.86	22.95	0.55
4.967	1.25	10.967	2.36	16.967	0.86	22.97	0.55
4.983	1.25	10.983	2.36	16.983	0.86	22.98	0.55
5.000	1.25	11.000	2.36	17.000	0.86	23.00	0.55
5.017	1.32	11.017	2.24	17.017	0.84	23.02	0.54
5.033	1.32	11.033	2.24	17.033	0.84	23.03	0.54
5.050	1.32	11.050	2.24	17.050	0.84	23.05	0.54
5.067	1.32	11.067	2.24	17.067	0.84	23.07	0.54
5.083	1.32	11.083	2.24	17.083	0.84	23.08	0.54
5.100	1.32	11.100	2.24	17.100	0.84	23.10	0.54
5.117	1.32	11.117	2.24	17.117	0.84	23.12	0.54
5.133	1.32	11.133	2.24	17.133	0.84	23.13	0.54
5.150	1.32	11.150	2.24	17.150	0.84	23.15	0.54
5.167	1.32	11.167	2.24	17.167	0.84	23.17	0.54
5.183	1.39	11.183	2.13	17.183	0.83	23.18	0.54
5.200	1.39	11.200	2.13	17.200	0.83	23.20	0.54
5.217	1.39	11.217	2.13	17.217	0.83	23.22	0.54
5.233	1.39	11.233	2.13	17.233	0.83	23.23	0.54
5.250	1.39	11.250	2.13	17.250	0.83	23.25	0.54
5.267	1.39	11.267	2.13	17.267	0.83	23.27	0.54
5.283	1.39	11.283	2.13	17.283	0.83	23.28	0.54
5.300	1.39	11.300	2.13	17.300	0.83	23.30	0.54
5.317	1.39	11.317	2.13	17.317	0.83	23.32	0.54
5.333	1.39	11.333	2.13	17.333	0.83	23.33	0.54
5.350	1.48	11.350	2.04	17.350	0.82	23.35	0.53
5.367	1.48	11.367	2.04	17.367	0.82	23.37	0.53
5.383	1.48	11.383	2.04	17.383	0.82	23.38	0.53
5.400	1.48	11.400	2.04	17.400	0.82	23.40	0.53
5.417	1.48	11.417	2.04	17.417	0.82	23.42	0.53
5.433	1.48	11.433	2.04	17.433	0.82	23.43	0.53
5.450	1.48	11.450	2.04	17.450	0.82	23.45	0.53
5.467	1.48	11.467	2.04	17.467	0.82	23.47	0.53
5.483	1.48	11.483	2.04	17.483	0.82	23.48	0.53
5.500	1.48	11.500	2.04	17.500	0.82	23.50	0.53
5.517	1.58	11.517	1.95	17.517	0.80	23.52	0.53
5.533	1.58	11.533	1.95	17.533	0.80	23.53	0.53
5.550	1.58	11.550	1.95	17.550	0.80	23.55	0.53
5.567	1.58	11.567	1.95	17.567	0.80	23.57	0.53

5.583	1.58	11.583	1.95	17.583	0.80	23.58	0.53
5.600	1.58	11.600	1.95	17.600	0.80	23.60	0.53
5.617	1.58	11.617	1.95	17.617	0.80	23.62	0.53
5.633	1.58	11.633	1.95	17.633	0.80	23.63	0.53
5.650	1.58	11.650	1.95	17.650	0.80	23.65	0.53
5.667	1.58	11.667	1.95	17.667	0.80	23.67	0.53
5.683	1.70	11.683	1.87	17.683	0.79	23.68	0.52
5.700	1.70	11.700	1.87	17.700	0.79	23.70	0.52
5.717	1.70	11.717	1.87	17.717	0.79	23.72	0.52
5.733	1.70	11.733	1.87	17.733	0.79	23.73	0.52
5.750	1.70	11.750	1.87	17.750	0.79	23.75	0.52
5.767	1.70	11.767	1.87	17.767	0.79	23.77	0.52
5.783	1.70	11.783	1.87	17.783	0.79	23.78	0.52
5.800	1.70	11.800	1.87	17.800	0.79	23.80	0.52
5.817	1.70	11.817	1.87	17.817	0.79	23.82	0.52
5.833	1.70	11.833	1.87	17.833	0.79	23.83	0.52
5.850	1.83	11.850	1.80	17.850	0.78	23.85	0.52
5.867	1.83	11.867	1.80	17.867	0.78	23.87	0.52
5.883	1.83	11.883	1.80	17.883	0.78	23.88	0.52
5.900	1.83	11.900	1.80	17.900	0.78	23.90	0.52
5.917	1.83	11.917	1.80	17.917	0.78	23.92	0.52
5.933	1.83	11.933	1.80	17.933	0.78	23.93	0.52
5.950	1.83	11.950	1.80	17.950	0.78	23.95	0.52
5.967	1.83	11.967	1.80	17.967	0.78	23.97	0.52
5.983	1.83	11.983	1.80	17.983	0.78	23.98	0.52
6.000	1.83	12.000	1.80	18.000	0.78	24.00	0.52

Max.Eff.Inten.(mm/hr)=	122.80	24.18
over (min)	6.00	14.00
Storage Coeff. (min)=	5.63 (ii)	13.03 (ii)
Unit Hyd. Tpeak (min)=	6.00	14.00
Unit Hyd. peak (cms)=	0.20	0.08
		TOTALS
PEAK FLOW (cms)=	1.48	0.28 1.633 (iii)
TIME TO PEAK (hrs)=	8.03	8.20 8.03
RUNOFF VOLUME (mm)=	76.30	16.78 40.00
TOTAL RAINFALL (mm)=	77.31	77.31 77.31
RUNOFF COEFFICIENT =	0.99	0.22 0.52

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 48.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0101)			
1 + 2 = 3	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)

ID1= 1 (1011):	13.73	1.633	8.03	40.00
+ ID2= 2 (0034):	0.50	0.615	8.05	46.32
ID = 3 (0101):	14.24	2.245	8.05	40.22

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0901)				
1 + 2 = 3	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0101):	14.24	2.245	8.05	40.22
+ ID2= 2 (0103):	1.17	0.092	8.02	31.80
ID = 3 (0901):	15.40	2.333	8.05	39.58

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0902)				
1 + 2 = 3	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0104):	0.77	0.021	8.33	17.57
+ ID2= 2 (0901):	15.40	2.333	8.05	39.58
ID = 3 (0902):	16.17	2.344	8.05	38.54

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB
STANDHYD (1021) | Area (ha)= 3.77
ID= 1 DT= 1.0 min | Total Imp(%)= 45.00 Dir. Conn.(%)= 38.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.70	2.07
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.50	2.00
Length (m)=	158.56	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 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
0.017	0.53	6.017	1.99	12.017	1.73	18.02	0.77
0.033	0.53	6.033	1.99	12.033	1.73	18.03	0.77
0.050	0.53	6.050	1.99	12.050	1.73	18.05	0.77

0.067	0.53	6.067	1.99	12.067	1.73	18.07	0.77
0.083	0.53	6.083	1.99	12.083	1.73	18.08	0.77
0.100	0.53	6.100	1.99	12.100	1.73	18.10	0.77
0.117	0.53	6.117	1.99	12.117	1.73	18.12	0.77
0.133	0.53	6.133	1.99	12.133	1.73	18.13	0.77
0.150	0.53	6.150	1.99	12.150	1.73	18.15	0.77
0.167	0.53	6.167	1.99	12.167	1.73	18.17	0.77
0.183	0.54	6.183	2.18	12.183	1.67	18.18	0.76
0.200	0.54	6.200	2.18	12.200	1.67	18.20	0.76
0.217	0.54	6.217	2.18	12.217	1.67	18.22	0.76
0.233	0.54	6.233	2.18	12.233	1.67	18.23	0.76
0.250	0.54	6.250	2.18	12.250	1.67	18.25	0.76
0.267	0.54	6.267	2.18	12.267	1.67	18.27	0.76
0.283	0.54	6.283	2.18	12.283	1.67	18.28	0.76
0.300	0.54	6.300	2.18	12.300	1.67	18.30	0.76
0.317	0.54	6.317	2.18	12.317	1.67	18.32	0.76
0.333	0.54	6.333	2.18	12.333	1.67	18.33	0.76
0.350	0.55	6.350	2.42	12.350	1.61	18.35	0.75
0.367	0.55	6.367	2.42	12.367	1.61	18.37	0.75
0.383	0.55	6.383	2.42	12.383	1.61	18.38	0.75
0.400	0.55	6.400	2.42	12.400	1.61	18.40	0.75
0.417	0.55	6.417	2.42	12.417	1.61	18.42	0.75
0.433	0.55	6.433	2.42	12.433	1.61	18.43	0.75
0.450	0.55	6.450	2.42	12.450	1.61	18.45	0.75
0.467	0.55	6.467	2.42	12.467	1.61	18.47	0.75
0.483	0.55	6.483	2.42	12.483	1.61	18.48	0.75
0.500	0.55	6.500	2.42	12.500	1.61	18.50	0.75
0.517	0.56	6.517	2.72	12.517	1.56	18.52	0.74
0.533	0.56	6.533	2.72	12.533	1.56	18.53	0.74
0.550	0.56	6.550	2.72	12.550	1.56	18.55	0.74
0.567	0.56	6.567	2.72	12.567	1.56	18.57	0.74
0.583	0.56	6.583	2.72	12.583	1.56	18.58	0.74
0.600	0.56	6.600	2.72	12.600	1.56	18.60	0.74
0.617	0.56	6.617	2.72	12.617	1.56	18.62	0.74
0.633	0.56	6.633	2.72	12.633	1.56	18.63	0.74
0.650	0.56	6.650	2.72	12.650	1.56	18.65	0.74
0.667	0.56	6.667	2.72	12.667	1.56	18.67	0.74
0.683	0.57	6.683	3.12	12.683	1.51	18.68	0.73
0.700	0.57	6.700	3.12	12.700	1.51	18.70	0.73
0.717	0.57	6.717	3.12	12.717	1.51	18.72	0.73
0.733	0.57	6.733	3.12	12.733	1.51	18.73	0.73
0.750	0.57	6.750	3.12	12.750	1.51	18.75	0.73
0.767	0.57	6.767	3.12	12.767	1.51	18.77	0.73
0.783	0.57	6.783	3.12	12.783	1.51	18.78	0.73
0.800	0.57	6.800	3.12	12.800	1.51	18.80	0.73
0.817	0.57	6.817	3.12	12.817	1.51	18.82	0.73
0.833	0.57	6.833	3.12	12.833	1.51	18.83	0.73
0.850	0.58	6.850	3.66	12.850	1.46	18.85	0.72
0.867	0.58	6.867	3.66	12.867	1.46	18.87	0.72
0.883	0.58	6.883	3.66	12.883	1.46	18.88	0.72
0.900	0.58	6.900	3.66	12.900	1.46	18.90	0.72
0.917	0.58	6.917	3.66	12.917	1.46	18.92	0.72

0.933	0.58	6.933	3.66	12.933	1.46	18.93	0.72
0.950	0.58	6.950	3.66	12.950	1.46	18.95	0.72
0.967	0.58	6.967	3.66	12.967	1.46	18.97	0.72
0.983	0.58	6.983	3.66	12.983	1.46	18.98	0.72
1.000	0.58	7.000	3.66	13.000	1.46	19.00	0.72
1.017	0.60	7.017	4.43	13.017	1.42	19.02	0.71
1.033	0.60	7.033	4.43	13.033	1.42	19.03	0.71
1.050	0.60	7.050	4.43	13.050	1.42	19.05	0.71
1.067	0.60	7.067	4.43	13.067	1.42	19.07	0.71
1.083	0.60	7.083	4.43	13.083	1.42	19.08	0.71
1.100	0.60	7.100	4.43	13.100	1.42	19.10	0.71
1.117	0.60	7.117	4.43	13.117	1.42	19.12	0.71
1.133	0.60	7.133	4.43	13.133	1.42	19.13	0.71
1.150	0.60	7.150	4.43	13.150	1.42	19.15	0.71
1.167	0.60	7.167	4.44	13.167	1.42	19.17	0.71
1.183	0.61	7.183	5.66	13.183	1.38	19.18	0.70
1.200	0.61	7.200	5.66	13.200	1.38	19.20	0.70
1.217	0.61	7.217	5.66	13.217	1.38	19.22	0.70
1.233	0.61	7.233	5.66	13.233	1.38	19.23	0.70
1.250	0.61	7.250	5.66	13.250	1.38	19.25	0.70
1.267	0.61	7.267	5.66	13.267	1.38	19.27	0.70
1.283	0.61	7.283	5.66	13.283	1.38	19.28	0.70
1.300	0.61	7.300	5.66	13.300	1.38	19.30	0.70
1.317	0.61	7.317	5.66	13.317	1.38	19.32	0.70
1.333	0.61	7.333	5.66	13.333	1.38	19.33	0.70
1.350	0.62	7.350	7.85	13.350	1.34	19.35	0.69
1.367	0.62	7.367	7.85	13.367	1.34	19.37	0.69
1.383	0.62	7.383	7.85	13.383	1.34	19.38	0.69
1.400	0.62	7.400	7.85	13.400	1.34	19.40	0.69
1.417	0.62	7.417	7.85	13.417	1.34	19.42	0.69
1.433	0.62	7.433	7.85	13.433	1.34	19.43	0.69
1.450	0.62	7.450	7.85	13.450	1.34	19.45	0.69
1.467	0.62	7.467	7.85	13.467	1.34	19.47	0.69
1.483	0.62	7.483	7.85	13.483	1.34	19.48	0.69
1.500	0.62	7.500	7.87	13.500	1.34	19.50	0.69
1.517	0.64	7.517	12.85	13.517	1.30	19.52	0.68
1.533	0.64	7.533	12.85	13.533	1.30	19.53	0.68
1.550	0.64	7.550	12.85	13.550	1.30	19.55	0.68
1.567	0.64	7.567	12.85	13.567	1.30	19.57	0.68
1.583	0.64	7.583	12.85	13.583	1.30	19.58	0.68
1.600	0.64	7.600	12.85	13.600	1.30	19.60	0.68
1.617	0.64	7.617	12.85	13.617	1.30	19.62	0.68
1.633	0.64	7.633	12.85	13.633	1.30	19.63	0.68
1.650	0.64	7.650	12.85	13.650	1.30	19.65	0.68
1.667	0.64	7.667	12.91	13.667	1.30	19.67	0.68
1.683	0.65	7.683	33.57	13.683	1.27	19.68	0.67
1.700	0.65	7.700	33.57	13.700	1.27	19.70	0.67
1.717	0.65	7.717	33.57	13.717	1.27	19.72	0.67
1.733	0.65	7.733	33.57	13.733	1.27	19.73	0.67
1.750	0.65	7.750	33.57	13.750	1.27	19.75	0.67
1.767	0.65	7.767	33.57	13.767	1.27	19.77	0.67
1.783	0.65	7.783	33.57	13.783	1.27	19.78	0.67

1.800	0.65	7.800	33.57	13.800	1.27	19.80	0.67
1.817	0.65	7.817	33.57	13.817	1.27	19.82	0.67
1.833	0.65	7.833	33.83	13.833	1.27	19.83	0.67
1.850	0.67	7.850	122.80	13.850	1.24	19.85	0.66
1.867	0.67	7.867	122.80	13.867	1.24	19.87	0.66
1.883	0.67	7.883	122.80	13.883	1.24	19.88	0.66
1.900	0.67	7.900	122.80	13.900	1.24	19.90	0.66
1.917	0.67	7.917	122.80	13.917	1.24	19.92	0.66
1.933	0.67	7.933	122.80	13.933	1.24	19.93	0.66
1.950	0.67	7.950	122.80	13.950	1.24	19.95	0.66
1.967	0.67	7.967	122.80	13.967	1.24	19.97	0.66
1.983	0.67	7.983	122.80	13.983	1.24	19.98	0.66
2.000	0.67	8.000	122.56	14.000	1.24	20.00	0.66
2.017	0.68	8.017	44.52	14.017	1.21	20.02	0.66
2.033	0.68	8.033	44.52	14.033	1.21	20.03	0.66
2.050	0.68	8.050	44.52	14.050	1.21	20.05	0.66
2.067	0.68	8.067	44.52	14.067	1.21	20.07	0.66
2.083	0.68	8.083	44.52	14.083	1.21	20.08	0.66
2.100	0.68	8.100	44.52	14.100	1.21	20.10	0.66
2.117	0.68	8.117	44.52	14.117	1.21	20.12	0.66
2.133	0.68	8.133	44.52	14.133	1.21	20.13	0.66
2.150	0.68	8.150	44.52	14.150	1.21	20.15	0.66
2.167	0.68	8.167	44.45	14.167	1.21	20.17	0.66
2.183	0.70	8.183	22.67	14.183	1.18	20.18	0.65
2.200	0.70	8.200	22.67	14.200	1.18	20.20	0.65
2.217	0.70	8.217	22.67	14.217	1.18	20.22	0.65
2.233	0.70	8.233	22.67	14.233	1.18	20.23	0.65
2.250	0.70	8.250	22.67	14.250	1.18	20.25	0.65
2.267	0.70	8.267	22.67	14.267	1.18	20.27	0.65
2.283	0.70	8.283	22.67	14.283	1.18	20.28	0.65
2.300	0.70	8.300	22.67	14.300	1.18	20.30	0.65
2.317	0.70	8.317	22.67	14.317	1.18	20.32	0.65
2.333	0.70	8.333	22.65	14.333	1.18	20.33	0.65
2.350	0.72	8.350	14.82	14.350	1.15	20.35	0.64
2.367	0.72	8.367	14.82	14.367	1.15	20.37	0.64
2.383	0.72	8.383	14.82	14.383	1.15	20.38	0.64
2.400	0.72	8.400	14.82	14.400	1.15	20.40	0.64
2.417	0.72	8.417	14.82	14.417	1.15	20.42	0.64
2.433	0.72	8.433	14.82	14.433	1.15	20.43	0.64
2.450	0.72	8.450	14.82	14.450	1.15	20.45	0.64
2.467	0.72	8.467	14.82	14.467	1.15	20.47	0.64
2.483	0.72	8.483	14.82	14.483	1.15	20.48	0.64
2.500	0.72	8.500	14.81	14.500	1.15	20.50	0.64
2.517	0.74	8.517	10.92	14.517	1.12	20.52	0.63
2.533	0.74	8.533	10.92	14.533	1.12	20.53	0.63
2.550	0.74	8.550	10.92	14.550	1.12	20.55	0.63
2.567	0.74	8.567	10.92	14.567	1.12	20.57	0.63
2.583	0.74	8.583	10.92	14.583	1.12	20.58	0.63
2.600	0.74	8.600	10.92	14.600	1.12	20.60	0.63
2.617	0.74	8.617	10.92	14.617	1.12	20.62	0.63
2.633	0.74	8.633	10.92	14.633	1.12	20.63	0.63
2.650	0.74	8.650	10.92	14.650	1.12	20.65	0.63

2.667	0.74	8.667	10.91	14.667	1.12	20.67	0.63
2.683	0.76	8.683	8.62	14.683	1.10	20.68	0.63
2.700	0.76	8.700	8.62	14.700	1.10	20.70	0.63
2.717	0.76	8.717	8.62	14.717	1.10	20.72	0.63
2.733	0.76	8.733	8.62	14.733	1.10	20.73	0.63
2.750	0.76	8.750	8.62	14.750	1.10	20.75	0.63
2.767	0.76	8.767	8.62	14.767	1.10	20.77	0.63
2.783	0.76	8.783	8.62	14.783	1.10	20.78	0.63
2.800	0.76	8.800	8.62	14.800	1.10	20.80	0.63
2.817	0.76	8.817	8.62	14.817	1.10	20.82	0.63
2.833	0.76	8.833	8.61	14.833	1.10	20.83	0.63
2.850	0.79	8.850	7.11	14.850	1.07	20.85	0.62
2.867	0.79	8.867	7.11	14.867	1.07	20.87	0.62
2.883	0.79	8.883	7.11	14.883	1.07	20.88	0.62
2.900	0.79	8.900	7.11	14.900	1.07	20.90	0.62
2.917	0.79	8.917	7.11	14.917	1.07	20.92	0.62
2.933	0.79	8.933	7.11	14.933	1.07	20.93	0.62
2.950	0.79	8.950	7.11	14.950	1.07	20.95	0.62
2.967	0.79	8.967	7.11	14.967	1.07	20.97	0.62
2.983	0.79	8.983	7.11	14.983	1.07	20.98	0.62
3.000	0.79	9.000	7.11	15.000	1.07	21.00	0.62
3.017	0.81	9.017	6.06	15.017	1.05	21.02	0.61
3.033	0.81	9.033	6.06	15.033	1.05	21.03	0.61
3.050	0.81	9.050	6.06	15.050	1.05	21.05	0.61
3.067	0.81	9.067	6.06	15.067	1.05	21.07	0.61
3.083	0.81	9.083	6.06	15.083	1.05	21.08	0.61
3.100	0.81	9.100	6.06	15.100	1.05	21.10	0.61
3.117	0.81	9.117	6.06	15.117	1.05	21.12	0.61
3.133	0.81	9.133	6.06	15.133	1.05	21.13	0.61
3.150	0.81	9.150	6.06	15.150	1.05	21.15	0.61
3.167	0.81	9.167	6.05	15.167	1.05	21.17	0.61
3.183	0.84	9.183	5.28	15.183	1.03	21.18	0.61
3.200	0.84	9.200	5.28	15.200	1.03	21.20	0.61
3.217	0.84	9.217	5.28	15.217	1.03	21.22	0.61
3.233	0.84	9.233	5.28	15.233	1.03	21.23	0.61
3.250	0.84	9.250	5.28	15.250	1.03	21.25	0.61
3.267	0.84	9.267	5.28	15.267	1.03	21.27	0.61
3.283	0.84	9.283	5.28	15.283	1.03	21.28	0.61
3.300	0.84	9.300	5.28	15.300	1.03	21.30	0.61
3.317	0.84	9.317	5.28	15.317	1.03	21.32	0.61
3.333	0.84	9.333	5.27	15.333	1.03	21.33	0.61
3.350	0.86	9.350	4.68	15.350	1.01	21.35	0.60
3.367	0.86	9.367	4.68	15.367	1.01	21.37	0.60
3.383	0.86	9.383	4.68	15.383	1.01	21.38	0.60
3.400	0.86	9.400	4.68	15.400	1.01	21.40	0.60
3.417	0.86	9.417	4.68	15.417	1.01	21.42	0.60
3.433	0.86	9.433	4.68	15.433	1.01	21.43	0.60
3.450	0.86	9.450	4.68	15.450	1.01	21.45	0.60
3.467	0.86	9.467	4.68	15.467	1.01	21.47	0.60
3.483	0.86	9.483	4.68	15.483	1.01	21.48	0.60
3.500	0.86	9.500	4.68	15.500	1.01	21.50	0.60
3.517	0.89	9.517	4.20	15.517	0.99	21.52	0.59

3.533	0.89	9.533	4.20	15.533	0.99	21.53	0.59
3.550	0.89	9.550	4.20	15.550	0.99	21.55	0.59
3.567	0.89	9.567	4.20	15.567	0.99	21.57	0.59
3.583	0.89	9.583	4.20	15.583	0.99	21.58	0.59
3.600	0.89	9.600	4.20	15.600	0.99	21.60	0.59
3.617	0.89	9.617	4.20	15.617	0.99	21.62	0.59
3.633	0.89	9.633	4.20	15.633	0.99	21.63	0.59
3.650	0.89	9.650	4.20	15.650	0.99	21.65	0.59
3.667	0.89	9.667	4.20	15.667	0.99	21.67	0.59
3.683	0.93	9.683	3.82	15.683	0.97	21.68	0.59
3.700	0.93	9.700	3.82	15.700	0.97	21.70	0.59
3.717	0.93	9.717	3.82	15.717	0.97	21.72	0.59
3.733	0.93	9.733	3.82	15.733	0.97	21.73	0.59
3.750	0.93	9.750	3.82	15.750	0.97	21.75	0.59
3.767	0.93	9.767	3.82	15.767	0.97	21.77	0.59
3.783	0.93	9.783	3.82	15.783	0.97	21.78	0.59
3.800	0.93	9.800	3.82	15.800	0.97	21.80	0.59
3.817	0.93	9.817	3.82	15.817	0.97	21.82	0.59
3.833	0.93	9.833	3.82	15.833	0.97	21.83	0.59
3.850	0.96	9.850	3.50	15.850	0.95	21.85	0.58
3.867	0.96	9.867	3.50	15.867	0.95	21.87	0.58
3.883	0.96	9.883	3.50	15.883	0.95	21.88	0.58
3.900	0.96	9.900	3.50	15.900	0.95	21.90	0.58
3.917	0.96	9.917	3.50	15.917	0.95	21.92	0.58
3.933	0.96	9.933	3.50	15.933	0.95	21.93	0.58
3.950	0.96	9.950	3.50	15.950	0.95	21.95	0.58
3.967	0.96	9.967	3.50	15.967	0.95	21.97	0.58
3.983	0.96	9.983	3.50	15.983	0.95	21.98	0.58
4.000	0.96	10.000	3.50	16.000	0.95	22.00	0.58
4.017	1.00	10.017	3.24	16.017	0.94	22.02	0.57
4.033	1.00	10.033	3.24	16.033	0.94	22.03	0.57
4.050	1.00	10.050	3.24	16.050	0.94	22.05	0.57
4.067	1.00	10.067	3.24	16.067	0.94	22.07	0.57
4.083	1.00	10.083	3.24	16.083	0.94	22.08	0.57
4.100	1.00	10.100	3.24	16.100	0.94	22.10	0.57
4.117	1.00	10.117	3.24	16.117	0.94	22.12	0.57
4.133	1.00	10.133	3.24	16.133	0.94	22.13	0.57
4.150	1.00	10.150	3.24	16.150	0.94	22.15	0.57
4.167	1.00	10.167	3.24	16.167	0.94	22.17	0.57
4.183	1.04	10.183	3.01	16.183	0.92	22.18	0.57
4.200	1.04	10.200	3.01	16.200	0.92	22.20	0.57
4.217	1.04	10.217	3.01	16.217	0.92	22.22	0.57
4.233	1.04	10.233	3.01	16.233	0.92	22.23	0.57
4.250	1.04	10.250	3.01	16.250	0.92	22.25	0.57
4.267	1.04	10.267	3.01	16.267	0.92	22.27	0.57
4.283	1.04	10.283	3.01	16.283	0.92	22.28	0.57
4.300	1.04	10.300	3.01	16.300	0.92	22.30	0.57
4.317	1.04	10.317	3.01	16.317	0.92	22.32	0.57
4.333	1.04	10.333	3.01	16.333	0.92	22.33	0.57
4.350	1.08	10.350	2.81	16.350	0.90	22.35	0.56
4.367	1.08	10.367	2.81	16.367	0.90	22.37	0.56
4.383	1.08	10.383	2.81	16.383	0.90	22.38	0.56

4.400	1.08	10.400	2.81	16.400	0.90	22.40	0.56
4.417	1.08	10.417	2.81	16.417	0.90	22.42	0.56
4.433	1.08	10.433	2.81	16.433	0.90	22.43	0.56
4.450	1.08	10.450	2.81	16.450	0.90	22.45	0.56
4.467	1.08	10.467	2.81	16.467	0.90	22.47	0.56
4.483	1.08	10.483	2.81	16.483	0.90	22.48	0.56
4.500	1.08	10.500	2.81	16.500	0.90	22.50	0.56
4.517	1.13	10.517	2.64	16.517	0.89	22.52	0.56
4.533	1.13	10.533	2.64	16.533	0.89	22.53	0.56
4.550	1.13	10.550	2.64	16.550	0.89	22.55	0.56
4.567	1.13	10.567	2.64	16.567	0.89	22.57	0.56
4.583	1.13	10.583	2.64	16.583	0.89	22.58	0.56
4.600	1.13	10.600	2.64	16.600	0.89	22.60	0.56
4.617	1.13	10.617	2.64	16.617	0.89	22.62	0.56
4.633	1.13	10.633	2.64	16.633	0.89	22.63	0.56
4.650	1.13	10.650	2.64	16.650	0.89	22.65	0.56
4.667	1.13	10.667	2.64	16.667	0.89	22.67	0.56
4.683	1.19	10.683	2.49	16.683	0.87	22.68	0.55
4.700	1.19	10.700	2.49	16.700	0.87	22.70	0.55
4.717	1.19	10.717	2.49	16.717	0.87	22.72	0.55
4.733	1.19	10.733	2.49	16.733	0.87	22.73	0.55
4.750	1.19	10.750	2.49	16.750	0.87	22.75	0.55
4.767	1.19	10.767	2.49	16.767	0.87	22.77	0.55
4.783	1.19	10.783	2.49	16.783	0.87	22.78	0.55
4.800	1.19	10.800	2.49	16.800	0.87	22.80	0.55
4.817	1.19	10.817	2.49	16.817	0.87	22.82	0.55
4.833	1.19	10.833	2.49	16.833	0.87	22.83	0.55
4.850	1.25	10.850	2.36	16.850	0.86	22.85	0.55
4.867	1.25	10.867	2.36	16.867	0.86	22.87	0.55
4.883	1.25	10.883	2.36	16.883	0.86	22.88	0.55
4.900	1.25	10.900	2.36	16.900	0.86	22.90	0.55
4.917	1.25	10.917	2.36	16.917	0.86	22.92	0.55
4.933	1.25	10.933	2.36	16.933	0.86	22.93	0.55
4.950	1.25	10.950	2.36	16.950	0.86	22.95	0.55
4.967	1.25	10.967	2.36	16.967	0.86	22.97	0.55
4.983	1.25	10.983	2.36	16.983	0.86	22.98	0.55
5.000	1.25	11.000	2.36	17.000	0.86	23.00	0.55
5.017	1.32	11.017	2.24	17.017	0.84	23.02	0.54
5.033	1.32	11.033	2.24	17.033	0.84	23.03	0.54
5.050	1.32	11.050	2.24	17.050	0.84	23.05	0.54
5.067	1.32	11.067	2.24	17.067	0.84	23.07	0.54
5.083	1.32	11.083	2.24	17.083	0.84	23.08	0.54
5.100	1.32	11.100	2.24	17.100	0.84	23.10	0.54
5.117	1.32	11.117	2.24	17.117	0.84	23.12	0.54
5.133	1.32	11.133	2.24	17.133	0.84	23.13	0.54
5.150	1.32	11.150	2.24	17.150	0.84	23.15	0.54
5.167	1.32	11.167	2.24	17.167	0.84	23.17	0.54
5.183	1.39	11.183	2.13	17.183	0.83	23.18	0.54
5.200	1.39	11.200	2.13	17.200	0.83	23.20	0.54
5.217	1.39	11.217	2.13	17.217	0.83	23.22	0.54
5.233	1.39	11.233	2.13	17.233	0.83	23.23	0.54
5.250	1.39	11.250	2.13	17.250	0.83	23.25	0.54

5.267	1.39	11.267	2.13	17.267	0.83	23.27	0.54
5.283	1.39	11.283	2.13	17.283	0.83	23.28	0.54
5.300	1.39	11.300	2.13	17.300	0.83	23.30	0.54
5.317	1.39	11.317	2.13	17.317	0.83	23.32	0.54
5.333	1.39	11.333	2.13	17.333	0.83	23.33	0.54
5.350	1.48	11.350	2.04	17.350	0.82	23.35	0.53
5.367	1.48	11.367	2.04	17.367	0.82	23.37	0.53
5.383	1.48	11.383	2.04	17.383	0.82	23.38	0.53
5.400	1.48	11.400	2.04	17.400	0.82	23.40	0.53
5.417	1.48	11.417	2.04	17.417	0.82	23.42	0.53
5.433	1.48	11.433	2.04	17.433	0.82	23.43	0.53
5.450	1.48	11.450	2.04	17.450	0.82	23.45	0.53
5.467	1.48	11.467	2.04	17.467	0.82	23.47	0.53
5.483	1.48	11.483	2.04	17.483	0.82	23.48	0.53
5.500	1.48	11.500	2.04	17.500	0.82	23.50	0.53
5.517	1.58	11.517	1.95	17.517	0.80	23.52	0.53
5.533	1.58	11.533	1.95	17.533	0.80	23.53	0.53
5.550	1.58	11.550	1.95	17.550	0.80	23.55	0.53
5.567	1.58	11.567	1.95	17.567	0.80	23.57	0.53
5.583	1.58	11.583	1.95	17.583	0.80	23.58	0.53
5.600	1.58	11.600	1.95	17.600	0.80	23.60	0.53
5.617	1.58	11.617	1.95	17.617	0.80	23.62	0.53
5.633	1.58	11.633	1.95	17.633	0.80	23.63	0.53
5.650	1.58	11.650	1.95	17.650	0.80	23.65	0.53
5.667	1.58	11.667	1.95	17.667	0.80	23.67	0.53
5.683	1.70	11.683	1.87	17.683	0.79	23.68	0.52
5.700	1.70	11.700	1.87	17.700	0.79	23.70	0.52
5.717	1.70	11.717	1.87	17.717	0.79	23.72	0.52
5.733	1.70	11.733	1.87	17.733	0.79	23.73	0.52
5.750	1.70	11.750	1.87	17.750	0.79	23.75	0.52
5.767	1.70	11.767	1.87	17.767	0.79	23.77	0.52
5.783	1.70	11.783	1.87	17.783	0.79	23.78	0.52
5.800	1.70	11.800	1.87	17.800	0.79	23.80	0.52
5.817	1.70	11.817	1.87	17.817	0.79	23.82	0.52
5.833	1.70	11.833	1.87	17.833	0.79	23.83	0.52
5.850	1.83	11.850	1.80	17.850	0.78	23.85	0.52
5.867	1.83	11.867	1.80	17.867	0.78	23.87	0.52
5.883	1.83	11.883	1.80	17.883	0.78	23.88	0.52
5.900	1.83	11.900	1.80	17.900	0.78	23.90	0.52
5.917	1.83	11.917	1.80	17.917	0.78	23.92	0.52
5.933	1.83	11.933	1.80	17.933	0.78	23.93	0.52
5.950	1.83	11.950	1.80	17.950	0.78	23.95	0.52
5.967	1.83	11.967	1.80	17.967	0.78	23.97	0.52
5.983	1.83	11.983	1.80	17.983	0.78	23.98	0.52
6.000	1.83	12.000	1.80	18.000	0.78	24.00	0.52

Max.Eff.Inten.(mm/hr)=	122.80	24.08	
over (min)	5.00	12.00	
Storage Coeff. (min)=	3.82 (ii)	11.36 (ii)	
Unit Hyd. Tpeak (min)=	5.00	12.00	
Unit Hyd. peak (cms)=	0.27	0.10	
			TOTALS

PEAK FLOW	(cms)=	0.44	0.08	0.488 (iii)
TIME TO PEAK	(hrs)=	8.02	8.17	8.02
RUNOFF VOLUME	(mm)=	76.30	16.75	39.38
TOTAL RAINFALL	(mm)=	77.31	77.31	77.31
RUNOFF COEFFICIENT	=	0.99	0.22	0.51

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 48.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	
STANDHYD (1022)	Area (ha)= 2.86
ID= 1 DT= 1.0 min	Total Imp(%)= 41.00 Dir. Conn.(%)= 35.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.17	1.69
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.50	2.00
Length (m)=	138.06	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 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
0.017	0.53	6.017	1.99	12.017	1.73	18.02	0.77
0.033	0.53	6.033	1.99	12.033	1.73	18.03	0.77
0.050	0.53	6.050	1.99	12.050	1.73	18.05	0.77
0.067	0.53	6.067	1.99	12.067	1.73	18.07	0.77
0.083	0.53	6.083	1.99	12.083	1.73	18.08	0.77
0.100	0.53	6.100	1.99	12.100	1.73	18.10	0.77
0.117	0.53	6.117	1.99	12.117	1.73	18.12	0.77
0.133	0.53	6.133	1.99	12.133	1.73	18.13	0.77
0.150	0.53	6.150	1.99	12.150	1.73	18.15	0.77
0.167	0.53	6.167	1.99	12.167	1.73	18.17	0.77
0.183	0.54	6.183	2.18	12.183	1.67	18.18	0.76
0.200	0.54	6.200	2.18	12.200	1.67	18.20	0.76
0.217	0.54	6.217	2.18	12.217	1.67	18.22	0.76
0.233	0.54	6.233	2.18	12.233	1.67	18.23	0.76
0.250	0.54	6.250	2.18	12.250	1.67	18.25	0.76
0.267	0.54	6.267	2.18	12.267	1.67	18.27	0.76
0.283	0.54	6.283	2.18	12.283	1.67	18.28	0.76
0.300	0.54	6.300	2.18	12.300	1.67	18.30	0.76
0.317	0.54	6.317	2.18	12.317	1.67	18.32	0.76
0.333	0.54	6.333	2.18	12.333	1.67	18.33	0.76
0.350	0.55	6.350	2.42	12.350	1.61	18.35	0.75
0.367	0.55	6.367	2.42	12.367	1.61	18.37	0.75
0.383	0.55	6.383	2.42	12.383	1.61	18.38	0.75
0.400	0.55	6.400	2.42	12.400	1.61	18.40	0.75
0.417	0.55	6.417	2.42	12.417	1.61	18.42	0.75
0.433	0.55	6.433	2.42	12.433	1.61	18.43	0.75
0.450	0.55	6.450	2.42	12.450	1.61	18.45	0.75
0.467	0.55	6.467	2.42	12.467	1.61	18.47	0.75
0.483	0.55	6.483	2.42	12.483	1.61	18.48	0.75
0.500	0.55	6.500	2.42	12.500	1.61	18.50	0.75
0.517	0.56	6.517	2.72	12.517	1.56	18.52	0.74
0.533	0.56	6.533	2.72	12.533	1.56	18.53	0.74
0.550	0.56	6.550	2.72	12.550	1.56	18.55	0.74
0.567	0.56	6.567	2.72	12.567	1.56	18.57	0.74
0.583	0.56	6.583	2.72	12.583	1.56	18.58	0.74
0.600	0.56	6.600	2.72	12.600	1.56	18.60	0.74
0.617	0.56	6.617	2.72	12.617	1.56	18.62	0.74
0.633	0.56	6.633	2.72	12.633	1.56	18.63	0.74
0.650	0.56	6.650	2.72	12.650	1.56	18.65	0.74
0.667	0.56	6.667	2.72	12.667	1.56	18.67	0.74
0.683	0.57	6.683	3.12	12.683	1.51	18.68	0.73
0.700	0.57	6.700	3.12	12.700	1.51	18.70	0.73
0.717	0.57	6.717	3.12	12.717	1.51	18.72	0.73
0.733	0.57	6.733	3.12	12.733	1.51	18.73	0.73
0.750	0.57	6.750	3.12	12.750	1.51	18.75	0.73
0.767	0.57	6.767	3.12	12.767	1.51	18.77	0.73
0.783	0.57	6.783	3.12	12.783	1.51	18.78	0.73
0.800	0.57	6.800	3.12	12.800	1.51	18.80	0.73
0.817	0.57	6.817	3.12	12.817	1.51	18.82	0.73
0.833	0.57	6.833	3.12	12.833	1.51	18.83	0.73
0.850	0.58	6.850	3.66	12.850	1.46	18.85	0.72
0.867	0.58	6.867	3.66	12.867	1.46	18.87	0.72
0.883	0.58	6.883	3.66	12.883	1.46	18.88	0.72
0.900	0.58	6.900	3.66	12.900	1.46	18.90	0.72
0.917	0.58	6.917	3.66	12.917	1.46	18.92	0.72
0.933	0.58	6.933	3.66	12.933	1.46	18.93	0.72
0.950	0.58	6.950	3.66	12.950	1.46	18.95	0.72
0.967	0.58	6.967	3.66	12.967	1.46	18.97	0.72
0.983	0.58	6.983	3.66	12.983	1.46	18.98	0.72
1.000	0.58	7.000	3.66	13.000	1.46	19.00	0.72
1.017	0.60	7.017	4.43	13.017	1.42	19.02	0.71
1.033	0.60	7.033	4.43	13.033	1.42	19.03	0.71
1.050	0.60	7.050	4.43	13.050	1.42	19.05	0.71
1.067	0.60	7.067	4.43	13.067	1.42	19.07	0.71
1.083	0.60	7.083	4.43	13.083	1.42	19.08	0.71
1.100	0.60	7.100	4.43	13.100	1.42	19.10	0.71
1.117	0.60	7.117	4.43	13.117	1.42	19.12	0.71
1.133	0.60	7.133	4.43	13.133	1.42	19.13	0.71
1.150	0.60	7.150	4.43	13.150	1.42	19.15	0.71
1.167	0.60	7.167	4.44	13.167	1.42	19.17	0.71
1.183	0.61	7.183	5.66	13.183	1.38	19.18	0.70
1.200	0.61	7.200	5.66	13.200	1.38	19.20	0.70
1.217	0.61	7.217	5.66	13.217	1.38	19.22	0.70
1.233	0.61	7.233	5.66	13.233	1.38	19.23	0.70
1.250	0.61	7.250	5.66	13.250	1.38	19.25	0.70
1.267	0.61	7.267	5.66	13.267	1.38	19.27	0.70
1.283	0.61	7.283	5.66	13.283	1.38	19.28	0.70
1.300	0.61	7.300	5.66	13.300	1.38	19.30	0.70
1.317	0.61	7.317	5.66	13.317	1.38	19.32	0.70
1.333	0.61	7.333	5.66	13.333	1.38	19.33	0.70
1.350	0.62	7.350	7.85	13.350	1.34	19.35	0.69
1.367	0.62	7.367	7.85	13.367	1.34	19.37	0.69
1.383	0.62	7.383	7.85	13.383	1.34	19.38	0.69
1.400	0.62	7.400	7.85	13.400	1.34	19.40	0.69
1.417	0.62	7.417	7.85	13.417	1.34	19.42	0.69
1.433	0.62	7.433	7.85	13.433	1.34	19.43	0.69
1.450	0.62	7.450	7.85	13.450	1.34	19.45	0.69
1.467	0.62	7.467	7.85	13.467	1.34	19.47	0.69
1.483	0.62	7.483	7.85	13.483	1.34	19.48	0.69
1.500	0.62	7.500	7.87	13.500	1.34	19.50	0.69
1.517	0.64	7.517	12.85	13.517	1.30	19.52	0.68
1.533	0.64	7.533	12.85	13.533	1.30	19.53	0.68
1.550	0.64	7.550	12.85	13.550	1.30	19.55	0.68
1.567	0.64	7.567	12.85	13.567	1.30	19.57	0.68
1.583	0.64	7.583	12.85	13.583	1.30	19.58	0.68
1.600	0.64	7.600	12.85	13.600	1.30	19.60	0.68
1.617	0.64	7.617	12.85	13.617	1.30	19.62	0.68
1.633	0.64	7.633	12.85	13.633	1.30	19.63	0.68
1.650	0.64	7.650	12.85	13.650	1.30	19.65	0.68
1.667	0.64	7.667	12.91	13.667	1.30	19.67	0.68
1.683	0.65	7.683	33.57	13.683	1.27	19.68	0.67
1.700	0.65	7.700	33.57	13.700	1.27	19.70	0.67
1.717	0.65	7.717	33.57	13.717	1.27	19.72	0.67
1.733	0.65	7.733	33.57	13.733	1.27	19.73	0.67
1.750	0.65	7.750	33.57	13.750	1.27	19.75	0.67
1.767	0.65	7.767	33.57	13.767	1.27	19.77	0.67
1.783	0.65	7.783	33.57	13.783	1.27	19.78	0.67
1.800	0.65	7.800	33.57	13.800	1.27	19.80	0.67
1.817	0.65	7.817	33.57	13.817	1.27	19.82	0.67
1.833	0.65	7.833	33.83	13.833	1.27	19.83	0.67
1.850	0.67	7.850	122.80	13.850	1.24	19.85	0.66
1.867	0.67	7.867	122.80	13.867	1.24	19.87	0.66
1.883	0.67	7.883	122.80	13.883	1.24	19.88	0.66
1.900	0.67	7.900	122.80	13.900	1.24	19.90	0.66
1.917	0.67	7.917	122.80	13.917	1.24	19.92	0.66
1.933	0.67	7.933	122.80	13.933	1.24	19.93	0.66
1.950	0.67	7.950	122.80	13.950	1.24	19.95	0.66
1.967	0.67	7.967	122.80	13.967	1.24	19.97	0.66
1.983	0.67	7.983	122.80	13.983	1.24	19.98	0.66
2.000	0.67	8.000	122.56	14.000	1.24	20.00	0.66
2.017	0.68	8.017	44.52	14.017	1.21	20.02	0.66
2.033	0.68	8.033	44.52	14.033	1.21	20.03	0.66
2.050	0.68	8.050	44.52	14.050	1.21	20.05	0.66
2.067	0.68	8.067	44.52	14.067	1.21	20.07	0.66
2.083	0.68	8.083	44.52	14.083	1.21	20.08	0.66
2.100	0.68	8.100	44.52	14.100	1.21	20.10	0.66
2.117	0.68	8.117	44.52	14.117	1.21	20.12	0.66
2.133	0.68	8.133	44.52	14.133	1.21	20.13	0.66
2.150	0.68	8.150	44.52	14.150	1.21	20.15	0.66
2.167	0.68	8.167	44.45	14.167	1.21	20.17	0.66
2.183	0.70	8.183	22.67	14.183	1.18	20.18	0.65
2.200	0.70	8.200	22.67	14.200	1.18	20.20	0.65
2.217	0.70	8.217	22.67	14.217	1.18	20.22	0.65
2.233	0.70	8.233	22.67	14.233	1.18	20.23	0.65
2.250	0.70	8.250	22.67	14.250	1.18	20.25	0.65
2.267	0.70	8.267	22.67	14.267	1.18	20.27	0.65
2.283	0.70	8.283	22.67	14.283	1.18	20.28	0.65
2.300	0.70	8.300	22.67	14.300	1.18	20.30	0.65
2.317	0.70	8.317	22.67	14.317	1.18	20.32	0.65
2.333	0.70	8.333	22.65	14.333	1.18	20.33	0.65
2.350	0.72	8.350	14.82	14.350	1.15	20.35	0.64
2.367	0.72	8.367	14.82	14.367	1.15	20.37	0.64
2.383	0.72	8.383	14.82	14.383	1.15	20.38	0.64
2.400	0.72	8.400	14.82	14.400	1.15	20.40	0.64
2.417	0.72	8.417	14.82	14.417	1.15	20.42	0.64
2.433	0.72	8.433	14.82	14.433	1.15	20.43	0.64
2.450	0.72	8.450	14.82	14.450	1.15	20.45	0.64
2.467	0.72	8.467	14.82	14.467	1.15	20.47	0.64
2.483	0.72	8.483	14.82	14.483	1.15	20.48	0.64
2.500	0.72	8.500	14.81	14.500	1.15	20.50	0.64
2.517	0.74	8.517	10.92	14.517	1.12	20.52	0.63
2.533	0.74	8.533	10.92	14.533	1.12	20.53	0.63
2.550	0.74	8.550	10.92	14.550	1.12	20.55	0.63
2.567	0.74	8.567	10.92	14.567	1.12	20.57	0.63
2.583	0.74	8.583	10.92	14.583	1.12	20.58	0.63
2.600	0.74	8.600	10.92	14.600	1.12	20.60	0.63
2.617	0.74	8.617	10.92	14.617	1.12	20.62	0.63
2.633	0.74	8.633	10.92	14.633	1.12	20.63	0.63
2.650	0.74	8.650	10.92	14.650	1.12	20.65	0.63
2.667	0.74	8.667	10.91	14.667	1.12	20.67	0.63
2.683	0.76	8.683	8.62	14.683	1.10	20.68	0.63
2.700	0.76	8.700	8.62	14.700	1.10	20.70	0.63
2.717	0.76	8.717	8.62	14.717	1.10	20.72	0.63
2.733	0.76	8.733	8.62	14.733	1.10	20.73	0.63
2.750	0.76	8.750	8.62	14.750	1.10	20.75	0.63
2.767	0.76	8.767	8.62	14.767	1.10	20.77	0.63
2.783	0.76	8.783	8.62	14.783	1.10	20.78	0.63
2.800	0.76	8.800	8.62	14.800	1.10	20.80	0.63
2.817	0.76	8.817	8.62	14.817	1.10	20.82	0.63
2.833	0.76	8.833	8.61	14.833	1.10	20.83	0.63
2.850	0.79	8.850	7.11	14.850	1.07	20.85	0.62
2.867	0.79	8.867	7.11	14.867	1.07	20.87	0.62
2.883	0.79	8.883	7.11	14.883	1.07	20.88	0.62
2.900	0.79	8.900	7.11	14.900	1.07	20.90	0.62
2.917	0.79	8.917	7.11	14.917	1.07	20.92	0.62
2.933	0.79	8.933	7.11	14.933	1.07	20.93	0.62
2.950	0.79	8.950	7.11	14.950	1.07	20.95	0.62
2.967	0.79	8.967	7.11	14.967	1.07	20.97	0.62
2.983	0.79	8.983	7.11	14.983	1.07	20.98	0.62
3.000	0.79	9.000	7.11	15.000	1.07	21.00	0.62
3.017	0.81	9.017	6.06	15.017	1.05	21.02	0.61
3.033	0.81	9.033	6.06	15.033	1.05	21.03	0.61
3.050	0.81	9.050	6.06	15.050	1.05	21.05	0.61
3.067	0.81	9.067	6.06	15.067	1.05	21.07	0.61
3.083	0.81	9.083	6.06	15.083	1.05	21.08	0.61
3.100	0.81	9.100	6.06	15.100	1.05	21.10	0.61
3.117	0.81	9.117	6.06	15.117	1.05	21.12	0.61
3.133	0.81	9.133	6.06	15.133	1.05	21.13	0.61
3.150	0.81	9.150	6.06	15.150	1.05	21.15	0.61
3.167	0.81	9.167	6.05	15.167	1.05	21.17	0.61
3.183	0.84	9.183	5.28	15.183	1.03	21.18	0.61
3.200	0.84	9.200	5.28	15.200	1.03	21.20	0.61
3.217	0.84	9.217	5.28	15.217	1.03	21.22	0.61
3.233	0.84	9.233	5.28	15.233	1.03	21.23	0.61
3.250	0.84	9.250	5.28	15.250	1.03	21.25	0.61
3.267	0.84	9.267	5.28	15.267	1.03	21.27	0.61
3.283	0.84	9.283	5.28	15.283	1.03	21.28	0.61
3.300	0.84	9.300	5.28	15.300	1.03	21.30	0.61
3.317	0.84	9.317	5.28	15.317	1.03	21.32	0.61
3.333	0.84	9.333	5.27	15.333	1.03	21.33	0.61
3.350	0.86	9.350	4.68	15.350	1.01	21.35	0.60
3.367	0.86	9.367	4.68	15.367	1.01	21.37	0.60
3.383	0.86	9.383	4.68	15.383	1.01	21.38	0.60
3.400	0.86	9.400	4.68	15.400	1.01	21.40	0.60
3.417	0.86	9.417	4.68	15.417	1.01	21.42	0.60
3.433	0.86	9.433	4.68	15.433	1.01	21.43	0.60
3.450	0.86	9.450	4.68	15.450	1.01	21.45	0.60
3.467	0.86	9.467	4.68	15.467	1.01	21.47	0.60
3.483	0.86	9.483	4.68	15.483	1.01	21.48	0.60
3.500	0.86	9.500	4.68	15.500	1.01	21.50	0.60
3.517	0.89	9.517	4.20	15.517	0.99	21.52	0.59
3.533	0.89	9.533	4.20	15.533	0.99	21.53	0.59
3.550	0.89	9.550	4.20	15.550	0.99	21.55	0.59
3.567	0.89	9.567	4.20	15.567	0.99	21.57	0.59
3.583	0.89	9.583	4.20	15.583	0.99	21.58	0.59
3.600	0.89	9.600	4.20	15.600	0.99	21.60	0.59
3.617	0.89	9.617	4.20	15.617	0.99	21.62	0.59
3.633	0.89	9.633	4.20	15.633	0.99	21.63	0.59
3.650	0.89	9.650	4.20	15.650	0.99	21.65	0.59
3.667	0.89	9.667	4.20	15.667	0.99	21.67	0.59
3.683	0.93	9.683	3.82	15.683	0.97	21.68	0.59
3.700	0.93	9.700	3.82	15.700	0.97	21.70	0.59
3.717	0.93	9.717	3.82	15.717	0.97	21.72	0.59
3.733	0.93	9.733	3.82	15.733	0.97	21.73	0.59
3.750	0.93	9.750	3.82	15.750	0.97	21.75	0.59
3.767	0.93	9.767	3.82	15.767	0.97	21.77	0.59
3.783	0.93	9.783	3.82	15.783	0.97	21.78	0.59
3.800	0.93	9.800	3.82	15.800	0.97	21.80	0.59
3.817	0.93	9.817	3.82	15.817	0.97	21.82	0.59
3.833	0.93	9.833	3.82	15.833	0.97	21.83	0.59
3.850	0.96	9.850	3.50	15.850	0.95	21.85	0.58
3.867	0.96	9.867	3.50	15.867	0.95	21.87	0.58
3.883	0.96	9.883	3.50	15.883	0.95	21.88	0.58
3.900	0.96	9.900	3.50	15.900	0.95	21.90	0.58
3.917	0.96	9.917	3.50	15.917	0.95	21.92	0.58
3.933	0.96	9.933	3.50	15.933	0.95	21.93	0.58
3.950	0.96	9.950	3.50	15.950	0.95	21.95	0.58
3.967	0.96	9.967	3.50	15.967	0.95	21.97	0.58
3.983	0.96	9.983	3.50	15.983	0.95	21.98	0.58
4.000	0.96	10.000	3.50	16.000	0.95	22.00	0.58
4.017	1.00	10.017	3.24	16.017	0.94	22.02	0.57
4.033	1.00	10.033	3.24	16.033	0.94	22.03	0.57
4.050	1.00	10.050	3.24	16.050	0.94	22.05	0.57
4.067	1.00	10.067	3.24	16.067	0.94	22.07	0.57
4.083	1.00	10.083	3.24	16.083	0.94	22.08	0.57
4.100	1.00	10.100	3.24	16.100	0.94	22.10	0.57
4.117	1.00	10.117	3.24	16.117	0.94	22.12	0.57
4.133	1.00	10.133	3.24	16.133	0.94	22.13	0.57
4.150	1.00	10.150	3.24	16.150	0.94	22.15	0.57
4.167	1.00	10.167	3.24	16.167	0.94	22.17	0.57
4.183	1.04	10.183	3.01	16.183	0.92	22.18	0.57
4.200	1.04	10.200	3.01	16.200	0.92	22.20	0.57
4.217	1.04	10.217	3.01	16.217	0.92	22.22	0.57
4.233	1.04	10.233	3.01	16.233	0.92	22.23	0.57
4.250	1.04	10.250	3.01	16.250	0.92	22.25	0.57
4.267	1.04	10.267	3.01	16.267	0.92	22.27	0.57
4.283	1.04	10.283	3.01	16.283	0.92	22.28	0.57
4.300	1.04	10.300	3.01	16.300	0.92	22.30	0.57
4.317	1.04	10.317	3.01	16.317	0.92	22.32	0.57
4.333	1.04	10.333	3.01	16.333	0.92	22.33	0.57
4.350	1.08	10.350	2.81	16.350	0.90	22.35	0.56
4.367	1.08	10.367	2.81	16.367	0.90	22.37	0.56
4.383	1.08	10.383	2.81	16.383	0.90	22.38	0.56
4.400	1.08	10.400	2.81	16.400	0.90	22.40	0.56
4.417	1.08	10.417	2.81	16.417	0.90	22.42	0.56
4.433	1.08	10.433	2.81	16.433	0.90	22.43	0.56
4.450	1.08	10.450	2.81	16.450	0.90	22.45	0.56
4.467	1.08	10.467	2.81	16.467	0.90	22.47	0.56
4.483	1.08	10.483	2.81	16.483	0.90	22.48	0.56
4.500	1.08	10.500	2.81	16.500	0.90	22.50	0.56
4.517	1.13	10.517	2.64	16.517	0.89	22.52	0.56
4.533	1.13	10.533	2.64	16.533	0.89	22.53	0.56
4.550	1.13	10.550	2.64	16.550	0.89	22.55	0.56
4.567	1.13	10.567	2.64	16.567	0.89	22.57	0.56
4.583	1.13	10.583	2.64	16.583	0.89	22.58	0.56
4.600	1.13	10.600	2.64	16.600	0.89	22.60	0.56
4.617	1.13	10.617	2.64	16.617	0.89	22.62	0.56
4.633	1.13	10.633	2.64	16.633	0.89	22.63	0.56
4.650	1.13	10.650	2.64	16.650	0.89	22.65	0.56
4.667	1.13	10.667	2.64	16.667	0.89	22.67	0.56

4.683	1.19	10.683	2.49	16.683	0.87	22.68	0.55
4.700	1.19	10.700	2.49	16.700	0.87	22.70	0.55
4.717	1.19	10.717	2.49	16.717	0.87	22.72	0.55
4.733	1.19	10.733	2.49	16.733	0.87	22.73	0.55
4.750	1.19	10.750	2.49	16.750	0.87	22.75	0.55
4.767	1.19	10.767	2.49	16.767	0.87	22.77	0.55
4.783	1.19	10.783	2.49	16.783	0.87	22.78	0.55
4.800	1.19	10.800	2.49	16.800	0.87	22.80	0.55
4.817	1.19	10.817	2.49	16.817	0.87	22.82	0.55
4.833	1.19	10.833	2.49	16.833	0.87	22.83	0.55
4.850	1.25	10.850	2.36	16.850	0.86	22.85	0.55
4.867	1.25	10.867	2.36	16.867	0.86	22.87	0.55
4.883	1.25	10.883	2.36	16.883	0.86	22.88	0.55
4.900	1.25	10.900	2.36	16.900	0.86	22.90	0.55
4.917	1.25	10.917	2.36	16.917	0.86	22.92	0.55
4.933	1.25	10.933	2.36	16.933	0.86	22.93	0.55
4.950	1.25	10.950	2.36	16.950	0.86	22.95	0.55
4.967	1.25	10.967	2.36	16.967	0.86	22.97	0.55
4.983	1.25	10.983	2.36	16.983	0.86	22.98	0.55
5.000	1.25	11.000	2.36	17.000	0.86	23.00	0.55
5.017	1.32	11.017	2.24	17.017	0.84	23.02	0.54
5.033	1.32	11.033	2.24	17.033	0.84	23.03	0.54
5.050	1.32	11.050	2.24	17.050	0.84	23.05	0.54
5.067	1.32	11.067	2.24	17.067	0.84	23.07	0.54
5.083	1.32	11.083	2.24	17.083	0.84	23.08	0.54
5.100	1.32	11.100	2.24	17.100	0.84	23.10	0.54
5.117	1.32	11.117	2.24	17.117	0.84	23.12	0.54
5.133	1.32	11.133	2.24	17.133	0.84	23.13	0.54
5.150	1.32	11.150	2.24	17.150	0.84	23.15	0.54
5.167	1.32	11.167	2.24	17.167	0.84	23.17	0.54
5.183	1.39	11.183	2.13	17.183	0.83	23.18	0.54
5.200	1.39	11.200	2.13	17.200	0.83	23.20	0.54
5.217	1.39	11.217	2.13	17.217	0.83	23.22	0.54
5.233	1.39	11.233	2.13	17.233	0.83	23.23	0.54
5.250	1.39	11.250	2.13	17.250	0.83	23.25	0.54
5.267	1.39	11.267	2.13	17.267	0.83	23.27	0.54
5.283	1.39	11.283	2.13	17.283	0.83	23.28	0.54
5.300	1.39	11.300	2.13	17.300	0.83	23.30	0.54
5.317	1.39	11.317	2.13	17.317	0.83	23.32	0.54
5.333	1.39	11.333	2.13	17.333	0.83	23.33	0.54
5.350	1.48	11.350	2.04	17.350	0.82	23.35	0.53
5.367	1.48	11.367	2.04	17.367	0.82	23.37	0.53
5.383	1.48	11.383	2.04	17.383	0.82	23.38	0.53
5.400	1.48	11.400	2.04	17.400	0.82	23.40	0.53
5.417	1.48	11.417	2.04	17.417	0.82	23.42	0.53
5.433	1.48	11.433	2.04	17.433	0.82	23.43	0.53
5.450	1.48	11.450	2.04	17.450	0.82	23.45	0.53
5.467	1.48	11.467	2.04	17.467	0.82	23.47	0.53
5.483	1.48	11.483	2.04	17.483	0.82	23.48	0.53
5.500	1.48	11.500	2.04	17.500	0.82	23.50	0.53
5.517	1.58	11.517	1.95	17.517	0.80	23.52	0.53
5.533	1.58	11.533	1.95	17.533	0.80	23.53	0.53

5.550	1.58	11.550	1.95	17.550	0.80	23.55	0.53
5.567	1.58	11.567	1.95	17.567	0.80	23.57	0.53
5.583	1.58	11.583	1.95	17.583	0.80	23.58	0.53
5.600	1.58	11.600	1.95	17.600	0.80	23.60	0.53
5.617	1.58	11.617	1.95	17.617	0.80	23.62	0.53
5.633	1.58	11.633	1.95	17.633	0.80	23.63	0.53
5.650	1.58	11.650	1.95	17.650	0.80	23.65	0.53
5.667	1.58	11.667	1.95	17.667	0.80	23.67	0.53
5.683	1.70	11.683	1.87	17.683	0.79	23.68	0.52
5.700	1.70	11.700	1.87	17.700	0.79	23.70	0.52
5.717	1.70	11.717	1.87	17.717	0.79	23.72	0.52
5.733	1.70	11.733	1.87	17.733	0.79	23.73	0.52
5.750	1.70	11.750	1.87	17.750	0.79	23.75	0.52
5.767	1.70	11.767	1.87	17.767	0.79	23.77	0.52
5.783	1.70	11.783	1.87	17.783	0.79	23.78	0.52
5.800	1.70	11.800	1.87	17.800	0.79	23.80	0.52
5.817	1.70	11.817	1.87	17.817	0.79	23.82	0.52
5.833	1.70	11.833	1.87	17.833	0.79	23.83	0.52
5.850	1.83	11.850	1.80	17.850	0.78	23.85	0.52
5.867	1.83	11.867	1.80	17.867	0.78	23.87	0.52
5.883	1.83	11.883	1.80	17.883	0.78	23.88	0.52
5.900	1.83	11.900	1.80	17.900	0.78	23.90	0.52
5.917	1.83	11.917	1.80	17.917	0.78	23.92	0.52
5.933	1.83	11.933	1.80	17.933	0.78	23.93	0.52
5.950	1.83	11.950	1.80	17.950	0.78	23.95	0.52
5.967	1.83	11.967	1.80	17.967	0.78	23.97	0.52
5.983	1.83	11.983	1.80	17.983	0.78	23.98	0.52
6.000	1.83	12.000	1.80	18.000	0.78	24.00	0.52

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     Max.Eff.Inten.(mm/hr)=     122.80        22.99
                   over (min)       5.00        12.00
     Storage Coeff.  (min)=       3.52 (ii)   11.53 (ii)
     Unit Hyd. Tpeak (min)=       5.00        12.00
     Unit Hyd. peak  (cms)=       0.28         0.10
                                                        *TOTALS*
     PEAK FLOW       (cms)=       0.31         0.07       0.349 (iii)
     TIME TO PEAK    (hrs)=       8.02         8.17         8.02
     RUNOFF VOLUME    (mm)=      76.31        16.41        37.38
     TOTAL RAINFALL   (mm)=      77.31        77.31        77.31
     RUNOFF COEFFICIENT   =        0.99         0.21         0.48


       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN*  =  48.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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| DUHYD    (  0035)|
| Inlet Cap.= 0.202|
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| #of Inlets=     1|
| Total(cms)=   0.2|      AREA     QPEAK     TPEAK     R.V.
--------------------      (ha)      (cms)     (hrs)     (mm)
     TOTAL HYD.(ID= 1):   2.86      0.35      8.02    37.38
     ================================================
     MAJOR SYS.(ID= 2):   0.21      0.15      8.02    37.38
     MINOR SYS.(ID= 3):   2.65      0.20      7.92    37.38

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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--------------------
| ADD HYD  (  0102)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
--------------------        (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  1021):     3.77    0.488     8.02    39.38
     + ID2= 2 (  0035):     0.21    0.147     8.02    37.38
       ================================================
       ID = 3 (  0102):     3.98    0.635     8.02    39.28

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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--------------------
| ADD HYD  (  0903)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
--------------------        (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0102):     3.98    0.635     8.02    39.28
     + ID2= 2 (  0902):    16.17    2.344     8.05    38.54
       ================================================
       ID = 3 (  0903):    20.15    2.942     8.05    38.69

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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| CALIB            |
| NASHYD   (  1051)|   Area     (ha)=   1.62   Curve Number   (CN)= 60.0
|ID= 1 DT= 5.0 min |   Ia       (mm)=   5.00   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   1.87

        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    0.53 | 6.083    1.99 |12.083    1.73 | 18.08    0.77
 0.167    0.53 | 6.167    1.99 |12.167    1.73 | 18.17    0.77
 0.250    0.54 | 6.250    2.18 |12.250    1.67 | 18.25    0.76
 0.333    0.54 | 6.333    2.18 |12.333    1.67 | 18.33    0.76
 0.417    0.55 | 6.417    2.42 |12.417    1.61 | 18.42    0.75
```

0.500	0.55	6.500	2.42	12.500	1.61	18.50	0.75
0.583	0.56	6.583	2.72	12.583	1.56	18.58	0.74
0.667	0.56	6.667	2.72	12.667	1.56	18.67	0.74
0.750	0.57	6.750	3.12	12.750	1.51	18.75	0.73
0.833	0.57	6.833	3.12	12.833	1.51	18.83	0.73
0.917	0.58	6.917	3.66	12.917	1.46	18.92	0.72
1.000	0.58	7.000	3.66	13.000	1.46	19.00	0.72
1.083	0.60	7.083	4.43	13.083	1.42	19.08	0.71
1.167	0.60	7.167	4.43	13.167	1.42	19.17	0.71
1.250	0.61	7.250	5.66	13.250	1.38	19.25	0.70
1.333	0.61	7.333	5.66	13.333	1.38	19.33	0.70
1.417	0.62	7.417	7.85	13.417	1.34	19.42	0.69
1.500	0.62	7.500	7.85	13.500	1.34	19.50	0.69
1.583	0.64	7.583	12.85	13.583	1.30	19.58	0.68
1.667	0.64	7.667	12.86	13.667	1.30	19.67	0.68
1.750	0.65	7.750	33.57	13.750	1.27	19.75	0.67
1.833	0.65	7.833	33.58	13.833	1.27	19.83	0.67
1.917	0.67	7.917	122.80	13.917	1.24	19.92	0.66
2.000	0.67	8.000	122.79	14.000	1.24	20.00	0.66
2.083	0.68	8.083	44.52	14.083	1.21	20.08	0.66
2.167	0.68	8.167	44.52	14.167	1.21	20.17	0.66
2.250	0.70	8.250	22.67	14.250	1.18	20.25	0.65
2.333	0.70	8.333	22.67	14.333	1.18	20.33	0.65
2.417	0.72	8.417	14.82	14.417	1.15	20.42	0.64
2.500	0.72	8.500	14.82	14.500	1.15	20.50	0.64
2.583	0.74	8.583	10.92	14.583	1.12	20.58	0.63
2.667	0.74	8.667	10.92	14.667	1.12	20.67	0.63
2.750	0.76	8.750	8.62	14.750	1.10	20.75	0.63
2.833	0.76	8.833	8.62	14.833	1.10	20.83	0.63
2.917	0.79	8.917	7.11	14.917	1.07	20.92	0.62
3.000	0.79	9.000	7.11	15.000	1.07	21.00	0.62
3.083	0.81	9.083	6.06	15.083	1.05	21.08	0.61
3.167	0.81	9.167	6.06	15.167	1.05	21.17	0.61
3.250	0.84	9.250	5.28	15.250	1.03	21.25	0.61
3.333	0.84	9.333	5.28	15.333	1.03	21.33	0.61
3.417	0.86	9.417	4.68	15.417	1.01	21.42	0.60
3.500	0.86	9.500	4.68	15.500	1.01	21.50	0.60
3.583	0.89	9.583	4.20	15.583	0.99	21.58	0.59
3.667	0.89	9.667	4.20	15.667	0.99	21.67	0.59
3.750	0.93	9.750	3.82	15.750	0.97	21.75	0.59
3.833	0.93	9.833	3.82	15.833	0.97	21.83	0.59
3.917	0.96	9.917	3.50	15.917	0.95	21.92	0.58
4.000	0.96	10.000	3.50	16.000	0.95	22.00	0.58
4.083	1.00	10.083	3.24	16.083	0.94	22.08	0.57
4.167	1.00	10.167	3.24	16.167	0.94	22.17	0.57
4.250	1.04	10.250	3.01	16.250	0.92	22.25	0.57
4.333	1.04	10.333	3.01	16.333	0.92	22.33	0.57
4.417	1.08	10.417	2.81	16.417	0.90	22.42	0.56
4.500	1.08	10.500	2.81	16.500	0.90	22.50	0.56
4.583	1.13	10.583	2.64	16.583	0.89	22.58	0.56
4.667	1.13	10.667	2.64	16.667	0.89	22.67	0.56
4.750	1.19	10.750	2.49	16.750	0.87	22.75	0.55

4.833	1.19	10.833	2.49	16.833	0.87	22.83	0.55
4.917	1.25	10.917	2.36	16.917	0.86	22.92	0.55
5.000	1.25	11.000	2.36	17.000	0.86	23.00	0.55
5.083	1.32	11.083	2.24	17.083	0.84	23.08	0.54
5.167	1.32	11.167	2.24	17.167	0.84	23.17	0.54
5.250	1.39	11.250	2.13	17.250	0.83	23.25	0.54
5.333	1.39	11.333	2.13	17.333	0.83	23.33	0.54
5.417	1.48	11.417	2.04	17.417	0.82	23.42	0.53
5.500	1.48	11.500	2.04	17.500	0.82	23.50	0.53
5.583	1.58	11.583	1.95	17.583	0.80	23.58	0.53
5.667	1.58	11.667	1.95	17.667	0.80	23.67	0.53
5.750	1.70	11.750	1.87	17.750	0.79	23.75	0.52
5.833	1.70	11.833	1.87	17.833	0.79	23.83	0.52
5.917	1.83	11.917	1.80	17.917	0.78	23.92	0.52
6.000	1.83	12.000	1.80	18.000	0.78	24.00	0.52

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     Unit Hyd Qpeak  (cms)=   0.033

     PEAK FLOW       (cms)=   0.017 (i)
     TIME TO PEAK    (hrs)=  10.333
     RUNOFF VOLUME    (mm)=  21.636
     TOTAL RAINFALL   (mm)=  77.311
     RUNOFF COEFFICIENT   =   0.280

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

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| ADD HYD  (  0105)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
--------------------        (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  1051):     1.62   0.017    10.33    21.64
     + ID2= 2 (  0037):     0.10   0.067     8.02    31.55
       ================================================
       ID = 3 (  0105):     1.72   0.067     8.02    22.22

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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--------------------
| ADD HYD  (  0906)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
--------------------        (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0105):     1.72   0.067     8.02    22.22
     + ID2= 2 (  0903):    20.15   2.942     8.05    38.69
       ================================================
       ID = 3 (  0906):    21.88   2.998     8.05    37.39

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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| CALIB            |
| NASHYD   (  0201)|   Area     (ha)=   6.97   Curve Number   (CN)= 66.0
|ID= 1 DT= 5.0 min |   Ia       (mm)=   5.00   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=   0.74

        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    0.53 | 6.083    1.99 |12.083    1.73 | 18.08    0.77
 0.167    0.53 | 6.167    1.99 |12.167    1.73 | 18.17    0.77
 0.250    0.54 | 6.250    2.18 |12.250    1.67 | 18.25    0.76
 0.333    0.54 | 6.333    2.18 |12.333    1.67 | 18.33    0.76
 0.417    0.55 | 6.417    2.42 |12.417    1.61 | 18.42    0.75
 0.500    0.55 | 6.500    2.42 |12.500    1.61 | 18.50    0.75
 0.583    0.56 | 6.583    2.72 |12.583    1.56 | 18.58    0.74
 0.667    0.56 | 6.667    2.72 |12.667    1.56 | 18.67    0.74
 0.750    0.57 | 6.750    3.12 |12.750    1.51 | 18.75    0.73
 0.833    0.57 | 6.833    3.12 |12.833    1.51 | 18.83    0.73
 0.917    0.58 | 6.917    3.66 |12.917    1.46 | 18.92    0.72
 1.000    0.58 | 7.000    3.66 |13.000    1.46 | 19.00    0.72
 1.083    0.60 | 7.083    4.43 |13.083    1.42 | 19.08    0.71
 1.167    0.60 | 7.167    4.43 |13.167    1.42 | 19.17    0.71
 1.250    0.61 | 7.250    5.66 |13.250    1.38 | 19.25    0.70
 1.333    0.61 | 7.333    5.66 |13.333    1.38 | 19.33    0.70
 1.417    0.62 | 7.417    7.85 |13.417    1.34 | 19.42    0.69
 1.500    0.62 | 7.500    7.85 |13.500    1.34 | 19.50    0.69
 1.583    0.64 | 7.583   12.85 |13.583    1.30 | 19.58    0.68
 1.667    0.64 | 7.667   12.86 |13.667    1.30 | 19.67    0.68
 1.750    0.65 | 7.750   33.57 |13.750    1.27 | 19.75    0.67
 1.833    0.65 | 7.833   33.58 |13.833    1.27 | 19.83    0.67
 1.917    0.67 | 7.917  122.80 |13.917    1.24 | 19.92    0.66
 2.000    0.67 | 8.000  122.79 |14.000    1.24 | 20.00    0.66
 2.083    0.68 | 8.083   44.52 |14.083    1.21 | 20.08    0.66
 2.167    0.68 | 8.167   44.52 |14.167    1.21 | 20.17    0.66
 2.250    0.70 | 8.250   22.67 |14.250    1.18 | 20.25    0.65
 2.333    0.70 | 8.333   22.67 |14.333    1.18 | 20.33    0.65
 2.417    0.72 | 8.417   14.82 |14.417    1.15 | 20.42    0.64
 2.500    0.72 | 8.500   14.82 |14.500    1.15 | 20.50    0.64
 2.583    0.74 | 8.583   10.92 |14.583    1.12 | 20.58    0.63
 2.667    0.74 | 8.667   10.92 |14.667    1.12 | 20.67    0.63
 2.750    0.76 | 8.750    8.62 |14.750    1.10 | 20.75    0.63
 2.833    0.76 | 8.833    8.62 |14.833    1.10 | 20.83    0.63
 2.917    0.79 | 8.917    7.11 |14.917    1.07 | 20.92    0.62
 3.000    0.79 | 9.000    7.11 |15.000    1.07 | 21.00    0.62
 3.083    0.81 | 9.083    6.06 |15.083    1.05 | 21.08    0.61
 3.167    0.81 | 9.167    6.06 |15.167    1.05 | 21.17    0.61
 3.250    0.84 | 9.250    5.28 |15.250    1.03 | 21.25    0.61
 3.333    0.84 | 9.333    5.28 |15.333    1.03 | 21.33    0.61
 3.417    0.86 | 9.417    4.68 |15.417    1.01 | 21.42    0.60
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3.500	0.86	9.500	4.68	15.500	1.01	21.50	0.60
3.583	0.89	9.583	4.20	15.583	0.99	21.58	0.59
3.667	0.89	9.667	4.20	15.667	0.99	21.67	0.59
3.750	0.93	9.750	3.82	15.750	0.97	21.75	0.59
3.833	0.93	9.833	3.82	15.833	0.97	21.83	0.59
3.917	0.96	9.917	3.50	15.917	0.95	21.92	0.58
4.000	0.96	10.000	3.50	16.000	0.95	22.00	0.58
4.083	1.00	10.083	3.24	16.083	0.94	22.08	0.57
4.167	1.00	10.167	3.24	16.167	0.94	22.17	0.57
4.250	1.04	10.250	3.01	16.250	0.92	22.25	0.57
4.333	1.04	10.333	3.01	16.333	0.92	22.33	0.57
4.417	1.08	10.417	2.81	16.417	0.90	22.42	0.56
4.500	1.08	10.500	2.81	16.500	0.90	22.50	0.56
4.583	1.13	10.583	2.64	16.583	0.89	22.58	0.56
4.667	1.13	10.667	2.64	16.667	0.89	22.67	0.56
4.750	1.19	10.750	2.49	16.750	0.87	22.75	0.55
4.833	1.19	10.833	2.49	16.833	0.87	22.83	0.55
4.917	1.25	10.917	2.36	16.917	0.86	22.92	0.55
5.000	1.25	11.000	2.36	17.000	0.86	23.00	0.55
5.083	1.32	11.083	2.24	17.083	0.84	23.08	0.54
5.167	1.32	11.167	2.24	17.167	0.84	23.17	0.54
5.250	1.39	11.250	2.13	17.250	0.83	23.25	0.54
5.333	1.39	11.333	2.13	17.333	0.83	23.33	0.54
5.417	1.48	11.417	2.04	17.417	0.82	23.42	0.53
5.500	1.48	11.500	2.04	17.500	0.82	23.50	0.53
5.583	1.58	11.583	1.95	17.583	0.80	23.58	0.53
5.667	1.58	11.667	1.95	17.667	0.80	23.67	0.53
5.750	1.70	11.750	1.87	17.750	0.79	23.75	0.52
5.833	1.70	11.833	1.87	17.833	0.79	23.83	0.52
5.917	1.83	11.917	1.80	17.917	0.78	23.92	0.52
6.000	1.83	12.000	1.80	18.000	0.78	24.00	0.52

Unit Hyd Qpeak (cms)= 0.360

PEAK FLOW (cms)= 0.175 (i)
TIME TO PEAK (hrs)= 8.833
RUNOFF VOLUME (mm)= 25.738
TOTAL RAINFALL (mm)= 77.311
RUNOFF COEFFICIENT = 0.333

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

CALIB					
NASHYD (0202)	Area	(ha)=	2.71	Curve Number (CN)=	68.0
ID= 1 DT= 5.0 min	Ia	(mm)=	5.00	# of Linear Res.(N)=	3.00
	U.H. Tp(hrs)=		0.93		

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	0.53	6.083	1.99	12.083	1.73	18.08	0.77
0.167	0.53	6.167	1.99	12.167	1.73	18.17	0.77
0.250	0.54	6.250	2.18	12.250	1.67	18.25	0.76
0.333	0.54	6.333	2.18	12.333	1.67	18.33	0.76
0.417	0.55	6.417	2.42	12.417	1.61	18.42	0.75
0.500	0.55	6.500	2.42	12.500	1.61	18.50	0.75
0.583	0.56	6.583	2.72	12.583	1.56	18.58	0.74
0.667	0.56	6.667	2.72	12.667	1.56	18.67	0.74
0.750	0.57	6.750	3.12	12.750	1.51	18.75	0.73
0.833	0.57	6.833	3.12	12.833	1.51	18.83	0.73
0.917	0.58	6.917	3.66	12.917	1.46	18.92	0.72
1.000	0.58	7.000	3.66	13.000	1.46	19.00	0.72
1.083	0.60	7.083	4.43	13.083	1.42	19.08	0.71
1.167	0.60	7.167	4.43	13.167	1.42	19.17	0.71
1.250	0.61	7.250	5.66	13.250	1.38	19.25	0.70
1.333	0.61	7.333	5.66	13.333	1.38	19.33	0.70
1.417	0.62	7.417	7.85	13.417	1.34	19.42	0.69
1.500	0.62	7.500	7.85	13.500	1.34	19.50	0.69
1.583	0.64	7.583	12.85	13.583	1.30	19.58	0.68
1.667	0.64	7.667	12.86	13.667	1.30	19.67	0.68
1.750	0.65	7.750	33.57	13.750	1.27	19.75	0.67
1.833	0.65	7.833	33.58	13.833	1.27	19.83	0.67
1.917	0.67	7.917	122.80	13.917	1.24	19.92	0.66
2.000	0.67	8.000	122.79	14.000	1.24	20.00	0.66
2.083	0.68	8.083	44.52	14.083	1.21	20.08	0.66
2.167	0.68	8.167	44.52	14.167	1.21	20.17	0.66
2.250	0.70	8.250	22.67	14.250	1.18	20.25	0.65
2.333	0.70	8.333	22.67	14.333	1.18	20.33	0.65
2.417	0.72	8.417	14.82	14.417	1.15	20.42	0.64
2.500	0.72	8.500	14.82	14.500	1.15	20.50	0.64
2.583	0.74	8.583	10.92	14.583	1.12	20.58	0.63
2.667	0.74	8.667	10.92	14.667	1.12	20.67	0.63
2.750	0.76	8.750	8.62	14.750	1.10	20.75	0.63
2.833	0.76	8.833	8.62	14.833	1.10	20.83	0.63
2.917	0.79	8.917	7.11	14.917	1.07	20.92	0.62
3.000	0.79	9.000	7.11	15.000	1.07	21.00	0.62
3.083	0.81	9.083	6.06	15.083	1.05	21.08	0.61
3.167	0.81	9.167	6.06	15.167	1.05	21.17	0.61
3.250	0.84	9.250	5.28	15.250	1.03	21.25	0.61
3.333	0.84	9.333	5.28	15.333	1.03	21.33	0.61
3.417	0.86	9.417	4.68	15.417	1.01	21.42	0.60
3.500	0.86	9.500	4.68	15.500	1.01	21.50	0.60
3.583	0.89	9.583	4.20	15.583	0.99	21.58	0.59
3.667	0.89	9.667	4.20	15.667	0.99	21.67	0.59
3.750	0.93	9.750	3.82	15.750	0.97	21.75	0.59
3.833	0.93	9.833	3.82	15.833	0.97	21.83	0.59
3.917	0.96	9.917	3.50	15.917	0.95	21.92	0.58
4.000	0.96	10.000	3.50	16.000	0.95	22.00	0.58
4.083	1.00	10.083	3.24	16.083	0.94	22.08	0.57
4.167	1.00	10.167	3.24	16.167	0.94	22.17	0.57
4.250	1.04	10.250	3.01	16.250	0.92	22.25	0.57
4.333	1.04	10.333	3.01	16.333	0.92	22.33	0.57
4.417	1.08	10.417	2.81	16.417	0.90	22.42	0.56
4.500	1.08	10.500	2.81	16.500	0.90	22.50	0.56
4.583	1.13	10.583	2.64	16.583	0.89	22.58	0.56
4.667	1.13	10.667	2.64	16.667	0.89	22.67	0.56
4.750	1.19	10.750	2.49	16.750	0.87	22.75	0.55
4.833	1.19	10.833	2.49	16.833	0.87	22.83	0.55
4.917	1.25	10.917	2.36	16.917	0.86	22.92	0.55
5.000	1.25	11.000	2.36	17.000	0.86	23.00	0.55
5.083	1.32	11.083	2.24	17.083	0.84	23.08	0.54
5.167	1.32	11.167	2.24	17.167	0.84	23.17	0.54
5.250	1.39	11.250	2.13	17.250	0.83	23.25	0.54
5.333	1.39	11.333	2.13	17.333	0.83	23.33	0.54
5.417	1.48	11.417	2.04	17.417	0.82	23.42	0.53
5.500	1.48	11.500	2.04	17.500	0.82	23.50	0.53
5.583	1.58	11.583	1.95	17.583	0.80	23.58	0.53
5.667	1.58	11.667	1.95	17.667	0.80	23.67	0.53
5.750	1.70	11.750	1.87	17.750	0.79	23.75	0.52
5.833	1.70	11.833	1.87	17.833	0.79	23.83	0.52
5.917	1.83	11.917	1.80	17.917	0.78	23.92	0.52
6.000	1.83	12.000	1.80	18.000	0.78	24.00	0.52

Unit Hyd Qpeak (cms)= 0.111

PEAK FLOW (cms)= 0.062 (i)
TIME TO PEAK (hrs)= 9.083
RUNOFF VOLUME (mm)= 27.256
TOTAL RAINFALL (mm)= 77.311
RUNOFF COEFFICIENT = 0.353

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

ADD HYD (0904)		AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3	ID1= 1 (0201):	6.97	0.175	8.83	25.74
	+ ID2= 2 (0202):	2.71	0.062	9.08	27.26
	ID = 3 (0904):	9.68	0.235	8.92	26.16

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB					
NASHYD (0203)	Area	(ha)=	34.30	Curve Number (CN)=	42.0
ID= 1 DT= 5.0 min	Ia	(mm)=	5.00	# of Linear Res.(N)=	3.00
	U.H. Tp(hrs)=		1.40		

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	0.53	6.083	1.99	12.083	1.73	18.08	0.77
0.167	0.53	6.167	1.99	12.167	1.73	18.17	0.77
0.250	0.54	6.250	2.18	12.250	1.67	18.25	0.76
0.333	0.54	6.333	2.18	12.333	1.67	18.33	0.76
0.417	0.55	6.417	2.42	12.417	1.61	18.42	0.75
0.500	0.55	6.500	2.42	12.500	1.61	18.50	0.75
0.583	0.56	6.583	2.72	12.583	1.56	18.58	0.74
0.667	0.56	6.667	2.72	12.667	1.56	18.67	0.74
0.750	0.57	6.750	3.12	12.750	1.51	18.75	0.73
0.833	0.57	6.833	3.12	12.833	1.51	18.83	0.73
0.917	0.58	6.917	3.66	12.917	1.46	18.92	0.72
1.000	0.58	7.000	3.66	13.000	1.46	19.00	0.72
1.083	0.60	7.083	4.43	13.083	1.42	19.08	0.71
1.167	0.60	7.167	4.43	13.167	1.42	19.17	0.71
1.250	0.61	7.250	5.66	13.250	1.38	19.25	0.70
1.333	0.61	7.333	5.66	13.333	1.38	19.33	0.70
1.417	0.62	7.417	7.85	13.417	1.34	19.42	0.69
1.500	0.62	7.500	7.85	13.500	1.34	19.50	0.69
1.583	0.64	7.583	12.85	13.583	1.30	19.58	0.68
1.667	0.64	7.667	12.86	13.667	1.30	19.67	0.68
1.750	0.65	7.750	33.57	13.750	1.27	19.75	0.67
1.833	0.65	7.833	33.58	13.833	1.27	19.83	0.67
1.917	0.67	7.917	122.80	13.917	1.24	19.92	0.66
2.000	0.67	8.000	122.79	14.000	1.24	20.00	0.66
2.083	0.68	8.083	44.52	14.083	1.21	20.08	0.66
2.167	0.68	8.167	44.52	14.167	1.21	20.17	0.66
2.250	0.70	8.250	22.67	14.250	1.18	20.25	0.65
2.333	0.70	8.333	22.67	14.333	1.18	20.33	0.65
2.417	0.72	8.417	14.82	14.417	1.15	20.42	0.64
2.500	0.72	8.500	14.82	14.500	1.15	20.50	0.64
2.583	0.74	8.583	10.92	14.583	1.12	20.58	0.63
2.667	0.74	8.667	10.92	14.667	1.12	20.67	0.63
2.750	0.76	8.750	8.62	14.750	1.10	20.75	0.63
2.833	0.76	8.833	8.62	14.833	1.10	20.83	0.63
2.917	0.79	8.917	7.11	14.917	1.07	20.92	0.62
3.000	0.79	9.000	7.11	15.000	1.07	21.00	0.62
3.083	0.81	9.083	6.06	15.083	1.05	21.08	0.61
3.167	0.81	9.167	6.06	15.167	1.05	21.17	0.61
3.250	0.84	9.250	5.28	15.250	1.03	21.25	0.61
3.333	0.84	9.333	5.28	15.333	1.03	21.33	0.61
3.417	0.86	9.417	4.68	15.417	1.01	21.42	0.60
3.500	0.86	9.500	4.68	15.500	1.01	21.50	0.60
3.583	0.89	9.583	4.20	15.583	0.99	21.58	0.59
3.667	0.89	9.667	4.20	15.667	0.99	21.67	0.59
3.750	0.93	9.750	3.82	15.750	0.97	21.75	0.59
3.833	0.93	9.833	3.82	15.833	0.97	21.83	0.59
3.917	0.96	9.917	3.50	15.917	0.95	21.92	0.58
4.000	0.96	10.000	3.50	16.000	0.95	22.00	0.58
4.083	1.00	10.083	3.24	16.083	0.94	22.08	0.57

Unit Hyd Qpeak (cms)= 0.936

PEAK FLOW (cms)= 0.247 (i)
TIME TO PEAK (hrs)= 9.750
RUNOFF VOLUME (mm)= 12.359
TOTAL RAINFALL (mm)= 77.311
RUNOFF COEFFICIENT = 0.160

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

ADD HYD (0905)		AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3	ID1= 1 (0203):	34.30	0.247	9.75	12.36
	+ ID2= 2 (0904):	9.68	0.235	8.92	26.16
	ID = 3 (0905):	43.98	0.443	9.25	15.40

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

Junction Command(0907)		AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 1(0905)		43.98	0.44	9.25	15.40
OUTFLOW: ID= 2(0907)		43.98	0.44	9.25	15.40

ADD HYD (0908)		AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3	ID1= 1 (0906):	21.88	2.998	8.05	37.39
	+ ID2= 2 (0907):	43.98	0.443	9.25	15.40
	ID = 3 (0908):	65.85	3.058	8.05	22.70

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB					
NASHYD (0204)	Area	(ha)=	0.40	Curve Number (CN)=	67.0
ID= 1 DT= 5.0 min	Ia	(mm)=	5.00	# 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	0.53	6.083	1.99	12.083	1.73	18.08	0.77
0.167	0.53	6.167	1.99	12.167	1.73	18.17	0.77
0.250	0.54	6.250	2.18	12.250	1.67	18.25	0.76
0.333	0.54	6.333	2.18	12.333	1.67	18.33	0.76
0.417	0.55	6.417	2.42	12.417	1.61	18.42	0.75
0.500	0.55	6.500	2.42	12.500	1.61	18.50	0.75
0.583	0.56	6.583	2.72	12.583	1.56	18.58	0.74
0.667	0.56	6.667	2.72	12.667	1.56	18.67	0.74
0.750	0.57	6.750	3.12	12.750	1.51	18.75	0.73
0.833	0.57	6.833	3.12	12.833	1.51	18.83	0.73
0.917	0.58	6.917	3.66	12.917	1.46	18.92	0.72
1.000	0.58	7.000	3.66	13.000	1.46	19.00	0.72
1.083	0.60	7.083	4.43	13.083	1.42	19.08	0.71
1.167	0.60	7.167	4.43	13.167	1.42	19.17	0.71
1.250	0.61	7.250	5.66	13.250	1.38	19.25	0.70
1.333	0.61	7.333	5.66	13.333	1.38	19.33	0.70
1.417	0.62	7.417	7.85	13.417	1.34	19.42	0.69
1.500	0.62	7.500	7.85	13.500	1.34	19.50	0.69

1.583	0.64	7.583	12.85	13.583	1.30	19.58	0.68
1.667	0.64	7.667	12.86	13.667	1.30	19.67	0.68
1.750	0.65	7.750	33.57	13.750	1.27	19.75	0.67
1.833	0.65	7.833	33.58	13.833	1.27	19.83	0.67
1.917	0.67	7.917	122.80	13.917	1.24	19.92	0.66
2.000	0.67	8.000	122.79	14.000	1.24	20.00	0.66
2.083	0.68	8.083	44.52	14.083	1.21	20.08	0.66
2.167	0.68	8.167	44.52	14.167	1.21	20.17	0.66
2.250	0.70	8.250	22.67	14.250	1.18	20.25	0.65
2.333	0.70	8.333	22.67	14.333	1.18	20.33	0.65
2.417	0.72	8.417	14.82	14.417	1.15	20.42	0.64
2.500	0.72	8.500	14.82	14.500	1.15	20.50	0.64
2.583	0.74	8.583	10.92	14.583	1.12	20.58	0.63
2.667	0.74	8.667	10.92	14.667	1.12	20.67	0.63
2.750	0.76	8.750	8.62	14.750	1.10	20.75	0.63
2.833	0.76	8.833	8.62	14.833	1.10	20.83	0.63
2.917	0.79	8.917	7.11	14.917	1.07	20.92	0.62
3.000	0.79	9.000	7.11	15.000	1.07	21.00	0.62
3.083	0.81	9.083	6.06	15.083	1.05	21.08	0.61
3.167	0.81	9.167	6.06	15.167	1.05	21.17	0.61
3.250	0.84	9.250	5.28	15.250	1.03	21.25	0.61
3.333	0.84	9.333	5.28	15.333	1.03	21.33	0.61
3.417	0.86	9.417	4.68	15.417	1.01	21.42	0.60
3.500	0.86	9.500	4.68	15.500	1.01	21.50	0.60
3.583	0.89	9.583	4.20	15.583	0.99	21.58	0.59
3.667	0.89	9.667	4.20	15.667	0.99	21.67	0.59
3.750	0.93	9.750	3.82	15.750	0.97	21.75	0.59
3.833	0.93	9.833	3.82	15.833	0.97	21.83	0.59
3.917	0.96	9.917	3.50	15.917	0.95	21.92	0.58
4.000	0.96	10.000	3.50	16.000	0.95	22.00	0.58
4.083	1.00	10.083	3.24	16.083	0.94	22.08	0.57
4.167	1.00	10.167	3.24	16.167	0.94	22.17	0.57
4.250	1.04	10.250	3.01	16.250	0.92	22.25	0.57
4.333	1.04	10.333	3.01	16.333	0.92	22.33	0.57
4.417	1.08	10.417	2.81	16.417	0.90	22.42	0.56
4.500	1.08	10.500	2.81	16.500	0.90	22.50	0.56
4.583	1.13	10.583	2.64	16.583	0.89	22.58	0.56
4.667	1.13	10.667	2.64	16.667	0.89	22.67	0.56
4.750	1.19	10.750	2.49	16.750	0.87	22.75	0.55
4.833	1.19	10.833	2.49	16.833	0.87	22.83	0.55
4.917	1.25	10.917	2.36	16.917	0.86	22.92	0.55
5.000	1.25	11.000	2.36	17.000	0.86	23.00	0.55
5.083	1.32	11.083	2.24	17.083	0.84	23.08	0.54
5.167	1.32	11.167	2.24	17.167	0.84	23.17	0.54
5.250	1.39	11.250	2.13	17.250	0.83	23.25	0.54
5.333	1.39	11.333	2.13	17.333	0.83	23.33	0.54
5.417	1.48	11.417	2.04	17.417	0.82	23.42	0.53
5.500	1.48	11.500	2.04	17.500	0.82	23.50	0.53
5.583	1.58	11.583	1.95	17.583	0.80	23.58	0.53
5.667	1.58	11.667	1.95	17.667	0.80	23.67	0.53
5.750	1.70	11.750	1.87	17.750	0.79	23.75	0.52
5.833	1.70	11.833	1.87	17.833	0.79	23.83	0.52

5.917	1.83	11.917	1.80	17.917	0.78	23.92	0.52
6.000	1.83	12.000	1.80	18.000	0.78	24.00	0.52

Unit Hyd Qpeak (cms)= 0.054

PEAK FLOW (cms)= 0.019 (i)
TIME TO PEAK (hrs)= 8.250
RUNOFF VOLUME (mm)= 26.472
TOTAL RAINFALL (mm)= 77.311
RUNOFF COEFFICIENT = 0.342

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

ADD HYD (0909)	1 + 2 = 3		AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
	ID1= 1 (0204):		0.40	0.019	8.25	26.47
	+ ID2= 2 (0908):		65.85	3.058	8.05	22.70
	ID = 3 (0909):		66.25	3.070	8.05	22.73

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR(0052)| IN= 2---> OUT= 1 | DT= 1.0 min	OVERFLOW IS ON			
	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
	0.0000	0.0004	0.6270	0.1980
	0.0690	0.0019	0.6620	0.2529
	0.1500	0.0052	0.6950	0.3161
	0.2470	0.0111	0.7270	0.3886
	0.3480	0.0210	0.7580	0.4732
	0.4080	0.0352	0.7870	0.5703
	0.4600	0.0544	0.8150	0.6834
	0.5070	0.0794	0.8430	0.8226
	0.5500	0.1110	0.8690	0.9974
	0.5900	0.1508	0.0000	0.0000

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (0909)	66.250	3.070	8.05	22.73
OUTFLOW: ID= 1 (0052)	66.250	0.683	9.17	22.72
OVERFLOW:ID= 3 (0003)	0.000	0.000	0.00	0.00

TOTAL NUMBER OF SIMULATION OVERFLOW = 0
CUMULATIVE TIME OF OVERFLOW (HOURS) = 0.00
PERCENTAGE OF TIME OVERFLOWING (%) = 0.00

PEAK FLOW REDUCTION [Qout/Qin](%)= 22.24
TIME SHIFT OF PEAK FLOW (min)= 67.00
MAXIMUM STORAGE USED (ha.m.)= 0.2928

Junction Command(0048)				
	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 1(0052)	66.25	0.68	9.17	22.72
OUTFLOW: ID= 2(0048)	66.25	0.68	9.17	22.72

Junction Command(0053)				
	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 3(0052)	0.00	0.00	0.00	0.00
OUTFLOW: ID= 2(0053)	0.00	0.00	0.00	0.00

ADD HYD (0051)| 1 + 2 = 3		AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
*** W A R N I N G : HYDROGRAPH 0053 <ID= 2> IS DRY.					
*** W A R N I N G : HYDROGRAPH 0003 = HYDROGRAPH 0001					
	ID1= 1 (0048):	66.25	0.683	9.17	22.72
	+ ID2= 2 (0053):	0.00	0.000	0.00	0.00
	ID = 3 (0051):	66.25	0.683	9.17	22.72

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

Junction Command(0036)				
	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 9(0035)	2.65	0.20	7.92	37.38
OUTFLOW: ID= 2(0036)	2.65	0.20	7.92	37.38

==========

V V I SSSSS U U A L (v 6.2.2015)
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 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\cacp078589\AppData\Local\Civica\VH5\9ad0f7cd-9fe5-4b65-bb07-55a510b23afa\f53d0c12-0241-4106-aa4f-d2ad2c3ec280\s
Summary filename:
C:\Users\cacp078589\AppData\Local\Civica\VH5\9ad0f7cd-9fe5-4b65-bb07-55a510b23afa\f53d0c12-0241-4106-aa4f-d2ad2c3ec280\s

DATE: 04-07-2025 TIME: 09:18:40

USER:

COMMENTS: _____

****
** SIMULATION : 25yr 24hr 10min Chicago **
****

CHICAGO STORM | Ptotal= 89.97 mm	IDF curve parameters: A=1851.000 B= 10.200 C= 0.852

used in: INTENSITY = A / (t + B)^C

Duration of storm = 24.00 hrs
Storm time step = 10.00 min
Time to peak ratio = 0.33

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.00	0.59	6.00	2.27	12.00	1.97	18.00	0.86
0.17	0.60	6.17	2.50	12.17	1.89	18.17	0.85
0.33	0.61	6.33	2.77	12.33	1.83	18.33	0.84
0.50	0.63	6.50	3.13	12.50	1.77	18.50	0.83
0.67	0.64	6.67	3.59	12.67	1.71	18.67	0.82
0.83	0.65	6.83	4.23	12.83	1.66	18.83	0.80
1.00	0.67	7.00	5.15	13.00	1.61	19.00	0.79
1.17	0.68	7.17	6.61	13.17	1.56	19.17	0.78
1.33	0.70	7.33	9.24	13.33	1.51	19.33	0.77
1.50	0.71	7.50	15.26	13.50	1.47	19.50	0.76
1.67	0.73	7.67	40.09	13.67	1.43	19.67	0.75
1.83	0.75	7.83	142.97	13.83	1.40	19.83	0.74
2.00	0.77	8.00	53.15	14.00	1.36	20.00	0.74
2.17	0.79	8.17	27.09	14.17	1.33	20.17	0.73
2.33	0.81	8.33	17.64	14.33	1.30	20.33	0.72
2.50	0.83	8.50	12.93	14.50	1.27	20.50	0.71
2.67	0.86	8.67	10.15	14.67	1.24	20.67	0.70
2.83	0.88	8.83	8.35	14.83	1.21	20.83	0.69
3.00	0.91	9.00	7.08	15.00	1.19	21.00	0.69
3.17	0.94	9.17	6.15	15.17	1.16	21.17	0.68
3.33	0.97	9.33	5.44	15.33	1.14	21.33	0.67
3.50	1.00	9.50	4.88	15.50	1.12	21.50	0.66
3.67	1.04	9.67	4.42	15.67	1.09	21.67	0.66
3.83	1.08	9.83	4.05	15.83	1.07	21.83	0.65
4.00	1.12	10.00	3.73	16.00	1.05	22.00	0.64
4.17	1.17	10.17	3.46	16.17	1.03	22.17	0.64
4.33	1.22	10.33	3.23	16.33	1.02	22.33	0.63
4.50	1.28	10.50	3.03	16.50	1.00	22.50	0.62
4.67	1.34	10.67	2.86	16.67	0.98	22.67	0.62
4.83	1.41	10.83	2.70	16.83	0.96	22.83	0.61
5.00	1.49	11.00	2.56	17.00	0.95	23.00	0.60
5.17	1.58	11.17	2.44	17.17	0.93	23.17	0.60
5.33	1.68	11.33	2.32	17.33	0.92	23.33	0.59
5.50	1.79	11.50	2.22	17.50	0.90	23.50	0.59
5.67	1.93	11.67	2.13	17.67	0.89	23.67	0.58
5.83	2.08	11.83	2.04	17.83	0.88	23.83	0.58

CALIB | STANDHYD (1012)| ID= 1 DT= 1.0 min	Area (ha)= 26.89 | Total Imp(%)= 57.00 Dir. Conn.(%)= 49.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	15.33	11.56

Dep. Storage	(mm)=	1.00 5.00
Average Slope	(%)=	0.50 2.00
Length	(m)=	423.42 40.00
Mannings n	=	0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 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
0.017	0.59	6.017	2.27	12.017	1.97	18.02	0.86
0.033	0.59	6.033	2.27	12.033	1.97	18.03	0.86
0.050	0.59	6.050	2.27	12.050	1.97	18.05	0.86
0.067	0.59	6.067	2.27	12.067	1.97	18.07	0.86
0.083	0.59	6.083	2.27	12.083	1.97	18.08	0.86
0.100	0.59	6.100	2.27	12.100	1.97	18.10	0.86
0.117	0.59	6.117	2.27	12.117	1.97	18.12	0.86
0.133	0.59	6.133	2.27	12.133	1.97	18.13	0.86
0.150	0.59	6.150	2.27	12.150	1.97	18.15	0.86
0.167	0.59	6.167	2.27	12.167	1.97	18.17	0.86
0.183	0.60	6.183	2.50	12.183	1.89	18.18	0.85
0.200	0.60	6.200	2.50	12.200	1.89	18.20	0.85
0.217	0.60	6.217	2.50	12.217	1.89	18.22	0.85
0.233	0.60	6.233	2.50	12.233	1.89	18.23	0.85
0.250	0.60	6.250	2.50	12.250	1.89	18.25	0.85
0.267	0.60	6.267	2.50	12.267	1.89	18.27	0.85
0.283	0.60	6.283	2.50	12.283	1.89	18.28	0.85
0.300	0.60	6.300	2.50	12.300	1.89	18.30	0.85
0.317	0.60	6.317	2.50	12.317	1.89	18.32	0.85
0.333	0.60	6.333	2.50	12.333	1.89	18.33	0.85
0.350	0.61	6.350	2.77	12.350	1.83	18.35	0.84
0.367	0.61	6.367	2.77	12.367	1.83	18.37	0.84
0.383	0.61	6.383	2.77	12.383	1.83	18.38	0.84
0.400	0.61	6.400	2.77	12.400	1.83	18.40	0.84
0.417	0.61	6.417	2.77	12.417	1.83	18.42	0.84
0.433	0.61	6.433	2.77	12.433	1.83	18.43	0.84
0.450	0.61	6.450	2.77	12.450	1.83	18.45	0.84
0.467	0.61	6.467	2.77	12.467	1.83	18.47	0.84
0.483	0.61	6.483	2.77	12.483	1.83	18.48	0.84
0.500	0.61	6.500	2.77	12.500	1.83	18.50	0.84
0.517	0.63	6.517	3.13	12.517	1.77	18.52	0.83
0.533	0.63	6.533	3.13	12.533	1.77	18.53	0.83
0.550	0.63	6.550	3.13	12.550	1.77	18.55	0.83
0.567	0.63	6.567	3.13	12.567	1.77	18.57	0.83
0.583	0.63	6.583	3.13	12.583	1.77	18.58	0.83
0.600	0.63	6.600	3.13	12.600	1.77	18.60	0.83
0.617	0.63	6.617	3.13	12.617	1.77	18.62	0.83
0.633	0.63	6.633	3.13	12.633	1.77	18.63	0.83
0.650	0.63	6.650	3.13	12.650	1.77	18.65	0.83
0.667	0.63	6.667	3.13	12.667	1.77	18.67	0.83
0.683	0.64	6.683	3.59	12.683	1.71	18.68	0.82

0.700	0.64	6.700	3.59	12.700	1.71	18.70	0.82
0.717	0.64	6.717	3.59	12.717	1.71	18.72	0.82
0.733	0.64	6.733	3.59	12.733	1.71	18.73	0.82
0.750	0.64	6.750	3.59	12.750	1.71	18.75	0.82
0.767	0.64	6.767	3.59	12.767	1.71	18.77	0.82
0.783	0.64	6.783	3.59	12.783	1.71	18.78	0.82
0.800	0.64	6.800	3.59	12.800	1.71	18.80	0.82
0.817	0.64	6.817	3.59	12.817	1.71	18.82	0.82
0.833	0.64	6.833	3.59	12.833	1.71	18.83	0.82
0.850	0.65	6.850	4.23	12.850	1.66	18.85	0.80
0.867	0.65	6.867	4.23	12.867	1.66	18.87	0.80
0.883	0.65	6.883	4.23	12.883	1.66	18.88	0.80
0.900	0.65	6.900	4.23	12.900	1.66	18.90	0.80
0.917	0.65	6.917	4.23	12.917	1.66	18.92	0.80
0.933	0.65	6.933	4.23	12.933	1.66	18.93	0.80
0.950	0.65	6.950	4.23	12.950	1.66	18.95	0.80
0.967	0.65	6.967	4.23	12.967	1.66	18.97	0.80
0.983	0.65	6.983	4.23	12.983	1.66	18.98	0.80
1.000	0.65	7.000	4.23	13.000	1.66	19.00	0.80
1.017	0.67	7.017	5.15	13.017	1.61	19.02	0.79
1.033	0.67	7.033	5.15	13.033	1.61	19.03	0.79
1.050	0.67	7.050	5.15	13.050	1.61	19.05	0.79
1.067	0.67	7.067	5.15	13.067	1.61	19.07	0.79
1.083	0.67	7.083	5.15	13.083	1.61	19.08	0.79
1.100	0.67	7.100	5.15	13.100	1.61	19.10	0.79
1.117	0.67	7.117	5.15	13.117	1.61	19.12	0.79
1.133	0.67	7.133	5.15	13.133	1.61	19.13	0.79
1.150	0.67	7.150	5.15	13.150	1.61	19.15	0.79
1.167	0.67	7.167	5.15	13.167	1.61	19.17	0.79
1.183	0.68	7.183	6.61	13.183	1.56	19.18	0.78
1.200	0.68	7.200	6.61	13.200	1.56	19.20	0.78
1.217	0.68	7.217	6.61	13.217	1.56	19.22	0.78
1.233	0.68	7.233	6.61	13.233	1.56	19.23	0.78
1.250	0.68	7.250	6.61	13.250	1.56	19.25	0.78
1.267	0.68	7.267	6.61	13.267	1.56	19.27	0.78
1.283	0.68	7.283	6.61	13.283	1.56	19.28	0.78
1.300	0.68	7.300	6.61	13.300	1.56	19.30	0.78
1.317	0.68	7.317	6.61	13.317	1.56	19.32	0.78
1.333	0.68	7.333	6.61	13.333	1.56	19.33	0.78
1.350	0.70	7.350	9.24	13.350	1.51	19.35	0.77
1.367	0.70	7.367	9.24	13.367	1.51	19.37	0.77
1.383	0.70	7.383	9.24	13.383	1.51	19.38	0.77
1.400	0.70	7.400	9.24	13.400	1.51	19.40	0.77
1.417	0.70	7.417	9.24	13.417	1.51	19.42	0.77
1.433	0.70	7.433	9.24	13.433	1.51	19.43	0.77
1.450	0.70	7.450	9.24	13.450	1.51	19.45	0.77
1.467	0.70	7.467	9.24	13.467	1.51	19.47	0.77
1.483	0.70	7.483	9.24	13.483	1.51	19.48	0.77
1.500	0.70	7.500	9.25	13.500	1.51	19.50	0.77
1.517	0.71	7.517	15.26	13.517	1.47	19.52	0.76
1.533	0.71	7.533	15.26	13.533	1.47	19.53	0.76
1.550	0.71	7.550	15.26	13.550	1.47	19.55	0.76
1.567	0.71	7.567	15.26	13.567	1.47	19.57	0.76
1.583	0.71	7.583	15.26	13.583	1.47	19.58	0.76
1.600	0.71	7.600	15.26	13.600	1.47	19.60	0.76
1.617	0.71	7.617	15.26	13.617	1.47	19.62	0.76
1.633	0.71	7.633	15.26	13.633	1.47	19.63	0.76
1.650	0.71	7.650	15.26	13.650	1.47	19.65	0.76
1.667	0.71	7.667	15.33	13.667	1.47	19.67	0.76
1.683	0.73	7.683	40.09	13.683	1.43	19.68	0.75
1.700	0.73	7.700	40.09	13.700	1.43	19.70	0.75
1.717	0.73	7.717	40.09	13.717	1.43	19.72	0.75
1.733	0.73	7.733	40.09	13.733	1.43	19.73	0.75
1.750	0.73	7.750	40.09	13.750	1.43	19.75	0.75
1.767	0.73	7.767	40.09	13.767	1.43	19.77	0.75
1.783	0.73	7.783	40.09	13.783	1.43	19.78	0.75
1.800	0.73	7.800	40.09	13.800	1.43	19.80	0.75
1.817	0.73	7.817	40.09	13.817	1.43	19.82	0.75
1.833	0.73	7.833	40.39	13.833	1.43	19.83	0.75
1.850	0.75	7.850	142.97	13.850	1.40	19.85	0.74
1.867	0.75	7.867	142.97	13.867	1.40	19.87	0.74
1.883	0.75	7.883	142.97	13.883	1.40	19.88	0.74
1.900	0.75	7.900	142.97	13.900	1.40	19.90	0.74
1.917	0.75	7.917	142.97	13.917	1.40	19.92	0.74
1.933	0.75	7.933	142.97	13.933	1.40	19.93	0.74
1.950	0.75	7.950	142.97	13.950	1.40	19.95	0.74
1.967	0.75	7.967	142.97	13.967	1.40	19.97	0.74
1.983	0.75	7.983	142.97	13.983	1.40	19.98	0.74
2.000	0.75	8.000	142.71	14.000	1.40	20.00	0.74
2.017	0.77	8.017	53.15	14.017	1.36	20.02	0.74
2.033	0.77	8.033	53.15	14.033	1.36	20.03	0.74
2.050	0.77	8.050	53.15	14.050	1.36	20.05	0.74
2.067	0.77	8.067	53.15	14.067	1.36	20.07	0.74
2.083	0.77	8.083	53.15	14.083	1.36	20.08	0.74
2.100	0.77	8.100	53.15	14.100	1.36	20.10	0.74
2.117	0.77	8.117	53.15	14.117	1.36	20.12	0.74
2.133	0.77	8.133	53.15	14.133	1.36	20.13	0.74
2.150	0.77	8.150	53.15	14.150	1.36	20.15	0.74
2.167	0.77	8.167	53.08	14.167	1.36	20.17	0.74
2.183	0.79	8.183	27.09	14.183	1.33	20.18	0.73
2.200	0.79	8.200	27.09	14.200	1.33	20.20	0.73
2.217	0.79	8.217	27.09	14.217	1.33	20.22	0.73
2.233	0.79	8.233	27.09	14.233	1.33	20.23	0.73
2.250	0.79	8.250	27.09	14.250	1.33	20.25	0.73
2.267	0.79	8.267	27.09	14.267	1.33	20.27	0.73
2.283	0.79	8.283	27.09	14.283	1.33	20.28	0.73
2.300	0.79	8.300	27.09	14.300	1.33	20.30	0.73
2.317	0.79	8.317	27.09	14.317	1.33	20.32	0.73
2.333	0.79	8.333	27.07	14.333	1.33	20.33	0.73
2.350	0.81	8.350	17.64	14.350	1.30	20.35	0.72
2.367	0.81	8.367	17.64	14.367	1.30	20.37	0.72
2.383	0.81	8.383	17.64	14.383	1.30	20.38	0.72
2.400	0.81	8.400	17.64	14.400	1.30	20.40	0.72
2.417	0.81	8.417	17.64	14.417	1.30	20.42	0.72
2.433	0.81	8.433	17.64	14.433	1.30	20.43	0.72
2.450	0.81	8.450	17.64	14.450	1.30	20.45	0.72
2.467	0.81	8.467	17.64	14.467	1.30	20.47	0.72
2.483	0.81	8.483	17.64	14.483	1.30	20.48	0.72
2.500	0.81	8.500	17.63	14.500	1.30	20.50	0.72
2.517	0.83	8.517	12.93	14.517	1.27	20.52	0.71
2.533	0.83	8.533	12.93	14.533	1.27	20.53	0.71
2.550	0.83	8.550	12.93	14.550	1.27	20.55	0.71
2.567	0.83	8.567	12.93	14.567	1.27	20.57	0.71
2.583	0.83	8.583	12.93	14.583	1.27	20.58	0.71
2.600	0.83	8.600	12.93	14.600	1.27	20.60	0.71
2.617	0.83	8.617	12.93	14.617	1.27	20.62	0.71
2.633	0.83	8.633	12.93	14.633	1.27	20.63	0.71
2.650	0.83	8.650	12.93	14.650	1.27	20.65	0.71
2.667	0.83	8.667	12.92	14.667	1.27	20.67	0.71
2.683	0.86	8.683	10.15	14.683	1.24	20.68	0.70
2.700	0.86	8.700	10.15	14.700	1.24	20.70	0.70
2.717	0.86	8.717	10.15	14.717	1.24	20.72	0.70
2.733	0.86	8.733	10.15	14.733	1.24	20.73	0.70
2.750	0.86	8.750	10.15	14.750	1.24	20.75	0.70
2.767	0.86	8.767	10.15	14.767	1.24	20.77	0.70
2.783	0.86	8.783	10.15	14.783	1.24	20.78	0.70
2.800	0.86	8.800	10.15	14.800	1.24	20.80	0.70
2.817	0.86	8.817	10.15	14.817	1.24	20.82	0.70
2.833	0.86	8.833	10.15	14.833	1.24	20.83	0.70
2.850	0.88	8.850	8.35	14.850	1.21	20.85	0.69
2.867	0.88	8.867	8.35	14.867	1.21	20.87	0.69
2.883	0.88	8.883	8.35	14.883	1.21	20.88	0.69
2.900	0.88	8.900	8.35	14.900	1.21	20.90	0.69
2.917	0.88	8.917	8.35	14.917	1.21	20.92	0.69
2.933	0.88	8.933	8.35	14.933	1.21	20.93	0.69
2.950	0.88	8.950	8.35	14.950	1.21	20.95	0.69
2.967	0.88	8.967	8.35	14.967	1.21	20.97	0.69
2.983	0.88	8.983	8.35	14.983	1.21	20.98	0.69
3.000	0.88	9.000	8.34	15.000	1.21	21.00	0.69
3.017	0.91	9.017	7.08	15.017	1.19	21.02	0.69
3.033	0.91	9.033	7.08	15.033	1.19	21.03	0.69
3.050	0.91	9.050	7.08	15.050	1.19	21.05	0.69
3.067	0.91	9.067	7.08	15.067	1.19	21.07	0.69
3.083	0.91	9.083	7.08	15.083	1.19	21.08	0.69
3.100	0.91	9.100	7.08	15.100	1.19	21.10	0.69
3.117	0.91	9.117	7.08	15.117	1.19	21.12	0.69
3.133	0.91	9.133	7.08	15.133	1.19	21.13	0.69
3.150	0.91	9.150	7.08	15.150	1.19	21.15	0.69
3.167	0.91	9.167	7.08	15.167	1.19	21.17	0.69
3.183	0.94	9.183	6.15	15.183	1.16	21.18	0.68
3.200	0.94	9.200	6.15	15.200	1.16	21.20	0.68
3.217	0.94	9.217	6.15	15.217	1.16	21.22	0.68
3.233	0.94	9.233	6.15	15.233	1.16	21.23	0.68
3.250	0.94	9.250	6.15	15.250	1.16	21.25	0.68
3.267	0.94	9.267	6.15	15.267	1.16	21.27	0.68
3.283	0.94	9.283	6.15	15.283	1.16	21.28	0.68
3.300	0.94	9.300	6.15	15.300	1.16	21.30	0.68
3.317	0.94	9.317	6.15	15.317	1.16	21.32	0.68
3.333	0.94	9.333	6.15	15.333	1.16	21.33	0.68
3.350	0.97	9.350	5.44	15.350	1.14	21.35	0.67
3.367	0.97	9.367	5.44	15.367	1.14	21.37	0.67
3.383	0.97	9.383	5.44	15.383	1.14	21.38	0.67
3.400	0.97	9.400	5.44	15.400	1.14	21.40	0.67
3.417	0.97	9.417	5.44	15.417	1.14	21.42	0.67
3.433	0.97	9.433	5.44	15.433	1.14	21.43	0.67
3.450	0.97	9.450	5.44	15.450	1.14	21.45	0.67
3.467	0.97	9.467	5.44	15.467	1.14	21.47	0.67
3.483	0.97	9.483	5.44	15.483	1.14	21.48	0.67
3.500	0.97	9.500	5.44	15.500	1.14	21.50	0.67
3.517	1.00	9.517	4.88	15.517	1.12	21.52	0.66
3.533	1.00	9.533	4.88	15.533	1.12	21.53	0.66
3.550	1.00	9.550	4.88	15.550	1.12	21.55	0.66
3.567	1.00	9.567	4.88	15.567	1.12	21.57	0.66
3.583	1.00	9.583	4.88	15.583	1.12	21.58	0.66
3.600	1.00	9.600	4.88	15.600	1.12	21.60	0.66
3.617	1.00	9.617	4.88	15.617	1.12	21.62	0.66
3.633	1.00	9.633	4.88	15.633	1.12	21.63	0.66
3.650	1.00	9.650	4.88	15.650	1.12	21.65	0.66
3.667	1.00	9.667	4.87	15.667	1.12	21.67	0.66
3.683	1.04	9.683	4.42	15.683	1.09	21.68	0.66
3.700	1.04	9.700	4.42	15.700	1.09	21.70	0.66
3.717	1.04	9.717	4.42	15.717	1.09	21.72	0.66
3.733	1.04	9.733	4.42	15.733	1.09	21.73	0.66
3.750	1.04	9.750	4.42	15.750	1.09	21.75	0.66
3.767	1.04	9.767	4.42	15.767	1.09	21.77	0.66
3.783	1.04	9.783	4.42	15.783	1.09	21.78	0.66
3.800	1.04	9.800	4.42	15.800	1.09	21.80	0.66
3.817	1.04	9.817	4.42	15.817	1.09	21.82	0.66
3.833	1.04	9.833	4.42	15.833	1.09	21.83	0.66
3.850	1.08	9.850	4.05	15.850	1.07	21.85	0.65
3.867	1.08	9.867	4.05	15.867	1.07	21.87	0.65
3.883	1.08	9.883	4.05	15.883	1.07	21.88	0.65
3.900	1.08	9.900	4.05	15.900	1.07	21.90	0.65
3.917	1.08	9.917	4.05	15.917	1.07	21.92	0.65
3.933	1.08	9.933	4.05	15.933	1.07	21.93	0.65
3.950	1.08	9.950	4.05	15.950	1.07	21.95	0.65
3.967	1.08	9.967	4.05	15.967	1.07	21.97	0.65
3.983	1.08	9.983	4.05	15.983	1.07	21.98	0.65
4.000	1.08	10.000	4.04	16.000	1.07	22.00	0.65
4.017	1.12	10.017	3.73	16.017	1.05	22.02	0.64
4.033	1.12	10.033	3.73	16.033	1.05	22.03	0.64
4.050	1.12	10.050	3.73	16.050	1.05	22.05	0.64
4.067	1.12	10.067	3.73	16.067	1.05	22.07	0.64
4.083	1.12	10.083	3.73	16.083	1.05	22.08	0.64
4.100	1.12	10.100	3.73	16.100	1.05	22.10	0.64
4.117	1.12	10.117	3.73	16.117	1.05	22.12	0.64
4.133	1.12	10.133	3.73	16.133	1.05	22.13	0.64
4.150	1.12	10.150	3.73	16.150	1.05	22.15	0.64
4.167	1.12	10.167	3.73	16.167	1.05	22.17	0.64
4.183	1.17	10.183	3.46	16.183	1.03	22.18	0.64
4.200	1.17	10.200	3.46	16.200	1.03	22.20	0.64
4.217	1.17	10.217	3.46	16.217	1.03	22.22	0.64
4.233	1.17	10.233	3.46	16.233	1.03	22.23	0.64
4.250	1.17	10.250	3.46	16.250	1.03	22.25	0.64
4.267	1.17	10.267	3.46	16.267	1.03	22.27	0.64
4.283	1.17	10.283	3.46	16.283	1.03	22.28	0.64
4.300	1.17	10.300	3.46	16.300	1.03	22.30	0.64
4.317	1.17	10.317	3.46	16.317	1.03	22.32	0.64
4.333	1.17	10.333	3.46	16.333	1.03	22.33	0.64
4.350	1.22	10.350	3.23	16.350	1.02	22.35	0.63
4.367	1.22	10.367	3.23	16.367	1.02	22.37	0.63
4.383	1.22	10.383	3.23	16.383	1.02	22.38	0.63
4.400	1.22	10.400	3.23	16.400	1.02	22.40	0.63
4.417	1.22	10.417	3.23	16.417	1.02	22.42	0.63
4.433	1.22	10.433	3.23	16.433	1.02	22.43	0.63
4.450	1.22	10.450	3.23	16.450	1.02	22.45	0.63
4.467	1.22	10.467	3.23	16.467	1.02	22.47	0.63
4.483	1.22	10.483	3.23	16.483	1.02	22.48	0.63
4.500	1.22	10.500	3.23	16.500	1.02	22.50	0.63
4.517	1.28	10.517	3.03	16.517	1.00	22.52	0.62
4.533	1.28	10.533	3.03	16.533	1.00	22.53	0.62
4.550	1.28	10.550	3.03	16.550	1.00	22.55	0.62
4.567	1.28	10.567	3.03	16.567	1.00	22.57	0.62
4.583	1.28	10.583	3.03	16.583	1.00	22.58	0.62
4.600	1.28	10.600	3.03	16.600	1.00	22.60	0.62
4.617	1.28	10.617	3.03	16.617	1.00	22.62	0.62
4.633	1.28	10.633	3.03	16.633	1.00	22.63	0.62
4.650	1.28	10.650	3.03	16.650	1.00	22.65	0.62
4.667	1.28	10.667	3.03	16.667	1.00	22.67	0.62
4.683	1.34	10.683	2.86	16.683	0.98	22.68	0.62
4.700	1.34	10.700	2.86	16.700	0.98	22.70	0.62
4.717	1.34	10.717	2.86	16.717	0.98	22.72	0.62
4.733	1.34	10.733	2.86	16.733	0.98	22.73	0.62
4.750	1.34	10.750	2.86	16.750	0.98	22.75	0.62
4.767	1.34	10.767	2.86	16.767	0.98	22.77	0.62
4.783	1.34	10.783	2.86	16.783	0.98	22.78	0.62
4.800	1.34	10.800	2.86	16.800	0.98	22.80	0.62
4.817	1.34	10.817	2.86	16.817	0.98	22.82	0.62
4.833	1.34	10.833	2.86	16.833	0.98	22.83	0.62
4.850	1.41	10.850	2.70	16.850	0.96	22.85	0.61
4.867	1.41	10.867	2.70	16.867	0.96	22.87	0.61
4.883	1.41	10.883	2.70	16.883	0.96	22.88	0.61
4.900	1.41	10.900	2.70	16.900	0.96	22.90	0.61
4.917	1.41	10.917	2.70	16.917	0.96	22.92	0.61
4.933	1.41	10.933	2.70	16.933	0.96	22.93	0.61
4.950	1.41	10.950	2.70	16.950	0.96	22.95	0.61
4.967	1.41	10.967	2.70	16.967	0.96	22.97	0.61
4.983	1.41	10.983	2.70	16.983	0.96	22.98	0.61
5.000	1.41	11.000	2.70	17.000	0.96	23.00	0.61
5.017	1.49	11.017	2.56	17.017	0.95	23.02	0.60
5.033	1.49	11.033	2.56	17.033	0.95	23.03	0.60
5.050	1.49	11.050	2.56	17.050	0.95	23.05	0.60
5.067	1.49	11.067	2.56	17.067	0.95	23.07	0.60
5.083	1.49	11.083	2.56	17.083	0.95	23.08	0.60
5.100	1.49	11.100	2.56	17.100	0.95	23.10	0.60
5.117	1.49	11.117	2.56	17.117	0.95	23.12	0.60
5.133	1.49	11.133	2.56	17.133	0.95	23.13	0.60
5.150	1.49	11.150	2.56	17.150	0.95	23.15	0.60
5.167	1.49	11.167	2.56	17.167	0.95	23.17	0.60
5.183	1.58	11.183	2.44	17.183	0.93	23.18	0.60
5.200	1.58	11.200	2.44	17.200	0.93	23.20	0.60
5.217	1.58	11.217	2.44	17.217	0.93	23.22	0.60
5.233	1.58	11.233	2.44	17.233	0.93	23.23	0.60
5.250	1.58	11.250	2.44	17.250	0.93	23.25	0.60
5.267	1.58	11.267	2.44	17.267	0.93	23.27	0.60
5.283	1.58	11.283	2.44	17.283	0.93	23.28	0.60
5.300	1.58	11.300	2.44	17.300	0.93	23.30	0.60
5.317	1.58	11.317	2.44	17.317	0.93	23.32	0.60
5.333	1.58	11.333	2.44	17.333	0.93	23.33	0.60
5.350	1.68	11.350	2.32	17.350	0.92	23.35	0.59
5.367	1.68	11.367	2.32	17.367	0.92	23.37	0.59
5.383	1.68	11.383	2.32	17.383	0.92	23.38	0.59
5.400	1.68	11.400	2.32	17.400	0.92	23.40	0.59
5.417	1.68	11.417	2.32	17.417	0.92	23.42	0.59
5.433	1.68	11.433	2.32	17.433	0.92	23.43	0.59
5.450	1.68	11.450	2.32	17.450	0.92	23.45	0.59
5.467	1.68	11.467	2.32	17.467	0.92	23.47	0.59
5.483	1.68	11.483	2.32	17.483	0.92	23.48	0.59
5.500	1.68	11.500	2.32	17.500	0.92	23.50	0.59
5.517	1.79	11.517	2.22	17.517	0.90	23.52	0.59
5.533	1.79	11.533	2.22	17.533	0.90	23.53	0.59
5.550	1.79	11.550	2.22	17.550	0.90	23.55	0.59
5.567	1.79	11.567	2.22	17.567	0.90	23.57	0.59
5.583	1.79	11.583	2.22	17.583	0.90	23.58	0.59
5.600	1.79	11.600	2.22	17.600	0.90	23.60	0.59
5.617	1.79	11.617	2.22	17.617	0.90	23.62	0.59
5.633	1.79	11.633	2.22	17.633	0.90	23.63	0.59
5.650	1.79	11.650	2.22	17.650	0.90	23.65	0.59
5.667	1.80	11.667	2.22	17.667	0.90	23.67	0.59
5.683	1.93	11.683	2.13	17.683	0.89	23.68	0.58
5.700	1.93	11.700	2.13	17.700	0.89	23.70	0.58
5.717	1.93	11.717	2.13	17.717	0.89	23.72	0.58
5.733	1.93	11.733	2.13	17.733	0.89	23.73	0.58
5.750	1.93	11.750	2.13	17.750	0.89	23.75	0.58
5.767	1.93	11.767	2.13	17.767	0.89	23.77	0.58
5.783	1.93	11.783	2.13	17.783	0.89	23.78	0.58
5.800	1.93	11.800	2.13	17.800	0.89	23.80	0.58
5.817	1.93	11.817	2.13	17.817	0.89	23.82	0.58
5.833	1.93	11.833	2.13	17.833	0.89	23.83	0.58
5.850	2.08	11.850	2.04	17.850	0.88	23.85	0.58
5.867	2.08	11.867	2.04	17.867	0.88	23.87	0.58
5.883	2.08	11.883	2.04	17.883	0.88	23.88	0.58

5.900	2.08	11.900	2.04	17.900	0.88	23.90	0.58
5.917	2.08	11.917	2.04	17.917	0.88	23.92	0.58
5.933	2.08	11.933	2.04	17.933	0.88	23.93	0.58
5.950	2.08	11.950	2.04	17.950	0.88	23.95	0.58
5.967	2.08	11.967	2.04	17.967	0.88	23.97	0.58
5.983	2.08	11.983	2.04	17.983	0.88	23.98	0.58
6.000	2.08	12.000	2.04	18.000	0.88	24.00	0.58

Max.Eff.Inten.(mm/hr)=	142.97	35.99	
over (min)	6.00	13.00	
Storage Coeff. (min)=	6.48 (ii)	12.29 (ii)	
Unit Hyd. Tpeak (min)=	6.00	13.00	
Unit Hyd. peak (cms)=	0.18	0.09	
			TOTALS
PEAK FLOW (cms)=	4.07	0.68	4.497 (iii)
TIME TO PEAK (hrs)=	8.03	8.18	8.05
RUNOFF VOLUME (mm)=	88.95	23.14	55.39
TOTAL RAINFALL (mm)=	89.97	89.97	89.97
RUNOFF COEFFICIENT =	0.99	0.26	0.62

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 48.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

DUHYD (0034)
Inlet Cap.= 3.057
#of Inlets= 1
Total(cms)= 3.1

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
TOTAL HYD.(ID= 1):	26.89	4.50	8.05	55.39
MAJOR SYS.(ID= 2):	1.45	1.44	8.05	55.39
MINOR SYS.(ID= 3):	25.44	3.06	7.95	55.39

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

Junction Command(0033)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 9(0034)	25.44	3.06	7.95	55.39
OUTFLOW: ID= 2(0033)	25.44	3.06	7.95	55.39

CALIB
STANDHYD (1052)
ID= 1 DT= 1.0 min

Area (ha)= 1.95
Total Imp(%)= 30.00 Dir. Conn.(%)= 26.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.58	1.36
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.50	2.00
Length (m)=	113.90	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 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
0.017	0.59	6.017	2.27	12.017	1.97	18.02	0.86
0.033	0.59	6.033	2.27	12.033	1.97	18.03	0.86
0.050	0.59	6.050	2.27	12.050	1.97	18.05	0.86
0.067	0.59	6.067	2.27	12.067	1.97	18.07	0.86
0.083	0.59	6.083	2.27	12.083	1.97	18.08	0.86
0.100	0.59	6.100	2.27	12.100	1.97	18.10	0.86
0.117	0.59	6.117	2.27	12.117	1.97	18.12	0.86
0.133	0.59	6.133	2.27	12.133	1.97	18.13	0.86
0.150	0.59	6.150	2.27	12.150	1.97	18.15	0.86
0.167	0.59	6.167	2.27	12.167	1.97	18.17	0.86
0.183	0.60	6.183	2.50	12.183	1.89	18.18	0.85
0.200	0.60	6.200	2.50	12.200	1.89	18.20	0.85
0.217	0.60	6.217	2.50	12.217	1.89	18.22	0.85
0.233	0.60	6.233	2.50	12.233	1.89	18.23	0.85
0.250	0.60	6.250	2.50	12.250	1.89	18.25	0.85
0.267	0.60	6.267	2.50	12.267	1.89	18.27	0.85
0.283	0.60	6.283	2.50	12.283	1.89	18.28	0.85
0.300	0.60	6.300	2.50	12.300	1.89	18.30	0.85
0.317	0.60	6.317	2.50	12.317	1.89	18.32	0.85
0.333	0.60	6.333	2.50	12.333	1.89	18.33	0.85
0.350	0.61	6.350	2.77	12.350	1.83	18.35	0.84
0.367	0.61	6.367	2.77	12.367	1.83	18.37	0.84
0.383	0.61	6.383	2.77	12.383	1.83	18.38	0.84
0.400	0.61	6.400	2.77	12.400	1.83	18.40	0.84
0.417	0.61	6.417	2.77	12.417	1.83	18.42	0.84
0.433	0.61	6.433	2.77	12.433	1.83	18.43	0.84
0.450	0.61	6.450	2.77	12.450	1.83	18.45	0.84
0.467	0.61	6.467	2.77	12.467	1.83	18.47	0.84
0.483	0.61	6.483	2.77	12.483	1.83	18.48	0.84
0.500	0.61	6.500	2.77	12.500	1.83	18.50	0.84
0.517	0.63	6.517	3.13	12.517	1.77	18.52	0.83
0.533	0.63	6.533	3.13	12.533	1.77	18.53	0.83
0.550	0.63	6.550	3.13	12.550	1.77	18.55	0.83
0.567	0.63	6.567	3.13	12.567	1.77	18.57	0.83
0.583	0.63	6.583	3.13	12.583	1.77	18.58	0.83
0.600	0.63	6.600	3.13	12.600	1.77	18.60	0.83
0.617	0.63	6.617	3.13	12.617	1.77	18.62	0.83
0.633	0.63	6.633	3.13	12.633	1.77	18.63	0.83
0.650	0.63	6.650	3.13	12.650	1.77	18.65	0.83
0.667	0.63	6.667	3.13	12.667	1.77	18.67	0.83
0.683	0.64	6.683	3.59	12.683	1.71	18.68	0.82
0.700	0.64	6.700	3.59	12.700	1.71	18.70	0.82
0.717	0.64	6.717	3.59	12.717	1.71	18.72	0.82
0.733	0.64	6.733	3.59	12.733	1.71	18.73	0.82
0.750	0.64	6.750	3.59	12.750	1.71	18.75	0.82
0.767	0.64	6.767	3.59	12.767	1.71	18.77	0.82
0.783	0.64	6.783	3.59	12.783	1.71	18.78	0.82
0.800	0.64	6.800	3.59	12.800	1.71	18.80	0.82
0.817	0.64	6.817	3.59	12.817	1.71	18.82	0.82
0.833	0.64	6.833	3.59	12.833	1.71	18.83	0.82
0.850	0.65	6.850	4.23	12.850	1.66	18.85	0.80
0.867	0.65	6.867	4.23	12.867	1.66	18.87	0.80
0.883	0.65	6.883	4.23	12.883	1.66	18.88	0.80
0.900	0.65	6.900	4.23	12.900	1.66	18.90	0.80
0.917	0.65	6.917	4.23	12.917	1.66	18.92	0.80
0.933	0.65	6.933	4.23	12.933	1.66	18.93	0.80
0.950	0.65	6.950	4.23	12.950	1.66	18.95	0.80
0.967	0.65	6.967	4.23	12.967	1.66	18.97	0.80
0.983	0.65	6.983	4.23	12.983	1.66	18.98	0.80
1.000	0.65	7.000	4.23	13.000	1.66	19.00	0.80
1.017	0.67	7.017	5.15	13.017	1.61	19.02	0.79
1.033	0.67	7.033	5.15	13.033	1.61	19.03	0.79
1.050	0.67	7.050	5.15	13.050	1.61	19.05	0.79
1.067	0.67	7.067	5.15	13.067	1.61	19.07	0.79
1.083	0.67	7.083	5.15	13.083	1.61	19.08	0.79
1.100	0.67	7.100	5.15	13.100	1.61	19.10	0.79
1.117	0.67	7.117	5.15	13.117	1.61	19.12	0.79
1.133	0.67	7.133	5.15	13.133	1.61	19.13	0.79
1.150	0.67	7.150	5.15	13.150	1.61	19.15	0.79
1.167	0.67	7.167	5.15	13.167	1.61	19.17	0.79
1.183	0.68	7.183	6.61	13.183	1.56	19.18	0.78
1.200	0.68	7.200	6.61	13.200	1.56	19.20	0.78
1.217	0.68	7.217	6.61	13.217	1.56	19.22	0.78
1.233	0.68	7.233	6.61	13.233	1.56	19.23	0.78
1.250	0.68	7.250	6.61	13.250	1.56	19.25	0.78
1.267	0.68	7.267	6.61	13.267	1.56	19.27	0.78
1.283	0.68	7.283	6.61	13.283	1.56	19.28	0.78
1.300	0.68	7.300	6.61	13.300	1.56	19.30	0.78
1.317	0.68	7.317	6.61	13.317	1.56	19.32	0.78
1.333	0.68	7.333	6.61	13.333	1.56	19.33	0.78
1.350	0.70	7.350	9.24	13.350	1.51	19.35	0.77
1.367	0.70	7.367	9.24	13.367	1.51	19.37	0.77
1.383	0.70	7.383	9.24	13.383	1.51	19.38	0.77
1.400	0.70	7.400	9.24	13.400	1.51	19.40	0.77
1.417	0.70	7.417	9.24	13.417	1.51	19.42	0.77
1.433	0.70	7.433	9.24	13.433	1.51	19.43	0.77
1.450	0.70	7.450	9.24	13.450	1.51	19.45	0.77
1.467	0.70	7.467	9.24	13.467	1.51	19.47	0.77
1.483	0.70	7.483	9.24	13.483	1.51	19.48	0.77
1.500	0.70	7.500	9.25	13.500	1.51	19.50	0.77
1.517	0.71	7.517	15.26	13.517	1.47	19.52	0.76
1.533	0.71	7.533	15.26	13.533	1.47	19.53	0.76
1.550	0.71	7.550	15.26	13.550	1.47	19.55	0.76
1.567	0.71	7.567	15.26	13.567	1.47	19.57	0.76
1.583	0.71	7.583	15.26	13.583	1.47	19.58	0.76
1.600	0.71	7.600	15.26	13.600	1.47	19.60	0.76
1.617	0.71	7.617	15.26	13.617	1.47	19.62	0.76
1.633	0.71	7.633	15.26	13.633	1.47	19.63	0.76
1.650	0.71	7.650	15.26	13.650	1.47	19.65	0.76
1.667	0.71	7.667	15.33	13.667	1.47	19.67	0.76
1.683	0.73	7.683	40.09	13.683	1.43	19.68	0.75
1.700	0.73	7.700	40.09	13.700	1.43	19.70	0.75
1.717	0.73	7.717	40.09	13.717	1.43	19.72	0.75
1.733	0.73	7.733	40.09	13.733	1.43	19.73	0.75
1.750	0.73	7.750	40.09	13.750	1.43	19.75	0.75
1.767	0.73	7.767	40.09	13.767	1.43	19.77	0.75
1.783	0.73	7.783	40.09	13.783	1.43	19.78	0.75
1.800	0.73	7.800	40.09	13.800	1.43	19.80	0.75
1.817	0.73	7.817	40.09	13.817	1.43	19.82	0.75
1.833	0.73	7.833	40.39	13.833	1.43	19.83	0.75
1.850	0.75	7.850	142.97	13.850	1.40	19.85	0.74
1.867	0.75	7.867	142.97	13.867	1.40	19.87	0.74
1.883	0.75	7.883	142.97	13.883	1.40	19.88	0.74
1.900	0.75	7.900	142.97	13.900	1.40	19.90	0.74
1.917	0.75	7.917	142.97	13.917	1.40	19.92	0.74
1.933	0.75	7.933	142.97	13.933	1.40	19.93	0.74
1.950	0.75	7.950	142.97	13.950	1.40	19.95	0.74
1.967	0.75	7.967	142.97	13.967	1.40	19.97	0.74
1.983	0.75	7.983	142.97	13.983	1.40	19.98	0.74
2.000	0.75	8.000	142.71	14.000	1.40	20.00	0.74
2.017	0.77	8.017	53.15	14.017	1.36	20.02	0.74
2.033	0.77	8.033	53.15	14.033	1.36	20.03	0.74
2.050	0.77	8.050	53.15	14.050	1.36	20.05	0.74
2.067	0.77	8.067	53.15	14.067	1.36	20.07	0.74
2.083	0.77	8.083	53.15	14.083	1.36	20.08	0.74
2.100	0.77	8.100	53.15	14.100	1.36	20.10	0.74
2.117	0.77	8.117	53.15	14.117	1.36	20.12	0.74
2.133	0.77	8.133	53.15	14.133	1.36	20.13	0.74
2.150	0.77	8.150	53.15	14.150	1.36	20.15	0.74
2.167	0.77	8.167	53.08	14.167	1.36	20.17	0.74
2.183	0.79	8.183	27.09	14.183	1.33	20.18	0.73
2.200	0.79	8.200	27.09	14.200	1.33	20.20	0.73
2.217	0.79	8.217	27.09	14.217	1.33	20.22	0.73
2.233	0.79	8.233	27.09	14.233	1.33	20.23	0.73
2.250	0.79	8.250	27.09	14.250	1.33	20.25	0.73
2.267	0.79	8.267	27.09	14.267	1.33	20.27	0.73
2.283	0.79	8.283	27.09	14.283	1.33	20.28	0.73
2.300	0.79	8.300	27.09	14.300	1.33	20.30	0.73
2.317	0.79	8.317	27.09	14.317	1.33	20.32	0.73
2.333	0.79	8.333	27.07	14.333	1.33	20.33	0.73
2.350	0.81	8.350	17.64	14.350	1.30	20.35	0.72
2.367	0.81	8.367	17.64	14.367	1.30	20.37	0.72
2.383	0.81	8.383	17.64	14.383	1.30	20.38	0.72
2.400	0.81	8.400	17.64	14.400	1.30	20.40	0.72
2.417	0.81	8.417	17.64	14.417	1.30	20.42	0.72
2.433	0.81	8.433	17.64	14.433	1.30	20.43	0.72
2.450	0.81	8.450	17.64	14.450	1.30	20.45	0.72
2.467	0.81	8.467	17.64	14.467	1.30	20.47	0.72
2.483	0.81	8.483	17.64	14.483	1.30	20.48	0.72
2.500	0.81	8.500	17.63	14.500	1.30	20.50	0.72
2.517	0.83	8.517	12.93	14.517	1.27	20.52	0.71
2.533	0.83	8.533	12.93	14.533	1.27	20.53	0.71
2.550	0.83	8.550	12.93	14.550	1.27	20.55	0.71
2.567	0.83	8.567	12.93	14.567	1.27	20.57	0.71
2.583	0.83	8.583	12.93	14.583	1.27	20.58	0.71
2.600	0.83	8.600	12.93	14.600	1.27	20.60	0.71
2.617	0.83	8.617	12.93	14.617	1.27	20.62	0.71
2.633	0.83	8.633	12.93	14.633	1.27	20.63	0.71
2.650	0.83	8.650	12.93	14.650	1.27	20.65	0.71
2.667	0.83	8.667	12.92	14.667	1.27	20.67	0.71
2.683	0.86	8.683	10.15	14.683	1.24	20.68	0.70
2.700	0.86	8.700	10.15	14.700	1.24	20.70	0.70
2.717	0.86	8.717	10.15	14.717	1.24	20.72	0.70
2.733	0.86	8.733	10.15	14.733	1.24	20.73	0.70
2.750	0.86	8.750	10.15	14.750	1.24	20.75	0.70
2.767	0.86	8.767	10.15	14.767	1.24	20.77	0.70
2.783	0.86	8.783	10.15	14.783	1.24	20.78	0.70
2.800	0.86	8.800	10.15	14.800	1.24	20.80	0.70
2.817	0.86	8.817	10.15	14.817	1.24	20.82	0.70
2.833	0.86	8.833	10.15	14.833	1.24	20.83	0.70
2.850	0.88	8.850	8.35	14.850	1.21	20.85	0.69
2.867	0.88	8.867	8.35	14.867	1.21	20.87	0.69
2.883	0.88	8.883	8.35	14.883	1.21	20.88	0.69
2.900	0.88	8.900	8.35	14.900	1.21	20.90	0.69
2.917	0.88	8.917	8.35	14.917	1.21	20.92	0.69
2.933	0.88	8.933	8.35	14.933	1.21	20.93	0.69
2.950	0.88	8.950	8.35	14.950	1.21	20.95	0.69
2.967	0.88	8.967	8.35	14.967	1.21	20.97	0.69
2.983	0.88	8.983	8.35	14.983	1.21	20.98	0.69
3.000	0.88	9.000	8.34	15.000	1.21	21.00	0.69
3.017	0.91	9.017	7.08	15.017	1.19	21.02	0.69
3.033	0.91	9.033	7.08	15.033	1.19	21.03	0.69
3.050	0.91	9.050	7.08	15.050	1.19	21.05	0.69
3.067	0.91	9.067	7.08	15.067	1.19	21.07	0.69
3.083	0.91	9.083	7.08	15.083	1.19	21.08	0.69
3.100	0.91	9.100	7.08	15.100	1.19	21.10	0.69
3.117	0.91	9.117	7.08	15.117	1.19	21.12	0.69
3.133	0.91	9.133	7.08	15.133	1.19	21.13	0.69
3.150	0.91	9.150	7.08	15.150	1.19	21.15	0.69
3.167	0.91	9.167	7.08	15.167	1.19	21.17	0.69
3.183	0.94	9.183	6.15	15.183	1.16	21.18	0.68
3.200	0.94	9.200	6.15	15.200	1.16	21.20	0.68
3.217	0.94	9.217	6.15	15.217	1.16	21.22	0.68
3.233	0.94	9.233	6.15	15.233	1.16	21.23	0.68
3.250	0.94	9.250	6.15	15.250	1.16	21.25	0.68
3.267	0.94	9.267	6.15	15.267	1.16	21.27	0.68
3.283	0.94	9.283	6.15	15.283	1.16	21.28	0.68
3.300	0.94	9.300	6.15	15.300	1.16	21.30	0.68
3.317	0.94	9.317	6.15	15.317	1.16	21.32	0.68
3.333	0.94	9.333	6.15	15.333	1.16	21.33	0.68
3.350	0.97	9.350	5.44	15.350	1.14	21.35	0.67
3.367	0.97	9.367	5.44	15.367	1.14	21.37	0.67
3.383	0.97	9.383	5.44	15.383	1.14	21.38	0.67
3.400	0.97	9.400	5.44	15.400	1.14	21.40	0.67
3.417	0.97	9.417	5.44	15.417	1.14	21.42	0.67
3.433	0.97	9.433	5.44	15.433	1.14	21.43	0.67
3.450	0.97	9.450	5.44	15.450	1.14	21.45	0.67
3.467	0.97	9.467	5.44	15.467	1.14	21.47	0.67
3.483	0.97	9.483	5.44	15.483	1.14	21.48	0.67
3.500	0.97	9.500	5.44	15.500	1.14	21.50	0.67
3.517	1.00	9.517	4.88	15.517	1.12	21.52	0.66
3.533	1.00	9.533	4.88	15.533	1.12	21.53	0.66
3.550	1.00	9.550	4.88	15.550	1.12	21.55	0.66
3.567	1.00	9.567	4.88	15.567	1.12	21.57	0.66
3.583	1.00	9.583	4.88	15.583	1.12	21.58	0.66
3.600	1.00	9.600	4.88	15.600	1.12	21.60	0.66
3.617	1.00	9.617	4.88	15.617	1.12	21.62	0.66
3.633	1.00	9.633	4.88	15.633	1.12	21.63	0.66
3.650	1.00	9.650	4.88	15.650	1.12	21.65	0.66
3.667	1.00	9.667	4.87	15.667	1.12	21.67	0.66
3.683	1.04	9.683	4.42	15.683	1.09	21.68	0.66
3.700	1.04	9.700	4.42	15.700	1.09	21.70	0.66
3.717	1.04	9.717	4.42	15.717	1.09	21.72	0.66
3.733	1.04	9.733	4.42	15.733	1.09	21.73	0.66
3.750	1.04	9.750	4.42	15.750	1.09	21.75	0.66
3.767	1.04	9.767	4.42	15.767	1.09	21.77	0.66
3.783	1.04	9.783	4.42	15.783	1.09	21.78	0.66
3.800	1.04	9.800	4.42	15.800	1.09	21.80	0.66
3.817	1.04	9.817	4.42	15.817	1.09	21.82	0.66
3.833	1.04	9.833	4.42	15.833	1.09	21.83	0.66
3.850	1.08	9.850	4.05	15.850	1.07	21.85	0.65
3.867	1.08	9.867	4.05	15.867	1.07	21.87	0.65
3.883	1.08	9.883	4.05	15.883	1.07	21.88	0.65
3.900	1.08	9.900	4.05	15.900	1.07	21.90	0.65
3.917	1.08	9.917	4.05	15.917	1.07	21.92	0.65
3.933	1.08	9.933	4.05	15.933	1.07	21.93	0.65
3.950	1.08	9.950	4.05	15.950	1.07	21.95	0.65
3.967	1.08	9.967	4.05	15.967	1.07	21.97	0.65
3.983	1.08	9.983	4.05	15.983	1.07	21.98	0.65
4.000	1.08	10.000	4.04	16.000	1.07	22.00	0.65
4.017	1.12	10.017	3.73	16.017	1.05	22.02	0.64

4.033	1.12	10.033	3.73	16.033	1.05	22.03	0.64
4.050	1.12	10.050	3.73	16.050	1.05	22.05	0.64
4.067	1.12	10.067	3.73	16.067	1.05	22.07	0.64
4.083	1.12	10.083	3.73	16.083	1.05	22.08	0.64
4.100	1.12	10.100	3.73	16.100	1.05	22.10	0.64
4.117	1.12	10.117	3.73	16.117	1.05	22.12	0.64
4.133	1.12	10.133	3.73	16.133	1.05	22.13	0.64
4.150	1.12	10.150	3.73	16.150	1.05	22.15	0.64
4.167	1.12	10.167	3.73	16.167	1.05	22.17	0.64
4.183	1.17	10.183	3.46	16.183	1.03	22.18	0.64
4.200	1.17	10.200	3.46	16.200	1.03	22.20	0.64
4.217	1.17	10.217	3.46	16.217	1.03	22.22	0.64
4.233	1.17	10.233	3.46	16.233	1.03	22.23	0.64
4.250	1.17	10.250	3.46	16.250	1.03	22.25	0.64
4.267	1.17	10.267	3.46	16.267	1.03	22.27	0.64
4.283	1.17	10.283	3.46	16.283	1.03	22.28	0.64
4.300	1.17	10.300	3.46	16.300	1.03	22.30	0.64
4.317	1.17	10.317	3.46	16.317	1.03	22.32	0.64
4.333	1.17	10.333	3.46	16.333	1.03	22.33	0.64
4.350	1.22	10.350	3.23	16.350	1.02	22.35	0.63
4.367	1.22	10.367	3.23	16.367	1.02	22.37	0.63
4.383	1.22	10.383	3.23	16.383	1.02	22.38	0.63
4.400	1.22	10.400	3.23	16.400	1.02	22.40	0.63
4.417	1.22	10.417	3.23	16.417	1.02	22.42	0.63
4.433	1.22	10.433	3.23	16.433	1.02	22.43	0.63
4.450	1.22	10.450	3.23	16.450	1.02	22.45	0.63
4.467	1.22	10.467	3.23	16.467	1.02	22.47	0.63
4.483	1.22	10.483	3.23	16.483	1.02	22.48	0.63
4.500	1.22	10.500	3.23	16.500	1.02	22.50	0.63
4.517	1.28	10.517	3.03	16.517	1.00	22.52	0.62
4.533	1.28	10.533	3.03	16.533	1.00	22.53	0.62
4.550	1.28	10.550	3.03	16.550	1.00	22.55	0.62
4.567	1.28	10.567	3.03	16.567	1.00	22.57	0.62
4.583	1.28	10.583	3.03	16.583	1.00	22.58	0.62
4.600	1.28	10.600	3.03	16.600	1.00	22.60	0.62
4.617	1.28	10.617	3.03	16.617	1.00	22.62	0.62
4.633	1.28	10.633	3.03	16.633	1.00	22.63	0.62
4.650	1.28	10.650	3.03	16.650	1.00	22.65	0.62
4.667	1.28	10.667	3.03	16.667	1.00	22.67	0.62
4.683	1.34	10.683	2.86	16.683	0.98	22.68	0.62
4.700	1.34	10.700	2.86	16.700	0.98	22.70	0.62
4.717	1.34	10.717	2.86	16.717	0.98	22.72	0.62
4.733	1.34	10.733	2.86	16.733	0.98	22.73	0.62
4.750	1.34	10.750	2.86	16.750	0.98	22.75	0.62
4.767	1.34	10.767	2.86	16.767	0.98	22.77	0.62
4.783	1.34	10.783	2.86	16.783	0.98	22.78	0.62
4.800	1.34	10.800	2.86	16.800	0.98	22.80	0.62
4.817	1.34	10.817	2.86	16.817	0.98	22.82	0.62
4.833	1.34	10.833	2.86	16.833	0.98	22.83	0.62
4.850	1.41	10.850	2.70	16.850	0.96	22.85	0.61
4.867	1.41	10.867	2.70	16.867	0.96	22.87	0.61
4.883	1.41	10.883	2.70	16.883	0.96	22.88	0.61

4.900	1.41	10.900	2.70	16.900	0.96	22.90	0.61
4.917	1.41	10.917	2.70	16.917	0.96	22.92	0.61
4.933	1.41	10.933	2.70	16.933	0.96	22.93	0.61
4.950	1.41	10.950	2.70	16.950	0.96	22.95	0.61
4.967	1.41	10.967	2.70	16.967	0.96	22.97	0.61
4.983	1.41	10.983	2.70	16.983	0.96	22.98	0.61
5.000	1.41	11.000	2.70	17.000	0.96	23.00	0.61
5.017	1.49	11.017	2.56	17.017	0.95	23.02	0.60
5.033	1.49	11.033	2.56	17.033	0.95	23.03	0.60
5.050	1.49	11.050	2.56	17.050	0.95	23.05	0.60
5.067	1.49	11.067	2.56	17.067	0.95	23.07	0.60
5.083	1.49	11.083	2.56	17.083	0.95	23.08	0.60
5.100	1.49	11.100	2.56	17.100	0.95	23.10	0.60
5.117	1.49	11.117	2.56	17.117	0.95	23.12	0.60
5.133	1.49	11.133	2.56	17.133	0.95	23.13	0.60
5.150	1.49	11.150	2.56	17.150	0.95	23.15	0.60
5.167	1.49	11.167	2.56	17.167	0.95	23.17	0.60
5.183	1.58	11.183	2.44	17.183	0.93	23.18	0.60
5.200	1.58	11.200	2.44	17.200	0.93	23.20	0.60
5.217	1.58	11.217	2.44	17.217	0.93	23.22	0.60
5.233	1.58	11.233	2.44	17.233	0.93	23.23	0.60
5.250	1.58	11.250	2.44	17.250	0.93	23.25	0.60
5.267	1.58	11.267	2.44	17.267	0.93	23.27	0.60
5.283	1.58	11.283	2.44	17.283	0.93	23.28	0.60
5.300	1.58	11.300	2.44	17.300	0.93	23.30	0.60
5.317	1.58	11.317	2.44	17.317	0.93	23.32	0.60
5.333	1.58	11.333	2.44	17.333	0.93	23.33	0.60
5.350	1.68	11.350	2.32	17.350	0.92	23.35	0.59
5.367	1.68	11.367	2.32	17.367	0.92	23.37	0.59
5.383	1.68	11.383	2.32	17.383	0.92	23.38	0.59
5.400	1.68	11.400	2.32	17.400	0.92	23.40	0.59
5.417	1.68	11.417	2.32	17.417	0.92	23.42	0.59
5.433	1.68	11.433	2.32	17.433	0.92	23.43	0.59
5.450	1.68	11.450	2.32	17.450	0.92	23.45	0.59
5.467	1.68	11.467	2.32	17.467	0.92	23.47	0.59
5.483	1.68	11.483	2.32	17.483	0.92	23.48	0.59
5.500	1.68	11.500	2.32	17.500	0.92	23.50	0.59
5.517	1.79	11.517	2.22	17.517	0.90	23.52	0.59
5.533	1.79	11.533	2.22	17.533	0.90	23.53	0.59
5.550	1.79	11.550	2.22	17.550	0.90	23.55	0.59
5.567	1.79	11.567	2.22	17.567	0.90	23.57	0.59
5.583	1.79	11.583	2.22	17.583	0.90	23.58	0.59
5.600	1.79	11.600	2.22	17.600	0.90	23.60	0.59
5.617	1.79	11.617	2.22	17.617	0.90	23.62	0.59
5.633	1.79	11.633	2.22	17.633	0.90	23.63	0.59
5.650	1.79	11.650	2.22	17.650	0.90	23.65	0.59
5.667	1.80	11.667	2.22	17.667	0.90	23.67	0.59
5.683	1.93	11.683	2.13	17.683	0.89	23.68	0.58
5.700	1.93	11.700	2.13	17.700	0.89	23.70	0.58
5.717	1.93	11.717	2.13	17.717	0.89	23.72	0.58
5.733	1.93	11.733	2.13	17.733	0.89	23.73	0.58
5.750	1.93	11.750	2.13	17.750	0.89	23.75	0.58

5.767	1.93	11.767	2.13	17.767	0.89	23.77	0.58
5.783	1.93	11.783	2.13	17.783	0.89	23.78	0.58
5.800	1.93	11.800	2.13	17.800	0.89	23.80	0.58
5.817	1.93	11.817	2.13	17.817	0.89	23.82	0.58
5.833	1.93	11.833	2.13	17.833	0.89	23.83	0.58
5.850	2.08	11.850	2.04	17.850	0.88	23.85	0.58
5.867	2.08	11.867	2.04	17.867	0.88	23.87	0.58
5.883	2.08	11.883	2.04	17.883	0.88	23.88	0.58
5.900	2.08	11.900	2.04	17.900	0.88	23.90	0.58
5.917	2.08	11.917	2.04	17.917	0.88	23.92	0.58
5.933	2.08	11.933	2.04	17.933	0.88	23.93	0.58
5.950	2.08	11.950	2.04	17.950	0.88	23.95	0.58
5.967	2.08	11.967	2.04	17.967	0.88	23.97	0.58
5.983	2.08	11.983	2.04	17.983	0.88	23.98	0.58
6.000	2.08	12.000	2.04	18.000	0.88	24.00	0.58

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     Max.Eff.Inten.(mm/hr)=     142.97         25.45
                over (min)        5.00         16.00
     Storage Coeff.  (min)=       2.95 (ii)    15.15 (ii)
     Unit Hyd. Tpeak (min)=       5.00         16.00
     Unit Hyd. peak  (cms)=       0.31          0.07
                                                          *TOTALS*
     PEAK FLOW       (cms)=       0.19          0.06       0.212 (iii)
     TIME TO PEAK    (hrs)=       8.00          8.25       8.02
     RUNOFF VOLUME    (mm)=      88.96         21.02      38.69
     TOTAL RAINFALL   (mm)=      89.97         89.97      89.97
     RUNOFF COEFFICIENT   =       0.99          0.23       0.43

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN*  =  48.0     Ia = Dep. Storage  (Above)
       (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
            THAN THE STORAGE COEFFICIENT.
       (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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------------------
| DUHYD    (  0037)|
| Inlet Cap.= 0.108|
| #of Inlets=     1|
| Total(cms)=   0.1|      AREA     QPEAK     TPEAK     R.V.
-------------------      (ha)     (cms)     (hrs)     (mm)
     TOTAL HYD.(ID= 1):   1.95      0.21      8.02   38.69
     ==========================================================
     MAJOR SYS.(ID= 2):   0.18      0.10      8.02   38.69
     MINOR SYS.(ID= 3):   1.77      0.11      7.90   38.69

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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  | Junction Command(0038) |
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                         AREA     QPEAK   TPEAK     R.V.
                         (ha)     (cms)   (hrs)     (mm)
  INFLOW : ID= 9(  0037)   1.77     0.11    7.90    38.69
  OUTFLOW: ID= 2(  0038)   1.77     0.11    7.90    38.69

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------------------
| CALIB            |
| NASHYD   (  0104)|   Area    (ha)=   0.77   Curve Number   (CN)= 53.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   5.00   # of Linear Res.(N)= 3.00
------------------   U.H. Tp(hrs)=   0.34

          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    0.59 | 6.083    2.27 |12.083    1.97 | 18.08    0.86
      0.167    0.59 | 6.167    2.27 |12.167    1.97 | 18.17    0.86
      0.250    0.60 | 6.250    2.50 |12.250    1.89 | 18.25    0.85
      0.333    0.60 | 6.333    2.50 |12.333    1.89 | 18.33    0.85
      0.417    0.61 | 6.417    2.77 |12.417    1.83 | 18.42    0.84
      0.500    0.61 | 6.500    2.77 |12.500    1.83 | 18.50    0.84
      0.583    0.63 | 6.583    3.13 |12.583    1.77 | 18.58    0.83
      0.667    0.63 | 6.667    3.13 |12.667    1.77 | 18.67    0.83
      0.750    0.64 | 6.750    3.59 |12.750    1.71 | 18.75    0.82
      0.833    0.64 | 6.833    3.59 |12.833    1.71 | 18.83    0.82
      0.917    0.65 | 6.917    4.23 |12.917    1.66 | 18.92    0.80
      1.000    0.65 | 7.000    4.23 |13.000    1.66 | 19.00    0.80
      1.083    0.67 | 7.083    5.15 |13.083    1.61 | 19.08    0.79
      1.167    0.67 | 7.167    5.15 |13.167    1.61 | 19.17    0.79
      1.250    0.68 | 7.250    6.61 |13.250    1.56 | 19.25    0.78
      1.333    0.68 | 7.333    6.61 |13.333    1.56 | 19.33    0.78
      1.417    0.70 | 7.417    9.24 |13.417    1.51 | 19.42    0.77
      1.500    0.70 | 7.500    9.24 |13.500    1.51 | 19.50    0.77
      1.583    0.71 | 7.583   15.26 |13.583    1.47 | 19.58    0.76
      1.667    0.71 | 7.667   15.26 |13.667    1.47 | 19.67    0.76
      1.750    0.73 | 7.750   40.09 |13.750    1.43 | 19.75    0.75
      1.833    0.73 | 7.833   40.10 |13.833    1.43 | 19.83    0.75
      1.917    0.75 | 7.917  142.97 |13.917    1.40 | 19.92    0.74
      2.000    0.75 | 8.000  142.96 |14.000    1.40 | 20.00    0.74
      2.083    0.77 | 8.083   53.15 |14.083    1.36 | 20.08    0.74
      2.167    0.77 | 8.167   53.15 |14.167    1.36 | 20.17    0.74
      2.250    0.79 | 8.250   27.09 |14.250    1.33 | 20.25    0.73
      2.333    0.79 | 8.333   27.09 |14.333    1.33 | 20.33    0.73
      2.417    0.81 | 8.417   17.64 |14.417    1.30 | 20.42    0.72
      2.500    0.81 | 8.500   17.64 |14.500    1.30 | 20.50    0.72
      2.583    0.83 | 8.583   12.93 |14.583    1.27 | 20.58    0.71
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2.667	0.83	8.667	12.93	14.667	1.27	20.67	0.71
2.750	0.86	8.750	10.15	14.750	1.24	20.75	0.70
2.833	0.86	8.833	10.15	14.833	1.24	20.83	0.70
2.917	0.88	8.917	8.35	14.917	1.21	20.92	0.69
3.000	0.88	9.000	8.35	15.000	1.21	21.00	0.69
3.083	0.91	9.083	7.08	15.083	1.19	21.08	0.69
3.167	0.91	9.167	7.08	15.167	1.19	21.17	0.69
3.250	0.94	9.250	6.15	15.250	1.16	21.25	0.68
3.333	0.94	9.333	6.15	15.333	1.16	21.33	0.68
3.417	0.97	9.417	5.44	15.417	1.14	21.42	0.67
3.500	0.97	9.500	5.44	15.500	1.14	21.50	0.67
3.583	1.00	9.583	4.88	15.583	1.12	21.58	0.66
3.667	1.00	9.667	4.88	15.667	1.12	21.67	0.66
3.750	1.04	9.750	4.42	15.750	1.09	21.75	0.66
3.833	1.04	9.833	4.42	15.833	1.09	21.83	0.66
3.917	1.08	9.917	4.05	15.917	1.07	21.92	0.65
4.000	1.08	10.000	4.05	16.000	1.07	22.00	0.65
4.083	1.12	10.083	3.73	16.083	1.05	22.08	0.64
4.167	1.12	10.167	3.73	16.167	1.05	22.17	0.64
4.250	1.17	10.250	3.46	16.250	1.03	22.25	0.64
4.333	1.17	10.333	3.46	16.333	1.03	22.33	0.64
4.417	1.22	10.417	3.23	16.417	1.02	22.42	0.63
4.500	1.22	10.500	3.23	16.500	1.02	22.50	0.63
4.583	1.28	10.583	3.03	16.583	1.00	22.58	0.62
4.667	1.28	10.667	3.03	16.667	1.00	22.67	0.62
4.750	1.34	10.750	2.86	16.750	0.98	22.75	0.62
4.833	1.34	10.833	2.86	16.833	0.98	22.83	0.62
4.917	1.41	10.917	2.70	16.917	0.96	22.92	0.61
5.000	1.41	11.000	2.70	17.000	0.96	23.00	0.61
5.083	1.49	11.083	2.56	17.083	0.95	23.08	0.60
5.167	1.49	11.167	2.56	17.167	0.95	23.17	0.60
5.250	1.58	11.250	2.44	17.250	0.93	23.25	0.60
5.333	1.58	11.333	2.44	17.333	0.93	23.33	0.60
5.417	1.68	11.417	2.32	17.417	0.92	23.42	0.59
5.500	1.68	11.500	2.32	17.500	0.92	23.50	0.59
5.583	1.79	11.583	2.22	17.583	0.90	23.58	0.59
5.667	1.80	11.667	2.22	17.667	0.90	23.67	0.59
5.833	1.93	11.833	2.13	17.833	0.89	23.83	0.58
5.917	2.08	11.917	2.04	17.917	0.88	23.92	0.58
6.000	2.08	12.000	2.04	18.000	0.88	24.00	0.58

```
Unit Hyd Qpeak  (cms)=   0.086

PEAK FLOW       (cms)=   0.029 (i)
TIME TO PEAK    (hrs)=   8.333
RUNOFF VOLUME    (mm)=  23.266
TOTAL RAINFALL   (mm)=  89.966
RUNOFF COEFFICIENT   =   0.259

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
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| CALIB            |
| STANDHYD (  0103)|   Area    (ha)=   1.17
|ID= 1 DT= 1.0 min |   Total Imp(%)=  24.00   Dir. Conn.(%)=  20.00
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                         IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       0.28          0.89
     Dep. Storage     (mm)=       1.00          5.00
     Average Slope     (%)=       0.50          2.00
     Length            (m)=      88.20         40.00
     Mannings n            =      0.013         0.250

         NOTE:  RAINFALL WAS TRANSFORMED TO   1.0 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
      0.017    0.59 | 6.017    2.27 |12.017    1.97 | 18.02    0.86
      0.033    0.59 | 6.033    2.27 |12.033    1.97 | 18.03    0.86
      0.050    0.59 | 6.050    2.27 |12.050    1.97 | 18.05    0.86
      0.067    0.59 | 6.067    2.27 |12.067    1.97 | 18.07    0.86
      0.083    0.59 | 6.083    2.27 |12.083    1.97 | 18.08    0.86
      0.100    0.59 | 6.100    2.27 |12.100    1.97 | 18.10    0.86
      0.117    0.59 | 6.117    2.27 |12.117    1.97 | 18.12    0.86
      0.133    0.59 | 6.133    2.27 |12.133    1.97 | 18.13    0.86
      0.150    0.59 | 6.150    2.27 |12.150    1.97 | 18.15    0.86
      0.167    0.59 | 6.167    2.27 |12.167    1.97 | 18.17    0.86
      0.183    0.60 | 6.183    2.50 |12.183    1.89 | 18.18    0.85
      0.200    0.60 | 6.200    2.50 |12.200    1.89 | 18.20    0.85
      0.217    0.60 | 6.217    2.50 |12.217    1.89 | 18.22    0.85
      0.233    0.60 | 6.233    2.50 |12.233    1.89 | 18.23    0.85
      0.250    0.60 | 6.250    2.50 |12.250    1.89 | 18.25    0.85
      0.267    0.60 | 6.267    2.50 |12.267    1.89 | 18.27    0.85
      0.283    0.60 | 6.283    2.50 |12.283    1.89 | 18.28    0.85
      0.300    0.60 | 6.300    2.50 |12.300    1.89 | 18.30    0.85
      0.317    0.59 | 6.317    2.50 |12.317    1.89 | 18.32    0.85
      0.333    0.60 | 6.333    2.50 |12.333    1.89 | 18.33    0.85
      0.350    0.61 | 6.350    2.77 |12.350    1.83 | 18.35    0.84
      0.367    0.61 | 6.367    2.77 |12.367    1.83 | 18.37    0.84
      0.383    0.61 | 6.383    2.77 |12.383    1.83 | 18.38    0.84
      0.400    0.61 | 6.400    2.77 |12.400    1.83 | 18.40    0.84
      0.417    0.61 | 6.417    2.77 |12.417    1.83 | 18.42    0.84
      0.433    0.61 | 6.433    2.77 |12.433    1.83 | 18.43    0.84
      0.450    0.61 | 6.450    2.77 |12.450    1.83 | 18.45    0.84
      0.467    0.61 | 6.467    2.77 |12.467    1.83 | 18.47    0.84
      0.483    0.61 | 6.483    2.77 |12.483    1.83 | 18.48    0.84
      0.500    0.61 | 6.500    2.77 |12.500    1.83 | 18.50    0.84
      0.517    0.63 | 6.517    3.13 |12.517    1.77 | 18.52    0.83
      0.533    0.63 | 6.533    3.13 |12.533    1.77 | 18.53    0.83
      0.550    0.63 | 6.550    3.13 |12.550    1.77 | 18.55    0.83
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0.567	0.63	6.567	3.13	12.567	1.77	18.57	0.83
0.583	0.63	6.583	3.13	12.583	1.77	18.58	0.83
0.600	0.63	6.600	3.13	12.600	1.77	18.60	0.83
0.617	0.63	6.617	3.13	12.617	1.77	18.62	0.83
0.633	0.63	6.633	3.13	12.633	1.77	18.63	0.83
0.650	0.63	6.650	3.13	12.650	1.77	18.65	0.83
0.667	0.63	6.667	3.13	12.667	1.77	18.67	0.83
0.683	0.64	6.683	3.59	12.683	1.71	18.68	0.82
0.700	0.64	6.700	3.59	12.700	1.71	18.70	0.82
0.717	0.64	6.717	3.59	12.717	1.71	18.72	0.82
0.733	0.64	6.733	3.59	12.733	1.71	18.73	0.82
0.750	0.64	6.750	3.59	12.750	1.71	18.75	0.82
0.767	0.64	6.767	3.59	12.767	1.71	18.77	0.82
0.783	0.64	6.783	3.59	12.783	1.71	18.78	0.82
0.800	0.64	6.800	3.59	12.800	1.71	18.80	0.82
0.817	0.64	6.817	3.59	12.817	1.71	18.82	0.82
0.833	0.64	6.833	3.59	12.833	1.71	18.83	0.82
0.850	0.65	6.850	4.23	12.850	1.66	18.85	0.80
0.867	0.65	6.867	4.23	12.867	1.66	18.87	0.80
0.883	0.65	6.883	4.23	12.883	1.66	18.88	0.80
0.900	0.65	6.900	4.23	12.900	1.66	18.90	0.80
0.917	0.65	6.917	4.23	12.917	1.66	18.92	0.80
0.933	0.65	6.933	4.23	12.933	1.66	18.93	0.80
0.950	0.65	6.950	4.23	12.950	1.66	18.95	0.80
0.967	0.65	6.967	4.23	12.967	1.66	18.97	0.80
0.983	0.65	6.983	4.23	12.983	1.66	18.98	0.80
1.000	0.65	7.000	4.23	13.000	1.66	19.00	0.80
1.017	0.67	7.017	5.15	13.017	1.61	19.02	0.79
1.033	0.67	7.033	5.15	13.033	1.61	19.03	0.79
1.050	0.67	7.050	5.15	13.050	1.61	19.05	0.79
1.067	0.67	7.067	5.15	13.067	1.61	19.07	0.79
1.083	0.67	7.083	5.15	13.083	1.61	19.08	0.79
1.100	0.67	7.100	5.15	13.100	1.61	19.10	0.79
1.117	0.67	7.117	5.15	13.117	1.61	19.12	0.79
1.133	0.67	7.133	5.15	13.133	1.61	19.13	0.79
1.150	0.67	7.150	5.15	13.150	1.61	19.15	0.79
1.167	0.67	7.167	5.15	13.167	1.61	19.17	0.79
1.183	0.68	7.183	6.61	13.183	1.56	19.18	0.78
1.200	0.68	7.200	6.61	13.200	1.56	19.20	0.78
1.217	0.68	7.217	6.61	13.217	1.56	19.22	0.78
1.233	0.68	7.233	6.61	13.233	1.56	19.23	0.78
1.250	0.68	7.250	6.61	13.250	1.56	19.25	0.78
1.267	0.68	7.267	6.61	13.267	1.56	19.27	0.78
1.283	0.68	7.283	6.61	13.283	1.56	19.28	0.78
1.300	0.68	7.300	6.61	13.300	1.56	19.30	0.78
1.317	0.68	7.317	6.61	13.317	1.56	19.32	0.78
1.333	0.68	7.333	6.61	13.333	1.56	19.33	0.78
1.350	0.70	7.350	9.24	13.350	1.51	19.35	0.77
1.367	0.70	7.367	9.24	13.367	1.51	19.37	0.77
1.383	0.70	7.383	9.24	13.383	1.51	19.38	0.77
1.400	0.70	7.400	9.24	13.400	1.51	19.40	0.77
1.417	0.70	7.417	9.24	13.417	1.51	19.42	0.77

1.433	0.70	7.433	9.24	13.433	1.51	19.43	0.77
1.450	0.70	7.450	9.24	13.450	1.51	19.45	0.77
1.467	0.70	7.467	9.24	13.467	1.51	19.47	0.77
1.483	0.70	7.483	9.24	13.483	1.51	19.48	0.77
1.500	0.70	7.500	9.25	13.500	1.51	19.50	0.77
1.517	0.71	7.517	15.26	13.517	1.47	19.52	0.76
1.533	0.71	7.533	15.26	13.533	1.47	19.53	0.76
1.550	0.71	7.550	15.26	13.550	1.47	19.55	0.76
1.567	0.71	7.567	15.26	13.567	1.47	19.57	0.76
1.583	0.71	7.583	15.26	13.583	1.47	19.58	0.76
1.600	0.71	7.600	15.26	13.600	1.47	19.60	0.76
1.617	0.71	7.617	15.26	13.617	1.47	19.62	0.76
1.633	0.71	7.633	15.26	13.633	1.47	19.63	0.76
1.650	0.71	7.650	15.26	13.650	1.47	19.65	0.76
1.667	0.71	7.667	15.33	13.667	1.47	19.67	0.76
1.683	0.73	7.683	40.09	13.683	1.43	19.68	0.75
1.700	0.73	7.700	40.09	13.700	1.43	19.70	0.75
1.717	0.73	7.717	40.09	13.717	1.43	19.72	0.75
1.733	0.73	7.733	40.09	13.733	1.43	19.73	0.75
1.750	0.73	7.750	40.09	13.750	1.43	19.75	0.75
1.767	0.73	7.767	40.09	13.767	1.43	19.77	0.75
1.783	0.73	7.783	40.09	13.783	1.43	19.78	0.75
1.800	0.73	7.800	40.09	13.800	1.43	19.80	0.75
1.817	0.73	7.817	40.09	13.817	1.43	19.82	0.75
1.833	0.73	7.833	40.39	13.833	1.43	19.83	0.75
1.850	0.75	7.850	142.97	13.850	1.40	19.85	0.74
1.867	0.75	7.867	142.97	13.867	1.40	19.87	0.74
1.883	0.75	7.883	142.97	13.883	1.40	19.88	0.74
1.900	0.75	7.900	142.97	13.900	1.40	19.90	0.74
1.917	0.75	7.917	142.97	13.917	1.40	19.92	0.74
1.933	0.75	7.933	142.97	13.933	1.40	19.93	0.74
1.950	0.75	7.950	142.97	13.950	1.40	19.95	0.74
1.967	0.75	7.967	142.97	13.967	1.40	19.97	0.74
1.983	0.75	7.983	142.97	13.983	1.40	19.98	0.74
2.000	0.75	8.000	142.71	14.000	1.40	20.00	0.74
2.017	0.77	8.017	53.15	14.017	1.36	20.02	0.74
2.033	0.77	8.033	53.15	14.033	1.36	20.03	0.74
2.050	0.77	8.050	53.15	14.050	1.36	20.05	0.74
2.067	0.77	8.067	53.15	14.067	1.36	20.07	0.74
2.083	0.77	8.083	53.15	14.083	1.36	20.08	0.74
2.100	0.77	8.100	53.15	14.100	1.36	20.10	0.74
2.117	0.77	8.117	53.15	14.117	1.36	20.12	0.74
2.133	0.77	8.133	53.15	14.133	1.36	20.13	0.74
2.150	0.77	8.150	53.15	14.150	1.36	20.15	0.74
2.167	0.77	8.167	53.08	14.167	1.36	20.17	0.74
2.183	0.79	8.183	27.09	14.183	1.33	20.18	0.73
2.200	0.79	8.200	27.09	14.200	1.33	20.20	0.73
2.217	0.79	8.217	27.09	14.217	1.33	20.22	0.73
2.233	0.79	8.233	27.09	14.233	1.33	20.23	0.73
2.250	0.79	8.250	27.09	14.250	1.33	20.25	0.73
2.267	0.79	8.267	27.09	14.267	1.33	20.27	0.73
2.283	0.79	8.283	27.09	14.283	1.33	20.28	0.73

2.300	0.79	8.300	27.09	14.300	1.33	20.30	0.73
2.317	0.79	8.317	27.09	14.317	1.33	20.32	0.73
2.333	0.79	8.333	27.07	14.333	1.33	20.33	0.73
2.350	0.81	8.350	17.64	14.350	1.30	20.35	0.72
2.367	0.81	8.367	17.64	14.367	1.30	20.37	0.72
2.383	0.81	8.383	17.64	14.383	1.30	20.38	0.72
2.400	0.81	8.400	17.64	14.400	1.30	20.40	0.72
2.417	0.81	8.417	17.64	14.417	1.30	20.42	0.72
2.433	0.81	8.433	17.64	14.433	1.30	20.43	0.72
2.450	0.81	8.450	17.64	14.450	1.30	20.45	0.72
2.467	0.81	8.467	17.64	14.467	1.30	20.47	0.72
2.483	0.81	8.483	17.64	14.483	1.30	20.48	0.72
2.500	0.81	8.500	17.63	14.500	1.30	20.50	0.72
2.517	0.83	8.517	12.93	14.517	1.27	20.52	0.71
2.533	0.83	8.533	12.93	14.533	1.27	20.53	0.71
2.550	0.83	8.550	12.93	14.550	1.27	20.55	0.71
2.567	0.83	8.567	12.93	14.567	1.27	20.57	0.71
2.583	0.83	8.583	12.93	14.583	1.27	20.58	0.71
2.600	0.83	8.600	12.93	14.600	1.27	20.60	0.71
2.617	0.83	8.617	12.93	14.617	1.27	20.62	0.71
2.633	0.83	8.633	12.93	14.633	1.27	20.63	0.71
2.650	0.83	8.650	12.93	14.650	1.27	20.65	0.71
2.667	0.83	8.667	12.92	14.667	1.27	20.67	0.71
2.683	0.86	8.683	10.15	14.683	1.24	20.68	0.70
2.700	0.86	8.700	10.15	14.700	1.24	20.70	0.70
2.717	0.86	8.717	10.15	14.717	1.24	20.72	0.70
2.733	0.86	8.733	10.15	14.733	1.24	20.73	0.70
2.750	0.86	8.750	10.15	14.750	1.24	20.75	0.70
2.767	0.86	8.767	10.15	14.767	1.24	20.77	0.70
2.783	0.86	8.783	10.15	14.783	1.24	20.78	0.70
2.800	0.86	8.800	10.15	14.800	1.24	20.80	0.70
2.817	0.86	8.817	10.15	14.817	1.24	20.82	0.70
2.833	0.86	8.833	10.15	14.833	1.24	20.83	0.70
2.850	0.88	8.850	8.35	14.850	1.21	20.85	0.69
2.867	0.88	8.867	8.35	14.867	1.21	20.87	0.69
2.883	0.88	8.883	8.35	14.883	1.21	20.88	0.69
2.900	0.88	8.900	8.35	14.900	1.21	20.90	0.69
2.917	0.88	8.917	8.35	14.917	1.21	20.92	0.69
2.933	0.88	8.933	8.35	14.933	1.21	20.93	0.69
2.950	0.88	8.950	8.35	14.950	1.21	20.95	0.69
2.967	0.88	8.967	8.35	14.967	1.21	20.97	0.69
2.983	0.88	8.983	8.35	14.983	1.21	20.98	0.69
3.000	0.88	9.000	8.34	15.000	1.21	21.00	0.69
3.017	0.91	9.017	7.08	15.017	1.19	21.02	0.69
3.033	0.91	9.033	7.08	15.033	1.19	21.03	0.69
3.050	0.91	9.050	7.08	15.050	1.19	21.05	0.69
3.067	0.91	9.067	7.08	15.067	1.19	21.07	0.69
3.083	0.91	9.083	7.08	15.083	1.19	21.08	0.69
3.100	0.91	9.100	7.08	15.100	1.19	21.10	0.69
3.117	0.91	9.117	7.08	15.117	1.19	21.12	0.69
3.133	0.91	9.133	7.08	15.133	1.19	21.13	0.69
3.150	0.91	9.150	7.08	15.150	1.19	21.15	0.69

3.167	0.91	9.167	7.08	15.167	1.19	21.17	0.69
3.183	0.94	9.183	6.15	15.183	1.16	21.18	0.68
3.200	0.94	9.200	6.15	15.200	1.16	21.20	0.68
3.217	0.94	9.217	6.15	15.217	1.16	21.22	0.68
3.233	0.94	9.233	6.15	15.233	1.16	21.23	0.68
3.250	0.94	9.250	6.15	15.250	1.16	21.25	0.68
3.267	0.94	9.267	6.15	15.267	1.16	21.27	0.68
3.283	0.94	9.283	6.15	15.283	1.16	21.28	0.68
3.300	0.94	9.300	6.15	15.300	1.16	21.30	0.68
3.317	0.94	9.317	6.15	15.317	1.16	21.32	0.68
3.333	0.94	9.333	6.15	15.333	1.16	21.33	0.68
3.350	0.97	9.350	5.44	15.350	1.14	21.35	0.67
3.367	0.97	9.367	5.44	15.367	1.14	21.37	0.67
3.383	0.97	9.383	5.44	15.383	1.14	21.38	0.67
3.400	0.97	9.400	5.44	15.400	1.14	21.40	0.67
3.417	0.97	9.417	5.44	15.417	1.14	21.42	0.67
3.433	0.97	9.433	5.44	15.433	1.14	21.43	0.67
3.450	0.97	9.450	5.44	15.450	1.14	21.45	0.67
3.467	0.97	9.467	5.44	15.467	1.14	21.47	0.67
3.483	0.97	9.483	5.44	15.483	1.14	21.48	0.67
3.500	0.97	9.500	5.44	15.500	1.14	21.50	0.67
3.517	1.00	9.517	4.88	15.517	1.12	21.52	0.66
3.533	1.00	9.533	4.88	15.533	1.12	21.53	0.66
3.550	1.00	9.550	4.88	15.550	1.12	21.55	0.66
3.567	1.00	9.567	4.88	15.567	1.12	21.57	0.66
3.583	1.00	9.583	4.88	15.583	1.12	21.58	0.66
3.600	1.00	9.600	4.88	15.600	1.12	21.60	0.66
3.617	1.00	9.617	4.88	15.617	1.12	21.62	0.66
3.633	1.00	9.633	4.88	15.633	1.12	21.63	0.66
3.650	1.00	9.650	4.88	15.650	1.12	21.65	0.66
3.667	1.00	9.667	4.87	15.667	1.12	21.67	0.66
3.683	1.04	9.683	4.42	15.683	1.09	21.68	0.66
3.700	1.04	9.700	4.42	15.700	1.09	21.70	0.66
3.717	1.04	9.717	4.42	15.717	1.09	21.72	0.66
3.733	1.04	9.733	4.42	15.733	1.09	21.73	0.66
3.750	1.04	9.750	4.42	15.750	1.09	21.75	0.66
3.767	1.04	9.767	4.42	15.767	1.09	21.77	0.66
3.783	1.04	9.783	4.42	15.783	1.09	21.78	0.66
3.800	1.04	9.800	4.42	15.800	1.09	21.80	0.66
3.817	1.04	9.817	4.42	15.817	1.09	21.82	0.66
3.833	1.04	9.833	4.42	15.833	1.09	21.83	0.66
3.850	1.08	9.850	4.05	15.850	1.07	21.85	0.65
3.867	1.08	9.867	4.05	15.867	1.07	21.87	0.65
3.883	1.08	9.883	4.05	15.883	1.07	21.88	0.65
3.900	1.08	9.900	4.05	15.900	1.07	21.90	0.65
3.917	1.08	9.917	4.05	15.917	1.07	21.92	0.65
3.933	1.08	9.933	4.05	15.933	1.07	21.93	0.65
3.950	1.08	9.950	4.05	15.950	1.07	21.95	0.65
3.967	1.08	9.967	4.05	15.967	1.07	21.97	0.65
3.983	1.08	9.983	4.05	15.983	1.07	21.98	0.65
4.000	1.08	10.000	4.04	16.000	1.07	22.00	0.65
4.017	1.12	10.017	3.73	16.017	1.05	22.02	0.64

4.033	1.12	10.033	3.73	16.033	1.05	22.03	0.64
4.050	1.12	10.050	3.73	16.050	1.05	22.05	0.64
4.067	1.12	10.067	3.73	16.067	1.05	22.07	0.64
4.083	1.12	10.083	3.73	16.083	1.05	22.08	0.64
4.100	1.12	10.100	3.73	16.100	1.05	22.10	0.64
4.117	1.12	10.117	3.73	16.117	1.05	22.12	0.64
4.133	1.12	10.133	3.73	16.133	1.05	22.13	0.64
4.150	1.12	10.150	3.73	16.150	1.05	22.15	0.64
4.167	1.12	10.167	3.73	16.167	1.05	22.17	0.64
4.183	1.17	10.183	3.46	16.183	1.03	22.18	0.64
4.200	1.17	10.200	3.46	16.200	1.03	22.20	0.64
4.217	1.17	10.217	3.46	16.217	1.03	22.22	0.64
4.233	1.17	10.233	3.46	16.233	1.03	22.23	0.64
4.250	1.17	10.250	3.46	16.250	1.03	22.25	0.64
4.267	1.17	10.267	3.46	16.267	1.03	22.27	0.64
4.283	1.17	10.283	3.46	16.283	1.03	22.28	0.64
4.300	1.17	10.300	3.46	16.300	1.03	22.30	0.64
4.317	1.17	10.317	3.46	16.317	1.03	22.32	0.64
4.333	1.17	10.333	3.46	16.333	1.03	22.33	0.64
4.350	1.22	10.350	3.23	16.350	1.02	22.35	0.63
4.367	1.22	10.367	3.23	16.367	1.02	22.37	0.63
4.383	1.22	10.383	3.23	16.383	1.02	22.38	0.63
4.400	1.22	10.400	3.23	16.400	1.02	22.40	0.63
4.417	1.22	10.417	3.23	16.417	1.02	22.42	0.63
4.433	1.22	10.433	3.23	16.433	1.02	22.43	0.63
4.450	1.22	10.450	3.23	16.450	1.02	22.45	0.63
4.467	1.22	10.467	3.23	16.467	1.02	22.47	0.63
4.483	1.22	10.483	3.23	16.483	1.02	22.48	0.63
4.500	1.22	10.500	3.23	16.500	1.02	22.50	0.63
4.517	1.28	10.517	3.03	16.517	1.00	22.52	0.62
4.533	1.28	10.533	3.03	16.533	1.00	22.53	0.62
4.550	1.28	10.550	3.03	16.550	1.00	22.55	0.62
4.567	1.28	10.567	3.03	16.567	1.00	22.57	0.62
4.583	1.28	10.583	3.03	16.583	1.00	22.58	0.62
4.600	1.28	10.600	3.03	16.600	1.00	22.60	0.62
4.617	1.28	10.617	3.03	16.617	1.00	22.62	0.62
4.633	1.28	10.633	3.03	16.633	1.00	22.63	0.62
4.650	1.28	10.650	3.03	16.650	1.00	22.65	0.62
4.667	1.28	10.667	3.03	16.667	1.00	22.67	0.62
4.683	1.34	10.683	2.86	16.683	0.98	22.68	0.62
4.700	1.34	10.700	2.86	16.700	0.98	22.70	0.62
4.717	1.34	10.717	2.86	16.717	0.98	22.72	0.62
4.733	1.34	10.733	2.86	16.733	0.98	22.73	0.62
4.750	1.34	10.750	2.86	16.750	0.98	22.75	0.62
4.767	1.34	10.767	2.86	16.767	0.98	22.77	0.62
4.783	1.34	10.783	2.86	16.783	0.98	22.78	0.62
4.800	1.34	10.800	2.86	16.800	0.98	22.80	0.62
4.817	1.34	10.817	2.86	16.817	0.98	22.82	0.62
4.833	1.34	10.833	2.86	16.833	0.98	22.83	0.62
4.850	1.41	10.850	2.70	16.850	0.96	22.85	0.61
4.867	1.41	10.867	2.70	16.867	0.96	22.87	0.61
4.883	1.41	10.883	2.70	16.883	0.96	22.88	0.61

4.900	1.41	10.900	2.70	16.900	0.96	22.90	0.61
4.917	1.41	10.917	2.70	16.917	0.96	22.92	0.61
4.933	1.41	10.933	2.70	16.933	0.96	22.93	0.61
4.950	1.41	10.950	2.70	16.950	0.96	22.95	0.61
4.967	1.41	10.967	2.70	16.967	0.96	22.97	0.61
4.983	1.41	10.983	2.70	16.983	0.96	22.98	0.61
5.000	1.41	11.000	2.70	17.000	0.96	23.00	0.61
5.017	1.49	11.017	2.56	17.017	0.95	23.02	0.60
5.033	1.49	11.033	2.56	17.033	0.95	23.03	0.60
5.050	1.49	11.050	2.56	17.050	0.95	23.05	0.60
5.067	1.49	11.067	2.56	17.067	0.95	23.07	0.60
5.083	1.49	11.083	2.56	17.083	0.95	23.08	0.60
5.100	1.49	11.100	2.56	17.100	0.95	23.10	0.60
5.117	1.49	11.117	2.56	17.117	0.95	23.12	0.60
5.133	1.49	11.133	2.56	17.133	0.95	23.13	0.60
5.150	1.49	11.150	2.56	17.150	0.95	23.15	0.60
5.167	1.49	11.167	2.56	17.167	0.95	23.17	0.60
5.183	1.58	11.183	2.44	17.183	0.93	23.18	0.60
5.200	1.58	11.200	2.44	17.200	0.93	23.20	0.60
5.217	1.58	11.217	2.44	17.217	0.93	23.22	0.60
5.233	1.58	11.233	2.44	17.233	0.93	23.23	0.60
5.250	1.58	11.250	2.44	17.250	0.93	23.25	0.60
5.267	1.58	11.267	2.44	17.267	0.93	23.27	0.60
5.283	1.58	11.283	2.44	17.283	0.93	23.28	0.60
5.300	1.58	11.300	2.44	17.300	0.93	23.30	0.60
5.317	1.58	11.317	2.44	17.317	0.93	23.32	0.60
5.333	1.58	11.333	2.44	17.333	0.93	23.33	0.60
5.350	1.68	11.350	2.32	17.350	0.92	23.35	0.59
5.367	1.68	11.367	2.32	17.367	0.92	23.37	0.59
5.383	1.68	11.383	2.32	17.383	0.92	23.38	0.59
5.400	1.68	11.400	2.32	17.400	0.92	23.40	0.59
5.417	1.68	11.417	2.32	17.417	0.92	23.42	0.59
5.433	1.68	11.433	2.32	17.433	0.92	23.43	0.59
5.450	1.68	11.450	2.32	17.450	0.92	23.45	0.59
5.467	1.68	11.467	2.32	17.467	0.92	23.47	0.59
5.483	1.68	11.483	2.32	17.483	0.92	23.48	0.59
5.500	1.68	11.500	2.32	17.500	0.92	23.50	0.59
5.517	1.79	11.517	2.22	17.517	0.90	23.52	0.59
5.533	1.79	11.533	2.22	17.533	0.90	23.53	0.59
5.550	1.79	11.550	2.22	17.550	0.90	23.55	0.59
5.567	1.79	11.567	2.22	17.567	0.90	23.57	0.59
5.583	1.79	11.583	2.22	17.583	0.90	23.58	0.59
5.600	1.79	11.600	2.22	17.600	0.90	23.60	0.59
5.617	1.79	11.617	2.22	17.617	0.90	23.62	0.59
5.633	1.79	11.633	2.22	17.633	0.90	23.63	0.59
5.650	1.79	11.650	2.22	17.650	0.90	23.65	0.59
5.667	1.80	11.667	2.22	17.667	0.90	23.67	0.59
5.683	1.93	11.683	2.13	17.683	0.89	23.68	0.58
5.700	1.93	11.700	2.13	17.700	0.89	23.70	0.58
5.717	1.93	11.717	2.13	17.717	0.89	23.72	0.58
5.733	1.93	11.733	2.13	17.733	0.89	23.73	0.58
5.750	1.93	11.750	2.13	17.750	0.89	23.75	0.58

5.767	1.93	11.767	2.13	17.767	0.89	23.77	0.58
5.783	1.93	11.783	2.13	17.783	0.89	23.78	0.58
5.800	1.93	11.800	2.13	17.800	0.89	23.80	0.58
5.817	1.93	11.817	2.13	17.817	0.89	23.82	0.58
5.833	1.93	11.833	2.13	17.833	0.89	23.83	0.58
5.850	2.08	11.850	2.04	17.850	0.88	23.85	0.58
5.867	2.08	11.867	2.04	17.867	0.88	23.87	0.58
5.883	2.08	11.883	2.04	17.883	0.88	23.88	0.58
5.900	2.08	11.900	2.04	17.900	0.88	23.90	0.58
5.917	2.08	11.917	2.04	17.917	0.88	23.92	0.58
5.933	2.08	11.933	2.04	17.933	0.88	23.93	0.58
5.950	2.08	11.950	2.04	17.950	0.88	23.95	0.58
5.967	2.08	11.967	2.04	17.967	0.88	23.97	0.58
5.983	2.08	11.983	2.04	17.983	0.88	23.98	0.58
6.000	2.08	12.000	2.04	18.000	0.88	24.00	0.58

Max.Eff.Inten.(mm/hr)=	142.97	36.53	
over (min)	5.00	14.00	
Storage Coeff. (min)=	2.53 (ii)	13.09 (ii)	
Unit Hyd. Tpeak (min)=	5.00	14.00	
Unit Hyd. peak (cms)=	0.34	0.08	
			TOTALS
PEAK FLOW (cms)=	0.09	0.05	0.115 (iii)
TIME TO PEAK (hrs)=	8.00	8.20	8.02
RUNOFF VOLUME (mm)=	88.96	27.16	39.52
TOTAL RAINFALL (mm)=	89.97	89.97	89.97
RUNOFF COEFFICIENT =	0.99	0.30	0.44

***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
YOU SHOULD CONSIDER SPLITTING THE AREA.

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 57.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (1011)	Area (ha)=	13.73	
ID= 1 DT= 1.0 min	Total Imp(%)=	46.00	Dir. Conn.(%)= 39.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	6.32	7.42
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	0.50	2.00
Length	(m)=	302.59	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 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
0.017	0.59	6.017	2.27	12.017	1.97	18.02	0.86
0.033	0.59	6.033	2.27	12.033	1.97	18.03	0.86
0.050	0.59	6.050	2.27	12.050	1.97	18.05	0.86
0.067	0.59	6.067	2.27	12.067	1.97	18.07	0.86
0.083	0.59	6.083	2.27	12.083	1.97	18.08	0.86
0.100	0.59	6.100	2.27	12.100	1.97	18.10	0.86
0.117	0.59	6.117	2.27	12.117	1.97	18.12	0.86
0.133	0.59	6.133	2.27	12.133	1.97	18.13	0.86
0.150	0.59	6.150	2.27	12.150	1.97	18.15	0.86
0.167	0.59	6.167	2.27	12.167	1.97	18.17	0.86
0.183	0.60	6.183	2.50	12.183	1.89	18.18	0.85
0.200	0.60	6.200	2.50	12.200	1.89	18.20	0.85
0.217	0.60	6.217	2.50	12.217	1.89	18.22	0.85
0.233	0.60	6.233	2.50	12.233	1.89	18.23	0.85
0.250	0.60	6.250	2.50	12.250	1.89	18.25	0.85
0.267	0.60	6.267	2.50	12.267	1.89	18.27	0.85
0.283	0.60	6.283	2.50	12.283	1.89	18.28	0.85
0.300	0.60	6.300	2.50	12.300	1.89	18.30	0.85
0.317	0.60	6.317	2.50	12.317	1.89	18.32	0.85
0.333	0.60	6.333	2.50	12.333	1.89	18.33	0.85
0.350	0.61	6.350	2.77	12.350	1.83	18.35	0.84
0.367	0.61	6.367	2.77	12.367	1.83	18.37	0.84
0.383	0.61	6.383	2.77	12.383	1.83	18.38	0.84
0.400	0.61	6.400	2.77	12.400	1.83	18.40	0.84
0.417	0.61	6.417	2.77	12.417	1.83	18.42	0.84
0.433	0.61	6.433	2.77	12.433	1.83	18.43	0.84
0.450	0.61	6.450	2.77	12.450	1.83	18.45	0.84
0.467	0.61	6.467	2.77	12.467	1.83	18.47	0.84
0.483	0.61	6.483	2.77	12.483	1.83	18.48	0.84
0.500	0.61	6.500	2.77	12.500	1.83	18.50	0.84
0.517	0.63	6.517	3.13	12.517	1.77	18.52	0.83
0.533	0.63	6.533	3.13	12.533	1.77	18.53	0.83
0.550	0.63	6.550	3.13	12.550	1.77	18.55	0.83
0.567	0.63	6.567	3.13	12.567	1.77	18.57	0.83
0.583	0.63	6.583	3.13	12.583	1.77	18.58	0.83
0.600	0.63	6.600	3.13	12.600	1.77	18.60	0.83
0.617	0.63	6.617	3.13	12.617	1.77	18.62	0.83
0.633	0.63	6.633	3.13	12.633	1.77	18.63	0.83
0.650	0.63	6.650	3.13	12.650	1.77	18.65	0.83
0.667	0.63	6.667	3.13	12.667	1.77	18.67	0.83
0.683	0.64	6.683	3.59	12.683	1.71	18.68	0.82
0.700	0.64	6.700	3.59	12.700	1.71	18.70	0.82
0.717	0.64	6.717	3.59	12.717	1.71	18.72	0.82
0.733	0.64	6.733	3.59	12.733	1.71	18.73	0.82
0.750	0.64	6.750	3.59	12.750	1.71	18.75	0.82
0.767	0.64	6.767	3.59	12.767	1.71	18.77	0.82
0.783	0.64	6.783	3.59	12.783	1.71	18.78	0.82
0.800	0.64	6.800	3.59	12.800	1.71	18.80	0.82
0.817	0.64	6.817	3.59	12.817	1.71	18.82	0.82
0.833	0.64	6.833	3.59	12.833	1.71	18.83	0.82
0.850	0.65	6.850	4.23	12.850	1.66	18.85	0.80
0.867	0.65	6.867	4.23	12.867	1.66	18.87	0.80
0.883	0.65	6.883	4.23	12.883	1.66	18.88	0.80
0.900	0.65	6.900	4.23	12.900	1.66	18.90	0.80
0.917	0.65	6.917	4.23	12.917	1.66	18.92	0.80
0.933	0.65	6.933	4.23	12.933	1.66	18.93	0.80
0.950	0.65	6.950	4.23	12.950	1.66	18.95	0.80
0.967	0.65	6.967	4.23	12.967	1.66	18.97	0.80
0.983	0.65	6.983	4.23	12.983	1.66	18.98	0.80
1.000	0.65	7.000	4.23	13.000	1.66	19.00	0.80
1.017	0.67	7.017	5.15	13.017	1.61	19.02	0.79
1.033	0.67	7.033	5.15	13.033	1.61	19.03	0.79
1.050	0.67	7.050	5.15	13.050	1.61	19.05	0.79
1.067	0.67	7.067	5.15	13.067	1.61	19.07	0.79
1.083	0.67	7.083	5.15	13.083	1.61	19.08	0.79
1.100	0.67	7.100	5.15	13.100	1.61	19.10	0.79
1.117	0.67	7.117	5.15	13.117	1.61	19.12	0.79
1.133	0.67	7.133	5.15	13.133	1.61	19.13	0.79
1.150	0.67	7.150	5.15	13.150	1.61	19.15	0.79
1.167	0.67	7.167	5.15	13.167	1.61	19.17	0.79
1.183	0.68	7.183	6.61	13.183	1.56	19.18	0.78
1.200	0.68	7.200	6.61	13.200	1.56	19.20	0.78
1.217	0.68	7.217	6.61	13.217	1.56	19.22	0.78
1.233	0.68	7.233	6.61	13.233	1.56	19.23	0.78
1.250	0.68	7.250	6.61	13.250	1.56	19.25	0.78
1.267	0.68	7.267	6.61	13.267	1.56	19.27	0.78
1.283	0.68	7.283	6.61	13.283	1.56	19.28	0.78
1.300	0.68	7.300	6.61	13.300	1.56	19.30	0.78
1.317	0.68	7.317	6.61	13.317	1.56	19.32	0.78
1.333	0.68	7.333	6.61	13.333	1.56	19.33	0.78
1.350	0.70	7.350	9.24	13.350	1.51	19.35	0.77
1.367	0.70	7.367	9.24	13.367	1.51	19.37	0.77
1.383	0.70	7.383	9.24	13.383	1.51	19.38	0.77
1.400	0.70	7.400	9.24	13.400	1.51	19.40	0.77
1.417	0.70	7.417	9.24	13.417	1.51	19.42	0.77
1.433	0.70	7.433	9.24	13.433	1.51	19.43	0.77
1.450	0.70	7.450	9.24	13.450	1.51	19.45	0.77
1.467	0.70	7.467	9.24	13.467	1.51	19.47	0.77
1.483	0.70	7.483	9.24	13.483	1.51	19.48	0.77
1.500	0.70	7.500	9.25	13.500	1.51	19.50	0.77
1.517	0.71	7.517	15.26	13.517	1.47	19.52	0.76
1.533	0.71	7.533	15.26	13.533	1.47	19.53	0.76
1.550	0.71	7.550	15.26	13.550	1.47	19.55	0.76
1.567	0.71	7.567	15.26	13.567	1.47	19.57	0.76
1.583	0.71	7.583	15.26	13.583	1.47	19.58	0.76
1.600	0.71	7.600	15.26	13.600	1.47	19.60	0.76
1.617	0.71	7.617	15.26	13.617	1.47	19.62	0.76
1.633	0.71	7.633	15.26	13.633	1.47	19.63	0.76
1.650	0.71	7.650	15.26	13.650	1.47	19.65	0.76
1.667	0.71	7.667	15.33	13.667	1.47	19.67	0.76
1.683	0.73	7.683	40.09	13.683	1.43	19.68	0.75
1.700	0.73	7.700	40.09	13.700	1.43	19.70	0.75
1.717	0.73	7.717	40.09	13.717	1.43	19.72	0.75
1.733	0.73	7.733	40.09	13.733	1.43	19.73	0.75
1.750	0.73	7.750	40.09	13.750	1.43	19.75	0.75
1.767	0.73	7.767	40.09	13.767	1.43	19.77	0.75
1.783	0.73	7.783	40.09	13.783	1.43	19.78	0.75
1.800	0.73	7.800	40.09	13.800	1.43	19.80	0.75
1.817	0.73	7.817	40.09	13.817	1.43	19.82	0.75
1.833	0.73	7.833	40.39	13.833	1.43	19.83	0.75
1.850	0.75	7.850	142.97	13.850	1.40	19.85	0.74
1.867	0.75	7.867	142.97	13.867	1.40	19.87	0.74
1.883	0.75	7.883	142.97	13.883	1.40	19.88	0.74
1.900	0.75	7.900	142.97	13.900	1.40	19.90	0.74
1.917	0.75	7.917	142.97	13.917	1.40	19.92	0.74
1.933	0.75	7.933	142.97	13.933	1.40	19.93	0.74
1.950	0.75	7.950	142.97	13.950	1.40	19.95	0.74
1.967	0.75	7.967	142.97	13.967	1.40	19.97	0.74
1.983	0.75	7.983	142.97	13.983	1.40	19.98	0.74
2.000	0.75	8.000	142.71	14.000	1.40	20.00	0.74
2.017	0.77	8.017	53.15	14.017	1.36	20.02	0.74
2.033	0.77	8.033	53.15	14.033	1.36	20.03	0.74
2.050	0.77	8.050	53.15	14.050	1.36	20.05	0.74
2.067	0.77	8.067	53.15	14.067	1.36	20.07	0.74
2.083	0.77	8.083	53.15	14.083	1.36	20.08	0.74
2.100	0.77	8.100	53.15	14.100	1.36	20.10	0.74
2.117	0.77	8.117	53.15	14.117	1.36	20.12	0.74
2.133	0.77	8.133	53.15	14.133	1.36	20.13	0.74
2.150	0.77	8.150	53.15	14.150	1.36	20.15	0.74
2.167	0.77	8.167	53.08	14.167	1.36	20.17	0.74
2.183	0.79	8.183	27.09	14.183	1.33	20.18	0.73
2.200	0.79	8.200	27.09	14.200	1.33	20.20	0.73
2.217	0.79	8.217	27.09	14.217	1.33	20.22	0.73
2.233	0.79	8.233	27.09	14.233	1.33	20.23	0.73
2.250	0.79	8.250	27.09	14.250	1.33	20.25	0.73
2.267	0.79	8.267	27.09	14.267	1.33	20.27	0.73
2.283	0.79	8.283	27.09	14.283	1.33	20.28	0.73
2.300	0.79	8.300	27.09	14.300	1.33	20.30	0.73
2.317	0.79	8.317	27.09	14.317	1.33	20.32	0.73
2.333	0.79	8.333	27.07	14.333	1.33	20.33	0.73
2.350	0.81	8.350	17.64	14.350	1.30	20.35	0.72
2.367	0.81	8.367	17.64	14.367	1.30	20.37	0.72
2.383	0.81	8.383	17.64	14.383	1.30	20.38	0.72
2.400	0.81	8.400	17.64	14.400	1.30	20.40	0.72
2.417	0.81	8.417	17.64	14.417	1.30	20.42	0.72
2.433	0.81	8.433	17.64	14.433	1.30	20.43	0.72
2.450	0.81	8.450	17.64	14.450	1.30	20.45	0.72
2.467	0.81	8.467	17.64	14.467	1.30	20.47	0.72
2.483	0.81	8.483	17.64	14.483	1.30	20.48	0.72
2.500	0.81	8.500	17.63	14.500	1.30	20.50	0.72
2.517	0.83	8.517	12.93	14.517	1.27	20.52	0.71
2.533	0.83	8.533	12.93	14.533	1.27	20.53	0.71
2.550	0.83	8.550	12.93	14.550	1.27	20.55	0.71
2.567	0.83	8.567	12.93	14.567	1.27	20.57	0.71
2.583	0.83	8.583	12.93	14.583	1.27	20.58	0.71
2.600	0.83	8.600	12.93	14.600	1.27	20.60	0.71
2.617	0.83	8.617	12.93	14.617	1.27	20.62	0.71
2.633	0.83	8.633	12.93	14.633	1.27	20.63	0.71
2.650	0.83	8.650	12.93	14.650	1.27	20.65	0.71
2.667	0.83	8.667	12.92	14.667	1.27	20.67	0.71
2.683	0.86	8.683	10.15	14.683	1.24	20.68	0.70
2.700	0.86	8.700	10.15	14.700	1.24	20.70	0.70
2.717	0.86	8.717	10.15	14.717	1.24	20.72	0.70
2.733	0.86	8.733	10.15	14.733	1.24	20.73	0.70
2.750	0.86	8.750	10.15	14.750	1.24	20.75	0.70
2.767	0.86	8.767	10.15	14.767	1.24	20.77	0.70
2.783	0.86	8.783	10.15	14.783	1.24	20.78	0.70
2.800	0.86	8.800	10.15	14.800	1.24	20.80	0.70
2.817	0.86	8.817	10.15	14.817	1.24	20.82	0.70
2.833	0.86	8.833	10.15	14.833	1.24	20.83	0.70
2.850	0.88	8.850	8.35	14.850	1.21	20.85	0.69
2.867	0.88	8.867	8.35	14.867	1.21	20.87	0.69
2.883	0.88	8.883	8.35	14.883	1.21	20.88	0.69
2.900	0.88	8.900	8.35	14.900	1.21	20.90	0.69
2.917	0.88	8.917	8.35	14.917	1.21	20.92	0.69
2.933	0.88	8.933	8.35	14.933	1.21	20.93	0.69
2.950	0.88	8.950	8.35	14.950	1.21	20.95	0.69
2.967	0.88	8.967	8.35	14.967	1.21	20.97	0.69
2.983	0.88	8.983	8.35	14.983	1.21	20.98	0.69
3.000	0.88	9.000	8.34	15.000	1.21	21.00	0.69
3.017	0.91	9.017	7.08	15.017	1.19	21.02	0.69
3.033	0.91	9.033	7.08	15.033	1.19	21.03	0.69
3.050	0.91	9.050	7.08	15.050	1.19	21.05	0.69
3.067	0.91	9.067	7.08	15.067	1.19	21.07	0.69
3.083	0.91	9.083	7.08	15.083	1.19	21.08	0.69
3.100	0.91	9.100	7.08	15.100	1.19	21.10	0.69
3.117	0.91	9.117	7.08	15.117	1.19	21.12	0.69
3.133	0.91	9.133	7.08	15.133	1.19	21.13	0.69
3.150	0.91	9.150	7.08	15.150	1.19	21.15	0.69
3.167	0.91	9.167	7.08	15.167	1.19	21.17	0.69
3.183	0.94	9.183	6.15	15.183	1.16	21.18	0.68
3.200	0.94	9.200	6.15	15.200	1.16	21.20	0.68
3.217	0.94	9.217	6.15	15.217	1.16	21.22	0.68
3.233	0.94	9.233	6.15	15.233	1.16	21.23	0.68
3.250	0.94	9.250	6.15	15.250	1.16	21.25	0.68
3.267	0.94	9.267	6.15	15.267	1.16	21.27	0.68
3.283	0.94	9.283	6.15	15.283	1.16	21.28	0.68
3.300	0.94	9.300	6.15	15.300	1.16	21.30	0.68
3.317	0.94	9.317	6.15	15.317	1.16	21.32	0.68
3.333	0.94	9.333	6.15	15.333	1.16	21.33	0.68
3.350	0.97	9.350	5.44	15.350	1.14	21.35	0.67
3.367	0.97	9.367	5.44	15.367	1.14	21.37	0.67
3.383	0.97	9.383	5.44	15.383	1.14	21.38	0.67
3.400	0.97	9.400	5.44	15.400	1.14	21.40	0.67
3.417	0.97	9.417	5.44	15.417	1.14	21.42	0.67
3.433	0.97	9.433	5.44	15.433	1.14	21.43	0.67
3.450	0.97	9.450	5.44	15.450	1.14	21.45	0.67
3.467	0.97	9.467	5.44	15.467	1.14	21.47	0.67
3.483	0.97	9.483	5.44	15.483	1.14	21.48	0.67
3.500	0.97	9.500	5.44	15.500	1.14	21.50	0.67
3.517	1.00	9.517	4.88	15.517	1.12	21.52	0.66
3.533	1.00	9.533	4.88	15.533	1.12	21.53	0.66
3.550	1.00	9.550	4.88	15.550	1.12	21.55	0.66
3.567	1.00	9.567	4.88	15.567	1.12	21.57	0.66
3.583	1.00	9.583	4.88	15.583	1.12	21.58	0.66
3.600	1.00	9.600	4.88	15.600	1.12	21.60	0.66
3.617	1.00	9.617	4.88	15.617	1.12	21.62	0.66
3.633	1.00	9.633	4.88	15.633	1.12	21.63	0.66
3.650	1.00	9.650	4.88	15.650	1.12	21.65	0.66
3.667	1.00	9.667	4.87	15.667	1.12	21.67	0.66
3.683	1.04	9.683	4.42	15.683	1.09	21.68	0.66
3.700	1.04	9.700	4.42	15.700	1.09	21.70	0.66
3.717	1.04	9.717	4.42	15.717	1.09	21.72	0.66
3.733	1.04	9.733	4.42	15.733	1.09	21.73	0.66
3.750	1.04	9.750	4.42	15.750	1.09	21.75	0.66
3.767	1.04	9.767	4.42	15.767	1.09	21.77	0.66
3.783	1.04	9.783	4.42	15.783	1.09	21.78	0.66
3.800	1.04	9.800	4.42	15.800	1.09	21.80	0.66
3.817	1.04	9.817	4.42	15.817	1.09	21.82	0.66
3.833	1.04	9.833	4.42	15.833	1.09	21.83	0.66
3.850	1.08	9.850	4.05	15.850	1.07	21.85	0.65
3.867	1.08	9.867	4.05	15.867	1.07	21.87	0.65
3.883	1.08	9.883	4.05	15.883	1.07	21.88	0.65
3.900	1.08	9.900	4.05	15.900	1.07	21.90	0.65
3.917	1.08	9.917	4.05	15.917	1.07	21.92	0.65
3.933	1.08	9.933	4.05	15.933	1.07	21.93	0.65
3.950	1.08	9.950	4.05	15.950	1.07	21.95	0.65
3.967	1.08	9.967	4.05	15.967	1.07	21.97	0.65
3.983	1.08	9.983	4.05	15.983	1.07	21.98	0.65
4.000	1.08	10.000	4.04	16.000	1.07	22.00	0.65
4.017	1.12	10.017	3.73	16.017	1.05	22.02	0.64
4.033	1.12	10.033	3.73	16.033	1.05	22.03	0.64
4.050	1.12	10.050	3.73	16.050	1.05	22.05	0.64
4.067	1.12	10.067	3.73	16.067	1.05	22.07	0.64
4.083	1.12	10.083	3.73	16.083	1.05	22.08	0.64
4.100	1.12	10.100	3.73	16.100	1.05	22.10	0.64
4.117	1.12	10.117	3.73	16.117	1.05	22.12	0.64
4.133	1.12	10.133	3.73	16.133	1.05	22.13	0.64
4.150	1.12	10.150	3.73	16.150	1.05	22.15	0.64
4.167	1.12	10.167	3.73	16.167	1.05	22.17	0.64
4.183	1.17	10.183	3.46	16.183	1.03	22.18	0.64
4.200	1.17	10.200	3.46	16.200	1.03	22.20	0.64
4.217	1.17	10.217	3.46	16.217	1.03	22.22	0.64
4.233	1.17	10.233	3.46	16.233	1.03	22.23	0.64
4.250	1.17	10.250	3.46	16.250	1.03	22.25	0.64
4.267	1.17	10.267	3.46	16.267	1.03	22.27	0.64

4.283	1.17	10.283	3.46	16.283	1.03	22.28	0.64
4.300	1.17	10.300	3.46	16.300	1.03	22.30	0.64
4.317	1.17	10.317	3.46	16.317	1.03	22.32	0.64
4.333	1.17	10.333	3.46	16.333	1.03	22.33	0.64
4.350	1.22	10.350	3.23	16.350	1.02	22.35	0.63
4.367	1.22	10.367	3.23	16.367	1.02	22.37	0.63
4.383	1.22	10.383	3.23	16.383	1.02	22.38	0.63
4.400	1.22	10.400	3.23	16.400	1.02	22.40	0.63
4.417	1.22	10.417	3.23	16.417	1.02	22.42	0.63
4.433	1.22	10.433	3.23	16.433	1.02	22.43	0.63
4.450	1.22	10.450	3.23	16.450	1.02	22.45	0.63
4.467	1.22	10.467	3.23	16.467	1.02	22.47	0.63
4.483	1.22	10.483	3.23	16.483	1.02	22.48	0.63
4.500	1.22	10.500	3.23	16.500	1.02	22.50	0.63
4.517	1.28	10.517	3.03	16.517	1.00	22.52	0.62
4.533	1.28	10.533	3.03	16.533	1.00	22.53	0.62
4.550	1.28	10.550	3.03	16.550	1.00	22.55	0.62
4.567	1.28	10.567	3.03	16.567	1.00	22.57	0.62
4.583	1.28	10.583	3.03	16.583	1.00	22.58	0.62
4.600	1.28	10.600	3.03	16.600	1.00	22.60	0.62
4.617	1.28	10.617	3.03	16.617	1.00	22.62	0.62
4.633	1.28	10.633	3.03	16.633	1.00	22.63	0.62
4.650	1.28	10.650	3.03	16.650	1.00	22.65	0.62
4.667	1.28	10.667	3.03	16.667	1.00	22.67	0.62
4.683	1.34	10.683	2.86	16.683	0.98	22.68	0.62
4.700	1.34	10.700	2.86	16.700	0.98	22.70	0.62
4.717	1.34	10.717	2.86	16.717	0.98	22.72	0.62
4.733	1.34	10.733	2.86	16.733	0.98	22.73	0.62
4.750	1.34	10.750	2.86	16.750	0.98	22.75	0.62
4.767	1.34	10.767	2.86	16.767	0.98	22.77	0.62
4.783	1.34	10.783	2.86	16.783	0.98	22.78	0.62
4.800	1.34	10.800	2.86	16.800	0.98	22.80	0.62
4.817	1.34	10.817	2.86	16.817	0.98	22.82	0.62
4.833	1.34	10.833	2.86	16.833	0.98	22.83	0.62
4.850	1.41	10.850	2.70	16.850	0.96	22.85	0.61
4.867	1.41	10.867	2.70	16.867	0.96	22.87	0.61
4.883	1.41	10.883	2.70	16.883	0.96	22.88	0.61
4.900	1.41	10.900	2.70	16.900	0.96	22.90	0.61
4.917	1.41	10.917	2.70	16.917	0.96	22.92	0.61
4.933	1.41	10.933	2.70	16.933	0.96	22.93	0.61
4.950	1.41	10.950	2.70	16.950	0.96	22.95	0.61
4.967	1.41	10.967	2.70	16.967	0.96	22.97	0.61
4.983	1.41	10.983	2.70	16.983	0.96	22.98	0.61
5.000	1.41	11.000	2.70	17.000	0.96	23.00	0.61
5.017	1.49	11.017	2.56	17.017	0.95	23.02	0.60
5.033	1.49	11.033	2.56	17.033	0.95	23.03	0.60
5.050	1.49	11.050	2.56	17.050	0.95	23.05	0.60
5.067	1.49	11.067	2.56	17.067	0.95	23.07	0.60
5.083	1.49	11.083	2.56	17.083	0.95	23.08	0.60
5.100	1.49	11.100	2.56	17.100	0.95	23.10	0.60
5.117	1.49	11.117	2.56	17.117	0.95	23.12	0.60
5.133	1.49	11.133	2.56	17.133	0.95	23.13	0.60

5.150	1.49	11.150	2.56	17.150	0.95	23.15	0.60
5.167	1.49	11.167	2.56	17.167	0.95	23.17	0.60
5.183	1.58	11.183	2.44	17.183	0.93	23.18	0.60
5.200	1.58	11.200	2.44	17.200	0.93	23.20	0.60
5.217	1.58	11.217	2.44	17.217	0.93	23.22	0.60
5.233	1.58	11.233	2.44	17.233	0.93	23.23	0.60
5.250	1.58	11.250	2.44	17.250	0.93	23.25	0.60
5.267	1.58	11.267	2.44	17.267	0.93	23.27	0.60
5.283	1.58	11.283	2.44	17.283	0.93	23.28	0.60
5.300	1.58	11.300	2.44	17.300	0.93	23.30	0.60
5.317	1.58	11.317	2.44	17.317	0.93	23.32	0.60
5.333	1.58	11.333	2.44	17.333	0.93	23.33	0.60
5.350	1.68	11.350	2.32	17.350	0.92	23.35	0.59
5.367	1.68	11.367	2.32	17.367	0.92	23.37	0.59
5.383	1.68	11.383	2.32	17.383	0.92	23.38	0.59
5.400	1.68	11.400	2.32	17.400	0.92	23.40	0.59
5.417	1.68	11.417	2.32	17.417	0.92	23.42	0.59
5.433	1.68	11.433	2.32	17.433	0.92	23.43	0.59
5.450	1.68	11.450	2.32	17.450	0.92	23.45	0.59
5.467	1.68	11.467	2.32	17.467	0.92	23.47	0.59
5.483	1.68	11.483	2.32	17.483	0.92	23.48	0.59
5.500	1.68	11.500	2.32	17.500	0.92	23.50	0.59
5.517	1.79	11.517	2.22	17.517	0.90	23.52	0.59
5.533	1.79	11.533	2.22	17.533	0.90	23.53	0.59
5.550	1.79	11.550	2.22	17.550	0.90	23.55	0.59
5.567	1.79	11.567	2.22	17.567	0.90	23.57	0.59
5.583	1.79	11.583	2.22	17.583	0.90	23.58	0.59
5.600	1.79	11.600	2.22	17.600	0.90	23.60	0.59
5.617	1.79	11.617	2.22	17.617	0.90	23.62	0.59
5.633	1.79	11.633	2.22	17.633	0.90	23.63	0.59
5.650	1.79	11.650	2.22	17.650	0.90	23.65	0.59
5.667	1.80	11.667	2.22	17.667	0.90	23.67	0.59
5.683	1.93	11.683	2.13	17.683	0.89	23.68	0.58
5.700	1.93	11.700	2.13	17.700	0.89	23.70	0.58
5.717	1.93	11.717	2.13	17.717	0.89	23.72	0.58
5.733	1.93	11.733	2.13	17.733	0.89	23.73	0.58
5.750	1.93	11.750	2.13	17.750	0.89	23.75	0.58
5.767	1.93	11.767	2.13	17.767	0.89	23.77	0.58
5.783	1.93	11.783	2.13	17.783	0.89	23.78	0.58
5.800	1.93	11.800	2.13	17.800	0.89	23.80	0.58
5.817	1.93	11.817	2.13	17.817	0.89	23.82	0.58
5.833	1.93	11.833	2.13	17.833	0.89	23.83	0.58
5.850	2.08	11.850	2.04	17.850	0.88	23.85	0.58
5.867	2.08	11.867	2.04	17.867	0.88	23.87	0.58
5.883	2.08	11.883	2.04	17.883	0.88	23.88	0.58
5.900	2.08	11.900	2.04	17.900	0.88	23.90	0.58
5.917	2.08	11.917	2.04	17.917	0.88	23.92	0.58
5.933	2.08	11.933	2.04	17.933	0.88	23.93	0.58
5.950	2.08	11.950	2.04	17.950	0.88	23.95	0.58
5.967	2.08	11.967	2.04	17.967	0.88	23.97	0.58
5.983	2.08	11.983	2.04	17.983	0.88	23.98	0.58
6.000	2.08	12.000	2.04	18.000	0.88	24.00	0.58

```
     Max.Eff.Inten.(mm/hr)=     142.97        32.72
               over (min)        5.00        13.00
     Storage Coeff.  (min)=      5.30 (ii)   12.27 (ii)
     Unit Hyd. Tpeak (min)=      5.00        13.00
     Unit Hyd. peak  (cms)=      0.22         0.09
                                                      *TOTALS*
     PEAK FLOW       (cms)=      1.78         0.40      2.004 (iii)
     TIME TO PEAK    (hrs)=      8.02         8.18       8.03
     RUNOFF VOLUME    (mm)=     88.95        22.22      48.26
     TOTAL RAINFALL   (mm)=     89.97        89.97      89.97
     RUNOFF COEFFICIENT   =       0.99         0.25       0.54

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
            CN*  =  48.0    Ia = Dep. Storage  (Above)
       (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
            THAN THE STORAGE COEFFICIENT.
       (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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

--------------------
| ADD HYD  (  0101)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
--------------------        (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  1011):    13.73    2.004     8.03    48.26
     + ID2= 2 (  0034):     1.45    1.440     8.05    55.39
       ========================================================
       ID = 3 (  0101):    15.19    3.427     8.03    48.94

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

--------------------
| ADD HYD  (  0901)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
--------------------        (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0101):    15.19    3.427     8.03    48.94
     + ID2= 2 (  0103):     1.17    0.115     8.02    39.52
       ========================================================
       ID = 3 (  0901):    16.35    3.541     8.03    48.27

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

--------------------
| ADD HYD  (  0902)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
--------------------        (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0104):     0.77    0.029     8.33    23.27
     + ID2= 2 (  0901):    16.35    3.541     8.03    48.27
```

```
       ================================================
       ID = 3 (  0902):    17.12   3.555     8.03    47.15

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
-------------------------------------------------------------------------------
--------------------
| CALIB            |
| STANDHYD (  1021)|   Area    (ha)=   3.77
|ID= 1 DT= 1.0 min |   Total Imp(%)=  45.00   Dir. Conn.(%)=  38.00
--------------------
                          IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       1.70         2.07
     Dep. Storage     (mm)=       1.00         5.00
     Average Slope     (%)=       0.50         2.00
     Length            (m)=     158.56        40.00
     Mannings n             =     0.013        0.250

       NOTE:  RAINFALL WAS TRANSFORMED TO   1.0 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
 0.017    0.59 | 6.017    2.27 |12.017    1.97 | 18.02    0.86
 0.033    0.59 | 6.033    2.27 |12.033    1.97 | 18.03    0.86
 0.050    0.59 | 6.050    2.27 |12.050    1.97 | 18.05    0.86
 0.067    0.59 | 6.067    2.27 |12.067    1.97 | 18.07    0.86
 0.083    0.59 | 6.083    2.27 |12.083    1.97 | 18.08    0.86
 0.100    0.59 | 6.100    2.27 |12.100    1.97 | 18.10    0.86
 0.117    0.59 | 6.117    2.27 |12.117    1.97 | 18.12    0.86
 0.133    0.59 | 6.133    2.27 |12.133    1.97 | 18.13    0.86
 0.150    0.59 | 6.150    2.27 |12.150    1.97 | 18.15    0.86
 0.167    0.59 | 6.167    2.27 |12.167    1.97 | 18.17    0.86
 0.183    0.60 | 6.183    2.50 |12.183    1.89 | 18.18    0.85
 0.200    0.60 | 6.200    2.50 |12.200    1.89 | 18.20    0.85
 0.217    0.60 | 6.217    2.50 |12.217    1.89 | 18.22    0.85
 0.233    0.60 | 6.233    2.50 |12.233    1.89 | 18.23    0.85
 0.250    0.60 | 6.250    2.50 |12.250    1.89 | 18.25    0.85
 0.267    0.60 | 6.267    2.50 |12.267    1.89 | 18.27    0.85
 0.283    0.60 | 6.283    2.50 |12.283    1.89 | 18.28    0.85
 0.300    0.60 | 6.300    2.50 |12.300    1.89 | 18.30    0.85
 0.317    0.60 | 6.317    2.50 |12.317    1.89 | 18.32    0.85
 0.333    0.60 | 6.333    2.50 |12.333    1.89 | 18.33    0.85
 0.350    0.61 | 6.350    2.77 |12.350    1.83 | 18.35    0.84
 0.367    0.61 | 6.367    2.77 |12.367    1.83 | 18.37    0.84
 0.383    0.61 | 6.383    2.77 |12.383    1.83 | 18.38    0.84
 0.400    0.61 | 6.400    2.77 |12.400    1.83 | 18.40    0.84
 0.417    0.61 | 6.417    2.77 |12.417    1.83 | 18.42    0.84
 0.433    0.61 | 6.433    2.77 |12.433    1.83 | 18.43    0.84
 0.450    0.61 | 6.450    2.77 |12.450    1.83 | 18.45    0.84
 0.467    0.61 | 6.467    2.77 |12.467    1.83 | 18.47    0.84
 0.483    0.61 | 6.483    2.77 |12.483    1.83 | 18.48    0.84
```

0.500	0.61	6.500	2.77	12.500	1.83	18.50	0.84
0.517	0.63	6.517	3.13	12.517	1.77	18.52	0.83
0.533	0.63	6.533	3.13	12.533	1.77	18.53	0.83
0.550	0.63	6.550	3.13	12.550	1.77	18.55	0.83
0.567	0.63	6.567	3.13	12.567	1.77	18.57	0.83
0.583	0.63	6.583	3.13	12.583	1.77	18.58	0.83
0.600	0.63	6.600	3.13	12.600	1.77	18.60	0.83
0.617	0.63	6.617	3.13	12.617	1.77	18.62	0.83
0.633	0.63	6.633	3.13	12.633	1.77	18.63	0.83
0.650	0.63	6.650	3.13	12.650	1.77	18.65	0.83
0.667	0.63	6.667	3.13	12.667	1.77	18.67	0.83
0.683	0.64	6.683	3.59	12.683	1.71	18.68	0.82
0.700	0.64	6.700	3.59	12.700	1.71	18.70	0.82
0.717	0.64	6.717	3.59	12.717	1.71	18.72	0.82
0.733	0.64	6.733	3.59	12.733	1.71	18.73	0.82
0.750	0.64	6.750	3.59	12.750	1.71	18.75	0.82
0.767	0.64	6.767	3.59	12.767	1.71	18.77	0.82
0.783	0.64	6.783	3.59	12.783	1.71	18.78	0.82
0.800	0.64	6.800	3.59	12.800	1.71	18.80	0.82
0.817	0.64	6.817	3.59	12.817	1.71	18.82	0.82
0.833	0.64	6.833	3.59	12.833	1.71	18.83	0.82
0.850	0.65	6.850	4.23	12.850	1.66	18.85	0.80
0.867	0.65	6.867	4.23	12.867	1.66	18.87	0.80
0.883	0.65	6.883	4.23	12.883	1.66	18.88	0.80
0.900	0.65	6.900	4.23	12.900	1.66	18.90	0.80
0.917	0.65	6.917	4.23	12.917	1.66	18.92	0.80
0.933	0.65	6.933	4.23	12.933	1.66	18.93	0.80
0.950	0.65	6.950	4.23	12.950	1.66	18.95	0.80
0.967	0.65	6.967	4.23	12.967	1.66	18.97	0.80
0.983	0.65	6.983	4.23	12.983	1.66	18.98	0.80
1.000	0.65	7.000	4.23	13.000	1.66	19.00	0.80
1.017	0.67	7.017	5.15	13.017	1.61	19.02	0.79
1.033	0.67	7.033	5.15	13.033	1.61	19.03	0.79
1.050	0.67	7.050	5.15	13.050	1.61	19.05	0.79
1.067	0.67	7.067	5.15	13.067	1.61	19.07	0.79
1.083	0.67	7.083	5.15	13.083	1.61	19.08	0.79
1.100	0.67	7.100	5.15	13.100	1.61	19.10	0.79
1.117	0.67	7.117	5.15	13.117	1.61	19.12	0.79
1.133	0.67	7.133	5.15	13.133	1.61	19.13	0.79
1.150	0.67	7.150	5.15	13.150	1.61	19.15	0.79
1.167	0.67	7.167	5.15	13.167	1.61	19.17	0.79
1.183	0.68	7.183	6.61	13.183	1.56	19.18	0.78
1.200	0.68	7.200	6.61	13.200	1.56	19.20	0.78
1.217	0.68	7.217	6.61	13.217	1.56	19.22	0.78
1.233	0.68	7.233	6.61	13.233	1.56	19.23	0.78
1.250	0.68	7.250	6.61	13.250	1.56	19.25	0.78
1.267	0.68	7.267	6.61	13.267	1.56	19.27	0.78
1.283	0.68	7.283	6.61	13.283	1.56	19.28	0.78
1.300	0.68	7.300	6.61	13.300	1.56	19.30	0.78
1.317	0.68	7.317	6.61	13.317	1.56	19.32	0.78
1.333	0.68	7.333	6.61	13.333	1.56	19.33	0.78
1.350	0.70	7.350	9.24	13.350	1.51	19.35	0.77

1.367	0.70	7.367	9.24	13.367	1.51	19.37	0.77
1.383	0.70	7.383	9.24	13.383	1.51	19.38	0.77
1.400	0.70	7.400	9.24	13.400	1.51	19.40	0.77
1.417	0.70	7.417	9.24	13.417	1.51	19.42	0.77
1.433	0.70	7.433	9.24	13.433	1.51	19.43	0.77
1.450	0.70	7.450	9.24	13.450	1.51	19.45	0.77
1.467	0.70	7.467	9.24	13.467	1.51	19.47	0.77
1.483	0.70	7.483	9.24	13.483	1.51	19.48	0.77
1.500	0.70	7.500	9.25	13.500	1.51	19.50	0.77
1.517	0.71	7.517	15.26	13.517	1.47	19.52	0.76
1.533	0.71	7.533	15.26	13.533	1.47	19.53	0.76
1.550	0.71	7.550	15.26	13.550	1.47	19.55	0.76
1.567	0.71	7.567	15.26	13.567	1.47	19.57	0.76
1.583	0.71	7.583	15.26	13.583	1.47	19.58	0.76
1.600	0.71	7.600	15.26	13.600	1.47	19.60	0.76
1.617	0.71	7.617	15.26	13.617	1.47	19.62	0.76
1.633	0.71	7.633	15.26	13.633	1.47	19.63	0.76
1.650	0.71	7.650	15.26	13.650	1.47	19.65	0.76
1.667	0.71	7.667	15.33	13.667	1.47	19.67	0.76
1.683	0.73	7.683	40.09	13.683	1.43	19.68	0.75
1.700	0.73	7.700	40.09	13.700	1.43	19.70	0.75
1.717	0.73	7.717	40.09	13.717	1.43	19.72	0.75
1.733	0.73	7.733	40.09	13.733	1.43	19.73	0.75
1.750	0.73	7.750	40.09	13.750	1.43	19.75	0.75
1.767	0.73	7.767	40.09	13.767	1.43	19.77	0.75
1.783	0.73	7.783	40.09	13.783	1.43	19.78	0.75
1.800	0.73	7.800	40.09	13.800	1.43	19.80	0.75
1.817	0.73	7.817	40.09	13.817	1.43	19.82	0.75
1.833	0.73	7.833	40.39	13.833	1.43	19.83	0.75
1.850	0.75	7.850	142.97	13.850	1.40	19.85	0.74
1.867	0.75	7.867	142.97	13.867	1.40	19.87	0.74
1.883	0.75	7.883	142.97	13.883	1.40	19.88	0.74
1.900	0.75	7.900	142.97	13.900	1.40	19.90	0.74
1.917	0.75	7.917	142.97	13.917	1.40	19.92	0.74
1.933	0.75	7.933	142.97	13.933	1.40	19.93	0.74
1.950	0.75	7.950	142.97	13.950	1.40	19.95	0.74
1.967	0.75	7.967	142.97	13.967	1.40	19.97	0.74
1.983	0.75	7.983	142.97	13.983	1.40	19.98	0.74
2.000	0.75	8.000	142.71	14.000	1.40	20.00	0.74
2.017	0.77	8.017	53.15	14.017	1.36	20.02	0.74
2.033	0.77	8.033	53.15	14.033	1.36	20.03	0.74
2.050	0.77	8.050	53.15	14.050	1.36	20.05	0.74
2.067	0.77	8.067	53.15	14.067	1.36	20.07	0.74
2.083	0.77	8.083	53.15	14.083	1.36	20.08	0.74
2.100	0.77	8.100	53.15	14.100	1.36	20.10	0.74
2.117	0.77	8.117	53.15	14.117	1.36	20.12	0.74
2.133	0.77	8.133	53.15	14.133	1.36	20.13	0.74
2.150	0.77	8.150	53.15	14.150	1.36	20.15	0.74
2.167	0.77	8.167	53.08	14.167	1.36	20.17	0.74
2.183	0.79	8.183	27.09	14.183	1.33	20.18	0.73
2.200	0.79	8.200	27.09	14.200	1.33	20.20	0.73
2.217	0.79	8.217	27.09	14.217	1.33	20.22	0.73

2.233	0.79	8.233	27.09	14.233	1.33	20.23	0.73
2.250	0.79	8.250	27.09	14.250	1.33	20.25	0.73
2.267	0.79	8.267	27.09	14.267	1.33	20.27	0.73
2.283	0.79	8.283	27.09	14.283	1.33	20.28	0.73
2.300	0.79	8.300	27.09	14.300	1.33	20.30	0.73
2.317	0.79	8.317	27.09	14.317	1.33	20.32	0.73
2.333	0.79	8.333	27.07	14.333	1.33	20.33	0.73
2.350	0.81	8.350	17.64	14.350	1.30	20.35	0.72
2.367	0.81	8.367	17.64	14.367	1.30	20.37	0.72
2.383	0.81	8.383	17.64	14.383	1.30	20.38	0.72
2.400	0.81	8.400	17.64	14.400	1.30	20.40	0.72
2.417	0.81	8.417	17.64	14.417	1.30	20.42	0.72
2.433	0.81	8.433	17.64	14.433	1.30	20.43	0.72
2.450	0.81	8.450	17.64	14.450	1.30	20.45	0.72
2.467	0.81	8.467	17.64	14.467	1.30	20.47	0.72
2.483	0.81	8.483	17.64	14.483	1.30	20.48	0.72
2.500	0.81	8.500	17.63	14.500	1.30	20.50	0.72
2.517	0.83	8.517	12.93	14.517	1.27	20.52	0.71
2.533	0.83	8.533	12.93	14.533	1.27	20.53	0.71
2.550	0.83	8.550	12.93	14.550	1.27	20.55	0.71
2.567	0.83	8.567	12.93	14.567	1.27	20.57	0.71
2.583	0.83	8.583	12.93	14.583	1.27	20.58	0.71
2.600	0.83	8.600	12.93	14.600	1.27	20.60	0.71
2.617	0.83	8.617	12.93	14.617	1.27	20.62	0.71
2.633	0.83	8.633	12.93	14.633	1.27	20.63	0.71
2.650	0.83	8.650	12.93	14.650	1.27	20.65	0.71
2.667	0.83	8.667	12.92	14.667	1.27	20.67	0.71
2.683	0.86	8.683	10.15	14.683	1.24	20.68	0.70
2.700	0.86	8.700	10.15	14.700	1.24	20.70	0.70
2.717	0.86	8.717	10.15	14.717	1.24	20.72	0.70
2.733	0.86	8.733	10.15	14.733	1.24	20.73	0.70
2.750	0.86	8.750	10.15	14.750	1.24	20.75	0.70
2.767	0.86	8.767	10.15	14.767	1.24	20.77	0.70
2.783	0.86	8.783	10.15	14.783	1.24	20.78	0.70
2.800	0.86	8.800	10.15	14.800	1.24	20.80	0.70
2.817	0.86	8.817	10.15	14.817	1.24	20.82	0.70
2.833	0.86	8.833	10.15	14.833	1.24	20.83	0.70
2.850	0.88	8.850	8.35	14.850	1.21	20.85	0.69
2.867	0.88	8.867	8.35	14.867	1.21	20.87	0.69
2.883	0.88	8.883	8.35	14.883	1.21	20.88	0.69
2.900	0.88	8.900	8.35	14.900	1.21	20.90	0.69
2.917	0.88	8.917	8.35	14.917	1.21	20.92	0.69
2.933	0.88	8.933	8.35	14.933	1.21	20.93	0.69
2.950	0.88	8.950	8.35	14.950	1.21	20.95	0.69
2.967	0.88	8.967	8.35	14.967	1.21	20.97	0.69
2.983	0.88	8.983	8.35	14.983	1.21	20.98	0.69
3.000	0.88	9.000	8.34	15.000	1.21	21.00	0.69
3.017	0.91	9.017	7.08	15.017	1.19	21.02	0.69
3.033	0.91	9.033	7.08	15.033	1.19	21.03	0.69
3.050	0.91	9.050	7.08	15.050	1.19	21.05	0.69
3.067	0.91	9.067	7.08	15.067	1.19	21.07	0.69
3.083	0.91	9.083	7.08	15.083	1.19	21.08	0.69
3.100	0.91	9.100	7.08	15.100	1.19	21.10	0.69
3.117	0.91	9.117	7.08	15.117	1.19	21.12	0.69
3.133	0.91	9.133	7.08	15.133	1.19	21.13	0.69
3.150	0.91	9.150	7.08	15.150	1.19	21.15	0.69
3.167	0.91	9.167	7.08	15.167	1.19	21.17	0.69
3.183	0.94	9.183	6.15	15.183	1.16	21.18	0.68
3.200	0.94	9.200	6.15	15.200	1.16	21.20	0.68
3.217	0.94	9.217	6.15	15.217	1.16	21.22	0.68
3.233	0.94	9.233	6.15	15.233	1.16	21.23	0.68
3.250	0.94	9.250	6.15	15.250	1.16	21.25	0.68
3.267	0.94	9.267	6.15	15.267	1.16	21.27	0.68
3.283	0.94	9.283	6.15	15.283	1.16	21.28	0.68
3.300	0.94	9.300	6.15	15.300	1.16	21.30	0.68
3.317	0.94	9.317	6.15	15.317	1.16	21.32	0.68
3.333	0.94	9.333	6.15	15.333	1.16	21.33	0.68
3.350	0.97	9.350	5.44	15.350	1.14	21.35	0.67
3.367	0.97	9.367	5.44	15.367	1.14	21.37	0.67
3.383	0.97	9.383	5.44	15.383	1.14	21.38	0.67
3.400	0.97	9.400	5.44	15.400	1.14	21.40	0.67
3.417	0.97	9.417	5.44	15.417	1.14	21.42	0.67
3.433	0.97	9.433	5.44	15.433	1.14	21.43	0.67
3.450	0.97	9.450	5.44	15.450	1.14	21.45	0.67
3.467	0.97	9.467	5.44	15.467	1.14	21.47	0.67
3.483	0.97	9.483	5.44	15.483	1.14	21.48	0.67
3.500	0.97	9.500	5.44	15.500	1.14	21.50	0.67
3.517	1.00	9.517	4.88	15.517	1.12	21.52	0.66
3.533	1.00	9.533	4.88	15.533	1.12	21.53	0.66
3.550	1.00	9.550	4.88	15.550	1.12	21.55	0.66
3.567	1.00	9.567	4.88	15.567	1.12	21.57	0.66
3.583	1.00	9.583	4.88	15.583	1.12	21.58	0.66
3.600	1.00	9.600	4.88	15.600	1.12	21.60	0.66
3.617	1.00	9.617	4.88	15.617	1.12	21.62	0.66
3.633	1.00	9.633	4.88	15.633	1.12	21.63	0.66
3.650	1.00	9.650	4.88	15.650	1.12	21.65	0.66
3.667	1.00	9.667	4.87	15.667	1.12	21.67	0.66
3.683	1.04	9.683	4.42	15.683	1.09	21.68	0.66
3.700	1.04	9.700	4.42	15.700	1.09	21.70	0.66
3.717	1.04	9.717	4.42	15.717	1.09	21.72	0.66
3.733	1.04	9.733	4.42	15.733	1.09	21.73	0.66
3.750	1.04	9.750	4.42	15.750	1.09	21.75	0.66
3.767	1.04	9.767	4.42	15.767	1.09	21.77	0.66
3.783	1.04	9.783	4.42	15.783	1.09	21.78	0.66
3.800	1.04	9.800	4.42	15.800	1.09	21.80	0.66
3.817	1.04	9.817	4.42	15.817	1.09	21.82	0.66
3.833	1.04	9.833	4.42	15.833	1.09	21.83	0.66
3.850	1.08	9.850	4.05	15.850	1.07	21.85	0.65
3.867	1.08	9.867	4.05	15.867	1.07	21.87	0.65
3.883	1.08	9.883	4.05	15.883	1.07	21.88	0.65
3.900	1.08	9.900	4.05	15.900	1.07	21.90	0.65
3.917	1.08	9.917	4.05	15.917	1.07	21.92	0.65
3.933	1.08	9.933	4.05	15.933	1.07	21.93	0.65
3.950	1.08	9.950	4.05	15.950	1.07	21.95	0.65
3.967	1.08	9.967	4.05	15.967	1.07	21.97	0.65
3.983	1.08	9.983	4.05	15.983	1.07	21.98	0.65
4.000	1.08	10.000	4.04	16.000	1.07	22.00	0.65
4.017	1.12	10.017	3.73	16.017	1.05	22.02	0.64
4.033	1.12	10.033	3.73	16.033	1.05	22.03	0.64
4.050	1.12	10.050	3.73	16.050	1.05	22.05	0.64
4.067	1.12	10.067	3.73	16.067	1.05	22.07	0.64
4.083	1.12	10.083	3.73	16.083	1.05	22.08	0.64
4.100	1.12	10.100	3.73	16.100	1.05	22.10	0.64
4.117	1.12	10.117	3.73	16.117	1.05	22.12	0.64
4.133	1.12	10.133	3.73	16.133	1.05	22.13	0.64
4.150	1.12	10.150	3.73	16.150	1.05	22.15	0.64
4.167	1.12	10.167	3.73	16.167	1.05	22.17	0.64
4.183	1.17	10.183	3.46	16.183	1.03	22.18	0.64
4.200	1.17	10.200	3.46	16.200	1.03	22.20	0.64
4.217	1.17	10.217	3.46	16.217	1.03	22.22	0.64
4.233	1.17	10.233	3.46	16.233	1.03	22.23	0.64
4.250	1.17	10.250	3.46	16.250	1.03	22.25	0.64
4.267	1.17	10.267	3.46	16.267	1.03	22.27	0.64
4.283	1.17	10.283	3.46	16.283	1.03	22.28	0.64
4.300	1.17	10.300	3.46	16.300	1.03	22.30	0.64
4.317	1.17	10.317	3.46	16.317	1.03	22.32	0.64
4.333	1.17	10.333	3.46	16.333	1.03	22.33	0.64
4.350	1.22	10.350	3.23	16.350	1.02	22.35	0.63
4.367	1.22	10.367	3.23	16.367	1.02	22.37	0.63
4.383	1.22	10.383	3.23	16.383	1.02	22.38	0.63
4.400	1.22	10.400	3.23	16.400	1.02	22.40	0.63
4.417	1.22	10.417	3.23	16.417	1.02	22.42	0.63
4.433	1.22	10.433	3.23	16.433	1.02	22.43	0.63
4.450	1.22	10.450	3.23	16.450	1.02	22.45	0.63
4.467	1.22	10.467	3.23	16.467	1.02	22.47	0.63
4.483	1.22	10.483	3.23	16.483	1.02	22.48	0.63
4.500	1.22	10.500	3.23	16.500	1.02	22.50	0.63
4.517	1.28	10.517	3.03	16.517	1.00	22.52	0.62
4.533	1.28	10.533	3.03	16.533	1.00	22.53	0.62
4.550	1.28	10.550	3.03	16.550	1.00	22.55	0.62
4.567	1.28	10.567	3.03	16.567	1.00	22.57	0.62
4.583	1.28	10.583	3.03	16.583	1.00	22.58	0.62
4.600	1.28	10.600	3.03	16.600	1.00	22.60	0.62
4.617	1.28	10.617	3.03	16.617	1.00	22.62	0.62
4.633	1.28	10.633	3.03	16.633	1.00	22.63	0.62
4.650	1.28	10.650	3.03	16.650	1.00	22.65	0.62
4.667	1.28	10.667	3.03	16.667	1.00	22.67	0.62
4.683	1.34	10.683	2.86	16.683	0.98	22.68	0.62
4.700	1.34	10.700	2.86	16.700	0.98	22.70	0.62
4.717	1.34	10.717	2.86	16.717	0.98	22.72	0.62
4.733	1.34	10.733	2.86	16.733	0.98	22.73	0.62
4.750	1.34	10.750	2.86	16.750	0.98	22.75	0.62
4.767	1.34	10.767	2.86	16.767	0.98	22.77	0.62
4.783	1.34	10.783	2.86	16.783	0.98	22.78	0.62
4.800	1.34	10.800	2.86	16.800	0.98	22.80	0.62
4.817	1.34	10.817	2.86	16.817	0.98	22.82	0.62
4.833	1.34	10.833	2.86	16.833	0.98	22.83	0.62
4.850	1.41	10.850	2.70	16.850	0.96	22.85	0.61
4.867	1.41	10.867	2.70	16.867	0.96	22.87	0.61
4.883	1.41	10.883	2.70	16.883	0.96	22.88	0.61
4.900	1.41	10.900	2.70	16.900	0.96	22.90	0.61
4.917	1.41	10.917	2.70	16.917	0.96	22.92	0.61
4.933	1.41	10.933	2.70	16.933	0.96	22.93	0.61
4.950	1.41	10.950	2.70	16.950	0.96	22.95	0.61
4.967	1.41	10.967	2.70	16.967	0.96	22.97	0.61
4.983	1.41	10.983	2.70	16.983	0.96	22.98	0.61
5.000	1.41	11.000	2.70	17.000	0.96	23.00	0.61
5.017	1.49	11.017	2.56	17.017	0.95	23.02	0.60
5.033	1.49	11.033	2.56	17.033	0.95	23.03	0.60
5.050	1.49	11.050	2.56	17.050	0.95	23.05	0.60
5.067	1.49	11.067	2.56	17.067	0.95	23.07	0.60
5.083	1.49	11.083	2.56	17.083	0.95	23.08	0.60
5.100	1.49	11.100	2.56	17.100	0.95	23.10	0.60
5.117	1.49	11.117	2.56	17.117	0.95	23.12	0.60
5.133	1.49	11.133	2.56	17.133	0.95	23.13	0.60
5.150	1.49	11.150	2.56	17.150	0.95	23.15	0.60
5.167	1.49	11.167	2.56	17.167	0.95	23.17	0.60
5.183	1.58	11.183	2.44	17.183	0.93	23.18	0.60
5.200	1.58	11.200	2.44	17.200	0.93	23.20	0.60
5.217	1.58	11.217	2.44	17.217	0.93	23.22	0.60
5.233	1.58	11.233	2.44	17.233	0.93	23.23	0.60
5.250	1.58	11.250	2.44	17.250	0.93	23.25	0.60
5.267	1.58	11.267	2.44	17.267	0.93	23.27	0.60
5.283	1.58	11.283	2.44	17.283	0.93	23.28	0.60
5.300	1.58	11.300	2.44	17.300	0.93	23.30	0.60
5.317	1.58	11.317	2.44	17.317	0.93	23.32	0.60
5.333	1.58	11.333	2.44	17.333	0.93	23.33	0.60
5.350	1.68	11.350	2.32	17.350	0.92	23.35	0.59
5.367	1.68	11.367	2.32	17.367	0.92	23.37	0.59
5.383	1.68	11.383	2.32	17.383	0.92	23.38	0.59
5.400	1.68	11.400	2.32	17.400	0.92	23.40	0.59
5.417	1.68	11.417	2.32	17.417	0.92	23.42	0.59
5.433	1.68	11.433	2.32	17.433	0.92	23.43	0.59
5.450	1.68	11.450	2.32	17.450	0.92	23.45	0.59
5.467	1.68	11.467	2.32	17.467	0.92	23.47	0.59
5.483	1.68	11.483	2.32	17.483	0.92	23.48	0.59
5.500	1.68	11.500	2.32	17.500	0.92	23.50	0.59
5.517	1.79	11.517	2.22	17.517	0.90	23.52	0.59
5.533	1.79	11.533	2.22	17.533	0.90	23.53	0.59
5.550	1.79	11.550	2.22	17.550	0.90	23.55	0.59
5.567	1.79	11.567	2.22	17.567	0.90	23.57	0.59
5.583	1.79	11.583	2.22	17.583	0.90	23.58	0.59
5.600	1.79	11.600	2.22	17.600	0.90	23.60	0.59
5.617	1.79	11.617	2.22	17.617	0.90	23.62	0.59
5.633	1.79	11.633	2.22	17.633	0.90	23.63	0.59
5.650	1.79	11.650	2.22	17.650	0.90	23.65	0.59
5.667	1.80	11.667	2.22	17.667	0.90	23.67	0.59
5.683	1.93	11.683	2.13	17.683	0.89	23.68	0.58
5.700	1.93	11.700	2.13	17.700	0.89	23.70	0.58
5.717	1.93	11.717	2.13	17.717	0.89	23.72	0.58
5.733	1.93	11.733	2.13	17.733	0.89	23.73	0.58
5.750	1.93	11.750	2.13	17.750	0.89	23.75	0.58
5.767	1.93	11.767	2.13	17.767	0.89	23.77	0.58
5.783	1.93	11.783	2.13	17.783	0.89	23.78	0.58
5.800	1.93	11.800	2.13	17.800	0.89	23.80	0.58
5.817	1.93	11.817	2.13	17.817	0.89	23.82	0.58
5.833	1.93	11.833	2.13	17.833	0.89	23.83	0.58
5.850	2.08	11.850	2.04	17.850	0.88	23.85	0.58
5.867	2.08	11.867	2.04	17.867	0.88	23.87	0.58
5.883	2.08	11.883	2.04	17.883	0.88	23.88	0.58
5.900	2.08	11.900	2.04	17.900	0.88	23.90	0.58
5.917	2.08	11.917	2.04	17.917	0.88	23.92	0.58
5.933	2.08	11.933	2.04	17.933	0.88	23.93	0.58
5.950	2.08	11.950	2.04	17.950	0.88	23.95	0.58
5.967	2.08	11.967	2.04	17.967	0.88	23.97	0.58
5.983	2.08	11.983	2.04	17.983	0.88	23.98	0.58
6.000	2.08	12.000	2.04	18.000	0.88	24.00	0.58

Max.Eff.Inten.(mm/hr)=	142.97	32.58	
over (min)	5.00	11.00	
Storage Coeff. (min)=	3.59 (ii)	10.69 (ii)	
Unit Hyd. Tpeak (min)=	5.00	11.00	
Unit Hyd. peak (cms)=	0.28	0.10	
			TOTALS
PEAK FLOW (cms)=	0.52	0.12	0.593 (iii)
TIME TO PEAK (hrs)=	8.02	8.15	8.02
RUNOFF VOLUME (mm)=	88.96	22.19	47.57
TOTAL RAINFALL (mm)=	89.97	89.97	89.97
RUNOFF COEFFICIENT =	0.99	0.25	0.53

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 48.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (1022)	Area (ha)=	2.86	
ID= 1 DT= 1.0 min	Total Imp(%)=	41.00	Dir. Conn.(%)= 35.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.17	1.69
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.50	2.00
Length (m)=	138.06	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 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
0.017	0.59	6.017	2.27	12.017	1.97	18.02	0.86
0.033	0.59	6.033	2.27	12.033	1.97	18.03	0.86
0.050	0.59	6.050	2.27	12.050	1.97	18.05	0.86
0.067	0.59	6.067	2.27	12.067	1.97	18.07	0.86
0.083	0.59	6.083	2.27	12.083	1.97	18.08	0.86
0.100	0.59	6.100	2.27	12.100	1.97	18.10	0.86
0.117	0.59	6.117	2.27	12.117	1.97	18.12	0.86
0.133	0.59	6.133	2.27	12.133	1.97	18.13	0.86
0.150	0.59	6.150	2.27	12.150	1.97	18.15	0.86
0.167	0.59	6.167	2.27	12.167	1.97	18.17	0.86
0.183	0.60	6.183	2.50	12.183	1.89	18.18	0.85
0.200	0.60	6.200	2.50	12.200	1.89	18.20	0.85
0.217	0.60	6.217	2.50	12.217	1.89	18.22	0.85
0.233	0.60	6.233	2.50	12.233	1.89	18.23	0.85
0.250	0.60	6.250	2.50	12.250	1.89	18.25	0.85
0.267	0.60	6.267	2.50	12.267	1.89	18.27	0.85
0.283	0.60	6.283	2.50	12.283	1.89	18.28	0.85
0.300	0.60	6.300	2.50	12.300	1.89	18.30	0.85
0.317	0.60	6.317	2.50	12.317	1.89	18.32	0.85
0.333	0.60	6.333	2.50	12.333	1.89	18.33	0.85
0.350	0.61	6.350	2.77	12.350	1.83	18.35	0.84
0.367	0.61	6.367	2.77	12.367	1.83	18.37	0.84
0.383	0.61	6.383	2.77	12.383	1.83	18.38	0.84
0.400	0.61	6.400	2.77	12.400	1.83	18.40	0.84
0.417	0.61	6.417	2.77	12.417	1.83	18.42	0.84
0.433	0.61	6.433	2.77	12.433	1.83	18.43	0.84
0.450	0.61	6.450	2.77	12.450	1.83	18.45	0.84
0.467	0.61	6.467	2.77	12.467	1.83	18.47	0.84
0.483	0.61	6.483	2.77	12.483	1.83	18.48	0.84
0.500	0.61	6.500	2.77	12.500	1.83	18.50	0.84
0.517	0.63	6.517	3.13	12.517	1.77	18.52	0.83
0.533	0.63	6.533	3.13	12.533	1.77	18.53	0.83
0.550	0.63	6.550	3.13	12.550	1.77	18.55	0.83
0.567	0.63	6.567	3.13	12.567	1.77	18.57	0.83
0.583	0.63	6.583	3.13	12.583	1.77	18.58	0.83
0.600	0.63	6.600	3.13	12.600	1.77	18.60	0.83
0.617	0.63	6.617	3.13	12.617	1.77	18.62	0.83
0.633	0.63	6.633	3.13	12.633	1.77	18.63	0.83
0.650	0.63	6.650	3.13	12.650	1.77	18.65	0.83
0.667	0.63	6.667	3.13	12.667	1.77	18.67	0.83
0.683	0.64	6.683	3.59	12.683	1.71	18.68	0.82
0.700	0.64	6.700	3.59	12.700	1.71	18.70	0.82
0.717	0.64	6.717	3.59	12.717	1.71	18.72	0.82
0.733	0.64	6.733	3.59	12.733	1.71	18.73	0.82
0.750	0.64	6.750	3.59	12.750	1.71	18.75	0.82
0.767	0.64	6.767	3.59	12.767	1.71	18.77	0.82

0.783	0.64	6.783	3.59	12.783	1.71	18.78	0.82
0.800	0.64	6.800	3.59	12.800	1.71	18.80	0.82
0.817	0.64	6.817	3.59	12.817	1.71	18.82	0.82
0.833	0.64	6.833	3.59	12.833	1.71	18.83	0.82
0.850	0.65	6.850	4.23	12.850	1.66	18.85	0.80
0.867	0.65	6.867	4.23	12.867	1.66	18.87	0.80
0.883	0.65	6.883	4.23	12.883	1.66	18.88	0.80
0.900	0.65	6.900	4.23	12.900	1.66	18.90	0.80
0.917	0.65	6.917	4.23	12.917	1.66	18.92	0.80
0.933	0.65	6.933	4.23	12.933	1.66	18.93	0.80
0.950	0.65	6.950	4.23	12.950	1.66	18.95	0.80
0.967	0.65	6.967	4.23	12.967	1.66	18.97	0.80
0.983	0.65	6.983	4.23	12.983	1.66	18.98	0.80
1.000	0.65	7.000	4.23	13.000	1.66	19.00	0.80
1.017	0.67	7.017	5.15	13.017	1.61	19.02	0.79
1.033	0.67	7.033	5.15	13.033	1.61	19.03	0.79
1.050	0.67	7.050	5.15	13.050	1.61	19.05	0.79
1.067	0.67	7.067	5.15	13.067	1.61	19.07	0.79
1.083	0.67	7.083	5.15	13.083	1.61	19.08	0.79
1.100	0.67	7.100	5.15	13.100	1.61	19.10	0.79
1.117	0.67	7.117	5.15	13.117	1.61	19.12	0.79
1.133	0.67	7.133	5.15	13.133	1.61	19.13	0.79
1.150	0.67	7.150	5.15	13.150	1.61	19.15	0.79
1.167	0.67	7.167	5.15	13.167	1.61	19.17	0.79
1.183	0.68	7.183	6.61	13.183	1.56	19.18	0.78
1.200	0.68	7.200	6.61	13.200	1.56	19.20	0.78
1.217	0.68	7.217	6.61	13.217	1.56	19.22	0.78
1.233	0.68	7.233	6.61	13.233	1.56	19.23	0.78
1.250	0.68	7.250	6.61	13.250	1.56	19.25	0.78
1.267	0.68	7.267	6.61	13.267	1.56	19.27	0.78
1.283	0.68	7.283	6.61	13.283	1.56	19.28	0.78
1.300	0.68	7.300	6.61	13.300	1.56	19.30	0.78
1.317	0.68	7.317	6.61	13.317	1.56	19.32	0.78
1.333	0.68	7.333	6.61	13.333	1.56	19.33	0.78
1.350	0.70	7.350	9.24	13.350	1.51	19.35	0.77
1.367	0.70	7.367	9.24	13.367	1.51	19.37	0.77
1.383	0.70	7.383	9.24	13.383	1.51	19.38	0.77
1.400	0.70	7.400	9.24	13.400	1.51	19.40	0.77
1.417	0.70	7.417	9.24	13.417	1.51	19.42	0.77
1.433	0.70	7.433	9.24	13.433	1.51	19.43	0.77
1.450	0.70	7.450	9.24	13.450	1.51	19.45	0.77
1.467	0.70	7.467	9.24	13.467	1.51	19.47	0.77
1.483	0.70	7.483	9.24	13.483	1.51	19.48	0.77
1.500	0.70	7.500	9.25	13.500	1.51	19.50	0.77
1.517	0.71	7.517	15.26	13.517	1.47	19.52	0.76
1.533	0.71	7.533	15.26	13.533	1.47	19.53	0.76
1.550	0.71	7.550	15.26	13.550	1.47	19.55	0.76
1.567	0.71	7.567	15.26	13.567	1.47	19.57	0.76
1.583	0.71	7.583	15.26	13.583	1.47	19.58	0.76
1.600	0.71	7.600	15.26	13.600	1.47	19.60	0.76
1.617	0.71	7.617	15.26	13.617	1.47	19.62	0.76
1.633	0.71	7.633	15.26	13.633	1.47	19.63	0.76
1.650	0.71	7.650	15.26	13.650	1.47	19.65	0.76
1.667	0.71	7.667	15.33	13.667	1.47	19.67	0.76
1.683	0.73	7.683	40.09	13.683	1.43	19.68	0.75
1.700	0.73	7.700	40.09	13.700	1.43	19.70	0.75
1.717	0.73	7.717	40.09	13.717	1.43	19.72	0.75
1.733	0.73	7.733	40.09	13.733	1.43	19.73	0.75
1.750	0.73	7.750	40.09	13.750	1.43	19.75	0.75
1.767	0.73	7.767	40.09	13.767	1.43	19.77	0.75
1.783	0.73	7.783	40.09	13.783	1.43	19.78	0.75
1.800	0.73	7.800	40.09	13.800	1.43	19.80	0.75
1.817	0.73	7.817	40.09	13.817	1.43	19.82	0.75
1.833	0.73	7.833	40.39	13.833	1.43	19.83	0.75
1.850	0.75	7.850	142.97	13.850	1.40	19.85	0.74
1.867	0.75	7.867	142.97	13.867	1.40	19.87	0.74
1.883	0.75	7.883	142.97	13.883	1.40	19.88	0.74
1.900	0.75	7.900	142.97	13.900	1.40	19.90	0.74
1.917	0.75	7.917	142.97	13.917	1.40	19.92	0.74
1.933	0.75	7.933	142.97	13.933	1.40	19.93	0.74
1.950	0.75	7.950	142.97	13.950	1.40	19.95	0.74
1.967	0.75	7.967	142.97	13.967	1.40	19.97	0.74
1.983	0.75	7.983	142.97	13.983	1.40	19.98	0.74
2.000	0.75	8.000	142.71	14.000	1.40	20.00	0.74
2.017	0.77	8.017	53.15	14.017	1.36	20.02	0.74
2.033	0.77	8.033	53.15	14.033	1.36	20.03	0.74
2.050	0.77	8.050	53.15	14.050	1.36	20.05	0.74
2.067	0.77	8.067	53.15	14.067	1.36	20.07	0.74
2.083	0.77	8.083	53.15	14.083	1.36	20.08	0.74
2.100	0.77	8.100	53.15	14.100	1.36	20.10	0.74
2.117	0.77	8.117	53.15	14.117	1.36	20.12	0.74
2.133	0.77	8.133	53.15	14.133	1.36	20.13	0.74
2.150	0.77	8.150	53.15	14.150	1.36	20.15	0.74
2.167	0.77	8.167	53.08	14.167	1.36	20.17	0.74
2.183	0.79	8.183	27.09	14.183	1.33	20.18	0.73
2.200	0.79	8.200	27.09	14.200	1.33	20.20	0.73
2.217	0.79	8.217	27.09	14.217	1.33	20.22	0.73
2.233	0.79	8.233	27.09	14.233	1.33	20.23	0.73
2.250	0.79	8.250	27.09	14.250	1.33	20.25	0.73
2.267	0.79	8.267	27.09	14.267	1.33	20.27	0.73
2.283	0.79	8.283	27.09	14.283	1.33	20.28	0.73
2.300	0.79	8.300	27.09	14.300	1.33	20.30	0.73
2.317	0.79	8.317	27.09	14.317	1.33	20.32	0.73
2.333	0.79	8.333	27.07	14.333	1.33	20.33	0.73
2.350	0.81	8.350	17.64	14.350	1.30	20.35	0.72
2.367	0.81	8.367	17.64	14.367	1.30	20.37	0.72
2.383	0.81	8.383	17.64	14.383	1.30	20.38	0.72
2.400	0.81	8.400	17.64	14.400	1.30	20.40	0.72
2.417	0.81	8.417	17.64	14.417	1.30	20.42	0.72
2.433	0.81	8.433	17.64	14.433	1.30	20.43	0.72
2.450	0.81	8.450	17.64	14.450	1.30	20.45	0.72
2.467	0.81	8.467	17.64	14.467	1.30	20.47	0.72
2.483	0.81	8.483	17.64	14.483	1.30	20.48	0.72
2.500	0.81	8.500	17.63	14.500	1.30	20.50	0.72
2.517	0.83	8.517	12.93	14.517	1.27	20.52	0.71
2.533	0.83	8.533	12.93	14.533	1.27	20.53	0.71
2.550	0.83	8.550	12.93	14.550	1.27	20.55	0.71
2.567	0.83	8.567	12.93	14.567	1.27	20.57	0.71
2.583	0.83	8.583	12.93	14.583	1.27	20.58	0.71
2.600	0.83	8.600	12.93	14.600	1.27	20.60	0.71
2.617	0.83	8.617	12.93	14.617	1.27	20.62	0.71
2.633	0.83	8.633	12.93	14.633	1.27	20.63	0.71
2.650	0.83	8.650	12.93	14.650	1.27	20.65	0.71
2.667	0.83	8.667	12.92	14.667	1.27	20.67	0.71
2.683	0.86	8.683	10.15	14.683	1.24	20.68	0.70
2.700	0.86	8.700	10.15	14.700	1.24	20.70	0.70
2.717	0.86	8.717	10.15	14.717	1.24	20.72	0.70
2.733	0.86	8.733	10.15	14.733	1.24	20.73	0.70
2.750	0.86	8.750	10.15	14.750	1.24	20.75	0.70
2.767	0.86	8.767	10.15	14.767	1.24	20.77	0.70
2.783	0.86	8.783	10.15	14.783	1.24	20.78	0.70
2.800	0.86	8.800	10.15	14.800	1.24	20.80	0.70
2.817	0.86	8.817	10.15	14.817	1.24	20.82	0.70
2.833	0.86	8.833	10.15	14.833	1.24	20.83	0.70
2.850	0.88	8.850	8.35	14.850	1.21	20.85	0.69
2.867	0.88	8.867	8.35	14.867	1.21	20.87	0.69
2.883	0.88	8.883	8.35	14.883	1.21	20.88	0.69
2.900	0.88	8.900	8.35	14.900	1.21	20.90	0.69
2.917	0.88	8.917	8.35	14.917	1.21	20.92	0.69
2.933	0.88	8.933	8.35	14.933	1.21	20.93	0.69
2.950	0.88	8.950	8.35	14.950	1.21	20.95	0.69
2.967	0.88	8.967	8.35	14.967	1.21	20.97	0.69
2.983	0.88	8.983	8.35	14.983	1.21	20.98	0.69
3.000	0.88	9.000	8.34	15.000	1.21	21.00	0.69
3.017	0.91	9.017	7.08	15.017	1.19	21.02	0.69
3.033	0.91	9.033	7.08	15.033	1.19	21.03	0.69
3.050	0.91	9.050	7.08	15.050	1.19	21.05	0.69
3.067	0.91	9.067	7.08	15.067	1.19	21.07	0.69
3.083	0.91	9.083	7.08	15.083	1.19	21.08	0.69
3.100	0.91	9.100	7.08	15.100	1.19	21.10	0.69
3.117	0.91	9.117	7.08	15.117	1.19	21.12	0.69
3.133	0.91	9.133	7.08	15.133	1.19	21.13	0.69
3.150	0.91	9.150	7.08	15.150	1.19	21.15	0.69
3.167	0.91	9.167	7.08	15.167	1.19	21.17	0.69
3.183	0.94	9.183	6.15	15.183	1.16	21.18	0.68
3.200	0.94	9.200	6.15	15.200	1.16	21.20	0.68
3.217	0.94	9.217	6.15	15.217	1.16	21.22	0.68
3.233	0.94	9.233	6.15	15.233	1.16	21.23	0.68
3.250	0.94	9.250	6.15	15.250	1.16	21.25	0.68
3.267	0.94	9.267	6.15	15.267	1.16	21.27	0.68
3.283	0.94	9.283	6.15	15.283	1.16	21.28	0.68
3.300	0.94	9.300	6.15	15.300	1.16	21.30	0.68
3.317	0.94	9.317	6.15	15.317	1.16	21.32	0.68
3.333	0.94	9.333	6.15	15.333	1.16	21.33	0.68
3.350	0.97	9.350	5.44	15.350	1.14	21.35	0.67
3.367	0.97	9.367	5.44	15.367	1.14	21.37	0.67
3.383	0.97	9.383	5.44	15.383	1.14	21.38	0.67
3.400	0.97	9.400	5.44	15.400	1.14	21.40	0.67
3.417	0.97	9.417	5.44	15.417	1.14	21.42	0.67
3.433	0.97	9.433	5.44	15.433	1.14	21.43	0.67
3.450	0.97	9.450	5.44	15.450	1.14	21.45	0.67
3.467	0.97	9.467	5.44	15.467	1.14	21.47	0.67
3.483	0.97	9.483	5.44	15.483	1.14	21.48	0.67
3.500	0.97	9.500	5.44	15.500	1.14	21.50	0.67
3.517	1.00	9.517	4.88	15.517	1.12	21.52	0.66
3.533	1.00	9.533	4.88	15.533	1.12	21.53	0.66
3.550	1.00	9.550	4.88	15.550	1.12	21.55	0.66
3.567	1.00	9.567	4.88	15.567	1.12	21.57	0.66
3.583	1.00	9.583	4.88	15.583	1.12	21.58	0.66
3.600	1.00	9.600	4.88	15.600	1.12	21.60	0.66
3.617	1.00	9.617	4.88	15.617	1.12	21.62	0.66
3.633	1.00	9.633	4.88	15.633	1.12	21.63	0.66
3.650	1.00	9.650	4.88	15.650	1.12	21.65	0.66
3.667	1.00	9.667	4.87	15.667	1.12	21.67	0.66
3.683	1.04	9.683	4.42	15.683	1.09	21.68	0.66
3.700	1.04	9.700	4.42	15.700	1.09	21.70	0.66
3.717	1.04	9.717	4.42	15.717	1.09	21.72	0.66
3.733	1.04	9.733	4.42	15.733	1.09	21.73	0.66
3.750	1.04	9.750	4.42	15.750	1.09	21.75	0.66
3.767	1.04	9.767	4.42	15.767	1.09	21.77	0.66
3.783	1.04	9.783	4.42	15.783	1.09	21.78	0.66
3.800	1.04	9.800	4.42	15.800	1.09	21.80	0.66
3.817	1.04	9.817	4.42	15.817	1.09	21.82	0.66
3.833	1.04	9.833	4.42	15.833	1.09	21.83	0.66
3.850	1.08	9.850	4.05	15.850	1.07	21.85	0.65
3.867	1.08	9.867	4.05	15.867	1.07	21.87	0.65
3.883	1.08	9.883	4.05	15.883	1.07	21.88	0.65
3.900	1.08	9.900	4.05	15.900	1.07	21.90	0.65
3.917	1.08	9.917	4.05	15.917	1.07	21.92	0.65
3.933	1.08	9.933	4.05	15.933	1.07	21.93	0.65
3.950	1.08	9.950	4.05	15.950	1.07	21.95	0.65
3.967	1.08	9.967	4.05	15.967	1.07	21.97	0.65
3.983	1.08	9.983	4.05	15.983	1.07	21.98	0.65
4.000	1.08	10.000	4.04	16.000	1.07	22.00	0.65
4.017	1.12	10.017	3.73	16.017	1.05	22.02	0.64
4.033	1.12	10.033	3.73	16.033	1.05	22.03	0.64
4.050	1.12	10.050	3.73	16.050	1.05	22.05	0.64
4.067	1.12	10.067	3.73	16.067	1.05	22.07	0.64
4.083	1.12	10.083	3.73	16.083	1.05	22.08	0.64
4.100	1.12	10.100	3.73	16.100	1.05	22.10	0.64
4.117	1.12	10.117	3.73	16.117	1.05	22.12	0.64
4.133	1.12	10.133	3.73	16.133	1.05	22.13	0.64
4.150	1.12	10.150	3.73	16.150	1.05	22.15	0.64
4.167	1.12	10.167	3.73	16.167	1.05	22.17	0.64
4.183	1.17	10.183	3.46	16.183	1.03	22.18	0.64
4.200	1.17	10.200	3.46	16.200	1.03	22.20	0.64
4.217	1.17	10.217	3.46	16.217	1.03	22.22	0.64
4.233	1.17	10.233	3.46	16.233	1.03	22.23	0.64
4.250	1.17	10.250	3.46	16.250	1.03	22.25	0.64
4.267	1.17	10.267	3.46	16.267	1.03	22.27	0.64
4.283	1.17	10.283	3.46	16.283	1.03	22.28	0.64
4.300	1.17	10.300	3.46	16.300	1.03	22.30	0.64
4.317	1.17	10.317	3.46	16.317	1.03	22.32	0.64
4.333	1.17	10.333	3.46	16.333	1.03	22.33	0.64
4.350	1.22	10.350	3.23	16.350	1.02	22.35	0.63
4.367	1.22	10.367	3.23	16.367	1.02	22.37	0.63
4.383	1.22	10.383	3.23	16.383	1.02	22.38	0.63
4.400	1.22	10.400	3.23	16.400	1.02	22.40	0.63
4.417	1.22	10.417	3.23	16.417	1.02	22.42	0.63
4.433	1.22	10.433	3.23	16.433	1.02	22.43	0.63
4.450	1.22	10.450	3.23	16.450	1.02	22.45	0.63
4.467	1.22	10.467	3.23	16.467	1.02	22.47	0.63
4.483	1.22	10.483	3.23	16.483	1.02	22.48	0.63
4.500	1.22	10.500	3.23	16.500	1.02	22.50	0.63
4.517	1.28	10.517	3.03	16.517	1.00	22.52	0.62
4.533	1.28	10.533	3.03	16.533	1.00	22.53	0.62
4.550	1.28	10.550	3.03	16.550	1.00	22.55	0.62
4.567	1.28	10.567	3.03	16.567	1.00	22.57	0.62
4.583	1.28	10.583	3.03	16.583	1.00	22.58	0.62
4.600	1.28	10.600	3.03	16.600	1.00	22.60	0.62
4.617	1.28	10.617	3.03	16.617	1.00	22.62	0.62
4.633	1.28	10.633	3.03	16.633	1.00	22.63	0.62
4.650	1.28	10.650	3.03	16.650	1.00	22.65	0.62
4.667	1.28	10.667	3.03	16.667	1.00	22.67	0.62
4.683	1.34	10.683	2.86	16.683	0.98	22.68	0.62
4.700	1.34	10.700	2.86	16.700	0.98	22.70	0.62
4.717	1.34	10.717	2.86	16.717	0.98	22.72	0.62
4.733	1.34	10.733	2.86	16.733	0.98	22.73	0.62
4.750	1.34	10.750	2.86	16.750	0.98	22.75	0.62
4.767	1.34	10.767	2.86	16.767	0.98	22.77	0.62
4.783	1.34	10.783	2.86	16.783	0.98	22.78	0.62
4.800	1.34	10.800	2.86	16.800	0.98	22.80	0.62
4.817	1.34	10.817	2.86	16.817	0.98	22.82	0.62
4.833	1.34	10.833	2.86	16.833	0.98	22.83	0.62
4.850	1.41	10.850	2.70	16.850	0.96	22.85	0.61
4.867	1.41	10.867	2.70	16.867	0.96	22.87	0.61
4.883	1.41	10.883	2.70	16.883	0.96	22.88	0.61
4.900	1.41	10.900	2.70	16.900	0.96	22.90	0.61
4.917	1.41	10.917	2.70	16.917	0.96	22.92	0.61
4.933	1.41	10.933	2.70	16.933	0.96	22.93	0.61
4.950	1.41	10.950	2.70	16.950	0.96	22.95	0.61
4.967	1.41	10.967	2.70	16.967	0.96	22.97	0.61
4.983	1.41	10.983	2.70	16.983	0.96	22.98	0.61
5.000	1.41	11.000	2.70	17.000	0.96	23.00	0.61
5.017	1.49	11.017	2.56	17.017	0.95	23.02	0.60
5.033	1.49	11.033	2.56	17.033	0.95	23.03	0.60
5.050	1.49	11.050	2.56	17.050	0.95	23.05	0.60
5.067	1.49	11.067	2.56	17.067	0.95	23.07	0.60
5.083	1.49	11.083	2.56	17.083	0.95	23.08	0.60
5.100	1.49	11.100	2.56	17.100	0.95	23.10	0.60
5.117	1.49	11.117	2.56	17.117	0.95	23.12	0.60
5.133	1.49	11.133	2.56	17.133	0.95	23.13	0.60
5.150	1.49	11.150	2.56	17.150	0.95	23.15	0.60
5.167	1.49	11.167	2.56	17.167	0.95	23.17	0.60
5.183	1.58	11.183	2.44	17.183	0.93	23.18	0.60
5.200	1.58	11.200	2.44	17.200	0.93	23.20	0.60
5.217	1.58	11.217	2.44	17.217	0.93	23.22	0.60
5.233	1.58	11.233	2.44	17.233	0.93	23.23	0.60
5.250	1.58	11.250	2.44	17.250	0.93	23.25	0.60
5.267	1.58	11.267	2.44	17.267	0.93	23.27	0.60
5.283	1.58	11.283	2.44	17.283	0.93	23.28	0.60
5.300	1.58	11.300	2.44	17.300	0.93	23.30	0.60
5.317	1.58	11.317	2.44	17.317	0.93	23.32	0.60
5.333	1.58	11.333	2.44	17.333	0.93	23.33	0.60
5.350	1.68	11.350	2.32	17.350	0.92	23.35	0.59
5.367	1.68	11.367	2.32	17.367	0.92	23.37	0.59
5.383	1.68	11.383	2.32	17.383	0.92	23.38	0.59
5.400	1.68	11.400	2.32	17.400	0.92	23.40	0.59
5.417	1.68	11.417	2.32	17.417	0.92	23.42	0.59
5.433	1.68	11.433	2.32	17.433	0.92	23.43	0.59
5.450	1.68	11.450	2.32	17.450	0.92	23.45	0.59
5.467	1.68	11.467	2.32	17.467	0.92	23.47	0.59
5.483	1.68	11.483	2.32	17.483	0.92	23.48	0.59
5.500	1.68	11.500	2.32	17.500	0.92	23.50	0.59
5.517	1.79	11.517	2.22	17.517	0.90	23.52	0.59
5.533	1.79	11.533	2.22	17.533	0.90	23.53	0.59
5.550	1.79	11.550	2.22	17.550	0.90	23.55	0.59
5.567	1.79	11.567	2.22	17.567	0.90	23.57	0.59
5.583	1.79	11.583	2.22	17.583	0.90	23.58	0.59
5.600	1.79	11.600	2.22	17.600	0.90	23.60	0.59
5.617	1.79	11.617	2.22	17.617	0.90	23.62	0.59
5.633	1.79	11.633	2.22	17.633	0.90	23.63	0.59
5.650	1.79	11.650	2.22	17.650	0.90	23.65	0.59
5.667	1.80	11.667	2.22	17.667	0.90	23.67	0.59
5.683	1.93	11.683	2.13	17.683	0.89	23.68	0.58
5.700	1.93	11.700	2.13	17.700	0.89	23.70	0.58
5.717	1.93	11.717	2.13	17.717	0.89	23.72	0.58
5.733	1.93	11.733	2.13	17.733	0.89	23.73	0.58
5.750	1.93	11.750	2.13	17.750	0.89	23.75	0.58
5.767	1.93	11.767	2.13	17.767	0.89	23.77	0.58
5.783	1.93	11.783	2.13	17.783	0.89	23.78	0.58
5.800	1.93	11.800	2.13	17.800	0.89	23.80	0.58
5.817	1.93	11.817	2.13	17.817	0.89	23.82	0.58
5.833	1.93	11.833	2.13	17.833	0.89	23.83	0.58
5.850	2.08	11.850	2.04	17.850	0.88	23.85	0.58
5.867	2.08	11.867	2.04	17.867	0.88	23.87	0.58
5.883	2.08	11.883	2.04	17.883	0.88	23.88	0.58
5.900	2.08	11.900	2.04	17.900	0.88	23.90	0.58
5.917	2.08	11.917	2.04	17.917	0.88	23.92	0.58
5.933	2.08	11.933	2.04	17.933	0.88	23.93	0.58
5.950	2.08	11.950	2.04	17.950	0.88	23.95	0.58
5.967	2.08	11.967	2.04	17.967	0.88	23.97	0.58

5.983	2.08	11.983	2.04	17.983	0.88	23.98	0.58
6.000	2.08	12.000	2.04	18.000	0.88	24.00	0.58

Max.Eff.Inten.(mm/hr)=	142.97	31.14
over (min)	5.00	11.00
Storage Coeff. (min)=	3.31 (ii)	10.85 (ii)
Unit Hyd. Tpeak (min)=	5.00	11.00
Unit Hyd. peak (cms)=	0.29	0.10

TOTALS

PEAK FLOW (cms)=	0.37	0.09	0.424 (iii)
TIME TO PEAK (hrs)=	8.00	8.15	8.02
RUNOFF VOLUME (mm)=	88.96	21.77	45.29
TOTAL RAINFALL (mm)=	89.97	89.97	89.97
RUNOFF COEFFICIENT =	0.99	0.24	0.50

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 48.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

DUHYD (0035)				
Inlet Cap.= 0.202				
#of Inlets= 1				
Total(cms)= 0.2	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
TOTAL HYD.(ID= 1):	2.86	0.42	8.02	45.29
MAJOR SYS.(ID= 2):	0.33	0.22	8.02	45.29
MINOR SYS.(ID= 3):	2.53	0.20	7.90	45.29

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0102)					
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (1021):	3.77	0.593	8.02	47.57
+ ID2= 2 (0035):	0.33	0.222	8.02	45.29
ID = 3 (0102):	4.10	0.815	8.02	47.38

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0903)					
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0102):	4.10	0.815	8.02	47.38
+ ID2= 2 (0902):	17.12	3.555	8.03	47.15
ID = 3 (0903):	21.22	4.361	8.03	47.19

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB				
NASHYD (1051)	Area (ha)=	1.62	Curve Number (CN)=	60.0
ID= 1 DT= 5.0 min	Ia (mm)=	5.00	# of Linear Res.(N)=	3.00
	U.H. Tp(hrs)=	1.87		

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	0.59	6.083	2.27	12.083	1.97	18.08	0.86
0.167	0.59	6.167	2.27	12.167	1.97	18.17	0.86
0.250	0.60	6.250	2.50	12.250	1.89	18.25	0.85
0.333	0.60	6.333	2.50	12.333	1.89	18.33	0.85
0.417	0.61	6.417	2.77	12.417	1.83	18.42	0.84
0.500	0.61	6.500	2.77	12.500	1.83	18.50	0.84
0.583	0.63	6.583	3.13	12.583	1.77	18.58	0.83
0.667	0.63	6.667	3.13	12.667	1.77	18.67	0.83
0.750	0.64	6.750	3.59	12.750	1.71	18.75	0.82
0.833	0.64	6.833	3.59	12.833	1.71	18.83	0.82
0.917	0.65	6.917	4.23	12.917	1.66	18.92	0.80
1.000	0.65	7.000	4.23	13.000	1.66	19.00	0.80
1.083	0.67	7.083	5.15	13.083	1.61	19.08	0.79
1.167	0.67	7.167	5.15	13.167	1.61	19.17	0.79
1.250	0.68	7.250	6.61	13.250	1.56	19.25	0.78
1.333	0.68	7.333	6.61	13.333	1.56	19.33	0.78
1.417	0.70	7.417	9.24	13.417	1.51	19.42	0.77
1.500	0.70	7.500	9.24	13.500	1.51	19.50	0.77
1.583	0.71	7.583	15.26	13.583	1.47	19.58	0.76
1.667	0.71	7.667	15.26	13.667	1.47	19.67	0.76
1.750	0.73	7.750	40.09	13.750	1.43	19.75	0.75
1.833	0.73	7.833	40.10	13.833	1.43	19.83	0.75
1.917	0.75	7.917	142.97	13.917	1.40	19.92	0.74
2.000	0.75	8.000	142.96	14.000	1.40	20.00	0.74
2.083	0.77	8.083	53.15	14.083	1.36	20.08	0.74
2.167	0.77	8.167	53.15	14.167	1.36	20.17	0.74
2.250	0.79	8.250	27.09	14.250	1.33	20.25	0.73
2.333	0.79	8.333	27.09	14.333	1.33	20.33	0.73
2.417	0.81	8.417	17.64	14.417	1.30	20.42	0.72
2.500	0.81	8.500	17.64	14.500	1.30	20.50	0.72
2.583	0.83	8.583	12.93	14.583	1.27	20.58	0.71
2.667	0.83	8.667	12.93	14.667	1.27	20.67	0.71
2.750	0.86	8.750	10.15	14.750	1.24	20.75	0.70
2.833	0.86	8.833	10.15	14.833	1.24	20.83	0.70
2.917	0.88	8.917	8.35	14.917	1.21	20.92	0.69
3.000	0.88	9.000	8.35	15.000	1.21	21.00	0.69
3.083	0.91	9.083	7.08	15.083	1.19	21.08	0.69
3.167	0.91	9.167	7.08	15.167	1.19	21.17	0.69
3.250	0.94	9.250	6.15	15.250	1.16	21.25	0.68
3.333	0.94	9.333	6.15	15.333	1.16	21.33	0.68
3.417	0.97	9.417	5.44	15.417	1.14	21.42	0.67
3.500	0.97	9.500	5.44	15.500	1.14	21.50	0.67
3.583	1.00	9.583	4.88	15.583	1.12	21.58	0.66
3.667	1.00	9.667	4.88	15.667	1.12	21.67	0.66
3.750	1.04	9.750	4.42	15.750	1.09	21.75	0.66
3.833	1.04	9.833	4.42	15.833	1.09	21.83	0.66
3.917	1.08	9.917	4.05	15.917	1.07	21.92	0.65
4.000	1.08	10.000	4.05	16.000	1.07	22.00	0.65
4.083	1.12	10.083	3.73	16.083	1.05	22.08	0.64
4.167	1.12	10.167	3.73	16.167	1.05	22.17	0.64
4.250	1.17	10.250	3.46	16.250	1.03	22.25	0.64
4.333	1.17	10.333	3.46	16.333	1.03	22.33	0.64
4.417	1.22	10.417	3.23	16.417	1.02	22.42	0.63
4.500	1.22	10.500	3.23	16.500	1.02	22.50	0.63
4.583	1.28	10.583	3.03	16.583	1.00	22.58	0.62
4.667	1.28	10.667	3.03	16.667	1.00	22.67	0.62
4.750	1.34	10.750	2.86	16.750	0.98	22.75	0.62
4.833	1.34	10.833	2.86	16.833	0.98	22.83	0.62
4.917	1.41	10.917	2.70	16.917	0.96	22.92	0.61
5.000	1.41	11.000	2.70	17.000	0.96	23.00	0.61
5.083	1.49	11.083	2.56	17.083	0.95	23.08	0.60
5.167	1.49	11.167	2.56	17.167	0.95	23.17	0.60
5.250	1.58	11.250	2.44	17.250	0.93	23.25	0.60
5.333	1.58	11.333	2.44	17.333	0.93	23.33	0.60
5.417	1.68	11.417	2.32	17.417	0.92	23.42	0.59
5.500	1.68	11.500	2.32	17.500	0.92	23.50	0.59
5.583	1.79	11.583	2.22	17.583	0.90	23.58	0.59
5.667	1.80	11.667	2.22	17.667	0.90	23.67	0.59
5.750	1.93	11.750	2.13	17.750	0.89	23.75	0.58
5.833	1.93	11.833	2.13	17.833	0.89	23.83	0.58
5.917	2.08	11.917	2.04	17.917	0.88	23.92	0.58
6.000	2.08	12.000	2.04	18.000	0.88	24.00	0.58

Unit Hyd Qpeak (cms)= 0.033

PEAK FLOW	(cms)=	0.023 (i)
TIME TO PEAK	(hrs)=	10.250
RUNOFF VOLUME	(mm)=	28.386
TOTAL RAINFALL	(mm)=	89.966
RUNOFF COEFFICIENT	=	0.316

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

ADD HYD (0105)					
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (1051):	1.62	0.023	10.25	28.39
+ ID2= 2 (0037):	0.18	0.104	8.02	38.69
ID = 3 (0105):	1.80	0.105	8.02	29.42

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0906)					
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0105):	1.80	0.105	8.02	29.42
+ ID2= 2 (0903):	21.22	4.361	8.03	47.19
ID = 3 (0906):	23.02	4.463	8.03	45.80

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB				
NASHYD (0201)	Area (ha)=	6.97	Curve Number (CN)=	66.0
ID= 1 DT= 5.0 min	Ia (mm)=	5.00	# of Linear Res.(N)=	3.00
	U.H. Tp(hrs)=	0.74		

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	0.59	6.083	2.27	12.083	1.97	18.08	0.86
0.167	0.59	6.167	2.27	12.167	1.97	18.17	0.86
0.250	0.60	6.250	2.50	12.250	1.89	18.25	0.85
0.333	0.60	6.333	2.50	12.333	1.89	18.33	0.85
0.417	0.61	6.417	2.77	12.417	1.83	18.42	0.84
0.500	0.61	6.500	2.77	12.500	1.83	18.50	0.84
0.583	0.63	6.583	3.13	12.583	1.77	18.58	0.83
0.667	0.63	6.667	3.13	12.667	1.77	18.67	0.83
0.750	0.64	6.750	3.59	12.750	1.71	18.75	0.82
0.833	0.64	6.833	3.59	12.833	1.71	18.83	0.82
0.917	0.65	6.917	4.23	12.917	1.66	18.92	0.80
1.000	0.65	7.000	4.23	13.000	1.66	19.00	0.80
1.083	0.67	7.083	5.15	13.083	1.61	19.08	0.79
1.167	0.67	7.167	5.15	13.167	1.61	19.17	0.79
1.250	0.68	7.250	6.61	13.250	1.56	19.25	0.78
1.333	0.68	7.333	6.61	13.333	1.56	19.33	0.78
1.417	0.70	7.417	9.24	13.417	1.51	19.42	0.77
1.500	0.70	7.500	9.24	13.500	1.51	19.50	0.77
1.583	0.71	7.583	15.26	13.583	1.47	19.58	0.76
1.667	0.71	7.667	15.26	13.667	1.47	19.67	0.76
1.750	0.73	7.750	40.09	13.750	1.43	19.75	0.75
1.833	0.73	7.833	40.10	13.833	1.43	19.83	0.75
1.917	0.75	7.917	142.97	13.917	1.40	19.92	0.74
2.000	0.75	8.000	142.96	14.000	1.40	20.00	0.74
2.083	0.77	8.083	53.15	14.083	1.36	20.08	0.74
2.167	0.77	8.167	53.15	14.167	1.36	20.17	0.74
2.250	0.79	8.250	27.09	14.250	1.33	20.25	0.73
2.333	0.79	8.333	27.09	14.333	1.33	20.33	0.73
2.417	0.81	8.417	17.64	14.417	1.30	20.42	0.72
2.500	0.81	8.500	17.64	14.500	1.30	20.50	0.72
2.583	0.83	8.583	12.93	14.583	1.27	20.58	0.71
2.667	0.83	8.667	12.93	14.667	1.27	20.67	0.71
2.750	0.86	8.750	10.15	14.750	1.24	20.75	0.70
2.833	0.86	8.833	10.15	14.833	1.24	20.83	0.70
2.917	0.88	8.917	8.35	14.917	1.21	20.92	0.69
3.000	0.88	9.000	8.35	15.000	1.21	21.00	0.69
3.083	0.91	9.083	7.08	15.083	1.19	21.08	0.69
3.167	0.91	9.167	7.08	15.167	1.19	21.17	0.69
3.250	0.94	9.250	6.15	15.250	1.16	21.25	0.68
3.333	0.94	9.333	6.15	15.333	1.16	21.33	0.68
3.417	0.97	9.417	5.44	15.417	1.14	21.42	0.67
3.500	0.97	9.500	5.44	15.500	1.14	21.50	0.67
3.583	1.00	9.583	4.88	15.583	1.12	21.58	0.66
3.667	1.00	9.667	4.88	15.667	1.12	21.67	0.66
3.750	1.04	9.750	4.42	15.750	1.09	21.75	0.66
3.833	1.04	9.833	4.42	15.833	1.09	21.83	0.66
3.917	1.08	9.917	4.05	15.917	1.07	21.92	0.65
4.000	1.08	10.000	4.05	16.000	1.07	22.00	0.65
4.083	1.12	10.083	3.73	16.083	1.05	22.08	0.64
4.167	1.12	10.167	3.73	16.167	1.05	22.17	0.64
4.250	1.17	10.250	3.46	16.250	1.03	22.25	0.64
4.333	1.17	10.333	3.46	16.333	1.03	22.33	0.64
4.417	1.22	10.417	3.23	16.417	1.02	22.42	0.63
4.500	1.22	10.500	3.23	16.500	1.02	22.50	0.63
4.583	1.28	10.583	3.03	16.583	1.00	22.58	0.62
4.667	1.28	10.667	3.03	16.667	1.00	22.67	0.62
4.750	1.34	10.750	2.86	16.750	0.98	22.75	0.62
4.833	1.34	10.833	2.86	16.833	0.98	22.83	0.62
4.917	1.41	10.917	2.70	16.917	0.96	22.92	0.61
5.000	1.41	11.000	2.70	17.000	0.96	23.00	0.61
5.083	1.49	11.083	2.56	17.083	0.95	23.08	0.60
5.167	1.49	11.167	2.56	17.167	0.95	23.17	0.60
5.250	1.58	11.250	2.44	17.250	0.93	23.25	0.60
5.333	1.58	11.333	2.44	17.333	0.93	23.33	0.60
5.417	1.68	11.417	2.32	17.417	0.92	23.42	0.59
5.500	1.68	11.500	2.32	17.500	0.92	23.50	0.59
5.583	1.79	11.583	2.22	17.583	0.90	23.58	0.59
5.667	1.80	11.667	2.22	17.667	0.90	23.67	0.59
5.750	1.93	11.750	2.13	17.750	0.89	23.75	0.58
5.833	1.93	11.833	2.13	17.833	0.89	23.83	0.58
5.917	2.08	11.917	2.04	17.917	0.88	23.92	0.58
6.000	2.08	12.000	2.04	18.000	0.88	24.00	0.58

Unit Hyd Qpeak (cms)= 0.360

PEAK FLOW	(cms)=	0.235 (i)
TIME TO PEAK	(hrs)=	8.833
RUNOFF VOLUME	(mm)=	33.450
TOTAL RAINFALL	(mm)=	89.966
RUNOFF COEFFICIENT	=	0.372

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

CALIB				
NASHYD (0202)	Area (ha)=	2.71	Curve Number (CN)=	68.0
ID= 1 DT= 5.0 min	Ia (mm)=	5.00	# of Linear Res.(N)=	3.00
	U.H. Tp(hrs)=	0.93		

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	0.59	6.083	2.27	12.083	1.97	18.08	0.86
0.167	0.59	6.167	2.27	12.167	1.97	18.17	0.86
0.250	0.60	6.250	2.50	12.250	1.89	18.25	0.85
0.333	0.60	6.333	2.50	12.333	1.89	18.33	0.85
0.417	0.61	6.417	2.77	12.417	1.83	18.42	0.84
0.500	0.61	6.500	2.77	12.500	1.83	18.50	0.84
0.583	0.63	6.583	3.13	12.583	1.77	18.58	0.83
0.667	0.63	6.667	3.13	12.667	1.77	18.67	0.83
0.750	0.64	6.750	3.59	12.750	1.71	18.75	0.82
0.833	0.64	6.833	3.59	12.833	1.71	18.83	0.82
0.917	0.65	6.917	4.23	12.917	1.66	18.92	0.80
1.000	0.65	7.000	4.23	13.000	1.66	19.00	0.80
1.083	0.67	7.083	5.15	13.083	1.61	19.08	0.79
1.167	0.67	7.167	5.15	13.167	1.61	19.17	0.79
1.250	0.68	7.250	6.61	13.250	1.56	19.25	0.78
1.333	0.68	7.333	6.61	13.333	1.56	19.33	0.78
1.417	0.70	7.417	9.24	13.417	1.51	19.42	0.77
1.500	0.70	7.500	9.24	13.500	1.51	19.50	0.77
1.583	0.71	7.583	15.26	13.583	1.47	19.58	0.76
1.667	0.71	7.667	15.26	13.667	1.47	19.67	0.76
1.750	0.73	7.750	40.09	13.750	1.43	19.75	0.75
1.833	0.73	7.833	40.10	13.833	1.43	19.83	0.75
1.917	0.75	7.917	142.97	13.917	1.40	19.92	0.74

2.000	0.75	8.000	142.96	14.000	1.40	20.00	0.74
2.083	0.77	8.083	53.15	14.083	1.36	20.08	0.74
2.167	0.77	8.167	53.15	14.167	1.36	20.17	0.74
2.250	0.79	8.250	27.09	14.250	1.33	20.25	0.73
2.333	0.79	8.333	27.09	14.333	1.33	20.33	0.73
2.417	0.81	8.417	17.64	14.417	1.30	20.42	0.72
2.500	0.81	8.500	17.64	14.500	1.30	20.50	0.72
2.583	0.83	8.583	12.93	14.583	1.27	20.58	0.71
2.667	0.83	8.667	12.93	14.667	1.27	20.67	0.71
2.750	0.86	8.750	10.15	14.750	1.24	20.75	0.70
2.833	0.86	8.833	10.15	14.833	1.24	20.83	0.70
2.917	0.88	8.917	8.35	14.917	1.21	20.92	0.69
3.000	0.88	9.000	8.35	15.000	1.21	21.00	0.69
3.083	0.91	9.083	7.08	15.083	1.19	21.08	0.69
3.167	0.91	9.167	7.08	15.167	1.19	21.17	0.69
3.250	0.94	9.250	6.15	15.250	1.16	21.25	0.68
3.333	0.94	9.333	6.15	15.333	1.16	21.33	0.68
3.417	0.97	9.417	5.44	15.417	1.14	21.42	0.67
3.500	0.97	9.500	5.44	15.500	1.14	21.50	0.67
3.583	1.00	9.583	4.88	15.583	1.12	21.58	0.66
3.667	1.00	9.667	4.88	15.667	1.12	21.67	0.66
3.750	1.04	9.750	4.42	15.750	1.09	21.75	0.66
3.833	1.04	9.833	4.42	15.833	1.09	21.83	0.66
3.917	1.08	9.917	4.05	15.917	1.07	21.92	0.65
4.000	1.08	10.000	4.05	16.000	1.07	22.00	0.65
4.083	1.12	10.083	3.73	16.083	1.05	22.08	0.64
4.167	1.12	10.167	3.73	16.167	1.05	22.17	0.64
4.250	1.17	10.250	3.46	16.250	1.03	22.25	0.64
4.333	1.17	10.333	3.46	16.333	1.03	22.33	0.64
4.417	1.22	10.417	3.23	16.417	1.02	22.42	0.63
4.500	1.22	10.500	3.23	16.500	1.02	22.50	0.63
4.583	1.28	10.583	3.03	16.583	1.00	22.58	0.62
4.667	1.28	10.667	3.03	16.667	1.00	22.67	0.62
4.750	1.34	10.750	2.86	16.750	0.98	22.75	0.62
4.833	1.34	10.833	2.86	16.833	0.98	22.83	0.62
4.917	1.41	10.917	2.70	16.917	0.96	22.92	0.61
5.000	1.41	11.000	2.70	17.000	0.96	23.00	0.61
5.083	1.49	11.083	2.56	17.083	0.95	23.08	0.60
5.167	1.49	11.167	2.56	17.167	0.95	23.17	0.60
5.250	1.58	11.250	2.44	17.250	0.93	23.25	0.60
5.333	1.58	11.333	2.44	17.333	0.93	23.33	0.60
5.417	1.68	11.417	2.32	17.417	0.92	23.42	0.59
5.500	1.68	11.500	2.32	17.500	0.92	23.50	0.59
5.583	1.79	11.583	2.22	17.583	0.90	23.58	0.59
5.667	1.80	11.667	2.22	17.667	0.90	23.67	0.59
5.750	1.93	11.750	2.13	17.750	0.89	23.75	0.58
5.833	1.93	11.833	2.13	17.833	0.89	23.83	0.58
5.917	2.08	11.917	2.04	17.917	0.88	23.92	0.58
6.000	2.08	12.000	2.04	18.000	0.88	24.00	0.58

Unit Hyd Qpeak (cms)= 0.111

PEAK FLOW (cms)= 0.082 (i)
TIME TO PEAK (hrs)= 9.083
RUNOFF VOLUME (mm)= 35.302
TOTAL RAINFALL (mm)= 89.966
RUNOFF COEFFICIENT = 0.392

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

ADD HYD (0904)			
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0201):	6.97	0.235	8.83	33.45
+ ID2= 2 (0202):	2.71	0.082	9.08	35.30
ID = 3 (0904):	9.68	0.315	8.92	33.97

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB				
NASHYD (0203)	Area (ha)= 34.30	Curve Number (CN)= 42.0		
ID= 1 DT= 5.0 min	Ia (mm)= 5.00	# of Linear Res.(N)= 3.00		
	U.H. Tp(hrs)= 1.40			

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	0.59	6.083	2.27	12.083	1.97	18.08	0.86
0.167	0.59	6.167	2.27	12.167	1.97	18.17	0.86
0.250	0.60	6.250	2.50	12.250	1.89	18.25	0.85
0.333	0.60	6.333	2.50	12.333	1.89	18.33	0.85
0.417	0.61	6.417	2.77	12.417	1.83	18.42	0.84
0.500	0.61	6.500	2.77	12.500	1.83	18.50	0.84
0.583	0.63	6.583	3.13	12.583	1.77	18.58	0.83
0.667	0.63	6.667	3.13	12.667	1.77	18.67	0.83
0.750	0.64	6.750	3.59	12.750	1.71	18.75	0.82
0.833	0.64	6.833	3.59	12.833	1.71	18.83	0.82
0.917	0.65	6.917	4.23	12.917	1.66	18.92	0.80
1.000	0.65	7.000	4.23	13.000	1.66	19.00	0.80
1.083	0.67	7.083	5.15	13.083	1.61	19.08	0.79
1.167	0.67	7.167	5.15	13.167	1.61	19.17	0.79
1.250	0.68	7.250	6.61	13.250	1.56	19.25	0.78
1.333	0.68	7.333	6.61	13.333	1.56	19.33	0.78
1.417	0.70	7.417	9.24	13.417	1.51	19.42	0.77
1.500	0.70	7.500	9.24	13.500	1.51	19.50	0.77
1.583	0.71	7.583	15.26	13.583	1.47	19.58	0.76
1.667	0.71	7.667	15.26	13.667	1.47	19.67	0.76
1.750	0.73	7.750	40.09	13.750	1.43	19.75	0.75
1.833	0.73	7.833	40.10	13.833	1.43	19.83	0.75
1.917	0.75	7.917	142.97	13.917	1.40	19.92	0.74
2.000	0.75	8.000	142.96	14.000	1.40	20.00	0.74
2.083	0.77	8.083	53.15	14.083	1.36	20.08	0.74
2.167	0.77	8.167	53.15	14.167	1.36	20.17	0.74
2.250	0.79	8.250	27.09	14.250	1.33	20.25	0.73
2.333	0.79	8.333	27.09	14.333	1.33	20.33	0.73
2.417	0.81	8.417	17.64	14.417	1.30	20.42	0.72
2.500	0.81	8.500	17.64	14.500	1.30	20.50	0.72
2.583	0.83	8.583	12.93	14.583	1.27	20.58	0.71
2.667	0.83	8.667	12.93	14.667	1.27	20.67	0.71
2.750	0.86	8.750	10.15	14.750	1.24	20.75	0.70
2.833	0.86	8.833	10.15	14.833	1.24	20.83	0.70
2.917	0.88	8.917	8.35	14.917	1.21	20.92	0.69
3.000	0.88	9.000	8.35	15.000	1.21	21.00	0.69
3.083	0.91	9.083	7.08	15.083	1.19	21.08	0.69
3.167	0.91	9.167	7.08	15.167	1.19	21.17	0.69
3.250	0.94	9.250	6.15	15.250	1.16	21.25	0.68
3.333	0.94	9.333	6.15	15.333	1.16	21.33	0.68
3.417	0.97	9.417	5.44	15.417	1.14	21.42	0.67
3.500	0.97	9.500	5.44	15.500	1.14	21.50	0.67
3.583	1.00	9.583	4.88	15.583	1.12	21.58	0.66
3.667	1.00	9.667	4.88	15.667	1.12	21.67	0.66
3.750	1.04	9.750	4.42	15.750	1.09	21.75	0.66
3.833	1.04	9.833	4.42	15.833	1.09	21.83	0.66
3.917	1.08	9.917	4.05	15.917	1.07	21.92	0.65
4.000	1.08	10.000	4.05	16.000	1.07	22.00	0.65
4.083	1.12	10.083	3.73	16.083	1.05	22.08	0.64
4.167	1.12	10.167	3.73	16.167	1.05	22.17	0.64
4.250	1.17	10.250	3.46	16.250	1.03	22.25	0.64
4.333	1.17	10.333	3.46	16.333	1.03	22.33	0.64
4.417	1.22	10.417	3.23	16.417	1.02	22.42	0.63
4.500	1.22	10.500	3.23	16.500	1.02	22.50	0.63
4.583	1.28	10.583	3.03	16.583	1.00	22.58	0.62
4.667	1.28	10.667	3.03	16.667	1.00	22.67	0.62
4.750	1.34	10.750	2.86	16.750	0.98	22.75	0.62
4.833	1.34	10.833	2.86	16.833	0.98	22.83	0.62
4.917	1.41	10.917	2.70	16.917	0.96	22.92	0.61
5.000	1.41	11.000	2.70	17.000	0.96	23.00	0.61
5.083	1.49	11.083	2.56	17.083	0.95	23.08	0.60
5.167	1.49	11.167	2.56	17.167	0.95	23.17	0.60
5.250	1.58	11.250	2.44	17.250	0.93	23.25	0.60
5.333	1.58	11.333	2.44	17.333	0.93	23.33	0.60
5.417	1.68	11.417	2.32	17.417	0.92	23.42	0.59
5.500	1.68	11.500	2.32	17.500	0.92	23.50	0.59
5.583	1.79	11.583	2.22	17.583	0.90	23.58	0.59
5.667	1.80	11.667	2.22	17.667	0.90	23.67	0.59
5.750	1.93	11.750	2.13	17.750	0.89	23.75	0.58
5.833	1.93	11.833	2.13	17.833	0.89	23.83	0.58
5.917	2.08	11.917	2.04	17.917	0.88	23.92	0.58
6.000	2.08	12.000	2.04	18.000	0.88	24.00	0.58

Unit Hyd Qpeak (cms)= 0.936

PEAK FLOW (cms)= 0.340 (i)
TIME TO PEAK (hrs)= 9.750
RUNOFF VOLUME (mm)= 16.568
TOTAL RAINFALL (mm)= 89.966
RUNOFF COEFFICIENT = 0.184

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

ADD HYD (0905)			
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0203):	34.30	0.340	9.75	16.57
+ ID2= 2 (0904):	9.68	0.315	8.92	33.97
ID = 3 (0905):	43.98	0.601	9.25	20.40

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

Junction Command(0907)				
	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 1(0905)	43.98	0.60	9.25	20.40
OUTFLOW: ID= 2(0907)	43.98	0.60	9.25	20.40

ADD HYD (0908)				
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0906):	23.02	4.463	8.03	45.80
+ ID2= 2 (0907):	43.98	0.601	9.25	20.40
ID = 3 (0908):	67.00	4.538	8.03	29.13

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB				
NASHYD (0204)	Area (ha)= 0.40	Curve Number (CN)= 67.0		
ID= 1 DT= 5.0 min	Ia (mm)= 5.00	# 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	0.59	6.083	2.27	12.083	1.97	18.08	0.86
0.167	0.59	6.167	2.27	12.167	1.97	18.17	0.86
0.250	0.60	6.250	2.50	12.250	1.89	18.25	0.85
0.333	0.60	6.333	2.50	12.333	1.89	18.33	0.85
0.417	0.61	6.417	2.77	12.417	1.83	18.42	0.84
0.500	0.61	6.500	2.77	12.500	1.83	18.50	0.84
0.583	0.63	6.583	3.13	12.583	1.77	18.58	0.83
0.667	0.63	6.667	3.13	12.667	1.77	18.67	0.83
0.750	0.64	6.750	3.59	12.750	1.71	18.75	0.82
0.833	0.64	6.833	3.59	12.833	1.71	18.83	0.82
0.917	0.65	6.917	4.23	12.917	1.66	18.92	0.80
1.000	0.65	7.000	4.23	13.000	1.66	19.00	0.80
1.083	0.67	7.083	5.15	13.083	1.61	19.08	0.79
1.167	0.67	7.167	5.15	13.167	1.61	19.17	0.79
1.250	0.68	7.250	6.61	13.250	1.56	19.25	0.78
1.333	0.68	7.333	6.61	13.333	1.56	19.33	0.78
1.417	0.70	7.417	9.24	13.417	1.51	19.42	0.77
1.500	0.70	7.500	9.24	13.500	1.51	19.50	0.77
1.583	0.71	7.583	15.26	13.583	1.47	19.58	0.76
1.667	0.71	7.667	15.26	13.667	1.47	19.67	0.76
1.750	0.73	7.750	40.09	13.750	1.43	19.75	0.75
1.833	0.73	7.833	40.10	13.833	1.43	19.83	0.75
1.917	0.75	7.917	142.97	13.917	1.40	19.92	0.74
2.000	0.75	8.000	142.96	14.000	1.40	20.00	0.74
2.083	0.77	8.083	53.15	14.083	1.36	20.08	0.74
2.167	0.77	8.167	53.15	14.167	1.36	20.17	0.74
2.250	0.79	8.250	27.09	14.250	1.33	20.25	0.73
2.333	0.79	8.333	27.09	14.333	1.33	20.33	0.73
2.417	0.81	8.417	17.64	14.417	1.30	20.42	0.72
2.500	0.81	8.500	17.64	14.500	1.30	20.50	0.72
2.583	0.83	8.583	12.93	14.583	1.27	20.58	0.71
2.667	0.83	8.667	12.93	14.667	1.27	20.67	0.71
2.750	0.86	8.750	10.15	14.750	1.24	20.75	0.70
2.833	0.86	8.833	10.15	14.833	1.24	20.83	0.70
2.917	0.88	8.917	8.35	14.917	1.21	20.92	0.69
3.000	0.88	9.000	8.35	15.000	1.21	21.00	0.69
3.083	0.91	9.083	7.08	15.083	1.19	21.08	0.69
3.167	0.91	9.167	7.08	15.167	1.19	21.17	0.69
3.250	0.94	9.250	6.15	15.250	1.16	21.25	0.68
3.333	0.94	9.333	6.15	15.333	1.16	21.33	0.68
3.417	0.97	9.417	5.44	15.417	1.14	21.42	0.67
3.500	0.97	9.500	5.44	15.500	1.14	21.50	0.67
3.583	1.00	9.583	4.88	15.583	1.12	21.58	0.66
3.667	1.00	9.667	4.88	15.667	1.12	21.67	0.66
3.750	1.04	9.750	4.42	15.750	1.09	21.75	0.66
3.833	1.04	9.833	4.42	15.833	1.09	21.83	0.66
3.917	1.08	9.917	4.05	15.917	1.07	21.92	0.65
4.000	1.08	10.000	4.05	16.000	1.07	22.00	0.65
4.083	1.12	10.083	3.73	16.083	1.05	22.08	0.64
4.167	1.12	10.167	3.73	16.167	1.05	22.17	0.64
4.250	1.17	10.250	3.46	16.250	1.03	22.25	0.64
4.333	1.17	10.333	3.46	16.333	1.03	22.33	0.64
4.417	1.22	10.417	3.23	16.417	1.02	22.42	0.63
4.500	1.22	10.500	3.23	16.500	1.02	22.50	0.63
4.583	1.28	10.583	3.03	16.583	1.00	22.58	0.62
4.667	1.28	10.667	3.03	16.667	1.00	22.67	0.62
4.750	1.34	10.750	2.86	16.750	0.98	22.75	0.62
4.833	1.34	10.833	2.86	16.833	0.98	22.83	0.62
4.917	1.41	10.917	2.70	16.917	0.96	22.92	0.61
5.000	1.41	11.000	2.70	17.000	0.96	23.00	0.61
5.083	1.49	11.083	2.56	17.083	0.95	23.08	0.60
5.167	1.49	11.167	2.56	17.167	0.95	23.17	0.60
5.250	1.58	11.250	2.44	17.250	0.93	23.25	0.60
5.333	1.58	11.333	2.44	17.333	0.93	23.33	0.60
5.417	1.68	11.417	2.32	17.417	0.92	23.42	0.59
5.500	1.68	11.500	2.32	17.500	0.92	23.50	0.59
5.583	1.79	11.583	2.22	17.583	0.90	23.58	0.59
5.667	1.80	11.667	2.22	17.667	0.90	23.67	0.59
5.750	1.93	11.750	2.13	17.750	0.89	23.75	0.58
5.833	1.93	11.833	2.13	17.833	0.89	23.83	0.58
5.917	2.08	11.917	2.04	17.917	0.88	23.92	0.58
6.000	2.08	12.000	2.04	18.000	0.88	24.00	0.58

Unit Hyd Qpeak (cms)= 0.054

PEAK FLOW (cms)= 0.026 (i)
TIME TO PEAK (hrs)= 8.250
RUNOFF VOLUME (mm)= 34.346
TOTAL RAINFALL (mm)= 89.966
RUNOFF COEFFICIENT = 0.382

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

ADD HYD (0909)				
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0204):	0.40	0.026	8.25	34.35
+ ID2= 2 (0908):	67.00	4.538	8.03	29.13
ID = 3 (0909):	67.40	4.553	8.03	29.16

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```
--------------------
| RESERVOIR(  0052)|     OVERFLOW IS ON
| IN= 2---> OUT= 1 |
| DT=  1.0 min     |     OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
--------------------      (cms)     (ha.m.)   |   (cms)     (ha.m.)
                          0.0000     0.0004   |   0.6270     0.1980
                          0.0690     0.0019   |   0.6620     0.2529
                          0.1500     0.0052   |   0.6950     0.3161
                          0.2470     0.0111   |   0.7270     0.3886
                          0.3480     0.0210   |   0.7580     0.4732
                          0.4080     0.0352   |   0.7870     0.5703
                          0.4600     0.0544   |   0.8150     0.6834
                          0.5070     0.0794   |   0.8430     0.8226
                          0.5500     0.1110   |   0.8690     0.9974
                          0.5900     0.1508   |   0.0000     0.0000

                                AREA     QPEAK     TPEAK      R.V.
                                (ha)     (cms)     (hrs)      (mm)
  INFLOW : ID= 2 (  0909)     67.396     4.553      8.03      29.16
  OUTFLOW: ID= 1 (  0052)     67.396     0.763      9.68      29.15
  OVERFLOW:ID= 3 (  0003)      0.000     0.000      0.00       0.00

                TOTAL NUMBER OF SIMULATION OVERFLOW  =      0
                CUMULATIVE TIME OF OVERFLOW  (HOURS) =  0.00
                PERCENTAGE OF TIME OVERFLOWING   (%) =  0.00

                PEAK   FLOW   REDUCTION [Qout/Qin](%)= 16.75
                TIME SHIFT OF PEAK FLOW          (min)= 99.00
                MAXIMUM  STORAGE   USED       (ha.m.)=  0.4885

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  --------------------------
  | Junction Command(0048) |
  --------------------------

                          AREA     QPEAK   TPEAK     R.V.
                          (ha)     (cms)   (hrs)     (mm)
  INFLOW : ID= 1(  0052)  67.40     0.76    9.68     29.15
  OUTFLOW: ID= 2(  0048)  67.40     0.76    9.68     29.15

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

  --------------------------
  | Junction Command(0053) |
  --------------------------

                          AREA     QPEAK   TPEAK     R.V.
                          (ha)     (cms)   (hrs)     (mm)
  INFLOW : ID= 3(  0052)   0.00     0.00    0.00      0.00
  OUTFLOW: ID= 2(  0053)   0.00     0.00    0.00      0.00
```

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

--------------------
| ADD HYD  (  0051)|
|   1 +  2 =  3    |          AREA    QPEAK    TPEAK     R.V.
--------------------          (ha)    (cms)    (hrs)     (mm)
*** W A R N I N G :  HYDROGRAPH   0053 <ID= 2> IS DRY.
*** W A R N I N G :  HYDROGRAPH   0003 = HYDROGRAPH 0001
       ID1= 1 (  0048):    67.40   0.763     9.68     29.15
     + ID2= 2 (  0053):     0.00   0.000     0.00      0.00
       ==========================================================
       ID = 3 (  0051):    67.40   0.763     9.68     29.15

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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  --------------------------
  | Junction Command(0036) |
  --------------------------

                          AREA     QPEAK   TPEAK     R.V.
                          (ha)     (cms)   (hrs)     (mm)
  INFLOW : ID= 9(  0035)   2.53     0.20    7.90     45.29
  OUTFLOW: ID= 2(  0036)   2.53     0.20    7.90     45.29

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 FINISH
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      V    V   I    SSSSS  U   U    A    L              (v 6.2.2015)
      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\cacp078589\AppData\Local\Civica\VH5\9ad0f7cd-9fe5-4b65-bb07-55a510b23afa\9
4614b9e-c95c-4e6a-8356-3791a26de04f\s
  Summary filename:
C:\Users\cacp078589\AppData\Local\Civica\VH5\9ad0f7cd-9fe5-4b65-bb07-55a510b23afa\9
4614b9e-c95c-4e6a-8356-3791a26de04f\s

DATE: 04-07-2025                          TIME: 09:18:31

USER:


COMMENTS: _____

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  *********************************************
  ** SIMULATION : 2yr 24hr 10min Chicago     **
  *********************************************

------------
| CHICAGO STORM    |    IDF curve parameters: A= 854.000
| Ptotal= 53.26 mm |                          B=   7.000
-------------------                          C=   0.818
                          used in:   INTENSITY =  A / (t + B)^C

                          Duration of storm  = 24.00 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    0.42 |  6.00    1.47 | 12.00    1.29 | 18.00    0.60
  0.17    0.43 |  6.17    1.61 | 12.17    1.25 | 18.17    0.59
  0.33    0.44 |  6.33    1.77 | 12.33    1.21 | 18.33    0.59
  0.50    0.44 |  6.50    1.97 | 12.50    1.17 | 18.50    0.58
  0.67    0.45 |  6.67    2.23 | 12.67    1.14 | 18.67    0.57
  0.83    0.46 |  6.83    2.59 | 12.83    1.10 | 18.83    0.56
  1.00    0.47 |  7.00    3.09 | 13.00    1.07 | 19.00    0.56
  1.17    0.48 |  7.17    3.86 | 13.17    1.04 | 19.17    0.55
  1.33    0.49 |  7.33    5.21 | 13.33    1.02 | 19.33    0.54
  1.50    0.50 |  7.50    8.22 | 13.50    0.99 | 19.50    0.54
  1.67    0.51 |  7.67   20.77 | 13.67    0.97 | 19.67    0.53
  1.83    0.53 |  7.83   84.13 | 13.83    0.94 | 19.83    0.52
  2.00    0.54 |  8.00   27.50 | 14.00    0.92 | 20.00    0.52
  2.17    0.55 |  8.17   14.07 | 14.17    0.90 | 20.17    0.51
  2.33    0.57 |  8.33    9.40 | 14.33    0.88 | 20.33    0.51
```

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  2.50    0.58 |  8.50    7.07 | 14.50    0.86 | 20.50    0.50
  2.67    0.60 |  8.67    5.68 | 14.67    0.84 | 20.67    0.50
  2.83    0.61 |  8.83    4.76 | 14.83    0.83 | 20.83    0.49
  3.00    0.63 |  9.00    4.11 | 15.00    0.81 | 21.00    0.49
  3.17    0.65 |  9.17    3.62 | 15.17    0.79 | 21.17    0.48
  3.33    0.67 |  9.33    3.24 | 15.33    0.78 | 21.33    0.48
  3.50    0.69 |  9.50    2.94 | 15.50    0.77 | 21.50    0.47
  3.67    0.72 |  9.67    2.69 | 15.67    0.75 | 21.67    0.47
  3.83    0.74 |  9.83    2.49 | 15.83    0.74 | 21.83    0.46
  4.00    0.77 | 10.00    2.31 | 16.00    0.73 | 22.00    0.46
  4.17    0.80 | 10.17    2.16 | 16.17    0.71 | 22.17    0.45
  4.33    0.83 | 10.33    2.03 | 16.33    0.70 | 22.33    0.45
  4.50    0.87 | 10.50    1.92 | 16.50    0.69 | 22.50    0.44
  4.67    0.91 | 10.67    1.82 | 16.67    0.68 | 22.67    0.44
  4.83    0.95 | 10.83    1.73 | 16.83    0.67 | 22.83    0.44
  5.00    1.00 | 11.00    1.65 | 17.00    0.66 | 23.00    0.43
  5.17    1.06 | 11.17    1.57 | 17.17    0.65 | 23.17    0.43
  5.33    1.12 | 11.33    1.51 | 17.33    0.64 | 23.33    0.42
  5.50    1.19 | 11.50    1.45 | 17.50    0.63 | 23.50    0.42
  5.67    1.27 | 11.67    1.39 | 17.67    0.62 | 23.67    0.42
  5.83    1.36 | 11.83    1.34 | 17.83    0.61 | 23.83    0.41

--------------------------------------------------------------------------------
--------------------
| CALIB            |
| STANDHYD (  1012)|   Area    (ha)=  26.89
|ID= 1 DT= 1.0 min |   Total Imp(%)=  57.00   Dir. Conn.(%)=  49.00
--------------------

                          IMPERVIOUS    PERVIOUS (i)
    Surface Area     (ha)=      15.33         11.56
    Dep. Storage     (mm)=       1.00          5.00
    Average Slope     (%)=       0.50          2.00
    Length            (m)=     423.42         40.00
    Mannings n           =      0.013         0.250

        NOTE:  RAINFALL WAS TRANSFORMED TO   1.0 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
 0.017    0.42 | 6.017    1.47 |12.017    1.29 | 18.02    0.60
 0.033    0.42 | 6.033    1.47 |12.033    1.29 | 18.03    0.60
 0.050    0.42 | 6.050    1.47 |12.050    1.29 | 18.05    0.60
 0.067    0.42 | 6.067    1.47 |12.067    1.29 | 18.07    0.60
 0.083    0.42 | 6.083    1.47 |12.083    1.29 | 18.08    0.60
 0.100    0.42 | 6.100    1.47 |12.100    1.29 | 18.10    0.60
 0.117    0.42 | 6.117    1.47 |12.117    1.29 | 18.12    0.60
 0.133    0.42 | 6.133    1.47 |12.133    1.29 | 18.13    0.60
 0.150    0.42 | 6.150    1.47 |12.150    1.29 | 18.15    0.60
 0.167    0.42 | 6.167    1.47 |12.167    1.29 | 18.17    0.60
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 0.183    0.43 | 6.183    1.61 |12.183    1.25 | 18.18    0.59
 0.200    0.43 | 6.200    1.61 |12.200    1.25 | 18.20    0.59
 0.217    0.43 | 6.217    1.61 |12.217    1.25 | 18.22    0.59
 0.233    0.43 | 6.233    1.61 |12.233    1.25 | 18.23    0.59
 0.250    0.43 | 6.250    1.61 |12.250    1.25 | 18.25    0.59
 0.267    0.43 | 6.267    1.61 |12.267    1.25 | 18.27    0.59
 0.283    0.43 | 6.283    1.61 |12.283    1.25 | 18.28    0.59
 0.300    0.43 | 6.300    1.61 |12.300    1.25 | 18.30    0.59
 0.317    0.43 | 6.317    1.61 |12.317    1.25 | 18.32    0.59
 0.333    0.43 | 6.333    1.61 |12.333    1.25 | 18.33    0.59
 0.350    0.44 | 6.350    1.77 |12.350    1.21 | 18.35    0.59
 0.367    0.44 | 6.367    1.77 |12.367    1.21 | 18.37    0.59
 0.383    0.44 | 6.383    1.77 |12.383    1.21 | 18.38    0.59
 0.400    0.44 | 6.400    1.77 |12.400    1.21 | 18.40    0.59
 0.417    0.44 | 6.417    1.77 |12.417    1.21 | 18.42    0.59
 0.433    0.44 | 6.433    1.77 |12.433    1.21 | 18.43    0.59
 0.450    0.44 | 6.450    1.77 |12.450    1.21 | 18.45    0.59
 0.467    0.44 | 6.467    1.77 |12.467    1.21 | 18.47    0.59
 0.483    0.44 | 6.483    1.77 |12.483    1.21 | 18.48    0.59
 0.500    0.44 | 6.500    1.77 |12.500    1.21 | 18.50    0.59
 0.517    0.44 | 6.517    1.97 |12.517    1.17 | 18.52    0.58
 0.533    0.44 | 6.533    1.97 |12.533    1.17 | 18.53    0.58
 0.550    0.44 | 6.550    1.97 |12.550    1.17 | 18.55    0.58
 0.567    0.44 | 6.567    1.97 |12.567    1.17 | 18.57    0.58
 0.583    0.44 | 6.583    1.97 |12.583    1.17 | 18.58    0.58
 0.600    0.44 | 6.600    1.97 |12.600    1.17 | 18.60    0.58
 0.617    0.44 | 6.617    1.97 |12.617    1.17 | 18.62    0.58
 0.633    0.44 | 6.633    1.97 |12.633    1.17 | 18.63    0.58
 0.650    0.44 | 6.650    1.97 |12.650    1.17 | 18.65    0.58
 0.667    0.44 | 6.667    1.97 |12.667    1.17 | 18.67    0.58
 0.683    0.45 | 6.683    2.23 |12.683    1.14 | 18.68    0.57
 0.700    0.45 | 6.700    2.23 |12.700    1.14 | 18.70    0.57
 0.717    0.45 | 6.717    2.23 |12.717    1.14 | 18.72    0.57
 0.733    0.45 | 6.733    2.23 |12.733    1.14 | 18.73    0.57
 0.750    0.45 | 6.750    2.23 |12.750    1.14 | 18.75    0.57
 0.767    0.45 | 6.767    2.23 |12.767    1.14 | 18.77    0.57
 0.783    0.45 | 6.783    2.23 |12.783    1.14 | 18.78    0.57
 0.800    0.45 | 6.800    2.23 |12.800    1.14 | 18.80    0.57
 0.817    0.45 | 6.817    2.23 |12.817    1.14 | 18.82    0.57
 0.833    0.45 | 6.833    2.23 |12.833    1.14 | 18.83    0.57
 0.850    0.46 | 6.850    2.59 |12.850    1.10 | 18.85    0.56
 0.867    0.46 | 6.867    2.59 |12.867    1.10 | 18.87    0.56
 0.883    0.46 | 6.883    2.59 |12.883    1.10 | 18.88    0.56
 0.900    0.46 | 6.900    2.59 |12.900    1.10 | 18.90    0.56
 0.917    0.46 | 6.917    2.59 |12.917    1.10 | 18.92    0.56
 0.933    0.46 | 6.933    2.59 |12.933    1.10 | 18.93    0.56
 0.950    0.46 | 6.950    2.59 |12.950    1.10 | 18.95    0.56
 0.967    0.46 | 6.967    2.59 |12.967    1.10 | 18.97    0.56
 0.983    0.46 | 6.983    2.59 |12.983    1.10 | 18.98    0.56
 1.000    0.46 | 7.000    2.59 |13.000    1.10 | 19.00    0.56
 1.017    0.47 | 7.017    3.09 |13.017    1.07 | 19.02    0.56
 1.033    0.47 | 7.033    3.09 |13.033    1.07 | 19.03    0.56
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 1.050    0.47 | 7.050    3.09 |13.050    1.07 | 19.05    0.56
 1.067    0.47 | 7.067    3.09 |13.067    1.07 | 19.07    0.56
 1.083    0.47 | 7.083    3.09 |13.083    1.07 | 19.08    0.56
 1.100    0.47 | 7.100    3.09 |13.100    1.07 | 19.10    0.56
 1.117    0.47 | 7.117    3.09 |13.117    1.07 | 19.12    0.56
 1.133    0.47 | 7.133    3.09 |13.133    1.07 | 19.13    0.56
 1.150    0.47 | 7.150    3.09 |13.150    1.07 | 19.15    0.56
 1.167    0.47 | 7.167    3.09 |13.167    1.07 | 19.17    0.56
 1.183    0.48 | 7.183    3.86 |13.183    1.04 | 19.18    0.55
 1.200    0.48 | 7.200    3.86 |13.200    1.04 | 19.20    0.55
 1.217    0.48 | 7.217    3.86 |13.217    1.04 | 19.22    0.55
 1.233    0.48 | 7.233    3.86 |13.233    1.04 | 19.23    0.55
 1.250    0.48 | 7.250    3.86 |13.250    1.04 | 19.25    0.55
 1.267    0.48 | 7.267    3.86 |13.267    1.04 | 19.27    0.55
 1.283    0.48 | 7.283    3.86 |13.283    1.04 | 19.28    0.55
 1.300    0.48 | 7.300    3.86 |13.300    1.04 | 19.30    0.55
 1.317    0.48 | 7.317    3.86 |13.317    1.04 | 19.32    0.55
 1.333    0.48 | 7.333    3.86 |13.333    1.04 | 19.33    0.55
 1.350    0.49 | 7.350    5.21 |13.350    1.02 | 19.35    0.54
 1.367    0.49 | 7.367    5.21 |13.367    1.02 | 19.37    0.54
 1.383    0.49 | 7.383    5.21 |13.383    1.02 | 19.38    0.54
 1.400    0.49 | 7.400    5.21 |13.400    1.02 | 19.40    0.54
 1.417    0.49 | 7.417    5.21 |13.417    1.02 | 19.42    0.54
 1.433    0.49 | 7.433    5.21 |13.433    1.02 | 19.43    0.54
 1.450    0.49 | 7.450    5.21 |13.450    1.02 | 19.45    0.54
 1.467    0.49 | 7.467    5.21 |13.467    1.02 | 19.47    0.54
 1.483    0.49 | 7.483    5.21 |13.483    1.02 | 19.48    0.54
 1.500    0.49 | 7.500    5.22 |13.500    1.02 | 19.50    0.54
 1.517    0.50 | 7.517    8.22 |13.517    0.99 | 19.52    0.54
 1.533    0.50 | 7.533    8.22 |13.533    0.99 | 19.53    0.54
 1.550    0.50 | 7.550    8.22 |13.550    0.99 | 19.55    0.54
 1.567    0.50 | 7.567    8.22 |13.567    0.99 | 19.57    0.54
 1.583    0.50 | 7.583    8.22 |13.583    0.99 | 19.58    0.54
 1.600    0.50 | 7.600    8.22 |13.600    0.99 | 19.60    0.54
 1.617    0.50 | 7.617    8.22 |13.617    0.99 | 19.62    0.54
 1.633    0.50 | 7.633    8.22 |13.633    0.99 | 19.63    0.54
 1.650    0.50 | 7.650    8.22 |13.650    0.99 | 19.65    0.54
 1.667    0.50 | 7.667    8.26 |13.667    0.99 | 19.67    0.54
 1.683    0.51 | 7.683   20.77 |13.683    0.97 | 19.68    0.53
 1.700    0.51 | 7.700   20.77 |13.700    0.97 | 19.70    0.53
 1.717    0.51 | 7.717   20.77 |13.717    0.97 | 19.72    0.53
 1.733    0.51 | 7.733   20.77 |13.733    0.97 | 19.73    0.53
 1.750    0.51 | 7.750   20.77 |13.750    0.97 | 19.75    0.53
 1.767    0.51 | 7.767   20.77 |13.767    0.97 | 19.77    0.53
 1.783    0.51 | 7.783   20.77 |13.783    0.97 | 19.78    0.53
 1.800    0.51 | 7.800   20.77 |13.800    0.97 | 19.80    0.53
 1.817    0.51 | 7.817   20.77 |13.817    0.97 | 19.82    0.53
 1.833    0.51 | 7.833   20.95 |13.833    0.97 | 19.83    0.53
 1.850    0.53 | 7.850   84.13 |13.850    0.94 | 19.85    0.52
 1.867    0.53 | 7.867   84.13 |13.867    0.94 | 19.87    0.52
 1.883    0.53 | 7.883   84.13 |13.883    0.94 | 19.88    0.52
 1.900    0.53 | 7.900   84.13 |13.900    0.94 | 19.90    0.52
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1.917	0.53	7.917	84.13	13.917	0.94	19.92	0.52
1.933	0.53	7.933	84.13	13.933	0.94	19.93	0.52
1.950	0.53	7.950	84.13	13.950	0.94	19.95	0.52
1.967	0.53	7.967	84.13	13.967	0.94	19.97	0.52
1.983	0.53	7.983	84.13	13.983	0.94	19.98	0.52
2.000	0.53	8.000	83.96	14.000	0.94	20.00	0.52
2.017	0.54	8.017	27.50	14.017	0.92	20.02	0.52
2.033	0.54	8.033	27.50	14.033	0.92	20.03	0.52
2.050	0.54	8.050	27.50	14.050	0.92	20.05	0.52
2.067	0.54	8.067	27.50	14.067	0.92	20.07	0.52
2.083	0.54	8.083	27.50	14.083	0.92	20.08	0.52
2.100	0.54	8.100	27.50	14.100	0.92	20.10	0.52
2.117	0.54	8.117	27.50	14.117	0.92	20.12	0.52
2.133	0.54	8.133	27.50	14.133	0.92	20.13	0.52
2.150	0.54	8.150	27.50	14.150	0.92	20.15	0.52
2.167	0.54	8.167	27.46	14.167	0.92	20.17	0.52
2.183	0.55	8.183	14.07	14.183	0.90	20.18	0.51
2.200	0.55	8.200	14.07	14.200	0.90	20.20	0.51
2.217	0.55	8.217	14.07	14.217	0.90	20.22	0.51
2.233	0.55	8.233	14.07	14.233	0.90	20.23	0.51
2.250	0.55	8.250	14.07	14.250	0.90	20.25	0.51
2.267	0.55	8.267	14.07	14.267	0.90	20.27	0.51
2.283	0.55	8.283	14.07	14.283	0.90	20.28	0.51
2.300	0.55	8.300	14.07	14.300	0.90	20.30	0.51
2.317	0.55	8.317	14.07	14.317	0.90	20.32	0.51
2.333	0.55	8.333	14.06	14.333	0.90	20.33	0.51
2.350	0.57	8.350	9.40	14.350	0.88	20.35	0.51
2.367	0.57	8.367	9.40	14.367	0.88	20.37	0.51
2.383	0.57	8.383	9.40	14.383	0.88	20.38	0.51
2.400	0.57	8.400	9.40	14.400	0.88	20.40	0.51
2.417	0.57	8.417	9.40	14.417	0.88	20.42	0.51
2.433	0.57	8.433	9.40	14.433	0.88	20.43	0.51
2.450	0.57	8.450	9.40	14.450	0.88	20.45	0.51
2.467	0.57	8.467	9.40	14.467	0.88	20.47	0.51
2.483	0.57	8.483	9.40	14.483	0.88	20.48	0.51
2.500	0.57	8.500	9.39	14.500	0.88	20.50	0.51
2.517	0.58	8.517	7.07	14.517	0.86	20.52	0.50
2.533	0.58	8.533	7.07	14.533	0.86	20.53	0.50
2.550	0.58	8.550	7.07	14.550	0.86	20.55	0.50
2.567	0.58	8.567	7.07	14.567	0.86	20.57	0.50
2.583	0.58	8.583	7.07	14.583	0.86	20.58	0.50
2.600	0.58	8.600	7.07	14.600	0.86	20.60	0.50
2.617	0.58	8.617	7.07	14.617	0.86	20.62	0.50
2.633	0.58	8.633	7.07	14.633	0.86	20.63	0.50
2.650	0.58	8.650	7.07	14.650	0.86	20.65	0.50
2.667	0.58	8.667	7.07	14.667	0.86	20.67	0.50
2.683	0.60	8.683	5.68	14.683	0.84	20.68	0.50
2.700	0.60	8.700	5.68	14.700	0.84	20.70	0.50
2.717	0.60	8.717	5.68	14.717	0.84	20.72	0.50
2.733	0.60	8.733	5.68	14.733	0.84	20.73	0.50
2.750	0.60	8.750	5.68	14.750	0.84	20.75	0.50
2.767	0.60	8.767	5.68	14.767	0.84	20.77	0.50

2.783	0.60	8.783	5.68	14.783	0.84	20.78	0.50
2.800	0.60	8.800	5.68	14.800	0.84	20.80	0.50
2.817	0.60	8.817	5.68	14.817	0.84	20.82	0.50
2.833	0.60	8.833	5.68	14.833	0.84	20.83	0.50
2.850	0.61	8.850	4.76	14.850	0.83	20.85	0.49
2.867	0.61	8.867	4.76	14.867	0.83	20.87	0.49
2.883	0.61	8.883	4.76	14.883	0.83	20.88	0.49
2.900	0.61	8.900	4.76	14.900	0.83	20.90	0.49
2.917	0.61	8.917	4.76	14.917	0.83	20.92	0.49
2.933	0.61	8.933	4.76	14.933	0.83	20.93	0.49
2.950	0.61	8.950	4.76	14.950	0.83	20.95	0.49
2.967	0.61	8.967	4.76	14.967	0.83	20.97	0.49
2.983	0.61	8.983	4.76	14.983	0.83	20.98	0.49
3.000	0.61	9.000	4.76	15.000	0.83	21.00	0.49
3.017	0.63	9.017	4.11	15.017	0.81	21.02	0.49
3.033	0.63	9.033	4.11	15.033	0.81	21.03	0.49
3.050	0.63	9.050	4.11	15.050	0.81	21.05	0.49
3.067	0.63	9.067	4.11	15.067	0.81	21.07	0.49
3.083	0.63	9.083	4.11	15.083	0.81	21.08	0.49
3.100	0.63	9.100	4.11	15.100	0.81	21.10	0.49
3.117	0.63	9.117	4.11	15.117	0.81	21.12	0.49
3.133	0.63	9.133	4.11	15.133	0.81	21.13	0.49
3.150	0.63	9.150	4.11	15.150	0.81	21.15	0.49
3.167	0.63	9.167	4.11	15.167	0.81	21.17	0.49
3.183	0.65	9.183	3.62	15.183	0.79	21.18	0.48
3.200	0.65	9.200	3.62	15.200	0.79	21.20	0.48
3.217	0.65	9.217	3.62	15.217	0.79	21.22	0.48
3.233	0.65	9.233	3.62	15.233	0.79	21.23	0.48
3.250	0.65	9.250	3.62	15.250	0.79	21.25	0.48
3.267	0.65	9.267	3.62	15.267	0.79	21.27	0.48
3.283	0.65	9.283	3.62	15.283	0.79	21.28	0.48
3.300	0.65	9.300	3.62	15.300	0.79	21.30	0.48
3.317	0.65	9.317	3.62	15.317	0.79	21.32	0.48
3.333	0.65	9.333	3.62	15.333	0.79	21.33	0.48
3.350	0.67	9.350	3.24	15.350	0.78	21.35	0.48
3.367	0.67	9.367	3.24	15.367	0.78	21.37	0.48
3.383	0.67	9.383	3.24	15.383	0.78	21.38	0.48
3.400	0.67	9.400	3.24	15.400	0.78	21.40	0.48
3.417	0.67	9.417	3.24	15.417	0.78	21.42	0.48
3.433	0.67	9.433	3.24	15.433	0.78	21.43	0.48
3.450	0.67	9.450	3.24	15.450	0.78	21.45	0.48
3.467	0.67	9.467	3.24	15.467	0.78	21.47	0.48
3.483	0.67	9.483	3.24	15.483	0.78	21.48	0.48
3.500	0.67	9.500	3.24	15.500	0.78	21.50	0.48
3.517	0.69	9.517	2.94	15.517	0.77	21.52	0.47
3.533	0.69	9.533	2.94	15.533	0.77	21.53	0.47
3.550	0.69	9.550	2.94	15.550	0.77	21.55	0.47
3.567	0.69	9.567	2.94	15.567	0.77	21.57	0.47
3.583	0.69	9.583	2.94	15.583	0.77	21.58	0.47
3.600	0.69	9.600	2.94	15.600	0.77	21.60	0.47
3.617	0.69	9.617	2.94	15.617	0.77	21.62	0.47
3.633	0.69	9.633	2.94	15.633	0.77	21.63	0.47

3.650	0.69	9.650	2.94	15.650	0.77	21.65	0.47
3.667	0.69	9.667	2.94	15.667	0.77	21.67	0.47
3.683	0.72	9.683	2.69	15.683	0.75	21.68	0.47
3.700	0.72	9.700	2.69	15.700	0.75	21.70	0.47
3.717	0.72	9.717	2.69	15.717	0.75	21.72	0.47
3.733	0.72	9.733	2.69	15.733	0.75	21.73	0.47
3.750	0.72	9.750	2.69	15.750	0.75	21.75	0.47
3.767	0.72	9.767	2.69	15.767	0.75	21.77	0.47
3.783	0.72	9.783	2.69	15.783	0.75	21.78	0.47
3.800	0.72	9.800	2.69	15.800	0.75	21.80	0.47
3.817	0.72	9.817	2.69	15.817	0.75	21.82	0.47
3.833	0.72	9.833	2.69	15.833	0.75	21.83	0.47
3.850	0.74	9.850	2.49	15.850	0.74	21.85	0.46
3.867	0.74	9.867	2.49	15.867	0.74	21.87	0.46
3.883	0.74	9.883	2.49	15.883	0.74	21.88	0.46
3.900	0.74	9.900	2.49	15.900	0.74	21.90	0.46
3.917	0.74	9.917	2.49	15.917	0.74	21.92	0.46
3.933	0.74	9.933	2.49	15.933	0.74	21.93	0.46
3.950	0.74	9.950	2.49	15.950	0.74	21.95	0.46
3.967	0.74	9.967	2.49	15.967	0.74	21.97	0.46
3.983	0.74	9.983	2.49	15.983	0.74	21.98	0.46
4.000	0.74	10.000	2.49	16.000	0.74	22.00	0.46
4.017	0.77	10.017	2.31	16.017	0.73	22.02	0.46
4.033	0.77	10.033	2.31	16.033	0.73	22.03	0.46
4.050	0.77	10.050	2.31	16.050	0.73	22.05	0.46
4.067	0.77	10.067	2.31	16.067	0.73	22.07	0.46
4.083	0.77	10.083	2.31	16.083	0.73	22.08	0.46
4.100	0.77	10.100	2.31	16.100	0.73	22.10	0.46
4.117	0.77	10.117	2.31	16.117	0.73	22.12	0.46
4.133	0.77	10.133	2.31	16.133	0.73	22.13	0.46
4.150	0.77	10.150	2.31	16.150	0.73	22.15	0.46
4.167	0.77	10.167	2.31	16.167	0.73	22.17	0.46
4.183	0.80	10.183	2.16	16.183	0.71	22.18	0.45
4.200	0.80	10.200	2.16	16.200	0.71	22.20	0.45
4.217	0.80	10.217	2.16	16.217	0.71	22.22	0.45
4.233	0.80	10.233	2.16	16.233	0.71	22.23	0.45
4.250	0.80	10.250	2.16	16.250	0.71	22.25	0.45
4.267	0.80	10.267	2.16	16.267	0.71	22.27	0.45
4.283	0.80	10.283	2.16	16.283	0.71	22.28	0.45
4.300	0.80	10.300	2.16	16.300	0.71	22.30	0.45
4.317	0.80	10.317	2.16	16.317	0.71	22.32	0.45
4.333	0.80	10.333	2.16	16.333	0.71	22.33	0.45
4.350	0.83	10.350	2.03	16.350	0.70	22.35	0.45
4.367	0.83	10.367	2.03	16.367	0.70	22.37	0.45
4.383	0.83	10.383	2.03	16.383	0.70	22.38	0.45
4.400	0.83	10.400	2.03	16.400	0.70	22.40	0.45
4.417	0.83	10.417	2.03	16.417	0.70	22.42	0.45
4.433	0.83	10.433	2.03	16.433	0.70	22.43	0.45
4.450	0.83	10.450	2.03	16.450	0.70	22.45	0.45
4.467	0.83	10.467	2.03	16.467	0.70	22.47	0.45
4.483	0.83	10.483	2.03	16.483	0.70	22.48	0.45
4.500	0.83	10.500	2.03	16.500	0.70	22.50	0.45

4.517	0.87	10.517	1.92	16.517	0.69	22.52	0.44
4.533	0.87	10.533	1.92	16.533	0.69	22.53	0.44
4.550	0.87	10.550	1.92	16.550	0.69	22.55	0.44
4.567	0.87	10.567	1.92	16.567	0.69	22.57	0.44
4.583	0.87	10.583	1.92	16.583	0.69	22.58	0.44
4.600	0.87	10.600	1.92	16.600	0.69	22.60	0.44
4.617	0.87	10.617	1.92	16.617	0.69	22.62	0.44
4.633	0.87	10.633	1.92	16.633	0.69	22.63	0.44
4.650	0.87	10.650	1.92	16.650	0.69	22.65	0.44
4.667	0.87	10.667	1.92	16.667	0.69	22.67	0.44
4.683	0.91	10.683	1.82	16.683	0.68	22.68	0.44
4.700	0.91	10.700	1.82	16.700	0.68	22.70	0.44
4.717	0.91	10.717	1.82	16.717	0.68	22.72	0.44
4.733	0.91	10.733	1.82	16.733	0.68	22.73	0.44
4.750	0.91	10.750	1.82	16.750	0.68	22.75	0.44
4.767	0.91	10.767	1.82	16.767	0.68	22.77	0.44
4.783	0.91	10.783	1.82	16.783	0.68	22.78	0.44
4.800	0.91	10.800	1.82	16.800	0.68	22.80	0.44
4.817	0.91	10.817	1.82	16.817	0.68	22.82	0.44
4.833	0.91	10.833	1.82	16.833	0.68	22.83	0.44
4.850	0.95	10.850	1.73	16.850	0.67	22.85	0.44
4.867	0.95	10.867	1.73	16.867	0.67	22.87	0.44
4.883	0.95	10.883	1.73	16.883	0.67	22.88	0.44
4.900	0.95	10.900	1.73	16.900	0.67	22.90	0.44
4.917	0.95	10.917	1.73	16.917	0.67	22.92	0.44
4.933	0.95	10.933	1.73	16.933	0.67	22.93	0.44
4.950	0.95	10.950	1.73	16.950	0.67	22.95	0.44
4.967	0.95	10.967	1.73	16.967	0.67	22.97	0.44
4.983	0.95	10.983	1.73	16.983	0.67	22.98	0.44
5.000	0.95	11.000	1.73	17.000	0.67	23.00	0.44
5.017	1.00	11.017	1.65	17.017	0.66	23.02	0.43
5.033	1.00	11.033	1.65	17.033	0.66	23.03	0.43
5.050	1.00	11.050	1.65	17.050	0.66	23.05	0.43
5.067	1.00	11.067	1.65	17.067	0.66	23.07	0.43
5.083	1.00	11.083	1.65	17.083	0.66	23.08	0.43
5.100	1.00	11.100	1.65	17.100	0.66	23.10	0.43
5.117	1.00	11.117	1.65	17.117	0.66	23.12	0.43
5.133	1.00	11.133	1.65	17.133	0.66	23.13	0.43
5.150	1.00	11.150	1.65	17.150	0.66	23.15	0.43
5.167	1.00	11.167	1.64	17.167	0.66	23.17	0.43
5.183	1.06	11.183	1.57	17.183	0.65	23.18	0.43
5.200	1.06	11.200	1.57	17.200	0.65	23.20	0.43
5.217	1.06	11.217	1.57	17.217	0.65	23.22	0.43
5.233	1.06	11.233	1.57	17.233	0.65	23.23	0.43
5.250	1.06	11.250	1.57	17.250	0.65	23.25	0.43
5.267	1.06	11.267	1.57	17.267	0.65	23.27	0.43
5.283	1.06	11.283	1.57	17.283	0.65	23.28	0.43
5.300	1.06	11.300	1.57	17.300	0.65	23.30	0.43
5.317	1.06	11.317	1.57	17.317	0.65	23.32	0.43
5.333	1.06	11.333	1.57	17.333	0.65	23.33	0.43
5.350	1.12	11.350	1.51	17.350	0.64	23.35	0.42
5.367	1.12	11.367	1.51	17.367	0.64	23.37	0.42

5.383	1.12	11.383	1.51	17.383	0.64	23.38	0.42
5.400	1.12	11.400	1.51	17.400	0.64	23.40	0.42
5.417	1.12	11.417	1.51	17.417	0.64	23.42	0.42
5.433	1.12	11.433	1.51	17.433	0.64	23.43	0.42
5.450	1.12	11.450	1.51	17.450	0.64	23.45	0.42
5.467	1.12	11.467	1.51	17.467	0.64	23.47	0.42
5.483	1.12	11.483	1.51	17.483	0.64	23.48	0.42
5.500	1.12	11.500	1.51	17.500	0.64	23.50	0.42
5.517	1.19	11.517	1.45	17.517	0.63	23.52	0.42
5.533	1.19	11.533	1.45	17.533	0.63	23.53	0.42
5.550	1.19	11.550	1.45	17.550	0.63	23.55	0.42
5.567	1.19	11.567	1.45	17.567	0.63	23.57	0.42
5.583	1.19	11.583	1.45	17.583	0.63	23.58	0.42
5.600	1.19	11.600	1.45	17.600	0.63	23.60	0.42
5.617	1.19	11.617	1.45	17.617	0.63	23.62	0.42
5.633	1.19	11.633	1.45	17.633	0.63	23.63	0.42
5.650	1.19	11.650	1.45	17.650	0.63	23.65	0.42
5.667	1.19	11.667	1.45	17.667	0.63	23.67	0.42
5.683	1.27	11.683	1.39	17.683	0.62	23.68	0.42
5.700	1.27	11.700	1.39	17.700	0.62	23.70	0.42
5.717	1.27	11.717	1.39	17.717	0.62	23.72	0.42
5.733	1.27	11.733	1.39	17.733	0.62	23.73	0.42
5.750	1.27	11.750	1.39	17.750	0.62	23.75	0.42
5.767	1.27	11.767	1.39	17.767	0.62	23.77	0.42
5.783	1.27	11.783	1.39	17.783	0.62	23.78	0.42
5.800	1.27	11.800	1.39	17.800	0.62	23.80	0.42
5.817	1.27	11.817	1.39	17.817	0.62	23.82	0.42
5.833	1.27	11.833	1.39	17.833	0.62	23.83	0.42
5.850	1.36	11.850	1.34	17.850	0.61	23.85	0.41
5.867	1.36	11.867	1.34	17.867	0.61	23.87	0.41
5.883	1.36	11.883	1.34	17.883	0.61	23.88	0.41
5.900	1.36	11.900	1.34	17.900	0.61	23.90	0.41
5.917	1.36	11.917	1.34	17.917	0.61	23.92	0.41
5.933	1.36	11.933	1.34	17.933	0.61	23.93	0.41
5.950	1.36	11.950	1.34	17.950	0.61	23.95	0.41
5.967	1.36	11.967	1.34	17.967	0.61	23.97	0.41
5.983	1.36	11.983	1.34	17.983	0.61	23.98	0.41
6.000	1.36	12.000	1.34	18.000	0.61	24.00	0.41

Max.Eff.Inten.(mm/hr)=	84.13	12.26	
over (min)	8.00	16.00	
Storage Coeff. (min)=	8.01 (ii)	15.19 (ii)	
Unit Hyd. Tpeak (min)=	8.00	16.00	
Unit Hyd. peak (cms)=	0.14	0.07	
			TOTALS
PEAK FLOW (cms)=	2.14	0.20	2.254 (iii)
TIME TO PEAK (hrs)=	8.07	8.23	8.07
RUNOFF VOLUME (mm)=	52.25	8.56	29.97
TOTAL RAINFALL (mm)=	53.26	53.26	53.26
RUNOFF COEFFICIENT =	0.98	0.16	0.56

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 48.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

DUHYD (0034)
Inlet Cap.= 3.057
#of Inlets= 1
Total(cms)= 3.1

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
TOTAL HYD.(ID= 1):	26.89	2.25	8.07	29.97
MAJOR SYS.(ID= 2):	0.00	0.00	0.00	0.00
MINOR SYS.(ID= 3):	26.89	2.25	8.07	29.97

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

Junction Command(0033)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 9(0034)	26.89	2.25	8.07	29.97
OUTFLOW: ID= 2(0033)	26.89	2.25	8.07	29.97

CALIB
STANDHYD (1052)
ID= 1 DT= 1.0 min

Area (ha)= 1.95
Total Imp(%)= 30.00 Dir. Conn.(%)= 26.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	0.58	1.36
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	0.50	2.00
Length	(m)=	113.90	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 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
0.017	0.42	6.017	1.47	12.017	1.29	18.02	0.60
0.033	0.42	6.033	1.47	12.033	1.29	18.03	0.60

0.050	0.42	6.050	1.47	12.050	1.29	18.05	0.60
0.067	0.42	6.067	1.47	12.067	1.29	18.07	0.60
0.083	0.42	6.083	1.47	12.083	1.29	18.08	0.60
0.100	0.42	6.100	1.47	12.100	1.29	18.10	0.60
0.117	0.42	6.117	1.47	12.117	1.29	18.12	0.60
0.133	0.42	6.133	1.47	12.133	1.29	18.13	0.60
0.150	0.42	6.150	1.47	12.150	1.29	18.15	0.60
0.167	0.42	6.167	1.47	12.167	1.29	18.17	0.60
0.183	0.43	6.183	1.61	12.183	1.25	18.18	0.59
0.200	0.43	6.200	1.61	12.200	1.25	18.20	0.59
0.217	0.43	6.217	1.61	12.217	1.25	18.22	0.59
0.233	0.43	6.233	1.61	12.233	1.25	18.23	0.59
0.250	0.43	6.250	1.61	12.250	1.25	18.25	0.59
0.267	0.43	6.267	1.61	12.267	1.25	18.27	0.59
0.283	0.43	6.283	1.61	12.283	1.25	18.28	0.59
0.300	0.43	6.300	1.61	12.300	1.25	18.30	0.59
0.317	0.43	6.317	1.61	12.317	1.25	18.32	0.59
0.333	0.43	6.333	1.61	12.333	1.25	18.33	0.59
0.350	0.44	6.350	1.77	12.350	1.21	18.35	0.59
0.367	0.44	6.367	1.77	12.367	1.21	18.37	0.59
0.383	0.44	6.383	1.77	12.383	1.21	18.38	0.59
0.400	0.44	6.400	1.77	12.400	1.21	18.40	0.59
0.417	0.44	6.417	1.77	12.417	1.21	18.42	0.59
0.433	0.44	6.433	1.77	12.433	1.21	18.43	0.59
0.450	0.44	6.450	1.77	12.450	1.21	18.45	0.59
0.467	0.44	6.467	1.77	12.467	1.21	18.47	0.59
0.483	0.44	6.483	1.77	12.483	1.21	18.48	0.59
0.500	0.44	6.500	1.77	12.500	1.21	18.50	0.59
0.517	0.44	6.517	1.97	12.517	1.17	18.52	0.58
0.533	0.44	6.533	1.97	12.533	1.17	18.53	0.58
0.550	0.44	6.550	1.97	12.550	1.17	18.55	0.58
0.567	0.44	6.567	1.97	12.567	1.17	18.57	0.58
0.583	0.44	6.583	1.97	12.583	1.17	18.58	0.58
0.600	0.44	6.600	1.97	12.600	1.17	18.60	0.58
0.617	0.44	6.617	1.97	12.617	1.17	18.62	0.58
0.633	0.44	6.633	1.97	12.633	1.17	18.63	0.58
0.650	0.44	6.650	1.97	12.650	1.17	18.65	0.58
0.667	0.44	6.667	1.97	12.667	1.17	18.67	0.58
0.683	0.45	6.683	2.23	12.683	1.14	18.68	0.57
0.700	0.45	6.700	2.23	12.700	1.14	18.70	0.57
0.717	0.45	6.717	2.23	12.717	1.14	18.72	0.57
0.733	0.45	6.733	2.23	12.733	1.14	18.73	0.57
0.750	0.45	6.750	2.23	12.750	1.14	18.75	0.57
0.767	0.45	6.767	2.23	12.767	1.14	18.77	0.57
0.783	0.45	6.783	2.23	12.783	1.14	18.78	0.57
0.800	0.45	6.800	2.23	12.800	1.14	18.80	0.57
0.817	0.45	6.817	2.23	12.817	1.14	18.82	0.57
0.833	0.45	6.833	2.23	12.833	1.14	18.83	0.57
0.850	0.46	6.850	2.59	12.850	1.10	18.85	0.56
0.867	0.46	6.867	2.59	12.867	1.10	18.87	0.56
0.883	0.46	6.883	2.59	12.883	1.10	18.88	0.56
0.900	0.46	6.900	2.59	12.900	1.10	18.90	0.56
0.917	0.46	6.917	2.59	12.917	1.10	18.92	0.56
0.933	0.46	6.933	2.59	12.933	1.10	18.93	0.56
0.950	0.46	6.950	2.59	12.950	1.10	18.95	0.56
0.967	0.46	6.967	2.59	12.967	1.10	18.97	0.56
0.983	0.46	6.983	2.59	12.983	1.10	18.98	0.56
1.000	0.46	7.000	2.59	13.000	1.10	19.00	0.56
1.017	0.47	7.017	3.09	13.017	1.07	19.02	0.56
1.033	0.47	7.033	3.09	13.033	1.07	19.03	0.56
1.050	0.47	7.050	3.09	13.050	1.07	19.05	0.56
1.067	0.47	7.067	3.09	13.067	1.07	19.07	0.56
1.083	0.47	7.083	3.09	13.083	1.07	19.08	0.56
1.100	0.47	7.100	3.09	13.100	1.07	19.10	0.56
1.117	0.47	7.117	3.09	13.117	1.07	19.12	0.56
1.133	0.47	7.133	3.09	13.133	1.07	19.13	0.56
1.150	0.47	7.150	3.09	13.150	1.07	19.15	0.56
1.167	0.47	7.167	3.09	13.167	1.07	19.17	0.56
1.183	0.48	7.183	3.86	13.183	1.04	19.18	0.55
1.200	0.48	7.200	3.86	13.200	1.04	19.20	0.55
1.217	0.48	7.217	3.86	13.217	1.04	19.22	0.55
1.233	0.48	7.233	3.86	13.233	1.04	19.23	0.55
1.250	0.48	7.250	3.86	13.250	1.04	19.25	0.55
1.267	0.48	7.267	3.86	13.267	1.04	19.27	0.55
1.283	0.48	7.283	3.86	13.283	1.04	19.28	0.55
1.300	0.48	7.300	3.86	13.300	1.04	19.30	0.55
1.317	0.48	7.317	3.86	13.317	1.04	19.32	0.55
1.333	0.48	7.333	3.86	13.333	1.04	19.33	0.55
1.350	0.49	7.350	5.21	13.350	1.02	19.35	0.54
1.367	0.49	7.367	5.21	13.367	1.02	19.37	0.54
1.383	0.49	7.383	5.21	13.383	1.02	19.38	0.54
1.400	0.49	7.400	5.21	13.400	1.02	19.40	0.54
1.417	0.49	7.417	5.21	13.417	1.02	19.42	0.54
1.433	0.49	7.433	5.21	13.433	1.02	19.43	0.54
1.450	0.49	7.450	5.21	13.450	1.02	19.45	0.54
1.467	0.49	7.467	5.21	13.467	1.02	19.47	0.54
1.483	0.49	7.483	5.21	13.483	1.02	19.48	0.54
1.500	0.49	7.500	5.22	13.500	1.02	19.50	0.54
1.517	0.50	7.517	8.22	13.517	0.99	19.52	0.54
1.533	0.50	7.533	8.22	13.533	0.99	19.53	0.54
1.550	0.50	7.550	8.22	13.550	0.99	19.55	0.54
1.567	0.50	7.567	8.22	13.567	0.99	19.57	0.54
1.583	0.50	7.583	8.22	13.583	0.99	19.58	0.54
1.600	0.50	7.600	8.22	13.600	0.99	19.60	0.54
1.617	0.50	7.617	8.22	13.617	0.99	19.62	0.54
1.633	0.50	7.633	8.22	13.633	0.99	19.63	0.54
1.650	0.50	7.650	8.22	13.650	0.99	19.65	0.54
1.667	0.50	7.667	8.26	13.667	0.99	19.67	0.54
1.683	0.51	7.683	20.77	13.683	0.97	19.68	0.53
1.700	0.51	7.700	20.77	13.700	0.97	19.70	0.53
1.717	0.51	7.717	20.77	13.717	0.97	19.72	0.53
1.733	0.51	7.733	20.77	13.733	0.97	19.73	0.53
1.750	0.51	7.750	20.77	13.750	0.97	19.75	0.53
1.767	0.51	7.767	20.77	13.767	0.97	19.77	0.53
1.783	0.51	7.783	20.77	13.783	0.97	19.78	0.53
1.800	0.51	7.800	20.77	13.800	0.97	19.80	0.53
1.817	0.51	7.817	20.77	13.817	0.97	19.82	0.53
1.833	0.51	7.833	20.95	13.833	0.97	19.83	0.53
1.850	0.53	7.850	84.13	13.850	0.94	19.85	0.52
1.867	0.53	7.867	84.13	13.867	0.94	19.87	0.52
1.883	0.53	7.883	84.13	13.883	0.94	19.88	0.52
1.900	0.53	7.900	84.13	13.900	0.94	19.90	0.52
1.917	0.53	7.917	84.13	13.917	0.94	19.92	0.52
1.933	0.53	7.933	84.13	13.933	0.94	19.93	0.52
1.950	0.53	7.950	84.13	13.950	0.94	19.95	0.52
1.967	0.53	7.967	84.13	13.967	0.94	19.97	0.52
1.983	0.53	7.983	84.13	13.983	0.94	19.98	0.52
2.000	0.53	8.000	83.96	14.000	0.94	20.00	0.52
2.017	0.54	8.017	27.50	14.017	0.92	20.02	0.52
2.033	0.54	8.033	27.50	14.033	0.92	20.03	0.52
2.050	0.54	8.050	27.50	14.050	0.92	20.05	0.52
2.067	0.54	8.067	27.50	14.067	0.92	20.07	0.52
2.083	0.54	8.083	27.50	14.083	0.92	20.08	0.52
2.100	0.54	8.100	27.50	14.100	0.92	20.10	0.52
2.117	0.54	8.117	27.50	14.117	0.92	20.12	0.52
2.133	0.54	8.133	27.50	14.133	0.92	20.13	0.52
2.150	0.54	8.150	27.50	14.150	0.92	20.15	0.52
2.167	0.54	8.167	27.46	14.167	0.92	20.17	0.52
2.183	0.55	8.183	14.07	14.183	0.90	20.18	0.51
2.200	0.55	8.200	14.07	14.200	0.90	20.20	0.51
2.217	0.55	8.217	14.07	14.217	0.90	20.22	0.51
2.233	0.55	8.233	14.07	14.233	0.90	20.23	0.51
2.250	0.55	8.250	14.07	14.250	0.90	20.25	0.51
2.267	0.55	8.267	14.07	14.267	0.90	20.27	0.51
2.283	0.55	8.283	14.07	14.283	0.90	20.28	0.51
2.300	0.55	8.300	14.07	14.300	0.90	20.30	0.51
2.317	0.55	8.317	14.07	14.317	0.90	20.32	0.51
2.333	0.55	8.333	14.06	14.333	0.90	20.33	0.51
2.350	0.57	8.350	9.40	14.350	0.88	20.35	0.51
2.367	0.57	8.367	9.40	14.367	0.88	20.37	0.51
2.383	0.57	8.383	9.40	14.383	0.88	20.38	0.51
2.400	0.57	8.400	9.40	14.400	0.88	20.40	0.51
2.417	0.57	8.417	9.40	14.417	0.88	20.42	0.51
2.433	0.57	8.433	9.40	14.433	0.88	20.43	0.51
2.450	0.57	8.450	9.40	14.450	0.88	20.45	0.51
2.467	0.57	8.467	9.40	14.467	0.88	20.47	0.51
2.483	0.57	8.483	9.40	14.483	0.88	20.48	0.51
2.500	0.57	8.500	9.39	14.500	0.88	20.50	0.51
2.517	0.58	8.517	7.07	14.517	0.86	20.52	0.50
2.533	0.58	8.533	7.07	14.533	0.86	20.53	0.50
2.550	0.58	8.550	7.07	14.550	0.86	20.55	0.50
2.567	0.58	8.567	7.07	14.567	0.86	20.57	0.50
2.583	0.58	8.583	7.07	14.583	0.86	20.58	0.50
2.600	0.58	8.600	7.07	14.600	0.86	20.60	0.50
2.617	0.58	8.617	7.07	14.617	0.86	20.62	0.50
2.633	0.58	8.633	7.07	14.633	0.86	20.63	0.50
2.650	0.58	8.650	7.07	14.650	0.86	20.65	0.50
2.667	0.58	8.667	7.07	14.667	0.86	20.67	0.50
2.683	0.60	8.683	5.68	14.683	0.84	20.68	0.50
2.700	0.60	8.700	5.68	14.700	0.84	20.70	0.50
2.717	0.60	8.717	5.68	14.717	0.84	20.72	0.50
2.733	0.60	8.733	5.68	14.733	0.84	20.73	0.50
2.750	0.60	8.750	5.68	14.750	0.84	20.75	0.50
2.767	0.60	8.767	5.68	14.767	0.84	20.77	0.50
2.783	0.60	8.783	5.68	14.783	0.84	20.78	0.50
2.800	0.60	8.800	5.68	14.800	0.84	20.80	0.50
2.817	0.60	8.817	5.68	14.817	0.84	20.82	0.50
2.833	0.60	8.833	5.68	14.833	0.84	20.83	0.50
2.850	0.61	8.850	4.76	14.850	0.83	20.85	0.49
2.867	0.61	8.867	4.76	14.867	0.83	20.87	0.49
2.883	0.61	8.883	4.76	14.883	0.83	20.88	0.49
2.900	0.61	8.900	4.76	14.900	0.83	20.90	0.49
2.917	0.61	8.917	4.76	14.917	0.83	20.92	0.49
2.933	0.61	8.933	4.76	14.933	0.83	20.93	0.49
2.950	0.61	8.950	4.76	14.950	0.83	20.95	0.49
2.967	0.61	8.967	4.76	14.967	0.83	20.97	0.49
2.983	0.61	8.983	4.76	14.983	0.83	20.98	0.49
3.000	0.61	9.000	4.76	15.000	0.83	21.00	0.49
3.017	0.63	9.017	4.11	15.017	0.81	21.02	0.49
3.033	0.63	9.033	4.11	15.033	0.81	21.03	0.49
3.050	0.63	9.050	4.11	15.050	0.81	21.05	0.49
3.067	0.63	9.067	4.11	15.067	0.81	21.07	0.49
3.083	0.63	9.083	4.11	15.083	0.81	21.08	0.49
3.100	0.63	9.100	4.11	15.100	0.81	21.10	0.49
3.117	0.63	9.117	4.11	15.117	0.81	21.12	0.49
3.133	0.63	9.133	4.11	15.133	0.81	21.13	0.49
3.150	0.63	9.150	4.11	15.150	0.81	21.15	0.49
3.167	0.63	9.167	4.11	15.167	0.81	21.17	0.49
3.183	0.65	9.183	3.62	15.183	0.79	21.18	0.48
3.200	0.65	9.200	3.62	15.200	0.79	21.20	0.48
3.217	0.65	9.217	3.62	15.217	0.79	21.22	0.48
3.233	0.65	9.233	3.62	15.233	0.79	21.23	0.48
3.250	0.65	9.250	3.62	15.250	0.79	21.25	0.48
3.267	0.65	9.267	3.62	15.267	0.79	21.27	0.48
3.283	0.65	9.283	3.62	15.283	0.79	21.28	0.48
3.300	0.65	9.300	3.62	15.300	0.79	21.30	0.48
3.317	0.65	9.317	3.62	15.317	0.79	21.32	0.48
3.333	0.65	9.333	3.62	15.333	0.79	21.33	0.48
3.350	0.67	9.350	3.24	15.350	0.78	21.35	0.48
3.367	0.67	9.367	3.24	15.367	0.78	21.37	0.48
3.383	0.67	9.383	3.24	15.383	0.78	21.38	0.48
3.400	0.67	9.400	3.24	15.400	0.78	21.40	0.48
3.417	0.67	9.417	3.24	15.417	0.78	21.42	0.48
3.433	0.67	9.433	3.24	15.433	0.78	21.43	0.48
3.450	0.67	9.450	3.24	15.450	0.78	21.45	0.48
3.467	0.67	9.467	3.24	15.467	0.78	21.47	0.48
3.483	0.67	9.483	3.24	15.483	0.78	21.48	0.48
3.500	0.67	9.500	3.24	15.500	0.78	21.50	0.48
3.517	0.69	9.517	2.94	15.517	0.77	21.52	0.47
3.533	0.69	9.533	2.94	15.533	0.77	21.53	0.47
3.550	0.69	9.550	2.94	15.550	0.77	21.55	0.47
3.567	0.69	9.567	2.94	15.567	0.77	21.57	0.47
3.583	0.69	9.583	2.94	15.583	0.77	21.58	0.47
3.600	0.69	9.600	2.94	15.600	0.77	21.60	0.47
3.617	0.69	9.617	2.94	15.617	0.77	21.62	0.47
3.633	0.69	9.633	2.94	15.633	0.77	21.63	0.47
3.650	0.69	9.650	2.94	15.650	0.77	21.65	0.47
3.667	0.69	9.667	2.94	15.667	0.77	21.67	0.47
3.683	0.72	9.683	2.69	15.683	0.75	21.68	0.47
3.700	0.72	9.700	2.69	15.700	0.75	21.70	0.47
3.717	0.72	9.717	2.69	15.717	0.75	21.72	0.47
3.733	0.72	9.733	2.69	15.733	0.75	21.73	0.47
3.750	0.72	9.750	2.69	15.750	0.75	21.75	0.47
3.767	0.72	9.767	2.69	15.767	0.75	21.77	0.47
3.783	0.72	9.783	2.69	15.783	0.75	21.78	0.47
3.800	0.72	9.800	2.69	15.800	0.75	21.80	0.47
3.817	0.72	9.817	2.69	15.817	0.75	21.82	0.47
3.833	0.72	9.833	2.69	15.833	0.75	21.83	0.47
3.850	0.74	9.850	2.49	15.850	0.74	21.85	0.46
3.867	0.74	9.867	2.49	15.867	0.74	21.87	0.46
3.883	0.74	9.883	2.49	15.883	0.74	21.88	0.46
3.900	0.74	9.900	2.49	15.900	0.74	21.90	0.46
3.917	0.74	9.917	2.49	15.917	0.74	21.92	0.46
3.933	0.74	9.933	2.49	15.933	0.74	21.93	0.46
3.950	0.74	9.950	2.49	15.950	0.74	21.95	0.46
3.967	0.74	9.967	2.49	15.967	0.74	21.97	0.46
3.983	0.74	9.983	2.49	15.983	0.74	21.98	0.46
4.000	0.74	10.000	2.49	16.000	0.74	22.00	0.46
4.017	0.77	10.017	2.31	16.017	0.73	22.02	0.46
4.033	0.77	10.033	2.31	16.033	0.73	22.03	0.46
4.050	0.77	10.050	2.31	16.050	0.73	22.05	0.46
4.067	0.77	10.067	2.31	16.067	0.73	22.07	0.46
4.083	0.77	10.083	2.31	16.083	0.73	22.08	0.46
4.100	0.77	10.100	2.31	16.100	0.73	22.10	0.46
4.117	0.77	10.117	2.31	16.117	0.73	22.12	0.46
4.133	0.77	10.133	2.31	16.133	0.73	22.13	0.46
4.150	0.77	10.150	2.31	16.150	0.73	22.15	0.46
4.167	0.77	10.167	2.31	16.167	0.73	22.17	0.46
4.183	0.80	10.183	2.16	16.183	0.71	22.18	0.45
4.200	0.80	10.200	2.16	16.200	0.71	22.20	0.45
4.217	0.80	10.217	2.16	16.217	0.71	22.22	0.45
4.233	0.80	10.233	2.16	16.233	0.71	22.23	0.45
4.250	0.80	10.250	2.16	16.250	0.71	22.25	0.45
4.267	0.80	10.267	2.16	16.267	0.71	22.27	0.45
4.283	0.80	10.283	2.16	16.283	0.71	22.28	0.45
4.300	0.80	10.300	2.16	16.300	0.71	22.30	0.45
4.317	0.80	10.317	2.16	16.317	0.71	22.32	0.45
4.333	0.80	10.333	2.16	16.333	0.71	22.33	0.45
4.350	0.83	10.350	2.03	16.350	0.70	22.35	0.45
4.367	0.83	10.367	2.03	16.367	0.70	22.37	0.45
4.383	0.83	10.383	2.03	16.383	0.70	22.38	0.45
4.400	0.83	10.400	2.03	16.400	0.70	22.40	0.45
4.417	0.83	10.417	2.03	16.417	0.70	22.42	0.45
4.433	0.83	10.433	2.03	16.433	0.70	22.43	0.45
4.450	0.83	10.450	2.03	16.450	0.70	22.45	0.45
4.467	0.83	10.467	2.03	16.467	0.70	22.47	0.45
4.483	0.83	10.483	2.03	16.483	0.70	22.48	0.45
4.500	0.83	10.500	2.03	16.500	0.70	22.50	0.45
4.517	0.87	10.517	1.92	16.517	0.69	22.52	0.44
4.533	0.87	10.533	1.92	16.533	0.69	22.53	0.44
4.550	0.87	10.550	1.92	16.550	0.69	22.55	0.44
4.567	0.87	10.567	1.92	16.567	0.69	22.57	0.44
4.583	0.87	10.583	1.92	16.583	0.69	22.58	0.44
4.600	0.87	10.600	1.92	16.600	0.69	22.60	0.44
4.617	0.87	10.617	1.92	16.617	0.69	22.62	0.44
4.633	0.87	10.633	1.92	16.633	0.69	22.63	0.44
4.650	0.87	10.650	1.92	16.650	0.69	22.65	0.44
4.667	0.87	10.667	1.92	16.667	0.69	22.67	0.44
4.683	0.91	10.683	1.82	16.683	0.68	22.68	0.44
4.700	0.91	10.700	1.82	16.700	0.68	22.70	0.44
4.717	0.91	10.717	1.82	16.717	0.68	22.72	0.44
4.733	0.91	10.733	1.82	16.733	0.68	22.73	0.44
4.750	0.91	10.750	1.82	16.750	0.68	22.75	0.44
4.767	0.91	10.767	1.82	16.767	0.68	22.77	0.44
4.783	0.91	10.783	1.82	16.783	0.68	22.78	0.44
4.800	0.91	10.800	1.82	16.800	0.68	22.80	0.44
4.817	0.91	10.817	1.82	16.817	0.68	22.82	0.44
4.833	0.91	10.833	1.82	16.833	0.68	22.83	0.44
4.850	0.95	10.850	1.73	16.850	0.67	22.85	0.44
4.867	0.95	10.867	1.73	16.867	0.67	22.87	0.44
4.883	0.95	10.883	1.73	16.883	0.67	22.88	0.44
4.900	0.95	10.900	1.73	16.900	0.67	22.90	0.44
4.917	0.95	10.917	1.73	16.917	0.67	22.92	0.44
4.933	0.95	10.933	1.73	16.933	0.67	22.93	0.44
4.950	0.95	10.950	1.73	16.950	0.67	22.95	0.44
4.967	0.95	10.967	1.73	16.967	0.67	22.97	0.44
4.983	0.95	10.983	1.73	16.983	0.67	22.98	0.44
5.000	0.95	11.000	1.73	17.000	0.67	23.00	0.44
5.017	1.00	11.017	1.65	17.017	0.66	23.02	0.43
5.033	1.00	11.033	1.65	17.033	0.66	23.03	0.43
5.050	1.00	11.050	1.65	17.050	0.66	23.05	0.43
5.067	1.00	11.067	1.65	17.067	0.66	23.07	0.43
5.083	1.00	11.083	1.65	17.083	0.66	23.08	0.43
5.100	1.00	11.100	1.65	17.100	0.66	23.10	0.43
5.117	1.00	11.117	1.65	17.117	0.66	23.12	0.43
5.133	1.00	11.133	1.65	17.133	0.66	23.13	0.43
5.150	1.00	11.150	1.65	17.150	0.66	23.15	0.43
5.167	1.00	11.167	1.64	17.167	0.66	23.17	0.43
5.183	1.06	11.183	1.57	17.183	0.65	23.18	0.43
5.200	1.06	11.200	1.57	17.200	0.65	23.20	0.43
5.217	1.06	11.217	1.57	17.217	0.65	23.22	0.43
5.233	1.06	11.233	1.57	17.233	0.65	23.23	0.43

5.250	1.06	11.250	1.57	17.250	0.65	23.25	0.43
5.267	1.06	11.267	1.57	17.267	0.65	23.27	0.43
5.283	1.06	11.283	1.57	17.283	0.65	23.28	0.43
5.300	1.06	11.300	1.57	17.300	0.65	23.30	0.43
5.317	1.06	11.317	1.57	17.317	0.65	23.32	0.43
5.333	1.06	11.333	1.57	17.333	0.65	23.33	0.43
5.350	1.12	11.350	1.51	17.350	0.64	23.35	0.42
5.367	1.12	11.367	1.51	17.367	0.64	23.37	0.42
5.383	1.12	11.383	1.51	17.383	0.64	23.38	0.42
5.400	1.12	11.400	1.51	17.400	0.64	23.40	0.42
5.417	1.12	11.417	1.51	17.417	0.64	23.42	0.42
5.433	1.12	11.433	1.51	17.433	0.64	23.43	0.42
5.450	1.12	11.450	1.51	17.450	0.64	23.45	0.42
5.467	1.12	11.467	1.51	17.467	0.64	23.47	0.42
5.483	1.12	11.483	1.51	17.483	0.64	23.48	0.42
5.500	1.12	11.500	1.51	17.500	0.64	23.50	0.42
5.517	1.19	11.517	1.45	17.517	0.63	23.52	0.42
5.533	1.19	11.533	1.45	17.533	0.63	23.53	0.42
5.550	1.19	11.550	1.45	17.550	0.63	23.55	0.42
5.567	1.19	11.567	1.45	17.567	0.63	23.57	0.42
5.583	1.19	11.583	1.45	17.583	0.63	23.58	0.42
5.600	1.19	11.600	1.45	17.600	0.63	23.60	0.42
5.617	1.19	11.617	1.45	17.617	0.63	23.62	0.42
5.633	1.19	11.633	1.45	17.633	0.63	23.63	0.42
5.650	1.19	11.650	1.45	17.650	0.63	23.65	0.42
5.667	1.19	11.667	1.45	17.667	0.63	23.67	0.42
5.683	1.27	11.683	1.39	17.683	0.62	23.68	0.42
5.700	1.27	11.700	1.39	17.700	0.62	23.70	0.42
5.717	1.27	11.717	1.39	17.717	0.62	23.72	0.42
5.733	1.27	11.733	1.39	17.733	0.62	23.73	0.42
5.750	1.27	11.750	1.39	17.750	0.62	23.75	0.42
5.767	1.27	11.767	1.39	17.767	0.62	23.77	0.42
5.783	1.27	11.783	1.39	17.783	0.62	23.78	0.42
5.800	1.27	11.800	1.39	17.800	0.62	23.80	0.42
5.817	1.27	11.817	1.39	17.817	0.62	23.82	0.42
5.833	1.27	11.833	1.39	17.833	0.62	23.83	0.42
5.850	1.36	11.850	1.34	17.850	0.61	23.85	0.41
5.867	1.36	11.867	1.34	17.867	0.61	23.87	0.41
5.883	1.36	11.883	1.34	17.883	0.61	23.88	0.41
5.900	1.36	11.900	1.34	17.900	0.61	23.90	0.41
5.917	1.36	11.917	1.34	17.917	0.61	23.92	0.41
5.933	1.36	11.933	1.34	17.933	0.61	23.93	0.41
5.950	1.36	11.950	1.34	17.950	0.61	23.95	0.41
5.967	1.36	11.967	1.34	17.967	0.61	23.97	0.41
5.983	1.36	11.983	1.34	17.983	0.61	23.98	0.41
6.000	1.36	12.000	1.34	18.000	0.61	24.00	0.41

Max.Eff.Inten.(mm/hr)=	84.13	6.96
over (min)	5.00	25.00
Storage Coeff. (min)=	3.64 (ii)	24.14 (ii)
Unit Hyd. Tpeak (min)=	5.00	25.00
Unit Hyd. peak (cms)=	0.28	0.05

4.417	0.83	10.417	2.03	16.417	0.70	22.42	0.45
4.500	0.83	10.500	2.03	16.500	0.70	22.50	0.45
4.583	0.87	10.583	1.92	16.583	0.69	22.58	0.44
4.667	0.87	10.667	1.92	16.667	0.69	22.67	0.44
4.750	0.91	10.750	1.82	16.750	0.68	22.75	0.44
4.833	0.91	10.833	1.82	16.833	0.68	22.83	0.44
4.917	0.95	10.917	1.73	16.917	0.67	22.92	0.44
5.000	0.95	11.000	1.73	17.000	0.67	23.00	0.44
5.083	1.00	11.083	1.65	17.083	0.66	23.08	0.43
5.167	1.00	11.167	1.65	17.167	0.66	23.17	0.43
5.250	1.06	11.250	1.57	17.250	0.65	23.25	0.43
5.333	1.06	11.333	1.57	17.333	0.65	23.33	0.43
5.417	1.12	11.417	1.51	17.417	0.64	23.42	0.42
5.500	1.12	11.500	1.51	17.500	0.64	23.50	0.42
5.583	1.19	11.583	1.45	17.583	0.63	23.58	0.42
5.667	1.19	11.667	1.45	17.667	0.63	23.67	0.42
5.750	1.27	11.750	1.39	17.750	0.62	23.75	0.42
5.833	1.27	11.833	1.39	17.833	0.62	23.83	0.42
5.917	1.36	11.917	1.34	17.917	0.61	23.92	0.41
6.000	1.36	12.000	1.34	18.000	0.61	24.00	0.41

Unit Hyd Qpeak (cms)= 0.086

PEAK FLOW	(cms)=	0.009 (i)
TIME TO PEAK	(hrs)=	8.333
RUNOFF VOLUME	(mm)=	8.513
TOTAL RAINFALL	(mm)=	53.260
RUNOFF COEFFICIENT	=	0.160

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

CALIB				
STANDHYD (0103)	Area	(ha)=	1.17	
ID= 1 DT= 1.0 min	Total Imp(%)=	24.00	Dir. Conn.(%)=	20.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	0.28	0.89
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	0.50	2.00
Length	(m)=	88.20	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 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
0.017	0.42	6.017	1.47	12.017	1.29	18.02	0.60
0.033	0.42	6.033	1.47	12.033	1.29	18.03	0.60

TOTALS

PEAK FLOW (cms)=	0.11	0.01	0.110 (iii)
TIME TO PEAK (hrs)=	8.02	8.40	8.02
RUNOFF VOLUME (mm)=	52.26	7.62	19.22
TOTAL RAINFALL (mm)=	53.26	53.26	53.26
RUNOFF COEFFICIENT =	0.98	0.14	0.36

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 48.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

DUHYD (0037)					
Inlet Cap.= 0.108					
#of Inlets= 1					
Total(cms)= 0.1	AREA	QPEAK	TPEAK	R.V.	
	(ha)	(cms)	(hrs)	(mm)	
TOTAL HYD.(ID= 1):	1.95	0.11	8.02	19.22	
MAJOR SYS.(ID= 2):	0.00	0.00	8.02	19.22	
MINOR SYS.(ID= 3):	1.94	0.11	8.00	19.22	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

Junction Command(0038)

	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 9(0037)	1.94	0.11	8.00	19.22
OUTFLOW: ID= 2(0038)	1.94	0.11	8.00	19.22

CALIB				
NASHYD (0104)	Area	(ha)=	0.77	Curve Number (CN)= 53.0
ID= 1 DT= 5.0 min	Ia	(mm)=	5.00	# of Linear Res.(N)= 3.00
	U.H. Tp(hrs)=		0.34	

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
0.050	0.42	6.050	1.47	12.050	1.29	18.05	0.60
0.067	0.42	6.067	1.47	12.067	1.29	18.07	0.60
0.083	0.42	6.083	1.47	12.083	1.29	18.08	0.60
0.100	0.42	6.100	1.47	12.100	1.29	18.10	0.60
0.117	0.42	6.117	1.47	12.117	1.29	18.12	0.60
0.133	0.42	6.133	1.47	12.133	1.29	18.13	0.60
0.150	0.42	6.150	1.47	12.150	1.29	18.15	0.60
0.167	0.42	6.167	1.47	12.167	1.29	18.17	0.60
0.183	0.43	6.183	1.61	12.183	1.25	18.18	0.59
0.200	0.43	6.200	1.61	12.200	1.25	18.20	0.59
0.217	0.43	6.217	1.61	12.217	1.25	18.22	0.59
0.233	0.43	6.233	1.61	12.233	1.25	18.23	0.59
0.250	0.43	6.250	1.61	12.250	1.25	18.25	0.59
0.267	0.43	6.267	1.61	12.267	1.25	18.27	0.59
0.283	0.43	6.283	1.61	12.283	1.25	18.28	0.59
0.300	0.43	6.300	1.61	12.300	1.25	18.30	0.59
0.317	0.43	6.317	1.61	12.317	1.25	18.32	0.59
0.333	0.43	6.333	1.61	12.333	1.25	18.33	0.59
0.350	0.44	6.350	1.77	12.350	1.21	18.35	0.59
0.367	0.44	6.367	1.77	12.367	1.21	18.37	0.59
0.383	0.44	6.383	1.77	12.383	1.21	18.38	0.59
0.400	0.44	6.400	1.77	12.400	1.21	18.40	0.59
0.417	0.44	6.417	1.77	12.417	1.21	18.42	0.59
0.433	0.44	6.433	1.77	12.433	1.21	18.43	0.59
0.450	0.44	6.450	1.77	12.450	1.21	18.45	0.59
0.467	0.44	6.467	1.77	12.467	1.21	18.47	0.59
0.483	0.44	6.483	1.77	12.483	1.21	18.48	0.59
0.500	0.44	6.500	1.77	12.500	1.21	18.50	0.59
0.517	0.44	6.517	1.97	12.517	1.17	18.52	0.58
0.533	0.44	6.533	1.97	12.533	1.17	18.53	0.58
0.550	0.44	6.550	1.97	12.550	1.17	18.55	0.58
0.567	0.44	6.567	1.97	12.567	1.17	18.57	0.58
0.583	0.44	6.583	1.97	12.583	1.17	18.58	0.58
0.600	0.44	6.600	1.97	12.600	1.17	18.60	0.58
0.617	0.44	6.617	1.97	12.617	1.17	18.62	0.58
0.633	0.44	6.633	1.97	12.633	1.17	18.63	0.58
0.650	0.44	6.650	1.97	12.650	1.17	18.65	0.58
0.667	0.44	6.667	1.97	12.667	1.17	18.67	0.58
0.683	0.45	6.683	2.23	12.683	1.14	18.68	0.57
0.700	0.45	6.700	2.23	12.700	1.14	18.70	0.57
0.717	0.45	6.717	2.23	12.717	1.14	18.72	0.57
0.733	0.45	6.733	2.23	12.733	1.14	18.73	0.57
0.750	0.45	6.750	2.23	12.750	1.14	18.75	0.57
0.767	0.45	6.767	2.23	12.767	1.14	18.77	0.57
0.783	0.45	6.783	2.23	12.783	1.14	18.78	0.57
0.800	0.45	6.800	2.23	12.800	1.14	18.80	0.57
0.817	0.45	6.817	2.23	12.817	1.14	18.82	0.57
0.833	0.45	6.833	2.23	12.833	1.14	18.83	0.57
0.850	0.46	6.850	2.59	12.850	1.10	18.85	0.56
0.867	0.46	6.867	2.59	12.867	1.10	18.87	0.56
0.883	0.46	6.883	2.59	12.883	1.10	18.88	0.56
0.900	0.46	6.900	2.59	12.900	1.10	18.90	0.56

0.083	0.42	6.083	1.47	12.083	1.29	18.08	0.60
0.167	0.42	6.167	1.47	12.167	1.29	18.17	0.60
0.250	0.43	6.250	1.61	12.250	1.25	18.25	0.59
0.333	0.43	6.333	1.61	12.333	1.25	18.33	0.59
0.417	0.44	6.417	1.77	12.417	1.21	18.42	0.59
0.500	0.44	6.500	1.77	12.500	1.21	18.50	0.59
0.583	0.44	6.583	1.97	12.583	1.17	18.58	0.58
0.667	0.44	6.667	1.97	12.667	1.17	18.67	0.58
0.750	0.45	6.750	2.23	12.750	1.14	18.75	0.57
0.833	0.45	6.833	2.23	12.833	1.14	18.83	0.57
0.917	0.46	6.917	2.59	12.917	1.10	18.92	0.56
1.000	0.46	7.000	2.59	13.000	1.10	19.00	0.56
1.083	0.47	7.083	3.09	13.083	1.07	19.08	0.56
1.167	0.47	7.167	3.09	13.167	1.07	19.17	0.56
1.250	0.48	7.250	3.86	13.250	1.04	19.25	0.55
1.333	0.48	7.333	3.86	13.333	1.04	19.33	0.55
1.417	0.49	7.417	5.21	13.417	1.02	19.42	0.54
1.500	0.49	7.500	5.21	13.500	1.02	19.50	0.54
1.583	0.50	7.583	8.22	13.583	0.99	19.58	0.54
1.667	0.50	7.667	8.23	13.667	0.99	19.67	0.54
1.750	0.51	7.750	20.77	13.750	0.97	19.75	0.53
1.833	0.51	7.833	20.77	13.833	0.97	19.83	0.53
1.917	0.53	7.917	84.13	13.917	0.94	19.92	0.52
2.000	0.53	8.000	84.13	14.000	0.94	20.00	0.52
2.083	0.54	8.083	27.50	14.083	0.92	20.08	0.52
2.167	0.54	8.167	27.50	14.167	0.92	20.17	0.52
2.250	0.55	8.250	14.07	14.250	0.90	20.25	0.51
2.333	0.55	8.333	14.07	14.333	0.90	20.33	0.51
2.417	0.57	8.417	9.40	14.417	0.88	20.42	0.51
2.500	0.57	8.500	9.40	14.500	0.88	20.50	0.51
2.583	0.58	8.583	7.07	14.583	0.86	20.58	0.50
2.667	0.58	8.667	7.07	14.667	0.86	20.67	0.50
2.750	0.60	8.750	5.68	14.750	0.84	20.75	0.50
2.833	0.60	8.833	5.68	14.833	0.84	20.83	0.50
2.917	0.61	8.917	4.76	14.917	0.83	20.92	0.49
3.000	0.61	9.000	4.76	15.000	0.83	21.00	0.49
3.083	0.63	9.083	4.11	15.083	0.81	21.08	0.49
3.167	0.63	9.167	4.11	15.167	0.81	21.17	0.49
3.250	0.65	9.250	3.62	15.250	0.79	21.25	0.48
3.333	0.65	9.333	3.62	15.333	0.79	21.33	0.48
3.417	0.67	9.417	3.24	15.417	0.78	21.42	0.48
3.500	0.67	9.500	3.24	15.500	0.78	21.50	0.48
3.583	0.69	9.583	2.94	15.583	0.77	21.58	0.47
3.667	0.69	9.667	2.94	15.667	0.77	21.67	0.47
3.750	0.72	9.750	2.69	15.750	0.75	21.75	0.47
3.833	0.72	9.833	2.69	15.833	0.75	21.83	0.47
3.917	0.74	9.917	2.49	15.917	0.74	21.92	0.46
4.000	0.74	10.000	2.49	16.000	0.74	22.00	0.46
4.083	0.77	10.083	2.31	16.083	0.73	22.08	0.46
4.167	0.77	10.167	2.31	16.167	0.73	22.17	0.46
4.250	0.80	10.250	2.16	16.250	0.71	22.25	0.45
4.333	0.80	10.333	2.16	16.333	0.71	22.33	0.45

0.917	0.46	6.917	2.59	12.917	1.10	18.92	0.56
0.933	0.46	6.933	2.59	12.933	1.10	18.93	0.56
0.950	0.46	6.950	2.59	12.950	1.10	18.95	0.56
0.967	0.46	6.967	2.59	12.967	1.10	18.97	0.56
0.983	0.46	6.983	2.59	12.983	1.10	18.98	0.56
1.000	0.46	7.000	2.59	13.000	1.10	19.00	0.56
1.017	0.47	7.017	3.09	13.017	1.07	19.02	0.56
1.033	0.47	7.033	3.09	13.033	1.07	19.03	0.56
1.050	0.47	7.050	3.09	13.050	1.07	19.05	0.56
1.067	0.47	7.067	3.09	13.067	1.07	19.07	0.56
1.083	0.47	7.083	3.09	13.083	1.07	19.08	0.56
1.100	0.47	7.100	3.09	13.100	1.07	19.10	0.56
1.117	0.47	7.117	3.09	13.117	1.07	19.12	0.56
1.133	0.47	7.133	3.09	13.133	1.07	19.13	0.56
1.150	0.47	7.150	3.09	13.150	1.07	19.15	0.56
1.167	0.47	7.167	3.09	13.167	1.07	19.17	0.56
1.183	0.48	7.183	3.86	13.183	1.04	19.18	0.55
1.200	0.48	7.200	3.86	13.200	1.04	19.20	0.55
1.217	0.48	7.217	3.86	13.217	1.04	19.22	0.55
1.233	0.48	7.233	3.86	13.233	1.04	19.23	0.55
1.250	0.48	7.250	3.86	13.250	1.04	19.25	0.55
1.267	0.48	7.267	3.86	13.267	1.04	19.27	0.55
1.283	0.48	7.283	3.86	13.283	1.04	19.28	0.55
1.300	0.48	7.300	3.86	13.300	1.04	19.30	0.55
1.317	0.48	7.317	3.86	13.317	1.04	19.32	0.55
1.333	0.48	7.333	3.86	13.333	1.04	19.33	0.55
1.350	0.49	7.350	5.21	13.350	1.02	19.35	0.54
1.367	0.49	7.367	5.21	13.367	1.02	19.37	0.54
1.383	0.49	7.383	5.21	13.383	1.02	19.38	0.54
1.400	0.49	7.400	5.21	13.400	1.02	19.40	0.54
1.417	0.49	7.417	5.21	13.417	1.02	19.42	0.54
1.433	0.49	7.433	5.21	13.433	1.02	19.43	0.54
1.450	0.49	7.450	5.21	13.450	1.02	19.45	0.54
1.467	0.49	7.467	5.21	13.467	1.02	19.47	0.54
1.483	0.49	7.483	5.21	13.483	1.02	19.48	0.54
1.500	0.49	7.500	5.22	13.500	1.02	19.50	0.54
1.517	0.50	7.517	8.22	13.517	0.99	19.52	0.54
1.533	0.50	7.533	8.22	13.533	0.99	19.53	0.54
1.550	0.50	7.550	8.22	13.550	0.99	19.55	0.54
1.567	0.50	7.567	8.22	13.567	0.99	19.57	0.54
1.583	0.50	7.583	8.22	13.583	0.99	19.58	0.54
1.600	0.50	7.600	8.22	13.600	0.99	19.60	0.54
1.617	0.50	7.617	8.22	13.617	0.99	19.62	0.54
1.633	0.50	7.633	8.22	13.633	0.99	19.63	0.54
1.650	0.50	7.650	8.22	13.650	0.99	19.65	0.54
1.667	0.50	7.667	8.26	13.667	0.99	19.67	0.54
1.683	0.51	7.683	20.77	13.683	0.97	19.68	0.53
1.700	0.51	7.700	20.77	13.700	0.97	19.70	0.53
1.717	0.51	7.717	20.77	13.717	0.97	19.72	0.53
1.733	0.51	7.733	20.77	13.733	0.97	19.73	0.53
1.750	0.51	7.750	20.77	13.750	0.97	19.75	0.53
1.767	0.51	7.767	20.77	13.767	0.97	19.77	0.53

1.783	0.51	7.783	20.77	13.783	0.97	19.78	0.53
1.800	0.51	7.800	20.77	13.800	0.97	19.80	0.53
1.817	0.51	7.817	20.77	13.817	0.97	19.82	0.53
1.833	0.51	7.833	20.95	13.833	0.97	19.83	0.53
1.850	0.53	7.850	84.13	13.850	0.94	19.85	0.52
1.867	0.53	7.867	84.13	13.867	0.94	19.87	0.52
1.883	0.53	7.883	84.13	13.883	0.94	19.88	0.52
1.900	0.53	7.900	84.13	13.900	0.94	19.90	0.52
1.917	0.53	7.917	84.13	13.917	0.94	19.92	0.52
1.933	0.53	7.933	84.13	13.933	0.94	19.93	0.52
1.950	0.53	7.950	84.13	13.950	0.94	19.95	0.52
1.967	0.53	7.967	84.13	13.967	0.94	19.97	0.52
1.983	0.53	7.983	84.13	13.983	0.94	19.98	0.52
2.000	0.53	8.000	83.96	14.000	0.94	20.00	0.52
2.017	0.54	8.017	27.50	14.017	0.92	20.02	0.52
2.033	0.54	8.033	27.50	14.033	0.92	20.03	0.52
2.050	0.54	8.050	27.50	14.050	0.92	20.05	0.52
2.067	0.54	8.067	27.50	14.067	0.92	20.07	0.52
2.083	0.54	8.083	27.50	14.083	0.92	20.08	0.52
2.100	0.54	8.100	27.50	14.100	0.92	20.10	0.52
2.117	0.54	8.117	27.50	14.117	0.92	20.12	0.52
2.133	0.54	8.133	27.50	14.133	0.92	20.13	0.52
2.150	0.54	8.150	27.50	14.150	0.92	20.15	0.52
2.167	0.54	8.167	27.46	14.167	0.92	20.17	0.52
2.183	0.55	8.183	14.07	14.183	0.90	20.18	0.51
2.200	0.55	8.200	14.07	14.200	0.90	20.20	0.51
2.217	0.55	8.217	14.07	14.217	0.90	20.22	0.51
2.233	0.55	8.233	14.07	14.233	0.90	20.23	0.51
2.250	0.55	8.250	14.07	14.250	0.90	20.25	0.51
2.267	0.55	8.267	14.07	14.267	0.90	20.27	0.51
2.283	0.55	8.283	14.07	14.283	0.90	20.28	0.51
2.300	0.55	8.300	14.07	14.300	0.90	20.30	0.51
2.317	0.55	8.317	14.07	14.317	0.90	20.32	0.51
2.333	0.55	8.333	14.06	14.333	0.90	20.33	0.51
2.350	0.57	8.350	9.40	14.350	0.88	20.35	0.51
2.367	0.57	8.367	9.40	14.367	0.88	20.37	0.51
2.383	0.57	8.383	9.40	14.383	0.88	20.38	0.51
2.400	0.57	8.400	9.40	14.400	0.88	20.40	0.51
2.417	0.57	8.417	9.40	14.417	0.88	20.42	0.51
2.433	0.57	8.433	9.40	14.433	0.88	20.43	0.51
2.450	0.57	8.450	9.40	14.450	0.88	20.45	0.51
2.467	0.57	8.467	9.40	14.467	0.88	20.47	0.51
2.483	0.57	8.483	9.40	14.483	0.88	20.48	0.51
2.500	0.57	8.500	9.39	14.500	0.88	20.50	0.51
2.517	0.58	8.517	7.07	14.517	0.86	20.52	0.50
2.533	0.58	8.533	7.07	14.533	0.86	20.53	0.50
2.550	0.58	8.550	7.07	14.550	0.86	20.55	0.50
2.567	0.58	8.567	7.07	14.567	0.86	20.57	0.50
2.583	0.58	8.583	7.07	14.583	0.86	20.58	0.50
2.600	0.58	8.600	7.07	14.600	0.86	20.60	0.50
2.617	0.58	8.617	7.07	14.617	0.86	20.62	0.50
2.633	0.58	8.633	7.07	14.633	0.86	20.63	0.50

2.650	0.58	8.650	7.07	14.650	0.86	20.65	0.50
2.667	0.58	8.667	7.07	14.667	0.86	20.67	0.50
2.683	0.60	8.683	5.68	14.683	0.84	20.68	0.50
2.700	0.60	8.700	5.68	14.700	0.84	20.70	0.50
2.717	0.60	8.717	5.68	14.717	0.84	20.72	0.50
2.733	0.60	8.733	5.68	14.733	0.84	20.73	0.50
2.750	0.60	8.750	5.68	14.750	0.84	20.75	0.50
2.767	0.60	8.767	5.68	14.767	0.84	20.77	0.50
2.783	0.60	8.783	5.68	14.783	0.84	20.78	0.50
2.800	0.60	8.800	5.68	14.800	0.84	20.80	0.50
2.817	0.60	8.817	5.68	14.817	0.84	20.82	0.50
2.833	0.60	8.833	5.68	14.833	0.84	20.83	0.50
2.850	0.61	8.850	4.76	14.850	0.83	20.85	0.49
2.867	0.61	8.867	4.76	14.867	0.83	20.87	0.49
2.883	0.61	8.883	4.76	14.883	0.83	20.88	0.49
2.900	0.61	8.900	4.76	14.900	0.83	20.90	0.49
2.917	0.61	8.917	4.76	14.917	0.83	20.92	0.49
2.933	0.61	8.933	4.76	14.933	0.83	20.93	0.49
2.950	0.61	8.950	4.76	14.950	0.83	20.95	0.49
2.967	0.61	8.967	4.76	14.967	0.83	20.97	0.49
2.983	0.61	8.983	4.76	14.983	0.83	20.98	0.49
3.000	0.61	9.000	4.76	15.000	0.83	21.00	0.49
3.017	0.63	9.017	4.11	15.017	0.81	21.02	0.49
3.033	0.63	9.033	4.11	15.033	0.81	21.03	0.49
3.050	0.63	9.050	4.11	15.050	0.81	21.05	0.49
3.067	0.63	9.067	4.11	15.067	0.81	21.07	0.49
3.083	0.63	9.083	4.11	15.083	0.81	21.08	0.49
3.100	0.63	9.100	4.11	15.100	0.81	21.10	0.49
3.117	0.63	9.117	4.11	15.117	0.81	21.12	0.49
3.133	0.63	9.133	4.11	15.133	0.81	21.13	0.49
3.150	0.63	9.150	4.11	15.150	0.81	21.15	0.49
3.167	0.63	9.167	4.11	15.167	0.81	21.17	0.49
3.183	0.65	9.183	3.62	15.183	0.79	21.18	0.48
3.200	0.65	9.200	3.62	15.200	0.79	21.20	0.48
3.217	0.65	9.217	3.62	15.217	0.79	21.22	0.48
3.233	0.65	9.233	3.62	15.233	0.79	21.23	0.48
3.250	0.65	9.250	3.62	15.250	0.79	21.25	0.48
3.267	0.65	9.267	3.62	15.267	0.79	21.27	0.48
3.283	0.65	9.283	3.62	15.283	0.79	21.28	0.48
3.300	0.65	9.300	3.62	15.300	0.79	21.30	0.48
3.317	0.65	9.317	3.62	15.317	0.79	21.32	0.48
3.333	0.65	9.333	3.62	15.333	0.79	21.33	0.48
3.350	0.67	9.350	3.24	15.350	0.78	21.35	0.48
3.367	0.67	9.367	3.24	15.367	0.78	21.37	0.48
3.383	0.67	9.383	3.24	15.383	0.78	21.38	0.48
3.400	0.67	9.400	3.24	15.400	0.78	21.40	0.48
3.417	0.67	9.417	3.24	15.417	0.78	21.42	0.48
3.433	0.67	9.433	3.24	15.433	0.78	21.43	0.48
3.450	0.67	9.450	3.24	15.450	0.78	21.45	0.48
3.467	0.67	9.467	3.24	15.467	0.78	21.47	0.48
3.483	0.67	9.483	3.24	15.483	0.78	21.48	0.48
3.500	0.67	9.500	3.24	15.500	0.78	21.50	0.48

3.517	0.69	9.517	2.94	15.517	0.77	21.52	0.47
3.533	0.69	9.533	2.94	15.533	0.77	21.53	0.47
3.550	0.69	9.550	2.94	15.550	0.77	21.55	0.47
3.567	0.69	9.567	2.94	15.567	0.77	21.57	0.47
3.583	0.69	9.583	2.94	15.583	0.77	21.58	0.47
3.600	0.69	9.600	2.94	15.600	0.77	21.60	0.47
3.617	0.69	9.617	2.94	15.617	0.77	21.62	0.47
3.633	0.69	9.633	2.94	15.633	0.77	21.63	0.47
3.650	0.69	9.650	2.94	15.650	0.77	21.65	0.47
3.667	0.69	9.667	2.94	15.667	0.77	21.67	0.47
3.683	0.72	9.683	2.69	15.683	0.75	21.68	0.47
3.700	0.72	9.700	2.69	15.700	0.75	21.70	0.47
3.717	0.72	9.717	2.69	15.717	0.75	21.72	0.47
3.733	0.72	9.733	2.69	15.733	0.75	21.73	0.47
3.750	0.72	9.750	2.69	15.750	0.75	21.75	0.47
3.767	0.72	9.767	2.69	15.767	0.75	21.77	0.47
3.783	0.72	9.783	2.69	15.783	0.75	21.78	0.47
3.800	0.72	9.800	2.69	15.800	0.75	21.80	0.47
3.817	0.72	9.817	2.69	15.817	0.75	21.82	0.47
3.833	0.72	9.833	2.69	15.833	0.75	21.83	0.47
3.850	0.74	9.850	2.49	15.850	0.74	21.85	0.46
3.867	0.74	9.867	2.49	15.867	0.74	21.87	0.46
3.883	0.74	9.883	2.49	15.883	0.74	21.88	0.46
3.900	0.74	9.900	2.49	15.900	0.74	21.90	0.46
3.917	0.74	9.917	2.49	15.917	0.74	21.92	0.46
3.933	0.74	9.933	2.49	15.933	0.74	21.93	0.46
3.950	0.74	9.950	2.49	15.950	0.74	21.95	0.46
3.967	0.74	9.967	2.49	15.967	0.74	21.97	0.46
3.983	0.74	9.983	2.49	15.983	0.74	21.98	0.46
4.000	0.74	10.000	2.49	16.000	0.74	22.00	0.46
4.017	0.77	10.017	2.31	16.017	0.73	22.02	0.46
4.033	0.77	10.033	2.31	16.033	0.73	22.03	0.46
4.050	0.77	10.050	2.31	16.050	0.73	22.05	0.46
4.067	0.77	10.067	2.31	16.067	0.73	22.07	0.46
4.083	0.77	10.083	2.31	16.083	0.73	22.08	0.46
4.100	0.77	10.100	2.31	16.100	0.73	22.10	0.46
4.117	0.77	10.117	2.31	16.117	0.73	22.12	0.46
4.133	0.77	10.133	2.31	16.133	0.73	22.13	0.46
4.150	0.77	10.150	2.31	16.150	0.73	22.15	0.46
4.167	0.77	10.167	2.31	16.167	0.73	22.17	0.46
4.183	0.80	10.183	2.16	16.183	0.71	22.18	0.45
4.200	0.80	10.200	2.16	16.200	0.71	22.20	0.45
4.217	0.80	10.217	2.16	16.217	0.71	22.22	0.45
4.233	0.80	10.233	2.16	16.233	0.71	22.23	0.45
4.250	0.80	10.250	2.16	16.250	0.71	22.25	0.45
4.267	0.80	10.267	2.16	16.267	0.71	22.27	0.45
4.283	0.80	10.283	2.16	16.283	0.71	22.28	0.45
4.300	0.80	10.300	2.16	16.300	0.71	22.30	0.45
4.317	0.80	10.317	2.16	16.317	0.71	22.32	0.45
4.333	0.80	10.333	2.16	16.333	0.71	22.33	0.45
4.350	0.83	10.350	2.03	16.350	0.70	22.35	0.45
4.367	0.83	10.367	2.03	16.367	0.70	22.37	0.45

4.383	0.83	10.383	2.03	16.383	0.70	22.38	0.45
4.400	0.83	10.400	2.03	16.400	0.70	22.40	0.45
4.417	0.83	10.417	2.03	16.417	0.70	22.42	0.45
4.433	0.83	10.433	2.03	16.433	0.70	22.43	0.45
4.450	0.83	10.450	2.03	16.450	0.70	22.45	0.45
4.467	0.83	10.467	2.03	16.467	0.70	22.47	0.45
4.483	0.83	10.483	2.03	16.483	0.70	22.48	0.45
4.500	0.83	10.500	2.03	16.500	0.70	22.50	0.45
4.517	0.87	10.517	1.92	16.517	0.69	22.52	0.44
4.533	0.87	10.533	1.92	16.533	0.69	22.53	0.44
4.550	0.87	10.550	1.92	16.550	0.69	22.55	0.44
4.567	0.87	10.567	1.92	16.567	0.69	22.57	0.44
4.583	0.87	10.583	1.92	16.583	0.69	22.58	0.44
4.600	0.87	10.600	1.92	16.600	0.69	22.60	0.44
4.617	0.87	10.617	1.92	16.617	0.69	22.62	0.44
4.633	0.87	10.633	1.92	16.633	0.69	22.63	0.44
4.650	0.87	10.650	1.92	16.650	0.69	22.65	0.44
4.667	0.87	10.667	1.92	16.667	0.69	22.67	0.44
4.683	0.91	10.683	1.82	16.683	0.68	22.68	0.44
4.700	0.91	10.700	1.82	16.700	0.68	22.70	0.44
4.717	0.91	10.717	1.82	16.717	0.68	22.72	0.44
4.733	0.91	10.733	1.82	16.733	0.68	22.73	0.44
4.750	0.91	10.750	1.82	16.750	0.68	22.75	0.44
4.767	0.91	10.767	1.82	16.767	0.68	22.77	0.44
4.783	0.91	10.783	1.82	16.783	0.68	22.78	0.44
4.800	0.91	10.800	1.82	16.800	0.68	22.80	0.44
4.817	0.91	10.817	1.82	16.817	0.68	22.82	0.44
4.833	0.91	10.833	1.82	16.833	0.68	22.83	0.44
4.850	0.95	10.850	1.73	16.850	0.67	22.85	0.44
4.867	0.95	10.867	1.73	16.867	0.67	22.87	0.44
4.883	0.95	10.883	1.73	16.883	0.67	22.88	0.44
4.900	0.95	10.900	1.73	16.900	0.67	22.90	0.44
4.917	0.95	10.917	1.73	16.917	0.67	22.92	0.44
4.933	0.95	10.933	1.73	16.933	0.67	22.93	0.44
4.950	0.95	10.950	1.73	16.950	0.67	22.95	0.44
4.967	0.95	10.967	1.73	16.967	0.67	22.97	0.44
4.983	0.95	10.983	1.73	16.983	0.67	22.98	0.44
5.000	0.95	11.000	1.73	17.000	0.67	23.00	0.44
5.017	1.00	11.017	1.65	17.017	0.66	23.02	0.43
5.033	1.00	11.033	1.65	17.033	0.66	23.03	0.43
5.050	1.00	11.050	1.65	17.050	0.66	23.05	0.43
5.067	1.00	11.067	1.65	17.067	0.66	23.07	0.43
5.083	1.00	11.083	1.65	17.083	0.66	23.08	0.43
5.100	1.00	11.100	1.65	17.100	0.66	23.10	0.43
5.117	1.00	11.117	1.65	17.117	0.66	23.12	0.43
5.133	1.00	11.133	1.65	17.133	0.66	23.13	0.43
5.150	1.00	11.150	1.65	17.150	0.66	23.15	0.43
5.167	1.00	11.167	1.64	17.167	0.66	23.17	0.43
5.183	1.06	11.183	1.57	17.183	0.65	23.18	0.43
5.200	1.06	11.200	1.57	17.200	0.65	23.20	0.43
5.217	1.06	11.217	1.57	17.217	0.65	23.22	0.43
5.233	1.06	11.233	1.57	17.233	0.65	23.23	0.43

5.250	1.06	11.250	1.57	17.250	0.65	23.25	0.43
5.267	1.06	11.267	1.57	17.267	0.65	23.27	0.43
5.283	1.06	11.283	1.57	17.283	0.65	23.28	0.43
5.300	1.06	11.300	1.57	17.300	0.65	23.30	0.43
5.317	1.06	11.317	1.57	17.317	0.65	23.32	0.43
5.333	1.06	11.333	1.57	17.333	0.65	23.33	0.43
5.350	1.12	11.350	1.51	17.350	0.64	23.35	0.42
5.367	1.12	11.367	1.51	17.367	0.64	23.37	0.42
5.383	1.12	11.383	1.51	17.383	0.64	23.38	0.42
5.400	1.12	11.400	1.51	17.400	0.64	23.40	0.42
5.417	1.12	11.417	1.51	17.417	0.64	23.42	0.42
5.433	1.12	11.433	1.51	17.433	0.64	23.43	0.42
5.450	1.12	11.450	1.51	17.450	0.64	23.45	0.42
5.467	1.12	11.467	1.51	17.467	0.64	23.47	0.42
5.483	1.12	11.483	1.51	17.483	0.64	23.48	0.42
5.500	1.12	11.500	1.51	17.500	0.64	23.50	0.42
5.517	1.19	11.517	1.45	17.517	0.63	23.52	0.42
5.533	1.19	11.533	1.45	17.533	0.63	23.53	0.42
5.550	1.19	11.550	1.45	17.550	0.63	23.55	0.42
5.567	1.19	11.567	1.45	17.567	0.63	23.57	0.42
5.583	1.19	11.583	1.45	17.583	0.63	23.58	0.42
5.600	1.19	11.600	1.45	17.600	0.63	23.60	0.42
5.617	1.19	11.617	1.45	17.617	0.63	23.62	0.42
5.633	1.19	11.633	1.45	17.633	0.63	23.63	0.42
5.650	1.19	11.650	1.45	17.650	0.63	23.65	0.42
5.667	1.19	11.667	1.45	17.667	0.63	23.67	0.42
5.683	1.27	11.683	1.39	17.683	0.62	23.68	0.42
5.700	1.27	11.700	1.39	17.700	0.62	23.70	0.42
5.717	1.27	11.717	1.39	17.717	0.62	23.72	0.42
5.733	1.27	11.733	1.39	17.733	0.62	23.73	0.42
5.750	1.27	11.750	1.39	17.750	0.62	23.75	0.42
5.767	1.27	11.767	1.39	17.767	0.62	23.77	0.42
5.783	1.27	11.783	1.39	17.783	0.62	23.78	0.42
5.800	1.27	11.800	1.39	17.800	0.62	23.80	0.42
5.817	1.27	11.817	1.39	17.817	0.62	23.82	0.42
5.833	1.27	11.833	1.39	17.833	0.62	23.83	0.42
5.850	1.36	11.850	1.34	17.850	0.61	23.85	0.41
5.867	1.36	11.867	1.34	17.867	0.61	23.87	0.41
5.883	1.36	11.883	1.34	17.883	0.61	23.88	0.41
5.900	1.36	11.900	1.34	17.900	0.61	23.90	0.41
5.917	1.36	11.917	1.34	17.917	0.61	23.92	0.41
5.933	1.36	11.933	1.34	17.933	0.61	23.93	0.41
5.950	1.36	11.950	1.34	17.950	0.61	23.95	0.41
5.967	1.36	11.967	1.34	17.967	0.61	23.97	0.41
5.983	1.36	11.983	1.34	17.983	0.61	23.98	0.41
6.000	1.36	12.000	1.34	18.000	0.61	24.00	0.41

Max.Eff.Inten.(mm/hr)=	84.13	10.11	
over (min)	5.00	21.00	
Storage Coeff. (min)=	3.13 (ii)	20.78 (ii)	
Unit Hyd. Tpeak (min)=	5.00	21.00	
Unit Hyd. peak (cms)=	0.30	0.05	

TOTALS

PEAK FLOW	(cms)=	0.05	0.01	0.055 (iii)
TIME TO PEAK	(hrs)=	8.00	8.33	8.02
RUNOFF VOLUME	(mm)=	52.26	10.20	18.61
TOTAL RAINFALL	(mm)=	53.26	53.26	53.26
RUNOFF COEFFICIENT	=	0.98	0.19	0.35

***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
YOU SHOULD CONSIDER SPLITTING THE AREA.

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 57.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (1011)	Area (ha)= 13.73		
ID= 1 DT= 1.0 min	Total Imp(%)= 46.00	Dir. Conn.(%)= 39.00	

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	6.32	7.42
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	0.50	2.00
Length	(m)=	302.59	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 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
0.017	0.42	6.017	1.47	12.017	1.29	18.02	0.60
0.033	0.42	6.033	1.47	12.033	1.29	18.03	0.60
0.050	0.42	6.050	1.47	12.050	1.29	18.05	0.60
0.067	0.42	6.067	1.47	12.067	1.29	18.07	0.60
0.083	0.42	6.083	1.47	12.083	1.29	18.08	0.60
0.100	0.42	6.100	1.47	12.100	1.29	18.10	0.60
0.117	0.42	6.117	1.47	12.117	1.29	18.12	0.60
0.133	0.42	6.133	1.47	12.133	1.29	18.13	0.60
0.150	0.42	6.150	1.47	12.150	1.29	18.15	0.60
0.167	0.42	6.167	1.47	12.167	1.29	18.17	0.60
0.183	0.43	6.183	1.61	12.183	1.25	18.18	0.59
0.200	0.43	6.200	1.61	12.200	1.25	18.20	0.59
0.217	0.43	6.217	1.61	12.217	1.25	18.22	0.59
0.233	0.43	6.233	1.61	12.233	1.25	18.23	0.59
0.250	0.43	6.250	1.61	12.250	1.25	18.25	0.59
0.267	0.43	6.267	1.61	12.267	1.25	18.27	0.59
0.283	0.43	6.283	1.61	12.283	1.25	18.28	0.59

0.300	0.43	6.300	1.61	12.300	1.25	18.30	0.59
0.317	0.43	6.317	1.61	12.317	1.25	18.32	0.59
0.333	0.43	6.333	1.61	12.333	1.25	18.33	0.59
0.350	0.44	6.350	1.77	12.350	1.21	18.35	0.59
0.367	0.44	6.367	1.77	12.367	1.21	18.37	0.59
0.383	0.44	6.383	1.77	12.383	1.21	18.38	0.59
0.400	0.44	6.400	1.77	12.400	1.21	18.40	0.59
0.417	0.44	6.417	1.77	12.417	1.21	18.42	0.59
0.433	0.44	6.433	1.77	12.433	1.21	18.43	0.59
0.450	0.44	6.450	1.77	12.450	1.21	18.45	0.59
0.467	0.44	6.467	1.77	12.467	1.21	18.47	0.59
0.483	0.44	6.483	1.77	12.483	1.21	18.48	0.59
0.500	0.44	6.500	1.77	12.500	1.21	18.50	0.59
0.517	0.44	6.517	1.97	12.517	1.17	18.52	0.58
0.533	0.44	6.533	1.97	12.533	1.17	18.53	0.58
0.550	0.44	6.550	1.97	12.550	1.17	18.55	0.58
0.567	0.44	6.567	1.97	12.567	1.17	18.57	0.58
0.583	0.44	6.583	1.97	12.583	1.17	18.58	0.58
0.600	0.44	6.600	1.97	12.600	1.17	18.60	0.58
0.617	0.44	6.617	1.97	12.617	1.17	18.62	0.58
0.633	0.44	6.633	1.97	12.633	1.17	18.63	0.58
0.650	0.44	6.650	1.97	12.650	1.17	18.65	0.58
0.667	0.44	6.667	1.97	12.667	1.17	18.67	0.58
0.683	0.45	6.683	2.23	12.683	1.14	18.68	0.57
0.700	0.45	6.700	2.23	12.700	1.14	18.70	0.57
0.717	0.45	6.717	2.23	12.717	1.14	18.72	0.57
0.733	0.45	6.733	2.23	12.733	1.14	18.73	0.57
0.750	0.45	6.750	2.23	12.750	1.14	18.75	0.57
0.767	0.45	6.767	2.23	12.767	1.14	18.77	0.57
0.783	0.45	6.783	2.23	12.783	1.14	18.78	0.57
0.800	0.45	6.800	2.23	12.800	1.14	18.80	0.57
0.817	0.45	6.817	2.23	12.817	1.14	18.82	0.57
0.833	0.45	6.833	2.23	12.833	1.14	18.83	0.57
0.850	0.46	6.850	2.59	12.850	1.10	18.85	0.56
0.867	0.46	6.867	2.59	12.867	1.10	18.87	0.56
0.883	0.46	6.883	2.59	12.883	1.10	18.88	0.56
0.900	0.46	6.900	2.59	12.900	1.10	18.90	0.56
0.917	0.46	6.917	2.59	12.917	1.10	18.92	0.56
0.933	0.46	6.933	2.59	12.933	1.10	18.93	0.56
0.950	0.46	6.950	2.59	12.950	1.10	18.95	0.56
0.967	0.46	6.967	2.59	12.967	1.10	18.97	0.56
0.983	0.46	6.983	2.59	12.983	1.10	18.98	0.56
1.000	0.46	7.000	2.59	13.000	1.10	19.00	0.56
1.017	0.47	7.017	3.09	13.017	1.07	19.02	0.56
1.033	0.47	7.033	3.09	13.033	1.07	19.03	0.56
1.050	0.47	7.050	3.09	13.050	1.07	19.05	0.56
1.067	0.47	7.067	3.09	13.067	1.07	19.07	0.56
1.083	0.47	7.083	3.09	13.083	1.07	19.08	0.56
1.100	0.47	7.100	3.09	13.100	1.07	19.10	0.56
1.117	0.47	7.117	3.09	13.117	1.07	19.12	0.56
1.133	0.47	7.133	3.09	13.133	1.07	19.13	0.56
1.150	0.47	7.150	3.09	13.150	1.07	19.15	0.56
1.167	0.47	7.167	3.09	13.167	1.07	19.17	0.56
1.183	0.48	7.183	3.86	13.183	1.04	19.18	0.55
1.200	0.48	7.200	3.86	13.200	1.04	19.20	0.55
1.217	0.48	7.217	3.86	13.217	1.04	19.22	0.55
1.233	0.48	7.233	3.86	13.233	1.04	19.23	0.55
1.250	0.48	7.250	3.86	13.250	1.04	19.25	0.55
1.267	0.48	7.267	3.86	13.267	1.04	19.27	0.55
1.283	0.48	7.283	3.86	13.283	1.04	19.28	0.55
1.300	0.48	7.300	3.86	13.300	1.04	19.30	0.55
1.317	0.48	7.317	3.86	13.317	1.04	19.32	0.55
1.333	0.48	7.333	3.86	13.333	1.04	19.33	0.55
1.350	0.49	7.350	5.21	13.350	1.02	19.35	0.54
1.367	0.49	7.367	5.21	13.367	1.02	19.37	0.54
1.383	0.49	7.383	5.21	13.383	1.02	19.38	0.54
1.400	0.49	7.400	5.21	13.400	1.02	19.40	0.54
1.417	0.49	7.417	5.21	13.417	1.02	19.42	0.54
1.433	0.49	7.433	5.21	13.433	1.02	19.43	0.54
1.450	0.49	7.450	5.21	13.450	1.02	19.45	0.54
1.467	0.49	7.467	5.21	13.467	1.02	19.47	0.54
1.483	0.49	7.483	5.21	13.483	1.02	19.48	0.54
1.500	0.49	7.500	5.22	13.500	1.02	19.50	0.54
1.517	0.50	7.517	8.22	13.517	0.99	19.52	0.54
1.533	0.50	7.533	8.22	13.533	0.99	19.53	0.54
1.550	0.50	7.550	8.22	13.550	0.99	19.55	0.54
1.567	0.50	7.567	8.22	13.567	0.99	19.57	0.54
1.583	0.50	7.583	8.22	13.583	0.99	19.58	0.54
1.600	0.50	7.600	8.22	13.600	0.99	19.60	0.54
1.617	0.50	7.617	8.22	13.617	0.99	19.62	0.54
1.633	0.50	7.633	8.22	13.633	0.99	19.63	0.54
1.650	0.50	7.650	8.22	13.650	0.99	19.65	0.54
1.667	0.50	7.667	8.26	13.667	0.99	19.67	0.54
1.683	0.51	7.683	20.77	13.683	0.97	19.68	0.53
1.700	0.51	7.700	20.77	13.700	0.97	19.70	0.53
1.717	0.51	7.717	20.77	13.717	0.97	19.72	0.53
1.733	0.51	7.733	20.77	13.733	0.97	19.73	0.53
1.750	0.51	7.750	20.77	13.750	0.97	19.75	0.53
1.767	0.51	7.767	20.77	13.767	0.97	19.77	0.53
1.783	0.51	7.783	20.77	13.783	0.97	19.78	0.53
1.800	0.51	7.800	20.77	13.800	0.97	19.80	0.53
1.817	0.51	7.817	20.77	13.817	0.97	19.82	0.53
1.833	0.51	7.833	20.95	13.833	0.97	19.83	0.53
1.850	0.53	7.850	84.13	13.850	0.94	19.85	0.52
1.867	0.53	7.867	84.13	13.867	0.94	19.87	0.52
1.883	0.53	7.883	84.13	13.883	0.94	19.88	0.52
1.900	0.53	7.900	84.13	13.900	0.94	19.90	0.52
1.917	0.53	7.917	84.13	13.917	0.94	19.92	0.52
1.933	0.53	7.933	84.13	13.933	0.94	19.93	0.52
1.950	0.53	7.950	84.13	13.950	0.94	19.95	0.52
1.967	0.53	7.967	84.13	13.967	0.94	19.97	0.52
1.983	0.53	7.983	84.13	13.983	0.94	19.98	0.52
2.000	0.53	8.000	83.96	14.000	0.94	20.00	0.52
2.017	0.54	8.017	27.50	14.017	0.92	20.02	0.52
2.033	0.54	8.033	27.50	14.033	0.92	20.03	0.52
2.050	0.54	8.050	27.50	14.050	0.92	20.05	0.52
2.067	0.54	8.067	27.50	14.067	0.92	20.07	0.52
2.083	0.54	8.083	27.50	14.083	0.92	20.08	0.52
2.100	0.54	8.100	27.50	14.100	0.92	20.10	0.52
2.117	0.54	8.117	27.50	14.117	0.92	20.12	0.52
2.133	0.54	8.133	27.50	14.133	0.92	20.13	0.52
2.150	0.54	8.150	27.50	14.150	0.92	20.15	0.52
2.167	0.54	8.167	27.46	14.167	0.92	20.17	0.52
2.183	0.55	8.183	14.07	14.183	0.90	20.18	0.51
2.200	0.55	8.200	14.07	14.200	0.90	20.20	0.51
2.217	0.55	8.217	14.07	14.217	0.90	20.22	0.51
2.233	0.55	8.233	14.07	14.233	0.90	20.23	0.51
2.250	0.55	8.250	14.07	14.250	0.90	20.25	0.51
2.267	0.55	8.267	14.07	14.267	0.90	20.27	0.51
2.283	0.55	8.283	14.07	14.283	0.90	20.28	0.51
2.300	0.55	8.300	14.07	14.300	0.90	20.30	0.51
2.317	0.55	8.317	14.07	14.317	0.90	20.32	0.51
2.333	0.55	8.333	14.06	14.333	0.90	20.33	0.51
2.350	0.57	8.350	9.40	14.350	0.88	20.35	0.51
2.367	0.57	8.367	9.40	14.367	0.88	20.37	0.51
2.383	0.57	8.383	9.40	14.383	0.88	20.38	0.51
2.400	0.57	8.400	9.40	14.400	0.88	20.40	0.51
2.417	0.57	8.417	9.40	14.417	0.88	20.42	0.51
2.433	0.57	8.433	9.40	14.433	0.88	20.43	0.51
2.450	0.57	8.450	9.40	14.450	0.88	20.45	0.51
2.467	0.57	8.467	9.40	14.467	0.88	20.47	0.51
2.483	0.57	8.483	9.40	14.483	0.88	20.48	0.51
2.500	0.57	8.500	9.39	14.500	0.88	20.50	0.51
2.517	0.58	8.517	7.07	14.517	0.86	20.52	0.50
2.533	0.58	8.533	7.07	14.533	0.86	20.53	0.50
2.550	0.58	8.550	7.07	14.550	0.86	20.55	0.50
2.567	0.58	8.567	7.07	14.567	0.86	20.57	0.50
2.583	0.58	8.583	7.07	14.583	0.86	20.58	0.50
2.600	0.58	8.600	7.07	14.600	0.86	20.60	0.50
2.617	0.58	8.617	7.07	14.617	0.86	20.62	0.50
2.633	0.58	8.633	7.07	14.633	0.86	20.63	0.50
2.650	0.58	8.650	7.07	14.650	0.86	20.65	0.50
2.667	0.58	8.667	7.07	14.667	0.86	20.67	0.50
2.683	0.60	8.683	5.68	14.683	0.84	20.68	0.50
2.700	0.60	8.700	5.68	14.700	0.84	20.70	0.50
2.717	0.60	8.717	5.68	14.717	0.84	20.72	0.50
2.733	0.60	8.733	5.68	14.733	0.84	20.73	0.50
2.750	0.60	8.750	5.68	14.750	0.84	20.75	0.50
2.767	0.60	8.767	5.68	14.767	0.84	20.77	0.50
2.783	0.60	8.783	5.68	14.783	0.84	20.78	0.50
2.800	0.60	8.800	5.68	14.800	0.84	20.80	0.50
2.817	0.60	8.817	5.68	14.817	0.84	20.82	0.50
2.833	0.60	8.833	5.68	14.833	0.84	20.83	0.50
2.850	0.61	8.850	4.76	14.850	0.83	20.85	0.49
2.867	0.61	8.867	4.76	14.867	0.83	20.87	0.49
2.883	0.61	8.883	4.76	14.883	0.83	20.88	0.49
2.900	0.61	8.900	4.76	14.900	0.83	20.90	0.49
2.917	0.61	8.917	4.76	14.917	0.83	20.92	0.49
2.933	0.61	8.933	4.76	14.933	0.83	20.93	0.49
2.950	0.61	8.950	4.76	14.950	0.83	20.95	0.49
2.967	0.61	8.967	4.76	14.967	0.83	20.97	0.49
2.983	0.61	8.983	4.76	14.983	0.83	20.98	0.49
3.000	0.61	9.000	4.76	15.000	0.83	21.00	0.49
3.017	0.63	9.017	4.11	15.017	0.81	21.02	0.49
3.033	0.63	9.033	4.11	15.033	0.81	21.03	0.49
3.050	0.63	9.050	4.11	15.050	0.81	21.05	0.49
3.067	0.63	9.067	4.11	15.067	0.81	21.07	0.49
3.083	0.63	9.083	4.11	15.083	0.81	21.08	0.49
3.100	0.63	9.100	4.11	15.100	0.81	21.10	0.49
3.117	0.63	9.117	4.11	15.117	0.81	21.12	0.49
3.133	0.63	9.133	4.11	15.133	0.81	21.13	0.49
3.150	0.63	9.150	4.11	15.150	0.81	21.15	0.49
3.167	0.63	9.167	4.11	15.167	0.81	21.17	0.49
3.183	0.65	9.183	3.62	15.183	0.79	21.18	0.48
3.200	0.65	9.200	3.62	15.200	0.79	21.20	0.48
3.217	0.65	9.217	3.62	15.217	0.79	21.22	0.48
3.233	0.65	9.233	3.62	15.233	0.79	21.23	0.48
3.250	0.65	9.250	3.62	15.250	0.79	21.25	0.48
3.267	0.65	9.267	3.62	15.267	0.79	21.27	0.48
3.283	0.65	9.283	3.62	15.283	0.79	21.28	0.48
3.300	0.65	9.300	3.62	15.300	0.79	21.30	0.48
3.317	0.65	9.317	3.62	15.317	0.79	21.32	0.48
3.333	0.65	9.333	3.62	15.333	0.79	21.33	0.48
3.350	0.67	9.350	3.24	15.350	0.78	21.35	0.48
3.367	0.67	9.367	3.24	15.367	0.78	21.37	0.48
3.383	0.67	9.383	3.24	15.383	0.78	21.38	0.48
3.400	0.67	9.400	3.24	15.400	0.78	21.40	0.48
3.417	0.67	9.417	3.24	15.417	0.78	21.42	0.48
3.433	0.67	9.433	3.24	15.433	0.78	21.43	0.48
3.450	0.67	9.450	3.24	15.450	0.78	21.45	0.48
3.467	0.67	9.467	3.24	15.467	0.78	21.47	0.48
3.483	0.67	9.483	3.24	15.483	0.78	21.48	0.48
3.500	0.67	9.500	3.24	15.500	0.78	21.50	0.48
3.517	0.69	9.517	2.94	15.517	0.77	21.52	0.47
3.533	0.69	9.533	2.94	15.533	0.77	21.53	0.47
3.550	0.69	9.550	2.94	15.550	0.77	21.55	0.47
3.567	0.69	9.567	2.94	15.567	0.77	21.57	0.47
3.583	0.69	9.583	2.94	15.583	0.77	21.58	0.47
3.600	0.69	9.600	2.94	15.600	0.77	21.60	0.47
3.617	0.69	9.617	2.94	15.617	0.77	21.62	0.47
3.633	0.69	9.633	2.94	15.633	0.77	21.63	0.47
3.650	0.69	9.650	2.94	15.650	0.77	21.65	0.47
3.667	0.69	9.667	2.94	15.667	0.77	21.67	0.47
3.683	0.72	9.683	2.69	15.683	0.75	21.68	0.47
3.700	0.72	9.700	2.69	15.700	0.75	21.70	0.47
3.717	0.72	9.717	2.69	15.717	0.75	21.72	0.47
3.733	0.72	9.733	2.69	15.733	0.75	21.73	0.47
3.750	0.72	9.750	2.69	15.750	0.75	21.75	0.47
3.767	0.72	9.767	2.69	15.767	0.75	21.77	0.47
3.783	0.72	9.783	2.69	15.783	0.75	21.78	0.47
3.800	0.72	9.800	2.69	15.800	0.75	21.80	0.47
3.817	0.72	9.817	2.69	15.817	0.75	21.82	0.47
3.833	0.72	9.833	2.69	15.833	0.75	21.83	0.47
3.850	0.74	9.850	2.49	15.850	0.74	21.85	0.46
3.867	0.74	9.867	2.49	15.867	0.74	21.87	0.46
3.883	0.74	9.883	2.49	15.883	0.74	21.88	0.46
3.900	0.74	9.900	2.49	15.900	0.74	21.90	0.46
3.917	0.74	9.917	2.49	15.917	0.74	21.92	0.46
3.933	0.74	9.933	2.49	15.933	0.74	21.93	0.46
3.950	0.74	9.950	2.49	15.950	0.74	21.95	0.46
3.967	0.74	9.967	2.49	15.967	0.74	21.97	0.46
3.983	0.74	9.983	2.49	15.983	0.74	21.98	0.46
4.000	0.74	10.000	2.49	16.000	0.74	22.00	0.46
4.017	0.77	10.017	2.31	16.017	0.73	22.02	0.46
4.033	0.77	10.033	2.31	16.033	0.73	22.03	0.46
4.050	0.77	10.050	2.31	16.050	0.73	22.05	0.46
4.067	0.77	10.067	2.31	16.067	0.73	22.07	0.46
4.083	0.77	10.083	2.31	16.083	0.73	22.08	0.46
4.100	0.77	10.100	2.31	16.100	0.73	22.10	0.46
4.117	0.77	10.117	2.31	16.117	0.73	22.12	0.46
4.133	0.77	10.133	2.31	16.133	0.73	22.13	0.46
4.150	0.77	10.150	2.31	16.150	0.73	22.15	0.46
4.167	0.77	10.167	2.31	16.167	0.73	22.17	0.46
4.183	0.80	10.183	2.16	16.183	0.71	22.18	0.45
4.200	0.80	10.200	2.16	16.200	0.71	22.20	0.45
4.217	0.80	10.217	2.16	16.217	0.71	22.22	0.45
4.233	0.80	10.233	2.16	16.233	0.71	22.23	0.45
4.250	0.80	10.250	2.16	16.250	0.71	22.25	0.45
4.267	0.80	10.267	2.16	16.267	0.71	22.27	0.45
4.283	0.80	10.283	2.16	16.283	0.71	22.28	0.45
4.300	0.80	10.300	2.16	16.300	0.71	22.30	0.45
4.317	0.80	10.317	2.16	16.317	0.71	22.32	0.45
4.333	0.80	10.333	2.16	16.333	0.71	22.33	0.45
4.350	0.83	10.350	2.03	16.350	0.70	22.35	0.45
4.367	0.83	10.367	2.03	16.367	0.70	22.37	0.45
4.383	0.83	10.383	2.03	16.383	0.70	22.38	0.45
4.400	0.83	10.400	2.03	16.400	0.70	22.40	0.45
4.417	0.83	10.417	2.03	16.417	0.70	22.42	0.45
4.433	0.83	10.433	2.03	16.433	0.70	22.43	0.45
4.450	0.83	10.450	2.03	16.450	0.70	22.45	0.45
4.467	0.83	10.467	2.03	16.467	0.70	22.47	0.45
4.483	0.83	10.483	2.03	16.483	0.70	22.48	0.45
4.500	0.83	10.500	2.03	16.500	0.70	22.50	0.45
4.517	0.87	10.517	1.92	16.517	0.69	22.52	0.44
4.533	0.87	10.533	1.92	16.533	0.69	22.53	0.44
4.550	0.87	10.550	1.92	16.550	0.69	22.55	0.44
4.567	0.87	10.567	1.92	16.567	0.69	22.57	0.44
4.583	0.87	10.583	1.92	16.583	0.69	22.58	0.44
4.600	0.87	10.600	1.92	16.600	0.69	22.60	0.44
4.617	0.87	10.617	1.92	16.617	0.69	22.62	0.44
4.633	0.87	10.633	1.92	16.633	0.69	22.63	0.44
4.650	0.87	10.650	1.92	16.650	0.69	22.65	0.44
4.667	0.87	10.667	1.92	16.667	0.69	22.67	0.44
4.683	0.91	10.683	1.82	16.683	0.68	22.68	0.44
4.700	0.91	10.700	1.82	16.700	0.68	22.70	0.44
4.717	0.91	10.717	1.82	16.717	0.68	22.72	0.44
4.733	0.91	10.733	1.82	16.733	0.68	22.73	0.44
4.750	0.91	10.750	1.82	16.750	0.68	22.75	0.44
4.767	0.91	10.767	1.82	16.767	0.68	22.77	0.44
4.783	0.91	10.783	1.82	16.783	0.68	22.78	0.44
4.800	0.91	10.800	1.82	16.800	0.68	22.80	0.44
4.817	0.91	10.817	1.82	16.817	0.68	22.82	0.44
4.833	0.91	10.833	1.82	16.833	0.68	22.83	0.44
4.850	0.95	10.850	1.73	16.850	0.67	22.85	0.44
4.867	0.95	10.867	1.73	16.867	0.67	22.87	0.44
4.883	0.95	10.883	1.73	16.883	0.67	22.88	0.44
4.900	0.95	10.900	1.73	16.900	0.67	22.90	0.44
4.917	0.95	10.917	1.73	16.917	0.67	22.92	0.44
4.933	0.95	10.933	1.73	16.933	0.67	22.93	0.44
4.950	0.95	10.950	1.73	16.950	0.67	22.95	0.44
4.967	0.95	10.967	1.73	16.967	0.67	22.97	0.44
4.983	0.95	10.983	1.73	16.983	0.67	22.98	0.44
5.000	0.95	11.000	1.73	17.000	0.67	23.00	0.44
5.017	1.00	11.017	1.65	17.017	0.66	23.02	0.43
5.033	1.00	11.033	1.65	17.033	0.66	23.03	0.43
5.050	1.00	11.050	1.65	17.050	0.66	23.05	0.43
5.067	1.00	11.067	1.65	17.067	0.66	23.07	0.43
5.083	1.00	11.083	1.65	17.083	0.66	23.08	0.43
5.100	1.00	11.100	1.65	17.100	0.66	23.10	0.43
5.117	1.00	11.117	1.65	17.117	0.66	23.12	0.43
5.133	1.00	11.133	1.65	17.133	0.66	23.13	0.43
5.150	1.00	11.150	1.65	17.150	0.66	23.15	0.43
5.167	1.00	11.167	1.64	17.167	0.66	23.17	0.43
5.183	1.06	11.183	1.57	17.183	0.65	23.18	0.43
5.200	1.06	11.200	1.57	17.200	0.65	23.20	0.43
5.217	1.06	11.217	1.57	17.217	0.65	23.22	0.43
5.233	1.06	11.233	1.57	17.233	0.65	23.23	0.43
5.250	1.06	11.250	1.57	17.250	0.65	23.25	0.43
5.267	1.06	11.267	1.57	17.267	0.65	23.27	0.43
5.283	1.06	11.283	1.57	17.283	0.65	23.28	0.43
5.300	1.06	11.300	1.57	17.300	0.65	23.30	0.43
5.317	1.06	11.317	1.57	17.317	0.65	23.32	0.43
5.333	1.06	11.333	1.57	17.333	0.65	23.33	0.43
5.350	1.12	11.350	1.51	17.350	0.64	23.35	0.42
5.367	1.12	11.367	1.51	17.367	0.64	23.37	0.42
5.383	1.12	11.383	1.51	17.383	0.64	23.38	0.42
5.400	1.12	11.400	1.51	17.400	0.64	23.40	0.42
5.417	1.12	11.417	1.51	17.417	0.64	23.42	0.42
5.433	1.12	11.433	1.51	17.433	0.64	23.43	0.42
5.450	1.12	11.450	1.51	17.450	0.64	23.45	0.42
5.467	1.12	11.467	1.51	17.467	0.64	23.47	0.42
5.483	1.12	11.483	1.51	17.483	0.64	23.48	0.42

5.500	1.12	11.500	1.51	17.500	0.64	23.50	0.42
5.517	1.19	11.517	1.45	17.517	0.63	23.52	0.42
5.533	1.19	11.533	1.45	17.533	0.63	23.53	0.42
5.550	1.19	11.550	1.45	17.550	0.63	23.55	0.42
5.567	1.19	11.567	1.45	17.567	0.63	23.57	0.42
5.583	1.19	11.583	1.45	17.583	0.63	23.58	0.42
5.600	1.19	11.600	1.45	17.600	0.63	23.60	0.42
5.617	1.19	11.617	1.45	17.617	0.63	23.62	0.42
5.633	1.19	11.633	1.45	17.633	0.63	23.63	0.42
5.650	1.19	11.650	1.45	17.650	0.63	23.65	0.42
5.667	1.19	11.667	1.45	17.667	0.63	23.67	0.42
5.683	1.27	11.683	1.39	17.683	0.62	23.68	0.42
5.700	1.27	11.700	1.39	17.700	0.62	23.70	0.42
5.717	1.27	11.717	1.39	17.717	0.62	23.72	0.42
5.733	1.27	11.733	1.39	17.733	0.62	23.73	0.42
5.750	1.27	11.750	1.39	17.750	0.62	23.75	0.42
5.767	1.27	11.767	1.39	17.767	0.62	23.77	0.42
5.783	1.27	11.783	1.39	17.783	0.62	23.78	0.42
5.800	1.27	11.800	1.39	17.800	0.62	23.80	0.42
5.817	1.27	11.817	1.39	17.817	0.62	23.82	0.42
5.833	1.27	11.833	1.39	17.833	0.62	23.83	0.42
5.850	1.36	11.850	1.34	17.850	0.61	23.85	0.41
5.867	1.36	11.867	1.34	17.867	0.61	23.87	0.41
5.883	1.36	11.883	1.34	17.883	0.61	23.88	0.41
5.900	1.36	11.900	1.34	17.900	0.61	23.90	0.41
5.917	1.36	11.917	1.34	17.917	0.61	23.92	0.41
5.933	1.36	11.933	1.34	17.933	0.61	23.93	0.41
5.950	1.36	11.950	1.34	17.950	0.61	23.95	0.41
5.967	1.36	11.967	1.34	17.967	0.61	23.97	0.41
5.983	1.36	11.983	1.34	17.983	0.61	23.98	0.41
6.000	1.36	12.000	1.34	18.000	0.61	24.00	0.41

Max.Eff.Inten.(mm/hr)=	84.13	11.04	
over (min)	7.00	16.00	
Storage Coeff. (min)=	6.55 (ii)	15.16 (ii)	
Unit Hyd. Tpeak (min)=	7.00	16.00	
Unit Hyd. peak (cms)=	0.17	0.07	
			TOTALS
PEAK FLOW (cms)=	0.94	0.12	1.003 (iii)
TIME TO PEAK (hrs)=	8.05	8.25	8.05
RUNOFF VOLUME (mm)=	52.25	8.15	25.36
TOTAL RAINFALL (mm)=	53.26	53.26	53.26
RUNOFF COEFFICIENT =	0.98	0.15	0.48

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 48.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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-------------------
| ADD HYD  (  0101)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
-------------------        (ha)    (cms)    (hrs)     (mm)
*** W A R N I N G :  HYDROGRAPH   0034 <ID= 2> IS DRY.
*** W A R N I N G :  HYDROGRAPH   0003 = HYDROGRAPH 0001
       ID1= 1 (  1011):    13.73   1.003     8.05    25.36
     + ID2= 2 (  0034):     0.00   0.000     0.00     0.00
       ================================================
       ID = 3 (  0101):    13.73   1.003     8.05    25.36

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


-------------------
| ADD HYD  (  0901)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
-------------------        (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0101):    13.73   1.003     8.05    25.36
     + ID2= 2 (  0103):     1.17   0.055     8.02    18.61
       ================================================
       ID = 3 (  0901):    14.90   1.054     8.05    24.83

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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-------------------
| ADD HYD  (  0902)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
-------------------        (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0104):     0.77   0.009     8.33     8.51
     + ID2= 2 (  0901):    14.90   1.054     8.05    24.83
       ================================================
       ID = 3 (  0902):    15.67   1.058     8.05    24.03

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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-------------------
| CALIB            |
| STANDHYD (  1021)|   Area     (ha)=   3.77
|ID= 1 DT= 1.0 min |   Total Imp(%)=  45.00   Dir. Conn.(%)=  38.00
-------------------

                        IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       1.70          2.07
     Dep. Storage     (mm)=       1.00          5.00
     Average Slope     (%)=       0.50          2.00
     Length             (m)=    158.56         40.00
     Mannings n              =     0.013         0.250

         NOTE:  RAINFALL WAS TRANSFORMED TO   1.0 MIN. TIME STEP.
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--- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.017	0.42	6.017	1.47	12.017	1.29	18.02	0.60
0.033	0.42	6.033	1.47	12.033	1.29	18.03	0.60
0.050	0.42	6.050	1.47	12.050	1.29	18.05	0.60
0.067	0.42	6.067	1.47	12.067	1.29	18.07	0.60
0.083	0.42	6.083	1.47	12.083	1.29	18.08	0.60
0.100	0.42	6.100	1.47	12.100	1.29	18.10	0.60
0.117	0.42	6.117	1.47	12.117	1.29	18.12	0.60
0.133	0.42	6.133	1.47	12.133	1.29	18.13	0.60
0.150	0.42	6.150	1.47	12.150	1.29	18.15	0.60
0.167	0.42	6.167	1.47	12.167	1.29	18.17	0.60
0.183	0.43	6.183	1.61	12.183	1.25	18.18	0.59
0.200	0.43	6.200	1.61	12.200	1.25	18.20	0.59
0.217	0.43	6.217	1.61	12.217	1.25	18.22	0.59
0.233	0.43	6.233	1.61	12.233	1.25	18.23	0.59
0.250	0.43	6.250	1.61	12.250	1.25	18.25	0.59
0.267	0.43	6.267	1.61	12.267	1.25	18.27	0.59
0.283	0.43	6.283	1.61	12.283	1.25	18.28	0.59
0.300	0.43	6.300	1.61	12.300	1.25	18.30	0.59
0.317	0.43	6.317	1.61	12.317	1.25	18.32	0.59
0.333	0.43	6.333	1.61	12.333	1.25	18.33	0.59
0.350	0.44	6.350	1.77	12.350	1.21	18.35	0.59
0.367	0.44	6.367	1.77	12.367	1.21	18.37	0.59
0.383	0.44	6.383	1.77	12.383	1.21	18.38	0.59
0.400	0.44	6.400	1.77	12.400	1.21	18.40	0.59
0.417	0.44	6.417	1.77	12.417	1.21	18.42	0.59
0.433	0.44	6.433	1.77	12.433	1.21	18.43	0.59
0.450	0.44	6.450	1.77	12.450	1.21	18.45	0.59
0.467	0.44	6.467	1.77	12.467	1.21	18.47	0.59
0.483	0.44	6.483	1.77	12.483	1.21	18.48	0.59
0.500	0.44	6.500	1.77	12.500	1.21	18.50	0.59
0.517	0.44	6.517	1.97	12.517	1.17	18.52	0.58
0.533	0.44	6.533	1.97	12.533	1.17	18.53	0.58
0.550	0.44	6.550	1.97	12.550	1.17	18.55	0.58
0.567	0.44	6.567	1.97	12.567	1.17	18.57	0.58
0.583	0.44	6.583	1.97	12.583	1.17	18.58	0.58
0.600	0.44	6.600	1.97	12.600	1.17	18.60	0.58
0.617	0.44	6.617	1.97	12.617	1.17	18.62	0.58
0.633	0.44	6.633	1.97	12.633	1.17	18.63	0.58
0.650	0.44	6.650	1.97	12.650	1.17	18.65	0.58
0.667	0.44	6.667	1.97	12.667	1.17	18.67	0.58
0.683	0.45	6.683	2.23	12.683	1.14	18.68	0.57
0.700	0.45	6.700	2.23	12.700	1.14	18.70	0.57
0.717	0.45	6.717	2.23	12.717	1.14	18.72	0.57
0.733	0.45	6.733	2.23	12.733	1.14	18.73	0.57
0.750	0.45	6.750	2.23	12.750	1.14	18.75	0.57
0.767	0.45	6.767	2.23	12.767	1.14	18.77	0.57
0.783	0.45	6.783	2.23	12.783	1.14	18.78	0.57
0.800	0.45	6.800	2.23	12.800	1.14	18.80	0.57

0.817	0.45	6.817	2.23	12.817	1.14	18.82	0.57
0.833	0.45	6.833	2.23	12.833	1.14	18.83	0.57
0.850	0.46	6.850	2.59	12.850	1.10	18.85	0.56
0.867	0.46	6.867	2.59	12.867	1.10	18.87	0.56
0.883	0.46	6.883	2.59	12.883	1.10	18.88	0.56
0.900	0.46	6.900	2.59	12.900	1.10	18.90	0.56
0.917	0.46	6.917	2.59	12.917	1.10	18.92	0.56
0.933	0.46	6.933	2.59	12.933	1.10	18.93	0.56
0.950	0.46	6.950	2.59	12.950	1.10	18.95	0.56
0.967	0.46	6.967	2.59	12.967	1.10	18.97	0.56
0.983	0.46	6.983	2.59	12.983	1.10	18.98	0.56
1.000	0.46	7.000	2.59	13.000	1.10	19.00	0.56
1.017	0.47	7.017	3.09	13.017	1.07	19.02	0.56
1.033	0.47	7.033	3.09	13.033	1.07	19.03	0.56
1.050	0.47	7.050	3.09	13.050	1.07	19.05	0.56
1.067	0.47	7.067	3.09	13.067	1.07	19.07	0.56
1.083	0.47	7.083	3.09	13.083	1.07	19.08	0.56
1.100	0.47	7.100	3.09	13.100	1.07	19.10	0.56
1.117	0.47	7.117	3.09	13.117	1.07	19.12	0.56
1.133	0.47	7.133	3.09	13.133	1.07	19.13	0.56
1.150	0.47	7.150	3.09	13.150	1.07	19.15	0.56
1.167	0.47	7.167	3.09	13.167	1.07	19.17	0.56
1.183	0.48	7.183	3.86	13.183	1.04	19.18	0.55
1.200	0.48	7.200	3.86	13.200	1.04	19.20	0.55
1.217	0.48	7.217	3.86	13.217	1.04	19.22	0.55
1.233	0.48	7.233	3.86	13.233	1.04	19.23	0.55
1.250	0.48	7.250	3.86	13.250	1.04	19.25	0.55
1.267	0.48	7.267	3.86	13.267	1.04	19.27	0.55
1.283	0.48	7.283	3.86	13.283	1.04	19.28	0.55
1.300	0.48	7.300	3.86	13.300	1.04	19.30	0.55
1.317	0.48	7.317	3.86	13.317	1.04	19.32	0.55
1.333	0.48	7.333	3.86	13.333	1.04	19.33	0.55
1.350	0.49	7.350	5.21	13.350	1.02	19.35	0.54
1.367	0.49	7.367	5.21	13.367	1.02	19.37	0.54
1.383	0.49	7.383	5.21	13.383	1.02	19.38	0.54
1.400	0.49	7.400	5.21	13.400	1.02	19.40	0.54
1.417	0.49	7.417	5.21	13.417	1.02	19.42	0.54
1.433	0.49	7.433	5.21	13.433	1.02	19.43	0.54
1.450	0.49	7.450	5.21	13.450	1.02	19.45	0.54
1.467	0.49	7.467	5.21	13.467	1.02	19.47	0.54
1.483	0.49	7.483	5.21	13.483	1.02	19.48	0.54
1.500	0.49	7.500	5.22	13.500	1.02	19.50	0.54
1.517	0.50	7.517	8.22	13.517	0.99	19.52	0.54
1.533	0.50	7.533	8.22	13.533	0.99	19.53	0.54
1.550	0.50	7.550	8.22	13.550	0.99	19.55	0.54
1.567	0.50	7.567	8.22	13.567	0.99	19.57	0.54
1.583	0.50	7.583	8.22	13.583	0.99	19.58	0.54
1.600	0.50	7.600	8.22	13.600	0.99	19.60	0.54
1.617	0.50	7.617	8.22	13.617	0.99	19.62	0.54
1.633	0.50	7.633	8.22	13.633	0.99	19.63	0.54
1.650	0.50	7.650	8.22	13.650	0.99	19.65	0.54
1.667	0.50	7.667	8.26	13.667	0.99	19.67	0.54

1.683	0.51	7.683	20.77	13.683	0.97	19.68	0.53
1.700	0.51	7.700	20.77	13.700	0.97	19.70	0.53
1.717	0.51	7.717	20.77	13.717	0.97	19.72	0.53
1.733	0.51	7.733	20.77	13.733	0.97	19.73	0.53
1.750	0.51	7.750	20.77	13.750	0.97	19.75	0.53
1.767	0.51	7.767	20.77	13.767	0.97	19.77	0.53
1.783	0.51	7.783	20.77	13.783	0.97	19.78	0.53
1.800	0.51	7.800	20.77	13.800	0.97	19.80	0.53
1.817	0.51	7.817	20.77	13.817	0.97	19.82	0.53
1.833	0.51	7.833	20.95	13.833	0.97	19.83	0.53
1.850	0.53	7.850	84.13	13.850	0.94	19.85	0.52
1.867	0.53	7.867	84.13	13.867	0.94	19.87	0.52
1.883	0.53	7.883	84.13	13.883	0.94	19.88	0.52
1.900	0.53	7.900	84.13	13.900	0.94	19.90	0.52
1.917	0.53	7.917	84.13	13.917	0.94	19.92	0.52
1.933	0.53	7.933	84.13	13.933	0.94	19.93	0.52
1.950	0.53	7.950	84.13	13.950	0.94	19.95	0.52
1.967	0.53	7.967	84.13	13.967	0.94	19.97	0.52
1.983	0.53	7.983	84.13	13.983	0.94	19.98	0.52
2.000	0.53	8.000	83.96	14.000	0.94	20.00	0.52
2.017	0.54	8.017	27.50	14.017	0.92	20.02	0.52
2.033	0.54	8.033	27.50	14.033	0.92	20.03	0.52
2.050	0.54	8.050	27.50	14.050	0.92	20.05	0.52
2.067	0.54	8.067	27.50	14.067	0.92	20.07	0.52
2.083	0.54	8.083	27.50	14.083	0.92	20.08	0.52
2.100	0.54	8.100	27.50	14.100	0.92	20.10	0.52
2.117	0.54	8.117	27.50	14.117	0.92	20.12	0.52
2.133	0.54	8.133	27.50	14.133	0.92	20.13	0.52
2.150	0.54	8.150	27.50	14.150	0.92	20.15	0.52
2.167	0.54	8.167	27.46	14.167	0.92	20.17	0.52
2.183	0.55	8.183	14.07	14.183	0.90	20.18	0.51
2.200	0.55	8.200	14.07	14.200	0.90	20.20	0.51
2.217	0.55	8.217	14.07	14.217	0.90	20.22	0.51
2.233	0.55	8.233	14.07	14.233	0.90	20.23	0.51
2.250	0.55	8.250	14.07	14.250	0.90	20.25	0.51
2.267	0.55	8.267	14.07	14.267	0.90	20.27	0.51
2.283	0.55	8.283	14.07	14.283	0.90	20.28	0.51
2.300	0.55	8.300	14.07	14.300	0.90	20.30	0.51
2.317	0.55	8.317	14.07	14.317	0.90	20.32	0.51
2.333	0.55	8.333	14.06	14.333	0.90	20.33	0.51
2.350	0.57	8.350	9.40	14.350	0.88	20.35	0.51
2.367	0.57	8.367	9.40	14.367	0.88	20.37	0.51
2.383	0.57	8.383	9.40	14.383	0.88	20.38	0.51
2.400	0.57	8.400	9.40	14.400	0.88	20.40	0.51
2.417	0.57	8.417	9.40	14.417	0.88	20.42	0.51
2.433	0.57	8.433	9.40	14.433	0.88	20.43	0.51
2.450	0.57	8.450	9.40	14.450	0.88	20.45	0.51
2.467	0.57	8.467	9.40	14.467	0.88	20.47	0.51
2.483	0.57	8.483	9.40	14.483	0.88	20.48	0.51
2.500	0.57	8.500	9.39	14.500	0.88	20.50	0.51
2.517	0.58	8.517	7.07	14.517	0.86	20.52	0.50
2.533	0.58	8.533	7.07	14.533	0.86	20.53	0.50

2.550	0.58	8.550	7.07	14.550	0.86	20.55	0.50
2.567	0.58	8.567	7.07	14.567	0.86	20.57	0.50
2.583	0.58	8.583	7.07	14.583	0.86	20.58	0.50
2.600	0.58	8.600	7.07	14.600	0.86	20.60	0.50
2.617	0.58	8.617	7.07	14.617	0.86	20.62	0.50
2.633	0.58	8.633	7.07	14.633	0.86	20.63	0.50
2.650	0.58	8.650	7.07	14.650	0.86	20.65	0.50
2.667	0.58	8.667	7.07	14.667	0.86	20.67	0.50
2.683	0.60	8.683	5.68	14.683	0.84	20.68	0.50
2.700	0.60	8.700	5.68	14.700	0.84	20.70	0.50
2.717	0.60	8.717	5.68	14.717	0.84	20.72	0.50
2.733	0.60	8.733	5.68	14.733	0.84	20.73	0.50
2.750	0.60	8.750	5.68	14.750	0.84	20.75	0.50
2.767	0.60	8.767	5.68	14.767	0.84	20.77	0.50
2.783	0.60	8.783	5.68	14.783	0.84	20.78	0.50
2.800	0.60	8.800	5.68	14.800	0.84	20.80	0.50
2.817	0.60	8.817	5.68	14.817	0.84	20.82	0.50
2.833	0.60	8.833	5.68	14.833	0.84	20.83	0.50
2.850	0.61	8.850	4.76	14.850	0.83	20.85	0.49
2.867	0.61	8.867	4.76	14.867	0.83	20.87	0.49
2.883	0.61	8.883	4.76	14.883	0.83	20.88	0.49
2.900	0.61	8.900	4.76	14.900	0.83	20.90	0.49
2.917	0.61	8.917	4.76	14.917	0.83	20.92	0.49
2.933	0.61	8.933	4.76	14.933	0.83	20.93	0.49
2.950	0.61	8.950	4.76	14.950	0.83	20.95	0.49
2.967	0.61	8.967	4.76	14.967	0.83	20.97	0.49
2.983	0.61	8.983	4.76	14.983	0.83	20.98	0.49
3.000	0.61	9.000	4.76	15.000	0.83	21.00	0.49
3.017	0.63	9.017	4.11	15.017	0.81	21.02	0.49
3.033	0.63	9.033	4.11	15.033	0.81	21.03	0.49
3.050	0.63	9.050	4.11	15.050	0.81	21.05	0.49
3.067	0.63	9.067	4.11	15.067	0.81	21.07	0.49
3.083	0.63	9.083	4.11	15.083	0.81	21.08	0.49
3.100	0.63	9.100	4.11	15.100	0.81	21.10	0.49
3.117	0.63	9.117	4.11	15.117	0.81	21.12	0.49
3.133	0.63	9.133	4.11	15.133	0.81	21.13	0.49
3.150	0.63	9.150	4.11	15.150	0.81	21.15	0.49
3.167	0.63	9.167	4.11	15.167	0.81	21.17	0.49
3.183	0.65	9.183	3.62	15.183	0.79	21.18	0.48
3.200	0.65	9.200	3.62	15.200	0.79	21.20	0.48
3.217	0.65	9.217	3.62	15.217	0.79	21.22	0.48
3.233	0.65	9.233	3.62	15.233	0.79	21.23	0.48
3.250	0.65	9.250	3.62	15.250	0.79	21.25	0.48
3.267	0.65	9.267	3.62	15.267	0.79	21.27	0.48
3.283	0.65	9.283	3.62	15.283	0.79	21.28	0.48
3.300	0.65	9.300	3.62	15.300	0.79	21.30	0.48
3.317	0.65	9.317	3.62	15.317	0.79	21.32	0.48
3.333	0.65	9.333	3.62	15.333	0.79	21.33	0.48
3.350	0.67	9.350	3.24	15.350	0.78	21.35	0.48
3.367	0.67	9.367	3.24	15.367	0.78	21.37	0.48
3.383	0.67	9.383	3.24	15.383	0.78	21.38	0.48
3.400	0.67	9.400	3.24	15.400	0.78	21.40	0.48

3.417	0.67	9.417	3.24	15.417	0.78	21.42	0.48
3.433	0.67	9.433	3.24	15.433	0.78	21.43	0.48
3.450	0.67	9.450	3.24	15.450	0.78	21.45	0.48
3.467	0.67	9.467	3.24	15.467	0.78	21.47	0.48
3.483	0.67	9.483	3.24	15.483	0.78	21.48	0.48
3.500	0.67	9.500	3.24	15.500	0.78	21.50	0.48
3.517	0.69	9.517	2.94	15.517	0.77	21.52	0.47
3.533	0.69	9.533	2.94	15.533	0.77	21.53	0.47
3.550	0.69	9.550	2.94	15.550	0.77	21.55	0.47
3.567	0.69	9.567	2.94	15.567	0.77	21.57	0.47
3.583	0.69	9.583	2.94	15.583	0.77	21.58	0.47
3.600	0.69	9.600	2.94	15.600	0.77	21.60	0.47
3.617	0.69	9.617	2.94	15.617	0.77	21.62	0.47
3.633	0.69	9.633	2.94	15.633	0.77	21.63	0.47
3.650	0.69	9.650	2.94	15.650	0.77	21.65	0.47
3.667	0.69	9.667	2.94	15.667	0.77	21.67	0.47
3.683	0.72	9.683	2.69	15.683	0.75	21.68	0.47
3.700	0.72	9.700	2.69	15.700	0.75	21.70	0.47
3.717	0.72	9.717	2.69	15.717	0.75	21.72	0.47
3.733	0.72	9.733	2.69	15.733	0.75	21.73	0.47
3.750	0.72	9.750	2.69	15.750	0.75	21.75	0.47
3.767	0.72	9.767	2.69	15.767	0.75	21.77	0.47
3.783	0.72	9.783	2.69	15.783	0.75	21.78	0.47
3.800	0.72	9.800	2.69	15.800	0.75	21.80	0.47
3.817	0.72	9.817	2.69	15.817	0.75	21.82	0.47
3.833	0.72	9.833	2.69	15.833	0.75	21.83	0.47
3.850	0.74	9.850	2.49	15.850	0.74	21.85	0.46
3.867	0.74	9.867	2.49	15.867	0.74	21.87	0.46
3.883	0.74	9.883	2.49	15.883	0.74	21.88	0.46
3.900	0.74	9.900	2.49	15.900	0.74	21.90	0.46
3.917	0.74	9.917	2.49	15.917	0.74	21.92	0.46
3.933	0.74	9.933	2.49	15.933	0.74	21.93	0.46
3.950	0.74	9.950	2.49	15.950	0.74	21.95	0.46
3.967	0.74	9.967	2.49	15.967	0.74	21.97	0.46
3.983	0.74	9.983	2.49	15.983	0.74	21.98	0.46
4.000	0.74	10.000	2.49	16.000	0.74	22.00	0.46
4.017	0.77	10.017	2.31	16.017	0.73	22.02	0.46
4.033	0.77	10.033	2.31	16.033	0.73	22.03	0.46
4.050	0.77	10.050	2.31	16.050	0.73	22.05	0.46
4.067	0.77	10.067	2.31	16.067	0.73	22.07	0.46
4.083	0.77	10.083	2.31	16.083	0.73	22.08	0.46
4.100	0.77	10.100	2.31	16.100	0.73	22.10	0.46
4.117	0.77	10.117	2.31	16.117	0.73	22.12	0.46
4.133	0.77	10.133	2.31	16.133	0.73	22.13	0.46
4.150	0.77	10.150	2.31	16.150	0.73	22.15	0.46
4.167	0.77	10.167	2.31	16.167	0.73	22.17	0.46
4.183	0.80	10.183	2.16	16.183	0.71	22.18	0.45
4.200	0.80	10.200	2.16	16.200	0.71	22.20	0.45
4.217	0.80	10.217	2.16	16.217	0.71	22.22	0.45
4.233	0.80	10.233	2.16	16.233	0.71	22.23	0.45
4.250	0.80	10.250	2.16	16.250	0.71	22.25	0.45
4.267	0.80	10.267	2.16	16.267	0.71	22.27	0.45

4.283	0.80	10.283	2.16	16.283	0.71	22.28	0.45
4.300	0.80	10.300	2.16	16.300	0.71	22.30	0.45
4.317	0.80	10.317	2.16	16.317	0.71	22.32	0.45
4.333	0.80	10.333	2.16	16.333	0.71	22.33	0.45
4.350	0.83	10.350	2.03	16.350	0.70	22.35	0.45
4.367	0.83	10.367	2.03	16.367	0.70	22.37	0.45
4.383	0.83	10.383	2.03	16.383	0.70	22.38	0.45
4.400	0.83	10.400	2.03	16.400	0.70	22.40	0.45
4.417	0.83	10.417	2.03	16.417	0.70	22.42	0.45
4.433	0.83	10.433	2.03	16.433	0.70	22.43	0.45
4.450	0.83	10.450	2.03	16.450	0.70	22.45	0.45
4.467	0.83	10.467	2.03	16.467	0.70	22.47	0.45
4.483	0.83	10.483	2.03	16.483	0.70	22.48	0.45
4.500	0.83	10.500	2.03	16.500	0.70	22.50	0.45
4.517	0.87	10.517	1.92	16.517	0.69	22.52	0.44
4.533	0.87	10.533	1.92	16.533	0.69	22.53	0.44
4.550	0.87	10.550	1.92	16.550	0.69	22.55	0.44
4.567	0.87	10.567	1.92	16.567	0.69	22.57	0.44
4.583	0.87	10.583	1.92	16.583	0.69	22.58	0.44
4.600	0.87	10.600	1.92	16.600	0.69	22.60	0.44
4.617	0.87	10.617	1.92	16.617	0.69	22.62	0.44
4.633	0.87	10.633	1.92	16.633	0.69	22.63	0.44
4.650	0.87	10.650	1.92	16.650	0.69	22.65	0.44
4.667	0.87	10.667	1.92	16.667	0.69	22.67	0.44
4.683	0.91	10.683	1.82	16.683	0.68	22.68	0.44
4.700	0.91	10.700	1.82	16.700	0.68	22.70	0.44
4.717	0.91	10.717	1.82	16.717	0.68	22.72	0.44
4.733	0.91	10.733	1.82	16.733	0.68	22.73	0.44
4.750	0.91	10.750	1.82	16.750	0.68	22.75	0.44
4.767	0.91	10.767	1.82	16.767	0.68	22.77	0.44
4.783	0.91	10.783	1.82	16.783	0.68	22.78	0.44
4.800	0.91	10.800	1.82	16.800	0.68	22.80	0.44
4.817	0.91	10.817	1.82	16.817	0.68	22.82	0.44
4.833	0.91	10.833	1.82	16.833	0.68	22.83	0.44
4.850	0.95	10.850	1.73	16.850	0.67	22.85	0.44
4.867	0.95	10.867	1.73	16.867	0.67	22.87	0.44
4.883	0.95	10.883	1.73	16.883	0.67	22.88	0.44
4.900	0.95	10.900	1.73	16.900	0.67	22.90	0.44
4.917	0.95	10.917	1.73	16.917	0.67	22.92	0.44
4.933	0.95	10.933	1.73	16.933	0.67	22.93	0.44
4.950	0.95	10.950	1.73	16.950	0.67	22.95	0.44
4.967	0.95	10.967	1.73	16.967	0.67	22.97	0.44
4.983	0.95	10.983	1.73	16.983	0.67	22.98	0.44
5.000	0.95	11.000	1.73	17.000	0.67	23.00	0.44
5.017	1.00	11.017	1.65	17.017	0.66	23.02	0.43
5.033	1.00	11.033	1.65	17.033	0.66	23.03	0.43
5.050	1.00	11.050	1.65	17.050	0.66	23.05	0.43
5.067	1.00	11.067	1.65	17.067	0.66	23.07	0.43
5.083	1.00	11.083	1.65	17.083	0.66	23.08	0.43
5.100	1.00	11.100	1.65	17.100	0.66	23.10	0.43
5.117	1.00	11.117	1.65	17.117	0.66	23.12	0.43
5.133	1.00	11.133	1.65	17.133	0.66	23.13	0.43

5.150	1.00	11.150	1.65	17.150	0.66	23.15	0.43
5.167	1.00	11.167	1.64	17.167	0.66	23.17	0.43
5.183	1.06	11.183	1.57	17.183	0.65	23.18	0.43
5.200	1.06	11.200	1.57	17.200	0.65	23.20	0.43
5.217	1.06	11.217	1.57	17.217	0.65	23.22	0.43
5.233	1.06	11.233	1.57	17.233	0.65	23.23	0.43
5.250	1.06	11.250	1.57	17.250	0.65	23.25	0.43
5.267	1.06	11.267	1.57	17.267	0.65	23.27	0.43
5.283	1.06	11.283	1.57	17.283	0.65	23.28	0.43
5.300	1.06	11.300	1.57	17.300	0.65	23.30	0.43
5.317	1.06	11.317	1.57	17.317	0.65	23.32	0.43
5.333	1.06	11.333	1.57	17.333	0.65	23.33	0.43
5.350	1.12	11.350	1.51	17.350	0.64	23.35	0.42
5.367	1.12	11.367	1.51	17.367	0.64	23.37	0.42
5.383	1.12	11.383	1.51	17.383	0.64	23.38	0.42
5.400	1.12	11.400	1.51	17.400	0.64	23.40	0.42
5.417	1.12	11.417	1.51	17.417	0.64	23.42	0.42
5.433	1.12	11.433	1.51	17.433	0.64	23.43	0.42
5.450	1.12	11.450	1.51	17.450	0.64	23.45	0.42
5.467	1.12	11.467	1.51	17.467	0.64	23.47	0.42
5.483	1.12	11.483	1.51	17.483	0.64	23.48	0.42
5.500	1.12	11.500	1.51	17.500	0.64	23.50	0.42
5.517	1.19	11.517	1.45	17.517	0.63	23.52	0.42
5.533	1.19	11.533	1.45	17.533	0.63	23.53	0.42
5.550	1.19	11.550	1.45	17.550	0.63	23.55	0.42
5.567	1.19	11.567	1.45	17.567	0.63	23.57	0.42
5.583	1.19	11.583	1.45	17.583	0.63	23.58	0.42
5.600	1.19	11.600	1.45	17.600	0.63	23.60	0.42
5.617	1.19	11.617	1.45	17.617	0.63	23.62	0.42
5.633	1.19	11.633	1.45	17.633	0.63	23.63	0.42
5.650	1.19	11.650	1.45	17.650	0.63	23.65	0.42
5.667	1.19	11.667	1.45	17.667	0.63	23.67	0.42
5.683	1.27	11.683	1.39	17.683	0.62	23.68	0.42
5.700	1.27	11.700	1.39	17.700	0.62	23.70	0.42
5.717	1.27	11.717	1.39	17.717	0.62	23.72	0.42
5.733	1.27	11.733	1.39	17.733	0.62	23.73	0.42
5.750	1.27	11.750	1.39	17.750	0.62	23.75	0.42
5.767	1.27	11.767	1.39	17.767	0.62	23.77	0.42
5.783	1.27	11.783	1.39	17.783	0.62	23.78	0.42
5.800	1.27	11.800	1.39	17.800	0.62	23.80	0.42
5.817	1.27	11.817	1.39	17.817	0.62	23.82	0.42
5.833	1.27	11.833	1.39	17.833	0.62	23.83	0.42
5.850	1.36	11.850	1.34	17.850	0.61	23.85	0.41
5.867	1.36	11.867	1.34	17.867	0.61	23.87	0.41
5.883	1.36	11.883	1.34	17.883	0.61	23.88	0.41
5.900	1.36	11.900	1.34	17.900	0.61	23.90	0.41
5.917	1.36	11.917	1.34	17.917	0.61	23.92	0.41
5.933	1.36	11.933	1.34	17.933	0.61	23.93	0.41
5.950	1.36	11.950	1.34	17.950	0.61	23.95	0.41
5.967	1.36	11.967	1.34	17.967	0.61	23.97	0.41
5.983	1.36	11.983	1.34	17.983	0.61	23.98	0.41
6.000	1.36	12.000	1.34	18.000	0.61	24.00	0.41

Max.Eff.Inten.(mm/hr)=	84.13	10.99	
over (min)	5.00	14.00	
Storage Coeff. (min)=	4.44 (ii)	13.21 (ii)	
Unit Hyd. Tpeak (min)=	5.00	14.00	
Unit Hyd. peak (cms)=	0.24	0.08	
			TOTALS
PEAK FLOW (cms)=	0.29	0.04	0.307 (iii)
TIME TO PEAK (hrs)=	8.02	8.20	8.02
RUNOFF VOLUME (mm)=	52.25	8.14	24.90
TOTAL RAINFALL (mm)=	53.26	53.26	53.26
RUNOFF COEFFICIENT =	0.98	0.15	0.47

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 48.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (1022)	Area (ha)=	2.86	
ID= 1 DT= 1.0 min	Total Imp(%)=	41.00	Dir. Conn.(%)= 35.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	1.17	1.69
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	0.50	2.00
Length	(m)=	138.06	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 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
0.017	0.42	6.017	1.47	12.017	1.29	18.02	0.60
0.033	0.42	6.033	1.47	12.033	1.29	18.03	0.60
0.050	0.42	6.050	1.47	12.050	1.29	18.05	0.60
0.067	0.42	6.067	1.47	12.067	1.29	18.07	0.60
0.083	0.42	6.083	1.47	12.083	1.29	18.08	0.60
0.100	0.42	6.100	1.47	12.100	1.29	18.10	0.60
0.117	0.42	6.117	1.47	12.117	1.29	18.12	0.60
0.133	0.42	6.133	1.47	12.133	1.29	18.13	0.60
0.150	0.42	6.150	1.47	12.150	1.29	18.15	0.60
0.167	0.42	6.167	1.47	12.167	1.29	18.17	0.60
0.183	0.43	6.183	1.61	12.183	1.25	18.18	0.59
0.200	0.43	6.200	1.61	12.200	1.25	18.20	0.59
0.217	0.43	6.217	1.61	12.217	1.25	18.22	0.59

0.233	0.43	6.233	1.61	12.233	1.25	18.23	0.59
0.250	0.43	6.250	1.61	12.250	1.25	18.25	0.59
0.267	0.43	6.267	1.61	12.267	1.25	18.27	0.59
0.283	0.43	6.283	1.61	12.283	1.25	18.28	0.59
0.300	0.43	6.300	1.61	12.300	1.25	18.30	0.59
0.317	0.43	6.317	1.61	12.317	1.25	18.32	0.59
0.333	0.43	6.333	1.61	12.333	1.25	18.33	0.59
0.350	0.44	6.350	1.77	12.350	1.21	18.35	0.59
0.367	0.44	6.367	1.77	12.367	1.21	18.37	0.59
0.383	0.44	6.383	1.77	12.383	1.21	18.38	0.59
0.400	0.44	6.400	1.77	12.400	1.21	18.40	0.59
0.417	0.44	6.417	1.77	12.417	1.21	18.42	0.59
0.433	0.44	6.433	1.77	12.433	1.21	18.43	0.59
0.450	0.44	6.450	1.77	12.450	1.21	18.45	0.59
0.467	0.44	6.467	1.77	12.467	1.21	18.47	0.59
0.483	0.44	6.483	1.77	12.483	1.21	18.48	0.59
0.500	0.44	6.500	1.77	12.500	1.21	18.50	0.59
0.517	0.44	6.517	1.97	12.517	1.17	18.52	0.58
0.533	0.44	6.533	1.97	12.533	1.17	18.53	0.58
0.550	0.44	6.550	1.97	12.550	1.17	18.55	0.58
0.567	0.44	6.567	1.97	12.567	1.17	18.57	0.58
0.583	0.44	6.583	1.97	12.583	1.17	18.58	0.58
0.600	0.44	6.600	1.97	12.600	1.17	18.60	0.58
0.617	0.44	6.617	1.97	12.617	1.17	18.62	0.58
0.633	0.44	6.633	1.97	12.633	1.17	18.63	0.58
0.650	0.44	6.650	1.97	12.650	1.17	18.65	0.58
0.667	0.44	6.667	1.97	12.667	1.17	18.67	0.58
0.683	0.45	6.683	2.23	12.683	1.14	18.68	0.57
0.700	0.45	6.700	2.23	12.700	1.14	18.70	0.57
0.717	0.45	6.717	2.23	12.717	1.14	18.72	0.57
0.733	0.45	6.733	2.23	12.733	1.14	18.73	0.57
0.750	0.45	6.750	2.23	12.750	1.14	18.75	0.57
0.767	0.45	6.767	2.23	12.767	1.14	18.77	0.57
0.783	0.45	6.783	2.23	12.783	1.14	18.78	0.57
0.800	0.45	6.800	2.23	12.800	1.14	18.80	0.57
0.817	0.45	6.817	2.23	12.817	1.14	18.82	0.57
0.833	0.45	6.833	2.23	12.833	1.14	18.83	0.57
0.850	0.46	6.850	2.59	12.850	1.10	18.85	0.56
0.867	0.46	6.867	2.59	12.867	1.10	18.87	0.56
0.883	0.46	6.883	2.59	12.883	1.10	18.88	0.56
0.900	0.46	6.900	2.59	12.900	1.10	18.90	0.56
0.917	0.46	6.917	2.59	12.917	1.10	18.92	0.56
0.933	0.46	6.933	2.59	12.933	1.10	18.93	0.56
0.950	0.46	6.950	2.59	12.950	1.10	18.95	0.56
0.967	0.46	6.967	2.59	12.967	1.10	18.97	0.56
0.983	0.46	6.983	2.59	12.983	1.10	18.98	0.56
1.000	0.46	7.000	2.59	13.000	1.10	19.00	0.56
1.017	0.47	7.017	3.09	13.017	1.07	19.02	0.56
1.033	0.47	7.033	3.09	13.033	1.07	19.03	0.56
1.050	0.47	7.050	3.09	13.050	1.07	19.05	0.56
1.067	0.47	7.067	3.09	13.067	1.07	19.07	0.56
1.083	0.47	7.083	3.09	13.083	1.07	19.08	0.56

1.100	0.47	7.100	3.09	13.100	1.07	19.10	0.56
1.117	0.47	7.117	3.09	13.117	1.07	19.12	0.56
1.133	0.47	7.133	3.09	13.133	1.07	19.13	0.56
1.150	0.47	7.150	3.09	13.150	1.07	19.15	0.56
1.167	0.47	7.167	3.09	13.167	1.07	19.17	0.56
1.183	0.48	7.183	3.86	13.183	1.04	19.18	0.55
1.200	0.48	7.200	3.86	13.200	1.04	19.20	0.55
1.217	0.48	7.217	3.86	13.217	1.04	19.22	0.55
1.233	0.48	7.233	3.86	13.233	1.04	19.23	0.55
1.250	0.48	7.250	3.86	13.250	1.04	19.25	0.55
1.267	0.48	7.267	3.86	13.267	1.04	19.27	0.55
1.283	0.48	7.283	3.86	13.283	1.04	19.28	0.55
1.300	0.48	7.300	3.86	13.300	1.04	19.30	0.55
1.317	0.48	7.317	3.86	13.317	1.04	19.32	0.55
1.333	0.48	7.333	3.86	13.333	1.04	19.33	0.55
1.350	0.49	7.350	5.21	13.350	1.02	19.35	0.54
1.367	0.49	7.367	5.21	13.367	1.02	19.37	0.54
1.383	0.49	7.383	5.21	13.383	1.02	19.38	0.54
1.400	0.49	7.400	5.21	13.400	1.02	19.40	0.54
1.417	0.49	7.417	5.21	13.417	1.02	19.42	0.54
1.433	0.49	7.433	5.21	13.433	1.02	19.43	0.54
1.450	0.49	7.450	5.21	13.450	1.02	19.45	0.54
1.467	0.49	7.467	5.21	13.467	1.02	19.47	0.54
1.483	0.49	7.483	5.21	13.483	1.02	19.48	0.54
1.500	0.49	7.500	5.22	13.500	1.02	19.50	0.54
1.517	0.50	7.517	8.22	13.517	0.99	19.52	0.54
1.533	0.50	7.533	8.22	13.533	0.99	19.53	0.54
1.550	0.50	7.550	8.22	13.550	0.99	19.55	0.54
1.567	0.50	7.567	8.22	13.567	0.99	19.57	0.54
1.583	0.50	7.583	8.22	13.583	0.99	19.58	0.54
1.600	0.50	7.600	8.22	13.600	0.99	19.60	0.54
1.617	0.50	7.617	8.22	13.617	0.99	19.62	0.54
1.633	0.50	7.633	8.22	13.633	0.99	19.63	0.54
1.650	0.50	7.650	8.22	13.650	0.99	19.65	0.54
1.667	0.50	7.667	8.26	13.667	0.99	19.67	0.54
1.683	0.51	7.683	20.77	13.683	0.97	19.68	0.53
1.700	0.51	7.700	20.77	13.700	0.97	19.70	0.53
1.717	0.51	7.717	20.77	13.717	0.97	19.72	0.53
1.733	0.51	7.733	20.77	13.733	0.97	19.73	0.53
1.750	0.51	7.750	20.77	13.750	0.97	19.75	0.53
1.767	0.51	7.767	20.77	13.767	0.97	19.77	0.53
1.783	0.51	7.783	20.77	13.783	0.97	19.78	0.53
1.800	0.51	7.800	20.77	13.800	0.97	19.80	0.53
1.817	0.51	7.817	20.77	13.817	0.97	19.82	0.53
1.833	0.51	7.833	20.95	13.833	0.97	19.83	0.53
1.850	0.53	7.850	84.13	13.850	0.94	19.85	0.52
1.867	0.53	7.867	84.13	13.867	0.94	19.87	0.52
1.883	0.53	7.883	84.13	13.883	0.94	19.88	0.52
1.900	0.53	7.900	84.13	13.900	0.94	19.90	0.52
1.917	0.53	7.917	84.13	13.917	0.94	19.92	0.52
1.933	0.53	7.933	84.13	13.933	0.94	19.93	0.52
1.950	0.53	7.950	84.13	13.950	0.94	19.95	0.52

1.967	0.53	7.967	84.13	13.967	0.94	19.97	0.52
1.983	0.53	7.983	84.13	13.983	0.94	19.98	0.52
2.000	0.53	8.000	83.96	14.000	0.94	20.00	0.52
2.017	0.54	8.017	27.50	14.017	0.92	20.02	0.52
2.033	0.54	8.033	27.50	14.033	0.92	20.03	0.52
2.050	0.54	8.050	27.50	14.050	0.92	20.05	0.52
2.067	0.54	8.067	27.50	14.067	0.92	20.07	0.52
2.083	0.54	8.083	27.50	14.083	0.92	20.08	0.52
2.100	0.54	8.100	27.50	14.100	0.92	20.10	0.52
2.117	0.54	8.117	27.50	14.117	0.92	20.12	0.52
2.133	0.54	8.133	27.50	14.133	0.92	20.13	0.52
2.150	0.54	8.150	27.50	14.150	0.92	20.15	0.52
2.167	0.54	8.167	27.46	14.167	0.92	20.17	0.52
2.183	0.55	8.183	14.07	14.183	0.90	20.18	0.51
2.200	0.55	8.200	14.07	14.200	0.90	20.20	0.51
2.217	0.55	8.217	14.07	14.217	0.90	20.22	0.51
2.233	0.55	8.233	14.07	14.233	0.90	20.23	0.51
2.250	0.55	8.250	14.07	14.250	0.90	20.25	0.51
2.267	0.55	8.267	14.07	14.267	0.90	20.27	0.51
2.283	0.55	8.283	14.07	14.283	0.90	20.28	0.51
2.300	0.55	8.300	14.07	14.300	0.90	20.30	0.51
2.317	0.55	8.317	14.07	14.317	0.90	20.32	0.51
2.333	0.55	8.333	14.06	14.333	0.90	20.33	0.51
2.350	0.57	8.350	9.40	14.350	0.88	20.35	0.51
2.367	0.57	8.367	9.40	14.367	0.88	20.37	0.51
2.383	0.57	8.383	9.40	14.383	0.88	20.38	0.51
2.400	0.57	8.400	9.40	14.400	0.88	20.40	0.51
2.417	0.57	8.417	9.40	14.417	0.88	20.42	0.51
2.433	0.57	8.433	9.40	14.433	0.88	20.43	0.51
2.450	0.57	8.450	9.40	14.450	0.88	20.45	0.51
2.467	0.57	8.467	9.40	14.467	0.88	20.47	0.51
2.483	0.57	8.483	9.40	14.483	0.88	20.48	0.51
2.500	0.57	8.500	9.39	14.500	0.88	20.50	0.51
2.517	0.58	8.517	7.07	14.517	0.86	20.52	0.50
2.533	0.58	8.533	7.07	14.533	0.86	20.53	0.50
2.550	0.58	8.550	7.07	14.550	0.86	20.55	0.50
2.567	0.58	8.567	7.07	14.567	0.86	20.57	0.50
2.583	0.58	8.583	7.07	14.583	0.86	20.58	0.50
2.600	0.58	8.600	7.07	14.600	0.86	20.60	0.50
2.617	0.58	8.617	7.07	14.617	0.86	20.62	0.50
2.633	0.58	8.633	7.07	14.633	0.86	20.63	0.50
2.650	0.58	8.650	7.07	14.650	0.86	20.65	0.50
2.667	0.58	8.667	7.07	14.667	0.86	20.67	0.50
2.683	0.60	8.683	5.68	14.683	0.84	20.68	0.50
2.700	0.60	8.700	5.68	14.700	0.84	20.70	0.50
2.717	0.60	8.717	5.68	14.717	0.84	20.72	0.50
2.733	0.60	8.733	5.68	14.733	0.84	20.73	0.50
2.750	0.60	8.750	5.68	14.750	0.84	20.75	0.50
2.767	0.60	8.767	5.68	14.767	0.84	20.77	0.50
2.783	0.60	8.783	5.68	14.783	0.84	20.78	0.50
2.800	0.60	8.800	5.68	14.800	0.84	20.80	0.50
2.817	0.60	8.817	5.68	14.817	0.84	20.82	0.50

2.833	0.60	8.833	5.68	14.833	0.84	20.83	0.50
2.850	0.61	8.850	4.76	14.850	0.83	20.85	0.49
2.867	0.61	8.867	4.76	14.867	0.83	20.87	0.49
2.883	0.61	8.883	4.76	14.883	0.83	20.88	0.49
2.900	0.61	8.900	4.76	14.900	0.83	20.90	0.49
2.917	0.61	8.917	4.76	14.917	0.83	20.92	0.49
2.933	0.61	8.933	4.76	14.933	0.83	20.93	0.49
2.950	0.61	8.950	4.76	14.950	0.83	20.95	0.49
2.967	0.61	8.967	4.76	14.967	0.83	20.97	0.49
2.983	0.61	8.983	4.76	14.983	0.83	20.98	0.49
3.000	0.61	9.000	4.76	15.000	0.83	21.00	0.49
3.017	0.63	9.017	4.11	15.017	0.81	21.02	0.49
3.033	0.63	9.033	4.11	15.033	0.81	21.03	0.49
3.050	0.63	9.050	4.11	15.050	0.81	21.05	0.49
3.067	0.63	9.067	4.11	15.067	0.81	21.07	0.49
3.083	0.63	9.083	4.11	15.083	0.81	21.08	0.49
3.100	0.63	9.100	4.11	15.100	0.81	21.10	0.49
3.117	0.63	9.117	4.11	15.117	0.81	21.12	0.49
3.133	0.63	9.133	4.11	15.133	0.81	21.13	0.49
3.150	0.63	9.150	4.11	15.150	0.81	21.15	0.49
3.167	0.63	9.167	4.11	15.167	0.81	21.17	0.49
3.183	0.65	9.183	3.62	15.183	0.79	21.18	0.48
3.200	0.65	9.200	3.62	15.200	0.79	21.20	0.48
3.217	0.65	9.217	3.62	15.217	0.79	21.22	0.48
3.233	0.65	9.233	3.62	15.233	0.79	21.23	0.48
3.250	0.65	9.250	3.62	15.250	0.79	21.25	0.48
3.267	0.65	9.267	3.62	15.267	0.79	21.27	0.48
3.283	0.65	9.283	3.62	15.283	0.79	21.28	0.48
3.300	0.65	9.300	3.62	15.300	0.79	21.30	0.48
3.317	0.65	9.317	3.62	15.317	0.79	21.32	0.48
3.333	0.65	9.333	3.62	15.333	0.79	21.33	0.48
3.350	0.67	9.350	3.24	15.350	0.78	21.35	0.48
3.367	0.67	9.367	3.24	15.367	0.78	21.37	0.48
3.383	0.67	9.383	3.24	15.383	0.78	21.38	0.48
3.400	0.67	9.400	3.24	15.400	0.78	21.40	0.48
3.417	0.67	9.417	3.24	15.417	0.78	21.42	0.48
3.433	0.67	9.433	3.24	15.433	0.78	21.43	0.48
3.450	0.67	9.450	3.24	15.450	0.78	21.45	0.48
3.467	0.67	9.467	3.24	15.467	0.78	21.47	0.48
3.483	0.67	9.483	3.24	15.483	0.78	21.48	0.48
3.500	0.67	9.500	3.24	15.500	0.78	21.50	0.48
3.517	0.69	9.517	2.94	15.517	0.77	21.52	0.47
3.533	0.69	9.533	2.94	15.533	0.77	21.53	0.47
3.550	0.69	9.550	2.94	15.550	0.77	21.55	0.47
3.567	0.69	9.567	2.94	15.567	0.77	21.57	0.47
3.583	0.69	9.583	2.94	15.583	0.77	21.58	0.47
3.600	0.69	9.600	2.94	15.600	0.77	21.60	0.47
3.617	0.69	9.617	2.94	15.617	0.77	21.62	0.47
3.633	0.69	9.633	2.94	15.633	0.77	21.63	0.47
3.650	0.69	9.650	2.94	15.650	0.77	21.65	0.47
3.667	0.69	9.667	2.94	15.667	0.77	21.67	0.47
3.683	0.72	9.683	2.69	15.683	0.75	21.68	0.47

3.700	0.72	9.700	2.69	15.700	0.75	21.70	0.47
3.717	0.72	9.717	2.69	15.717	0.75	21.72	0.47
3.733	0.72	9.733	2.69	15.733	0.75	21.73	0.47
3.750	0.72	9.750	2.69	15.750	0.75	21.75	0.47
3.767	0.72	9.767	2.69	15.767	0.75	21.77	0.47
3.783	0.72	9.783	2.69	15.783	0.75	21.78	0.47
3.800	0.72	9.800	2.69	15.800	0.75	21.80	0.47
3.817	0.72	9.817	2.69	15.817	0.75	21.82	0.47
3.833	0.72	9.833	2.69	15.833	0.75	21.83	0.47
3.850	0.74	9.850	2.49	15.850	0.74	21.85	0.46
3.867	0.74	9.867	2.49	15.867	0.74	21.87	0.46
3.883	0.74	9.883	2.49	15.883	0.74	21.88	0.46
3.900	0.74	9.900	2.49	15.900	0.74	21.90	0.46
3.917	0.74	9.917	2.49	15.917	0.74	21.92	0.46
3.933	0.74	9.933	2.49	15.933	0.74	21.93	0.46
3.950	0.74	9.950	2.49	15.950	0.74	21.95	0.46
3.967	0.74	9.967	2.49	15.967	0.74	21.97	0.46
3.983	0.74	9.983	2.49	15.983	0.74	21.98	0.46
4.000	0.74	10.000	2.49	16.000	0.74	22.00	0.46
4.017	0.77	10.017	2.31	16.017	0.73	22.02	0.46
4.033	0.77	10.033	2.31	16.033	0.73	22.03	0.46
4.050	0.77	10.050	2.31	16.050	0.73	22.05	0.46
4.067	0.77	10.067	2.31	16.067	0.73	22.07	0.46
4.083	0.77	10.083	2.31	16.083	0.73	22.08	0.46
4.100	0.77	10.100	2.31	16.100	0.73	22.10	0.46
4.117	0.77	10.117	2.31	16.117	0.73	22.12	0.46
4.133	0.77	10.133	2.31	16.133	0.73	22.13	0.46
4.150	0.77	10.150	2.31	16.150	0.73	22.15	0.46
4.167	0.77	10.167	2.31	16.167	0.73	22.17	0.46
4.183	0.80	10.183	2.16	16.183	0.71	22.18	0.45
4.200	0.80	10.200	2.16	16.200	0.71	22.20	0.45
4.217	0.80	10.217	2.16	16.217	0.71	22.22	0.45
4.233	0.80	10.233	2.16	16.233	0.71	22.23	0.45
4.250	0.80	10.250	2.16	16.250	0.71	22.25	0.45
4.267	0.80	10.267	2.16	16.267	0.71	22.27	0.45
4.283	0.80	10.283	2.16	16.283	0.71	22.28	0.45
4.300	0.80	10.300	2.16	16.300	0.71	22.30	0.45
4.317	0.80	10.317	2.16	16.317	0.71	22.32	0.45
4.333	0.80	10.333	2.16	16.333	0.71	22.33	0.45
4.350	0.83	10.350	2.03	16.350	0.70	22.35	0.45
4.367	0.83	10.367	2.03	16.367	0.70	22.37	0.45
4.383	0.83	10.383	2.03	16.383	0.70	22.38	0.45
4.400	0.83	10.400	2.03	16.400	0.70	22.40	0.45
4.417	0.83	10.417	2.03	16.417	0.70	22.42	0.45
4.433	0.83	10.433	2.03	16.433	0.70	22.43	0.45
4.450	0.83	10.450	2.03	16.450	0.70	22.45	0.45
4.467	0.83	10.467	2.03	16.467	0.70	22.47	0.45
4.483	0.83	10.483	2.03	16.483	0.70	22.48	0.45
4.500	0.83	10.500	2.03	16.500	0.70	22.50	0.45
4.517	0.87	10.517	1.92	16.517	0.69	22.52	0.44
4.533	0.87	10.533	1.92	16.533	0.69	22.53	0.44
4.550	0.87	10.550	1.92	16.550	0.69	22.55	0.44

4.567	0.87	10.567	1.92	16.567	0.69	22.57	0.44
4.583	0.87	10.583	1.92	16.583	0.69	22.58	0.44
4.600	0.87	10.600	1.92	16.600	0.69	22.60	0.44
4.617	0.87	10.617	1.92	16.617	0.69	22.62	0.44
4.633	0.87	10.633	1.92	16.633	0.69	22.63	0.44
4.650	0.87	10.650	1.92	16.650	0.69	22.65	0.44
4.667	0.87	10.667	1.92	16.667	0.69	22.67	0.44
4.683	0.91	10.683	1.82	16.683	0.68	22.68	0.44
4.700	0.91	10.700	1.82	16.700	0.68	22.70	0.44
4.717	0.91	10.717	1.82	16.717	0.68	22.72	0.44
4.733	0.91	10.733	1.82	16.733	0.68	22.73	0.44
4.750	0.91	10.750	1.82	16.750	0.68	22.75	0.44
4.767	0.91	10.767	1.82	16.767	0.68	22.77	0.44
4.783	0.91	10.783	1.82	16.783	0.68	22.78	0.44
4.800	0.91	10.800	1.82	16.800	0.68	22.80	0.44
4.817	0.91	10.817	1.82	16.817	0.68	22.82	0.44
4.833	0.91	10.833	1.82	16.833	0.68	22.83	0.44
4.850	0.95	10.850	1.73	16.850	0.67	22.85	0.44
4.867	0.95	10.867	1.73	16.867	0.67	22.87	0.44
4.883	0.95	10.883	1.73	16.883	0.67	22.88	0.44
4.900	0.95	10.900	1.73	16.900	0.67	22.90	0.44
4.917	0.95	10.917	1.73	16.917	0.67	22.92	0.44
4.933	0.95	10.933	1.73	16.933	0.67	22.93	0.44
4.950	0.95	10.950	1.73	16.950	0.67	22.95	0.44
4.967	0.95	10.967	1.73	16.967	0.67	22.97	0.44
4.983	0.95	10.983	1.73	16.983	0.67	22.98	0.44
5.000	0.95	11.000	1.73	17.000	0.67	23.00	0.44
5.017	1.00	11.017	1.65	17.017	0.66	23.02	0.43
5.033	1.00	11.033	1.65	17.033	0.66	23.03	0.43
5.050	1.00	11.050	1.65	17.050	0.66	23.05	0.43
5.067	1.00	11.067	1.65	17.067	0.66	23.07	0.43
5.083	1.00	11.083	1.65	17.083	0.66	23.08	0.43
5.100	1.00	11.100	1.65	17.100	0.66	23.10	0.43
5.117	1.00	11.117	1.65	17.117	0.66	23.12	0.43
5.133	1.00	11.133	1.65	17.133	0.66	23.13	0.43
5.150	1.00	11.150	1.65	17.150	0.66	23.15	0.43
5.167	1.00	11.167	1.64	17.167	0.66	23.17	0.43
5.183	1.06	11.183	1.57	17.183	0.65	23.18	0.43
5.200	1.06	11.200	1.57	17.200	0.65	23.20	0.43
5.217	1.06	11.217	1.57	17.217	0.65	23.22	0.43
5.233	1.06	11.233	1.57	17.233	0.65	23.23	0.43
5.250	1.06	11.250	1.57	17.250	0.65	23.25	0.43
5.267	1.06	11.267	1.57	17.267	0.65	23.27	0.43
5.283	1.06	11.283	1.57	17.283	0.65	23.28	0.43
5.300	1.06	11.300	1.57	17.300	0.65	23.30	0.43
5.317	1.06	11.317	1.57	17.317	0.65	23.32	0.43
5.333	1.06	11.333	1.57	17.333	0.65	23.33	0.43
5.350	1.12	11.350	1.51	17.350	0.64	23.35	0.42
5.367	1.12	11.367	1.51	17.367	0.64	23.37	0.42
5.383	1.12	11.383	1.51	17.383	0.64	23.38	0.42
5.400	1.12	11.400	1.51	17.400	0.64	23.40	0.42
5.417	1.12	11.417	1.51	17.417	0.64	23.42	0.42

5.433	1.12	11.433	1.51	17.433	0.64	23.43	0.42
5.450	1.12	11.450	1.51	17.450	0.64	23.45	0.42
5.467	1.12	11.467	1.51	17.467	0.64	23.47	0.42
5.483	1.12	11.483	1.51	17.483	0.64	23.48	0.42
5.500	1.12	11.500	1.51	17.500	0.64	23.50	0.42
5.517	1.19	11.517	1.45	17.517	0.63	23.52	0.42
5.533	1.19	11.533	1.45	17.533	0.63	23.53	0.42
5.550	1.19	11.550	1.45	17.550	0.63	23.55	0.42
5.567	1.19	11.567	1.45	17.567	0.63	23.57	0.42
5.583	1.19	11.583	1.45	17.583	0.63	23.58	0.42
5.600	1.19	11.600	1.45	17.600	0.63	23.60	0.42
5.617	1.19	11.617	1.45	17.617	0.63	23.62	0.42
5.633	1.19	11.633	1.45	17.633	0.63	23.63	0.42
5.650	1.19	11.650	1.45	17.650	0.63	23.65	0.42
5.667	1.19	11.667	1.45	17.667	0.63	23.67	0.42
5.683	1.27	11.683	1.39	17.683	0.62	23.68	0.42
5.700	1.27	11.700	1.39	17.700	0.62	23.70	0.42
5.717	1.27	11.717	1.39	17.717	0.62	23.72	0.42
5.733	1.27	11.733	1.39	17.733	0.62	23.73	0.42
5.750	1.27	11.750	1.39	17.750	0.62	23.75	0.42
5.767	1.27	11.767	1.39	17.767	0.62	23.77	0.42
5.783	1.27	11.783	1.39	17.783	0.62	23.78	0.42
5.800	1.27	11.800	1.39	17.800	0.62	23.80	0.42
5.817	1.27	11.817	1.39	17.817	0.62	23.82	0.42
5.833	1.27	11.833	1.39	17.833	0.62	23.83	0.42
5.850	1.36	11.850	1.34	17.850	0.61	23.85	0.41
5.867	1.36	11.867	1.34	17.867	0.61	23.87	0.41
5.883	1.36	11.883	1.34	17.883	0.61	23.88	0.41
5.900	1.36	11.900	1.34	17.900	0.61	23.90	0.41
5.917	1.36	11.917	1.34	17.917	0.61	23.92	0.41
5.933	1.36	11.933	1.34	17.933	0.61	23.93	0.41
5.950	1.36	11.950	1.34	17.950	0.61	23.95	0.41
5.967	1.36	11.967	1.34	17.967	0.61	23.97	0.41
5.983	1.36	11.983	1.34	17.983	0.61	23.98	0.41
6.000	1.36	12.000	1.34	18.000	0.61	24.00	0.41

```
Max.Eff.Inten.(mm/hr)=      84.13          7.84
      over (min)            5.00         24.00
Storage Coeff.  (min)=      4.09 (ii)   23.63 (ii)
Unit Hyd. Tpeak (min)=      5.00         24.00
Unit Hyd. peak  (cms)=      0.26          0.05

                                                *TOTALS*
PEAK FLOW       (cms)=      0.21          0.02          0.211 (iii)
TIME TO PEAK    (hrs)=      8.02          8.38          8.02
RUNOFF VOLUME    (mm)=     52.25          7.95         23.46
TOTAL RAINFALL   (mm)=     53.26         53.26         53.26
RUNOFF COEFFICIENT   =      0.98          0.15          0.44

  (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
      CN*  =  48.0    Ia = Dep. Storage  (Above)
 (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
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          THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

------------------------------------------------------------------------------
-------------------
| DUHYD    (  0035)|
| Inlet Cap.= 0.202|
| #of Inlets=     1|
| Total(cms)=   0.2|      AREA     QPEAK     TPEAK     R.V.
-------------------      (ha)     (cms)     (hrs)     (mm)
     TOTAL HYD.(ID= 1):   2.86      0.21      8.02   23.46
     ================================================================
     MAJOR SYS.(ID= 2):   0.01      0.01      8.02   23.46
     MINOR SYS.(ID= 3):   2.85      0.20      8.00   23.46

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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-------------------
| ADD HYD  (  0102)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
-------------------        (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  1021):     3.77   0.307     8.02    24.90
     + ID2= 2 (  0035):     0.01   0.009     8.02    23.46
       ================================================================
       ID = 3 (  0102):     3.78   0.316     8.02    24.90

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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-------------------
| ADD HYD  (  0903)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
-------------------        (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0102):     3.78   0.316     8.02    24.90
     + ID2= 2 (  0902):    15.67   1.058     8.05    24.03
       ================================================================
       ID = 3 (  0903):    19.44   1.360     8.03    24.20

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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-------------------
| CALIB            |
| NASHYD   (  1051)|   Area     (ha)=   1.62   Curve Number   (CN)= 60.0
|ID= 1 DT= 5.0 min |   Ia       (mm)=   5.00   # of Linear Res.(N)= 3.00
-------------------   U.H. Tp(hrs)=   1.87

        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	0.42	6.083	1.47	12.083	1.29	18.08	0.60
0.167	0.42	6.167	1.47	12.167	1.29	18.17	0.60
0.250	0.43	6.250	1.61	12.250	1.25	18.25	0.59
0.333	0.43	6.333	1.61	12.333	1.25	18.33	0.59
0.417	0.44	6.417	1.77	12.417	1.21	18.42	0.59
0.500	0.44	6.500	1.77	12.500	1.21	18.50	0.59
0.583	0.44	6.583	1.97	12.583	1.17	18.58	0.58
0.667	0.44	6.667	1.97	12.667	1.17	18.67	0.58
0.750	0.45	6.750	2.23	12.750	1.14	18.75	0.57
0.833	0.45	6.833	2.23	12.833	1.14	18.83	0.57
0.917	0.46	6.917	2.59	12.917	1.10	18.92	0.56
1.000	0.46	7.000	2.59	13.000	1.10	19.00	0.56
1.083	0.47	7.083	3.09	13.083	1.07	19.08	0.56
1.167	0.47	7.167	3.09	13.167	1.07	19.17	0.56
1.250	0.48	7.250	3.86	13.250	1.04	19.25	0.55
1.333	0.48	7.333	3.86	13.333	1.04	19.33	0.55
1.417	0.49	7.417	5.21	13.417	1.02	19.42	0.54
1.500	0.49	7.500	5.21	13.500	1.02	19.50	0.54
1.583	0.50	7.583	8.22	13.583	0.99	19.58	0.54
1.667	0.50	7.667	8.23	13.667	0.99	19.67	0.54
1.750	0.51	7.750	20.77	13.750	0.97	19.75	0.53
1.833	0.51	7.833	20.77	13.833	0.97	19.83	0.53
1.917	0.53	7.917	84.13	13.917	0.94	19.92	0.52
2.000	0.53	8.000	84.13	14.000	0.94	20.00	0.52
2.083	0.54	8.083	27.50	14.083	0.92	20.08	0.52
2.167	0.54	8.167	27.50	14.167	0.92	20.17	0.52
2.250	0.55	8.250	14.07	14.250	0.90	20.25	0.51
2.333	0.55	8.333	14.07	14.333	0.90	20.33	0.51
2.417	0.57	8.417	9.40	14.417	0.88	20.42	0.51
2.500	0.57	8.500	9.40	14.500	0.88	20.50	0.51
2.583	0.58	8.583	7.07	14.583	0.86	20.58	0.50
2.667	0.58	8.667	7.07	14.667	0.86	20.67	0.50
2.750	0.60	8.750	5.68	14.750	0.84	20.75	0.50
2.833	0.60	8.833	5.68	14.833	0.84	20.83	0.50
2.917	0.61	8.917	4.76	14.917	0.83	20.92	0.49
3.000	0.61	9.000	4.76	15.000	0.83	21.00	0.49
3.083	0.63	9.083	4.11	15.083	0.81	21.08	0.49
3.167	0.63	9.167	4.11	15.167	0.81	21.17	0.49
3.250	0.65	9.250	3.62	15.250	0.79	21.25	0.48
3.333	0.65	9.333	3.62	15.333	0.79	21.33	0.48
3.417	0.67	9.417	3.24	15.417	0.78	21.42	0.48
3.500	0.67	9.500	3.24	15.500	0.78	21.50	0.48
3.583	0.69	9.583	2.94	15.583	0.77	21.58	0.47
3.667	0.69	9.667	2.94	15.667	0.77	21.67	0.47
3.750	0.72	9.750	2.69	15.750	0.75	21.75	0.47
3.833	0.72	9.833	2.69	15.833	0.75	21.83	0.47
3.917	0.74	9.917	2.49	15.917	0.74	21.92	0.46
4.000	0.74	10.000	2.49	16.000	0.74	22.00	0.46
4.083	0.77	10.083	2.31	16.083	0.73	22.08	0.46
4.167	0.77	10.167	2.31	16.167	0.73	22.17	0.46
4.250	0.80	10.250	2.16	16.250	0.71	22.25	0.45
4.333	0.80	10.333	2.16	16.333	0.71	22.33	0.45
4.417	0.83	10.417	2.03	16.417	0.70	22.42	0.45
4.500	0.83	10.500	2.03	16.500	0.70	22.50	0.45
4.583	0.87	10.583	1.92	16.583	0.69	22.58	0.44
4.667	0.87	10.667	1.92	16.667	0.69	22.67	0.44
4.750	0.91	10.750	1.82	16.750	0.68	22.75	0.44
4.833	0.91	10.833	1.82	16.833	0.68	22.83	0.44
4.917	0.95	10.917	1.73	16.917	0.67	22.92	0.44
5.000	0.95	11.000	1.73	17.000	0.67	23.00	0.44
5.083	1.00	11.083	1.65	17.083	0.66	23.08	0.43
5.167	1.00	11.167	1.65	17.167	0.66	23.17	0.43
5.250	1.06	11.250	1.57	17.250	0.65	23.25	0.43
5.333	1.06	11.333	1.57	17.333	0.65	23.33	0.43
5.417	1.12	11.417	1.51	17.417	0.64	23.42	0.42
5.500	1.12	11.500	1.51	17.500	0.64	23.50	0.42
5.583	1.19	11.583	1.45	17.583	0.63	23.58	0.42
5.667	1.19	11.667	1.45	17.667	0.63	23.67	0.42
5.750	1.27	11.750	1.39	17.750	0.62	23.75	0.42
5.833	1.27	11.833	1.39	17.833	0.62	23.83	0.42
5.917	1.36	11.917	1.34	17.917	0.61	23.92	0.41
6.000	1.36	12.000	1.34	18.000	0.61	24.00	0.41

Unit Hyd Qpeak (cms)= 0.033

PEAK FLOW (cms)= 0.008 (i)
TIME TO PEAK (hrs)= 10.333
RUNOFF VOLUME (mm)= 10.701
TOTAL RAINFALL (mm)= 53.260
RUNOFF COEFFICIENT = 0.201

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

ADD HYD (0105)		AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3	ID1= 1 (1051):	1.62	0.008	10.33	10.70
	+ ID2= 2 (0037):	0.00	0.002	8.02	19.22
	ID = 3 (0105):	1.62	0.008	10.33	10.71

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0906)		AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3	ID1= 1 (0105):	1.62	0.008	10.33	10.71
	+ ID2= 2 (0903):	19.44	1.360	8.03	24.20
	ID = 3 (0906):	21.07	1.360	8.03	23.16

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB					
NASHYD (0201)	Area (ha)= 6.97	Curve Number (CN)= 66.0			
ID= 1 DT= 5.0 min	Ia (mm)= 5.00	# of Linear Res.(N)= 3.00			
	U.H. Tp(hrs)= 0.74				

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	0.42	6.083	1.47	12.083	1.29	18.08	0.60
0.167	0.42	6.167	1.47	12.167	1.29	18.17	0.60
0.250	0.43	6.250	1.61	12.250	1.25	18.25	0.59
0.333	0.43	6.333	1.61	12.333	1.25	18.33	0.59
0.417	0.44	6.417	1.77	12.417	1.21	18.42	0.59
0.500	0.44	6.500	1.77	12.500	1.21	18.50	0.59
0.583	0.44	6.583	1.97	12.583	1.17	18.58	0.58
0.667	0.44	6.667	1.97	12.667	1.17	18.67	0.58
0.750	0.45	6.750	2.23	12.750	1.14	18.75	0.57
0.833	0.45	6.833	2.23	12.833	1.14	18.83	0.57
0.917	0.46	6.917	2.59	12.917	1.10	18.92	0.56
1.000	0.46	7.000	2.59	13.000	1.10	19.00	0.56
1.083	0.47	7.083	3.09	13.083	1.07	19.08	0.56
1.167	0.47	7.167	3.09	13.167	1.07	19.17	0.56
1.250	0.48	7.250	3.86	13.250	1.04	19.25	0.55
1.333	0.48	7.333	3.86	13.333	1.04	19.33	0.55
1.417	0.49	7.417	5.21	13.417	1.02	19.42	0.54
1.500	0.49	7.500	5.21	13.500	1.02	19.50	0.54
1.583	0.50	7.583	8.22	13.583	0.99	19.58	0.54
1.667	0.50	7.667	8.23	13.667	0.99	19.67	0.54
1.750	0.51	7.750	20.77	13.750	0.97	19.75	0.53
1.833	0.51	7.833	20.77	13.833	0.97	19.83	0.53
1.917	0.53	7.917	84.13	13.917	0.94	19.92	0.52
2.000	0.53	8.000	84.13	14.000	0.94	20.00	0.52
2.083	0.54	8.083	27.50	14.083	0.92	20.08	0.52
2.167	0.54	8.167	27.50	14.167	0.92	20.17	0.52
2.250	0.55	8.250	14.07	14.250	0.90	20.25	0.51
2.333	0.55	8.333	14.07	14.333	0.90	20.33	0.51
2.417	0.57	8.417	9.40	14.417	0.88	20.42	0.51
2.500	0.57	8.500	9.40	14.500	0.88	20.50	0.51
2.583	0.58	8.583	7.07	14.583	0.86	20.58	0.50
2.667	0.58	8.667	7.07	14.667	0.86	20.67	0.50
2.750	0.60	8.750	5.68	14.750	0.84	20.75	0.50
2.833	0.60	8.833	5.68	14.833	0.84	20.83	0.50

NASHYD (0202)	Area (ha)= 2.71	Curve Number (CN)= 68.0			
ID= 1 DT= 5.0 min	Ia (mm)= 5.00	# of Linear Res.(N)= 3.00			
	U.H. Tp(hrs)= 0.93				

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	0.42	6.083	1.47	12.083	1.29	18.08	0.60
0.167	0.42	6.167	1.47	12.167	1.29	18.17	0.60
0.250	0.43	6.250	1.61	12.250	1.25	18.25	0.59
0.333	0.43	6.333	1.61	12.333	1.25	18.33	0.59
0.417	0.44	6.417	1.77	12.417	1.21	18.42	0.59
0.500	0.44	6.500	1.77	12.500	1.21	18.50	0.59
0.583	0.44	6.583	1.97	12.583	1.17	18.58	0.58
0.667	0.44	6.667	1.97	12.667	1.17	18.67	0.58
0.750	0.45	6.750	2.23	12.750	1.14	18.75	0.57
0.833	0.45	6.833	2.23	12.833	1.14	18.83	0.57
0.917	0.46	6.917	2.59	12.917	1.10	18.92	0.56
1.000	0.46	7.000	2.59	13.000	1.10	19.00	0.56
1.083	0.47	7.083	3.09	13.083	1.07	19.08	0.56
1.167	0.47	7.167	3.09	13.167	1.07	19.17	0.56
1.250	0.48	7.250	3.86	13.250	1.04	19.25	0.55
1.333	0.48	7.333	3.86	13.333	1.04	19.33	0.55
1.417	0.49	7.417	5.21	13.417	1.02	19.42	0.54
1.500	0.49	7.500	5.21	13.500	1.02	19.50	0.54
1.583	0.50	7.583	8.22	13.583	0.99	19.58	0.54
1.667	0.50	7.667	8.23	13.667	0.99	19.67	0.54
1.750	0.51	7.750	20.77	13.750	0.97	19.75	0.53
1.833	0.51	7.833	20.77	13.833	0.97	19.83	0.53
1.917	0.53	7.917	84.13	13.917	0.94	19.92	0.52
2.000	0.53	8.000	84.13	14.000	0.94	20.00	0.52
2.083	0.54	8.083	27.50	14.083	0.92	20.08	0.52
2.167	0.54	8.167	27.50	14.167	0.92	20.17	0.52
2.250	0.55	8.250	14.07	14.250	0.90	20.25	0.51
2.333	0.55	8.333	14.07	14.333	0.90	20.33	0.51
2.417	0.57	8.417	9.40	14.417	0.88	20.42	0.51
2.500	0.57	8.500	9.40	14.500	0.88	20.50	0.51
2.583	0.58	8.583	7.07	14.583	0.86	20.58	0.50
2.667	0.58	8.667	7.07	14.667	0.86	20.67	0.50
2.750	0.60	8.750	5.68	14.750	0.84	20.75	0.50
2.833	0.60	8.833	5.68	14.833	0.84	20.83	0.50
2.917	0.61	8.917	4.76	14.917	0.83	20.92	0.49
3.000	0.61	9.000	4.76	15.000	0.83	21.00	0.49
3.083	0.63	9.083	4.11	15.083	0.81	21.08	0.49
3.167	0.63	9.167	4.11	15.167	0.81	21.17	0.49
3.250	0.65	9.250	3.62	15.250	0.79	21.25	0.48
3.333	0.65	9.333	3.62	15.333	0.79	21.33	0.48
3.417	0.67	9.417	3.24	15.417	0.78	21.42	0.48
3.500	0.67	9.500	3.24	15.500	0.78	21.50	0.48
3.583	0.69	9.583	2.94	15.583	0.77	21.58	0.47
3.667	0.69	9.667	2.94	15.667	0.77	21.67	0.47
3.750	0.72	9.750	2.69	15.750	0.75	21.75	0.47
3.833	0.72	9.833	2.69	15.833	0.75	21.83	0.47
3.917	0.74	9.917	2.49	15.917	0.74	21.92	0.46
4.000	0.74	10.000	2.49	16.000	0.74	22.00	0.46
4.083	0.77	10.083	2.31	16.083	0.73	22.08	0.46
4.167	0.77	10.167	2.31	16.167	0.73	22.17	0.46
4.250	0.80	10.250	2.16	16.250	0.71	22.25	0.45
4.333	0.80	10.333	2.16	16.333	0.71	22.33	0.45
4.417	0.83	10.417	2.03	16.417	0.70	22.42	0.45
4.500	0.83	10.500	2.03	16.500	0.70	22.50	0.45
4.583	0.87	10.583	1.92	16.583	0.69	22.58	0.44
4.667	0.87	10.667	1.92	16.667	0.69	22.67	0.44
4.750	0.91	10.750	1.82	16.750	0.68	22.75	0.44
4.833	0.91	10.833	1.82	16.833	0.68	22.83	0.44
4.917	0.95	10.917	1.73	16.917	0.67	22.92	0.44
5.000	0.95	11.000	1.73	17.000	0.67	23.00	0.44
5.083	1.00	11.083	1.65	17.083	0.66	23.08	0.43
5.167	1.00	11.167	1.65	17.167	0.66	23.17	0.43
5.250	1.06	11.250	1.57	17.250	0.65	23.25	0.43
5.333	1.06	11.333	1.57	17.333	0.65	23.33	0.43
5.417	1.12	11.417	1.51	17.417	0.64	23.42	0.42
5.500	1.12	11.500	1.51	17.500	0.64	23.50	0.42
5.583	1.19	11.583	1.45	17.583	0.63	23.58	0.42
5.667	1.19	11.667	1.45	17.667	0.63	23.67	0.42
5.750	1.27	11.750	1.39	17.750	0.62	23.75	0.42
5.833	1.27	11.833	1.39	17.833	0.62	23.83	0.42
5.917	1.36	11.917	1.34	17.917	0.61	23.92	0.41
6.000	1.36	12.000	1.34	18.000	0.61	24.00	0.41

Unit Hyd Qpeak (cms)= 0.111

PEAK FLOW (cms)= 0.028 (i)
TIME TO PEAK (hrs)= 9.167
RUNOFF VOLUME (mm)= 13.880
TOTAL RAINFALL (mm)= 53.260
RUNOFF COEFFICIENT = 0.261

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

ADD HYD (0904)		AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3	ID1= 1 (0201):	6.97	0.080	8.92	13.00
	+ ID2= 2 (0202):	2.71	0.028	9.17	13.88
	ID = 3 (0904):	9.68	0.107	8.92	13.25

CALIB					
NASHYD (0204)	Area (ha)= 8.917	Curve Number (CN)= 66.0			
ID= 1 DT= 5.0 min	Ia (mm)= 5.00	# of Linear Res.(N)= 3.00			
	U.H. Tp(hrs)= 0.74				

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	0.42	6.083	1.47	12.083	1.29	18.08	0.60
0.167	0.42	6.167	1.47	12.167	1.29	18.17	0.60
0.250	0.43	6.250	1.61	12.250	1.25	18.25	0.59
0.333	0.43	6.333	1.61	12.333	1.25	18.33	0.59
0.417	0.44	6.417	1.77	12.417	1.21	18.42	0.59
0.500	0.44	6.500	1.77	12.500	1.21	18.50	0.59
0.583	0.44	6.583	1.97	12.583	1.17	18.58	0.58
0.667	0.44	6.667	1.97	12.667	1.17	18.67	0.58
0.750	0.45	6.750	2.23	12.750	1.14	18.75	0.57
0.833	0.45	6.833	2.23	12.833	1.14	18.83	0.57
0.917	0.46	6.917	2.59	12.917	1.10	18.92	0.56
1.000	0.46	7.000	2.59	13.000	1.10	19.00	0.56
1.083	0.47	7.083	3.09	13.083	1.07	19.08	0.56
1.167	0.47	7.167	3.09	13.167	1.07	19.17	0.56
1.250	0.48	7.250	3.86	13.250	1.04	19.25	0.55
1.333	0.48	7.333	3.86	13.333	1.04	19.33	0.55
1.417	0.49	7.417	5.21	13.417	1.02	19.42	0.54
1.500	0.49	7.500	5.21	13.500	1.02	19.50	0.54
1.583	0.50	7.583	8.22	13.583	0.99	19.58	0.54
1.667	0.50	7.667	8.23	13.667	0.99	19.67	0.54
1.750	0.51	7.750	20.77	13.750	0.97	19.75	0.53
1.833	0.51	7.833	20.77	13.833	0.97	19.83	0.53
1.917	0.53	7.917	84.13	13.917	0.94	19.92	0.52
2.000	0.53	8.000	84.13	14.000	0.94	20.00	0.52
2.083	0.54	8.083	27.50	14.083	0.92	20.08	0.52
2.167	0.54	8.167	27.50	14.167	0.92	20.17	0.52
2.250	0.55	8.250	14.07	14.250	0.90	20.25	0.51
2.333	0.55	8.333	14.07	14.333	0.90	20.33	0.51
2.417	0.57	8.417	9.40	14.417	0.88	20.42	0.51
2.500	0.57	8.500	9.40	14.500	0.88	20.50	0.51
2.583	0.58	8.583	7.07	14.583	0.86	20.58	0.50
2.667	0.58	8.667	7.07	14.667	0.86	20.67	0.50
2.750	0.60	8.750	5.68	14.750	0.84	20.75	0.50
2.833	0.60	8.833	5.68	14.833	0.84	20.83	0.50
2.917	0.61	8.917	4.76	14.917	0.83	20.92	0.49
3.000	0.61	9.000	4.76	15.000	0.83	21.00	0.49
3.083	0.63	9.083	4.11	15.083	0.81	21.08	0.49
3.167	0.63	9.167	4.11	15.167	0.81	21.17	0.49
3.250	0.65	9.250	3.62	15.250	0.79	21.25	0.48
3.333	0.65	9.333	3.62	15.333	0.79	21.33	0.48
3.417	0.67	9.417	3.24	15.417	0.78	21.42	0.48
3.500	0.67	9.500	3.24	15.500	0.78	21.50	0.48
3.583	0.69	9.583	2.94	15.583	0.77	21.58	0.47
3.667	0.69	9.667	2.94	15.667	0.77	21.67	0.47
3.750	0.72	9.750	2.69	15.750	0.75	21.75	0.47
3.833	0.72	9.833	2.69	15.833	0.75	21.83	0.47
3.917	0.74	9.917	2.49	15.917	0.74	21.92	0.46
4.000	0.74	10.000	2.49	16.000	0.74	22.00	0.46
4.083	0.77	10.083	2.31	16.083	0.73	22.08	0.46
4.167	0.77	10.167	2.31	16.167	0.73	22.17	0.46
4.250	0.80	10.250	2.16	16.250	0.71	22.25	0.45
4.333	0.80	10.333	2.16	16.333	0.71	22.33	0.45
4.417	0.83	10.417	2.03	16.417	0.70	22.42	0.45
4.500	0.83	10.500	2.03	16.500	0.70	22.50	0.45
4.583	0.87	10.583	1.92	16.583	0.69	22.58	0.44
4.667	0.87	10.667	1.92	16.667	0.69	22.67	0.44
4.750	0.91	10.750	1.82	16.750	0.68	22.75	0.44
4.833	0.91	10.833	1.82	16.833	0.68	22.83	0.44
4.917	0.95	10.917	1.73	16.917	0.67	22.92	0.44
5.000	0.95	11.000	1.73	17.000	0.67	23.00	0.44
5.083	1.00	11.083	1.65	17.083	0.66	23.08	0.43
5.167	1.00	11.167	1.65	17.167	0.66	23.17	0.43
5.250	1.06	11.250	1.57	17.250	0.65	23.25	0.43
5.333	1.06	11.333	1.57	17.333	0.65	23.33	0.43
5.417	1.12	11.417	1.51	17.417	0.64	23.42	0.42
5.500	1.12	11.500	1.51	17.500	0.64	23.50	0.42
5.583	1.19	11.583	1.45	17.583	0.63	23.58	0.42
5.667	1.19	11.667	1.45	17.667	0.63	23.67	0.42
5.750	1.27	11.750	1.39	17.750	0.62	23.75	0.42
5.833	1.27	11.833	1.39	17.833	0.62	23.83	0.42
5.917	1.36	11.917	1.34	17.917	0.61	23.92	0.41
6.000	1.36	12.000	1.34	18.000	0.61	24.00	0.41

Unit Hyd Qpeak (cms)= 0.360

PEAK FLOW (cms)= 0.080 (i)
TIME TO PEAK (hrs)= 8.917
RUNOFF VOLUME (mm)= 13.003
TOTAL RAINFALL (mm)= 53.260
RUNOFF COEFFICIENT = 0.244

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

CALIB					

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB	
NASHYD (0203)	Area (ha)= 34.30 Curve Number (CN)= 42.0
ID= 1 DT= 5.0 min	Ia (mm)= 5.00 # of Linear Res.(N)= 3.00
	U.H. Tp(hrs)= 1.40

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	0.42	6.083	1.47	12.083	1.29	18.08	0.60
0.167	0.42	6.167	1.47	12.167	1.29	18.17	0.60
0.250	0.43	6.250	1.61	12.250	1.25	18.25	0.59
0.333	0.43	6.333	1.61	12.333	1.25	18.33	0.59
0.417	0.44	6.417	1.77	12.417	1.21	18.42	0.59
0.500	0.44	6.500	1.77	12.500	1.21	18.50	0.59
0.583	0.44	6.583	1.97	12.583	1.17	18.58	0.58
0.667	0.44	6.667	1.97	12.667	1.17	18.67	0.58
0.750	0.45	6.750	2.23	12.750	1.14	18.75	0.57
0.833	0.45	6.833	2.23	12.833	1.14	18.83	0.57
0.917	0.46	6.917	2.59	12.917	1.10	18.92	0.56
1.000	0.46	7.000	2.59	13.000	1.10	19.00	0.56
1.083	0.47	7.083	3.09	13.083	1.07	19.08	0.56
1.167	0.47	7.167	3.09	13.167	1.07	19.17	0.56
1.250	0.48	7.250	3.86	13.250	1.04	19.25	0.55
1.333	0.48	7.333	3.86	13.333	1.04	19.33	0.55
1.417	0.49	7.417	5.21	13.417	1.02	19.42	0.54
1.500	0.49	7.500	5.21	13.500	1.02	19.50	0.54
1.583	0.50	7.583	8.22	13.583	0.99	19.58	0.54
1.667	0.50	7.667	8.23	13.667	0.99	19.67	0.54
1.750	0.51	7.750	20.77	13.750	0.97	19.75	0.53
1.833	0.51	7.833	20.77	13.833	0.97	19.83	0.53
1.917	0.53	7.917	84.13	13.917	0.94	19.92	0.52
2.000	0.53	8.000	84.13	14.000	0.94	20.00	0.52
2.083	0.54	8.083	27.50	14.083	0.92	20.08	0.52
2.167	0.54	8.167	27.50	14.167	0.92	20.17	0.52
2.250	0.55	8.250	14.07	14.250	0.90	20.25	0.51
2.333	0.55	8.333	14.07	14.333	0.90	20.33	0.51
2.417	0.57	8.417	9.40	14.417	0.88	20.42	0.51
2.500	0.57	8.500	9.40	14.500	0.88	20.50	0.51
2.583	0.58	8.583	7.07	14.583	0.86	20.58	0.50
2.667	0.58	8.667	7.07	14.667	0.86	20.67	0.50
2.750	0.60	8.750	5.68	14.750	0.84	20.75	0.50
2.833	0.60	8.833	5.68	14.833	0.84	20.83	0.50
2.917	0.61	8.917	4.76	14.917	0.83	20.92	0.49
3.000	0.61	9.000	4.76	15.000	0.83	21.00	0.49
3.083	0.63	9.083	4.11	15.083	0.81	21.08	0.49
3.167	0.63	9.167	4.11	15.167	0.81	21.17	0.49
3.250	0.65	9.250	3.62	15.250	0.79	21.25	0.48
3.333	0.65	9.333	3.62	15.333	0.79	21.33	0.48
3.417	0.67	9.417	3.24	15.417	0.78	21.42	0.48
3.500	0.67	9.500	3.24	15.500	0.78	21.50	0.48
3.583	0.69	9.583	2.94	15.583	0.77	21.58	0.47
3.667	0.69	9.667	2.94	15.667	0.77	21.67	0.47
3.750	0.72	9.750	2.69	15.750	0.75	21.75	0.47
3.833	0.72	9.833	2.69	15.833	0.75	21.83	0.47
3.917	0.74	9.917	2.49	15.917	0.74	21.92	0.46
4.000	0.74	10.000	2.49	16.000	0.74	22.00	0.46
4.083	0.77	10.083	2.31	16.083	0.73	22.08	0.46
4.167	0.77	10.167	2.31	16.167	0.73	22.17	0.46
4.250	0.80	10.250	2.16	16.250	0.71	22.25	0.45
4.333	0.80	10.333	2.16	16.333	0.71	22.33	0.45
4.417	0.83	10.417	2.03	16.417	0.70	22.42	0.45
4.500	0.83	10.500	2.03	16.500	0.70	22.50	0.45
4.583	0.87	10.583	1.92	16.583	0.69	22.58	0.44
4.667	0.87	10.667	1.92	16.667	0.69	22.67	0.44
4.750	0.91	10.750	1.82	16.750	0.68	22.75	0.44
4.833	0.91	10.833	1.82	16.833	0.68	22.83	0.44
4.917	0.95	10.917	1.73	16.917	0.67	22.92	0.44
5.000	0.95	11.000	1.73	17.000	0.67	23.00	0.44
5.083	1.00	11.083	1.65	17.083	0.66	23.08	0.43
5.167	1.00	11.167	1.65	17.167	0.66	23.17	0.43
5.250	1.06	11.250	1.57	17.250	0.65	23.25	0.43
5.333	1.06	11.333	1.57	17.333	0.65	23.33	0.43
5.417	1.12	11.417	1.51	17.417	0.64	23.42	0.42
5.500	1.12	11.500	1.51	17.500	0.64	23.50	0.42
5.583	1.19	11.583	1.45	17.583	0.63	23.58	0.42
5.667	1.19	11.667	1.45	17.667	0.63	23.67	0.42
5.750	1.27	11.750	1.39	17.750	0.62	23.75	0.42
5.833	1.27	11.833	1.39	17.833	0.62	23.83	0.42
5.917	1.36	11.917	1.34	17.917	0.61	23.92	0.41
6.000	1.36	12.000	1.34	18.000	0.61	24.00	0.41

Unit Hyd Qpeak (cms)= 0.936

PEAK FLOW (cms)= 0.106 (i)
TIME TO PEAK (hrs)= 9.750
RUNOFF VOLUME (mm)= 5.837
TOTAL RAINFALL (mm)= 53.260
RUNOFF COEFFICIENT = 0.110

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

ADD HYD (0905)		AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3		(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0203):		34.30	0.106	9.75	5.84
+ ID2= 2 (0904):		9.68	0.107	8.92	13.25
ID = 3 (0905):		43.98	0.196	9.25	7.47

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

Junction Command(0907)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 1(0905)	43.98	0.20	9.25	7.47
OUTFLOW: ID= 2(0907)	43.98	0.20	9.25	7.47

ADD HYD (0908)		AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3		(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0906):		21.07	1.360	8.03	23.16
+ ID2= 2 (0907):		43.98	0.196	9.25	7.47
ID = 3 (0908):		65.05	1.382	8.03	12.55

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB	
NASHYD (0204)	Area (ha)= 0.40 Curve Number (CN)= 67.0
ID= 1 DT= 5.0 min	Ia (mm)= 5.00 # 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	0.42	6.083	1.47	12.083	1.29	18.08	0.60
0.167	0.42	6.167	1.47	12.167	1.29	18.17	0.60
0.250	0.43	6.250	1.61	12.250	1.25	18.25	0.59
0.333	0.43	6.333	1.61	12.333	1.25	18.33	0.59
0.417	0.44	6.417	1.77	12.417	1.21	18.42	0.59
0.500	0.44	6.500	1.77	12.500	1.21	18.50	0.59
0.583	0.44	6.583	1.97	12.583	1.17	18.58	0.58
0.667	0.44	6.667	1.97	12.667	1.17	18.67	0.58
0.750	0.45	6.750	2.23	12.750	1.14	18.75	0.57
0.833	0.45	6.833	2.23	12.833	1.14	18.83	0.57
0.917	0.46	6.917	2.59	12.917	1.10	18.92	0.56
1.000	0.46	7.000	2.59	13.000	1.10	19.00	0.56
1.083	0.47	7.083	3.09	13.083	1.07	19.08	0.56
1.167	0.47	7.167	3.09	13.167	1.07	19.17	0.56
1.250	0.48	7.250	3.86	13.250	1.04	19.25	0.55
1.333	0.48	7.333	3.86	13.333	1.04	19.33	0.55
1.417	0.49	7.417	5.21	13.417	1.02	19.42	0.54
1.500	0.49	7.500	5.21	13.500	1.02	19.50	0.54
1.583	0.50	7.583	8.22	13.583	0.99	19.58	0.54
1.667	0.50	7.667	8.23	13.667	0.99	19.67	0.54
1.750	0.51	7.750	20.77	13.750	0.97	19.75	0.53
1.833	0.51	7.833	20.77	13.833	0.97	19.83	0.53
1.917	0.53	7.917	84.13	13.917	0.94	19.92	0.52
2.000	0.53	8.000	84.13	14.000	0.94	20.00	0.52
2.083	0.54	8.083	27.50	14.083	0.92	20.08	0.52
2.167	0.54	8.167	27.50	14.167	0.92	20.17	0.52
2.250	0.55	8.250	14.07	14.250	0.90	20.25	0.51
2.333	0.55	8.333	14.07	14.333	0.90	20.33	0.51
2.417	0.57	8.417	9.40	14.417	0.88	20.42	0.51
2.500	0.57	8.500	9.40	14.500	0.88	20.50	0.51
2.583	0.58	8.583	7.07	14.583	0.86	20.58	0.50
2.667	0.58	8.667	7.07	14.667	0.86	20.67	0.50
2.750	0.60	8.750	5.68	14.750	0.84	20.75	0.50
2.833	0.60	8.833	5.68	14.833	0.84	20.83	0.50
2.917	0.61	8.917	4.76	14.917	0.83	20.92	0.49
3.000	0.61	9.000	4.76	15.000	0.83	21.00	0.49
3.083	0.63	9.083	4.11	15.083	0.81	21.08	0.49
3.167	0.63	9.167	4.11	15.167	0.81	21.17	0.49
3.250	0.65	9.250	3.62	15.250	0.79	21.25	0.48
3.333	0.65	9.333	3.62	15.333	0.79	21.33	0.48
3.417	0.67	9.417	3.24	15.417	0.78	21.42	0.48
3.500	0.67	9.500	3.24	15.500	0.78	21.50	0.48
3.583	0.69	9.583	2.94	15.583	0.77	21.58	0.47
3.667	0.69	9.667	2.94	15.667	0.77	21.67	0.47
3.750	0.72	9.750	2.69	15.750	0.75	21.75	0.47
3.833	0.72	9.833	2.69	15.833	0.75	21.83	0.47
3.917	0.74	9.917	2.49	15.917	0.74	21.92	0.46
4.000	0.74	10.000	2.49	16.000	0.74	22.00	0.46
4.083	0.77	10.083	2.31	16.083	0.73	22.08	0.46
4.167	0.77	10.167	2.31	16.167	0.73	22.17	0.46
4.250	0.80	10.250	2.16	16.250	0.71	22.25	0.45
4.333	0.80	10.333	2.16	16.333	0.71	22.33	0.45
4.417	0.83	10.417	2.03	16.417	0.70	22.42	0.45
4.500	0.83	10.500	2.03	16.500	0.70	22.50	0.45
4.583	0.87	10.583	1.92	16.583	0.69	22.58	0.44
4.667	0.87	10.667	1.92	16.667	0.69	22.67	0.44
4.750	0.91	10.750	1.82	16.750	0.68	22.75	0.44
4.833	0.91	10.833	1.82	16.833	0.68	22.83	0.44
4.917	0.95	10.917	1.73	16.917	0.67	22.92	0.44
5.000	0.95	11.000	1.73	17.000	0.67	23.00	0.44
5.083	1.00	11.083	1.65	17.083	0.66	23.08	0.43
5.167	1.00	11.167	1.65	17.167	0.66	23.17	0.43
5.250	1.06	11.250	1.57	17.250	0.65	23.25	0.43
5.333	1.06	11.333	1.57	17.333	0.65	23.33	0.43
5.417	1.12	11.417	1.51	17.417	0.64	23.42	0.42
5.500	1.12	11.500	1.51	17.500	0.64	23.50	0.42
5.583	1.19	11.583	1.45	17.583	0.63	23.58	0.42
5.667	1.19	11.667	1.45	17.667	0.63	23.67	0.42
5.750	1.27	11.750	1.39	17.750	0.62	23.75	0.42
5.833	1.27	11.833	1.39	17.833	0.62	23.83	0.42
5.917	1.36	11.917	1.34	17.917	0.61	23.92	0.41
6.000	1.36	12.000	1.34	18.000	0.61	24.00	0.41

Unit Hyd Qpeak (cms)= 0.054

PEAK FLOW (cms)= 0.009 (i)
TIME TO PEAK (hrs)= 8.250
RUNOFF VOLUME (mm)= 13.426
TOTAL RAINFALL (mm)= 53.260
RUNOFF COEFFICIENT = 0.252

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

ADD HYD (0909)		AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3		(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0204):		0.40	0.009	8.25	13.43
+ ID2= 2 (0908):		65.05	1.382	8.03	12.55
ID = 3 (0909):		65.44	1.387	8.03	12.56

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR(0052)	OVERFLOW IS ON
IN= 2---> OUT= 1	
DT= 1.0 min	

OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
0.0000	0.0004	0.6270	0.1980
0.0690	0.0019	0.6620	0.2529
0.1500	0.0052	0.6950	0.3161
0.2470	0.0111	0.7270	0.3886
0.3480	0.0210	0.7580	0.4732
0.4080	0.0352	0.7870	0.5703
0.4600	0.0544	0.8150	0.6834
0.5070	0.0794	0.8430	0.8226
0.5500	0.1110	0.8690	0.9974
0.5900	0.1508	0.0000	0.0000

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (0909)	65.441	1.387	8.03	12.56
OUTFLOW: ID= 1 (0052)	65.441	0.542	8.45	12.55
OVERFLOW:ID= 3 (0003)	0.000	0.000	0.00	0.00

TOTAL NUMBER OF SIMULATION OVERFLOW = 0
CUMULATIVE TIME OF OVERFLOW (HOURS) = 0.00
PERCENTAGE OF TIME OVERFLOWING (%) = 0.00

PEAK FLOW REDUCTION [Qout/Qin](%)= 39.09
TIME SHIFT OF PEAK FLOW (min)= 25.00
MAXIMUM STORAGE USED (ha.m.)= 0.1052

Junction Command(0048)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 1(0052)	65.44	0.54	8.45	12.55
OUTFLOW: ID= 2(0048)	65.44	0.54	8.45	12.55

Junction Command(0053)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 3(0052)	0.00	0.00	0.00	0.00
OUTFLOW: ID= 2(0053)	0.00	0.00	0.00	0.00

ADD HYD (0051)		AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3		(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0048):		65.44	0.542	8.45	12.55
+ ID2= 2 (0053):		0.00	0.000	0.00	0.00
ID = 3 (0051):		65.44	0.542	8.45	12.55

*** W A R N I N G : HYDROGRAPH 0053 <ID= 2> IS DRY.
*** W A R N I N G : HYDROGRAPH 0003 = HYDROGRAPH 0001

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

Junction Command(0036)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 9(0035)	2.85	0.20	8.00	23.46
OUTFLOW: ID= 2(0036)	2.85	0.20	8.00	23.46

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      V    V   I    SSSSS  U   U    A    L              (v 6.2.2015)
      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\cacp078589\AppData\Local\Civica\VH5\9ad0f7cd-9fe5-4b65-bb07-55a510b23afa\d
b9616ac-9a30-4d2c-9818-f55180cbd5aa\s
  Summary filename:
C:\Users\cacp078589\AppData\Local\Civica\VH5\9ad0f7cd-9fe5-4b65-bb07-55a510b23afa\d
b9616ac-9a30-4d2c-9818-f55180cbd5aa\s


DATE: 04-07-2025                          TIME: 09:18:37

USER:


COMMENTS: _____

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  ************************************************
  ** SIMULATION : 50yr 24hr 10min Chicago       **
  ************************************************
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| CHICAGO STORM    |
| Ptotal= 98.33 mm |
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IDF curve parameters: A=2114.000
B= 10.600
C= 0.858
used in: INTENSITY = A / (t + B)^C

Duration of storm = 24.00 hrs
Storm time step = 10.00 min
Time to peak ratio = 0.33

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.00	0.62	6.00	2.43	12.00	2.10	18.00	0.91
0.17	0.63	6.17	2.68	12.17	2.02	18.17	0.90
0.33	0.65	6.33	2.98	12.33	1.95	18.33	0.89
0.50	0.66	6.50	3.37	12.50	1.89	18.50	0.87
0.67	0.67	6.67	3.88	12.67	1.82	18.67	0.86
0.83	0.69	6.83	4.58	12.83	1.77	18.83	0.85
1.00	0.70	7.00	5.59	13.00	1.71	19.00	0.84
1.17	0.72	7.17	7.21	13.17	1.66	19.17	0.83
1.33	0.73	7.33	10.14	13.33	1.61	19.33	0.82
1.50	0.75	7.50	16.88	13.50	1.57	19.50	0.81
1.67	0.77	7.67	44.66	13.67	1.53	19.67	0.80
1.83	0.79	7.83	157.69	13.83	1.49	19.83	0.79
2.00	0.81	8.00	59.25	14.00	1.45	20.00	0.78
2.17	0.83	8.17	30.14	14.17	1.41	20.17	0.77
2.33	0.85	8.33	19.54	14.33	1.38	20.33	0.76
2.50	0.88	8.50	14.26	14.50	1.35	20.50	0.75
2.67	0.90	8.67	11.16	14.67	1.32	20.67	0.74
2.83	0.93	8.83	9.15	14.83	1.29	20.83	0.73
3.00	0.96	9.00	7.74	15.00	1.26	21.00	0.72
3.17	0.99	9.17	6.70	15.17	1.23	21.17	0.71
3.33	1.03	9.33	5.91	15.33	1.21	21.33	0.71
3.50	1.06	9.50	5.29	15.50	1.18	21.50	0.70
3.67	1.10	9.67	4.79	15.67	1.16	21.67	0.69
3.83	1.15	9.83	4.38	15.83	1.14	21.83	0.68
4.00	1.19	10.00	4.03	16.00	1.12	22.00	0.68
4.17	1.24	10.17	3.74	16.17	1.09	22.17	0.67
4.33	1.30	10.33	3.48	16.33	1.08	22.33	0.66
4.50	1.36	10.50	3.26	16.50	1.06	22.50	0.66
4.67	1.43	10.67	3.07	16.67	1.04	22.67	0.65
4.83	1.50	10.83	2.90	16.83	1.02	22.83	0.64
5.00	1.59	11.00	2.75	17.00	1.00	23.00	0.64
5.17	1.68	11.17	2.61	17.17	0.99	23.17	0.63
5.33	1.79	11.33	2.49	17.33	0.97	23.33	0.62
5.50	1.92	11.50	2.38	17.50	0.96	23.50	0.62
5.67	2.06	11.67	2.28	17.67	0.94	23.67	0.61
5.83	2.23	11.83	2.19	17.83	0.93	23.83	0.61

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| CALIB            |
| STANDHYD ( 1012) |
|ID= 1 DT= 1.0 min |
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Area (ha)= 26.89
Total Imp(%)= 57.00 Dir. Conn.(%)= 49.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	15.33	11.56
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	0.50	2.00
Length	(m)=	423.42	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 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
0.017	0.62	6.017	2.43	12.017	2.10	18.02	0.91
0.033	0.62	6.033	2.43	12.033	2.10	18.03	0.91
0.050	0.62	6.050	2.43	12.050	2.10	18.05	0.91
0.067	0.62	6.067	2.43	12.067	2.10	18.07	0.91
0.083	0.62	6.083	2.43	12.083	2.10	18.08	0.91
0.100	0.62	6.100	2.43	12.100	2.10	18.10	0.91
0.117	0.62	6.117	2.43	12.117	2.10	18.12	0.91
0.133	0.62	6.133	2.43	12.133	2.10	18.13	0.91
0.150	0.62	6.150	2.43	12.150	2.10	18.15	0.91
0.167	0.62	6.167	2.43	12.167	2.10	18.17	0.91
0.183	0.63	6.183	2.68	12.183	2.02	18.18	0.90
0.200	0.63	6.200	2.68	12.200	2.02	18.20	0.90
0.217	0.63	6.217	2.68	12.217	2.02	18.22	0.90
0.233	0.63	6.233	2.68	12.233	2.02	18.23	0.90
0.250	0.63	6.250	2.68	12.250	2.02	18.25	0.90
0.267	0.63	6.267	2.68	12.267	2.02	18.27	0.90
0.283	0.63	6.283	2.68	12.283	2.02	18.28	0.90
0.300	0.63	6.300	2.68	12.300	2.02	18.30	0.90
0.317	0.63	6.317	2.68	12.317	2.02	18.32	0.90
0.333	0.63	6.333	2.68	12.333	2.02	18.33	0.90
0.350	0.65	6.350	2.98	12.350	1.95	18.35	0.89
0.367	0.65	6.367	2.98	12.367	1.95	18.37	0.89
0.383	0.65	6.383	2.98	12.383	1.95	18.38	0.89
0.400	0.65	6.400	2.98	12.400	1.95	18.40	0.89
0.417	0.65	6.417	2.98	12.417	1.95	18.42	0.89
0.433	0.65	6.433	2.98	12.433	1.95	18.43	0.89
0.450	0.65	6.450	2.98	12.450	1.95	18.45	0.89
0.467	0.65	6.467	2.98	12.467	1.95	18.47	0.89
0.483	0.65	6.483	2.98	12.483	1.95	18.48	0.89
0.500	0.65	6.500	2.98	12.500	1.95	18.50	0.89
0.517	0.66	6.517	3.37	12.517	1.89	18.52	0.87
0.533	0.66	6.533	3.37	12.533	1.89	18.53	0.87
0.550	0.66	6.550	3.37	12.550	1.89	18.55	0.87
0.567	0.66	6.567	3.37	12.567	1.89	18.57	0.87

0.583	0.66	6.583	3.37	12.583	1.89	18.58	0.87
0.600	0.66	6.600	3.37	12.600	1.89	18.60	0.87
0.617	0.66	6.617	3.37	12.617	1.89	18.62	0.87
0.633	0.66	6.633	3.37	12.633	1.89	18.63	0.87
0.650	0.66	6.650	3.37	12.650	1.89	18.65	0.87
0.667	0.66	6.667	3.37	12.667	1.89	18.67	0.87
0.683	0.67	6.683	3.88	12.683	1.82	18.68	0.86
0.700	0.67	6.700	3.88	12.700	1.82	18.70	0.86
0.717	0.67	6.717	3.88	12.717	1.82	18.72	0.86
0.733	0.67	6.733	3.88	12.733	1.82	18.73	0.86
0.750	0.67	6.750	3.88	12.750	1.82	18.75	0.86
0.767	0.67	6.767	3.88	12.767	1.82	18.77	0.86
0.783	0.67	6.783	3.88	12.783	1.82	18.78	0.86
0.800	0.67	6.800	3.88	12.800	1.82	18.80	0.86
0.817	0.67	6.817	3.88	12.817	1.82	18.82	0.86
0.833	0.67	6.833	3.88	12.833	1.82	18.83	0.86
0.850	0.69	6.850	4.58	12.850	1.77	18.85	0.85
0.867	0.69	6.867	4.58	12.867	1.77	18.87	0.85
0.883	0.69	6.883	4.58	12.883	1.77	18.88	0.85
0.900	0.69	6.900	4.58	12.900	1.77	18.90	0.85
0.917	0.69	6.917	4.58	12.917	1.77	18.92	0.85
0.933	0.69	6.933	4.58	12.933	1.77	18.93	0.85
0.950	0.69	6.950	4.58	12.950	1.77	18.95	0.85
0.967	0.69	6.967	4.58	12.967	1.77	18.97	0.85
0.983	0.69	6.983	4.58	12.983	1.77	18.98	0.85
1.000	0.69	7.000	4.58	13.000	1.77	19.00	0.85
1.017	0.70	7.017	5.59	13.017	1.71	19.02	0.84
1.033	0.70	7.033	5.59	13.033	1.71	19.03	0.84
1.050	0.70	7.050	5.59	13.050	1.71	19.05	0.84
1.067	0.70	7.067	5.59	13.067	1.71	19.07	0.84
1.083	0.70	7.083	5.59	13.083	1.71	19.08	0.84
1.100	0.70	7.100	5.59	13.100	1.71	19.10	0.84
1.117	0.70	7.117	5.59	13.117	1.71	19.12	0.84
1.133	0.70	7.133	5.59	13.133	1.71	19.13	0.84
1.150	0.70	7.150	5.59	13.150	1.71	19.15	0.84
1.167	0.70	7.167	5.60	13.167	1.71	19.17	0.84
1.183	0.72	7.183	7.21	13.183	1.66	19.18	0.83
1.200	0.72	7.200	7.21	13.200	1.66	19.20	0.83
1.217	0.72	7.217	7.21	13.217	1.66	19.22	0.83
1.233	0.72	7.233	7.21	13.233	1.66	19.23	0.83
1.250	0.72	7.250	7.21	13.250	1.66	19.25	0.83
1.267	0.72	7.267	7.21	13.267	1.66	19.27	0.83
1.283	0.72	7.283	7.21	13.283	1.66	19.28	0.83
1.300	0.72	7.300	7.21	13.300	1.66	19.30	0.83
1.317	0.72	7.317	7.21	13.317	1.66	19.32	0.83
1.333	0.72	7.333	7.22	13.333	1.66	19.33	0.83
1.350	0.73	7.350	10.14	13.350	1.61	19.35	0.82
1.367	0.73	7.367	10.14	13.367	1.61	19.37	0.82
1.383	0.73	7.383	10.14	13.383	1.61	19.38	0.82
1.400	0.73	7.400	10.14	13.400	1.61	19.40	0.82
1.417	0.73	7.417	10.14	13.417	1.61	19.42	0.82
1.433	0.73	7.433	10.14	13.433	1.61	19.43	0.82

1.450	0.73	7.450	10.14	13.450	1.61	19.45	0.82
1.467	0.73	7.467	10.14	13.467	1.61	19.47	0.82
1.483	0.73	7.483	10.14	13.483	1.61	19.48	0.82
1.500	0.73	7.500	10.16	13.500	1.61	19.50	0.82
1.517	0.75	7.517	16.88	13.517	1.57	19.52	0.81
1.533	0.75	7.533	16.88	13.533	1.57	19.53	0.81
1.550	0.75	7.550	16.88	13.550	1.57	19.55	0.81
1.567	0.75	7.567	16.88	13.567	1.57	19.57	0.81
1.583	0.75	7.583	16.88	13.583	1.57	19.58	0.81
1.600	0.75	7.600	16.88	13.600	1.57	19.60	0.81
1.617	0.75	7.617	16.88	13.617	1.57	19.62	0.81
1.633	0.75	7.633	16.88	13.633	1.57	19.63	0.81
1.650	0.75	7.650	16.88	13.650	1.57	19.65	0.81
1.667	0.75	7.667	16.95	13.667	1.57	19.67	0.81
1.683	0.77	7.683	44.66	13.683	1.53	19.68	0.80
1.700	0.77	7.700	44.66	13.700	1.53	19.70	0.80
1.717	0.77	7.717	44.66	13.717	1.53	19.72	0.80
1.733	0.77	7.733	44.66	13.733	1.53	19.73	0.80
1.750	0.77	7.750	44.66	13.750	1.53	19.75	0.80
1.767	0.77	7.767	44.66	13.767	1.53	19.77	0.80
1.783	0.77	7.783	44.66	13.783	1.53	19.78	0.80
1.800	0.77	7.800	44.66	13.800	1.53	19.80	0.80
1.817	0.77	7.817	44.66	13.817	1.53	19.82	0.80
1.833	0.77	7.833	44.99	13.833	1.53	19.83	0.80
1.850	0.79	7.850	157.69	13.850	1.49	19.85	0.79
1.867	0.79	7.867	157.69	13.867	1.49	19.87	0.79
1.883	0.79	7.883	157.69	13.883	1.49	19.88	0.79
1.900	0.79	7.900	157.69	13.900	1.49	19.90	0.79
1.917	0.79	7.917	157.69	13.917	1.49	19.92	0.79
1.933	0.79	7.933	157.69	13.933	1.49	19.93	0.79
1.950	0.79	7.950	157.69	13.950	1.49	19.95	0.79
1.967	0.79	7.967	157.69	13.967	1.49	19.97	0.79
1.983	0.79	7.983	157.69	13.983	1.49	19.98	0.79
2.000	0.79	8.000	157.40	14.000	1.49	20.00	0.79
2.017	0.81	8.017	59.25	14.017	1.45	20.02	0.78
2.033	0.81	8.033	59.25	14.033	1.45	20.03	0.78
2.050	0.81	8.050	59.25	14.050	1.45	20.05	0.78
2.067	0.81	8.067	59.25	14.067	1.45	20.07	0.78
2.083	0.81	8.083	59.25	14.083	1.45	20.08	0.78
2.100	0.81	8.100	59.25	14.100	1.45	20.10	0.78
2.117	0.81	8.117	59.25	14.117	1.45	20.12	0.78
2.133	0.81	8.133	59.25	14.133	1.45	20.13	0.78
2.150	0.81	8.150	59.25	14.150	1.45	20.15	0.78
2.167	0.81	8.167	59.17	14.167	1.45	20.17	0.78
2.183	0.83	8.183	30.14	14.183	1.41	20.18	0.77
2.200	0.83	8.200	30.14	14.200	1.41	20.20	0.77
2.217	0.83	8.217	30.14	14.217	1.41	20.22	0.77
2.233	0.83	8.233	30.14	14.233	1.41	20.23	0.77
2.250	0.83	8.250	30.14	14.250	1.41	20.25	0.77
2.267	0.83	8.267	30.14	14.267	1.41	20.27	0.77
2.283	0.83	8.283	30.14	14.283	1.41	20.28	0.77
2.300	0.83	8.300	30.14	14.300	1.41	20.30	0.77

2.317	0.83	8.317	30.14	14.317	1.41	20.32	0.77
2.333	0.83	8.333	30.11	14.333	1.41	20.33	0.77
2.350	0.85	8.350	19.54	14.350	1.38	20.35	0.76
2.367	0.85	8.367	19.54	14.367	1.38	20.37	0.76
2.383	0.85	8.383	19.54	14.383	1.38	20.38	0.76
2.400	0.85	8.400	19.54	14.400	1.38	20.40	0.76
2.417	0.85	8.417	19.54	14.417	1.38	20.42	0.76
2.433	0.85	8.433	19.54	14.433	1.38	20.43	0.76
2.450	0.85	8.450	19.54	14.450	1.38	20.45	0.76
2.467	0.85	8.467	19.54	14.467	1.38	20.47	0.76
2.483	0.85	8.483	19.54	14.483	1.38	20.48	0.76
2.500	0.85	8.500	19.53	14.500	1.38	20.50	0.76
2.517	0.88	8.517	14.26	14.517	1.35	20.52	0.75
2.533	0.88	8.533	14.26	14.533	1.35	20.53	0.75
2.550	0.88	8.550	14.26	14.550	1.35	20.55	0.75
2.567	0.88	8.567	14.26	14.567	1.35	20.57	0.75
2.583	0.88	8.583	14.26	14.583	1.35	20.58	0.75
2.600	0.88	8.600	14.26	14.600	1.35	20.60	0.75
2.617	0.88	8.617	14.26	14.617	1.35	20.62	0.75
2.633	0.88	8.633	14.26	14.633	1.35	20.63	0.75
2.650	0.88	8.650	14.26	14.650	1.35	20.65	0.75
2.667	0.88	8.667	14.25	14.667	1.35	20.67	0.75
2.683	0.90	8.683	11.16	14.683	1.32	20.68	0.74
2.700	0.90	8.700	11.16	14.700	1.32	20.70	0.74
2.717	0.90	8.717	11.16	14.717	1.32	20.72	0.74
2.733	0.90	8.733	11.16	14.733	1.32	20.73	0.74
2.750	0.90	8.750	11.16	14.750	1.32	20.75	0.74
2.767	0.90	8.767	11.16	14.767	1.32	20.77	0.74
2.783	0.90	8.783	11.16	14.783	1.32	20.78	0.74
2.800	0.90	8.800	11.16	14.800	1.32	20.80	0.74
2.817	0.90	8.817	11.16	14.817	1.32	20.82	0.74
2.833	0.90	8.833	11.16	14.833	1.32	20.83	0.74
2.850	0.93	8.850	9.15	14.850	1.29	20.85	0.73
2.867	0.93	8.867	9.15	14.867	1.29	20.87	0.73
2.883	0.93	8.883	9.15	14.883	1.29	20.88	0.73
2.900	0.93	8.900	9.15	14.900	1.29	20.90	0.73
2.917	0.93	8.917	9.15	14.917	1.29	20.92	0.73
2.933	0.93	8.933	9.15	14.933	1.29	20.93	0.73
2.950	0.93	8.950	9.15	14.950	1.29	20.95	0.73
2.967	0.93	8.967	9.15	14.967	1.29	20.97	0.73
2.983	0.93	8.983	9.15	14.983	1.29	20.98	0.73
3.000	0.93	9.000	9.14	15.000	1.29	21.00	0.73
3.017	0.96	9.017	7.74	15.017	1.26	21.02	0.72
3.033	0.96	9.033	7.74	15.033	1.26	21.03	0.72
3.050	0.96	9.050	7.74	15.050	1.26	21.05	0.72
3.067	0.96	9.067	7.74	15.067	1.26	21.07	0.72
3.083	0.96	9.083	7.74	15.083	1.26	21.08	0.72
3.100	0.96	9.100	7.74	15.100	1.26	21.10	0.72
3.117	0.96	9.117	7.74	15.117	1.26	21.12	0.72
3.133	0.96	9.133	7.74	15.133	1.26	21.13	0.72
3.150	0.96	9.150	7.74	15.150	1.26	21.15	0.72
3.167	0.96	9.167	7.74	15.167	1.26	21.17	0.72

3.183	0.99	9.183	6.70	15.183	1.23	21.18	0.71
3.200	0.99	9.200	6.70	15.200	1.23	21.20	0.71
3.217	0.99	9.217	6.70	15.217	1.23	21.22	0.71
3.233	0.99	9.233	6.70	15.233	1.23	21.23	0.71
3.250	0.99	9.250	6.70	15.250	1.23	21.25	0.71
3.267	0.99	9.267	6.70	15.267	1.23	21.27	0.71
3.283	0.99	9.283	6.70	15.283	1.23	21.28	0.71
3.300	0.99	9.300	6.70	15.300	1.23	21.30	0.71
3.317	0.99	9.317	6.70	15.317	1.23	21.32	0.71
3.333	0.99	9.333	6.70	15.333	1.23	21.33	0.71
3.350	1.03	9.350	5.91	15.350	1.21	21.35	0.71
3.367	1.03	9.367	5.91	15.367	1.21	21.37	0.71
3.383	1.03	9.383	5.91	15.383	1.21	21.38	0.71
3.400	1.03	9.400	5.91	15.400	1.21	21.40	0.71
3.417	1.03	9.417	5.91	15.417	1.21	21.42	0.71
3.433	1.03	9.433	5.91	15.433	1.21	21.43	0.71
3.450	1.03	9.450	5.91	15.450	1.21	21.45	0.71
3.467	1.03	9.467	5.91	15.467	1.21	21.47	0.71
3.483	1.03	9.483	5.91	15.483	1.21	21.48	0.71
3.500	1.03	9.500	5.91	15.500	1.21	21.50	0.71
3.517	1.06	9.517	5.29	15.517	1.18	21.52	0.70
3.533	1.06	9.533	5.29	15.533	1.18	21.53	0.70
3.550	1.06	9.550	5.29	15.550	1.18	21.55	0.70
3.567	1.06	9.567	5.29	15.567	1.18	21.57	0.70
3.583	1.06	9.583	5.29	15.583	1.18	21.58	0.70
3.600	1.06	9.600	5.29	15.600	1.18	21.60	0.70
3.617	1.06	9.617	5.29	15.617	1.18	21.62	0.70
3.633	1.06	9.633	5.29	15.633	1.18	21.63	0.70
3.650	1.06	9.650	5.29	15.650	1.18	21.65	0.70
3.667	1.06	9.667	5.29	15.667	1.18	21.67	0.70
3.683	1.10	9.683	4.79	15.683	1.16	21.68	0.69
3.700	1.10	9.700	4.79	15.700	1.16	21.70	0.69
3.717	1.10	9.717	4.79	15.717	1.16	21.72	0.69
3.733	1.10	9.733	4.79	15.733	1.16	21.73	0.69
3.750	1.10	9.750	4.79	15.750	1.16	21.75	0.69
3.767	1.10	9.767	4.79	15.767	1.16	21.77	0.69
3.783	1.10	9.783	4.79	15.783	1.16	21.78	0.69
3.800	1.10	9.800	4.79	15.800	1.16	21.80	0.69
3.817	1.10	9.817	4.79	15.817	1.16	21.82	0.69
3.833	1.10	9.833	4.79	15.833	1.16	21.83	0.69
3.850	1.15	9.850	4.38	15.850	1.14	21.85	0.68
3.867	1.15	9.867	4.38	15.867	1.14	21.87	0.68
3.883	1.15	9.883	4.38	15.883	1.14	21.88	0.68
3.900	1.15	9.900	4.38	15.900	1.14	21.90	0.68
3.917	1.15	9.917	4.38	15.917	1.14	21.92	0.68
3.933	1.15	9.933	4.38	15.933	1.14	21.93	0.68
3.950	1.15	9.950	4.38	15.950	1.14	21.95	0.68
3.967	1.15	9.967	4.38	15.967	1.14	21.97	0.68
3.983	1.15	9.983	4.38	15.983	1.14	21.98	0.68
4.000	1.15	10.000	4.38	16.000	1.14	22.00	0.68
4.017	1.19	10.017	4.03	16.017	1.12	22.02	0.68
4.033	1.19	10.033	4.03	16.033	1.12	22.03	0.68

4.050	1.19	10.050	4.03	16.050	1.12	22.05	0.68
4.067	1.19	10.067	4.03	16.067	1.12	22.07	0.68
4.083	1.19	10.083	4.03	16.083	1.12	22.08	0.68
4.100	1.19	10.100	4.03	16.100	1.12	22.10	0.68
4.117	1.19	10.117	4.03	16.117	1.12	22.12	0.68
4.133	1.19	10.133	4.03	16.133	1.12	22.13	0.68
4.150	1.19	10.150	4.03	16.150	1.12	22.15	0.68
4.167	1.19	10.167	4.03	16.167	1.12	22.17	0.68
4.183	1.24	10.183	3.74	16.183	1.09	22.18	0.67
4.200	1.24	10.200	3.74	16.200	1.09	22.20	0.67
4.217	1.24	10.217	3.74	16.217	1.09	22.22	0.67
4.233	1.24	10.233	3.74	16.233	1.09	22.23	0.67
4.250	1.24	10.250	3.74	16.250	1.09	22.25	0.67
4.267	1.24	10.267	3.74	16.267	1.09	22.27	0.67
4.283	1.24	10.283	3.74	16.283	1.09	22.28	0.67
4.300	1.24	10.300	3.74	16.300	1.09	22.30	0.67
4.317	1.24	10.317	3.74	16.317	1.09	22.32	0.67
4.333	1.24	10.333	3.74	16.333	1.09	22.33	0.67
4.350	1.30	10.350	3.48	16.350	1.08	22.35	0.66
4.367	1.30	10.367	3.48	16.367	1.08	22.37	0.66
4.383	1.30	10.383	3.48	16.383	1.08	22.38	0.66
4.400	1.30	10.400	3.48	16.400	1.08	22.40	0.66
4.417	1.30	10.417	3.48	16.417	1.08	22.42	0.66
4.433	1.30	10.433	3.48	16.433	1.08	22.43	0.66
4.450	1.30	10.450	3.48	16.450	1.08	22.45	0.66
4.467	1.30	10.467	3.48	16.467	1.08	22.47	0.66
4.483	1.30	10.483	3.48	16.483	1.08	22.48	0.66
4.500	1.30	10.500	3.48	16.500	1.08	22.50	0.66
4.517	1.36	10.517	3.26	16.517	1.06	22.52	0.66
4.533	1.36	10.533	3.26	16.533	1.06	22.53	0.66
4.550	1.36	10.550	3.26	16.550	1.06	22.55	0.66
4.567	1.36	10.567	3.26	16.567	1.06	22.57	0.66
4.583	1.36	10.583	3.26	16.583	1.06	22.58	0.66
4.600	1.36	10.600	3.26	16.600	1.06	22.60	0.66
4.617	1.36	10.617	3.26	16.617	1.06	22.62	0.66
4.633	1.36	10.633	3.26	16.633	1.06	22.63	0.66
4.650	1.36	10.650	3.26	16.650	1.06	22.65	0.66
4.667	1.36	10.667	3.26	16.667	1.06	22.67	0.66
4.683	1.43	10.683	3.07	16.683	1.04	22.68	0.65
4.700	1.43	10.700	3.07	16.700	1.04	22.70	0.65
4.717	1.43	10.717	3.07	16.717	1.04	22.72	0.65
4.733	1.43	10.733	3.07	16.733	1.04	22.73	0.65
4.750	1.43	10.750	3.07	16.750	1.04	22.75	0.65
4.767	1.43	10.767	3.07	16.767	1.04	22.77	0.65
4.783	1.43	10.783	3.07	16.783	1.04	22.78	0.65
4.800	1.43	10.800	3.07	16.800	1.04	22.80	0.65
4.817	1.43	10.817	3.07	16.817	1.04	22.82	0.65
4.833	1.43	10.833	3.07	16.833	1.04	22.83	0.65
4.850	1.50	10.850	2.90	16.850	1.02	22.85	0.64
4.867	1.50	10.867	2.90	16.867	1.02	22.87	0.64
4.883	1.50	10.883	2.90	16.883	1.02	22.88	0.64
4.900	1.50	10.900	2.90	16.900	1.02	22.90	0.64

4.917	1.50	10.917	2.90	16.917	1.02	22.92	0.64
4.933	1.50	10.933	2.90	16.933	1.02	22.93	0.64
4.950	1.50	10.950	2.90	16.950	1.02	22.95	0.64
4.967	1.50	10.967	2.90	16.967	1.02	22.97	0.64
4.983	1.50	10.983	2.90	16.983	1.02	22.98	0.64
5.000	1.50	11.000	2.90	17.000	1.02	23.00	0.64
5.017	1.59	11.017	2.75	17.017	1.00	23.02	0.64
5.033	1.59	11.033	2.75	17.033	1.00	23.03	0.64
5.050	1.59	11.050	2.75	17.050	1.00	23.05	0.64
5.067	1.59	11.067	2.75	17.067	1.00	23.07	0.64
5.083	1.59	11.083	2.75	17.083	1.00	23.08	0.64
5.100	1.59	11.100	2.75	17.100	1.00	23.10	0.64
5.117	1.59	11.117	2.75	17.117	1.00	23.12	0.64
5.133	1.59	11.133	2.75	17.133	1.00	23.13	0.64
5.150	1.59	11.150	2.75	17.150	1.00	23.15	0.64
5.167	1.59	11.167	2.75	17.167	1.00	23.17	0.64
5.183	1.68	11.183	2.61	17.183	0.99	23.18	0.63
5.200	1.68	11.200	2.61	17.200	0.99	23.20	0.63
5.217	1.68	11.217	2.61	17.217	0.99	23.22	0.63
5.233	1.68	11.233	2.61	17.233	0.99	23.23	0.63
5.250	1.68	11.250	2.61	17.250	0.99	23.25	0.63
5.267	1.68	11.267	2.61	17.267	0.99	23.27	0.63
5.283	1.68	11.283	2.61	17.283	0.99	23.28	0.63
5.300	1.68	11.300	2.61	17.300	0.99	23.30	0.63
5.317	1.68	11.317	2.61	17.317	0.99	23.32	0.63
5.333	1.68	11.333	2.61	17.333	0.99	23.33	0.63
5.350	1.79	11.350	2.49	17.350	0.97	23.35	0.62
5.367	1.79	11.367	2.49	17.367	0.97	23.37	0.62
5.383	1.79	11.383	2.49	17.383	0.97	23.38	0.62
5.400	1.79	11.400	2.49	17.400	0.97	23.40	0.62
5.417	1.79	11.417	2.49	17.417	0.97	23.42	0.62
5.433	1.79	11.433	2.49	17.433	0.97	23.43	0.62
5.450	1.79	11.450	2.49	17.450	0.97	23.45	0.62
5.467	1.79	11.467	2.49	17.467	0.97	23.47	0.62
5.483	1.79	11.483	2.49	17.483	0.97	23.48	0.62
5.500	1.79	11.500	2.49	17.500	0.97	23.50	0.62
5.517	1.92	11.517	2.38	17.517	0.96	23.52	0.62
5.533	1.92	11.533	2.38	17.533	0.96	23.53	0.62
5.550	1.92	11.550	2.38	17.550	0.96	23.55	0.62
5.567	1.92	11.567	2.38	17.567	0.96	23.57	0.62
5.583	1.92	11.583	2.38	17.583	0.96	23.58	0.62
5.600	1.92	11.600	2.38	17.600	0.96	23.60	0.62
5.617	1.92	11.617	2.38	17.617	0.96	23.62	0.62
5.633	1.92	11.633	2.38	17.633	0.96	23.63	0.62
5.650	1.92	11.650	2.38	17.650	0.96	23.65	0.62
5.667	1.92	11.667	2.38	17.667	0.96	23.67	0.62
5.683	2.06	11.683	2.28	17.683	0.94	23.68	0.61
5.700	2.06	11.700	2.28	17.700	0.94	23.70	0.61
5.717	2.06	11.717	2.28	17.717	0.94	23.72	0.61
5.733	2.06	11.733	2.28	17.733	0.94	23.73	0.61
5.750	2.06	11.750	2.28	17.750	0.94	23.75	0.61
5.767	2.06	11.767	2.28	17.767	0.94	23.77	0.61

5.783	2.06	11.783	2.28	17.783	0.94	23.78	0.61
5.800	2.06	11.800	2.28	17.800	0.94	23.80	0.61
5.817	2.06	11.817	2.28	17.817	0.94	23.82	0.61
5.833	2.06	11.833	2.28	17.833	0.94	23.83	0.61
5.850	2.23	11.850	2.19	17.850	0.93	23.85	0.61
5.867	2.23	11.867	2.19	17.867	0.93	23.87	0.61
5.883	2.23	11.883	2.19	17.883	0.93	23.88	0.61
5.900	2.23	11.900	2.19	17.900	0.93	23.90	0.61
5.917	2.23	11.917	2.19	17.917	0.93	23.92	0.61
5.933	2.23	11.933	2.19	17.933	0.93	23.93	0.61
5.950	2.23	11.950	2.19	17.950	0.93	23.95	0.61
5.967	2.23	11.967	2.19	17.967	0.93	23.97	0.61
5.983	2.23	11.983	2.19	17.983	0.93	23.98	0.61
6.000	2.23	12.000	2.19	18.000	0.93	24.00	0.61

Max.Eff.Inten.(mm/hr)=	157.69	43.17	
over (min)	6.00	12.00	
Storage Coeff. (min)=	6.23 (ii)	11.81 (ii)	
Unit Hyd. Tpeak (min)=	6.00	12.00	
Unit Hyd. peak (cms)=	0.18	0.10	
			TOTALS
PEAK FLOW (cms)=	4.54	0.84	5.112 (iii)
TIME TO PEAK (hrs)=	8.03	8.17	8.05
RUNOFF VOLUME (mm)=	97.32	27.15	61.55
TOTAL RAINFALL (mm)=	98.33	98.33	98.33
RUNOFF COEFFICIENT =	0.99	0.28	0.63

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 48.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

DUHYD (0034)
Inlet Cap.= 3.057
#of Inlets= 1
Total(cms)= 3.1

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
TOTAL HYD.(ID= 1):	26.89	5.11	8.05	61.55
MAJOR SYS.(ID= 2):	2.20	2.06	8.05	61.55
MINOR SYS.(ID= 3):	24.69	3.06	7.93	61.55

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

Junction Command(0033)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 9(0034)	24.69	3.06	7.93	61.55
OUTFLOW: ID= 2(0033)	24.69	3.06	7.93	61.55

CALIB
STANDHYD (1052) Area (ha)= 1.95
ID= 1 DT= 1.0 min Total Imp(%)= 30.00 Dir. Conn.(%)= 26.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	0.58	1.36
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	0.50	2.00
Length	(m)=	113.90	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 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
0.017	0.62	6.017	2.43	12.017	2.10	18.02	0.91
0.033	0.62	6.033	2.43	12.033	2.10	18.03	0.91
0.050	0.62	6.050	2.43	12.050	2.10	18.05	0.91
0.067	0.62	6.067	2.43	12.067	2.10	18.07	0.91
0.083	0.62	6.083	2.43	12.083	2.10	18.08	0.91
0.100	0.62	6.100	2.43	12.100	2.10	18.10	0.91
0.117	0.62	6.117	2.43	12.117	2.10	18.12	0.91
0.133	0.62	6.133	2.43	12.133	2.10	18.13	0.91
0.150	0.62	6.150	2.43	12.150	2.10	18.15	0.91
0.167	0.62	6.167	2.43	12.167	2.10	18.17	0.91
0.183	0.63	6.183	2.68	12.183	2.02	18.18	0.90
0.200	0.63	6.200	2.68	12.200	2.02	18.20	0.90
0.217	0.63	6.217	2.68	12.217	2.02	18.22	0.90
0.233	0.63	6.233	2.68	12.233	2.02	18.23	0.90
0.250	0.63	6.250	2.68	12.250	2.02	18.25	0.90
0.267	0.63	6.267	2.68	12.267	2.02	18.27	0.90
0.283	0.63	6.283	2.68	12.283	2.02	18.28	0.90
0.300	0.63	6.300	2.68	12.300	2.02	18.30	0.90
0.317	0.63	6.317	2.68	12.317	2.02	18.32	0.90
0.333	0.63	6.333	2.68	12.333	2.02	18.33	0.90
0.350	0.65	6.350	2.98	12.350	1.95	18.35	0.89
0.367	0.65	6.367	2.98	12.367	1.95	18.37	0.89
0.383	0.65	6.383	2.98	12.383	1.95	18.38	0.89
0.400	0.65	6.400	2.98	12.400	1.95	18.40	0.89
0.417	0.65	6.417	2.98	12.417	1.95	18.42	0.89
0.433	0.65	6.433	2.98	12.433	1.95	18.43	0.89

0.450	0.65	6.450	2.98	12.450	1.95	18.45	0.89
0.467	0.65	6.467	2.98	12.467	1.95	18.47	0.89
0.483	0.65	6.483	2.98	12.483	1.95	18.48	0.89
0.500	0.65	6.500	2.98	12.500	1.95	18.50	0.89
0.517	0.66	6.517	3.37	12.517	1.89	18.52	0.87
0.533	0.66	6.533	3.37	12.533	1.89	18.53	0.87
0.550	0.66	6.550	3.37	12.550	1.89	18.55	0.87
0.567	0.66	6.567	3.37	12.567	1.89	18.57	0.87
0.583	0.66	6.583	3.37	12.583	1.89	18.58	0.87
0.600	0.66	6.600	3.37	12.600	1.89	18.60	0.87
0.617	0.66	6.617	3.37	12.617	1.89	18.62	0.87
0.633	0.66	6.633	3.37	12.633	1.89	18.63	0.87
0.650	0.66	6.650	3.37	12.650	1.89	18.65	0.87
0.667	0.66	6.667	3.37	12.667	1.89	18.67	0.87
0.683	0.67	6.683	3.88	12.683	1.82	18.68	0.86
0.700	0.67	6.700	3.88	12.700	1.82	18.70	0.86
0.717	0.67	6.717	3.88	12.717	1.82	18.72	0.86
0.733	0.67	6.733	3.88	12.733	1.82	18.73	0.86
0.750	0.67	6.750	3.88	12.750	1.82	18.75	0.86
0.767	0.67	6.767	3.88	12.767	1.82	18.77	0.86
0.783	0.67	6.783	3.88	12.783	1.82	18.78	0.86
0.800	0.67	6.800	3.88	12.800	1.82	18.80	0.86
0.817	0.67	6.817	3.88	12.817	1.82	18.82	0.86
0.833	0.67	6.833	3.88	12.833	1.82	18.83	0.86
0.850	0.69	6.850	4.58	12.850	1.77	18.85	0.85
0.867	0.69	6.867	4.58	12.867	1.77	18.87	0.85
0.883	0.69	6.883	4.58	12.883	1.77	18.88	0.85
0.900	0.69	6.900	4.58	12.900	1.77	18.90	0.85
0.917	0.69	6.917	4.58	12.917	1.77	18.92	0.85
0.933	0.69	6.933	4.58	12.933	1.77	18.93	0.85
0.950	0.69	6.950	4.58	12.950	1.77	18.95	0.85
0.967	0.69	6.967	4.58	12.967	1.77	18.97	0.85
0.983	0.69	6.983	4.58	12.983	1.77	18.98	0.85
1.000	0.69	7.000	4.58	13.000	1.77	19.00	0.85
1.017	0.70	7.017	5.59	13.017	1.71	19.02	0.84
1.033	0.70	7.033	5.59	13.033	1.71	19.03	0.84
1.050	0.70	7.050	5.59	13.050	1.71	19.05	0.84
1.067	0.70	7.067	5.59	13.067	1.71	19.07	0.84
1.083	0.70	7.083	5.59	13.083	1.71	19.08	0.84
1.100	0.70	7.100	5.59	13.100	1.71	19.10	0.84
1.117	0.70	7.117	5.59	13.117	1.71	19.12	0.84
1.133	0.70	7.133	5.59	13.133	1.71	19.13	0.84
1.150	0.70	7.150	5.59	13.150	1.71	19.15	0.84
1.167	0.70	7.167	5.60	13.167	1.71	19.17	0.84
1.183	0.72	7.183	7.21	13.183	1.66	19.18	0.83
1.200	0.72	7.200	7.21	13.200	1.66	19.20	0.83
1.217	0.72	7.217	7.21	13.217	1.66	19.22	0.83
1.233	0.72	7.233	7.21	13.233	1.66	19.23	0.83
1.250	0.72	7.250	7.21	13.250	1.66	19.25	0.83
1.267	0.72	7.267	7.21	13.267	1.66	19.27	0.83
1.283	0.72	7.283	7.21	13.283	1.66	19.28	0.83
1.300	0.72	7.300	7.21	13.300	1.66	19.30	0.83

1.317	0.72	7.317	7.21	13.317	1.66	19.32	0.83
1.333	0.72	7.333	7.22	13.333	1.66	19.33	0.83
1.350	0.73	7.350	10.14	13.350	1.61	19.35	0.82
1.367	0.73	7.367	10.14	13.367	1.61	19.37	0.82
1.383	0.73	7.383	10.14	13.383	1.61	19.38	0.82
1.400	0.73	7.400	10.14	13.400	1.61	19.40	0.82
1.417	0.73	7.417	10.14	13.417	1.61	19.42	0.82
1.433	0.73	7.433	10.14	13.433	1.61	19.43	0.82
1.450	0.73	7.450	10.14	13.450	1.61	19.45	0.82
1.467	0.73	7.467	10.14	13.467	1.61	19.47	0.82
1.483	0.73	7.483	10.14	13.483	1.61	19.48	0.82
1.500	0.73	7.500	10.16	13.500	1.61	19.50	0.82
1.517	0.75	7.517	16.88	13.517	1.57	19.52	0.81
1.533	0.75	7.533	16.88	13.533	1.57	19.53	0.81
1.550	0.75	7.550	16.88	13.550	1.57	19.55	0.81
1.567	0.75	7.567	16.88	13.567	1.57	19.57	0.81
1.583	0.75	7.583	16.88	13.583	1.57	19.58	0.81
1.600	0.75	7.600	16.88	13.600	1.57	19.60	0.81
1.617	0.75	7.617	16.88	13.617	1.57	19.62	0.81
1.633	0.75	7.633	16.88	13.633	1.57	19.63	0.81
1.650	0.75	7.650	16.88	13.650	1.57	19.65	0.81
1.667	0.75	7.667	16.95	13.667	1.57	19.67	0.81
1.683	0.77	7.683	44.66	13.683	1.53	19.68	0.80
1.700	0.77	7.700	44.66	13.700	1.53	19.70	0.80
1.717	0.77	7.717	44.66	13.717	1.53	19.72	0.80
1.733	0.77	7.733	44.66	13.733	1.53	19.73	0.80
1.750	0.77	7.750	44.66	13.750	1.53	19.75	0.80
1.767	0.77	7.767	44.66	13.767	1.53	19.77	0.80
1.783	0.77	7.783	44.66	13.783	1.53	19.78	0.80
1.800	0.77	7.800	44.66	13.800	1.53	19.80	0.80
1.817	0.77	7.817	44.66	13.817	1.53	19.82	0.80
1.833	0.77	7.833	44.99	13.833	1.53	19.83	0.80
1.850	0.79	7.850	157.69	13.850	1.49	19.85	0.79
1.867	0.79	7.867	157.69	13.867	1.49	19.87	0.79
1.883	0.79	7.883	157.69	13.883	1.49	19.88	0.79
1.900	0.79	7.900	157.69	13.900	1.49	19.90	0.79
1.917	0.79	7.917	157.69	13.917	1.49	19.92	0.79
1.933	0.79	7.933	157.69	13.933	1.49	19.93	0.79
1.950	0.79	7.950	157.69	13.950	1.49	19.95	0.79
1.967	0.79	7.967	157.69	13.967	1.49	19.97	0.79
1.983	0.79	7.983	157.69	13.983	1.49	19.98	0.79
2.000	0.79	8.000	157.40	14.000	1.49	20.00	0.79
2.017	0.81	8.017	59.25	14.017	1.45	20.02	0.78
2.033	0.81	8.033	59.25	14.033	1.45	20.03	0.78
2.050	0.81	8.050	59.25	14.050	1.45	20.05	0.78
2.067	0.81	8.067	59.25	14.067	1.45	20.07	0.78
2.083	0.81	8.083	59.25	14.083	1.45	20.08	0.78
2.100	0.81	8.100	59.25	14.100	1.45	20.10	0.78
2.117	0.81	8.117	59.25	14.117	1.45	20.12	0.78
2.133	0.81	8.133	59.25	14.133	1.45	20.13	0.78
2.150	0.81	8.150	59.25	14.150	1.45	20.15	0.78
2.167	0.81	8.167	59.17	14.167	1.45	20.17	0.78

2.183	0.83	8.183	30.14	14.183	1.41	20.18	0.77
2.200	0.83	8.200	30.14	14.200	1.41	20.20	0.77
2.217	0.83	8.217	30.14	14.217	1.41	20.22	0.77
2.233	0.83	8.233	30.14	14.233	1.41	20.23	0.77
2.250	0.83	8.250	30.14	14.250	1.41	20.25	0.77
2.267	0.83	8.267	30.14	14.267	1.41	20.27	0.77
2.283	0.83	8.283	30.14	14.283	1.41	20.28	0.77
2.300	0.83	8.300	30.14	14.300	1.41	20.30	0.77
2.317	0.83	8.317	30.14	14.317	1.41	20.32	0.77
2.333	0.83	8.333	30.11	14.333	1.41	20.33	0.77
2.350	0.85	8.350	19.54	14.350	1.38	20.35	0.76
2.367	0.85	8.367	19.54	14.367	1.38	20.37	0.76
2.383	0.85	8.383	19.54	14.383	1.38	20.38	0.76
2.400	0.85	8.400	19.54	14.400	1.38	20.40	0.76
2.417	0.85	8.417	19.54	14.417	1.38	20.42	0.76
2.433	0.85	8.433	19.54	14.433	1.38	20.43	0.76
2.450	0.85	8.450	19.54	14.450	1.38	20.45	0.76
2.467	0.85	8.467	19.54	14.467	1.38	20.47	0.76
2.483	0.85	8.483	19.54	14.483	1.38	20.48	0.76
2.500	0.85	8.500	19.53	14.500	1.38	20.50	0.76
2.517	0.88	8.517	14.26	14.517	1.35	20.52	0.75
2.533	0.88	8.533	14.26	14.533	1.35	20.53	0.75
2.550	0.88	8.550	14.26	14.550	1.35	20.55	0.75
2.567	0.88	8.567	14.26	14.567	1.35	20.57	0.75
2.583	0.88	8.583	14.26	14.583	1.35	20.58	0.75
2.600	0.88	8.600	14.26	14.600	1.35	20.60	0.75
2.617	0.88	8.617	14.26	14.617	1.35	20.62	0.75
2.633	0.88	8.633	14.26	14.633	1.35	20.63	0.75
2.650	0.88	8.650	14.26	14.650	1.35	20.65	0.75
2.667	0.88	8.667	14.25	14.667	1.35	20.67	0.75
2.683	0.90	8.683	11.16	14.683	1.32	20.68	0.74
2.700	0.90	8.700	11.16	14.700	1.32	20.70	0.74
2.717	0.90	8.717	11.16	14.717	1.32	20.72	0.74
2.733	0.90	8.733	11.16	14.733	1.32	20.73	0.74
2.750	0.90	8.750	11.16	14.750	1.32	20.75	0.74
2.767	0.90	8.767	11.16	14.767	1.32	20.77	0.74
2.783	0.90	8.783	11.16	14.783	1.32	20.78	0.74
2.800	0.90	8.800	11.16	14.800	1.32	20.80	0.74
2.817	0.90	8.817	11.16	14.817	1.32	20.82	0.74
2.833	0.90	8.833	11.16	14.833	1.32	20.83	0.74
2.850	0.93	8.850	9.15	14.850	1.29	20.85	0.73
2.867	0.93	8.867	9.15	14.867	1.29	20.87	0.73
2.883	0.93	8.883	9.15	14.883	1.29	20.88	0.73
2.900	0.93	8.900	9.15	14.900	1.29	20.90	0.73
2.917	0.93	8.917	9.15	14.917	1.29	20.92	0.73
2.933	0.93	8.933	9.15	14.933	1.29	20.93	0.73
2.950	0.93	8.950	9.15	14.950	1.29	20.95	0.73
2.967	0.93	8.967	9.15	14.967	1.29	20.97	0.73
2.983	0.93	8.983	9.15	14.983	1.29	20.98	0.73
3.000	0.93	9.000	9.14	15.000	1.29	21.00	0.73
3.017	0.96	9.017	7.74	15.017	1.26	21.02	0.72
3.033	0.96	9.033	7.74	15.033	1.26	21.03	0.72

3.050	0.96	9.050	7.74	15.050	1.26	21.05	0.72
3.067	0.96	9.067	7.74	15.067	1.26	21.07	0.72
3.083	0.96	9.083	7.74	15.083	1.26	21.08	0.72
3.100	0.96	9.100	7.74	15.100	1.26	21.10	0.72
3.117	0.96	9.117	7.74	15.117	1.26	21.12	0.72
3.133	0.96	9.133	7.74	15.133	1.26	21.13	0.72
3.150	0.96	9.150	7.74	15.150	1.26	21.15	0.72
3.167	0.96	9.167	7.74	15.167	1.26	21.17	0.72
3.183	0.99	9.183	6.70	15.183	1.23	21.18	0.71
3.200	0.99	9.200	6.70	15.200	1.23	21.20	0.71
3.217	0.99	9.217	6.70	15.217	1.23	21.22	0.71
3.233	0.99	9.233	6.70	15.233	1.23	21.23	0.71
3.250	0.99	9.250	6.70	15.250	1.23	21.25	0.71
3.267	0.99	9.267	6.70	15.267	1.23	21.27	0.71
3.283	0.99	9.283	6.70	15.283	1.23	21.28	0.71
3.300	0.99	9.300	6.70	15.300	1.23	21.30	0.71
3.317	0.99	9.317	6.70	15.317	1.23	21.32	0.71
3.333	0.99	9.333	6.70	15.333	1.23	21.33	0.71
3.350	1.03	9.350	5.91	15.350	1.21	21.35	0.71
3.367	1.03	9.367	5.91	15.367	1.21	21.37	0.71
3.383	1.03	9.383	5.91	15.383	1.21	21.38	0.71
3.400	1.03	9.400	5.91	15.400	1.21	21.40	0.71
3.417	1.03	9.417	5.91	15.417	1.21	21.42	0.71
3.433	1.03	9.433	5.91	15.433	1.21	21.43	0.71
3.450	1.03	9.450	5.91	15.450	1.21	21.45	0.71
3.467	1.03	9.467	5.91	15.467	1.21	21.47	0.71
3.483	1.03	9.483	5.91	15.483	1.21	21.48	0.71
3.500	1.03	9.500	5.91	15.500	1.21	21.50	0.71
3.517	1.06	9.517	5.29	15.517	1.18	21.52	0.70
3.533	1.06	9.533	5.29	15.533	1.18	21.53	0.70
3.550	1.06	9.550	5.29	15.550	1.18	21.55	0.70
3.567	1.06	9.567	5.29	15.567	1.18	21.57	0.70
3.583	1.06	9.583	5.29	15.583	1.18	21.58	0.70
3.600	1.06	9.600	5.29	15.600	1.18	21.60	0.70
3.617	1.06	9.617	5.29	15.617	1.18	21.62	0.70
3.633	1.06	9.633	5.29	15.633	1.18	21.63	0.70
3.650	1.06	9.650	5.29	15.650	1.18	21.65	0.70
3.667	1.06	9.667	5.29	15.667	1.18	21.67	0.70
3.683	1.10	9.683	4.79	15.683	1.16	21.68	0.69
3.700	1.10	9.700	4.79	15.700	1.16	21.70	0.69
3.717	1.10	9.717	4.79	15.717	1.16	21.72	0.69
3.733	1.10	9.733	4.79	15.733	1.16	21.73	0.69
3.750	1.10	9.750	4.79	15.750	1.16	21.75	0.69
3.767	1.10	9.767	4.79	15.767	1.16	21.77	0.69
3.783	1.10	9.783	4.79	15.783	1.16	21.78	0.69
3.800	1.10	9.800	4.79	15.800	1.16	21.80	0.69
3.817	1.10	9.817	4.79	15.817	1.16	21.82	0.69
3.833	1.10	9.833	4.79	15.833	1.16	21.83	0.69
3.850	1.15	9.850	4.38	15.850	1.14	21.85	0.68
3.867	1.15	9.867	4.38	15.867	1.14	21.87	0.68
3.883	1.15	9.883	4.38	15.883	1.14	21.88	0.68
3.900	1.15	9.900	4.38	15.900	1.14	21.90	0.68

3.917	1.15	9.917	4.38	15.917	1.14	21.92	0.68
3.933	1.15	9.933	4.38	15.933	1.14	21.93	0.68
3.950	1.15	9.950	4.38	15.950	1.14	21.95	0.68
3.967	1.15	9.967	4.38	15.967	1.14	21.97	0.68
3.983	1.15	9.983	4.38	15.983	1.14	21.98	0.68
4.000	1.15	10.000	4.38	16.000	1.14	22.00	0.68
4.017	1.19	10.017	4.03	16.017	1.12	22.02	0.68
4.033	1.19	10.033	4.03	16.033	1.12	22.03	0.68
4.050	1.19	10.050	4.03	16.050	1.12	22.05	0.68
4.067	1.19	10.067	4.03	16.067	1.12	22.07	0.68
4.083	1.19	10.083	4.03	16.083	1.12	22.08	0.68
4.100	1.19	10.100	4.03	16.100	1.12	22.10	0.68
4.117	1.19	10.117	4.03	16.117	1.12	22.12	0.68
4.133	1.19	10.133	4.03	16.133	1.12	22.13	0.68
4.150	1.19	10.150	4.03	16.150	1.12	22.15	0.68
4.167	1.19	10.167	4.03	16.167	1.12	22.17	0.68
4.183	1.24	10.183	3.74	16.183	1.09	22.18	0.67
4.200	1.24	10.200	3.74	16.200	1.09	22.20	0.67
4.217	1.24	10.217	3.74	16.217	1.09	22.22	0.67
4.233	1.24	10.233	3.74	16.233	1.09	22.23	0.67
4.250	1.24	10.250	3.74	16.250	1.09	22.25	0.67
4.267	1.24	10.267	3.74	16.267	1.09	22.27	0.67
4.283	1.24	10.283	3.74	16.283	1.09	22.28	0.67
4.300	1.24	10.300	3.74	16.300	1.09	22.30	0.67
4.317	1.24	10.317	3.74	16.317	1.09	22.32	0.67
4.333	1.24	10.333	3.74	16.333	1.09	22.33	0.67
4.350	1.30	10.350	3.48	16.350	1.08	22.35	0.66
4.367	1.30	10.367	3.48	16.367	1.08	22.37	0.66
4.383	1.30	10.383	3.48	16.383	1.08	22.38	0.66
4.400	1.30	10.400	3.48	16.400	1.08	22.40	0.66
4.417	1.30	10.417	3.48	16.417	1.08	22.42	0.66
4.433	1.30	10.433	3.48	16.433	1.08	22.43	0.66
4.450	1.30	10.450	3.48	16.450	1.08	22.45	0.66
4.467	1.30	10.467	3.48	16.467	1.08	22.47	0.66
4.483	1.30	10.483	3.48	16.483	1.08	22.48	0.66
4.500	1.30	10.500	3.48	16.500	1.08	22.50	0.66
4.517	1.36	10.517	3.26	16.517	1.06	22.52	0.66
4.533	1.36	10.533	3.26	16.533	1.06	22.53	0.66
4.550	1.36	10.550	3.26	16.550	1.06	22.55	0.66
4.567	1.36	10.567	3.26	16.567	1.06	22.57	0.66
4.583	1.36	10.583	3.26	16.583	1.06	22.58	0.66
4.600	1.36	10.600	3.26	16.600	1.06	22.60	0.66
4.617	1.36	10.617	3.26	16.617	1.06	22.62	0.66
4.633	1.36	10.633	3.26	16.633	1.06	22.63	0.66
4.650	1.36	10.650	3.26	16.650	1.06	22.65	0.66
4.667	1.36	10.667	3.26	16.667	1.06	22.67	0.66
4.683	1.43	10.683	3.07	16.683	1.04	22.68	0.65
4.700	1.43	10.700	3.07	16.700	1.04	22.70	0.65
4.717	1.43	10.717	3.07	16.717	1.04	22.72	0.65
4.733	1.43	10.733	3.07	16.733	1.04	22.73	0.65
4.750	1.43	10.750	3.07	16.750	1.04	22.75	0.65
4.767	1.43	10.767	3.07	16.767	1.04	22.77	0.65

4.783	1.43	10.783	3.07	16.783	1.04	22.78	0.65
4.800	1.43	10.800	3.07	16.800	1.04	22.80	0.65
4.817	1.43	10.817	3.07	16.817	1.04	22.82	0.65
4.833	1.43	10.833	3.07	16.833	1.04	22.83	0.65
4.850	1.50	10.850	2.90	16.850	1.02	22.85	0.64
4.867	1.50	10.867	2.90	16.867	1.02	22.87	0.64
4.883	1.50	10.883	2.90	16.883	1.02	22.88	0.64
4.900	1.50	10.900	2.90	16.900	1.02	22.90	0.64
4.917	1.50	10.917	2.90	16.917	1.02	22.92	0.64
4.933	1.50	10.933	2.90	16.933	1.02	22.93	0.64
4.950	1.50	10.950	2.90	16.950	1.02	22.95	0.64
4.967	1.50	10.967	2.90	16.967	1.02	22.97	0.64
4.983	1.50	10.983	2.90	16.983	1.02	22.98	0.64
5.000	1.50	11.000	2.90	17.000	1.02	23.00	0.64
5.017	1.59	11.017	2.75	17.017	1.00	23.02	0.64
5.033	1.59	11.033	2.75	17.033	1.00	23.03	0.64
5.050	1.59	11.050	2.75	17.050	1.00	23.05	0.64
5.067	1.59	11.067	2.75	17.067	1.00	23.07	0.64
5.083	1.59	11.083	2.75	17.083	1.00	23.08	0.64
5.100	1.59	11.100	2.75	17.100	1.00	23.10	0.64
5.117	1.59	11.117	2.75	17.117	1.00	23.12	0.64
5.133	1.59	11.133	2.75	17.133	1.00	23.13	0.64
5.150	1.59	11.150	2.75	17.150	1.00	23.15	0.64
5.167	1.59	11.167	2.75	17.167	1.00	23.17	0.64
5.183	1.68	11.183	2.61	17.183	0.99	23.18	0.63
5.200	1.68	11.200	2.61	17.200	0.99	23.20	0.63
5.217	1.68	11.217	2.61	17.217	0.99	23.22	0.63
5.233	1.68	11.233	2.61	17.233	0.99	23.23	0.63
5.250	1.68	11.250	2.61	17.250	0.99	23.25	0.63
5.267	1.68	11.267	2.61	17.267	0.99	23.27	0.63
5.283	1.68	11.283	2.61	17.283	0.99	23.28	0.63
5.300	1.68	11.300	2.61	17.300	0.99	23.30	0.63
5.317	1.68	11.317	2.61	17.317	0.99	23.32	0.63
5.333	1.68	11.333	2.61	17.333	0.99	23.33	0.63
5.350	1.79	11.350	2.49	17.350	0.97	23.35	0.62
5.367	1.79	11.367	2.49	17.367	0.97	23.37	0.62
5.383	1.79	11.383	2.49	17.383	0.97	23.38	0.62
5.400	1.79	11.400	2.49	17.400	0.97	23.40	0.62
5.417	1.79	11.417	2.49	17.417	0.97	23.42	0.62
5.433	1.79	11.433	2.49	17.433	0.97	23.43	0.62
5.450	1.79	11.450	2.49	17.450	0.97	23.45	0.62
5.467	1.79	11.467	2.49	17.467	0.97	23.47	0.62
5.483	1.79	11.483	2.49	17.483	0.97	23.48	0.62
5.500	1.79	11.500	2.49	17.500	0.97	23.50	0.62
5.517	1.92	11.517	2.38	17.517	0.96	23.52	0.62
5.533	1.92	11.533	2.38	17.533	0.96	23.53	0.62
5.550	1.92	11.550	2.38	17.550	0.96	23.55	0.62
5.567	1.92	11.567	2.38	17.567	0.96	23.57	0.62
5.583	1.92	11.583	2.38	17.583	0.96	23.58	0.62
5.600	1.92	11.600	2.38	17.600	0.96	23.60	0.62
5.617	1.92	11.617	2.38	17.617	0.96	23.62	0.62
5.633	1.92	11.633	2.38	17.633	0.96	23.63	0.62

5.650	1.92	11.650	2.38	17.650	0.96	23.65	0.62
5.667	1.92	11.667	2.38	17.667	0.96	23.67	0.62
5.683	2.06	11.683	2.28	17.683	0.94	23.68	0.61
5.700	2.06	11.700	2.28	17.700	0.94	23.70	0.61
5.717	2.06	11.717	2.28	17.717	0.94	23.72	0.61
5.733	2.06	11.733	2.28	17.733	0.94	23.73	0.61
5.750	2.06	11.750	2.28	17.750	0.94	23.75	0.61
5.767	2.06	11.767	2.28	17.767	0.94	23.77	0.61
5.783	2.06	11.783	2.28	17.783	0.94	23.78	0.61
5.800	2.06	11.800	2.28	17.800	0.94	23.80	0.61
5.817	2.06	11.817	2.28	17.817	0.94	23.82	0.61
5.833	2.06	11.833	2.28	17.833	0.94	23.83	0.61
5.850	2.23	11.850	2.19	17.850	0.93	23.85	0.61
5.867	2.23	11.867	2.19	17.867	0.93	23.87	0.61
5.883	2.23	11.883	2.19	17.883	0.93	23.88	0.61
5.900	2.23	11.900	2.19	17.900	0.93	23.90	0.61
5.917	2.23	11.917	2.19	17.917	0.93	23.92	0.61
5.933	2.23	11.933	2.19	17.933	0.93	23.93	0.61
5.950	2.23	11.950	2.19	17.950	0.93	23.95	0.61
5.967	2.23	11.967	2.19	17.967	0.93	23.97	0.61
5.983	2.23	11.983	2.19	17.983	0.93	23.98	0.61
6.000	2.23	12.000	2.19	18.000	0.93	24.00	0.61

```
    Max.Eff.Inten.(mm/hr)=     157.69          34.54
                          over (min)          5.00          12.00
    Storage Coeff.  (min)=       2.83 (ii)     11.58 (ii)
    Unit Hyd. Tpeak (min)=       5.00          12.00
    Unit Hyd. peak  (cms)=       0.32           0.10
                                                          *TOTALS*
    PEAK FLOW       (cms)=       0.21           0.08       0.254 (iii)
    TIME TO PEAK    (hrs)=       8.00           8.17          8.02
    RUNOFF VOLUME    (mm)=      97.33          24.75         43.62
    TOTAL RAINFALL   (mm)=      98.33          98.33         98.33
    RUNOFF COEFFICIENT   =       0.99           0.25          0.44


      (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
          CN*  =  48.0     Ia = Dep. Storage  (Above)
     (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
          THAN THE STORAGE COEFFICIENT.
    (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

-------------------------------------------------------------------------------
--------------------
| DUHYD    (  0037)|
| Inlet Cap.= 0.108|
| #of Inlets=     1|
| Total(cms)=   0.1|
--------------------
                          AREA     QPEAK     TPEAK    R.V.
                          (ha)     (cms)     (hrs)    (mm)
      TOTAL HYD.(ID= 1):   1.95      0.25      8.02   43.62
      ================================================
      MAJOR SYS.(ID= 2):   0.27      0.15      8.02   43.62
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MINOR SYS.(ID= 3): 1.67 0.11 7.88 43.62

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| Junction Command(0038) |

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 9(0037)	1.67	0.11	7.88	43.62
OUTFLOW: ID= 2(0038)	1.67	0.11	7.88	43.62

CALIB	
NASHYD (0104)	Area (ha)= 0.77 Curve Number (CN)= 53.0
ID= 1 DT= 5.0 min	Ia (mm)= 5.00 # of Linear Res.(N)= 3.00
	U.H. Tp(hrs)= 0.34

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	0.62	6.083	2.43	12.083	2.10	18.08	0.91
0.167	0.62	6.167	2.43	12.167	2.10	18.17	0.91
0.250	0.63	6.250	2.68	12.250	2.02	18.25	0.90
0.333	0.63	6.333	2.68	12.333	2.02	18.33	0.90
0.417	0.65	6.417	2.98	12.417	1.95	18.42	0.89
0.500	0.65	6.500	2.98	12.500	1.95	18.50	0.89
0.583	0.66	6.583	3.37	12.583	1.89	18.58	0.87
0.667	0.66	6.667	3.37	12.667	1.89	18.67	0.87
0.750	0.67	6.750	3.88	12.750	1.82	18.75	0.86
0.833	0.67	6.833	3.88	12.833	1.82	18.83	0.86
0.917	0.69	6.917	4.58	12.917	1.77	18.92	0.85
1.000	0.69	7.000	4.58	13.000	1.77	19.00	0.85
1.083	0.70	7.083	5.59	13.083	1.71	19.08	0.84
1.167	0.70	7.167	5.59	13.167	1.71	19.17	0.84
1.250	0.72	7.250	7.21	13.250	1.66	19.25	0.83
1.333	0.72	7.333	7.21	13.333	1.66	19.33	0.83
1.417	0.73	7.417	10.14	13.417	1.61	19.42	0.82
1.500	0.73	7.500	10.14	13.500	1.61	19.50	0.82
1.583	0.75	7.583	16.88	13.583	1.57	19.58	0.81
1.667	0.75	7.667	16.88	13.667	1.57	19.67	0.81
1.750	0.77	7.750	44.66	13.750	1.53	19.75	0.80
1.833	0.77	7.833	44.67	13.833	1.53	19.83	0.80
1.917	0.79	7.917	157.69	13.917	1.49	19.92	0.79
2.000	0.79	8.000	157.68	14.000	1.49	20.00	0.79
2.083	0.81	8.083	59.25	14.083	1.45	20.08	0.78
2.167	0.81	8.167	59.25	14.167	1.45	20.17	0.78
2.250	0.83	8.250	30.14	14.250	1.41	20.25	0.77
2.333	0.83	8.333	30.14	14.333	1.41	20.33	0.77
2.417	0.85	8.417	19.54	14.417	1.38	20.42	0.76
2.500	0.85	8.500	19.54	14.500	1.38	20.50	0.76
2.583	0.88	8.583	14.26	14.583	1.35	20.58	0.75
2.667	0.88	8.667	14.26	14.667	1.35	20.67	0.75
2.750	0.90	8.750	11.16	14.750	1.32	20.75	0.74
2.833	0.90	8.833	11.16	14.833	1.32	20.83	0.74
2.917	0.93	8.917	9.15	14.917	1.29	20.92	0.73
3.000	0.93	9.000	9.15	15.000	1.29	21.00	0.73
3.083	0.96	9.083	7.74	15.083	1.26	21.08	0.72
3.167	0.96	9.167	7.74	15.167	1.26	21.17	0.72
3.250	0.99	9.250	6.70	15.250	1.23	21.25	0.71
3.333	0.99	9.333	6.70	15.333	1.23	21.33	0.71
3.417	1.03	9.417	5.91	15.417	1.21	21.42	0.71
3.500	1.03	9.500	5.91	15.500	1.21	21.50	0.71
3.583	1.06	9.583	5.29	15.583	1.18	21.58	0.70
3.667	1.06	9.667	5.29	15.667	1.18	21.67	0.70
3.750	1.10	9.750	4.79	15.750	1.16	21.75	0.69
3.833	1.10	9.833	4.79	15.833	1.16	21.83	0.69
3.917	1.15	9.917	4.38	15.917	1.14	21.92	0.68
4.000	1.15	10.000	4.38	16.000	1.14	22.00	0.68
4.083	1.19	10.083	4.03	16.083	1.12	22.08	0.68
4.167	1.19	10.167	4.03	16.167	1.12	22.17	0.68
4.250	1.24	10.250	3.74	16.250	1.09	22.25	0.67
4.333	1.24	10.333	3.74	16.333	1.09	22.33	0.67
4.417	1.30	10.417	3.48	16.417	1.08	22.42	0.66
4.500	1.30	10.500	3.48	16.500	1.08	22.50	0.66
4.583	1.36	10.583	3.26	16.583	1.06	22.58	0.66
4.667	1.36	10.667	3.26	16.667	1.06	22.67	0.66
4.750	1.43	10.750	3.07	16.750	1.04	22.75	0.65
4.833	1.43	10.833	3.07	16.833	1.04	22.83	0.65
4.917	1.50	10.917	2.90	16.917	1.02	22.92	0.64
5.000	1.50	11.000	2.90	17.000	1.02	23.00	0.64
5.083	1.59	11.083	2.75	17.083	1.00	23.08	0.64
5.167	1.59	11.167	2.75	17.167	1.00	23.17	0.64
5.250	1.68	11.250	2.61	17.250	0.99	23.25	0.63
5.333	1.68	11.333	2.61	17.333	0.99	23.33	0.63
5.417	1.79	11.417	2.49	17.417	0.97	23.42	0.62
5.500	1.79	11.500	2.49	17.500	0.97	23.50	0.62
5.583	1.92	11.583	2.38	17.583	0.96	23.58	0.62
5.667	1.92	11.667	2.38	17.667	0.96	23.67	0.62
5.750	2.06	11.750	2.28	17.750	0.94	23.75	0.61
5.833	2.06	11.833	2.28	17.833	0.94	23.83	0.61
5.917	2.23	11.917	2.19	17.917	0.93	23.92	0.61
6.000	2.23	12.000	2.19	18.000	0.93	24.00	0.61

Unit Hyd Qpeak (cms)= 0.086

PEAK FLOW (cms)= 0.035 (i)

TIME TO PEAK (hrs)= 8.333
RUNOFF VOLUME (mm)= 27.337
TOTAL RAINFALL (mm)= 98.335
RUNOFF COEFFICIENT = 0.278

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

CALIB	
STANDHYD (0103)	Area (ha)= 1.17
ID= 1 DT= 1.0 min	Total Imp(%)= 24.00 Dir. Conn.(%)= 20.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.28	0.89
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.50	2.00
Length (m)=	88.20	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 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
0.017	0.62	6.017	2.43	12.017	2.10	18.02	0.91
0.033	0.62	6.033	2.43	12.033	2.10	18.03	0.91
0.050	0.62	6.050	2.43	12.050	2.10	18.05	0.91
0.067	0.62	6.067	2.43	12.067	2.10	18.07	0.91
0.083	0.62	6.083	2.43	12.083	2.10	18.08	0.91
0.100	0.62	6.100	2.43	12.100	2.10	18.10	0.91
0.117	0.62	6.117	2.43	12.117	2.10	18.12	0.91
0.133	0.62	6.133	2.43	12.133	2.10	18.13	0.91
0.150	0.62	6.150	2.43	12.150	2.10	18.15	0.91
0.167	0.62	6.167	2.43	12.167	2.10	18.17	0.91
0.183	0.63	6.183	2.68	12.183	2.02	18.18	0.90
0.200	0.63	6.200	2.68	12.200	2.02	18.20	0.90
0.217	0.63	6.217	2.68	12.217	2.02	18.22	0.90
0.233	0.63	6.233	2.68	12.233	2.02	18.23	0.90
0.250	0.63	6.250	2.68	12.250	2.02	18.25	0.90
0.267	0.63	6.267	2.68	12.267	2.02	18.27	0.90
0.283	0.63	6.283	2.68	12.283	2.02	18.28	0.90
0.300	0.63	6.300	2.68	12.300	2.02	18.30	0.90
0.317	0.63	6.317	2.68	12.317	2.02	18.32	0.90
0.333	0.63	6.333	2.68	12.333	2.02	18.33	0.90
0.350	0.65	6.350	2.98	12.350	1.95	18.35	0.89
0.367	0.65	6.367	2.98	12.367	1.95	18.37	0.89
0.383	0.65	6.383	2.98	12.383	1.95	18.38	0.89
0.400	0.65	6.400	2.98	12.400	1.95	18.40	0.89
0.417	0.65	6.417	2.98	12.417	1.95	18.42	0.89
0.433	0.65	6.433	2.98	12.433	1.95	18.43	0.89
0.450	0.65	6.450	2.98	12.450	1.95	18.45	0.89
0.467	0.65	6.467	2.98	12.467	1.95	18.47	0.89
0.483	0.65	6.483	2.98	12.483	1.95	18.48	0.89
0.500	0.65	6.500	2.98	12.500	1.95	18.50	0.89
0.517	0.66	6.517	3.37	12.517	1.89	18.52	0.87
0.533	0.66	6.533	3.37	12.533	1.89	18.53	0.87
0.550	0.66	6.550	3.37	12.550	1.89	18.55	0.87
0.567	0.66	6.567	3.37	12.567	1.89	18.57	0.87
0.583	0.66	6.583	3.37	12.583	1.89	18.58	0.87
0.600	0.66	6.600	3.37	12.600	1.89	18.60	0.87
0.617	0.66	6.617	3.37	12.617	1.89	18.62	0.87
0.633	0.66	6.633	3.37	12.633	1.89	18.63	0.87
0.650	0.66	6.650	3.37	12.650	1.89	18.65	0.87
0.667	0.66	6.667	3.37	12.667	1.89	18.67	0.87
0.683	0.67	6.683	3.88	12.683	1.82	18.68	0.86
0.700	0.67	6.700	3.88	12.700	1.82	18.70	0.86
0.717	0.67	6.717	3.88	12.717	1.82	18.72	0.86
0.733	0.67	6.733	3.88	12.733	1.82	18.73	0.86
0.750	0.67	6.750	3.88	12.750	1.82	18.75	0.86
0.767	0.67	6.767	3.88	12.767	1.82	18.77	0.86
0.783	0.67	6.783	3.88	12.783	1.82	18.78	0.86
0.800	0.67	6.800	3.88	12.800	1.82	18.80	0.86
0.817	0.67	6.817	3.88	12.817	1.82	18.82	0.86
0.833	0.67	6.833	3.88	12.833	1.82	18.83	0.86
0.850	0.69	6.850	4.58	12.850	1.77	18.85	0.85
0.867	0.69	6.867	4.58	12.867	1.77	18.87	0.85
0.883	0.69	6.883	4.58	12.883	1.77	18.88	0.85
0.900	0.69	6.900	4.58	12.900	1.77	18.90	0.85
0.917	0.69	6.917	4.58	12.917	1.77	18.92	0.85
0.933	0.69	6.933	4.58	12.933	1.77	18.93	0.85
0.950	0.69	6.950	4.58	12.950	1.77	18.95	0.85
0.967	0.69	6.967	4.58	12.967	1.77	18.97	0.85
0.983	0.69	6.983	4.58	12.983	1.77	18.98	0.85
1.000	0.69	7.000	4.58	13.000	1.77	19.00	0.85
1.017	0.70	7.017	5.59	13.017	1.71	19.02	0.84
1.033	0.70	7.033	5.59	13.033	1.71	19.03	0.84
1.050	0.70	7.050	5.59	13.050	1.71	19.05	0.84
1.067	0.70	7.067	5.59	13.067	1.71	19.07	0.84
1.083	0.70	7.083	5.59	13.083	1.71	19.08	0.84
1.100	0.70	7.100	5.59	13.100	1.71	19.10	0.84
1.117	0.70	7.117	5.59	13.117	1.71	19.12	0.84
1.133	0.70	7.133	5.59	13.133	1.71	19.13	0.84
1.150	0.70	7.150	5.59	13.150	1.71	19.15	0.84
1.167	0.70	7.167	5.60	13.167	1.71	19.17	0.84
1.183	0.72	7.183	7.21	13.183	1.66	19.18	0.83
1.200	0.72	7.200	7.21	13.200	1.66	19.20	0.83
1.217	0.72	7.217	7.21	13.217	1.66	19.22	0.83
1.233	0.72	7.233	7.21	13.233	1.66	19.23	0.83
1.250	0.72	7.250	7.21	13.250	1.66	19.25	0.83
1.267	0.72	7.267	7.21	13.267	1.66	19.27	0.83
1.283	0.72	7.283	7.21	13.283	1.66	19.28	0.83
1.300	0.72	7.300	7.21	13.300	1.66	19.30	0.83
1.317	0.72	7.317	7.21	13.317	1.66	19.32	0.83
1.333	0.72	7.333	7.22	13.333	1.66	19.33	0.83
1.350	0.73	7.350	10.14	13.350	1.61	19.35	0.82
1.367	0.73	7.367	10.14	13.367	1.61	19.37	0.82
1.383	0.73	7.383	10.14	13.383	1.61	19.38	0.82
1.400	0.73	7.400	10.14	13.400	1.61	19.40	0.82
1.417	0.73	7.417	10.14	13.417	1.61	19.42	0.82
1.433	0.73	7.433	10.14	13.433	1.61	19.43	0.82
1.450	0.73	7.450	10.14	13.450	1.61	19.45	0.82
1.467	0.73	7.467	10.14	13.467	1.61	19.47	0.82
1.483	0.73	7.483	10.14	13.483	1.61	19.48	0.82
1.500	0.73	7.500	10.16	13.500	1.61	19.50	0.82
1.517	0.75	7.517	16.88	13.517	1.57	19.52	0.81
1.533	0.75	7.533	16.88	13.533	1.57	19.53	0.81
1.550	0.75	7.550	16.88	13.550	1.57	19.55	0.81
1.567	0.75	7.567	16.88	13.567	1.57	19.57	0.81
1.583	0.75	7.583	16.88	13.583	1.57	19.58	0.81
1.600	0.75	7.600	16.88	13.600	1.57	19.60	0.81
1.617	0.75	7.617	16.88	13.617	1.57	19.62	0.81
1.633	0.75	7.633	16.88	13.633	1.57	19.63	0.81
1.650	0.75	7.650	16.88	13.650	1.57	19.65	0.81
1.667	0.75	7.667	16.95	13.667	1.57	19.67	0.81
1.683	0.77	7.683	44.66	13.683	1.53	19.68	0.80
1.700	0.77	7.700	44.66	13.700	1.53	19.70	0.80
1.717	0.77	7.717	44.66	13.717	1.53	19.72	0.80
1.733	0.77	7.733	44.66	13.733	1.53	19.73	0.80
1.750	0.77	7.750	44.66	13.750	1.53	19.75	0.80
1.767	0.77	7.767	44.66	13.767	1.53	19.77	0.80
1.783	0.77	7.783	44.66	13.783	1.53	19.78	0.80
1.800	0.77	7.800	44.66	13.800	1.53	19.80	0.80
1.817	0.77	7.817	44.66	13.817	1.53	19.82	0.80
1.833	0.77	7.833	44.99	13.833	1.53	19.83	0.80
1.850	0.79	7.850	157.69	13.850	1.49	19.85	0.79
1.867	0.79	7.867	157.69	13.867	1.49	19.87	0.79
1.883	0.79	7.883	157.69	13.883	1.49	19.88	0.79
1.900	0.79	7.900	157.69	13.900	1.49	19.90	0.79
1.917	0.79	7.917	157.69	13.917	1.49	19.92	0.79
1.933	0.79	7.933	157.69	13.933	1.49	19.93	0.79
1.950	0.79	7.950	157.69	13.950	1.49	19.95	0.79
1.967	0.79	7.967	157.69	13.967	1.49	19.97	0.79
1.983	0.79	7.983	157.69	13.983	1.49	19.98	0.79
2.000	0.79	8.000	157.40	14.000	1.49	20.00	0.79
2.017	0.81	8.017	59.25	14.017	1.45	20.02	0.78
2.033	0.81	8.033	59.25	14.033	1.45	20.03	0.78
2.050	0.81	8.050	59.25	14.050	1.45	20.05	0.78
2.067	0.81	8.067	59.25	14.067	1.45	20.07	0.78
2.083	0.81	8.083	59.25	14.083	1.45	20.08	0.78
2.100	0.81	8.100	59.25	14.100	1.45	20.10	0.78
2.117	0.81	8.117	59.25	14.117	1.45	20.12	0.78
2.133	0.81	8.133	59.25	14.133	1.45	20.13	0.78
2.150	0.81	8.150	59.25	14.150	1.45	20.15	0.78
2.167	0.81	8.167	59.17	14.167	1.45	20.17	0.78
2.183	0.83	8.183	30.14	14.183	1.41	20.18	0.77
2.200	0.83	8.200	30.14	14.200	1.41	20.20	0.77
2.217	0.83	8.217	30.14	14.217	1.41	20.22	0.77
2.233	0.83	8.233	30.14	14.233	1.41	20.23	0.77
2.250	0.83	8.250	30.14	14.250	1.41	20.25	0.77
2.267	0.83	8.267	30.14	14.267	1.41	20.27	0.77
2.283	0.83	8.283	30.14	14.283	1.41	20.28	0.77
2.300	0.83	8.300	30.14	14.300	1.41	20.30	0.77
2.317	0.83	8.317	30.14	14.317	1.41	20.32	0.77
2.333	0.83	8.333	30.11	14.333	1.41	20.33	0.77
2.350	0.85	8.350	19.54	14.350	1.38	20.35	0.76
2.367	0.85	8.367	19.54	14.367	1.38	20.37	0.76
2.383	0.85	8.383	19.54	14.383	1.38	20.38	0.76
2.400	0.85	8.400	19.54	14.400	1.38	20.40	0.76
2.417	0.85	8.417	19.54	14.417	1.38	20.42	0.76
2.433	0.85	8.433	19.54	14.433	1.38	20.43	0.76
2.450	0.85	8.450	19.54	14.450	1.38	20.45	0.76
2.467	0.85	8.467	19.54	14.467	1.38	20.47	0.76
2.483	0.85	8.483	19.54	14.483	1.38	20.48	0.76
2.500	0.85	8.500	19.53	14.500	1.38	20.50	0.76
2.517	0.88	8.517	14.26	14.517	1.35	20.52	0.75
2.533	0.88	8.533	14.26	14.533	1.35	20.53	0.75
2.550	0.88	8.550	14.26	14.550	1.35	20.55	0.75
2.567	0.88	8.567	14.26	14.567	1.35	20.57	0.75
2.583	0.88	8.583	14.26	14.583	1.35	20.58	0.75
2.600	0.88	8.600	14.26	14.600	1.35	20.60	0.75
2.617	0.88	8.617	14.26	14.617	1.35	20.62	0.75
2.633	0.88	8.633	14.26	14.633	1.35	20.63	0.75
2.650	0.88	8.650	14.26	14.650	1.35	20.65	0.75
2.667	0.88	8.667	14.25	14.667	1.35	20.67	0.75
2.683	0.90	8.683	11.16	14.683	1.32	20.68	0.74
2.700	0.90	8.700	11.16	14.700	1.32	20.70	0.74
2.717	0.90	8.717	11.16	14.717	1.32	20.72	0.74
2.733	0.90	8.733	11.16	14.733	1.32	20.73	0.74
2.750	0.90	8.750	11.16	14.750	1.32	20.75	0.74
2.767	0.90	8.767	11.16	14.767	1.32	20.77	0.74
2.783	0.90	8.783	11.16	14.783	1.32	20.78	0.74
2.800	0.90	8.800	11.16	14.800	1.32	20.80	0.74
2.817	0.90	8.817	11.16	14.817	1.32	20.82	0.74
2.833	0.90	8.833	11.16	14.833	1.32	20.83	0.74
2.850	0.93	8.850	9.15	14.850	1.29	20.85	0.73
2.867	0.93	8.867	9.15	14.867	1.29	20.87	0.73
2.883	0.93	8.883	9.15	14.883	1.29	20.88	0.73
2.900	0.93	8.900	9.15	14.900	1.29	20.90	0.73
2.917	0.93	8.917	9.15	14.917	1.29	20.92	0.73
2.933	0.93	8.933	9.15	14.933	1.29	20.93	0.73
2.950	0.93	8.950	9.15	14.950	1.29	20.95	0.73
2.967	0.93	8.967	9.15	14.967	1.29	20.97	0.73
2.983	0.93	8.983	9.15	14.983	1.29	20.98	0.73
3.000	0.93	9.000	9.14	15.000	1.29	21.00	0.73
3.017	0.96	9.017	7.74	15.017	1.26	21.02	0.72
3.033	0.96	9.033	7.74	15.033	1.26	21.03	0.72

3.050	0.96	9.050	7.74	15.050	1.26	21.05	0.72
3.067	0.96	9.067	7.74	15.067	1.26	21.07	0.72
3.083	0.96	9.083	7.74	15.083	1.26	21.08	0.72
3.100	0.96	9.100	7.74	15.100	1.26	21.10	0.72
3.117	0.96	9.117	7.74	15.117	1.26	21.12	0.72
3.133	0.96	9.133	7.74	15.133	1.26	21.13	0.72
3.150	0.96	9.150	7.74	15.150	1.26	21.15	0.72
3.167	0.96	9.167	7.74	15.167	1.26	21.17	0.72
3.183	0.99	9.183	6.70	15.183	1.23	21.18	0.71
3.200	0.99	9.200	6.70	15.200	1.23	21.20	0.71
3.217	0.99	9.217	6.70	15.217	1.23	21.22	0.71
3.233	0.99	9.233	6.70	15.233	1.23	21.23	0.71
3.250	0.99	9.250	6.70	15.250	1.23	21.25	0.71
3.267	0.99	9.267	6.70	15.267	1.23	21.27	0.71
3.283	0.99	9.283	6.70	15.283	1.23	21.28	0.71
3.300	0.99	9.300	6.70	15.300	1.23	21.30	0.71
3.317	0.99	9.317	6.70	15.317	1.23	21.32	0.71
3.333	0.99	9.333	6.70	15.333	1.23	21.33	0.71
3.350	1.03	9.350	5.91	15.350	1.21	21.35	0.71
3.367	1.03	9.367	5.91	15.367	1.21	21.37	0.71
3.383	1.03	9.383	5.91	15.383	1.21	21.38	0.71
3.400	1.03	9.400	5.91	15.400	1.21	21.40	0.71
3.417	1.03	9.417	5.91	15.417	1.21	21.42	0.71
3.433	1.03	9.433	5.91	15.433	1.21	21.43	0.71
3.450	1.03	9.450	5.91	15.450	1.21	21.45	0.71
3.467	1.03	9.467	5.91	15.467	1.21	21.47	0.71
3.483	1.03	9.483	5.91	15.483	1.21	21.48	0.71
3.500	1.03	9.500	5.91	15.500	1.21	21.50	0.71
3.517	1.06	9.517	5.29	15.517	1.18	21.52	0.70
3.533	1.06	9.533	5.29	15.533	1.18	21.53	0.70
3.550	1.06	9.550	5.29	15.550	1.18	21.55	0.70
3.567	1.06	9.567	5.29	15.567	1.18	21.57	0.70
3.583	1.06	9.583	5.29	15.583	1.18	21.58	0.70
3.600	1.06	9.600	5.29	15.600	1.18	21.60	0.70
3.617	1.06	9.617	5.29	15.617	1.18	21.62	0.70
3.633	1.06	9.633	5.29	15.633	1.18	21.63	0.70
3.650	1.06	9.650	5.29	15.650	1.18	21.65	0.70
3.667	1.06	9.667	5.29	15.667	1.18	21.67	0.70
3.683	1.10	9.683	4.79	15.683	1.16	21.68	0.69
3.700	1.10	9.700	4.79	15.700	1.16	21.70	0.69
3.717	1.10	9.717	4.79	15.717	1.16	21.72	0.69
3.733	1.10	9.733	4.79	15.733	1.16	21.73	0.69
3.750	1.10	9.750	4.79	15.750	1.16	21.75	0.69
3.767	1.10	9.767	4.79	15.767	1.16	21.77	0.69
3.783	1.10	9.783	4.79	15.783	1.16	21.78	0.69
3.800	1.10	9.800	4.79	15.800	1.16	21.80	0.69
3.817	1.10	9.817	4.79	15.817	1.16	21.82	0.69
3.833	1.10	9.833	4.79	15.833	1.16	21.83	0.69
3.850	1.15	9.850	4.38	15.850	1.14	21.85	0.68
3.867	1.15	9.867	4.38	15.867	1.14	21.87	0.68
3.883	1.15	9.883	4.38	15.883	1.14	21.88	0.68
3.900	1.15	9.900	4.38	15.900	1.14	21.90	0.68

3.917	1.15	9.917	4.38	15.917	1.14	21.92	0.68
3.933	1.15	9.933	4.38	15.933	1.14	21.93	0.68
3.950	1.15	9.950	4.38	15.950	1.14	21.95	0.68
3.967	1.15	9.967	4.38	15.967	1.14	21.97	0.68
3.983	1.15	9.983	4.38	15.983	1.14	21.98	0.68
4.000	1.15	10.000	4.38	16.000	1.14	22.00	0.68
4.017	1.19	10.017	4.03	16.017	1.12	22.02	0.68
4.033	1.19	10.033	4.03	16.033	1.12	22.03	0.68
4.050	1.19	10.050	4.03	16.050	1.12	22.05	0.68
4.067	1.19	10.067	4.03	16.067	1.12	22.07	0.68
4.083	1.19	10.083	4.03	16.083	1.12	22.08	0.68
4.100	1.19	10.100	4.03	16.100	1.12	22.10	0.68
4.117	1.19	10.117	4.03	16.117	1.12	22.12	0.68
4.133	1.19	10.133	4.03	16.133	1.12	22.13	0.68
4.150	1.19	10.150	4.03	16.150	1.12	22.15	0.68
4.167	1.19	10.167	4.03	16.167	1.12	22.17	0.68
4.183	1.24	10.183	3.74	16.183	1.09	22.18	0.67
4.200	1.24	10.200	3.74	16.200	1.09	22.20	0.67
4.217	1.24	10.217	3.74	16.217	1.09	22.22	0.67
4.233	1.24	10.233	3.74	16.233	1.09	22.23	0.67
4.250	1.24	10.250	3.74	16.250	1.09	22.25	0.67
4.267	1.24	10.267	3.74	16.267	1.09	22.27	0.67
4.283	1.24	10.283	3.74	16.283	1.09	22.28	0.67
4.300	1.24	10.300	3.74	16.300	1.09	22.30	0.67
4.317	1.24	10.317	3.74	16.317	1.09	22.32	0.67
4.333	1.24	10.333	3.74	16.333	1.09	22.33	0.67
4.350	1.30	10.350	3.48	16.350	1.08	22.35	0.66
4.367	1.30	10.367	3.48	16.367	1.08	22.37	0.66
4.383	1.30	10.383	3.48	16.383	1.08	22.38	0.66
4.400	1.30	10.400	3.48	16.400	1.08	22.40	0.66
4.417	1.30	10.417	3.48	16.417	1.08	22.42	0.66
4.433	1.30	10.433	3.48	16.433	1.08	22.43	0.66
4.450	1.30	10.450	3.48	16.450	1.08	22.45	0.66
4.467	1.30	10.467	3.48	16.467	1.08	22.47	0.66
4.483	1.30	10.483	3.48	16.483	1.08	22.48	0.66
4.500	1.30	10.500	3.48	16.500	1.08	22.50	0.66
4.517	1.36	10.517	3.26	16.517	1.06	22.52	0.66
4.533	1.36	10.533	3.26	16.533	1.06	22.53	0.66
4.550	1.36	10.550	3.26	16.550	1.06	22.55	0.66
4.567	1.36	10.567	3.26	16.567	1.06	22.57	0.66
4.583	1.36	10.583	3.26	16.583	1.06	22.58	0.66
4.600	1.36	10.600	3.26	16.600	1.06	22.60	0.66
4.617	1.36	10.617	3.26	16.617	1.06	22.62	0.66
4.633	1.36	10.633	3.26	16.633	1.06	22.63	0.66
4.650	1.36	10.650	3.26	16.650	1.06	22.65	0.66
4.667	1.36	10.667	3.26	16.667	1.06	22.67	0.66
4.683	1.43	10.683	3.07	16.683	1.04	22.68	0.65
4.700	1.43	10.700	3.07	16.700	1.04	22.70	0.65
4.717	1.43	10.717	3.07	16.717	1.04	22.72	0.65
4.733	1.43	10.733	3.07	16.733	1.04	22.73	0.65
4.750	1.43	10.750	3.07	16.750	1.04	22.75	0.65
4.767	1.43	10.767	3.07	16.767	1.04	22.77	0.65

4.783	1.43	10.783	3.07	16.783	1.04	22.78	0.65
4.800	1.43	10.800	3.07	16.800	1.04	22.80	0.65
4.817	1.43	10.817	3.07	16.817	1.04	22.82	0.65
4.833	1.43	10.833	3.07	16.833	1.04	22.83	0.65
4.850	1.50	10.850	2.90	16.850	1.02	22.85	0.64
4.867	1.50	10.867	2.90	16.867	1.02	22.87	0.64
4.883	1.50	10.883	2.90	16.883	1.02	22.88	0.64
4.900	1.50	10.900	2.90	16.900	1.02	22.90	0.64
4.917	1.50	10.917	2.90	16.917	1.02	22.92	0.64
4.933	1.50	10.933	2.90	16.933	1.02	22.93	0.64
4.950	1.50	10.950	2.90	16.950	1.02	22.95	0.64
4.967	1.50	10.967	2.90	16.967	1.02	22.97	0.64
4.983	1.50	10.983	2.90	16.983	1.02	22.98	0.64
5.000	1.50	11.000	2.90	17.000	1.02	23.00	0.64
5.017	1.59	11.017	2.75	17.017	1.00	23.02	0.64
5.033	1.59	11.033	2.75	17.033	1.00	23.03	0.64
5.050	1.59	11.050	2.75	17.050	1.00	23.05	0.64
5.067	1.59	11.067	2.75	17.067	1.00	23.07	0.64
5.083	1.59	11.083	2.75	17.083	1.00	23.08	0.64
5.100	1.59	11.100	2.75	17.100	1.00	23.10	0.64
5.117	1.59	11.117	2.75	17.117	1.00	23.12	0.64
5.133	1.59	11.133	2.75	17.133	1.00	23.13	0.64
5.150	1.59	11.150	2.75	17.150	1.00	23.15	0.64
5.167	1.59	11.167	2.75	17.167	1.00	23.17	0.64
5.183	1.68	11.183	2.61	17.183	0.99	23.18	0.63
5.200	1.68	11.200	2.61	17.200	0.99	23.20	0.63
5.217	1.68	11.217	2.61	17.217	0.99	23.22	0.63
5.233	1.68	11.233	2.61	17.233	0.99	23.23	0.63
5.250	1.68	11.250	2.61	17.250	0.99	23.25	0.63
5.267	1.68	11.267	2.61	17.267	0.99	23.27	0.63
5.283	1.68	11.283	2.61	17.283	0.99	23.28	0.63
5.300	1.68	11.300	2.61	17.300	0.99	23.30	0.63
5.317	1.68	11.317	2.61	17.317	0.99	23.32	0.63
5.333	1.68	11.333	2.61	17.333	0.99	23.33	0.63
5.350	1.79	11.350	2.49	17.350	0.97	23.35	0.62
5.367	1.79	11.367	2.49	17.367	0.97	23.37	0.62
5.383	1.79	11.383	2.49	17.383	0.97	23.38	0.62
5.400	1.79	11.400	2.49	17.400	0.97	23.40	0.62
5.417	1.79	11.417	2.49	17.417	0.97	23.42	0.62
5.433	1.79	11.433	2.49	17.433	0.97	23.43	0.62
5.450	1.79	11.450	2.49	17.450	0.97	23.45	0.62
5.467	1.79	11.467	2.49	17.467	0.97	23.47	0.62
5.483	1.79	11.483	2.49	17.483	0.97	23.48	0.62
5.500	1.79	11.500	2.49	17.500	0.97	23.50	0.62
5.517	1.92	11.517	2.38	17.517	0.96	23.52	0.62
5.533	1.92	11.533	2.38	17.533	0.96	23.53	0.62
5.550	1.92	11.550	2.38	17.550	0.96	23.55	0.62
5.567	1.92	11.567	2.38	17.567	0.96	23.57	0.62
5.583	1.92	11.583	2.38	17.583	0.96	23.58	0.62
5.600	1.92	11.600	2.38	17.600	0.96	23.60	0.62
5.617	1.92	11.617	2.38	17.617	0.96	23.62	0.62
5.633	1.92	11.633	2.38	17.633	0.96	23.63	0.62

5.650	1.92	11.650	2.38	17.650	0.96	23.65	0.62
5.667	1.92	11.667	2.38	17.667	0.96	23.67	0.62
5.683	2.06	11.683	2.28	17.683	0.94	23.68	0.61
5.700	2.06	11.700	2.28	17.700	0.94	23.70	0.61
5.717	2.06	11.717	2.28	17.717	0.94	23.72	0.61
5.733	2.06	11.733	2.28	17.733	0.94	23.73	0.61
5.750	2.06	11.750	2.28	17.750	0.94	23.75	0.61
5.767	2.06	11.767	2.28	17.767	0.94	23.77	0.61
5.783	2.06	11.783	2.28	17.783	0.94	23.78	0.61
5.800	2.06	11.800	2.28	17.800	0.94	23.80	0.61
5.817	2.06	11.817	2.28	17.817	0.94	23.82	0.61
5.833	2.06	11.833	2.28	17.833	0.94	23.83	0.61
5.850	2.23	11.850	2.19	17.850	0.93	23.85	0.61
5.867	2.23	11.867	2.19	17.867	0.93	23.87	0.61
5.883	2.23	11.883	2.19	17.883	0.93	23.88	0.61
5.900	2.23	11.900	2.19	17.900	0.93	23.90	0.61
5.917	2.23	11.917	2.19	17.917	0.93	23.92	0.61
5.933	2.23	11.933	2.19	17.933	0.93	23.93	0.61
5.950	2.23	11.950	2.19	17.950	0.93	23.95	0.61
5.967	2.23	11.967	2.19	17.967	0.93	23.97	0.61
5.983	2.23	11.983	2.19	17.983	0.93	23.98	0.61
6.000	2.23	12.000	2.19	18.000	0.93	24.00	0.61

```
     Max.Eff.Inten.(mm/hr)=     157.69        45.83
           over (min)          5.00         13.00
     Storage Coeff.  (min)=    2.43 (ii)    12.07 (ii)
     Unit Hyd. Tpeak (min)=    5.00         13.00
     Unit Hyd. peak  (cms)=    0.34          0.09
                                                    *TOTALS*
     PEAK FLOW       (cms)=    0.10          0.07          0.134 (iii)
     TIME TO PEAK    (hrs)=    8.00          8.18          8.03
     RUNOFF VOLUME    (mm)=   97.33         31.77         44.88
     TOTAL RAINFALL   (mm)=   98.33         98.33         98.33
     RUNOFF COEFFICIENT   =    0.99          0.32          0.46

***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
            YOU SHOULD CONSIDER SPLITTING THE AREA.

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN*  =  57.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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| CALIB             |
| STANDHYD (  1011)|   Area    (ha)=  13.73
|ID= 1 DT= 1.0 min |   Total Imp(%)=  46.00   Dir. Conn.(%)=  39.00
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                        IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=      6.32         7.42
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Dep. Storage     (mm)=      1.00         5.00
Average Slope     (%)=      0.50         2.00
Length            (m)=    302.59        40.00
Mannings n           =     0.013        0.250

    NOTE:  RAINFALL WAS TRANSFORMED TO   1.0 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
 0.017    0.62 | 6.017    2.43 |12.017    2.10 | 18.02    0.91
 0.033    0.62 | 6.033    2.43 |12.033    2.10 | 18.03    0.91
 0.050    0.62 | 6.050    2.43 |12.050    2.10 | 18.05    0.91
 0.067    0.62 | 6.067    2.43 |12.067    2.10 | 18.07    0.91
 0.083    0.62 | 6.083    2.43 |12.083    2.10 | 18.08    0.91
 0.100    0.62 | 6.100    2.43 |12.100    2.10 | 18.10    0.91
 0.117    0.62 | 6.117    2.43 |12.117    2.10 | 18.12    0.91
 0.133    0.62 | 6.133    2.43 |12.133    2.10 | 18.13    0.91
 0.150    0.62 | 6.150    2.43 |12.150    2.10 | 18.15    0.91
 0.167    0.62 | 6.167    2.43 |12.167    2.10 | 18.17    0.91
 0.183    0.63 | 6.183    2.68 |12.183    2.02 | 18.18    0.90
 0.200    0.63 | 6.200    2.68 |12.200    2.02 | 18.20    0.90
 0.217    0.63 | 6.217    2.68 |12.217    2.02 | 18.22    0.90
 0.233    0.63 | 6.233    2.68 |12.233    2.02 | 18.23    0.90
 0.250    0.63 | 6.250    2.68 |12.250    2.02 | 18.25    0.90
 0.267    0.63 | 6.267    2.68 |12.267    2.02 | 18.27    0.90
 0.283    0.63 | 6.283    2.68 |12.283    2.02 | 18.28    0.90
 0.300    0.63 | 6.300    2.68 |12.300    2.02 | 18.30    0.90
 0.317    0.63 | 6.317    2.68 |12.317    2.02 | 18.32    0.90
 0.333    0.63 | 6.333    2.68 |12.333    2.02 | 18.33    0.90
 0.350    0.65 | 6.350    2.98 |12.350    1.95 | 18.35    0.89
 0.367    0.65 | 6.367    2.98 |12.367    1.95 | 18.37    0.89
 0.383    0.65 | 6.383    2.98 |12.383    1.95 | 18.38    0.89
 0.400    0.65 | 6.400    2.98 |12.400    1.95 | 18.40    0.89
 0.417    0.65 | 6.417    2.98 |12.417    1.95 | 18.42    0.89
 0.433    0.65 | 6.433    2.98 |12.433    1.95 | 18.43    0.89
 0.450    0.65 | 6.450    2.98 |12.450    1.95 | 18.45    0.89
 0.467    0.65 | 6.467    2.98 |12.467    1.95 | 18.47    0.89
 0.483    0.65 | 6.483    2.98 |12.483    1.95 | 18.48    0.89
 0.500    0.65 | 6.500    2.98 |12.500    1.95 | 18.50    0.89
 0.517    0.66 | 6.517    3.37 |12.517    1.89 | 18.52    0.87
 0.533    0.66 | 6.533    3.37 |12.533    1.89 | 18.53    0.87
 0.550    0.66 | 6.550    3.37 |12.550    1.89 | 18.55    0.87
 0.567    0.66 | 6.567    3.37 |12.567    1.89 | 18.57    0.87
 0.583    0.66 | 6.583    3.37 |12.583    1.89 | 18.58    0.87
 0.600    0.66 | 6.600    3.37 |12.600    1.89 | 18.60    0.87
 0.617    0.66 | 6.617    3.37 |12.617    1.89 | 18.62    0.87
 0.633    0.66 | 6.633    3.37 |12.633    1.89 | 18.63    0.87
 0.650    0.66 | 6.650    3.37 |12.650    1.89 | 18.65    0.87
 0.667    0.66 | 6.667    3.37 |12.667    1.89 | 18.67    0.87
 0.683    0.67 | 6.683    3.88 |12.683    1.82 | 18.68    0.86
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0.700	0.67	6.700	3.88	12.700	1.82	18.70	0.86
0.717	0.67	6.717	3.88	12.717	1.82	18.72	0.86
0.733	0.67	6.733	3.88	12.733	1.82	18.73	0.86
0.750	0.67	6.750	3.88	12.750	1.82	18.75	0.86
0.767	0.67	6.767	3.88	12.767	1.82	18.77	0.86
0.783	0.67	6.783	3.88	12.783	1.82	18.78	0.86
0.800	0.67	6.800	3.88	12.800	1.82	18.80	0.86
0.817	0.67	6.817	3.88	12.817	1.82	18.82	0.86
0.833	0.67	6.833	3.88	12.833	1.82	18.83	0.86
0.850	0.69	6.850	4.58	12.850	1.77	18.85	0.85
0.867	0.69	6.867	4.58	12.867	1.77	18.87	0.85
0.883	0.69	6.883	4.58	12.883	1.77	18.88	0.85
0.900	0.69	6.900	4.58	12.900	1.77	18.90	0.85
0.917	0.69	6.917	4.58	12.917	1.77	18.92	0.85
0.933	0.69	6.933	4.58	12.933	1.77	18.93	0.85
0.950	0.69	6.950	4.58	12.950	1.77	18.95	0.85
0.967	0.69	6.967	4.58	12.967	1.77	18.97	0.85
0.983	0.69	6.983	4.58	12.983	1.77	18.98	0.85
1.000	0.69	7.000	4.58	13.000	1.77	19.00	0.85
1.017	0.70	7.017	5.59	13.017	1.71	19.02	0.84
1.033	0.70	7.033	5.59	13.033	1.71	19.03	0.84
1.050	0.70	7.050	5.59	13.050	1.71	19.05	0.84
1.067	0.70	7.067	5.59	13.067	1.71	19.07	0.84
1.083	0.70	7.083	5.59	13.083	1.71	19.08	0.84
1.100	0.70	7.100	5.59	13.100	1.71	19.10	0.84
1.117	0.70	7.117	5.59	13.117	1.71	19.12	0.84
1.133	0.70	7.133	5.59	13.133	1.71	19.13	0.84
1.150	0.70	7.150	5.59	13.150	1.71	19.15	0.84
1.167	0.70	7.167	5.60	13.167	1.71	19.17	0.84
1.183	0.72	7.183	7.21	13.183	1.66	19.18	0.83
1.200	0.72	7.200	7.21	13.200	1.66	19.20	0.83
1.217	0.72	7.217	7.21	13.217	1.66	19.22	0.83
1.233	0.72	7.233	7.21	13.233	1.66	19.23	0.83
1.250	0.72	7.250	7.21	13.250	1.66	19.25	0.83
1.267	0.72	7.267	7.21	13.267	1.66	19.27	0.83
1.283	0.72	7.283	7.21	13.283	1.66	19.28	0.83
1.300	0.72	7.300	7.21	13.300	1.66	19.30	0.83
1.317	0.72	7.317	7.21	13.317	1.66	19.32	0.83
1.333	0.72	7.333	7.22	13.333	1.66	19.33	0.83
1.350	0.73	7.350	10.14	13.350	1.61	19.35	0.82
1.367	0.73	7.367	10.14	13.367	1.61	19.37	0.82
1.383	0.73	7.383	10.14	13.383	1.61	19.38	0.82
1.400	0.73	7.400	10.14	13.400	1.61	19.40	0.82
1.417	0.73	7.417	10.14	13.417	1.61	19.42	0.82
1.433	0.73	7.433	10.14	13.433	1.61	19.43	0.82
1.450	0.73	7.450	10.14	13.450	1.61	19.45	0.82
1.467	0.73	7.467	10.14	13.467	1.61	19.47	0.82
1.483	0.73	7.483	10.14	13.483	1.61	19.48	0.82
1.500	0.73	7.500	10.16	13.500	1.61	19.50	0.82
1.517	0.75	7.517	16.88	13.517	1.57	19.52	0.81
1.533	0.75	7.533	16.88	13.533	1.57	19.53	0.81
1.550	0.75	7.550	16.88	13.550	1.57	19.55	0.81

1.567	0.75	7.567	16.88	13.567	1.57	19.57	0.81
1.583	0.75	7.583	16.88	13.583	1.57	19.58	0.81
1.600	0.75	7.600	16.88	13.600	1.57	19.60	0.81
1.617	0.75	7.617	16.88	13.617	1.57	19.62	0.81
1.633	0.75	7.633	16.88	13.633	1.57	19.63	0.81
1.650	0.75	7.650	16.88	13.650	1.57	19.65	0.81
1.667	0.75	7.667	16.95	13.667	1.57	19.67	0.81
1.683	0.77	7.683	44.66	13.683	1.53	19.68	0.80
1.700	0.77	7.700	44.66	13.700	1.53	19.70	0.80
1.717	0.77	7.717	44.66	13.717	1.53	19.72	0.80
1.733	0.77	7.733	44.66	13.733	1.53	19.73	0.80
1.750	0.77	7.750	44.66	13.750	1.53	19.75	0.80
1.767	0.77	7.767	44.66	13.767	1.53	19.77	0.80
1.783	0.77	7.783	44.66	13.783	1.53	19.78	0.80
1.800	0.77	7.800	44.66	13.800	1.53	19.80	0.80
1.817	0.77	7.817	44.66	13.817	1.53	19.82	0.80
1.833	0.77	7.833	44.99	13.833	1.53	19.83	0.80
1.850	0.79	7.850	157.69	13.850	1.49	19.85	0.79
1.867	0.79	7.867	157.69	13.867	1.49	19.87	0.79
1.883	0.79	7.883	157.69	13.883	1.49	19.88	0.79
1.900	0.79	7.900	157.69	13.900	1.49	19.90	0.79
1.917	0.79	7.917	157.69	13.917	1.49	19.92	0.79
1.933	0.79	7.933	157.69	13.933	1.49	19.93	0.79
1.950	0.79	7.950	157.69	13.950	1.49	19.95	0.79
1.967	0.79	7.967	157.69	13.967	1.49	19.97	0.79
1.983	0.79	7.983	157.69	13.983	1.49	19.98	0.79
2.000	0.79	8.000	157.40	14.000	1.49	20.00	0.79
2.017	0.81	8.017	59.25	14.017	1.45	20.02	0.78
2.033	0.81	8.033	59.25	14.033	1.45	20.03	0.78
2.050	0.81	8.050	59.25	14.050	1.45	20.05	0.78
2.067	0.81	8.067	59.25	14.067	1.45	20.07	0.78
2.083	0.81	8.083	59.25	14.083	1.45	20.08	0.78
2.100	0.81	8.100	59.25	14.100	1.45	20.10	0.78
2.117	0.81	8.117	59.25	14.117	1.45	20.12	0.78
2.133	0.81	8.133	59.25	14.133	1.45	20.13	0.78
2.150	0.81	8.150	59.25	14.150	1.45	20.15	0.78
2.167	0.81	8.167	59.17	14.167	1.45	20.17	0.78
2.183	0.83	8.183	30.14	14.183	1.41	20.18	0.77
2.200	0.83	8.200	30.14	14.200	1.41	20.20	0.77
2.217	0.83	8.217	30.14	14.217	1.41	20.22	0.77
2.233	0.83	8.233	30.14	14.233	1.41	20.23	0.77
2.250	0.83	8.250	30.14	14.250	1.41	20.25	0.77
2.267	0.83	8.267	30.14	14.267	1.41	20.27	0.77
2.283	0.83	8.283	30.14	14.283	1.41	20.28	0.77
2.300	0.83	8.300	30.14	14.300	1.41	20.30	0.77
2.317	0.83	8.317	30.14	14.317	1.41	20.32	0.77
2.333	0.83	8.333	30.11	14.333	1.41	20.33	0.77
2.350	0.85	8.350	19.54	14.350	1.38	20.35	0.76
2.367	0.85	8.367	19.54	14.367	1.38	20.37	0.76
2.383	0.85	8.383	19.54	14.383	1.38	20.38	0.76
2.400	0.85	8.400	19.54	14.400	1.38	20.40	0.76
2.417	0.85	8.417	19.54	14.417	1.38	20.42	0.76

2.433	0.85	8.433	19.54	14.433	1.38	20.43	0.76
2.450	0.85	8.450	19.54	14.450	1.38	20.45	0.76
2.467	0.85	8.467	19.54	14.467	1.38	20.47	0.76
2.483	0.85	8.483	19.54	14.483	1.38	20.48	0.76
2.500	0.85	8.500	19.53	14.500	1.38	20.50	0.76
2.517	0.88	8.517	14.26	14.517	1.35	20.52	0.75
2.533	0.88	8.533	14.26	14.533	1.35	20.53	0.75
2.550	0.88	8.550	14.26	14.550	1.35	20.55	0.75
2.567	0.88	8.567	14.26	14.567	1.35	20.57	0.75
2.583	0.88	8.583	14.26	14.583	1.35	20.58	0.75
2.600	0.88	8.600	14.26	14.600	1.35	20.60	0.75
2.617	0.88	8.617	14.26	14.617	1.35	20.62	0.75
2.633	0.88	8.633	14.26	14.633	1.35	20.63	0.75
2.650	0.88	8.650	14.26	14.650	1.35	20.65	0.75
2.667	0.88	8.667	14.25	14.667	1.35	20.67	0.75
2.683	0.90	8.683	11.16	14.683	1.32	20.68	0.74
2.700	0.90	8.700	11.16	14.700	1.32	20.70	0.74
2.717	0.90	8.717	11.16	14.717	1.32	20.72	0.74
2.733	0.90	8.733	11.16	14.733	1.32	20.73	0.74
2.750	0.90	8.750	11.16	14.750	1.32	20.75	0.74
2.767	0.90	8.767	11.16	14.767	1.32	20.77	0.74
2.783	0.90	8.783	11.16	14.783	1.32	20.78	0.74
2.800	0.90	8.800	11.16	14.800	1.32	20.80	0.74
2.817	0.90	8.817	11.16	14.817	1.32	20.82	0.74
2.833	0.90	8.833	11.16	14.833	1.32	20.83	0.74
2.850	0.93	8.850	9.15	14.850	1.29	20.85	0.73
2.867	0.93	8.867	9.15	14.867	1.29	20.87	0.73
2.883	0.93	8.883	9.15	14.883	1.29	20.88	0.73
2.900	0.93	8.900	9.15	14.900	1.29	20.90	0.73
2.917	0.93	8.917	9.15	14.917	1.29	20.92	0.73
2.933	0.93	8.933	9.15	14.933	1.29	20.93	0.73
2.950	0.93	8.950	9.15	14.950	1.29	20.95	0.73
2.967	0.93	8.967	9.15	14.967	1.29	20.97	0.73
2.983	0.93	8.983	9.15	14.983	1.29	20.98	0.73
3.000	0.93	9.000	9.14	15.000	1.29	21.00	0.73
3.017	0.96	9.017	7.74	15.017	1.26	21.02	0.72
3.033	0.96	9.033	7.74	15.033	1.26	21.03	0.72
3.050	0.96	9.050	7.74	15.050	1.26	21.05	0.72
3.067	0.96	9.067	7.74	15.067	1.26	21.07	0.72
3.083	0.96	9.083	7.74	15.083	1.26	21.08	0.72
3.100	0.96	9.100	7.74	15.100	1.26	21.10	0.72
3.117	0.96	9.117	7.74	15.117	1.26	21.12	0.72
3.133	0.96	9.133	7.74	15.133	1.26	21.13	0.72
3.150	0.96	9.150	7.74	15.150	1.26	21.15	0.72
3.167	0.96	9.167	7.74	15.167	1.26	21.17	0.72
3.183	0.99	9.183	6.70	15.183	1.23	21.18	0.71
3.200	0.99	9.200	6.70	15.200	1.23	21.20	0.71
3.217	0.99	9.217	6.70	15.217	1.23	21.22	0.71
3.233	0.99	9.233	6.70	15.233	1.23	21.23	0.71
3.250	0.99	9.250	6.70	15.250	1.23	21.25	0.71
3.267	0.99	9.267	6.70	15.267	1.23	21.27	0.71
3.283	0.99	9.283	6.70	15.283	1.23	21.28	0.71

3.300	0.99	9.300	6.70	15.300	1.23	21.30	0.71
3.317	0.99	9.317	6.70	15.317	1.23	21.32	0.71
3.333	0.99	9.333	6.70	15.333	1.23	21.33	0.71
3.350	1.03	9.350	5.91	15.350	1.21	21.35	0.71
3.367	1.03	9.367	5.91	15.367	1.21	21.37	0.71
3.383	1.03	9.383	5.91	15.383	1.21	21.38	0.71
3.400	1.03	9.400	5.91	15.400	1.21	21.40	0.71
3.417	1.03	9.417	5.91	15.417	1.21	21.42	0.71
3.433	1.03	9.433	5.91	15.433	1.21	21.43	0.71
3.450	1.03	9.450	5.91	15.450	1.21	21.45	0.71
3.467	1.03	9.467	5.91	15.467	1.21	21.47	0.71
3.483	1.03	9.483	5.91	15.483	1.21	21.48	0.71
3.500	1.03	9.500	5.91	15.500	1.21	21.50	0.71
3.517	1.06	9.517	5.29	15.517	1.18	21.52	0.70
3.533	1.06	9.533	5.29	15.533	1.18	21.53	0.70
3.550	1.06	9.550	5.29	15.550	1.18	21.55	0.70
3.567	1.06	9.567	5.29	15.567	1.18	21.57	0.70
3.583	1.06	9.583	5.29	15.583	1.18	21.58	0.70
3.600	1.06	9.600	5.29	15.600	1.18	21.60	0.70
3.617	1.06	9.617	5.29	15.617	1.18	21.62	0.70
3.633	1.06	9.633	5.29	15.633	1.18	21.63	0.70
3.650	1.06	9.650	5.29	15.650	1.18	21.65	0.70
3.667	1.06	9.667	5.29	15.667	1.18	21.67	0.70
3.683	1.10	9.683	4.79	15.683	1.16	21.68	0.69
3.700	1.10	9.700	4.79	15.700	1.16	21.70	0.69
3.717	1.10	9.717	4.79	15.717	1.16	21.72	0.69
3.733	1.10	9.733	4.79	15.733	1.16	21.73	0.69
3.750	1.10	9.750	4.79	15.750	1.16	21.75	0.69
3.767	1.10	9.767	4.79	15.767	1.16	21.77	0.69
3.783	1.10	9.783	4.79	15.783	1.16	21.78	0.69
3.800	1.10	9.800	4.79	15.800	1.16	21.80	0.69
3.817	1.10	9.817	4.79	15.817	1.16	21.82	0.69
3.833	1.10	9.833	4.79	15.833	1.16	21.83	0.69
3.850	1.15	9.850	4.38	15.850	1.14	21.85	0.68
3.867	1.15	9.867	4.38	15.867	1.14	21.87	0.68
3.883	1.15	9.883	4.38	15.883	1.14	21.88	0.68
3.900	1.15	9.900	4.38	15.900	1.14	21.90	0.68
3.917	1.15	9.917	4.38	15.917	1.14	21.92	0.68
3.933	1.15	9.933	4.38	15.933	1.14	21.93	0.68
3.950	1.15	9.950	4.38	15.950	1.14	21.95	0.68
3.967	1.15	9.967	4.38	15.967	1.14	21.97	0.68
3.983	1.15	9.983	4.38	15.983	1.14	21.98	0.68
4.000	1.15	10.000	4.38	16.000	1.14	22.00	0.68
4.017	1.19	10.017	4.03	16.017	1.12	22.02	0.68
4.033	1.19	10.033	4.03	16.033	1.12	22.03	0.68
4.050	1.19	10.050	4.03	16.050	1.12	22.05	0.68
4.067	1.19	10.067	4.03	16.067	1.12	22.07	0.68
4.083	1.19	10.083	4.03	16.083	1.12	22.08	0.68
4.100	1.19	10.100	4.03	16.100	1.12	22.10	0.68
4.117	1.19	10.117	4.03	16.117	1.12	22.12	0.68
4.133	1.19	10.133	4.03	16.133	1.12	22.13	0.68
4.150	1.19	10.150	4.03	16.150	1.12	22.15	0.68

4.167	1.19	10.167	4.03	16.167	1.12	22.17	0.68
4.183	1.24	10.183	3.74	16.183	1.09	22.18	0.67
4.200	1.24	10.200	3.74	16.200	1.09	22.20	0.67
4.217	1.24	10.217	3.74	16.217	1.09	22.22	0.67
4.233	1.24	10.233	3.74	16.233	1.09	22.23	0.67
4.250	1.24	10.250	3.74	16.250	1.09	22.25	0.67
4.267	1.24	10.267	3.74	16.267	1.09	22.27	0.67
4.283	1.24	10.283	3.74	16.283	1.09	22.28	0.67
4.300	1.24	10.300	3.74	16.300	1.09	22.30	0.67
4.317	1.24	10.317	3.74	16.317	1.09	22.32	0.67
4.333	1.24	10.333	3.74	16.333	1.09	22.33	0.67
4.350	1.30	10.350	3.48	16.350	1.08	22.35	0.66
4.367	1.30	10.367	3.48	16.367	1.08	22.37	0.66
4.383	1.30	10.383	3.48	16.383	1.08	22.38	0.66
4.400	1.30	10.400	3.48	16.400	1.08	22.40	0.66
4.417	1.30	10.417	3.48	16.417	1.08	22.42	0.66
4.433	1.30	10.433	3.48	16.433	1.08	22.43	0.66
4.450	1.30	10.450	3.48	16.450	1.08	22.45	0.66
4.467	1.30	10.467	3.48	16.467	1.08	22.47	0.66
4.483	1.30	10.483	3.48	16.483	1.08	22.48	0.66
4.500	1.30	10.500	3.48	16.500	1.08	22.50	0.66
4.517	1.36	10.517	3.26	16.517	1.06	22.52	0.66
4.533	1.36	10.533	3.26	16.533	1.06	22.53	0.66
4.550	1.36	10.550	3.26	16.550	1.06	22.55	0.66
4.567	1.36	10.567	3.26	16.567	1.06	22.57	0.66
4.583	1.36	10.583	3.26	16.583	1.06	22.58	0.66
4.600	1.36	10.600	3.26	16.600	1.06	22.60	0.66
4.617	1.36	10.617	3.26	16.617	1.06	22.62	0.66
4.633	1.36	10.633	3.26	16.633	1.06	22.63	0.66
4.650	1.36	10.650	3.26	16.650	1.06	22.65	0.66
4.667	1.36	10.667	3.26	16.667	1.06	22.67	0.66
4.683	1.43	10.683	3.07	16.683	1.04	22.68	0.65
4.700	1.43	10.700	3.07	16.700	1.04	22.70	0.65
4.717	1.43	10.717	3.07	16.717	1.04	22.72	0.65
4.733	1.43	10.733	3.07	16.733	1.04	22.73	0.65
4.750	1.43	10.750	3.07	16.750	1.04	22.75	0.65
4.767	1.43	10.767	3.07	16.767	1.04	22.77	0.65
4.783	1.43	10.783	3.07	16.783	1.04	22.78	0.65
4.800	1.43	10.800	3.07	16.800	1.04	22.80	0.65
4.817	1.43	10.817	3.07	16.817	1.04	22.82	0.65
4.833	1.43	10.833	3.07	16.833	1.04	22.83	0.65
4.850	1.50	10.850	2.90	16.850	1.02	22.85	0.64
4.867	1.50	10.867	2.90	16.867	1.02	22.87	0.64
4.883	1.50	10.883	2.90	16.883	1.02	22.88	0.64
4.900	1.50	10.900	2.90	16.900	1.02	22.90	0.64
4.917	1.50	10.917	2.90	16.917	1.02	22.92	0.64
4.933	1.50	10.933	2.90	16.933	1.02	22.93	0.64
4.950	1.50	10.950	2.90	16.950	1.02	22.95	0.64
4.967	1.50	10.967	2.90	16.967	1.02	22.97	0.64
4.983	1.50	10.983	2.90	16.983	1.02	22.98	0.64
5.000	1.50	11.000	2.90	17.000	1.02	23.00	0.64
5.017	1.59	11.017	2.75	17.017	1.00	23.02	0.64

5.033	1.59	11.033	2.75	17.033	1.00	23.03	0.64
5.050	1.59	11.050	2.75	17.050	1.00	23.05	0.64
5.067	1.59	11.067	2.75	17.067	1.00	23.07	0.64
5.083	1.59	11.083	2.75	17.083	1.00	23.08	0.64
5.100	1.59	11.100	2.75	17.100	1.00	23.10	0.64
5.117	1.59	11.117	2.75	17.117	1.00	23.12	0.64
5.133	1.59	11.133	2.75	17.133	1.00	23.13	0.64
5.150	1.59	11.150	2.75	17.150	1.00	23.15	0.64
5.167	1.59	11.167	2.75	17.167	1.00	23.17	0.64
5.183	1.68	11.183	2.61	17.183	0.99	23.18	0.63
5.200	1.68	11.200	2.61	17.200	0.99	23.20	0.63
5.217	1.68	11.217	2.61	17.217	0.99	23.22	0.63
5.233	1.68	11.233	2.61	17.233	0.99	23.23	0.63
5.250	1.68	11.250	2.61	17.250	0.99	23.25	0.63
5.267	1.68	11.267	2.61	17.267	0.99	23.27	0.63
5.283	1.68	11.283	2.61	17.283	0.99	23.28	0.63
5.300	1.68	11.300	2.61	17.300	0.99	23.30	0.63
5.317	1.68	11.317	2.61	17.317	0.99	23.32	0.63
5.333	1.68	11.333	2.61	17.333	0.99	23.33	0.63
5.350	1.79	11.350	2.49	17.350	0.97	23.35	0.62
5.367	1.79	11.367	2.49	17.367	0.97	23.37	0.62
5.383	1.79	11.383	2.49	17.383	0.97	23.38	0.62
5.400	1.79	11.400	2.49	17.400	0.97	23.40	0.62
5.417	1.79	11.417	2.49	17.417	0.97	23.42	0.62
5.433	1.79	11.433	2.49	17.433	0.97	23.43	0.62
5.450	1.79	11.450	2.49	17.450	0.97	23.45	0.62
5.467	1.79	11.467	2.49	17.467	0.97	23.47	0.62
5.483	1.79	11.483	2.49	17.483	0.97	23.48	0.62
5.500	1.79	11.500	2.49	17.500	0.97	23.50	0.62
5.517	1.92	11.517	2.38	17.517	0.96	23.52	0.62
5.533	1.92	11.533	2.38	17.533	0.96	23.53	0.62
5.550	1.92	11.550	2.38	17.550	0.96	23.55	0.62
5.567	1.92	11.567	2.38	17.567	0.96	23.57	0.62
5.583	1.92	11.583	2.38	17.583	0.96	23.58	0.62
5.600	1.92	11.600	2.38	17.600	0.96	23.60	0.62
5.617	1.92	11.617	2.38	17.617	0.96	23.62	0.62
5.633	1.92	11.633	2.38	17.633	0.96	23.63	0.62
5.650	1.92	11.650	2.38	17.650	0.96	23.65	0.62
5.667	1.92	11.667	2.38	17.667	0.96	23.67	0.62
5.683	2.06	11.683	2.28	17.683	0.94	23.68	0.61
5.700	2.06	11.700	2.28	17.700	0.94	23.70	0.61
5.717	2.06	11.717	2.28	17.717	0.94	23.72	0.61
5.733	2.06	11.733	2.28	17.733	0.94	23.73	0.61
5.750	2.06	11.750	2.28	17.750	0.94	23.75	0.61
5.767	2.06	11.767	2.28	17.767	0.94	23.77	0.61
5.783	2.06	11.783	2.28	17.783	0.94	23.78	0.61
5.800	2.06	11.800	2.28	17.800	0.94	23.80	0.61
5.817	2.06	11.817	2.28	17.817	0.94	23.82	0.61
5.833	2.06	11.833	2.28	17.833	0.94	23.83	0.61
5.850	2.23	11.850	2.19	17.850	0.93	23.85	0.61
5.867	2.23	11.867	2.19	17.867	0.93	23.87	0.61
5.883	2.23	11.883	2.19	17.883	0.93	23.88	0.61

5.900	2.23	11.900	2.19	17.900	0.93	23.90	0.61
5.917	2.23	11.917	2.19	17.917	0.93	23.92	0.61
5.933	2.23	11.933	2.19	17.933	0.93	23.93	0.61
5.950	2.23	11.950	2.19	17.950	0.93	23.95	0.61
5.967	2.23	11.967	2.19	17.967	0.93	23.97	0.61
5.983	2.23	11.983	2.19	17.983	0.93	23.98	0.61
6.000	2.23	12.000	2.19	18.000	0.93	24.00	0.61

```
  Max.Eff.Inten.(mm/hr)=     157.69         39.30
            over (min)         5.00         12.00
  Storage Coeff.  (min)=       5.09 (ii)    11.79 (ii)
  Unit Hyd. Tpeak (min)=       5.00         12.00
  Unit Hyd. peak  (cms)=       0.22          0.10
                                                      *TOTALS*
  PEAK FLOW       (cms)=       1.98          0.49       2.285 (iii)
  TIME TO PEAK    (hrs)=       8.02          8.17       8.03
  RUNOFF VOLUME    (mm)=      97.32         26.12      53.90
  TOTAL RAINFALL   (mm)=      98.33         98.33      98.33
  RUNOFF COEFFICIENT   =       0.99          0.27       0.55

    (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
          CN*  =  48.0     Ia = Dep. Storage  (Above)
   (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
          THAN THE STORAGE COEFFICIENT.
  (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
```

```
--------------------
| ADD HYD  (  0101)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
--------------------         (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  1011):    13.73    2.285     8.03    53.90
     + ID2= 2 (  0034):     2.20    2.055     8.05    61.55
       ========================================================
       ID = 3 (  0101):    15.93    4.324     8.03    54.96

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

```
--------------------
| ADD HYD  (  0901)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
--------------------         (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0101):    15.93    4.324     8.03    54.96
     + ID2= 2 (  0103):     1.17    0.134     8.03    44.88
       ========================================================
       ID = 3 (  0901):    17.10    4.458     8.03    54.27

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

```
-------------------
| ADD HYD  (  0902)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
-------------------         (ha)    (cms)    (hrs)     (mm)
       ID1= 1 (  0104):    0.77   0.035     8.33    27.34
     + ID2= 2 (  0901):   17.10   4.458     8.03    54.27
       ==========================================================
       ID = 3 (  0902):   17.87   4.474     8.03    53.11

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
-------------------------------------------------------------------------------
-------------------
| CALIB            |
| STANDHYD (  1021)|   Area    (ha)=   3.77
|ID= 1 DT= 1.0 min |   Total Imp(%)=  45.00   Dir. Conn.(%)=  38.00
-------------------

                        IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=      1.70          2.07
     Dep. Storage     (mm)=      1.00          5.00
     Average Slope     (%)=      0.50          2.00
     Length            (m)=    158.56         40.00
     Mannings n             =    0.013         0.250

        NOTE:  RAINFALL WAS TRANSFORMED TO   1.0 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
 0.017    0.62 | 6.017    2.43 |12.017    2.10 | 18.02    0.91
 0.033    0.62 | 6.033    2.43 |12.033    2.10 | 18.03    0.91
 0.050    0.62 | 6.050    2.43 |12.050    2.10 | 18.05    0.91
 0.067    0.62 | 6.067    2.43 |12.067    2.10 | 18.07    0.91
 0.083    0.62 | 6.083    2.43 |12.083    2.10 | 18.08    0.91
 0.100    0.62 | 6.100    2.43 |12.100    2.10 | 18.10    0.91
 0.117    0.62 | 6.117    2.43 |12.117    2.10 | 18.12    0.91
 0.133    0.62 | 6.133    2.43 |12.133    2.10 | 18.13    0.91
 0.150    0.62 | 6.150    2.43 |12.150    2.10 | 18.15    0.91
 0.167    0.62 | 6.167    2.43 |12.167    2.10 | 18.17    0.91
 0.183    0.63 | 6.183    2.68 |12.183    2.02 | 18.18    0.90
 0.200    0.63 | 6.200    2.68 |12.200    2.02 | 18.20    0.90
 0.217    0.63 | 6.217    2.68 |12.217    2.02 | 18.22    0.90
 0.233    0.63 | 6.233    2.68 |12.233    2.02 | 18.23    0.90
 0.250    0.63 | 6.250    2.68 |12.250    2.02 | 18.25    0.90
 0.267    0.63 | 6.267    2.68 |12.267    2.02 | 18.27    0.90
 0.283    0.63 | 6.283    2.68 |12.283    2.02 | 18.28    0.90
 0.300    0.63 | 6.300    2.68 |12.300    2.02 | 18.30    0.90
 0.317    0.63 | 6.317    2.68 |12.317    2.02 | 18.32    0.90
 0.333    0.63 | 6.333    2.68 |12.333    2.02 | 18.33    0.90
 0.350    0.65 | 6.350    2.98 |12.350    1.95 | 18.35    0.89
 0.367    0.65 | 6.367    2.98 |12.367    1.95 | 18.37    0.89
 0.383    0.65 | 6.383    2.98 |12.383    1.95 | 18.38    0.89
 0.400    0.65 | 6.400    2.98 |12.400    1.95 | 18.40    0.89
 0.417    0.65 | 6.417    2.98 |12.417    1.95 | 18.42    0.89
 0.433    0.65 | 6.433    2.98 |12.433    1.95 | 18.43    0.89
 0.450    0.65 | 6.450    2.98 |12.450    1.95 | 18.45    0.89
 0.467    0.65 | 6.467    2.98 |12.467    1.95 | 18.47    0.89
 0.483    0.65 | 6.483    2.98 |12.483    1.95 | 18.48    0.89
 0.500    0.65 | 6.500    2.98 |12.500    1.95 | 18.50    0.89
 0.517    0.66 | 6.517    3.37 |12.517    1.89 | 18.52    0.87
 0.533    0.66 | 6.533    3.37 |12.533    1.89 | 18.53    0.87
 0.550    0.66 | 6.550    3.37 |12.550    1.89 | 18.55    0.87
 0.567    0.66 | 6.567    3.37 |12.567    1.89 | 18.57    0.87
 0.583    0.66 | 6.583    3.37 |12.583    1.89 | 18.58    0.87
 0.600    0.66 | 6.600    3.37 |12.600    1.89 | 18.60    0.87
 0.617    0.66 | 6.617    3.37 |12.617    1.89 | 18.62    0.87
 0.633    0.66 | 6.633    3.37 |12.633    1.89 | 18.63    0.87
 0.650    0.66 | 6.650    3.37 |12.650    1.89 | 18.65    0.87
 0.667    0.66 | 6.667    3.37 |12.667    1.89 | 18.67    0.87
 0.683    0.67 | 6.683    3.88 |12.683    1.82 | 18.68    0.86
 0.700    0.67 | 6.700    3.88 |12.700    1.82 | 18.70    0.86
 0.717    0.67 | 6.717    3.88 |12.717    1.82 | 18.72    0.86
 0.733    0.67 | 6.733    3.88 |12.733    1.82 | 18.73    0.86
 0.750    0.67 | 6.750    3.88 |12.750    1.82 | 18.75    0.86
 0.767    0.67 | 6.767    3.88 |12.767    1.82 | 18.77    0.86
 0.783    0.67 | 6.783    3.88 |12.783    1.82 | 18.78    0.86
 0.800    0.67 | 6.800    3.88 |12.800    1.82 | 18.80    0.86
 0.817    0.67 | 6.817    3.88 |12.817    1.82 | 18.82    0.86
 0.833    0.67 | 6.833    3.88 |12.833    1.82 | 18.83    0.86
 0.850    0.69 | 6.850    4.58 |12.850    1.77 | 18.85    0.85
 0.867    0.69 | 6.867    4.58 |12.867    1.77 | 18.87    0.85
 0.883    0.69 | 6.883    4.58 |12.883    1.77 | 18.88    0.85
 0.900    0.69 | 6.900    4.58 |12.900    1.77 | 18.90    0.85
 0.917    0.69 | 6.917    4.58 |12.917    1.77 | 18.92    0.85
 0.933    0.69 | 6.933    4.58 |12.933    1.77 | 18.93    0.85
 0.950    0.69 | 6.950    4.58 |12.950    1.77 | 18.95    0.85
 0.967    0.69 | 6.967    4.58 |12.967    1.77 | 18.97    0.85
 0.983    0.69 | 6.983    4.58 |12.983    1.77 | 18.98    0.85
 1.000    0.69 | 7.000    4.58 |13.000    1.77 | 19.00    0.85
 1.017    0.70 | 7.017    5.59 |13.017    1.71 | 19.02    0.84
 1.033    0.70 | 7.033    5.59 |13.033    1.71 | 19.03    0.84
 1.050    0.70 | 7.050    5.59 |13.050    1.71 | 19.05    0.84
 1.067    0.70 | 7.067    5.59 |13.067    1.71 | 19.07    0.84
 1.083    0.70 | 7.083    5.59 |13.083    1.71 | 19.08    0.84
 1.100    0.70 | 7.100    5.59 |13.100    1.71 | 19.10    0.84
 1.117    0.70 | 7.117    5.59 |13.117    1.71 | 19.12    0.84
 1.133    0.70 | 7.133    5.59 |13.133    1.71 | 19.13    0.84
 1.150    0.70 | 7.150    5.59 |13.150    1.71 | 19.15    0.84
 1.167    0.70 | 7.167    5.60 |13.167    1.71 | 19.17    0.84
 1.183    0.72 | 7.183    7.21 |13.183    1.66 | 19.18    0.83
 1.200    0.72 | 7.200    7.21 |13.200    1.66 | 19.20    0.83
 1.217    0.72 | 7.217    7.21 |13.217    1.66 | 19.22    0.83
 1.233    0.72 | 7.233    7.21 |13.233    1.66 | 19.23    0.83
 1.250    0.72 | 7.250    7.21 |13.250    1.66 | 19.25    0.83
 1.267    0.72 | 7.267    7.21 |13.267    1.66 | 19.27    0.83
 1.283    0.72 | 7.283    7.21 |13.283    1.66 | 19.28    0.83
 1.300    0.72 | 7.300    7.21 |13.300    1.66 | 19.30    0.83
 1.317    0.72 | 7.317    7.21 |13.317    1.66 | 19.32    0.83
 1.333    0.72 | 7.333    7.22 |13.333    1.66 | 19.33    0.83
 1.350    0.73 | 7.350   10.14 |13.350    1.61 | 19.35    0.82
 1.367    0.73 | 7.367   10.14 |13.367    1.61 | 19.37    0.82
 1.383    0.73 | 7.383   10.14 |13.383    1.61 | 19.38    0.82
 1.400    0.73 | 7.400   10.14 |13.400    1.61 | 19.40    0.82
 1.417    0.73 | 7.417   10.14 |13.417    1.61 | 19.42    0.82
 1.433    0.73 | 7.433   10.14 |13.433    1.61 | 19.43    0.82
 1.450    0.73 | 7.450   10.14 |13.450    1.61 | 19.45    0.82
 1.467    0.73 | 7.467   10.14 |13.467    1.61 | 19.47    0.82
 1.483    0.73 | 7.483   10.14 |13.483    1.61 | 19.48    0.82
 1.500    0.73 | 7.500   10.16 |13.500    1.61 | 19.50    0.82
 1.517    0.75 | 7.517   16.88 |13.517    1.57 | 19.52    0.81
 1.533    0.75 | 7.533   16.88 |13.533    1.57 | 19.53    0.81
 1.550    0.75 | 7.550   16.88 |13.550    1.57 | 19.55    0.81
 1.567    0.75 | 7.567   16.88 |13.567    1.57 | 19.57    0.81
 1.583    0.75 | 7.583   16.88 |13.583    1.57 | 19.58    0.81
 1.600    0.75 | 7.600   16.88 |13.600    1.57 | 19.60    0.81
 1.617    0.75 | 7.617   16.88 |13.617    1.57 | 19.62    0.81
 1.633    0.75 | 7.633   16.88 |13.633    1.57 | 19.63    0.81
 1.650    0.75 | 7.650   16.88 |13.650    1.57 | 19.65    0.81
 1.667    0.75 | 7.667   16.95 |13.667    1.57 | 19.67    0.81
 1.683    0.77 | 7.683   44.66 |13.683    1.53 | 19.68    0.80
 1.700    0.77 | 7.700   44.66 |13.700    1.53 | 19.70    0.80
 1.717    0.77 | 7.717   44.66 |13.717    1.53 | 19.72    0.80
 1.733    0.77 | 7.733   44.66 |13.733    1.53 | 19.73    0.80
 1.750    0.77 | 7.750   44.66 |13.750    1.53 | 19.75    0.80
 1.767    0.77 | 7.767   44.66 |13.767    1.53 | 19.77    0.80
 1.783    0.77 | 7.783   44.66 |13.783    1.53 | 19.78    0.80
 1.800    0.77 | 7.800   44.66 |13.800    1.53 | 19.80    0.80
 1.817    0.77 | 7.817   44.66 |13.817    1.53 | 19.82    0.80
 1.833    0.77 | 7.833   44.99 |13.833    1.53 | 19.83    0.80
 1.850    0.79 | 7.850  157.69 |13.850    1.49 | 19.85    0.79
 1.867    0.79 | 7.867  157.69 |13.867    1.49 | 19.87    0.79
 1.883    0.79 | 7.883  157.69 |13.883    1.49 | 19.88    0.79
 1.900    0.79 | 7.900  157.69 |13.900    1.49 | 19.90    0.79
 1.917    0.79 | 7.917  157.69 |13.917    1.49 | 19.92    0.79
 1.933    0.79 | 7.933  157.69 |13.933    1.49 | 19.93    0.79
 1.950    0.79 | 7.950  157.69 |13.950    1.49 | 19.95    0.79
 1.967    0.79 | 7.967  157.69 |13.967    1.49 | 19.97    0.79
 1.983    0.79 | 7.983  157.69 |13.983    1.49 | 19.98    0.79
 2.000    0.79 | 8.000  157.40 |14.000    1.49 | 20.00    0.79
 2.017    0.81 | 8.017   59.25 |14.017    1.45 | 20.02    0.78
 2.033    0.81 | 8.033   59.25 |14.033    1.45 | 20.03    0.78
 2.050    0.81 | 8.050   59.25 |14.050    1.45 | 20.05    0.78
 2.067    0.81 | 8.067   59.25 |14.067    1.45 | 20.07    0.78
 2.083    0.81 | 8.083   59.25 |14.083    1.45 | 20.08    0.78
 2.100    0.81 | 8.100   59.25 |14.100    1.45 | 20.10    0.78
 2.117    0.81 | 8.117   59.25 |14.117    1.45 | 20.12    0.78
 2.133    0.81 | 8.133   59.25 |14.133    1.45 | 20.13    0.78
 2.150    0.81 | 8.150   59.25 |14.150    1.45 | 20.15    0.78
 2.167    0.81 | 8.167   59.17 |14.167    1.45 | 20.17    0.78
 2.183    0.83 | 8.183   30.14 |14.183    1.41 | 20.18    0.77
 2.200    0.83 | 8.200   30.14 |14.200    1.41 | 20.20    0.77
 2.217    0.83 | 8.217   30.14 |14.217    1.41 | 20.22    0.77
 2.233    0.83 | 8.233   30.14 |14.233    1.41 | 20.23    0.77
 2.250    0.83 | 8.250   30.14 |14.250    1.41 | 20.25    0.77
 2.267    0.83 | 8.267   30.14 |14.267    1.41 | 20.27    0.77
 2.283    0.83 | 8.283   30.14 |14.283    1.41 | 20.28    0.77
 2.300    0.83 | 8.300   30.14 |14.300    1.41 | 20.30    0.77
 2.317    0.83 | 8.317   30.14 |14.317    1.41 | 20.32    0.77
 2.333    0.83 | 8.333   30.11 |14.333    1.41 | 20.33    0.77
 2.350    0.85 | 8.350   19.54 |14.350    1.38 | 20.35    0.76
 2.367    0.85 | 8.367   19.54 |14.367    1.38 | 20.37    0.76
 2.383    0.85 | 8.383   19.54 |14.383    1.38 | 20.38    0.76
 2.400    0.85 | 8.400   19.54 |14.400    1.38 | 20.40    0.76
 2.417    0.85 | 8.417   19.54 |14.417    1.38 | 20.42    0.76
 2.433    0.85 | 8.433   19.54 |14.433    1.38 | 20.43    0.76
 2.450    0.85 | 8.450   19.54 |14.450    1.38 | 20.45    0.76
 2.467    0.85 | 8.467   19.54 |14.467    1.38 | 20.47    0.76
 2.483    0.85 | 8.483   19.54 |14.483    1.38 | 20.48    0.76
 2.500    0.85 | 8.500   19.53 |14.500    1.38 | 20.50    0.76
 2.517    0.88 | 8.517   14.26 |14.517    1.35 | 20.52    0.75
 2.533    0.88 | 8.533   14.26 |14.533    1.35 | 20.53    0.75
 2.550    0.88 | 8.550   14.26 |14.550    1.35 | 20.55    0.75
 2.567    0.88 | 8.567   14.26 |14.567    1.35 | 20.57    0.75
 2.583    0.88 | 8.583   14.26 |14.583    1.35 | 20.58    0.75
 2.600    0.88 | 8.600   14.26 |14.600    1.35 | 20.60    0.75
 2.617    0.88 | 8.617   14.26 |14.617    1.35 | 20.62    0.75
 2.633    0.88 | 8.633   14.26 |14.633    1.35 | 20.63    0.75
 2.650    0.88 | 8.650   14.26 |14.650    1.35 | 20.65    0.75
 2.667    0.88 | 8.667   14.25 |14.667    1.35 | 20.67    0.75
 2.683    0.90 | 8.683   11.16 |14.683    1.32 | 20.68    0.74
 2.700    0.90 | 8.700   11.16 |14.700    1.32 | 20.70    0.74
 2.717    0.90 | 8.717   11.16 |14.717    1.32 | 20.72    0.74
 2.733    0.90 | 8.733   11.16 |14.733    1.32 | 20.73    0.74
 2.750    0.90 | 8.750   11.16 |14.750    1.32 | 20.75    0.74
 2.767    0.90 | 8.767   11.16 |14.767    1.32 | 20.77    0.74
 2.783    0.90 | 8.783   11.16 |14.783    1.32 | 20.78    0.74
 2.800    0.90 | 8.800   11.16 |14.800    1.32 | 20.80    0.74
 2.817    0.90 | 8.817   11.16 |14.817    1.32 | 20.82    0.74
 2.833    0.90 | 8.833   11.16 |14.833    1.32 | 20.83    0.74
 2.850    0.93 | 8.850    9.15 |14.850    1.29 | 20.85    0.73
 2.867    0.93 | 8.867    9.15 |14.867    1.29 | 20.87    0.73
 2.883    0.93 | 8.883    9.15 |14.883    1.29 | 20.88    0.73
 2.900    0.93 | 8.900    9.15 |14.900    1.29 | 20.90    0.73
 2.917    0.93 | 8.917    9.15 |14.917    1.29 | 20.92    0.73
 2.933    0.93 | 8.933    9.15 |14.933    1.29 | 20.93    0.73
 2.950    0.93 | 8.950    9.15 |14.950    1.29 | 20.95    0.73
 2.967    0.93 | 8.967    9.15 |14.967    1.29 | 20.97    0.73
 2.983    0.93 | 8.983    9.15 |14.983    1.29 | 20.98    0.73
 3.000    0.93 | 9.000    9.14 |15.000    1.29 | 21.00    0.73
 3.017    0.96 | 9.017    7.74 |15.017    1.26 | 21.02    0.72
 3.033    0.96 | 9.033    7.74 |15.033    1.26 | 21.03    0.72
 3.050    0.96 | 9.050    7.74 |15.050    1.26 | 21.05    0.72
 3.067    0.96 | 9.067    7.74 |15.067    1.26 | 21.07    0.72
 3.083    0.96 | 9.083    7.74 |15.083    1.26 | 21.08    0.72
 3.100    0.96 | 9.100    7.74 |15.100    1.26 | 21.10    0.72
 3.117    0.96 | 9.117    7.74 |15.117    1.26 | 21.12    0.72
 3.133    0.96 | 9.133    7.74 |15.133    1.26 | 21.13    0.72
 3.150    0.96 | 9.150    7.74 |15.150    1.26 | 21.15    0.72
 3.167    0.96 | 9.167    7.74 |15.167    1.26 | 21.17    0.72
 3.183    0.99 | 9.183    6.70 |15.183    1.23 | 21.18    0.71
 3.200    0.99 | 9.200    6.70 |15.200    1.23 | 21.20    0.71
 3.217    0.99 | 9.217    6.70 |15.217    1.23 | 21.22    0.71
 3.233    0.99 | 9.233    6.70 |15.233    1.23 | 21.23    0.71
 3.250    0.99 | 9.250    6.70 |15.250    1.23 | 21.25    0.71
 3.267    0.99 | 9.267    6.70 |15.267    1.23 | 21.27    0.71
 3.283    0.99 | 9.283    6.70 |15.283    1.23 | 21.28    0.71
 3.300    0.99 | 9.300    6.70 |15.300    1.23 | 21.30    0.71
 3.317    0.99 | 9.317    6.70 |15.317    1.23 | 21.32    0.71
 3.333    0.99 | 9.333    6.70 |15.333    1.23 | 21.33    0.71
 3.350    1.03 | 9.350    5.91 |15.350    1.21 | 21.35    0.71
 3.367    1.03 | 9.367    5.91 |15.367    1.21 | 21.37    0.71
 3.383    1.03 | 9.383    5.91 |15.383    1.21 | 21.38    0.71
 3.400    1.03 | 9.400    5.91 |15.400    1.21 | 21.40    0.71
 3.417    1.03 | 9.417    5.91 |15.417    1.21 | 21.42    0.71
 3.433    1.03 | 9.433    5.91 |15.433    1.21 | 21.43    0.71
 3.450    1.03 | 9.450    5.91 |15.450    1.21 | 21.45    0.71
 3.467    1.03 | 9.467    5.91 |15.467    1.21 | 21.47    0.71
 3.483    1.03 | 9.483    5.91 |15.483    1.21 | 21.48    0.71
 3.500    1.03 | 9.500    5.91 |15.500    1.21 | 21.50    0.71
 3.517    1.06 | 9.517    5.29 |15.517    1.18 | 21.52    0.70
 3.533    1.06 | 9.533    5.29 |15.533    1.18 | 21.53    0.70
 3.550    1.06 | 9.550    5.29 |15.550    1.18 | 21.55    0.70
 3.567    1.06 | 9.567    5.29 |15.567    1.18 | 21.57    0.70
 3.583    1.06 | 9.583    5.29 |15.583    1.18 | 21.58    0.70
 3.600    1.06 | 9.600    5.29 |15.600    1.18 | 21.60    0.70
 3.617    1.06 | 9.617    5.29 |15.617    1.18 | 21.62    0.70
 3.633    1.06 | 9.633    5.29 |15.633    1.18 | 21.63    0.70
 3.650    1.06 | 9.650    5.29 |15.650    1.18 | 21.65    0.70
 3.667    1.06 | 9.667    5.29 |15.667    1.18 | 21.67    0.70
 3.683    1.10 | 9.683    4.79 |15.683    1.16 | 21.68    0.69
 3.700    1.10 | 9.700    4.79 |15.700    1.16 | 21.70    0.69
 3.717    1.10 | 9.717    4.79 |15.717    1.16 | 21.72    0.69
 3.733    1.10 | 9.733    4.79 |15.733    1.16 | 21.73    0.69
 3.750    1.10 | 9.750    4.79 |15.750    1.16 | 21.75    0.69
 3.767    1.10 | 9.767    4.79 |15.767    1.16 | 21.77    0.69
 3.783    1.10 | 9.783    4.79 |15.783    1.16 | 21.78    0.69
 3.800    1.10 | 9.800    4.79 |15.800    1.16 | 21.80    0.69
 3.817    1.10 | 9.817    4.79 |15.817    1.16 | 21.82    0.69
 3.833    1.10 | 9.833    4.79 |15.833    1.16 | 21.83    0.69
 3.850    1.15 | 9.850    4.38 |15.850    1.14 | 21.85    0.68
 3.867    1.15 | 9.867    4.38 |15.867    1.14 | 21.87    0.68
 3.883    1.15 | 9.883    4.38 |15.883    1.14 | 21.88    0.68
 3.900    1.15 | 9.900    4.38 |15.900    1.14 | 21.90    0.68
 3.917    1.15 | 9.917    4.38 |15.917    1.14 | 21.92    0.68
 3.933    1.15 | 9.933    4.38 |15.933    1.14 | 21.93    0.68
 3.950    1.15 | 9.950    4.38 |15.950    1.14 | 21.95    0.68
 3.967    1.15 | 9.967    4.38 |15.967    1.14 | 21.97    0.68
 3.983    1.15 | 9.983    4.38 |15.983    1.14 | 21.98    0.68
 4.000    1.15 |10.000    4.38 |16.000    1.14 | 22.00    0.68
 4.017    1.19 |10.017    4.03 |16.017    1.12 | 22.02    0.68
 4.033    1.19 |10.033    4.03 |16.033    1.12 | 22.03    0.68
 4.050    1.19 |10.050    4.03 |16.050    1.12 | 22.05    0.68
 4.067    1.19 |10.067    4.03 |16.067    1.12 | 22.07    0.68
 4.083    1.19 |10.083    4.03 |16.083    1.12 | 22.08    0.68
 4.100    1.19 |10.100    4.03 |16.100    1.12 | 22.10    0.68
 4.117    1.19 |10.117    4.03 |16.117    1.12 | 22.12    0.68
 4.133    1.19 |10.133    4.03 |16.133    1.12 | 22.13    0.68
 4.150    1.19 |10.150    4.03 |16.150    1.12 | 22.15    0.68
 4.167    1.19 |10.167    4.03 |16.167    1.12 | 22.17    0.68
 4.183    1.24 |10.183    3.74 |16.183    1.09 | 22.18    0.67
 4.200    1.24 |10.200    3.74 |16.200    1.09 | 22.20    0.67
 4.217    1.24 |10.217    3.74 |16.217    1.09 | 22.22    0.67
 4.233    1.24 |10.233    3.74 |16.233    1.09 | 22.23    0.67
 4.250    1.24 |10.250    3.74 |16.250    1.09 | 22.25    0.67
 4.267    1.24 |10.267    3.74 |16.267    1.09 | 22.27    0.67
 4.283    1.24 |10.283    3.74 |16.283    1.09 | 22.28    0.67
 4.300    1.24 |10.300    3.74 |16.300    1.09 | 22.30    0.67
 4.317    1.24 |10.317    3.74 |16.317    1.09 | 22.32    0.67
 4.333    1.24 |10.333    3.74 |16.333    1.09 | 22.33    0.67
 4.350    1.30 |10.350    3.48 |16.350    1.08 | 22.35    0.66
 4.367    1.30 |10.367    3.48 |16.367    1.08 | 22.37    0.66
 4.383    1.30 |10.383    3.48 |16.383    1.08 | 22.38    0.66
 4.400    1.30 |10.400    3.48 |16.400    1.08 | 22.40    0.66
 4.417    1.30 |10.417    3.48 |16.417    1.08 | 22.42    0.66
 4.433    1.30 |10.433    3.48 |16.433    1.08 | 22.43    0.66
 4.450    1.30 |10.450    3.48 |16.450    1.08 | 22.45    0.66
 4.467    1.30 |10.467    3.48 |16.467    1.08 | 22.47    0.66
 4.483    1.30 |10.483    3.48 |16.483    1.08 | 22.48    0.66
 4.500    1.30 |10.500    3.48 |16.500    1.08 | 22.50    0.66
 4.517    1.36 |10.517    3.26 |16.517    1.06 | 22.52    0.66
 4.533    1.36 |10.533    3.26 |16.533    1.06 | 22.53    0.66
 4.550    1.36 |10.550    3.26 |16.550    1.06 | 22.55    0.66
 4.567    1.36 |10.567    3.26 |16.567    1.06 | 22.57    0.66
 4.583    1.36 |10.583    3.26 |16.583    1.06 | 22.58    0.66
 4.600    1.36 |10.600    3.26 |16.600    1.06 | 22.60    0.66
 4.617    1.36 |10.617    3.26 |16.617    1.06 | 22.62    0.66
 4.633    1.36 |10.633    3.26 |16.633    1.06 | 22.63    0.66
 4.650    1.36 |10.650    3.26 |16.650    1.06 | 22.65    0.66
 4.667    1.36 |10.667    3.26 |16.667    1.06 | 22.67    0.66
 4.683    1.43 |10.683    3.07 |16.683    1.04 | 22.68    0.65
 4.700    1.43 |10.700    3.07 |16.700    1.04 | 22.70    0.65
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4.717	1.43	10.717	3.07	16.717	1.04	22.72	0.65
4.733	1.43	10.733	3.07	16.733	1.04	22.73	0.65
4.750	1.43	10.750	3.07	16.750	1.04	22.75	0.65
4.767	1.43	10.767	3.07	16.767	1.04	22.77	0.65
4.783	1.43	10.783	3.07	16.783	1.04	22.78	0.65
4.800	1.43	10.800	3.07	16.800	1.04	22.80	0.65
4.817	1.43	10.817	3.07	16.817	1.04	22.82	0.65
4.833	1.43	10.833	3.07	16.833	1.04	22.83	0.65
4.850	1.50	10.850	2.90	16.850	1.02	22.85	0.64
4.867	1.50	10.867	2.90	16.867	1.02	22.87	0.64
4.883	1.50	10.883	2.90	16.883	1.02	22.88	0.64
4.900	1.50	10.900	2.90	16.900	1.02	22.90	0.64
4.917	1.50	10.917	2.90	16.917	1.02	22.92	0.64
4.933	1.50	10.933	2.90	16.933	1.02	22.93	0.64
4.950	1.50	10.950	2.90	16.950	1.02	22.95	0.64
4.967	1.50	10.967	2.90	16.967	1.02	22.97	0.64
4.983	1.50	10.983	2.90	16.983	1.02	22.98	0.64
5.000	1.50	11.000	2.90	17.000	1.02	23.00	0.64
5.017	1.59	11.017	2.75	17.017	1.00	23.02	0.64
5.033	1.59	11.033	2.75	17.033	1.00	23.03	0.64
5.050	1.59	11.050	2.75	17.050	1.00	23.05	0.64
5.067	1.59	11.067	2.75	17.067	1.00	23.07	0.64
5.083	1.59	11.083	2.75	17.083	1.00	23.08	0.64
5.100	1.59	11.100	2.75	17.100	1.00	23.10	0.64
5.117	1.59	11.117	2.75	17.117	1.00	23.12	0.64
5.133	1.59	11.133	2.75	17.133	1.00	23.13	0.64
5.150	1.59	11.150	2.75	17.150	1.00	23.15	0.64
5.167	1.59	11.167	2.75	17.167	1.00	23.17	0.64
5.183	1.68	11.183	2.61	17.183	0.99	23.18	0.63
5.200	1.68	11.200	2.61	17.200	0.99	23.20	0.63
5.217	1.68	11.217	2.61	17.217	0.99	23.22	0.63
5.233	1.68	11.233	2.61	17.233	0.99	23.23	0.63
5.250	1.68	11.250	2.61	17.250	0.99	23.25	0.63
5.267	1.68	11.267	2.61	17.267	0.99	23.27	0.63
5.283	1.68	11.283	2.61	17.283	0.99	23.28	0.63
5.300	1.68	11.300	2.61	17.300	0.99	23.30	0.63
5.317	1.68	11.317	2.61	17.317	0.99	23.32	0.63
5.333	1.68	11.333	2.61	17.333	0.99	23.33	0.63
5.350	1.79	11.350	2.49	17.350	0.97	23.35	0.62
5.367	1.79	11.367	2.49	17.367	0.97	23.37	0.62
5.383	1.79	11.383	2.49	17.383	0.97	23.38	0.62
5.400	1.79	11.400	2.49	17.400	0.97	23.40	0.62
5.417	1.79	11.417	2.49	17.417	0.97	23.42	0.62
5.433	1.79	11.433	2.49	17.433	0.97	23.43	0.62
5.450	1.79	11.450	2.49	17.450	0.97	23.45	0.62
5.467	1.79	11.467	2.49	17.467	0.97	23.47	0.62
5.483	1.79	11.483	2.49	17.483	0.97	23.48	0.62
5.500	1.79	11.500	2.49	17.500	0.97	23.50	0.62
5.517	1.92	11.517	2.38	17.517	0.96	23.52	0.62
5.533	1.92	11.533	2.38	17.533	0.96	23.53	0.62
5.550	1.92	11.550	2.38	17.550	0.96	23.55	0.62
5.567	1.92	11.567	2.38	17.567	0.96	23.57	0.62
5.583	1.92	11.583	2.38	17.583	0.96	23.58	0.62
5.600	1.92	11.600	2.38	17.600	0.96	23.60	0.62
5.617	1.92	11.617	2.38	17.617	0.96	23.62	0.62
5.633	1.92	11.633	2.38	17.633	0.96	23.63	0.62
5.650	1.92	11.650	2.38	17.650	0.96	23.65	0.62
5.667	1.92	11.667	2.38	17.667	0.96	23.67	0.62
5.683	2.06	11.683	2.28	17.683	0.94	23.68	0.61
5.700	2.06	11.700	2.28	17.700	0.94	23.70	0.61
5.717	2.06	11.717	2.28	17.717	0.94	23.72	0.61
5.733	2.06	11.733	2.28	17.733	0.94	23.73	0.61
5.750	2.06	11.750	2.28	17.750	0.94	23.75	0.61
5.767	2.06	11.767	2.28	17.767	0.94	23.77	0.61
5.783	2.06	11.783	2.28	17.783	0.94	23.78	0.61
5.800	2.06	11.800	2.28	17.800	0.94	23.80	0.61
5.817	2.06	11.817	2.28	17.817	0.94	23.82	0.61
5.833	2.06	11.833	2.28	17.833	0.94	23.83	0.61
5.850	2.23	11.850	2.19	17.850	0.93	23.85	0.61
5.867	2.23	11.867	2.19	17.867	0.93	23.87	0.61
5.883	2.23	11.883	2.19	17.883	0.93	23.88	0.61
5.900	2.23	11.900	2.19	17.900	0.93	23.90	0.61
5.917	2.23	11.917	2.19	17.917	0.93	23.92	0.61
5.933	2.23	11.933	2.19	17.933	0.93	23.93	0.61
5.950	2.23	11.950	2.19	17.950	0.93	23.95	0.61
5.967	2.23	11.967	2.19	17.967	0.93	23.97	0.61
5.983	2.23	11.983	2.19	17.983	0.93	23.98	0.61
6.000	2.23	12.000	2.19	18.000	0.93	24.00	0.61

Max.Eff.Inten.(mm/hr)=	157.69	39.14	
over (min)	5.00	11.00	
Storage Coeff. (min)=	3.46 (ii)	10.28 (ii)	
Unit Hyd. Tpeak (min)=	5.00	11.00	
Unit Hyd. peak (cms)=	0.28	0.11	
			TOTALS
PEAK FLOW (cms)=	0.57	0.15	0.668 (iii)
TIME TO PEAK (hrs)=	8.02	8.15	8.02
RUNOFF VOLUME (mm)=	97.33	26.08	53.16
TOTAL RAINFALL (mm)=	98.33	98.33	98.33
RUNOFF COEFFICIENT =	0.99	0.27	0.54

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 48.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	
STANDHYD (1022)	Area (ha)= 2.86
ID= 1 DT= 1.0 min	Total Imp(%)= 41.00 Dir. Conn.(%)= 35.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.17	1.69
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.50	2.00
Length (m)=	138.06	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 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
0.017	0.62	6.017	2.43	12.017	2.10	18.02	0.91
0.033	0.62	6.033	2.43	12.033	2.10	18.03	0.91
0.050	0.62	6.050	2.43	12.050	2.10	18.05	0.91
0.067	0.62	6.067	2.43	12.067	2.10	18.07	0.91
0.083	0.62	6.083	2.43	12.083	2.10	18.08	0.91
0.100	0.62	6.100	2.43	12.100	2.10	18.10	0.91
0.117	0.62	6.117	2.43	12.117	2.10	18.12	0.91
0.133	0.62	6.133	2.43	12.133	2.10	18.13	0.91
0.150	0.62	6.150	2.43	12.150	2.10	18.15	0.91
0.167	0.62	6.167	2.43	12.167	2.10	18.17	0.91
0.183	0.63	6.183	2.68	12.183	2.02	18.18	0.90
0.200	0.63	6.200	2.68	12.200	2.02	18.20	0.90
0.217	0.63	6.217	2.68	12.217	2.02	18.22	0.90
0.233	0.63	6.233	2.68	12.233	2.02	18.23	0.90
0.250	0.63	6.250	2.68	12.250	2.02	18.25	0.90
0.267	0.63	6.267	2.68	12.267	2.02	18.27	0.90
0.283	0.63	6.283	2.68	12.283	2.02	18.28	0.90
0.300	0.63	6.300	2.68	12.300	2.02	18.30	0.90
0.317	0.63	6.317	2.68	12.317	2.02	18.32	0.90
0.333	0.63	6.333	2.68	12.333	2.02	18.33	0.90
0.350	0.65	6.350	2.98	12.350	1.95	18.35	0.89
0.367	0.65	6.367	2.98	12.367	1.95	18.37	0.89
0.383	0.65	6.383	2.98	12.383	1.95	18.38	0.89
0.400	0.65	6.400	2.98	12.400	1.95	18.40	0.89
0.417	0.65	6.417	2.98	12.417	1.95	18.42	0.89
0.433	0.65	6.433	2.98	12.433	1.95	18.43	0.89
0.450	0.65	6.450	2.98	12.450	1.95	18.45	0.89
0.467	0.65	6.467	2.98	12.467	1.95	18.47	0.89
0.483	0.65	6.483	2.98	12.483	1.95	18.48	0.89
0.500	0.65	6.500	2.98	12.500	1.95	18.50	0.89
0.517	0.66	6.517	3.37	12.517	1.89	18.52	0.87
0.533	0.66	6.533	3.37	12.533	1.89	18.53	0.87
0.550	0.66	6.550	3.37	12.550	1.89	18.55	0.87
0.567	0.66	6.567	3.37	12.567	1.89	18.57	0.87
0.583	0.66	6.583	3.37	12.583	1.89	18.58	0.87
0.600	0.66	6.600	3.37	12.600	1.89	18.60	0.87
0.617	0.66	6.617	3.37	12.617	1.89	18.62	0.87
0.633	0.66	6.633	3.37	12.633	1.89	18.63	0.87
0.650	0.66	6.650	3.37	12.650	1.89	18.65	0.87
0.667	0.66	6.667	3.37	12.667	1.89	18.67	0.87
0.683	0.67	6.683	3.88	12.683	1.82	18.68	0.86
0.700	0.67	6.700	3.88	12.700	1.82	18.70	0.86
0.717	0.67	6.717	3.88	12.717	1.82	18.72	0.86
0.733	0.67	6.733	3.88	12.733	1.82	18.73	0.86
0.750	0.67	6.750	3.88	12.750	1.82	18.75	0.86
0.767	0.67	6.767	3.88	12.767	1.82	18.77	0.86
0.783	0.67	6.783	3.88	12.783	1.82	18.78	0.86
0.800	0.67	6.800	3.88	12.800	1.82	18.80	0.86
0.817	0.67	6.817	3.88	12.817	1.82	18.82	0.86
0.833	0.67	6.833	3.88	12.833	1.82	18.83	0.86
0.850	0.69	6.850	4.58	12.850	1.77	18.85	0.85
0.867	0.69	6.867	4.58	12.867	1.77	18.87	0.85
0.883	0.69	6.883	4.58	12.883	1.77	18.88	0.85
0.900	0.69	6.900	4.58	12.900	1.77	18.90	0.85
0.917	0.69	6.917	4.58	12.917	1.77	18.92	0.85
0.933	0.69	6.933	4.58	12.933	1.77	18.93	0.85
0.950	0.69	6.950	4.58	12.950	1.77	18.95	0.85
0.967	0.69	6.967	4.58	12.967	1.77	18.97	0.85
0.983	0.69	6.983	4.58	12.983	1.77	18.98	0.85
1.000	0.69	7.000	4.58	13.000	1.77	19.00	0.85
1.017	0.70	7.017	5.59	13.017	1.71	19.02	0.84
1.033	0.70	7.033	5.59	13.033	1.71	19.03	0.84
1.050	0.70	7.050	5.59	13.050	1.71	19.05	0.84
1.067	0.70	7.067	5.59	13.067	1.71	19.07	0.84
1.083	0.70	7.083	5.59	13.083	1.71	19.08	0.84
1.100	0.70	7.100	5.59	13.100	1.71	19.10	0.84
1.117	0.70	7.117	5.59	13.117	1.71	19.12	0.84
1.133	0.70	7.133	5.59	13.133	1.71	19.13	0.84
1.150	0.70	7.150	5.59	13.150	1.71	19.15	0.84
1.167	0.70	7.167	5.60	13.167	1.71	19.17	0.84
1.183	0.72	7.183	7.21	13.183	1.66	19.18	0.83
1.200	0.72	7.200	7.21	13.200	1.66	19.20	0.83
1.217	0.72	7.217	7.21	13.217	1.66	19.22	0.83
1.233	0.72	7.233	7.21	13.233	1.66	19.23	0.83
1.250	0.72	7.250	7.21	13.250	1.66	19.25	0.83
1.267	0.72	7.267	7.21	13.267	1.66	19.27	0.83
1.283	0.72	7.283	7.21	13.283	1.66	19.28	0.83
1.300	0.72	7.300	7.21	13.300	1.66	19.30	0.83
1.317	0.72	7.317	7.21	13.317	1.66	19.32	0.83
1.333	0.72	7.333	7.22	13.333	1.66	19.33	0.83
1.350	0.73	7.350	10.14	13.350	1.61	19.35	0.82
1.367	0.73	7.367	10.14	13.367	1.61	19.37	0.82
1.383	0.73	7.383	10.14	13.383	1.61	19.38	0.82
1.400	0.73	7.400	10.14	13.400	1.61	19.40	0.82
1.417	0.73	7.417	10.14	13.417	1.61	19.42	0.82
1.433	0.73	7.433	10.14	13.433	1.61	19.43	0.82
1.450	0.73	7.450	10.14	13.450	1.61	19.45	0.82
1.467	0.73	7.467	10.14	13.467	1.61	19.47	0.82
1.483	0.73	7.483	10.14	13.483	1.61	19.48	0.82
1.500	0.73	7.500	10.16	13.500	1.61	19.50	0.82
1.517	0.75	7.517	16.88	13.517	1.57	19.52	0.81
1.533	0.75	7.533	16.88	13.533	1.57	19.53	0.81
1.550	0.75	7.550	16.88	13.550	1.57	19.55	0.81
1.567	0.75	7.567	16.88	13.567	1.57	19.57	0.81
1.583	0.75	7.583	16.88	13.583	1.57	19.58	0.81
1.600	0.75	7.600	16.88	13.600	1.57	19.60	0.81
1.617	0.75	7.617	16.88	13.617	1.57	19.62	0.81
1.633	0.75	7.633	16.88	13.633	1.57	19.63	0.81
1.650	0.75	7.650	16.88	13.650	1.57	19.65	0.81
1.667	0.75	7.667	16.95	13.667	1.57	19.67	0.81
1.683	0.77	7.683	44.66	13.683	1.53	19.68	0.80
1.700	0.77	7.700	44.66	13.700	1.53	19.70	0.80
1.717	0.77	7.717	44.66	13.717	1.53	19.72	0.80
1.733	0.77	7.733	44.66	13.733	1.53	19.73	0.80
1.750	0.77	7.750	44.66	13.750	1.53	19.75	0.80
1.767	0.77	7.767	44.66	13.767	1.53	19.77	0.80
1.783	0.77	7.783	44.66	13.783	1.53	19.78	0.80
1.800	0.77	7.800	44.66	13.800	1.53	19.80	0.80
1.817	0.77	7.817	44.66	13.817	1.53	19.82	0.80
1.833	0.77	7.833	44.99	13.833	1.53	19.83	0.80
1.850	0.79	7.850	157.69	13.850	1.49	19.85	0.79
1.867	0.79	7.867	157.69	13.867	1.49	19.87	0.79
1.883	0.79	7.883	157.69	13.883	1.49	19.88	0.79
1.900	0.79	7.900	157.69	13.900	1.49	19.90	0.79
1.917	0.79	7.917	157.69	13.917	1.49	19.92	0.79
1.933	0.81	7.933	157.69	13.933	1.49	19.93	0.79
1.950	0.79	7.950	157.69	13.950	1.49	19.95	0.79
1.967	0.79	7.967	157.69	13.967	1.49	19.97	0.79
1.983	0.79	7.983	157.69	13.983	1.49	19.98	0.79
2.000	0.79	8.000	157.40	14.000	1.49	20.00	0.79
2.017	0.81	8.017	59.25	14.017	1.45	20.02	0.78
2.033	0.81	8.033	59.25	14.033	1.45	20.03	0.78
2.050	0.81	8.050	59.25	14.050	1.45	20.05	0.78
2.067	0.81	8.067	59.25	14.067	1.45	20.07	0.78
2.083	0.81	8.083	59.25	14.083	1.45	20.08	0.78
2.100	0.81	8.100	59.25	14.100	1.45	20.10	0.78
2.117	0.81	8.117	59.25	14.117	1.45	20.12	0.78
2.133	0.81	8.133	59.25	14.133	1.45	20.13	0.78
2.150	0.81	8.150	59.25	14.150	1.45	20.15	0.78
2.167	0.81	8.167	59.17	14.167	1.45	20.17	0.78
2.183	0.83	8.183	30.14	14.183	1.41	20.18	0.77
2.200	0.83	8.200	30.14	14.200	1.41	20.20	0.77
2.217	0.83	8.217	30.14	14.217	1.41	20.22	0.77
2.233	0.83	8.233	30.14	14.233	1.41	20.23	0.77
2.250	0.83	8.250	30.14	14.250	1.41	20.25	0.77
2.267	0.83	8.267	30.14	14.267	1.41	20.27	0.77
2.283	0.83	8.283	30.14	14.283	1.41	20.28	0.77
2.300	0.83	8.300	30.14	14.300	1.41	20.30	0.77
2.317	0.83	8.317	30.14	14.317	1.41	20.32	0.77
2.333	0.83	8.333	30.11	14.333	1.41	20.33	0.77
2.350	0.85	8.350	19.54	14.350	1.38	20.35	0.76
2.367	0.85	8.367	19.54	14.367	1.38	20.37	0.76
2.383	0.85	8.383	19.54	14.383	1.38	20.38	0.76
2.400	0.85	8.400	19.54	14.400	1.38	20.40	0.76
2.417	0.85	8.417	19.54	14.417	1.38	20.42	0.76
2.433	0.85	8.433	19.54	14.433	1.38	20.43	0.76
2.450	0.85	8.450	19.54	14.450	1.38	20.45	0.76
2.467	0.85	8.467	19.54	14.467	1.38	20.47	0.76
2.483	0.85	8.483	19.54	14.483	1.38	20.48	0.76
2.500	0.85	8.500	19.53	14.500	1.38	20.50	0.76
2.517	0.88	8.517	14.26	14.517	1.35	20.52	0.75
2.533	0.88	8.533	14.26	14.533	1.35	20.53	0.75
2.550	0.88	8.550	14.26	14.550	1.35	20.55	0.75
2.567	0.88	8.567	14.26	14.567	1.35	20.57	0.75
2.583	0.88	8.583	14.26	14.583	1.35	20.58	0.75
2.600	0.88	8.600	14.26	14.600	1.35	20.60	0.75
2.617	0.88	8.617	14.26	14.617	1.35	20.62	0.75
2.633	0.88	8.633	14.26	14.633	1.35	20.63	0.75
2.650	0.88	8.650	14.26	14.650	1.35	20.65	0.75
2.667	0.88	8.667	14.25	14.667	1.35	20.67	0.75
2.683	0.90	8.683	11.16	14.683	1.32	20.68	0.74
2.700	0.90	8.700	11.16	14.700	1.32	20.70	0.74
2.717	0.90	8.717	11.16	14.717	1.32	20.72	0.74
2.733	0.90	8.733	11.16	14.733	1.32	20.73	0.74
2.750	0.90	8.750	11.16	14.750	1.32	20.75	0.74
2.767	0.90	8.767	11.16	14.767	1.32	20.77	0.74
2.783	0.90	8.783	11.16	14.783	1.32	20.78	0.74
2.800	0.90	8.800	11.16	14.800	1.32	20.80	0.74
2.817	0.90	8.817	11.16	14.817	1.32	20.82	0.74
2.833	0.90	8.833	11.16	14.833	1.32	20.83	0.74
2.850	0.93	8.850	9.15	14.850	1.29	20.85	0.73
2.867	0.93	8.867	9.15	14.867	1.29	20.87	0.73
2.883	0.93	8.883	9.15	14.883	1.29	20.88	0.73
2.900	0.93	8.900	9.15	14.900	1.29	20.90	0.73
2.917	0.93	8.917	9.15	14.917	1.29	20.92	0.73
2.933	0.93	8.933	9.15	14.933	1.29	20.93	0.73
2.950	0.93	8.950	9.15	14.950	1.29	20.95	0.73
2.967	0.93	8.967	9.15	14.967	1.29	20.97	0.73
2.983	0.93	8.983	9.15	14.983	1.29	20.98	0.73
3.000	0.96	9.000	9.14	15.000	1.29	21.00	0.73
3.017	0.96	9.017	7.74	15.017	1.26	21.02	0.72
3.033	0.96	9.033	7.74	15.033	1.26	21.03	0.72
3.050	0.96	9.050	7.74	15.050	1.26	21.05	0.72
3.067	0.96	9.067	7.74	15.067	1.26	21.07	0.72
3.083	0.96	9.083	7.74	15.083	1.26	21.08	0.72
3.100	0.96	9.100	7.74	15.100	1.26	21.10	0.72
3.117	0.96	9.117	7.74	15.117	1.26	21.12	0.72
3.133	0.96	9.133	7.74	15.133	1.26	21.13	0.72
3.150	0.96	9.150	7.74	15.150	1.26	21.15	0.72
3.167	0.96	9.167	7.74	15.167	1.26	21.17	0.72
3.183	0.99	9.183	6.70	15.183	1.23	21.18	0.71
3.200	0.99	9.200	6.70	15.200	1.23	21.20	0.71
3.217	0.99	9.217	6.70	15.217	1.23	21.22	0.71
3.233	0.99	9.233	6.70	15.233	1.23	21.23	0.71
3.250	0.99	9.250	6.70	15.250	1.23	21.25	0.71

3.267	0.99	9.267	6.70	15.267	1.23	21.27	0.71
3.283	0.99	9.283	6.70	15.283	1.23	21.28	0.71
3.300	0.99	9.300	6.70	15.300	1.23	21.30	0.71
3.317	0.99	9.317	6.70	15.317	1.23	21.32	0.71
3.333	0.99	9.333	6.70	15.333	1.23	21.33	0.71
3.350	1.03	9.350	5.91	15.350	1.21	21.35	0.71
3.367	1.03	9.367	5.91	15.367	1.21	21.37	0.71
3.383	1.03	9.383	5.91	15.383	1.21	21.38	0.71
3.400	1.03	9.400	5.91	15.400	1.21	21.40	0.71
3.417	1.03	9.417	5.91	15.417	1.21	21.42	0.71
3.433	1.03	9.433	5.91	15.433	1.21	21.43	0.71
3.450	1.03	9.450	5.91	15.450	1.21	21.45	0.71
3.467	1.03	9.467	5.91	15.467	1.21	21.47	0.71
3.483	1.03	9.483	5.91	15.483	1.21	21.48	0.71
3.500	1.03	9.500	5.91	15.500	1.21	21.50	0.71
3.517	1.06	9.517	5.29	15.517	1.18	21.52	0.70
3.533	1.06	9.533	5.29	15.533	1.18	21.53	0.70
3.550	1.06	9.550	5.29	15.550	1.18	21.55	0.70
3.567	1.06	9.567	5.29	15.567	1.18	21.57	0.70
3.583	1.06	9.583	5.29	15.583	1.18	21.58	0.70
3.600	1.06	9.600	5.29	15.600	1.18	21.60	0.70
3.617	1.06	9.617	5.29	15.617	1.18	21.62	0.70
3.633	1.06	9.633	5.29	15.633	1.18	21.63	0.70
3.650	1.06	9.650	5.29	15.650	1.18	21.65	0.70
3.667	1.06	9.667	5.29	15.667	1.18	21.67	0.70
3.683	1.10	9.683	4.79	15.683	1.16	21.68	0.69
3.700	1.10	9.700	4.79	15.700	1.16	21.70	0.69
3.717	1.10	9.717	4.79	15.717	1.16	21.72	0.69
3.733	1.10	9.733	4.79	15.733	1.16	21.73	0.69
3.750	1.10	9.750	4.79	15.750	1.16	21.75	0.69
3.767	1.10	9.767	4.79	15.767	1.16	21.77	0.69
3.783	1.10	9.783	4.79	15.783	1.16	21.78	0.69
3.800	1.10	9.800	4.79	15.800	1.16	21.80	0.69
3.817	1.10	9.817	4.79	15.817	1.16	21.82	0.69
3.833	1.10	9.833	4.79	15.833	1.16	21.83	0.69
3.850	1.15	9.850	4.38	15.850	1.14	21.85	0.68
3.867	1.15	9.867	4.38	15.867	1.14	21.87	0.68
3.883	1.15	9.883	4.38	15.883	1.14	21.88	0.68
3.900	1.15	9.900	4.38	15.900	1.14	21.90	0.68
3.917	1.15	9.917	4.38	15.917	1.14	21.92	0.68
3.933	1.15	9.933	4.38	15.933	1.14	21.93	0.68
3.950	1.15	9.950	4.38	15.950	1.14	21.95	0.68
3.967	1.15	9.967	4.38	15.967	1.14	21.97	0.68
3.983	1.15	9.983	4.38	15.983	1.14	21.98	0.68
4.000	1.15	10.000	4.38	16.000	1.14	22.00	0.68
4.017	1.19	10.017	4.03	16.017	1.12	22.02	0.68
4.033	1.19	10.033	4.03	16.033	1.12	22.03	0.68
4.050	1.19	10.050	4.03	16.050	1.12	22.05	0.68
4.067	1.19	10.067	4.03	16.067	1.12	22.07	0.68
4.083	1.19	10.083	4.03	16.083	1.12	22.08	0.68
4.100	1.19	10.100	4.03	16.100	1.12	22.10	0.68
4.117	1.19	10.117	4.03	16.117	1.12	22.12	0.68

4.133	1.19	10.133	4.03	16.133	1.12	22.13	0.68
4.150	1.19	10.150	4.03	16.150	1.12	22.15	0.68
4.167	1.19	10.167	4.03	16.167	1.12	22.17	0.68
4.183	1.24	10.183	3.74	16.183	1.09	22.18	0.67
4.200	1.24	10.200	3.74	16.200	1.09	22.20	0.67
4.217	1.24	10.217	3.74	16.217	1.09	22.22	0.67
4.233	1.24	10.233	3.74	16.233	1.09	22.23	0.67
4.250	1.24	10.250	3.74	16.250	1.09	22.25	0.67
4.267	1.24	10.267	3.74	16.267	1.09	22.27	0.67
4.283	1.24	10.283	3.74	16.283	1.09	22.28	0.67
4.300	1.24	10.300	3.74	16.300	1.09	22.30	0.67
4.317	1.24	10.317	3.74	16.317	1.09	22.32	0.67
4.333	1.24	10.333	3.74	16.333	1.09	22.33	0.67
4.350	1.30	10.350	3.48	16.350	1.08	22.35	0.66
4.367	1.30	10.367	3.48	16.367	1.08	22.37	0.66
4.383	1.30	10.383	3.48	16.383	1.08	22.38	0.66
4.400	1.30	10.400	3.48	16.400	1.08	22.40	0.66
4.417	1.30	10.417	3.48	16.417	1.08	22.42	0.66
4.433	1.30	10.433	3.48	16.433	1.08	22.43	0.66
4.450	1.30	10.450	3.48	16.450	1.08	22.45	0.66
4.467	1.30	10.467	3.48	16.467	1.08	22.47	0.66
4.483	1.30	10.483	3.48	16.483	1.08	22.48	0.66
4.500	1.30	10.500	3.48	16.500	1.08	22.50	0.66
4.517	1.36	10.517	3.26	16.517	1.06	22.52	0.66
4.533	1.36	10.533	3.26	16.533	1.06	22.53	0.66
4.550	1.36	10.550	3.26	16.550	1.06	22.55	0.66
4.567	1.36	10.567	3.26	16.567	1.06	22.57	0.66
4.583	1.36	10.583	3.26	16.583	1.06	22.58	0.66
4.600	1.36	10.600	3.26	16.600	1.06	22.60	0.66
4.617	1.36	10.617	3.26	16.617	1.06	22.62	0.66
4.633	1.36	10.633	3.26	16.633	1.06	22.63	0.66
4.650	1.36	10.650	3.26	16.650	1.06	22.65	0.66
4.667	1.36	10.667	3.26	16.667	1.06	22.67	0.66
4.683	1.43	10.683	3.07	16.683	1.04	22.68	0.65
4.700	1.43	10.700	3.07	16.700	1.04	22.70	0.65
4.717	1.43	10.717	3.07	16.717	1.04	22.72	0.65
4.733	1.43	10.733	3.07	16.733	1.04	22.73	0.65
4.750	1.43	10.750	3.07	16.750	1.04	22.75	0.65
4.767	1.43	10.767	3.07	16.767	1.04	22.77	0.65
4.783	1.43	10.783	3.07	16.783	1.04	22.78	0.65
4.800	1.43	10.800	3.07	16.800	1.04	22.80	0.65
4.817	1.43	10.817	3.07	16.817	1.04	22.82	0.65
4.833	1.43	10.833	3.07	16.833	1.04	22.83	0.65
4.850	1.50	10.850	2.90	16.850	1.02	22.85	0.64
4.867	1.50	10.867	2.90	16.867	1.02	22.87	0.64
4.883	1.50	10.883	2.90	16.883	1.02	22.88	0.64
4.900	1.50	10.900	2.90	16.900	1.02	22.90	0.64
4.917	1.50	10.917	2.90	16.917	1.02	22.92	0.64
4.933	1.50	10.933	2.90	16.933	1.02	22.93	0.64
4.950	1.50	10.950	2.90	16.950	1.02	22.95	0.64
4.967	1.50	10.967	2.90	16.967	1.02	22.97	0.64
4.983	1.50	10.983	2.90	16.983	1.02	22.98	0.64

5.000	1.50	11.000	2.90	17.000	1.02	23.00	0.64
5.017	1.59	11.017	2.75	17.017	1.00	23.02	0.64
5.033	1.59	11.033	2.75	17.033	1.00	23.03	0.64
5.050	1.59	11.050	2.75	17.050	1.00	23.05	0.64
5.067	1.59	11.067	2.75	17.067	1.00	23.07	0.64
5.083	1.59	11.083	2.75	17.083	1.00	23.08	0.64
5.100	1.59	11.100	2.75	17.100	1.00	23.10	0.64
5.117	1.59	11.117	2.75	17.117	1.00	23.12	0.64
5.133	1.59	11.133	2.75	17.133	1.00	23.13	0.64
5.150	1.59	11.150	2.75	17.150	1.00	23.15	0.64
5.167	1.59	11.167	2.75	17.167	1.00	23.17	0.64
5.183	1.68	11.183	2.61	17.183	0.99	23.18	0.63
5.200	1.68	11.200	2.61	17.200	0.99	23.20	0.63
5.217	1.68	11.217	2.61	17.217	0.99	23.22	0.63
5.233	1.68	11.233	2.61	17.233	0.99	23.23	0.63
5.250	1.68	11.250	2.61	17.250	0.99	23.25	0.63
5.267	1.68	11.267	2.61	17.267	0.99	23.27	0.63
5.283	1.68	11.283	2.61	17.283	0.99	23.28	0.63
5.300	1.68	11.300	2.61	17.300	0.99	23.30	0.63
5.317	1.68	11.317	2.61	17.317	0.99	23.32	0.63
5.333	1.68	11.333	2.61	17.333	0.99	23.33	0.63
5.350	1.79	11.350	2.49	17.350	0.97	23.35	0.62
5.367	1.79	11.367	2.49	17.367	0.97	23.37	0.62
5.383	1.79	11.383	2.49	17.383	0.97	23.38	0.62
5.400	1.79	11.400	2.49	17.400	0.97	23.40	0.62
5.417	1.79	11.417	2.49	17.417	0.97	23.42	0.62
5.433	1.79	11.433	2.49	17.433	0.97	23.43	0.62
5.450	1.79	11.450	2.49	17.450	0.97	23.45	0.62
5.467	1.79	11.467	2.49	17.467	0.97	23.47	0.62
5.483	1.79	11.483	2.49	17.483	0.97	23.48	0.62
5.500	1.79	11.500	2.49	17.500	0.97	23.50	0.62
5.517	1.92	11.517	2.38	17.517	0.96	23.52	0.62
5.533	1.92	11.533	2.38	17.533	0.96	23.53	0.62
5.550	1.92	11.550	2.38	17.550	0.96	23.55	0.62
5.567	1.92	11.567	2.38	17.567	0.96	23.57	0.62
5.583	1.92	11.583	2.38	17.583	0.96	23.58	0.62
5.600	1.92	11.600	2.38	17.600	0.96	23.60	0.62
5.617	1.92	11.617	2.38	17.617	0.96	23.62	0.62
5.633	1.92	11.633	2.38	17.633	0.96	23.63	0.62
5.650	1.92	11.650	2.38	17.650	0.96	23.65	0.62
5.667	1.92	11.667	2.38	17.667	0.96	23.67	0.62
5.683	2.06	11.683	2.28	17.683	0.94	23.68	0.61
5.700	2.06	11.700	2.28	17.700	0.94	23.70	0.61
5.717	2.06	11.717	2.28	17.717	0.94	23.72	0.61
5.733	2.06	11.733	2.28	17.733	0.94	23.73	0.61
5.750	2.06	11.750	2.28	17.750	0.94	23.75	0.61
5.767	2.06	11.767	2.28	17.767	0.94	23.77	0.61
5.783	2.06	11.783	2.28	17.783	0.94	23.78	0.61
5.800	2.06	11.800	2.28	17.800	0.94	23.80	0.61
5.817	2.06	11.817	2.28	17.817	0.94	23.82	0.61
5.833	2.06	11.833	2.28	17.833	0.94	23.83	0.61
5.850	2.23	11.850	2.19	17.850	0.93	23.85	0.61

5.867	2.23	11.867	2.19	17.867	0.93	23.87	0.61
5.883	2.23	11.883	2.19	17.883	0.93	23.88	0.61
5.900	2.23	11.900	2.19	17.900	0.93	23.90	0.61
5.917	2.23	11.917	2.19	17.917	0.93	23.92	0.61
5.933	2.23	11.933	2.19	17.933	0.93	23.93	0.61
5.950	2.23	11.950	2.19	17.950	0.93	23.95	0.61
5.967	2.23	11.967	2.19	17.967	0.93	23.97	0.61
5.983	2.23	11.983	2.19	17.983	0.93	23.98	0.61
6.000	2.23	12.000	2.19	18.000	0.93	24.00	0.61

Max.Eff.Inten.(mm/hr)=	157.69	37.44	
over (min)	5.00	11.00	
Storage Coeff. (min)=	3.18 (ii)	10.43 (ii)	
Unit Hyd. Tpeak (min)=	5.00	11.00	
Unit Hyd. peak (cms)=	0.30	0.11	
			TOTALS
PEAK FLOW (cms)=	0.41	0.11	0.478 (iii)
TIME TO PEAK (hrs)=	8.00	8.15	8.02
RUNOFF VOLUME (mm)=	97.33	25.60	50.71
TOTAL RAINFALL (mm)=	98.33	98.33	98.33
RUNOFF COEFFICIENT =	0.99	0.26	0.52

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 48.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

DUHYD (0035)
Inlet Cap.= 0.202
#of Inlets= 1
Total(cms)= 0.2

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
TOTAL HYD.(ID= 1):	2.86	0.48	8.02	50.71
MAJOR SYS.(ID= 2):	0.40	0.28	8.02	50.71
MINOR SYS.(ID= 3):	2.45	0.20	7.88	50.71

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0102)
1 + 2 = 3

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (1021):	3.77	0.668	8.02	53.16
+ ID2= 2 (0035):	0.40	0.276	8.02	50.71
ID = 3 (0102):	4.18	0.943	8.02	52.92

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0903)
1 + 2 = 3

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0102):	4.18	0.943	8.02	52.92
+ ID2= 2 (0902):	17.87	4.474	8.03	53.11
ID = 3 (0903):	22.04	5.408	8.03	53.08

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB	
NASHYD (1051)	Area (ha)= 1.62 Curve Number (CN)= 60.0
ID= 1 DT= 5.0 min	Ia (mm)= 5.00 # of Linear Res.(N)= 3.00
	U.H. Tp(hrs)= 1.87

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	0.62	6.083	2.43	12.083	2.10	18.08	0.91
0.167	0.62	6.167	2.43	12.167	2.10	18.17	0.91
0.250	0.63	6.250	2.68	12.250	2.02	18.25	0.90
0.333	0.63	6.333	2.68	12.333	2.02	18.33	0.90
0.417	0.65	6.417	2.98	12.417	1.95	18.42	0.89
0.500	0.65	6.500	2.98	12.500	1.95	18.50	0.89
0.583	0.66	6.583	3.37	12.583	1.89	18.58	0.87
0.667	0.66	6.667	3.37	12.667	1.89	18.67	0.87
0.750	0.67	6.750	3.88	12.750	1.82	18.75	0.86
0.833	0.67	6.833	3.88	12.833	1.82	18.83	0.86
0.917	0.69	6.917	4.58	12.917	1.77	18.92	0.85
1.000	0.69	7.000	4.58	13.000	1.77	19.00	0.85
1.083	0.70	7.083	5.59	13.083	1.71	19.08	0.84
1.167	0.70	7.167	5.59	13.167	1.71	19.17	0.84
1.250	0.72	7.250	7.21	13.250	1.66	19.25	0.83
1.333	0.72	7.333	7.21	13.333	1.66	19.33	0.83
1.417	0.73	7.417	10.14	13.417	1.61	19.42	0.82
1.500	0.73	7.500	10.14	13.500	1.61	19.50	0.82
1.583	0.75	7.583	16.88	13.583	1.57	19.58	0.81
1.667	0.75	7.667	16.88	13.667	1.57	19.67	0.81
1.750	0.77	7.750	44.66	13.750	1.53	19.75	0.80
1.833	0.77	7.833	44.67	13.833	1.53	19.83	0.80
1.917	0.79	7.917	157.69	13.917	1.49	19.92	0.79
2.000	0.79	8.000	157.68	14.000	1.49	20.00	0.79

2.083	0.81	8.083	59.25	14.083	1.45	20.08	0.78
2.167	0.81	8.167	59.25	14.167	1.45	20.17	0.78
2.250	0.83	8.250	30.14	14.250	1.41	20.25	0.77
2.333	0.83	8.333	30.14	14.333	1.41	20.33	0.77
2.417	0.85	8.417	19.54	14.417	1.38	20.42	0.76
2.500	0.85	8.500	19.54	14.500	1.38	20.50	0.76
2.583	0.88	8.583	14.26	14.583	1.35	20.58	0.75
2.667	0.88	8.667	14.26	14.667	1.35	20.67	0.75
2.750	0.90	8.750	11.16	14.750	1.32	20.75	0.74
2.833	0.90	8.833	11.16	14.833	1.32	20.83	0.74
2.917	0.93	8.917	9.15	14.917	1.29	20.92	0.73
3.000	0.93	9.000	9.15	15.000	1.29	21.00	0.73
3.083	0.96	9.083	7.74	15.083	1.26	21.08	0.72
3.167	0.96	9.167	7.74	15.167	1.26	21.17	0.72
3.250	0.99	9.250	6.70	15.250	1.23	21.25	0.71
3.333	0.99	9.333	6.70	15.333	1.23	21.33	0.71
3.417	1.03	9.417	5.91	15.417	1.21	21.42	0.71
3.500	1.03	9.500	5.91	15.500	1.21	21.50	0.71
3.583	1.06	9.583	5.29	15.583	1.18	21.58	0.70
3.667	1.06	9.667	5.29	15.667	1.18	21.67	0.70
3.750	1.10	9.750	4.79	15.750	1.16	21.75	0.69
3.833	1.10	9.833	4.79	15.833	1.16	21.83	0.69
3.917	1.15	9.917	4.38	15.917	1.14	21.92	0.68
4.000	1.15	10.000	4.38	16.000	1.14	22.00	0.68
4.083	1.19	10.083	4.03	16.083	1.12	22.08	0.68
4.167	1.19	10.167	4.03	16.167	1.12	22.17	0.68
4.250	1.24	10.250	3.74	16.250	1.09	22.25	0.67
4.333	1.24	10.333	3.74	16.333	1.09	22.33	0.67
4.417	1.30	10.417	3.48	16.417	1.08	22.42	0.66
4.500	1.30	10.500	3.48	16.500	1.08	22.50	0.66
4.583	1.36	10.583	3.26	16.583	1.06	22.58	0.66
4.667	1.36	10.667	3.26	16.667	1.06	22.67	0.66
4.750	1.43	10.750	3.07	16.750	1.04	22.75	0.65
4.833	1.43	10.833	3.07	16.833	1.04	22.83	0.65
4.917	1.50	10.917	2.90	16.917	1.02	22.92	0.64
5.000	1.50	11.000	2.90	17.000	1.02	23.00	0.64
5.083	1.59	11.083	2.75	17.083	1.00	23.08	0.64
5.167	1.59	11.167	2.75	17.167	1.00	23.17	0.64
5.250	1.68	11.250	2.61	17.250	0.99	23.25	0.63
5.333	1.68	11.333	2.61	17.333	0.99	23.33	0.63
5.417	1.79	11.417	2.49	17.417	0.97	23.42	0.62
5.500	1.79	11.500	2.49	17.500	0.97	23.50	0.62
5.583	1.92	11.583	2.38	17.583	0.96	23.58	0.62
5.667	1.92	11.667	2.38	17.667	0.96	23.67	0.62
5.750	2.06	11.750	2.28	17.750	0.94	23.75	0.61
5.833	2.06	11.833	2.28	17.833	0.94	23.83	0.61
5.917	2.23	11.917	2.19	17.917	0.93	23.92	0.61
6.000	2.23	12.000	2.19	18.000	0.93	24.00	0.61

Unit Hyd Qpeak (cms)= 0.033

PEAK FLOW (cms)= 0.027 (i)

TIME TO PEAK (hrs)= 10.250
RUNOFF VOLUME (mm)= 33.162
TOTAL RAINFALL (mm)= 98.335
RUNOFF COEFFICIENT = 0.337

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

ADD HYD (0105)		AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3		(ha)	(cms)	(hrs)	(mm)
	ID1= 1 (1051):	1.62	0.027	10.25	33.16
	+ ID2= 2 (0037):	0.27	0.146	8.02	43.62
	ID = 3 (0105):	1.90	0.147	8.02	34.67

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0906)		AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3		(ha)	(cms)	(hrs)	(mm)
	ID1= 1 (0105):	1.90	0.147	8.02	34.67
	+ ID2= 2 (0903):	22.04	5.408	8.03	53.08
	ID = 3 (0906):	23.94	5.553	8.03	51.62

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB					
NASHYD (0201)	Area	(ha)=	6.97	Curve Number	(CN)= 66.0
ID= 1 DT= 5.0 min	Ia	(mm)=	5.00	# of Linear Res.	(N)= 3.00
	U.H. Tp(hrs)=		0.74		

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	0.62	6.083	2.43	12.083	2.10	18.08	0.91
0.167	0.62	6.167	2.43	12.167	2.10	18.17	0.91
0.250	0.63	6.250	2.68	12.250	2.02	18.25	0.90
0.333	0.63	6.333	2.68	12.333	2.02	18.33	0.90
0.417	0.65	6.417	2.98	12.417	1.95	18.42	0.89
0.500	0.65	6.500	2.98	12.500	1.95	18.50	0.89
0.583	0.66	6.583	3.37	12.583	1.89	18.58	0.87
0.667	0.66	6.667	3.37	12.667	1.89	18.67	0.87
0.750	0.67	6.750	3.88	12.750	1.82	18.75	0.86
0.833	0.67	6.833	3.88	12.833	1.82	18.83	0.86
0.917	0.69	6.917	4.58	12.917	1.77	18.92	0.85
1.000	0.69	7.000	4.58	13.000	1.77	19.00	0.85
1.083	0.70	7.083	5.59	13.083	1.71	19.08	0.84
1.167	0.70	7.167	5.59	13.167	1.71	19.17	0.84
1.250	0.72	7.250	7.21	13.250	1.66	19.25	0.83
1.333	0.72	7.333	7.21	13.333	1.66	19.33	0.83
1.417	0.73	7.417	10.14	13.417	1.61	19.42	0.82
1.500	0.73	7.500	10.14	13.500	1.61	19.50	0.82
1.583	0.75	7.583	16.88	13.583	1.57	19.58	0.81
1.667	0.75	7.667	16.88	13.667	1.57	19.67	0.81
1.750	0.77	7.750	44.66	13.750	1.53	19.75	0.80
1.833	0.77	7.833	44.67	13.833	1.53	19.83	0.80
1.917	0.79	7.917	157.69	13.917	1.49	19.92	0.79
2.000	0.79	8.000	157.68	14.000	1.49	20.00	0.79
2.083	0.81	8.083	59.25	14.083	1.45	20.08	0.78
2.167	0.81	8.167	59.25	14.167	1.45	20.17	0.78
2.250	0.83	8.250	30.14	14.250	1.41	20.25	0.77
2.333	0.83	8.333	30.14	14.333	1.41	20.33	0.77
2.417	0.85	8.417	19.54	14.417	1.38	20.42	0.76
2.500	0.85	8.500	19.54	14.500	1.38	20.50	0.76
2.583	0.88	8.583	14.26	14.583	1.35	20.58	0.75
2.667	0.88	8.667	14.26	14.667	1.35	20.67	0.75
2.750	0.90	8.750	11.16	14.750	1.32	20.75	0.74
2.833	0.90	8.833	11.16	14.833	1.32	20.83	0.74
2.917	0.93	8.917	9.15	14.917	1.29	20.92	0.73
3.000	0.93	9.000	9.15	15.000	1.29	21.00	0.73
3.083	0.96	9.083	7.74	15.083	1.26	21.08	0.72
3.167	0.96	9.167	7.74	15.167	1.26	21.17	0.72
3.250	0.99	9.250	6.70	15.250	1.23	21.25	0.71
3.333	0.99	9.333	6.70	15.333	1.23	21.33	0.71
3.417	1.03	9.417	5.91	15.417	1.21	21.42	0.71
3.500	1.03	9.500	5.91	15.500	1.21	21.50	0.71
3.583	1.06	9.583	5.29	15.583	1.18	21.58	0.70
3.667	1.06	9.667	5.29	15.667	1.18	21.67	0.70
3.750	1.10	9.750	4.79	15.750	1.16	21.75	0.69
3.833	1.10	9.833	4.79	15.833	1.16	21.83	0.69
3.917	1.15	9.917	4.38	15.917	1.14	21.92	0.68
4.000	1.15	10.000	4.38	16.000	1.14	22.00	0.68
4.083	1.19	10.083	4.03	16.083	1.12	22.08	0.68
4.167	1.19	10.167	4.03	16.167	1.12	22.17	0.68
4.250	1.24	10.250	3.74	16.250	1.09	22.25	0.67
4.333	1.24	10.333	3.74	16.333	1.09	22.33	0.67
4.417	1.30	10.417	3.48	16.417	1.08	22.42	0.66
4.500	1.30	10.500	3.48	16.500	1.08	22.50	0.66
4.583	1.36	10.583	3.26	16.583	1.06	22.58	0.66
4.667	1.36	10.667	3.26	16.667	1.06	22.67	0.66
4.750	1.43	10.750	3.07	16.750	1.04	22.75	0.65
4.833	1.43	10.833	3.07	16.833	1.04	22.83	0.65
4.917	1.50	10.917	2.90	16.917	1.02	22.92	0.64
5.000	1.50	11.000	2.90	17.000	1.02	23.00	0.64
5.083	1.59	11.083	2.75	17.083	1.00	23.08	0.64
5.167	1.59	11.167	2.75	17.167	1.00	23.17	0.64
5.250	1.68	11.250	2.61	17.250	0.99	23.25	0.63
5.333	1.68	11.333	2.61	17.333	0.99	23.33	0.63
5.417	1.79	11.417	2.49	17.417	0.97	23.42	0.62
5.500	1.79	11.500	2.49	17.500	0.97	23.50	0.62
5.583	1.92	11.583	2.38	17.583	0.96	23.58	0.62
5.667	1.92	11.667	2.38	17.667	0.96	23.67	0.62
5.750	2.06	11.750	2.28	17.750	0.94	23.75	0.61
5.833	2.06	11.833	2.28	17.833	0.94	23.83	0.61
5.917	2.23	11.917	2.19	17.917	0.93	23.92	0.61
6.000	2.23	12.000	2.19	18.000	0.93	24.00	0.61

Unit Hyd Qpeak (cms)= 0.111

PEAK FLOW (cms)= 0.098 (i)
TIME TO PEAK (hrs)= 9.083
RUNOFF VOLUME (mm)= 40.924
TOTAL RAINFALL (mm)= 98.335
RUNOFF COEFFICIENT = 0.416

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

ADD HYD (0904)		AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3		(ha)	(cms)	(hrs)	(mm)
	ID1= 1 (0201):	6.97	0.280	8.83	38.86
	+ ID2= 2 (0202):	2.71	0.098	9.08	40.92
	ID = 3 (0904):	9.68	0.374	8.92	39.44

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB					
NASHYD (0203)	Area	(ha)=	34.30	Curve Number	(CN)= 42.0
ID= 1 DT= 5.0 min	Ia	(mm)=	5.00	# of Linear Res.	(N)= 3.00
	U.H. Tp(hrs)=		1.40		

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	0.62	6.083	2.43	12.083	2.10	18.08	0.91
0.167	0.62	6.167	2.43	12.167	2.10	18.17	0.91
0.250	0.63	6.250	2.68	12.250	2.02	18.25	0.90
0.333	0.63	6.333	2.68	12.333	2.02	18.33	0.90
0.417	0.65	6.417	2.98	12.417	1.95	18.42	0.89
0.500	0.65	6.500	2.98	12.500	1.95	18.50	0.89
0.583	0.66	6.583	3.37	12.583	1.89	18.58	0.87
0.667	0.66	6.667	3.37	12.667	1.89	18.67	0.87
0.750	0.67	6.750	3.88	12.750	1.82	18.75	0.86
0.833	0.67	6.833	3.88	12.833	1.82	18.83	0.86
0.917	0.69	6.917	4.58	12.917	1.77	18.92	0.85
1.000	0.69	7.000	4.58	13.000	1.77	19.00	0.85
1.083	0.70	7.083	5.59	13.083	1.71	19.08	0.84
1.167	0.70	7.167	5.59	13.167	1.71	19.17	0.84
1.250	0.72	7.250	7.21	13.250	1.66	19.25	0.83
1.333	0.72	7.333	7.21	13.333	1.66	19.33	0.83
1.417	0.73	7.417	10.14	13.417	1.61	19.42	0.82
1.500	0.73	7.500	10.14	13.500	1.61	19.50	0.82
1.583	0.75	7.583	16.88	13.583	1.57	19.58	0.81
1.667	0.75	7.667	16.88	13.667	1.57	19.67	0.81
1.750	0.77	7.750	44.66	13.750	1.53	19.75	0.80
1.833	0.77	7.833	44.67	13.833	1.53	19.83	0.80
1.917	0.79	7.917	157.69	13.917	1.49	19.92	0.79
2.000	0.79	8.000	157.68	14.000	1.49	20.00	0.79
2.083	0.81	8.083	59.25	14.083	1.45	20.08	0.78
2.167	0.81	8.167	59.25	14.167	1.45	20.17	0.78
2.250	0.83	8.250	30.14	14.250	1.41	20.25	0.77
2.333	0.83	8.333	30.14	14.333	1.41	20.33	0.77
2.417	0.85	8.417	19.54	14.417	1.38	20.42	0.76
2.500	0.85	8.500	19.54	14.500	1.38	20.50	0.76
2.583	0.88	8.583	14.26	14.583	1.35	20.58	0.75
2.667	0.88	8.667	14.26	14.667	1.35	20.67	0.75
2.750	0.90	8.750	11.16	14.750	1.32	20.75	0.74
2.833	0.90	8.833	11.16	14.833	1.32	20.83	0.74
2.917	0.93	8.917	9.15	14.917	1.29	20.92	0.73
3.000	0.93	9.000	9.15	15.000	1.29	21.00	0.73
3.083	0.96	9.083	7.74	15.083	1.26	21.08	0.72
3.167	0.96	9.167	7.74	15.167	1.26	21.17	0.72
3.250	0.99	9.250	6.70	15.250	1.23	21.25	0.71
3.333	0.99	9.333	6.70	15.333	1.23	21.33	0.71
3.417	1.03	9.417	5.91	15.417	1.21	21.42	0.71
3.500	1.03	9.500	5.91	15.500	1.21	21.50	0.71
3.583	1.06	9.583	5.29	15.583	1.18	21.58	0.70
3.667	1.06	9.667	5.29	15.667	1.18	21.67	0.70
3.750	1.10	9.750	4.79	15.750	1.16	21.75	0.69
3.833	1.10	9.833	4.79	15.833	1.16	21.83	0.69
3.917	1.15	9.917	4.38	15.917	1.14	21.92	0.68
4.000	1.15	10.000	4.38	16.000	1.14	22.00	0.68
4.083	1.19	10.083	4.03	16.083	1.12	22.08	0.68
4.167	1.19	10.167	4.03	16.167	1.12	22.17	0.68
4.250	1.24	10.250	3.74	16.250	1.09	22.25	0.67
4.333	1.24	10.333	3.74	16.333	1.09	22.33	0.67
4.417	1.30	10.417	3.48	16.417	1.08	22.42	0.66
4.500	1.30	10.500	3.48	16.500	1.08	22.50	0.66
4.583	1.36	10.583	3.26	16.583	1.06	22.58	0.66
4.667	1.36	10.667	3.26	16.667	1.06	22.67	0.66
4.750	1.43	10.750	3.07	16.750	1.04	22.75	0.65
4.833	1.43	10.833	3.07	16.833	1.04	22.83	0.65
4.917	1.50	10.917	2.90	16.917	1.02	22.92	0.64
5.000	1.50	11.000	2.90	17.000	1.02	23.00	0.64
5.083	1.59	11.083	2.75	17.083	1.00	23.08	0.64
5.167	1.59	11.167	2.75	17.167	1.00	23.17	0.64
5.250	1.68	11.250	2.61	17.250	0.99	23.25	0.63
5.333	1.68	11.333	2.61	17.333	0.99	23.33	0.63
5.417	1.79	11.417	2.49	17.417	0.97	23.42	0.62
5.500	1.79	11.500	2.49	17.500	0.97	23.50	0.62
5.583	1.92	11.583	2.38	17.583	0.96	23.58	0.62
5.667	1.92	11.667	2.38	17.667	0.96	23.67	0.62
5.750	2.06	11.750	2.28	17.750	0.94	23.75	0.61
5.833	2.06	11.833	2.28	17.833	0.94	23.83	0.61
5.917	2.23	11.917	2.19	17.917	0.93	23.92	0.61
6.000	2.23	12.000	2.19	18.000	0.93	24.00	0.61

Unit Hyd Qpeak (cms)= 0.360

PEAK FLOW (cms)= 0.280 (i)
TIME TO PEAK (hrs)= 8.833
RUNOFF VOLUME (mm)= 38.858
TOTAL RAINFALL (mm)= 98.335
RUNOFF COEFFICIENT = 0.395

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

CALIB					
NASHYD (0202)	Area	(ha)=	2.71	Curve Number	(CN)= 68.0
ID= 1 DT= 5.0 min	Ia	(mm)=	5.00	# of Linear Res.	(N)= 3.00
	U.H. Tp(hrs)=		0.93		

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	0.62	6.083	2.43	12.083	2.10	18.08	0.91
0.167	0.62	6.167	2.43	12.167	2.10	18.17	0.91
0.250	0.63	6.250	2.68	12.250	2.02	18.25	0.90
0.333	0.63	6.333	2.68	12.333	2.02	18.33	0.90
0.417	0.65	6.417	2.98	12.417	1.95	18.42	0.89
0.500	0.65	6.500	2.98	12.500	1.95	18.50	0.89
0.583	0.66	6.583	3.37	12.583	1.89	18.58	0.87
0.667	0.66	6.667	3.37	12.667	1.89	18.67	0.87
0.750	0.67	6.750	3.88	12.750	1.82	18.75	0.86
0.833	0.67	6.833	3.88	12.833	1.82	18.83	0.86
0.917	0.69	6.917	4.58	12.917	1.77	18.92	0.85
1.000	0.69	7.000	4.58	13.000	1.77	19.00	0.85
1.083	0.70	7.083	5.59	13.083	1.71	19.08	0.84
1.167	0.70	7.167	5.59	13.167	1.71	19.17	0.84
1.250	0.72	7.250	7.21	13.250	1.66	19.25	0.83
1.333	0.72	7.333	7.21	13.333	1.66	19.33	0.83
1.417	0.73	7.417	10.14	13.417	1.61	19.42	0.82
1.500	0.73	7.500	10.14	13.500	1.61	19.50	0.82
1.583	0.75	7.583	16.88	13.583	1.57	19.58	0.81
1.667	0.75	7.667	16.88	13.667	1.57	19.67	0.81
1.750	0.77	7.750	44.66	13.750	1.53	19.75	0.80
1.833	0.77	7.833	44.67	13.833	1.53	19.83	0.80
1.917	0.79	7.917	157.69	13.917	1.49	19.92	0.79
2.000	0.79	8.000	157.68	14.000	1.49	20.00	0.79
2.083	0.81	8.083	59.25	14.083	1.45	20.08	0.78
2.167	0.81	8.167	59.25	14.167	1.45	20.17	0.78
2.250	0.83	8.250	30.14	14.250	1.41	20.25	0.77
2.333	0.83	8.333	30.14	14.333	1.41	20.33	0.77
2.417	0.85	8.417	19.54	14.417	1.38	20.42	0.76
2.500	0.85	8.500	19.54	14.500	1.38	20.50	0.76
2.583	0.88	8.583	14.26	14.583	1.35	20.58	0.75
2.667	0.88	8.667	14.26	14.667	1.35	20.67	0.75
2.750	0.90	8.750	11.16	14.750	1.32	20.75	0.74
2.833	0.90	8.833	11.16	14.833	1.32	20.83	0.74
2.917	0.93	8.917	9.15	14.917	1.29	20.92	0.73
3.000	0.93	9.000	9.15	15.000	1.29	21.00	0.73
3.083	0.96	9.083	7.74	15.083	1.26	21.08	0.72
3.167	0.96	9.167	7.74	15.167	1.26	21.17	0.72
3.250	0.99	9.250	6.70	15.250	1.23	21.25	0.71
3.333	0.99	9.333	6.70	15.333	1.23	21.33	0.71
3.417	1.03	9.417	5.91	15.417	1.21	21.42	0.71
3.500	1.03	9.500	5.91	15.500	1.21	21.50	0.71
3.583	1.06	9.583	5.29	15.583	1.18	21.58	0.70
3.667	1.06	9.667	5.29	15.667	1.18	21.67	0.70
3.750	1.10	9.750	4.79	15.750	1.16	21.75	0.69
3.833	1.10	9.833	4.79	15.833	1.16	21.83	0.69
3.917	1.15	9.917	4.38	15.917	1.14	21.92	0.68
4.000	1.15	10.000	4.38	16.000	1.14	22.00	0.68
4.083	1.19	10.083	4.03	16.083	1.12	22.08	0.68
4.167	1.19	10.167	4.03	16.167	1.12	22.17	0.68
4.250	1.24	10.250	3.74	16.250	1.09	22.25	0.67
4.333	1.24	10.333	3.74	16.333	1.09	22.33	0.67
4.417	1.30	10.417	3.48	16.417	1.08	22.42	0.66
4.500	1.30	10.500	3.48	16.500	1.08	22.50	0.66
4.583	1.36	10.583	3.26	16.583	1.06	22.58	0.66
4.667	1.36	10.667	3.26	16.667	1.06	22.67	0.66
4.750	1.43	10.750	3.07	16.750	1.04	22.75	0.65
4.833	1.43	10.833	3.07	16.833	1.04	22.83	0.65
4.917	1.50	10.917	2.90	16.917	1.02	22.92	0.64
5.000	1.50	11.000	2.90	17.000	1.02	23.00	0.64
5.083	1.59	11.083	2.75	17.083	1.00	23.08	0.64
5.167	1.59	11.167	2.75	17.167	1.00	23.17	0.64
5.250	1.68	11.250	2.61	17.250	0.99	23.25	0.63
5.333	1.68	11.333	2.61	17.333	0.99	23.33	0.63

5.417	1.79	11.417	2.49	17.417	0.97	23.42	0.62
5.500	1.79	11.500	2.49	17.500	0.97	23.50	0.62
5.583	1.92	11.583	2.38	17.583	0.96	23.58	0.62
5.667	1.92	11.667	2.38	17.667	0.96	23.67	0.62
5.750	2.06	11.750	2.28	17.750	0.94	23.75	0.61
5.833	2.06	11.833	2.28	17.833	0.94	23.83	0.61
5.917	2.23	11.917	2.19	17.917	0.93	23.92	0.61
6.000	2.23	12.000	2.19	18.000	0.93	24.00	0.61

Unit Hyd Qpeak (cms)= 0.936

PEAK FLOW (cms)= 0.410 (i)
TIME TO PEAK (hrs)= 9.750
RUNOFF VOLUME (mm)= 19.616
TOTAL RAINFALL (mm)= 98.335
RUNOFF COEFFICIENT = 0.199

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

ADD HYD (0905)			
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0203):	34.30	0.410	9.75	19.62
+ ID2= 2 (0904):	9.68	0.374	8.92	39.44
ID = 3 (0905):	43.98	0.720	9.25	23.98

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

Junction Command(0907)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 1(0905)	43.98	0.72	9.25	23.98
OUTFLOW: ID= 2(0907)	43.98	0.72	9.25	23.98

ADD HYD (0908)			
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0906):	23.94	5.553	8.03	51.62
+ ID2= 2 (0907):	43.98	0.720	9.25	23.98
ID = 3 (0908):	67.92	5.645	8.03	33.72

ID1= 1 (0204): 0.40 0.031 8.25 39.86
+ ID2= 2 (0908): 67.92 5.645 8.03 33.72
ID = 3 (0909): 68.31 5.663 8.03 33.76

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR(0052)	IN= 2---> OUT= 1	DT= 1.0 min	OVERFLOW IS ON

OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
0.0000	0.0004	0.6270	0.1980
0.0690	0.0019	0.6620	0.2529
0.1500	0.0052	0.6950	0.3161
0.2470	0.0111	0.7270	0.3886
0.3480	0.0210	0.7580	0.4732
0.4080	0.0352	0.7870	0.5703
0.4600	0.0544	0.8150	0.6834
0.5070	0.0794	0.8430	0.8226
0.5500	0.1110	0.8690	0.9974
0.5900	0.1508	0.0000	0.0000

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (0909)	68.312	5.663	8.03	33.76
OUTFLOW: ID= 1 (0052)	68.312	0.811	9.95	33.75
OVERFLOW:ID= 3 (0003)	0.000	0.000	0.00	0.00

TOTAL NUMBER OF SIMULATION OVERFLOW = 0
CUMULATIVE TIME OF OVERFLOW (HOURS) = 0.00
PERCENTAGE OF TIME OVERFLOWING (%) = 0.00

PEAK FLOW REDUCTION [Qout/Qin](%)= 14.32
TIME SHIFT OF PEAK FLOW (min)=115.00
MAXIMUM STORAGE USED (ha.m.)= 0.6665

Junction Command(0048)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 1(0052)	68.31	0.81	9.95	33.75
OUTFLOW: ID= 2(0048)	68.31	0.81	9.95	33.75

Junction Command(0053)

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB	NASHYD (0204) | ID= 1 DT= 5.0 min	Area (ha)= 0.40 Curve Number (CN)= 67.0	Ia (mm)= 5.00 # 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	0.62	6.083	2.43	12.083	2.10	18.08	0.91
0.167	0.62	6.167	2.43	12.167	2.10	18.17	0.91
0.250	0.63	6.250	2.68	12.250	2.02	18.25	0.90
0.333	0.63	6.333	2.68	12.333	2.02	18.33	0.90
0.417	0.65	6.417	2.98	12.417	1.95	18.42	0.89
0.500	0.65	6.500	2.98	12.500	1.95	18.50	0.89
0.583	0.66	6.583	3.37	12.583	1.89	18.58	0.87
0.667	0.66	6.667	3.37	12.667	1.89	18.67	0.87
0.750	0.67	6.750	3.88	12.750	1.82	18.75	0.86
0.833	0.67	6.833	3.88	12.833	1.82	18.83	0.86
0.917	0.69	6.917	4.58	12.917	1.77	18.92	0.85
1.000	0.69	7.000	4.58	13.000	1.77	19.00	0.85
1.083	0.70	7.083	5.59	13.083	1.71	19.08	0.84
1.167	0.70	7.167	5.59	13.167	1.71	19.17	0.84
1.250	0.72	7.250	7.21	13.250	1.66	19.25	0.83
1.333	0.72	7.333	7.21	13.333	1.66	19.33	0.83
1.417	0.73	7.417	10.14	13.417	1.61	19.42	0.82
1.500	0.73	7.500	10.14	13.500	1.61	19.50	0.82
1.583	0.75	7.583	16.88	13.583	1.57	19.58	0.81
1.667	0.75	7.667	16.88	13.667	1.57	19.67	0.81
1.750	0.77	7.750	44.66	13.750	1.53	19.75	0.80
1.833	0.77	7.833	44.67	13.833	1.53	19.83	0.80
1.917	0.79	7.917	157.69	13.917	1.49	19.92	0.79
2.000	0.79	8.000	157.68	14.000	1.49	20.00	0.79
2.083	0.81	8.083	59.25	14.083	1.45	20.08	0.78
2.167	0.81	8.167	59.25	14.167	1.45	20.17	0.78
2.250	0.83	8.250	30.14	14.250	1.41	20.25	0.77
2.333	0.83	8.333	30.14	14.333	1.41	20.33	0.77
2.417	0.85	8.417	19.54	14.417	1.38	20.42	0.76
2.500	0.85	8.500	19.54	14.500	1.38	20.50	0.76
2.583	0.88	8.583	14.26	14.583	1.35	20.58	0.75
2.667	0.88	8.667	14.26	14.667	1.35	20.67	0.75
2.750	0.90	8.750	11.16	14.750	1.32	20.75	0.74
2.833	0.90	8.833	11.16	14.833	1.32	20.83	0.74
2.917	0.93	8.917	9.15	14.917	1.29	20.92	0.73
3.000	0.93	9.000	9.15	15.000	1.29	21.00	0.73
3.083	0.96	9.083	7.74	15.083	1.26	21.08	0.72
3.167	0.96	9.167	7.74	15.167	1.26	21.17	0.72
3.250	0.99	9.250	6.70	15.250	1.23	21.25	0.71
3.333	0.99	9.333	6.70	15.333	1.23	21.33	0.71
3.417	1.03	9.417	5.91	15.417	1.21	21.42	0.71
3.500	1.03	9.500	5.91	15.500	1.21	21.50	0.71
3.583	1.06	9.583	5.29	15.583	1.18	21.58	0.70
3.667	1.06	9.667	5.29	15.667	1.18	21.67	0.70
3.750	1.10	9.750	4.79	15.750	1.16	21.75	0.69
3.833	1.10	9.833	4.79	15.833	1.16	21.83	0.69
3.917	1.15	9.917	4.38	15.917	1.14	21.92	0.68
4.000	1.15	10.000	4.38	16.000	1.14	22.00	0.68
4.083	1.19	10.083	4.03	16.083	1.12	22.08	0.68
4.167	1.19	10.167	4.03	16.167	1.12	22.17	0.68
4.250	1.24	10.250	3.74	16.250	1.09	22.25	0.67
4.333	1.24	10.333	3.74	16.333	1.09	22.33	0.67
4.417	1.30	10.417	3.48	16.417	1.08	22.42	0.66
4.500	1.30	10.500	3.48	16.500	1.08	22.50	0.66
4.583	1.36	10.583	3.26	16.583	1.06	22.58	0.66
4.667	1.36	10.667	3.26	16.667	1.06	22.67	0.66
4.750	1.43	10.750	3.07	16.750	1.04	22.75	0.65
4.833	1.43	10.833	3.07	16.833	1.04	22.83	0.65
4.917	1.50	10.917	2.90	16.917	1.02	22.92	0.64
5.000	1.50	11.000	2.90	17.000	1.02	23.00	0.64
5.083	1.59	11.083	2.75	17.083	1.00	23.08	0.64
5.167	1.59	11.167	2.75	17.167	1.00	23.17	0.64
5.250	1.68	11.250	2.61	17.250	0.99	23.25	0.63
5.333	1.68	11.333	2.61	17.333	0.99	23.33	0.63
5.417	1.79	11.417	2.49	17.417	0.97	23.42	0.62
5.500	1.79	11.500	2.49	17.500	0.97	23.50	0.62
5.583	1.92	11.583	2.38	17.583	0.96	23.58	0.62
5.667	1.92	11.667	2.38	17.667	0.96	23.67	0.62
5.750	2.06	11.750	2.28	17.750	0.94	23.75	0.61
5.833	2.06	11.833	2.28	17.833	0.94	23.83	0.61
5.917	2.23	11.917	2.19	17.917	0.93	23.92	0.61
6.000	2.23	12.000	2.19	18.000	0.93	24.00	0.61

Unit Hyd Qpeak (cms)= 0.054

PEAK FLOW (cms)= 0.031 (i)
TIME TO PEAK (hrs)= 8.250
RUNOFF VOLUME (mm)= 39.858
TOTAL RAINFALL (mm)= 98.335
RUNOFF COEFFICIENT = 0.405

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

ADD HYD (0909)			
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 3(0052)	0.00	0.00	0.00	0.00
OUTFLOW: ID= 2(0053)	0.00	0.00	0.00	0.00

ADD HYD (0051)			
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
*** W A R N I N G : HYDROGRAPH 0053 <ID= 2> IS DRY.				
*** W A R N I N G : HYDROGRAPH 0003 = HYDROGRAPH 0001				
ID1= 1 (0048):	68.31	0.811	9.95	33.75
+ ID2= 2 (0053):	0.00	0.000	0.00	0.00
ID = 3 (0051):	68.31	0.811	9.95	33.75

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

Junction Command(0036)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 9(0035)	2.45	0.20	7.88	50.71
OUTFLOW: ID= 2(0036)	2.45	0.20	7.88	50.71

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      V    V   I    SSSSS  U   U    A    L              (v 6.2.2015)
      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\cacp078589\AppData\Local\Civica\VH5\9ad0f7cd-9fe5-4b65-bb07-55a510b23afa\5d3c2868-2d60-4c21-b03d-300c9e6d413b\s
Summary filename:
C:\Users\cacp078589\AppData\Local\Civica\VH5\9ad0f7cd-9fe5-4b65-bb07-55a510b23afa\5d3c2868-2d60-4c21-b03d-300c9e6d413b\s

DATE: 04-07-2025 TIME: 09:18:26

USER:

COMMENTS: _____

CHICAGO STORM	Ptotal= 67.81 mm	IDF curve parameters: A=1259.000 B= 8.800 C= 0.838 used in: INTENSITY = A / (t + B)^C

** SIMULATION : 5yr 24hr 10min Chicago **

Duration of storm = 24.00 hrs
Storm time step = 10.00 min
Time to peak ratio = 0.33

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.00	0.48	6.00	1.78	12.00	1.55	18.00	0.70
0.17	0.49	6.17	1.95	12.17	1.50	18.17	0.69
0.33	0.50	6.33	2.16	12.33	1.44	18.33	0.68
0.50	0.51	6.50	2.42	12.50	1.40	18.50	0.67
0.67	0.52	6.67	2.76	12.67	1.35	18.67	0.66
0.83	0.53	6.83	3.23	12.83	1.31	18.83	0.65
1.00	0.54	7.00	3.90	13.00	1.27	19.00	0.64
1.17	0.55	7.17	4.94	13.17	1.24	19.17	0.64
1.33	0.57	7.33	6.81	13.33	1.20	19.33	0.63
1.50	0.58	7.50	11.05	13.50	1.17	19.50	0.62
1.67	0.59	7.67	28.66	13.67	1.14	19.67	0.61
1.83	0.61	7.83	107.72	13.83	1.11	19.83	0.60
2.00	0.62	8.00	38.01	14.00	1.09	20.00	0.60

2.17	0.64	8.17	19.35	14.17	1.06	20.17	0.59
2.33	0.66	8.33	12.71	14.33	1.04	20.33	0.58
2.50	0.67	8.50	9.41	14.50	1.01	20.50	0.58
2.67	0.69	8.67	7.46	14.67	0.99	20.67	0.57
2.83	0.71	8.83	6.18	14.83	0.97	20.83	0.56
3.00	0.74	9.00	5.28	15.00	0.95	21.00	0.56
3.17	0.76	9.17	4.62	15.17	0.93	21.17	0.55
3.33	0.78	9.33	4.11	15.33	0.91	21.33	0.55
3.50	0.81	9.50	3.70	15.50	0.90	21.50	0.54
3.67	0.84	9.67	3.37	15.67	0.88	21.67	0.53
3.83	0.87	9.83	3.09	15.83	0.86	21.83	0.53
4.00	0.90	10.00	2.86	16.00	0.85	22.00	0.52
4.17	0.94	10.17	2.67	16.17	0.83	22.17	0.52
4.33	0.98	10.33	2.50	16.33	0.82	22.33	0.51
4.50	1.02	10.50	2.35	16.50	0.80	22.50	0.51
4.67	1.07	10.67	2.22	16.67	0.79	22.67	0.50
4.83	1.13	10.83	2.10	16.83	0.78	22.83	0.50
5.00	1.19	11.00	2.00	17.00	0.77	23.00	0.49
5.17	1.25	11.17	1.90	17.17	0.75	23.17	0.49
5.33	1.33	11.33	1.82	17.33	0.74	23.33	0.48
5.50	1.42	11.50	1.74	17.50	0.73	23.50	0.48
5.67	1.52	11.67	1.67	17.67	0.72	23.67	0.48
5.83	1.64	11.83	1.61	17.83	0.71	23.83	0.47

CALIB			
STANDHYD (1012)	Area (ha)= 26.89		
ID= 1 DT= 1.0 min	Total Imp(%)= 57.00	Dir. Conn.(%)= 49.00	

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	15.33	11.56
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	0.50	2.00
Length	(m)=	423.42	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 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
0.017	0.48	6.017	1.78	12.017	1.55	18.02	0.70
0.033	0.48	6.033	1.78	12.033	1.55	18.03	0.70
0.050	0.48	6.050	1.78	12.050	1.55	18.05	0.70
0.067	0.48	6.067	1.78	12.067	1.55	18.07	0.70
0.083	0.48	6.083	1.78	12.083	1.55	18.08	0.70
0.100	0.48	6.100	1.78	12.100	1.55	18.10	0.70
0.117	0.48	6.117	1.78	12.117	1.55	18.12	0.70
0.133	0.48	6.133	1.78	12.133	1.55	18.13	0.70
0.150	0.48	6.150	1.78	12.150	1.55	18.15	0.70
0.167	0.48	6.167	1.78	12.167	1.55	18.17	0.70
0.183	0.49	6.183	1.95	12.183	1.50	18.18	0.69
0.200	0.49	6.200	1.95	12.200	1.50	18.20	0.69
0.217	0.49	6.217	1.95	12.217	1.50	18.22	0.69
0.233	0.49	6.233	1.95	12.233	1.50	18.23	0.69
0.250	0.49	6.250	1.95	12.250	1.50	18.25	0.69
0.267	0.49	6.267	1.95	12.267	1.50	18.27	0.69
0.283	0.49	6.283	1.95	12.283	1.50	18.28	0.69
0.300	0.49	6.300	1.95	12.300	1.50	18.30	0.69
0.317	0.49	6.317	1.95	12.317	1.50	18.32	0.69
0.333	0.49	6.333	1.95	12.333	1.50	18.33	0.69
0.350	0.50	6.350	2.16	12.350	1.44	18.35	0.68
0.367	0.50	6.367	2.16	12.367	1.44	18.37	0.68
0.383	0.50	6.383	2.16	12.383	1.44	18.38	0.68
0.400	0.50	6.400	2.16	12.400	1.44	18.40	0.68
0.417	0.50	6.417	2.16	12.417	1.44	18.42	0.68
0.433	0.50	6.433	2.16	12.433	1.44	18.43	0.68
0.450	0.50	6.450	2.16	12.450	1.44	18.45	0.68
0.467	0.50	6.467	2.16	12.467	1.44	18.47	0.68
0.483	0.50	6.483	2.16	12.483	1.44	18.48	0.68
0.500	0.50	6.500	2.16	12.500	1.44	18.50	0.68
0.517	0.51	6.517	2.42	12.517	1.40	18.52	0.67
0.533	0.51	6.533	2.42	12.533	1.40	18.53	0.67
0.550	0.51	6.550	2.42	12.550	1.40	18.55	0.67
0.567	0.51	6.567	2.42	12.567	1.40	18.57	0.67
0.583	0.51	6.583	2.42	12.583	1.40	18.58	0.67
0.600	0.51	6.600	2.42	12.600	1.40	18.60	0.67
0.617	0.51	6.617	2.42	12.617	1.40	18.62	0.67
0.633	0.51	6.633	2.42	12.633	1.40	18.63	0.67
0.650	0.51	6.650	2.42	12.650	1.40	18.65	0.67
0.667	0.51	6.667	2.42	12.667	1.40	18.67	0.67
0.683	0.52	6.683	2.76	12.683	1.35	18.68	0.66
0.700	0.52	6.700	2.76	12.700	1.35	18.70	0.66
0.717	0.52	6.717	2.76	12.717	1.35	18.72	0.66
0.733	0.52	6.733	2.76	12.733	1.35	18.73	0.66
0.750	0.52	6.750	2.76	12.750	1.35	18.75	0.66
0.767	0.52	6.767	2.76	12.767	1.35	18.77	0.66
0.783	0.52	6.783	2.76	12.783	1.35	18.78	0.66
0.800	0.52	6.800	2.76	12.800	1.35	18.80	0.66
0.817	0.52	6.817	2.76	12.817	1.35	18.82	0.66
0.833	0.52	6.833	2.76	12.833	1.35	18.83	0.66
0.850	0.53	6.850	3.23	12.850	1.31	18.85	0.65
0.867	0.53	6.867	3.23	12.867	1.31	18.87	0.65
0.883	0.53	6.883	3.23	12.883	1.31	18.88	0.65
0.900	0.53	6.900	3.23	12.900	1.31	18.90	0.65
0.917	0.53	6.917	3.23	12.917	1.31	18.92	0.65
0.933	0.53	6.933	3.23	12.933	1.31	18.93	0.65
0.950	0.53	6.950	3.23	12.950	1.31	18.95	0.65
0.967	0.53	6.967	3.23	12.967	1.31	18.97	0.65
0.983	0.53	6.983	3.23	12.983	1.31	18.98	0.65
1.000	0.53	7.000	3.23	13.000	1.31	19.00	0.65
1.017	0.54	7.017	3.90	13.017	1.27	19.02	0.64
1.033	0.54	7.033	3.90	13.033	1.27	19.03	0.64
1.050	0.54	7.050	3.90	13.050	1.27	19.05	0.64
1.067	0.54	7.067	3.90	13.067	1.27	19.07	0.64
1.083	0.54	7.083	3.90	13.083	1.27	19.08	0.64
1.100	0.54	7.100	3.90	13.100	1.27	19.10	0.64
1.117	0.54	7.117	3.90	13.117	1.27	19.12	0.64
1.133	0.54	7.133	3.90	13.133	1.27	19.13	0.64
1.150	0.54	7.150	3.90	13.150	1.27	19.15	0.64
1.167	0.54	7.167	3.90	13.167	1.27	19.17	0.64
1.183	0.55	7.183	4.94	13.183	1.24	19.18	0.64
1.200	0.55	7.200	4.94	13.200	1.24	19.20	0.64
1.217	0.55	7.217	4.94	13.217	1.24	19.22	0.64
1.233	0.55	7.233	4.94	13.233	1.24	19.23	0.64
1.250	0.55	7.250	4.94	13.250	1.24	19.25	0.64
1.267	0.55	7.267	4.94	13.267	1.24	19.27	0.64
1.283	0.55	7.283	4.94	13.283	1.24	19.28	0.64
1.300	0.55	7.300	4.94	13.300	1.24	19.30	0.64
1.317	0.55	7.317	4.94	13.317	1.24	19.32	0.64
1.333	0.55	7.333	4.95	13.333	1.24	19.33	0.64
1.350	0.57	7.350	6.81	13.350	1.20	19.35	0.63
1.367	0.57	7.367	6.81	13.367	1.20	19.37	0.63
1.383	0.57	7.383	6.81	13.383	1.20	19.38	0.63
1.400	0.57	7.400	6.81	13.400	1.20	19.40	0.63
1.417	0.57	7.417	6.81	13.417	1.20	19.42	0.63
1.433	0.57	7.433	6.81	13.433	1.20	19.43	0.63
1.450	0.57	7.450	6.81	13.450	1.20	19.45	0.63
1.467	0.57	7.467	6.81	13.467	1.20	19.47	0.63
1.483	0.57	7.483	6.81	13.483	1.20	19.48	0.63
1.500	0.57	7.500	6.82	13.500	1.20	19.50	0.63
1.517	0.58	7.517	11.05	13.517	1.17	19.52	0.62
1.533	0.58	7.533	11.05	13.533	1.17	19.53	0.62
1.550	0.58	7.550	11.05	13.550	1.17	19.55	0.62
1.567	0.58	7.567	11.05	13.567	1.17	19.57	0.62
1.583	0.58	7.583	11.05	13.583	1.17	19.58	0.62
1.600	0.58	7.600	11.05	13.600	1.17	19.60	0.62
1.617	0.58	7.617	11.05	13.617	1.17	19.62	0.62
1.633	0.58	7.633	11.05	13.633	1.17	19.63	0.62
1.650	0.58	7.650	11.05	13.650	1.17	19.65	0.62
1.667	0.58	7.667	11.10	13.667	1.17	19.67	0.62
1.683	0.59	7.683	28.66	13.683	1.14	19.68	0.61
1.700	0.59	7.700	28.66	13.700	1.14	19.70	0.61
1.717	0.59	7.717	28.66	13.717	1.14	19.72	0.61
1.733	0.59	7.733	28.66	13.733	1.14	19.73	0.61
1.750	0.59	7.750	28.66	13.750	1.14	19.75	0.61
1.767	0.59	7.767	28.66	13.767	1.14	19.77	0.61
1.783	0.59	7.783	28.66	13.783	1.14	19.78	0.61
1.800	0.59	7.800	28.66	13.800	1.14	19.80	0.61
1.817	0.59	7.817	28.66	13.817	1.14	19.82	0.61
1.833	0.59	7.833	28.88	13.833	1.14	19.83	0.61
1.850	0.61	7.850	107.72	13.850	1.11	19.85	0.60
1.867	0.61	7.867	107.72	13.867	1.11	19.87	0.60
1.883	0.61	7.883	107.72	13.883	1.11	19.88	0.60
1.900	0.61	7.900	107.72	13.900	1.11	19.90	0.60
1.917	0.61	7.917	107.72	13.917	1.11	19.92	0.60
1.933	0.61	7.933	107.72	13.933	1.11	19.93	0.60
1.950	0.61	7.950	107.72	13.950	1.11	19.95	0.60
1.967	0.61	7.967	107.72	13.967	1.11	19.97	0.60
1.983	0.61	7.983	107.72	13.983	1.11	19.98	0.60
2.000	0.61	8.000	107.51	14.000	1.11	20.00	0.60
2.017	0.62	8.017	38.01	14.017	1.09	20.02	0.60
2.033	0.62	8.033	38.01	14.033	1.09	20.03	0.60
2.050	0.62	8.050	38.01	14.050	1.09	20.05	0.60
2.067	0.62	8.067	38.01	14.067	1.09	20.07	0.60
2.083	0.62	8.083	38.01	14.083	1.09	20.08	0.60
2.100	0.62	8.100	38.01	14.100	1.09	20.10	0.60
2.117	0.62	8.117	38.01	14.117	1.09	20.12	0.60
2.133	0.62	8.133	38.01	14.133	1.09	20.13	0.60
2.150	0.62	8.150	38.01	14.150	1.09	20.15	0.60
2.167	0.62	8.167	37.95	14.167	1.09	20.17	0.60
2.183	0.64	8.183	19.35	14.183	1.06	20.18	0.59
2.200	0.64	8.200	19.35	14.200	1.06	20.20	0.59
2.217	0.64	8.217	19.35	14.217	1.06	20.22	0.59
2.233	0.64	8.233	19.35	14.233	1.06	20.23	0.59
2.250	0.64	8.250	19.35	14.250	1.06	20.25	0.59
2.267	0.64	8.267	19.35	14.267	1.06	20.27	0.59
2.283	0.64	8.283	19.35	14.283	1.06	20.28	0.59
2.300	0.64	8.300	19.35	14.300	1.06	20.30	0.59
2.317	0.64	8.317	19.35	14.317	1.06	20.32	0.59
2.333	0.64	8.333	19.33	14.333	1.06	20.33	0.59
2.350	0.66	8.350	12.71	14.350	1.04	20.35	0.58
2.367	0.66	8.367	12.71	14.367	1.04	20.37	0.58
2.383	0.66	8.383	12.71	14.383	1.04	20.38	0.58
2.400	0.66	8.400	12.71	14.400	1.04	20.40	0.58
2.417	0.66	8.417	12.71	14.417	1.04	20.42	0.58
2.433	0.66	8.433	12.71	14.433	1.04	20.43	0.58
2.450	0.66	8.450	12.71	14.450	1.04	20.45	0.58
2.467	0.66	8.467	12.71	14.467	1.04	20.47	0.58
2.483	0.66	8.483	12.71	14.483	1.04	20.48	0.58
2.500	0.66	8.500	12.70	14.500	1.04	20.50	0.58
2.517	0.67	8.517	9.41	14.517	1.01	20.52	0.58
2.533	0.67	8.533	9.41	14.533	1.01	20.53	0.58
2.550	0.67	8.550	9.41	14.550	1.01	20.55	0.58
2.567	0.67	8.567	9.41	14.567	1.01	20.57	0.58
2.583	0.67	8.583	9.41	14.583	1.01	20.58	0.58
2.600	0.67	8.600	9.41	14.600	1.01	20.60	0.58
2.617	0.67	8.617	9.41	14.617	1.01	20.62	0.58
2.633	0.67	8.633	9.41	14.633	1.01	20.63	0.58
2.650	0.67	8.650	9.41	14.650	1.01	20.65	0.58
2.667	0.67	8.667	9.41	14.667	1.01	20.67	0.58
2.683	0.69	8.683	7.46	14.683	0.99	20.68	0.57
2.700	0.69	8.700	7.46	14.700	0.99	20.70	0.57
2.717	0.69	8.717	7.46	14.717	0.99	20.72	0.57
2.733	0.69	8.733	7.46	14.733	0.99	20.73	0.57
2.750	0.69	8.750	7.46	14.750	0.99	20.75	0.57
2.767	0.69	8.767	7.46	14.767	0.99	20.77	0.57
2.783	0.69	8.783	7.46	14.783	0.99	20.78	0.57
2.800	0.69	8.800	7.46	14.800	0.99	20.80	0.57
2.817	0.69	8.817	7.46	14.817	0.99	20.82	0.57
2.833	0.69	8.833	7.46	14.833	0.99	20.83	0.57
2.850	0.71	8.850	6.18	14.850	0.97	20.85	0.56
2.867	0.71	8.867	6.18	14.867	0.97	20.87	0.56
2.883	0.71	8.883	6.18	14.883	0.97	20.88	0.56
2.900	0.71	8.900	6.18	14.900	0.97	20.90	0.56
2.917	0.71	8.917	6.18	14.917	0.97	20.92	0.56
2.933	0.71	8.933	6.18	14.933	0.97	20.93	0.56
2.950	0.71	8.950	6.18	14.950	0.97	20.95	0.56
2.967	0.71	8.967	6.18	14.967	0.97	20.97	0.56
2.983	0.71	8.983	6.18	14.983	0.97	20.98	0.56
3.000	0.71	9.000	6.18	15.000	0.97	21.00	0.56
3.017	0.74	9.017	5.28	15.017	0.95	21.02	0.56
3.033	0.74	9.033	5.28	15.033	0.95	21.03	0.56
3.050	0.74	9.050	5.28	15.050	0.95	21.05	0.56
3.067	0.74	9.067	5.28	15.067	0.95	21.07	0.56
3.083	0.74	9.083	5.28	15.083	0.95	21.08	0.56
3.100	0.74	9.100	5.28	15.100	0.95	21.10	0.56
3.117	0.74	9.117	5.28	15.117	0.95	21.12	0.56
3.133	0.74	9.133	5.28	15.133	0.95	21.13	0.56
3.150	0.74	9.150	5.28	15.150	0.95	21.15	0.56
3.167	0.74	9.167	5.28	15.167	0.95	21.17	0.56
3.183	0.76	9.183	4.62	15.183	0.93	21.18	0.55
3.200	0.76	9.200	4.62	15.200	0.93	21.20	0.55
3.217	0.76	9.217	4.62	15.217	0.93	21.22	0.55
3.233	0.76	9.233	4.62	15.233	0.93	21.23	0.55
3.250	0.76	9.250	4.62	15.250	0.93	21.25	0.55
3.267	0.76	9.267	4.62	15.267	0.93	21.27	0.55
3.283	0.76	9.283	4.62	15.283	0.93	21.28	0.55
3.300	0.76	9.300	4.62	15.300	0.93	21.30	0.55
3.317	0.76	9.317	4.62	15.317	0.93	21.32	0.55
3.333	0.76	9.333	4.62	15.333	0.93	21.33	0.55
3.350	0.78	9.350	4.11	15.350	0.91	21.35	0.55
3.367	0.78	9.367	4.11	15.367	0.91	21.37	0.55
3.383	0.78	9.383	4.11	15.383	0.91	21.38	0.55
3.400	0.78	9.400	4.11	15.400	0.91	21.40	0.55
3.417	0.78	9.417	4.11	15.417	0.91	21.42	0.55
3.433	0.78	9.433	4.11	15.433	0.91	21.43	0.55
3.450	0.78	9.450	4.11	15.450	0.91	21.45	0.55
3.467	0.78	9.467	4.11	15.467	0.91	21.47	0.55
3.483	0.78	9.483	4.11	15.483	0.91	21.48	0.55
3.500	0.78	9.500	4.10	15.500	0.91	21.50	0.55
3.517	0.81	9.517	3.70	15.517	0.90	21.52	0.54
3.533	0.81	9.533	3.70	15.533	0.90	21.53	0.54
3.550	0.81	9.550	3.70	15.550	0.90	21.55	0.54
3.567	0.81	9.567	3.70	15.567	0.90	21.57	0.54
3.583	0.81	9.583	3.70	15.583	0.90	21.58	0.54
3.600	0.81	9.600	3.70	15.600	0.90	21.60	0.54
3.617	0.81	9.617	3.70	15.617	0.90	21.62	0.54
3.633	0.81	9.633	3.70	15.633	0.90	21.63	0.54
3.650	0.81	9.650	3.70	15.650	0.90	21.65	0.54
3.667	0.81	9.667	3.70	15.667	0.90	21.67	0.54
3.683	0.84	9.683	3.37	15.683	0.88	21.68	0.53
3.700	0.84	9.700	3.37	15.700	0.88	21.70	0.53
3.717	0.84	9.717	3.37	15.717	0.88	21.72	0.53
3.733	0.84	9.733	3.37	15.733	0.88	21.73	0.53
3.750	0.84	9.750	3.37	15.750	0.88	21.75	0.53
3.767	0.84	9.767	3.37	15.767	0.88	21.77	0.53
3.783	0.84	9.783	3.37	15.783	0.88	21.78	0.53
3.800	0.84	9.800	3.37	15.800	0.88	21.80	0.53
3.817	0.84	9.817	3.37	15.817	0.88	21.82	0.53
3.833	0.84	9.833	3.37	15.833	0.88	21.83	0.53
3.850	0.87	9.850	3.09	15.850	0.86	21.85	0.53
3.867	0.87	9.867	3.09	15.867	0.86	21.87	0.53
3.883	0.87	9.883	3.09	15.883	0.86	21.88	0.53
3.900	0.87	9.900	3.09	15.900	0.86	21.90	0.53
3.917	0.87	9.917	3.09	15.917	0.86	21.92	0.53
3.933	0.87	9.933	3.09	15.933	0.86	21.93	0.53
3.950	0.87	9.950	3.09	15.950	0.86	21.95	0.53
3.967	0.87	9.967	3.09	15.967	0.86	21.97	0.53
3.983	0.87	9.983	3.09	15.983	0.86	21.98	0.53
4.000	0.87	10.000	3.09	16.000	0.86	22.00	0.53
4.017	0.90	10.017	2.86	16.017	0.85	22.02	0.52
4.033	0.90	10.033	2.86	16.033	0.85	22.03	0.52
4.050	0.90	10.050	2.86	16.050	0.85	22.05	0.52
4.067	0.90	10.067	2.86	16.067	0.85	22.07	0.52
4.083	0.90	10.083	2.86	16.083	0.85	22.08	0.52
4.100	0.90	10.100	2.86	16.100	0.85	22.10	0.52
4.117	0.90	10.117	2.86	16.117	0.85	22.12	0.52
4.133	0.90	10.133	2.86	16.133	0.85	22.13	0.52
4.150	0.90	10.150	2.86	16.150	0.85	22.15	0.52
4.167	0.90	10.167	2.86	16.167	0.85	22.17	0.52
4.183	0.94	10.183	2.67	16.183	0.83	22.18	0.52
4.200	0.94	10.200	2.67	16.200	0.83	22.20	0.52
4.217	0.94	10.217	2.67	16.217	0.83	22.22	0.52
4.233	0.94	10.233	2.67	16.233	0.83	22.23	0.52
4.250	0.94	10.250	2.67	16.250	0.83	22.25	0.52
4.267	0.94	10.267	2.67	16.267	0.83	22.27	0.52
4.283	0.94	10.283	2.67	16.283	0.83	22.28	0.52
4.300	0.94	10.300	2.67	16.300	0.83	22.30	0.52
4.317	0.94	10.317	2.67	16.317	0.83	22.32	0.52
4.333	0.94	10.333	2.67	16.333	0.83	22.33	0.52
4.350	0.98	10.350	2.50	16.350	0.82	22.35	0.51
4.367	0.98	10.367	2.50	16.367	0.82	22.37	0.51
4.383	0.98	10.383	2.50	16.383	0.82	22.38	0.51
4.400	0.98	10.400	2.50	16.400	0.82	22.40	0.51
4.417	0.98	10.417	2.50	16.417	0.82	22.42	0.51
4.433	0.98	10.433	2.50	16.433	0.82	22.43	0.51
4.450	0.98	10.450	2.50	16.450	0.82	22.45	0.51
4.467	0.98	10.467	2.50	16.467	0.82	22.47	0.51

4.483	0.98	10.483	2.50	16.483	0.82	22.48	0.51
4.500	0.98	10.500	2.50	16.500	0.82	22.50	0.51
4.517	1.02	10.517	2.35	16.517	0.80	22.52	0.51
4.533	1.02	10.533	2.35	16.533	0.80	22.53	0.51
4.550	1.02	10.550	2.35	16.550	0.80	22.55	0.51
4.567	1.02	10.567	2.35	16.567	0.80	22.57	0.51
4.583	1.02	10.583	2.35	16.583	0.80	22.58	0.51
4.600	1.02	10.600	2.35	16.600	0.80	22.60	0.51
4.617	1.02	10.617	2.35	16.617	0.80	22.62	0.51
4.633	1.02	10.633	2.35	16.633	0.80	22.63	0.51
4.650	1.02	10.650	2.35	16.650	0.80	22.65	0.51
4.667	1.02	10.667	2.35	16.667	0.80	22.67	0.51
4.683	1.07	10.683	2.22	16.683	0.79	22.68	0.50
4.700	1.07	10.700	2.22	16.700	0.79	22.70	0.50
4.717	1.07	10.717	2.22	16.717	0.79	22.72	0.50
4.733	1.07	10.733	2.22	16.733	0.79	22.73	0.50
4.750	1.07	10.750	2.22	16.750	0.79	22.75	0.50
4.767	1.07	10.767	2.22	16.767	0.79	22.77	0.50
4.783	1.07	10.783	2.22	16.783	0.79	22.78	0.50
4.800	1.07	10.800	2.22	16.800	0.79	22.80	0.50
4.817	1.07	10.817	2.22	16.817	0.79	22.82	0.50
4.833	1.07	10.833	2.22	16.833	0.79	22.83	0.50
4.850	1.13	10.850	2.10	16.850	0.78	22.85	0.50
4.867	1.13	10.867	2.10	16.867	0.78	22.87	0.50
4.883	1.13	10.883	2.10	16.883	0.78	22.88	0.50
4.900	1.13	10.900	2.10	16.900	0.78	22.90	0.50
4.917	1.13	10.917	2.10	16.917	0.78	22.92	0.50
4.933	1.13	10.933	2.10	16.933	0.78	22.93	0.50
4.950	1.13	10.950	2.10	16.950	0.78	22.95	0.50
4.967	1.13	10.967	2.10	16.967	0.78	22.97	0.50
4.983	1.13	10.983	2.10	16.983	0.78	22.98	0.50
5.000	1.13	11.000	2.10	17.000	0.78	23.00	0.50
5.017	1.19	11.017	2.00	17.017	0.77	23.02	0.49
5.033	1.19	11.033	2.00	17.033	0.77	23.03	0.49
5.050	1.19	11.050	2.00	17.050	0.77	23.05	0.49
5.067	1.19	11.067	2.00	17.067	0.77	23.07	0.49
5.083	1.19	11.083	2.00	17.083	0.77	23.08	0.49
5.100	1.19	11.100	2.00	17.100	0.77	23.10	0.49
5.117	1.19	11.117	2.00	17.117	0.77	23.12	0.49
5.133	1.19	11.133	2.00	17.133	0.77	23.13	0.49
5.150	1.19	11.150	2.00	17.150	0.77	23.15	0.49
5.167	1.19	11.167	2.00	17.167	0.77	23.17	0.49
5.183	1.25	11.183	1.90	17.183	0.75	23.18	0.49
5.200	1.25	11.200	1.90	17.200	0.75	23.20	0.49
5.217	1.25	11.217	1.90	17.217	0.75	23.22	0.49
5.233	1.25	11.233	1.90	17.233	0.75	23.23	0.49
5.250	1.25	11.250	1.90	17.250	0.75	23.25	0.49
5.267	1.25	11.267	1.90	17.267	0.75	23.27	0.49
5.283	1.25	11.283	1.90	17.283	0.75	23.28	0.49
5.300	1.25	11.300	1.90	17.300	0.75	23.30	0.49
5.317	1.25	11.317	1.90	17.317	0.75	23.32	0.49
5.333	1.25	11.333	1.90	17.333	0.75	23.33	0.49

5.350	1.33	11.350	1.82	17.350	0.74	23.35	0.48
5.367	1.33	11.367	1.82	17.367	0.74	23.37	0.48
5.383	1.33	11.383	1.82	17.383	0.74	23.38	0.48
5.400	1.33	11.400	1.82	17.400	0.74	23.40	0.48
5.417	1.33	11.417	1.82	17.417	0.74	23.42	0.48
5.433	1.33	11.433	1.82	17.433	0.74	23.43	0.48
5.450	1.33	11.450	1.82	17.450	0.74	23.45	0.48
5.467	1.33	11.467	1.82	17.467	0.74	23.47	0.48
5.483	1.33	11.483	1.82	17.483	0.74	23.48	0.48
5.500	1.33	11.500	1.82	17.500	0.74	23.50	0.48
5.517	1.42	11.517	1.74	17.517	0.73	23.52	0.48
5.533	1.42	11.533	1.74	17.533	0.73	23.53	0.48
5.550	1.42	11.550	1.74	17.550	0.73	23.55	0.48
5.567	1.42	11.567	1.74	17.567	0.73	23.57	0.48
5.583	1.42	11.583	1.74	17.583	0.73	23.58	0.48
5.600	1.42	11.600	1.74	17.600	0.73	23.60	0.48
5.617	1.42	11.617	1.74	17.617	0.73	23.62	0.48
5.633	1.42	11.633	1.74	17.633	0.73	23.63	0.48
5.650	1.42	11.650	1.74	17.650	0.73	23.65	0.48
5.667	1.42	11.667	1.74	17.667	0.73	23.67	0.48
5.683	1.52	11.683	1.67	17.683	0.72	23.68	0.48
5.700	1.52	11.700	1.67	17.700	0.72	23.70	0.48
5.717	1.52	11.717	1.67	17.717	0.72	23.72	0.48
5.733	1.52	11.733	1.67	17.733	0.72	23.73	0.48
5.750	1.52	11.750	1.67	17.750	0.72	23.75	0.48
5.767	1.52	11.767	1.67	17.767	0.72	23.77	0.48
5.783	1.52	11.783	1.67	17.783	0.72	23.78	0.48
5.800	1.52	11.800	1.67	17.800	0.72	23.80	0.48
5.817	1.52	11.817	1.67	17.817	0.72	23.82	0.48
5.833	1.52	11.833	1.67	17.833	0.72	23.83	0.48
5.850	1.64	11.850	1.61	17.850	0.71	23.85	0.47
5.867	1.64	11.867	1.61	17.867	0.71	23.87	0.47
5.883	1.64	11.883	1.61	17.883	0.71	23.88	0.47
5.900	1.64	11.900	1.61	17.900	0.71	23.90	0.47
5.917	1.64	11.917	1.61	17.917	0.71	23.92	0.47
5.933	1.64	11.933	1.61	17.933	0.71	23.93	0.47
5.950	1.64	11.950	1.61	17.950	0.71	23.95	0.47
5.967	1.64	11.967	1.61	17.967	0.71	23.97	0.47
5.983	1.64	11.983	1.61	17.983	0.71	23.98	0.47
6.000	1.64	12.000	1.61	18.000	0.71	24.00	0.47

Max.Eff.Inten.(mm/hr)=	107.72	20.46	
over (min)	7.00	14.00	
Storage Coeff. (min)=	7.26 (ii)	13.76 (ii)	
Unit Hyd. Tpeak (min)=	7.00	14.00	
Unit Hyd. peak (cms)=	0.16	0.08	
			TOTALS
PEAK FLOW (cms)=	2.90	0.36	3.119 (iii)
TIME TO PEAK (hrs)=	8.05	8.22	8.05
RUNOFF VOLUME (mm)=	66.80	13.68	39.72
TOTAL RAINFALL (mm)=	67.81	67.81	67.81
RUNOFF COEFFICIENT =	0.99	0.20	0.59

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 48.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

DUHYD (0034)
Inlet Cap.= 3.057
#of Inlets= 1
Total(cms)= 3.1

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
TOTAL HYD.(ID= 1):	26.89	3.12	8.05	39.72
MAJOR SYS.(ID= 2):	0.02	0.06	8.05	39.72
MINOR SYS.(ID= 3):	26.87	3.06	8.03	39.72

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

Junction Command(0033)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 9(0034)	26.87	3.06	8.03	39.72
OUTFLOW: ID= 2(0033)	26.87	3.06	8.03	39.72

CALIB
STANDHYD (1052)
ID= 1 DT= 1.0 min

Area (ha)= 1.95
Total Imp(%)= 30.00 Dir. Conn.(%)= 26.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	0.58	1.36
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	0.50	2.00
Length	(m)=	113.90	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 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

0.017	0.48	6.017	1.78	12.017	1.55	18.02	0.70
0.033	0.48	6.033	1.78	12.033	1.55	18.03	0.70
0.050	0.48	6.050	1.78	12.050	1.55	18.05	0.70
0.067	0.48	6.067	1.78	12.067	1.55	18.07	0.70
0.083	0.48	6.083	1.78	12.083	1.55	18.08	0.70
0.100	0.48	6.100	1.78	12.100	1.55	18.10	0.70
0.117	0.48	6.117	1.78	12.117	1.55	18.12	0.70
0.133	0.48	6.133	1.78	12.133	1.55	18.13	0.70
0.150	0.48	6.150	1.78	12.150	1.55	18.15	0.70
0.167	0.48	6.167	1.78	12.167	1.55	18.17	0.70
0.183	0.49	6.183	1.95	12.183	1.50	18.18	0.69
0.200	0.49	6.200	1.95	12.200	1.50	18.20	0.69
0.217	0.49	6.217	1.95	12.217	1.50	18.22	0.69
0.233	0.49	6.233	1.95	12.233	1.50	18.23	0.69
0.250	0.49	6.250	1.95	12.250	1.50	18.25	0.69
0.267	0.49	6.267	1.95	12.267	1.50	18.27	0.69
0.283	0.49	6.283	1.95	12.283	1.50	18.28	0.69
0.300	0.49	6.300	1.95	12.300	1.50	18.30	0.69
0.317	0.49	6.317	1.95	12.317	1.50	18.32	0.69
0.333	0.49	6.333	1.95	12.333	1.50	18.33	0.69
0.350	0.50	6.350	2.16	12.350	1.44	18.35	0.68
0.367	0.50	6.367	2.16	12.367	1.44	18.37	0.68
0.383	0.50	6.383	2.16	12.383	1.44	18.38	0.68
0.400	0.50	6.400	2.16	12.400	1.44	18.40	0.68
0.417	0.50	6.417	2.16	12.417	1.44	18.42	0.68
0.433	0.50	6.433	2.16	12.433	1.44	18.43	0.68
0.450	0.50	6.450	2.16	12.450	1.44	18.45	0.68
0.467	0.50	6.467	2.16	12.467	1.44	18.47	0.68
0.483	0.50	6.483	2.16	12.483	1.44	18.48	0.68
0.500	0.50	6.500	2.16	12.500	1.44	18.50	0.68
0.517	0.51	6.517	2.42	12.517	1.40	18.52	0.67
0.533	0.51	6.533	2.42	12.533	1.40	18.53	0.67
0.550	0.51	6.550	2.42	12.550	1.40	18.55	0.67
0.567	0.51	6.567	2.42	12.567	1.40	18.57	0.67
0.583	0.51	6.583	2.42	12.583	1.40	18.58	0.67
0.600	0.51	6.600	2.42	12.600	1.40	18.60	0.67
0.617	0.51	6.617	2.42	12.617	1.40	18.62	0.67
0.633	0.51	6.633	2.42	12.633	1.40	18.63	0.67
0.650	0.51	6.650	2.42	12.650	1.40	18.65	0.67
0.667	0.51	6.667	2.42	12.667	1.40	18.67	0.67
0.683	0.52	6.683	2.76	12.683	1.35	18.68	0.66
0.700	0.52	6.700	2.76	12.700	1.35	18.70	0.66
0.717	0.52	6.717	2.76	12.717	1.35	18.72	0.66
0.733	0.52	6.733	2.76	12.733	1.35	18.73	0.66
0.750	0.52	6.750	2.76	12.750	1.35	18.75	0.66
0.767	0.52	6.767	2.76	12.767	1.35	18.77	0.66
0.783	0.52	6.783	2.76	12.783	1.35	18.78	0.66
0.800	0.52	6.800	2.76	12.800	1.35	18.80	0.66
0.817	0.52	6.817	2.76	12.817	1.35	18.82	0.66
0.833	0.52	6.833	2.76	12.833	1.35	18.83	0.66
0.850	0.53	6.850	3.23	12.850	1.31	18.85	0.65
0.867	0.53	6.867	3.23	12.867	1.31	18.87	0.65

0.883	0.53	6.883	3.23	12.883	1.31	18.88	0.65
0.900	0.53	6.900	3.23	12.900	1.31	18.90	0.65
0.917	0.53	6.917	3.23	12.917	1.31	18.92	0.65
0.933	0.53	6.933	3.23	12.933	1.31	18.93	0.65
0.950	0.53	6.950	3.23	12.950	1.31	18.95	0.65
0.967	0.53	6.967	3.23	12.967	1.31	18.97	0.65
0.983	0.53	6.983	3.23	12.983	1.31	18.98	0.65
1.000	0.53	7.000	3.23	13.000	1.31	19.00	0.65
1.017	0.54	7.017	3.90	13.017	1.27	19.02	0.64
1.033	0.54	7.033	3.90	13.033	1.27	19.03	0.64
1.050	0.54	7.050	3.90	13.050	1.27	19.05	0.64
1.067	0.54	7.067	3.90	13.067	1.27	19.07	0.64
1.083	0.54	7.083	3.90	13.083	1.27	19.08	0.64
1.100	0.54	7.100	3.90	13.100	1.27	19.10	0.64
1.117	0.54	7.117	3.90	13.117	1.27	19.12	0.64
1.133	0.54	7.133	3.90	13.133	1.27	19.13	0.64
1.150	0.54	7.150	3.90	13.150	1.27	19.15	0.64
1.167	0.54	7.167	3.90	13.167	1.27	19.17	0.64
1.183	0.55	7.183	4.94	13.183	1.24	19.18	0.64
1.200	0.55	7.200	4.94	13.200	1.24	19.20	0.64
1.217	0.55	7.217	4.94	13.217	1.24	19.22	0.64
1.233	0.55	7.233	4.94	13.233	1.24	19.23	0.64
1.250	0.55	7.250	4.94	13.250	1.24	19.25	0.64
1.267	0.55	7.267	4.94	13.267	1.24	19.27	0.64
1.283	0.55	7.283	4.94	13.283	1.24	19.28	0.64
1.300	0.55	7.300	4.94	13.300	1.24	19.30	0.64
1.317	0.55	7.317	4.94	13.317	1.24	19.32	0.64
1.333	0.55	7.333	4.95	13.333	1.24	19.33	0.64
1.350	0.57	7.350	6.81	13.350	1.20	19.35	0.63
1.367	0.57	7.367	6.81	13.367	1.20	19.37	0.63
1.383	0.57	7.383	6.81	13.383	1.20	19.38	0.63
1.400	0.57	7.400	6.81	13.400	1.20	19.40	0.63
1.417	0.57	7.417	6.81	13.417	1.20	19.42	0.63
1.433	0.57	7.433	6.81	13.433	1.20	19.43	0.63
1.450	0.57	7.450	6.81	13.450	1.20	19.45	0.63
1.467	0.57	7.467	6.81	13.467	1.20	19.47	0.63
1.483	0.57	7.483	6.81	13.483	1.20	19.48	0.63
1.500	0.57	7.500	6.82	13.500	1.20	19.50	0.63
1.517	0.58	7.517	11.05	13.517	1.17	19.52	0.62
1.533	0.58	7.533	11.05	13.533	1.17	19.53	0.62
1.550	0.58	7.550	11.05	13.550	1.17	19.55	0.62
1.567	0.58	7.567	11.05	13.567	1.17	19.57	0.62
1.583	0.58	7.583	11.05	13.583	1.17	19.58	0.62
1.600	0.58	7.600	11.05	13.600	1.17	19.60	0.62
1.617	0.58	7.617	11.05	13.617	1.17	19.62	0.62
1.633	0.58	7.633	11.05	13.633	1.17	19.63	0.62
1.650	0.58	7.650	11.05	13.650	1.17	19.65	0.62
1.667	0.58	7.667	11.10	13.667	1.17	19.67	0.62
1.683	0.59	7.683	28.66	13.683	1.14	19.68	0.61
1.700	0.59	7.700	28.66	13.700	1.14	19.70	0.61
1.717	0.59	7.717	28.66	13.717	1.14	19.72	0.61
1.733	0.59	7.733	28.66	13.733	1.14	19.73	0.61

1.750	0.59	7.750	28.66	13.750	1.14	19.75	0.61
1.767	0.59	7.767	28.66	13.767	1.14	19.77	0.61
1.783	0.59	7.783	28.66	13.783	1.14	19.78	0.61
1.800	0.59	7.800	28.66	13.800	1.14	19.80	0.61
1.817	0.59	7.817	28.66	13.817	1.14	19.82	0.61
1.833	0.59	7.833	28.88	13.833	1.14	19.83	0.61
1.850	0.61	7.850	107.72	13.850	1.11	19.85	0.60
1.867	0.61	7.867	107.72	13.867	1.11	19.87	0.60
1.883	0.61	7.883	107.72	13.883	1.11	19.88	0.60
1.900	0.61	7.900	107.72	13.900	1.11	19.90	0.60
1.917	0.61	7.917	107.72	13.917	1.11	19.92	0.60
1.933	0.61	7.933	107.72	13.933	1.11	19.93	0.60
1.950	0.61	7.950	107.72	13.950	1.11	19.95	0.60
1.967	0.61	7.967	107.72	13.967	1.11	19.97	0.60
1.983	0.61	7.983	107.72	13.983	1.11	19.98	0.60
2.000	0.61	8.000	107.51	14.000	1.11	20.00	0.60
2.017	0.62	8.017	38.01	14.017	1.09	20.02	0.60
2.033	0.62	8.033	38.01	14.033	1.09	20.03	0.60
2.050	0.62	8.050	38.01	14.050	1.09	20.05	0.60
2.067	0.62	8.067	38.01	14.067	1.09	20.07	0.60
2.083	0.62	8.083	38.01	14.083	1.09	20.08	0.60
2.100	0.62	8.100	38.01	14.100	1.09	20.10	0.60
2.117	0.62	8.117	38.01	14.117	1.09	20.12	0.60
2.133	0.62	8.133	38.01	14.133	1.09	20.13	0.60
2.150	0.62	8.150	38.01	14.150	1.09	20.15	0.60
2.167	0.62	8.167	37.95	14.167	1.09	20.17	0.60
2.183	0.64	8.183	19.35	14.183	1.06	20.18	0.59
2.200	0.64	8.200	19.35	14.200	1.06	20.20	0.59
2.217	0.64	8.217	19.35	14.217	1.06	20.22	0.59
2.233	0.64	8.233	19.35	14.233	1.06	20.23	0.59
2.250	0.64	8.250	19.35	14.250	1.06	20.25	0.59
2.267	0.64	8.267	19.35	14.267	1.06	20.27	0.59
2.283	0.64	8.283	19.35	14.283	1.06	20.28	0.59
2.300	0.64	8.300	19.35	14.300	1.06	20.30	0.59
2.317	0.64	8.317	19.35	14.317	1.06	20.32	0.59
2.333	0.64	8.333	19.33	14.333	1.06	20.33	0.59
2.350	0.66	8.350	12.71	14.350	1.04	20.35	0.58
2.367	0.66	8.367	12.71	14.367	1.04	20.37	0.58
2.383	0.66	8.383	12.71	14.383	1.04	20.38	0.58
2.400	0.66	8.400	12.71	14.400	1.04	20.40	0.58
2.417	0.66	8.417	12.71	14.417	1.04	20.42	0.58
2.433	0.66	8.433	12.71	14.433	1.04	20.43	0.58
2.450	0.66	8.450	12.71	14.450	1.04	20.45	0.58
2.467	0.66	8.467	12.71	14.467	1.04	20.47	0.58
2.483	0.66	8.483	12.71	14.483	1.04	20.48	0.58
2.500	0.66	8.500	12.70	14.500	1.04	20.50	0.58
2.517	0.67	8.517	9.41	14.517	1.01	20.52	0.58
2.533	0.67	8.533	9.41	14.533	1.01	20.53	0.58
2.550	0.67	8.550	9.41	14.550	1.01	20.55	0.58
2.567	0.67	8.567	9.41	14.567	1.01	20.57	0.58
2.583	0.67	8.583	9.41	14.583	1.01	20.58	0.58
2.600	0.67	8.600	9.41	14.600	1.01	20.60	0.58

2.617	0.67	8.617	9.41	14.617	1.01	20.62	0.58
2.633	0.67	8.633	9.41	14.633	1.01	20.63	0.58
2.650	0.67	8.650	9.41	14.650	1.01	20.65	0.58
2.667	0.67	8.667	9.41	14.667	1.01	20.67	0.58
2.683	0.69	8.683	7.46	14.683	0.99	20.68	0.57
2.700	0.69	8.700	7.46	14.700	0.99	20.70	0.57
2.717	0.69	8.717	7.46	14.717	0.99	20.72	0.57
2.733	0.69	8.733	7.46	14.733	0.99	20.73	0.57
2.750	0.69	8.750	7.46	14.750	0.99	20.75	0.57
2.767	0.69	8.767	7.46	14.767	0.99	20.77	0.57
2.783	0.69	8.783	7.46	14.783	0.99	20.78	0.57
2.800	0.69	8.800	7.46	14.800	0.99	20.80	0.57
2.817	0.69	8.817	7.46	14.817	0.99	20.82	0.57
2.833	0.69	8.833	7.46	14.833	0.99	20.83	0.57
2.850	0.71	8.850	6.18	14.850	0.97	20.85	0.56
2.867	0.71	8.867	6.18	14.867	0.97	20.87	0.56
2.883	0.71	8.883	6.18	14.883	0.97	20.88	0.56
2.900	0.71	8.900	6.18	14.900	0.97	20.90	0.56
2.917	0.71	8.917	6.18	14.917	0.97	20.92	0.56
2.933	0.71	8.933	6.18	14.933	0.97	20.93	0.56
2.950	0.71	8.950	6.18	14.950	0.97	20.95	0.56
2.967	0.71	8.967	6.18	14.967	0.97	20.97	0.56
2.983	0.71	8.983	6.18	14.983	0.97	20.98	0.56
3.000	0.71	9.000	6.18	15.000	0.97	21.00	0.56
3.017	0.74	9.017	5.28	15.017	0.95	21.02	0.56
3.033	0.74	9.033	5.28	15.033	0.95	21.03	0.56
3.050	0.74	9.050	5.28	15.050	0.95	21.05	0.56
3.067	0.74	9.067	5.28	15.067	0.95	21.07	0.56
3.083	0.74	9.083	5.28	15.083	0.95	21.08	0.56
3.100	0.74	9.100	5.28	15.100	0.95	21.10	0.56
3.117	0.74	9.117	5.28	15.117	0.95	21.12	0.56
3.133	0.74	9.133	5.28	15.133	0.95	21.13	0.56
3.150	0.74	9.150	5.28	15.150	0.95	21.15	0.56
3.167	0.74	9.167	5.28	15.167	0.95	21.17	0.56
3.183	0.76	9.183	4.62	15.183	0.93	21.18	0.55
3.200	0.76	9.200	4.62	15.200	0.93	21.20	0.55
3.217	0.76	9.217	4.62	15.217	0.93	21.22	0.55
3.233	0.76	9.233	4.62	15.233	0.93	21.23	0.55
3.250	0.76	9.250	4.62	15.250	0.93	21.25	0.55
3.267	0.76	9.267	4.62	15.267	0.93	21.27	0.55
3.283	0.76	9.283	4.62	15.283	0.93	21.28	0.55
3.300	0.76	9.300	4.62	15.300	0.93	21.30	0.55
3.317	0.76	9.317	4.62	15.317	0.93	21.32	0.55
3.333	0.76	9.333	4.62	15.333	0.93	21.33	0.55
3.350	0.78	9.350	4.11	15.350	0.91	21.35	0.55
3.367	0.78	9.367	4.11	15.367	0.91	21.37	0.55
3.383	0.78	9.383	4.11	15.383	0.91	21.38	0.55
3.400	0.78	9.400	4.11	15.400	0.91	21.40	0.55
3.417	0.78	9.417	4.11	15.417	0.91	21.42	0.55
3.433	0.78	9.433	4.11	15.433	0.91	21.43	0.55
3.450	0.78	9.450	4.11	15.450	0.91	21.45	0.55
3.467	0.78	9.467	4.11	15.467	0.91	21.47	0.55
3.483	0.78	9.483	4.11	15.483	0.91	21.48	0.55
3.500	0.78	9.500	4.10	15.500	0.91	21.50	0.55
3.517	0.81	9.517	3.70	15.517	0.90	21.52	0.54
3.533	0.81	9.533	3.70	15.533	0.90	21.53	0.54
3.550	0.81	9.550	3.70	15.550	0.90	21.55	0.54
3.567	0.81	9.567	3.70	15.567	0.90	21.57	0.54
3.583	0.81	9.583	3.70	15.583	0.90	21.58	0.54
3.600	0.81	9.600	3.70	15.600	0.90	21.60	0.54
3.617	0.81	9.617	3.70	15.617	0.90	21.62	0.54
3.633	0.81	9.633	3.70	15.633	0.90	21.63	0.54
3.650	0.81	9.650	3.70	15.650	0.90	21.65	0.54
3.667	0.81	9.667	3.70	15.667	0.90	21.67	0.54
3.683	0.84	9.683	3.37	15.683	0.88	21.68	0.53
3.700	0.84	9.700	3.37	15.700	0.88	21.70	0.53
3.717	0.84	9.717	3.37	15.717	0.88	21.72	0.53
3.733	0.84	9.733	3.37	15.733	0.88	21.73	0.53
3.750	0.84	9.750	3.37	15.750	0.88	21.75	0.53
3.767	0.84	9.767	3.37	15.767	0.88	21.77	0.53
3.783	0.84	9.783	3.37	15.783	0.88	21.78	0.53
3.800	0.84	9.800	3.37	15.800	0.88	21.80	0.53
3.817	0.84	9.817	3.37	15.817	0.88	21.82	0.53
3.833	0.84	9.833	3.37	15.833	0.88	21.83	0.53
3.850	0.87	9.850	3.09	15.850	0.86	21.85	0.53
3.867	0.87	9.867	3.09	15.867	0.86	21.87	0.53
3.883	0.87	9.883	3.09	15.883	0.86	21.88	0.53
3.900	0.87	9.900	3.09	15.900	0.86	21.90	0.53
3.917	0.87	9.917	3.09	15.917	0.86	21.92	0.53
3.933	0.87	9.933	3.09	15.933	0.86	21.93	0.53
3.950	0.87	9.950	3.09	15.950	0.86	21.95	0.53
3.967	0.87	9.967	3.09	15.967	0.86	21.97	0.53
3.983	0.87	9.983	3.09	15.983	0.86	21.98	0.53
4.000	0.87	10.000	3.09	16.000	0.86	22.00	0.53
4.017	0.90	10.017	2.86	16.017	0.85	22.02	0.52
4.033	0.90	10.033	2.86	16.033	0.85	22.03	0.52
4.050	0.90	10.050	2.86	16.050	0.85	22.05	0.52
4.067	0.90	10.067	2.86	16.067	0.85	22.07	0.52
4.083	0.90	10.083	2.86	16.083	0.85	22.08	0.52
4.100	0.90	10.100	2.86	16.100	0.85	22.10	0.52
4.117	0.90	10.117	2.86	16.117	0.85	22.12	0.52
4.133	0.90	10.133	2.86	16.133	0.85	22.13	0.52
4.150	0.90	10.150	2.86	16.150	0.85	22.15	0.52
4.167	0.90	10.167	2.86	16.167	0.85	22.17	0.52
4.183	0.94	10.183	2.67	16.183	0.83	22.18	0.52
4.200	0.94	10.200	2.67	16.200	0.83	22.20	0.52
4.217	0.94	10.217	2.67	16.217	0.83	22.22	0.52
4.233	0.94	10.233	2.67	16.233	0.83	22.23	0.52
4.250	0.94	10.250	2.67	16.250	0.83	22.25	0.52
4.267	0.94	10.267	2.67	16.267	0.83	22.27	0.52
4.283	0.94	10.283	2.67	16.283	0.83	22.28	0.52
4.300	0.94	10.300	2.67	16.300	0.83	22.30	0.52
4.317	0.94	10.317	2.67	16.317	0.83	22.32	0.52
4.333	0.94	10.333	2.67	16.333	0.83	22.33	0.52
4.350	0.98	10.350	2.50	16.350	0.82	22.35	0.51
4.367	0.98	10.367	2.50	16.367	0.82	22.37	0.51
4.383	0.98	10.383	2.50	16.383	0.82	22.38	0.51
4.400	0.98	10.400	2.50	16.400	0.82	22.40	0.51
4.417	0.98	10.417	2.50	16.417	0.82	22.42	0.51
4.433	0.98	10.433	2.50	16.433	0.82	22.43	0.51
4.450	0.98	10.450	2.50	16.450	0.82	22.45	0.51
4.467	0.98	10.467	2.50	16.467	0.82	22.47	0.51
4.483	0.98	10.483	2.50	16.483	0.82	22.48	0.51
4.500	0.98	10.500	2.50	16.500	0.82	22.50	0.51
4.517	1.02	10.517	2.35	16.517	0.80	22.52	0.51
4.533	1.02	10.533	2.35	16.533	0.80	22.53	0.51
4.550	1.02	10.550	2.35	16.550	0.80	22.55	0.51
4.567	1.02	10.567	2.35	16.567	0.80	22.57	0.51
4.583	1.02	10.583	2.35	16.583	0.80	22.58	0.51
4.600	1.02	10.600	2.35	16.600	0.80	22.60	0.51
4.617	1.02	10.617	2.35	16.617	0.80	22.62	0.51
4.633	1.02	10.633	2.35	16.633	0.80	22.63	0.51
4.650	1.02	10.650	2.35	16.650	0.80	22.65	0.51
4.667	1.02	10.667	2.35	16.667	0.80	22.67	0.51
4.683	1.07	10.683	2.22	16.683	0.79	22.68	0.50
4.700	1.07	10.700	2.22	16.700	0.79	22.70	0.50
4.717	1.07	10.717	2.22	16.717	0.79	22.72	0.50
4.733	1.07	10.733	2.22	16.733	0.79	22.73	0.50
4.750	1.07	10.750	2.22	16.750	0.79	22.75	0.50
4.767	1.07	10.767	2.22	16.767	0.79	22.77	0.50
4.783	1.07	10.783	2.22	16.783	0.79	22.78	0.50
4.800	1.07	10.800	2.22	16.800	0.79	22.80	0.50
4.817	1.07	10.817	2.22	16.817	0.79	22.82	0.50
4.833	1.07	10.833	2.22	16.833	0.79	22.83	0.50
4.850	1.13	10.850	2.10	16.850	0.78	22.85	0.50
4.867	1.13	10.867	2.10	16.867	0.78	22.87	0.50
4.883	1.13	10.883	2.10	16.883	0.78	22.88	0.50
4.900	1.13	10.900	2.10	16.900	0.78	22.90	0.50
4.917	1.13	10.917	2.10	16.917	0.78	22.92	0.50
4.933	1.13	10.933	2.10	16.933	0.78	22.93	0.50
4.950	1.13	10.950	2.10	16.950	0.78	22.95	0.50
4.967	1.13	10.967	2.10	16.967	0.78	22.97	0.50
4.983	1.13	10.983	2.10	16.983	0.78	22.98	0.50
5.000	1.13	11.000	2.10	17.000	0.78	23.00	0.50
5.017	1.19	11.017	2.00	17.017	0.77	23.02	0.49
5.033	1.19	11.033	2.00	17.033	0.77	23.03	0.49
5.050	1.19	11.050	2.00	17.050	0.77	23.05	0.49
5.067	1.19	11.067	2.00	17.067	0.77	23.07	0.49
5.083	1.19	11.083	2.00	17.083	0.77	23.08	0.49
5.100	1.19	11.100	2.00	17.100	0.77	23.10	0.49
5.117	1.19	11.117	2.00	17.117	0.77	23.12	0.49
5.133	1.19	11.133	2.00	17.133	0.77	23.13	0.49
5.150	1.19	11.150	2.00	17.150	0.77	23.15	0.49
5.167	1.19	11.167	2.00	17.167	0.77	23.17	0.49
5.183	1.25	11.183	1.90	17.183	0.75	23.18	0.49
5.200	1.25	11.200	1.90	17.200	0.75	23.20	0.49
5.217	1.25	11.217	1.90	17.217	0.75	23.22	0.49
5.233	1.25	11.233	1.90	17.233	0.75	23.23	0.49
5.250	1.25	11.250	1.90	17.250	0.75	23.25	0.49
5.267	1.25	11.267	1.90	17.267	0.75	23.27	0.49
5.283	1.25	11.283	1.90	17.283	0.75	23.28	0.49
5.300	1.25	11.300	1.90	17.300	0.75	23.30	0.49
5.317	1.25	11.317	1.90	17.317	0.75	23.32	0.49
5.333	1.25	11.333	1.90	17.333	0.75	23.33	0.49
5.350	1.33	11.350	1.82	17.350	0.74	23.35	0.48
5.367	1.33	11.367	1.82	17.367	0.74	23.37	0.48
5.383	1.33	11.383	1.82	17.383	0.74	23.38	0.48
5.400	1.33	11.400	1.82	17.400	0.74	23.40	0.48
5.417	1.33	11.417	1.82	17.417	0.74	23.42	0.48
5.433	1.33	11.433	1.82	17.433	0.74	23.43	0.48
5.450	1.33	11.450	1.82	17.450	0.74	23.45	0.48
5.467	1.33	11.467	1.82	17.467	0.74	23.47	0.48
5.483	1.33	11.483	1.82	17.483	0.74	23.48	0.48
5.500	1.33	11.500	1.82	17.500	0.74	23.50	0.48
5.517	1.42	11.517	1.74	17.517	0.73	23.52	0.48
5.533	1.42	11.533	1.74	17.533	0.73	23.53	0.48
5.550	1.42	11.550	1.74	17.550	0.73	23.55	0.48
5.567	1.42	11.567	1.74	17.567	0.73	23.57	0.48
5.583	1.42	11.583	1.74	17.583	0.73	23.58	0.48
5.600	1.42	11.600	1.74	17.600	0.73	23.60	0.48
5.617	1.42	11.617	1.74	17.617	0.73	23.62	0.48
5.633	1.42	11.633	1.74	17.633	0.73	23.63	0.48
5.650	1.42	11.650	1.74	17.650	0.73	23.65	0.48
5.667	1.42	11.667	1.74	17.667	0.73	23.67	0.48
5.683	1.52	11.683	1.67	17.683	0.72	23.68	0.48
5.700	1.52	11.700	1.67	17.700	0.72	23.70	0.48
5.717	1.52	11.717	1.67	17.717	0.72	23.72	0.48
5.733	1.52	11.733	1.67	17.733	0.72	23.73	0.48
5.750	1.52	11.750	1.67	17.750	0.72	23.75	0.48
5.767	1.52	11.767	1.67	17.767	0.72	23.77	0.48
5.783	1.52	11.783	1.67	17.783	0.72	23.78	0.48
5.800	1.52	11.800	1.67	17.800	0.72	23.80	0.48
5.817	1.52	11.817	1.67	17.817	0.72	23.82	0.48
5.833	1.52	11.833	1.67	17.833	0.72	23.83	0.48
5.850	1.64	11.850	1.61	17.850	0.71	23.85	0.47
5.867	1.64	11.867	1.61	17.867	0.71	23.87	0.47
5.883	1.64	11.883	1.61	17.883	0.71	23.88	0.47
5.900	1.64	11.900	1.61	17.900	0.71	23.90	0.47
5.917	1.64	11.917	1.61	17.917	0.71	23.92	0.47
5.933	1.64	11.933	1.61	17.933	0.71	23.93	0.47
5.950	1.64	11.950	1.61	17.950	0.71	23.95	0.47
5.967	1.64	11.967	1.61	17.967	0.71	23.97	0.47
5.983	1.64	11.983	1.61	17.983	0.71	23.98	0.47
6.000	1.64	12.000	1.61	18.000	0.71	24.00	0.47

Max.Eff.Inten.(mm/hr)=	107.72	13.17
over (min)	5.00	20.00
Storage Coeff. (min)=	3.30 (ii)	19.18 (ii)

Unit Hyd. Tpeak (min)=	5.00	20.00	
Unit Hyd. peak (cms)=	0.29	0.06	
			TOTALS
PEAK FLOW (cms)=	0.14	0.03	0.148 (iii)
TIME TO PEAK (hrs)=	8.00	8.32	8.02
RUNOFF VOLUME (mm)=	66.81	12.30	26.47
TOTAL RAINFALL (mm)=	67.81	67.81	67.81
RUNOFF COEFFICIENT =	0.99	0.18	0.39

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 48.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

DUHYD (0037)
Inlet Cap.= 0.108
#of Inlets= 1
Total(cms)= 0.1

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
TOTAL HYD.(ID= 1):	1.95	0.15	8.02	26.47
MAJOR SYS.(ID= 2):	0.06	0.04	8.02	26.47
MINOR SYS.(ID= 3):	1.89	0.11	7.93	26.47

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

Junction Command(0038)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 9(0037)	1.89	0.11	7.93	26.47
OUTFLOW: ID= 2(0038)	1.89	0.11	7.93	26.47

CALIB	
NASHYD (0104)	Area (ha)= 0.77 Curve Number (CN)= 53.0
ID= 1 DT= 5.0 min	Ia (mm)= 5.00 # of Linear Res.(N)= 3.00
	U.H. Tp(hrs)= 0.34

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	0.48	6.083	1.78	12.083	1.55	18.08	0.70
0.167	0.48	6.167	1.78	12.167	1.55	18.17	0.70
0.250	0.49	6.250	1.95	12.250	1.50	18.25	0.69
0.333	0.49	6.333	1.95	12.333	1.50	18.33	0.69
0.417	0.50	6.417	2.16	12.417	1.44	18.42	0.68
0.500	0.50	6.500	2.16	12.500	1.44	18.50	0.68
0.583	0.51	6.583	2.42	12.583	1.40	18.58	0.67
0.667	0.51	6.667	2.42	12.667	1.40	18.67	0.67
0.750	0.52	6.750	2.76	12.750	1.35	18.75	0.66
0.833	0.52	6.833	2.76	12.833	1.35	18.83	0.66
0.917	0.53	6.917	3.23	12.917	1.31	18.92	0.65
1.000	0.53	7.000	3.23	13.000	1.31	19.00	0.65
1.083	0.54	7.083	3.90	13.083	1.27	19.08	0.64
1.167	0.54	7.167	3.90	13.167	1.27	19.17	0.64
1.250	0.55	7.250	4.94	13.250	1.24	19.25	0.64
1.333	0.55	7.333	4.94	13.333	1.24	19.33	0.64
1.417	0.57	7.417	6.81	13.417	1.20	19.42	0.63
1.500	0.57	7.500	6.81	13.500	1.20	19.50	0.63
1.583	0.58	7.583	11.05	13.583	1.17	19.58	0.62
1.667	0.58	7.667	11.05	13.667	1.17	19.67	0.62
1.750	0.59	7.750	28.66	13.750	1.14	19.75	0.61
1.833	0.59	7.833	28.66	13.833	1.14	19.83	0.61
1.917	0.61	7.917	107.72	13.917	1.11	19.92	0.60
2.000	0.61	8.000	107.71	14.000	1.11	20.00	0.60
2.083	0.62	8.083	38.01	14.083	1.09	20.08	0.60
2.167	0.62	8.167	38.00	14.167	1.09	20.17	0.60
2.250	0.64	8.250	19.35	14.250	1.06	20.25	0.59
2.333	0.64	8.333	19.35	14.333	1.06	20.33	0.59
2.417	0.66	8.417	12.71	14.417	1.04	20.42	0.58
2.500	0.66	8.500	12.71	14.500	1.04	20.50	0.58
2.583	0.67	8.583	9.41	14.583	1.01	20.58	0.58
2.667	0.67	8.667	9.41	14.667	1.01	20.67	0.58
2.750	0.69	8.750	7.46	14.750	0.99	20.75	0.57
2.833	0.69	8.833	7.46	14.833	0.99	20.83	0.57
2.917	0.71	8.917	6.18	14.917	0.97	20.92	0.56
3.000	0.71	9.000	6.18	15.000	0.97	21.00	0.56
3.083	0.74	9.083	5.28	15.083	0.95	21.08	0.56
3.167	0.74	9.167	5.28	15.167	0.95	21.17	0.56
3.250	0.76	9.250	4.62	15.250	0.93	21.25	0.55
3.333	0.76	9.333	4.62	15.333	0.93	21.33	0.55
3.417	0.78	9.417	4.11	15.417	0.91	21.42	0.55
3.500	0.78	9.500	4.11	15.500	0.91	21.50	0.55
3.583	0.81	9.583	3.70	15.583	0.90	21.58	0.54
3.667	0.81	9.667	3.70	15.667	0.90	21.67	0.54
3.750	0.84	9.750	3.37	15.750	0.88	21.75	0.53
3.833	0.84	9.833	3.37	15.833	0.88	21.83	0.53
3.917	0.87	9.917	3.09	15.917	0.86	21.92	0.53
4.000	0.87	10.000	3.09	16.000	0.86	22.00	0.53
4.083	0.90	10.083	2.86	16.083	0.85	22.08	0.52
4.167	0.90	10.167	2.86	16.167	0.85	22.17	0.52

4.250	0.94	10.250	2.67	16.250	0.83	22.25	0.52
4.333	0.94	10.333	2.67	16.333	0.83	22.33	0.52
4.417	0.98	10.417	2.50	16.417	0.82	22.42	0.51
4.500	0.98	10.500	2.50	16.500	0.82	22.50	0.51
4.583	1.02	10.583	2.35	16.583	0.80	22.58	0.51
4.667	1.02	10.667	2.35	16.667	0.80	22.67	0.51
4.750	1.07	10.750	2.22	16.750	0.79	22.75	0.50
4.833	1.07	10.833	2.22	16.833	0.79	22.83	0.50
4.917	1.13	10.917	2.10	16.917	0.78	22.92	0.50
5.000	1.13	11.000	2.10	17.000	0.78	23.00	0.50
5.083	1.19	11.083	2.00	17.083	0.77	23.08	0.49
5.167	1.19	11.167	2.00	17.167	0.77	23.17	0.49
5.250	1.25	11.250	1.90	17.250	0.75	23.25	0.49
5.333	1.25	11.333	1.90	17.333	0.75	23.33	0.49
5.417	1.33	11.417	1.82	17.417	0.74	23.42	0.48
5.500	1.33	11.500	1.82	17.500	0.74	23.50	0.48
5.583	1.42	11.583	1.74	17.583	0.73	23.58	0.48
5.667	1.42	11.667	1.74	17.667	0.73	23.67	0.48
5.750	1.52	11.750	1.67	17.750	0.72	23.75	0.48
5.833	1.52	11.833	1.67	17.833	0.72	23.83	0.48
5.917	1.64	11.917	1.61	17.917	0.71	23.92	0.47
6.000	1.64	12.000	1.61	18.000	0.71	24.00	0.47

Unit Hyd Qpeak (cms)= 0.086

PEAK FLOW (cms)= 0.016 (i)
TIME TO PEAK (hrs)= 8.333
RUNOFF VOLUME (mm)= 13.692
TOTAL RAINFALL (mm)= 67.812
RUNOFF COEFFICIENT = 0.202

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

CALIB							
STANDHYD (0103)	Area (ha)= 1.17						
ID= 1 DT= 1.0 min	Total Imp(%)= 24.00	Dir. Conn.(%)= 20.00					

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.28	0.89
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	0.50	2.00
Length (m)=	88.20	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 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
0.017	0.48	6.017	1.78	12.017	1.55	18.02	0.70
0.033	0.48	6.033	1.78	12.033	1.55	18.03	0.70
0.050	0.48	6.050	1.78	12.050	1.55	18.05	0.70
0.067	0.48	6.067	1.78	12.067	1.55	18.07	0.70
0.083	0.48	6.083	1.78	12.083	1.55	18.08	0.70
0.100	0.48	6.100	1.78	12.100	1.55	18.10	0.70
0.117	0.48	6.117	1.78	12.117	1.55	18.12	0.70
0.133	0.48	6.133	1.78	12.133	1.55	18.13	0.70
0.150	0.48	6.150	1.78	12.150	1.55	18.15	0.70
0.167	0.48	6.167	1.78	12.167	1.55	18.17	0.70
0.183	0.49	6.183	1.95	12.183	1.50	18.18	0.69
0.200	0.49	6.200	1.95	12.200	1.50	18.20	0.69
0.217	0.49	6.217	1.95	12.217	1.50	18.22	0.69
0.233	0.49	6.233	1.95	12.233	1.50	18.23	0.69
0.250	0.49	6.250	1.95	12.250	1.50	18.25	0.69
0.267	0.49	6.267	1.95	12.267	1.50	18.27	0.69
0.283	0.49	6.283	1.95	12.283	1.50	18.28	0.69
0.300	0.49	6.300	1.95	12.300	1.50	18.30	0.69
0.317	0.49	6.317	1.95	12.317	1.50	18.32	0.69
0.333	0.49	6.333	1.95	12.333	1.50	18.33	0.69
0.350	0.50	6.350	2.16	12.350	1.44	18.35	0.68
0.367	0.50	6.367	2.16	12.367	1.44	18.37	0.68
0.383	0.50	6.383	2.16	12.383	1.44	18.38	0.68
0.400	0.50	6.400	2.16	12.400	1.44	18.40	0.68
0.417	0.50	6.417	2.16	12.417	1.44	18.42	0.68
0.433	0.50	6.433	2.16	12.433	1.44	18.43	0.68
0.450	0.50	6.450	2.16	12.450	1.44	18.45	0.68
0.467	0.50	6.467	2.16	12.467	1.44	18.47	0.68
0.483	0.50	6.483	2.16	12.483	1.44	18.48	0.68
0.500	0.50	6.500	2.16	12.500	1.44	18.50	0.68
0.517	0.51	6.517	2.42	12.517	1.40	18.52	0.67
0.533	0.51	6.533	2.42	12.533	1.40	18.53	0.67
0.550	0.51	6.550	2.42	12.550	1.40	18.55	0.67
0.567	0.51	6.567	2.42	12.567	1.40	18.57	0.67
0.583	0.51	6.583	2.42	12.583	1.40	18.58	0.67
0.600	0.51	6.600	2.42	12.600	1.40	18.60	0.67
0.617	0.51	6.617	2.42	12.617	1.40	18.62	0.67
0.633	0.51	6.633	2.42	12.633	1.40	18.63	0.67
0.650	0.51	6.650	2.42	12.650	1.40	18.65	0.67
0.667	0.51	6.667	2.42	12.667	1.40	18.67	0.67
0.683	0.52	6.683	2.76	12.683	1.35	18.68	0.66
0.700	0.52	6.700	2.76	12.700	1.35	18.70	0.66
0.717	0.52	6.717	2.76	12.717	1.35	18.72	0.66
0.733	0.52	6.733	2.76	12.733	1.35	18.73	0.66
0.750	0.52	6.750	2.76	12.750	1.35	18.75	0.66
0.767	0.52	6.767	2.76	12.767	1.35	18.77	0.66
0.783	0.52	6.783	2.76	12.783	1.35	18.78	0.66
0.800	0.52	6.800	2.76	12.800	1.35	18.80	0.66
0.817	0.52	6.817	2.76	12.817	1.35	18.82	0.66
0.833	0.52	6.833	2.76	12.833	1.35	18.83	0.66
0.850	0.53	6.850	3.23	12.850	1.31	18.85	0.65
0.867	0.53	6.867	3.23	12.867	1.31	18.87	0.65
0.883	0.53	6.883	3.23	12.883	1.31	18.88	0.65
0.900	0.53	6.900	3.23	12.900	1.31	18.90	0.65
0.917	0.53	6.917	3.23	12.917	1.31	18.92	0.65
0.933	0.53	6.933	3.23	12.933	1.31	18.93	0.65
0.950	0.53	6.950	3.23	12.950	1.31	18.95	0.65
0.967	0.53	6.967	3.23	12.967	1.31	18.97	0.65
0.983	0.53	6.983	3.23	12.983	1.31	18.98	0.65
1.000	0.53	7.000	3.23	13.000	1.31	19.00	0.65
1.017	0.54	7.017	3.90	13.017	1.27	19.02	0.64
1.033	0.54	7.033	3.90	13.033	1.27	19.03	0.64
1.050	0.54	7.050	3.90	13.050	1.27	19.05	0.64
1.067	0.54	7.067	3.90	13.067	1.27	19.07	0.64
1.083	0.54	7.083	3.90	13.083	1.27	19.08	0.64
1.100	0.54	7.100	3.90	13.100	1.27	19.10	0.64
1.117	0.54	7.117	3.90	13.117	1.27	19.12	0.64
1.133	0.54	7.133	3.90	13.133	1.27	19.13	0.64
1.150	0.54	7.150	3.90	13.150	1.27	19.15	0.64
1.167	0.54	7.167	3.90	13.167	1.27	19.17	0.64
1.183	0.55	7.183	4.94	13.183	1.24	19.18	0.64
1.200	0.55	7.200	4.94	13.200	1.24	19.20	0.64
1.217	0.55	7.217	4.94	13.217	1.24	19.22	0.64
1.233	0.55	7.233	4.94	13.233	1.24	19.23	0.64
1.250	0.55	7.250	4.94	13.250	1.24	19.25	0.64
1.267	0.55	7.267	4.94	13.267	1.24	19.27	0.64
1.283	0.55	7.283	4.94	13.283	1.24	19.28	0.64
1.300	0.55	7.300	4.94	13.300	1.24	19.30	0.64
1.317	0.55	7.317	4.94	13.317	1.24	19.32	0.64
1.333	0.55	7.333	4.95	13.333	1.24	19.33	0.64
1.350	0.57	7.350	6.81	13.350	1.20	19.35	0.63
1.367	0.57	7.367	6.81	13.367	1.20	19.37	0.63
1.383	0.57	7.383	6.81	13.383	1.20	19.38	0.63
1.400	0.57	7.400	6.81	13.400	1.20	19.40	0.63
1.417	0.57	7.417	6.81	13.417	1.20	19.42	0.63
1.433	0.57	7.433	6.81	13.433	1.20	19.43	0.63
1.450	0.57	7.450	6.81	13.450	1.20	19.45	0.63
1.467	0.57	7.467	6.81	13.467	1.20	19.47	0.63
1.483	0.57	7.483	6.81	13.483	1.20	19.48	0.63
1.500	0.57	7.500	6.82	13.500	1.20	19.50	0.63
1.517	0.58	7.517	11.05	13.517	1.17	19.52	0.62
1.533	0.58	7.533	11.05	13.533	1.17	19.53	0.62
1.550	0.58	7.550	11.05	13.550	1.17	19.55	0.62
1.567	0.58	7.567	11.05	13.567	1.17	19.57	0.62
1.583	0.58	7.583	11.05	13.583	1.17	19.58	0.62
1.600	0.58	7.600	11.05	13.600	1.17	19.60	0.62
1.617	0.58	7.617	11.05	13.617	1.17	19.62	0.62
1.633	0.58	7.633	11.05	13.633	1.17	19.63	0.62
1.650	0.58	7.650	11.05	13.650	1.17	19.65	0.62
1.667	0.58	7.667	11.10	13.667	1.17	19.67	0.62
1.683	0.59	7.683	28.66	13.683	1.14	19.68	0.61
1.700	0.59	7.700	28.66	13.700	1.14	19.70	0.61
1.717	0.59	7.717	28.66	13.717	1.14	19.72	0.61
1.733	0.59	7.733	28.66	13.733	1.14	19.73	0.61
1.750	0.59	7.750	28.66	13.750	1.14	19.75	0.61
1.767	0.59	7.767	28.66	13.767	1.14	19.77	0.61
1.783	0.59	7.783	28.66	13.783	1.14	19.78	0.61
1.800	0.59	7.800	28.66	13.800	1.14	19.80	0.61
1.817	0.59	7.817	28.66	13.817	1.14	19.82	0.61
1.833	0.59	7.833	28.88	13.833	1.14	19.83	0.61
1.850	0.61	7.850	107.72	13.850	1.11	19.85	0.60
1.867	0.61	7.867	107.72	13.867	1.11	19.87	0.60
1.883	0.61	7.883	107.72	13.883	1.11	19.88	0.60
1.900	0.61	7.900	107.72	13.900	1.11	19.90	0.60
1.917	0.61	7.917	107.72	13.917	1.11	19.92	0.60
1.933	0.61	7.933	107.72	13.933	1.11	19.93	0.60
1.950	0.61	7.950	107.72	13.950	1.11	19.95	0.60
1.967	0.61	7.967	107.72	13.967	1.11	19.97	0.60
1.983	0.61	7.983	107.72	13.983	1.11	19.98	0.60
2.000	0.61	8.000	107.51	14.000	1.11	20.00	0.60
2.017	0.62	8.017	38.01	14.017	1.09	20.02	0.60
2.033	0.62	8.033	38.01	14.033	1.09	20.03	0.60
2.050	0.62	8.050	38.01	14.050	1.09	20.05	0.60
2.067	0.62	8.067	38.01	14.067	1.09	20.07	0.60
2.083	0.62	8.083	38.01	14.083	1.09	20.08	0.60
2.100	0.62	8.100	38.01	14.100	1.09	20.10	0.60
2.117	0.62	8.117	38.01	14.117	1.09	20.12	0.60
2.133	0.62	8.133	38.01	14.133	1.09	20.13	0.60
2.150	0.62	8.150	38.01	14.150	1.09	20.15	0.60
2.167	0.62	8.167	37.95	14.167	1.09	20.17	0.60
2.183	0.64	8.183	19.35	14.183	1.06	20.18	0.59
2.200	0.64	8.200	19.35	14.200	1.06	20.20	0.59
2.217	0.64	8.217	19.35	14.217	1.06	20.22	0.59
2.233	0.64	8.233	19.35	14.233	1.06	20.23	0.59
2.250	0.64	8.250	19.35	14.250	1.06	20.25	0.59
2.267	0.64	8.267	19.35	14.267	1.06	20.27	0.59
2.283	0.64	8.283	19.35	14.283	1.06	20.28	0.59
2.300	0.64	8.300	19.35	14.300	1.06	20.30	0.59
2.317	0.64	8.317	19.35	14.317	1.06	20.32	0.59
2.333	0.64	8.333	19.33	14.333	1.06	20.33	0.59
2.350	0.66	8.350	12.71	14.350	1.04	20.35	0.58
2.367	0.66	8.367	12.71	14.367	1.04	20.37	0.58
2.383	0.66	8.383	12.71	14.383	1.04	20.38	0.58
2.400	0.66	8.400	12.71	14.400	1.04	20.40	0.58
2.417	0.66	8.417	12.71	14.417	1.04	20.42	0.58
2.433	0.66	8.433	12.71	14.433	1.04	20.43	0.58
2.450	0.66	8.450	12.71	14.450	1.04	20.45	0.58
2.467	0.66	8.467	12.71	14.467	1.04	20.47	0.58
2.483	0.66	8.483	12.71	14.483	1.04	20.48	0.58
2.500	0.66	8.500	12.70	14.500	1.04	20.50	0.58
2.517	0.67	8.517	9.41	14.517	1.01	20.52	0.58
2.533	0.67	8.533	9.41	14.533	1.01	20.53	0.58
2.550	0.67	8.550	9.41	14.550	1.01	20.55	0.58
2.567	0.67	8.567	9.41	14.567	1.01	20.57	0.58
2.583	0.67	8.583	9.41	14.583	1.01	20.58	0.58
2.600	0.67	8.600	9.41	14.600	1.01	20.60	0.58
2.617	0.67	8.617	9.41	14.617	1.01	20.62	0.58
2.633	0.67	8.633	9.41	14.633	1.01	20.63	0.58
2.650	0.67	8.650	9.41	14.650	1.01	20.65	0.58
2.667	0.67	8.667	9.41	14.667	1.01	20.67	0.58
2.683	0.69	8.683	7.46	14.683	0.99	20.68	0.57
2.700	0.69	8.700	7.46	14.700	0.99	20.70	0.57
2.717	0.69	8.717	7.46	14.717	0.99	20.72	0.57
2.733	0.69	8.733	7.46	14.733	0.99	20.73	0.57
2.750	0.69	8.750	7.46	14.750	0.99	20.75	0.57
2.767	0.69	8.767	7.46	14.767	0.99	20.77	0.57
2.783	0.69	8.783	7.46	14.783	0.99	20.78	0.57
2.800	0.69	8.800	7.46	14.800	0.99	20.80	0.57
2.817	0.69	8.817	7.46	14.817	0.99	20.82	0.57
2.833	0.69	8.833	7.46	14.833	0.99	20.83	0.57
2.850	0.71	8.850	6.18	14.850	0.97	20.85	0.56
2.867	0.71	8.867	6.18	14.867	0.97	20.87	0.56
2.883	0.71	8.883	6.18	14.883	0.97	20.88	0.56
2.900	0.71	8.900	6.18	14.900	0.97	20.90	0.56
2.917	0.71	8.917	6.18	14.917	0.97	20.92	0.56
2.933	0.71	8.933	6.18	14.933	0.97	20.93	0.56
2.950	0.71	8.950	6.18	14.950	0.97	20.95	0.56
2.967	0.71	8.967	6.18	14.967	0.97	20.97	0.56
2.983	0.71	8.983	6.18	14.983	0.97	20.98	0.56
3.000	0.71	9.000	6.18	15.000	0.97	21.00	0.56
3.017	0.74	9.017	5.28	15.017	0.95	21.02	0.56
3.033	0.74	9.033	5.28	15.033	0.95	21.03	0.56
3.050	0.74	9.050	5.28	15.050	0.95	21.05	0.56
3.067	0.74	9.067	5.28	15.067	0.95	21.07	0.56
3.083	0.74	9.083	5.28	15.083	0.95	21.08	0.56
3.100	0.74	9.100	5.28	15.100	0.95	21.10	0.56
3.117	0.74	9.117	5.28	15.117	0.95	21.12	0.56
3.133	0.74	9.133	5.28	15.133	0.95	21.13	0.56
3.150	0.74	9.150	5.28	15.150	0.95	21.15	0.56
3.167	0.74	9.167	5.28	15.167	0.95	21.17	0.56
3.183	0.76	9.183	4.62	15.183	0.93	21.18	0.55
3.200	0.76	9.200	4.62	15.200	0.93	21.20	0.55
3.217	0.76	9.217	4.62	15.217	0.93	21.22	0.55
3.233	0.76	9.233	4.62	15.233	0.93	21.23	0.55
3.250	0.76	9.250	4.62	15.250	0.93	21.25	0.55
3.267	0.76	9.267	4.62	15.267	0.93	21.27	0.55
3.283	0.76	9.283	4.62	15.283	0.93	21.28	0.55
3.300	0.76	9.300	4.62	15.300	0.93	21.30	0.55
3.317	0.76	9.317	4.62	15.317	0.93	21.32	0.55
3.333	0.76	9.333	4.62	15.333	0.93	21.33	0.55
3.350	0.78	9.350	4.11	15.350	0.91	21.35	0.55
3.367	0.78	9.367	4.11	15.367	0.91	21.37	0.55
3.383	0.78	9.383	4.11	15.383	0.91	21.38	0.55
3.400	0.78	9.400	4.11	15.400	0.91	21.40	0.55
3.417	0.78	9.417	4.11	15.417	0.91	21.42	0.55
3.433	0.78	9.433	4.11	15.433	0.91	21.43	0.55
3.450	0.78	9.450	4.11	15.450	0.91	21.45	0.55
3.467	0.78	9.467	4.11	15.467	0.91	21.47	0.55
3.483	0.78	9.483	4.11	15.483	0.91	21.48	0.55
3.500	0.78	9.500	4.10	15.500	0.91	21.50	0.55
3.517	0.81	9.517	3.70	15.517	0.90	21.52	0.54
3.533	0.81	9.533	3.70	15.533	0.90	21.53	0.54
3.550	0.81	9.550	3.70	15.550	0.90	21.55	0.54
3.567	0.81	9.567	3.70	15.567	0.90	21.57	0.54
3.583	0.81	9.583	3.70	15.583	0.90	21.58	0.54
3.600	0.81	9.600	3.70	15.600	0.90	21.60	0.54
3.617	0.81	9.617	3.70	15.617	0.90	21.62	0.54
3.633	0.81	9.633	3.70	15.633	0.90	21.63	0.54
3.650	0.81	9.650	3.70	15.650	0.90	21.65	0.54
3.667	0.81	9.667	3.70	15.667	0.90	21.67	0.54
3.683	0.84	9.683	3.37	15.683	0.88	21.68	0.53
3.700	0.84	9.700	3.37	15.700	0.88	21.70	0.53
3.717	0.84	9.717	3.37	15.717	0.88	21.72	0.53
3.733	0.84	9.733	3.37	15.733	0.88	21.73	0.53
3.750	0.84	9.750	3.37	15.750	0.88	21.75	0.53
3.767	0.84	9.767	3.37	15.767	0.88	21.77	0.53
3.783	0.84	9.783	3.37	15.783	0.88	21.78	0.53
3.800	0.84	9.800	3.37	15.800	0.88	21.80	0.53
3.817	0.84	9.817	3.37	15.817	0.88	21.82	0.53
3.833	0.84	9.833	3.37	15.833	0.88	21.83	0.53
3.850	0.87	9.850	3.09	15.850	0.86	21.85	0.53
3.867	0.87	9.867	3.09	15.867	0.86	21.87	0.53
3.883	0.87	9.883	3.09	15.883	0.86	21.88	0.53
3.900	0.87	9.900	3.09	15.900	0.86	21.90	0.53
3.917	0.87	9.917	3.09	15.917	0.86	21.92	0.53
3.933	0.87	9.933	3.09	15.933	0.86	21.93	0.53
3.950	0.87	9.950	3.09	15.950	0.86	21.95	0.53
3.967	0.87	9.967	3.09	15.967	0.86	21.97	0.53
3.983	0.87	9.983	3.09	15.983	0.86	21.98	0.53
4.000	0.87	10.000	3.09	16.000	0.86	22.00	0.53
4.017	0.90	10.017	2.86	16.017	0.85	22.02	0.52
4.033	0.90	10.033	2.86	16.033	0.85	22.03	0.52
4.050	0.90	10.050	2.86	16.050	0.85	22.05	0.52
4.067	0.90	10.067	2.86	16.067	0.85	22.07	0.52
4.083	0.90	10.083	2.86	16.083	0.85	22.08	0.52
4.100	0.90	10.100	2.86	16.100	0.85	22.10	0.52
4.117	0.90	10.117	2.86	16.117	0.85	22.12	0.52
4.133	0.90	10.133	2.86	16.133	0.85	22.13	0.52
4.150	0.90	10.150	2.86	16.150	0.85	22.15	0.52
4.167	0.90	10.167	2.86	16.167	0.85	22.17	0.52
4.183	0.94	10.183	2.67	16.183	0.83	22.18	0.52
4.200	0.94	10.200	2.67	16.200	0.83	22.20	0.52
4.217	0.94	10.217	2.67	16.217	0.83	22.22	0.52
4.233	0.94	10.233	2.67	16.233	0.83	22.23	0.52
4.250	0.94	10.250	2.67	16.250	0.83	22.25	0.52
4.267	0.94	10.267	2.67	16.267	0.83	22.27	0.52
4.283	0.94	10.283	2.67	16.283	0.83	22.28	0.52
4.300	0.94	10.300	2.67	16.300	0.83	22.30	0.52
4.317	0.94	10.317	2.67	16.317	0.83	22.32	0.52
4.333	0.94	10.333	2.67	16.333	0.83	22.33	0.52

4.350	0.98	10.350	2.50	16.350	0.82	22.35	0.51
4.367	0.98	10.367	2.50	16.367	0.82	22.37	0.51
4.383	0.98	10.383	2.50	16.383	0.82	22.38	0.51
4.400	0.98	10.400	2.50	16.400	0.82	22.40	0.51
4.417	0.98	10.417	2.50	16.417	0.82	22.42	0.51
4.433	0.98	10.433	2.50	16.433	0.82	22.43	0.51
4.450	0.98	10.450	2.50	16.450	0.82	22.45	0.51
4.467	0.98	10.467	2.50	16.467	0.82	22.47	0.51
4.483	0.98	10.483	2.50	16.483	0.82	22.48	0.51
4.500	0.98	10.500	2.50	16.500	0.82	22.50	0.51
4.517	1.02	10.517	2.35	16.517	0.80	22.52	0.51
4.533	1.02	10.533	2.35	16.533	0.80	22.53	0.51
4.550	1.02	10.550	2.35	16.550	0.80	22.55	0.51
4.567	1.02	10.567	2.35	16.567	0.80	22.57	0.51
4.583	1.02	10.583	2.35	16.583	0.80	22.58	0.51
4.600	1.02	10.600	2.35	16.600	0.80	22.60	0.51
4.617	1.02	10.617	2.35	16.617	0.80	22.62	0.51
4.633	1.02	10.633	2.35	16.633	0.80	22.63	0.51
4.650	1.02	10.650	2.35	16.650	0.80	22.65	0.51
4.667	1.02	10.667	2.35	16.667	0.80	22.67	0.51
4.683	1.07	10.683	2.22	16.683	0.79	22.68	0.50
4.700	1.07	10.700	2.22	16.700	0.79	22.70	0.50
4.717	1.07	10.717	2.22	16.717	0.79	22.72	0.50
4.733	1.07	10.733	2.22	16.733	0.79	22.73	0.50
4.750	1.07	10.750	2.22	16.750	0.79	22.75	0.50
4.767	1.07	10.767	2.22	16.767	0.79	22.77	0.50
4.783	1.07	10.783	2.22	16.783	0.79	22.78	0.50
4.800	1.07	10.800	2.22	16.800	0.79	22.80	0.50
4.817	1.07	10.817	2.22	16.817	0.79	22.82	0.50
4.833	1.07	10.833	2.22	16.833	0.79	22.83	0.50
4.850	1.13	10.850	2.10	16.850	0.78	22.85	0.50
4.867	1.13	10.867	2.10	16.867	0.78	22.87	0.50
4.883	1.13	10.883	2.10	16.883	0.78	22.88	0.50
4.900	1.13	10.900	2.10	16.900	0.78	22.90	0.50
4.917	1.13	10.917	2.10	16.917	0.78	22.92	0.50
4.933	1.13	10.933	2.10	16.933	0.78	22.93	0.50
4.950	1.13	10.950	2.10	16.950	0.78	22.95	0.50
4.967	1.13	10.967	2.10	16.967	0.78	22.97	0.50
4.983	1.13	10.983	2.10	16.983	0.78	22.98	0.50
5.000	1.13	11.000	2.10	17.000	0.78	23.00	0.50
5.017	1.19	11.017	2.00	17.017	0.77	23.02	0.49
5.033	1.19	11.033	2.00	17.033	0.77	23.03	0.49
5.050	1.19	11.050	2.00	17.050	0.77	23.05	0.49
5.067	1.19	11.067	2.00	17.067	0.77	23.07	0.49
5.083	1.19	11.083	2.00	17.083	0.77	23.08	0.49
5.100	1.19	11.100	2.00	17.100	0.77	23.10	0.49
5.117	1.19	11.117	2.00	17.117	0.77	23.12	0.49
5.133	1.19	11.133	2.00	17.133	0.77	23.13	0.49
5.150	1.19	11.150	2.00	17.150	0.77	23.15	0.49
5.167	1.19	11.167	2.00	17.167	0.77	23.17	0.49
5.183	1.25	11.183	1.90	17.183	0.75	23.18	0.49
5.200	1.25	11.200	1.90	17.200	0.75	23.20	0.49

5.217	1.25	11.217	1.90	17.217	0.75	23.22	0.49
5.233	1.25	11.233	1.90	17.233	0.75	23.23	0.49
5.250	1.25	11.250	1.90	17.250	0.75	23.25	0.49
5.267	1.25	11.267	1.90	17.267	0.75	23.27	0.49
5.283	1.25	11.283	1.90	17.283	0.75	23.28	0.49
5.300	1.25	11.300	1.90	17.300	0.75	23.30	0.49
5.317	1.25	11.317	1.90	17.317	0.75	23.32	0.49
5.333	1.25	11.333	1.90	17.333	0.75	23.33	0.49
5.350	1.33	11.350	1.82	17.350	0.74	23.35	0.48
5.367	1.33	11.367	1.82	17.367	0.74	23.37	0.48
5.383	1.33	11.383	1.82	17.383	0.74	23.38	0.48
5.400	1.33	11.400	1.82	17.400	0.74	23.40	0.48
5.417	1.33	11.417	1.82	17.417	0.74	23.42	0.48
5.433	1.33	11.433	1.82	17.433	0.74	23.43	0.48
5.450	1.33	11.450	1.82	17.450	0.74	23.45	0.48
5.467	1.33	11.467	1.82	17.467	0.74	23.47	0.48
5.483	1.33	11.483	1.82	17.483	0.74	23.48	0.48
5.500	1.33	11.500	1.82	17.500	0.74	23.50	0.48
5.517	1.42	11.517	1.74	17.517	0.73	23.52	0.48
5.533	1.42	11.533	1.74	17.533	0.73	23.53	0.48
5.550	1.42	11.550	1.74	17.550	0.73	23.55	0.48
5.567	1.42	11.567	1.74	17.567	0.73	23.57	0.48
5.583	1.42	11.583	1.74	17.583	0.73	23.58	0.48
5.600	1.42	11.600	1.74	17.600	0.73	23.60	0.48
5.617	1.42	11.617	1.74	17.617	0.73	23.62	0.48
5.633	1.42	11.633	1.74	17.633	0.73	23.63	0.48
5.650	1.42	11.650	1.74	17.650	0.73	23.65	0.48
5.667	1.42	11.667	1.74	17.667	0.73	23.67	0.48
5.683	1.52	11.683	1.67	17.683	0.72	23.68	0.48
5.700	1.52	11.700	1.67	17.700	0.72	23.70	0.48
5.717	1.52	11.717	1.67	17.717	0.72	23.72	0.48
5.733	1.52	11.733	1.67	17.733	0.72	23.73	0.48
5.750	1.52	11.750	1.67	17.750	0.72	23.75	0.48
5.767	1.52	11.767	1.67	17.767	0.72	23.77	0.48
5.783	1.52	11.783	1.67	17.783	0.72	23.78	0.48
5.800	1.52	11.800	1.67	17.800	0.72	23.80	0.48
5.817	1.52	11.817	1.67	17.817	0.72	23.82	0.48
5.833	1.52	11.833	1.67	17.833	0.72	23.83	0.48
5.850	1.64	11.850	1.61	17.850	0.71	23.85	0.47
5.867	1.64	11.867	1.61	17.867	0.71	23.87	0.47
5.883	1.64	11.883	1.61	17.883	0.71	23.88	0.47
5.900	1.64	11.900	1.61	17.900	0.71	23.90	0.47
5.917	1.64	11.917	1.61	17.917	0.71	23.92	0.47
5.933	1.64	11.933	1.61	17.933	0.71	23.93	0.47
5.950	1.64	11.950	1.61	17.950	0.71	23.95	0.47
5.967	1.64	11.967	1.61	17.967	0.71	23.97	0.47
5.983	1.64	11.983	1.61	17.983	0.71	23.98	0.47
6.000	1.64	12.000	1.61	18.000	0.71	24.00	0.47

Max.Eff.Inten.(mm/hr)=	107.72		18.70
over (min)	5.00		17.00
Storage Coeff. (min)=	2.83 (ii)		16.63 (ii)

Unit Hyd. Tpeak (min)=	5.00	17.00
Unit Hyd. peak (cms)=	0.32	0.07
		TOTALS
PEAK FLOW (cms)=	0.07	0.03 0.076 (iii)
TIME TO PEAK (hrs)=	8.00	8.27 8.02
RUNOFF VOLUME (mm)=	66.81	16.22 26.33
TOTAL RAINFALL (mm)=	67.81	67.81 67.81
RUNOFF COEFFICIENT =	0.99	0.24 0.39

***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
YOU SHOULD CONSIDER SPLITTING THE AREA.

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 57.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (1011) | Area (ha)= 13.73
ID= 1 DT= 1.0 min | Total Imp(%)= 46.00 Dir. Conn.(%)= 39.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	6.32	7.42
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	0.50	2.00
Length	(m)=	302.59	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 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
0.017	0.48	6.017	1.78	12.017	1.55	18.02	0.70
0.033	0.48	6.033	1.78	12.033	1.55	18.03	0.70
0.050	0.48	6.050	1.78	12.050	1.55	18.05	0.70
0.067	0.48	6.067	1.78	12.067	1.55	18.07	0.70
0.083	0.48	6.083	1.78	12.083	1.55	18.08	0.70
0.100	0.48	6.100	1.78	12.100	1.55	18.10	0.70
0.117	0.48	6.117	1.78	12.117	1.55	18.12	0.70
0.133	0.48	6.133	1.78	12.133	1.55	18.13	0.70
0.150	0.48	6.150	1.78	12.150	1.55	18.15	0.70
0.167	0.48	6.167	1.78	12.167	1.55	18.17	0.70
0.183	0.49	6.183	1.95	12.183	1.50	18.18	0.69
0.200	0.49	6.200	1.95	12.200	1.50	18.20	0.69
0.217	0.49	6.217	1.95	12.217	1.50	18.22	0.69
0.233	0.49	6.233	1.95	12.233	1.50	18.23	0.69
0.250	0.49	6.250	1.95	12.250	1.50	18.25	0.69

0.267	0.49	6.267	1.95	12.267	1.50	18.27	0.69
0.283	0.49	6.283	1.95	12.283	1.50	18.28	0.69
0.300	0.49	6.300	1.95	12.300	1.50	18.30	0.69
0.317	0.49	6.317	1.95	12.317	1.50	18.32	0.69
0.333	0.49	6.333	1.95	12.333	1.50	18.33	0.69
0.350	0.50	6.350	2.16	12.350	1.44	18.35	0.68
0.367	0.50	6.367	2.16	12.367	1.44	18.37	0.68
0.383	0.50	6.383	2.16	12.383	1.44	18.38	0.68
0.400	0.50	6.400	2.16	12.400	1.44	18.40	0.68
0.417	0.50	6.417	2.16	12.417	1.44	18.42	0.68
0.433	0.50	6.433	2.16	12.433	1.44	18.43	0.68
0.450	0.50	6.450	2.16	12.450	1.44	18.45	0.68
0.467	0.50	6.467	2.16	12.467	1.44	18.47	0.68
0.483	0.50	6.483	2.16	12.483	1.44	18.48	0.68
0.500	0.50	6.500	2.16	12.500	1.44	18.50	0.68
0.517	0.51	6.517	2.42	12.517	1.40	18.52	0.67
0.533	0.51	6.533	2.42	12.533	1.40	18.53	0.67
0.550	0.51	6.550	2.42	12.550	1.40	18.55	0.67
0.567	0.51	6.567	2.42	12.567	1.40	18.57	0.67
0.583	0.51	6.583	2.42	12.583	1.40	18.58	0.67
0.600	0.51	6.600	2.42	12.600	1.40	18.60	0.67
0.617	0.51	6.617	2.42	12.617	1.40	18.62	0.67
0.633	0.51	6.633	2.42	12.633	1.40	18.63	0.67
0.650	0.51	6.650	2.42	12.650	1.40	18.65	0.67
0.667	0.51	6.667	2.42	12.667	1.40	18.67	0.67
0.683	0.52	6.683	2.76	12.683	1.35	18.68	0.66
0.700	0.52	6.700	2.76	12.700	1.35	18.70	0.66
0.717	0.52	6.717	2.76	12.717	1.35	18.72	0.66
0.733	0.52	6.733	2.76	12.733	1.35	18.73	0.66
0.750	0.52	6.750	2.76	12.750	1.35	18.75	0.66
0.767	0.52	6.767	2.76	12.767	1.35	18.77	0.66
0.783	0.52	6.783	2.76	12.783	1.35	18.78	0.66
0.800	0.52	6.800	2.76	12.800	1.35	18.80	0.66
0.817	0.52	6.817	2.76	12.817	1.35	18.82	0.66
0.833	0.52	6.833	2.76	12.833	1.35	18.83	0.66
0.850	0.53	6.850	3.23	12.850	1.31	18.85	0.65
0.867	0.53	6.867	3.23	12.867	1.31	18.87	0.65
0.883	0.53	6.883	3.23	12.883	1.31	18.88	0.65
0.900	0.53	6.900	3.23	12.900	1.31	18.90	0.65
0.917	0.53	6.917	3.23	12.917	1.31	18.92	0.65
0.933	0.53	6.933	3.23	12.933	1.31	18.93	0.65
0.950	0.53	6.950	3.23	12.950	1.31	18.95	0.65
0.967	0.53	6.967	3.23	12.967	1.31	18.97	0.65
0.983	0.53	6.983	3.23	12.983	1.31	18.98	0.65
1.000	0.53	7.000	3.23	13.000	1.31	19.00	0.65
1.017	0.54	7.017	3.90	13.017	1.27	19.02	0.64
1.033	0.54	7.033	3.90	13.033	1.27	19.03	0.64
1.050	0.54	7.050	3.90	13.050	1.27	19.05	0.64
1.067	0.54	7.067	3.90	13.067	1.27	19.07	0.64
1.083	0.54	7.083	3.90	13.083	1.27	19.08	0.64
1.100	0.54	7.100	3.90	13.100	1.27	19.10	0.64
1.117	0.54	7.117	3.90	13.117	1.27	19.12	0.64

1.133	0.54	7.133	3.90	13.133	1.27	19.13	0.64
1.150	0.54	7.150	3.90	13.150	1.27	19.15	0.64
1.167	0.54	7.167	3.90	13.167	1.27	19.17	0.64
1.183	0.55	7.183	4.94	13.183	1.24	19.18	0.64
1.200	0.55	7.200	4.94	13.200	1.24	19.20	0.64
1.217	0.55	7.217	4.94	13.217	1.24	19.22	0.64
1.233	0.55	7.233	4.94	13.233	1.24	19.23	0.64
1.250	0.55	7.250	4.94	13.250	1.24	19.25	0.64
1.267	0.55	7.267	4.94	13.267	1.24	19.27	0.64
1.283	0.55	7.283	4.94	13.283	1.24	19.28	0.64
1.300	0.55	7.300	4.94	13.300	1.24	19.30	0.64
1.317	0.55	7.317	4.94	13.317	1.24	19.32	0.64
1.333	0.55	7.333	4.95	13.333	1.24	19.33	0.64
1.350	0.57	7.350	6.81	13.350	1.20	19.35	0.63
1.367	0.57	7.367	6.81	13.367	1.20	19.37	0.63
1.383	0.57	7.383	6.81	13.383	1.20	19.38	0.63
1.400	0.57	7.400	6.81	13.400	1.20	19.40	0.63
1.417	0.57	7.417	6.81	13.417	1.20	19.42	0.63
1.433	0.57	7.433	6.81	13.433	1.20	19.43	0.63
1.450	0.57	7.450	6.81	13.450	1.20	19.45	0.63
1.467	0.57	7.467	6.81	13.467	1.20	19.47	0.63
1.483	0.57	7.483	6.81	13.483	1.20	19.48	0.63
1.500	0.57	7.500	6.82	13.500	1.20	19.50	0.63
1.517	0.58	7.517	11.05	13.517	1.17	19.52	0.62
1.533	0.58	7.533	11.05	13.533	1.17	19.53	0.62
1.550	0.58	7.550	11.05	13.550	1.17	19.55	0.62
1.567	0.58	7.567	11.05	13.567	1.17	19.57	0.62
1.583	0.58	7.583	11.05	13.583	1.17	19.58	0.62
1.600	0.58	7.600	11.05	13.600	1.17	19.60	0.62
1.617	0.58	7.617	11.05	13.617	1.17	19.62	0.62
1.633	0.58	7.633	11.05	13.633	1.17	19.63	0.62
1.650	0.58	7.650	11.05	13.650	1.17	19.65	0.62
1.667	0.58	7.667	11.10	13.667	1.17	19.67	0.62
1.683	0.59	7.683	28.66	13.683	1.14	19.68	0.61
1.700	0.59	7.700	28.66	13.700	1.14	19.70	0.61
1.717	0.59	7.717	28.66	13.717	1.14	19.72	0.61
1.733	0.59	7.733	28.66	13.733	1.14	19.73	0.61
1.750	0.59	7.750	28.66	13.750	1.14	19.75	0.61
1.767	0.59	7.767	28.66	13.767	1.14	19.77	0.61
1.783	0.59	7.783	28.66	13.783	1.14	19.78	0.61
1.800	0.59	7.800	28.66	13.800	1.14	19.80	0.61
1.817	0.59	7.817	28.66	13.817	1.14	19.82	0.61
1.833	0.59	7.833	28.88	13.833	1.14	19.83	0.61
1.850	0.61	7.850	107.72	13.850	1.11	19.85	0.60
1.867	0.61	7.867	107.72	13.867	1.11	19.87	0.60
1.883	0.61	7.883	107.72	13.883	1.11	19.88	0.60
1.900	0.61	7.900	107.72	13.900	1.11	19.90	0.60
1.917	0.61	7.917	107.72	13.917	1.11	19.92	0.60
1.933	0.61	7.933	107.72	13.933	1.11	19.93	0.60
1.950	0.61	7.950	107.72	13.950	1.11	19.95	0.60
1.967	0.61	7.967	107.72	13.967	1.11	19.97	0.60
1.983	0.61	7.983	107.72	13.983	1.11	19.98	0.60

2.000	0.61	8.000	107.51	14.000	1.11	20.00	0.60
2.017	0.62	8.017	38.01	14.017	1.09	20.02	0.60
2.033	0.62	8.033	38.01	14.033	1.09	20.03	0.60
2.050	0.62	8.050	38.01	14.050	1.09	20.05	0.60
2.067	0.62	8.067	38.01	14.067	1.09	20.07	0.60
2.083	0.62	8.083	38.01	14.083	1.09	20.08	0.60
2.100	0.62	8.100	38.01	14.100	1.09	20.10	0.60
2.117	0.62	8.117	38.01	14.117	1.09	20.12	0.60
2.133	0.62	8.133	38.01	14.133	1.09	20.13	0.60
2.150	0.62	8.150	38.01	14.150	1.09	20.15	0.60
2.167	0.62	8.167	37.95	14.167	1.09	20.17	0.60
2.183	0.64	8.183	19.35	14.183	1.06	20.18	0.59
2.200	0.64	8.200	19.35	14.200	1.06	20.20	0.59
2.217	0.64	8.217	19.35	14.217	1.06	20.22	0.59
2.233	0.64	8.233	19.35	14.233	1.06	20.23	0.59
2.250	0.64	8.250	19.35	14.250	1.06	20.25	0.59
2.267	0.64	8.267	19.35	14.267	1.06	20.27	0.59
2.283	0.64	8.283	19.35	14.283	1.06	20.28	0.59
2.300	0.64	8.300	19.35	14.300	1.06	20.30	0.59
2.317	0.64	8.317	19.35	14.317	1.06	20.32	0.59
2.333	0.64	8.333	19.33	14.333	1.06	20.33	0.59
2.350	0.66	8.350	12.71	14.350	1.04	20.35	0.58
2.367	0.66	8.367	12.71	14.367	1.04	20.37	0.58
2.383	0.66	8.383	12.71	14.383	1.04	20.38	0.58
2.400	0.66	8.400	12.71	14.400	1.04	20.40	0.58
2.417	0.66	8.417	12.71	14.417	1.04	20.42	0.58
2.433	0.66	8.433	12.71	14.433	1.04	20.43	0.58
2.450	0.66	8.450	12.71	14.450	1.04	20.45	0.58
2.467	0.66	8.467	12.71	14.467	1.04	20.47	0.58
2.483	0.66	8.483	12.71	14.483	1.04	20.48	0.58
2.500	0.66	8.500	12.70	14.500	1.04	20.50	0.58
2.517	0.67	8.517	9.41	14.517	1.01	20.52	0.58
2.533	0.67	8.533	9.41	14.533	1.01	20.53	0.58
2.550	0.67	8.550	9.41	14.550	1.01	20.55	0.58
2.567	0.67	8.567	9.41	14.567	1.01	20.57	0.58
2.583	0.67	8.583	9.41	14.583	1.01	20.58	0.58
2.600	0.67	8.600	9.41	14.600	1.01	20.60	0.58
2.617	0.67	8.617	9.41	14.617	1.01	20.62	0.58
2.633	0.67	8.633	9.41	14.633	1.01	20.63	0.58
2.650	0.67	8.650	9.41	14.650	1.01	20.65	0.58
2.667	0.67	8.667	9.41	14.667	1.01	20.67	0.58
2.683	0.69	8.683	7.46	14.683	0.99	20.68	0.57
2.700	0.69	8.700	7.46	14.700	0.99	20.70	0.57
2.717	0.69	8.717	7.46	14.717	0.99	20.72	0.57
2.733	0.69	8.733	7.46	14.733	0.99	20.73	0.57
2.750	0.69	8.750	7.46	14.750	0.99	20.75	0.57
2.767	0.69	8.767	7.46	14.767	0.99	20.77	0.57
2.783	0.69	8.783	7.46	14.783	0.99	20.78	0.57
2.800	0.69	8.800	7.46	14.800	0.99	20.80	0.57
2.817	0.69	8.817	7.46	14.817	0.99	20.82	0.57
2.833	0.69	8.833	7.46	14.833	0.99	20.83	0.57
2.850	0.71	8.850	6.18	14.850	0.97	20.85	0.56

2.867	0.71	8.867	6.18	14.867	0.97	20.87	0.56
2.883	0.71	8.883	6.18	14.883	0.97	20.88	0.56
2.900	0.71	8.900	6.18	14.900	0.97	20.90	0.56
2.917	0.71	8.917	6.18	14.917	0.97	20.92	0.56
2.933	0.71	8.933	6.18	14.933	0.97	20.93	0.56
2.950	0.71	8.950	6.18	14.950	0.97	20.95	0.56
2.967	0.71	8.967	6.18	14.967	0.97	20.97	0.56
2.983	0.71	8.983	6.18	14.983	0.97	20.98	0.56
3.000	0.71	9.000	6.18	15.000	0.97	21.00	0.56
3.017	0.74	9.017	5.28	15.017	0.95	21.02	0.56
3.033	0.74	9.033	5.28	15.033	0.95	21.03	0.56
3.050	0.74	9.050	5.28	15.050	0.95	21.05	0.56
3.067	0.74	9.067	5.28	15.067	0.95	21.07	0.56
3.083	0.74	9.083	5.28	15.083	0.95	21.08	0.56
3.100	0.74	9.100	5.28	15.100	0.95	21.10	0.56
3.117	0.74	9.117	5.28	15.117	0.95	21.12	0.56
3.133	0.74	9.133	5.28	15.133	0.95	21.13	0.56
3.150	0.74	9.150	5.28	15.150	0.95	21.15	0.56
3.167	0.74	9.167	5.28	15.167	0.95	21.17	0.56
3.183	0.76	9.183	4.62	15.183	0.93	21.18	0.55
3.200	0.76	9.200	4.62	15.200	0.93	21.20	0.55
3.217	0.76	9.217	4.62	15.217	0.93	21.22	0.55
3.233	0.76	9.233	4.62	15.233	0.93	21.23	0.55
3.250	0.76	9.250	4.62	15.250	0.93	21.25	0.55
3.267	0.76	9.267	4.62	15.267	0.93	21.27	0.55
3.283	0.76	9.283	4.62	15.283	0.93	21.28	0.55
3.300	0.76	9.300	4.62	15.300	0.93	21.30	0.55
3.317	0.76	9.317	4.62	15.317	0.93	21.32	0.55
3.333	0.76	9.333	4.62	15.333	0.93	21.33	0.55
3.350	0.78	9.350	4.11	15.350	0.91	21.35	0.55
3.367	0.78	9.367	4.11	15.367	0.91	21.37	0.55
3.383	0.78	9.383	4.11	15.383	0.91	21.38	0.55
3.400	0.78	9.400	4.11	15.400	0.91	21.40	0.55
3.417	0.78	9.417	4.11	15.417	0.91	21.42	0.55
3.433	0.78	9.433	4.11	15.433	0.91	21.43	0.55
3.450	0.78	9.450	4.11	15.450	0.91	21.45	0.55
3.467	0.78	9.467	4.11	15.467	0.91	21.47	0.55
3.483	0.78	9.483	4.11	15.483	0.91	21.48	0.55
3.500	0.78	9.500	4.10	15.500	0.91	21.50	0.55
3.517	0.81	9.517	3.70	15.517	0.90	21.52	0.54
3.533	0.81	9.533	3.70	15.533	0.90	21.53	0.54
3.550	0.81	9.550	3.70	15.550	0.90	21.55	0.54
3.567	0.81	9.567	3.70	15.567	0.90	21.57	0.54
3.583	0.81	9.583	3.70	15.583	0.90	21.58	0.54
3.600	0.81	9.600	3.70	15.600	0.90	21.60	0.54
3.617	0.81	9.617	3.70	15.617	0.90	21.62	0.54
3.633	0.81	9.633	3.70	15.633	0.90	21.63	0.54
3.650	0.81	9.650	3.70	15.650	0.90	21.65	0.54
3.667	0.81	9.667	3.70	15.667	0.90	21.67	0.54
3.683	0.84	9.683	3.37	15.683	0.88	21.68	0.53
3.700	0.84	9.700	3.37	15.700	0.88	21.70	0.53
3.717	0.84	9.717	3.37	15.717	0.88	21.72	0.53
3.733	0.84	9.733	3.37	15.733	0.88	21.73	0.53
3.750	0.84	9.750	3.37	15.750	0.88	21.75	0.53
3.767	0.84	9.767	3.37	15.767	0.88	21.77	0.53
3.783	0.84	9.783	3.37	15.783	0.88	21.78	0.53
3.800	0.84	9.800	3.37	15.800	0.88	21.80	0.53
3.817	0.84	9.817	3.37	15.817	0.88	21.82	0.53
3.833	0.84	9.833	3.37	15.833	0.88	21.83	0.53
3.850	0.87	9.850	3.09	15.850	0.86	21.85	0.53
3.867	0.87	9.867	3.09	15.867	0.86	21.87	0.53
3.883	0.87	9.883	3.09	15.883	0.86	21.88	0.53
3.900	0.87	9.900	3.09	15.900	0.86	21.90	0.53
3.917	0.87	9.917	3.09	15.917	0.86	21.92	0.53
3.933	0.87	9.933	3.09	15.933	0.86	21.93	0.53
3.950	0.87	9.950	3.09	15.950	0.86	21.95	0.53
3.967	0.87	9.967	3.09	15.967	0.86	21.97	0.53
3.983	0.87	9.983	3.09	15.983	0.86	21.98	0.53
4.000	0.87	10.000	3.09	16.000	0.86	22.00	0.53
4.017	0.90	10.017	2.86	16.017	0.85	22.02	0.52
4.033	0.90	10.033	2.86	16.033	0.85	22.03	0.52
4.050	0.90	10.050	2.86	16.050	0.85	22.05	0.52
4.067	0.90	10.067	2.86	16.067	0.85	22.07	0.52
4.083	0.90	10.083	2.86	16.083	0.85	22.08	0.52
4.100	0.90	10.100	2.86	16.100	0.85	22.10	0.52
4.117	0.90	10.117	2.86	16.117	0.85	22.12	0.52
4.133	0.90	10.133	2.86	16.133	0.85	22.13	0.52
4.150	0.90	10.150	2.86	16.150	0.85	22.15	0.52
4.167	0.90	10.167	2.86	16.167	0.85	22.17	0.52
4.183	0.94	10.183	2.67	16.183	0.83	22.18	0.52
4.200	0.94	10.200	2.67	16.200	0.83	22.20	0.52
4.217	0.94	10.217	2.67	16.217	0.83	22.22	0.52
4.233	0.94	10.233	2.67	16.233	0.83	22.23	0.52
4.250	0.94	10.250	2.67	16.250	0.83	22.25	0.52
4.267	0.94	10.267	2.67	16.267	0.83	22.27	0.52
4.283	0.94	10.283	2.67	16.283	0.83	22.28	0.52
4.300	0.94	10.300	2.67	16.300	0.83	22.30	0.52
4.317	0.94	10.317	2.67	16.317	0.83	22.32	0.52
4.333	0.94	10.333	2.67	16.333	0.83	22.33	0.52
4.350	0.98	10.350	2.50	16.350	0.82	22.35	0.51
4.367	0.98	10.367	2.50	16.367	0.82	22.37	0.51
4.383	0.98	10.383	2.50	16.383	0.82	22.38	0.51
4.400	0.98	10.400	2.50	16.400	0.82	22.40	0.51
4.417	0.98	10.417	2.50	16.417	0.82	22.42	0.51
4.433	0.98	10.433	2.50	16.433	0.82	22.43	0.51
4.450	0.98	10.450	2.50	16.450	0.82	22.45	0.51
4.467	0.98	10.467	2.50	16.467	0.82	22.47	0.51
4.483	0.98	10.483	2.50	16.483	0.82	22.48	0.51
4.500	0.98	10.500	2.50	16.500	0.82	22.50	0.51
4.517	1.02	10.517	2.35	16.517	0.80	22.52	0.51
4.533	1.02	10.533	2.35	16.533	0.80	22.53	0.51
4.550	1.02	10.550	2.35	16.550	0.80	22.55	0.51
4.567	1.02	10.567	2.35	16.567	0.80	22.57	0.51
4.583	1.02	10.583	2.35	16.583	0.80	22.58	0.51
4.600	1.02	10.600	2.35	16.600	0.80	22.60	0.51
4.617	1.02	10.617	2.35	16.617	0.80	22.62	0.51
4.633	1.02	10.633	2.35	16.633	0.80	22.63	0.51
4.650	1.02	10.650	2.35	16.650	0.80	22.65	0.51
4.667	1.02	10.667	2.35	16.667	0.80	22.67	0.51
4.683	1.07	10.683	2.22	16.683	0.79	22.68	0.50
4.700	1.07	10.700	2.22	16.700	0.79	22.70	0.50
4.717	1.07	10.717	2.22	16.717	0.79	22.72	0.50
4.733	1.07	10.733	2.22	16.733	0.79	22.73	0.50
4.750	1.07	10.750	2.22	16.750	0.79	22.75	0.50
4.767	1.07	10.767	2.22	16.767	0.79	22.77	0.50
4.783	1.07	10.783	2.22	16.783	0.79	22.78	0.50
4.800	1.07	10.800	2.22	16.800	0.79	22.80	0.50
4.817	1.07	10.817	2.22	16.817	0.79	22.82	0.50
4.833	1.07	10.833	2.22	16.833	0.79	22.83	0.50
4.850	1.13	10.850	2.10	16.850	0.78	22.85	0.50
4.867	1.13	10.867	2.10	16.867	0.78	22.87	0.50
4.883	1.13	10.883	2.10	16.883	0.78	22.88	0.50
4.900	1.13	10.900	2.10	16.900	0.78	22.90	0.50
4.917	1.13	10.917	2.10	16.917	0.78	22.92	0.50
4.933	1.13	10.933	2.10	16.933	0.78	22.93	0.50
4.950	1.13	10.950	2.10	16.950	0.78	22.95	0.50
4.967	1.13	10.967	2.10	16.967	0.78	22.97	0.50
4.983	1.13	10.983	2.10	16.983	0.78	22.98	0.50
5.000	1.13	11.000	2.10	17.000	0.78	23.00	0.50
5.017	1.19	11.017	2.00	17.017	0.77	23.02	0.49
5.033	1.19	11.033	2.00	17.033	0.77	23.03	0.49
5.050	1.19	11.050	2.00	17.050	0.77	23.05	0.49
5.067	1.19	11.067	2.00	17.067	0.77	23.07	0.49
5.083	1.19	11.083	2.00	17.083	0.77	23.08	0.49
5.100	1.19	11.100	2.00	17.100	0.77	23.10	0.49
5.117	1.19	11.117	2.00	17.117	0.77	23.12	0.49
5.133	1.19	11.133	2.00	17.133	0.77	23.13	0.49
5.150	1.19	11.150	2.00	17.150	0.77	23.15	0.49
5.167	1.19	11.167	2.00	17.167	0.77	23.17	0.49
5.183	1.25	11.183	1.90	17.183	0.75	23.18	0.49
5.200	1.25	11.200	1.90	17.200	0.75	23.20	0.49
5.217	1.25	11.217	1.90	17.217	0.75	23.22	0.49
5.233	1.25	11.233	1.90	17.233	0.75	23.23	0.49
5.250	1.25	11.250	1.90	17.250	0.75	23.25	0.49
5.267	1.25	11.267	1.90	17.267	0.75	23.27	0.49
5.283	1.25	11.283	1.90	17.283	0.75	23.28	0.49
5.300	1.25	11.300	1.90	17.300	0.75	23.30	0.49
5.317	1.25	11.317	1.90	17.317	0.75	23.32	0.49
5.333	1.25	11.333	1.90	17.333	0.75	23.33	0.49
5.350	1.33	11.350	1.82	17.350	0.74	23.35	0.48
5.367	1.33	11.367	1.82	17.367	0.74	23.37	0.48
5.383	1.33	11.383	1.82	17.383	0.74	23.38	0.48
5.400	1.33	11.400	1.82	17.400	0.74	23.40	0.48
5.417	1.33	11.417	1.82	17.417	0.74	23.42	0.48
5.433	1.33	11.433	1.82	17.433	0.74	23.43	0.48
5.450	1.33	11.450	1.82	17.450	0.74	23.45	0.48
5.467	1.33	11.467	1.82	17.467	0.74	23.47	0.48
5.483	1.33	11.483	1.82	17.483	0.74	23.48	0.48
5.500	1.33	11.500	1.82	17.500	0.74	23.50	0.48
5.517	1.42	11.517	1.74	17.517	0.73	23.52	0.48
5.533	1.42	11.533	1.74	17.533	0.73	23.53	0.48
5.550	1.42	11.550	1.74	17.550	0.73	23.55	0.48
5.567	1.42	11.567	1.74	17.567	0.73	23.57	0.48
5.583	1.42	11.583	1.74	17.583	0.73	23.58	0.48
5.600	1.42	11.600	1.74	17.600	0.73	23.60	0.48
5.617	1.42	11.617	1.74	17.617	0.73	23.62	0.48
5.633	1.42	11.633	1.74	17.633	0.73	23.63	0.48
5.650	1.42	11.650	1.74	17.650	0.73	23.65	0.48
5.667	1.42	11.667	1.74	17.667	0.73	23.67	0.48
5.683	1.52	11.683	1.67	17.683	0.72	23.68	0.48
5.700	1.52	11.700	1.67	17.700	0.72	23.70	0.48
5.717	1.52	11.717	1.67	17.717	0.72	23.72	0.48
5.733	1.52	11.733	1.67	17.733	0.72	23.73	0.48
5.750	1.52	11.750	1.67	17.750	0.72	23.75	0.48
5.767	1.52	11.767	1.67	17.767	0.72	23.77	0.48
5.783	1.52	11.783	1.67	17.783	0.72	23.78	0.48
5.800	1.52	11.800	1.67	17.800	0.72	23.80	0.48
5.817	1.52	11.817	1.67	17.817	0.72	23.82	0.48
5.833	1.52	11.833	1.67	17.833	0.72	23.83	0.48
5.850	1.64	11.850	1.61	17.850	0.71	23.85	0.47
5.867	1.64	11.867	1.61	17.867	0.71	23.87	0.47
5.883	1.64	11.883	1.61	17.883	0.71	23.88	0.47
5.900	1.64	11.900	1.61	17.900	0.71	23.90	0.47
5.917	1.64	11.917	1.61	17.917	0.71	23.92	0.47
5.933	1.64	11.933	1.61	17.933	0.71	23.93	0.47
5.950	1.64	11.950	1.61	17.950	0.71	23.95	0.47
5.967	1.64	11.967	1.61	17.967	0.71	23.97	0.47
5.983	1.64	11.983	1.61	17.983	0.71	23.98	0.47
6.000	1.64	12.000	1.61	18.000	0.71	24.00	0.47

Max.Eff.Inten.(mm/hr)=	107.72	18.51	
over (min)	6.00	14.00	
Storage Coeff. (min)=	5.93 (ii)	13.74 (ii)	
Unit Hyd. Tpeak (min)=	6.00	14.00	
Unit Hyd. peak (cms)=	0.19	0.08	
			TOTALS
PEAK FLOW (cms)=	1.27	0.21	1.388 (iii)
TIME TO PEAK (hrs)=	8.03	8.22	8.03
RUNOFF VOLUME (mm)=	66.80	13.08	34.04
TOTAL RAINFALL (mm)=	67.81	67.81	67.81
RUNOFF COEFFICIENT =	0.99	0.19	0.50

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 48.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0101)					
1 + 2 = 3	AREA	QPEAK	TPEAK	R.V.	
	(ha)	(cms)	(hrs)	(mm)	
ID1= 1 (1011):	13.73	1.388	8.03	34.04	
+ ID2= 2 (0034):	0.02	0.062	8.05	39.72	
ID = 3 (0101):	13.76	1.447	8.05	34.05	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0901)					
1 + 2 = 3	AREA	QPEAK	TPEAK	R.V.	
	(ha)	(cms)	(hrs)	(mm)	
ID1= 1 (0101):	13.76	1.447	8.05	34.05	
+ ID2= 2 (0103):	1.17	0.076	8.02	26.33	
ID = 3 (0901):	14.92	1.519	8.05	33.45	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0902)					
1 + 2 = 3	AREA	QPEAK	TPEAK	R.V.	
	(ha)	(cms)	(hrs)	(mm)	
ID1= 1 (0104):	0.77	0.016	8.33	13.69	
+ ID2= 2 (0901):	14.92	1.519	8.05	33.45	
ID = 3 (0902):	15.69	1.527	8.05	32.48	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB			
STANDHYD (1021)	Area (ha)= 3.77		
ID= 1 DT= 1.0 min	Total Imp(%)= 45.00	Dir. Conn.(%)= 38.00	
	IMPERVIOUS	PERVIOUS (i)	
Surface Area (ha)=	1.70	2.07	
Dep. Storage (mm)=	1.00	5.00	
Average Slope (%)=	0.50	2.00	
Length (m)=	158.56	40.00	
Mannings n =	0.013	0.250	

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 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
0.017	0.48	6.017	1.78	12.017	1.55	18.02	0.70
0.033	0.48	6.033	1.78	12.033	1.55	18.03	0.70
0.050	0.48	6.050	1.78	12.050	1.55	18.05	0.70
0.067	0.48	6.067	1.78	12.067	1.55	18.07	0.70
0.083	0.48	6.083	1.78	12.083	1.55	18.08	0.70
0.100	0.48	6.100	1.78	12.100	1.55	18.10	0.70
0.117	0.48	6.117	1.78	12.117	1.55	18.12	0.70
0.133	0.48	6.133	1.78	12.133	1.55	18.13	0.70
0.150	0.48	6.150	1.78	12.150	1.55	18.15	0.70
0.167	0.48	6.167	1.78	12.167	1.55	18.17	0.70
0.183	0.49	6.183	1.95	12.183	1.50	18.18	0.69
0.200	0.49	6.200	1.95	12.200	1.50	18.20	0.69
0.217	0.49	6.217	1.95	12.217	1.50	18.22	0.69
0.233	0.49	6.233	1.95	12.233	1.50	18.23	0.69
0.250	0.49	6.250	1.95	12.250	1.50	18.25	0.69
0.267	0.49	6.267	1.95	12.267	1.50	18.27	0.69
0.283	0.49	6.283	1.95	12.283	1.50	18.28	0.69
0.300	0.49	6.300	1.95	12.300	1.50	18.30	0.69
0.317	0.49	6.317	1.95	12.317	1.50	18.32	0.69
0.333	0.49	6.333	1.95	12.333	1.50	18.33	0.69
0.350	0.50	6.350	2.16	12.350	1.44	18.35	0.68
0.367	0.50	6.367	2.16	12.367	1.44	18.37	0.68
0.383	0.50	6.383	2.16	12.383	1.44	18.38	0.68
0.400	0.50	6.400	2.16	12.400	1.44	18.40	0.68
0.417	0.50	6.417	2.16	12.417	1.44	18.42	0.68
0.433	0.50	6.433	2.16	12.433	1.44	18.43	0.68
0.450	0.50	6.450	2.16	12.450	1.44	18.45	0.68
0.467	0.50	6.467	2.16	12.467	1.44	18.47	0.68
0.483	0.50	6.483	2.16	12.483	1.44	18.48	0.68
0.500	0.50	6.500	2.16	12.500	1.44	18.50	0.68
0.517	0.51	6.517	2.42	12.517	1.40	18.52	0.67
0.533	0.51	6.533	2.42	12.533	1.40	18.53	0.67
0.550	0.51	6.550	2.42	12.550	1.40	18.55	0.67
0.567	0.51	6.567	2.42	12.567	1.40	18.57	0.67
0.583	0.51	6.583	2.42	12.583	1.40	18.58	0.67
0.600	0.51	6.600	2.42	12.600	1.40	18.60	0.67
0.617	0.51	6.617	2.42	12.617	1.40	18.62	0.67
0.633	0.51	6.633	2.42	12.633	1.40	18.63	0.67
0.650	0.51	6.650	2.42	12.650	1.40	18.65	0.67
0.667	0.51	6.667	2.42	12.667	1.40	18.67	0.67
0.683	0.52	6.683	2.76	12.683	1.35	18.68	0.66
0.700	0.52	6.700	2.76	12.700	1.35	18.70	0.66
0.717	0.52	6.717	2.76	12.717	1.35	18.72	0.66
0.733	0.52	6.733	2.76	12.733	1.35	18.73	0.66
0.750	0.52	6.750	2.76	12.750	1.35	18.75	0.66
0.767	0.52	6.767	2.76	12.767	1.35	18.77	0.66
0.783	0.52	6.783	2.76	12.783	1.35	18.78	0.66
0.800	0.52	6.800	2.76	12.800	1.35	18.80	0.66

0.817	0.52	6.817	2.76	12.817	1.35	18.82	0.66
0.833	0.52	6.833	2.76	12.833	1.35	18.83	0.66
0.850	0.53	6.850	3.23	12.850	1.31	18.85	0.65
0.867	0.53	6.867	3.23	12.867	1.31	18.87	0.65
0.883	0.53	6.883	3.23	12.883	1.31	18.88	0.65
0.900	0.53	6.900	3.23	12.900	1.31	18.90	0.65
0.917	0.53	6.917	3.23	12.917	1.31	18.92	0.65
0.933	0.53	6.933	3.23	12.933	1.31	18.93	0.65
0.950	0.53	6.950	3.23	12.950	1.31	18.95	0.65
0.967	0.53	6.967	3.23	12.967	1.31	18.97	0.65
0.983	0.53	6.983	3.23	12.983	1.31	18.98	0.65
1.000	0.53	7.000	3.23	13.000	1.31	19.00	0.65
1.017	0.54	7.017	3.90	13.017	1.27	19.02	0.64
1.033	0.54	7.033	3.90	13.033	1.27	19.03	0.64
1.050	0.54	7.050	3.90	13.050	1.27	19.05	0.64
1.067	0.54	7.067	3.90	13.067	1.27	19.07	0.64
1.083	0.54	7.083	3.90	13.083	1.27	19.08	0.64
1.100	0.54	7.100	3.90	13.100	1.27	19.10	0.64
1.117	0.54	7.117	3.90	13.117	1.27	19.12	0.64
1.133	0.54	7.133	3.90	13.133	1.27	19.13	0.64
1.150	0.54	7.150	3.90	13.150	1.27	19.15	0.64
1.167	0.54	7.167	3.90	13.167	1.27	19.17	0.64
1.183	0.55	7.183	4.94	13.183	1.24	19.18	0.64
1.200	0.55	7.200	4.94	13.200	1.24	19.20	0.64
1.217	0.55	7.217	4.94	13.217	1.24	19.22	0.64
1.233	0.55	7.233	4.94	13.233	1.24	19.23	0.64
1.250	0.55	7.250	4.94	13.250	1.24	19.25	0.64
1.267	0.55	7.267	4.94	13.267	1.24	19.27	0.64
1.283	0.55	7.283	4.94	13.283	1.24	19.28	0.64
1.300	0.55	7.300	4.94	13.300	1.24	19.30	0.64
1.317	0.55	7.317	4.94	13.317	1.24	19.32	0.64
1.333	0.55	7.333	4.95	13.333	1.24	19.33	0.64
1.350	0.57	7.350	6.81	13.350	1.20	19.35	0.63
1.367	0.57	7.367	6.81	13.367	1.20	19.37	0.63
1.383	0.57	7.383	6.81	13.383	1.20	19.38	0.63
1.400	0.57	7.400	6.81	13.400	1.20	19.40	0.63
1.417	0.57	7.417	6.81	13.417	1.20	19.42	0.63
1.433	0.57	7.433	6.81	13.433	1.20	19.43	0.63
1.450	0.57	7.450	6.81	13.450	1.20	19.45	0.63
1.467	0.57	7.467	6.81	13.467	1.20	19.47	0.63
1.483	0.57	7.483	6.81	13.483	1.20	19.48	0.63
1.500	0.57	7.500	6.82	13.500	1.20	19.50	0.63
1.517	0.58	7.517	11.05	13.517	1.17	19.52	0.62
1.533	0.58	7.533	11.05	13.533	1.17	19.53	0.62
1.550	0.58	7.550	11.05	13.550	1.17	19.55	0.62
1.567	0.58	7.567	11.05	13.567	1.17	19.57	0.62
1.583	0.58	7.583	11.05	13.583	1.17	19.58	0.62
1.600	0.58	7.600	11.05	13.600	1.17	19.60	0.62
1.617	0.58	7.617	11.05	13.617	1.17	19.62	0.62
1.633	0.58	7.633	11.05	13.633	1.17	19.63	0.62
1.650	0.58	7.650	11.05	13.650	1.17	19.65	0.62
1.667	0.58	7.667	11.10	13.667	1.17	19.67	0.62

1.683	0.59	7.683	28.66	13.683	1.14	19.68	0.61
1.700	0.59	7.700	28.66	13.700	1.14	19.70	0.61
1.717	0.59	7.717	28.66	13.717	1.14	19.72	0.61
1.733	0.59	7.733	28.66	13.733	1.14	19.73	0.61
1.750	0.59	7.750	28.66	13.750	1.14	19.75	0.61
1.767	0.59	7.767	28.66	13.767	1.14	19.77	0.61
1.783	0.59	7.783	28.66	13.783	1.14	19.78	0.61
1.800	0.59	7.800	28.66	13.800	1.14	19.80	0.61
1.817	0.59	7.817	28.66	13.817	1.14	19.82	0.61
1.833	0.59	7.833	28.88	13.833	1.14	19.83	0.61
1.850	0.61	7.850	107.72	13.850	1.11	19.85	0.60
1.867	0.61	7.867	107.72	13.867	1.11	19.87	0.60
1.883	0.61	7.883	107.72	13.883	1.11	19.88	0.60
1.900	0.61	7.900	107.72	13.900	1.11	19.90	0.60
1.917	0.61	7.917	107.72	13.917	1.11	19.92	0.60
1.933	0.61	7.933	107.72	13.933	1.11	19.93	0.60
1.950	0.61	7.950	107.72	13.950	1.11	19.95	0.60
1.967	0.61	7.967	107.72	13.967	1.11	19.97	0.60
1.983	0.61	7.983	107.72	13.983	1.11	19.98	0.60
2.000	0.61	8.000	107.51	14.000	1.11	20.00	0.60
2.017	0.62	8.017	38.01	14.017	1.09	20.02	0.60
2.033	0.62	8.033	38.01	14.033	1.09	20.03	0.60
2.050	0.62	8.050	38.01	14.050	1.09	20.05	0.60
2.067	0.62	8.067	38.01	14.067	1.09	20.07	0.60
2.083	0.62	8.083	38.01	14.083	1.09	20.08	0.60
2.100	0.62	8.100	38.01	14.100	1.09	20.10	0.60
2.117	0.62	8.117	38.01	14.117	1.09	20.12	0.60
2.133	0.62	8.133	38.01	14.133	1.09	20.13	0.60
2.150	0.62	8.150	38.01	14.150	1.09	20.15	0.60
2.167	0.62	8.167	37.95	14.167	1.09	20.17	0.60
2.183	0.64	8.183	19.35	14.183	1.06	20.18	0.59
2.200	0.64	8.200	19.35	14.200	1.06	20.20	0.59
2.217	0.64	8.217	19.35	14.217	1.06	20.22	0.59
2.233	0.64	8.233	19.35	14.233	1.06	20.23	0.59
2.250	0.64	8.250	19.35	14.250	1.06	20.25	0.59
2.267	0.64	8.267	19.35	14.267	1.06	20.27	0.59
2.283	0.64	8.283	19.35	14.283	1.06	20.28	0.59
2.300	0.64	8.300	19.35	14.300	1.06	20.30	0.59
2.317	0.64	8.317	19.35	14.317	1.06	20.32	0.59
2.333	0.64	8.333	19.33	14.333	1.06	20.33	0.59
2.350	0.66	8.350	12.71	14.350	1.04	20.35	0.58
2.367	0.66	8.367	12.71	14.367	1.04	20.37	0.58
2.383	0.66	8.383	12.71	14.383	1.04	20.38	0.58
2.400	0.66	8.400	12.71	14.400	1.04	20.40	0.58
2.417	0.66	8.417	12.71	14.417	1.04	20.42	0.58
2.433	0.66	8.433	12.71	14.433	1.04	20.43	0.58
2.450	0.66	8.450	12.71	14.450	1.04	20.45	0.58
2.467	0.66	8.467	12.71	14.467	1.04	20.47	0.58
2.483	0.66	8.483	12.71	14.483	1.04	20.48	0.58
2.500	0.66	8.500	12.70	14.500	1.04	20.50	0.58
2.517	0.67	8.517	9.41	14.517	1.01	20.52	0.58
2.533	0.67	8.533	9.41	14.533	1.01	20.53	0.58

2.550	0.67	8.550	9.41	14.550	1.01	20.55	0.58
2.567	0.67	8.567	9.41	14.567	1.01	20.57	0.58
2.583	0.67	8.583	9.41	14.583	1.01	20.58	0.58
2.600	0.67	8.600	9.41	14.600	1.01	20.60	0.58
2.617	0.67	8.617	9.41	14.617	1.01	20.62	0.58
2.633	0.67	8.633	9.41	14.633	1.01	20.63	0.58
2.650	0.67	8.650	9.41	14.650	1.01	20.65	0.58
2.667	0.67	8.667	9.41	14.667	1.01	20.67	0.58
2.683	0.69	8.683	7.46	14.683	0.99	20.68	0.57
2.700	0.69	8.700	7.46	14.700	0.99	20.70	0.57
2.717	0.69	8.717	7.46	14.717	0.99	20.72	0.57
2.733	0.69	8.733	7.46	14.733	0.99	20.73	0.57
2.750	0.69	8.750	7.46	14.750	0.99	20.75	0.57
2.767	0.69	8.767	7.46	14.767	0.99	20.77	0.57
2.783	0.69	8.783	7.46	14.783	0.99	20.78	0.57
2.800	0.69	8.800	7.46	14.800	0.99	20.80	0.57
2.817	0.69	8.817	7.46	14.817	0.99	20.82	0.57
2.833	0.69	8.833	7.46	14.833	0.99	20.83	0.57
2.850	0.71	8.850	6.18	14.850	0.97	20.85	0.56
2.867	0.71	8.867	6.18	14.867	0.97	20.87	0.56
2.883	0.71	8.883	6.18	14.883	0.97	20.88	0.56
2.900	0.71	8.900	6.18	14.900	0.97	20.90	0.56
2.917	0.71	8.917	6.18	14.917	0.97	20.92	0.56
2.933	0.71	8.933	6.18	14.933	0.97	20.93	0.56
2.950	0.71	8.950	6.18	14.950	0.97	20.95	0.56
2.967	0.71	8.967	6.18	14.967	0.97	20.97	0.56
2.983	0.71	8.983	6.18	14.983	0.97	20.98	0.56
3.000	0.71	9.000	6.18	15.000	0.97	21.00	0.56
3.017	0.74	9.017	5.28	15.017	0.95	21.02	0.56
3.033	0.74	9.033	5.28	15.033	0.95	21.03	0.56
3.050	0.74	9.050	5.28	15.050	0.95	21.05	0.56
3.067	0.74	9.067	5.28	15.067	0.95	21.07	0.56
3.083	0.74	9.083	5.28	15.083	0.95	21.08	0.56
3.100	0.74	9.100	5.28	15.100	0.95	21.10	0.56
3.117	0.74	9.117	5.28	15.117	0.95	21.12	0.56
3.133	0.74	9.133	5.28	15.133	0.95	21.13	0.56
3.150	0.74	9.150	5.28	15.150	0.95	21.15	0.56
3.167	0.74	9.167	5.28	15.167	0.95	21.17	0.56
3.183	0.76	9.183	4.62	15.183	0.93	21.18	0.55
3.200	0.76	9.200	4.62	15.200	0.93	21.20	0.55
3.217	0.76	9.217	4.62	15.217	0.93	21.22	0.55
3.233	0.76	9.233	4.62	15.233	0.93	21.23	0.55
3.250	0.76	9.250	4.62	15.250	0.93	21.25	0.55
3.267	0.76	9.267	4.62	15.267	0.93	21.27	0.55
3.283	0.76	9.283	4.62	15.283	0.93	21.28	0.55
3.300	0.76	9.300	4.62	15.300	0.93	21.30	0.55
3.317	0.76	9.317	4.62	15.317	0.93	21.32	0.55
3.333	0.76	9.333	4.62	15.333	0.93	21.33	0.55
3.350	0.78	9.350	4.11	15.350	0.91	21.35	0.55
3.367	0.78	9.367	4.11	15.367	0.91	21.37	0.55
3.383	0.78	9.383	4.11	15.383	0.91	21.38	0.55
3.400	0.78	9.400	4.11	15.400	0.91	21.40	0.55

3.417	0.78	9.417	4.11	15.417	0.91	21.42	0.55
3.433	0.78	9.433	4.11	15.433	0.91	21.43	0.55
3.450	0.78	9.450	4.11	15.450	0.91	21.45	0.55
3.467	0.78	9.467	4.11	15.467	0.91	21.47	0.55
3.483	0.78	9.483	4.11	15.483	0.91	21.48	0.55
3.500	0.78	9.500	4.10	15.500	0.91	21.50	0.55
3.517	0.81	9.517	3.70	15.517	0.90	21.52	0.54
3.533	0.81	9.533	3.70	15.533	0.90	21.53	0.54
3.550	0.81	9.550	3.70	15.550	0.90	21.55	0.54
3.567	0.81	9.567	3.70	15.567	0.90	21.57	0.54
3.583	0.81	9.583	3.70	15.583	0.90	21.58	0.54
3.600	0.81	9.600	3.70	15.600	0.90	21.60	0.54
3.617	0.81	9.617	3.70	15.617	0.90	21.62	0.54
3.633	0.81	9.633	3.70	15.633	0.90	21.63	0.54
3.650	0.81	9.650	3.70	15.650	0.90	21.65	0.54
3.667	0.81	9.667	3.70	15.667	0.90	21.67	0.54
3.683	0.84	9.683	3.37	15.683	0.88	21.68	0.53
3.700	0.84	9.700	3.37	15.700	0.88	21.70	0.53
3.717	0.84	9.717	3.37	15.717	0.88	21.72	0.53
3.733	0.84	9.733	3.37	15.733	0.88	21.73	0.53
3.750	0.84	9.750	3.37	15.750	0.88	21.75	0.53
3.767	0.84	9.767	3.37	15.767	0.88	21.77	0.53
3.783	0.84	9.783	3.37	15.783	0.88	21.78	0.53
3.800	0.84	9.800	3.37	15.800	0.88	21.80	0.53
3.817	0.84	9.817	3.37	15.817	0.88	21.82	0.53
3.833	0.84	9.833	3.37	15.833	0.88	21.83	0.53
3.850	0.87	9.850	3.09	15.850	0.86	21.85	0.53
3.867	0.87	9.867	3.09	15.867	0.86	21.87	0.53
3.883	0.87	9.883	3.09	15.883	0.86	21.88	0.53
3.900	0.87	9.900	3.09	15.900	0.86	21.90	0.53
3.917	0.87	9.917	3.09	15.917	0.86	21.92	0.53
3.933	0.87	9.933	3.09	15.933	0.86	21.93	0.53
3.950	0.87	9.950	3.09	15.950	0.86	21.95	0.53
3.967	0.87	9.967	3.09	15.967	0.86	21.97	0.53
3.983	0.87	9.983	3.09	15.983	0.86	21.98	0.53
4.000	0.87	10.000	3.09	16.000	0.86	22.00	0.53
4.017	0.90	10.017	2.86	16.017	0.85	22.02	0.52
4.033	0.90	10.033	2.86	16.033	0.85	22.03	0.52
4.050	0.90	10.050	2.86	16.050	0.85	22.05	0.52
4.067	0.90	10.067	2.86	16.067	0.85	22.07	0.52
4.083	0.90	10.083	2.86	16.083	0.85	22.08	0.52
4.100	0.90	10.100	2.86	16.100	0.85	22.10	0.52
4.117	0.90	10.117	2.86	16.117	0.85	22.12	0.52
4.133	0.90	10.133	2.86	16.133	0.85	22.13	0.52
4.150	0.90	10.150	2.86	16.150	0.85	22.15	0.52
4.167	0.90	10.167	2.86	16.167	0.85	22.17	0.52
4.183	0.94	10.183	2.67	16.183	0.83	22.18	0.52
4.200	0.94	10.200	2.67	16.200	0.83	22.20	0.52
4.217	0.94	10.217	2.67	16.217	0.83	22.22	0.52
4.233	0.94	10.233	2.67	16.233	0.83	22.23	0.52
4.250	0.94	10.250	2.67	16.250	0.83	22.25	0.52
4.267	0.94	10.267	2.67	16.267	0.83	22.27	0.52

4.283	0.94	10.283	2.67	16.283	0.83	22.28	0.52
4.300	0.94	10.300	2.67	16.300	0.83	22.30	0.52
4.317	0.94	10.317	2.67	16.317	0.83	22.32	0.52
4.333	0.94	10.333	2.67	16.333	0.83	22.33	0.52
4.350	0.98	10.350	2.50	16.350	0.82	22.35	0.51
4.367	0.98	10.367	2.50	16.367	0.82	22.37	0.51
4.383	0.98	10.383	2.50	16.383	0.82	22.38	0.51
4.400	0.98	10.400	2.50	16.400	0.82	22.40	0.51
4.417	0.98	10.417	2.50	16.417	0.82	22.42	0.51
4.433	0.98	10.433	2.50	16.433	0.82	22.43	0.51
4.450	0.98	10.450	2.50	16.450	0.82	22.45	0.51
4.467	0.98	10.467	2.50	16.467	0.82	22.47	0.51
4.483	0.98	10.483	2.50	16.483	0.82	22.48	0.51
4.500	0.98	10.500	2.50	16.500	0.82	22.50	0.51
4.517	1.02	10.517	2.35	16.517	0.80	22.52	0.51
4.533	1.02	10.533	2.35	16.533	0.80	22.53	0.51
4.550	1.02	10.550	2.35	16.550	0.80	22.55	0.51
4.567	1.02	10.567	2.35	16.567	0.80	22.57	0.51
4.583	1.02	10.583	2.35	16.583	0.80	22.58	0.51
4.600	1.02	10.600	2.35	16.600	0.80	22.60	0.51
4.617	1.02	10.617	2.35	16.617	0.80	22.62	0.51
4.633	1.02	10.633	2.35	16.633	0.80	22.63	0.51
4.650	1.02	10.650	2.35	16.650	0.80	22.65	0.51
4.667	1.02	10.667	2.35	16.667	0.80	22.67	0.51
4.683	1.07	10.683	2.22	16.683	0.79	22.68	0.50
4.700	1.07	10.700	2.22	16.700	0.79	22.70	0.50
4.717	1.07	10.717	2.22	16.717	0.79	22.72	0.50
4.733	1.07	10.733	2.22	16.733	0.79	22.73	0.50
4.750	1.07	10.750	2.22	16.750	0.79	22.75	0.50
4.767	1.07	10.767	2.22	16.767	0.79	22.77	0.50
4.783	1.07	10.783	2.22	16.783	0.79	22.78	0.50
4.800	1.07	10.800	2.22	16.800	0.79	22.80	0.50
4.817	1.07	10.817	2.22	16.817	0.79	22.82	0.50
4.833	1.07	10.833	2.22	16.833	0.79	22.83	0.50
4.850	1.13	10.850	2.10	16.850	0.78	22.85	0.50
4.867	1.13	10.867	2.10	16.867	0.78	22.87	0.50
4.883	1.13	10.883	2.10	16.883	0.78	22.88	0.50
4.900	1.13	10.900	2.10	16.900	0.78	22.90	0.50
4.917	1.13	10.917	2.10	16.917	0.78	22.92	0.50
4.933	1.13	10.933	2.10	16.933	0.78	22.93	0.50
4.950	1.13	10.950	2.10	16.950	0.78	22.95	0.50
4.967	1.13	10.967	2.10	16.967	0.78	22.97	0.50
4.983	1.13	10.983	2.10	16.983	0.78	22.98	0.50
5.000	1.13	11.000	2.10	17.000	0.78	23.00	0.50
5.017	1.19	11.017	2.00	17.017	0.77	23.02	0.49
5.033	1.19	11.033	2.00	17.033	0.77	23.03	0.49
5.050	1.19	11.050	2.00	17.050	0.77	23.05	0.49
5.067	1.19	11.067	2.00	17.067	0.77	23.07	0.49
5.083	1.19	11.083	2.00	17.083	0.77	23.08	0.49
5.100	1.19	11.100	2.00	17.100	0.77	23.10	0.49
5.117	1.19	11.117	2.00	17.117	0.77	23.12	0.49
5.133	1.19	11.133	2.00	17.133	0.77	23.13	0.49

5.150	1.19	11.150	2.00	17.150	0.77	23.15	0.49
5.167	1.19	11.167	2.00	17.167	0.77	23.17	0.49
5.183	1.25	11.183	1.90	17.183	0.75	23.18	0.49
5.200	1.25	11.200	1.90	17.200	0.75	23.20	0.49
5.217	1.25	11.217	1.90	17.217	0.75	23.22	0.49
5.233	1.25	11.233	1.90	17.233	0.75	23.23	0.49
5.250	1.25	11.250	1.90	17.250	0.75	23.25	0.49
5.267	1.25	11.267	1.90	17.267	0.75	23.27	0.49
5.283	1.25	11.283	1.90	17.283	0.75	23.28	0.49
5.300	1.25	11.300	1.90	17.300	0.75	23.30	0.49
5.317	1.25	11.317	1.90	17.317	0.75	23.32	0.49
5.333	1.25	11.333	1.90	17.333	0.75	23.33	0.49
5.350	1.33	11.350	1.82	17.350	0.74	23.35	0.48
5.367	1.33	11.367	1.82	17.367	0.74	23.37	0.48
5.383	1.33	11.383	1.82	17.383	0.74	23.38	0.48
5.400	1.33	11.400	1.82	17.400	0.74	23.40	0.48
5.417	1.33	11.417	1.82	17.417	0.74	23.42	0.48
5.433	1.33	11.433	1.82	17.433	0.74	23.43	0.48
5.450	1.33	11.450	1.82	17.450	0.74	23.45	0.48
5.467	1.33	11.467	1.82	17.467	0.74	23.47	0.48
5.483	1.33	11.483	1.82	17.483	0.74	23.48	0.48
5.500	1.33	11.500	1.82	17.500	0.74	23.50	0.48
5.517	1.42	11.517	1.74	17.517	0.73	23.52	0.48
5.533	1.42	11.533	1.74	17.533	0.73	23.53	0.48
5.550	1.42	11.550	1.74	17.550	0.73	23.55	0.48
5.567	1.42	11.567	1.74	17.567	0.73	23.57	0.48
5.583	1.42	11.583	1.74	17.583	0.73	23.58	0.48
5.600	1.42	11.600	1.74	17.600	0.73	23.60	0.48
5.617	1.42	11.617	1.74	17.617	0.73	23.62	0.48
5.633	1.42	11.633	1.74	17.633	0.73	23.63	0.48
5.650	1.42	11.650	1.74	17.650	0.73	23.65	0.48
5.667	1.42	11.667	1.74	17.667	0.73	23.67	0.48
5.683	1.52	11.683	1.67	17.683	0.72	23.68	0.48
5.700	1.52	11.700	1.67	17.700	0.72	23.70	0.48
5.717	1.52	11.717	1.67	17.717	0.72	23.72	0.48
5.733	1.52	11.733	1.67	17.733	0.72	23.73	0.48
5.750	1.52	11.750	1.67	17.750	0.72	23.75	0.48
5.767	1.52	11.767	1.67	17.767	0.72	23.77	0.48
5.783	1.52	11.783	1.67	17.783	0.72	23.78	0.48
5.800	1.52	11.800	1.67	17.800	0.72	23.80	0.48
5.817	1.52	11.817	1.67	17.817	0.72	23.82	0.48
5.833	1.52	11.833	1.67	17.833	0.72	23.83	0.48
5.850	1.64	11.850	1.61	17.850	0.71	23.85	0.47
5.867	1.64	11.867	1.61	17.867	0.71	23.87	0.47
5.883	1.64	11.883	1.61	17.883	0.71	23.88	0.47
5.900	1.64	11.900	1.61	17.900	0.71	23.90	0.47
5.917	1.64	11.917	1.61	17.917	0.71	23.92	0.47
5.933	1.64	11.933	1.61	17.933	0.71	23.93	0.47
5.950	1.64	11.950	1.61	17.950	0.71	23.95	0.47
5.967	1.64	11.967	1.61	17.967	0.71	23.97	0.47
5.983	1.64	11.983	1.61	17.983	0.71	23.98	0.47
6.000	1.64	12.000	1.61	18.000	0.71	24.00	0.47

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Max.Eff.Inten.(mm/hr)=     107.72        18.43
            over (min)        5.00        12.00
Storage Coeff.  (min)=        4.03 (ii)   11.97 (ii)
Unit Hyd. Tpeak (min)=        5.00        12.00
Unit Hyd. peak  (cms)=        0.26         0.09
                                          *TOTALS*
PEAK FLOW       (cms)=        0.38         0.06        0.417 (iii)
TIME TO PEAK    (hrs)=        8.02         8.17        8.02
RUNOFF VOLUME    (mm)=       66.80        13.06       33.49
TOTAL RAINFALL   (mm)=       67.81        67.81       67.81
RUNOFF COEFFICIENT   =         0.99         0.19        0.49


   (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
       CN*  =  48.0    Ia = Dep. Storage  (Above)
  (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
       THAN THE STORAGE COEFFICIENT.
 (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

-------------------------------------------------------------------------------
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| CALIB              |
| STANDHYD (  1022)|   Area    (ha)=   2.86
|ID= 1 DT= 1.0 min |   Total Imp(%)=  41.00   Dir. Conn.(%)=  35.00
--------------------
                        IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       1.17         1.69
     Dep. Storage     (mm)=       1.00         5.00
     Average Slope     (%)=       0.50         2.00
     Length            (m)=     138.06        40.00
     Mannings n             =     0.013        0.250

        NOTE:  RAINFALL WAS TRANSFORMED TO   1.0 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
 0.017    0.48 | 6.017    1.78 |12.017    1.55 | 18.02    0.70
 0.033    0.48 | 6.033    1.78 |12.033    1.55 | 18.03    0.70
 0.050    0.48 | 6.050    1.78 |12.050    1.55 | 18.05    0.70
 0.067    0.48 | 6.067    1.78 |12.067    1.55 | 18.07    0.70
 0.083    0.48 | 6.083    1.78 |12.083    1.55 | 18.08    0.70
 0.100    0.48 | 6.100    1.78 |12.100    1.55 | 18.10    0.70
 0.117    0.48 | 6.117    1.78 |12.117    1.55 | 18.12    0.70
 0.133    0.48 | 6.133    1.78 |12.133    1.55 | 18.13    0.70
 0.150    0.48 | 6.150    1.78 |12.150    1.55 | 18.15    0.70
 0.167    0.48 | 6.167    1.78 |12.167    1.55 | 18.17    0.70
 0.183    0.49 | 6.183    1.95 |12.183    1.50 | 18.18    0.69
 0.200    0.49 | 6.200    1.95 |12.200    1.50 | 18.20    0.69
 0.217    0.49 | 6.217    1.95 |12.217    1.50 | 18.22    0.69
 0.233    0.49 | 6.233    1.95 |12.233    1.50 | 18.23    0.69
 0.250    0.49 | 6.250    1.95 |12.250    1.50 | 18.25    0.69
 0.267    0.49 | 6.267    1.95 |12.267    1.50 | 18.27    0.69
 0.283    0.49 | 6.283    1.95 |12.283    1.50 | 18.28    0.69
 0.300    0.49 | 6.300    1.95 |12.300    1.50 | 18.30    0.69
 0.317    0.49 | 6.317    1.95 |12.317    1.50 | 18.32    0.69
 0.333    0.49 | 6.333    1.95 |12.333    1.50 | 18.33    0.69
 0.350    0.50 | 6.350    2.16 |12.350    1.44 | 18.35    0.68
 0.367    0.50 | 6.367    2.16 |12.367    1.44 | 18.37    0.68
 0.383    0.50 | 6.383    2.16 |12.383    1.44 | 18.38    0.68
 0.400    0.50 | 6.400    2.16 |12.400    1.44 | 18.40    0.68
 0.417    0.50 | 6.417    2.16 |12.417    1.44 | 18.42    0.68
 0.433    0.50 | 6.433    2.16 |12.433    1.44 | 18.43    0.68
 0.450    0.50 | 6.450    2.16 |12.450    1.44 | 18.45    0.68
 0.467    0.50 | 6.467    2.16 |12.467    1.44 | 18.47    0.68
 0.483    0.50 | 6.483    2.16 |12.483    1.44 | 18.48    0.68
 0.500    0.50 | 6.500    2.16 |12.500    1.44 | 18.50    0.68
 0.517    0.51 | 6.517    2.42 |12.517    1.40 | 18.52    0.67
 0.533    0.51 | 6.533    2.42 |12.533    1.40 | 18.53    0.67
 0.550    0.51 | 6.550    2.42 |12.550    1.40 | 18.55    0.67
 0.567    0.51 | 6.567    2.42 |12.567    1.40 | 18.57    0.67
 0.583    0.51 | 6.583    2.42 |12.583    1.40 | 18.58    0.67
 0.600    0.51 | 6.600    2.42 |12.600    1.40 | 18.60    0.67
 0.617    0.51 | 6.617    2.42 |12.617    1.40 | 18.62    0.67
 0.633    0.51 | 6.633    2.42 |12.633    1.40 | 18.63    0.67
 0.650    0.51 | 6.650    2.42 |12.650    1.40 | 18.65    0.67
 0.667    0.51 | 6.667    2.42 |12.667    1.40 | 18.67    0.67
 0.683    0.52 | 6.683    2.76 |12.683    1.35 | 18.68    0.66
 0.700    0.52 | 6.700    2.76 |12.700    1.35 | 18.70    0.66
 0.717    0.52 | 6.717    2.76 |12.717    1.35 | 18.72    0.66
 0.733    0.52 | 6.733    2.76 |12.733    1.35 | 18.73    0.66
 0.750    0.52 | 6.750    2.76 |12.750    1.35 | 18.75    0.66
 0.767    0.52 | 6.767    2.76 |12.767    1.35 | 18.77    0.66
 0.783    0.52 | 6.783    2.76 |12.783    1.35 | 18.78    0.66
 0.800    0.52 | 6.800    2.76 |12.800    1.35 | 18.80    0.66
 0.817    0.52 | 6.817    2.76 |12.817    1.35 | 18.82    0.66
 0.833    0.52 | 6.833    2.76 |12.833    1.35 | 18.83    0.66
 0.850    0.53 | 6.850    3.23 |12.850    1.31 | 18.85    0.65
 0.867    0.53 | 6.867    3.23 |12.867    1.31 | 18.87    0.65
 0.883    0.53 | 6.883    3.23 |12.883    1.31 | 18.88    0.65
 0.900    0.53 | 6.900    3.23 |12.900    1.31 | 18.90    0.65
 0.917    0.53 | 6.917    3.23 |12.917    1.31 | 18.92    0.65
 0.933    0.53 | 6.933    3.23 |12.933    1.31 | 18.93    0.65
 0.950    0.53 | 6.950    3.23 |12.950    1.31 | 18.95    0.65
 0.967    0.53 | 6.967    3.23 |12.967    1.31 | 18.97    0.65
 0.983    0.53 | 6.983    3.23 |12.983    1.31 | 18.98    0.65
 1.000    0.53 | 7.000    3.23 |13.000    1.31 | 19.00    0.65
 1.017    0.54 | 7.017    3.90 |13.017    1.27 | 19.02    0.64
 1.033    0.54 | 7.033    3.90 |13.033    1.27 | 19.03    0.64
 1.050    0.54 | 7.050    3.90 |13.050    1.27 | 19.05    0.64
 1.067    0.54 | 7.067    3.90 |13.067    1.27 | 19.07    0.64
 1.083    0.54 | 7.083    3.90 |13.083    1.27 | 19.08    0.64
 1.100    0.54 | 7.100    3.90 |13.100    1.27 | 19.10    0.64
 1.117    0.54 | 7.117    3.90 |13.117    1.27 | 19.12    0.64
 1.133    0.54 | 7.133    3.90 |13.133    1.27 | 19.13    0.64
 1.150    0.54 | 7.150    3.90 |13.150    1.27 | 19.15    0.64
 1.167    0.54 | 7.167    3.90 |13.167    1.27 | 19.17    0.64
 1.183    0.55 | 7.183    4.94 |13.183    1.24 | 19.18    0.64
 1.200    0.55 | 7.200    4.94 |13.200    1.24 | 19.20    0.64
 1.217    0.55 | 7.217    4.94 |13.217    1.24 | 19.22    0.64
 1.233    0.55 | 7.233    4.94 |13.233    1.24 | 19.23    0.64
 1.250    0.55 | 7.250    4.94 |13.250    1.24 | 19.25    0.64
 1.267    0.55 | 7.267    4.94 |13.267    1.24 | 19.27    0.64
 1.283    0.55 | 7.283    4.94 |13.283    1.24 | 19.28    0.64
 1.300    0.55 | 7.300    4.94 |13.300    1.24 | 19.30    0.64
 1.317    0.55 | 7.317    4.94 |13.317    1.24 | 19.32    0.64
 1.333    0.55 | 7.333    4.95 |13.333    1.24 | 19.33    0.64
 1.350    0.57 | 7.350    6.81 |13.350    1.20 | 19.35    0.63
 1.367    0.57 | 7.367    6.81 |13.367    1.20 | 19.37    0.63
 1.383    0.57 | 7.383    6.81 |13.383    1.20 | 19.38    0.63
 1.400    0.57 | 7.400    6.81 |13.400    1.20 | 19.40    0.63
 1.417    0.57 | 7.417    6.81 |13.417    1.20 | 19.42    0.63
 1.433    0.57 | 7.433    6.81 |13.433    1.20 | 19.43    0.63
 1.450    0.57 | 7.450    6.81 |13.450    1.20 | 19.45    0.63
 1.467    0.57 | 7.467    6.81 |13.467    1.20 | 19.47    0.63
 1.483    0.57 | 7.483    6.81 |13.483    1.20 | 19.48    0.63
 1.500    0.57 | 7.500    6.82 |13.500    1.20 | 19.50    0.63
 1.517    0.58 | 7.517   11.05 |13.517    1.17 | 19.52    0.62
 1.533    0.58 | 7.533   11.05 |13.533    1.17 | 19.53    0.62
 1.550    0.58 | 7.550   11.05 |13.550    1.17 | 19.55    0.62
 1.567    0.58 | 7.567   11.05 |13.567    1.17 | 19.57    0.62
 1.583    0.58 | 7.583   11.05 |13.583    1.17 | 19.58    0.62
 1.600    0.58 | 7.600   11.05 |13.600    1.17 | 19.60    0.62
 1.617    0.58 | 7.617   11.05 |13.617    1.17 | 19.62    0.62
 1.633    0.58 | 7.633   11.05 |13.633    1.17 | 19.63    0.62
 1.650    0.58 | 7.650   11.05 |13.650    1.17 | 19.65    0.62
 1.667    0.58 | 7.667   11.10 |13.667    1.17 | 19.67    0.62
 1.683    0.59 | 7.683   28.66 |13.683    1.14 | 19.68    0.61
 1.700    0.59 | 7.700   28.66 |13.700    1.14 | 19.70    0.61
 1.717    0.59 | 7.717   28.66 |13.717    1.14 | 19.72    0.61
 1.733    0.59 | 7.733   28.66 |13.733    1.14 | 19.73    0.61
 1.750    0.59 | 7.750   28.66 |13.750    1.14 | 19.75    0.61
 1.767    0.59 | 7.767   28.66 |13.767    1.14 | 19.77    0.61
 1.783    0.59 | 7.783   28.66 |13.783    1.14 | 19.78    0.61
 1.800    0.59 | 7.800   28.66 |13.800    1.14 | 19.80    0.61
 1.817    0.59 | 7.817   28.66 |13.817    1.14 | 19.82    0.61
 1.833    0.59 | 7.833   28.88 |13.833    1.14 | 19.83    0.61
 1.850    0.61 | 7.850  107.72 |13.850    1.11 | 19.85    0.60
 1.867    0.61 | 7.867  107.72 |13.867    1.11 | 19.87    0.60
 1.883    0.61 | 7.883  107.72 |13.883    1.11 | 19.88    0.60
 1.900    0.61 | 7.900  107.72 |13.900    1.11 | 19.90    0.60
 1.917    0.61 | 7.917  107.72 |13.917    1.11 | 19.92    0.60
 1.933    0.61 | 7.933  107.72 |13.933    1.11 | 19.93    0.60
 1.950    0.61 | 7.950  107.72 |13.950    1.11 | 19.95    0.60
 1.967    0.61 | 7.967  107.72 |13.967    1.11 | 19.97    0.60
 1.983    0.61 | 7.983  107.72 |13.983    1.11 | 19.98    0.60
 2.000    0.61 | 8.000  107.51 |14.000    1.11 | 20.00    0.60
 2.017    0.62 | 8.017   38.01 |14.017    1.09 | 20.02    0.60
 2.033    0.62 | 8.033   38.01 |14.033    1.09 | 20.03    0.60
 2.050    0.62 | 8.050   38.01 |14.050    1.09 | 20.05    0.60
 2.067    0.62 | 8.067   38.01 |14.067    1.09 | 20.07    0.60
 2.083    0.62 | 8.083   38.01 |14.083    1.09 | 20.08    0.60
 2.100    0.62 | 8.100   38.01 |14.100    1.09 | 20.10    0.60
 2.117    0.62 | 8.117   38.01 |14.117    1.09 | 20.12    0.60
 2.133    0.62 | 8.133   38.01 |14.133    1.09 | 20.13    0.60
 2.150    0.62 | 8.150   38.01 |14.150    1.09 | 20.15    0.60
 2.167    0.62 | 8.167   37.95 |14.167    1.09 | 20.17    0.60
 2.183    0.64 | 8.183   19.35 |14.183    1.06 | 20.18    0.59
 2.200    0.64 | 8.200   19.35 |14.200    1.06 | 20.20    0.59
 2.217    0.64 | 8.217   19.35 |14.217    1.06 | 20.22    0.59
 2.233    0.64 | 8.233   19.35 |14.233    1.06 | 20.23    0.59
 2.250    0.64 | 8.250   19.35 |14.250    1.06 | 20.25    0.59
 2.267    0.64 | 8.267   19.35 |14.267    1.06 | 20.27    0.59
 2.283    0.64 | 8.283   19.35 |14.283    1.06 | 20.28    0.59
 2.300    0.64 | 8.300   19.35 |14.300    1.06 | 20.30    0.59
 2.317    0.64 | 8.317   19.35 |14.317    1.06 | 20.32    0.59
 2.333    0.64 | 8.333   19.33 |14.333    1.06 | 20.33    0.59
 2.350    0.66 | 8.350   12.71 |14.350    1.04 | 20.35    0.58
 2.367    0.66 | 8.367   12.71 |14.367    1.04 | 20.37    0.58
 2.383    0.66 | 8.383   12.71 |14.383    1.04 | 20.38    0.58
 2.400    0.66 | 8.400   12.71 |14.400    1.04 | 20.40    0.58
 2.417    0.66 | 8.417   12.71 |14.417    1.04 | 20.42    0.58
 2.433    0.66 | 8.433   12.71 |14.433    1.04 | 20.43    0.58
 2.450    0.66 | 8.450   12.71 |14.450    1.04 | 20.45    0.58
 2.467    0.66 | 8.467   12.71 |14.467    1.04 | 20.47    0.58
 2.483    0.66 | 8.483   12.71 |14.483    1.04 | 20.48    0.58
 2.500    0.66 | 8.500   12.70 |14.500    1.04 | 20.50    0.58
 2.517    0.67 | 8.517    9.41 |14.517    1.01 | 20.52    0.58
 2.533    0.67 | 8.533    9.41 |14.533    1.01 | 20.53    0.58
 2.550    0.67 | 8.550    9.41 |14.550    1.01 | 20.55    0.58
 2.567    0.67 | 8.567    9.41 |14.567    1.01 | 20.57    0.58
 2.583    0.67 | 8.583    9.41 |14.583    1.01 | 20.58    0.58
 2.600    0.67 | 8.600    9.41 |14.600    1.01 | 20.60    0.58
 2.617    0.67 | 8.617    9.41 |14.617    1.01 | 20.62    0.58
 2.633    0.67 | 8.633    9.41 |14.633    1.01 | 20.63    0.58
 2.650    0.67 | 8.650    9.41 |14.650    1.01 | 20.65    0.58
 2.667    0.67 | 8.667    9.41 |14.667    1.01 | 20.67    0.58
 2.683    0.69 | 8.683    7.46 |14.683    0.99 | 20.68    0.57
 2.700    0.69 | 8.700    7.46 |14.700    0.99 | 20.70    0.57
 2.717    0.69 | 8.717    7.46 |14.717    0.99 | 20.72    0.57
 2.733    0.69 | 8.733    7.46 |14.733    0.99 | 20.73    0.57
 2.750    0.69 | 8.750    7.46 |14.750    0.99 | 20.75    0.57
 2.767    0.69 | 8.767    7.46 |14.767    0.99 | 20.77    0.57
 2.783    0.69 | 8.783    7.46 |14.783    0.99 | 20.78    0.57
 2.800    0.69 | 8.800    7.46 |14.800    0.99 | 20.80    0.57
 2.817    0.69 | 8.817    7.46 |14.817    0.99 | 20.82    0.57
 2.833    0.69 | 8.833    7.46 |14.833    0.99 | 20.83    0.57
 2.850    0.71 | 8.850    6.18 |14.850    0.97 | 20.85    0.56
 2.867    0.71 | 8.867    6.18 |14.867    0.97 | 20.87    0.56
 2.883    0.71 | 8.883    6.18 |14.883    0.97 | 20.88    0.56
 2.900    0.71 | 8.900    6.18 |14.900    0.97 | 20.90    0.56
 2.917    0.71 | 8.917    6.18 |14.917    0.97 | 20.92    0.56
 2.933    0.71 | 8.933    6.18 |14.933    0.97 | 20.93    0.56
 2.950    0.71 | 8.950    6.18 |14.950    0.97 | 20.95    0.56
 2.967    0.71 | 8.967    6.18 |14.967    0.97 | 20.97    0.56
 2.983    0.71 | 8.983    6.18 |14.983    0.97 | 20.98    0.56
 3.000    0.71 | 9.000    6.18 |15.000    0.97 | 21.00    0.56
 3.017    0.74 | 9.017    5.28 |15.017    0.95 | 21.02    0.56
 3.033    0.74 | 9.033    5.28 |15.033    0.95 | 21.03    0.56
 3.050    0.74 | 9.050    5.28 |15.050    0.95 | 21.05    0.56
 3.067    0.74 | 9.067    5.28 |15.067    0.95 | 21.07    0.56
 3.083    0.74 | 9.083    5.28 |15.083    0.95 | 21.08    0.56
 3.100    0.74 | 9.100    5.28 |15.100    0.95 | 21.10    0.56
 3.117    0.74 | 9.117    5.28 |15.117    0.95 | 21.12    0.56
 3.133    0.74 | 9.133    5.28 |15.133    0.95 | 21.13    0.56
 3.150    0.74 | 9.150    5.28 |15.150    0.95 | 21.15    0.56
 3.167    0.74 | 9.167    5.28 |15.167    0.95 | 21.17    0.56
 3.183    0.76 | 9.183    4.62 |15.183    0.93 | 21.18    0.55
 3.200    0.76 | 9.200    4.62 |15.200    0.93 | 21.20    0.55
 3.217    0.76 | 9.217    4.62 |15.217    0.93 | 21.22    0.55
 3.233    0.76 | 9.233    4.62 |15.233    0.93 | 21.23    0.55
 3.250    0.76 | 9.250    4.62 |15.250    0.93 | 21.25    0.55
 3.267    0.76 | 9.267    4.62 |15.267    0.93 | 21.27    0.55
 3.283    0.76 | 9.283    4.62 |15.283    0.93 | 21.28    0.55
 3.300    0.76 | 9.300    4.62 |15.300    0.93 | 21.30    0.55
 3.317    0.76 | 9.317    4.62 |15.317    0.93 | 21.32    0.55
 3.333    0.76 | 9.333    4.62 |15.333    0.93 | 21.33    0.55
 3.350    0.78 | 9.350    4.11 |15.350    0.91 | 21.35    0.55
 3.367    0.78 | 9.367    4.11 |15.367    0.91 | 21.37    0.55
 3.383    0.78 | 9.383    4.11 |15.383    0.91 | 21.38    0.55
 3.400    0.78 | 9.400    4.11 |15.400    0.91 | 21.40    0.55
 3.417    0.78 | 9.417    4.11 |15.417    0.91 | 21.42    0.55
 3.433    0.78 | 9.433    4.11 |15.433    0.91 | 21.43    0.55
 3.450    0.78 | 9.450    4.11 |15.450    0.91 | 21.45    0.55
 3.467    0.78 | 9.467    4.11 |15.467    0.91 | 21.47    0.55
 3.483    0.78 | 9.483    4.11 |15.483    0.91 | 21.48    0.55
 3.500    0.78 | 9.500    4.10 |15.500    0.91 | 21.50    0.55
 3.517    0.81 | 9.517    3.70 |15.517    0.90 | 21.52    0.54
 3.533    0.81 | 9.533    3.70 |15.533    0.90 | 21.53    0.54
 3.550    0.81 | 9.550    3.70 |15.550    0.90 | 21.55    0.54
 3.567    0.81 | 9.567    3.70 |15.567    0.90 | 21.57    0.54
 3.583    0.81 | 9.583    3.70 |15.583    0.90 | 21.58    0.54
 3.600    0.81 | 9.600    3.70 |15.600    0.90 | 21.60    0.54
 3.617    0.81 | 9.617    3.70 |15.617    0.90 | 21.62    0.54
 3.633    0.81 | 9.633    3.70 |15.633    0.90 | 21.63    0.54
 3.650    0.81 | 9.650    3.70 |15.650    0.90 | 21.65    0.54
 3.667    0.81 | 9.667    3.70 |15.667    0.90 | 21.67    0.54
 3.683    0.84 | 9.683    3.37 |15.683    0.88 | 21.68    0.53
 3.700    0.84 | 9.700    3.37 |15.700    0.88 | 21.70    0.53
 3.717    0.84 | 9.717    3.37 |15.717    0.88 | 21.72    0.53
 3.733    0.84 | 9.733    3.37 |15.733    0.88 | 21.73    0.53
 3.750    0.84 | 9.750    3.37 |15.750    0.88 | 21.75    0.53
 3.767    0.84 | 9.767    3.37 |15.767    0.88 | 21.77    0.53
 3.783    0.84 | 9.783    3.37 |15.783    0.88 | 21.78    0.53
 3.800    0.84 | 9.800    3.37 |15.800    0.88 | 21.80    0.53
 3.817    0.84 | 9.817    3.37 |15.817    0.88 | 21.82    0.53
 3.833    0.84 | 9.833    3.37 |15.833    0.88 | 21.83    0.53
 3.850    0.87 | 9.850    3.09 |15.850    0.86 | 21.85    0.53
 3.867    0.87 | 9.867    3.09 |15.867    0.86 | 21.87    0.53
 3.883    0.87 | 9.883    3.09 |15.883    0.86 | 21.88    0.53
 3.900    0.87 | 9.900    3.09 |15.900    0.86 | 21.90    0.53
 3.917    0.87 | 9.917    3.09 |15.917    0.86 | 21.92    0.53
 3.933    0.87 | 9.933    3.09 |15.933    0.86 | 21.93    0.53
 3.950    0.87 | 9.950    3.09 |15.950    0.86 | 21.95    0.53
 3.967    0.87 | 9.967    3.09 |15.967    0.86 | 21.97    0.53
 3.983    0.87 | 9.983    3.09 |15.983    0.86 | 21.98    0.53
 4.000    0.87 |10.000    3.09 |16.000    0.86 | 22.00    0.53
 4.017    0.90 |10.017    2.86 |16.017    0.85 | 22.02    0.52
 4.033    0.90 |10.033    2.86 |16.033    0.85 | 22.03    0.52
 4.050    0.90 |10.050    2.86 |16.050    0.85 | 22.05    0.52
 4.067    0.90 |10.067    2.86 |16.067    0.85 | 22.07    0.52
 4.083    0.90 |10.083    2.86 |16.083    0.85 | 22.08    0.52
 4.100    0.90 |10.100    2.86 |16.100    0.85 | 22.10    0.52
 4.117    0.90 |10.117    2.86 |16.117    0.85 | 22.12    0.52
 4.133    0.90 |10.133    2.86 |16.133    0.85 | 22.13    0.52
 4.150    0.90 |10.150    2.86 |16.150    0.85 | 22.15    0.52
 4.167    0.90 |10.167    2.86 |16.167    0.85 | 22.17    0.52
 4.183    0.94 |10.183    2.67 |16.183    0.83 | 22.18    0.52
 4.200    0.94 |10.200    2.67 |16.200    0.83 | 22.20    0.52
 4.217    0.94 |10.217    2.67 |16.217    0.83 | 22.22    0.52
 4.233    0.94 |10.233    2.67 |16.233    0.83 | 22.23    0.52
 4.250    0.94 |10.250    2.67 |16.250    0.83 | 22.25    0.52
 4.267    0.94 |10.267    2.67 |16.267    0.83 | 22.27    0.52
 4.283    0.94 |10.283    2.67 |16.283    0.83 | 22.28    0.52
 4.300    0.94 |10.300    2.67 |16.300    0.83 | 22.30    0.52
 4.317    0.94 |10.317    2.67 |16.317    0.83 | 22.32    0.52
 4.333    0.94 |10.333    2.67 |16.333    0.83 | 22.33    0.52
 4.350    0.98 |10.350    2.50 |16.350    0.82 | 22.35    0.51
 4.367    0.98 |10.367    2.50 |16.367    0.82 | 22.37    0.51
 4.383    0.98 |10.383    2.50 |16.383    0.82 | 22.38    0.51
 4.400    0.98 |10.400    2.50 |16.400    0.82 | 22.40    0.51
 4.417    0.98 |10.417    2.50 |16.417    0.82 | 22.42    0.51
 4.433    0.98 |10.433    2.50 |16.433    0.82 | 22.43    0.51
 4.450    0.98 |10.450    2.50 |16.450    0.82 | 22.45    0.51
 4.467    0.98 |10.467    2.50 |16.467    0.82 | 22.47    0.51
 4.483    0.98 |10.483    2.50 |16.483    0.82 | 22.48    0.51
 4.500    0.98 |10.500    2.50 |16.500    0.82 | 22.50    0.51
 4.517    1.02 |10.517    2.35 |16.517    0.80 | 22.52    0.51
 4.533    1.02 |10.533    2.35 |16.533    0.80 | 22.53    0.51
 4.550    1.02 |10.550    2.35 |16.550    0.80 | 22.55    0.51
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4.567	1.02	10.567	2.35	16.567	0.80	22.57	0.51
4.583	1.02	10.583	2.35	16.583	0.80	22.58	0.51
4.600	1.02	10.600	2.35	16.600	0.80	22.60	0.51
4.617	1.02	10.617	2.35	16.617	0.80	22.62	0.51
4.633	1.02	10.633	2.35	16.633	0.80	22.63	0.51
4.650	1.02	10.650	2.35	16.650	0.80	22.65	0.51
4.667	1.02	10.667	2.35	16.667	0.80	22.67	0.51
4.683	1.07	10.683	2.22	16.683	0.79	22.68	0.50
4.700	1.07	10.700	2.22	16.700	0.79	22.70	0.50
4.717	1.07	10.717	2.22	16.717	0.79	22.72	0.50
4.733	1.07	10.733	2.22	16.733	0.79	22.73	0.50
4.750	1.07	10.750	2.22	16.750	0.79	22.75	0.50
4.767	1.07	10.767	2.22	16.767	0.79	22.77	0.50
4.783	1.07	10.783	2.22	16.783	0.79	22.78	0.50
4.800	1.07	10.800	2.22	16.800	0.79	22.80	0.50
4.817	1.07	10.817	2.22	16.817	0.79	22.82	0.50
4.833	1.07	10.833	2.22	16.833	0.79	22.83	0.50
4.850	1.13	10.850	2.10	16.850	0.78	22.85	0.50
4.867	1.13	10.867	2.10	16.867	0.78	22.87	0.50
4.883	1.13	10.883	2.10	16.883	0.78	22.88	0.50
4.900	1.13	10.900	2.10	16.900	0.78	22.90	0.50
4.917	1.13	10.917	2.10	16.917	0.78	22.92	0.50
4.933	1.13	10.933	2.10	16.933	0.78	22.93	0.50
4.950	1.13	10.950	2.10	16.950	0.78	22.95	0.50
4.967	1.13	10.967	2.10	16.967	0.78	22.97	0.50
4.983	1.13	10.983	2.10	16.983	0.78	22.98	0.50
5.000	1.13	11.000	2.10	17.000	0.78	23.00	0.50
5.017	1.19	11.017	2.00	17.017	0.77	23.02	0.49
5.033	1.19	11.033	2.00	17.033	0.77	23.03	0.49
5.050	1.19	11.050	2.00	17.050	0.77	23.05	0.49
5.067	1.19	11.067	2.00	17.067	0.77	23.07	0.49
5.083	1.19	11.083	2.00	17.083	0.77	23.08	0.49
5.100	1.19	11.100	2.00	17.100	0.77	23.10	0.49
5.117	1.19	11.117	2.00	17.117	0.77	23.12	0.49
5.133	1.19	11.133	2.00	17.133	0.77	23.13	0.49
5.150	1.19	11.150	2.00	17.150	0.77	23.15	0.49
5.167	1.19	11.167	2.00	17.167	0.77	23.17	0.49
5.183	1.25	11.183	1.90	17.183	0.75	23.18	0.49
5.200	1.25	11.200	1.90	17.200	0.75	23.20	0.49
5.217	1.25	11.217	1.90	17.217	0.75	23.22	0.49
5.233	1.25	11.233	1.90	17.233	0.75	23.23	0.49
5.250	1.25	11.250	1.90	17.250	0.75	23.25	0.49
5.267	1.25	11.267	1.90	17.267	0.75	23.27	0.49
5.283	1.25	11.283	1.90	17.283	0.75	23.28	0.49
5.300	1.25	11.300	1.90	17.300	0.75	23.30	0.49
5.317	1.25	11.317	1.90	17.317	0.75	23.32	0.49
5.333	1.25	11.333	1.90	17.333	0.75	23.33	0.49
5.350	1.33	11.350	1.82	17.350	0.74	23.35	0.48
5.367	1.33	11.367	1.82	17.367	0.74	23.37	0.48
5.383	1.33	11.383	1.82	17.383	0.74	23.38	0.48
5.400	1.33	11.400	1.82	17.400	0.74	23.40	0.48
5.417	1.33	11.417	1.82	17.417	0.74	23.42	0.48
5.433	1.33	11.433	1.82	17.433	0.74	23.43	0.48
5.450	1.33	11.450	1.82	17.450	0.74	23.45	0.48
5.467	1.33	11.467	1.82	17.467	0.74	23.47	0.48
5.483	1.33	11.483	1.82	17.483	0.74	23.48	0.48
5.500	1.33	11.500	1.82	17.500	0.74	23.50	0.48
5.517	1.42	11.517	1.74	17.517	0.73	23.52	0.48
5.533	1.42	11.533	1.74	17.533	0.73	23.53	0.48
5.550	1.42	11.550	1.74	17.550	0.73	23.55	0.48
5.567	1.42	11.567	1.74	17.567	0.73	23.57	0.48
5.583	1.42	11.583	1.74	17.583	0.73	23.58	0.48
5.600	1.42	11.600	1.74	17.600	0.73	23.60	0.48
5.617	1.42	11.617	1.74	17.617	0.73	23.62	0.48
5.633	1.42	11.633	1.74	17.633	0.73	23.63	0.48
5.650	1.42	11.650	1.74	17.650	0.73	23.65	0.48
5.667	1.42	11.667	1.74	17.667	0.73	23.67	0.48
5.683	1.52	11.683	1.67	17.683	0.72	23.68	0.48
5.700	1.52	11.700	1.67	17.700	0.72	23.70	0.48
5.717	1.52	11.717	1.67	17.717	0.72	23.72	0.48
5.733	1.52	11.733	1.67	17.733	0.72	23.73	0.48
5.750	1.52	11.750	1.67	17.750	0.72	23.75	0.48
5.767	1.52	11.767	1.67	17.767	0.72	23.77	0.48
5.783	1.52	11.783	1.67	17.783	0.72	23.78	0.48
5.800	1.52	11.800	1.67	17.800	0.72	23.80	0.48
5.817	1.52	11.817	1.67	17.817	0.72	23.82	0.48
5.833	1.52	11.833	1.67	17.833	0.72	23.83	0.48
5.850	1.64	11.850	1.61	17.850	0.71	23.85	0.47
5.867	1.64	11.867	1.61	17.867	0.71	23.87	0.47
5.883	1.64	11.883	1.61	17.883	0.71	23.88	0.47
5.900	1.64	11.900	1.61	17.900	0.71	23.90	0.47
5.917	1.64	11.917	1.61	17.917	0.71	23.92	0.47
5.933	1.64	11.933	1.61	17.933	0.71	23.93	0.47
5.950	1.64	11.950	1.61	17.950	0.71	23.95	0.47
5.967	1.64	11.967	1.61	17.967	0.71	23.97	0.47
5.983	1.64	11.983	1.61	17.983	0.71	23.98	0.47
6.000	1.64	12.000	1.61	18.000	0.71	24.00	0.47

Max.Eff.Inten.(mm/hr)=	107.72	17.58	
over (min)	5.00	13.00	
Storage Coeff. (min)=	3.70 (ii)	12.15 (ii)	
Unit Hyd. Tpeak (min)=	5.00	13.00	
Unit Hyd. peak (cms)=	0.27	0.09	
			TOTALS
PEAK FLOW (cms)=	0.27	0.05	0.296 (iii)
TIME TO PEAK (hrs)=	8.02	8.18	8.02
RUNOFF VOLUME (mm)=	66.81	12.79	31.69
TOTAL RAINFALL (mm)=	67.81	67.81	67.81
RUNOFF COEFFICIENT =	0.99	0.19	0.47

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 48.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL

THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

DUHYD (0035)				
Inlet Cap.= 0.202				
#of Inlets= 1				
Total(cms)= 0.2	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
TOTAL HYD.(ID= 1):	2.86	0.30	8.02	31.69
MAJOR SYS.(ID= 2):	0.13	0.09	8.02	31.69
MINOR SYS.(ID= 3):	2.73	0.20	7.93	31.69

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0102)				
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (1021):	3.77	0.417	8.02	33.49
+ ID2= 2 (0035):	0.13	0.094	8.02	31.69
ID = 3 (0102):	3.90	0.510	8.02	33.43

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0903)				
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0102):	3.90	0.510	8.02	33.43
+ ID2= 2 (0902):	15.69	1.527	8.05	32.48
ID = 3 (0903):	19.59	2.005	8.05	32.67

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB				
NASHYD (1051) ID= 1 DT= 5.0 min	Area (ha)= 1.62	Ia (mm)= 5.00	Curve Number (CN)= 60.0	# of Linear Res.(N)= 3.00
	U.H. Tp(hrs)= 1.87			

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	0.48	6.083	1.78	12.083	1.55	18.08	0.70
0.167	0.48	6.167	1.78	12.167	1.55	18.17	0.70
0.250	0.49	6.250	1.95	12.250	1.50	18.25	0.69
0.333	0.49	6.333	1.95	12.333	1.50	18.33	0.69
0.417	0.50	6.417	2.16	12.417	1.44	18.42	0.68
0.500	0.50	6.500	2.16	12.500	1.44	18.50	0.68
0.583	0.51	6.583	2.42	12.583	1.40	18.58	0.67
0.667	0.51	6.667	2.42	12.667	1.40	18.67	0.67
0.750	0.52	6.750	2.76	12.750	1.35	18.75	0.66
0.833	0.52	6.833	2.76	12.833	1.35	18.83	0.66
0.917	0.53	6.917	3.23	12.917	1.31	18.92	0.65
1.000	0.53	7.000	3.23	13.000	1.31	19.00	0.65
1.083	0.54	7.083	3.90	13.083	1.27	19.08	0.64
1.167	0.54	7.167	3.90	13.167	1.27	19.17	0.64
1.250	0.55	7.250	4.94	13.250	1.24	19.25	0.64
1.333	0.55	7.333	4.94	13.333	1.24	19.33	0.64
1.417	0.57	7.417	6.81	13.417	1.20	19.42	0.63
1.500	0.57	7.500	6.81	13.500	1.20	19.50	0.63
1.583	0.58	7.583	11.05	13.583	1.17	19.58	0.62
1.667	0.58	7.667	11.05	13.667	1.17	19.67	0.62
1.750	0.59	7.750	28.66	13.750	1.14	19.75	0.61
1.833	0.59	7.833	28.66	13.833	1.14	19.83	0.61
1.917	0.61	7.917	107.72	13.917	1.11	19.92	0.60
2.000	0.61	8.000	107.71	14.000	1.11	20.00	0.60
2.083	0.62	8.083	38.01	14.083	1.09	20.08	0.60
2.167	0.62	8.167	38.00	14.167	1.09	20.17	0.60
2.250	0.64	8.250	19.35	14.250	1.06	20.25	0.59
2.333	0.64	8.333	19.35	14.333	1.06	20.33	0.59
2.417	0.66	8.417	12.71	14.417	1.04	20.42	0.58
2.500	0.66	8.500	12.71	14.500	1.04	20.50	0.58
2.583	0.67	8.583	9.41	14.583	1.01	20.58	0.58
2.667	0.67	8.667	9.41	14.667	1.01	20.67	0.58
2.750	0.69	8.750	7.46	14.750	0.99	20.75	0.57
2.833	0.69	8.833	7.46	14.833	0.99	20.83	0.57
2.917	0.71	8.917	6.18	14.917	0.97	20.92	0.56
3.000	0.71	9.000	6.18	15.000	0.97	21.00	0.56
3.083	0.74	9.083	5.28	15.083	0.95	21.08	0.56
3.167	0.74	9.167	5.28	15.167	0.95	21.17	0.56
3.250	0.76	9.250	4.62	15.250	0.93	21.25	0.55
3.333	0.76	9.333	4.62	15.333	0.93	21.33	0.55
3.417	0.78	9.417	4.11	15.417	0.91	21.42	0.55
3.500	0.78	9.500	4.11	15.500	0.91	21.50	0.55
3.583	0.81	9.583	3.70	15.583	0.90	21.58	0.54
3.667	0.81	9.667	3.70	15.667	0.90	21.67	0.54
3.750	0.84	9.750	3.37	15.750	0.88	21.75	0.53
3.833	0.84	9.833	3.37	15.833	0.88	21.83	0.53
3.917	0.87	9.917	3.09	15.917	0.86	21.92	0.53
4.000	0.87	10.000	3.09	16.000	0.86	22.00	0.53
4.083	0.90	10.083	2.86	16.083	0.85	22.08	0.52
4.167	0.90	10.167	2.86	16.167	0.85	22.17	0.52
4.250	0.94	10.250	2.67	16.250	0.83	22.25	0.52
4.333	0.94	10.333	2.67	16.333	0.83	22.33	0.52
4.417	0.98	10.417	2.50	16.417	0.82	22.42	0.51
4.500	0.98	10.500	2.50	16.500	0.82	22.50	0.51
4.583	1.02	10.583	2.35	16.583	0.80	22.58	0.51
4.667	1.02	10.667	2.35	16.667	0.80	22.67	0.51
4.750	1.07	10.750	2.22	16.750	0.79	22.75	0.50
4.833	1.07	10.833	2.22	16.833	0.79	22.83	0.50
4.917	1.13	10.917	2.10	16.917	0.78	22.92	0.50
5.000	1.13	11.000	2.10	17.000	0.78	23.00	0.50
5.083	1.19	11.083	2.00	17.083	0.77	23.08	0.49
5.167	1.19	11.167	2.00	17.167	0.77	23.17	0.49
5.250	1.25	11.250	1.90	17.250	0.75	23.25	0.49
5.333	1.25	11.333	1.90	17.333	0.75	23.33	0.49
5.417	1.33	11.417	1.82	17.417	0.74	23.42	0.48
5.500	1.33	11.500	1.82	17.500	0.74	23.50	0.48
5.583	1.42	11.583	1.74	17.583	0.73	23.58	0.48
5.667	1.42	11.667	1.74	17.667	0.73	23.67	0.48
5.750	1.52	11.750	1.67	17.750	0.72	23.75	0.48
5.833	1.52	11.833	1.67	17.833	0.72	23.83	0.48
5.917	1.64	11.917	1.61	17.917	0.71	23.92	0.47
6.000	1.64	12.000	1.61	18.000	0.71	24.00	0.47

Unit Hyd Qpeak (cms)= 0.033

PEAK FLOW	(cms)=	0.013 (i)
TIME TO PEAK	(hrs)=	10.333
RUNOFF VOLUME	(mm)=	16.993
TOTAL RAINFALL	(mm)=	67.812
RUNOFF COEFFICIENT	=	0.251

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

ADD HYD (0105)				
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (1051):	1.62	0.013	10.33	16.99
+ ID2= 2 (0037):	0.06	0.040	8.02	26.47
ID = 3 (0105):	1.68	0.041	8.02	17.32

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0906)				
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0105):	1.68	0.041	8.02	17.32
+ ID2= 2 (0903):	19.59	2.005	8.05	32.67
ID = 3 (0906):	21.27	2.035	8.05	31.46

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB				
NASHYD (0201) ID= 1 DT= 5.0 min	Area (ha)= 6.97	Ia (mm)= 5.00	Curve Number (CN)= 66.0	# of Linear Res.(N)= 3.00
	U.H. Tp(hrs)= 0.74			

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	0.48	6.083	1.78	12.083	1.55	18.08	0.70
0.167	0.48	6.167	1.78	12.167	1.55	18.17	0.70
0.250	0.49	6.250	1.95	12.250	1.50	18.25	0.69
0.333	0.49	6.333	1.95	12.333	1.50	18.33	0.69
0.417	0.50	6.417	2.16	12.417	1.44	18.42	0.68
0.500	0.50	6.500	2.16	12.500	1.44	18.50	0.68
0.583	0.51	6.583	2.42	12.583	1.40	18.58	0.67
0.667	0.51	6.667	2.42	12.667	1.40	18.67	0.67
0.750	0.52	6.750	2.76	12.750	1.35	18.75	0.66
0.833	0.52	6.833	2.76	12.833	1.35	18.83	0.66
0.917	0.53	6.917	3.23	12.917	1.31	18.92	0.65
1.000	0.53	7.000	3.23	13.000	1.31	19.00	0.65
1.083	0.54	7.083	3.90	13.083	1.27	19.08	0.64
1.167	0.54	7.167	3.90	13.167	1.27	19.17	0.64
1.250	0.55	7.250	4.94	13.250	1.24	19.25	0.64
1.333	0.55	7.333	4.94	13.333	1.24	19.33	0.64
1.417	0.57	7.417	6.81	13.417	1.20	19.42	0.63
1.500	0.57	7.500	6.81	13.500	1.20	19.50	0.63
1.583	0.58	7.583	11.05	13.583	1.17	19.58	0.62
1.667	0.58	7.667	11.05	13.667	1.17	19.67	0.62
1.750	0.59	7.750	28.66	13.750	1.14	19.75	0.61
1.833	0.59	7.833	28.66	13.833	1.14	19.83	0.61
1.917	0.61	7.917	107.72	13.917	1.11	19.92	0.60
2.000	0.61	8.000	107.71	14.000	1.11	20.00	0.60
2.083	0.62	8.083	38.01	14.083	1.09	20.08	0.60
2.167	0.62	8.167	38.00	14.167	1.09	20.17	0.60
2.250	0.64	8.250	19.35	14.250	1.06	20.25	0.59
2.333	0.64	8.333	19.35	14.333	1.06	20.33	0.59
2.417	0.66	8.417	12.71	14.417	1.04	20.42	0.58
2.500	0.66	8.500	12.71	14.500	1.04	20.50	0.58
2.583	0.67	8.583	9.41	14.583	1.01	20.58	0.58
2.667	0.67	8.667	9.41	14.667	1.01	20.67	0.58
2.750	0.69	8.750	7.46	14.750	0.99	20.75	0.57
2.833	0.69	8.833	7.46	14.833	0.99	20.83	0.57

2.917	0.71	8.917	6.18	14.917	0.97	20.92	0.56
3.000	0.71	9.000	6.18	15.000	0.97	21.00	0.56
3.083	0.74	9.083	5.28	15.083	0.95	21.08	0.56
3.167	0.74	9.167	5.28	15.167	0.95	21.17	0.56
3.250	0.76	9.250	4.62	15.250	0.93	21.25	0.55
3.333	0.76	9.333	4.62	15.333	0.93	21.33	0.55
3.417	0.78	9.417	4.11	15.417	0.91	21.42	0.55
3.500	0.78	9.500	4.11	15.500	0.91	21.50	0.55
3.583	0.81	9.583	3.70	15.583	0.90	21.58	0.54
3.667	0.81	9.667	3.70	15.667	0.90	21.67	0.54
3.750	0.84	9.750	3.37	15.750	0.88	21.75	0.53
3.833	0.84	9.833	3.37	15.833	0.88	21.83	0.53
3.917	0.87	9.917	3.09	15.917	0.86	21.92	0.53
4.000	0.87	10.000	3.09	16.000	0.86	22.00	0.53
4.083	0.90	10.083	2.86	16.083	0.85	22.08	0.52
4.167	0.90	10.167	2.86	16.167	0.85	22.17	0.52
4.250	0.94	10.250	2.67	16.250	0.83	22.25	0.52
4.333	0.94	10.333	2.67	16.333	0.83	22.33	0.52
4.417	0.98	10.417	2.50	16.417	0.82	22.42	0.51
4.500	0.98	10.500	2.50	16.500	0.82	22.50	0.51
4.583	1.02	10.583	2.35	16.583	0.80	22.58	0.51
4.667	1.02	10.667	2.35	16.667	0.80	22.67	0.51
4.750	1.07	10.750	2.22	16.750	0.79	22.83	0.50
4.833	1.07	10.833	2.22	16.833	0.79	22.83	0.50
4.917	1.13	10.917	2.10	16.917	0.78	22.92	0.50
5.000	1.13	11.000	2.10	17.000	0.78	23.00	0.50
5.083	1.19	11.083	2.00	17.083	0.77	23.08	0.49
5.167	1.19	11.167	2.00	17.167	0.77	23.17	0.49
5.250	1.25	11.250	1.90	17.250	0.75	23.25	0.49
5.333	1.25	11.333	1.90	17.333	0.75	23.33	0.49
5.417	1.33	11.417	1.82	17.417	0.74	23.42	0.48
5.500	1.33	11.500	1.82	17.500	0.74	23.50	0.48
5.583	1.42	11.583	1.74	17.583	0.73	23.58	0.48
5.667	1.42	11.667	1.74	17.667	0.73	23.67	0.48
5.750	1.52	11.750	1.67	17.750	0.72	23.75	0.48
5.833	1.52	11.833	1.67	17.833	0.72	23.83	0.48
5.917	1.64	11.917	1.61	17.917	0.71	23.92	0.47
6.000	1.64	12.000	1.61	18.000	0.71	24.00	0.47

Unit Hyd Qpeak (cms)= 0.360

PEAK FLOW (cms)= 0.135 (i)
TIME TO PEAK (hrs)= 8.833
RUNOFF VOLUME (mm)= 20.372
TOTAL RAINFALL (mm)= 67.812
RUNOFF COEFFICIENT = 0.300

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

CALIB

NASHYD (0202)	Area (ha)= 2.71 Curve Number (CN)= 68.0
ID= 1 DT= 5.0 min	Ia (mm)= 5.00 # of Linear Res.(N)= 3.00
	U.H. Tp(hrs)= 0.93

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	0.48	6.083	1.78	12.083	1.55	18.08	0.70
0.167	0.48	6.167	1.78	12.167	1.55	18.17	0.70
0.250	0.49	6.250	1.95	12.250	1.50	18.25	0.69
0.333	0.49	6.333	1.95	12.333	1.50	18.33	0.69
0.417	0.50	6.417	2.16	12.417	1.44	18.42	0.68
0.500	0.50	6.500	2.16	12.500	1.44	18.50	0.68
0.583	0.51	6.583	2.42	12.583	1.40	18.58	0.67
0.667	0.51	6.667	2.42	12.667	1.40	18.67	0.67
0.750	0.52	6.750	2.76	12.750	1.35	18.75	0.66
0.833	0.52	6.833	2.76	12.833	1.35	18.83	0.66
0.917	0.53	6.917	3.23	12.917	1.31	18.92	0.65
1.000	0.53	7.000	3.23	13.000	1.31	19.00	0.65
1.083	0.54	7.083	3.90	13.083	1.27	19.08	0.64
1.167	0.54	7.167	3.90	13.167	1.27	19.17	0.64
1.250	0.55	7.250	4.94	13.250	1.24	19.25	0.64
1.333	0.55	7.333	4.94	13.333	1.24	19.33	0.64
1.417	0.57	7.417	6.81	13.417	1.20	19.42	0.63
1.500	0.57	7.500	6.81	13.500	1.20	19.50	0.63
1.583	0.58	7.583	11.05	13.583	1.17	19.58	0.62
1.667	0.58	7.667	11.05	13.667	1.17	19.67	0.62
1.750	0.59	7.750	28.66	13.750	1.14	19.75	0.61
1.833	0.59	7.833	28.66	13.833	1.14	19.83	0.61
1.917	0.61	7.917	107.72	13.917	1.11	19.92	0.60
2.000	0.61	8.000	107.71	14.000	1.11	20.00	0.60
2.083	0.62	8.083	38.01	14.083	1.09	20.08	0.60
2.167	0.62	8.167	38.00	14.167	1.09	20.17	0.60
2.250	0.64	8.250	19.35	14.250	1.06	20.25	0.59
2.333	0.64	8.333	19.35	14.333	1.06	20.33	0.59
2.417	0.66	8.417	12.71	14.417	1.04	20.42	0.58
2.500	0.66	8.500	12.71	14.500	1.04	20.50	0.58
2.583	0.67	8.583	9.41	14.583	1.01	20.58	0.58
2.667	0.67	8.667	9.41	14.667	1.01	20.67	0.58
2.750	0.69	8.750	7.46	14.750	0.99	20.75	0.57
2.833	0.69	8.833	7.46	14.833	0.99	20.83	0.57
2.917	0.71	8.917	6.18	14.917	0.97	20.92	0.56
3.000	0.71	9.000	6.18	15.000	0.97	21.00	0.56
3.083	0.74	9.083	5.28	15.083	0.95	21.08	0.56
3.167	0.74	9.167	5.28	15.167	0.95	21.17	0.56
3.250	0.76	9.250	4.62	15.250	0.93	21.25	0.55
3.333	0.76	9.333	4.62	15.333	0.93	21.33	0.55
3.417	0.78	9.417	4.11	15.417	0.91	21.42	0.55
3.500	0.78	9.500	4.11	15.500	0.91	21.50	0.55
3.583	0.81	9.583	3.70	15.583	0.90	21.58	0.54
3.667	0.81	9.667	3.70	15.667	0.90	21.67	0.54
3.750	0.84	9.750	3.37	15.750	0.88	21.75	0.53
3.833	0.84	9.833	3.37	15.833	0.88	21.83	0.53
3.917	0.87	9.917	3.09	15.917	0.86	21.92	0.53
4.000	0.87	10.000	3.09	16.000	0.86	22.00	0.53
4.083	0.90	10.083	2.86	16.083	0.85	22.08	0.52
4.167	0.90	10.167	2.86	16.167	0.85	22.17	0.52
4.250	0.94	10.250	2.67	16.250	0.83	22.25	0.52
4.333	0.94	10.333	2.67	16.333	0.83	22.33	0.52
4.417	0.98	10.417	2.50	16.417	0.82	22.42	0.51
4.500	0.98	10.500	2.50	16.500	0.82	22.50	0.51
4.583	1.02	10.583	2.35	16.583	0.80	22.58	0.51
4.667	1.02	10.667	2.35	16.667	0.80	22.67	0.51
4.750	1.07	10.750	2.22	16.750	0.79	22.75	0.50
4.833	1.07	10.833	2.22	16.833	0.79	22.83	0.50
4.917	1.13	10.917	2.10	16.917	0.78	22.92	0.50
5.000	1.13	11.000	2.10	17.000	0.78	23.00	0.50
5.083	1.19	11.083	2.00	17.083	0.77	23.08	0.49
5.167	1.19	11.167	2.00	17.167	0.77	23.17	0.49
5.250	1.25	11.250	1.90	17.250	0.75	23.25	0.49
5.333	1.25	11.333	1.90	17.333	0.75	23.33	0.49
5.417	1.33	11.417	1.82	17.417	0.74	23.42	0.48
5.500	1.33	11.500	1.82	17.500	0.74	23.50	0.48
5.583	1.42	11.583	1.74	17.583	0.73	23.58	0.48
5.667	1.42	11.667	1.74	17.667	0.73	23.67	0.48
5.750	1.52	11.750	1.67	17.750	0.72	23.75	0.48
5.833	1.52	11.833	1.67	17.833	0.72	23.83	0.48
5.917	1.64	11.917	1.61	17.917	0.71	23.92	0.47
6.000	1.64	12.000	1.61	18.000	0.71	24.00	0.47

Unit Hyd Qpeak (cms)= 0.111

PEAK FLOW (cms)= 0.048 (i)
TIME TO PEAK (hrs)= 9.083
RUNOFF VOLUME (mm)= 21.637
TOTAL RAINFALL (mm)= 67.812
RUNOFF COEFFICIENT = 0.319

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

ADD HYD (0904)				
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0201):	6.97	0.135	8.83	20.37
+ ID2= 2 (0202):	2.71	0.048	9.08	21.64
ID = 3 (0904):	9.68	0.181	8.92	20.73

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB							
NASHYD (0203)	Area (ha)= 34.30 Curve Number (CN)= 42.0						
ID= 1 DT= 5.0 min	Ia (mm)= 5.00 # of Linear Res.(N)= 3.00						
	U.H. Tp(hrs)= 1.40						

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	0.48	6.083	1.78	12.083	1.55	18.08	0.70
0.167	0.48	6.167	1.78	12.167	1.55	18.17	0.70
0.250	0.49	6.250	1.95	12.250	1.50	18.25	0.69
0.333	0.49	6.333	1.95	12.333	1.50	18.33	0.69
0.417	0.50	6.417	2.16	12.417	1.44	18.42	0.68
0.500	0.50	6.500	2.16	12.500	1.44	18.50	0.68
0.583	0.51	6.583	2.42	12.583	1.40	18.58	0.67
0.667	0.51	6.667	2.42	12.667	1.40	18.67	0.67
0.750	0.52	6.750	2.76	12.750	1.35	18.75	0.66
0.833	0.52	6.833	2.76	12.833	1.35	18.83	0.66
0.917	0.53	6.917	3.23	12.917	1.31	18.92	0.65
1.000	0.53	7.000	3.23	13.000	1.31	19.00	0.65
1.083	0.54	7.083	3.90	13.083	1.27	19.08	0.64
1.167	0.54	7.167	3.90	13.167	1.27	19.17	0.64
1.250	0.55	7.250	4.94	13.250	1.24	19.25	0.64
1.333	0.55	7.333	4.94	13.333	1.24	19.33	0.64
1.417	0.57	7.417	6.81	13.417	1.20	19.42	0.63
1.500	0.57	7.500	6.81	13.500	1.20	19.50	0.63
1.583	0.58	7.583	11.05	13.583	1.17	19.58	0.62
1.667	0.58	7.667	11.05	13.667	1.17	19.67	0.62
1.750	0.59	7.750	28.66	13.750	1.14	19.75	0.61
1.833	0.59	7.833	28.66	13.833	1.14	19.83	0.61
1.917	0.61	7.917	107.72	13.917	1.11	19.92	0.60
2.000	0.61	8.000	107.71	14.000	1.11	20.00	0.60
2.083	0.62	8.083	38.01	14.083	1.09	20.08	0.60
2.167	0.62	8.167	38.00	14.167	1.09	20.17	0.60
2.250	0.64	8.250	19.35	14.250	1.06	20.25	0.59
2.333	0.64	8.333	19.35	14.333	1.06	20.33	0.59
2.417	0.66	8.417	12.71	14.417	1.04	20.42	0.58
2.500	0.66	8.500	12.71	14.500	1.04	20.50	0.58
2.583	0.67	8.583	9.41	14.583	1.01	20.58	0.58
2.667	0.67	8.667	9.41	14.667	1.01	20.67	0.58
2.750	0.69	8.750	7.46	14.750	0.99	20.75	0.57
2.833	0.69	8.833	7.46	14.833	0.99	20.83	0.57
2.917	0.71	8.917	6.18	14.917	0.97	20.92	0.56
3.000	0.71	9.000	6.18	15.000	0.97	21.00	0.56
3.083	0.74	9.083	5.28	15.083	0.95	21.08	0.56
3.167	0.74	9.167	5.28	15.167	0.95	21.17	0.56
3.250	0.76	9.250	4.62	15.250	0.93	21.25	0.55
3.333	0.76	9.333	4.62	15.333	0.93	21.33	0.55
3.417	0.78	9.417	4.11	15.417	0.91	21.42	0.55
3.500	0.78	9.500	4.11	15.500	0.91	21.50	0.55
3.583	0.81	9.583	3.70	15.583	0.90	21.58	0.54
3.667	0.81	9.667	3.70	15.667	0.90	21.67	0.54
3.750	0.84	9.750	3.37	15.750	0.88	21.75	0.53
3.833	0.84	9.833	3.37	15.833	0.88	21.83	0.53
3.917	0.87	9.917	3.09	15.917	0.86	21.92	0.53
4.000	0.87	10.000	3.09	16.000	0.86	22.00	0.53
4.083	0.90	10.083	2.86	16.083	0.85	22.08	0.52
4.167	0.90	10.167	2.86	16.167	0.85	22.17	0.52
4.250	0.94	10.250	2.67	16.250	0.83	22.25	0.52
4.333	0.94	10.333	2.67	16.333	0.83	22.33	0.52
4.417	0.98	10.417	2.50	16.417	0.82	22.42	0.51
4.500	0.98	10.500	2.50	16.500	0.82	22.50	0.51
4.583	1.02	10.583	2.35	16.583	0.80	22.58	0.51
4.667	1.02	10.667	2.35	16.667	0.80	22.67	0.51
4.750	1.07	10.750	2.22	16.750	0.79	22.75	0.50
4.833	1.07	10.833	2.22	16.833	0.79	22.83	0.50
4.917	1.13	10.917	2.10	16.917	0.78	22.92	0.50
5.000	1.13	11.000	2.10	17.000	0.78	23.00	0.50
5.083	1.19	11.083	2.00	17.083	0.77	23.08	0.49
5.167	1.19	11.167	2.00	17.167	0.77	23.17	0.49
5.250	1.25	11.250	1.90	17.250	0.75	23.25	0.49
5.333	1.25	11.333	1.90	17.333	0.75	23.33	0.49
5.417	1.33	11.417	1.82	17.417	0.74	23.42	0.48
5.500	1.33	11.500	1.82	17.500	0.74	23.50	0.48
5.583	1.42	11.583	1.74	17.583	0.73	23.58	0.48
5.667	1.42	11.667	1.74	17.667	0.73	23.67	0.48
5.750	1.52	11.750	1.67	17.750	0.72	23.75	0.48
5.833	1.52	11.833	1.67	17.833	0.72	23.83	0.48
5.917	1.64	11.917	1.61	17.917	0.71	23.92	0.47
6.000	1.64	12.000	1.61	18.000	0.71	24.00	0.47

Unit Hyd Qpeak (cms)= 0.936

PEAK FLOW (cms)= 0.186 (i)
TIME TO PEAK (hrs)= 9.750
RUNOFF VOLUME (mm)= 9.540
TOTAL RAINFALL (mm)= 67.812
RUNOFF COEFFICIENT = 0.141

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

ADD HYD (0905)				
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0203):	34.30	0.186	9.75	9.54
+ ID2= 2 (0904):	9.68	0.181	8.92	20.73
ID = 3 (0905):	43.98	0.337	9.25	12.00

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

Junction Command(0907)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 1(0905)	43.98	0.34	9.25	12.00
OUTFLOW: ID= 2(0907)	43.98	0.34	9.25	12.00

ADD HYD (0908)				
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0906):	21.27	2.035	8.05	31.46
+ ID2= 2 (0907):	43.98	0.337	9.25	12.00
ID = 3 (0908):	65.24	2.080	8.05	18.34

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB							
NASHYD (0204)	Area (ha)= 0.40 Curve Number (CN)= 67.0						
ID= 1 DT= 5.0 min	Ia (mm)= 5.00 # 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	0.48	6.083	1.78	12.083	1.55	18.08	0.70
0.167	0.48	6.167	1.78	12.167	1.55	18.17	0.70
0.250	0.49	6.250	1.95	12.250	1.50	18.25	0.69
0.333	0.49	6.333	1.95	12.333	1.50	18.33	0.69
0.417	0.50	6.417	2.16	12.417	1.44	18.42	0.68
0.500	0.50	6.500	2.16	12.500	1.44	18.50	0.68
0.583	0.51	6.583	2.42	12.583	1.40	18.58	0.67
0.667	0.51	6.667	2.42	12.667	1.40	18.67	0.67
0.750	0.52	6.750	2.76	12.750	1.35	18.75	0.66
0.833	0.52	6.833	2.76	12.833	1.35	18.83	0.66
0.917	0.53	6.917	3.23	12.917	1.31	18.92	0.65

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1.000   0.53 | 7.000    3.23 |13.000    1.31 | 19.00    0.65
1.083   0.54 | 7.083    3.90 |13.083    1.27 | 19.08    0.64
1.167   0.54 | 7.167    3.90 |13.167    1.27 | 19.17    0.64
1.250   0.55 | 7.250    4.94 |13.250    1.24 | 19.25    0.64
1.333   0.55 | 7.333    4.94 |13.333    1.24 | 19.33    0.64
1.417   0.57 | 7.417    6.81 |13.417    1.20 | 19.42    0.63
1.500   0.57 | 7.500    6.81 |13.500    1.20 | 19.50    0.63
1.583   0.58 | 7.583   11.05 |13.583    1.17 | 19.58    0.62
1.667   0.58 | 7.667   11.05 |13.667    1.17 | 19.67    0.62
1.750   0.59 | 7.750   28.66 |13.750    1.14 | 19.75    0.61
1.833   0.59 | 7.833   28.66 |13.833    1.14 | 19.83    0.61
1.917   0.61 | 7.917  107.72 |13.917    1.11 | 19.92    0.60
2.000   0.61 | 8.000  107.71 |14.000    1.11 | 20.00    0.60
2.083   0.62 | 8.083   38.01 |14.083    1.09 | 20.08    0.60
2.167   0.62 | 8.167   38.00 |14.167    1.09 | 20.17    0.60
2.250   0.64 | 8.250   19.35 |14.250    1.06 | 20.25    0.59
2.333   0.64 | 8.333   19.35 |14.333    1.06 | 20.33    0.59
2.417   0.66 | 8.417   12.71 |14.417    1.04 | 20.42    0.58
2.500   0.66 | 8.500   12.71 |14.500    1.04 | 20.50    0.58
2.583   0.67 | 8.583    9.41 |14.583    1.01 | 20.58    0.58
2.667   0.67 | 8.667    9.41 |14.667    1.01 | 20.67    0.58
2.750   0.69 | 8.750    7.46 |14.750    0.99 | 20.75    0.57
2.833   0.69 | 8.833    7.46 |14.833    0.99 | 20.83    0.57
2.917   0.71 | 8.917    6.18 |14.917    0.97 | 20.92    0.56
3.000   0.71 | 9.000    6.18 |15.000    0.97 | 21.00    0.56
3.083   0.74 | 9.083    5.28 |15.083    0.95 | 21.08    0.56
3.167   0.74 | 9.167    5.28 |15.167    0.95 | 21.17    0.56
3.250   0.76 | 9.250    4.62 |15.250    0.93 | 21.25    0.55
3.333   0.76 | 9.333    4.62 |15.333    0.93 | 21.33    0.55
3.417   0.78 | 9.417    4.11 |15.417    0.91 | 21.42    0.55
3.500   0.78 | 9.500    4.11 |15.500    0.91 | 21.50    0.55
3.583   0.81 | 9.583    3.70 |15.583    0.90 | 21.58    0.54
3.667   0.81 | 9.667    3.70 |15.667    0.90 | 21.67    0.54
3.750   0.84 | 9.750    3.37 |15.750    0.88 | 21.75    0.53
3.833   0.84 | 9.833    3.37 |15.833    0.88 | 21.83    0.53
3.917   0.87 | 9.917    3.09 |15.917    0.86 | 21.92    0.53
4.000   0.87 |10.000    3.09 |16.000    0.86 | 22.00    0.53
4.083   0.90 |10.083    2.86 |16.083    0.85 | 22.08    0.52
4.167   0.90 |10.167    2.86 |16.167    0.85 | 22.17    0.52
4.250   0.94 |10.250    2.67 |16.250    0.83 | 22.25    0.52
4.333   0.94 |10.333    2.67 |16.333    0.83 | 22.33    0.52
4.417   0.98 |10.417    2.50 |16.417    0.82 | 22.42    0.51
4.500   0.98 |10.500    2.50 |16.500    0.82 | 22.50    0.51
4.583   1.02 |10.583    2.35 |16.583    0.80 | 22.58    0.51
4.667   1.02 |10.667    2.35 |16.667    0.80 | 22.67    0.51
4.750   1.07 |10.750    2.22 |16.750    0.79 | 22.75    0.50
4.833   1.07 |10.833    2.22 |16.833    0.79 | 22.83    0.50
4.917   1.13 |10.917    2.10 |16.917    0.78 | 22.92    0.50
5.000   1.13 |11.000    2.10 |17.000    0.78 | 23.00    0.50
5.083   1.19 |11.083    2.00 |17.083    0.77 | 23.08    0.49
5.167   1.19 |11.167    2.00 |17.167    0.77 | 23.17    0.49
5.250   1.25 |11.250    1.90 |17.250    0.75 | 23.25    0.49
```

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5.333   1.25 |11.333    1.90 |17.333    0.75 | 23.33    0.49
5.417   1.33 |11.417    1.82 |17.417    0.74 | 23.42    0.48
5.500   1.33 |11.500    1.82 |17.500    0.74 | 23.50    0.48
5.583   1.42 |11.583    1.74 |17.583    0.73 | 23.58    0.48
5.667   1.42 |11.667    1.74 |17.667    0.73 | 23.67    0.48
5.750   1.52 |11.750    1.67 |17.750    0.72 | 23.75    0.48
5.833   1.52 |11.833    1.67 |17.833    0.72 | 23.83    0.48
5.917   1.64 |11.917    1.61 |17.917    0.71 | 23.92    0.47
6.000   1.64 |12.000    1.61 |18.000    0.71 | 24.00    0.47

    Unit Hyd Qpeak  (cms)=   0.054

    PEAK FLOW       (cms)=   0.015 (i)
    TIME TO PEAK    (hrs)=   8.250
    RUNOFF VOLUME    (mm)=  20.983
    TOTAL RAINFALL   (mm)=  67.812
    RUNOFF COEFFICIENT   =   0.309

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

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

-------------
| ADD HYD  (  0909)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
-------------------        (ha)    (cms)    (hrs)     (mm)
      ID1= 1 (  0204):     0.40   0.015     8.25    20.98
    + ID2= 2 (  0908):    65.24   2.080     8.05    18.34
      ================================================
      ID = 3 (  0909):    65.64   2.089     8.05    18.36

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
---------------------------------------------------------------------------
-------------------
| RESERVOIR(  0052)|    OVERFLOW IS ON
| IN= 2---> OUT= 1 |
| DT=  1.0 min     |    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
-------------------      (cms)     (ha.m.)   |   (cms)     (ha.m.)
                         0.0000     0.0004   |  0.6270      0.1980
                         0.0690     0.0019   |  0.6620      0.2529
                         0.1500     0.0052   |  0.6950      0.3161
                         0.2470     0.0111   |  0.7270      0.3886
                         0.3480     0.0210   |  0.7580      0.4732
                         0.4080     0.0352   |  0.7870      0.5703
                         0.4600     0.0544   |  0.8150      0.6834
                         0.5070     0.0794   |  0.8430      0.8226
                         0.5500     0.1110   |  0.8690      0.9974
                         0.5900     0.1508   |  0.0000      0.0000

                             AREA     QPEAK     TPEAK      R.V.
                             (ha)     (cms)     (hrs)      (mm)
  INFLOW : ID= 2 (  0909)   65.640     2.089     8.05      18.36
```

```
 OUTFLOW: ID= 1 (  0052)     65.640      0.624      8.77      18.35
 OVERFLOW:ID= 3 (  0003)      0.000      0.000      0.00       0.00

                TOTAL NUMBER OF SIMULATION OVERFLOW  =     0
                CUMULATIVE TIME OF OVERFLOW  (HOURS) =  0.00
                PERCENTAGE OF TIME OVERFLOWING   (%) =  0.00

                PEAK   FLOW   REDUCTION [Qout/Qin](%)= 29.85
                TIME SHIFT OF PEAK FLOW         (min)= 43.00
                MAXIMUM  STORAGE   USED       (ha.m.)=  0.1936

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-------------------------
| Junction Command(0048) |
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                          AREA     QPEAK   TPEAK     R.V.
                          (ha)     (cms)   (hrs)     (mm)
INFLOW : ID= 1(  0052)   65.64     0.62    8.77     18.35
OUTFLOW: ID= 2(  0048)   65.64     0.62    8.77     18.35

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-------------------------
| Junction Command(0053) |
-------------------------

                          AREA     QPEAK   TPEAK     R.V.
                          (ha)     (cms)   (hrs)     (mm)
INFLOW : ID= 3(  0052)    0.00     0.00    0.00      0.00
OUTFLOW: ID= 2(  0053)    0.00     0.00    0.00      0.00

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

-------------
| ADD HYD  (  0051)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
-------------------        (ha)    (cms)    (hrs)     (mm)
*** W A R N I N G :  HYDROGRAPH   0053 <ID= 2> IS DRY.
*** W A R N I N G :  HYDROGRAPH   0003 = HYDROGRAPH 0001
      ID1= 1 (  0048):    65.64   0.624     8.77    18.35
    + ID2= 2 (  0053):     0.00   0.000     0.00     0.00
      ================================================
      ID = 3 (  0051):    65.64   0.624     8.77    18.35

   NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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| Junction Command(0036) |
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```
                        AREA     QPEAK   TPEAK     R.V.
                        (ha)     (cms)   (hrs)     (mm)
  INFLOW : ID= 9(  0035)   2.73     0.20    7.93     31.69
  OUTFLOW: ID= 2(  0036)   2.73     0.20    7.93     31.69

  ---------------------------------------------------------------------------
===========================================================================
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      V    V   I    SSSSS  U   U    A    L              (v 6.2.2015)
      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\cacp078589\AppData\Local\Civica\VH5\9ad0f7cd-9fe5-4b65-bb07-55a510b23afa\c
7b67f2e-7018-4370-a040-41a359aab00e\s
  Summary filename:
C:\Users\cacp078589\AppData\Local\Civica\VH5\9ad0f7cd-9fe5-4b65-bb07-55a510b23afa\c
7b67f2e-7018-4370-a040-41a359aab00e\s

DATE: 04-07-2025                          TIME: 09:18:34

USER:



COMMENTS: _____

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  ************************************************
  ** SIMULATION : Hazel                         **
  ************************************************
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-------------------
|    READ STORM    |    Filename: C:\Users\cacp078589\AppD
|                  |              ata\Local\Temp\
|                  |              2e3448f7-cf37-4c18-bd0b-dc10eb33cbdd\bd619df1
| 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             |
| STANDHYD (  1012)|   Area    (ha)=  26.89
|ID= 1 DT= 1.0 min |   Total Imp(%)=  57.00   Dir. Conn.(%)=  49.00
-------------------
                          IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=      15.33         11.56
     Dep. Storage     (mm)=       1.00          5.00
     Average Slope     (%)=       0.50          2.00
     Length            (m)=     423.42         40.00
     Mannings n            =      0.013         0.250

         NOTE:  RAINFALL WAS TRANSFORMED TO   1.0 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
                0.017   6.00 | 3.017   13.00 | 6.017   23.00 |  9.02   53.00
                0.033   6.00 | 3.033   13.00 | 6.033   23.00 |  9.03   53.00
                0.050   6.00 | 3.050   13.00 | 6.050   23.00 |  9.05   53.00
                0.067   6.00 | 3.067   13.00 | 6.067   23.00 |  9.07   53.00
                0.083   6.00 | 3.083   13.00 | 6.083   23.00 |  9.08   53.00
                0.100   6.00 | 3.100   13.00 | 6.100   23.00 |  9.10   53.00
                0.117   6.00 | 3.117   13.00 | 6.117   23.00 |  9.12   53.00
                0.133   6.00 | 3.133   13.00 | 6.133   23.00 |  9.13   53.00
                0.150   6.00 | 3.150   13.00 | 6.150   23.00 |  9.15   53.00
                0.167   6.00 | 3.167   13.00 | 6.167   23.00 |  9.17   53.00
                0.183   6.00 | 3.183   13.00 | 6.183   23.00 |  9.18   53.00
                0.200   6.00 | 3.200   13.00 | 6.200   23.00 |  9.20   53.00
                0.217   6.00 | 3.217   13.00 | 6.217   23.00 |  9.22   53.00
                0.233   6.00 | 3.233   13.00 | 6.233   23.00 |  9.23   53.00
                0.250   6.00 | 3.250   13.00 | 6.250   23.00 |  9.25   53.00
                0.267   6.00 | 3.267   13.00 | 6.267   23.00 |  9.27   53.00
                0.283   6.00 | 3.283   13.00 | 6.283   23.00 |  9.28   53.00
                0.300   6.00 | 3.300   13.00 | 6.300   23.00 |  9.30   53.00
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0.317   6.00 | 3.317   13.00 | 6.317   23.00 |  9.32   53.00
0.333   6.00 | 3.333   13.00 | 6.333   23.00 |  9.33   53.00
0.350   6.00 | 3.350   13.00 | 6.350   23.00 |  9.35   53.00
0.367   6.00 | 3.367   13.00 | 6.367   23.00 |  9.37   53.00
0.383   6.00 | 3.383   13.00 | 6.383   23.00 |  9.38   53.00
0.400   6.00 | 3.400   13.00 | 6.400   23.00 |  9.40   53.00
0.417   6.00 | 3.417   13.00 | 6.417   23.00 |  9.42   53.00
0.433   6.00 | 3.433   13.00 | 6.433   23.00 |  9.43   53.00
0.450   6.00 | 3.450   13.00 | 6.450   23.00 |  9.45   53.00
0.467   6.00 | 3.467   13.00 | 6.467   23.00 |  9.47   53.00
0.483   6.00 | 3.483   13.00 | 6.483   23.00 |  9.48   53.00
0.500   6.00 | 3.500   13.00 | 6.500   23.00 |  9.50   53.00
0.517   6.00 | 3.517   13.00 | 6.517   23.00 |  9.52   53.00
0.533   6.00 | 3.533   13.00 | 6.533   23.00 |  9.53   53.00
0.550   6.00 | 3.550   13.00 | 6.550   23.00 |  9.55   53.00
0.567   6.00 | 3.567   13.00 | 6.567   23.00 |  9.57   53.00
0.583   6.00 | 3.583   13.00 | 6.583   23.00 |  9.58   53.00
0.600   6.00 | 3.600   13.00 | 6.600   23.00 |  9.60   53.00
0.617   6.00 | 3.617   13.00 | 6.617   23.00 |  9.62   53.00
0.633   6.00 | 3.633   13.00 | 6.633   23.00 |  9.63   53.00
0.650   6.00 | 3.650   13.00 | 6.650   23.00 |  9.65   53.00
0.667   6.00 | 3.667   13.00 | 6.667   23.00 |  9.67   53.00
0.683   6.00 | 3.683   13.00 | 6.683   23.00 |  9.68   53.00
0.700   6.00 | 3.700   13.00 | 6.700   23.00 |  9.70   53.00
0.717   6.00 | 3.717   13.00 | 6.717   23.00 |  9.72   53.00
0.733   6.00 | 3.733   13.00 | 6.733   23.00 |  9.73   53.00
0.750   6.00 | 3.750   13.00 | 6.750   23.00 |  9.75   53.00
0.767   6.00 | 3.767   13.00 | 6.767   23.00 |  9.77   53.00
0.783   6.00 | 3.783   13.00 | 6.783   23.00 |  9.78   53.00
0.800   6.00 | 3.800   13.00 | 6.800   23.00 |  9.80   53.00
0.817   6.00 | 3.817   13.00 | 6.817   23.00 |  9.82   53.00
0.833   6.00 | 3.833   13.00 | 6.833   23.00 |  9.83   53.00
0.850   6.00 | 3.850   13.00 | 6.850   23.00 |  9.85   53.00
0.867   6.00 | 3.867   13.00 | 6.867   23.00 |  9.87   53.00
0.883   6.00 | 3.883   13.00 | 6.883   23.00 |  9.88   53.00
0.900   6.00 | 3.900   13.00 | 6.900   23.00 |  9.90   53.00
0.917   6.00 | 3.917   13.00 | 6.917   23.00 |  9.92   53.00
0.933   6.00 | 3.933   13.00 | 6.933   23.00 |  9.93   53.00
0.950   6.00 | 3.950   13.00 | 6.950   23.00 |  9.95   53.00
0.967   6.00 | 3.967   13.00 | 6.967   23.00 |  9.97   53.00
0.983   6.00 | 3.983   13.00 | 6.983   23.00 |  9.98   53.00
1.000   6.00 | 4.000   13.00 | 7.000   22.98 | 10.00   52.98
1.017   4.00 | 4.017   17.00 | 7.017   13.00 | 10.02   38.00
1.033   4.00 | 4.033   17.00 | 7.033   13.00 | 10.03   38.00
1.050   4.00 | 4.050   17.00 | 7.050   13.00 | 10.05   38.00
1.067   4.00 | 4.067   17.00 | 7.067   13.00 | 10.07   38.00
1.083   4.00 | 4.083   17.00 | 7.083   13.00 | 10.08   38.00
1.100   4.00 | 4.100   17.00 | 7.100   13.00 | 10.10   38.00
1.117   4.00 | 4.117   17.00 | 7.117   13.00 | 10.12   38.00
1.133   4.00 | 4.133   17.00 | 7.133   13.00 | 10.13   38.00
1.150   4.00 | 4.150   17.00 | 7.150   13.00 | 10.15   38.00
1.167   4.00 | 4.167   17.00 | 7.167   13.00 | 10.17   38.00
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1.183	4.00	4.183	17.00	7.183	13.00	10.18	38.00
1.200	4.00	4.200	17.00	7.200	13.00	10.20	38.00
1.217	4.00	4.217	17.00	7.217	13.00	10.22	38.00
1.233	4.00	4.233	17.00	7.233	13.00	10.23	38.00
1.250	4.00	4.250	17.00	7.250	13.00	10.25	38.00
1.267	4.00	4.267	17.00	7.267	13.00	10.27	38.00
1.283	4.00	4.283	17.00	7.283	13.00	10.28	38.00
1.300	4.00	4.300	17.00	7.300	13.00	10.30	38.00
1.317	4.00	4.317	17.00	7.317	13.00	10.32	38.00
1.333	4.00	4.333	17.00	7.333	13.00	10.33	38.00
1.350	4.00	4.350	17.00	7.350	13.00	10.35	38.00
1.367	4.00	4.367	17.00	7.367	13.00	10.37	38.00
1.383	4.00	4.383	17.00	7.383	13.00	10.38	38.00
1.400	4.00	4.400	17.00	7.400	13.00	10.40	38.00
1.417	4.00	4.417	17.00	7.417	13.00	10.42	38.00
1.433	4.00	4.433	17.00	7.433	13.00	10.43	38.00
1.450	4.00	4.450	17.00	7.450	13.00	10.45	38.00
1.467	4.00	4.467	17.00	7.467	13.00	10.47	38.00
1.483	4.00	4.483	17.00	7.483	13.00	10.48	38.00
1.500	4.00	4.500	17.00	7.500	13.00	10.50	38.00
1.517	4.00	4.517	17.00	7.517	13.00	10.52	38.00
1.533	4.00	4.533	17.00	7.533	13.00	10.53	38.00
1.550	4.00	4.550	17.00	7.550	13.00	10.55	38.00
1.567	4.00	4.567	17.00	7.567	13.00	10.57	38.00
1.583	4.00	4.583	17.00	7.583	13.00	10.58	38.00
1.600	4.00	4.600	17.00	7.600	13.00	10.60	38.00
1.617	4.00	4.617	17.00	7.617	13.00	10.62	38.00
1.633	4.00	4.633	17.00	7.633	13.00	10.63	38.00
1.650	4.00	4.650	17.00	7.650	13.00	10.65	38.00
1.667	4.00	4.667	17.00	7.667	13.00	10.67	38.00
1.683	4.00	4.683	17.00	7.683	13.00	10.68	38.00
1.700	4.00	4.700	17.00	7.700	13.00	10.70	38.00
1.717	4.00	4.717	17.00	7.717	13.00	10.72	38.00
1.733	4.00	4.733	17.00	7.733	13.00	10.73	38.00
1.750	4.00	4.750	17.00	7.750	13.00	10.75	38.00
1.767	4.00	4.767	17.00	7.767	13.00	10.77	38.00
1.783	4.00	4.783	17.00	7.783	13.00	10.78	38.00
1.800	4.00	4.800	17.00	7.800	13.00	10.80	38.00
1.817	4.00	4.817	17.00	7.817	13.00	10.82	38.00
1.833	4.00	4.833	17.00	7.833	13.00	10.83	38.00
1.850	4.00	4.850	17.00	7.850	13.00	10.85	38.00
1.867	4.00	4.867	17.00	7.867	13.00	10.87	38.00
1.883	4.00	4.883	17.00	7.883	13.00	10.88	38.00
1.900	4.00	4.900	17.00	7.900	13.00	10.90	38.00
1.917	4.00	4.917	17.00	7.917	13.00	10.92	38.00
1.933	4.00	4.933	17.00	7.933	13.00	10.93	38.00
1.950	4.00	4.950	17.00	7.950	13.00	10.95	38.00
1.967	4.00	4.967	17.00	7.967	13.00	10.97	38.00
1.983	4.00	4.983	17.00	7.983	13.00	10.98	38.00
2.000	4.00	5.000	17.00	8.000	13.00	11.00	37.99
2.017	6.00	5.017	13.00	8.017	13.00	11.02	13.00
2.033	6.00	5.033	13.00	8.033	13.00	11.03	13.00
2.050	6.00	5.050	13.00	8.050	13.00	11.05	13.00
2.067	6.00	5.067	13.00	8.067	13.00	11.07	13.00
2.083	6.00	5.083	13.00	8.083	13.00	11.08	13.00
2.100	6.00	5.100	13.00	8.100	13.00	11.10	13.00
2.117	6.00	5.117	13.00	8.117	13.00	11.12	13.00
2.133	6.00	5.133	13.00	8.133	13.00	11.13	13.00
2.150	6.00	5.150	13.00	8.150	13.00	11.15	13.00
2.167	6.00	5.167	13.00	8.167	13.00	11.17	13.00
2.183	6.00	5.183	13.00	8.183	13.00	11.18	13.00
2.200	6.00	5.200	13.00	8.200	13.00	11.20	13.00
2.217	6.00	5.217	13.00	8.217	13.00	11.22	13.00
2.233	6.00	5.233	13.00	8.233	13.00	11.23	13.00
2.250	6.00	5.250	13.00	8.250	13.00	11.25	13.00
2.267	6.00	5.267	13.00	8.267	13.00	11.27	13.00
2.283	6.00	5.283	13.00	8.283	13.00	11.28	13.00
2.300	6.00	5.300	13.00	8.300	13.00	11.30	13.00
2.317	6.00	5.317	13.00	8.317	13.00	11.32	13.00
2.333	6.00	5.333	13.00	8.333	13.00	11.33	13.00
2.350	6.00	5.350	13.00	8.350	13.00	11.35	13.00
2.367	6.00	5.367	13.00	8.367	13.00	11.37	13.00
2.383	6.00	5.383	13.00	8.383	13.00	11.38	13.00
2.400	6.00	5.400	13.00	8.400	13.00	11.40	13.00
2.417	6.00	5.417	13.00	8.417	13.00	11.42	13.00
2.433	6.00	5.433	13.00	8.433	13.00	11.43	13.00
2.450	6.00	5.450	13.00	8.450	13.00	11.45	13.00
2.467	6.00	5.467	13.00	8.467	13.00	11.47	13.00
2.483	6.00	5.483	13.00	8.483	13.00	11.48	13.00
2.500	6.00	5.500	13.00	8.500	13.00	11.50	13.00
2.517	6.00	5.517	13.00	8.517	13.00	11.52	13.00
2.533	6.00	5.533	13.00	8.533	13.00	11.53	13.00
2.550	6.00	5.550	13.00	8.550	13.00	11.55	13.00
2.567	6.00	5.567	13.00	8.567	13.00	11.57	13.00
2.583	6.00	5.583	13.00	8.583	13.00	11.58	13.00
2.600	6.00	5.600	13.00	8.600	13.00	11.60	13.00
2.617	6.00	5.617	13.00	8.617	13.00	11.62	13.00
2.633	6.00	5.633	13.00	8.633	13.00	11.63	13.00
2.650	6.00	5.650	13.00	8.650	13.00	11.65	13.00
2.667	6.00	5.667	13.00	8.667	13.00	11.67	13.00
2.683	6.00	5.683	13.00	8.683	13.00	11.68	13.00
2.700	6.00	5.700	13.00	8.700	13.00	11.70	13.00
2.717	6.00	5.717	13.00	8.717	13.00	11.72	13.00
2.733	6.00	5.733	13.00	8.733	13.00	11.73	13.00
2.750	6.00	5.750	13.00	8.750	13.00	11.75	13.00
2.767	6.00	5.767	13.00	8.767	13.00	11.77	13.00
2.783	6.00	5.783	13.00	8.783	13.00	11.78	13.00
2.800	6.00	5.800	13.00	8.800	13.00	11.80	13.00
2.817	6.00	5.817	13.00	8.817	13.00	11.82	13.00
2.833	6.00	5.833	13.00	8.833	13.00	11.83	13.00
2.850	6.00	5.850	13.00	8.850	13.00	11.85	13.00
2.867	6.00	5.867	13.00	8.867	13.00	11.87	13.00
2.883	6.00	5.883	13.00	8.883	13.00	11.88	13.00
2.900	6.00	5.900	13.00	8.900	13.00	11.90	13.00
2.917	6.00	5.917	13.00	8.917	13.00	11.92	13.00
2.933	6.00	5.933	13.00	8.933	13.00	11.93	13.00
2.950	6.00	5.950	13.00	8.950	13.00	11.95	13.00
2.967	6.00	5.967	13.00	8.967	13.00	11.97	13.00
2.983	6.00	5.983	13.00	8.983	13.00	11.98	13.00
3.000	6.00	6.000	13.01	9.000	13.08	12.00	13.00

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    Max.Eff.Inten.(mm/hr)=       53.00          39.95
                over (min)       10.00          19.00
    Storage Coeff.  (min)=        9.64 (ii)    18.27 (ii)
    Unit Hyd. Tpeak (min)=       10.00          19.00
    Unit Hyd. peak  (cms)=        0.12           0.06
                                                          *TOTALS*
    PEAK FLOW       (cms)=        1.93           1.17          3.082 (iii)
    TIME TO PEAK    (hrs)=       10.00          10.12          10.02
    RUNOFF VOLUME    (mm)=      210.99          98.16         153.46
    TOTAL RAINFALL   (mm)=      212.00         212.00         212.00
    RUNOFF COEFFICIENT   =        1.00           0.46           0.72


      (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
          CN* =  48.0     Ia = Dep. Storage  (Above)
     (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
          THAN THE STORAGE COEFFICIENT.
    (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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| DUHYD    (  0034)|
| Inlet Cap.= 3.057|
| #of Inlets=     1|
| Total(cms)=   3.1|      AREA     QPEAK     TPEAK     R.V.
--------------------      (ha)     (cms)     (hrs)     (mm)
     TOTAL HYD.(ID= 1):  26.89      3.08     10.02   153.46
     ==========================================================
     MAJOR SYS.(ID= 2):   0.00      0.03     10.02   153.46
     MINOR SYS.(ID= 3):  26.89      3.06      9.95   153.46

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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  | Junction Command(0033) |
  -------------------------

                            AREA     QPEAK   TPEAK     R.V.
                            (ha)     (cms)   (hrs)     (mm)
  INFLOW : ID= 9(  0034)   26.89      3.06    9.95   153.46
  OUTFLOW: ID= 2(  0033)   26.89      3.06    9.95   153.46

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| CALIB            |
| STANDHYD (  1052)|   Area    (ha)=   1.95
|ID= 1 DT= 1.0 min |   Total Imp(%)=  30.00   Dir. Conn.(%)=  26.00
--------------------

                          IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       0.58          1.36
     Dep. Storage     (mm)=       1.00          5.00
     Average Slope     (%)=       0.50          2.00
     Length            (m)=     113.90         40.00
     Mannings n             =     0.013         0.250

         NOTE:  RAINFALL WAS TRANSFORMED TO   1.0 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
 0.017    6.00 | 3.017   13.00 | 6.017   23.00 |  9.02   53.00
 0.033    6.00 | 3.033   13.00 | 6.033   23.00 |  9.03   53.00
 0.050    6.00 | 3.050   13.00 | 6.050   23.00 |  9.05   53.00
 0.067    6.00 | 3.067   13.00 | 6.067   23.00 |  9.07   53.00
 0.083    6.00 | 3.083   13.00 | 6.083   23.00 |  9.08   53.00
 0.100    6.00 | 3.100   13.00 | 6.100   23.00 |  9.10   53.00
 0.117    6.00 | 3.117   13.00 | 6.117   23.00 |  9.12   53.00
 0.133    6.00 | 3.133   13.00 | 6.133   23.00 |  9.13   53.00
 0.150    6.00 | 3.150   13.00 | 6.150   23.00 |  9.15   53.00
 0.167    6.00 | 3.167   13.00 | 6.167   23.00 |  9.17   53.00
 0.183    6.00 | 3.183   13.00 | 6.183   23.00 |  9.18   53.00
 0.200    6.00 | 3.200   13.00 | 6.200   23.00 |  9.20   53.00
 0.217    6.00 | 3.217   13.00 | 6.217   23.00 |  9.22   53.00
 0.233    6.00 | 3.233   13.00 | 6.233   23.00 |  9.23   53.00
 0.250    6.00 | 3.250   13.00 | 6.250   23.00 |  9.25   53.00
 0.267    6.00 | 3.267   13.00 | 6.267   23.00 |  9.27   53.00
 0.283    6.00 | 3.283   13.00 | 6.283   23.00 |  9.28   53.00
 0.300    6.00 | 3.300   13.00 | 6.300   23.00 |  9.30   53.00
 0.317    6.00 | 3.317   13.00 | 6.317   23.00 |  9.32   53.00
 0.333    6.00 | 3.333   13.00 | 6.333   23.00 |  9.33   53.00
 0.350    6.00 | 3.350   13.00 | 6.350   23.00 |  9.35   53.00
 0.367    6.00 | 3.367   13.00 | 6.367   23.00 |  9.37   53.00
 0.383    6.00 | 3.383   13.00 | 6.383   23.00 |  9.38   53.00
 0.400    6.00 | 3.400   13.00 | 6.400   23.00 |  9.40   53.00
 0.417    6.00 | 3.417   13.00 | 6.417   23.00 |  9.42   53.00
 0.433    6.00 | 3.433   13.00 | 6.433   23.00 |  9.43   53.00
 0.450    6.00 | 3.450   13.00 | 6.450   23.00 |  9.45   53.00
 0.467    6.00 | 3.467   13.00 | 6.467   23.00 |  9.47   53.00
 0.483    6.00 | 3.483   13.00 | 6.483   23.00 |  9.48   53.00
 0.500    6.00 | 3.500   13.00 | 6.500   23.00 |  9.50   53.00
 0.517    6.00 | 3.517   13.00 | 6.517   23.00 |  9.52   53.00
 0.533    6.00 | 3.533   13.00 | 6.533   23.00 |  9.53   53.00
 0.550    6.00 | 3.550   13.00 | 6.550   23.00 |  9.55   53.00
 0.567    6.00 | 3.567   13.00 | 6.567   23.00 |  9.57   53.00
 0.583    6.00 | 3.583   13.00 | 6.583   23.00 |  9.58   53.00
 0.600    6.00 | 3.600   13.00 | 6.600   23.00 |  9.60   53.00
 0.617    6.00 | 3.617   13.00 | 6.617   23.00 |  9.62   53.00
 0.633    6.00 | 3.633   13.00 | 6.633   23.00 |  9.63   53.00
 0.650    6.00 | 3.650   13.00 | 6.650   23.00 |  9.65   53.00
 0.667    6.00 | 3.667   13.00 | 6.667   23.00 |  9.67   53.00
 0.683    6.00 | 3.683   13.00 | 6.683   23.00 |  9.68   53.00
 0.700    6.00 | 3.700   13.00 | 6.700   23.00 |  9.70   53.00
 0.717    6.00 | 3.717   13.00 | 6.717   23.00 |  9.72   53.00
 0.733    6.00 | 3.733   13.00 | 6.733   23.00 |  9.73   53.00
 0.750    6.00 | 3.750   13.00 | 6.750   23.00 |  9.75   53.00
 0.767    6.00 | 3.767   13.00 | 6.767   23.00 |  9.77   53.00
 0.783    6.00 | 3.783   13.00 | 6.783   23.00 |  9.78   53.00
 0.800    6.00 | 3.800   13.00 | 6.800   23.00 |  9.80   53.00
 0.817    6.00 | 3.817   13.00 | 6.817   23.00 |  9.82   53.00
 0.833    6.00 | 3.833   13.00 | 6.833   23.00 |  9.83   53.00
 0.850    6.00 | 3.850   13.00 | 6.850   23.00 |  9.85   53.00
 0.867    6.00 | 3.867   13.00 | 6.867   23.00 |  9.87   53.00
 0.883    6.00 | 3.883   13.00 | 6.883   23.00 |  9.88   53.00
 0.900    6.00 | 3.900   13.00 | 6.900   23.00 |  9.90   53.00
 0.917    6.00 | 3.917   13.00 | 6.917   23.00 |  9.92   53.00
 0.933    6.00 | 3.933   13.00 | 6.933   23.00 |  9.93   53.00
 0.950    6.00 | 3.950   13.00 | 6.950   23.00 |  9.95   53.00
 0.967    6.00 | 3.967   13.00 | 6.967   23.00 |  9.97   53.00
 0.983    6.00 | 3.983   13.00 | 6.983   23.00 |  9.98   53.00
 1.000    6.00 | 4.000   13.00 | 7.000   22.98 | 10.00   52.98
 1.017    4.00 | 4.017   17.00 | 7.017   13.00 | 10.02   38.00
 1.033    4.00 | 4.033   17.00 | 7.033   13.00 | 10.03   38.00
 1.050    4.00 | 4.050   17.00 | 7.050   13.00 | 10.05   38.00
 1.067    4.00 | 4.067   17.00 | 7.067   13.00 | 10.07   38.00
 1.083    4.00 | 4.083   17.00 | 7.083   13.00 | 10.08   38.00
 1.100    4.00 | 4.100   17.00 | 7.100   13.00 | 10.10   38.00
 1.117    4.00 | 4.117   17.00 | 7.117   13.00 | 10.12   38.00
 1.133    4.00 | 4.133   17.00 | 7.133   13.00 | 10.13   38.00
 1.150    4.00 | 4.150   17.00 | 7.150   13.00 | 10.15   38.00
 1.167    4.00 | 4.167   17.00 | 7.167   13.00 | 10.17   38.00
 1.183    4.00 | 4.183   17.00 | 7.183   13.00 | 10.18   38.00
 1.200    4.00 | 4.200   17.00 | 7.200   13.00 | 10.20   38.00
 1.217    4.00 | 4.217   17.00 | 7.217   13.00 | 10.22   38.00
 1.233    4.00 | 4.233   17.00 | 7.233   13.00 | 10.23   38.00
 1.250    4.00 | 4.250   17.00 | 7.250   13.00 | 10.25   38.00
 1.267    4.00 | 4.267   17.00 | 7.267   13.00 | 10.27   38.00
 1.283    4.00 | 4.283   17.00 | 7.283   13.00 | 10.28   38.00
 1.300    4.00 | 4.300   17.00 | 7.300   13.00 | 10.30   38.00
 1.317    4.00 | 4.317   17.00 | 7.317   13.00 | 10.32   38.00
 1.333    4.00 | 4.333   17.00 | 7.333   13.00 | 10.33   38.00
 1.350    4.00 | 4.350   17.00 | 7.350   13.00 | 10.35   38.00
 1.367    4.00 | 4.367   17.00 | 7.367   13.00 | 10.37   38.00
 1.383    4.00 | 4.383   17.00 | 7.383   13.00 | 10.38   38.00
 1.400    4.00 | 4.400   17.00 | 7.400   13.00 | 10.40   38.00
 1.417    4.00 | 4.417   17.00 | 7.417   13.00 | 10.42   38.00
 1.433    4.00 | 4.433   17.00 | 7.433   13.00 | 10.43   38.00
 1.450    4.00 | 4.450   17.00 | 7.450   13.00 | 10.45   38.00
 1.467    4.00 | 4.467   17.00 | 7.467   13.00 | 10.47   38.00
 1.483    4.00 | 4.483   17.00 | 7.483   13.00 | 10.48   38.00
 1.500    4.00 | 4.500   17.00 | 7.500   13.00 | 10.50   38.00
 1.517    4.00 | 4.517   17.00 | 7.517   13.00 | 10.52   38.00
 1.533    4.00 | 4.533   17.00 | 7.533   13.00 | 10.53   38.00
 1.550    4.00 | 4.550   17.00 | 7.550   13.00 | 10.55   38.00
 1.567    4.00 | 4.567   17.00 | 7.567   13.00 | 10.57   38.00
 1.583    4.00 | 4.583   17.00 | 7.583   13.00 | 10.58   38.00
 1.600    4.00 | 4.600   17.00 | 7.600   13.00 | 10.60   38.00
 1.617    4.00 | 4.617   17.00 | 7.617   13.00 | 10.62   38.00
 1.633    4.00 | 4.633   17.00 | 7.633   13.00 | 10.63   38.00
 1.650    4.00 | 4.650   17.00 | 7.650   13.00 | 10.65   38.00
 1.667    4.00 | 4.667   17.00 | 7.667   13.00 | 10.67   38.00
 1.683    4.00 | 4.683   17.00 | 7.683   13.00 | 10.68   38.00
 1.700    4.00 | 4.700   17.00 | 7.700   13.00 | 10.70   38.00
 1.717    4.00 | 4.717   17.00 | 7.717   13.00 | 10.72   38.00
 1.733    4.00 | 4.733   17.00 | 7.733   13.00 | 10.73   38.00
 1.750    4.00 | 4.750   17.00 | 7.750   13.00 | 10.75   38.00
 1.767    4.00 | 4.767   17.00 | 7.767   13.00 | 10.77   38.00
 1.783    4.00 | 4.783   17.00 | 7.783   13.00 | 10.78   38.00
 1.800    4.00 | 4.800   17.00 | 7.800   13.00 | 10.80   38.00
 1.817    4.00 | 4.817   17.00 | 7.817   13.00 | 10.82   38.00
 1.833    4.00 | 4.833   17.00 | 7.833   13.00 | 10.83   38.00
 1.850    4.00 | 4.850   17.00 | 7.850   13.00 | 10.85   38.00
 1.867    4.00 | 4.867   17.00 | 7.867   13.00 | 10.87   38.00
 1.883    4.00 | 4.883   17.00 | 7.883   13.00 | 10.88   38.00
 1.900    4.00 | 4.900   17.00 | 7.900   13.00 | 10.90   38.00
 1.917    4.00 | 4.917   17.00 | 7.917   13.00 | 10.92   38.00
 1.933    4.00 | 4.933   17.00 | 7.933   13.00 | 10.93   38.00
 1.950    4.00 | 4.950   17.00 | 7.950   13.00 | 10.95   38.00
 1.967    4.00 | 4.967   17.00 | 7.967   13.00 | 10.97   38.00
 1.983    4.00 | 4.983   17.00 | 7.983   13.00 | 10.98   38.00
 2.000    4.00 | 5.000   17.00 | 8.000   13.00 | 11.00   37.99
 2.017    6.00 | 5.017   13.00 | 8.017   13.00 | 11.02   13.00
 2.033    6.00 | 5.033   13.00 | 8.033   13.00 | 11.03   13.00
 2.050    6.00 | 5.050   13.00 | 8.050   13.00 | 11.05   13.00
 2.067    6.00 | 5.067   13.00 | 8.067   13.00 | 11.07   13.00
 2.083    6.00 | 5.083   13.00 | 8.083   13.00 | 11.08   13.00
 2.100    6.00 | 5.100   13.00 | 8.100   13.00 | 11.10   13.00
 2.117    6.00 | 5.117   13.00 | 8.117   13.00 | 11.12   13.00
 2.133    6.00 | 5.133   13.00 | 8.133   13.00 | 11.13   13.00
 2.150    6.00 | 5.150   13.00 | 8.150   13.00 | 11.15   13.00
 2.167    6.00 | 5.167   13.00 | 8.167   13.00 | 11.17   13.00
 2.183    6.00 | 5.183   13.00 | 8.183   13.00 | 11.18   13.00
 2.200    6.00 | 5.200   13.00 | 8.200   13.00 | 11.20   13.00
 2.217    6.00 | 5.217   13.00 | 8.217   13.00 | 11.22   13.00
 2.233    6.00 | 5.233   13.00 | 8.233   13.00 | 11.23   13.00
 2.250    6.00 | 5.250   13.00 | 8.250   13.00 | 11.25   13.00
 2.267    6.00 | 5.267   13.00 | 8.267   13.00 | 11.27   13.00
 2.283    6.00 | 5.283   13.00 | 8.283   13.00 | 11.28   13.00
 2.300    6.00 | 5.300   13.00 | 8.300   13.00 | 11.30   13.00
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2.317	6.00	5.317	13.00	8.317	13.00	11.32	13.00
2.333	6.00	5.333	13.00	8.333	13.00	11.33	13.00
2.350	6.00	5.350	13.00	8.350	13.00	11.35	13.00
2.367	6.00	5.367	13.00	8.367	13.00	11.37	13.00
2.383	6.00	5.383	13.00	8.383	13.00	11.38	13.00
2.400	6.00	5.400	13.00	8.400	13.00	11.40	13.00
2.417	6.00	5.417	13.00	8.417	13.00	11.42	13.00
2.433	6.00	5.433	13.00	8.433	13.00	11.43	13.00
2.450	6.00	5.450	13.00	8.450	13.00	11.45	13.00
2.467	6.00	5.467	13.00	8.467	13.00	11.47	13.00
2.483	6.00	5.483	13.00	8.483	13.00	11.48	13.00
2.500	6.00	5.500	13.00	8.500	13.00	11.50	13.00
2.517	6.00	5.517	13.00	8.517	13.00	11.52	13.00
2.533	6.00	5.533	13.00	8.533	13.00	11.53	13.00
2.550	6.00	5.550	13.00	8.550	13.00	11.55	13.00
2.567	6.00	5.567	13.00	8.567	13.00	11.57	13.00
2.583	6.00	5.583	13.00	8.583	13.00	11.58	13.00
2.600	6.00	5.600	13.00	8.600	13.00	11.60	13.00
2.617	6.00	5.617	13.00	8.617	13.00	11.62	13.00
2.633	6.00	5.633	13.00	8.633	13.00	11.63	13.00
2.650	6.00	5.650	13.00	8.650	13.00	11.65	13.00
2.667	6.00	5.667	13.00	8.667	13.00	11.67	13.00
2.683	6.00	5.683	13.00	8.683	13.00	11.68	13.00
2.700	6.00	5.700	13.00	8.700	13.00	11.70	13.00
2.717	6.00	5.717	13.00	8.717	13.00	11.72	13.00
2.733	6.00	5.733	13.00	8.733	13.00	11.73	13.00
2.750	6.00	5.750	13.00	8.750	13.00	11.75	13.00
2.767	6.00	5.767	13.00	8.767	13.00	11.77	13.00
2.783	6.00	5.783	13.00	8.783	13.00	11.78	13.00
2.800	6.00	5.800	13.00	8.800	13.00	11.80	13.00
2.817	6.00	5.817	13.00	8.817	13.00	11.82	13.00
2.833	6.00	5.833	13.00	8.833	13.00	11.83	13.00
2.850	6.00	5.850	13.00	8.850	13.00	11.85	13.00
2.867	6.00	5.867	13.00	8.867	13.00	11.87	13.00
2.883	6.00	5.883	13.00	8.883	13.00	11.88	13.00
2.900	6.00	5.900	13.00	8.900	13.00	11.90	13.00
2.917	6.00	5.917	13.00	8.917	13.00	11.92	13.00
2.933	6.00	5.933	13.00	8.933	13.00	11.93	13.00
2.950	6.00	5.950	13.00	8.950	13.00	11.95	13.00
2.967	6.00	5.967	13.00	8.967	13.00	11.97	13.00
2.983	6.00	5.983	13.00	8.983	13.00	11.98	13.00
3.000	6.00	6.000	13.01	9.000	13.08	12.00	13.00

Max.Eff.Inten.(mm/hr)=	53.00	33.63	
over (min)	5.00	16.00	
Storage Coeff. (min)=	4.38 (ii)	15.30 (ii)	
Unit Hyd. Tpeak (min)=	5.00	16.00	
Unit Hyd. peak (cms)=	0.25	0.07	
			TOTALS
PEAK FLOW (cms)=	0.07	0.12	0.192 (iii)
TIME TO PEAK (hrs)=	9.98	10.08	10.00
RUNOFF VOLUME (mm)=	210.99	91.88	122.85

TOTAL RAINFALL (mm)=	212.00	212.00	212.00
RUNOFF COEFFICIENT =	1.00	0.43	0.58

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 48.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

DUHYD (0037)
Inlet Cap.= 0.108
#of Inlets= 1
Total(cms)= 0.1

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
TOTAL HYD.(ID= 1):	1.95	0.19	10.00	122.85
MAJOR SYS.(ID= 2):	0.30	0.08	10.00	122.85
MINOR SYS.(ID= 3):	1.64	0.11	9.20	122.85

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

Junction Command(0038)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 9(0037)	1.64	0.11	9.20	122.85
OUTFLOW: ID= 2(0038)	1.64	0.11	9.20	122.85

CALIB	
NASHYD (0104)	Area (ha)= 0.77 Curve Number (CN)= 53.0
ID= 1 DT= 5.0 min	Ia (mm)= 5.00 # of Linear Res.(N)= 3.00
	U.H. Tp(hrs)= 0.34

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

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)= 0.086

PEAK FLOW (cms)= 0.066 (i)
TIME TO PEAK (hrs)= 10.083
RUNOFF VOLUME (mm)= 99.107
TOTAL RAINFALL (mm)= 212.000
RUNOFF COEFFICIENT = 0.467

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

CALIB	
STANDHYD (0103)	Area (ha)= 1.17
ID= 1 DT= 1.0 min	Total Imp(%)= 24.00 Dir. Conn.(%)= 20.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	0.28	0.89
Dep. Storage	(mm)=	1.00	5.00

Average Slope	(%)=	0.50	2.00
Length	(m)=	88.20	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 MIN. TIME STEP.

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.017	6.00	3.017	13.00	6.017	23.00	9.02	53.00
0.033	6.00	3.033	13.00	6.033	23.00	9.03	53.00
0.050	6.00	3.050	13.00	6.050	23.00	9.05	53.00
0.067	6.00	3.067	13.00	6.067	23.00	9.07	53.00
0.083	6.00	3.083	13.00	6.083	23.00	9.08	53.00
0.100	6.00	3.100	13.00	6.100	23.00	9.10	53.00
0.117	6.00	3.117	13.00	6.117	23.00	9.12	53.00
0.133	6.00	3.133	13.00	6.133	23.00	9.13	53.00
0.150	6.00	3.150	13.00	6.150	23.00	9.15	53.00
0.167	6.00	3.167	13.00	6.167	23.00	9.17	53.00
0.183	6.00	3.183	13.00	6.183	23.00	9.18	53.00
0.200	6.00	3.200	13.00	6.200	23.00	9.20	53.00
0.217	6.00	3.217	13.00	6.217	23.00	9.22	53.00
0.233	6.00	3.233	13.00	6.233	23.00	9.23	53.00
0.250	6.00	3.250	13.00	6.250	23.00	9.25	53.00
0.267	6.00	3.267	13.00	6.267	23.00	9.27	53.00
0.283	6.00	3.283	13.00	6.283	23.00	9.28	53.00
0.300	6.00	3.300	13.00	6.300	23.00	9.30	53.00
0.317	6.00	3.317	13.00	6.317	23.00	9.32	53.00
0.333	6.00	3.333	13.00	6.333	23.00	9.33	53.00
0.350	6.00	3.350	13.00	6.350	23.00	9.35	53.00
0.367	6.00	3.367	13.00	6.367	23.00	9.37	53.00
0.383	6.00	3.383	13.00	6.383	23.00	9.38	53.00
0.400	6.00	3.400	13.00	6.400	23.00	9.40	53.00
0.417	6.00	3.417	13.00	6.417	23.00	9.42	53.00
0.433	6.00	3.433	13.00	6.433	23.00	9.43	53.00
0.450	6.00	3.450	13.00	6.450	23.00	9.45	53.00
0.467	6.00	3.467	13.00	6.467	23.00	9.47	53.00
0.483	6.00	3.483	13.00	6.483	23.00	9.48	53.00
0.500	6.00	3.500	13.00	6.500	23.00	9.50	53.00
0.517	6.00	3.517	13.00	6.517	23.00	9.52	53.00
0.533	6.00	3.533	13.00	6.533	23.00	9.53	53.00
0.550	6.00	3.550	13.00	6.550	23.00	9.55	53.00
0.567	6.00	3.567	13.00	6.567	23.00	9.57	53.00
0.583	6.00	3.583	13.00	6.583	23.00	9.58	53.00
0.600	6.00	3.600	13.00	6.600	23.00	9.60	53.00
0.617	6.00	3.617	13.00	6.617	23.00	9.62	53.00
0.633	6.00	3.633	13.00	6.633	23.00	9.63	53.00
0.650	6.00	3.650	13.00	6.650	23.00	9.65	53.00
0.667	6.00	3.667	13.00	6.667	23.00	9.67	53.00
0.683	6.00	3.683	13.00	6.683	23.00	9.68	53.00
0.700	6.00	3.700	13.00	6.700	23.00	9.70	53.00
0.717	6.00	3.717	13.00	6.717	23.00	9.72	53.00
0.733	6.00	3.733	13.00	6.733	23.00	9.73	53.00
0.750	6.00	3.750	13.00	6.750	23.00	9.75	53.00
0.767	6.00	3.767	13.00	6.767	23.00	9.77	53.00
0.783	6.00	3.783	13.00	6.783	23.00	9.78	53.00
0.800	6.00	3.800	13.00	6.800	23.00	9.80	53.00
0.817	6.00	3.817	13.00	6.817	23.00	9.82	53.00
0.833	6.00	3.833	13.00	6.833	23.00	9.83	53.00
0.850	6.00	3.850	13.00	6.850	23.00	9.85	53.00
0.867	6.00	3.867	13.00	6.867	23.00	9.87	53.00
0.883	6.00	3.883	13.00	6.883	23.00	9.88	53.00
0.900	6.00	3.900	13.00	6.900	23.00	9.90	53.00
0.917	6.00	3.917	13.00	6.917	23.00	9.92	53.00
0.933	6.00	3.933	13.00	6.933	23.00	9.93	53.00
0.950	6.00	3.950	13.00	6.950	23.00	9.95	53.00
0.967	6.00	3.967	13.00	6.967	23.00	9.97	53.00
0.983	6.00	3.983	13.00	6.983	23.00	9.98	53.00
1.000	6.00	4.000	13.00	7.000	22.98	10.00	52.98
1.017	4.00	4.017	17.00	7.017	13.00	10.02	38.00
1.033	4.00	4.033	17.00	7.033	13.00	10.03	38.00
1.050	4.00	4.050	17.00	7.050	13.00	10.05	38.00
1.067	4.00	4.067	17.00	7.067	13.00	10.07	38.00
1.083	4.00	4.083	17.00	7.083	13.00	10.08	38.00
1.100	4.00	4.100	17.00	7.100	13.00	10.10	38.00
1.117	4.00	4.117	17.00	7.117	13.00	10.12	38.00
1.133	4.00	4.133	17.00	7.133	13.00	10.13	38.00
1.150	4.00	4.150	17.00	7.150	13.00	10.15	38.00
1.167	4.00	4.167	17.00	7.167	13.00	10.17	38.00
1.183	4.00	4.183	17.00	7.183	13.00	10.18	38.00
1.200	4.00	4.200	17.00	7.200	13.00	10.20	38.00
1.217	4.00	4.217	17.00	7.217	13.00	10.22	38.00
1.233	4.00	4.233	17.00	7.233	13.00	10.23	38.00
1.250	4.00	4.250	17.00	7.250	13.00	10.25	38.00
1.267	4.00	4.267	17.00	7.267	13.00	10.27	38.00
1.283	4.00	4.283	17.00	7.283	13.00	10.28	38.00
1.300	4.00	4.300	17.00	7.300	13.00	10.30	38.00
1.317	4.00	4.317	17.00	7.317	13.00	10.32	38.00
1.333	4.00	4.333	17.00	7.333	13.00	10.33	38.00
1.350	4.00	4.350	17.00	7.350	13.00	10.35	38.00
1.367	4.00	4.367	17.00	7.367	13.00	10.37	38.00
1.383	4.00	4.383	17.00	7.383	13.00	10.38	38.00
1.400	4.00	4.400	17.00	7.400	13.00	10.40	38.00
1.417	4.00	4.417	17.00	7.417	13.00	10.42	38.00
1.433	4.00	4.433	17.00	7.433	13.00	10.43	38.00
1.450	4.00	4.450	17.00	7.450	13.00	10.45	38.00
1.467	4.00	4.467	17.00	7.467	13.00	10.47	38.00
1.483	4.00	4.483	17.00	7.483	13.00	10.48	38.00
1.500	4.00	4.500	17.00	7.500	13.00	10.50	38.00
1.517	4.00	4.517	17.00	7.517	13.00	10.52	38.00
1.533	4.00	4.533	17.00	7.533	13.00	10.53	38.00
1.550	4.00	4.550	17.00	7.550	13.00	10.55	38.00
1.567	4.00	4.567	17.00	7.567	13.00	10.57	38.00
1.583	4.00	4.583	17.00	7.583	13.00	10.58	38.00
1.600	4.00	4.600	17.00	7.600	13.00	10.60	38.00
1.617	4.00	4.617	17.00	7.617	13.00	10.62	38.00
1.633	4.00	4.633	17.00	7.633	13.00	10.63	38.00
1.650	4.00	4.650	17.00	7.650	13.00	10.65	38.00
1.667	4.00	4.667	17.00	7.667	13.00	10.67	38.00
1.683	4.00	4.683	17.00	7.683	13.00	10.68	38.00
1.700	4.00	4.700	17.00	7.700	13.00	10.70	38.00
1.717	4.00	4.717	17.00	7.717	13.00	10.72	38.00
1.733	4.00	4.733	17.00	7.733	13.00	10.73	38.00
1.750	4.00	4.750	17.00	7.750	13.00	10.75	38.00
1.767	4.00	4.767	17.00	7.767	13.00	10.77	38.00
1.783	4.00	4.783	17.00	7.783	13.00	10.78	38.00
1.800	4.00	4.800	17.00	7.800	13.00	10.80	38.00
1.817	4.00	4.817	17.00	7.817	13.00	10.82	38.00
1.833	4.00	4.833	17.00	7.833	13.00	10.83	38.00
1.850	4.00	4.850	17.00	7.850	13.00	10.85	38.00
1.867	4.00	4.867	17.00	7.867	13.00	10.87	38.00
1.883	4.00	4.883	17.00	7.883	13.00	10.88	38.00
1.900	4.00	4.900	17.00	7.900	13.00	10.90	38.00
1.917	4.00	4.917	17.00	7.917	13.00	10.92	38.00
1.933	4.00	4.933	17.00	7.933	13.00	10.93	38.00
1.950	4.00	4.950	17.00	7.950	13.00	10.95	38.00
1.967	4.00	4.967	17.00	7.967	13.00	10.97	38.00
1.983	4.00	4.983	17.00	7.983	13.00	10.98	38.00
2.000	4.00	5.000	17.00	8.000	13.00	11.00	37.99
2.017	6.00	5.017	13.00	8.017	13.00	11.02	13.00
2.033	6.00	5.033	13.00	8.033	13.00	11.03	13.00
2.050	6.00	5.050	13.00	8.050	13.00	11.05	13.00
2.067	6.00	5.067	13.00	8.067	13.00	11.07	13.00
2.083	6.00	5.083	13.00	8.083	13.00	11.08	13.00
2.100	6.00	5.100	13.00	8.100	13.00	11.10	13.00
2.117	6.00	5.117	13.00	8.117	13.00	11.12	13.00
2.133	6.00	5.133	13.00	8.133	13.00	11.13	13.00
2.150	6.00	5.150	13.00	8.150	13.00	11.15	13.00
2.167	6.00	5.167	13.00	8.167	13.00	11.17	13.00
2.183	6.00	5.183	13.00	8.183	13.00	11.18	13.00
2.200	6.00	5.200	13.00	8.200	13.00	11.20	13.00
2.217	6.00	5.217	13.00	8.217	13.00	11.22	13.00
2.233	6.00	5.233	13.00	8.233	13.00	11.23	13.00
2.250	6.00	5.250	13.00	8.250	13.00	11.25	13.00
2.267	6.00	5.267	13.00	8.267	13.00	11.27	13.00
2.283	6.00	5.283	13.00	8.283	13.00	11.28	13.00
2.300	6.00	5.300	13.00	8.300	13.00	11.30	13.00
2.317	6.00	5.317	13.00	8.317	13.00	11.32	13.00
2.333	6.00	5.333	13.00	8.333	13.00	11.33	13.00
2.350	6.00	5.350	13.00	8.350	13.00	11.35	13.00
2.367	6.00	5.367	13.00	8.367	13.00	11.37	13.00
2.383	6.00	5.383	13.00	8.383	13.00	11.38	13.00
2.400	6.00	5.400	13.00	8.400	13.00	11.40	13.00
2.417	6.00	5.417	13.00	8.417	13.00	11.42	13.00
2.433	6.00	5.433	13.00	8.433	13.00	11.43	13.00

2.450	6.00	5.450	13.00	8.450	13.00	11.45	13.00
2.467	6.00	5.467	13.00	8.467	13.00	11.47	13.00
2.483	6.00	5.483	13.00	8.483	13.00	11.48	13.00
2.500	6.00	5.500	13.00	8.500	13.00	11.50	13.00
2.517	6.00	5.517	13.00	8.517	13.00	11.52	13.00
2.533	6.00	5.533	13.00	8.533	13.00	11.53	13.00
2.550	6.00	5.550	13.00	8.550	13.00	11.55	13.00
2.567	6.00	5.567	13.00	8.567	13.00	11.57	13.00
2.583	6.00	5.583	13.00	8.583	13.00	11.58	13.00
2.600	6.00	5.600	13.00	8.600	13.00	11.60	13.00
2.617	6.00	5.617	13.00	8.617	13.00	11.62	13.00
2.633	6.00	5.633	13.00	8.633	13.00	11.63	13.00
2.650	6.00	5.650	13.00	8.650	13.00	11.65	13.00
2.667	6.00	5.667	13.00	8.667	13.00	11.67	13.00
2.683	6.00	5.683	13.00	8.683	13.00	11.68	13.00
2.700	6.00	5.700	13.00	8.700	13.00	11.70	13.00
2.717	6.00	5.717	13.00	8.717	13.00	11.72	13.00
2.733	6.00	5.733	13.00	8.733	13.00	11.73	13.00
2.750	6.00	5.750	13.00	8.750	13.00	11.75	13.00
2.767	6.00	5.767	13.00	8.767	13.00	11.77	13.00
2.783	6.00	5.783	13.00	8.783	13.00	11.78	13.00
2.800	6.00	5.800	13.00	8.800	13.00	11.80	13.00
2.817	6.00	5.817	13.00	8.817	13.00	11.82	13.00
2.833	6.00	5.833	13.00	8.833	13.00	11.83	13.00
2.850	6.00	5.850	13.00	8.850	13.00	11.85	13.00
2.867	6.00	5.867	13.00	8.867	13.00	11.87	13.00
2.883	6.00	5.883	13.00	8.883	13.00	11.88	13.00
2.900	6.00	5.900	13.00	8.900	13.00	11.90	13.00
2.917	6.00	5.917	13.00	8.917	13.00	11.92	13.00
2.933	6.00	5.933	13.00	8.933	13.00	11.93	13.00
2.950	6.00	5.950	13.00	8.950	13.00	11.95	13.00
2.967	6.00	5.967	13.00	8.967	13.00	11.97	13.00
2.983	6.00	5.983	13.00	8.983	13.00	11.98	13.00
3.000	6.00	6.000	13.01	9.000	13.08	12.00	13.00

Max.Eff.Inten.(mm/hr)=	53.00	39.16	
over (min)	5.00	15.00	
Storage Coeff. (min)=	3.76 (ii)	14.03 (ii)	
Unit Hyd. Tpeak (min)=	5.00	15.00	
Unit Hyd. peak (cms)=	0.27	0.08	
			TOTALS
PEAK FLOW (cms)=	0.03	0.09	0.125 (iii)
TIME TO PEAK (hrs)=	9.83	10.05	10.00
RUNOFF VOLUME (mm)=	211.00	110.33	130.46
TOTAL RAINFALL (mm)=	212.00	212.00	212.00
RUNOFF COEFFICIENT =	1.00	0.52	0.62

***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
YOU SHOULD CONSIDER SPLITTING THE AREA.

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 57.0 Ia = Dep. Storage (Above)

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

CALIB			
STANDHYD (1011)	Area	(ha)=	13.73
ID= 1 DT= 1.0 min	Total Imp(%)=	46.00	Dir. Conn.(%)= 39.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	6.32	7.42
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	0.50	2.00
Length	(m)=	302.59	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 1.0 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
0.017	6.00	3.017	13.00	6.017	23.00	9.02	53.00
0.033	6.00	3.033	13.00	6.033	23.00	9.03	53.00
0.050	6.00	3.050	13.00	6.050	23.00	9.05	53.00
0.067	6.00	3.067	13.00	6.067	23.00	9.07	53.00
0.083	6.00	3.083	13.00	6.083	23.00	9.08	53.00
0.100	6.00	3.100	13.00	6.100	23.00	9.10	53.00
0.117	6.00	3.117	13.00	6.117	23.00	9.12	53.00
0.133	6.00	3.133	13.00	6.133	23.00	9.13	53.00
0.150	6.00	3.150	13.00	6.150	23.00	9.15	53.00
0.167	6.00	3.167	13.00	6.167	23.00	9.17	53.00
0.183	6.00	3.183	13.00	6.183	23.00	9.18	53.00
0.200	6.00	3.200	13.00	6.200	23.00	9.20	53.00
0.217	6.00	3.217	13.00	6.217	23.00	9.22	53.00
0.233	6.00	3.233	13.00	6.233	23.00	9.23	53.00
0.250	6.00	3.250	13.00	6.250	23.00	9.25	53.00
0.267	6.00	3.267	13.00	6.267	23.00	9.27	53.00
0.283	6.00	3.283	13.00	6.283	23.00	9.28	53.00
0.300	6.00	3.300	13.00	6.300	23.00	9.30	53.00
0.317	6.00	3.317	13.00	6.317	23.00	9.32	53.00
0.333	6.00	3.333	13.00	6.333	23.00	9.33	53.00
0.350	6.00	3.350	13.00	6.350	23.00	9.35	53.00
0.367	6.00	3.367	13.00	6.367	23.00	9.37	53.00
0.383	6.00	3.383	13.00	6.383	23.00	9.38	53.00
0.400	6.00	3.400	13.00	6.400	23.00	9.40	53.00
0.417	6.00	3.417	13.00	6.417	23.00	9.42	53.00
0.433	6.00	3.433	13.00	6.433	23.00	9.43	53.00
0.450	6.00	3.450	13.00	6.450	23.00	9.45	53.00
0.467	6.00	3.467	13.00	6.467	23.00	9.47	53.00
0.483	6.00	3.483	13.00	6.483	23.00	9.48	53.00
0.500	6.00	3.500	13.00	6.500	23.00	9.50	53.00
0.517	6.00	3.517	13.00	6.517	23.00	9.52	53.00
0.533	6.00	3.533	13.00	6.533	23.00	9.53	53.00
0.550	6.00	3.550	13.00	6.550	23.00	9.55	53.00
0.567	6.00	3.567	13.00	6.567	23.00	9.57	53.00
0.583	6.00	3.583	13.00	6.583	23.00	9.58	53.00
0.600	6.00	3.600	13.00	6.600	23.00	9.60	53.00
0.617	6.00	3.617	13.00	6.617	23.00	9.62	53.00
0.633	6.00	3.633	13.00	6.633	23.00	9.63	53.00
0.650	6.00	3.650	13.00	6.650	23.00	9.65	53.00
0.667	6.00	3.667	13.00	6.667	23.00	9.67	53.00
0.683	6.00	3.683	13.00	6.683	23.00	9.68	53.00
0.700	6.00	3.700	13.00	6.700	23.00	9.70	53.00
0.717	6.00	3.717	13.00	6.717	23.00	9.72	53.00
0.733	6.00	3.733	13.00	6.733	23.00	9.73	53.00
0.750	6.00	3.750	13.00	6.750	23.00	9.75	53.00
0.767	6.00	3.767	13.00	6.767	23.00	9.77	53.00
0.783	6.00	3.783	13.00	6.783	23.00	9.78	53.00
0.800	6.00	3.800	13.00	6.800	23.00	9.80	53.00
0.817	6.00	3.817	13.00	6.817	23.00	9.82	53.00
0.833	6.00	3.833	13.00	6.833	23.00	9.83	53.00
0.850	6.00	3.850	13.00	6.850	23.00	9.85	53.00
0.867	6.00	3.867	13.00	6.867	23.00	9.87	53.00
0.883	6.00	3.883	13.00	6.883	23.00	9.88	53.00
0.900	6.00	3.900	13.00	6.900	23.00	9.90	53.00
0.917	6.00	3.917	13.00	6.917	23.00	9.92	53.00
0.933	6.00	3.933	13.00	6.933	23.00	9.93	53.00
0.950	6.00	3.950	13.00	6.950	23.00	9.95	53.00
0.967	6.00	3.967	13.00	6.967	23.00	9.97	53.00
0.983	6.00	3.983	13.00	6.983	23.00	9.98	53.00
1.000	6.00	4.000	13.00	7.000	22.98	10.00	52.98
1.017	4.00	4.017	17.00	7.017	13.00	10.02	38.00
1.033	4.00	4.033	17.00	7.033	13.00	10.03	38.00
1.050	4.00	4.050	17.00	7.050	13.00	10.05	38.00
1.067	4.00	4.067	17.00	7.067	13.00	10.07	38.00
1.083	4.00	4.083	17.00	7.083	13.00	10.08	38.00
1.100	4.00	4.100	17.00	7.100	13.00	10.10	38.00
1.117	4.00	4.117	17.00	7.117	13.00	10.12	38.00
1.133	4.00	4.133	17.00	7.133	13.00	10.13	38.00
1.150	4.00	4.150	17.00	7.150	13.00	10.15	38.00
1.167	4.00	4.167	17.00	7.167	13.00	10.17	38.00
1.183	4.00	4.183	17.00	7.183	13.00	10.18	38.00
1.200	4.00	4.200	17.00	7.200	13.00	10.20	38.00
1.217	4.00	4.217	17.00	7.217	13.00	10.22	38.00
1.233	4.00	4.233	17.00	7.233	13.00	10.23	38.00
1.250	4.00	4.250	17.00	7.250	13.00	10.25	38.00
1.267	4.00	4.267	17.00	7.267	13.00	10.27	38.00
1.283	4.00	4.283	17.00	7.283	13.00	10.28	38.00
1.300	4.00	4.300	17.00	7.300	13.00	10.30	38.00
1.317	4.00	4.317	17.00	7.317	13.00	10.32	38.00
1.333	4.00	4.333	17.00	7.333	13.00	10.33	38.00
1.350	4.00	4.350	17.00	7.350	13.00	10.35	38.00
1.367	4.00	4.367	17.00	7.367	13.00	10.37	38.00
1.383	4.00	4.383	17.00	7.383	13.00	10.38	38.00
1.400	4.00	4.400	17.00	7.400	13.00	10.40	38.00
1.417	4.00	4.417	17.00	7.417	13.00	10.42	38.00
1.433	4.00	4.433	17.00	7.433	13.00	10.43	38.00
1.450	4.00	4.450	17.00	7.450	13.00	10.45	38.00
1.467	4.00	4.467	17.00	7.467	13.00	10.47	38.00
1.483	4.00	4.483	17.00	7.483	13.00	10.48	38.00
1.500	4.00	4.500	17.00	7.500	13.00	10.50	38.00
1.517	4.00	4.517	17.00	7.517	13.00	10.52	38.00
1.533	4.00	4.533	17.00	7.533	13.00	10.53	38.00
1.550	4.00	4.550	17.00	7.550	13.00	10.55	38.00
1.567	4.00	4.567	17.00	7.567	13.00	10.57	38.00
1.583	4.00	4.583	17.00	7.583	13.00	10.58	38.00
1.600	4.00	4.600	17.00	7.600	13.00	10.60	38.00
1.617	4.00	4.617	17.00	7.617	13.00	10.62	38.00
1.633	4.00	4.633	17.00	7.633	13.00	10.63	38.00
1.650	4.00	4.650	17.00	7.650	13.00	10.65	38.00
1.667	4.00	4.667	17.00	7.667	13.00	10.67	38.00
1.683	4.00	4.683	17.00	7.683	13.00	10.68	38.00
1.700	4.00	4.700	17.00	7.700	13.00	10.70	38.00
1.717	4.00	4.717	17.00	7.717	13.00	10.72	38.00
1.733	4.00	4.733	17.00	7.733	13.00	10.73	38.00
1.750	4.00	4.750	17.00	7.750	13.00	10.75	38.00
1.767	4.00	4.767	17.00	7.767	13.00	10.77	38.00
1.783	4.00	4.783	17.00	7.783	13.00	10.78	38.00
1.800	4.00	4.800	17.00	7.800	13.00	10.80	38.00
1.817	4.00	4.817	17.00	7.817	13.00	10.82	38.00
1.833	4.00	4.833	17.00	7.833	13.00	10.83	38.00
1.850	4.00	4.850	17.00	7.850	13.00	10.85	38.00
1.867	4.00	4.867	17.00	7.867	13.00	10.87	38.00
1.883	4.00	4.883	17.00	7.883	13.00	10.88	38.00
1.900	4.00	4.900	17.00	7.900	13.00	10.90	38.00
1.917	4.00	4.917	17.00	7.917	13.00	10.92	38.00
1.933	4.00	4.933	17.00	7.933	13.00	10.93	38.00
1.950	4.00	4.950	17.00	7.950	13.00	10.95	38.00
1.967	4.00	4.967	17.00	7.967	13.00	10.97	38.00
1.983	4.00	4.983	17.00	7.983	13.00	10.98	38.00
2.000	4.00	5.000	17.00	8.000	13.00	11.00	37.99
2.017	6.00	5.017	13.00	8.017	13.00	11.02	13.00
2.033	6.00	5.033	13.00	8.033	13.00	11.03	13.00
2.050	6.00	5.050	13.00	8.050	13.00	11.05	13.00
2.067	6.00	5.067	13.00	8.067	13.00	11.07	13.00
2.083	6.00	5.083	13.00	8.083	13.00	11.08	13.00
2.100	6.00	5.100	13.00	8.100	13.00	11.10	13.00
2.117	6.00	5.117	13.00	8.117	13.00	11.12	13.00
2.133	6.00	5.133	13.00	8.133	13.00	11.13	13.00
2.150	6.00	5.150	13.00	8.150	13.00	11.15	13.00
2.167	6.00	5.167	13.00	8.167	13.00	11.17	13.00
2.183	6.00	5.183	13.00	8.183	13.00	11.18	13.00
2.200	6.00	5.200	13.00	8.200	13.00	11.20	13.00
2.217	6.00	5.217	13.00	8.217	13.00	11.22	13.00
2.233	6.00	5.233	13.00	8.233	13.00	11.23	13.00
2.250	6.00	5.250	13.00	8.250	13.00	11.25	13.00
2.267	6.00	5.267	13.00	8.267	13.00	11.27	13.00
2.283	6.00	5.283	13.00	8.283	13.00	11.28	13.00
2.300	6.00	5.300	13.00	8.300	13.00	11.30	13.00
2.317	6.00	5.317	13.00	8.317	13.00	11.32	13.00
2.333	6.00	5.333	13.00	8.333	13.00	11.33	13.00
2.350	6.00	5.350	13.00	8.350	13.00	11.35	13.00
2.367	6.00	5.367	13.00	8.367	13.00	11.37	13.00
2.383	6.00	5.383	13.00	8.383	13.00	11.38	13.00
2.400	6.00	5.400	13.00	8.400	13.00	11.40	13.00
2.417	6.00	5.417	13.00	8.417	13.00	11.42	13.00
2.433	6.00	5.433	13.00	8.433	13.00	11.43	13.00
2.450	6.00	5.450	13.00	8.450	13.00	11.45	13.00
2.467	6.00	5.467	13.00	8.467	13.00	11.47	13.00
2.483	6.00	5.483	13.00	8.483	13.00	11.48	13.00
2.500	6.00	5.500	13.00	8.500	13.00	11.50	13.00
2.517	6.00	5.517	13.00	8.517	13.00	11.52	13.00
2.533	6.00	5.533	13.00	8.533	13.00	11.53	13.00
2.550	6.00	5.550	13.00	8.550	13.00	11.55	13.00
2.567	6.00	5.567	13.00	8.567	13.00	11.57	13.00
2.583	6.00	5.583	13.00	8.583	13.00	11.58	13.00
2.600	6.00	5.600	13.00	8.600	13.00	11.60	13.00
2.617	6.00	5.617	13.00	8.617	13.00	11.62	13.00
2.633	6.00	5.633	13.00	8.633	13.00	11.63	13.00
2.650	6.00	5.650	13.00	8.650	13.00	11.65	13.00
2.667	6.00	5.667	13.00	8.667	13.00	11.67	13.00
2.683	6.00	5.683	13.00	8.683	13.00	11.68	13.00
2.700	6.00	5.700	13.00	8.700	13.00	11.70	13.00
2.717	6.00	5.717	13.00	8.717	13.00	11.72	13.00
2.733	6.00	5.733	13.00	8.733	13.00	11.73	13.00
2.750	6.00	5.750	13.00	8.750	13.00	11.75	13.00
2.767	6.00	5.767	13.00	8.767	13.00	11.77	13.00
2.783	6.00	5.783	13.00	8.783	13.00	11.78	13.00
2.800	6.00	5.800	13.00	8.800	13.00	11.80	13.00
2.817	6.00	5.817	13.00	8.817	13.00	11.82	13.00
2.833	6.00	5.833	13.00	8.833	13.00	11.83	13.00
2.850	6.00	5.850	13.00	8.850	13.00	11.85	13.00
2.867	6.00	5.867	13.00	8.867	13.00	11.87	13.00
2.883	6.00	5.883	13.00	8.883	13.00	11.88	13.00
2.900	6.00	5.900	13.00	8.900	13.00	11.90	13.00
2.917	6.00	5.917	13.00	8.917	13.00	11.92	13.00
2.933	6.00	5.933	13.00	8.933	13.00	11.93	13.00
2.950	6.00	5.950	13.00	8.950	13.00	11.95	13.00
2.967	6.00	5.967	13.00	8.967	13.00	11.97	13.00
2.983	6.00	5.983	13.00	8.983	13.00	11.98	13.00
3.000	6.00	6.000	13.01	9.000	13.08	12.00	13.00

Max.Eff.Inten.(mm/hr)=	53.00	37.13	
over (min)	8.00	19.00	
Storage Coeff. (min)=	7.88 (ii)	18.37 (ii)	
Unit Hyd. Tpeak (min)=	8.00	19.00	
Unit Hyd. peak (cms)=	0.14	0.06	
			TOTALS
PEAK FLOW (cms)=	0.79	0.70	1.471 (iii)
TIME TO PEAK (hrs)=	10.00	10.12	10.02
RUNOFF VOLUME (mm)=	210.98	95.49	140.55
TOTAL RAINFALL (mm)=	212.00	212.00	212.00
RUNOFF COEFFICIENT =	1.00	0.45	0.66

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 48.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0101)					
1 + 2 = 3		AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (1011):		13.73	1.471	10.02	140.55
+ ID2= 2 (0034):		0.00	0.025	10.02	153.46
ID = 3 (0101):		13.74	1.496	10.02	140.55

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0901)					
1 + 2 = 3		AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0101):		13.74	1.496	10.02	140.55
+ ID2= 2 (0103):		1.17	0.125	10.00	130.46
ID = 3 (0901):		14.91	1.621	10.02	139.76

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0902)					
1 + 2 = 3		AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0104):		0.77	0.066	10.08	99.11
+ ID2= 2 (0901):		14.91	1.621	10.02	139.76
ID = 3 (0902):		15.67	1.687	10.02	137.77

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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| CALIB            |
| STANDHYD (  1021)|   Area    (ha)=   3.77
|ID= 1 DT= 1.0 min |   Total Imp(%)=  45.00   Dir. Conn.(%)=  38.00
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                          IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       1.70         2.07
     Dep. Storage     (mm)=       1.00         5.00
     Average Slope     (%)=       0.50         2.00
     Length            (m)=     158.56        40.00
     Mannings n             =     0.013        0.250

         NOTE:  RAINFALL WAS TRANSFORMED TO   1.0 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
 0.017    6.00 | 3.017   13.00 | 6.017   23.00 |  9.02   53.00
 0.033    6.00 | 3.033   13.00 | 6.033   23.00 |  9.03   53.00
 0.050    6.00 | 3.050   13.00 | 6.050   23.00 |  9.05   53.00
 0.067    6.00 | 3.067   13.00 | 6.067   23.00 |  9.07   53.00
 0.083    6.00 | 3.083   13.00 | 6.083   23.00 |  9.08   53.00
 0.100    6.00 | 3.100   13.00 | 6.100   23.00 |  9.10   53.00
 0.117    6.00 | 3.117   13.00 | 6.117   23.00 |  9.12   53.00
 0.133    6.00 | 3.133   13.00 | 6.133   23.00 |  9.13   53.00
 0.150    6.00 | 3.150   13.00 | 6.150   23.00 |  9.15   53.00
 0.167    6.00 | 3.167   13.00 | 6.167   23.00 |  9.17   53.00
 0.183    6.00 | 3.183   13.00 | 6.183   23.00 |  9.18   53.00
 0.200    6.00 | 3.200   13.00 | 6.200   23.00 |  9.20   53.00
 0.217    6.00 | 3.217   13.00 | 6.217   23.00 |  9.22   53.00
 0.233    6.00 | 3.233   13.00 | 6.233   23.00 |  9.23   53.00
 0.250    6.00 | 3.250   13.00 | 6.250   23.00 |  9.25   53.00
 0.267    6.00 | 3.267   13.00 | 6.267   23.00 |  9.27   53.00
 0.283    6.00 | 3.283   13.00 | 6.283   23.00 |  9.28   53.00
 0.300    6.00 | 3.300   13.00 | 6.300   23.00 |  9.30   53.00
 0.317    6.00 | 3.317   13.00 | 6.317   23.00 |  9.32   53.00
 0.333    6.00 | 3.333   13.00 | 6.333   23.00 |  9.33   53.00
 0.350    6.00 | 3.350   13.00 | 6.350   23.00 |  9.35   53.00
 0.367    6.00 | 3.367   13.00 | 6.367   23.00 |  9.37   53.00
 0.383    6.00 | 3.383   13.00 | 6.383   23.00 |  9.38   53.00
 0.400    6.00 | 3.400   13.00 | 6.400   23.00 |  9.40   53.00
 0.417    6.00 | 3.417   13.00 | 6.417   23.00 |  9.42   53.00
 0.433    6.00 | 3.433   13.00 | 6.433   23.00 |  9.43   53.00
 0.450    6.00 | 3.450   13.00 | 6.450   23.00 |  9.45   53.00
 0.467    6.00 | 3.467   13.00 | 6.467   23.00 |  9.47   53.00
 0.483    6.00 | 3.483   13.00 | 6.483   23.00 |  9.48   53.00
 0.500    6.00 | 3.500   13.00 | 6.500   23.00 |  9.50   53.00
 0.517    6.00 | 3.517   13.00 | 6.517   23.00 |  9.52   53.00
 0.533    6.00 | 3.533   13.00 | 6.533   23.00 |  9.53   53.00
 0.550    6.00 | 3.550   13.00 | 6.550   23.00 |  9.55   53.00
 0.567    6.00 | 3.567   13.00 | 6.567   23.00 |  9.57   53.00
 0.583    6.00 | 3.583   13.00 | 6.583   23.00 |  9.58   53.00
 0.600    6.00 | 3.600   13.00 | 6.600   23.00 |  9.60   53.00
 0.617    6.00 | 3.617   13.00 | 6.617   23.00 |  9.62   53.00
 0.633    6.00 | 3.633   13.00 | 6.633   23.00 |  9.63   53.00
 0.650    6.00 | 3.650   13.00 | 6.650   23.00 |  9.65   53.00
 0.667    6.00 | 3.667   13.00 | 6.667   23.00 |  9.67   53.00
 0.683    6.00 | 3.683   13.00 | 6.683   23.00 |  9.68   53.00
 0.700    6.00 | 3.700   13.00 | 6.700   23.00 |  9.70   53.00
 0.717    6.00 | 3.717   13.00 | 6.717   23.00 |  9.72   53.00
 0.733    6.00 | 3.733   13.00 | 6.733   23.00 |  9.73   53.00
 0.750    6.00 | 3.750   13.00 | 6.750   23.00 |  9.75   53.00
 0.767    6.00 | 3.767   13.00 | 6.767   23.00 |  9.77   53.00
 0.783    6.00 | 3.783   13.00 | 6.783   23.00 |  9.78   53.00
 0.800    6.00 | 3.800   13.00 | 6.800   23.00 |  9.80   53.00
 0.817    6.00 | 3.817   13.00 | 6.817   23.00 |  9.82   53.00
 0.833    6.00 | 3.833   13.00 | 6.833   23.00 |  9.83   53.00
 0.850    6.00 | 3.850   13.00 | 6.850   23.00 |  9.85   53.00
 0.867    6.00 | 3.867   13.00 | 6.867   23.00 |  9.87   53.00
 0.883    6.00 | 3.883   13.00 | 6.883   23.00 |  9.88   53.00
 0.900    6.00 | 3.900   13.00 | 6.900   23.00 |  9.90   53.00
 0.917    6.00 | 3.917   13.00 | 6.917   23.00 |  9.92   53.00
 0.933    6.00 | 3.933   13.00 | 6.933   23.00 |  9.93   53.00
 0.950    6.00 | 3.950   13.00 | 6.950   23.00 |  9.95   53.00
 0.967    6.00 | 3.967   13.00 | 6.967   23.00 |  9.97   53.00
 0.983    6.00 | 3.983   13.00 | 6.983   23.00 |  9.98   53.00
 1.000    6.00 | 4.000   13.00 | 7.000   22.98 | 10.00   52.98
 1.017    4.00 | 4.017   17.00 | 7.017   13.00 | 10.02   38.00
 1.033    4.00 | 4.033   17.00 | 7.033   13.00 | 10.03   38.00
 1.050    4.00 | 4.050   17.00 | 7.050   13.00 | 10.05   38.00
 1.067    4.00 | 4.067   17.00 | 7.067   13.00 | 10.07   38.00
 1.083    4.00 | 4.083   17.00 | 7.083   13.00 | 10.08   38.00
 1.100    4.00 | 4.100   17.00 | 7.100   13.00 | 10.10   38.00
 1.117    4.00 | 4.117   17.00 | 7.117   13.00 | 10.12   38.00
 1.133    4.00 | 4.133   17.00 | 7.133   13.00 | 10.13   38.00
 1.150    4.00 | 4.150   17.00 | 7.150   13.00 | 10.15   38.00
 1.167    4.00 | 4.167   17.00 | 7.167   13.00 | 10.17   38.00
 1.183    4.00 | 4.183   17.00 | 7.183   13.00 | 10.18   38.00
 1.200    4.00 | 4.200   17.00 | 7.200   13.00 | 10.20   38.00
 1.217    4.00 | 4.217   17.00 | 7.217   13.00 | 10.22   38.00
 1.233    4.00 | 4.233   17.00 | 7.233   13.00 | 10.23   38.00
 1.250    4.00 | 4.250   17.00 | 7.250   13.00 | 10.25   38.00
 1.267    4.00 | 4.267   17.00 | 7.267   13.00 | 10.27   38.00
 1.283    4.00 | 4.283   17.00 | 7.283   13.00 | 10.28   38.00
 1.300    4.00 | 4.300   17.00 | 7.300   13.00 | 10.30   38.00
 1.317    4.00 | 4.317   17.00 | 7.317   13.00 | 10.32   38.00
 1.333    4.00 | 4.333   17.00 | 7.333   13.00 | 10.33   38.00
 1.350    4.00 | 4.350   17.00 | 7.350   13.00 | 10.35   38.00
 1.367    4.00 | 4.367   17.00 | 7.367   13.00 | 10.37   38.00
 1.383    4.00 | 4.383   17.00 | 7.383   13.00 | 10.38   38.00
 1.400    4.00 | 4.400   17.00 | 7.400   13.00 | 10.40   38.00
 1.417    4.00 | 4.417   17.00 | 7.417   13.00 | 10.42   38.00
 1.433    4.00 | 4.433   17.00 | 7.433   13.00 | 10.43   38.00
 1.450    4.00 | 4.450   17.00 | 7.450   13.00 | 10.45   38.00
 1.467    4.00 | 4.467   17.00 | 7.467   13.00 | 10.47   38.00
 1.483    4.00 | 4.483   17.00 | 7.483   13.00 | 10.48   38.00
 1.500    4.00 | 4.500   17.00 | 7.500   13.00 | 10.50   38.00
 1.517    4.00 | 4.517   17.00 | 7.517   13.00 | 10.52   38.00
 1.533    4.00 | 4.533   17.00 | 7.533   13.00 | 10.53   38.00
 1.550    4.00 | 4.550   17.00 | 7.550   13.00 | 10.55   38.00
 1.567    4.00 | 4.567   17.00 | 7.567   13.00 | 10.57   38.00
 1.583    4.00 | 4.583   17.00 | 7.583   13.00 | 10.58   38.00
 1.600    4.00 | 4.600   17.00 | 7.600   13.00 | 10.60   38.00
 1.617    4.00 | 4.617   17.00 | 7.617   13.00 | 10.62   38.00
 1.633    4.00 | 4.633   17.00 | 7.633   13.00 | 10.63   38.00
 1.650    4.00 | 4.650   17.00 | 7.650   13.00 | 10.65   38.00
 1.667    4.00 | 4.667   17.00 | 7.667   13.00 | 10.67   38.00
 1.683    4.00 | 4.683   17.00 | 7.683   13.00 | 10.68   38.00
 1.700    4.00 | 4.700   17.00 | 7.700   13.00 | 10.70   38.00
 1.717    4.00 | 4.717   17.00 | 7.717   13.00 | 10.72   38.00
 1.733    4.00 | 4.733   17.00 | 7.733   13.00 | 10.73   38.00
 1.750    4.00 | 4.750   17.00 | 7.750   13.00 | 10.75   38.00
 1.767    4.00 | 4.767   17.00 | 7.767   13.00 | 10.77   38.00
 1.783    4.00 | 4.783   17.00 | 7.783   13.00 | 10.78   38.00
 1.800    4.00 | 4.800   17.00 | 7.800   13.00 | 10.80   38.00
 1.817    4.00 | 4.817   17.00 | 7.817   13.00 | 10.82   38.00
 1.833    4.00 | 4.833   17.00 | 7.833   13.00 | 10.83   38.00
 1.850    4.00 | 4.850   17.00 | 7.850   13.00 | 10.85   38.00
 1.867    4.00 | 4.867   17.00 | 7.867   13.00 | 10.87   38.00
 1.883    4.00 | 4.883   17.00 | 7.883   13.00 | 10.88   38.00
 1.900    4.00 | 4.900   17.00 | 7.900   13.00 | 10.90   38.00
 1.917    4.00 | 4.917   17.00 | 7.917   13.00 | 10.92   38.00
 1.933    4.00 | 4.933   17.00 | 7.933   13.00 | 10.93   38.00
 1.950    4.00 | 4.950   17.00 | 7.950   13.00 | 10.95   38.00
 1.967    4.00 | 4.967   17.00 | 7.967   13.00 | 10.97   38.00
 1.983    4.00 | 4.983   17.00 | 7.983   13.00 | 10.98   38.00
 2.000    4.00 | 5.000   17.00 | 8.000   13.00 | 11.00   37.99
 2.017    6.00 | 5.017   13.00 | 8.017   13.00 | 11.02   13.00
 2.033    6.00 | 5.033   13.00 | 8.033   13.00 | 11.03   13.00
 2.050    6.00 | 5.050   13.00 | 8.050   13.00 | 11.05   13.00
 2.067    6.00 | 5.067   13.00 | 8.067   13.00 | 11.07   13.00
 2.083    6.00 | 5.083   13.00 | 8.083   13.00 | 11.08   13.00
 2.100    6.00 | 5.100   13.00 | 8.100   13.00 | 11.10   13.00
 2.117    6.00 | 5.117   13.00 | 8.117   13.00 | 11.12   13.00
 2.133    6.00 | 5.133   13.00 | 8.133   13.00 | 11.13   13.00
 2.150    6.00 | 5.150   13.00 | 8.150   13.00 | 11.15   13.00
 2.167    6.00 | 5.167   13.00 | 8.167   13.00 | 11.17   13.00
 2.183    6.00 | 5.183   13.00 | 8.183   13.00 | 11.18   13.00
 2.200    6.00 | 5.200   13.00 | 8.200   13.00 | 11.20   13.00
 2.217    6.00 | 5.217   13.00 | 8.217   13.00 | 11.22   13.00
 2.233    6.00 | 5.233   13.00 | 8.233   13.00 | 11.23   13.00
 2.250    6.00 | 5.250   13.00 | 8.250   13.00 | 11.25   13.00
 2.267    6.00 | 5.267   13.00 | 8.267   13.00 | 11.27   13.00
 2.283    6.00 | 5.283   13.00 | 8.283   13.00 | 11.28   13.00
 2.300    6.00 | 5.300   13.00 | 8.300   13.00 | 11.30   13.00
 2.317    6.00 | 5.317   13.00 | 8.317   13.00 | 11.32   13.00
 2.333    6.00 | 5.333   13.00 | 8.333   13.00 | 11.33   13.00
 2.350    6.00 | 5.350   13.00 | 8.350   13.00 | 11.35   13.00
 2.367    6.00 | 5.367   13.00 | 8.367   13.00 | 11.37   13.00
 2.383    6.00 | 5.383   13.00 | 8.383   13.00 | 11.38   13.00
 2.400    6.00 | 5.400   13.00 | 8.400   13.00 | 11.40   13.00
 2.417    6.00 | 5.417   13.00 | 8.417   13.00 | 11.42   13.00
 2.433    6.00 | 5.433   13.00 | 8.433   13.00 | 11.43   13.00
 2.450    6.00 | 5.450   13.00 | 8.450   13.00 | 11.45   13.00
 2.467    6.00 | 5.467   13.00 | 8.467   13.00 | 11.47   13.00
 2.483    6.00 | 5.483   13.00 | 8.483   13.00 | 11.48   13.00
 2.500    6.00 | 5.500   13.00 | 8.500   13.00 | 11.50   13.00
 2.517    6.00 | 5.517   13.00 | 8.517   13.00 | 11.52   13.00
 2.533    6.00 | 5.533   13.00 | 8.533   13.00 | 11.53   13.00
 2.550    6.00 | 5.550   13.00 | 8.550   13.00 | 11.55   13.00
 2.567    6.00 | 5.567   13.00 | 8.567   13.00 | 11.57   13.00
 2.583    6.00 | 5.583   13.00 | 8.583   13.00 | 11.58   13.00
 2.600    6.00 | 5.600   13.00 | 8.600   13.00 | 11.60   13.00
 2.617    6.00 | 5.617   13.00 | 8.617   13.00 | 11.62   13.00
 2.633    6.00 | 5.633   13.00 | 8.633   13.00 | 11.63   13.00
 2.650    6.00 | 5.650   13.00 | 8.650   13.00 | 11.65   13.00
 2.667    6.00 | 5.667   13.00 | 8.667   13.00 | 11.67   13.00
 2.683    6.00 | 5.683   13.00 | 8.683   13.00 | 11.68   13.00
 2.700    6.00 | 5.700   13.00 | 8.700   13.00 | 11.70   13.00
 2.717    6.00 | 5.717   13.00 | 8.717   13.00 | 11.72   13.00
 2.733    6.00 | 5.733   13.00 | 8.733   13.00 | 11.73   13.00
 2.750    6.00 | 5.750   13.00 | 8.750   13.00 | 11.75   13.00
 2.767    6.00 | 5.767   13.00 | 8.767   13.00 | 11.77   13.00
 2.783    6.00 | 5.783   13.00 | 8.783   13.00 | 11.78   13.00
 2.800    6.00 | 5.800   13.00 | 8.800   13.00 | 11.80   13.00
 2.817    6.00 | 5.817   13.00 | 8.817   13.00 | 11.82   13.00
 2.833    6.00 | 5.833   13.00 | 8.833   13.00 | 11.83   13.00
 2.850    6.00 | 5.850   13.00 | 8.850   13.00 | 11.85   13.00
 2.867    6.00 | 5.867   13.00 | 8.867   13.00 | 11.87   13.00
 2.883    6.00 | 5.883   13.00 | 8.883   13.00 | 11.88   13.00
 2.900    6.00 | 5.900   13.00 | 8.900   13.00 | 11.90   13.00
 2.917    6.00 | 5.917   13.00 | 8.917   13.00 | 11.92   13.00
 2.933    6.00 | 5.933   13.00 | 8.933   13.00 | 11.93   13.00
 2.950    6.00 | 5.950   13.00 | 8.950   13.00 | 11.95   13.00
 2.967    6.00 | 5.967   13.00 | 8.967   13.00 | 11.97   13.00
 2.983    6.00 | 5.983   13.00 | 8.983   13.00 | 11.98   13.00
 3.000    6.00 | 6.000   13.01 | 9.000   13.08 | 12.00   13.00

Max.Eff.Inten.(mm/hr)=      53.00        37.02
            over (min)        5.00        16.00
Storage Coeff.  (min)=       5.35 (ii)   15.85 (ii)
Unit Hyd. Tpeak (min)=       5.00        16.00
Unit Hyd. peak  (cms)=       0.22         0.07
                                        *TOTALS*
PEAK FLOW       (cms)=       0.21         0.20         0.407 (iii)
TIME TO PEAK    (hrs)=       9.98        10.08          10.00
RUNOFF VOLUME    (mm)=     210.99        95.38         139.32

TOTAL RAINFALL   (mm)=     212.00       212.00         212.00
RUNOFF COEFFICIENT   =       1.00         0.45           0.66

  (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
      CN*  =  48.0    Ia = Dep. Storage  (Above)
 (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
      THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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| CALIB            |
| STANDHYD (  1022)|   Area    (ha)=   2.86
|ID= 1 DT= 1.0 min |   Total Imp(%)=  41.00   Dir. Conn.(%)=  35.00
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                          IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       1.17         1.69
     Dep. Storage     (mm)=       1.00         5.00
     Average Slope     (%)=       0.50         2.00
     Length            (m)=     138.06        40.00
     Mannings n             =     0.013        0.250

         NOTE:  RAINFALL WAS TRANSFORMED TO   1.0 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
 0.017    6.00 | 3.017   13.00 | 6.017   23.00 |  9.02   53.00
 0.033    6.00 | 3.033   13.00 | 6.033   23.00 |  9.03   53.00
 0.050    6.00 | 3.050   13.00 | 6.050   23.00 |  9.05   53.00
 0.067    6.00 | 3.067   13.00 | 6.067   23.00 |  9.07   53.00
 0.083    6.00 | 3.083   13.00 | 6.083   23.00 |  9.08   53.00
 0.100    6.00 | 3.100   13.00 | 6.100   23.00 |  9.10   53.00
 0.117    6.00 | 3.117   13.00 | 6.117   23.00 |  9.12   53.00
 0.133    6.00 | 3.133   13.00 | 6.133   23.00 |  9.13   53.00
 0.150    6.00 | 3.150   13.00 | 6.150   23.00 |  9.15   53.00
 0.167    6.00 | 3.167   13.00 | 6.167   23.00 |  9.17   53.00
 0.183    6.00 | 3.183   13.00 | 6.183   23.00 |  9.18   53.00
 0.200    6.00 | 3.200   13.00 | 6.200   23.00 |  9.20   53.00
 0.217    6.00 | 3.217   13.00 | 6.217   23.00 |  9.22   53.00
 0.233    6.00 | 3.233   13.00 | 6.233   23.00 |  9.23   53.00
 0.250    6.00 | 3.250   13.00 | 6.250   23.00 |  9.25   53.00
 0.267    6.00 | 3.267   13.00 | 6.267   23.00 |  9.27   53.00
 0.283    6.00 | 3.283   13.00 | 6.283   23.00 |  9.28   53.00
 0.300    6.00 | 3.300   13.00 | 6.300   23.00 |  9.30   53.00
 0.317    6.00 | 3.317   13.00 | 6.317   23.00 |  9.32   53.00
 0.333    6.00 | 3.333   13.00 | 6.333   23.00 |  9.33   53.00
 0.350    6.00 | 3.350   13.00 | 6.350   23.00 |  9.35   53.00
 0.367    6.00 | 3.367   13.00 | 6.367   23.00 |  9.37   53.00
 0.383    6.00 | 3.383   13.00 | 6.383   23.00 |  9.38   53.00
 0.400    6.00 | 3.400   13.00 | 6.400   23.00 |  9.40   53.00
 0.417    6.00 | 3.417   13.00 | 6.417   23.00 |  9.42   53.00
 0.433    6.00 | 3.433   13.00 | 6.433   23.00 |  9.43   53.00
 0.450    6.00 | 3.450   13.00 | 6.450   23.00 |  9.45   53.00
 0.467    6.00 | 3.467   13.00 | 6.467   23.00 |  9.47   53.00
 0.483    6.00 | 3.483   13.00 | 6.483   23.00 |  9.48   53.00
 0.500    6.00 | 3.500   13.00 | 6.500   23.00 |  9.50   53.00
 0.517    6.00 | 3.517   13.00 | 6.517   23.00 |  9.52   53.00
 0.533    6.00 | 3.533   13.00 | 6.533   23.00 |  9.53   53.00
 0.550    6.00 | 3.550   13.00 | 6.550   23.00 |  9.55   53.00
 0.567    6.00 | 3.567   13.00 | 6.567   23.00 |  9.57   53.00
 0.583    6.00 | 3.583   13.00 | 6.583   23.00 |  9.58   53.00
 0.600    6.00 | 3.600   13.00 | 6.600   23.00 |  9.60   53.00
 0.617    6.00 | 3.617   13.00 | 6.617   23.00 |  9.62   53.00
 0.633    6.00 | 3.633   13.00 | 6.633   23.00 |  9.63   53.00
 0.650    6.00 | 3.650   13.00 | 6.650   23.00 |  9.65   53.00
 0.667    6.00 | 3.667   13.00 | 6.667   23.00 |  9.67   53.00
 0.683    6.00 | 3.683   13.00 | 6.683   23.00 |  9.68   53.00
 0.700    6.00 | 3.700   13.00 | 6.700   23.00 |  9.70   53.00
 0.717    6.00 | 3.717   13.00 | 6.717   23.00 |  9.72   53.00
 0.733    6.00 | 3.733   13.00 | 6.733   23.00 |  9.73   53.00
 0.750    6.00 | 3.750   13.00 | 6.750   23.00 |  9.75   53.00
 0.767    6.00 | 3.767   13.00 | 6.767   23.00 |  9.77   53.00
 0.783    6.00 | 3.783   13.00 | 6.783   23.00 |  9.78   53.00
 0.800    6.00 | 3.800   13.00 | 6.800   23.00 |  9.80   53.00
 0.817    6.00 | 3.817   13.00 | 6.817   23.00 |  9.82   53.00
 0.833    6.00 | 3.833   13.00 | 6.833   23.00 |  9.83   53.00
 0.850    6.00 | 3.850   13.00 | 6.850   23.00 |  9.85   53.00
 0.867    6.00 | 3.867   13.00 | 6.867   23.00 |  9.87   53.00
 0.883    6.00 | 3.883   13.00 | 6.883   23.00 |  9.88   53.00
 0.900    6.00 | 3.900   13.00 | 6.900   23.00 |  9.90   53.00
 0.917    6.00 | 3.917   13.00 | 6.917   23.00 |  9.92   53.00
 0.933    6.00 | 3.933   13.00 | 6.933   23.00 |  9.93   53.00
 0.950    6.00 | 3.950   13.00 | 6.950   23.00 |  9.95   53.00
 0.967    6.00 | 3.967   13.00 | 6.967   23.00 |  9.97   53.00
 0.983    6.00 | 3.983   13.00 | 6.983   23.00 |  9.98   53.00
 1.000    6.00 | 4.000   13.00 | 7.000   22.98 | 10.00   52.98
 1.017    4.00 | 4.017   17.00 | 7.017   13.00 | 10.02   38.00
 1.033    4.00 | 4.033   17.00 | 7.033   13.00 | 10.03   38.00
 1.050    4.00 | 4.050   17.00 | 7.050   13.00 | 10.05   38.00
 1.067    4.00 | 4.067   17.00 | 7.067   13.00 | 10.07   38.00
 1.083    4.00 | 4.083   17.00 | 7.083   13.00 | 10.08   38.00
 1.100    4.00 | 4.100   17.00 | 7.100   13.00 | 10.10   38.00
 1.117    4.00 | 4.117   17.00 | 7.117   13.00 | 10.12   38.00
 1.133    4.00 | 4.133   17.00 | 7.133   13.00 | 10.13   38.00
 1.150    4.00 | 4.150   17.00 | 7.150   13.00 | 10.15   38.00
 1.167    4.00 | 4.167   17.00 | 7.167   13.00 | 10.17   38.00
 1.183    4.00 | 4.183   17.00 | 7.183   13.00 | 10.18   38.00
 1.200    4.00 | 4.200   17.00 | 7.200   13.00 | 10.20   38.00
 1.217    4.00 | 4.217   17.00 | 7.217   13.00 | 10.22   38.00
 1.233    4.00 | 4.233   17.00 | 7.233   13.00 | 10.23   38.00
 1.250    4.00 | 4.250   17.00 | 7.250   13.00 | 10.25   38.00
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1.267	4.00	4.267	17.00	7.267	13.00	10.27	38.00
1.283	4.00	4.283	17.00	7.283	13.00	10.28	38.00
1.300	4.00	4.300	17.00	7.300	13.00	10.30	38.00
1.317	4.00	4.317	17.00	7.317	13.00	10.32	38.00
1.333	4.00	4.333	17.00	7.333	13.00	10.33	38.00
1.350	4.00	4.350	17.00	7.350	13.00	10.35	38.00
1.367	4.00	4.367	17.00	7.367	13.00	10.37	38.00
1.383	4.00	4.383	17.00	7.383	13.00	10.38	38.00
1.400	4.00	4.400	17.00	7.400	13.00	10.40	38.00
1.417	4.00	4.417	17.00	7.417	13.00	10.42	38.00
1.433	4.00	4.433	17.00	7.433	13.00	10.43	38.00
1.450	4.00	4.450	17.00	7.450	13.00	10.45	38.00
1.467	4.00	4.467	17.00	7.467	13.00	10.47	38.00
1.483	4.00	4.483	17.00	7.483	13.00	10.48	38.00
1.500	4.00	4.500	17.00	7.500	13.00	10.50	38.00
1.517	4.00	4.517	17.00	7.517	13.00	10.52	38.00
1.533	4.00	4.533	17.00	7.533	13.00	10.53	38.00
1.550	4.00	4.550	17.00	7.550	13.00	10.55	38.00
1.567	4.00	4.567	17.00	7.567	13.00	10.57	38.00
1.583	4.00	4.583	17.00	7.583	13.00	10.58	38.00
1.600	4.00	4.600	17.00	7.600	13.00	10.60	38.00
1.617	4.00	4.617	17.00	7.617	13.00	10.62	38.00
1.633	4.00	4.633	17.00	7.633	13.00	10.63	38.00
1.650	4.00	4.650	17.00	7.650	13.00	10.65	38.00
1.667	4.00	4.667	17.00	7.667	13.00	10.67	38.00
1.683	4.00	4.683	17.00	7.683	13.00	10.68	38.00
1.700	4.00	4.700	17.00	7.700	13.00	10.70	38.00
1.717	4.00	4.717	17.00	7.717	13.00	10.72	38.00
1.733	4.00	4.733	17.00	7.733	13.00	10.73	38.00
1.750	4.00	4.750	17.00	7.750	13.00	10.75	38.00
1.767	4.00	4.767	17.00	7.767	13.00	10.77	38.00
1.783	4.00	4.783	17.00	7.783	13.00	10.78	38.00
1.800	4.00	4.800	17.00	7.800	13.00	10.80	38.00
1.817	4.00	4.817	17.00	7.817	13.00	10.82	38.00
1.833	4.00	4.833	17.00	7.833	13.00	10.83	38.00
1.850	4.00	4.850	17.00	7.850	13.00	10.85	38.00
1.867	4.00	4.867	17.00	7.867	13.00	10.87	38.00
1.883	4.00	4.883	17.00	7.883	13.00	10.88	38.00
1.900	4.00	4.900	17.00	7.900	13.00	10.90	38.00
1.917	4.00	4.917	17.00	7.917	13.00	10.92	38.00
1.933	4.00	4.933	17.00	7.933	13.00	10.93	38.00
1.950	4.00	4.950	17.00	7.950	13.00	10.95	38.00
1.967	4.00	4.967	17.00	7.967	13.00	10.97	38.00
1.983	4.00	4.983	17.00	7.983	13.00	10.98	38.00
2.000	4.00	5.000	17.00	8.000	13.00	11.00	37.99
2.017	6.00	5.017	13.00	8.017	13.00	11.02	13.00
2.033	6.00	5.033	13.00	8.033	13.00	11.03	13.00
2.050	6.00	5.050	13.00	8.050	13.00	11.05	13.00
2.067	6.00	5.067	13.00	8.067	13.00	11.07	13.00
2.083	6.00	5.083	13.00	8.083	13.00	11.08	13.00
2.100	6.00	5.100	13.00	8.100	13.00	11.10	13.00
2.117	6.00	5.117	13.00	8.117	13.00	11.12	13.00

2.133	6.00	5.133	13.00	8.133	13.00	11.13	13.00
2.150	6.00	5.150	13.00	8.150	13.00	11.15	13.00
2.167	6.00	5.167	13.00	8.167	13.00	11.17	13.00
2.183	6.00	5.183	13.00	8.183	13.00	11.18	13.00
2.200	6.00	5.200	13.00	8.200	13.00	11.20	13.00
2.217	6.00	5.217	13.00	8.217	13.00	11.22	13.00
2.233	6.00	5.233	13.00	8.233	13.00	11.23	13.00
2.250	6.00	5.250	13.00	8.250	13.00	11.25	13.00
2.267	6.00	5.267	13.00	8.267	13.00	11.27	13.00
2.283	6.00	5.283	13.00	8.283	13.00	11.28	13.00
2.300	6.00	5.300	13.00	8.300	13.00	11.30	13.00
2.317	6.00	5.317	13.00	8.317	13.00	11.32	13.00
2.333	6.00	5.333	13.00	8.333	13.00	11.33	13.00
2.350	6.00	5.350	13.00	8.350	13.00	11.35	13.00
2.367	6.00	5.367	13.00	8.367	13.00	11.37	13.00
2.383	6.00	5.383	13.00	8.383	13.00	11.38	13.00
2.400	6.00	5.400	13.00	8.400	13.00	11.40	13.00
2.417	6.00	5.417	13.00	8.417	13.00	11.42	13.00
2.433	6.00	5.433	13.00	8.433	13.00	11.43	13.00
2.450	6.00	5.450	13.00	8.450	13.00	11.45	13.00
2.467	6.00	5.467	13.00	8.467	13.00	11.47	13.00
2.483	6.00	5.483	13.00	8.483	13.00	11.48	13.00
2.500	6.00	5.500	13.00	8.500	13.00	11.50	13.00
2.517	6.00	5.517	13.00	8.517	13.00	11.52	13.00
2.533	6.00	5.533	13.00	8.533	13.00	11.53	13.00
2.550	6.00	5.550	13.00	8.550	13.00	11.55	13.00
2.567	6.00	5.567	13.00	8.567	13.00	11.57	13.00
2.583	6.00	5.583	13.00	8.583	13.00	11.58	13.00
2.600	6.00	5.600	13.00	8.600	13.00	11.60	13.00
2.617	6.00	5.617	13.00	8.617	13.00	11.62	13.00
2.633	6.00	5.633	13.00	8.633	13.00	11.63	13.00
2.650	6.00	5.650	13.00	8.650	13.00	11.65	13.00
2.667	6.00	5.667	13.00	8.667	13.00	11.67	13.00
2.683	6.00	5.683	13.00	8.683	13.00	11.68	13.00
2.700	6.00	5.700	13.00	8.700	13.00	11.70	13.00
2.717	6.00	5.717	13.00	8.717	13.00	11.72	13.00
2.733	6.00	5.733	13.00	8.733	13.00	11.73	13.00
2.750	6.00	5.750	13.00	8.750	13.00	11.75	13.00
2.767	6.00	5.767	13.00	8.767	13.00	11.77	13.00
2.783	6.00	5.783	13.00	8.783	13.00	11.78	13.00
2.800	6.00	5.800	13.00	8.800	13.00	11.80	13.00
2.817	6.00	5.817	13.00	8.817	13.00	11.82	13.00
2.833	6.00	5.833	13.00	8.833	13.00	11.83	13.00
2.850	6.00	5.850	13.00	8.850	13.00	11.85	13.00
2.867	6.00	5.867	13.00	8.867	13.00	11.87	13.00
2.883	6.00	5.883	13.00	8.883	13.00	11.88	13.00
2.900	6.00	5.900	13.00	8.900	13.00	11.90	13.00
2.917	6.00	5.917	13.00	8.917	13.00	11.92	13.00
2.933	6.00	5.933	13.00	8.933	13.00	11.93	13.00
2.950	6.00	5.950	13.00	8.950	13.00	11.95	13.00
2.967	6.00	5.967	13.00	8.967	13.00	11.97	13.00
2.983	6.00	5.983	13.00	8.983	13.00	11.98	13.00

3.000	6.00	6.000	13.01	9.000	13.08	12.00	13.00

Max.Eff.Inten.(mm/hr)=	53.00	35.77	
over (min)	5.00	16.00	
Storage Coeff. (min)=	4.92 (ii)	15.57 (ii)	
Unit Hyd. Tpeak (min)=	5.00	16.00	
Unit Hyd. peak (cms)=	0.23	0.07	
			TOTALS
PEAK FLOW (cms)=	0.15	0.16	0.302 (iii)
TIME TO PEAK (hrs)=	9.98	10.08	10.00
RUNOFF VOLUME (mm)=	210.99	94.13	135.03
TOTAL RAINFALL (mm)=	212.00	212.00	212.00
RUNOFF COEFFICIENT =	1.00	0.44	0.64

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 48.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

DUHYD (0035)					
Inlet Cap.= 0.202					
#of Inlets= 1					
Total(cms)= 0.2	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	
TOTAL HYD.(ID= 1):	2.86	0.30	10.00	135.03	
MAJOR SYS.(ID= 2):	0.27	0.10	10.00	135.03	
MINOR SYS.(ID= 3):	2.59	0.20	9.25	135.03	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0102)		AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3	(ha)	(cms)	(hrs)	(mm)	
ID1= 1 (1021):	3.77	0.407	10.00	139.32	
+ ID2= 2 (0035):	0.27	0.100	10.00	135.03	
ID = 3 (0102):	4.04	0.507	10.00	139.03	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0903)		AREA	QPEAK	TPEAK	R.V.

	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0102):	4.04	0.507	10.00	139.03
+ ID2= 2 (0902):	15.67	1.687	10.02	137.77
ID = 3 (0903):	19.71	2.192	10.02	138.03

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB					
NASHYD (1051)|	Area	(ha)=	1.62	Curve Number (CN)=	60.0
ID= 1 DT= 5.0 min |	Ia	(mm)=	5.00	# of Linear Res.(N)=	3.00
	U.H. Tp(hrs)=		1.87		

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)= 0.033

PEAK FLOW (cms)= 0.094 (i)
TIME TO PEAK (hrs)= 12.000
RUNOFF VOLUME (mm)= 113.857
TOTAL RAINFALL (mm)= 212.000
RUNOFF COEFFICIENT = 0.537

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

ADD HYD (0105)		AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3	(ha)	(cms)	(hrs)	(mm)	
ID1= 1 (1051):	1.62	0.094	12.00	113.86	
+ ID2= 2 (0037):	0.30	0.084	10.00	122.85	
ID = 3 (0105):	1.93	0.130	10.02	115.28	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0906)		AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3	(ha)	(cms)	(hrs)	(mm)	
ID1= 1 (0105):	1.93	0.130	10.02	115.28	
+ ID2= 2 (0903):	19.71	2.192	10.02	138.03	
ID = 3 (0906):	21.64	2.323	10.02	136.00	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB					
NASHYD (0201)|	Area	(ha)=	6.97	Curve Number (CN)=	66.0
ID= 1 DT= 5.0 min |	Ia	(mm)=	5.00	# of Linear Res.(N)=	3.00
	U.H. Tp(hrs)=		0.74		

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)= 0.360

PEAK FLOW (cms)= 0.627 (i)
TIME TO PEAK (hrs)= 11.000
RUNOFF VOLUME (mm)= 126.828
TOTAL RAINFALL (mm)= 212.000
RUNOFF COEFFICIENT = 0.598

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

CALIB					
NASHYD (0202)|	Area	(ha)=	2.71	Curve Number (CN)=	68.0
ID= 1 DT= 5.0 min |	Ia	(mm)=	5.00	# of Linear Res.(N)=	3.00

```
--------------------  U.H. Tp(hrs)=   0.93

        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)=   0.111

    PEAK FLOW       (cms)=   0.238 (i)
    TIME TO PEAK    (hrs)=  11.167
    RUNOFF VOLUME    (mm)= 131.224
    TOTAL RAINFALL   (mm)= 212.000
    RUNOFF COEFFICIENT   =   0.619

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

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-------------------
| ADD HYD  (  0904)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
-------------------         (ha)    (cms)    (hrs)     (mm)
      ID1= 1 (  0201):     6.97   0.627    11.00   126.83
    + ID2= 2 (  0202):     2.71   0.238    11.17   131.22
      ====================================================
      ID = 3 (  0904):     9.68   0.864    11.00   128.06

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
---------------------------------------------------------------------------
-------------------
| CALIB            |
| NASHYD  (  0203)|   Area    (ha)=  34.30   Curve Number   (CN)= 42.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   5.00   # of Linear Res.(N)= 3.00
-------------------   U.H. Tp(hrs)=   1.40

        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

    Unit Hyd Qpeak  (cms)=   0.936

    PEAK FLOW       (cms)=   1.615 (i)
    TIME TO PEAK    (hrs)=  11.583
    RUNOFF VOLUME    (mm)=  76.823
    TOTAL RAINFALL   (mm)= 212.000
    RUNOFF COEFFICIENT   =   0.362

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

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-------------------
| ADD HYD  (  0905)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
-------------------         (ha)    (cms)    (hrs)     (mm)
      ID1= 1 (  0203):    34.30   1.615    11.58    76.82
    + ID2= 2 (  0904):     9.68   0.864    11.00   128.06
      ====================================================
      ID = 3 (  0905):    43.98   2.405    11.33    88.10

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

  -------------------
  | Junction Command(0907) |
  -------------------

                          AREA     QPEAK   TPEAK     R.V.
                          (ha)     (cms)    (hrs)     (mm)
  INFLOW : ID= 1(  0905)   43.98     2.41   11.33    88.10
  OUTFLOW: ID= 2(  0907)   43.98     2.41   11.33    88.10

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

-------------------
| ADD HYD  (  0908)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
-------------------         (ha)    (cms)    (hrs)     (mm)

      ID1= 1 (  0906):    21.64   2.323    10.02   136.00
    + ID2= 2 (  0907):    43.98   2.405    11.33    88.10
      ====================================================
      ID = 3 (  0908):    65.62   4.108    11.00   103.90

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
---------------------------------------------------------------------------
-------------------
| CALIB            |
| NASHYD  (  0204)|   Area    (ha)=   0.40   Curve Number   (CN)= 67.0
|ID= 1 DT= 5.0 min |   Ia      (mm)=   5.00   # 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)=   0.054

    PEAK FLOW       (cms)=   0.044 (i)
    TIME TO PEAK    (hrs)=  10.000
    RUNOFF VOLUME    (mm)= 128.955
    TOTAL RAINFALL   (mm)= 212.000
    RUNOFF COEFFICIENT   =   0.608

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

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-------------------
| ADD HYD  (  0909)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
-------------------         (ha)    (cms)    (hrs)     (mm)
      ID1= 1 (  0204):     0.40   0.044    10.00   128.96
    + ID2= 2 (  0908):    65.62   4.108    11.00   103.90
      ====================================================
      ID = 3 (  0909):    66.01   4.143    11.00   104.05

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
---------------------------------------------------------------------------
-------------------
| RESERVOIR(  0052)|     OVERFLOW IS ON
| IN= 2---> OUT= 1 |
| DT=  1.0 min     |     OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
-------------------       (cms)     (ha.m.)   |   (cms)     (ha.m.)
                          0.0000     0.0004   |   0.6270     0.1980
                          0.0690     0.0019   |   0.6620     0.2529
                          0.1500     0.0052   |   0.6950     0.3161
                          0.2470     0.0111   |   0.7270     0.3886
                          0.3480     0.0210   |   0.7580     0.4732
                          0.4080     0.0352   |   0.7870     0.5703
                          0.4600     0.0544   |   0.8150     0.6834
                          0.5070     0.0794   |   0.8430     0.8226
                          0.5500     0.1110   |   0.8690     0.9974
                          0.5900     0.1508   |   0.0000     0.0000


                               AREA     QPEAK     TPEAK       R.V.
                               (ha)     (cms)     (hrs)       (mm)
  INFLOW : ID= 2 (  0909)     66.013     4.143     11.00     104.05
  OUTFLOW: ID= 1 (  0052)     39.402     0.869      9.70     104.06
  OVERFLOW:ID= 3 (  0003)     26.612     3.274     11.00     104.06

                TOTAL NUMBER OF SIMULATION OVERFLOW  =   237
                CUMULATIVE TIME OF OVERFLOW  (HOURS) =  3.95
                PERCENTAGE OF TIME OVERFLOWING   (%) = 15.99

                PEAK   FLOW   REDUCTION [Qout/Qin](%)= 20.97
                TIME SHIFT OF PEAK FLOW          (min)=-78.00
                MAXIMUM  STORAGE   USED       (ha.m.)=  0.9974

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  -------------------
  | Junction Command(0048) |
  -------------------

                          AREA     QPEAK   TPEAK     R.V.
                          (ha)     (cms)    (hrs)     (mm)
  INFLOW : ID= 1(  0052)   39.40     0.87    9.70   104.06
  OUTFLOW: ID= 2(  0048)   39.40     0.87    9.70   104.06

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

  -------------------
  | Junction Command(0053) |
  -------------------

                          AREA     QPEAK   TPEAK     R.V.
                          (ha)     (cms)    (hrs)     (mm)
  INFLOW : ID= 3(  0052)   26.61     3.27   11.00   104.06
  OUTFLOW: ID= 2(  0053)   26.61     3.27   11.00   104.06

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

-------------------
| ADD HYD  (  0051)|
|   1 +  2 =  3    |        AREA    QPEAK    TPEAK     R.V.
-------------------         (ha)    (cms)    (hrs)     (mm)
      ID1= 1 (  0048):    39.40   0.869     9.70   104.06
    + ID2= 2 (  0053):    26.61   3.274    11.00   104.06
      ====================================================
      ID = 3 (  0051):    66.01   4.143    11.00   104.06

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
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  -------------------
  | Junction Command(0036) |
  -------------------

                          AREA     QPEAK   TPEAK     R.V.
                          (ha)     (cms)    (hrs)     (mm)
  INFLOW : ID= 9(  0035)    2.59     0.20    9.25   135.03
  OUTFLOW: ID= 2(  0036)    2.59     0.20    9.25   135.03

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APPENDIX

E

HEC-RAS Model Output

Visual OTTHYMO NHYD	Existing Peak Flows on Dawson Drain (m3/s)						
	2-y	5-yr	10-yr	25-yr	50-yr	100-yr	Hazel
REACH 1							
103	0.055	0.076	0.092	0.115	0.134	0.157	0.125
REACH 2							
101	1.003	1.447	2.245	3.427	4.324	5.221	1.496
REACH 3							
902	1.058	1.527	2.344	3.555	4.474	5.398	1.687
REACH 4							
102	0.316	0.510	0.635	0.815	0.943	1.089	0.507
REACH 5							
906	1.360	2.035	2.998	4.463	5.553	6.655	2.323
REACH 6							
909	1.387	2.089	3.070	4.553	5.663	6.789	4.143

Under existing conditions the Dawson Drain is a tributary of the O'Neil Drain. Therefore, VO nodes of 908 and 909 are actually O'Neil Flows but they have been modelled as part of the Dawson Drain Reach 6 for easy comparison with proposed conditions

Visual OTTHYMO NHYD	Existing Peak Flows on O'Neil Drain (m3/s)						
	2-y	5-yr	10-yr	25-yr	50-yr	100-yr	Hazel
Cross-Section No. 840							
904	0.107	0.181	0.235	0.315	0.374	0.443	0.864
Cross-Section No. 694							
907	0.196	0.337	0.443	0.601	0.72	0.861	2.405

Under existing conditions the Dawson Drain is a tributary of the O'Neil Drain. Therefore, VO nodes of 908 and 909 are actually O'Neil Flows but they have been modelled as part of the Dawson Drain Reach 6 for easy comparison with proposed conditions

Project : 221-00563-00 Dawson and O'Neil Creeks

Hydraulic Model - Boundary Condition Estimation

Prepared by: CP
Checked by: EK
Date: 2025-04-04

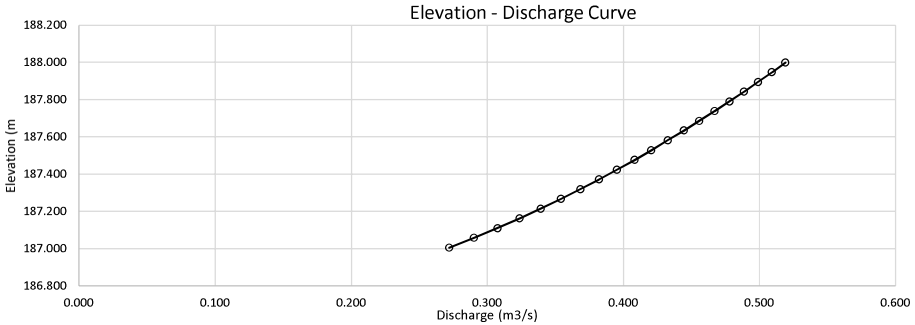
Elevation of Base of System :	187.006	*(Invert of Grate IGLD 187.47 m)*
Total Height of System (m):	0.994	*(Assumed, to get a maximum WL of 188.0 m in CGVD2013)*

Outlet #1 - 450 mm HDPE pipe from DICB27 to MH26 - Assuming 100% Tailwater

Type	Circular Orifice	Diameter (mm):	450
Invert Elevation of Lowest Outflow/Orifice (m)	186.405	Length - perpendicular to flow (m) :	-
Height of invert above base (m):	-0.60	Width - parallel to flow (m)	-
Height of system above invert (m):	1.60	Discharge Coefficient (m^0.5/s) :	0.63
So each ordinate (m)	0.052	Weir Coefficient:	-

Outlet #2 - Overland Flowroute (cemetery open area, west of the drain)

Outlet #3 - Overland Flowroute (Hallee Crescent once Top of Berm is overtopped)



Ordinate	Total Depth from Base (m)	Outlet # 1 Head Above Invert (m)	Outlet # 1 Discharge (m3/s)	Outlet # 1 Discharge (L/s)	Outlet # 2 Head Above Invert (m)	Outlet # 2 Discharge (m3/s)	Outlet # 2 Discharge (L/s)	Outlet # 3 Head Above Invert (m)	Outlet # 3 Discharge (m3/s)	Outlet # 3 Discharge (L/s)	With Tailwater Discharge (m3/s)	With Tailwater Elevation (m)	
1	0	0.601	0.272	272.0							0.272	187.006	
2	0.052	0.653	0.290	290.3							0.290	187.058	
3	0.105	0.706	0.308	307.5							0.308	187.111	
4	0.157	0.758	0.324	323.8							0.324	187.163	
5	0.209	0.810	0.339	339.4							0.339	187.215	
6	0.262	0.863	0.354	354.2							0.354	187.268	
7	0.314	0.915	0.368	368.4							0.368	187.320	
8	0.366	0.967	0.382	382.2							0.382	187.372	
9	0.419	1.020	0.395	395.4							0.395	187.425	
10	0.471	1.072	0.408	408.2							0.408	187.477	
11	0.523	1.124	0.421	420.6							0.421	187.529	
12	0.575	1.176	0.433	432.7							0.433	187.581	
13	0.628	1.229	0.444	444.4							0.444	187.634	
14	0.680	1.281	0.456	455.9							0.456	187.686	
15	0.732	1.333	0.467	467.0							0.467	187.738	
16	0.785	1.386	0.478	477.9							0.478	187.791	
17	0.837	1.438	0.489	488.6							0.489	187.843	
18	0.889	1.490	0.499	499.0							0.499	187.895	
19	0.942	1.543	0.509	509.2							0.509	187.948	
20	0.994	1.595	0.519	519.2							0.519	188.000	

Outlet #1 - 450 mm HDPE pipe from DICB27 to MH26
Invert at 186.419 m (datum IGLD85), converted to CGVD2013 = 185.955 m.
Datum Correction = -0.464m.
(invert raised to 186.405 to account for tailwater)

Outlet #2 - Overland Flowroute (cemetery open area, west of the drain)
Approx ground elevation CGVD2013 = 188 m.
Assumed weir length of 100 m.
(currently not modelled)

Outlet #3 - Overland Flowroute (Hallee Crescent once Top of Berm is overtopped)
Approx Top of Berm = 188.80m.(IGLD85). CGVD2013 = 188.386 m.
Road width = 8 m
(currently not modelled)

Source
R. C. Spencer Associates (2016). Southwid Subdivision, As-constructed Phase 1 & 2 Drawings. Prepared for Tru Land Developments Inc. City of Windsor Reference # S-2018. Sheets 4 and 13.

Overland Weir Coefficients
https://www.kleinschmidtgroup.com/ras-post/weir-equations-in-hec-ras/

NHYD	Existing Peak Flows entering 450 mm outlet pipe and overland system (m3/s) 2-y	5-yr	10-yr	25-yr	50-yr	100-yr	Hazel
51	0.555	0.585	1.241	3.250	5.767	9.715	4.143

(from Visual OTTHYMO Model)

RP	Equivalnt Boudary Condition Elevation (m) 2-y	5-yr	10-yr	25-yr	50-yr	100-yr	Hazel
	188.000	188.000	188.000	188.000	188.000	188.000	188.000

(system is overtopped for all return period events)

River	Reach	Structure ID	Bridge or Culvert[1]	Bounding Cross-sections	Material	Shape	No of Openings	Width/ Span (m)	Height/ Opening (m)	Length/ Depth (m)	Upstream Obvert[3] (m.a.s.l)	Upstream Invert[3] (m.a.s.l)	Downstream Obvert[3] (m.a.s.l)	Downstream Invert[3] (m.a.s.l)	Source
Dawson-Drain	5	880	C	876 & 885	CSP	Circular	1 (2)[2]	0.900	0.900	12.0	188.260	187.360	188.170	187.270	• WSP Photographic Survey, 2023
	5	880	C	877 & 885	CSP	Circular	1	1.200	1.200	12.0	189.560	188.360	189.470	188.270	• WSP Photographic Survey, 2023
	5	605	C	593 & 613	CSP	Circular	1 (2)[4]	1.200	1.200	15.0	188.910	187.710	188.800	187.600	• WSP Photographic Survey, 2023
	5	219	C	215 & 224	CSP	Circular	1	0.900	0.900	6.0	188.720	187.820	188.610	187.710	• WSP Photographic Survey, 2023
	5	219	C	215 & 224	CSP	Circular	1	0.900	0.900	6.0	188.650	187.750	188.550	187.650	• WSP Photographic Survey, 2023
	5	8	C	3 & 13	CSP	Circular	2	0.900	0.900	9.0	188.550	187.650	188.300	187.400	• WSP Photographic Survey, 2023

[1]Refers to how the structure was modelled within Hec-RAS/Culvert Master and not based on classification by MTO/Municipality etc.

[2]A second possible 900 mm culvert is present. This third CSP was located on the bank of the drain on the east side and was badly deformed and both ends were blocked. Therefore, it has not been modelled for conservatism.

[3]Elevations are in CGVD2013 Vertical Datum

[4]A second possible 450 mm culvert is present. This second CSP was deformed and west end was blocked. Therefore, it has not been modelled for conservatism.

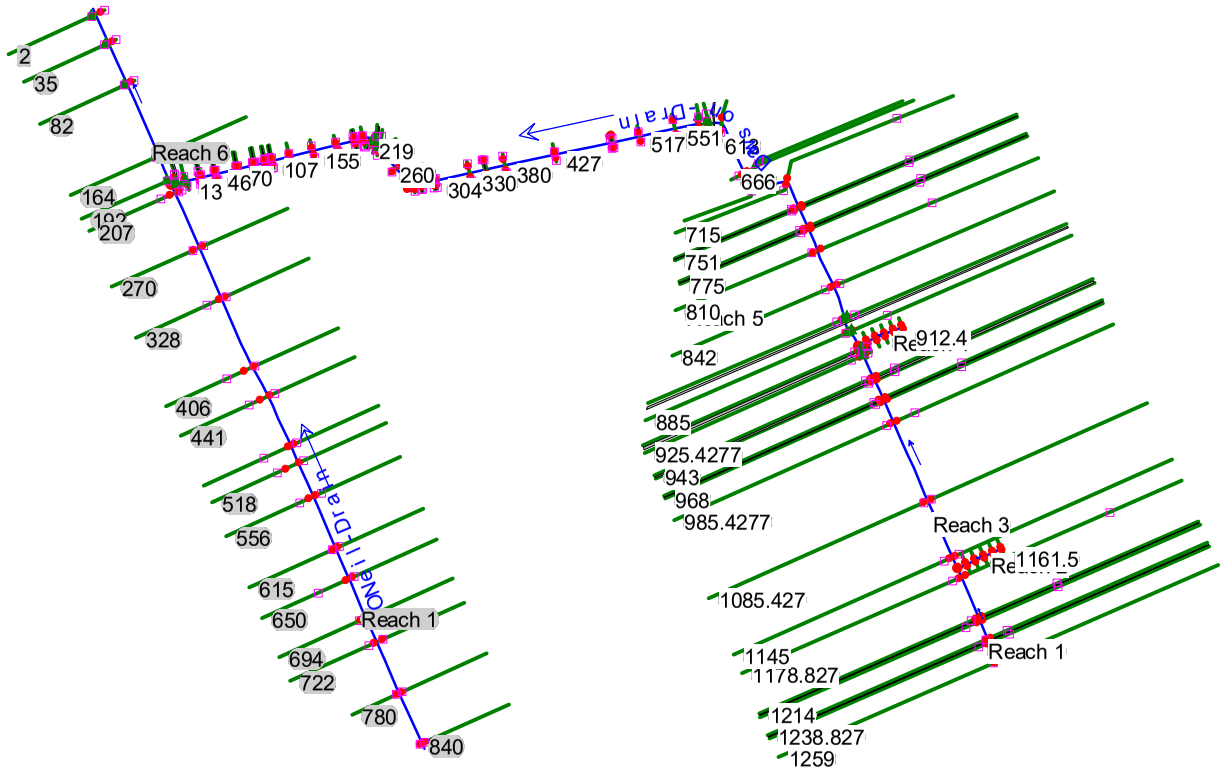
Underlined values were estimated and not measured.

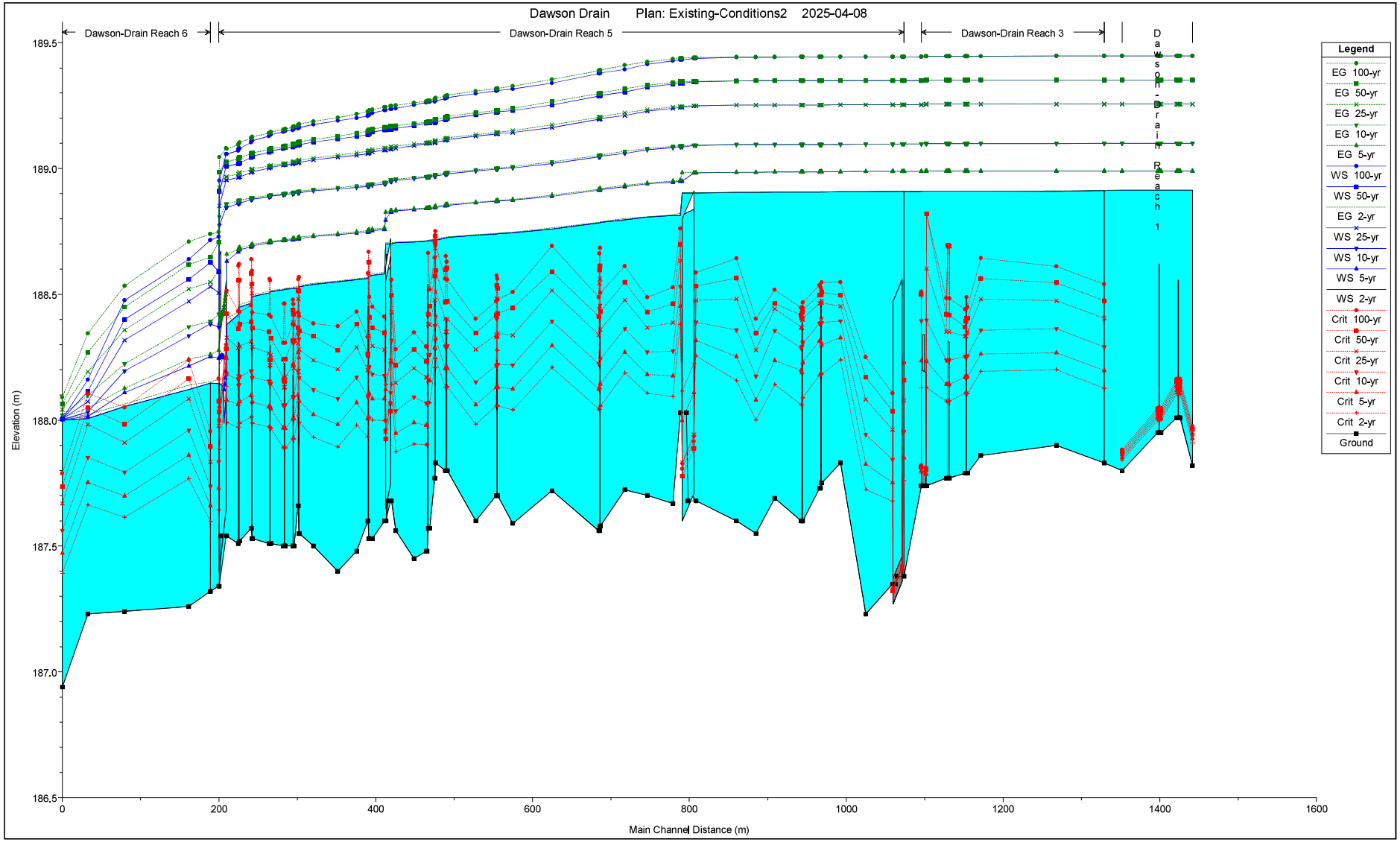
Multiple Pedestrian Bridges were modelled through surveyed photographs. Their spans and other dimensions were guesstimated. These were moelled at cross-sections :

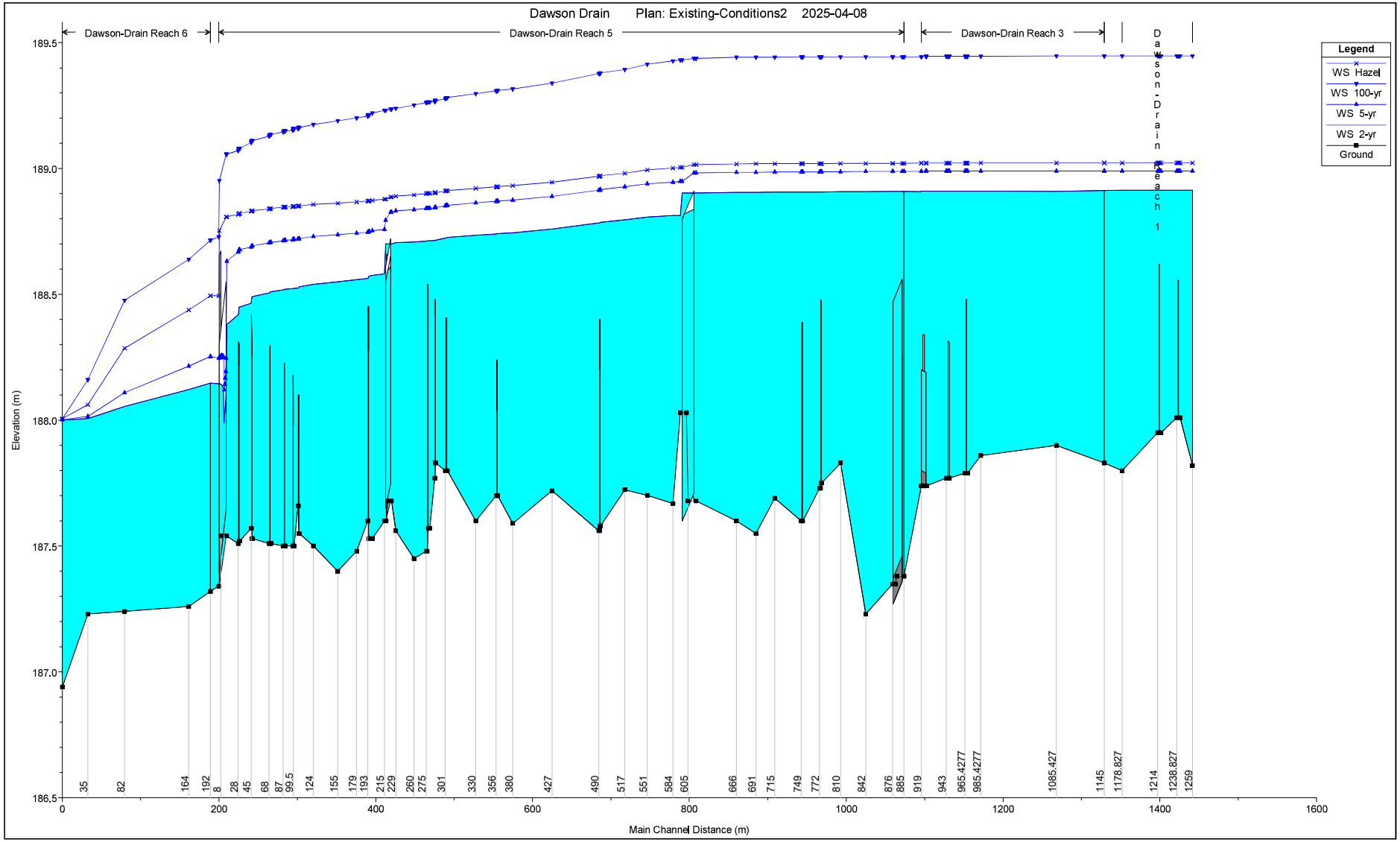
Dawson- Drain Reach 1 : XS 1241 and XS 1216.3

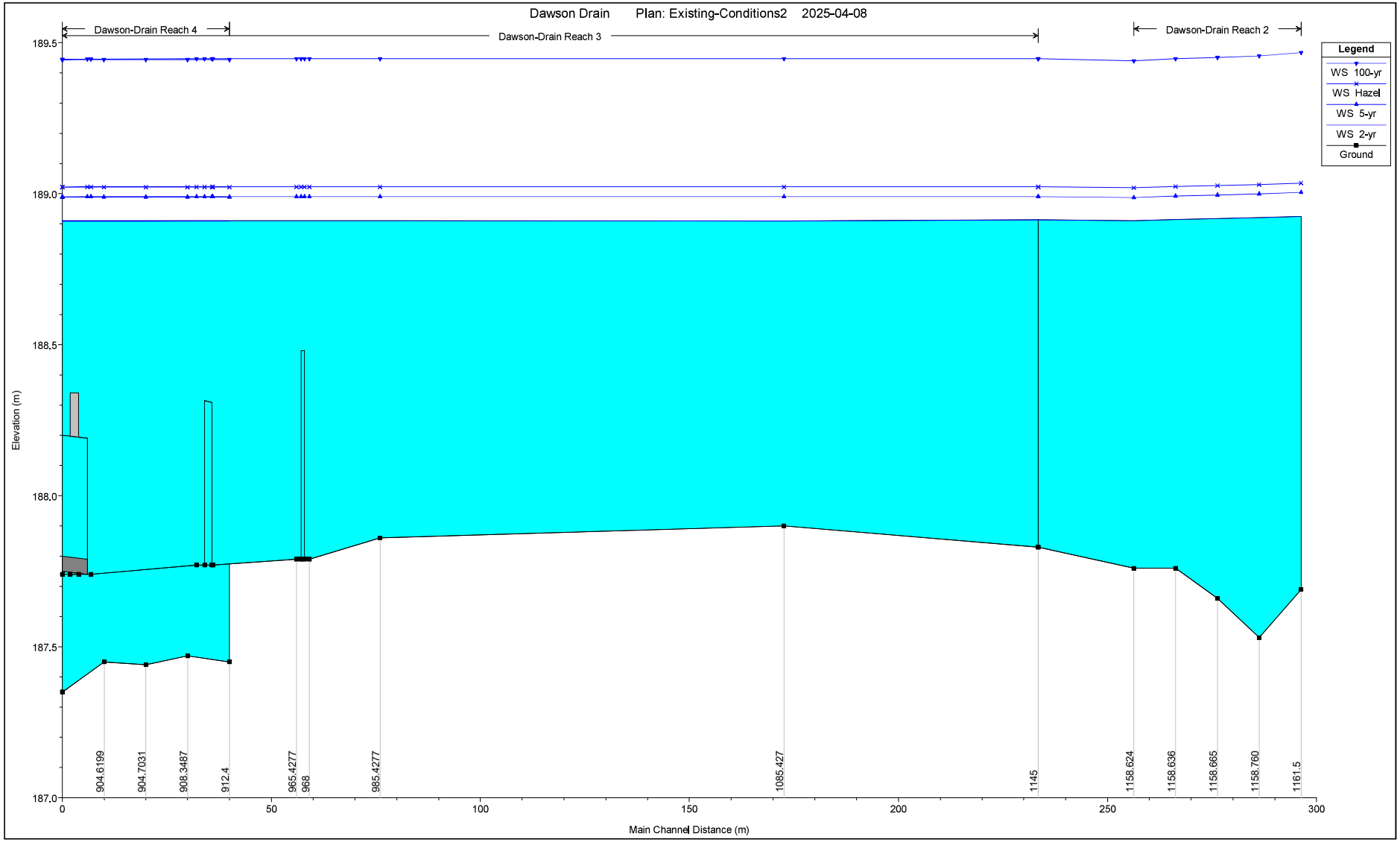
Dawson- Drain Reach 3 : XS 966.76, XS 944.2 andXS 922

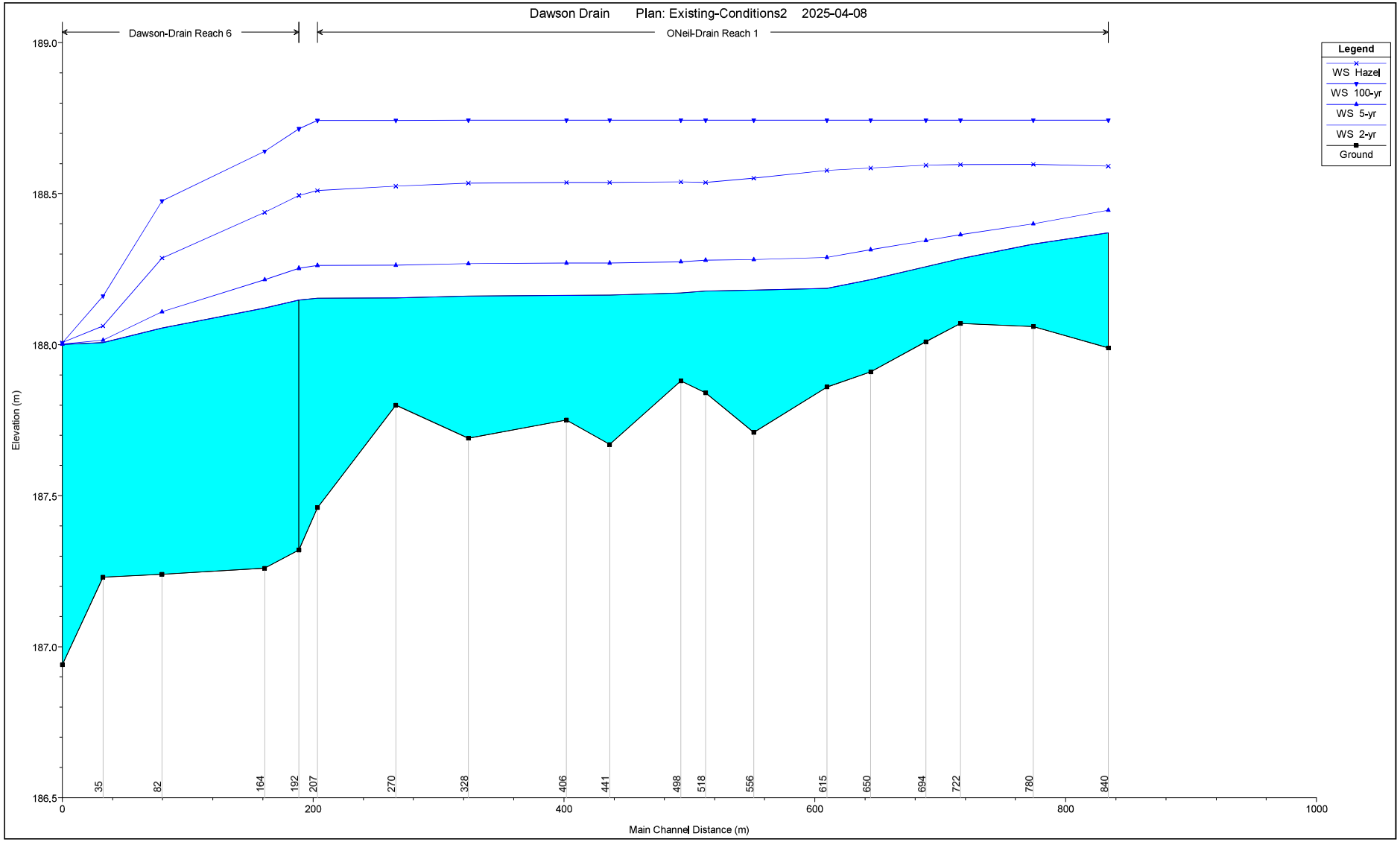
Dawson- Drain Reach 5 : XS 774, XS 750, XS 491, XS 357, XS 302.5, XS 287.5, XS 278, XS 194, XS 106.5, XS 99.5, XS 88.5, XS 69, XS 45.5, XS 29


2
35
82
Reach 6
13
46
70
107
155
219
260
304
330
380
427
517
551
613
666
164
207
270
328
406
441
518
556
615
650
694
722
780
840
Reach 1
715
751
775
810
842
885
925.4277
943
968
985.4277
912.4
Reach 3
1161.5
1085.427
1145
1178.827
1214
1238.827
1259


Dawson Drain Plan: Existing-Conditions2 2025-04-08
Dawson-Drain Reach 6
Dawson-Drain Reach 5
Dawson-Drain Reach 3
Dawson-Drain Reach 1
Legend
EG 100-yr
EG 50-yr
EG 25-yr
EG 10-yr
EG 5-yr
WS 100-yr
WS 50-yr
EG 2-yr
WS 25-yr
WS 10-yr
WS 5-yr
WS 2-yr
Crit 100-yr
Crit 50-yr
Crit 25-yr
Crit 10-yr
Crit 5-yr
Crit 2-yr
Ground
Elevation (m)
189.5
189.0
188.5
188.0
187.5
187.0
186.5
0
200
400
600
800
1000
1200
1400
1600
Main Channel Distance (m)


Dawson Drain Plan: Existing-Conditions2 2025-04-08
Dawson-Drain Reach 6
Dawson-Drain Reach 5
Dawson-Drain Reach 3
Dawson-Drain Reach 1
Legend
WS Hazel
WS 100-yr
WS 5-yr
WS 2-yr
Ground
Elevation (m)
Main Channel Distance (m)
189.5
189.0
188.5
188.0
187.5
187.0
186.5
0
200
400
600
800
1000
1200
1400
1600
35
82
164
192
8
28
45
68
87
99.5
124
155
179
193
215
229
260
275
301
330
356
380
427
490
517
551
584
605
666
691
715
749
772
810
842
876
885
919
943
965.4277
985.4277
1085.427
1145
1178.827
1214
1238.827
1259


Dawson Drain Plan: Existing-Conditions2 2025-04-08
Dawson-Drain Reach 4
Dawson-Drain Reach 3
Dawson-Drain Reach 2
Legend
WS 100-yr
WS Hazel
WS 5-yr
WS 2-yr
Ground
Elevation (m)
189.5
189.0
188.5
188.0
187.5
187.0
904.6199
904.7031
908.3487
912.4
965.4277
968
985.4277
1085.427
1145
1158.624
1158.636
1158.665
1158.760
1161.5
0
50
100
150
200
250
300
Main Channel Distance (m)


Dawson Drain Plan: Existing-Conditions2 2025-04-08
Dawson-Drain Reach 6
ONeil-Drain Reach 1
Legend
WS Hazel
WS 100-yr
WS 5-yr
WS 2-yr
Ground
Elevation (m)
189.0
188.5
188.0
187.5
187.0
186.5
35
82
164
192
207
270
328
406
441
498
518
556
615
650
694
722
780
840
0
200
400
600
800
1000
Main Channel Distance (m)

HEC-RAS Plan: Existing Conditions 2

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Dawson-Drain	Reach 6	2	2-yr	1.39	186.94	188.00	187.39	188.00	0.000214	0.27	5.20	9.95	0.12
Dawson-Drain	Reach 6	2	5-yr	2.09	186.94	188.00	187.47	188.01	0.000483	0.40	5.20	9.96	0.18
Dawson-Drain	Reach 6	2	10-yr	3.07	186.94	188.00	187.56	188.02	0.001036	0.59	5.22	9.98	0.26
Dawson-Drain	Reach 6	2	25-yr	4.55	186.94	188.00	187.67	188.04	0.002268	0.87	5.23	9.98	0.38
Dawson-Drain	Reach 6	2	50-yr	5.66	186.94	188.00	187.74	188.06	0.003490	1.08	5.24	9.99	0.48
Dawson-Drain	Reach 6	2	100-yr	6.79	186.94	188.01	187.79	188.09	0.004982	1.29	5.25	10.01	0.57
Dawson-Drain	Reach 6	2	Hazel	4.14	186.94	188.01	187.64	188.04	0.001846	0.79	5.26	10.01	0.35
Dawson-Drain	Reach 6	35	2-yr	1.39	187.23	188.01	187.66	188.02	0.001277	0.55	2.55	101.07	0.27
Dawson-Drain	Reach 6	35	5-yr	2.09	187.23	188.02	187.75	188.05	0.002702	0.81	2.61	101.10	0.40
Dawson-Drain	Reach 6	35	10-yr	3.07	187.23	188.03	187.85	188.10	0.005061	1.14	2.74	101.17	0.55
Dawson-Drain	Reach 6	35	25-yr	4.55	187.23	188.07	187.98	188.19	0.008186	1.54	3.04	101.34	0.71
Dawson-Drain	Reach 6	35	50-yr	5.66	187.23	188.11	188.05	188.27	0.009529	1.76	3.35	101.50	0.78
Dawson-Drain	Reach 6	35	100-yr	6.79	187.23	188.16	188.11	188.34	0.010137	1.92	3.71	101.69	0.81
Dawson-Drain	Reach 6	35	Hazel	4.14	187.23	188.06	187.95	188.17	0.007354	1.44	2.96	101.29	0.67
Dawson-Drain	Reach 6	82	2-yr	1.39	187.24	188.05	187.61	188.06	0.000653	0.44	3.16	6.53	0.20
Dawson-Drain	Reach 6	82	5-yr	2.09	187.24	188.11	187.70	188.13	0.001105	0.59	3.53	6.91	0.26
Dawson-Drain	Reach 6	82	10-yr	3.07	187.24	188.20	187.79	188.22	0.001551	0.74	4.15	7.49	0.32
Dawson-Drain	Reach 6	82	25-yr	4.55	187.24	188.32	187.91	188.36	0.001818	0.89	5.11	104.67	0.35
Dawson-Drain	Reach 6	82	50-yr	5.66	187.24	188.40	187.98	188.45	0.001891	0.99	5.80	105.00	0.37
Dawson-Drain	Reach 6	82	100-yr	6.79	187.24	188.48	188.05	188.53	0.001959	1.07	6.46	105.30	0.38
Dawson-Drain	Reach 6	82	Hazel	4.14	187.24	188.29	187.88	188.32	0.001771	0.85	4.86	104.55	0.34
Dawson-Drain	Reach 6	164	2-yr	1.39	187.26	188.12	187.77	188.14	0.001264	0.58	2.39	5.23	0.27
Dawson-Drain	Reach 6	164	5-yr	2.09	187.26	188.22	187.86	188.24	0.001723	0.72	2.90	5.82	0.33
Dawson-Drain	Reach 6	164	10-yr	3.07	187.26	188.34	187.96	188.37	0.002045	0.84	3.68	103.72	0.36
Dawson-Drain	Reach 6	164	25-yr	4.55	187.26	188.47	188.08	188.52	0.002118	0.99	4.71	104.24	0.38
Dawson-Drain	Reach 6	164	50-yr	5.66	187.26	188.56	188.16	188.62	0.002174	1.09	5.41	104.58	0.39
Dawson-Drain	Reach 6	164	100-yr	6.79	187.26	188.64	188.24	188.71	0.002225	1.17	6.07	104.88	0.40
Dawson-Drain	Reach 6	164	Hazel	4.14	187.26	188.44	188.05	188.48	0.002088	0.95	4.45	104.11	0.37
Dawson-Drain	Reach 6	192	2-yr	1.39	187.32	188.15	187.60	188.15	0.000218	0.30	4.76	8.47	0.12
Dawson-Drain	Reach 6	192	5-yr	2.09	187.32	188.25	187.66	188.26	0.000299	0.38	5.69	9.10	0.14
Dawson-Drain	Reach 6	192	10-yr	3.07	187.32	188.38	187.74	188.39	0.000359	0.46	7.07	97.66	0.16
Dawson-Drain	Reach 6	192	25-yr	4.55	187.32	188.53	187.84	188.55	0.000441	0.57	8.65	98.65	0.18
Dawson-Drain	Reach 6	192	50-yr	5.66	187.32	188.63	187.90	188.65	0.000491	0.64	9.70	99.27	0.20
Dawson-Drain	Reach 6	192	100-yr	6.79	187.32	188.72	187.96	188.74	0.000535	0.70	10.70	99.98	0.21
Dawson-Drain	Reach 6	192	Hazel	4.14	187.32	188.49	187.81	188.51	0.000420	0.54	8.24	98.43	0.18
Dawson-Drain	Reach 5	3	2-yr	1.36	187.34	188.15	187.64	188.16	0.000970	0.58	2.33	10.11	0.21
Dawson-Drain	Reach 5	3	5-yr	2.04	187.34	188.25	187.73	188.28	0.001443	0.77	2.63	10.90	0.26
Dawson-Drain	Reach 5	3	10-yr	3.00	187.34	188.37	187.84	188.42	0.002025	1.00	3.00	12.43	0.32
Dawson-Drain	Reach 5	3	25-yr	4.46	187.34	188.51	187.98	188.59	0.002938	1.31	3.41	15.41	0.39
Dawson-Drain	Reach 5	3	50-yr	5.55	187.34	188.59	188.08	188.71	0.003587	1.52	3.66	17.10	0.44
Dawson-Drain	Reach 5	3	100-yr	6.66	187.34	188.73	188.17	188.75	0.000689	0.64	13.31	18.58	0.19
Dawson-Drain	Reach 5	3	Hazel	2.32	187.34	188.50	187.76	188.52	0.000822	0.69	3.37	15.17	0.21
Dawson-Drain	Reach 5	8		Culvert									
Dawson-Drain	Reach 5	13	2-yr	1.36	187.54	188.38	187.99	188.40	0.001744	0.68	1.99	5.94	0.27
Dawson-Drain	Reach 5	13	5-yr	2.04	187.54	188.63	188.08	188.66	0.001326	0.74	2.75	8.53	0.25
Dawson-Drain	Reach 5	13	10-yr	3.00	187.54	188.85	188.18	188.86	0.000739	0.60	8.56	24.23	0.19
Dawson-Drain	Reach 5	13	25-yr	4.46	187.54	188.95	188.33	188.97	0.000686	0.58	12.80	24.64	0.18
Dawson-Drain	Reach 5	13	50-yr	5.55	187.54	189.01	188.42	189.03	0.000840	0.67	14.20	26.98	0.20
Dawson-Drain	Reach 5	13	100-yr	6.66	187.54	189.06	188.51	189.08	0.000980	0.74	15.58	28.81	0.22
Dawson-Drain	Reach 5	13	Hazel	2.32	187.54	188.81	188.11	188.82	0.000541	0.50	7.78	24.09	0.16
Dawson-Drain	Reach 5	28	2-yr	1.36	187.51	188.42	187.97	188.43	0.001236	0.46	2.99	6.82	0.21
Dawson-Drain	Reach 5	28	5-yr	2.04	187.51	188.67	188.06	188.68	0.000638	0.44	5.05	9.68	0.17
Dawson-Drain	Reach 5	28	10-yr	3.00	187.51	188.86	188.16	188.87	0.000538	0.47	8.89	22.91	0.16
Dawson-Drain	Reach 5	28	25-yr	4.46	187.51	188.96	188.29	188.98	0.000733	0.59	11.28	23.27	0.19
Dawson-Drain	Reach 5	28	50-yr	5.55	187.51	189.02	188.36	189.04	0.000888	0.67	12.59	23.46	0.21
Dawson-Drain	Reach 5	28	100-yr	6.66	187.51	189.07	188.43	189.09	0.001032	0.75	13.80	23.64	0.23
Dawson-Drain	Reach 5	28	Hazel	2.32	187.51	188.82	188.10	188.83	0.000398	0.39	7.95	22.77	0.13
Dawson-Drain	Reach 5	29		Bridge									
Dawson-Drain	Reach 5	30	2-yr	1.36	187.52	188.45	187.99	188.46	0.000938	0.43	3.25	7.33	0.19
Dawson-Drain	Reach 5	30	5-yr	2.04	187.52	188.68	188.07	188.69	0.000602	0.44	5.21	9.99	0.16
Dawson-Drain	Reach 5	30	10-yr	3.00	187.52	188.86	188.17	188.87	0.000570	0.49	8.32	22.76	0.16
Dawson-Drain	Reach 5	30	25-yr	4.46	187.52	188.97	188.29	188.98	0.000783	0.62	10.69	23.12	0.19
Dawson-Drain	Reach 5	30	50-yr	5.55	187.52	189.02	188.38	189.04	0.000952	0.71	11.99	23.31	0.22
Dawson-Drain	Reach 5	30	100-yr	6.66	187.52	189.08	188.43	189.10	0.001083	0.78	13.32	23.51	0.23
Dawson-Drain	Reach 5	30	Hazel	2.32	187.52	188.82	188.11	188.83	0.000406	0.40	7.40	21.24	0.14
Dawson-Drain	Reach 5	45	2-yr	1.36	187.57	188.47	188.01	188.47	0.001071	0.41	3.34	7.73	0.20
Dawson-Drain	Reach 5	45	5-yr	2.04	187.57	188.69	188.10	188.70	0.000576	0.39	6.05	20.37	0.15
Dawson-Drain	Reach 5	45	10-yr	3.00	187.57	188.88	188.20	188.88	0.000438	0.40	10.13	22.17	0.14
Dawson-Drain	Reach 5	45	25-yr	4.46	187.57	188.98	188.31	189.00	0.000578	0.50	12.56	22.58	0.17
Dawson-Drain	Reach 5	45	50-yr	5.55	187.57	189.04	188.39	189.06	0.000690	0.57	13.93	22.80	0.18
Dawson-Drain	Reach 5	45	100-yr	6.66	187.57	189.10	188.46	189.12	0.000778	0.63	15.30	23.04	0.20

HEC-RAS Plan: Existing Conditions 2 (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Dawson-Drain	Reach 5	45	Hazel	2.32	187.57	188.83	188.13	188.84	0.000333	0.34	9.13	22.00	0.12
Dawson-Drain	Reach 5	45.5		Bridge									
Dawson-Drain	Reach 5	46	2-yr	1.36	187.53	188.49	187.99	188.50	0.000740	0.36	3.96	10.18	0.17
Dawson-Drain	Reach 5	46	5-yr	2.04	187.53	188.69	188.07	188.70	0.000489	0.37	6.55	20.48	0.14
Dawson-Drain	Reach 5	46	10-yr	3.00	187.53	188.88	188.17	188.89	0.000395	0.39	10.58	22.16	0.13
Dawson-Drain	Reach 5	46	25-yr	4.46	187.53	188.99	188.29	189.00	0.000528	0.49	13.04	22.56	0.16
Dawson-Drain	Reach 5	46	50-yr	5.55	187.53	189.05	188.37	189.06	0.000633	0.56	14.43	22.78	0.18
Dawson-Drain	Reach 5	46	100-yr	6.66	187.53	189.11	188.43	189.13	0.000716	0.62	15.83	22.99	0.19
Dawson-Drain	Reach 5	46	Hazel	2.32	187.53	188.83	188.10	188.84	0.000298	0.33	9.58	22.00	0.12
Dawson-Drain	Reach 5	68	2-yr	1.36	187.51	188.51	187.97	188.51	0.000495	0.34	4.85	15.00	0.14
Dawson-Drain	Reach 5	68	5-yr	2.04	187.51	188.70	188.05	188.71	0.000348	0.34	8.51	22.06	0.12
Dawson-Drain	Reach 5	68	10-yr	3.00	187.51	188.89	188.15	188.89	0.000295	0.37	12.65	22.91	0.12
Dawson-Drain	Reach 5	68	25-yr	4.46	187.51	189.00	188.27	189.01	0.000403	0.46	15.27	23.33	0.14
Dawson-Drain	Reach 5	68	50-yr	5.55	187.51	189.06	188.35	189.08	0.000487	0.52	16.77	23.56	0.16
Dawson-Drain	Reach 5	68	100-yr	6.66	187.51	189.13	188.42	189.14	0.000555	0.58	18.27	23.79	0.17
Dawson-Drain	Reach 5	68	Hazel	2.32	187.51	188.84	188.09	188.84	0.000222	0.31	11.56	22.73	0.10
Dawson-Drain	Reach 5	69		Bridge									
Dawson-Drain	Reach 5	70	2-yr	1.36	187.51	188.51	187.97	188.52	0.000461	0.33	5.08	15.88	0.14
Dawson-Drain	Reach 5	70	5-yr	2.04	187.51	188.71	188.05	188.71	0.000326	0.33	8.80	22.25	0.12
Dawson-Drain	Reach 5	70	10-yr	3.00	187.51	188.89	188.15	188.90	0.000279	0.36	12.95	22.96	0.11
Dawson-Drain	Reach 5	70	25-yr	4.46	187.51	189.01	188.26	189.01	0.000380	0.45	15.61	23.38	0.14
Dawson-Drain	Reach 5	70	50-yr	5.55	187.51	189.07	188.33	189.08	0.000459	0.51	17.14	23.62	0.15
Dawson-Drain	Reach 5	70	100-yr	6.66	187.51	189.13	188.41	189.15	0.000524	0.56	18.66	23.86	0.16
Dawson-Drain	Reach 5	70	Hazel	2.32	187.51	188.84	188.08	188.85	0.000210	0.30	11.84	22.79	0.10
Dawson-Drain	Reach 5	87	2-yr	1.36	187.50	188.52	187.89	188.52	0.000246	0.26	7.16	17.37	0.10
Dawson-Drain	Reach 5	87	5-yr	2.04	187.50	188.71	187.97	188.72	0.000191	0.27	11.52	23.51	0.09
Dawson-Drain	Reach 5	87	10-yr	3.00	187.50	188.90	188.06	188.90	0.000179	0.30	15.87	24.18	0.09
Dawson-Drain	Reach 5	87	25-yr	4.46	187.50	189.01	188.17	189.02	0.000252	0.38	18.73	24.79	0.11
Dawson-Drain	Reach 5	87	50-yr	5.55	187.50	189.08	188.24	189.09	0.000309	0.43	20.40	25.14	0.13
Dawson-Drain	Reach 5	87	100-yr	6.66	187.50	189.15	188.31	189.15	0.000358	0.48	22.07	25.81	0.14
Dawson-Drain	Reach 5	87	Hazel	2.32	187.50	188.85	188.00	188.85	0.000133	0.25	14.66	23.93	0.08
Dawson-Drain	Reach 5	88.5		Bridge									
Dawson-Drain	Reach 5	90	2-yr	1.36	187.50	188.52	187.89	188.52	0.000264	0.27	6.86	19.50	0.11
Dawson-Drain	Reach 5	90	5-yr	2.04	187.50	188.72	187.97	188.72	0.000199	0.28	11.11	23.37	0.10
Dawson-Drain	Reach 5	90	10-yr	3.00	187.50	188.90	188.06	188.90	0.000185	0.30	15.46	24.14	0.09
Dawson-Drain	Reach 5	90	25-yr	4.46	187.50	189.02	188.17	189.02	0.000259	0.38	18.33	24.58	0.11
Dawson-Drain	Reach 5	90	50-yr	5.55	187.50	189.08	188.24	189.09	0.000316	0.44	19.99	24.91	0.13
Dawson-Drain	Reach 5	90	100-yr	6.66	187.50	189.15	188.31	189.16	0.000364	0.49	21.66	25.39	0.14
Dawson-Drain	Reach 5	90	Hazel	2.32	187.50	188.85	188.00	188.85	0.000138	0.25	14.24	23.94	0.08
Dawson-Drain	Reach 5	99	2-yr	1.36	187.50	188.52	187.93	188.53	0.000310	0.32	6.26	17.05	0.12
Dawson-Drain	Reach 5	99	5-yr	2.04	187.50	188.72	188.01	188.72	0.000260	0.34	10.05	22.29	0.11
Dawson-Drain	Reach 5	99	10-yr	3.00	187.50	188.90	188.09	188.90	0.000244	0.37	14.17	22.90	0.11
Dawson-Drain	Reach 5	99	25-yr	4.46	187.50	189.02	188.21	189.02	0.000341	0.47	16.90	23.25	0.13
Dawson-Drain	Reach 5	99	50-yr	5.55	187.50	189.09	188.32	189.09	0.000416	0.53	18.49	23.46	0.15
Dawson-Drain	Reach 5	99	100-yr	6.66	187.50	189.15	188.38	189.16	0.000480	0.59	20.06	23.84	0.16
Dawson-Drain	Reach 5	99	Hazel	2.32	187.50	188.85	188.03	188.85	0.000182	0.31	13.01	22.69	0.09
Dawson-Drain	Reach 5	99.5		Bridge									
Dawson-Drain	Reach 5	100	2-yr	1.36	187.50	188.52	187.93	188.53	0.000307	0.32	6.33	17.37	0.12
Dawson-Drain	Reach 5	100	5-yr	2.04	187.50	188.72	188.01	188.72	0.000252	0.33	10.26	22.26	0.11
Dawson-Drain	Reach 5	100	10-yr	3.00	187.50	188.90	188.09	188.91	0.000238	0.37	14.38	22.84	0.11
Dawson-Drain	Reach 5	100	25-yr	4.46	187.50	189.02	188.21	189.03	0.000332	0.46	17.14	23.24	0.13
Dawson-Drain	Reach 5	100	50-yr	5.55	187.50	189.09	188.32	189.10	0.000405	0.53	18.74	23.55	0.15
Dawson-Drain	Reach 5	100	100-yr	6.66	187.50	189.16	188.38	189.17	0.000466	0.59	20.34	23.88	0.16
Dawson-Drain	Reach 5	100	Hazel	2.32	187.50	188.85	188.04	188.85	0.000177	0.31	13.21	22.67	0.09
Dawson-Drain	Reach 5	106	2-yr	1.36	187.66	188.53	188.02	188.53	0.000517	0.35	4.82	16.35	0.15
Dawson-Drain	Reach 5	106	5-yr	2.04	187.66	188.72	188.10	188.73	0.000358	0.35	8.51	21.22	0.13
Dawson-Drain	Reach 5	106	10-yr	3.00	187.66	188.90	188.19	188.91	0.000308	0.38	12.46	21.99	0.12
Dawson-Drain	Reach 5	106	25-yr	4.46	187.66	189.02	188.31	189.03	0.000413	0.47	15.14	22.86	0.14
Dawson-Drain	Reach 5	106	50-yr	5.55	187.66	189.09	188.37	189.10	0.000493	0.53	16.74	23.60	0.16
Dawson-Drain	Reach 5	106	100-yr	6.66	187.66	189.16	188.43	189.17	0.000557	0.59	18.40	24.60	0.17
Dawson-Drain	Reach 5	106	Hazel	2.32	187.66	188.85	188.13	188.85	0.000236	0.32	11.33	21.76	0.11
Dawson-Drain	Reach 5	106.5		Bridge									
Dawson-Drain	Reach 5	107	2-yr	1.36	187.55	188.53	187.99	188.54	0.000505	0.35	4.44	14.05	0.14
Dawson-Drain	Reach 5	107	5-yr	2.04	187.55	188.72	188.08	188.73	0.000383	0.36	7.66	19.83	0.13
Dawson-Drain	Reach 5	107	10-yr	3.00	187.55	188.90	188.17	188.91	0.000338	0.39	11.56	22.10	0.13
Dawson-Drain	Reach 5	107	25-yr	4.46	187.55	189.02	188.28	189.03	0.000448	0.49	14.26	22.62	0.15
Dawson-Drain	Reach 5	107	50-yr	5.55	187.55	189.09	188.35	189.11	0.000531	0.55	15.84	22.92	0.16
Dawson-Drain	Reach 5	107	100-yr	6.66	187.55	189.16	188.41	189.18	0.000597	0.61	17.42	23.24	0.18

HEC-RAS Plan: Existing Conditions 2 (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Dawson-Drain	Reach 5	107	Hazel	2.32	187.55	188.85	188.11	188.86	0.000259	0.33	10.41	21.88	0.11
Dawson-Drain	Reach 5	124	2-yr	1.36	187.50	188.54	187.93	188.54	0.000325	0.30	6.11	17.08	0.12
Dawson-Drain	Reach 5	124	5-yr	2.04	187.50	188.73	188.02	188.73	0.000252	0.31	9.61	19.01	0.11
Dawson-Drain	Reach 5	124	10-yr	3.00	187.50	188.91	188.12	188.92	0.000243	0.35	13.13	19.71	0.11
Dawson-Drain	Reach 5	124	25-yr	4.46	187.50	189.03	188.24	189.04	0.000339	0.44	15.58	20.18	0.13
Dawson-Drain	Reach 5	124	50-yr	5.55	187.50	189.11	188.33	189.12	0.000412	0.51	17.03	20.48	0.15
Dawson-Drain	Reach 5	124	100-yr	6.66	187.50	189.18	188.38	189.19	0.000473	0.56	18.46	20.65	0.16
Dawson-Drain	Reach 5	124	Hazel	2.32	187.50	188.86	188.05	188.86	0.000182	0.29	12.07	19.50	0.09
Dawson-Drain	Reach 5	155	2-yr	1.36	187.40	188.55	187.89	188.55	0.000307	0.28	5.87	13.62	0.11
Dawson-Drain	Reach 5	155	5-yr	2.04	187.40	188.74	187.98	188.74	0.000258	0.30	8.70	16.42	0.11
Dawson-Drain	Reach 5	155	10-yr	3.00	187.40	188.92	188.08	188.92	0.000253	0.34	11.74	17.08	0.11
Dawson-Drain	Reach 5	155	25-yr	4.46	187.40	189.04	188.20	189.05	0.000354	0.44	13.91	17.54	0.13
Dawson-Drain	Reach 5	155	50-yr	5.55	187.40	189.12	188.28	189.13	0.000429	0.51	15.21	17.81	0.15
Dawson-Drain	Reach 5	155	100-yr	6.66	187.40	189.19	188.37	189.20	0.000494	0.56	16.49	18.07	0.16
Dawson-Drain	Reach 5	155	Hazel	2.32	187.40	188.86	188.02	188.87	0.000191	0.29	10.79	16.88	0.09
Dawson-Drain	Reach 5	179	2-yr	1.36	187.48	188.56	187.98	188.56	0.000406	0.32	5.24	13.59	0.13
Dawson-Drain	Reach 5	179	5-yr	2.04	187.48	188.74	188.07	188.75	0.000327	0.34	7.96	15.11	0.12
Dawson-Drain	Reach 5	179	10-yr	3.00	187.48	188.92	188.17	188.93	0.000320	0.39	10.76	15.81	0.12
Dawson-Drain	Reach 5	179	25-yr	4.46	187.48	189.05	188.29	189.06	0.000443	0.49	12.81	16.31	0.15
Dawson-Drain	Reach 5	179	50-yr	5.55	187.48	189.13	188.38	189.14	0.000535	0.56	14.05	16.60	0.16
Dawson-Drain	Reach 5	179	100-yr	6.66	187.48	189.20	188.43	189.22	0.000613	0.63	15.27	16.97	0.18
Dawson-Drain	Reach 5	179	Hazel	2.32	187.48	188.87	188.10	188.87	0.000243	0.32	9.86	15.59	0.11
Dawson-Drain	Reach 5	193	2-yr	1.36	187.60	188.56	187.93	188.57	0.000274	0.30	5.45	12.62	0.11
Dawson-Drain	Reach 5	193	5-yr	2.04	187.60	188.75	188.01	188.75	0.000263	0.34	8.23	16.59	0.11
Dawson-Drain	Reach 5	193	10-yr	3.00	187.60	188.93	188.09	188.94	0.000273	0.39	11.30	17.30	0.12
Dawson-Drain	Reach 5	193	25-yr	4.46	187.60	189.06	188.20	189.07	0.000384	0.50	13.58	17.82	0.14
Dawson-Drain	Reach 5	193	50-yr	5.55	187.60	189.13	188.26	189.15	0.000467	0.58	14.95	18.17	0.16
Dawson-Drain	Reach 5	193	100-yr	6.66	187.60	189.21	188.33	189.22	0.000538	0.64	16.31	18.79	0.17
Dawson-Drain	Reach 5	193	Hazel	2.32	187.60	188.87	188.03	188.88	0.000205	0.33	10.30	17.07	0.10
Dawson-Drain	Reach 5	194		Bridge									
Dawson-Drain	Reach 5	195	2-yr	1.36	187.53	188.57	188.01	188.58	0.000549	0.36	4.40	14.11	0.15
Dawson-Drain	Reach 5	195	5-yr	2.04	187.53	188.75	188.11	188.76	0.000432	0.38	7.11	15.72	0.14
Dawson-Drain	Reach 5	195	10-yr	3.00	187.53	188.93	188.21	188.94	0.000403	0.42	10.01	16.51	0.14
Dawson-Drain	Reach 5	195	25-yr	4.46	187.53	189.06	188.33	189.07	0.000534	0.53	12.21	17.09	0.16
Dawson-Drain	Reach 5	195	50-yr	5.55	187.53	189.14	188.41	189.15	0.000629	0.60	13.54	17.42	0.18
Dawson-Drain	Reach 5	195	100-yr	6.66	187.53	189.21	188.49	189.23	0.000707	0.66	14.86	17.75	0.19
Dawson-Drain	Reach 5	195	Hazel	2.32	187.53	188.87	188.14	188.88	0.000312	0.36	9.05	16.25	0.12
Dawson-Drain	Reach 5	199	2-yr	1.36	187.53	188.58	188.00	188.58	0.000421	0.31	4.99	13.10	0.13
Dawson-Drain	Reach 5	199	5-yr	2.04	187.53	188.75	188.09	188.76	0.000350	0.34	7.74	17.20	0.12
Dawson-Drain	Reach 5	199	10-yr	3.00	187.53	188.93	188.18	188.94	0.000326	0.38	10.91	17.94	0.12
Dawson-Drain	Reach 5	199	25-yr	4.46	187.53	189.07	188.30	189.08	0.000430	0.47	13.32	18.49	0.15
Dawson-Drain	Reach 5	199	50-yr	5.55	187.53	189.14	188.37	189.16	0.000506	0.54	14.78	18.82	0.16
Dawson-Drain	Reach 5	199	100-yr	6.66	187.53	189.22	188.45	189.23	0.000567	0.60	16.22	19.13	0.17
Dawson-Drain	Reach 5	199	Hazel	2.32	187.53	188.87	188.12	188.88	0.000254	0.32	9.85	17.70	0.11
Dawson-Drain	Reach 5	215	2-yr	1.36	187.60	188.58	188.00	188.59	0.000441	0.37	3.68	10.04	0.14
Dawson-Drain	Reach 5	215	5-yr	2.04	187.60	188.76	188.09	188.76	0.000356	0.36	6.72	12.12	0.13
Dawson-Drain	Reach 5	215	10-yr	3.00	187.60	188.94	188.18	188.94	0.000308	0.38	12.11	24.98	0.12
Dawson-Drain	Reach 5	215	25-yr	4.46	187.60	189.07	188.28	189.08	0.000386	0.46	15.52	25.58	0.14
Dawson-Drain	Reach 5	215	50-yr	5.55	187.60	189.15	188.35	189.16	0.000441	0.52	17.59	25.95	0.15
Dawson-Drain	Reach 5	215	100-yr	6.66	187.60	189.23	188.41	189.24	0.000489	0.57	19.63	27.89	0.16
Dawson-Drain	Reach 5	215	Hazel	2.32	187.60	188.88	188.12	188.88	0.000245	0.32	10.61	24.70	0.11
Dawson-Drain	Reach 5	219		Culvert									
Dawson-Drain	Reach 5	224	2-yr	1.36	187.68	188.70	188.14	188.71	0.000480	0.32	4.81	13.41	0.14
Dawson-Drain	Reach 5	224	5-yr	2.04	187.68	188.83	188.23	188.83	0.000529	0.37	7.09	22.57	0.15
Dawson-Drain	Reach 5	224	10-yr	3.00	187.68	188.95	188.32	188.96	0.000566	0.42	9.87	23.17	0.16
Dawson-Drain	Reach 5	224	25-yr	4.46	187.68	189.08	188.43	189.09	0.000620	0.49	13.50	27.50	0.17
Dawson-Drain	Reach 5	224	50-yr	5.55	187.68	189.16	188.50	189.17	0.000661	0.53	15.66	27.50	0.18
Dawson-Drain	Reach 5	224	100-yr	6.66	187.68	189.24	188.56	189.25	0.000671	0.57	17.87	27.50	0.18
Dawson-Drain	Reach 5	224	Hazel	2.32	187.68	188.89	188.26	188.89	0.000486	0.37	8.45	22.85	0.14
Dawson-Drain	Reach 5	229	2-yr	1.36	187.56	188.71	187.87	188.71	0.000131	0.22	6.86	12.87	0.08
Dawson-Drain	Reach 5	229	5-yr	2.04	187.56	188.83	187.95	188.84	0.000176	0.28	8.68	18.02	0.09
Dawson-Drain	Reach 5	229	10-yr	3.00	187.56	188.95	188.04	188.96	0.000236	0.35	11.33	23.21	0.11
Dawson-Drain	Reach 5	229	25-yr	4.46	187.56	189.08	188.15	189.09	0.000321	0.44	14.35	24.00	0.13
Dawson-Drain	Reach 5	229	50-yr	5.55	187.56	189.16	188.22	189.17	0.000377	0.49	16.25	24.55	0.14
Dawson-Drain	Reach 5	229	100-yr	6.66	187.56	189.24	188.28	189.25	0.000416	0.54	18.21	24.55	0.15
Dawson-Drain	Reach 5	229	Hazel	2.32	187.56	188.89	187.98	188.90	0.000183	0.29	9.90	22.91	0.09
Dawson-Drain	Reach 5	260	2-yr	1.36	187.45	188.71	187.90	188.71	0.000177	0.23	6.90	15.92	0.09
Dawson-Drain	Reach 5	260	5-yr	2.04	187.45	188.84	187.99	188.84	0.000218	0.27	9.54	22.14	0.10
Dawson-Drain	Reach 5	260	10-yr	3.00	187.45	188.96	188.09	188.96	0.000268	0.32	12.29	22.62	0.11
Dawson-Drain	Reach 5	260	25-yr	4.46	187.45	189.09	188.21	189.10	0.000336	0.40	15.29	23.16	0.13

HEC-RAS Plan: Existing Conditions 2 (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Dawson-Drain	Reach 5	260	50-yr	5.55	187.45	189.17	188.28	189.18	0.000382	0.45	17.28	25.60	0.14
Dawson-Drain	Reach 5	260	100-yr	6.66	187.45	189.25	188.35	189.26	0.000409	0.48	19.36	25.60	0.14
Dawson-Drain	Reach 5	260	Hazel	2.32	187.45	188.90	188.02	188.90	0.000216	0.28	10.86	22.37	0.10
Dawson-Drain	Reach 5	275	2-yr	1.36	187.48	188.71	187.90	188.71	0.000090	0.16	11.34	30.93	0.06
Dawson-Drain	Reach 5	275	5-yr	2.04	187.48	188.84	187.98	188.84	0.000096	0.18	15.42	31.60	0.07
Dawson-Drain	Reach 5	275	10-yr	3.00	187.48	188.97	188.07	188.97	0.000114	0.22	19.35	31.60	0.07
Dawson-Drain	Reach 5	275	25-yr	4.46	187.48	189.10	188.17	189.10	0.000146	0.27	23.56	31.60	0.09
Dawson-Drain	Reach 5	275	50-yr	5.55	187.48	189.18	188.23	189.18	0.000168	0.31	26.13	31.60	0.09
Dawson-Drain	Reach 5	275	100-yr	6.66	187.48	189.26	188.29	189.27	0.000182	0.34	28.73	31.60	0.10
Dawson-Drain	Reach 5	275	Hazel	2.32	187.48	188.90	188.01	188.90	0.000093	0.19	17.30	31.60	0.07
Dawson-Drain	Reach 5	278		Bridge									
Dawson-Drain	Reach 5	281	2-yr	1.36	187.57	188.71	188.07	188.72	0.000251	0.25	8.31	28.33	0.10
Dawson-Drain	Reach 5	281	5-yr	2.04	187.57	188.84	188.16	188.85	0.000232	0.27	12.02	29.00	0.10
Dawson-Drain	Reach 5	281	10-yr	3.00	187.57	188.97	188.26	188.97	0.000250	0.31	15.66	29.47	0.11
Dawson-Drain	Reach 5	281	25-yr	4.46	187.57	189.10	188.38	189.11	0.000296	0.38	19.63	30.16	0.12
Dawson-Drain	Reach 5	281	50-yr	5.55	187.57	189.18	188.45	189.19	0.000328	0.42	22.19	32.20	0.13
Dawson-Drain	Reach 5	281	100-yr	6.66	187.57	189.26	188.52	189.27	0.000345	0.45	24.85	32.20	0.13
Dawson-Drain	Reach 5	281	Hazel	2.32	187.57	188.90	188.19	188.90	0.000213	0.28	13.75	29.23	0.10
Dawson-Drain	Reach 5	287	2-yr	1.36	187.77	188.71	188.21	188.72	0.000423	0.32	6.24	24.63	0.13
Dawson-Drain	Reach 5	287	5-yr	2.04	187.77	188.84	188.29	188.85	0.000381	0.35	9.45	25.09	0.13
Dawson-Drain	Reach 5	287	10-yr	3.00	187.77	188.97	188.37	188.97	0.000401	0.40	12.60	25.54	0.14
Dawson-Drain	Reach 5	287	25-yr	4.46	187.77	189.10	188.48	189.11	0.000466	0.47	16.04	26.01	0.15
Dawson-Drain	Reach 5	287	50-yr	5.55	187.77	189.18	188.57	189.19	0.000510	0.52	18.17	26.30	0.16
Dawson-Drain	Reach 5	287	100-yr	6.66	187.77	189.27	188.65	189.28	0.000533	0.55	20.72	28.80	0.16
Dawson-Drain	Reach 5	287	Hazel	2.32	187.77	188.90	188.31	188.91	0.000346	0.35	10.94	25.30	0.12
Dawson-Drain	Reach 5	287.5		Bridge									
Dawson-Drain	Reach 5	288	2-yr	1.36	187.83	188.72	188.25	188.72	0.000507	0.34	5.76	24.04	0.14
Dawson-Drain	Reach 5	288	5-yr	2.04	187.83	188.85	188.32	188.85	0.000441	0.36	8.90	24.50	0.14
Dawson-Drain	Reach 5	288	10-yr	3.00	187.83	188.97	188.41	188.98	0.000453	0.41	11.99	24.94	0.14
Dawson-Drain	Reach 5	288	25-yr	4.46	187.83	189.10	188.51	189.11	0.000516	0.48	15.36	25.41	0.16
Dawson-Drain	Reach 5	288	50-yr	5.55	187.83	189.19	188.59	189.20	0.000562	0.53	17.46	25.92	0.17
Dawson-Drain	Reach 5	288	100-yr	6.66	187.83	189.27	188.70	189.28	0.000582	0.57	19.98	28.30	0.17
Dawson-Drain	Reach 5	288	Hazel	2.32	187.83	188.90	188.35	188.91	0.000396	0.36	10.36	24.71	0.13
Dawson-Drain	Reach 5	301	2-yr	1.36	187.80	188.72	188.13	188.73	0.000260	0.26	7.33	20.27	0.10
Dawson-Drain	Reach 5	301	5-yr	2.04	187.80	188.85	188.20	188.86	0.000266	0.30	9.97	20.82	0.11
Dawson-Drain	Reach 5	301	10-yr	3.00	187.80	188.98	188.29	188.98	0.000308	0.35	12.61	21.54	0.12
Dawson-Drain	Reach 5	301	25-yr	4.46	187.80	189.11	188.40	189.12	0.000384	0.43	15.57	22.31	0.14
Dawson-Drain	Reach 5	301	50-yr	5.55	187.80	189.19	188.47	189.20	0.000435	0.49	17.57	24.20	0.15
Dawson-Drain	Reach 5	301	100-yr	6.66	187.80	189.28	188.56	189.29	0.000467	0.53	19.57	24.20	0.15
Dawson-Drain	Reach 5	301	Hazel	2.32	187.80	188.91	188.23	188.91	0.000255	0.31	11.20	21.13	0.11
Dawson-Drain	Reach 5	302.5		Bridge									
Dawson-Drain	Reach 5	304	2-yr	1.36	187.80	188.73	188.13	188.73	0.000255	0.26	7.19	18.24	0.10
Dawson-Drain	Reach 5	304	5-yr	2.04	187.80	188.85	188.21	188.86	0.000271	0.30	9.74	20.30	0.11
Dawson-Drain	Reach 5	304	10-yr	3.00	187.80	188.98	188.29	188.98	0.000315	0.36	12.32	21.00	0.12
Dawson-Drain	Reach 5	304	25-yr	4.46	187.80	189.11	188.40	189.12	0.000393	0.44	15.22	21.81	0.14
Dawson-Drain	Reach 5	304	50-yr	5.55	187.80	189.20	188.47	189.21	0.000446	0.49	17.14	23.60	0.15
Dawson-Drain	Reach 5	304	100-yr	6.66	187.80	189.28	188.56	189.29	0.000480	0.54	19.11	23.60	0.16
Dawson-Drain	Reach 5	304	Hazel	2.32	187.80	188.91	188.23	188.92	0.000261	0.31	10.93	20.60	0.11
Dawson-Drain	Reach 5	330	2-yr	1.36	187.60	188.73	187.98	188.74	0.000183	0.20	7.04	15.26	0.09
Dawson-Drain	Reach 5	330	5-yr	2.04	187.60	188.86	188.06	188.87	0.000198	0.24	9.37	18.18	0.09
Dawson-Drain	Reach 5	330	10-yr	3.00	187.60	188.99	188.15	188.99	0.000235	0.29	11.70	18.71	0.10
Dawson-Drain	Reach 5	330	25-yr	4.46	187.60	189.13	188.28	189.13	0.000298	0.37	14.32	19.30	0.12
Dawson-Drain	Reach 5	330	50-yr	5.55	187.60	189.21	188.35	189.22	0.000340	0.42	15.97	19.69	0.13
Dawson-Drain	Reach 5	330	100-yr	6.66	187.60	189.30	188.40	189.31	0.000370	0.46	17.67	20.76	0.14
Dawson-Drain	Reach 5	330	Hazel	2.32	187.60	188.92	188.09	188.92	0.000194	0.25	10.42	18.42	0.09
Dawson-Drain	Reach 5	356	2-yr	1.36	187.70	188.74	188.06	188.74	0.000202	0.19	7.43	18.10	0.09
Dawson-Drain	Reach 5	356	5-yr	2.04	187.70	188.87	188.13	188.87	0.000197	0.22	9.80	18.51	0.09
Dawson-Drain	Reach 5	356	10-yr	3.00	187.70	189.00	188.22	189.00	0.000221	0.26	12.19	18.97	0.10
Dawson-Drain	Reach 5	356	25-yr	4.46	187.70	189.14	188.34	189.14	0.000268	0.33	14.89	19.52	0.11
Dawson-Drain	Reach 5	356	50-yr	5.55	187.70	189.22	188.42	189.23	0.000300	0.37	16.58	19.86	0.12
Dawson-Drain	Reach 5	356	100-yr	6.66	187.70	189.31	188.47	189.32	0.000322	0.40	18.29	20.19	0.13
Dawson-Drain	Reach 5	356	Hazel	2.32	187.70	188.93	188.16	188.93	0.000188	0.23	10.87	18.69	0.09
Dawson-Drain	Reach 5	357		Bridge									
Dawson-Drain	Reach 5	358	2-yr	1.36	187.70	188.74	188.06	188.74	0.000189	0.18	7.60	18.18	0.08
Dawson-Drain	Reach 5	358	5-yr	2.04	187.70	188.87	188.13	188.87	0.000186	0.21	9.97	18.60	0.09
Dawson-Drain	Reach 5	358	10-yr	3.00	187.70	189.00	188.22	189.00	0.000208	0.26	12.38	19.05	0.10
Dawson-Drain	Reach 5	358	25-yr	4.46	187.70	189.14	188.35	189.14	0.000253	0.32	15.09	19.64	0.11
Dawson-Drain	Reach 5	358	50-yr	5.55	187.70	189.23	188.42	189.23	0.000284	0.36	16.80	20.02	0.12
Dawson-Drain	Reach 5	358	100-yr	6.66	187.70	189.31	188.48	189.32	0.000305	0.39	18.53	20.47	0.12

HEC-RAS Plan: Existing Conditions 2 (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Dawson-Drain	Reach 5	358	Hazel	2.32	187.70	188.93	188.16	188.93	0.000177	0.22	11.05	18.80	0.09
Dawson-Drain	Reach 5	380	2-yr	1.36	187.59	188.75	188.04	188.75	0.000230	0.22	6.34	14.17	0.10
Dawson-Drain	Reach 5	380	5-yr	2.04	187.59	188.87	188.12	188.88	0.000243	0.26	8.56	17.95	0.10
Dawson-Drain	Reach 5	380	10-yr	3.00	187.59	189.00	188.22	189.01	0.000281	0.32	10.90	18.57	0.11
Dawson-Drain	Reach 5	380	25-yr	4.46	187.59	189.14	188.34	189.15	0.000345	0.39	13.57	19.31	0.13
Dawson-Drain	Reach 5	380	50-yr	5.55	187.59	189.23	188.45	189.24	0.000388	0.44	15.33	20.60	0.14
Dawson-Drain	Reach 5	380	100-yr	6.66	187.59	189.32	188.51	189.33	0.000416	0.48	17.10	20.60	0.15
Dawson-Drain	Reach 5	380	Hazel	2.32	187.59	188.93	188.15	188.94	0.000236	0.27	9.60	18.23	0.10
Dawson-Drain	Reach 5	427	2-yr	1.36	187.72	188.76	188.21	188.76	0.000481	0.32	5.41	15.48	0.14
Dawson-Drain	Reach 5	427	5-yr	2.04	187.72	188.89	188.30	188.89	0.000464	0.36	7.44	15.95	0.14
Dawson-Drain	Reach 5	427	10-yr	3.00	187.72	189.02	188.39	189.03	0.000507	0.42	9.55	16.41	0.15
Dawson-Drain	Reach 5	427	25-yr	4.46	187.72	189.16	188.52	189.17	0.000599	0.51	11.95	16.99	0.17
Dawson-Drain	Reach 5	427	50-yr	5.55	187.72	189.25	188.59	189.27	0.000661	0.57	13.48	17.40	0.18
Dawson-Drain	Reach 5	427	100-yr	6.66	187.72	189.34	188.69	189.35	0.000702	0.62	15.01	17.80	0.19
Dawson-Drain	Reach 5	427	Hazel	2.32	187.72	188.95	188.33	188.95	0.000441	0.37	8.36	16.15	0.14
Dawson-Drain	Reach 5	490	2-yr	1.36	187.56	188.78	188.04	188.79	0.000275	0.23	5.93	11.75	0.10
Dawson-Drain	Reach 5	490	5-yr	2.04	187.56	188.91	188.12	188.92	0.000301	0.27	7.79	16.06	0.11
Dawson-Drain	Reach 5	490	10-yr	3.00	187.56	189.05	188.22	189.05	0.000325	0.32	10.20	17.90	0.12
Dawson-Drain	Reach 5	490	25-yr	4.46	187.56	189.20	188.34	189.20	0.000374	0.39	12.87	17.90	0.13
Dawson-Drain	Reach 5	490	50-yr	5.55	187.56	189.29	188.41	189.30	0.000408	0.43	14.53	17.90	0.14
Dawson-Drain	Reach 5	490	100-yr	6.66	187.56	189.38	188.49	189.39	0.000431	0.47	16.13	17.90	0.15
Dawson-Drain	Reach 5	490	Hazel	2.32	187.56	188.97	188.16	188.97	0.000287	0.28	8.82	17.90	0.11
Dawson-Drain	Reach 5	491		Bridge									
Dawson-Drain	Reach 5	492	2-yr	1.36	187.58	188.79	188.06	188.79	0.000307	0.23	5.90	12.58	0.11
Dawson-Drain	Reach 5	492	5-yr	2.04	187.58	188.92	188.14	188.92	0.000312	0.27	7.81	15.96	0.11
Dawson-Drain	Reach 5	492	10-yr	3.00	187.58	189.05	188.24	189.05	0.000330	0.32	10.21	17.80	0.12
Dawson-Drain	Reach 5	492	25-yr	4.46	187.58	189.20	188.36	189.21	0.000376	0.38	12.87	17.80	0.13
Dawson-Drain	Reach 5	492	50-yr	5.55	187.58	189.29	188.43	189.30	0.000408	0.43	14.52	17.80	0.14
Dawson-Drain	Reach 5	492	100-yr	6.66	187.58	189.38	188.51	189.39	0.000429	0.46	16.11	17.80	0.15
Dawson-Drain	Reach 5	492	Hazel	2.32	187.58	188.97	188.17	188.98	0.000296	0.28	8.84	17.80	0.11
Dawson-Drain	Reach 5	517	2-yr	1.36	187.72	188.80	188.19	188.80	0.000424	0.29	4.63	8.84	0.13
Dawson-Drain	Reach 5	517	5-yr	2.04	187.72	188.93	188.27	188.93	0.000467	0.35	6.18	13.72	0.14
Dawson-Drain	Reach 5	517	10-yr	3.00	187.72	189.06	188.36	189.07	0.000514	0.41	8.22	17.59	0.15
Dawson-Drain	Reach 5	517	25-yr	4.46	187.72	189.21	188.48	189.22	0.000578	0.49	10.87	17.60	0.16
Dawson-Drain	Reach 5	517	50-yr	5.55	187.72	189.30	188.55	189.32	0.000619	0.55	12.52	17.60	0.17
Dawson-Drain	Reach 5	517	100-yr	6.66	187.72	189.39	188.61	189.41	0.000645	0.59	14.10	17.60	0.18
Dawson-Drain	Reach 5	517	Hazel	2.32	187.72	188.98	188.30	188.99	0.000453	0.36	6.96	14.58	0.14
Dawson-Drain	Reach 5	551	2-yr	1.36	187.70	188.81	188.11	188.81	0.000196	0.21	6.50	11.55	0.09
Dawson-Drain	Reach 5	551	5-yr	2.04	187.70	188.94	188.18	188.94	0.000232	0.25	8.12	12.88	0.10
Dawson-Drain	Reach 5	551	10-yr	3.00	187.70	189.07	188.27	189.08	0.000281	0.30	10.25	19.38	0.11
Dawson-Drain	Reach 5	551	25-yr	4.46	187.70	189.23	188.37	189.23	0.000322	0.37	13.30	19.90	0.12
Dawson-Drain	Reach 5	551	50-yr	5.55	187.70	189.32	188.43	189.33	0.000348	0.41	15.19	19.90	0.13
Dawson-Drain	Reach 5	551	100-yr	6.66	187.70	189.41	188.49	189.42	0.000365	0.44	17.01	19.90	0.14
Dawson-Drain	Reach 5	551	Hazel	2.32	187.70	188.99	188.21	189.00	0.000247	0.26	8.85	13.95	0.10
Dawson-Drain	Reach 5	584	2-yr	1.36	187.67	188.81	188.09	188.82	0.000243	0.25	5.61	24.93	0.10
Dawson-Drain	Reach 5	584	5-yr	2.04	187.67	188.95	188.18	188.95	0.000279	0.31	7.28	25.49	0.11
Dawson-Drain	Reach 5	584	10-yr	3.00	187.67	189.08	188.27	189.09	0.000257	0.33	13.30	27.80	0.11
Dawson-Drain	Reach 5	584	25-yr	4.46	187.67	189.24	188.39	189.24	0.000287	0.39	17.84	29.40	0.12
Dawson-Drain	Reach 5	584	50-yr	5.55	187.67	189.34	188.46	189.34	0.000305	0.42	20.69	29.40	0.12
Dawson-Drain	Reach 5	584	100-yr	6.66	187.67	189.43	188.53	189.44	0.000317	0.45	23.40	29.40	0.13
Dawson-Drain	Reach 5	584	Hazel	2.32	187.67	189.00	188.21	189.01	0.000231	0.29	11.10	26.30	0.10
Dawson-Drain	Reach 5	593	2-yr	1.36	188.03	188.81	188.38	188.82	0.000747	0.42	3.34	12.65	0.17
Dawson-Drain	Reach 5	593	5-yr	2.04	188.03	188.95	188.45	188.95	0.000396	0.34	9.99	29.11	0.13
Dawson-Drain	Reach 5	593	10-yr	3.00	188.03	189.09	188.53	189.09	0.000370	0.37	14.01	29.50	0.13
Dawson-Drain	Reach 5	593	25-yr	4.46	188.03	189.24	188.64	189.25	0.000379	0.42	18.60	29.50	0.14
Dawson-Drain	Reach 5	593	50-yr	5.55	188.03	189.34	188.70	189.35	0.000390	0.45	21.46	29.50	0.14
Dawson-Drain	Reach 5	593	100-yr	6.66	188.03	189.43	188.76	189.44	0.000396	0.48	24.19	29.50	0.14
Dawson-Drain	Reach 5	593	Hazel	2.32	188.03	189.00	188.48	189.01	0.000360	0.34	11.60	29.50	0.13
Dawson-Drain	Reach 5	605		Culvert									
Dawson-Drain	Reach 5	613	2-yr	1.36	187.68	188.90	188.26	188.90	0.000096	0.15	12.35	32.98	0.06
Dawson-Drain	Reach 5	613	5-yr	2.04	187.68	188.98	188.32	188.98	0.000119	0.18	17.79	47.59	0.07
Dawson-Drain	Reach 5	613	10-yr	3.00	187.68	189.09	188.39	189.09	0.000135	0.21	22.97	47.59	0.08
Dawson-Drain	Reach 5	613	25-yr	4.46	187.68	189.25	188.48	189.25	0.000140	0.24	30.43	47.59	0.08
Dawson-Drain	Reach 5	613	50-yr	5.55	187.68	189.34	188.53	189.35	0.000146	0.27	34.98	47.59	0.08
Dawson-Drain	Reach 5	613	100-yr	6.66	187.68	189.44	188.59	189.44	0.000148	0.29	39.44	47.59	0.09
Dawson-Drain	Reach 5	613	Hazel	2.32	187.68	189.02	188.34	189.02	0.000126	0.19	19.36	47.59	0.07
Dawson-Drain	Reach 5	666	2-yr	1.36	187.60	188.91	188.16	188.91	0.000008	0.05	70.92	198.70	0.02
Dawson-Drain	Reach 5	666	5-yr	2.04	187.60	188.99	188.25	188.99	0.000009	0.06	86.82	198.70	0.02
Dawson-Drain	Reach 5	666	10-yr	3.00	187.60	189.10	188.36	189.10	0.000010	0.06	108.60	198.70	0.02
Dawson-Drain	Reach 5	666	25-yr	4.46	187.60	189.25	188.48	189.25	0.000010	0.07	139.83	198.70	0.02

HEC-RAS Plan: Existing Conditions 2 (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Dawson-Drain	Reach 5	666	50-yr	5.55	187.60	189.35	188.56	189.35	0.000010	0.07	158.95	198.70	0.02
Dawson-Drain	Reach 5	666	100-yr	6.66	187.60	189.44	188.64	189.44	0.000010	0.08	177.66	198.70	0.02
Dawson-Drain	Reach 5	666	Hazel	2.32	187.60	189.02	188.29	189.02	0.000010	0.06	93.43	198.70	0.02
Dawson-Drain	Reach 5	691	2-yr	1.36	187.55	188.91	188.00	188.91	0.000022	0.09	43.04	98.90	0.03
Dawson-Drain	Reach 5	691	5-yr	2.04	187.55	188.99	188.08	188.99	0.000005	0.04	129.45	283.40	0.02
Dawson-Drain	Reach 5	691	10-yr	3.00	187.55	189.10	188.18	189.10	0.000005	0.05	160.52	283.40	0.02
Dawson-Drain	Reach 5	691	25-yr	4.46	187.55	189.25	188.28	189.25	0.000005	0.06	205.08	283.40	0.02
Dawson-Drain	Reach 5	691	50-yr	5.55	187.55	189.35	188.35	189.35	0.000006	0.06	232.34	283.40	0.02
Dawson-Drain	Reach 5	691	100-yr	6.66	187.55	189.44	188.40	189.44	0.000006	0.06	259.04	283.40	0.02
Dawson-Drain	Reach 5	691	Hazel	2.32	187.55	189.02	188.11	189.02	0.000005	0.05	138.89	283.40	0.02
Dawson-Drain	Reach 5	715	2-yr	1.36	187.69	188.91	188.14	188.91	0.000016	0.07	46.36	137.42	0.03
Dawson-Drain	Reach 5	715	5-yr	2.04	187.69	188.99	188.24	188.99	0.000021	0.09	57.89	149.22	0.03
Dawson-Drain	Reach 5	715	10-yr	3.00	187.69	189.10	188.36	189.10	0.000006	0.05	171.65	334.90	0.02
Dawson-Drain	Reach 5	715	25-yr	4.46	187.69	189.25	188.44	189.25	0.000006	0.06	224.30	334.90	0.02
Dawson-Drain	Reach 5	715	50-yr	5.55	187.69	189.35	188.46	189.35	0.000006	0.06	256.52	334.90	0.02
Dawson-Drain	Reach 5	715	100-yr	6.66	187.69	189.44	188.52	189.44	0.000006	0.06	288.07	334.90	0.02
Dawson-Drain	Reach 5	715	Hazel	2.32	187.69	189.02	188.30	189.02	0.000021	0.09	62.90	150.93	0.03
Dawson-Drain	Reach 5	749	2-yr	1.36	187.60	188.91	188.06	188.91	0.000013	0.06	48.82	128.88	0.02
Dawson-Drain	Reach 5	749	5-yr	2.04	187.60	188.99	188.20	188.99	0.000017	0.08	59.21	131.70	0.03
Dawson-Drain	Reach 5	749	10-yr	3.00	187.60	189.10	188.29	189.10	0.000005	0.05	193.86	370.16	0.02
Dawson-Drain	Reach 5	749	25-yr	4.46	187.60	189.25	188.37	189.25	0.000005	0.05	253.59	386.20	0.02
Dawson-Drain	Reach 5	749	50-yr	5.55	187.60	189.35	188.42	189.35	0.000005	0.05	290.74	386.20	0.02
Dawson-Drain	Reach 5	749	100-yr	6.66	187.60	189.44	188.45	189.44	0.000005	0.05	327.11	386.20	0.02
Dawson-Drain	Reach 5	749	Hazel	2.32	187.60	189.02	188.24	189.02	0.000007	0.05	136.15	265.46	0.02
Dawson-Drain	Reach 5	750		Bridge									
Dawson-Drain	Reach 5	751	2-yr	1.36	187.60	188.91	188.09	188.91	0.000013	0.06	49.50	128.45	0.02
Dawson-Drain	Reach 5	751	5-yr	2.04	187.60	188.99	188.23	188.99	0.000016	0.07	59.86	130.69	0.03
Dawson-Drain	Reach 5	751	10-yr	3.00	187.60	189.10	188.31	189.10	0.000005	0.05	194.23	370.33	0.02
Dawson-Drain	Reach 5	751	25-yr	4.46	187.60	189.25	188.40	189.25	0.000005	0.05	253.73	386.50	0.02
Dawson-Drain	Reach 5	751	50-yr	5.55	187.60	189.35	188.44	189.35	0.000005	0.05	290.94	386.90	0.02
Dawson-Drain	Reach 5	751	100-yr	6.66	187.60	189.44	188.47	189.44	0.000005	0.05	327.39	386.90	0.02
Dawson-Drain	Reach 5	751	Hazel	2.32	187.60	189.02	188.26	189.02	0.000006	0.05	137.36	264.75	0.02
Dawson-Drain	Reach 5	772	2-yr	1.36	187.73	188.91	188.18	188.91	0.000022	0.08	40.83	127.99	0.03
Dawson-Drain	Reach 5	772	5-yr	2.04	187.73	188.99	188.32	188.99	0.000026	0.09	51.12	129.78	0.03
Dawson-Drain	Reach 5	772	10-yr	3.00	187.73	189.10	188.38	189.10	0.000008	0.06	155.38	268.23	0.02
Dawson-Drain	Reach 5	772	25-yr	4.46	187.73	189.25	188.46	189.25	0.000006	0.05	243.22	382.87	0.02
Dawson-Drain	Reach 5	772	50-yr	5.55	187.73	189.35	188.50	189.35	0.000006	0.06	280.35	390.39	0.02
Dawson-Drain	Reach 5	772	100-yr	6.66	187.73	189.44	188.54	189.44	0.000005	0.06	317.34	392.87	0.02
Dawson-Drain	Reach 5	772	Hazel	2.32	187.73	189.02	188.34	189.02	0.000008	0.05	135.09	266.56	0.02
Dawson-Drain	Reach 5	774		Bridge									
Dawson-Drain	Reach 5	775	2-yr	1.36	187.75	188.91	188.18	188.91	0.000027	0.09	37.67	123.76	0.03
Dawson-Drain	Reach 5	775	5-yr	2.04	187.75	188.99	188.30	188.99	0.000031	0.10	47.77	128.64	0.04
Dawson-Drain	Reach 5	775	10-yr	3.00	187.75	189.10	188.39	189.10	0.000008	0.06	152.87	267.71	0.02
Dawson-Drain	Reach 5	775	25-yr	4.46	187.75	189.25	188.47	189.25	0.000006	0.05	242.03	382.38	0.02
Dawson-Drain	Reach 5	775	50-yr	5.55	187.75	189.35	188.51	189.35	0.000006	0.06	279.26	392.90	0.02
Dawson-Drain	Reach 5	775	100-yr	6.66	187.75	189.44	188.55	189.44	0.000005	0.06	316.27	392.90	0.02
Dawson-Drain	Reach 5	775	Hazel	2.32	187.75	189.02	188.34	189.02	0.000008	0.05	132.60	266.11	0.02
Dawson-Drain	Reach 5	810	2-yr	1.36	187.83	188.91	188.24	188.91	0.000028	0.09	36.89	128.24	0.03
Dawson-Drain	Reach 5	810	5-yr	2.04	187.83	188.99	188.33	188.99	0.000032	0.10	47.30	131.98	0.04
Dawson-Drain	Reach 5	810	10-yr	3.00	187.83	189.10	188.39	189.10	0.000031	0.11	61.69	134.68	0.04
Dawson-Drain	Reach 5	810	25-yr	4.46	187.83	189.25	188.45	189.25	0.000005	0.05	254.61	406.41	0.02
Dawson-Drain	Reach 5	810	50-yr	5.55	187.83	189.35	188.50	189.35	0.000005	0.05	294.01	410.30	0.02
Dawson-Drain	Reach 5	810	100-yr	6.66	187.83	189.44	188.55	189.44	0.000005	0.06	332.66	410.30	0.02
Dawson-Drain	Reach 5	810	Hazel	2.32	187.83	189.02	188.35	189.02	0.000032	0.10	51.56	132.30	0.04
Dawson-Drain	Reach 5	842	2-yr	1.36	187.23	188.91	187.73	188.91	0.000007	0.06	91.76	188.07	0.02
Dawson-Drain	Reach 5	842	5-yr	2.04	187.23	188.99	187.83	188.99	0.000010	0.07	106.84	188.87	0.02
Dawson-Drain	Reach 5	842	10-yr	3.00	187.23	189.10	187.94	189.10	0.000013	0.09	127.33	189.48	0.02
Dawson-Drain	Reach 5	842	25-yr	4.46	187.23	189.25	188.08	189.25	0.000003	0.05	310.65	433.00	0.01
Dawson-Drain	Reach 5	842	50-yr	5.55	187.23	189.35	188.17	189.35	0.000003	0.05	352.31	433.00	0.01
Dawson-Drain	Reach 5	842	100-yr	6.66	187.23	189.44	188.25	189.44	0.000003	0.05	393.09	433.00	0.01
Dawson-Drain	Reach 5	842	Hazel	2.32	187.23	189.02	187.86	189.02	0.000011	0.08	112.94	189.10	0.02
Dawson-Drain	Reach 5	876	2-yr	1.36	187.35	188.91	187.68	188.91	0.000005	0.05	107.57	231.33	0.02
Dawson-Drain	Reach 5	876	5-yr	2.04	187.35	188.99	187.75	188.99	0.000007	0.07	126.15	232.27	0.02
Dawson-Drain	Reach 5	876	10-yr	3.00	187.35	189.10	187.84	189.10	0.000009	0.08	151.39	233.68	0.02
Dawson-Drain	Reach 5	876	25-yr	4.46	187.35	189.25	187.96	189.25	0.000002	0.04	344.43	474.40	0.01
Dawson-Drain	Reach 5	876	50-yr	5.55	187.35	189.35	188.04	189.35	0.000003	0.05	390.08	474.40	0.01
Dawson-Drain	Reach 5	876	100-yr	6.66	187.35	189.44	188.11	189.44	0.000003	0.05	434.76	474.40	0.01
Dawson-Drain	Reach 5	876	Hazel	2.32	187.35	189.02	187.78	189.02	0.000008	0.07	133.67	232.65	0.02
Dawson-Drain	Reach 5	880		Culvert									

HEC-RAS Plan: Existing Conditions 2 (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Dawson-Drain	Reach 5	885	2-yr	1.36	187.38	188.91	187.76	188.91	0.000006	0.05	111.14	271.15	0.02
Dawson-Drain	Reach 5	885	5-yr	2.04	187.38	188.99	187.85	188.99	0.000008	0.06	132.94	272.48	0.02
Dawson-Drain	Reach 5	885	10-yr	3.00	187.38	189.10	187.95	189.10	0.000003	0.04	267.40	483.60	0.01
Dawson-Drain	Reach 5	885	25-yr	4.46	187.38	189.25	188.08	189.25	0.000003	0.04	342.88	483.60	0.01
Dawson-Drain	Reach 5	885	50-yr	5.55	187.38	189.35	188.16	189.35	0.000003	0.04	389.40	483.60	0.01
Dawson-Drain	Reach 5	885	100-yr	6.66	187.38	189.44	188.23	189.44	0.000003	0.05	434.96	483.60	0.01
Dawson-Drain	Reach 5	885	Hazel	2.32	187.38	189.02	187.88	189.02	0.000008	0.07	141.76	273.26	0.02
Dawson-Drain	Reach 4	904.5366	2-yr	0.32	187.35	188.91		188.91	0.000005	0.05	9.93	20.00	0.01
Dawson-Drain	Reach 4	904.5366	5-yr	0.51	187.35	188.99		188.99	0.000009	0.07	11.54	20.00	0.02
Dawson-Drain	Reach 4	904.5366	10-yr	0.63	187.35	189.10		189.10	0.000009	0.07	13.70	20.00	0.02
Dawson-Drain	Reach 4	904.5366	25-yr	0.81	187.35	189.25		189.25	0.000009	0.08	16.82	20.00	0.02
Dawson-Drain	Reach 4	904.5366	50-yr	0.94	187.35	189.35		189.35	0.000009	0.08	18.75	20.00	0.02
Dawson-Drain	Reach 4	904.5366	100-yr	1.09	187.35	189.44		189.44	0.000009	0.09	20.63	20.00	0.02
Dawson-Drain	Reach 4	904.5366	Hazel	0.51	187.35	189.02		189.02	0.000008	0.07	12.19	20.00	0.02
Dawson-Drain	Reach 4	904.6199	2-yr	0.32	187.45	188.91		188.91	0.000007	0.06	8.32	20.00	0.02
Dawson-Drain	Reach 4	904.6199	5-yr	0.51	187.45	188.99		188.99	0.000013	0.08	9.93	20.00	0.02
Dawson-Drain	Reach 4	904.6199	10-yr	0.63	187.45	189.10		189.10	0.000013	0.09	12.09	20.00	0.03
Dawson-Drain	Reach 4	904.6199	25-yr	0.81	187.45	189.25		189.25	0.000012	0.09	15.22	20.00	0.02
Dawson-Drain	Reach 4	904.6199	50-yr	0.94	187.45	189.35		189.35	0.000012	0.09	17.14	20.00	0.02
Dawson-Drain	Reach 4	904.6199	100-yr	1.09	187.45	189.44		189.44	0.000012	0.10	19.02	20.00	0.02
Dawson-Drain	Reach 4	904.6199	Hazel	0.51	187.45	189.02		189.02	0.000011	0.08	10.58	20.00	0.02
Dawson-Drain	Reach 4	904.7031	2-yr	0.32	187.44	188.91		188.91	0.000009	0.06	7.21	20.00	0.02
Dawson-Drain	Reach 4	904.7031	5-yr	0.51	187.44	188.99		188.99	0.000017	0.09	8.82	20.00	0.03
Dawson-Drain	Reach 4	904.7031	10-yr	0.63	187.44	189.10		189.10	0.000016	0.10	10.98	20.00	0.03
Dawson-Drain	Reach 4	904.7031	25-yr	0.81	187.44	189.25		189.25	0.000015	0.10	14.11	20.00	0.03
Dawson-Drain	Reach 4	904.7031	50-yr	0.94	187.44	189.35		189.35	0.000014	0.10	16.03	20.00	0.03
Dawson-Drain	Reach 4	904.7031	100-yr	1.09	187.44	189.44		189.44	0.000014	0.11	17.91	20.00	0.03
Dawson-Drain	Reach 4	904.7031	Hazel	0.51	187.44	189.02		189.02	0.000014	0.09	9.47	20.00	0.03
Dawson-Drain	Reach 4	908.3487	2-yr	0.32	187.47	188.91		188.91	0.000006	0.06	8.56	17.98	0.02
Dawson-Drain	Reach 4	908.3487	5-yr	0.51	187.47	188.99		188.99	0.000011	0.08	10.15	20.00	0.02
Dawson-Drain	Reach 4	908.3487	10-yr	0.63	187.47	189.10		189.10	0.000011	0.08	12.31	20.00	0.02
Dawson-Drain	Reach 4	908.3487	25-yr	0.81	187.47	189.25		189.25	0.000011	0.09	15.43	20.00	0.02
Dawson-Drain	Reach 4	908.3487	50-yr	0.94	187.47	189.35		189.35	0.000011	0.09	17.35	20.00	0.02
Dawson-Drain	Reach 4	908.3487	100-yr	1.09	187.47	189.44		189.44	0.000011	0.10	19.24	20.00	0.02
Dawson-Drain	Reach 4	908.3487	Hazel	0.51	187.47	189.02		189.02	0.000010	0.08	10.79	20.00	0.02
Dawson-Drain	Reach 4	912.4	2-yr	0.32	187.45	188.91		188.91	0.000005	0.05	10.63	20.00	0.02
Dawson-Drain	Reach 4	912.4	5-yr	0.51	187.45	188.99		188.99	0.000009	0.07	12.23	20.00	0.02
Dawson-Drain	Reach 4	912.4	10-yr	0.63	187.45	189.10		189.10	0.000009	0.07	14.40	20.00	0.02
Dawson-Drain	Reach 4	912.4	25-yr	0.81	187.45	189.25		189.25	0.000009	0.08	17.52	20.00	0.02
Dawson-Drain	Reach 4	912.4	50-yr	0.94	187.45	189.35		189.35	0.000009	0.08	19.44	20.00	0.02
Dawson-Drain	Reach 4	912.4	100-yr	1.09	187.45	189.44		189.44	0.000009	0.09	21.33	20.00	0.02
Dawson-Drain	Reach 4	912.4	Hazel	0.51	187.45	189.02		189.02	0.000008	0.07	12.88	20.00	0.02
Dawson-Drain	Reach 3	919	2-yr	1.06	187.74	188.91	188.13	188.91	0.000126	0.21	5.68	12.90	0.07
Dawson-Drain	Reach 3	919	5-yr	1.53	187.74	188.99	188.24	188.99	0.000005	0.05	128.80	255.57	0.02
Dawson-Drain	Reach 3	919	10-yr	2.34	187.74	189.10	188.40	189.10	0.000007	0.06	156.47	255.57	0.02
Dawson-Drain	Reach 3	919	25-yr	3.55	187.74	189.25	188.50	189.25	0.000008	0.06	196.36	255.57	0.02
Dawson-Drain	Reach 3	919	50-yr	4.47	187.74	189.35	188.50	189.35	0.000008	0.07	220.94	255.57	0.02
Dawson-Drain	Reach 3	919	100-yr	5.40	187.74	189.44	188.51	189.44	0.000008	0.08	245.02	255.57	0.02
Dawson-Drain	Reach 3	919	Hazel	1.69	187.74	189.02	188.27	189.02	0.000005	0.05	137.07	255.57	0.02
Dawson-Drain	Reach 3	922		Culvert									
Dawson-Drain	Reach 3	925.4277	2-yr	1.06	187.74	188.91	188.13	188.91	0.000005	0.04	107.26	253.34	0.01
Dawson-Drain	Reach 3	925.4277	5-yr	1.53	187.74	188.99	188.23	188.99	0.000005	0.05	127.43	253.77	0.02
Dawson-Drain	Reach 3	925.4277	10-yr	2.34	187.74	189.10	188.40	189.10	0.000007	0.06	155.22	254.59	0.02
Dawson-Drain	Reach 3	925.4277	25-yr	3.55	187.74	189.26	188.60	189.26	0.000008	0.06	196.12	258.60	0.02
Dawson-Drain	Reach 3	925.4277	50-yr	4.47	187.74	189.35	188.82	189.35	0.000008	0.07	220.86	258.60	0.02
Dawson-Drain	Reach 3	925.4277	100-yr	5.40	187.74	189.45	188.82	189.45	0.000008	0.07	245.43	258.60	0.02
Dawson-Drain	Reach 3	925.4277	Hazel	1.69	187.74	189.02	188.27	189.02	0.000005	0.05	135.68	254.02	0.02
Dawson-Drain	Reach 3	943	2-yr	1.06	187.77	188.91	188.08	188.91	0.000001	0.02	191.30	500.30	0.01
Dawson-Drain	Reach 3	943	5-yr	1.53	187.77	188.99	188.14	188.99	0.000001	0.02	231.09	500.30	0.01
Dawson-Drain	Reach 3	943	10-yr	2.34	187.77	189.10	188.24	189.10	0.000001	0.03	285.81	500.30	0.01
Dawson-Drain	Reach 3	943	25-yr	3.55	187.77	189.26	188.35	189.26	0.000001	0.03	364.08	500.30	0.01
Dawson-Drain	Reach 3	943	50-yr	4.47	187.77	189.35	188.42	189.35	0.000002	0.03	411.96	500.30	0.01
Dawson-Drain	Reach 3	943	100-yr	5.40	187.77	189.45	188.48	189.45	0.000002	0.03	459.49	500.30	0.01
Dawson-Drain	Reach 3	943	Hazel	1.69	187.77	189.02	188.16	189.02	0.000001	0.02	247.36	500.30	0.01
Dawson-Drain	Reach 3	944.2		Bridge									
Dawson-Drain	Reach 3	945.4277	2-yr	1.06	187.77	188.91	188.08	188.91	0.000001	0.02	183.61	500.00	0.01
Dawson-Drain	Reach 3	945.4277	5-yr	1.53	187.77	188.99	188.14	188.99	0.000001	0.02	223.38	500.00	0.01
Dawson-Drain	Reach 3	945.4277	10-yr	2.34	187.77	189.10	188.24	189.10	0.000002	0.03	278.06	500.00	0.01
Dawson-Drain	Reach 3	945.4277	25-yr	3.55	187.77	189.26	188.35	189.26	0.000002	0.03	356.28	500.00	0.01
Dawson-Drain	Reach 3	945.4277	50-yr	4.47	187.77	189.35	188.42	189.35	0.000002	0.03	404.13	500.00	0.01
Dawson-Drain	Reach 3	945.4277	100-yr	5.40	187.77	189.45	188.48	189.45	0.000002	0.03	451.63	500.00	0.01

HEC-RAS Plan: Existing Conditions 2 (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Dawson-Drain	Reach 3	945.4277	Hazel	1.69	187.77	189.02	188.16	189.02	0.000001	0.02	239.64	500.00	0.01
Dawson-Drain	Reach 3	965.4277	2-yr	1.06	187.79	188.91	188.11	188.91	0.000003	0.03	126.05	338.10	0.01
Dawson-Drain	Reach 3	965.4277	5-yr	1.53	187.79	188.99	188.17	188.99	0.000002	0.02	215.48	500.00	0.01
Dawson-Drain	Reach 3	965.4277	10-yr	2.34	187.79	189.10	188.25	189.10	0.000002	0.03	270.17	500.00	0.01
Dawson-Drain	Reach 3	965.4277	25-yr	3.55	187.79	189.26	188.33	189.26	0.000002	0.03	348.39	500.00	0.01
Dawson-Drain	Reach 3	965.4277	50-yr	4.47	187.79	189.35	188.37	189.35	0.000002	0.03	396.24	500.00	0.01
Dawson-Drain	Reach 3	965.4277	100-yr	5.40	187.79	189.45	188.44	189.45	0.000002	0.03	443.74	500.00	0.01
Dawson-Drain	Reach 3	965.4277	Hazel	1.69	187.79	189.02	188.19	189.02	0.000001	0.02	231.73	500.00	0.01
Dawson-Drain	Reach 3	966.76		Bridge									
Dawson-Drain	Reach 3	968	2-yr	1.06	187.79	188.91	188.10	188.91	0.000003	0.03	125.55	336.22	0.01
Dawson-Drain	Reach 3	968	5-yr	1.53	187.79	188.99	188.17	188.99	0.000002	0.02	214.41	499.40	0.01
Dawson-Drain	Reach 3	968	10-yr	2.34	187.79	189.10	188.26	189.10	0.000002	0.03	269.03	499.40	0.01
Dawson-Drain	Reach 3	968	25-yr	3.55	187.79	189.26	188.35	189.26	0.000002	0.03	347.15	499.40	0.01
Dawson-Drain	Reach 3	968	50-yr	4.47	187.79	189.35	188.40	189.35	0.000002	0.03	394.94	499.40	0.01
Dawson-Drain	Reach 3	968	100-yr	5.40	187.79	189.45	188.45	189.45	0.000002	0.03	442.39	499.40	0.01
Dawson-Drain	Reach 3	968	Hazel	1.69	187.79	189.02	188.19	189.02	0.000001	0.02	230.64	499.40	0.01
Dawson-Drain	Reach 3	985.4277	2-yr	1.06	187.86	188.91	188.19	188.91	0.000001	0.02	182.17	500.00	0.01
Dawson-Drain	Reach 3	985.4277	5-yr	1.53	187.86	188.99	188.26	188.99	0.000001	0.02	221.92	500.00	0.01
Dawson-Drain	Reach 3	985.4277	10-yr	2.34	187.86	189.10	188.36	189.10	0.000002	0.02	276.62	500.00	0.01
Dawson-Drain	Reach 3	985.4277	25-yr	3.55	187.86	189.26	188.48	189.26	0.000002	0.03	354.83	500.00	0.01
Dawson-Drain	Reach 3	985.4277	50-yr	4.47	187.86	189.35	188.56	189.35	0.000002	0.03	402.69	500.00	0.01
Dawson-Drain	Reach 3	985.4277	100-yr	5.40	187.86	189.45	188.64	189.45	0.000002	0.03	450.19	500.00	0.01
Dawson-Drain	Reach 3	985.4277	Hazel	1.69	187.86	189.02	188.28	189.02	0.000001	0.02	238.17	500.00	0.01
Dawson-Drain	Reach 3	1085.427	2-yr	1.06	187.90	188.91	188.20	188.91	0.000222	0.23	4.72	8.33	0.09
Dawson-Drain	Reach 3	1085.427	5-yr	1.53	187.90	188.99	188.27	188.99	0.000003	0.03	183.87	483.50	0.01
Dawson-Drain	Reach 3	1085.427	10-yr	2.34	187.90	189.10	188.36	189.10	0.000003	0.03	237.73	500.00	0.01
Dawson-Drain	Reach 3	1085.427	25-yr	3.55	187.90	189.26	188.47	189.26	0.000002	0.03	315.93	500.00	0.01
Dawson-Drain	Reach 3	1085.427	50-yr	4.47	187.90	189.35	188.55	189.35	0.000002	0.03	363.79	500.00	0.01
Dawson-Drain	Reach 3	1085.427	100-yr	5.40	187.90	189.45	188.61	189.45	0.000002	0.04	411.29	500.00	0.01
Dawson-Drain	Reach 3	1085.427	Hazel	1.69	187.90	189.02	188.29	189.02	0.000002	0.03	199.60	485.70	0.01
Dawson-Drain	Reach 3	1145	2-yr	1.06	187.83	188.91	188.13	188.91	0.000008	0.05	88.43	253.72	0.02
Dawson-Drain	Reach 3	1145	5-yr	1.53	187.83	188.99	188.20	188.99	0.000009	0.06	108.02	254.26	0.02
Dawson-Drain	Reach 3	1145	10-yr	2.34	187.83	189.10	188.29	189.10	0.000010	0.07	135.99	256.90	0.02
Dawson-Drain	Reach 3	1145	25-yr	3.55	187.83	189.26	188.41	189.26	0.000003	0.04	306.30	500.00	0.01
Dawson-Drain	Reach 3	1145	50-yr	4.47	187.83	189.35	188.48	189.35	0.000003	0.04	354.15	500.00	0.01
Dawson-Drain	Reach 3	1145	100-yr	5.40	187.83	189.45	188.54	189.45	0.000003	0.04	401.66	500.00	0.01
Dawson-Drain	Reach 3	1145	Hazel	1.69	187.83	189.02	188.22	189.02	0.000009	0.06	116.28	254.89	0.02
Dawson-Drain	Reach 2	1158.624	2-yr	1.00	187.76	188.91		188.92	0.000371	0.32	4.96	19.69	0.12
Dawson-Drain	Reach 2	1158.624	5-yr	1.45	187.76	188.99		188.99	0.000455	0.38	6.48	20.00	0.14
Dawson-Drain	Reach 2	1158.624	10-yr	2.25	187.76	189.10		189.10	0.000562	0.46	8.65	20.00	0.15
Dawson-Drain	Reach 2	1158.624	25-yr	3.43	187.76	189.25		189.26	0.000591	0.52	11.74	20.00	0.16
Dawson-Drain	Reach 2	1158.624	50-yr	4.32	187.76	189.35		189.36	0.000622	0.57	13.64	20.00	0.17
Dawson-Drain	Reach 2	1158.624	100-yr	5.22	187.76	189.44		189.45	0.000628	0.60	15.53	20.00	0.17
Dawson-Drain	Reach 2	1158.624	Hazel	1.50	187.76	189.02		189.03	0.000393	0.36	7.14	20.00	0.13
Dawson-Drain	Reach 2	1158.636	2-yr	1.00	187.76	188.91		188.92	0.000301	0.31	5.53	20.00	0.11
Dawson-Drain	Reach 2	1158.636	5-yr	1.45	187.76	188.99		189.00	0.000377	0.36	7.07	20.00	0.12
Dawson-Drain	Reach 2	1158.636	10-yr	2.25	187.76	189.10		189.11	0.000478	0.44	9.26	20.00	0.14
Dawson-Drain	Reach 2	1158.636	25-yr	3.43	187.76	189.26		189.26	0.000522	0.51	12.37	20.00	0.15
Dawson-Drain	Reach 2	1158.636	50-yr	4.32	187.76	189.35		189.36	0.000558	0.56	14.27	20.00	0.16
Dawson-Drain	Reach 2	1158.636	100-yr	5.22	187.76	189.45		189.46	0.000572	0.59	16.16	20.00	0.16
Dawson-Drain	Reach 2	1158.636	Hazel	1.50	187.76	189.02		189.03	0.000330	0.35	7.72	20.00	0.12
Dawson-Drain	Reach 2	1158.665	2-yr	1.00	187.66	188.92		188.92	0.000275	0.30	4.81	19.93	0.11
Dawson-Drain	Reach 2	1158.665	5-yr	1.45	187.66	189.00		189.00	0.000356	0.36	6.37	20.00	0.12
Dawson-Drain	Reach 2	1158.665	10-yr	2.25	187.66	189.11		189.11	0.000461	0.44	8.57	20.00	0.14
Dawson-Drain	Reach 2	1158.665	25-yr	3.43	187.66	189.26		189.27	0.000508	0.51	11.68	20.00	0.15
Dawson-Drain	Reach 2	1158.665	50-yr	4.32	187.66	189.36		189.37	0.000544	0.56	13.59	20.00	0.16
Dawson-Drain	Reach 2	1158.665	100-yr	5.22	187.66	189.45		189.46	0.000557	0.59	15.49	20.00	0.16
Dawson-Drain	Reach 2	1158.665	Hazel	1.50	187.66	189.03		189.03	0.000315	0.34	7.01	20.00	0.12
Dawson-Drain	Reach 2	1158.760	2-yr	1.00	187.53	188.92		188.92	0.000222	0.27	4.77	18.36	0.09
Dawson-Drain	Reach 2	1158.760	5-yr	1.45	187.53	189.00		189.00	0.000302	0.33	6.32	20.00	0.11
Dawson-Drain	Reach 2	1158.760	10-yr	2.25	187.53	189.11		189.12	0.000407	0.42	8.54	20.00	0.13
Dawson-Drain	Reach 2	1158.760	25-yr	3.43	187.53	189.27		189.28	0.000465	0.49	11.66	20.00	0.14
Dawson-Drain	Reach 2	1158.760	50-yr	4.32	187.53	189.36		189.37	0.000504	0.54	13.57	20.00	0.15
Dawson-Drain	Reach 2	1158.760	100-yr	5.22	187.53	189.46		189.47	0.000522	0.57	15.47	20.00	0.16
Dawson-Drain	Reach 2	1158.760	Hazel	1.50	187.53	189.03		189.04	0.000273	0.32	6.94	20.00	0.11
Dawson-Drain	Reach 2	1161.5	2-yr	1.00	187.69	188.92		188.93	0.000041	0.14	12.83	20.00	0.04
Dawson-Drain	Reach 2	1161.5	5-yr	1.45	187.69	189.00		189.01	0.000061	0.18	14.43	20.00	0.05
Dawson-Drain	Reach 2	1161.5	10-yr	2.25	187.69	189.12		189.12	0.000097	0.24	16.70	20.00	0.07
Dawson-Drain	Reach 2	1161.5	25-yr	3.43	187.69	189.28		189.28	0.000137	0.31	19.84	20.00	0.08
Dawson-Drain	Reach 2	1161.5	50-yr	4.32	187.69	189.37		189.38	0.000165	0.36	21.78	20.00	0.09
Dawson-Drain	Reach 2	1161.5	100-yr	5.22	187.69	189.47		189.47	0.000188	0.40	23.68	20.00	0.10

HEC-RAS Plan: Existing Conditions 2 (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Dawson-Drain	Reach 2	1161.5	Hazel	1.50	187.69	189.04		189.04	0.000058	0.18	15.05	20.00	0.05
Dawson-Drain	Reach 1	1178.827	2-yr	0.06	187.80	188.91	187.84	188.91	0.000000	0.00	35.15	165.70	0.00
Dawson-Drain	Reach 1	1178.827	5-yr	0.08	187.80	188.99	187.85	188.99	0.000000	0.00	48.44	174.38	0.00
Dawson-Drain	Reach 1	1178.827	10-yr	0.09	187.80	189.10	187.86	189.10	0.000000	0.00	184.12	417.24	0.00
Dawson-Drain	Reach 1	1178.827	25-yr	0.12	187.80	189.26	187.87	189.26	0.000000	0.00	295.61	500.00	0.00
Dawson-Drain	Reach 1	1178.827	50-yr	0.13	187.80	189.35	187.87	189.35	0.000000	0.00	343.47	500.00	0.00
Dawson-Drain	Reach 1	1178.827	100-yr	0.16	187.80	189.45	187.88	189.45	0.000000	0.00	390.98	500.00	0.00
Dawson-Drain	Reach 1	1178.827	Hazel	0.13	187.80	189.02	187.87	189.02	0.000000	0.00	152.07	414.58	0.00
Dawson-Drain	Reach 1	1214	2-yr	0.06	187.95	188.91	188.00	188.91	0.000000	0.00	92.72	317.36	0.00
Dawson-Drain	Reach 1	1214	5-yr	0.08	187.95	188.99	188.01	188.99	0.000000	0.00	117.28	319.42	0.00
Dawson-Drain	Reach 1	1214	10-yr	0.09	187.95	189.10	188.02	189.10	0.000000	0.00	152.34	321.28	0.00
Dawson-Drain	Reach 1	1214	25-yr	0.12	187.95	189.26	188.03	189.26	0.000000	0.00	203.00	331.35	0.00
Dawson-Drain	Reach 1	1214	50-yr	0.13	187.95	189.35	188.04	189.35	0.000000	0.00	235.00	337.45	0.00
Dawson-Drain	Reach 1	1214	100-yr	0.16	187.95	189.45	188.05	189.45	0.000000	0.00	348.77	498.90	0.00
Dawson-Drain	Reach 1	1214	Hazel	0.13	187.95	189.02	188.03	189.02	0.000000	0.00	127.65	320.24	0.00
Dawson-Drain	Reach 1	1216.3		Bridge									
Dawson-Drain	Reach 1	1218.827	2-yr	0.06	187.95	188.91	188.00	188.91	0.000000	0.01	21.08	82.97	0.00
Dawson-Drain	Reach 1	1218.827	5-yr	0.08	187.95	188.99	188.01	188.99	0.000000	0.00	113.17	318.82	0.00
Dawson-Drain	Reach 1	1218.827	10-yr	0.09	187.95	189.10	188.02	189.10	0.000000	0.00	148.21	321.47	0.00
Dawson-Drain	Reach 1	1218.827	25-yr	0.12	187.95	189.26	188.03	189.26	0.000000	0.00	198.67	324.41	0.00
Dawson-Drain	Reach 1	1218.827	50-yr	0.13	187.95	189.35	188.04	189.35	0.000000	0.00	295.52	486.61	0.00
Dawson-Drain	Reach 1	1218.827	100-yr	0.16	187.95	189.45	188.05	189.45	0.000000	0.00	342.73	500.00	0.00
Dawson-Drain	Reach 1	1218.827	Hazel	0.13	187.95	189.02	188.03	189.02	0.000000	0.00	123.52	319.79	0.00
Dawson-Drain	Reach 1	1238.827	2-yr	0.06	188.01	188.91	188.11	188.91	0.000000	0.00	75.29	261.19	0.00
Dawson-Drain	Reach 1	1238.827	5-yr	0.08	188.01	188.99	188.12	188.99	0.000000	0.00	95.51	263.26	0.00
Dawson-Drain	Reach 1	1238.827	10-yr	0.09	188.01	189.10	188.13	189.10	0.000000	0.00	124.71	269.36	0.00
Dawson-Drain	Reach 1	1238.827	25-yr	0.12	188.01	189.26	188.14	189.26	0.000000	0.00	167.05	272.39	0.00
Dawson-Drain	Reach 1	1238.827	50-yr	0.13	188.01	189.35	188.15	189.35	0.000000	0.00	279.87	498.84	0.00
Dawson-Drain	Reach 1	1238.827	100-yr	0.16	188.01	189.45	188.16	189.45	0.000000	0.00	327.37	500.00	0.00
Dawson-Drain	Reach 1	1238.827	Hazel	0.13	188.01	189.02	188.15	189.02	0.000000	0.00	104.06	264.61	0.00
Dawson-Drain	Reach 1	1241		Bridge									
Dawson-Drain	Reach 1	1243	2-yr	0.06	188.01	188.91	188.10	188.91	0.000000	0.00	75.17	263.13	0.00
Dawson-Drain	Reach 1	1243	5-yr	0.08	188.01	188.99	188.12	188.99	0.000000	0.00	95.57	265.86	0.00
Dawson-Drain	Reach 1	1243	10-yr	0.09	188.01	189.10	188.13	189.10	0.000000	0.00	124.80	268.03	0.00
Dawson-Drain	Reach 1	1243	25-yr	0.12	188.01	189.26	188.14	189.26	0.000000	0.00	166.88	271.29	0.00
Dawson-Drain	Reach 1	1243	50-yr	0.13	188.01	189.35	188.15	189.35	0.000000	0.00	274.96	496.59	0.00
Dawson-Drain	Reach 1	1243	100-yr	0.16	188.01	189.45	188.16	189.45	0.000000	0.00	322.37	499.90	0.00
Dawson-Drain	Reach 1	1243	Hazel	0.13	188.01	189.02	188.15	189.02	0.000000	0.00	104.21	266.94	0.00
Dawson-Drain	Reach 1	1259	2-yr	0.06	187.82	188.91	187.91	188.91	0.000001	0.01	4.23	7.76	0.01
Dawson-Drain	Reach 1	1259	5-yr	0.08	187.82	188.99	187.93	188.99	0.000000	0.00	91.21	253.40	0.00
Dawson-Drain	Reach 1	1259	10-yr	0.09	187.82	189.10	187.94	189.10	0.000000	0.00	161.08	427.91	0.00
Dawson-Drain	Reach 1	1259	25-yr	0.12	187.82	189.26	187.95	189.26	0.000000	0.00	232.98	495.92	0.00
Dawson-Drain	Reach 1	1259	50-yr	0.13	187.82	189.35	187.96	189.35	0.000000	0.00	280.80	500.00	0.00
Dawson-Drain	Reach 1	1259	100-yr	0.16	187.82	189.45	187.98	189.45	0.000000	0.00	328.30	500.00	0.00
Dawson-Drain	Reach 1	1259	Hazel	0.13	187.82	189.02	187.96	189.02	0.000000	0.00	99.43	254.19	0.00
ONeil-Drain	Reach 1	207	2-yr	0.20	187.46	188.15	187.57	188.15	0.000010	0.05	3.93	14.67	0.03
ONeil-Drain	Reach 1	207	5-yr	0.34	187.46	188.26	187.61	188.26	0.000014	0.07	5.65	17.01	0.03
ONeil-Drain	Reach 1	207	10-yr	0.44	187.46	188.40	187.63	188.40	0.000010	0.06	8.11	20.11	0.03
ONeil-Drain	Reach 1	207	25-yr	0.60	187.46	188.55	187.66	188.55	0.000008	0.06	11.28	20.54	0.02
ONeil-Drain	Reach 1	207	50-yr	0.72	187.46	188.65	187.68	188.65	0.000002	0.04	36.39	102.49	0.01
ONeil-Drain	Reach 1	207	100-yr	0.86	187.46	188.74	187.70	188.74	0.000002	0.03	45.83	102.50	0.01
ONeil-Drain	Reach 1	207	Hazel	2.41	187.46	188.51	187.86	188.51	0.000151	0.28	10.44	20.52	0.10
ONeil-Drain	Reach 1	270	2-yr	0.20	187.80	188.16	187.89	188.16	0.000160	0.14	1.44	6.09	0.09
ONeil-Drain	Reach 1	270	5-yr	0.34	187.80	188.26	187.93	188.26	0.000154	0.16	2.17	7.34	0.09
ONeil-Drain	Reach 1	270	10-yr	0.44	187.80	188.40	187.95	188.40	0.000061	0.11	5.04	22.44	0.06
ONeil-Drain	Reach 1	270	25-yr	0.60	187.80	188.55	187.98	188.55	0.000025	0.09	8.97	30.30	0.04
ONeil-Drain	Reach 1	270	50-yr	0.72	187.80	188.65	187.99	188.65	0.000017	0.08	12.24	36.45	0.03
ONeil-Drain	Reach 1	270	100-yr	0.86	187.80	188.74	188.02	188.74	0.000013	0.08	15.86	41.94	0.03
ONeil-Drain	Reach 1	270	Hazel	2.41	187.80	188.52	188.17	188.53	0.000513	0.38	8.16	28.43	0.18
ONeil-Drain	Reach 1	328	2-yr	0.20	187.69	188.16	187.84	188.16	0.000055	0.09	2.87	19.21	0.05
ONeil-Drain	Reach 1	328	5-yr	0.34	187.69	188.27	187.88	188.27	0.000036	0.09	5.11	21.03	0.05
ONeil-Drain	Reach 1	328	10-yr	0.44	187.69	188.40	187.90	188.40	0.000005	0.04	22.60	102.60	0.02
ONeil-Drain	Reach 1	328	25-yr	0.60	187.69	188.55	187.93	188.55	0.000002	0.03	38.46	102.90	0.01
ONeil-Drain	Reach 1	328	50-yr	0.72	187.69	188.65	187.95	188.65	0.000001	0.02	81.89	197.80	0.01
ONeil-Drain	Reach 1	328	100-yr	0.86	187.69	188.74	187.97	188.74	0.000001	0.02	100.09	197.80	0.01
ONeil-Drain	Reach 1	328	Hazel	2.41	187.69	188.54	188.13	188.54	0.000031	0.12	36.66	102.87	0.05
ONeil-Drain	Reach 1	406	2-yr	0.20	187.75	188.16	187.85	188.16	0.000024	0.06	4.08	26.00	0.04
ONeil-Drain	Reach 1	406	5-yr	0.34	187.75	188.27	187.89	188.27	0.000006	0.03	17.35	100.86	0.02
ONeil-Drain	Reach 1	406	10-yr	0.44	187.75	188.40	187.90	188.40	0.000002	0.02	30.29	101.25	0.01
ONeil-Drain	Reach 1	406	25-yr	0.60	187.75	188.55	187.92	188.55	0.000001	0.02	45.94	101.72	0.01

HEC-RAS Plan: Existing Conditions 2 (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
ONeil-Drain	Reach 1	406	50-yr	0.72	187.75	188.65	187.94	188.65	0.000000	0.02	85.87	196.90	0.01
ONeil-Drain	Reach 1	406	100-yr	0.86	187.75	188.74	187.96	188.74	0.000000	0.02	103.99	196.90	0.01
ONeil-Drain	Reach 1	406	Hazel	2.41	187.75	188.54	188.07	188.54	0.000016	0.08	44.34	101.67	0.03
ONeil-Drain	Reach 1	441	2-yr	0.20	187.67	188.16	187.77	188.17	0.000065	0.08	2.39	16.11	0.06
ONeil-Drain	Reach 1	441	5-yr	0.34	187.67	188.27	187.81	188.27	0.000044	0.09	4.64	23.16	0.05
ONeil-Drain	Reach 1	441	10-yr	0.44	187.67	188.40	187.83	188.40	0.000004	0.03	22.19	100.61	0.02
ONeil-Drain	Reach 1	441	25-yr	0.60	187.67	188.55	187.86	188.55	0.000001	0.02	59.74	198.22	0.01
ONeil-Drain	Reach 1	441	50-yr	0.72	187.67	188.65	187.88	188.65	0.000001	0.02	79.35	199.30	0.01
ONeil-Drain	Reach 1	441	100-yr	0.86	187.67	188.74	187.91	188.74	0.000001	0.02	97.70	199.30	0.01
ONeil-Drain	Reach 1	441	Hazel	2.41	187.67	188.54	188.06	188.54	0.000021	0.09	56.73	197.77	0.04
ONeil-Drain	Reach 1	498	2-yr	0.20	187.88	188.17	188.00	188.17	0.000558	0.21	0.94	5.48	0.16
ONeil-Drain	Reach 1	498	5-yr	0.34	187.88	188.27	188.04	188.28	0.000291	0.19	2.30	23.54	0.12
ONeil-Drain	Reach 1	498	10-yr	0.44	187.88	188.40	188.06	188.40	0.000061	0.12	6.17	34.47	0.06
ONeil-Drain	Reach 1	498	25-yr	0.60	187.88	188.55	188.09	188.55	0.000002	0.03	34.82	103.75	0.01
ONeil-Drain	Reach 1	498	50-yr	0.72	187.88	188.65	188.11	188.65	0.000001	0.03	45.07	105.56	0.01
ONeil-Drain	Reach 1	498	100-yr	0.86	187.88	188.74	188.13	188.74	0.000001	0.02	96.12	199.80	0.01
ONeil-Drain	Reach 1	498	Hazel	2.41	187.88	188.54	188.30	188.54	0.000044	0.12	33.40	103.71	0.05
ONeil-Drain	Reach 1	518	2-yr	0.20	187.84	188.18	187.94	188.18	0.000109	0.10	1.99	10.45	0.07
ONeil-Drain	Reach 1	518	5-yr	0.34	187.84	188.28	187.97	188.28	0.000091	0.11	3.19	13.15	0.07
ONeil-Drain	Reach 1	518	10-yr	0.44	187.84	188.40	187.98	188.40	0.000044	0.09	5.01	18.00	0.05
ONeil-Drain	Reach 1	518	25-yr	0.60	187.84	188.55	188.01	188.55	0.000021	0.08	8.60	28.20	0.04
ONeil-Drain	Reach 1	518	50-yr	0.72	187.84	188.65	188.02	188.65	0.000001	0.02	49.53	104.67	0.01
ONeil-Drain	Reach 1	518	100-yr	0.86	187.84	188.74	188.04	188.74	0.000000	0.02	98.24	199.00	0.01
ONeil-Drain	Reach 1	518	Hazel	2.41	187.84	188.54	188.16	188.54	0.000375	0.33	8.18	28.11	0.15
ONeil-Drain	Reach 1	556	2-yr	0.20	187.71	188.18	187.81	188.18	0.000062	0.10	2.02	7.07	0.06
ONeil-Drain	Reach 1	556	5-yr	0.34	187.71	188.28	187.85	188.28	0.000072	0.12	2.84	9.95	0.06
ONeil-Drain	Reach 1	556	10-yr	0.44	187.71	188.40	187.87	188.40	0.000045	0.11	4.36	15.18	0.05
ONeil-Drain	Reach 1	556	25-yr	0.60	187.71	188.55	187.91	188.55	0.000026	0.10	7.51	24.79	0.04
ONeil-Drain	Reach 1	556	50-yr	0.72	187.71	188.65	187.92	188.65	0.000001	0.02	74.13	199.30	0.01
ONeil-Drain	Reach 1	556	100-yr	0.86	187.71	188.74	187.95	188.74	0.000001	0.02	92.46	199.30	0.01
ONeil-Drain	Reach 1	556	Hazel	2.41	187.71	188.55	188.11	188.56	0.000427	0.42	7.45	24.79	0.17
ONeil-Drain	Reach 1	615	2-yr	0.20	187.86	188.19	188.01	188.19	0.000831	0.29	0.68	3.22	0.20
ONeil-Drain	Reach 1	615	5-yr	0.34	187.86	188.29	188.05	188.29	0.000761	0.32	1.04	3.83	0.20
ONeil-Drain	Reach 1	615	10-yr	0.44	187.86	188.41	188.08	188.41	0.000460	0.29	1.53	4.53	0.16
ONeil-Drain	Reach 1	615	25-yr	0.60	187.86	188.56	188.12	188.56	0.000021	0.08	16.45	93.66	0.04
ONeil-Drain	Reach 1	615	50-yr	0.72	187.86	188.65	188.14	188.65	0.000003	0.03	53.23	198.80	0.01
ONeil-Drain	Reach 1	615	100-yr	0.86	187.86	188.74	188.17	188.74	0.000002	0.03	71.51	198.80	0.01
ONeil-Drain	Reach 1	615	Hazel	2.41	187.86	188.58	188.37	188.58	0.000239	0.27	18.46	93.88	0.12
ONeil-Drain	Reach 1	650	2-yr	0.20	187.91	188.22	188.05	188.22	0.000737	0.24	0.82	4.71	0.18
ONeil-Drain	Reach 1	650	5-yr	0.34	187.91	188.31	188.09	188.32	0.000573	0.25	1.34	5.98	0.17
ONeil-Drain	Reach 1	650	10-yr	0.44	187.91	188.42	188.11	188.42	0.000282	0.21	2.41	14.85	0.12
ONeil-Drain	Reach 1	650	25-yr	0.60	187.91	188.56	188.14	188.56	0.000021	0.07	22.85	121.01	0.04
ONeil-Drain	Reach 1	650	50-yr	0.72	187.91	188.65	188.17	188.65	0.000009	0.05	34.55	123.17	0.02
ONeil-Drain	Reach 1	650	100-yr	0.86	187.91	188.74	188.19	188.74	0.000005	0.05	46.04	127.77	0.02
ONeil-Drain	Reach 1	650	Hazel	2.41	187.91	188.59	188.35	188.59	0.000224	0.24	26.39	122.26	0.12
ONeil-Drain	Reach 1	694	2-yr	0.20	188.01	188.26	188.14	188.26	0.001336	0.27	0.72	5.40	0.24
ONeil-Drain	Reach 1	694	5-yr	0.34	188.01	188.34	188.18	188.35	0.000880	0.27	1.26	7.09	0.20
ONeil-Drain	Reach 1	694	10-yr	0.44	188.01	188.43	188.20	188.44	0.000331	0.19	3.33	42.33	0.13
ONeil-Drain	Reach 1	694	25-yr	0.60	188.01	188.56	188.23	188.56	0.000019	0.06	25.68	175.54	0.03
ONeil-Drain	Reach 1	694	50-yr	0.72	188.01	188.65	188.25	188.65	0.000006	0.04	43.19	192.20	0.02
ONeil-Drain	Reach 1	694	100-yr	0.86	188.01	188.74	188.26	188.74	0.000003	0.03	61.05	198.10	0.01
ONeil-Drain	Reach 1	694	Hazel	2.41	188.01	188.59	188.41	188.59	0.000157	0.18	32.22	180.86	0.10
ONeil-Drain	Reach 1	722	2-yr	0.11	188.07	188.29	188.15	188.29	0.000468	0.16	0.69	5.38	0.14
ONeil-Drain	Reach 1	722	5-yr	0.18	188.07	188.36	188.18	188.37	0.000351	0.15	1.19	8.09	0.12
ONeil-Drain	Reach 1	722	10-yr	0.24	188.07	188.44	188.19	188.44	0.000160	0.13	1.93	11.24	0.09
ONeil-Drain	Reach 1	722	25-yr	0.32	188.07	188.56	188.21	188.56	0.000004	0.03	28.03	186.47	0.02
ONeil-Drain	Reach 1	722	50-yr	0.37	188.07	188.65	188.22	188.65	0.000001	0.02	46.27	198.45	0.01
ONeil-Drain	Reach 1	722	100-yr	0.44	188.07	188.74	188.24	188.74	0.000001	0.01	64.52	199.20	0.01
ONeil-Drain	Reach 1	722	Hazel	0.86	188.07	188.60	188.30	188.60	0.000015	0.06	35.38	190.84	0.03
ONeil-Drain	Reach 1	780	2-yr	0.11	188.06	188.33	188.23	188.34	0.002355	0.36	0.30	2.19	0.31
ONeil-Drain	Reach 1	780	5-yr	0.18	188.06	188.40	188.27	188.41	0.002050	0.39	0.47	2.77	0.30
ONeil-Drain	Reach 1	780	10-yr	0.24	188.06	188.46	188.29	188.47	0.001977	0.34	0.69	4.88	0.29
ONeil-Drain	Reach 1	780	25-yr	0.32	188.06	188.56	188.32	188.56	0.000007	0.03	13.66	56.35	0.02
ONeil-Drain	Reach 1	780	50-yr	0.37	188.06	188.65	188.34	188.65	0.000001	0.02	42.34	153.60	0.01
ONeil-Drain	Reach 1	780	100-yr	0.44	188.06	188.74	188.36	188.74	0.000001	0.01	56.41	153.60	0.01
ONeil-Drain	Reach 1	780	Hazel	0.86	188.06	188.60	188.47	188.60	0.000031	0.06	15.94	57.24	0.04
ONeil-Drain	Reach 1	840	2-yr	0.11	187.99	188.37	188.13	188.37	0.000242	0.16	0.67	3.01	0.11
ONeil-Drain	Reach 1	840	5-yr	0.18	187.99	188.45	188.17	188.45	0.000301	0.20	0.91	3.47	0.12
ONeil-Drain	Reach 1	840	10-yr	0.24	187.99	188.50	188.19	188.50	0.000293	0.21	1.12	3.81	0.12
ONeil-Drain	Reach 1	840	25-yr	0.32	187.99	188.56	188.21	188.56	0.000325	0.24	1.34	4.15	0.13
ONeil-Drain	Reach 1	840	50-yr	0.37	187.99	188.65	188.24	188.65	0.000219	0.21	1.75	4.74	0.11
ONeil-Drain	Reach 1	840	100-yr	0.44	187.99	188.74	188.26	188.74	0.000003	0.03	36.55	102.90	0.01

HEC-RAS Plan: Existing Conditions 2 (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
ONeil-Drain	Reach 1	840	Hazel	0.86	187.99	188.59	188.35	188.61	0.001845	0.58	1.48	4.36	0.32

Visual OTTHYMO NHYD	Peak Flows on Dawson Drain (m3/s)						
	2-y	5-yr	10-yr	25-yr	50-yr	100-yr	Hazel
REACH 1							
103	0.055	0.076	0.092	0.115	0.134	0.157	0.125
REACH 2							
101	1.003	1.447	2.245	3.427	4.324	5.221	1.496
REACH 3							
902	1.058	1.527	2.344	3.555	4.474	5.398	1.687
REACH 4							
102	0.316	0.510	0.635	0.815	0.943	1.089	0.507
REACH 5							
906	1.360	2.035	2.998	4.463	5.553	6.655	2.323
REACH 6							
909	1.387	2.089	3.070	4.553	5.663	6.789	4.143

NO CHANGE FROM EXISTING CONDITIONS

Visual OTTHYMO NHYD	Peak Flows on O'Neil Drain (m3/s)						
	2-y	5-yr	10-yr	25-yr	50-yr	100-yr	Hazel
Cross-Section No. 840							
904	0.107	0.181	0.235	0.315	0.374	0.443	0.864
Cross-Section No. 694							
907	0.196	0.337	0.443	0.601	0.72	0.861	2.405

NO CHANGE FROM EXISTING CONDITIONS

Project : 221-00563-00 Dawson and O'Neil Creeks

Hydraulic Model - Boundary Condition Estimation

Prepared by: CP
Checked by: EK
Date: 2025-04-07

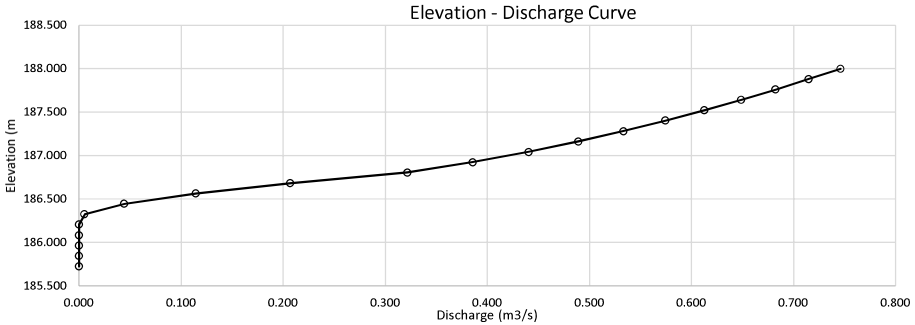
Elevation of Base of System :	185.726	*(Invert of Grate IGLD 187.47 m)*
Total Height of System (m):	2.274	*(Assumed, to get a maximum WL of 188.0 m in CGVD2013)*

Outlet #1 - 525 mm HDPE pipe - Assuming 100% Tailwater

Type	Circular Orifice	Diameter (mm):	525
Invert Elevation of Lowest Outflow/Orifice (m)	186.265	Length - perpendicular to flow (m) :	-
Height of invert above base (m):	0.54	Width - parallel to flow (m)	-
Height of system above invert (m):	1.73	Discharge Coefficient (m^0.5/s) :	0.63
So each ordinate (m)	0.120	Weir Coefficient:	-

Outlet #2 - Overland Flowroute (cemetery open area, west of the drain)

Outlet #3 - Overland Flowroute (Hallee Crescent once Top of Berm is overtopped)



Ordinate	Total Depth from Base (m)	Outlet # 1 Head Above Invert (m)	Outlet # 1 Discharge (m3/s)	Outlet # 1 Discharge (L/s)	Outlet # 2 Head Above Invert (m)	Outlet # 2 Discharge (m3/s)	Outlet # 2 Discharge (L/s)	Outlet # 3 Head Above Invert (m)	Outlet # 3 Discharge (m3/s)	Outlet # 3 Discharge (L/s)	With Tailwater Discharge (m3/s)	With Tailwater Elevation (m)	
1	0	0.000	0.000	0.0							0.000	185.726	
2	0.120	0.000	0.000	0.0							0.000	185.846	
3	0.239	0.000	0.000	0.0							0.000	185.965	
4	0.359	0.000	0.000	0.0							0.000	186.085	
5	0.479	0.000	0.000	0.0							0.000	186.205	
6	0.598	0.059	0.005	5.3							0.005	186.324	
7	0.718	0.179	0.044	44.3							0.044	186.444	
8	0.838	0.299	0.115	114.5							0.115	186.564	
9	0.957	0.418	0.207	206.7							0.207	186.683	
10	1.077	0.538	0.322	321.6							0.322	186.803	
11	1.197	0.658	0.386	385.7							0.386	186.923	
12	1.317	0.778	0.441	440.5							0.441	187.043	
13	1.436	0.897	0.489	489.3							0.489	187.162	
14	1.556	1.017	0.534	533.6							0.534	187.282	
15	1.676	1.137	0.574	574.5							0.574	187.402	
16	1.795	1.256	0.613	612.6							0.613	187.521	
17	1.915	1.376	0.649	648.6							0.649	187.641	
18	2.035	1.496	0.683	682.6							0.683	187.761	
19	2.154	1.615	0.715	715.0							0.715	187.880	
20	2.274	1.735	0.746	746.1							0.746	188.000	

Outlet #1 - 450 mm HDPE pipe from DICB27 to MH26
Invert at 186.419 m (datum IGLD85), converted to CGVD2013 = 185.955 m.
Datum Correction = -0.464m.
(invert raised to 186.265 to account for tailwater)

Outlet #2 - Overland Flowroute (cemetery open area, west of the drain)
Approx ground elevation CGVD2013 = 188 m.
Assumed weir length of 100 m.
(currently not modelled)

Outlet #3 - Overland Flowroute (Hallee Crescent once Top of Berm is overtopped)
Approx Top of Berm = 188.80m.(IGLD85). CGVD2013 = 188.386 m.
Road width = 8 m
(currently not modelled)

Source
R. C. Spencer Associates (2016). Southwid Subdivision, As-constructed Phase 1 & 2 Drawings. Prepared for Tru Land Developments Inc. City of Windsor Reference # S-2018. Sheets 4 and 13.

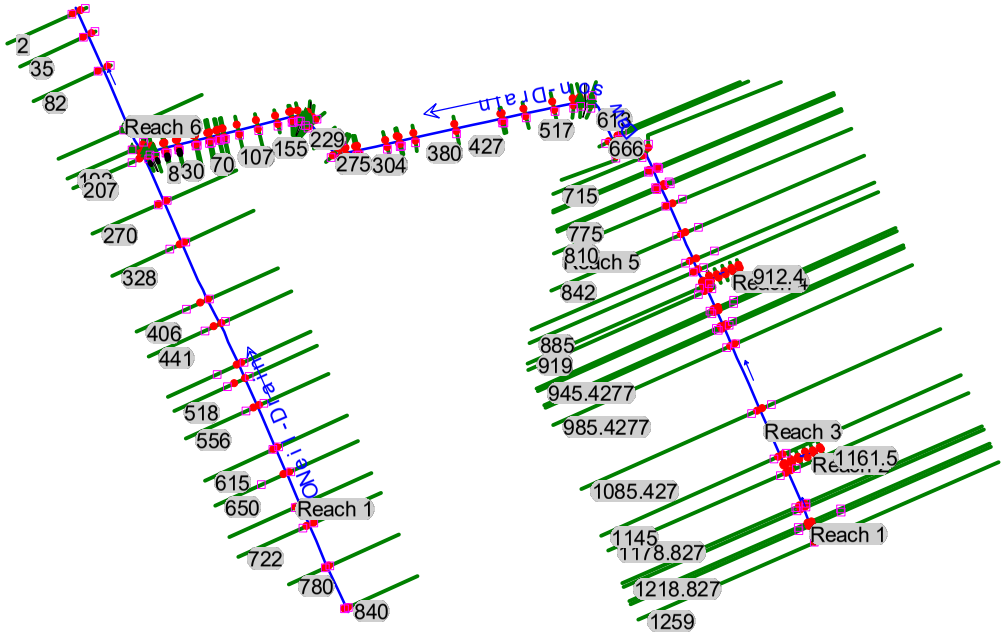
Overland Weir Coefficients
https://www.kleinschmidtgroup.com/ras-post/weir-equations-in-hec-ras/

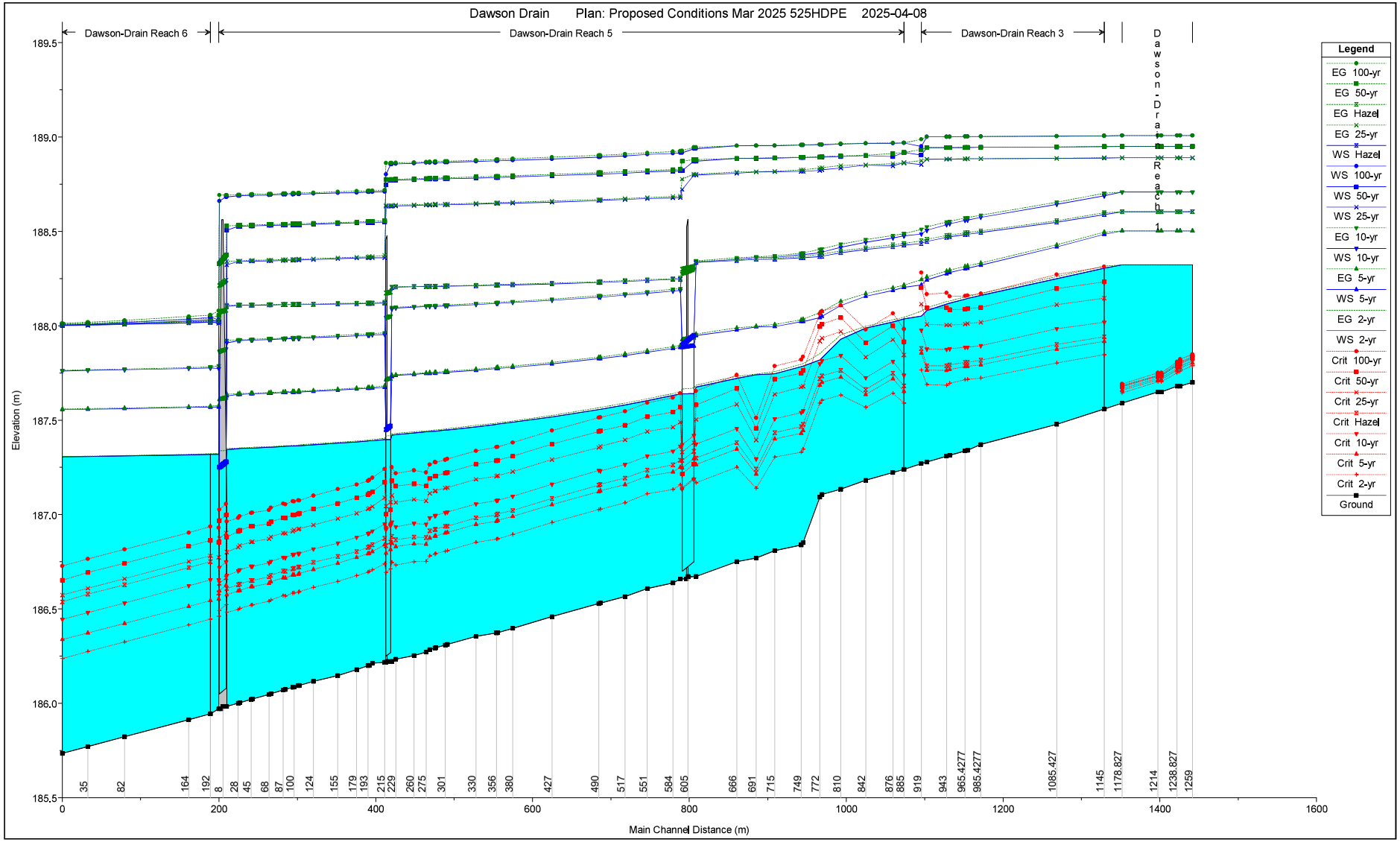
NHYD	Peak Flows entering 525 mm outlet pipe and overland system (m3/s) 2-y	5-yr	10-yr	25-yr	50-yr	100-yr	Hazel
51	0.542	0.624	0.683	0.763	0.811	0.853	4.143

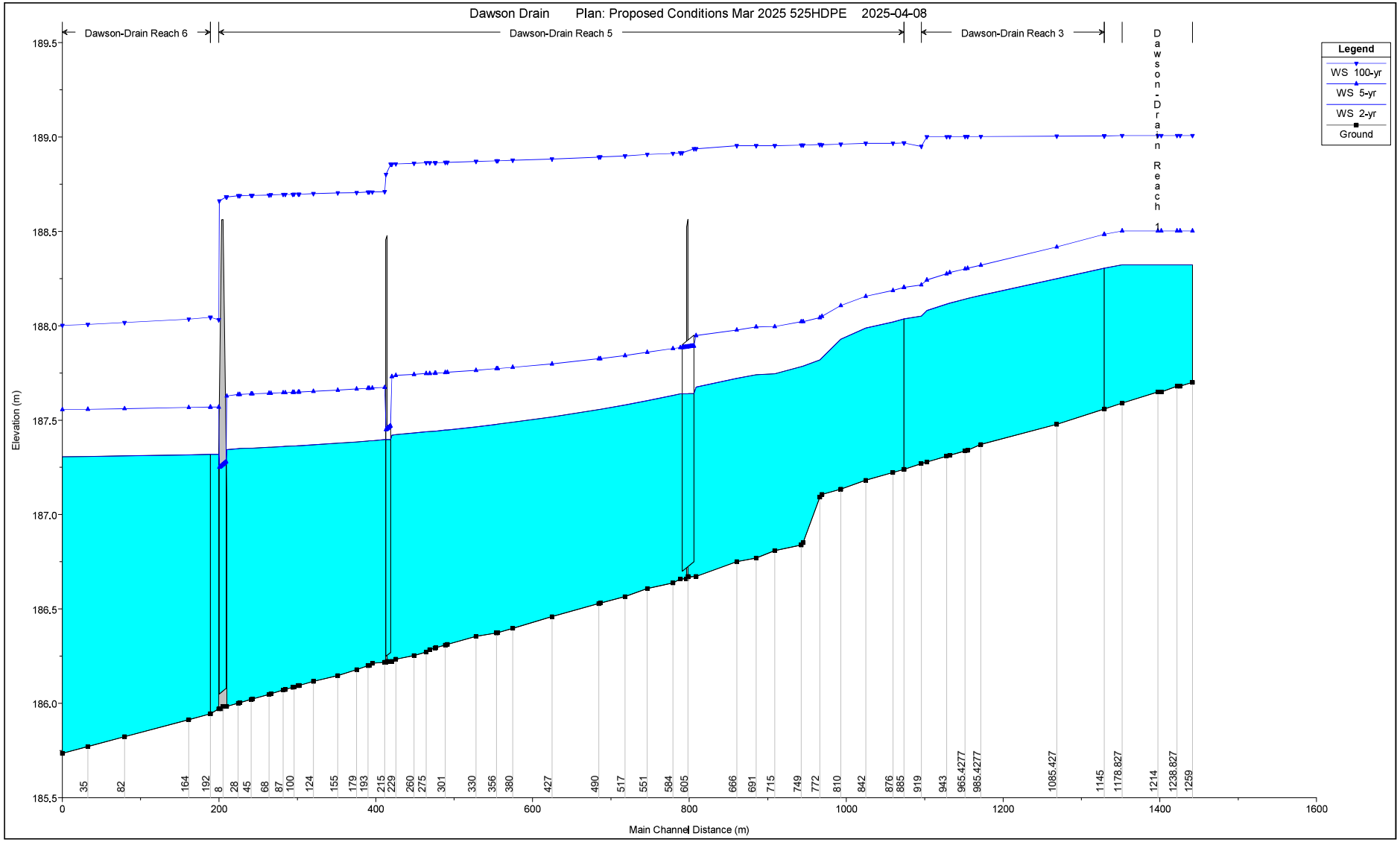
(from Visual OTTHYMO Model)

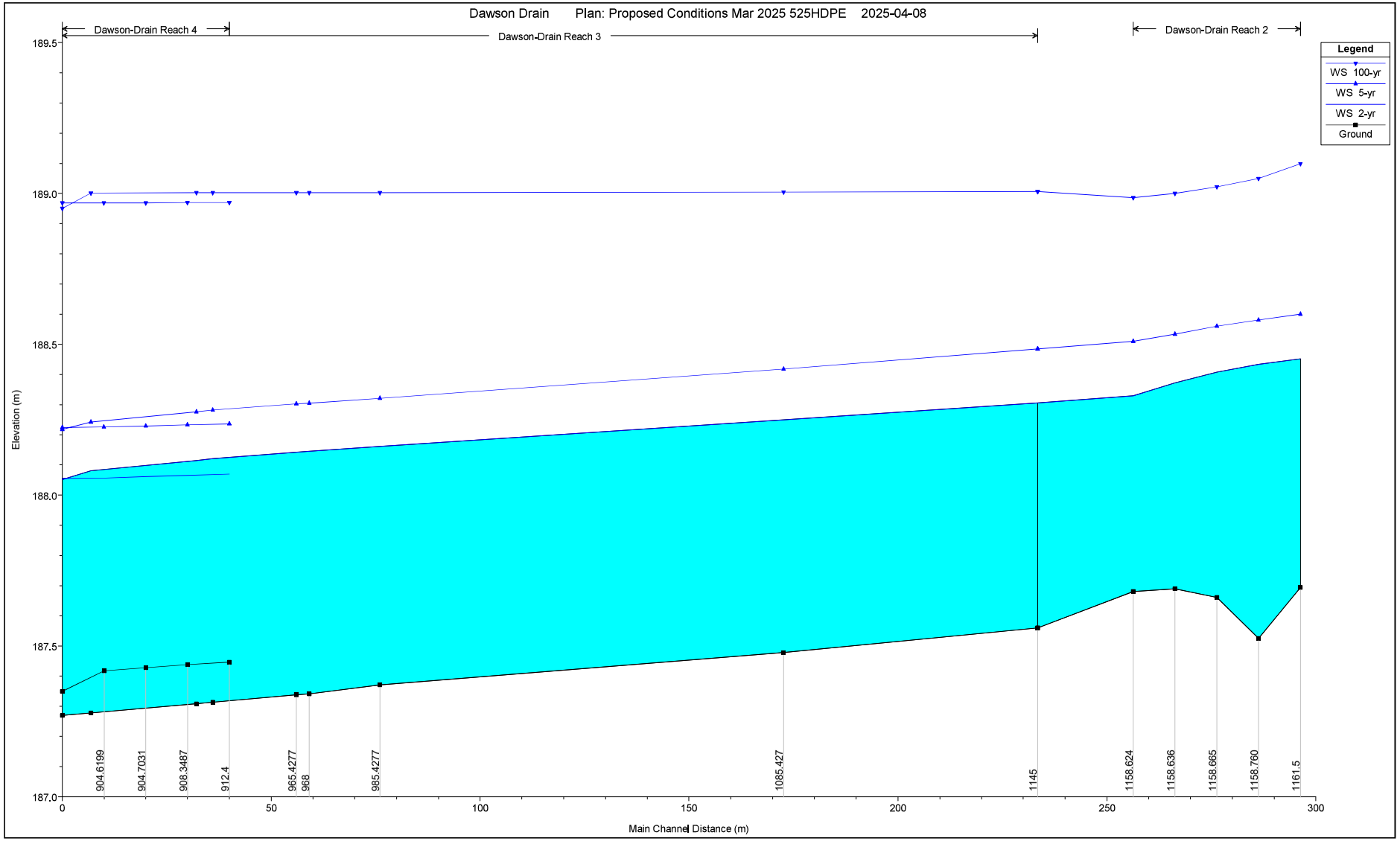
RP	Equivalent Boundary Condition Elevation (m) 2-y	5-yr	10-yr	25-yr	50-yr	100-yr	Hazel
	187.306	187.557	187.761	188.000	188.000	188.000	188.000

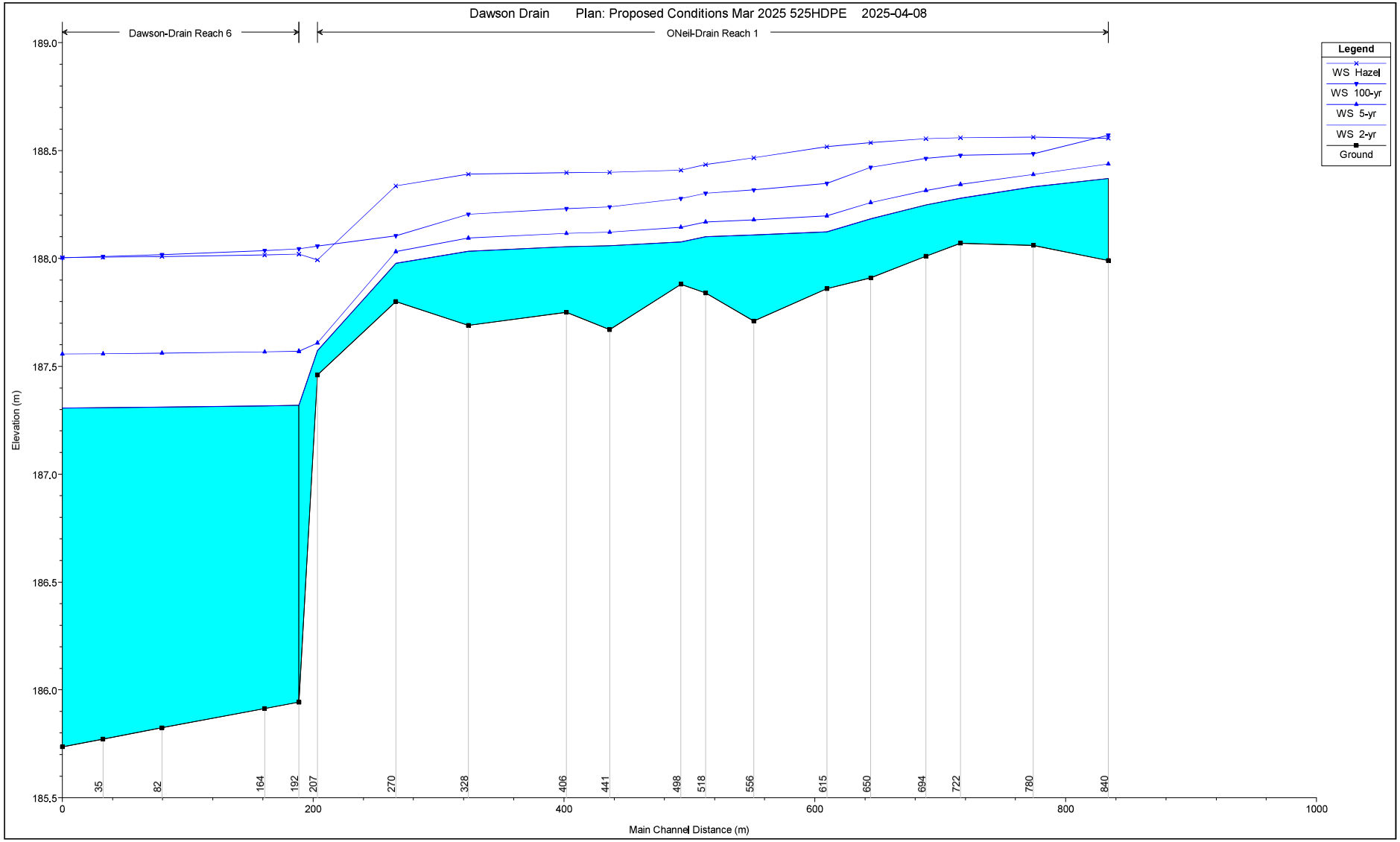
(system is overtopped for all return periods larger than 10-year storm at the outlet interface)

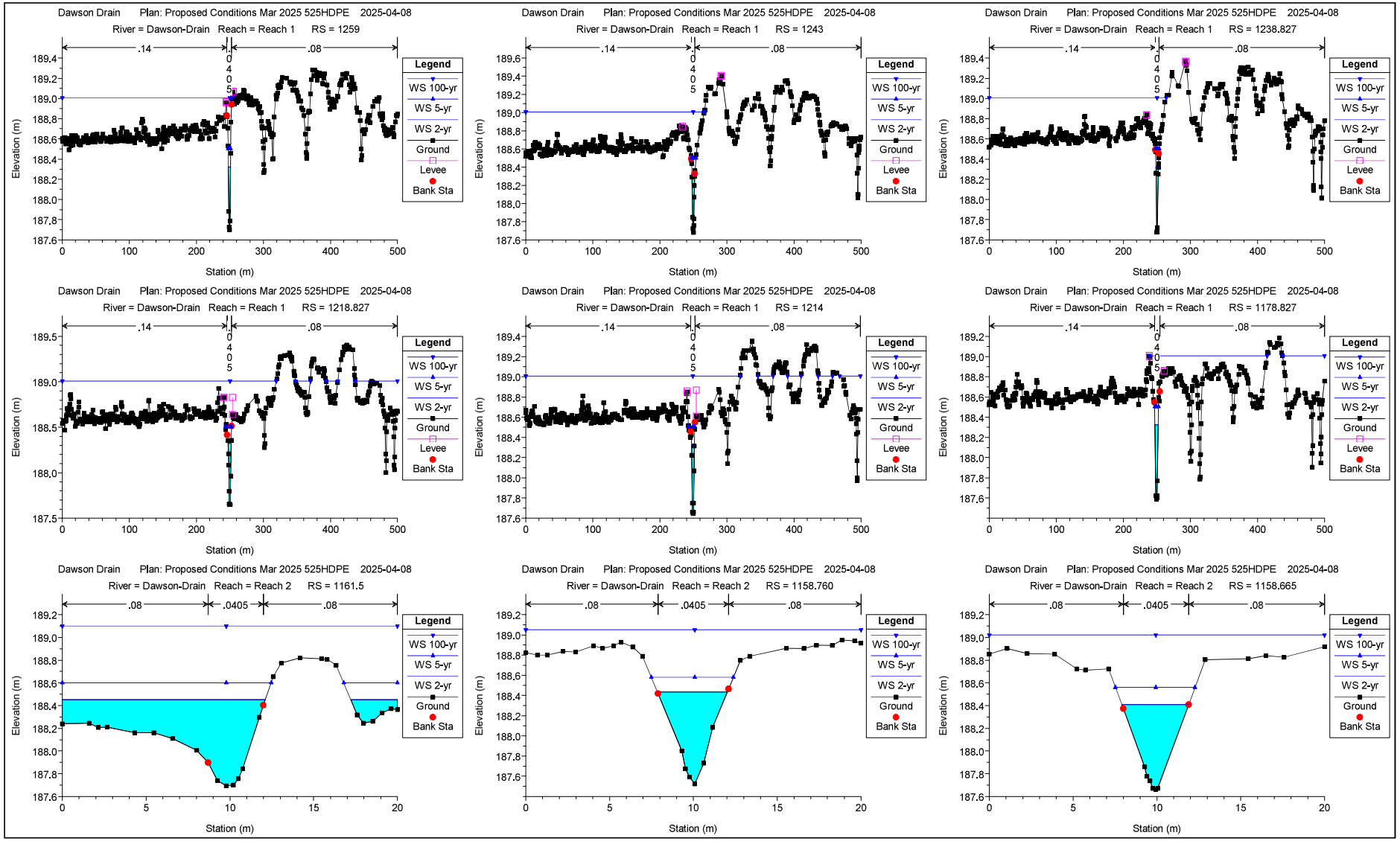

2
35
82
Reach 6
207
270
328
406
441
518
556
615
650
Reach 1
722
780
840
830
70
107
155
229
275
304
380
427
517
666
715
775
810
842
885
919
945.4277
985.4277
Reach 3
1085.427
1145
1178.827
1218.827
1259
912.4
1161.5
Reach 1

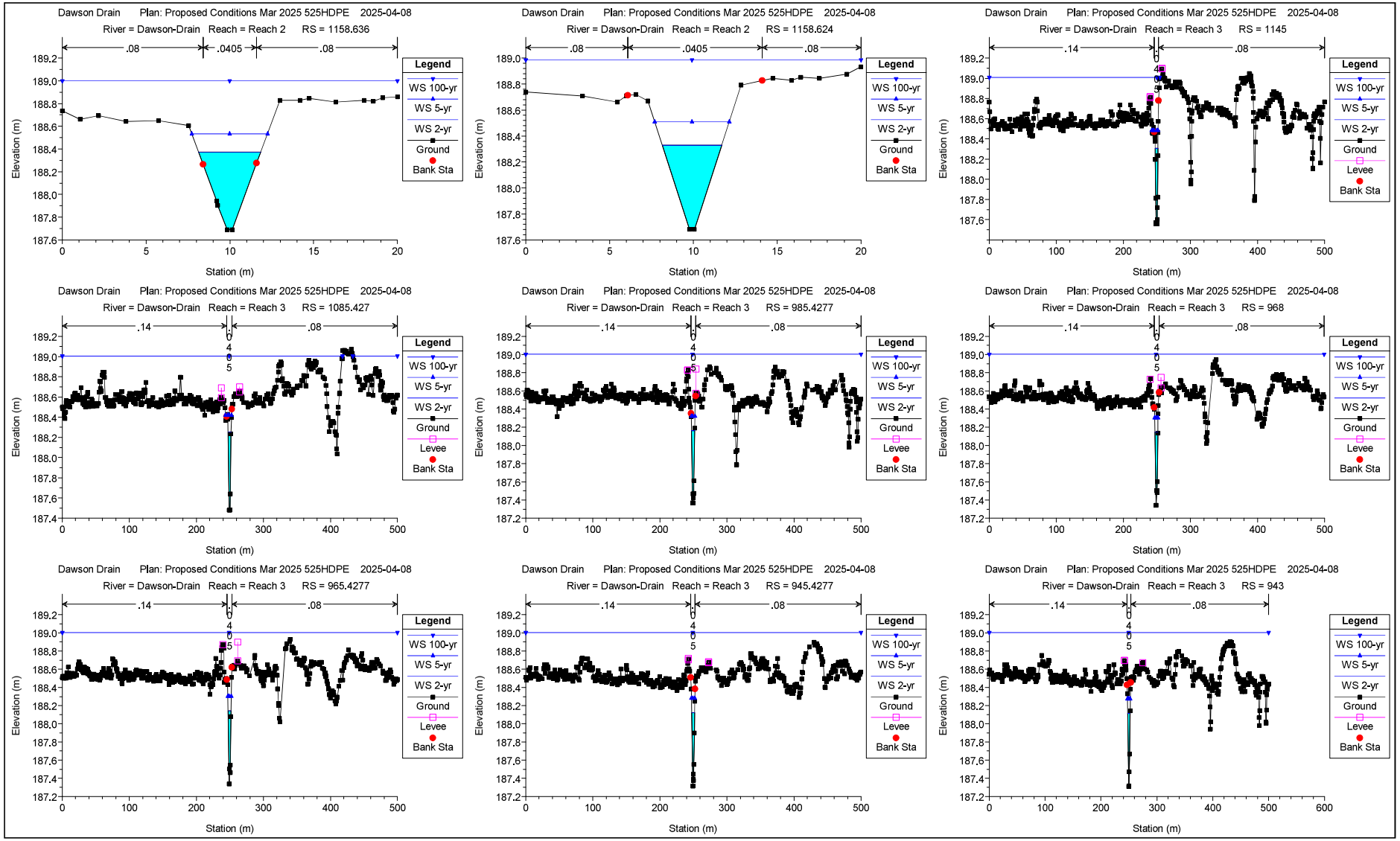

Dawson Drain Plan: Proposed Conditions Mar 2025 525HDPE 2025-04-08
Dawson-Drain Reach 6
Dawson-Drain Reach 5
Dawson-Drain Reach 3
Dawson-Drain Reach 1
Legend
EG 100-yr
EG 50-yr
EG Hazel
EG 25-yr
WS Hazel
WS 100-yr
WS 50-yr
WS 25-yr
EG 10-yr
WS 10-yr
EG 5-yr
WS 5-yr
EG 2-yr
WS 2-yr
Crit 100-yr
Crit 50-yr
Crit 25-yr
Crit Hazel
Crit 10-yr
Crit 5-yr
Crit 2-yr
Ground
Elevation (m)
189.5
189.0
188.5
188.0
187.5
187.0
186.5
186.0
185.5
0
200
400
600
800
1000
1200
1400
1600
Main Channel Distance (m)
35
82
164
192
8
28
45
68
87
100
124
155
179
193
215
229
260
275
301
330
356
380
427
490
517
551
584
605
666
691
715
749
772
810
842
876
885
919
943
965.4277
985.4277
1085.427
1145
1178.827
1214
1238.827
1259

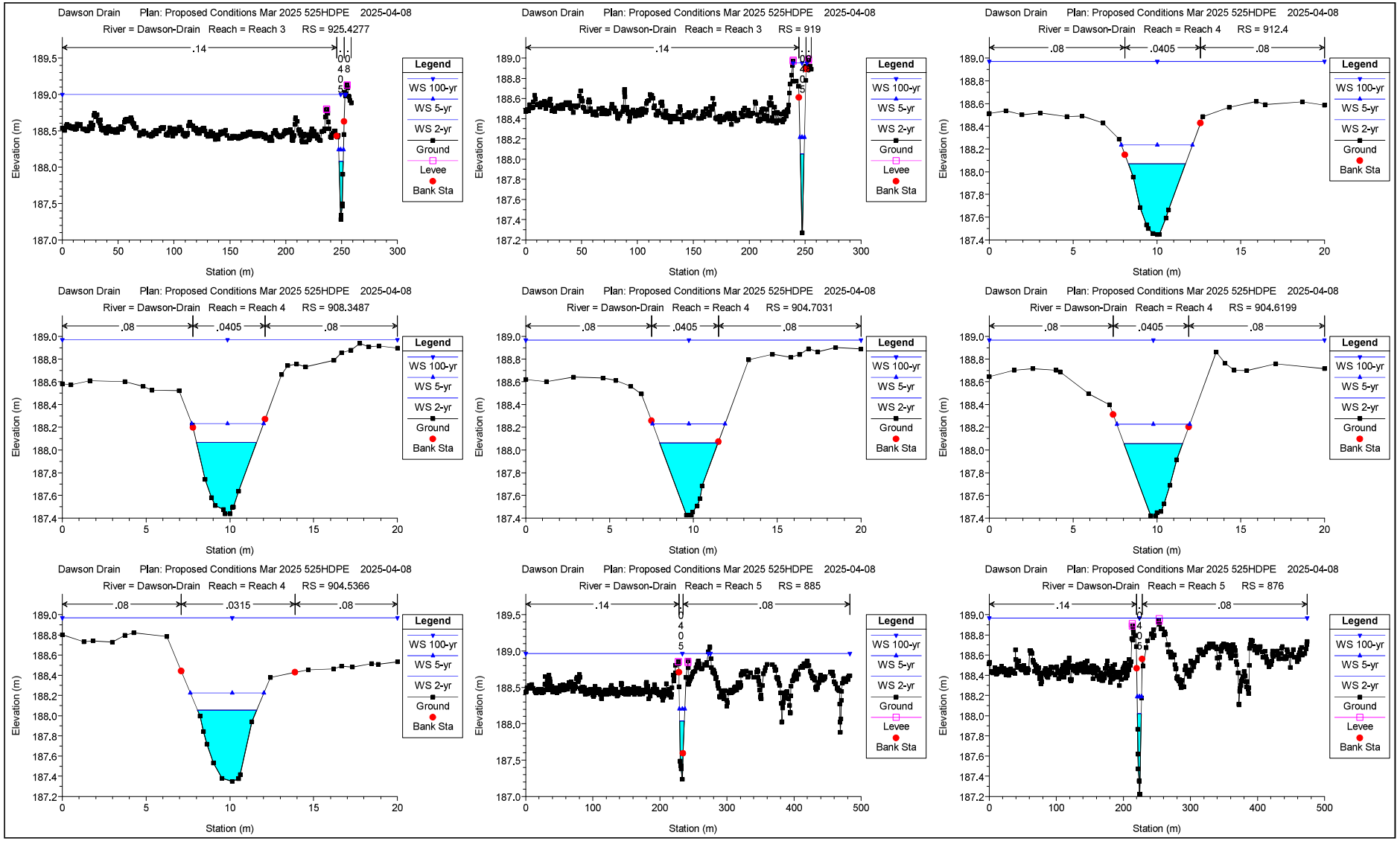

Dawson Drain Plan: Proposed Conditions Mar 2025 525HDPE 2025-04-08
Dawson-Drain Reach 6
Dawson-Drain Reach 5
Dawson-Drain Reach 3
Dawson-Drain Reach 1
Legend
WS 100-yr
WS 5-yr
WS 2-yr
Ground
Elevation (m)
Main Channel Distance (m)
189.5
189.0
188.5
188.0
187.5
187.0
186.5
186.0
185.5
0
200
400
600
800
1000
1200
1400
1600
35
82
164
192
8
28
45
68
87
100
124
155
179
193
215
229
260
275
301
330
356
380
427
490
517
551
584
605
666
691
715
749
772
810
842
876
885
919
943
965.4277
985.4277
1085.427
1145
1178.827
1214
1238.827
1259

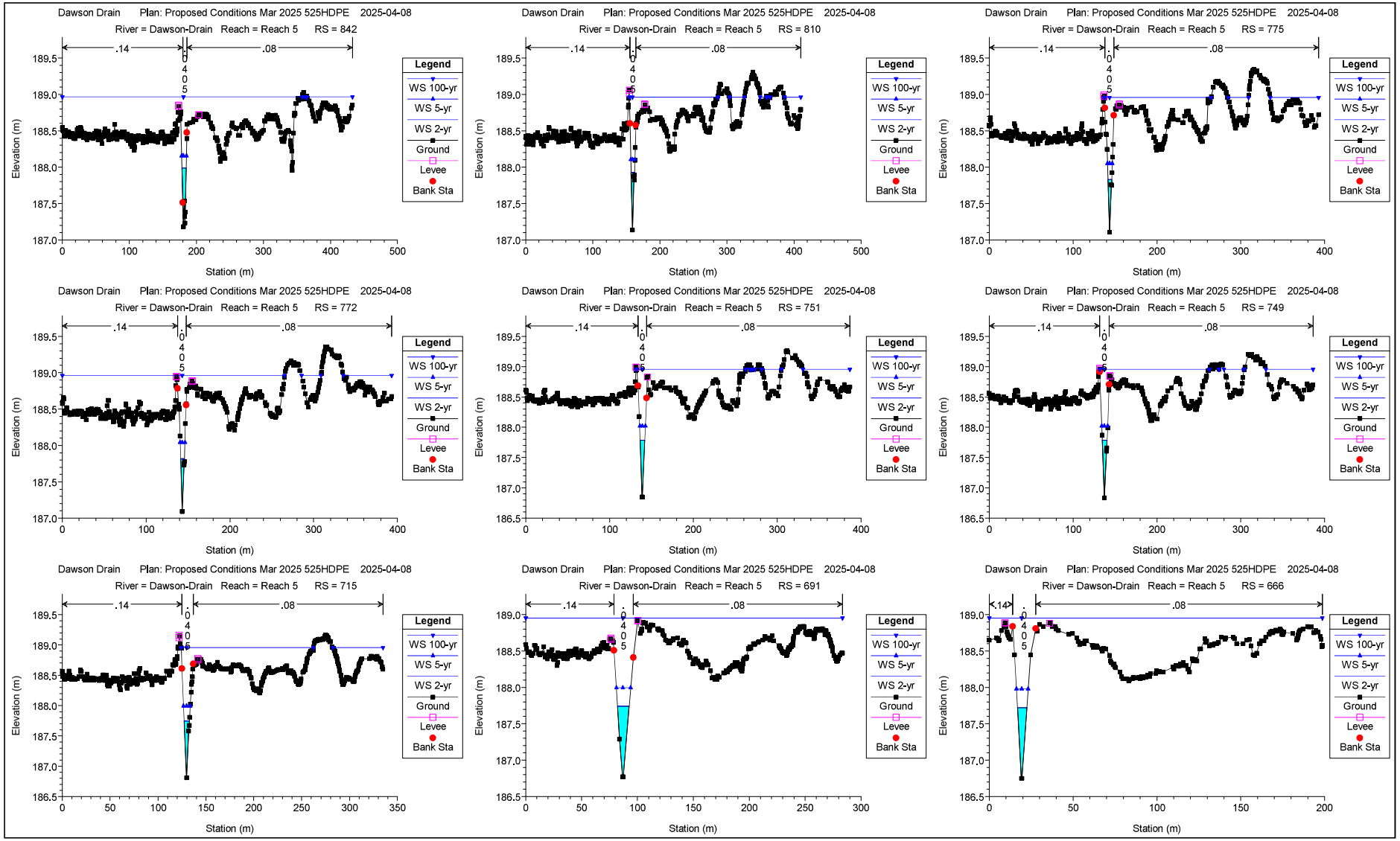

Dawson Drain Plan: Proposed Conditions Mar 2025 525HDPE 2025-04-08
Dawson-Drain Reach 4
Dawson-Drain Reach 3
Dawson-Drain Reach 2
Legend
WS 100-yr
WS 5-yr
WS 2-yr
Ground
Elevation (m)
189.5
189.0
188.5
188.0
187.5
187.0
0
50
100
150
200
250
300
Main Channel Distance (m)
904.6199
904.7031
908.3487
912.4
965.4277
968
985.4277
1085.427
1145
1158.624
1158.636
1158.665
1158.760
1161.5

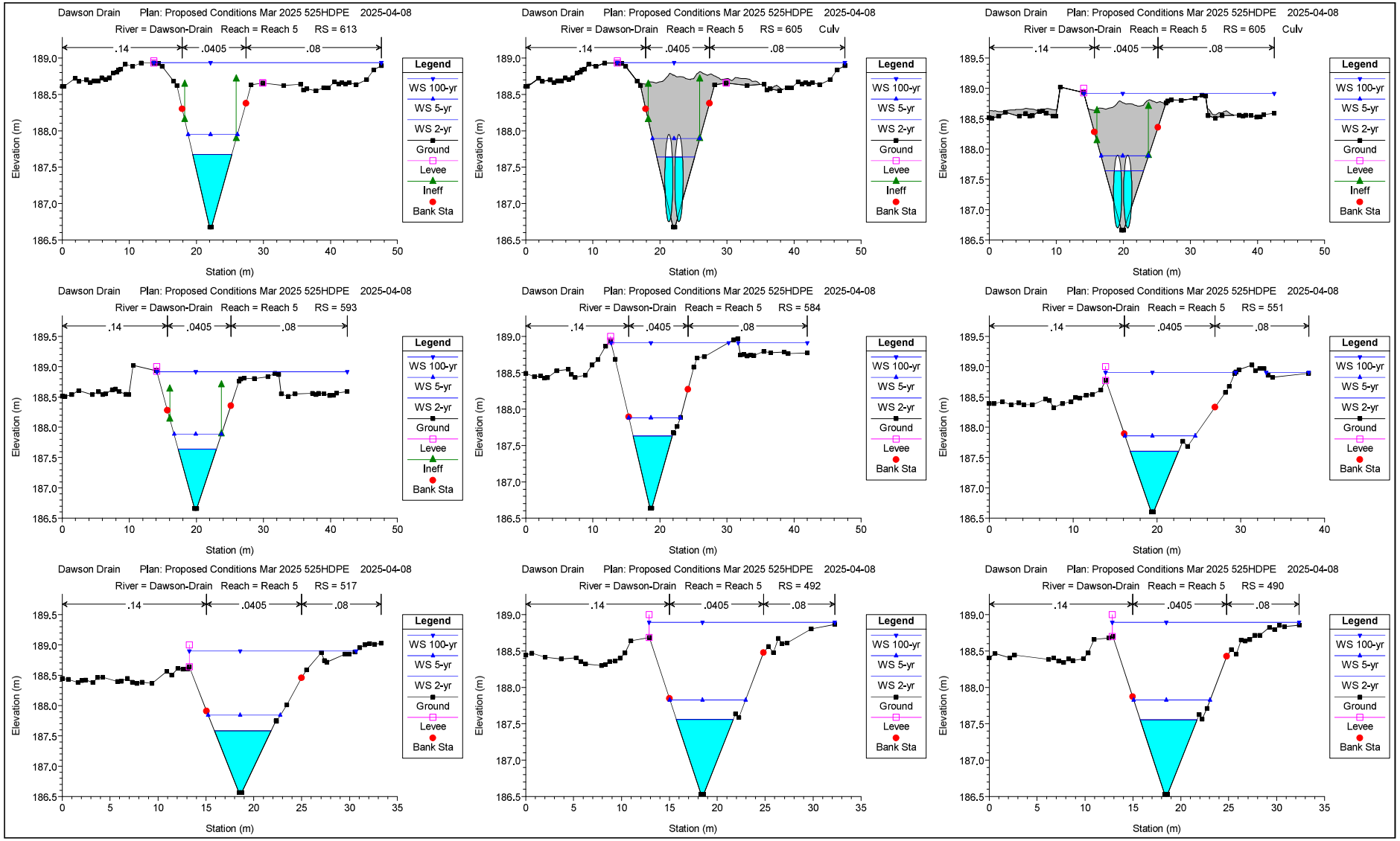

Dawson Drain Plan: Proposed Conditions Mar 2025 525HDPE 2025-04-08
Dawson-Drain Reach 6
ONeil-Drain Reach 1
Legend
WS Hazel
WS 100-yr
WS 5-yr
WS 2-yr
Ground
Elevation (m)
189.0
188.5
188.0
187.5
187.0
186.5
186.0
185.5
35
82
164
192
207
270
328
406
441
498
518
556
615
650
694
722
780
840
0
200
400
600
800
1000
Main Channel Distance (m)

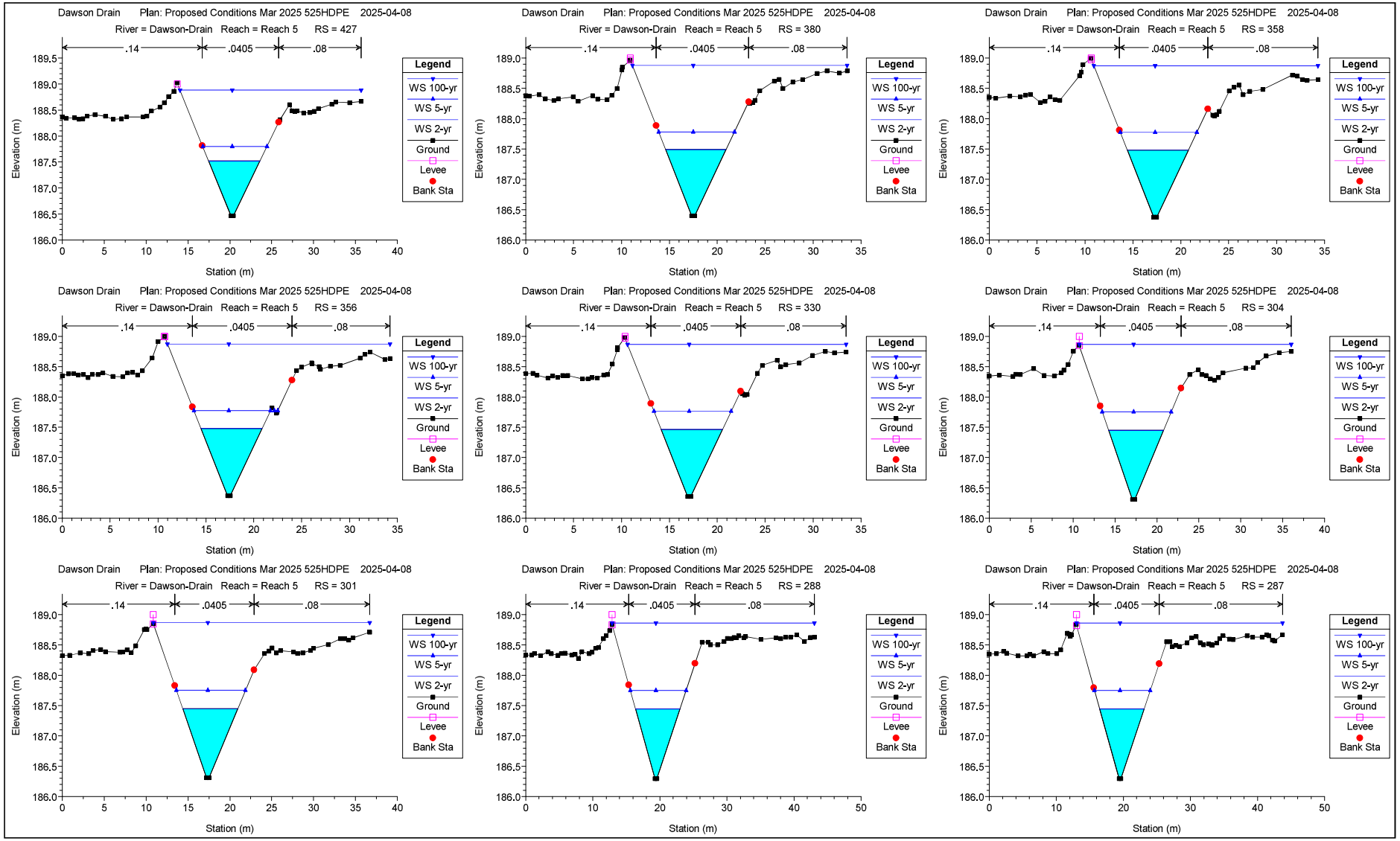

Dawson Drain Plan: Proposed Conditions Mar 2025 525HDPE 2025-04-08
River = Dawson-Drain Reach = Reach 1 RS = 1259
River = Dawson-Drain Reach = Reach 1 RS = 1243
River = Dawson-Drain Reach = Reach 1 RS = 1238.827
River = Dawson-Drain Reach = Reach 1 RS = 1218.827
River = Dawson-Drain Reach = Reach 1 RS = 1214
River = Dawson-Drain Reach = Reach 1 RS = 1178.827
River = Dawson-Drain Reach = Reach 2 RS = 1161.5
River = Dawson-Drain Reach = Reach 2 RS = 1158.760
River = Dawson-Drain Reach = Reach 2 RS = 1158.665
.14
.08
.0405
Legend
WS 100-yr
WS 5-yr
WS 2-yr
Ground
Levee
Bank Sta
Elevation (m)
Station (m)

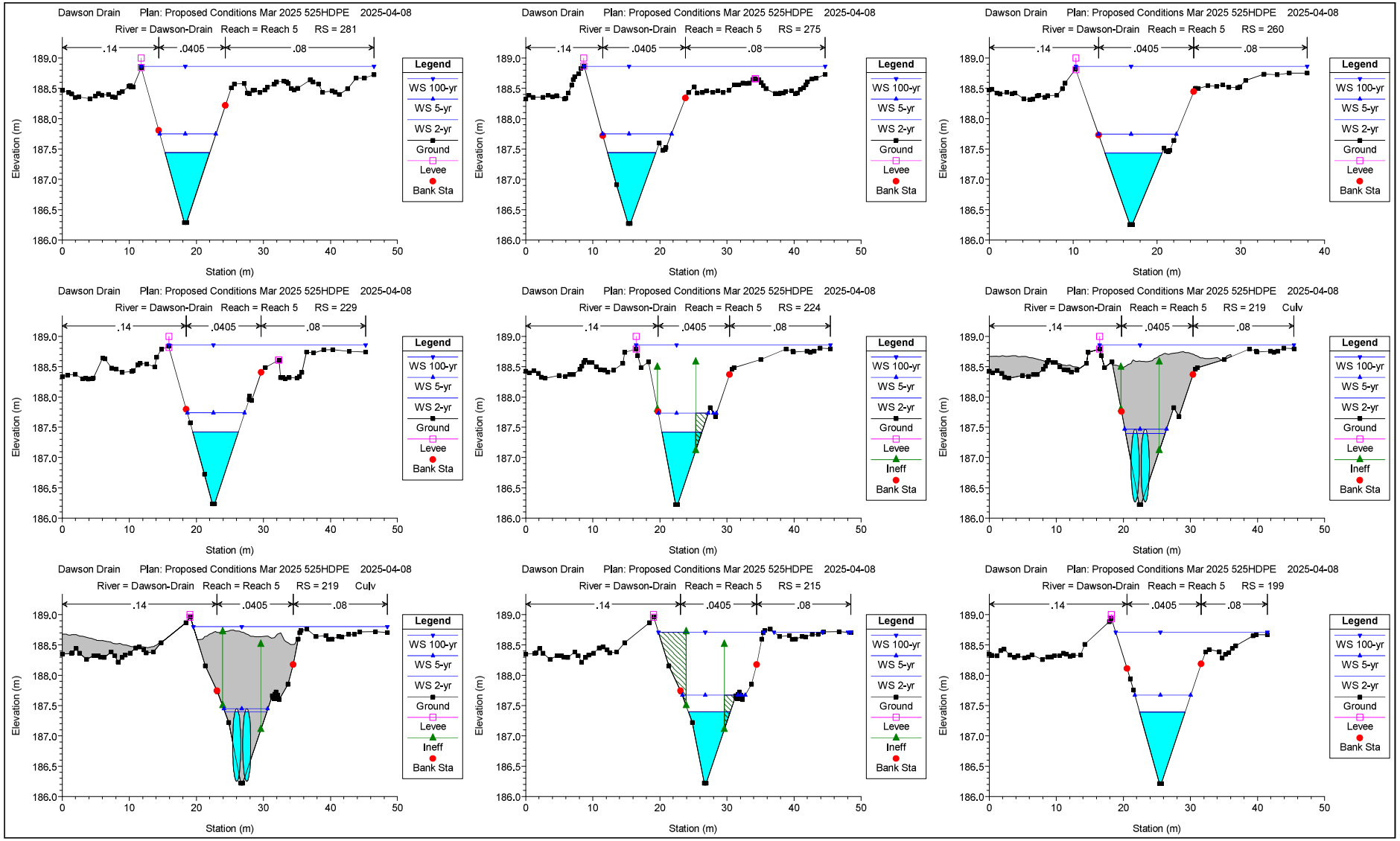

Dawson Drain Plan: Proposed Conditions Mar 2025 525HDPE 2025-04-08
River = Dawson-Drain Reach = Reach 2 RS = 1158.636
.08 .0405 .08
Legend
WS 100-yr
WS 5-yr
WS 2-yr
Ground
Bank Sta
Elevation (m)
Station (m)
Dawson Drain Plan: Proposed Conditions Mar 2025 525HDPE 2025-04-08
River = Dawson-Drain Reach = Reach 2 RS = 1158.624
.08 .0405 .08
Legend
WS 100-yr
WS 5-yr
WS 2-yr
Ground
Bank Sta
Elevation (m)
Station (m)
Dawson Drain Plan: Proposed Conditions Mar 2025 525HDPE 2025-04-08
River = Dawson-Drain Reach = Reach 3 RS = 1145
.14 .08
Legend
WS 100-yr
WS 5-yr
WS 2-yr
Ground
Levee
Bank Sta
Elevation (m)
Station (m)
Dawson Drain Plan: Proposed Conditions Mar 2025 525HDPE 2025-04-08
River = Dawson-Drain Reach = Reach 3 RS = 1085.427
.14 .08
Legend
WS 100-yr
WS 5-yr
WS 2-yr
Ground
Levee
Bank Sta
Elevation (m)
Station (m)
Dawson Drain Plan: Proposed Conditions Mar 2025 525HDPE 2025-04-08
River = Dawson-Drain Reach = Reach 3 RS = 985.4277
.14 .08
Legend
WS 100-yr
WS 5-yr
WS 2-yr
Ground
Levee
Bank Sta
Elevation (m)
Station (m)
Dawson Drain Plan: Proposed Conditions Mar 2025 525HDPE 2025-04-08
River = Dawson-Drain Reach = Reach 3 RS = 968
.14 .08
Legend
WS 100-yr
WS 5-yr
WS 2-yr
Ground
Levee
Bank Sta
Elevation (m)
Station (m)
Dawson Drain Plan: Proposed Conditions Mar 2025 525HDPE 2025-04-08
River = Dawson-Drain Reach = Reach 3 RS = 965.4277
.14 .08
Legend
WS 100-yr
WS 5-yr
WS 2-yr
Ground
Levee
Bank Sta
Elevation (m)
Station (m)
Dawson Drain Plan: Proposed Conditions Mar 2025 525HDPE 2025-04-08
River = Dawson-Drain Reach = Reach 3 RS = 945.4277
.14 .08
Legend
WS 100-yr
WS 5-yr
WS 2-yr
Ground
Levee
Bank Sta
Elevation (m)
Station (m)
Dawson Drain Plan: Proposed Conditions Mar 2025 525HDPE 2025-04-08
River = Dawson-Drain Reach = Reach 3 RS = 943
.14 .08
Legend
WS 100-yr
WS 5-yr
WS 2-yr
Ground
Levee
Bank Sta
Elevation (m)
Station (m)

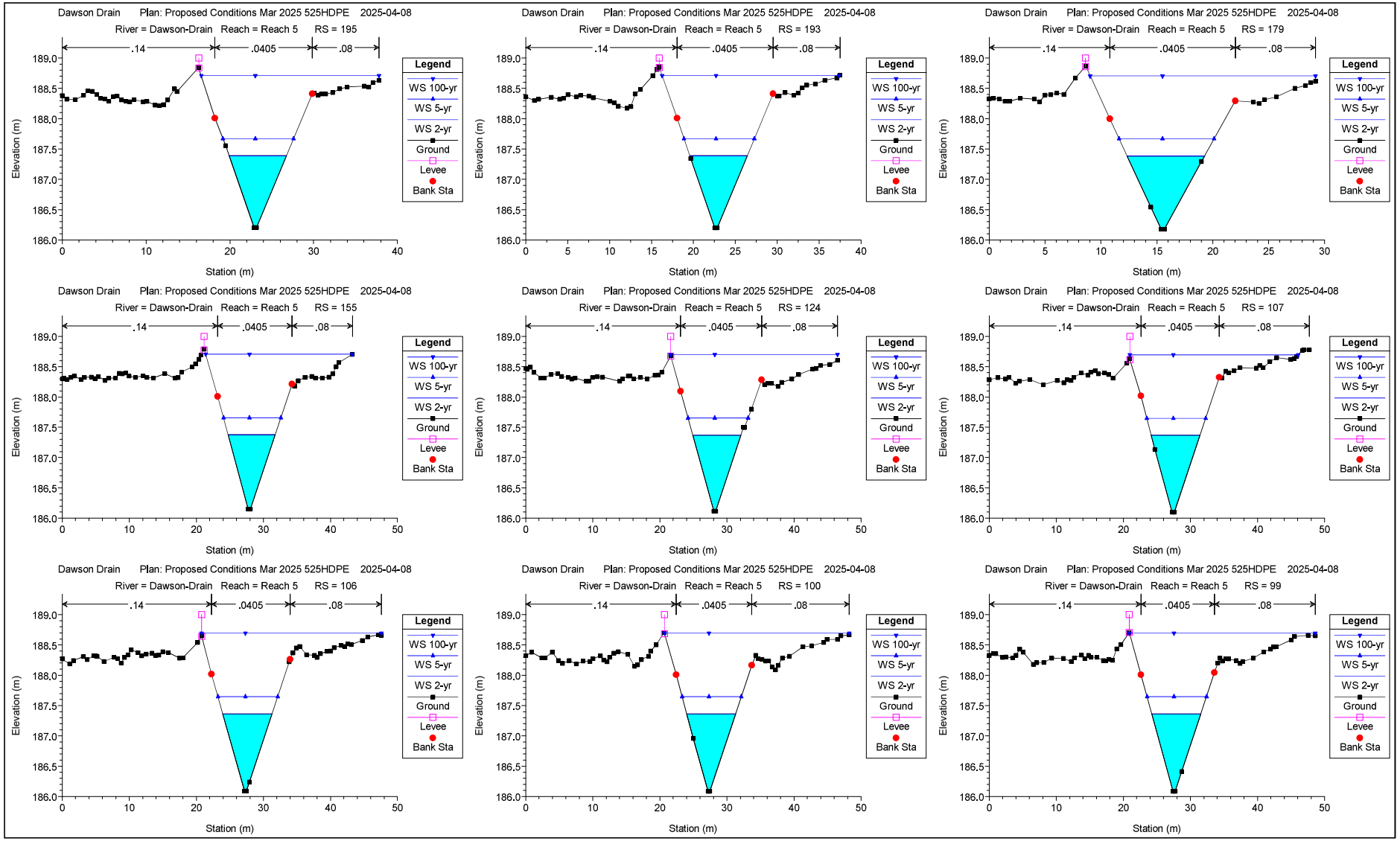

Dawson Drain Plan: Proposed Conditions Mar 2025 525HDPE 2025-04-08
River = Dawson-Drain Reach = Reach 3 RS = 925.4277
Dawson Drain Plan: Proposed Conditions Mar 2025 525HDPE 2025-04-08
River = Dawson-Drain Reach = Reach 3 RS = 919
Dawson Drain Plan: Proposed Conditions Mar 2025 525HDPE 2025-04-08
River = Dawson-Drain Reach = Reach 4 RS = 912.4
Dawson Drain Plan: Proposed Conditions Mar 2025 525HDPE 2025-04-08
River = Dawson-Drain Reach = Reach 4 RS = 908.3487
Dawson Drain Plan: Proposed Conditions Mar 2025 525HDPE 2025-04-08
River = Dawson-Drain Reach = Reach 4 RS = 904.7031
Dawson Drain Plan: Proposed Conditions Mar 2025 525HDPE 2025-04-08
River = Dawson-Drain Reach = Reach 4 RS = 904.6199
Dawson Drain Plan: Proposed Conditions Mar 2025 525HDPE 2025-04-08
River = Dawson-Drain Reach = Reach 4 RS = 904.5366
Dawson Drain Plan: Proposed Conditions Mar 2025 525HDPE 2025-04-08
River = Dawson-Drain Reach = Reach 5 RS = 885
Dawson Drain Plan: Proposed Conditions Mar 2025 525HDPE 2025-04-08
River = Dawson-Drain Reach = Reach 5 RS = 876
Legend
WS 100-yr
WS 5-yr
WS 2-yr
Ground
Levee
Bank Sta
Elevation (m)
Station (m)

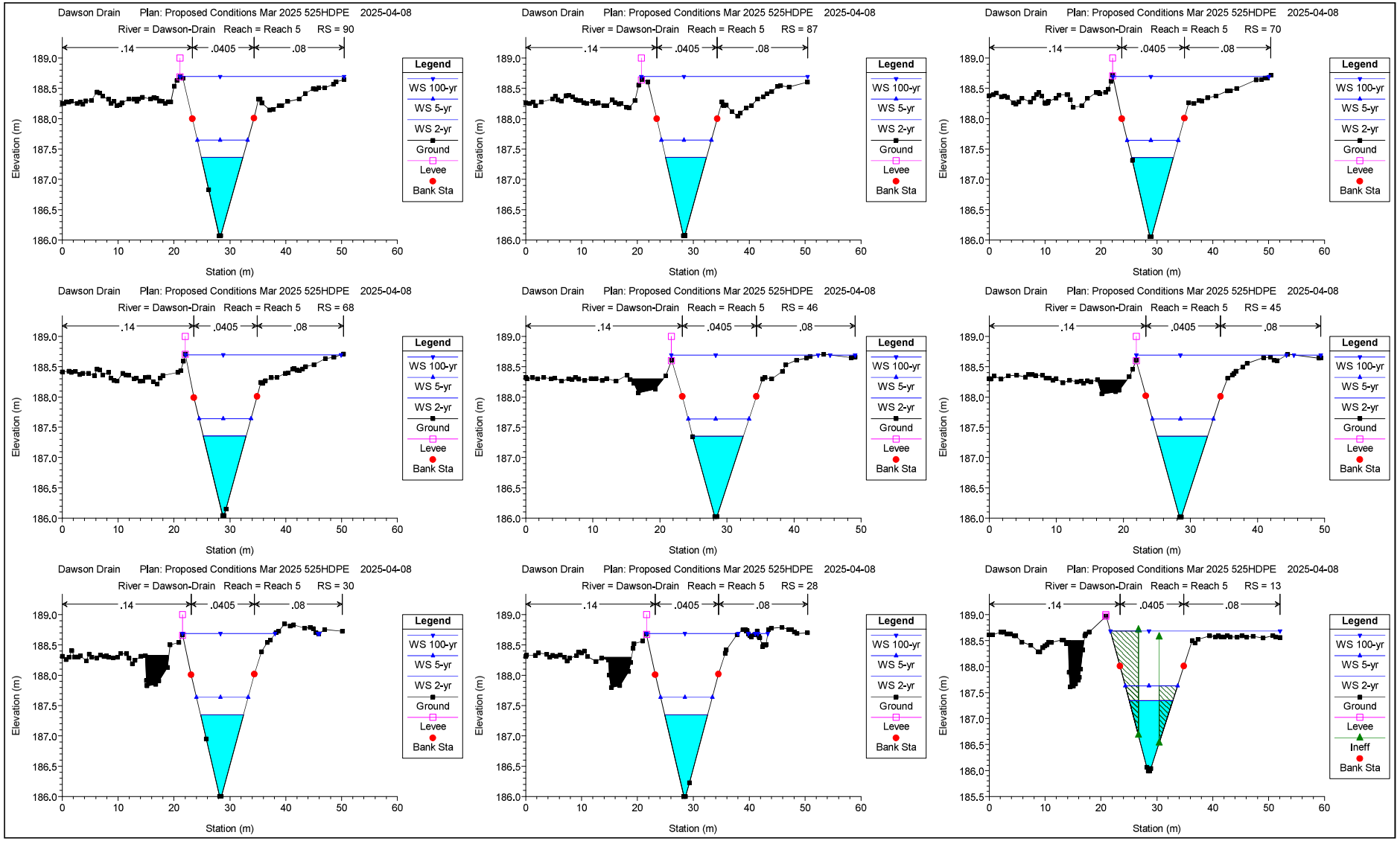

Dawson Drain Plan: Proposed Conditions Mar 2025 525HDPE 2025-04-08
River = Dawson-Drain Reach = Reach 5 RS = 842
River = Dawson-Drain Reach = Reach 5 RS = 810
River = Dawson-Drain Reach = Reach 5 RS = 775
River = Dawson-Drain Reach = Reach 5 RS = 772
River = Dawson-Drain Reach = Reach 5 RS = 751
River = Dawson-Drain Reach = Reach 5 RS = 749
River = Dawson-Drain Reach = Reach 5 RS = 715
River = Dawson-Drain Reach = Reach 5 RS = 691
River = Dawson-Drain Reach = Reach 5 RS = 666
.14
.08
Legend
WS 100-yr
WS 5-yr
WS 2-yr
Ground
Levee
Bank Sta
Elevation (m)
Station (m)

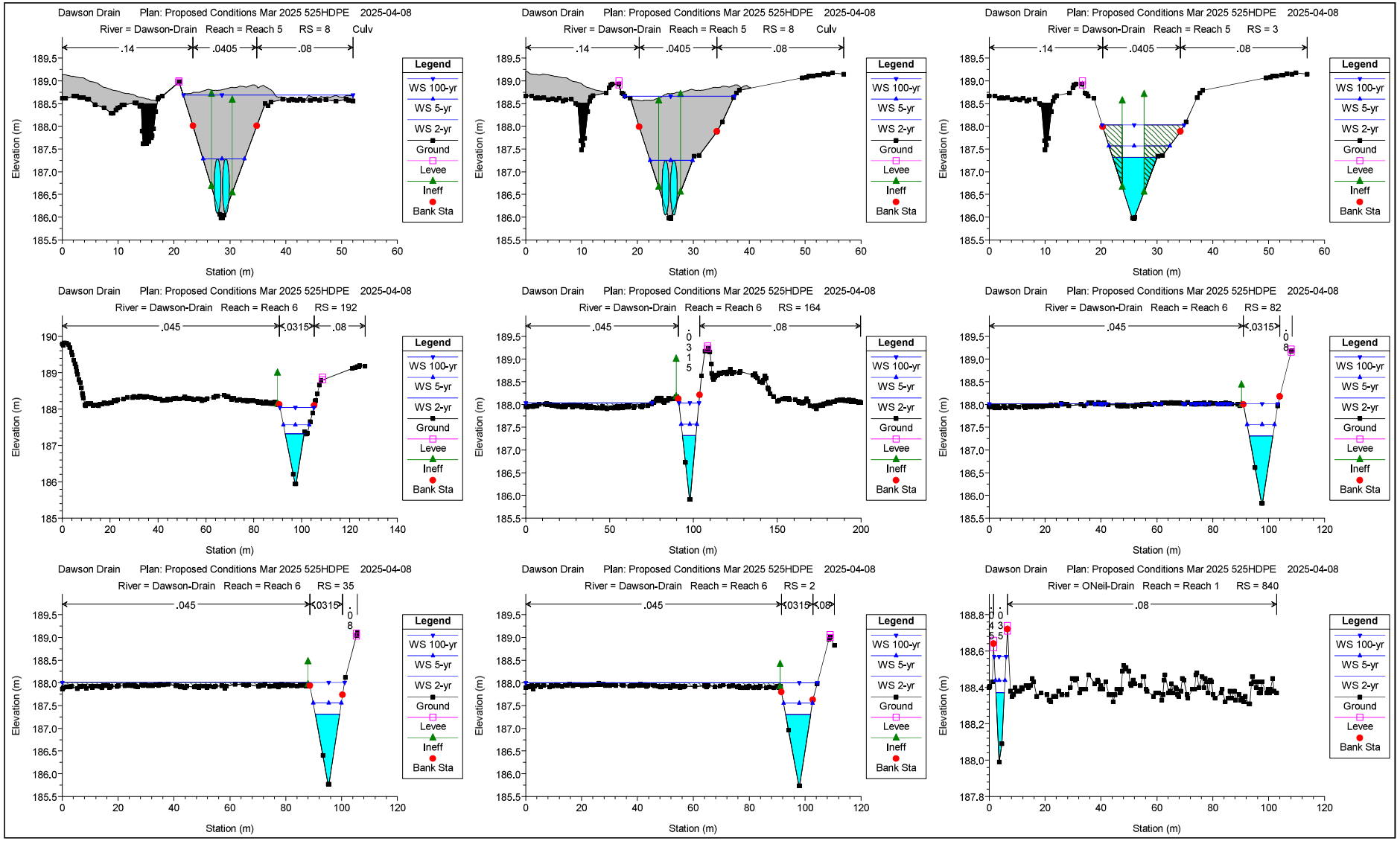

Dawson Drain Plan: Proposed Conditions Mar 2025 525HDPE 2025-04-08
River = Dawson-Drain Reach = Reach 5 RS = 613
.14
.0405
.08
Elevation (m)
Station (m)
Legend
WS 100-yr
WS 5-yr
WS 2-yr
Ground
Levee
Ineff
Bank Sta
Dawson Drain Plan: Proposed Conditions Mar 2025 525HDPE 2025-04-08
River = Dawson-Drain Reach = Reach 5 RS = 605 Culv
.14
.0405
.08
Elevation (m)
Station (m)
Legend
WS 100-yr
WS 5-yr
WS 2-yr
Ground
Levee
Ineff
Bank Sta
Dawson Drain Plan: Proposed Conditions Mar 2025 525HDPE 2025-04-08
River = Dawson-Drain Reach = Reach 5 RS = 605 Culv
.14
.0405
.08
Elevation (m)
Station (m)
Legend
WS 100-yr
WS 5-yr
WS 2-yr
Ground
Levee
Ineff
Bank Sta
Dawson Drain Plan: Proposed Conditions Mar 2025 525HDPE 2025-04-08
River = Dawson-Drain Reach = Reach 5 RS = 593
.14
.0405
.08
Elevation (m)
Station (m)
Legend
WS 100-yr
WS 5-yr
WS 2-yr
Ground
Levee
Ineff
Bank Sta
Dawson Drain Plan: Proposed Conditions Mar 2025 525HDPE 2025-04-08
River = Dawson-Drain Reach = Reach 5 RS = 584
.14
.0405
.08
Elevation (m)
Station (m)
Legend
WS 100-yr
WS 5-yr
WS 2-yr
Ground
Levee
Bank Sta
Dawson Drain Plan: Proposed Conditions Mar 2025 525HDPE 2025-04-08
River = Dawson-Drain Reach = Reach 5 RS = 551
.14
.0405
.08
Elevation (m)
Station (m)
Legend
WS 100-yr
WS 5-yr
WS 2-yr
Ground
Levee
Bank Sta
Dawson Drain Plan: Proposed Conditions Mar 2025 525HDPE 2025-04-08
River = Dawson-Drain Reach = Reach 5 RS = 517
.14
.0405
.08
Elevation (m)
Station (m)
Legend
WS 100-yr
WS 5-yr
WS 2-yr
Ground
Levee
Bank Sta
Dawson Drain Plan: Proposed Conditions Mar 2025 525HDPE 2025-04-08
River = Dawson-Drain Reach = Reach 5 RS = 492
.14
.0405
.08
Elevation (m)
Station (m)
Legend
WS 100-yr
WS 5-yr
WS 2-yr
Ground
Levee
Bank Sta
Dawson Drain Plan: Proposed Conditions Mar 2025 525HDPE 2025-04-08
River = Dawson-Drain Reach = Reach 5 RS = 490
.14
.0405
.08
Elevation (m)
Station (m)
Legend
WS 100-yr
WS 5-yr
WS 2-yr
Ground
Levee
Bank Sta

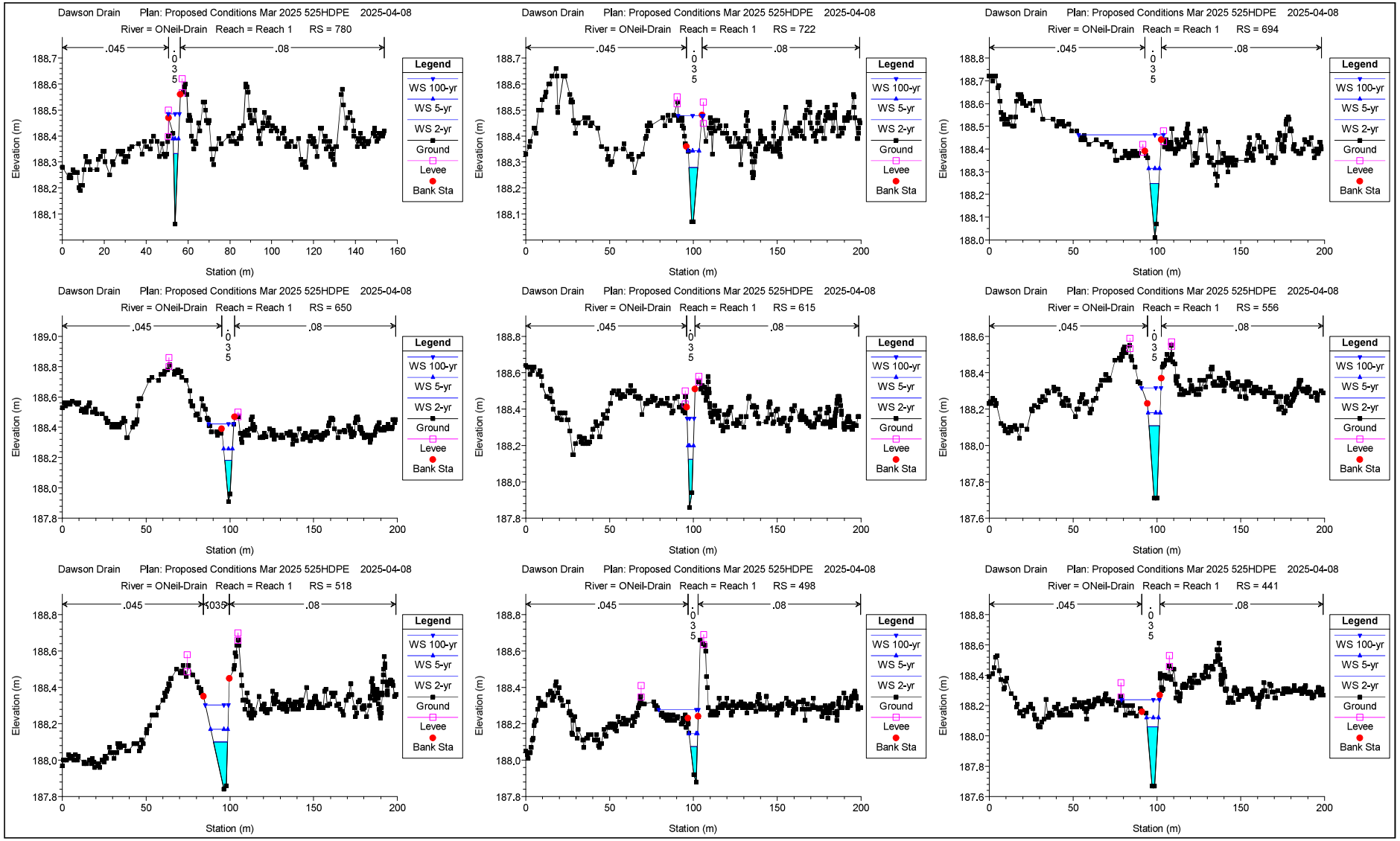

Dawson Drain Plan: Proposed Conditions Mar 2025 525HDPE 2025-04-08
River = Dawson-Drain Reach = Reach 5 RS = 427
River = Dawson-Drain Reach = Reach 5 RS = 380
River = Dawson-Drain Reach = Reach 5 RS = 358
River = Dawson-Drain Reach = Reach 5 RS = 356
River = Dawson-Drain Reach = Reach 5 RS = 330
River = Dawson-Drain Reach = Reach 5 RS = 304
River = Dawson-Drain Reach = Reach 5 RS = 301
River = Dawson-Drain Reach = Reach 5 RS = 288
River = Dawson-Drain Reach = Reach 5 RS = 287
.14
.0405
.08
Legend
WS 100-yr
WS 5-yr
WS 2-yr
Ground
Levee
Bank Sta
Elevation (m)
Station (m)

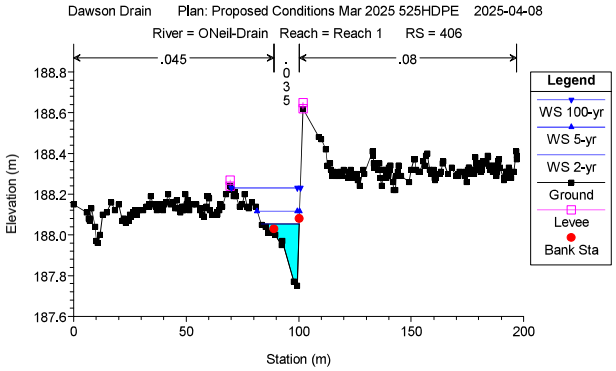

Dawson Drain Plan: Proposed Conditions Mar 2025 525HDPE 2025-04-08
River = Dawson-Drain Reach = Reach 5 RS = 281
.14
.0405
.08
Legend
WS 100-yr
WS 5-yr
WS 2-yr
Ground
Levee
Bank Sta
Elevation (m)
Station (m)
Dawson Drain Plan: Proposed Conditions Mar 2025 525HDPE 2025-04-08
River = Dawson-Drain Reach = Reach 5 RS = 275
Dawson Drain Plan: Proposed Conditions Mar 2025 525HDPE 2025-04-08
River = Dawson-Drain Reach = Reach 5 RS = 260
Dawson Drain Plan: Proposed Conditions Mar 2025 525HDPE 2025-04-08
River = Dawson-Drain Reach = Reach 5 RS = 229
Dawson Drain Plan: Proposed Conditions Mar 2025 525HDPE 2025-04-08
River = Dawson-Drain Reach = Reach 5 RS = 224
Ineff
Dawson Drain Plan: Proposed Conditions Mar 2025 525HDPE 2025-04-08
River = Dawson-Drain Reach = Reach 5 RS = 219 Culv
Dawson Drain Plan: Proposed Conditions Mar 2025 525HDPE 2025-04-08
River = Dawson-Drain Reach = Reach 5 RS = 219 Culv
Dawson Drain Plan: Proposed Conditions Mar 2025 525HDPE 2025-04-08
River = Dawson-Drain Reach = Reach 5 RS = 215
Dawson Drain Plan: Proposed Conditions Mar 2025 525HDPE 2025-04-08
River = Dawson-Drain Reach = Reach 5 RS = 199

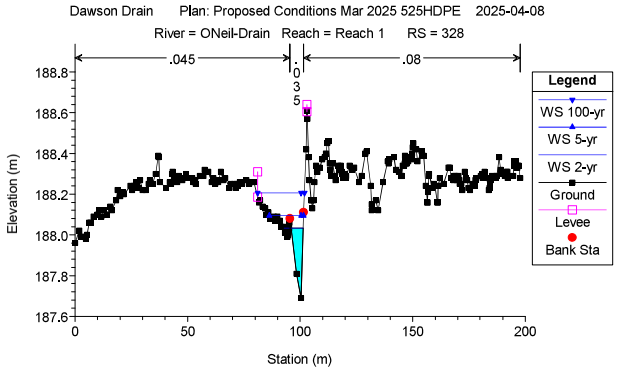

Dawson Drain Plan: Proposed Conditions Mar 2025 525HDPE 2025-04-08
River = Dawson-Drain Reach = Reach 5 RS = 195
River = Dawson-Drain Reach = Reach 5 RS = 193
River = Dawson-Drain Reach = Reach 5 RS = 179
River = Dawson-Drain Reach = Reach 5 RS = 155
River = Dawson-Drain Reach = Reach 5 RS = 124
River = Dawson-Drain Reach = Reach 5 RS = 107
River = Dawson-Drain Reach = Reach 5 RS = 106
River = Dawson-Drain Reach = Reach 5 RS = 100
River = Dawson-Drain Reach = Reach 5 RS = 99
.14
.0405
.08
Legend
WS 100-yr
WS 5-yr
WS 2-yr
Ground
Levee
Bank Sta
Elevation (m)
Station (m)

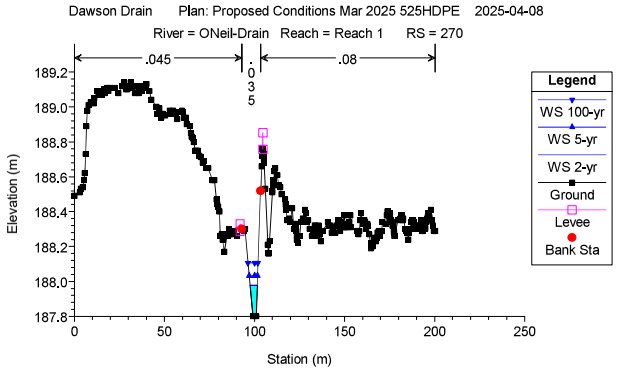

Dawson Drain Plan: Proposed Conditions Mar 2025 525HDPE 2025-04-08
River = Dawson-Drain Reach = Reach 5 RS = 90
River = Dawson-Drain Reach = Reach 5 RS = 87
River = Dawson-Drain Reach = Reach 5 RS = 70
River = Dawson-Drain Reach = Reach 5 RS = 68
River = Dawson-Drain Reach = Reach 5 RS = 46
River = Dawson-Drain Reach = Reach 5 RS = 45
River = Dawson-Drain Reach = Reach 5 RS = 30
River = Dawson-Drain Reach = Reach 5 RS = 28
River = Dawson-Drain Reach = Reach 5 RS = 13
.14
.0405
.08
Elevation (m)
Station (m)
Legend
WS 100-yr
WS 5-yr
WS 2-yr
Ground
Levee
Ineff
Bank Sta

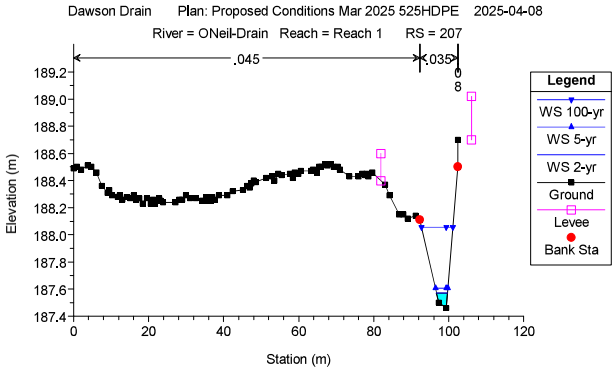

Dawson Drain Plan: Proposed Conditions Mar 2025 525HDPE 2025-04-08
River = Dawson-Drain Reach = Reach 5 RS = 8 Culv
.14
.0405
.08
Legend
WS 100-yr
WS 5-yr
WS 2-yr
Ground
Levee
Ineff
Bank Sta
Elevation (m)
Station (m)
Dawson Drain Plan: Proposed Conditions Mar 2025 525HDPE 2025-04-08
River = Dawson-Drain Reach = Reach 5 RS = 8 Culv
.14
.0405
.08
Legend
WS 100-yr
WS 5-yr
WS 2-yr
Ground
Levee
Ineff
Bank Sta
Elevation (m)
Station (m)
Dawson Drain Plan: Proposed Conditions Mar 2025 525HDPE 2025-04-08
River = Dawson-Drain Reach = Reach 5 RS = 3
.14
.0405
.08
Legend
WS 100-yr
WS 5-yr
WS 2-yr
Ground
Levee
Ineff
Bank Sta
Elevation (m)
Station (m)
Dawson Drain Plan: Proposed Conditions Mar 2025 525HDPE 2025-04-08
River = Dawson-Drain Reach = Reach 6 RS = 192
.045
.0315
.08
Legend
WS 100-yr
WS 5-yr
WS 2-yr
Ground
Levee
Ineff
Bank Sta
Elevation (m)
Station (m)
Dawson Drain Plan: Proposed Conditions Mar 2025 525HDPE 2025-04-08
River = Dawson-Drain Reach = Reach 6 RS = 164
.045
.08
Legend
WS 100-yr
WS 5-yr
WS 2-yr
Ground
Levee
Ineff
Bank Sta
Elevation (m)
Station (m)
Dawson Drain Plan: Proposed Conditions Mar 2025 525HDPE 2025-04-08
River = Dawson-Drain Reach = Reach 6 RS = 82
.045
.0315
Legend
WS 100-yr
WS 5-yr
WS 2-yr
Ground
Levee
Ineff
Bank Sta
Elevation (m)
Station (m)
Dawson Drain Plan: Proposed Conditions Mar 2025 525HDPE 2025-04-08
River = Dawson-Drain Reach = Reach 6 RS = 35
.045
.0315
Legend
WS 100-yr
WS 5-yr
WS 2-yr
Ground
Levee
Ineff
Bank Sta
Elevation (m)
Station (m)
Dawson Drain Plan: Proposed Conditions Mar 2025 525HDPE 2025-04-08
River = Dawson-Drain Reach = Reach 6 RS = 2
.045
.0315
.08
Legend
WS 100-yr
WS 5-yr
WS 2-yr
Ground
Levee
Ineff
Bank Sta
Elevation (m)
Station (m)
Dawson Drain Plan: Proposed Conditions Mar 2025 525HDPE 2025-04-08
River = ONeil-Drain Reach = Reach 1 RS = 840
.08
Legend
WS 100-yr
WS 5-yr
WS 2-yr
Ground
Levee
Bank Sta
Elevation (m)
Station (m)


Dawson Drain Plan: Proposed Conditions Mar 2025 525HDPE 2025-04-08
River = ONeil-Drain Reach = Reach 1 RS = 780
River = ONeil-Drain Reach = Reach 1 RS = 722
River = ONeil-Drain Reach = Reach 1 RS = 694
River = ONeil-Drain Reach = Reach 1 RS = 650
River = ONeil-Drain Reach = Reach 1 RS = 615
River = ONeil-Drain Reach = Reach 1 RS = 556
River = ONeil-Drain Reach = Reach 1 RS = 518
River = ONeil-Drain Reach = Reach 1 RS = 498
River = ONeil-Drain Reach = Reach 1 RS = 441
.045
.035
.08
Legend
WS 100-yr
WS 5-yr
WS 2-yr
Ground
Levee
Bank Sta
Elevation (m)
Station (m)


Dawson Drain Plan: Proposed Conditions Mar 2025 525HDPE 2025-04-08
River = ONeil-Drain Reach = Reach 1 RS = 406
.045
.035
.08
Legend
WS 100-yr
WS 5-yr
WS 2-yr
Ground
Levee
Bank Sta
Elevation (m)
Station (m)


Dawson Drain Plan: Proposed Conditions Mar 2025 525HDPE 2025-04-08
River = ONeil-Drain Reach = Reach 1 RS = 328
.045
.035
.08
Legend
WS 100-yr
WS 5-yr
WS 2-yr
Ground
Levee
Bank Sta
Elevation (m)
Station (m)


Dawson Drain Plan: Proposed Conditions Mar 2025 525HDPE 2025-04-08
River = ONeil-Drain Reach = Reach 1 RS = 270
.045
.035
.08
Legend
WS 100-yr
WS 5-yr
WS 2-yr
Ground
Levee
Bank Sta
Elevation (m)
Station (m)


Dawson Drain Plan: Proposed Conditions Mar 2025 525HDPE 2025-04-08
River = ONeil-Drain Reach = Reach 1 RS = 207
.045
.035
.08
Legend
WS 100-yr
WS 5-yr
WS 2-yr
Ground
Levee
Bank Sta
Elevation (m)
Station (m)

HEC-RAS Plan: 525HDPE

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Dawson-Drain	Reach 6	2	2-yr	1.39	185.74	187.31	186.24	187.31	0.000052	0.19	7.25	8.95	0.07
Dawson-Drain	Reach 6	2	5-yr	2.09	185.74	187.56	186.34	187.56	0.000055	0.22	9.68	10.35	0.07
Dawson-Drain	Reach 6	2	10-yr	3.07	185.74	187.76	186.44	187.76	0.000066	0.26	11.92	11.71	0.08
Dawson-Drain	Reach 6	2	25-yr	4.55	185.74	188.00	186.57	188.01	0.000074	0.31	14.93	104.41	0.09
Dawson-Drain	Reach 6	2	50-yr	5.66	185.74	188.00	186.65	188.01	0.000114	0.39	14.94	104.41	0.11
Dawson-Drain	Reach 6	2	100-yr	6.79	185.74	188.00	186.73	188.01	0.000163	0.46	14.96	104.41	0.13
Dawson-Drain	Reach 6	2	Hazel	4.14	185.74	188.00	186.54	188.01	0.000061	0.28	14.97	104.42	0.08
Dawson-Drain	Reach 6	35	2-yr	1.39	185.77	187.31	186.27	187.31	0.000058	0.20	6.95	8.75	0.07
Dawson-Drain	Reach 6	35	5-yr	2.09	185.77	187.56	186.37	187.56	0.000061	0.22	9.31	10.13	0.07
Dawson-Drain	Reach 6	35	10-yr	3.07	185.77	187.76	186.48	187.77	0.000074	0.27	11.50	11.25	0.08
Dawson-Drain	Reach 6	35	25-yr	4.55	185.77	188.00	186.61	188.01	0.000084	0.32	14.39	101.07	0.09
Dawson-Drain	Reach 6	35	50-yr	5.66	185.77	188.01	186.69	188.01	0.000129	0.40	14.42	101.08	0.11
Dawson-Drain	Reach 6	35	100-yr	6.79	185.77	188.01	186.76	188.02	0.000184	0.47	14.46	101.08	0.14
Dawson-Drain	Reach 6	35	Hazel	4.14	185.77	188.01	186.58	188.01	0.000069	0.29	14.43	101.08	0.08
Dawson-Drain	Reach 6	82	2-yr	1.39	185.82	187.31	186.33	187.31	0.000069	0.21	6.52	8.48	0.08
Dawson-Drain	Reach 6	82	5-yr	2.09	185.82	187.56	186.42	187.56	0.000070	0.24	8.82	9.86	0.08
Dawson-Drain	Reach 6	82	10-yr	3.07	185.82	187.77	186.53	187.77	0.000085	0.28	10.96	10.99	0.09
Dawson-Drain	Reach 6	82	25-yr	4.55	185.82	188.01	186.66	188.01	0.000102	0.33	13.77	67.70	0.10
Dawson-Drain	Reach 6	82	50-yr	5.66	185.82	188.01	186.74	188.02	0.000156	0.41	13.83	72.33	0.12
Dawson-Drain	Reach 6	82	100-yr	6.79	185.82	188.02	186.82	188.03	0.000221	0.49	13.90	78.35	0.15
Dawson-Drain	Reach 6	82	Hazel	4.14	185.82	188.01	186.63	188.01	0.000084	0.30	13.80	69.84	0.09
Dawson-Drain	Reach 6	164	2-yr	1.39	185.91	187.32	186.42	187.32	0.000093	0.24	5.83	8.01	0.09
Dawson-Drain	Reach 6	164	5-yr	2.09	185.91	187.57	186.51	187.57	0.000090	0.26	8.01	9.39	0.09
Dawson-Drain	Reach 6	164	10-yr	3.07	185.91	187.77	186.62	187.78	0.000106	0.30	10.07	10.53	0.10
Dawson-Drain	Reach 6	164	25-yr	4.55	185.91	188.02	186.75	188.02	0.000124	0.36	12.78	86.31	0.11
Dawson-Drain	Reach 6	164	50-yr	5.66	185.91	188.02	186.83	188.03	0.000187	0.44	12.89	87.09	0.13
Dawson-Drain	Reach 6	164	100-yr	6.79	185.91	188.04	186.90	188.05	0.000262	0.52	13.02	87.47	0.16
Dawson-Drain	Reach 6	164	Hazel	4.14	185.91	188.02	186.72	188.02	0.000102	0.32	12.79	86.34	0.10
Dawson-Drain	Reach 6	192	2-yr	1.39	185.94	187.32	186.45	187.32	0.000104	0.25	5.61	7.94	0.09
Dawson-Drain	Reach 6	192	5-yr	2.09	185.94	187.57	186.54	187.57	0.000105	0.26	8.08	10.80	0.10
Dawson-Drain	Reach 6	192	10-yr	3.07	185.94	187.78	186.65	187.78	0.000113	0.29	10.46	12.25	0.10
Dawson-Drain	Reach 6	192	25-yr	4.55	185.94	188.02	186.78	188.03	0.000121	0.33	13.65	13.94	0.11
Dawson-Drain	Reach 6	192	50-yr	5.66	185.94	188.03	186.86	188.04	0.000182	0.41	13.80	14.01	0.13
Dawson-Drain	Reach 6	192	100-yr	6.79	185.94	188.04	186.94	188.06	0.000252	0.49	13.99	14.10	0.16
Dawson-Drain	Reach 6	192	Hazel	4.14	185.94	188.02	186.75	188.02	0.000101	0.30	13.64	13.93	0.10
Dawson-Drain	Reach 5	3	2-yr	1.36	185.97	187.32	186.46	187.32	0.000179	0.33	4.12	8.01	0.10
Dawson-Drain	Reach 5	3	5-yr	2.04	185.97	187.57	186.55	187.58	0.000197	0.40	5.10	10.90	0.11
Dawson-Drain	Reach 5	3	10-yr	3.00	185.97	187.77	186.65	187.79	0.000263	0.51	5.90	12.67	0.13
Dawson-Drain	Reach 5	3	25-yr	4.46	185.97	188.01	186.77	188.04	0.000357	0.65	6.83	14.56	0.16
Dawson-Drain	Reach 5	3	50-yr	5.55	185.97	188.02	186.85	188.06	0.000544	0.81	6.86	14.62	0.19
Dawson-Drain	Reach 5	3	100-yr	6.66	185.97	188.03	186.93	188.08	0.000767	0.96	6.90	14.69	0.23
Dawson-Drain	Reach 5	3	Hazel	2.32	185.97	188.02	186.59	188.03	0.000096	0.34	6.85	14.61	0.08
Dawson-Drain	Reach 5	8		Culvert									
Dawson-Drain	Reach 5	13	2-yr	1.36	185.98	187.34	186.48	187.35	0.000190	0.34	3.97	7.79	0.11
Dawson-Drain	Reach 5	13	5-yr	2.04	185.98	187.63	186.58	187.64	0.000194	0.41	5.02	9.36	0.11
Dawson-Drain	Reach 5	13	10-yr	3.00	185.98	187.91	186.68	187.92	0.000225	0.49	6.06	10.91	0.12
Dawson-Drain	Reach 5	13	25-yr	4.46	185.98	188.32	186.80	188.34	0.000235	0.59	7.59	13.19	0.13
Dawson-Drain	Reach 5	13	50-yr	5.55	185.98	188.51	186.88	188.53	0.000274	0.67	8.27	15.06	0.14
Dawson-Drain	Reach 5	13	100-yr	6.66	185.98	188.68	186.96	188.69	0.000143	0.43	17.67	30.39	0.10
Dawson-Drain	Reach 5	13	Hazel	2.32	185.98	188.10	186.61	188.11	0.000093	0.34	6.78	11.97	0.08
Dawson-Drain	Reach 5	28	2-yr	1.36	186.00	187.35	186.50	187.35	0.000182	0.25	5.38	7.66	0.10
Dawson-Drain	Reach 5	28	5-yr	2.04	186.00	187.64	186.60	187.64	0.000151	0.26	7.81	9.23	0.09
Dawson-Drain	Reach 5	28	10-yr	3.00	186.00	187.92	186.70	187.93	0.000143	0.28	10.66	10.78	0.09
Dawson-Drain	Reach 5	28	25-yr	4.46	186.00	188.34	186.83	188.34	0.000099	0.29	15.68	13.20	0.08
Dawson-Drain	Reach 5	28	50-yr	5.55	186.00	188.53	186.91	188.53	0.000099	0.32	18.29	15.51	0.08
Dawson-Drain	Reach 5	28	100-yr	6.66	186.00	188.69	186.98	188.69	0.000101	0.34	21.04	19.42	0.08
Dawson-Drain	Reach 5	28	Hazel	2.32	186.00	188.11	186.63	188.11	0.000050	0.18	12.77	11.84	0.05
Dawson-Drain	Reach 5	30	2-yr	1.36	186.00	187.35	186.50	187.35	0.000186	0.25	5.35	7.67	0.10
Dawson-Drain	Reach 5	30	5-yr	2.04	186.00	187.64	186.60	187.64	0.000154	0.26	7.78	9.26	0.09
Dawson-Drain	Reach 5	30	10-yr	3.00	186.00	187.92	186.71	187.93	0.000145	0.28	10.64	10.84	0.09
Dawson-Drain	Reach 5	30	25-yr	4.46	186.00	188.34	186.84	188.35	0.000100	0.29	15.68	13.20	0.08
Dawson-Drain	Reach 5	30	50-yr	5.55	186.00	188.53	186.92	188.53	0.000100	0.32	18.28	14.76	0.08
Dawson-Drain	Reach 5	30	100-yr	6.66	186.00	188.69	186.99	188.69	0.000102	0.34	20.82	16.84	0.08
Dawson-Drain	Reach 5	30	Hazel	2.32	186.00	188.11	186.63	188.11	0.000051	0.18	12.77	11.88	0.05
Dawson-Drain	Reach 5	45	2-yr	1.36	186.02	187.35	186.52	187.36	0.000198	0.26	5.21	7.53	0.10
Dawson-Drain	Reach 5	45	5-yr	2.04	186.02	187.64	186.62	187.64	0.000162	0.27	7.60	9.09	0.09
Dawson-Drain	Reach 5	45	10-yr	3.00	186.02	187.92	186.73	187.93	0.000152	0.29	10.41	10.64	0.09
Dawson-Drain	Reach 5	45	25-yr	4.46	186.02	188.34	186.85	188.35	0.000105	0.30	15.36	13.40	0.08
Dawson-Drain	Reach 5	45	50-yr	5.55	186.02	188.53	186.94	188.53	0.000104	0.32	18.11	16.08	0.08
Dawson-Drain	Reach 5	45	100-yr	6.66	186.02	188.69	187.01	188.70	0.000106	0.35	21.27	26.38	0.09
Dawson-Drain	Reach 5	45	Hazel	2.32	186.02	188.11	186.65	188.11	0.000053	0.19	12.48	11.70	0.06

HEC-RAS Plan: 525HDPE (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Dawson-Drain	Reach 5	46	2-yr	1.36	186.02	187.35	186.52	187.36	0.000197	0.26	5.23	7.56	0.10
Dawson-Drain	Reach 5	46	5-yr	2.04	186.02	187.64	186.62	187.64	0.000161	0.27	7.61	9.07	0.09
Dawson-Drain	Reach 5	46	10-yr	3.00	186.02	187.92	186.73	187.93	0.000151	0.29	10.40	10.56	0.09
Dawson-Drain	Reach 5	46	25-yr	4.46	186.02	188.34	186.86	188.35	0.000104	0.30	15.38	14.80	0.08
Dawson-Drain	Reach 5	46	50-yr	5.55	186.02	188.53	186.94	188.53	0.000104	0.32	18.37	16.81	0.08
Dawson-Drain	Reach 5	46	100-yr	6.66	186.02	188.69	187.01	188.70	0.000105	0.35	21.52	25.67	0.08
Dawson-Drain	Reach 5	46	Hazel	2.32	186.02	188.11	186.65	188.11	0.000053	0.19	12.46	11.61	0.06
Dawson-Drain	Reach 5	68	2-yr	1.36	186.05	187.36	186.54	187.36	0.000202	0.26	5.21	7.67	0.10
Dawson-Drain	Reach 5	68	5-yr	2.04	186.05	187.64	186.64	187.65	0.000163	0.27	7.64	9.28	0.09
Dawson-Drain	Reach 5	68	10-yr	3.00	186.05	187.93	186.74	187.93	0.000151	0.29	10.50	10.88	0.09
Dawson-Drain	Reach 5	68	25-yr	4.46	186.05	188.34	186.87	188.35	0.000102	0.29	15.65	16.08	0.08
Dawson-Drain	Reach 5	68	50-yr	5.55	186.05	188.53	186.95	188.54	0.000101	0.32	19.20	22.61	0.08
Dawson-Drain	Reach 5	68	100-yr	6.66	186.05	188.69	187.02	188.70	0.000100	0.34	23.22	27.81	0.08
Dawson-Drain	Reach 5	68	Hazel	2.32	186.05	188.11	186.67	188.11	0.000053	0.18	12.59	11.85	0.06
Dawson-Drain	Reach 5	70	2-yr	1.36	186.05	187.36	186.55	187.36	0.000214	0.27	5.08	7.49	0.10
Dawson-Drain	Reach 5	70	5-yr	2.04	186.05	187.64	186.64	187.65	0.000173	0.27	7.46	9.12	0.10
Dawson-Drain	Reach 5	70	10-yr	3.00	186.05	187.93	186.75	187.93	0.000160	0.29	10.28	10.75	0.10
Dawson-Drain	Reach 5	70	25-yr	4.46	186.05	188.34	186.88	188.35	0.000107	0.30	15.42	16.15	0.08
Dawson-Drain	Reach 5	70	50-yr	5.55	186.05	188.53	186.96	188.54	0.000105	0.32	19.09	22.60	0.08
Dawson-Drain	Reach 5	70	100-yr	6.66	186.05	188.69	187.04	188.70	0.000104	0.34	23.14	27.94	0.08
Dawson-Drain	Reach 5	70	Hazel	2.32	186.05	188.11	186.68	188.11	0.000056	0.19	12.34	11.75	0.06
Dawson-Drain	Reach 5	87	2-yr	1.36	186.07	187.36	186.57	187.36	0.000229	0.28	4.94	7.36	0.11
Dawson-Drain	Reach 5	87	5-yr	2.04	186.07	187.65	186.67	187.65	0.000184	0.28	7.26	8.92	0.10
Dawson-Drain	Reach 5	87	10-yr	3.00	186.07	187.93	186.77	187.93	0.000169	0.30	10.02	10.47	0.10
Dawson-Drain	Reach 5	87	25-yr	4.46	186.07	188.35	186.90	188.35	0.000111	0.30	15.99	19.62	0.08
Dawson-Drain	Reach 5	87	50-yr	5.55	186.07	188.53	186.98	188.54	0.000107	0.32	20.01	24.47	0.08
Dawson-Drain	Reach 5	87	100-yr	6.66	186.07	188.70	187.06	188.70	0.000105	0.34	24.60	29.75	0.08
Dawson-Drain	Reach 5	87	Hazel	2.32	186.07	188.11	186.70	188.11	0.000059	0.19	12.06	13.14	0.06
Dawson-Drain	Reach 5	90	2-yr	1.36	186.07	187.36	186.57	187.37	0.000224	0.27	5.00	7.45	0.11
Dawson-Drain	Reach 5	90	5-yr	2.04	186.07	187.65	186.66	187.65	0.000179	0.28	7.35	9.03	0.10
Dawson-Drain	Reach 5	90	10-yr	3.00	186.07	187.93	186.77	187.94	0.000165	0.30	10.14	10.61	0.10
Dawson-Drain	Reach 5	90	25-yr	4.46	186.07	188.35	186.90	188.35	0.000110	0.30	15.79	20.24	0.08
Dawson-Drain	Reach 5	90	50-yr	5.55	186.07	188.53	186.98	188.54	0.000106	0.32	19.94	25.67	0.08
Dawson-Drain	Reach 5	90	100-yr	6.66	186.07	188.70	187.05	188.70	0.000103	0.34	24.42	29.35	0.08
Dawson-Drain	Reach 5	90	Hazel	2.32	186.07	188.11	186.70	188.11	0.000057	0.19	12.15	11.58	0.06
Dawson-Drain	Reach 5	99	2-yr	1.36	186.09	187.36	186.58	187.37	0.000239	0.28	4.86	7.30	0.11
Dawson-Drain	Reach 5	99	5-yr	2.04	186.09	187.65	186.68	187.65	0.000191	0.28	7.16	8.86	0.10
Dawson-Drain	Reach 5	99	10-yr	3.00	186.09	187.93	186.79	187.94	0.000175	0.30	9.90	10.42	0.10
Dawson-Drain	Reach 5	99	25-yr	4.46	186.09	188.35	186.91	188.35	0.000117	0.31	15.23	18.55	0.09
Dawson-Drain	Reach 5	99	50-yr	5.55	186.09	188.53	187.00	188.54	0.000112	0.33	19.08	22.80	0.09
Dawson-Drain	Reach 5	99	100-yr	6.66	186.09	188.70	187.07	188.70	0.000111	0.35	23.11	27.71	0.09
Dawson-Drain	Reach 5	99	Hazel	2.32	186.09	188.11	186.71	188.11	0.000062	0.20	11.87	11.41	0.06
Dawson-Drain	Reach 5	100	2-yr	1.36	186.09	187.36	186.59	187.37	0.000239	0.28	4.86	7.29	0.11
Dawson-Drain	Reach 5	100	5-yr	2.04	186.09	187.65	186.68	187.65	0.000190	0.28	7.16	8.84	0.10
Dawson-Drain	Reach 5	100	10-yr	3.00	186.09	187.93	186.79	187.94	0.000175	0.30	9.89	10.38	0.10
Dawson-Drain	Reach 5	100	25-yr	4.46	186.09	188.35	186.92	188.35	0.000120	0.31	15.28	18.21	0.09
Dawson-Drain	Reach 5	100	50-yr	5.55	186.09	188.53	187.00	188.54	0.000115	0.33	19.05	23.14	0.09
Dawson-Drain	Reach 5	100	100-yr	6.66	186.09	188.70	187.07	188.70	0.000112	0.35	23.17	27.55	0.09
Dawson-Drain	Reach 5	100	Hazel	2.32	186.09	188.11	186.72	188.11	0.000063	0.20	11.85	11.75	0.06
Dawson-Drain	Reach 5	106	2-yr	1.36	186.09	187.37	186.59	187.37	0.000241	0.28	4.86	7.34	0.11
Dawson-Drain	Reach 5	106	5-yr	2.04	186.09	187.65	186.68	187.65	0.000191	0.28	7.17	8.92	0.10
Dawson-Drain	Reach 5	106	10-yr	3.00	186.09	187.93	186.79	187.94	0.000174	0.30	9.93	10.49	0.10
Dawson-Drain	Reach 5	106	25-yr	4.46	186.09	188.35	186.92	188.35	0.000123	0.31	14.80	14.89	0.09
Dawson-Drain	Reach 5	106	50-yr	5.55	186.09	188.54	187.00	188.54	0.000118	0.33	18.29	22.74	0.09
Dawson-Drain	Reach 5	106	100-yr	6.66	186.09	188.70	187.08	188.70	0.000115	0.35	22.29	26.81	0.09
Dawson-Drain	Reach 5	106	Hazel	2.32	186.09	188.11	186.72	188.11	0.000063	0.20	11.90	11.47	0.06
Dawson-Drain	Reach 5	107	2-yr	1.36	186.10	187.37	186.59	187.37	0.000244	0.28	4.82	7.26	0.11
Dawson-Drain	Reach 5	107	5-yr	2.04	186.10	187.65	186.69	187.65	0.000194	0.29	7.10	8.77	0.10
Dawson-Drain	Reach 5	107	10-yr	3.00	186.10	187.93	186.80	187.94	0.000177	0.31	9.81	10.29	0.10
Dawson-Drain	Reach 5	107	25-yr	4.46	186.10	188.35	186.93	188.35	0.000129	0.31	14.58	13.14	0.09
Dawson-Drain	Reach 5	107	50-yr	5.55	186.10	188.54	187.01	188.54	0.000123	0.33	17.55	20.15	0.09
Dawson-Drain	Reach 5	107	100-yr	6.66	186.10	188.70	187.07	188.70	0.000121	0.35	21.18	25.10	0.09
Dawson-Drain	Reach 5	107	Hazel	2.32	186.10	188.11	186.72	188.11	0.000064	0.20	11.74	11.28	0.06
Dawson-Drain	Reach 5	124	2-yr	1.36	186.12	187.37	186.61	187.37	0.000263	0.29	4.69	7.19	0.11
Dawson-Drain	Reach 5	124	5-yr	2.04	186.12	187.65	186.71	187.66	0.000210	0.29	6.98	8.95	0.11
Dawson-Drain	Reach 5	124	10-yr	3.00	186.12	187.94	186.82	187.94	0.000187	0.31	9.75	10.59	0.10
Dawson-Drain	Reach 5	124	25-yr	4.46	186.12	188.35	186.95	188.36	0.000129	0.31	15.19	18.06	0.09
Dawson-Drain	Reach 5	124	50-yr	5.55	186.12	188.54	187.03	188.54	0.000121	0.32	18.98	23.32	0.09
Dawson-Drain	Reach 5	124	100-yr	6.66	186.12	188.70	187.10	188.71	0.000115	0.34	22.94	24.89	0.09
Dawson-Drain	Reach 5	124	Hazel	2.32	186.12	188.11	186.75	188.12	0.000068	0.20	11.72	11.60	0.06
Dawson-Drain	Reach 5	155	2-yr	1.36	186.15	187.38	186.65	187.38	0.000292	0.30	4.51	7.02	0.12
Dawson-Drain	Reach 5	155	5-yr	2.04	186.15	187.66	186.74	187.66	0.000227	0.30	6.70	8.56	0.11

HEC-RAS Plan: 525HDPE (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Dawson-Drain	Reach 5	155	10-yr	3.00	186.15	187.94	186.85	187.95	0.000204	0.32	9.34	10.10	0.11
Dawson-Drain	Reach 5	155	25-yr	4.46	186.15	188.36	186.98	188.36	0.000139	0.32	14.26	17.80	0.09
Dawson-Drain	Reach 5	155	50-yr	5.55	186.15	188.54	187.06	188.55	0.000131	0.34	17.73	19.30	0.09
Dawson-Drain	Reach 5	155	100-yr	6.66	186.15	188.70	187.13	188.71	0.000128	0.37	21.03	21.87	0.09
Dawson-Drain	Reach 5	155	Hazel	2.32	186.15	188.12	186.78	188.12	0.000074	0.21	11.18	11.07	0.07
Dawson-Drain	Reach 5	179	2-yr	1.36	186.18	187.39	186.68	187.39	0.000318	0.31	4.38	6.96	0.13
Dawson-Drain	Reach 5	179	5-yr	2.04	186.18	187.67	186.77	187.67	0.000244	0.31	6.54	8.50	0.11
Dawson-Drain	Reach 5	179	10-yr	3.00	186.18	187.95	186.88	187.95	0.000216	0.33	9.16	10.06	0.11
Dawson-Drain	Reach 5	179	25-yr	4.46	186.18	188.36	187.01	188.36	0.000148	0.33	13.98	15.74	0.10
Dawson-Drain	Reach 5	179	50-yr	5.55	186.18	188.54	187.09	188.55	0.000139	0.35	17.17	18.79	0.09
Dawson-Drain	Reach 5	179	100-yr	6.66	186.18	188.71	187.16	188.71	0.000135	0.37	20.36	20.16	0.09
Dawson-Drain	Reach 5	179	Hazel	2.32	186.18	188.12	186.81	188.12	0.000078	0.21	10.95	10.99	0.07
Dawson-Drain	Reach 5	193	2-yr	1.36	186.20	187.39	186.69	187.40	0.000341	0.32	4.26	6.86	0.13
Dawson-Drain	Reach 5	193	5-yr	2.04	186.20	187.67	186.79	187.67	0.000259	0.32	6.39	8.39	0.12
Dawson-Drain	Reach 5	193	10-yr	3.00	186.20	187.95	186.90	187.96	0.000227	0.33	8.97	9.93	0.11
Dawson-Drain	Reach 5	193	25-yr	4.46	186.20	188.36	187.03	188.37	0.000159	0.33	13.51	12.20	0.10
Dawson-Drain	Reach 5	193	50-yr	5.55	186.20	188.55	187.11	188.55	0.000151	0.36	16.34	16.73	0.10
Dawson-Drain	Reach 5	193	100-yr	6.66	186.20	188.71	187.18	188.72	0.000146	0.38	19.44	21.11	0.10
Dawson-Drain	Reach 5	193	Hazel	2.32	186.20	188.12	186.83	188.12	0.000082	0.22	10.72	10.86	0.07
Dawson-Drain	Reach 5	195	2-yr	1.36	186.20	187.39	186.70	187.40	0.000344	0.32	4.25	6.85	0.13
Dawson-Drain	Reach 5	195	5-yr	2.04	186.20	187.67	186.79	187.67	0.000262	0.32	6.38	8.43	0.12
Dawson-Drain	Reach 5	195	10-yr	3.00	186.20	187.95	186.90	187.96	0.000230	0.33	8.98	10.07	0.11
Dawson-Drain	Reach 5	195	25-yr	4.46	186.20	188.36	187.03	188.37	0.000159	0.33	13.57	12.29	0.10
Dawson-Drain	Reach 5	195	50-yr	5.55	186.20	188.55	187.11	188.55	0.000151	0.35	16.41	19.80	0.10
Dawson-Drain	Reach 5	195	100-yr	6.66	186.20	188.71	187.18	188.72	0.000144	0.37	19.75	21.21	0.10
Dawson-Drain	Reach 5	195	Hazel	2.32	186.20	188.12	186.83	188.12	0.000083	0.22	10.75	11.00	0.07
Dawson-Drain	Reach 5	199	2-yr	1.36	186.21	187.39	186.71	187.40	0.000358	0.32	4.19	6.79	0.13
Dawson-Drain	Reach 5	199	5-yr	2.04	186.21	187.67	186.80	187.68	0.000270	0.32	6.29	8.33	0.12
Dawson-Drain	Reach 5	199	10-yr	3.00	186.21	187.95	186.91	187.96	0.000237	0.34	8.86	9.93	0.11
Dawson-Drain	Reach 5	199	25-yr	4.46	186.21	188.36	187.04	188.37	0.000157	0.34	13.44	13.44	0.10
Dawson-Drain	Reach 5	199	50-yr	5.55	186.21	188.55	187.12	188.55	0.000148	0.36	16.50	18.42	0.10
Dawson-Drain	Reach 5	199	100-yr	6.66	186.21	188.71	187.20	188.72	0.000144	0.38	19.77	22.62	0.10
Dawson-Drain	Reach 5	199	Hazel	2.32	186.21	188.12	186.84	188.12	0.000088	0.22	10.60	10.86	0.07
Dawson-Drain	Reach 5	215	2-yr	1.36	186.22	187.40	186.74	187.40	0.000446	0.38	3.59	6.23	0.15
Dawson-Drain	Reach 5	215	5-yr	2.04	186.22	187.67	186.84	187.68	0.000325	0.40	5.15	8.94	0.13
Dawson-Drain	Reach 5	215	10-yr	3.00	186.22	187.95	186.95	187.96	0.000287	0.44	6.74	11.71	0.13
Dawson-Drain	Reach 5	215	25-yr	4.46	186.22	188.36	187.09	188.37	0.000237	0.49	9.06	14.01	0.12
Dawson-Drain	Reach 5	215	50-yr	5.55	186.22	188.55	187.17	188.56	0.000169	0.38	14.65	14.88	0.10
Dawson-Drain	Reach 5	215	100-yr	6.66	186.22	188.71	187.24	188.72	0.000167	0.41	16.93	23.44	0.11
Dawson-Drain	Reach 5	215	Hazel	2.32	186.22	188.12	186.88	188.12	0.000111	0.30	7.69	12.82	0.08
Dawson-Drain	Reach 5	219		Culvert									
Dawson-Drain	Reach 5	224	2-yr	1.36	186.22	187.42	186.75	187.43	0.000408	0.38	3.62	5.98	0.14
Dawson-Drain	Reach 5	224	5-yr	2.04	186.22	187.73	186.85	187.74	0.000298	0.39	5.28	7.91	0.13
Dawson-Drain	Reach 5	224	10-yr	3.00	186.22	188.09	186.96	188.10	0.000224	0.41	7.31	10.38	0.12
Dawson-Drain	Reach 5	224	25-yr	4.46	186.22	188.63	187.10	188.64	0.000104	0.30	16.10	18.55	0.08
Dawson-Drain	Reach 5	224	50-yr	5.55	186.22	188.77	187.18	188.78	0.000115	0.33	18.94	25.78	0.09
Dawson-Drain	Reach 5	224	100-yr	6.66	186.22	188.86	187.25	188.86	0.000135	0.38	21.34	29.01	0.09
Dawson-Drain	Reach 5	224	Hazel	2.32	186.22	188.20	186.88	188.21	0.000101	0.29	7.95	10.92	0.08
Dawson-Drain	Reach 5	229	2-yr	1.36	186.23	187.42	186.73	187.43	0.000349	0.32	4.22	6.82	0.13
Dawson-Drain	Reach 5	229	5-yr	2.04	186.23	187.74	186.83	187.74	0.000236	0.31	6.62	8.54	0.11
Dawson-Drain	Reach 5	229	10-yr	3.00	186.23	188.09	186.94	188.10	0.000166	0.30	10.08	10.95	0.10
Dawson-Drain	Reach 5	229	25-yr	4.46	186.23	188.64	187.06	188.64	0.000085	0.28	18.13	19.83	0.07
Dawson-Drain	Reach 5	229	50-yr	5.55	186.23	188.77	187.15	188.78	0.000095	0.31	21.05	27.00	0.08
Dawson-Drain	Reach 5	229	100-yr	6.66	186.23	188.86	187.22	188.86	0.000112	0.35	23.54	29.36	0.09
Dawson-Drain	Reach 5	229	Hazel	2.32	186.23	188.20	186.87	188.21	0.000072	0.21	11.32	11.57	0.06
Dawson-Drain	Reach 5	260	2-yr	1.36	186.25	187.43	186.75	187.44	0.000354	0.32	4.21	6.83	0.13
Dawson-Drain	Reach 5	260	5-yr	2.04	186.25	187.74	186.84	187.75	0.000241	0.30	6.80	9.33	0.11
Dawson-Drain	Reach 5	260	10-yr	3.00	186.25	188.10	186.95	188.10	0.000151	0.29	10.46	11.27	0.09
Dawson-Drain	Reach 5	260	25-yr	4.46	186.25	188.64	187.08	188.64	0.000081	0.27	17.93	19.98	0.07
Dawson-Drain	Reach 5	260	50-yr	5.55	186.25	188.77	187.16	188.78	0.000091	0.31	21.04	27.50	0.08
Dawson-Drain	Reach 5	260	100-yr	6.66	186.25	188.86	187.24	188.87	0.000106	0.34	23.41	27.58	0.09
Dawson-Drain	Reach 5	260	Hazel	2.32	186.25	188.21	186.88	188.21	0.000066	0.20	11.71	11.86	0.06
Dawson-Drain	Reach 5	275	2-yr	1.36	186.27	187.44	186.75	187.44	0.000317	0.31	4.43	7.19	0.13
Dawson-Drain	Reach 5	275	5-yr	2.04	186.27	187.75	186.84	187.75	0.000222	0.28	7.21	10.30	0.11
Dawson-Drain	Reach 5	275	10-yr	3.00	186.27	188.10	186.95	188.11	0.000135	0.27	11.24	12.42	0.09
Dawson-Drain	Reach 5	275	25-yr	4.46	186.27	188.64	187.07	188.64	0.000068	0.25	20.14	24.57	0.07
Dawson-Drain	Reach 5	275	50-yr	5.55	186.27	188.78	187.15	188.78	0.000072	0.27	26.16	35.78	0.07
Dawson-Drain	Reach 5	275	100-yr	6.66	186.27	188.86	187.22	188.87	0.000082	0.30	29.27	35.99	0.08
Dawson-Drain	Reach 5	275	Hazel	2.32	186.27	188.21	186.88	188.21	0.000059	0.19	12.59	13.05	0.06
Dawson-Drain	Reach 5	281	2-yr	1.36	186.28	187.44	186.78	187.45	0.000394	0.34	4.04	6.69	0.14
Dawson-Drain	Reach 5	281	5-yr	2.04	186.28	187.75	186.88	187.75	0.000263	0.32	6.36	8.40	0.12

HEC-RAS Plan: 525HDPE (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Dawson-Drain	Reach 5	281	10-yr	3.00	186.28	188.10	186.98	188.11	0.000175	0.31	9.68	10.36	0.10
Dawson-Drain	Reach 5	281	25-yr	4.46	186.28	188.64	187.11	188.64	0.000089	0.29	18.21	31.26	0.08
Dawson-Drain	Reach 5	281	50-yr	5.55	186.28	188.78	187.19	188.78	0.000096	0.32	22.82	34.56	0.08
Dawson-Drain	Reach 5	281	100-yr	6.66	186.28	188.86	187.26	188.87	0.000110	0.36	25.81	34.73	0.09
Dawson-Drain	Reach 5	281	Hazel	2.32	186.28	188.21	186.91	188.21	0.000078	0.22	10.81	10.94	0.07
Dawson-Drain	Reach 5	287	2-yr	1.36	186.29	187.44	186.79	187.45	0.000408	0.34	3.98	6.63	0.14
Dawson-Drain	Reach 5	287	5-yr	2.04	186.29	187.75	186.89	187.75	0.000272	0.32	6.28	8.32	0.12
Dawson-Drain	Reach 5	287	10-yr	3.00	186.29	188.10	186.99	188.11	0.000180	0.32	9.57	10.27	0.10
Dawson-Drain	Reach 5	287	25-yr	4.46	186.29	188.64	187.12	188.64	0.000092	0.30	16.86	27.82	0.08
Dawson-Drain	Reach 5	287	50-yr	5.55	186.29	188.78	187.20	188.78	0.000102	0.33	21.03	30.64	0.08
Dawson-Drain	Reach 5	287	100-yr	6.66	186.29	188.86	187.28	188.87	0.000118	0.37	23.68	30.76	0.09
Dawson-Drain	Reach 5	287	Hazel	2.32	186.29	188.21	186.92	188.21	0.000079	0.22	10.68	10.85	0.07
Dawson-Drain	Reach 5	288	2-yr	1.36	186.29	187.44	186.79	187.45	0.000410	0.34	3.98	6.63	0.14
Dawson-Drain	Reach 5	288	5-yr	2.04	186.29	187.75	186.89	187.75	0.000273	0.32	6.27	8.32	0.12
Dawson-Drain	Reach 5	288	10-yr	3.00	186.29	188.10	187.00	188.11	0.000181	0.32	9.56	10.26	0.10
Dawson-Drain	Reach 5	288	25-yr	4.46	186.29	188.64	187.13	188.64	0.000093	0.30	16.57	28.55	0.08
Dawson-Drain	Reach 5	288	50-yr	5.55	186.29	188.78	187.20	188.78	0.000102	0.33	20.67	30.04	0.08
Dawson-Drain	Reach 5	288	100-yr	6.66	186.29	188.86	187.28	188.87	0.000119	0.37	23.27	30.17	0.09
Dawson-Drain	Reach 5	288	Hazel	2.32	186.29	188.21	186.92	188.21	0.000080	0.22	10.67	10.84	0.07
Dawson-Drain	Reach 5	301	2-yr	1.36	186.31	187.45	186.81	187.45	0.000429	0.35	3.91	6.57	0.14
Dawson-Drain	Reach 5	301	5-yr	2.04	186.31	187.75	186.90	187.76	0.000285	0.33	6.17	8.25	0.12
Dawson-Drain	Reach 5	301	10-yr	3.00	186.31	188.11	187.01	188.11	0.000187	0.32	9.42	10.21	0.10
Dawson-Drain	Reach 5	301	25-yr	4.46	186.31	188.64	187.14	188.65	0.000092	0.30	17.67	23.81	0.08
Dawson-Drain	Reach 5	301	50-yr	5.55	186.31	188.78	187.22	188.78	0.000102	0.34	21.12	25.64	0.08
Dawson-Drain	Reach 5	301	100-yr	6.66	186.31	188.87	187.29	188.87	0.000119	0.38	23.35	25.86	0.09
Dawson-Drain	Reach 5	301	Hazel	2.32	186.31	188.21	186.94	188.21	0.000080	0.23	10.52	10.96	0.07
Dawson-Drain	Reach 5	304	2-yr	1.36	186.31	187.45	186.81	187.46	0.000433	0.35	3.90	6.56	0.14
Dawson-Drain	Reach 5	304	5-yr	2.04	186.31	187.75	186.91	187.76	0.000287	0.33	6.15	8.23	0.12
Dawson-Drain	Reach 5	304	10-yr	3.00	186.31	188.11	187.01	188.11	0.000190	0.32	9.39	10.17	0.10
Dawson-Drain	Reach 5	304	25-yr	4.46	186.31	188.64	187.14	188.65	0.000093	0.30	17.57	21.47	0.08
Dawson-Drain	Reach 5	304	50-yr	5.55	186.31	188.78	187.22	188.78	0.000103	0.33	20.76	25.12	0.08
Dawson-Drain	Reach 5	304	100-yr	6.66	186.31	188.87	187.30	188.87	0.000121	0.37	22.94	25.29	0.09
Dawson-Drain	Reach 5	304	Hazel	2.32	186.31	188.21	186.94	188.21	0.000082	0.23	10.48	10.84	0.07
Dawson-Drain	Reach 5	330	2-yr	1.36	186.36	187.47	186.85	187.47	0.000487	0.36	3.73	6.41	0.15
Dawson-Drain	Reach 5	330	5-yr	2.04	186.36	187.76	186.95	187.77	0.000322	0.35	5.89	8.06	0.13
Dawson-Drain	Reach 5	330	10-yr	3.00	186.36	188.11	187.06	188.12	0.000210	0.33	9.09	10.84	0.11
Dawson-Drain	Reach 5	330	25-yr	4.46	186.36	188.64	187.19	188.65	0.000103	0.31	16.03	18.31	0.08
Dawson-Drain	Reach 5	330	50-yr	5.55	186.36	188.78	187.27	188.79	0.000116	0.35	18.82	22.63	0.09
Dawson-Drain	Reach 5	330	100-yr	6.66	186.36	188.87	187.34	188.88	0.000136	0.40	20.81	22.84	0.10
Dawson-Drain	Reach 5	330	Hazel	2.32	186.36	188.21	186.98	188.22	0.000090	0.23	10.20	11.38	0.07
Dawson-Drain	Reach 5	356	2-yr	1.36	186.37	187.48	186.87	187.49	0.000500	0.37	3.69	6.38	0.15
Dawson-Drain	Reach 5	356	5-yr	2.04	186.37	187.77	186.97	187.78	0.000352	0.35	5.82	8.37	0.13
Dawson-Drain	Reach 5	356	10-yr	3.00	186.37	188.12	187.07	188.12	0.000219	0.33	9.16	10.63	0.11
Dawson-Drain	Reach 5	356	25-yr	4.46	186.37	188.65	187.20	188.65	0.000104	0.30	16.29	20.52	0.08
Dawson-Drain	Reach 5	356	50-yr	5.55	186.37	188.79	187.29	188.79	0.000114	0.34	19.35	23.01	0.09
Dawson-Drain	Reach 5	356	100-yr	6.66	186.37	188.87	187.36	188.88	0.000133	0.38	21.38	23.23	0.09
Dawson-Drain	Reach 5	356	Hazel	2.32	186.37	188.22	187.00	188.22	0.000097	0.23	10.21	11.16	0.07
Dawson-Drain	Reach 5	358	2-yr	1.36	186.38	187.48	186.87	187.49	0.000503	0.37	3.68	6.37	0.16
Dawson-Drain	Reach 5	358	5-yr	2.04	186.38	187.77	186.97	187.78	0.000335	0.35	5.80	8.00	0.13
Dawson-Drain	Reach 5	358	10-yr	3.00	186.38	188.12	187.08	188.12	0.000218	0.34	8.93	10.87	0.11
Dawson-Drain	Reach 5	358	25-yr	4.46	186.38	188.65	187.21	188.65	0.000107	0.32	16.40	20.89	0.08
Dawson-Drain	Reach 5	358	50-yr	5.55	186.38	188.79	187.29	188.79	0.000118	0.35	19.50	23.17	0.09
Dawson-Drain	Reach 5	358	100-yr	6.66	186.38	188.87	187.36	188.88	0.000137	0.40	21.55	23.39	0.10
Dawson-Drain	Reach 5	358	Hazel	2.32	186.38	188.22	187.00	188.22	0.000096	0.24	10.03	11.75	0.07
Dawson-Drain	Reach 5	380	2-yr	1.36	186.40	187.49	186.89	187.50	0.000534	0.38	3.60	6.30	0.16
Dawson-Drain	Reach 5	380	5-yr	2.04	186.40	187.78	186.99	187.79	0.000356	0.36	5.67	7.91	0.14
Dawson-Drain	Reach 5	380	10-yr	3.00	186.40	188.12	187.10	188.13	0.000233	0.35	8.71	9.79	0.11
Dawson-Drain	Reach 5	380	25-yr	4.46	186.40	188.65	187.23	188.66	0.000116	0.32	15.14	17.28	0.09
Dawson-Drain	Reach 5	380	50-yr	5.55	186.40	188.79	187.31	188.79	0.000129	0.36	17.75	22.20	0.09
Dawson-Drain	Reach 5	380	100-yr	6.66	186.40	188.88	187.38	188.88	0.000150	0.40	19.72	22.43	0.10
Dawson-Drain	Reach 5	380	Hazel	2.32	186.40	188.22	187.02	188.22	0.000105	0.24	9.65	10.31	0.08
Dawson-Drain	Reach 5	427	2-yr	1.36	186.46	187.52	186.96	187.53	0.000627	0.40	3.39	6.11	0.17
Dawson-Drain	Reach 5	427	5-yr	2.04	186.46	187.80	187.05	187.81	0.000420	0.38	5.33	7.66	0.15
Dawson-Drain	Reach 5	427	10-yr	3.00	186.46	188.13	187.16	188.14	0.000269	0.37	8.21	9.51	0.12
Dawson-Drain	Reach 5	427	25-yr	4.46	186.46	188.66	187.29	188.66	0.000132	0.34	14.76	20.69	0.09
Dawson-Drain	Reach 5	427	50-yr	5.55	186.46	188.79	187.37	188.80	0.000144	0.38	17.71	21.40	0.10
Dawson-Drain	Reach 5	427	100-yr	6.66	186.46	188.88	187.45	188.89	0.000166	0.42	19.63	21.62	0.11
Dawson-Drain	Reach 5	427	Hazel	2.32	186.46	188.22	187.09	188.23	0.000123	0.26	9.07	9.99	0.08
Dawson-Drain	Reach 5	490	2-yr	1.36	186.53	187.56	187.03	187.57	0.000724	0.42	3.21	5.95	0.18
Dawson-Drain	Reach 5	490	5-yr	2.04	186.53	187.83	187.12	187.83	0.000499	0.40	5.14	7.97	0.16
Dawson-Drain	Reach 5	490	10-yr	3.00	186.53	188.15	187.23	188.16	0.000301	0.38	8.02	9.72	0.13
Dawson-Drain	Reach 5	490	25-yr	4.46	186.53	188.66	187.36	188.67	0.000147	0.34	13.88	14.29	0.10

HEC-RAS Plan: 525HDPE (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Dawson-Drain	Reach 5	490	50-yr	5.55	186.53	188.80	187.44	188.81	0.000160	0.38	16.03	16.35	0.10
Dawson-Drain	Reach 5	490	100-yr	6.66	186.53	188.89	187.51	188.90	0.000185	0.43	17.69	19.50	0.11
Dawson-Drain	Reach 5	490	Hazel	2.32	186.53	188.23	187.16	188.23	0.000140	0.27	8.80	10.14	0.09
Dawson-Drain	Reach 5	492	2-yr	1.36	186.53	187.56	187.03	187.57	0.000728	0.42	3.21	5.95	0.18
Dawson-Drain	Reach 5	492	5-yr	2.04	186.53	187.83	187.13	187.84	0.000503	0.40	5.11	7.91	0.16
Dawson-Drain	Reach 5	492	10-yr	3.00	186.53	188.15	187.23	188.16	0.000304	0.38	7.97	9.66	0.13
Dawson-Drain	Reach 5	492	25-yr	4.46	186.53	188.66	187.36	188.67	0.000151	0.35	13.81	14.94	0.10
Dawson-Drain	Reach 5	492	50-yr	5.55	186.53	188.80	187.44	188.81	0.000164	0.39	16.05	16.93	0.10
Dawson-Drain	Reach 5	492	100-yr	6.66	186.53	188.89	187.52	188.90	0.000189	0.43	17.74	19.38	0.11
Dawson-Drain	Reach 5	492	Hazel	2.32	186.53	188.23	187.16	188.23	0.000142	0.27	8.74	10.07	0.09
Dawson-Drain	Reach 5	517	2-yr	1.36	186.57	187.58	187.06	187.59	0.000764	0.43	3.15	5.90	0.19
Dawson-Drain	Reach 5	517	5-yr	2.04	186.57	187.84	187.16	187.85	0.000545	0.42	4.89	7.54	0.16
Dawson-Drain	Reach 5	517	10-yr	3.00	186.57	188.16	187.27	188.17	0.000347	0.40	7.62	9.50	0.14
Dawson-Drain	Reach 5	517	25-yr	4.46	186.57	188.67	187.40	188.68	0.000166	0.36	13.22	12.68	0.10
Dawson-Drain	Reach 5	517	50-yr	5.55	186.57	188.81	187.47	188.82	0.000179	0.40	15.13	15.16	0.11
Dawson-Drain	Reach 5	517	100-yr	6.66	186.57	188.90	187.55	188.91	0.000206	0.45	16.64	17.42	0.12
Dawson-Drain	Reach 5	517	Hazel	2.32	186.57	188.24	187.19	188.24	0.000163	0.28	8.33	9.94	0.10
Dawson-Drain	Reach 5	551	2-yr	1.36	186.61	187.60	187.11	187.61	0.000853	0.45	3.02	5.77	0.20
Dawson-Drain	Reach 5	551	5-yr	2.04	186.61	187.86	187.20	187.87	0.000655	0.42	4.82	8.38	0.18
Dawson-Drain	Reach 5	551	10-yr	3.00	186.61	188.17	187.31	188.18	0.000374	0.39	7.81	10.74	0.14
Dawson-Drain	Reach 5	551	25-yr	4.46	186.61	188.67	187.44	188.68	0.000154	0.34	14.15	14.45	0.10
Dawson-Drain	Reach 5	551	50-yr	5.55	186.61	188.82	187.52	188.82	0.000163	0.37	16.24	15.18	0.10
Dawson-Drain	Reach 5	551	100-yr	6.66	186.61	188.91	187.59	188.92	0.000186	0.42	17.92	20.61	0.11
Dawson-Drain	Reach 5	551	Hazel	2.32	186.61	188.24	187.24	188.24	0.000176	0.28	8.56	11.25	0.10
Dawson-Drain	Reach 5	584	2-yr	1.36	186.64	187.63	187.13	187.64	0.000833	0.45	3.06	5.85	0.20
Dawson-Drain	Reach 5	584	5-yr	2.04	186.64	187.88	187.23	187.89	0.000616	0.43	4.75	7.68	0.17
Dawson-Drain	Reach 5	584	10-yr	3.00	186.64	188.18	187.34	188.19	0.000382	0.41	7.33	9.34	0.14
Dawson-Drain	Reach 5	584	25-yr	4.46	186.64	188.68	187.46	188.69	0.000178	0.38	12.62	12.13	0.11
Dawson-Drain	Reach 5	584	50-yr	5.55	186.64	188.82	187.54	188.83	0.000193	0.42	15.11	25.65	0.11
Dawson-Drain	Reach 5	584	100-yr	6.66	186.64	188.91	187.62	188.92	0.000219	0.47	17.60	27.82	0.12
Dawson-Drain	Reach 5	584	Hazel	2.32	186.64	188.25	187.26	188.25	0.000186	0.30	7.91	9.67	0.10
Dawson-Drain	Reach 5	593	2-yr	1.36	186.66	187.64	187.16	187.65	0.000918	0.46	2.94	5.70	0.21
Dawson-Drain	Reach 5	593	5-yr	2.04	186.66	187.89	187.25	187.90	0.000657	0.45	4.51	7.05	0.18
Dawson-Drain	Reach 5	593	10-yr	3.00	186.66	188.19	187.36	188.20	0.000418	0.44	6.75	8.71	0.15
Dawson-Drain	Reach 5	593	25-yr	4.46	186.66	188.68	187.49	188.69	0.000211	0.42	10.91	21.42	0.12
Dawson-Drain	Reach 5	593	50-yr	5.55	186.66	188.82	187.57	188.83	0.000204	0.42	16.31	25.66	0.11
Dawson-Drain	Reach 5	593	100-yr	6.66	186.66	188.92	187.64	188.93	0.000226	0.46	18.88	28.40	0.12
Dawson-Drain	Reach 5	593	Hazel	2.32	186.66	188.25	187.29	188.25	0.000201	0.32	7.21	9.04	0.11
Dawson-Drain	Reach 5	605		Culvert									
Dawson-Drain	Reach 5	613	2-yr	1.36	186.67	187.68	187.17	187.69	0.000814	0.44	3.08	5.83	0.19
Dawson-Drain	Reach 5	613	5-yr	2.04	186.67	187.95	187.27	187.96	0.000520	0.42	4.87	7.34	0.16
Dawson-Drain	Reach 5	613	10-yr	3.00	186.67	188.34	187.37	188.34	0.000258	0.38	7.80	9.47	0.12
Dawson-Drain	Reach 5	613	25-yr	4.46	186.67	188.80	187.50	188.80	0.000145	0.34	16.12	30.52	0.10
Dawson-Drain	Reach 5	613	50-yr	5.55	186.67	188.87	187.58	188.88	0.000180	0.40	18.43	32.18	0.11
Dawson-Drain	Reach 5	613	100-yr	6.66	186.67	188.94	187.66	188.95	0.000213	0.44	20.56	33.93	0.12
Dawson-Drain	Reach 5	613	Hazel	2.32	186.67	188.34	187.30	188.34	0.000155	0.30	7.80	9.47	0.09
Dawson-Drain	Reach 5	666	2-yr	1.36	186.75	187.72	187.25	187.73	0.000995	0.48	2.84	5.56	0.21
Dawson-Drain	Reach 5	666	5-yr	2.04	186.75	187.98	187.35	187.99	0.000674	0.46	4.45	6.95	0.18
Dawson-Drain	Reach 5	666	10-yr	3.00	186.75	188.35	187.45	188.36	0.000374	0.40	7.43	8.97	0.14
Dawson-Drain	Reach 5	666	25-yr	4.46	186.75	188.81	187.58	188.81	0.000253	0.36	12.82	18.46	0.12
Dawson-Drain	Reach 5	666	50-yr	5.55	186.75	188.89	187.67	188.89	0.000066	0.19	72.96	189.27	0.06
Dawson-Drain	Reach 5	666	100-yr	6.66	186.75	188.95	187.74	188.95	0.000061	0.19	87.94	198.70	0.06
Dawson-Drain	Reach 5	666	Hazel	2.32	186.75	188.35	187.38	188.35	0.000229	0.32	7.37	8.94	0.11
Dawson-Drain	Reach 5	691	2-yr	1.36	186.77	187.74	187.14	187.74	0.000244	0.25	5.49	10.46	0.11
Dawson-Drain	Reach 5	691	5-yr	2.04	186.77	187.99	187.21	188.00	0.000172	0.24	8.44	12.89	0.10
Dawson-Drain	Reach 5	691	10-yr	3.00	186.77	188.36	187.30	188.37	0.000099	0.22	13.84	16.43	0.08
Dawson-Drain	Reach 5	691	25-yr	4.46	186.77	188.82	187.39	188.82	0.000040	0.18	48.45	99.30	0.05
Dawson-Drain	Reach 5	691	50-yr	5.55	186.77	188.89	187.46	188.89	0.000048	0.20	55.59	99.85	0.06
Dawson-Drain	Reach 5	691	100-yr	6.66	186.77	188.95	187.51	188.96	0.000023	0.15	135.03	283.40	0.04
Dawson-Drain	Reach 5	691	Hazel	2.32	186.77	188.35	187.24	188.35	0.000062	0.17	13.67	16.33	0.06
Dawson-Drain	Reach 5	715	2-yr	1.36	186.81	187.75	187.31	187.76	0.001138	0.50	2.74	5.65	0.23
Dawson-Drain	Reach 5	715	5-yr	2.04	186.81	188.00	187.40	188.01	0.000755	0.47	4.35	7.20	0.19
Dawson-Drain	Reach 5	715	10-yr	3.00	186.81	188.36	187.51	188.37	0.000400	0.40	7.43	9.55	0.15
Dawson-Drain	Reach 5	715	25-yr	4.46	186.81	188.82	187.64	188.82	0.000083	0.22	51.31	181.48	0.07
Dawson-Drain	Reach 5	715	50-yr	5.55	186.81	188.89	187.72	188.89	0.000078	0.23	64.56	185.02	0.07
Dawson-Drain	Reach 5	715	100-yr	6.66	186.81	188.95	187.79	188.96	0.000075	0.23	76.96	190.54	0.07
Dawson-Drain	Reach 5	715	Hazel	2.32	186.81	188.35	187.43	188.36	0.000247	0.32	7.33	9.42	0.11
Dawson-Drain	Reach 5	749	2-yr	1.36	186.84	187.78	187.33	187.80	0.001106	0.49	2.80	5.80	0.22
Dawson-Drain	Reach 5	749	5-yr	2.04	186.84	188.02	187.43	188.03	0.000757	0.47	4.33	7.09	0.19
Dawson-Drain	Reach 5	749	10-yr	3.00	186.84	188.38	187.54	188.39	0.000417	0.42	7.18	8.97	0.15
Dawson-Drain	Reach 5	749	25-yr	4.46	186.84	188.82	187.68	188.83	0.000241	0.38	11.63	11.19	0.12

HEC-RAS Plan: 525HDPE (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Dawson-Drain	Reach 5	749	50-yr	5.55	186.84	188.89	187.75	188.89	0.000070	0.21	72.34	205.79	0.06
Dawson-Drain	Reach 5	749	100-yr	6.66	186.84	188.96	187.82	188.96	0.000066	0.22	86.06	211.61	0.06
Dawson-Drain	Reach 5	749	Hazel	2.32	186.84	188.36	187.47	188.37	0.000264	0.33	7.04	8.89	0.12
Dawson-Drain	Reach 5	751	2-yr	1.36	186.85	187.79	187.35	187.80	0.001174	0.51	2.68	5.44	0.23
Dawson-Drain	Reach 5	751	5-yr	2.04	186.85	188.02	187.44	188.04	0.000835	0.49	4.12	6.74	0.20
Dawson-Drain	Reach 5	751	10-yr	3.00	186.85	188.38	187.55	188.39	0.000467	0.44	6.85	8.69	0.16
Dawson-Drain	Reach 5	751	25-yr	4.46	186.85	188.82	187.68	188.83	0.000255	0.40	11.31	11.99	0.12
Dawson-Drain	Reach 5	751	50-yr	5.55	186.85	188.89	187.76	188.89	0.000071	0.22	71.54	201.52	0.07
Dawson-Drain	Reach 5	751	100-yr	6.66	186.85	188.96	187.84	188.96	0.000067	0.22	85.13	213.40	0.06
Dawson-Drain	Reach 5	751	Hazel	2.32	186.85	188.36	187.48	188.37	0.000296	0.35	6.72	8.60	0.12
Dawson-Drain	Reach 5	772	2-yr	1.36	187.09	187.82	187.59	187.85	0.004275	0.80	1.70	4.59	0.42
Dawson-Drain	Reach 5	772	5-yr	2.04	187.09	188.04	187.69	188.07	0.002282	0.71	2.85	5.72	0.32
Dawson-Drain	Reach 5	772	10-yr	3.00	187.09	188.39	187.80	188.40	0.001016	0.59	5.12	7.50	0.23
Dawson-Drain	Reach 5	772	25-yr	4.46	187.09	188.82	187.92	188.84	0.000495	0.49	9.38	14.81	0.17
Dawson-Drain	Reach 5	772	50-yr	5.55	187.09	188.89	188.00	188.90	0.000147	0.28	56.14	201.96	0.09
Dawson-Drain	Reach 5	772	100-yr	6.66	187.09	188.96	188.06	188.96	0.000052	0.17	141.38	346.04	0.06
Dawson-Drain	Reach 5	772	Hazel	2.32	187.09	188.37	187.72	188.38	0.000658	0.47	4.97	7.39	0.18
Dawson-Drain	Reach 5	775	2-yr	1.36	187.11	187.83	187.61	187.86	0.004443	0.81	1.69	4.68	0.43
Dawson-Drain	Reach 5	775	5-yr	2.04	187.11	188.05	187.70	188.08	0.002368	0.72	2.84	5.82	0.33
Dawson-Drain	Reach 5	775	10-yr	3.00	187.11	188.39	187.81	188.41	0.001033	0.58	5.13	7.65	0.23
Dawson-Drain	Reach 5	775	25-yr	4.46	187.11	188.83	187.94	188.84	0.000484	0.48	9.46	13.96	0.16
Dawson-Drain	Reach 5	775	50-yr	5.55	187.11	188.89	188.01	188.90	0.000157	0.29	53.64	195.50	0.09
Dawson-Drain	Reach 5	775	100-yr	6.66	187.11	188.96	188.08	188.96	0.000139	0.28	67.03	210.14	0.09
Dawson-Drain	Reach 5	775	Hazel	2.32	187.11	188.37	187.74	188.38	0.000674	0.47	4.97	7.55	0.18
Dawson-Drain	Reach 5	810	2-yr	1.36	187.14	187.93	187.63	187.95	0.002889	0.67	2.02	5.31	0.35
Dawson-Drain	Reach 5	810	5-yr	2.04	187.14	188.11	187.73	188.13	0.002057	0.66	3.06	6.36	0.31
Dawson-Drain	Reach 5	810	10-yr	3.00	187.14	188.42	187.84	188.43	0.000985	0.57	5.26	7.87	0.22
Dawson-Drain	Reach 5	810	25-yr	4.46	187.14	188.84	187.97	188.85	0.000428	0.49	10.42	22.79	0.16
Dawson-Drain	Reach 5	810	50-yr	5.55	187.14	188.90	188.04	188.90	0.000165	0.32	50.10	179.59	0.10
Dawson-Drain	Reach 5	810	100-yr	6.66	187.14	188.96	188.11	188.97	0.000148	0.31	62.24	192.94	0.09
Dawson-Drain	Reach 5	810	Hazel	2.32	187.14	188.39	187.76	188.40	0.000670	0.46	5.03	7.73	0.18
Dawson-Drain	Reach 5	842	2-yr	1.36	187.18	187.99	187.57	188.00	0.000825	0.47	3.16	6.28	0.20
Dawson-Drain	Reach 5	842	5-yr	2.04	187.18	188.16	187.64	188.17	0.000814	0.53	4.29	7.07	0.20
Dawson-Drain	Reach 5	842	10-yr	3.00	187.18	188.44	187.72	188.46	0.000598	0.53	6.50	8.44	0.18
Dawson-Drain	Reach 5	842	25-yr	4.46	187.18	188.85	187.83	188.85	0.000027	0.14	143.39	403.16	0.04
Dawson-Drain	Reach 5	842	50-yr	5.55	187.18	188.90	187.91	188.90	0.000029	0.15	164.12	414.37	0.04
Dawson-Drain	Reach 5	842	100-yr	6.66	187.18	188.97	187.98	188.97	0.000027	0.15	191.27	427.87	0.04
Dawson-Drain	Reach 5	842	Hazel	2.32	187.18	188.40	187.66	188.41	0.000407	0.43	6.19	8.23	0.15
Dawson-Drain	Reach 5	876	2-yr	1.36	187.22	188.02	187.64	188.03	0.001172	0.50	2.74	5.80	0.23
Dawson-Drain	Reach 5	876	5-yr	2.04	187.22	188.19	187.72	188.20	0.001075	0.54	3.78	6.61	0.23
Dawson-Drain	Reach 5	876	10-yr	3.00	187.22	188.47	187.81	188.48	0.000720	0.52	5.80	7.96	0.19
Dawson-Drain	Reach 5	876	25-yr	4.46	187.22	188.85	187.93	188.86	0.000366	0.48	11.87	33.97	0.15
Dawson-Drain	Reach 5	876	50-yr	5.55	187.22	188.90	188.00	188.91	0.000471	0.56	13.60	36.76	0.17
Dawson-Drain	Reach 5	876	100-yr	6.66	187.22	188.97	188.07	188.97	0.000024	0.13	211.75	474.41	0.04
Dawson-Drain	Reach 5	876	Hazel	2.32	187.22	188.42	187.75	188.43	0.000514	0.43	5.44	7.74	0.16
Dawson-Drain	Reach 5	885	2-yr	1.36	187.24	188.04	187.59	188.05	0.000598	0.42	3.57	7.13	0.17
Dawson-Drain	Reach 5	885	5-yr	2.04	187.24	188.20	187.65	188.22	0.000598	0.47	4.84	8.08	0.18
Dawson-Drain	Reach 5	885	10-yr	3.00	187.24	188.48	187.74	188.49	0.000457	0.49	7.25	9.65	0.16
Dawson-Drain	Reach 5	885	25-yr	4.46	187.24	188.86	187.85	188.86	0.000026	0.14	159.38	478.05	0.04
Dawson-Drain	Reach 5	885	50-yr	5.55	187.24	188.92	187.92	188.92	0.000026	0.14	185.24	479.31	0.04
Dawson-Drain	Reach 5	885	100-yr	6.66	187.24	188.97	187.98	188.97	0.000026	0.15	209.37	480.42	0.04
Dawson-Drain	Reach 5	885	Hazel	2.32	187.24	188.43	187.68	188.44	0.000325	0.40	6.79	9.37	0.13
Dawson-Drain	Reach 4	904.5366	2-yr	0.32	187.35	188.06		188.06	0.000129	0.20	1.59	3.54	0.09
Dawson-Drain	Reach 4	904.5366	5-yr	0.51	187.35	188.22		188.23	0.000138	0.23	2.26	4.39	0.10
Dawson-Drain	Reach 4	904.5366	10-yr	0.63	187.35	188.50		188.50	0.000069	0.17	3.87	10.83	0.07
Dawson-Drain	Reach 4	904.5366	25-yr	0.81	187.35	188.86		188.86	0.000017	0.12	9.37	20.00	0.04
Dawson-Drain	Reach 4	904.5366	50-yr	0.94	187.35	188.92		188.92	0.000018	0.13	10.45	20.00	0.04
Dawson-Drain	Reach 4	904.5366	100-yr	1.09	187.35	188.97		188.97	0.000020	0.14	11.45	20.00	0.04
Dawson-Drain	Reach 4	904.5366	Hazel	0.51	187.35	188.44		188.44	0.000062	0.15	3.39	7.16	0.07
Dawson-Drain	Reach 4	904.6199	2-yr	0.32	187.42	188.06		188.06	0.000420	0.25	1.28	3.50	0.13
Dawson-Drain	Reach 4	904.6199	5-yr	0.51	187.42	188.23		188.23	0.000358	0.26	1.94	4.34	0.12
Dawson-Drain	Reach 4	904.6199	10-yr	0.63	187.42	188.50		188.50	0.000116	0.20	3.35	6.71	0.08
Dawson-Drain	Reach 4	904.6199	25-yr	0.81	187.42	188.86		188.87	0.000038	0.15	7.99	20.00	0.05
Dawson-Drain	Reach 4	904.6199	50-yr	0.94	187.42	188.92		188.92	0.000040	0.16	9.07	20.00	0.05
Dawson-Drain	Reach 4	904.6199	100-yr	1.09	187.42	188.97		188.97	0.000044	0.17	10.07	20.00	0.05
Dawson-Drain	Reach 4	904.6199	Hazel	0.51	187.42	188.44		188.44	0.000098	0.17	3.01	5.87	0.07
Dawson-Drain	Reach 4	904.7031	2-yr	0.32	187.43	188.06		188.06	0.000490	0.26	1.22	3.48	0.14
Dawson-Drain	Reach 4	904.7031	5-yr	0.51	187.43	188.23		188.23	0.000376	0.28	1.88	4.32	0.13
Dawson-Drain	Reach 4	904.7031	10-yr	0.63	187.43	188.50		188.50	0.000125	0.21	3.21	5.68	0.08
Dawson-Drain	Reach 4	904.7031	25-yr	0.81	187.43	188.86		188.87	0.000043	0.16	7.34	16.62	0.05
Dawson-Drain	Reach 4	904.7031	50-yr	0.94	187.43	188.92		188.92	0.000047	0.18	8.34	20.00	0.05
Dawson-Drain	Reach 4	904.7031	100-yr	1.09	187.43	188.97		188.97	0.000051	0.19	9.34	20.00	0.06

HEC-RAS Plan: 525HDPE (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Dawson-Drain	Reach 4	904.7031	Hazel	0.51	187.43	188.44		188.44	0.000105	0.19	2.91	5.39	0.07
Dawson-Drain	Reach 4	908.3487	2-yr	0.32	187.44	188.07		188.07	0.000339	0.23	1.38	3.58	0.12
Dawson-Drain	Reach 4	908.3487	5-yr	0.51	187.44	188.23		188.24	0.000302	0.25	2.03	4.28	0.12
Dawson-Drain	Reach 4	908.3487	10-yr	0.63	187.44	188.50		188.50	0.000108	0.20	3.35	5.63	0.07
Dawson-Drain	Reach 4	908.3487	25-yr	0.81	187.44	188.87		188.87	0.000036	0.15	7.97	16.89	0.05
Dawson-Drain	Reach 4	908.3487	50-yr	0.94	187.44	188.92		188.92	0.000039	0.16	8.92	19.49	0.05
Dawson-Drain	Reach 4	908.3487	100-yr	1.09	187.44	188.97		188.97	0.000043	0.17	9.92	20.00	0.05
Dawson-Drain	Reach 4	908.3487	Hazel	0.51	187.44	188.44		188.45	0.000089	0.17	3.05	5.35	0.07
Dawson-Drain	Reach 4	912.4	2-yr	0.32	187.45	188.07		188.07	0.000449	0.25	1.24	3.41	0.13
Dawson-Drain	Reach 4	912.4	5-yr	0.51	187.45	188.24		188.24	0.000373	0.27	1.88	4.24	0.13
Dawson-Drain	Reach 4	912.4	10-yr	0.63	187.45	188.50		188.50	0.000135	0.21	3.32	9.16	0.08
Dawson-Drain	Reach 4	912.4	25-yr	0.81	187.45	188.87		188.87	0.000032	0.14	9.97	20.00	0.04
Dawson-Drain	Reach 4	912.4	50-yr	0.94	187.45	188.92		188.92	0.000034	0.14	11.06	20.00	0.04
Dawson-Drain	Reach 4	912.4	100-yr	1.09	187.45	188.97		188.97	0.000036	0.15	12.06	20.00	0.05
Dawson-Drain	Reach 4	912.4	Hazel	0.51	187.45	188.44		188.45	0.000115	0.18	2.93	6.18	0.07
Dawson-Drain	Reach 3	919	2-yr	1.06	187.27	188.05	187.77	188.08	0.003118	0.73	1.45	3.42	0.36
Dawson-Drain	Reach 3	919	5-yr	1.53	187.27	188.22	187.85	188.25	0.002505	0.73	2.08	4.09	0.33
Dawson-Drain	Reach 3	919	10-yr	2.34	187.27	188.49	187.98	188.51	0.001694	0.71	3.32	5.16	0.28
Dawson-Drain	Reach 3	919	25-yr	3.55	187.27	188.85	188.12	188.88	0.000959	0.65	5.95	11.40	0.22
Dawson-Drain	Reach 3	919	50-yr	4.47	187.27	188.90	188.20	188.93	0.001276	0.77	6.52	11.67	0.26
Dawson-Drain	Reach 3	919	100-yr	5.40	187.27	188.95	188.28	188.99	0.001556	0.88	7.07	12.43	0.29
Dawson-Drain	Reach 3	919	Hazel	1.69	187.27	188.44	187.88	188.45	0.001088	0.55	3.06	4.96	0.22
Dawson-Drain	Reach 3	925.4277	2-yr	1.06	187.28	188.08	187.69	188.10	0.001391	0.54	1.95	3.87	0.24
Dawson-Drain	Reach 3	925.4277	5-yr	1.53	187.28	188.24	187.77	188.26	0.001290	0.58	2.61	4.36	0.24
Dawson-Drain	Reach 3	925.4277	10-yr	2.34	187.28	188.51	187.88	188.52	0.001230	0.59	4.33	13.03	0.24
Dawson-Drain	Reach 3	925.4277	25-yr	3.55	187.28	188.88	188.01	188.88	0.000049	0.16	102.15	252.71	0.05
Dawson-Drain	Reach 3	925.4277	50-yr	4.47	187.28	188.94	188.09	188.94	0.000051	0.17	117.52	252.83	0.05
Dawson-Drain	Reach 3	925.4277	100-yr	5.40	187.28	189.00	188.17	189.00	0.000053	0.18	132.04	253.68	0.05
Dawson-Drain	Reach 3	925.4277	Hazel	1.69	187.28	188.45	187.79	188.46	0.000875	0.47	3.65	9.01	0.20
Dawson-Drain	Reach 3	943	2-yr	1.06	187.31	188.12	187.69	188.13	0.001143	0.50	2.11	4.12	0.22
Dawson-Drain	Reach 3	943	5-yr	1.53	187.31	188.28	187.76	188.29	0.001121	0.54	2.83	4.92	0.23
Dawson-Drain	Reach 3	943	10-yr	2.34	187.31	188.54	187.87	188.55	0.000881	0.54	4.65	14.15	0.21
Dawson-Drain	Reach 3	943	25-yr	3.55	187.31	188.88	188.00	188.88	0.000013	0.08	179.48	494.24	0.03
Dawson-Drain	Reach 3	943	50-yr	4.47	187.31	188.94	188.10	188.94	0.000013	0.09	209.88	500.30	0.03
Dawson-Drain	Reach 3	943	100-yr	5.40	187.31	189.00	188.17	189.00	0.000012	0.09	238.60	500.30	0.03
Dawson-Drain	Reach 3	943	Hazel	1.69	187.31	188.47	187.79	188.48	0.000654	0.43	3.92	7.00	0.18
Dawson-Drain	Reach 3	945.4277	2-yr	1.06	187.31	188.12	187.69	188.13	0.001059	0.48	2.20	4.35	0.22
Dawson-Drain	Reach 3	945.4277	5-yr	1.53	187.31	188.28	187.77	188.30	0.000998	0.52	2.95	4.96	0.21
Dawson-Drain	Reach 3	945.4277	10-yr	2.34	187.31	188.54	187.88	188.55	0.000841	0.53	4.57	12.03	0.20
Dawson-Drain	Reach 3	945.4277	25-yr	3.55	187.31	188.88	188.00	188.88	0.000015	0.09	172.54	497.62	0.03
Dawson-Drain	Reach 3	945.4277	50-yr	4.47	187.31	188.94	188.09	188.94	0.000014	0.09	202.95	500.00	0.03
Dawson-Drain	Reach 3	945.4277	100-yr	5.40	187.31	189.00	188.16	189.00	0.000014	0.10	231.66	500.00	0.03
Dawson-Drain	Reach 3	945.4277	Hazel	1.69	187.31	188.47	187.79	188.48	0.000582	0.42	4.01	6.56	0.17
Dawson-Drain	Reach 3	965.4277	2-yr	1.06	187.34	188.14	187.72	188.15	0.000938	0.46	2.32	4.56	0.20
Dawson-Drain	Reach 3	965.4277	5-yr	1.53	187.34	188.30	187.78	188.31	0.000878	0.49	3.10	5.08	0.20
Dawson-Drain	Reach 3	965.4277	10-yr	2.34	187.34	188.56	187.89	188.57	0.000826	0.51	4.89	10.97	0.20
Dawson-Drain	Reach 3	965.4277	25-yr	3.55	187.34	188.88	188.01	188.88	0.000056	0.17	95.32	261.58	0.06
Dawson-Drain	Reach 3	965.4277	50-yr	4.47	187.34	188.94	188.09	188.95	0.000016	0.10	195.29	500.00	0.03
Dawson-Drain	Reach 3	965.4277	100-yr	5.40	187.34	189.00	188.16	189.00	0.000015	0.10	223.99	500.00	0.03
Dawson-Drain	Reach 3	965.4277	Hazel	1.69	187.34	188.48	187.81	188.49	0.000603	0.41	4.12	8.46	0.17
Dawson-Drain	Reach 3	968	2-yr	1.06	187.34	188.14	187.72	188.16	0.000956	0.46	2.28	4.42	0.21
Dawson-Drain	Reach 3	968	5-yr	1.53	187.34	188.30	187.79	188.32	0.000915	0.50	3.03	5.01	0.21
Dawson-Drain	Reach 3	968	10-yr	2.34	187.34	188.56	187.89	188.57	0.000827	0.51	4.95	10.70	0.20
Dawson-Drain	Reach 3	968	25-yr	3.55	187.34	188.88	188.01	188.88	0.000017	0.09	164.48	494.10	0.03
Dawson-Drain	Reach 3	968	50-yr	4.47	187.34	188.95	188.09	188.95	0.000016	0.10	194.44	499.36	0.03
Dawson-Drain	Reach 3	968	100-yr	5.40	187.34	189.00	188.16	189.00	0.000016	0.10	223.10	499.36	0.03
Dawson-Drain	Reach 3	968	Hazel	1.69	187.34	188.49	187.81	188.49	0.000589	0.41	4.19	9.37	0.17
Dawson-Drain	Reach 3	985.4277	2-yr	1.06	187.37	188.16	187.72	188.17	0.000895	0.45	2.38	4.70	0.20
Dawson-Drain	Reach 3	985.4277	5-yr	1.53	187.37	188.32	187.79	188.33	0.000850	0.48	3.18	5.40	0.20
Dawson-Drain	Reach 3	985.4277	10-yr	2.34	187.37	188.57	187.90	188.59	0.000698	0.49	5.17	10.69	0.19
Dawson-Drain	Reach 3	985.4277	25-yr	3.55	187.37	188.89	188.02	188.89	0.000014	0.09	173.43	500.00	0.03
Dawson-Drain	Reach 3	985.4277	50-yr	4.47	187.37	188.95	188.10	188.95	0.000014	0.09	203.59	500.00	0.03
Dawson-Drain	Reach 3	985.4277	100-yr	5.40	187.37	189.00	188.17	189.00	0.000013	0.09	232.27	500.00	0.03
Dawson-Drain	Reach 3	985.4277	Hazel	1.69	187.37	188.50	187.82	188.50	0.000475	0.40	4.39	8.95	0.15
Dawson-Drain	Reach 3	1085.427	2-yr	1.06	187.48	188.25	187.80	188.26	0.000945	0.46	2.30	4.49	0.21
Dawson-Drain	Reach 3	1085.427	5-yr	1.53	187.48	188.42	187.88	188.43	0.001196	0.49	3.19	8.51	0.23
Dawson-Drain	Reach 3	1085.427	10-yr	2.34	187.48	188.64	187.98	188.65	0.000710	0.46	6.38	26.42	0.19
Dawson-Drain	Reach 3	1085.427	25-yr	3.55	187.48	188.89	188.11	188.89	0.000028	0.11	137.45	460.96	0.04
Dawson-Drain	Reach 3	1085.427	50-yr	4.47	187.48	188.95	188.20	188.95	0.000026	0.12	165.79	479.87	0.04
Dawson-Drain	Reach 3	1085.427	100-yr	5.40	187.48	189.00	188.27	189.00	0.000024	0.12	193.43	484.62	0.04
Dawson-Drain	Reach 3	1085.427	Hazel	1.69	187.48	188.55	187.90	188.56	0.000663	0.40	4.54	13.78	0.18

HEC-RAS Plan: 525HDPE (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Dawson-Drain	Reach 3	1145	2-yr	1.06	187.56	188.31	187.85	188.32	0.000889	0.46	2.29	4.16	0.20
Dawson-Drain	Reach 3	1145	5-yr	1.53	187.56	188.48	187.92	188.50	0.001016	0.49	3.15	7.77	0.21
Dawson-Drain	Reach 3	1145	10-yr	2.34	187.56	188.69	188.02	188.70	0.000833	0.53	5.22	11.07	0.20
Dawson-Drain	Reach 3	1145	25-yr	3.55	187.56	188.89	188.15	188.89	0.000087	0.20	84.18	253.50	0.07
Dawson-Drain	Reach 3	1145	50-yr	4.47	187.56	188.95	188.23	188.95	0.000086	0.20	99.43	253.91	0.07
Dawson-Drain	Reach 3	1145	100-yr	5.40	187.56	189.01	188.31	189.01	0.000084	0.21	113.95	254.58	0.07
Dawson-Drain	Reach 3	1145	Hazel	1.69	187.56	188.59	187.94	188.60	0.000697	0.45	4.15	10.49	0.18
Dawson-Drain	Reach 2	1158.624	2-yr	1.00	187.68	188.33		188.36	0.004674	0.80	1.25	3.55	0.43
Dawson-Drain	Reach 2	1158.624	5-yr	1.45	187.68	188.51		188.54	0.002872	0.73	1.97	4.45	0.35
Dawson-Drain	Reach 2	1158.624	10-yr	2.25	187.68	188.71		188.74	0.002571	0.76	3.03	8.72	0.34
Dawson-Drain	Reach 2	1158.624	25-yr	3.43	187.68	188.88		188.90	0.002526	0.78	5.33	19.06	0.34
Dawson-Drain	Reach 2	1158.624	50-yr	4.32	187.68	188.93		188.97	0.002688	0.86	6.43	19.96	0.36
Dawson-Drain	Reach 2	1158.624	100-yr	5.22	187.68	188.99		189.02	0.002736	0.92	7.51	20.00	0.37
Dawson-Drain	Reach 2	1158.624	Hazel	1.50	187.68	188.61		188.63	0.001772	0.62	2.42	4.93	0.28
Dawson-Drain	Reach 2	1158.636	2-yr	1.00	187.69	188.37		188.40	0.003143	0.74	1.37	3.71	0.37
Dawson-Drain	Reach 2	1158.636	5-yr	1.45	187.69	188.53		188.56	0.002154	0.76	2.04	4.52	0.32
Dawson-Drain	Reach 2	1158.636	10-yr	2.25	187.69	188.73		188.76	0.001834	0.85	3.50	12.59	0.31
Dawson-Drain	Reach 2	1158.636	25-yr	3.43	187.69	188.89		188.93	0.001805	0.96	6.00	20.00	0.32
Dawson-Drain	Reach 2	1158.636	50-yr	4.32	187.69	188.95		188.99	0.002098	1.08	7.15	20.00	0.34
Dawson-Drain	Reach 2	1158.636	100-yr	5.22	187.69	189.00		189.05	0.002302	1.17	8.23	20.00	0.36
Dawson-Drain	Reach 2	1158.636	Hazel	1.50	187.69	188.62		188.64	0.001430	0.68	2.45	5.50	0.27
Dawson-Drain	Reach 2	1158.665	2-yr	1.00	187.66	188.41		188.43	0.002384	0.63	1.59	3.99	0.32
Dawson-Drain	Reach 2	1158.665	5-yr	1.45	187.66	188.56		188.58	0.001704	0.66	2.25	4.75	0.28
Dawson-Drain	Reach 2	1158.665	10-yr	2.25	187.66	188.75		188.78	0.001509	0.75	3.31	7.79	0.28
Dawson-Drain	Reach 2	1158.665	25-yr	3.43	187.66	188.91		188.95	0.001704	0.91	5.31	19.70	0.31
Dawson-Drain	Reach 2	1158.665	50-yr	4.32	187.66	188.97		189.01	0.001991	1.03	6.49	20.00	0.33
Dawson-Drain	Reach 2	1158.665	100-yr	5.22	187.66	189.02		189.08	0.002187	1.12	7.61	20.00	0.35
Dawson-Drain	Reach 2	1158.665	Hazel	1.50	187.66	188.64		188.66	0.001168	0.60	2.64	5.14	0.24
Dawson-Drain	Reach 2	1158.760	2-yr	1.00	187.53	188.43		188.45	0.001465	0.53	1.90	4.16	0.25
Dawson-Drain	Reach 2	1158.760	5-yr	1.45	187.53	188.58		188.60	0.001214	0.57	2.56	4.90	0.24
Dawson-Drain	Reach 2	1158.760	10-yr	2.25	187.53	188.77		188.79	0.001145	0.67	3.58	6.08	0.24
Dawson-Drain	Reach 2	1158.760	25-yr	3.43	187.53	188.93		188.96	0.001346	0.82	5.51	18.84	0.27
Dawson-Drain	Reach 2	1158.760	50-yr	4.32	187.53	188.99		189.03	0.001603	0.93	6.74	20.00	0.30
Dawson-Drain	Reach 2	1158.760	100-yr	5.22	187.53	189.05		189.10	0.001780	1.02	7.90	20.00	0.32
Dawson-Drain	Reach 2	1158.760	Hazel	1.50	187.53	188.65		188.67	0.000883	0.53	2.93	5.26	0.21
Dawson-Drain	Reach 2	1161.5	2-yr	1.00	187.69	188.45		188.46	0.000487	0.36	4.82	14.90	0.15
Dawson-Drain	Reach 2	1161.5	5-yr	1.45	187.69	188.60		188.60	0.000362	0.36	7.10	15.67	0.14
Dawson-Drain	Reach 2	1161.5	10-yr	2.25	187.69	188.79		188.80	0.000319	0.40	10.26	17.64	0.13
Dawson-Drain	Reach 2	1161.5	25-yr	3.43	187.69	188.96		188.97	0.000363	0.48	13.62	20.00	0.15
Dawson-Drain	Reach 2	1161.5	50-yr	4.32	187.69	189.03		189.04	0.000440	0.55	15.03	20.00	0.16
Dawson-Drain	Reach 2	1161.5	100-yr	5.22	187.69	189.10		189.11	0.000509	0.61	16.31	20.00	0.18
Dawson-Drain	Reach 2	1161.5	Hazel	1.50	187.69	188.67		188.67	0.000262	0.33	8.18	16.06	0.12
Dawson-Drain	Reach 1	1178.827	2-yr	0.06	187.59	188.32	187.65	188.32	0.000002	0.02	2.44	4.86	0.01
Dawson-Drain	Reach 1	1178.827	5-yr	0.08	187.59	188.50	187.66	188.50	0.000002	0.02	3.39	5.58	0.01
Dawson-Drain	Reach 1	1178.827	10-yr	0.09	187.59	188.71	187.67	188.71	0.000001	0.02	5.07	10.94	0.01
Dawson-Drain	Reach 1	1178.827	25-yr	0.12	187.59	188.89	187.68	188.89	0.000000	0.01	54.07	218.38	0.00
Dawson-Drain	Reach 1	1178.827	50-yr	0.13	187.59	188.95	187.68	188.95	0.000000	0.01	67.82	234.10	0.00
Dawson-Drain	Reach 1	1178.827	100-yr	0.16	187.59	189.01	187.69	189.01	0.000000	0.01	81.28	237.81	0.00
Dawson-Drain	Reach 1	1178.827	Hazel	0.13	187.59	188.60	187.68	188.60	0.000003	0.03	4.05	8.29	0.01
Dawson-Drain	Reach 1	1214	2-yr	0.06	187.65	188.32	187.70	188.32	0.000004	0.03	1.95	4.20	0.01
Dawson-Drain	Reach 1	1214	5-yr	0.08	187.65	188.50	187.71	188.50	0.000004	0.03	3.01	9.26	0.01
Dawson-Drain	Reach 1	1214	10-yr	0.09	187.65	188.71	187.72	188.71	0.000001	0.02	5.44	13.00	0.01
Dawson-Drain	Reach 1	1214	25-yr	0.12	187.65	188.89	187.73	188.89	0.000000	0.01	98.62	381.62	0.00
Dawson-Drain	Reach 1	1214	50-yr	0.13	187.65	188.95	187.74	188.95	0.000000	0.01	122.26	401.05	0.00
Dawson-Drain	Reach 1	1214	100-yr	0.16	187.65	189.01	187.75	189.01	0.000000	0.00	145.52	414.69	0.00
Dawson-Drain	Reach 1	1214	Hazel	0.13	187.65	188.60	187.74	188.60	0.000005	0.04	4.11	12.38	0.02
Dawson-Drain	Reach 1	1218.827	2-yr	0.06	187.65	188.32	187.70	188.32	0.000004	0.03	1.98	4.69	0.01
Dawson-Drain	Reach 1	1218.827	5-yr	0.08	187.65	188.50	187.72	188.50	0.000003	0.02	3.11	8.50	0.01
Dawson-Drain	Reach 1	1218.827	10-yr	0.09	187.65	188.71	187.72	188.71	0.000001	0.02	5.32	12.01	0.01
Dawson-Drain	Reach 1	1218.827	25-yr	0.12	187.65	188.89	187.73	188.89	0.000000	0.01	94.91	386.49	0.00
Dawson-Drain	Reach 1	1218.827	50-yr	0.13	187.65	188.95	187.74	188.95	0.000000	0.01	118.60	399.77	0.00
Dawson-Drain	Reach 1	1218.827	100-yr	0.16	187.65	189.01	187.75	189.01	0.000000	0.01	141.98	421.77	0.00
Dawson-Drain	Reach 1	1218.827	Hazel	0.13	187.65	188.60	187.74	188.60	0.000004	0.03	4.11	10.90	0.01
Dawson-Drain	Reach 1	1238.827	2-yr	0.06	187.68	188.32	187.75	188.32	0.000009	0.04	1.48	3.90	0.02
Dawson-Drain	Reach 1	1238.827	5-yr	0.08	187.68	188.50	187.77	188.50	0.000006	0.03	2.33	5.48	0.02
Dawson-Drain	Reach 1	1238.827	10-yr	0.09	187.68	188.71	187.77	188.71	0.000002	0.03	4.42	18.36	0.01
Dawson-Drain	Reach 1	1238.827	25-yr	0.12	187.68	188.89	187.79	188.89	0.000000	0.01	71.21	260.88	0.00
Dawson-Drain	Reach 1	1238.827	50-yr	0.13	187.68	188.95	187.80	188.95	0.000000	0.01	86.91	261.81	0.00
Dawson-Drain	Reach 1	1238.827	100-yr	0.16	187.68	189.01	187.81	189.01	0.000000	0.01	101.91	263.91	0.00
Dawson-Drain	Reach 1	1238.827	Hazel	0.13	187.68	188.60	187.79	188.60	0.000008	0.04	2.98	8.71	0.02
Dawson-Drain	Reach 1	1243	2-yr	0.06	187.68	188.32	187.76	188.32	0.000008	0.03	1.59	4.26	0.02
Dawson-Drain	Reach 1	1243	5-yr	0.08	187.68	188.50	187.78	188.50	0.000005	0.03	2.58	7.15	0.01

HEC-RAS Plan: 525HDPE (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Dawson-Drain	Reach 1	1243	10-yr	0.09	187.68	188.71	187.79	188.71	0.000002	0.02	4.86	16.38	0.01
Dawson-Drain	Reach 1	1243	25-yr	0.12	187.68	188.89	187.80	188.89	0.000000	0.01	71.99	262.67	0.00
Dawson-Drain	Reach 1	1243	50-yr	0.13	187.68	188.95	187.81	188.95	0.000000	0.01	87.84	264.76	0.00
Dawson-Drain	Reach 1	1243	100-yr	0.16	187.68	189.01	187.82	189.01	0.000000	0.01	103.00	266.32	0.00
Dawson-Drain	Reach 1	1243	Hazel	0.13	187.68	188.60	187.81	188.60	0.000006	0.04	3.48	11.30	0.02
Dawson-Drain	Reach 1	1259	2-yr	0.06	187.70	188.32	187.79	188.32	0.000010	0.04	1.33	3.29	0.02
Dawson-Drain	Reach 1	1259	5-yr	0.08	187.70	188.50	187.80	188.50	0.000007	0.04	1.98	3.92	0.02
Dawson-Drain	Reach 1	1259	10-yr	0.09	187.70	188.71	187.81	188.71	0.000004	0.03	2.88	4.83	0.01
Dawson-Drain	Reach 1	1259	25-yr	0.12	187.70	188.89	187.83	188.89	0.000003	0.03	3.93	7.18	0.01
Dawson-Drain	Reach 1	1259	50-yr	0.13	187.70	188.95	187.84	188.95	0.000003	0.03	4.39	8.13	0.01
Dawson-Drain	Reach 1	1259	100-yr	0.16	187.70	189.01	187.85	189.01	0.000000	0.01	95.43	253.61	0.00
Dawson-Drain	Reach 1	1259	Hazel	0.13	187.70	188.60	187.83	188.61	0.000011	0.05	2.40	4.36	0.02
ONeil-Drain	Reach 1	207	2-yr	0.20	187.46	187.57	187.57	187.61	0.029002	0.87	0.22	2.93	1.01
ONeil-Drain	Reach 1	207	5-yr	0.34	187.46	187.61	187.61	187.66	0.026368	1.00	0.34	3.33	1.00
ONeil-Drain	Reach 1	207	10-yr	0.44	187.46	187.78	187.63	187.79	0.001846	0.42	1.06	5.22	0.30
ONeil-Drain	Reach 1	207	25-yr	0.60	187.46	188.03	187.66	188.03	0.000262	0.22	2.71	8.02	0.12
ONeil-Drain	Reach 1	207	50-yr	0.72	187.46	188.04	187.68	188.04	0.000335	0.25	2.82	8.18	0.14
ONeil-Drain	Reach 1	207	100-yr	0.86	187.46	188.06	187.70	188.06	0.000420	0.29	2.97	8.38	0.16
ONeil-Drain	Reach 1	207	Hazel	2.41	187.46	187.99	187.86	188.04	0.005512	0.98	2.45	7.65	0.55
ONeil-Drain	Reach 1	270	2-yr	0.20	187.80	187.98	187.89	187.98	0.002451	0.37	0.54	4.04	0.32
ONeil-Drain	Reach 1	270	5-yr	0.34	187.80	188.03	187.93	188.04	0.002599	0.44	0.77	4.67	0.34
ONeil-Drain	Reach 1	270	10-yr	0.44	187.80	187.99	187.95	188.02	0.010209	0.77	0.58	4.16	0.66
ONeil-Drain	Reach 1	270	25-yr	0.60	187.80	188.06	187.98	188.08	0.005656	0.68	0.89	4.94	0.51
ONeil-Drain	Reach 1	270	50-yr	0.72	187.80	188.08	187.99	188.10	0.005767	0.72	1.00	5.21	0.52
ONeil-Drain	Reach 1	270	100-yr	0.86	187.80	188.11	188.02	188.13	0.005708	0.75	1.15	5.51	0.53
ONeil-Drain	Reach 1	270	Hazel	2.41	187.80	188.34	188.17	188.36	0.004022	0.79	3.67	21.99	0.47
ONeil-Drain	Reach 1	328	2-yr	0.20	187.69	188.03	187.84	188.03	0.000442	0.19	1.06	7.63	0.14
ONeil-Drain	Reach 1	328	5-yr	0.34	187.69	188.09	187.88	188.10	0.000497	0.23	1.72	15.23	0.16
ONeil-Drain	Reach 1	328	10-yr	0.44	187.69	188.11	187.90	188.11	0.000645	0.28	1.99	16.82	0.18
ONeil-Drain	Reach 1	328	25-yr	0.60	187.69	188.15	187.93	188.16	0.000574	0.29	2.74	18.88	0.18
ONeil-Drain	Reach 1	328	50-yr	0.72	187.69	188.18	187.95	188.18	0.000565	0.31	3.23	20.57	0.18
ONeil-Drain	Reach 1	328	100-yr	0.86	187.69	188.21	187.97	188.21	0.000541	0.32	3.78	20.82	0.17
ONeil-Drain	Reach 1	328	Hazel	2.41	187.69	188.39	188.13	188.39	0.000152	0.23	21.77	102.57	0.10
ONeil-Drain	Reach 1	406	2-yr	0.20	187.75	188.05	187.85	188.05	0.000162	0.11	1.95	16.82	0.09
ONeil-Drain	Reach 1	406	5-yr	0.34	187.75	188.12	187.89	188.12	0.000144	0.12	3.05	18.80	0.08
ONeil-Drain	Reach 1	406	10-yr	0.44	187.75	188.14	187.90	188.14	0.000175	0.15	3.47	20.47	0.09
ONeil-Drain	Reach 1	406	25-yr	0.60	187.75	188.18	187.92	188.18	0.000177	0.16	4.50	27.26	0.10
ONeil-Drain	Reach 1	406	50-yr	0.72	187.75	188.20	187.94	188.21	0.000181	0.18	5.22	29.61	0.10
ONeil-Drain	Reach 1	406	100-yr	0.86	187.75	188.23	187.96	188.23	0.000183	0.19	6.01	30.73	0.10
ONeil-Drain	Reach 1	406	Hazel	2.41	187.75	188.40	188.07	188.40	0.000053	0.13	30.19	101.24	0.06
ONeil-Drain	Reach 1	441	2-yr	0.20	187.67	188.06	187.77	188.06	0.000137	0.13	1.53	6.36	0.08
ONeil-Drain	Reach 1	441	5-yr	0.34	187.67	188.12	187.81	188.12	0.000210	0.17	1.95	7.13	0.11
ONeil-Drain	Reach 1	441	10-yr	0.44	187.67	188.14	187.83	188.15	0.000290	0.21	2.13	9.56	0.13
ONeil-Drain	Reach 1	441	25-yr	0.60	187.67	188.19	187.86	188.19	0.000436	0.23	2.81	19.55	0.15
ONeil-Drain	Reach 1	441	50-yr	0.72	187.67	188.21	187.88	188.22	0.000436	0.25	3.33	21.69	0.15
ONeil-Drain	Reach 1	441	100-yr	0.86	187.67	188.24	187.91	188.24	0.000433	0.26	3.91	22.67	0.15
ONeil-Drain	Reach 1	441	Hazel	2.41	187.67	188.40	188.06	188.40	0.000127	0.19	22.32	100.94	0.09
ONeil-Drain	Reach 1	498	2-yr	0.20	187.88	188.08	188.00	188.08	0.003661	0.41	0.48	4.10	0.38
ONeil-Drain	Reach 1	498	5-yr	0.34	187.88	188.15	188.04	188.15	0.002654	0.42	0.80	5.20	0.34
ONeil-Drain	Reach 1	498	10-yr	0.44	187.88	188.18	188.06	188.19	0.002666	0.46	0.97	5.52	0.35
ONeil-Drain	Reach 1	498	25-yr	0.60	187.88	188.23	188.09	188.24	0.002158	0.47	1.37	13.22	0.32
ONeil-Drain	Reach 1	498	50-yr	0.72	187.88	188.25	188.11	188.26	0.002030	0.48	1.80	21.57	0.32
ONeil-Drain	Reach 1	498	100-yr	0.86	187.88	188.28	188.13	188.29	0.001798	0.49	2.37	23.71	0.31
ONeil-Drain	Reach 1	498	Hazel	2.41	187.88	188.41	188.30	188.42	0.001523	0.59	6.54	34.50	0.30
ONeil-Drain	Reach 1	518	2-yr	0.20	187.84	188.10	187.94	188.10	0.000366	0.15	1.27	8.40	0.13
ONeil-Drain	Reach 1	518	5-yr	0.34	187.84	188.17	187.97	188.17	0.000364	0.18	1.90	10.21	0.13
ONeil-Drain	Reach 1	518	10-yr	0.44	187.84	188.20	187.98	188.20	0.000399	0.20	2.26	11.10	0.14
ONeil-Drain	Reach 1	518	25-yr	0.60	187.84	188.25	188.01	188.26	0.000387	0.21	2.86	12.47	0.14
ONeil-Drain	Reach 1	518	50-yr	0.72	187.84	188.28	188.02	188.28	0.000419	0.23	3.18	13.14	0.15
ONeil-Drain	Reach 1	518	100-yr	0.86	187.84	188.30	188.04	188.31	0.000462	0.25	3.51	13.78	0.16
ONeil-Drain	Reach 1	518	Hazel	2.41	187.84	188.44	188.16	188.44	0.000924	0.44	5.67	19.53	0.23
ONeil-Drain	Reach 1	556	2-yr	0.20	187.71	188.11	187.81	188.11	0.000129	0.13	1.54	6.22	0.08
ONeil-Drain	Reach 1	556	5-yr	0.34	187.71	188.18	187.85	188.18	0.000188	0.17	2.00	7.05	0.10
ONeil-Drain	Reach 1	556	10-yr	0.44	187.71	188.21	187.87	188.22	0.000236	0.20	2.26	7.46	0.11
ONeil-Drain	Reach 1	556	25-yr	0.60	187.71	188.27	187.91	188.27	0.000267	0.23	2.68	9.22	0.12
ONeil-Drain	Reach 1	556	50-yr	0.72	187.71	188.29	187.92	188.29	0.000303	0.25	2.94	10.37	0.13
ONeil-Drain	Reach 1	556	100-yr	0.86	187.71	188.32	187.95	188.32	0.000347	0.28	3.22	11.49	0.14
ONeil-Drain	Reach 1	556	Hazel	2.41	187.71	188.47	188.11	188.48	0.000811	0.52	5.45	19.99	0.23
ONeil-Drain	Reach 1	615	2-yr	0.20	187.86	188.12	188.01	188.13	0.002122	0.40	0.49	2.84	0.31
ONeil-Drain	Reach 1	615	5-yr	0.34	187.86	188.20	188.05	188.21	0.002129	0.47	0.72	3.29	0.32
ONeil-Drain	Reach 1	615	10-yr	0.44	187.86	188.24	188.08	188.25	0.002300	0.52	0.85	3.52	0.34
ONeil-Drain	Reach 1	615	25-yr	0.60	187.86	188.29	188.12	188.31	0.002373	0.57	1.05	3.85	0.35

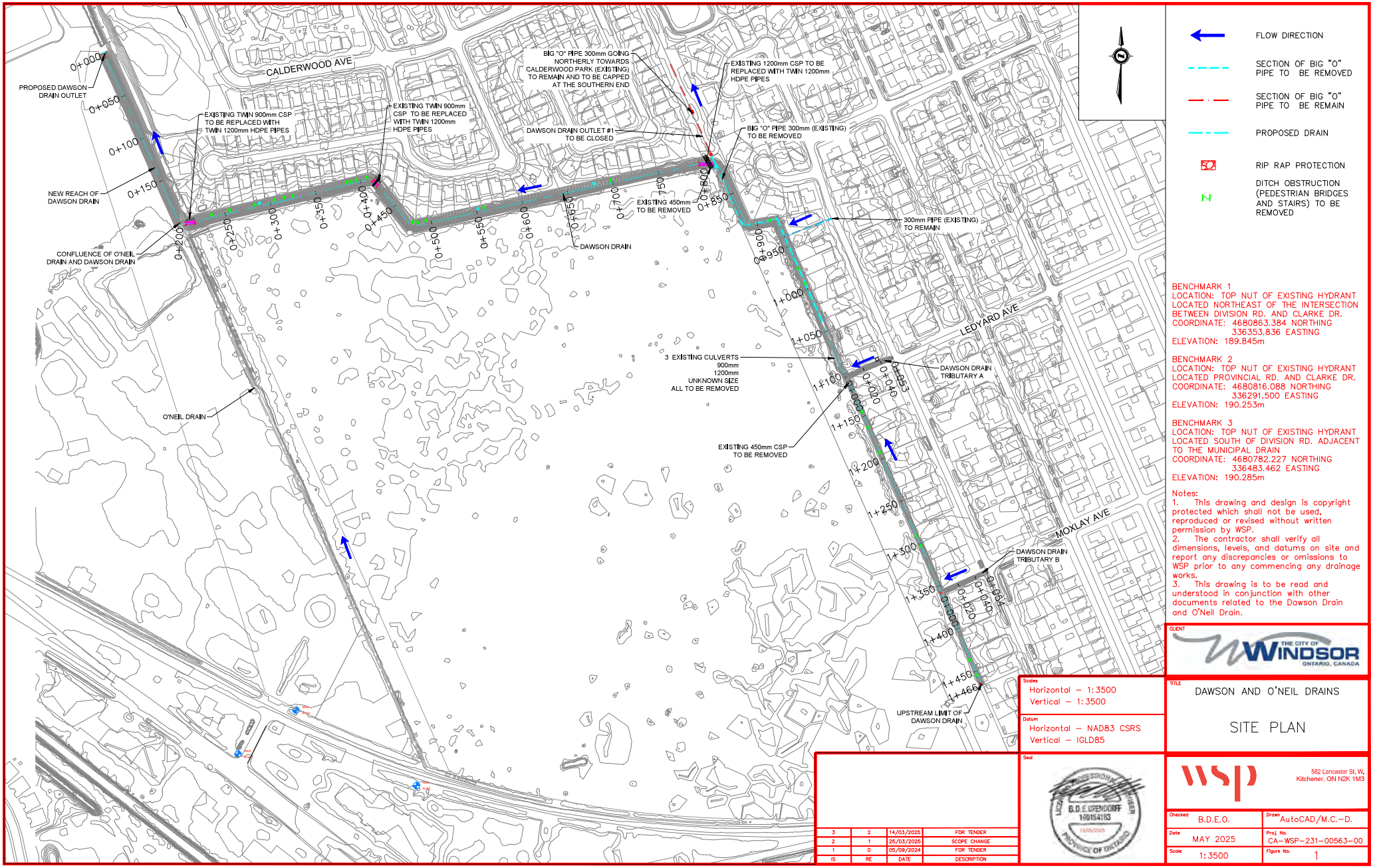
HEC-RAS Plan: 525HDPE (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
ONeil-Drain	Reach 1	615	50-yr	0.72	187.86	188.32	188.14	188.34	0.002572	0.62	1.16	4.02	0.37
ONeil-Drain	Reach 1	615	100-yr	0.86	187.86	188.35	188.17	188.37	0.002818	0.67	1.28	4.19	0.39
ONeil-Drain	Reach 1	615	Hazel	2.41	187.86	188.52	188.37	188.52	0.000615	0.39	12.96	90.48	0.19
ONeil-Drain	Reach 1	650	2-yr	0.20	187.91	188.18	188.05	188.19	0.001259	0.29	0.67	4.29	0.24
ONeil-Drain	Reach 1	650	5-yr	0.34	187.91	188.26	188.09	188.26	0.001169	0.33	1.03	5.26	0.24
ONeil-Drain	Reach 1	650	10-yr	0.44	187.91	188.30	188.11	188.31	0.001161	0.35	1.27	5.81	0.24
ONeil-Drain	Reach 1	650	25-yr	0.60	187.91	188.36	188.14	188.36	0.001120	0.37	1.61	7.27	0.24
ONeil-Drain	Reach 1	650	50-yr	0.72	187.91	188.39	188.17	188.40	0.001110	0.39	1.98	13.69	0.24
ONeil-Drain	Reach 1	650	100-yr	0.86	187.91	188.42	188.19	188.43	0.001046	0.40	2.44	14.89	0.24
ONeil-Drain	Reach 1	650	Hazel	2.41	187.91	188.54	188.35	188.54	0.000452	0.32	20.58	119.15	0.16
ONeil-Drain	Reach 1	694	2-yr	0.20	188.01	188.25	188.14	188.25	0.001663	0.30	0.66	5.19	0.26
ONeil-Drain	Reach 1	694	5-yr	0.34	188.01	188.32	188.18	188.32	0.001405	0.32	1.06	6.51	0.25
ONeil-Drain	Reach 1	694	10-yr	0.44	188.01	188.36	188.20	188.36	0.001296	0.33	1.34	7.30	0.25
ONeil-Drain	Reach 1	694	25-yr	0.60	188.01	188.41	188.23	188.42	0.001205	0.33	1.84	10.76	0.24
ONeil-Drain	Reach 1	694	50-yr	0.72	188.01	188.44	188.25	188.44	0.000837	0.30	3.41	43.37	0.20
ONeil-Drain	Reach 1	694	100-yr	0.86	188.01	188.46	188.26	188.47	0.000652	0.28	4.72	50.61	0.18
ONeil-Drain	Reach 1	694	Hazel	2.41	188.01	188.56	188.41	188.56	0.000319	0.24	25.34	175.45	0.14
ONeil-Drain	Reach 1	722	2-yr	0.11	188.07	188.28	188.15	188.28	0.000527	0.16	0.66	5.27	0.15
ONeil-Drain	Reach 1	722	5-yr	0.18	188.07	188.34	188.18	188.34	0.000456	0.17	1.03	6.72	0.14
ONeil-Drain	Reach 1	722	10-yr	0.24	188.07	188.38	188.19	188.38	0.000419	0.18	1.34	8.80	0.14
ONeil-Drain	Reach 1	722	25-yr	0.32	188.07	188.43	188.21	188.43	0.000326	0.18	1.83	10.63	0.13
ONeil-Drain	Reach 1	722	50-yr	0.37	188.07	188.45	188.22	188.46	0.000336	0.19	2.07	11.72	0.13
ONeil-Drain	Reach 1	722	100-yr	0.44	188.07	188.48	188.24	188.48	0.000341	0.20	2.39	14.93	0.13
ONeil-Drain	Reach 1	722	Hazel	0.86	188.07	188.56	188.30	188.56	0.000029	0.07	28.47	186.73	0.04
ONeil-Drain	Reach 1	780	2-yr	0.11	188.06	188.33	188.23	188.34	0.002381	0.36	0.30	2.18	0.31
ONeil-Drain	Reach 1	780	5-yr	0.18	188.06	188.39	188.27	188.40	0.002441	0.42	0.44	2.64	0.33
ONeil-Drain	Reach 1	780	10-yr	0.24	188.06	188.43	188.29	188.44	0.002774	0.43	0.55	3.55	0.35
ONeil-Drain	Reach 1	780	25-yr	0.32	188.06	188.47	188.32	188.48	0.003089	0.43	0.74	5.26	0.36
ONeil-Drain	Reach 1	780	50-yr	0.37	188.06	188.49	188.34	188.50	0.002807	0.44	0.85	5.37	0.35
ONeil-Drain	Reach 1	780	100-yr	0.44	188.06	188.49	188.36	188.50	0.004512	0.55	0.82	5.33	0.44
ONeil-Drain	Reach 1	780	Hazel	0.86	188.06	188.56	188.47	188.56	0.000049	0.07	13.90	56.65	0.05
ONeil-Drain	Reach 1	840	2-yr	0.11	187.99	188.37	188.13	188.37	0.000244	0.16	0.67	3.01	0.11
ONeil-Drain	Reach 1	840	5-yr	0.18	187.99	188.44	188.17	188.44	0.000324	0.20	0.89	3.42	0.13
ONeil-Drain	Reach 1	840	10-yr	0.24	187.99	188.48	188.19	188.48	0.000354	0.23	1.04	3.69	0.14
ONeil-Drain	Reach 1	840	25-yr	0.32	187.99	188.53	188.21	188.53	0.000408	0.26	1.23	3.98	0.15
ONeil-Drain	Reach 1	840	50-yr	0.37	187.99	188.56	188.24	188.56	0.000465	0.28	1.33	4.14	0.16
ONeil-Drain	Reach 1	840	100-yr	0.44	187.99	188.57	188.26	188.58	0.000575	0.32	1.39	4.23	0.18
ONeil-Drain	Reach 1	840	Hazel	0.86	187.99	188.56	188.35	188.58	0.002458	0.65	1.33	4.14	0.36

APPENDIX

F

Drain Plan, Profile and Typical Cross-sections



FLOW DIRECTION

SECTION OF BIG "O" PIPE TO BE REMOVED

SECTION OF BIG "O" PIPE TO BE REMAIN

PROPOSED DRAIN

RIP RAP PROTECTION

DITCH OBSTRUCTION (PEDESTRIAN BRIDGES AND STAIRS) TO BE REMOVED

BENCHMARK 1
LOCATION: TOP NUT OF EXISTING HYDRANT LOCATED NORTHEAST OF THE INTERSECTION BETWEEN DIVISION RD. AND CLARKE DR.
COORDINATE: 4680863.384 NORTHING
336353.836 EASTING
ELEVATION: 189.845m

BENCHMARK 2
LOCATION: TOP NUT OF EXISTING HYDRANT LOCATED PROVINCIAL RD. AND CLARKE DR.
COORDINATE: 4680816.088 NORTHING
336291.500 EASTING
ELEVATION: 190.253m

BENCHMARK 3
LOCATION: TOP NUT OF EXISTING HYDRANT LOCATED SOUTH OF DIVISION RD. ADJACENT TO THE MUNICIPAL DRAIN
COORDINATE: 4680782.227 NORTHING
336483.462 EASTING
ELEVATION: 190.285m

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Scales
Horizontal – 1:3500
Vertical – 1:3500

Datum
Horizontal – NAD83 CSRS
Vertical – IGLD85

TITLE
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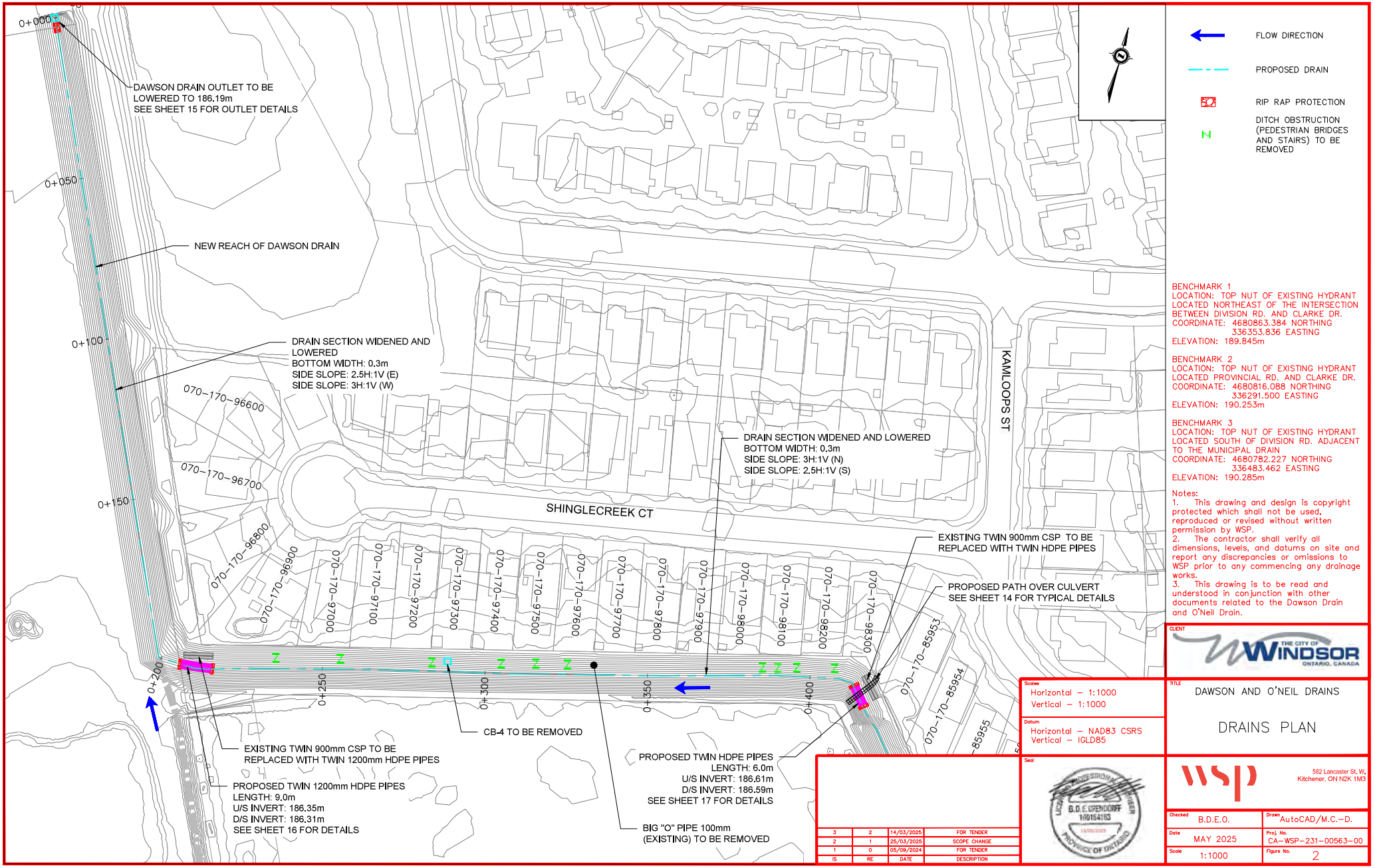
SITE PLAN

IS	RE	DATE	DESCRIPTION
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2	1	25/03/2025	SCOPE CHANGE
1	0	05/09/2024	FOR TENDER

Seal
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100154163
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582 Lancaster St. W.
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Date MAY 2025	Proj. No. CA–WSP–231–00563–00
Scale 1:3500	Figure No. 1



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ELEVATION: 189.845m

BENCHMARK 2
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COORDINATE: 4680782.227 NORTHING
336483.462 EASTING
ELEVATION: 190.285m

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3	2	14/03/2025	FOR TENDER
2	1	25/03/2025	SCOPE CHANGE
1	0	05/09/2024	FOR TENDER
IS	RE	DATE	DESCRIPTION

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Scales
Horizontal – 1:1000
Vertical – 1:1000

Datum
Horizontal – NAD83 CSRS
Vertical – IGLD85

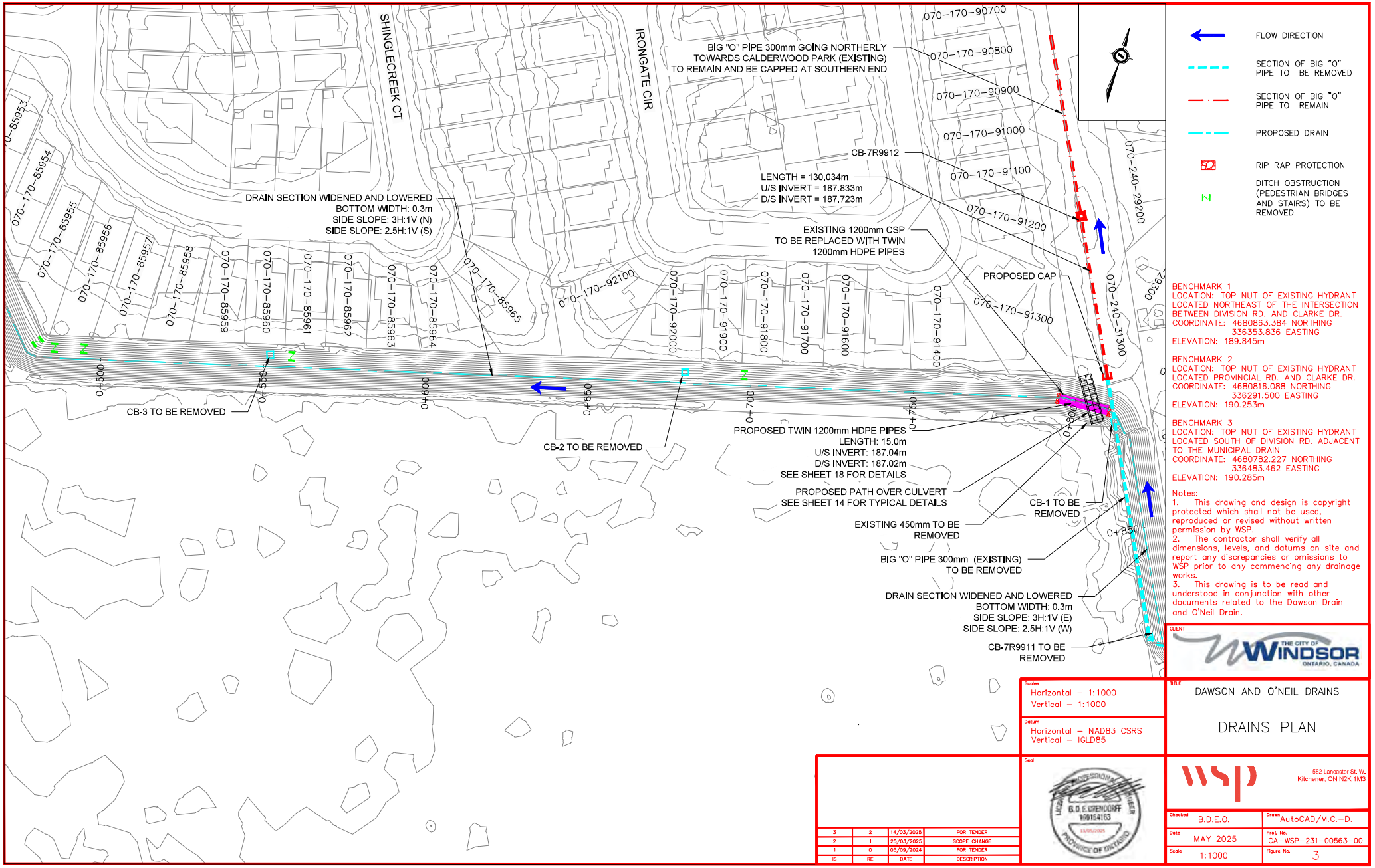
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TITLE
DAWSON AND O'NEIL DRAINS

DRAINS PLAN

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Date: MAY 2025	Proj. No.: CA–WSP–231–00563–00
Scale: 1:1000	Figure No.: 2



BENCHMARK 1
LOCATION: TOP NUT OF EXISTING HYDRANT LOCATED NORTHEAST OF THE INTERSECTION BETWEEN DIVISION RD. AND CLARKE DR.
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336353.836 EASTING
ELEVATION: 189.845m

BENCHMARK 2
LOCATION: TOP NUT OF EXISTING HYDRANT LOCATED PROVINCIAL RD. AND CLARKE DR.
COORDINATE: 4680816.088 NORTHING
336291.500 EASTING
ELEVATION: 190.253m

BENCHMARK 3
LOCATION: TOP NUT OF EXISTING HYDRANT LOCATED SOUTH OF DIVISION RD. ADJACENT TO THE MUNICIPAL DRAIN
COORDINATE: 4680782.227 NORTHING
336483.462 EASTING
ELEVATION: 190.285m

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Scales
Horizontal – 1:1000
Vertical – 1:1000

Datum
Horizontal – NAD83 CSRS
Vertical – IGLD85

TITLE
DAWSON AND O'NEIL DRAINS

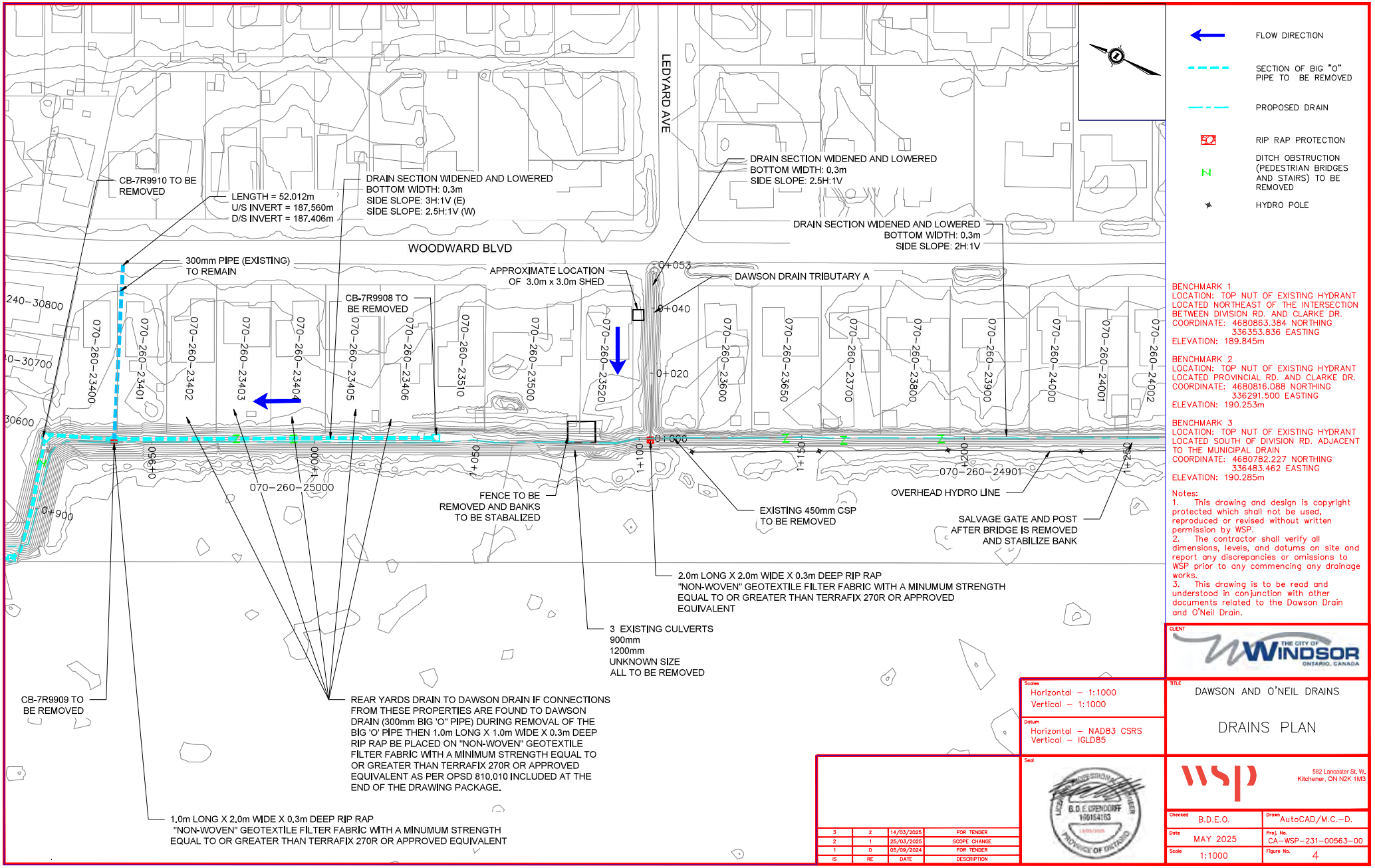
DRAINS PLAN

3	2	14/03/2025	FOR TENDER
2	1	25/03/2025	SCOPE CHANGE
1	0	05/09/2024	FOR TENDER
IS	RE	DATE	DESCRIPTION

Seal: B.D.E. DRENDORFF, 100154163, PROVINCE OF ONTARIO

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Scale: 1:1000	Figure No.: 3



BENCHMARK 1
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336353.836 EASTING
ELEVATION: 189.845m

BENCHMARK 2
LOCATION: TOP NUT OF EXISTING HYDRANT LOCATED PROVINCIAL RD. AND CLARKE DR.
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336291.500 EASTING
ELEVATION: 190.253m

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COORDINATE: 4680782.227 NORTHING
336483.462 EASTING
ELEVATION: 190.285m

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Scales
Horizontal – 1:1000
Vertical – 1:1000

Datum
Horizontal – NAD83 CSRS
Vertical – IGLD85

TITLE
DAWSON AND O'NEIL DRAINS

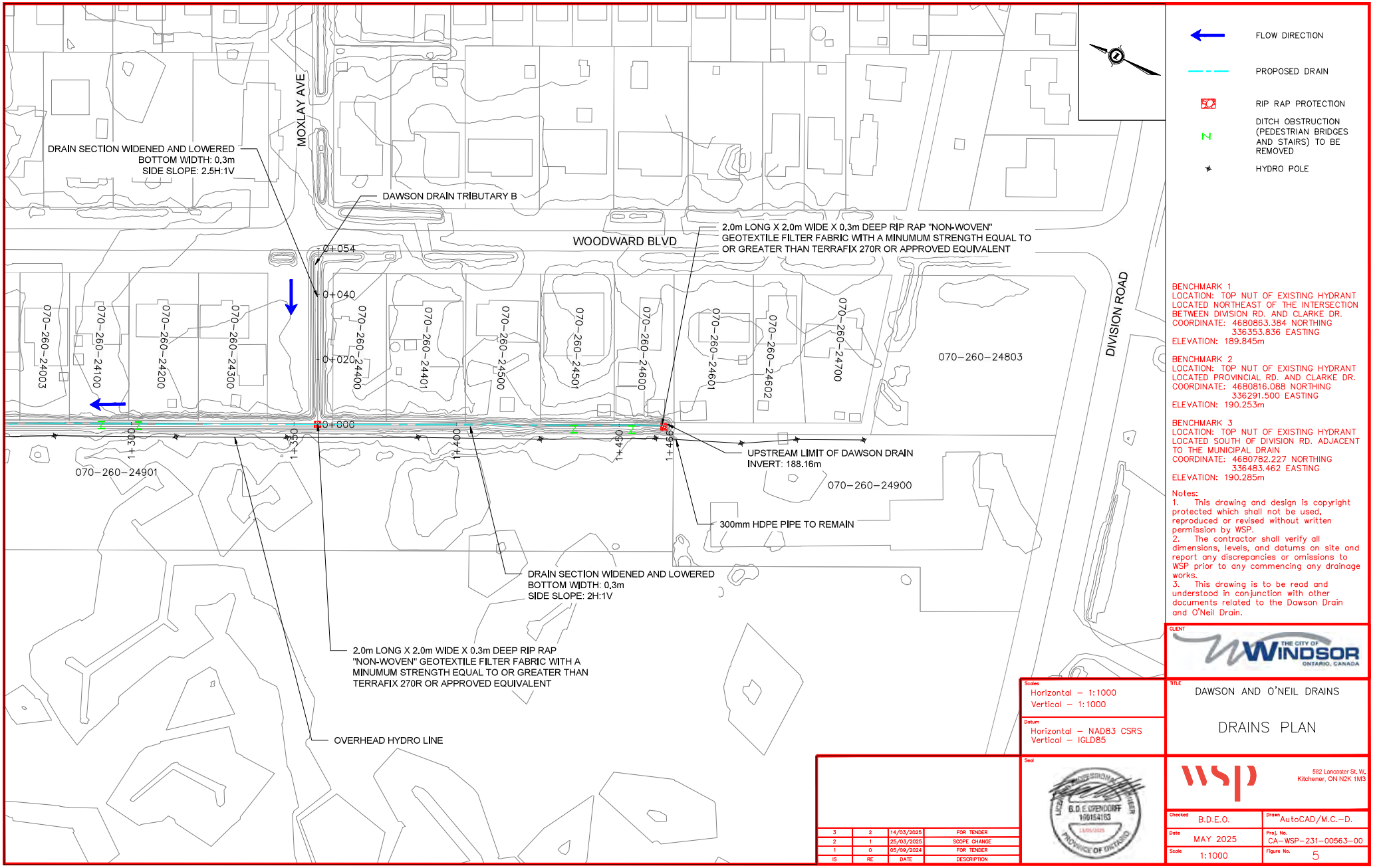
DRAINS PLAN

IS	RE	DATE	DESCRIPTION
3	2	14/03/2025	FOR TENDER
2	1	25/03/2025	SCOPE CHANGE
1	0	05/09/2024	FOR TENDER

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Scale: 1:1000	Figure No.: 4



BENCHMARK 1
LOCATION: TOP NUT OF EXISTING HYDRANT LOCATED NORTHEAST OF THE INTERSECTION BETWEEN DIVISION RD. AND CLARKE DR.
COORDINATE: 4680863.384 NORTHING
336353.836 EASTING
ELEVATION: 189.845m

BENCHMARK 2
LOCATION: TOP NUT OF EXISTING HYDRANT LOCATED PROVINCIAL RD. AND CLARKE DR.
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ELEVATION: 190.253m

BENCHMARK 3
LOCATION: TOP NUT OF EXISTING HYDRANT LOCATED SOUTH OF DIVISION RD. ADJACENT TO THE MUNICIPAL DRAIN
COORDINATE: 4680782.227 NORTHING
336483.462 EASTING
ELEVATION: 190.285m

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TITLE: DAWSON AND O'NEIL DRAINS

DRAINS PLAN

Scales
Horizontal – 1:1000
Vertical – 1:1000

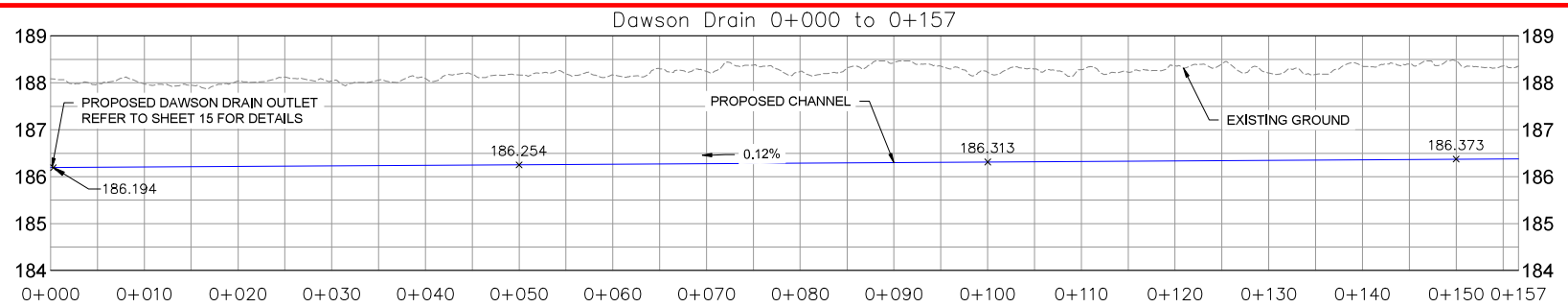
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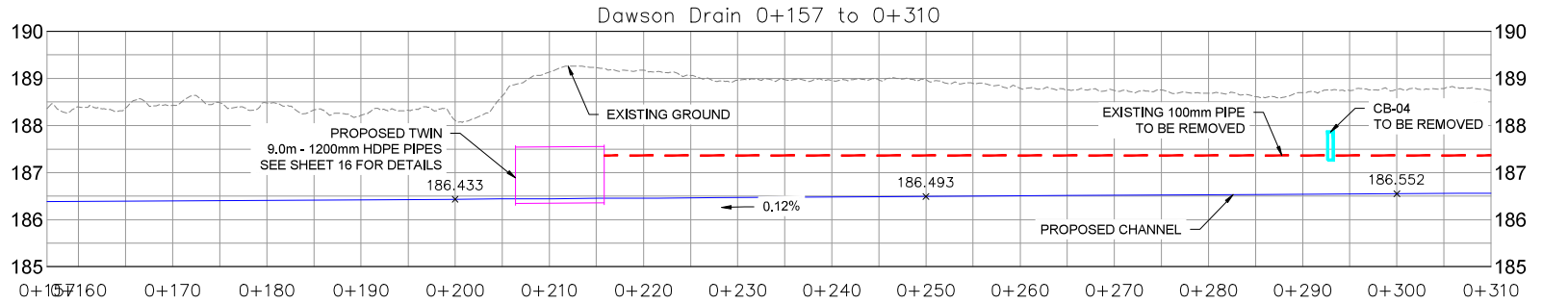
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2	1	25/03/2025	SCOPE CHANGE
1	0	05/09/2024	FOR TENDER
IS	RE	DATE	DESCRIPTION

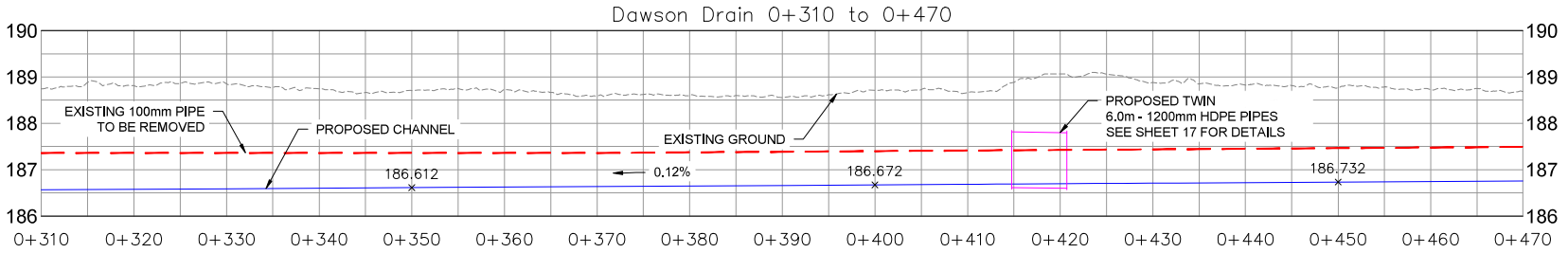
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4. STANDARD PRACTICE TO MINIMIZE DISRUPTION TO FISH HABITAT IN A MUNICIPAL DRAIN IS TO EMBED CULVERTS A MINIMUM OF 10% OF THE PIPE DIAMETER BELOW GRADE (DRAIN BOTTOM). THE EARTH SHOULD BE REDISTRIBUTED TO AREAS WHERE FILL IS REQUIRED. THE CUT VOLUME IS 12386m^3 AND FILL VOLUME IS 900m^3 – AND THE NET CUT IS 11486m^3.

IS	RE	DATE	DESCRIPTION
3	2	14/03/2025	FOR TENDER
2	1	25/03/2025	SCOPE CHANGE
1	0	05/09/2024	FOR TENDER

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100154163
13/05/2025
PROFESSIONAL ENGINEER
PROVINCE OF ONTARIO

CLIENT
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ONTARIO, CANADA

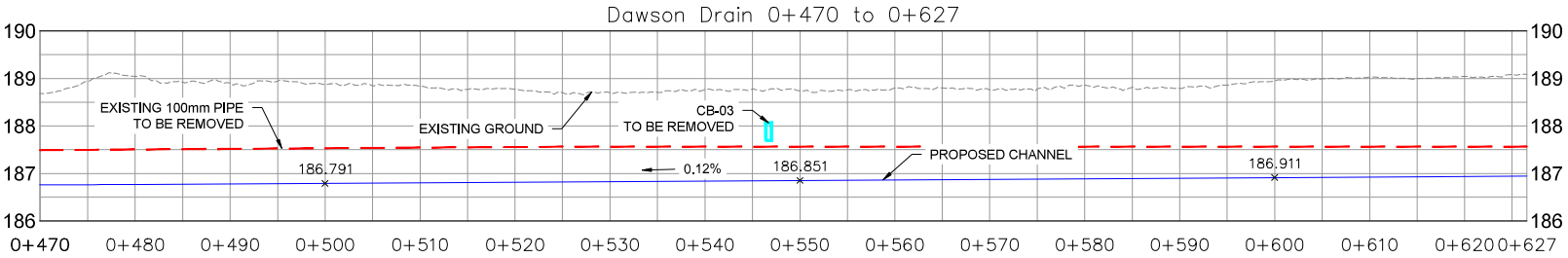
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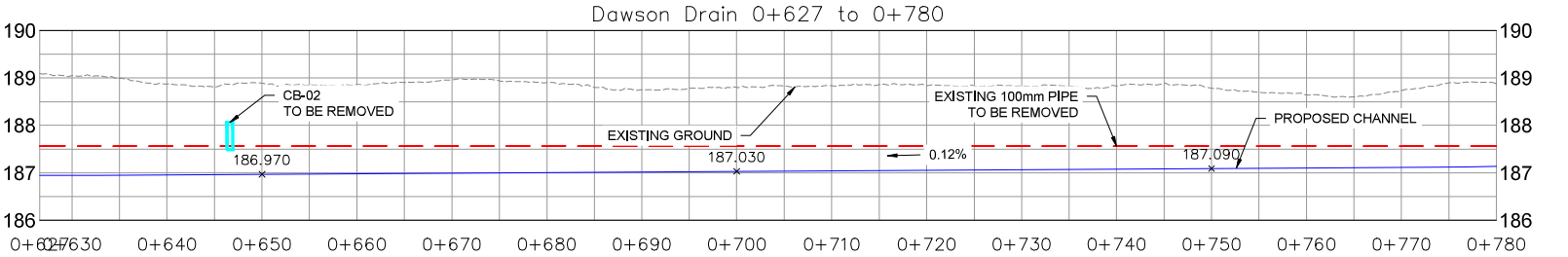
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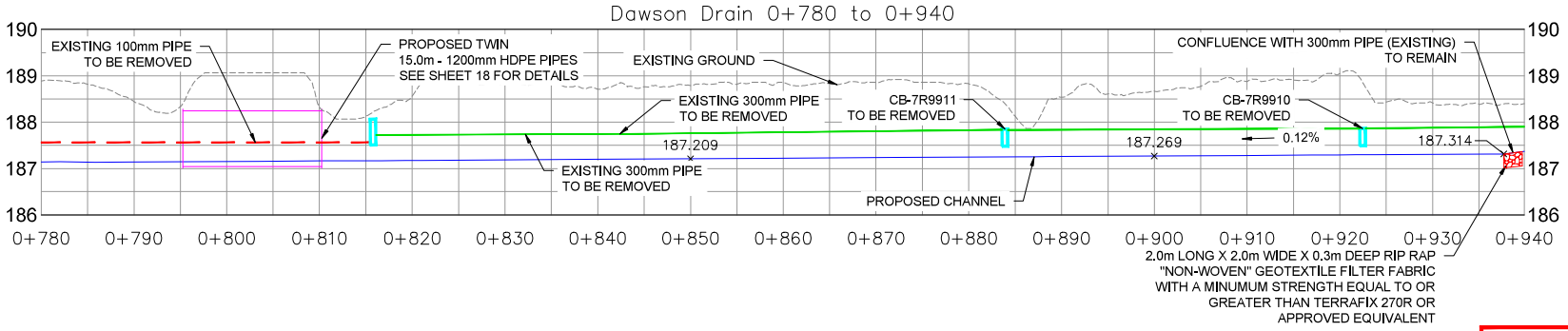
TITLE
DAWSON DRAIN
PROFILE

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Date MAY 2025	Proj. No. CA–WSP–231–00563–00
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IS	RE	DATE	DESCRIPTION
3	2	14/03/2025	FOR TENDER
2	1	25/03/2025	SCOPE CHANGE
1	0	05/09/2024	FOR TENDER

Seal

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100154163
PROVINCE OF ONTARIO

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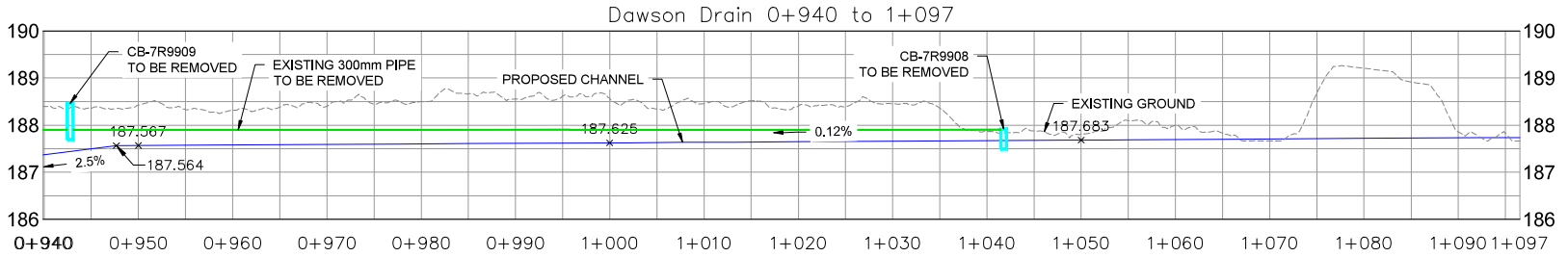
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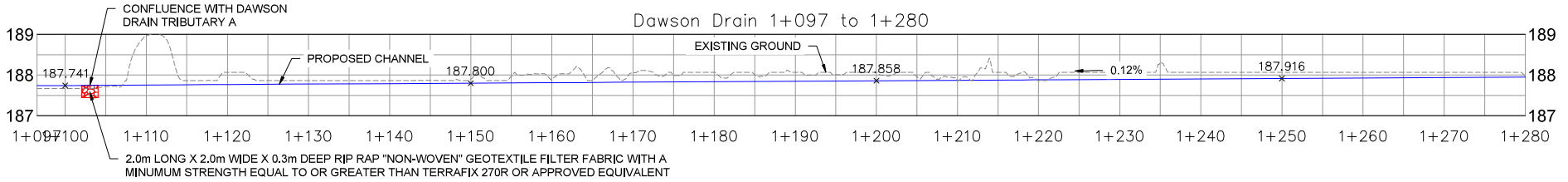
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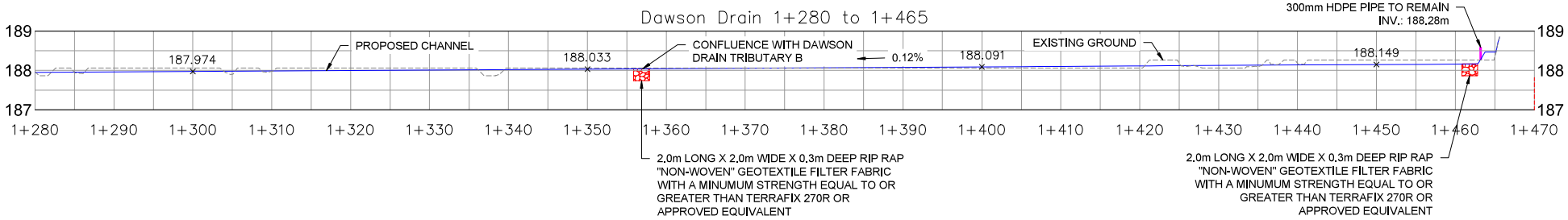
TITLE
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IS	RE	DATE	DESCRIPTION
3	2	14/03/2025	FOR TENDER
2	1	25/03/2025	SCOPE CHANGE
1	0	05/09/2024	FOR TENDER

Seal

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100154163
13/05/2025
PROFESSIONAL ENGINEER
PROVINCE OF ONTARIO

CLIENT: THE CITY OF WINDSOR, ONTARIO, CANADA

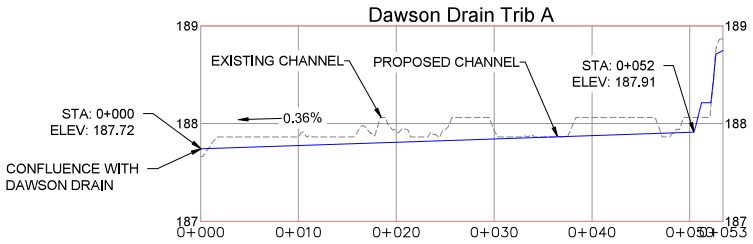
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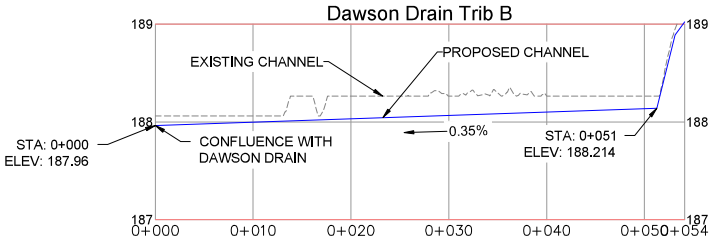
Datum
Horizontal – NAD83 CSRS
Vertical – IGLD85

TITLE
DAWSON DRAIN
PROFILE

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Kitchener, ON N2K 1M3

Checked	Drawn
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3	2	14/03/2025	FOR TENDER
2	1	25/03/2025	SCOPE CHANGE
1	0	05/09/2024	FOR TENDER

Scales
Horizontal – 1:500
Vertical – 1:50

Datum
Horizontal – NAD83 CSRS
Vertical – IGLD85

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100154163
13/05/2025
PROVINCE OF ONTARIO

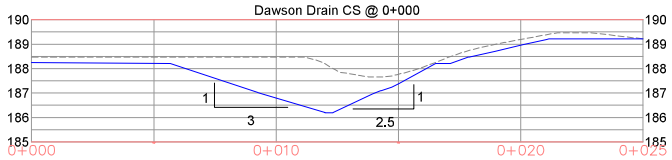
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THE CITY OF WINDSOR
ONTARIO, CANADA

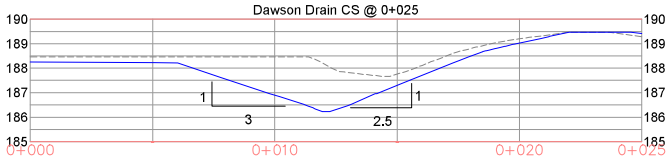
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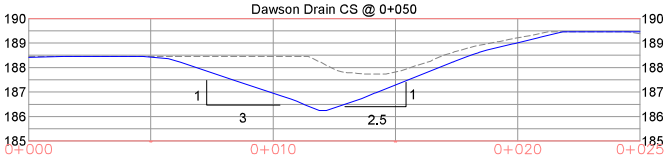
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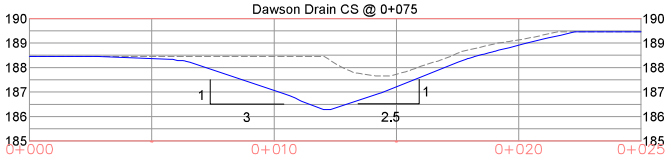
wsp
582 Lancaster St. W.
Kitchener, ON N2K 1M3

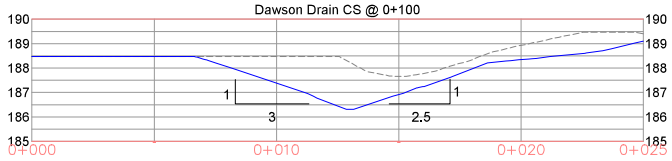
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Date MAY 2025	Proj. No. CA-WSP-231-00563-00
Scale AS SHOWN	Figure No. 9

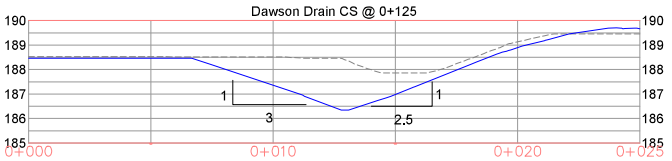


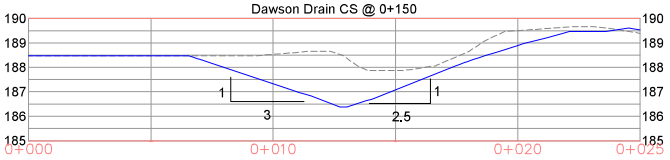


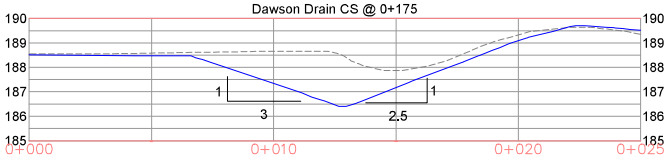












PROPOSED GROUND

EXISTING GROUND

APPROXIMATE EXISTING 100mm PIPE

APPROXIMATE EXISTING 300mm PIPE

PROPERTY LINE

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IS	RE	DATE	DESCRIPTION
3	2	14/03/2025	FOR TENDER
2	1	25/03/2025	SCOPE CHANGE
1	0	05/09/2024	FOR TENDER

CLIENT: THE CITY OF WINDSOR, ONTARIO, CANADA

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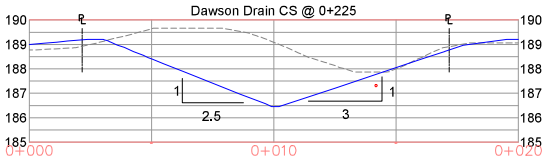
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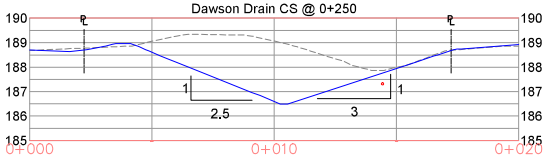
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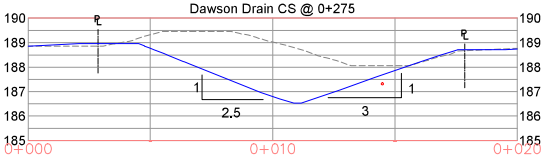
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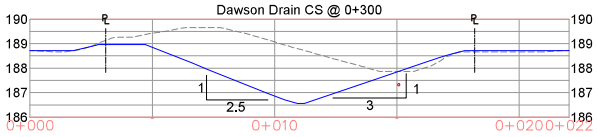
WSP
582 Lancaster St. W.
Kitchener, ON N2K 1M3

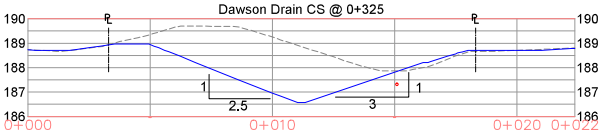
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Scale	AS SHOWN	Figure No.	10

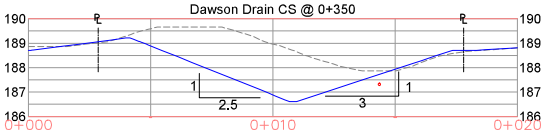


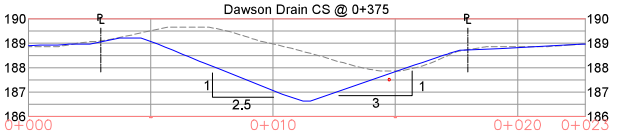


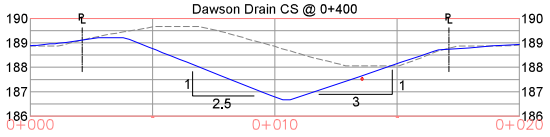


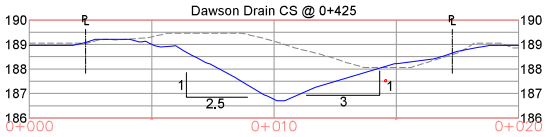


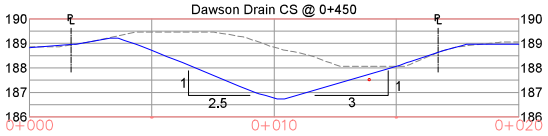


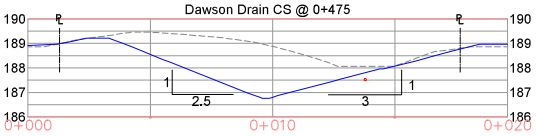


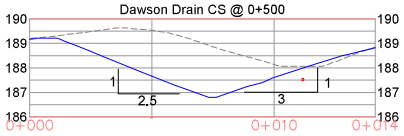












PROPOSED GROUND

EXISTING GROUND

APPROXIMATE EXISTING 100mm PIPE

APPROXIMATE EXISTING 300mm PIPE

PROPERTY LINE

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IS	RE	DATE	DESCRIPTION
3	2	14/03/2025	FOR TENDER
2	1	25/03/2025	SCOPE CHANGE
1	0	05/09/2024	FOR TENDER

Seal

B.D.E. ORENDORFF
100154163
13/05/2025
LICENCE OF PROFESSIONAL ENGINEER
PROVINCE OF ONTARIO

CLIENT
THE CITY OF WINDSOR
ONTARIO, CANADA

Scales
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Vertical – 1:200

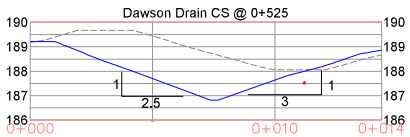
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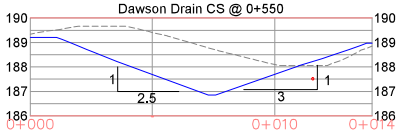
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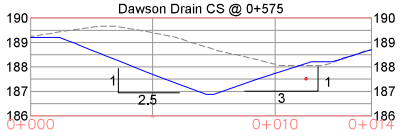
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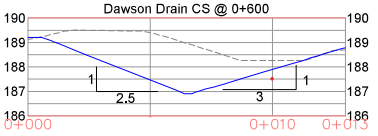
582 Lancaster St. W.
Kitchener, ON N2K 1M3

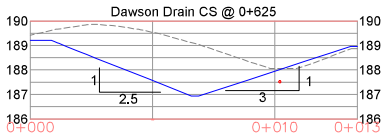
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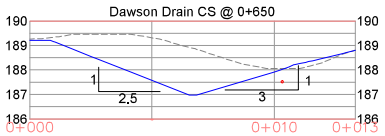


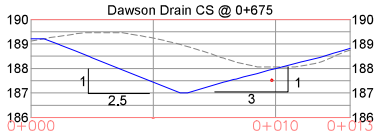


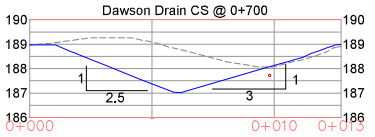


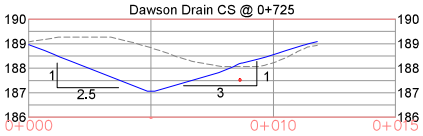


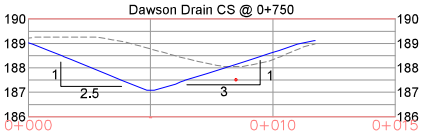


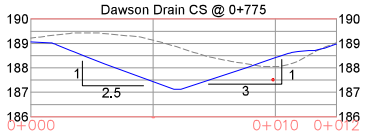


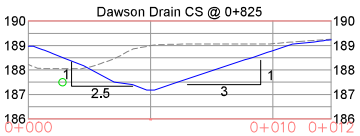


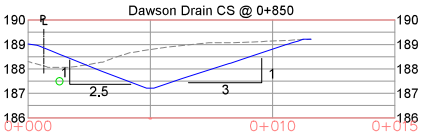


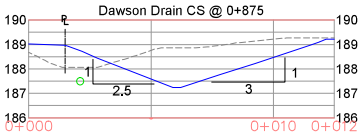


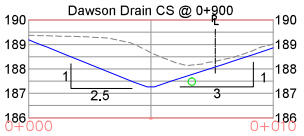












PROPOSED GROUND

EXISTING GROUND

APPROXIMATE EXISTING 100mm PIPE

APPROXIMATE EXISTING 300mm PIPE

℄ PROPERTY LINE

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2	1	25/03/2025	SCOPE CHANGE
1	0	05/09/2024	FOR TENDER
IS	RE	DATE	DESCRIPTION

CLIENT: THE CITY OF WINDSOR, ONTARIO, CANADA

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Vertical – 1:200

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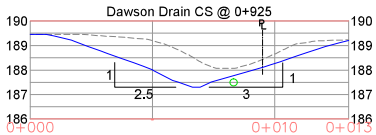
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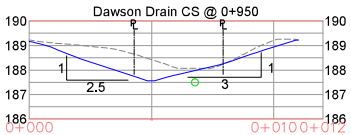
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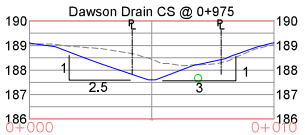
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B.D.E. ORENDORFF
100154163
PROFESSIONAL ENGINEER
PROVINCE OF ONTARIO

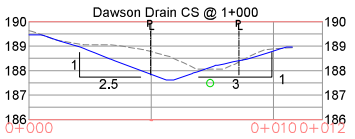
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Kitchener, ON N2K 1M3

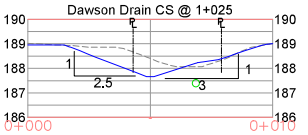
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Date: MAY 2025	Proj. No.: CA-WSP-231-00563-00
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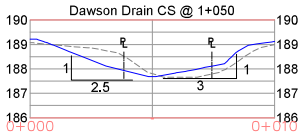


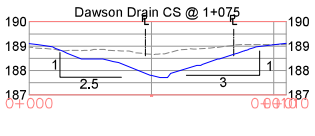


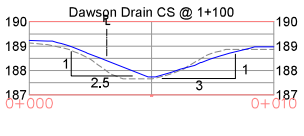


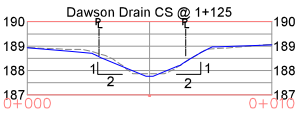


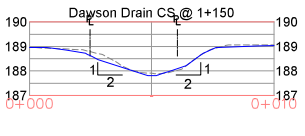


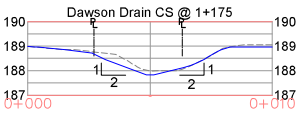


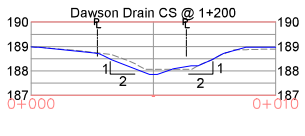


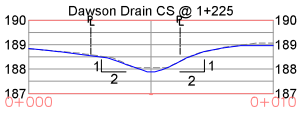


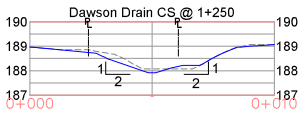


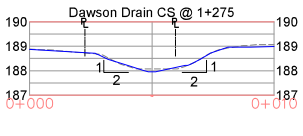


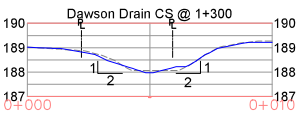


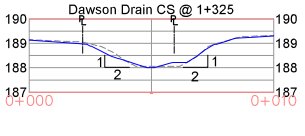


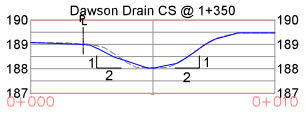


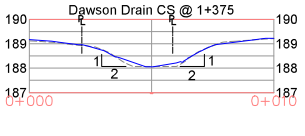


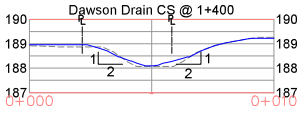


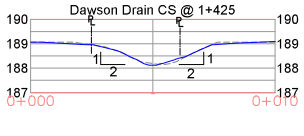


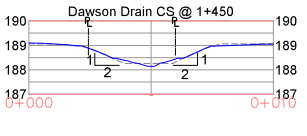


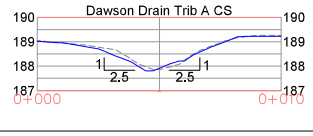


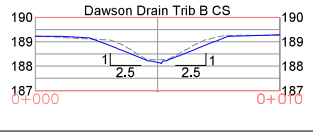


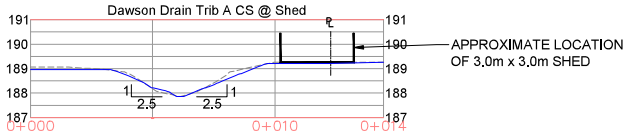












PROPOSED GROUND

EXISTING GROUND

APPROXIMATE EXISTING 100mm PIPE

APPROXIMATE EXISTING 300mm PIPE

PROPERTY LINE

NOTES:
1. THIS DRAWING AND DESIGN IS COPYRIGHT PROTECTED WHICH SHALL NOT BE USED, REPRODUCED OR REVISED WITHOUT WRITTEN PERMISSION BY WSP.
2. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, LEVELS, AND DATUMS ON SITE AND REPORT ANY DISCREPANCIES OR OMISSIONS TO WSP PRIOR TO ANY COMMENCING ANY DRAINAGE WORKS.
3. THIS DRAWING IS TO BE READ AND UNDERSTOOD IN CONJUNCTION WITH OTHER DOCUMENTS RELATED TO THE DAWSON DRAIN.
4. MINIMUM BOTTOM WIDTH OF 0.3m TO BE MAINTAINED FOR ENTIRE DAWSON DRAIN.
5. WHERE NEW SLOPE IS NOT SHOWN ON THE DRAWINGS, SIDE SLOPES ARE NOT PROPOSED AND DAMAGING STABILIZED BANKS IS TO BE AVOIDED
6. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SPECIFIED
7. ALL PROPERTY LINES ARE APPROXIMATE AND LOCATIONS ARE TO BE CONFIRMED BY THE CONTRACTOR.

IS	RE	DATE	DESCRIPTION
3	2	14/03/2025	FOR TENDER
2	1	25/03/2025	SCOPE CHANGE
1	0	05/09/2024	FOR TENDER

Seal

B.D.E. ORENDORFF
100154163
13/05/2025
LICENCE OF PROFESSIONAL ENGINEER
PROVINCE OF ONTARIO

CLIENT
THE CITY OF WINDSOR
ONTARIO, CANADA

Scales
Horizontal – 1:200
Vertical – 1:200

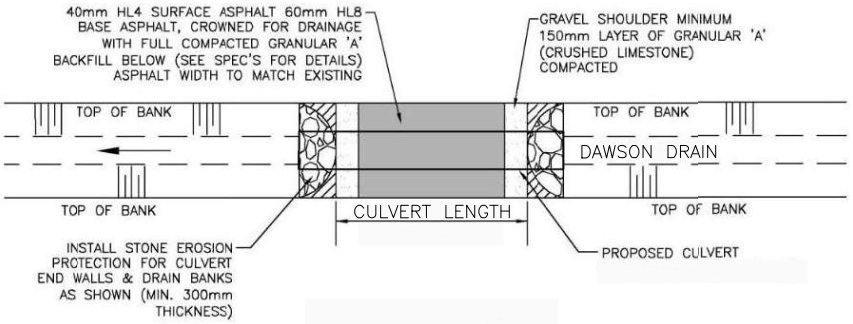
Datum
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Vertical – IGLD85

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DAWSON DRAIN

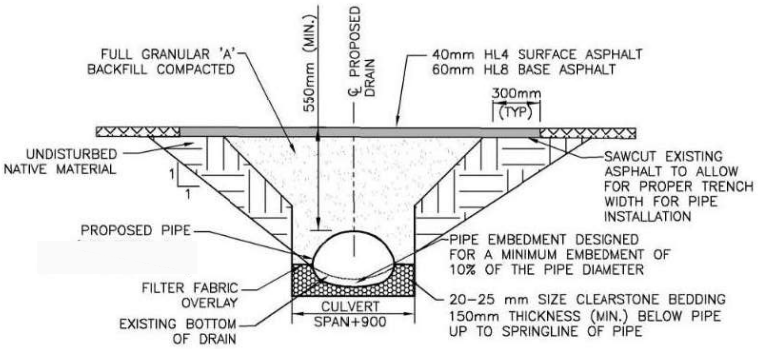
CROSS-SECTIONS

WSP
582 Lancaster St. W.
Kitchener, ON N2K 1M3

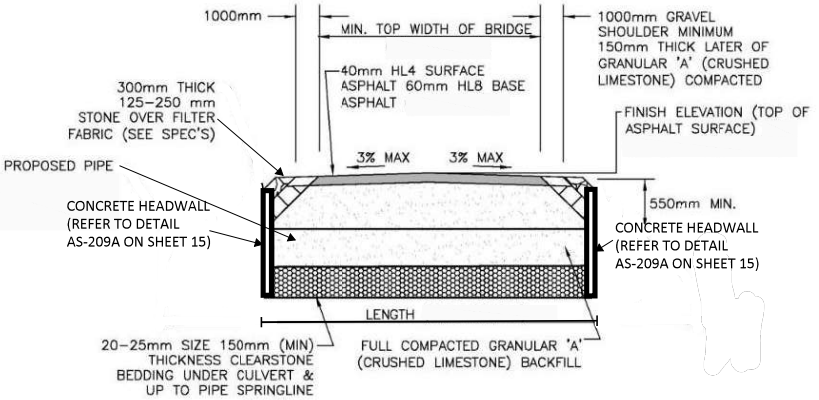
Checked	Drawn
B.D.E.O.	AutoCAD/M.C.-D.
Date	Proj. No.
MAY 2025	CA-WSP-231-00563-00
Scale	Figure No.
AS SHOWN	13



PLAN VIEW
N.T.S.



CROSS SECTION
N.T.S.



LONGITUDINAL SECTION
N.T.S.

NOTE: ALL PROPOSED CULVERTS ARE TO HAVE HEADWALLS AT BOTH ENDS. REFER TO DETAIL AS-209A ON SHEET 15

3	2	14/03/2025	FOR TENDER
2	1	25/03/2025	SCOPE CHANGE
1	0	05/09/2024	FOR TENDER
IS	RE	DATE	DESCRIPTION

THE CITY OF WINDSOR
ONTARIO, CANADA

Vertical – IGLD85

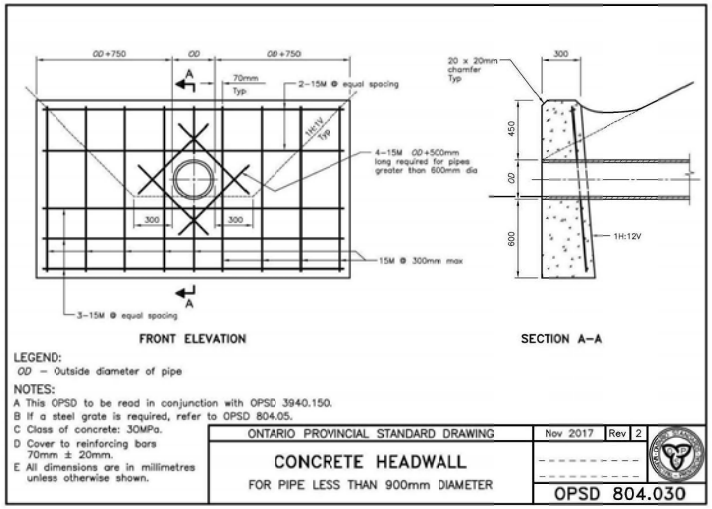
- AIN
T I - ATH
= T -TION
DETAILS

Seal

B.D.E. ORENDORFF
100154163
13/05/2025
LICENCE OF PROFESSIONAL ENGINEER
PROVINCE OF ONTARIO

WSP
582 Lancaster St. W.
Kitchener, ON N2K 1M3

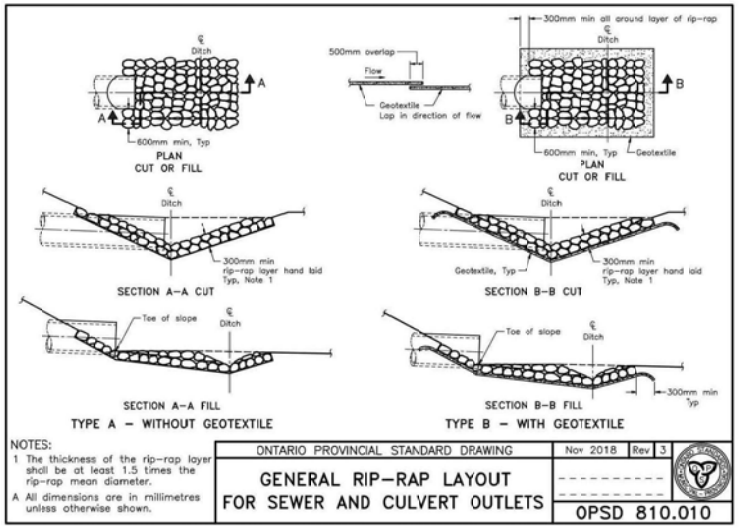
Checked B.D.E.O.	Drawn AutoCAD/M.C.-D.
Date MAY 2025	Proj. No. CA-WSP-231-00563-00
Scale AS SHOWN	Figure No. 14



LEGEND:
OD – Outside diameter of pipe

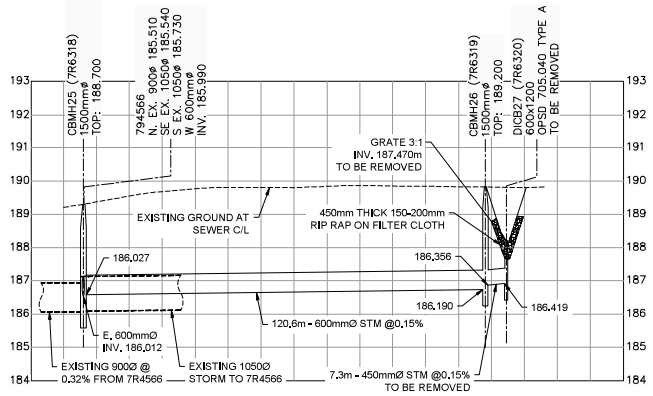
NOTES:
A This OPSD to be read in conjunction with OPSC 3940.150.
B If a steel grate is required, refer to OPSD 804.05.
C Class of concrete: 30MPa.
D Cover to reinforcing bars 70mm ± 20mm.
E All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2017	Rev 2
CONCRETE HEADWALL FOR PIPE LESS THAN 900mm DIAMETER		
OPSD 804.030		

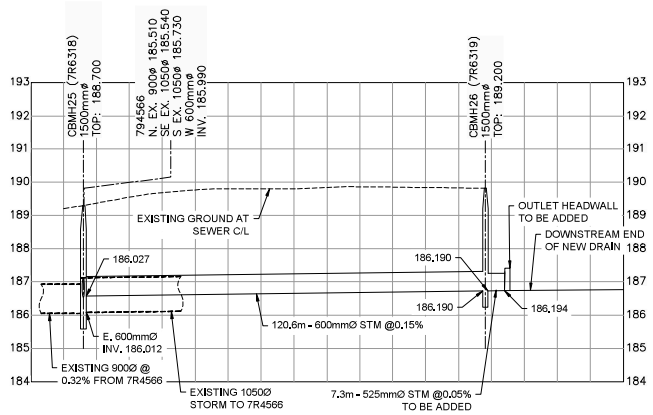


NOTES:
1 The thickness of the rip-rap layer shall be at least 1.5 times the rip-rap mean diameter.
A All dimensions are in millimetres unless otherwise shown.

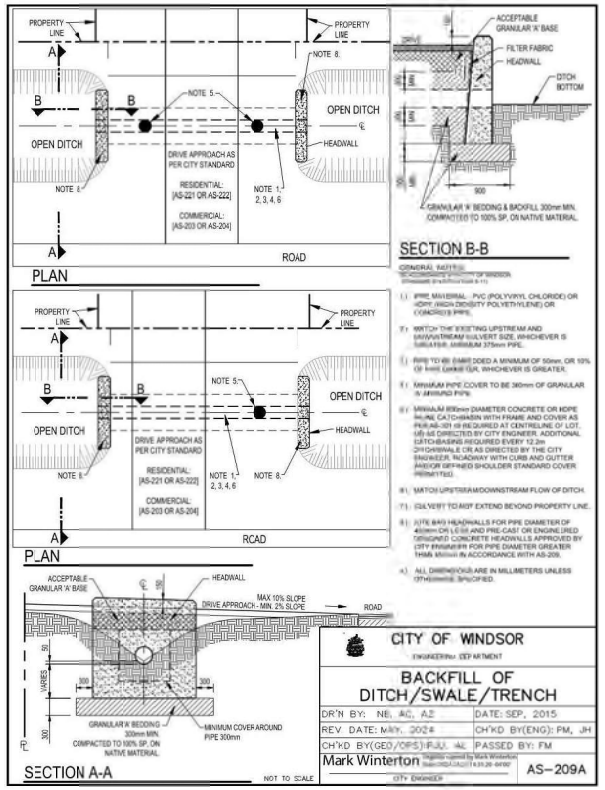
ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2018	Rev 3
GENERAL RIP-RAP LAYOUT FOR SEWER AND CULVERT OUTLETS		
OPSD 810.010		



EXISTING DRAIN OUTLET
N.T.S.



PROPOSED DRAIN OUTLET
N.T.S.



CITY OF WINDSOR
ENGINEERING DEPARTMENT

BACKFILL OF DITCH/SWALE/TRENCH

DR'N BY: NB, AC, AZ	DATE: SEP, 2015
REV. DATE: MAY, 2024	CH'KD BY(ENG): PM, JH
CH'KD BY(GEO/OPS): FJU, AL	PASSED BY: FM

Mark Winterton
CITY ENGINEER

AS-209A

CLIENT: THE CITY OF WINDSOR ONTARIO, CANADA

Scales: N.T.S.

Datum: Horizontal – NAD83 CSRS
Vertical – IGLD85

TITLE: DAWSON DRAIN

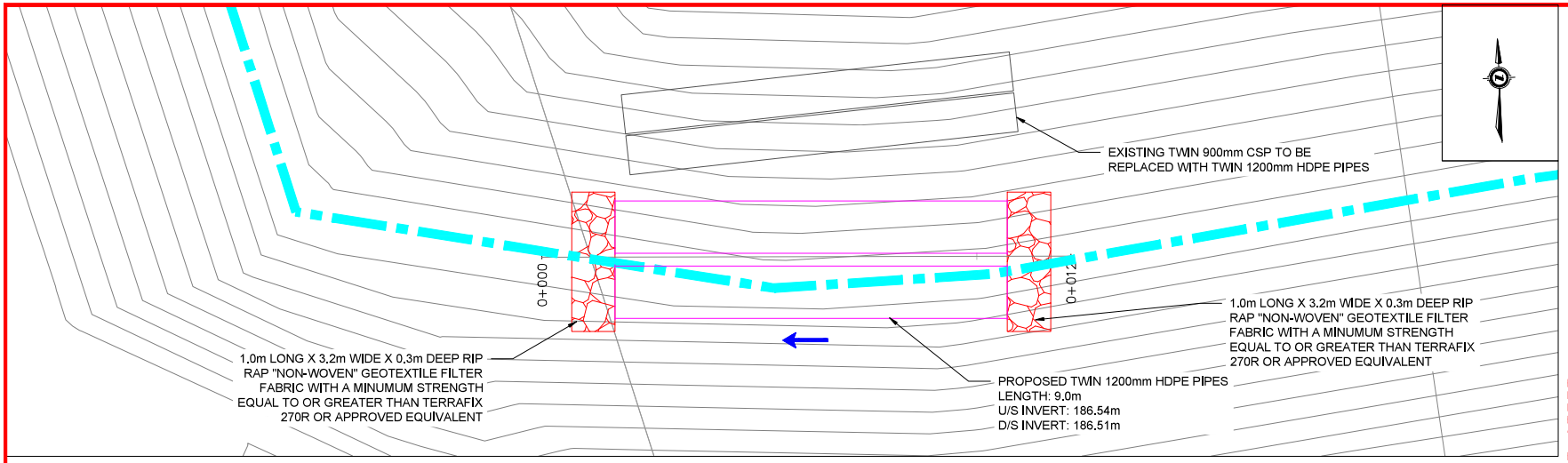
TYPICAL DETAILS

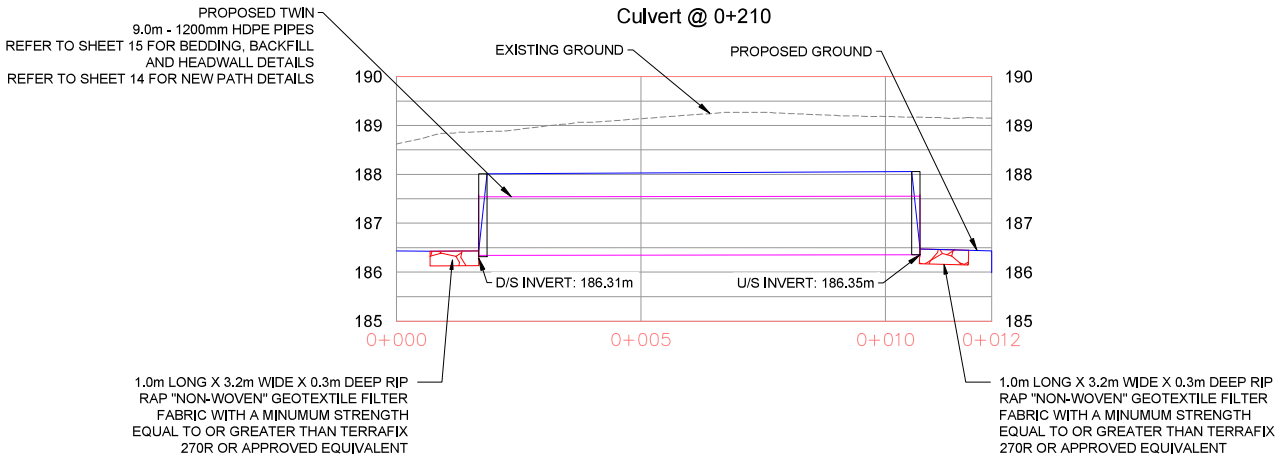
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2	1	25/03/2025	SCOPE CHANGE
1	0	05/09/2024	FOR TENDER
IS	RE	DATE	DESCRIPTION

Seal: LICENCE OF PROFESSIONAL ENGINEER B.D.E. DRENDORFF 100154163 13/05/2025 PROVINCE OF ONTARIO

wsp
582 Lancaster St. W.
Kitchener, ON N2K 1M3

Checked	Drawn
B.D.E.O.	AutoCAD/M.C.-D.
Date: MAY 2025	Proj. No.: CA-WSP-231-00563-00
Scale: AS SHOWN	Figure No.: 15





BENCHMARK 1
LOCATION: TOP NUT OF EXISTING HYDRANT LOCATED NORTHEAST OF THE INTERSECTION BETWEEN DIVISION RD. AND CLARKE DR.
COORDINATE: 4680863.384 NORTHING
336353.836 EASTING
ELEVATION: 189.845m

BENCHMARK 2
LOCATION: TOP NUT OF EXISTING HYDRANT LOCATED PROVINCIAL RD. AND CLARKE DR.
COORDINATE: 4680816.088 NORTHING
336291.500 EASTING
ELEVATION: 190.253m

BENCHMARK 3
LOCATION: TOP NUT OF EXISTING HYDRANT LOCATED SOUTH OF DIVISION RD. ADJACENT TO THE MUNICIPAL DRAIN
COORDINATE: 4680782.227 NORTHING
336483.462 EASTING
ELEVATION: 190.285m

Notes:
1. This drawing and design is copyright protected which shall not be used, reproduced or revised without written permission by WSP.
2. The contractor shall verify all dimensions, levels, and datums on site and report any discrepancies or omissions to WSP prior to any commencing any drainage works.
3. This drawing is to be read and understood in conjunction with other documents related to the Dawson Drain and O'Neil Drain.

CLIENT: THE CITY OF WINDSOR, ONTARIO, CANADA

Scales
Horizontal – 1:100
Vertical – 1:100

Datum
Horizontal – NAD83 CSRS
Vertical – IGLD85

TITLE
DAWSON AND O'NEIL DRAINS

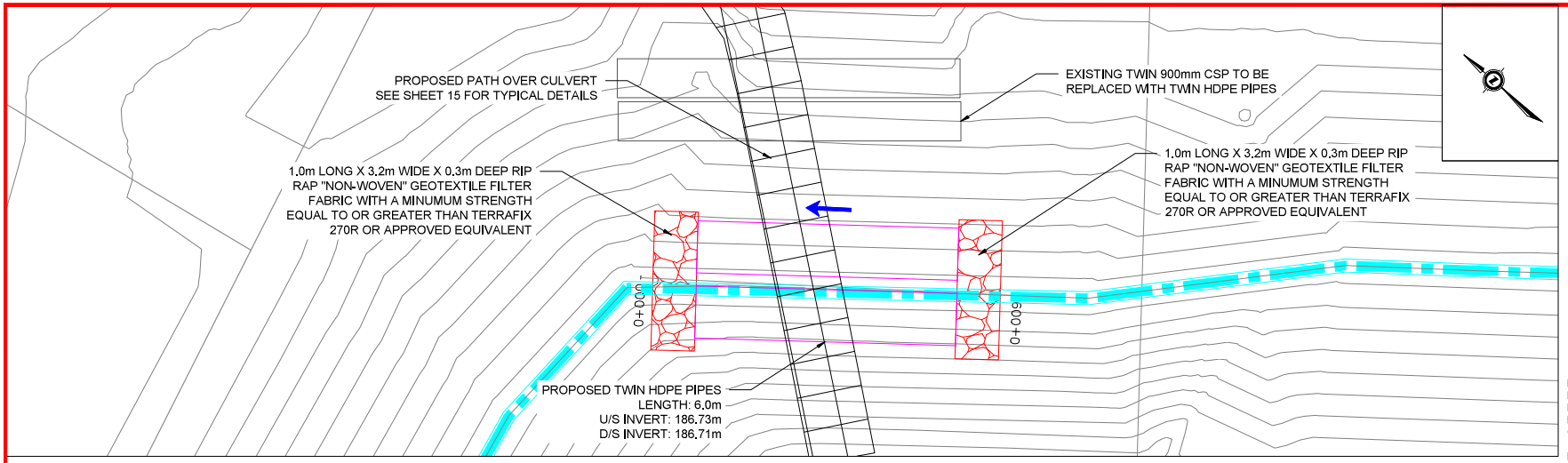
CULVERT 0+210
PLAN AND PROFILE

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1	0	05/09/2024	FOR TENDER
IS	RE	DATE	DESCRIPTION

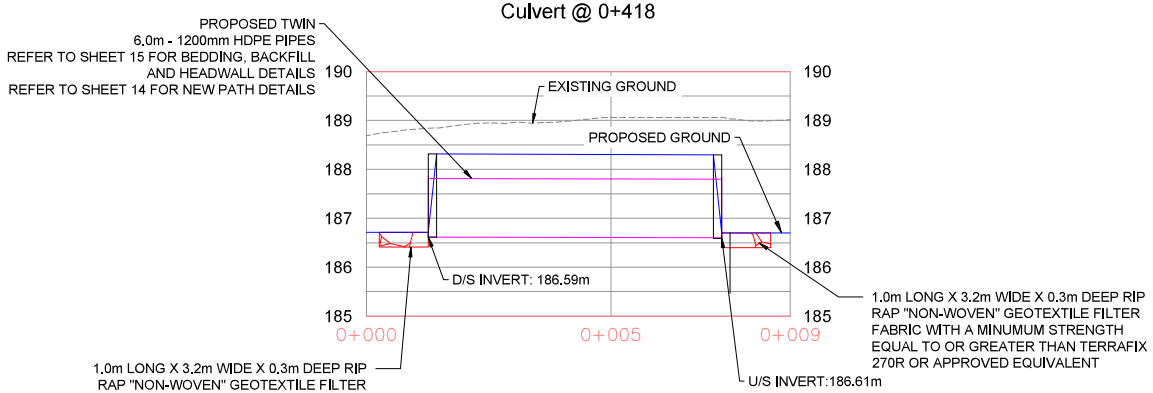
Seal: B.D.E. GRENDORFF 100154163 PROFESSIONAL ENGINEER PROVINCE OF ONTARIO

WSP
582 Lancaster St. W.
Kitchener, ON N2K 1M3

Checked B.D.E.O.	Drawn AutoCAD/M.C.-D.
Date MAY 2025	Proj. No. CA-WSP-231-00563-00
Scale 1:100	Figure No. 16



Culvert @ 0+418



BENCHMARK 1
LOCATION: TOP NUT OF EXISTING HYDRANT LOCATED NORTHEAST OF THE INTERSECTION BETWEEN DIVISION RD. AND CLARKE DR.
COORDINATE: 4680863.384 NORTHING
336353.836 EASTING
ELEVATION: 189.845m

BENCHMARK 2
LOCATION: TOP NUT OF EXISTING HYDRANT LOCATED PROVINCIAL RD. AND CLARKE DR.
COORDINATE: 4680816.088 NORTHING
336291.500 EASTING
ELEVATION: 190.253m

BENCHMARK 3
LOCATION: TOP NUT OF EXISTING HYDRANT LOCATED SOUTH OF DIVISION RD. ADJACENT TO THE MUNICIPAL DRAIN
COORDINATE: 4680782.227 NORTHING
336483.462 EASTING
ELEVATION: 190.285m

Notes:
1. This drawing and design is copyright protected which shall not be used, reproduced or revised without written permission by WSP.
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3. This drawing is to be read and understood in conjunction with other documents related to the Dawson Drain and O'Neil Drain.

CLIENT: THE CITY OF WINDSOR, ONTARIO, CANADA

Scales
Horizontal – 1:100
Vertical – 1:100

Datum
Horizontal – NAD83 CSRS
Vertical – IGLD85

TITLE
DAWSON AND O'NEIL DRAINS

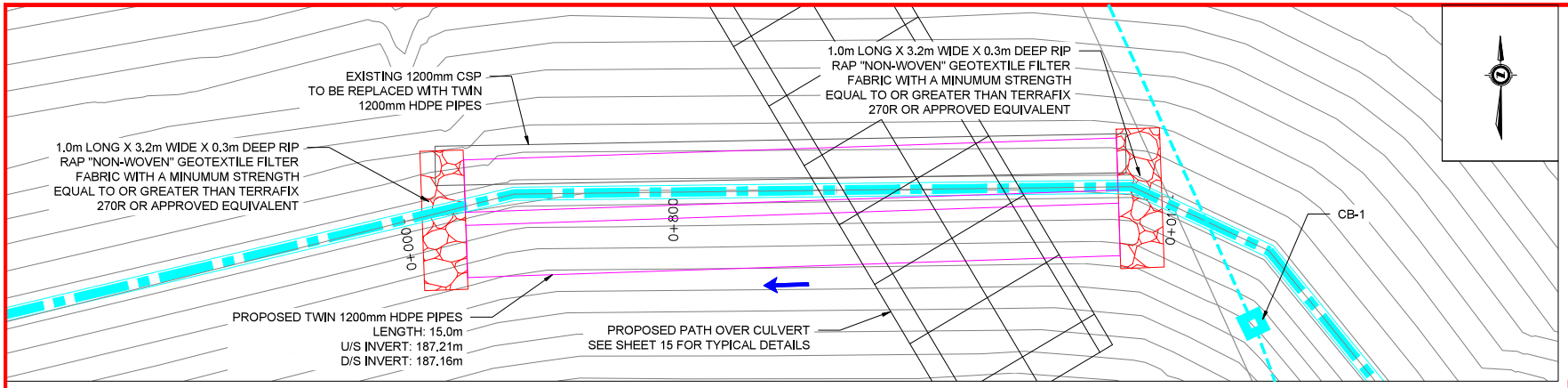
CULVERT 0+418
PLAN AND PROFILE

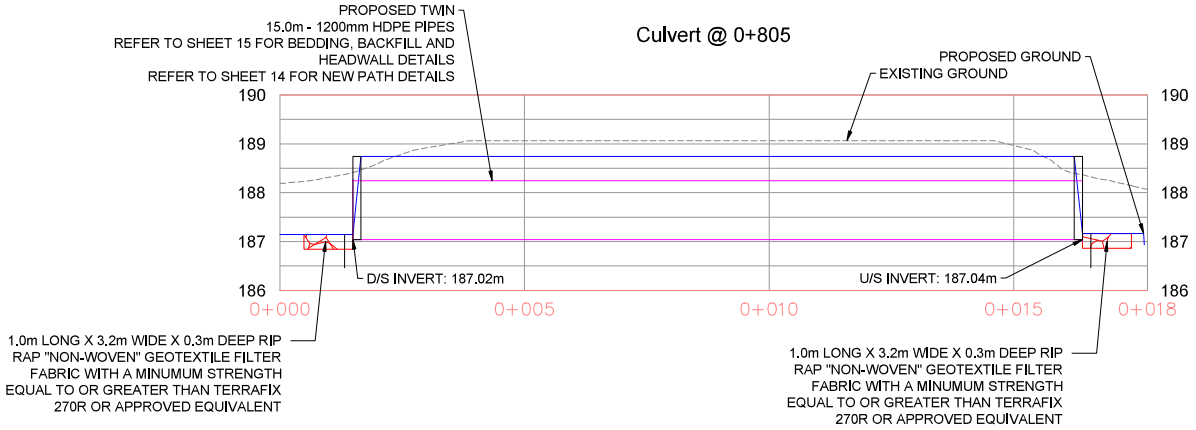
IS	RE	DATE	DESCRIPTION
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2	1	25/03/2025	SCOPE CHANGE
1	0	05/09/2024	FOR TENDER

Seal: LICENCE PROFESSIONAL ENGINEER, B.D.E. GRENDORFF, 100154163, PROVINCE OF ONTARIO

WSP
582 Lancaster St. W.
Kitchener, ON N2K 1M3

Checked: B.D.E.O.	Drawn: AutoCAD/M.C.–D.
Date: MAY 2025	Proj. No.: CA–WSP–231–00563–00
Scale: 1:100	Figure No.: 17





BENCHMARK 1
LOCATION: TOP NUT OF EXISTING HYDRANT LOCATED NORTHEAST OF THE INTERSECTION BETWEEN DIVISION RD. AND CLARKE DR.
COORDINATE: 4680863.384 NORTHING
336353.836 EASTING
ELEVATION: 189.845m

BENCHMARK 2
LOCATION: TOP NUT OF EXISTING HYDRANT LOCATED PROVINCIAL RD. AND CLARKE DR.
COORDINATE: 4680816.088 NORTHING
336291.500 EASTING
ELEVATION: 190.253m

BENCHMARK 3
LOCATION: TOP NUT OF EXISTING HYDRANT LOCATED SOUTH OF DIVISION RD. ADJACENT TO THE MUNICIPAL DRAIN
COORDINATE: 4680782.227 NORTHING
336483.462 EASTING
ELEVATION: 190.285m

Notes:
1. This drawing and design is copyright protected which shall not be used, reproduced or revised without written permission by WSP.
2. The contractor shall verify all dimensions, levels, and datums on site and report any discrepancies or omissions to WSP prior to any commencing any drainage works.
3. This drawing is to be read and understood in conjunction with other documents related to the Dawson Drain and O'Neil Drain.

No.	Rev.	Date	Description
3	2	14/03/2025	FOR TENDER
2	1	25/03/2025	SCOPE CHANGE
1	0	05/09/2024	FOR TENDER
IS	RE	DATE	DESCRIPTION

Scales
Horizontal – 1:100
Vertical – 1:100

Datum
Horizontal – NAD83 CSRS
Vertical – IGLD85

Seal
B.D.E. GRENDORFF
100154163
PROVINCE OF ONTARIO

CLIENT
THE CITY OF WINDSOR
ONTARIO, CANADA

TITLE
DAWSON AND O'NEIL DRAINS

CULVERT 0+805
PLAN AND PROFILE

wsp
582 Lancaster St. W.
Kitchener, ON N2K 1M3

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B.D.E.O.	AutoCAD/M.C.-D.
Date: MAY 2025	Proj. No.: CA-WSP-231-00563-00
Scale: 1:100	Figure No.: 18

APPENDIX

G General Specifications

GENERAL SPECIFICATIONS

DAWSON DRAIN

1. GENERAL SCOPE OF WORKS

The Dawson Drain starts on the southeast corner of the Devonwood Conservation Area, just north of Division Road and west of Woodward Boulevard. The drain runs along the east side, then west along the north side of the Devonwood Conservation Area and ultimately outlets into the ditch inlet near Devonshire Heights Park. The O'Neil Drain is located east of the Windsor Memorial Gardens cemetery and flows north from Division Road and is a tributary of the Dawson Drain.

The Dawson Drain primarily consists of open channel sections and an underlying 300 mm plastic perforated HDPE drain tile (Big "O" pipe) from Station 1+030 just west of 3785 Woodward Boulevard from the ditch inlet 7R9908 to 7R9913 and then flows north towards Calderwood Park. These latter segments were created in the subdivision design wherein stormwater is directed to a perforated pipe during a smaller storm and would overflow into the open channel during larger storms. Additionally, a 100 mm plastic perforated HDPE drain tile from Station 0+200 to 0+800.

The work on the Dawson Drain will start at Station 0+000 at the mouth of the drain and will extend to the upstream end of the drain on the southeast corner of the Devonwood Conservation Area. The drain works for this project generally comprises of improvements to the entire open section of the drain to provide suitable cross section for safe conveyance of flows, replacement of culverts along the drain and removal of the existing perforated drainpipe. The proposed drain works in this report are intended to improve the drainage in the area.

The proposed drain works presented in this report shall be carried out in accordance with these specifications, as is shown in the accompanying drawings, as determined from the Benchmarks, and as may be further laid out at the site when construction commences.

The tenderer must visit the site and review the plan and specifications before submitting tender. The quantities shown or indicated on the drawings or in the report are estimates and must be confirmed by the tenderer for accuracy prior to submitting tender.

The proposed drain works on the Dawson Drain as specified in this report shall be completed to the full satisfaction of the City of Windsor (City) Engineering Department, the City's Drainage Superintendent and the Consulting Engineer.

2. DEPARTMENT OF FISHERIES AND OCEANS (DFO) CONSIDERATION

The Dawson Drain has been classified as a “Type F” drain by the Department of Fisheries and Oceans (DFO) and therefore, maintenance and repair activities on Dawson Drain do not require DFO authorization and review. However, a “Notification of Drain Maintenance or Repair Form” along with a map and pictures of the drain will need to be submitted to DFO. After a “Letter of Advice” is received from the DFO, drainage works may begin.
Type F drains are, by definition, intermittent systems, meaning that they are dry for at least 3 months of the year (except after rain events) and do not contain federally listed aquatic species at risk (SAR). As such, maintenance activities on these drains are considered low risk to fish and fish habitat, particularly if the work can be completed in the dry, during periods of no flow (though may have some water in pools), or in the winter when completely frozen. If there is flow, a site-specific review is required.

To alleviate the risk of harmful impacts to fish habitat:

- All in-stream works should be completed in “the dry”.
- No “in-water” works should be conducted from March 15 – June 30 to protect spawning and nursery periods.
- Sediment and erosion control measures should be implemented to prevent entry of sediment into the water.
- Standard practices to be followed to minimise disruption to fish habitat including embedment of the culvert a minimum of 10% below grade.
- All disturbed areas should be stabilized immediately, and upon completion of work should be returned to pre-disturbed state.
- Any machinery, equipment and/or materials should be stored in a manner that prevents any deleterious substance, which can be any substance that, if added to any water, would degrade or alter the water quality such that it could directly or indirectly harm fish, fish habitat, or the use of fish by humans, from entering the water.

3. ESSEX REGION CONSERVATION AUTHORITY (ERCA) PERMITS

Drainage works notification will need to be submitted to ERCA and required permits and authorizations will need to be secured before drain works begin.

4. ACCESS TO WORKING SPACE

Drainage works shall be performed by the contractor utilizing the working space as outlined in this report in **Section 11.2.** Access to the drain from Station 0+000

to Station 0+260 shall be from Kamloops Street or Calderwood Ave at Station 0+000. Access to the drain from Station 0+200 to Station 0+460 shall be from Shinglecreek Court at Station 0+410. Access to the drain from Station 0+460 to Station 0+860 shall be from Calderwood Park east of Irongate Circle at Station 0+790. Access to the drain from Station 0+860 to Station 1+100 shall be from Ledyard Avenue at Station 1+075. Access to the drain from Station 1+100 to Station 1+350 shall be from Moxlay Avenue at Station 1+340. Access to the drain from Station 1+350 to Station 1+466 shall be from Division Road from Budget Inn parking lot at Station 1+466.

Further, the contractor shall ensure that the traveling public is protected at all times while utilizing the roadway for its access. The Contractor shall provide traffic control, including flag persons when required. Should the Contractor have to close any affected roadways for the proposed works, it shall obtain the permission of the City's Engineering and Public Works Departments and the City's Drainage Superintendent and arrange to provide the necessary notification of detours around the site. The Contractor shall also ensure that all emergency services, school bus companies, and others as deemed appropriate are contacted about the disruption to access at least 48 hours in advance of same. All detour routes shall be established in consultation with the City's Engineering and Public Works Department.

The contractor shall make their own arrangements for any additional access for convenience. The contractor shall protect as much landscaping and vegetation as possible when accessing the drain. Any damages resulting from the contractor's access to the drain outside of the working corridor shall be rectified to pre-existing conditions at the contractor's expense. The contractor shall not spread soils on the banks of the drain to block flows from entering into the drain from the Devonwood Conservation Area in the west and along the fence of the properties abutting the drain on the opposite side of the Devonwood Conservation Area. Any restoration that will need to occur shall include but not limited to all necessary levelling, grading, shaping, topsoil placement, seeding, mulching, and granular placement required to make good any damage caused during the course of works on the drain. All seeding is required to be hydraulic seed and mulch and shall meet the City's standard specifications mentioned below in **Section 6**.

5. REMOVAL OF BRUSH, TREES, DEBRIS, FENCE AND CULVERTS

During the site visit it was found that the Dawson Drain is overgrown with vegetation, bushes and shrubs throughout the entire length of the drain. Any brush, trees or debris along the course of the drainage works spanning from the top of one bank to the other, and including the entire width of the work access,

the contractor shall meticulously trim and remove all such vegetation and debris. The extracted brush and trees shall be cut as close to the ground as feasible and aligned with the drain banks' side slopes. Stumps, unless specified otherwise, will remain in place and be treated with a single application of stump killer (such as Diphenoprop BK700 or an equivalent approved product).

All removed materials must be stacked by the contractor in designated areas near the drain and within the working zones, allowing for safe chipping, disposal, or hauling away for disposal, at the contractor's expense, to an authorized site.

Excavated drain materials shall be spread to a depth not to exceed 200 mm unless specified otherwise on the drawings. Topsoil shall be spread, fine graded and seeded promptly following spreading of material. The material shall be sufficiently levelled to allow for convenient maintenance by standard mowing equipment. All stones and other debris removed from the drain, which may interfere with mowing equipment, shall be disposed of off-site.

The contractor shall remove and dispose of, off-site any loose timber, logs, stumps, pallets, large stones, rubber tires, cinder blocks or other debris from the drain bottom and from the side slopes. All identified harmful materials and debris must be collected and transported away by the contractor to a designated site, which the Contractor will procure at its own expense.

The contractor shall be responsible for stabilizing the banks of the drain after removal of fences and culverts as shown on **Appendix F** in accordance with the City's standard specifications referenced below. After removing the 300 mm (Big 'O') pipe from 0+800 to 1+030 and the 100 mm pipe from 0+200 to 0+800, the 300 mm Big "O" pipe near CB1 shall be plugged as per City's standard specifications referenced below.

6. CITY OF WINDSOR'S STANDARD SPECIFICATIONS

The City's Standard Specification **S-3** should be followed for earth excavation (grading). The City's Standard Specification **S-2** and **S-19** should be followed for cleaning of catch basins. The City's Standard Specification **S-11** should be followed for erosion protection and as shown in **Appendix F**. The City's Standard Specification **S-14** and **S-15** should be followed for seeding, sodding and restoration of grassed areas as required. The City's Standard Specification **S-16** should be followed for perforated pipe sub-drains related work. The City's Standard Specification **S-7** and **S-10** should be followed for stabilizing of pathways and **S-14** and **S-15** for stabilizing of banks following removal of culverts.

All standard specifications are attached at the end of this document.

7. GENERAL CONDITIONS

The latest City's General Conditions that describe the requirements for contract documents, administration of contract, contractor's responsibilities and control of the work, material, insurance, protection and damage, measurement and payment are included at the of General Specifications.

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CITY OF WINDSOR

STANDARD SPECIFICATIONS

FOR

EARTH EXCAVATION (GRADING) AND STRUCTURAL REMOVAL

CITY OF WINDSOR

STANDARD SPECIFICATIONS

FOR

EARTH EXCAVATION (GRADING) AND STRUCTURE REMOVAL

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CITY OF WINDSOR

STANDARD SPECIFICATIONS

FOR

EARTH EXCAVATION (GRADING) AND STRUCTURE REMOVAL

1. GRADING GENERAL

1.01 DESCRIPTION

The Contractor shall do all the excavation and grading within or without the limits of the street right-of-way, required in the construction of the roadway, side intersections, side entrances, road ditches, off-take ditches, detours, all outlets to structures, and hauling and placing of the excavated materials as specified on the contract drawings.

The Contractor shall not excavate materials until after the original cross-section measurements have been taken on the area. He will be advised by the Commissioner of Works within 48 hours of his request.

The Contractor shall perform all excavation operations in such a manner as to avoid the saturation by flooding of embankment materials and roadway foundation materials, either by providing effective surface drainage during all stages of the work, or in the case of sub-excavation and stripping operations where provision for surface drainage is not feasible, by placing the backfill materials as soon as practical following the excavation work.

All ice and snow shall be removed from any portion of the work either prior to or during any stage of ditching, stripping, excavation embankment construction, sub-excavation, and any other grading operation, whenever deemed necessary by the Commissioner of Works. Such removal of snow and ice shall be incidental to and included in the unit price bid for Earth Excavation.

All materials that are to be incorporated in the work shall be subject to test by the Commissioner of Works to determine their suitability for the portions of the work in which they are to be placed. Such tests may consist of chemical or physical analysis to determine the organic .content, mechanical properties, bearing capacity, density, stability or any other properties pertinent to the satisfactory completion of the work as proposed. Material not satisfactory or material in excess of the quantity requirements for the project shall be disposed of in waste areas provided by the Contractor outside the limits of the contract and at his own expense, or within the contract limits as directed by the Commissioner of Works.

All completed excavations and embankments shall truly conform to the lines, given by the Commissioner of Works and shall be trimmed to his satisfaction.

1.02 MEASUREMENT FOR PAYMENT

Volumes of all classes of excavation described under grading will be measured in excavation and computed in cubic yards by method of average and areas.

1.03 CLASSIFICATION

Excavated materials will be classified as either "Rock Excavation" or "Earth Excavation" in accordance with Section 1.5 "Classification of Excavated Materials".

1.04 BASIS OF PAYMENT

Payment will be made in accordance with the Contract unit prices as bid on the component items of the work and such payment will be in full compensation for excavating, hauling and placing, shaping and trimming, in conformity with the lines given by the Commissioner of Works and any other work incidental thereto, excepting those items of work, if any, for which additional payment is provided under this specification for such items.

1.05 CLASSIFICATION OF EXCAVATED MATERIALS

DESCRIPTION

All excavated materials shall be classified for purposes of payment as "Rock Excavation" or "Earth Excavation" in conformity with the following:

(1) Rock Excavation

"Rock Excavation" means,

(a) boulders and rock fragments measuring in volume twenty-seven cubic feet or more; but

(b) notwithstanding clause (a) the removal of dense tills, hardpan, and any other similar materials, shall not be "Rock Excavation" for purposes of payment.

Payment as "Rock Excavation" for boulders or fragments or rock shall be based on actual measurement only and the Contractor shall give the Commissioner of Works opportunity to make the required measurement. The City will not make payment for boulders or fragments based on estimates thereof nor will the City make payment for boulders or fragments which have not been measured.

Separate payment methods shall be provided for the removal of concrete pavement and other pavements, curb and gutter, concrete structures, and masonry walls. For purposes of payment the removal of these items shall not be classified as "Rock Excavation".

(2) Earth Excavation

"Earth Excavation" shall comprise the excavation of all other materials of whatsoever nature that do not come under the classification of "Rock Excavation", excepting such items that may be included in the Tender to cover the specific work.

"Earth Excavation" shall include the removal of:

(a) corduroy from old roadbeds; and
(b) frozen earth material; and
(c) loose and shattered rock and debris of fragment volume less than 27 cubic feet
(d) street car railway tracks including all ballast attachments and ties if all of the latter are shown on the drawings
(e) dense tills, hardpans, and any other similar materials.

1.06 EARTH EXCAVATION

This work shall include all excavation such as that required to complete earth cuts, ditching, sub-excavations, under fill stripping and transition or grade point treatments; and shall include hauling, handling, and incorporation of the suitable materials into embankment construction, and shall include the hauling and handling of the unsuitable materials and the trimming of such unsuitable materials along the embankment slopes or elsewhere.

The Contractor shall not excavate outside of the slopes or below the established grade unless directed by the Commissioner of Works.

Should the Contractor (unless ordered by the Commissioner of Works) excavate below grade, he shall be required to backfill such excavations with suitable materials and compact it in 6" layers or less, for which no payment will be made for the obtaining, hauling, handling, placing or compaction of such backfill material.

All deposits of frost heave and unsuitable materials shall be removed below subgrade to the lengths, widths and depths as shown on the construction drawings and such unsuitable materials shall be replaced with acceptable material and compacted in place.

All earth cuts shall be finished to true sections as excavations progress. Ditches in roadway cuts will be constructed as soon as possible to provide drainage in the cut to prevent softening of the subgrade.

Where tile subdrainage is required in bases of roadway cuts the work must be completed at the time the ditches are being constructed.

Roadway foundations under embankments of 4' or less in height shall be stripped of all unsuitable materials to the widths and depths as shown on the construction drawings.

All earth grade roadway surfaces shall on completion be compacted and shaped to the specified grade and cross-section. The finished surfaces shall not deviate more than 1/10th of a foot from the specified grade and cross-section, and shall be compacted to a minimum of 95% of the maximum Standard Proctor dry density as determined by A.S.T.M. Designation D-698. The surfaces shall be maintained to these grade and cross-section tolerances, and to a density of not less than that specified until the project, or that portion thereof as accepted or, if the project includes the construction of the granular base course, until the surfaces are covered with granular base course. The constructing and shaping of the earth roadway surfaces shall be considered incidental to and included in the unit price bid for "Earth Excavation", and no separate payment will be made for any such work. For the rolling of earth roadway surfaces, payment will be made under the unit for "Compaction Equipment Rental".

Boulders and rock fragments, 135 cubic feet and greater in volume excavated from within earth roadway and ditching excavation sections will be measured and paid for as "Rock Excavation".

1.07 MEASUREMENT FOR PAYMENT

Materials excavated in cut shall be measured above the established grade. Excavations below the established grade will be measured only when such excavations are ordered by the Commissioner of Works.

Measurement for materials excavated in transition or grade point treatments, sub-excavations and underfill stripping shall be limited; to the neat lines of excavation as specified or as directed by the Commissioner of Works.

BASIS OF PAYMENT

Payment for excavation shall be made at the Contract unit price per cubic yard for "Earth Excavation" and shall be compensation in full for all excavation and for hauling, placing and trimming of excavated materials all as herein required.

Payment for backfilling sub-excavations and transition or grade point treatments will be made in accordance with the specifications for the materials used for such work.

1.08 DEMOLITION AND REMOVAL OF STRUCTURES

GENERAL

The following sections of the specification cover the requirements for demolishing, salvaging and removing wholly or in part the various items designated to be removed or partially removed and for the backfilling of the resulting trenches, holes and pits.

1.09 DEMOLITION

Demolitions shall be carried out in such a manner and with such equipment as not to disturb adjacent pavement, utilities or other works to be left in place and with such care as to leave undamaged materials designated to be salvaged. Where a section of pavement, sidewalk, curb and gutter, or other structure is to be removed, the broken edges of the portions to be left in place shall, where necessary, be squared up and trimmed to the lines specified by the Commissioner of Works.

1.10 DISPOSAL OF DEBRIS

Concrete or clay pipe may be demolished by rupturing the pipe with suitable equipment and leaving the debris in the trench in such a manner as to eliminate all voids when the fragments to remain will not be detrimental to the work. Except as otherwise specified, other concrete and masonry shall be used for rip-rap or embankment construction within the limits of the contract and shall be disposed of outside the right-of-way at locations arranged for by the Contractor when unsuitable or surplus to construction requirements.

Timber, steel and materials other than concrete or masonry, which are not designated on the contract drawings for salvage, shall become the property of the Contractor and shall be removed from the right-of-way. The removal of fences shall be as specified in the contract documents.

1.11 SALVAGE

Where manholes, catchbasins and ditch inlets are to be demolished, castings and riveted grating conforming to City Standards shall be carefully removed and stockpiled for use elsewhere on the contract or delivered to the nearest City yard when surplus to the contract requirements. Where fences are to be dismantled, the fabric shall become the property of the Contractor and removed from the right-of-way.

Other materials, when designated in the Contract to be salvaged, shall be dismantled, stockpiled or otherwise handled as set out elsewhere within the contract.

1.12 EXCAVATION

Excavation required for the work to be carried out under this specification shall be performed in such a manner as to leave undisturbed, adjacent structures or other work to be left in place and to save where necessary, for purposes of backfill, the acceptable excavated materials. Where payment for the item to be removed is by the cubic yard, excavation, shall be carried out to such an extend as to permit the measurement by the Commissioner of Works of the volume of concrete or masonry to be removed. Excavated material which is not required for the backfilling of the void resulting from the structure removal shall be used for embankment construction or disposed of as set out elsewhere in the contract documents.

1.13 BACKFILLING AND TRIMMING

After the removal or partial removal of the structure, where filling is required of the resulting trench hole or pit, the Contractor shall backfill to the required grade using the excavated materials if suitable and imported materials as required and shall level and trim the site to provide sightly contours and adequate drainage. Backfill material shall be placed in layers not exceeding six inches and shall be compacted to 95% of the maximum dry density in the case of earth and 100% of the maximum dry density in the case of granular material.

1.14 MEASUREMENT FOR PAYMENT

Removal of Pavements Concrete Base and Cement Treated Base

The removal of pavements concrete base and cement treated base will be measured for payment in square yards in place. No deductions will be made from the computed areas for the spaces occupied by manhole and catchbasin castings. The removal of concrete pavement, asphalt covered concrete pavement, concrete base and cement treated base will be measured for payment whether on the roadway surface or within an excavation. The removal of asphalt pavement will be

1.14 MEASUREMENT FOR PAYMENT (continued)

Removal of Pavements Concrete Base and Cement Treated Base (continued)

measured for payment only when the pavement forms the roadway surface. When asphalt pavement is encountered elsewhere within an excavation, it will be paid for at the contract price for earth excavation. No payment other than at the contract price for earth excavation will be made for the removal of bituminous treated base, prime and surface treatments.

Concrete alley pavements removed will be measured for payment in square yards in place.

Where curbs or curbs and gutters are removed in conjunction with the removal of concrete road pavements, the curbs or curbs and gutters to be removed will be included in the measured area of concrete pavement to be removed.

Where curbs or curbs and gutters are removed in conjunction with the removal of bituminous road pavements, they will be measured in lineal feet in place.

Removal of Curb and Gutter

The term curb and gutter shall be construed as meaning curb, gutter, combinations of curb and gutter, set back bullnoses and gutter outlets. Measurement for removal will be made horizontally in lineal feet along the faces adjacent to the pavement. Payment will be made for the removal of either concrete curb and gutter or asphalt curb and gutter without further separation into types. No deduction will be made from the measured lengths for the spaces occupied by manhole and catchbasin castings. Where the removal includes runs of curb and gutter which converge to form bullnoses, each run will be measured for payment and such measurement will be deemed to include the concrete fillet within the bullnoses.

Removal of Sidewalks and Driveway Approaches

The removal of concrete sidewalks, asphalt sidewalks and driveway approaches will be measured in square feet in place.

Removal of Manholes, Catchbasins and Ditch Inlets

Where manholes, catchbasins and ditch inlets are to be removed in their entirety payment will be made without separation into types for each unit removed.

1.14 MEASUREMENT FOR PAYMENT (continued)

Removal of Fences, Guide Rails and Guide Posts

Where fences, guide rails and guide posts are to be removed, measurement will be made horizontally in lineal feet of the actual length of run of each type of installation removed except however, where cable guide rails are anchored to concrete blocks, measurement will be made between the end anchor cleats with no additional measurement made of the overlapping sections at intermediate anchorages and the removal of concrete anchor blocks will be paid for as a separate item.

Removal of Sewers

The removal of sewers will be measured horizontally in lineal feet. There will be no deduction in length for the spaces occupied by intermediate manholes, catchbasins or ditch inlets.

Removal of Bridges, Culverts and Other Items

The removal of bridges, culverts and other items not previously referred to may be paid for by each, by lump sum, by the cubic yard or by such other method as the contract may call for. Where the contract calls for payment by the cubic yard, measurement will be made of the total volume of material making up the structure, portion of structure or group of structures designated for removal under the contract item including mortared masonry, concrete or material embedded in the concrete.

Imported Backfill Material

Imported backfill material will be measured for payment in accordance with the specification for the material required and used.

Earth Excavation

Earth excavated in the course of demolition operations and subsequently wasted or used for backfill or embankment construction will not be measured for payment under this specification. When however such excavation overlaps excavation required for other work under the contract, then the over-lapping excavation shall be paid for in accordance with the specification for such other work.

Compaction

Payment for compaction shall be made in accordance with the contract unit prices for the number of hours of equipment as specified.

1.15 BASIS OF PAYMENT

Payment at the contract prices for the tender items covered by this specification shall be full compensation for demolition, for the disposal of debris, for Salvage where specified, for earth excavation required for the demolition and for the subsequent disposition of the excavated material and for the backfilling of the resulting trenches, holes and pits except that imported backfill will be paid for separately in accordance with the specification for the material required and used.

When it is necessary to remove a section of pavement, concrete or cement treated base, sidewalk, curb and gutter or similar item in order to remove a culvert, sewer or other structure lying beneath, payment will be made for each item in accordance with the specification for its removal.

The volume of any excavation quantity measured for payment will include the void within the established lines of the excavation which results from the removal or partial removal of any structure with the exception of a bridge and will include the volume of any pavement, concrete base, sidewalk, curb and gutter or similar item which overlies and which is removed in conjunction with such excavation.

Excavation quantities measured for payment will not include voids resulting from the removal or partial removal of bridges and will not include the volume of pavement, concrete base, cement treated base, sidewalk, curb and gutter and similar items which are removed from the surface but which do not overlie materials to be excavated directly beneath.

Where broken concrete or masonry is used for rip-rap construction in accordance with Section 1.10, the placing of the rip-rap will be paid for separately under the appropriate tender item and will not be part of the work to be carried out under this specification.

S-2
MAINTENANCE HOLES AND CATCHBASINS

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2.01 SCOPE OF WORK

This specification covers the requirements for the new construction rebuilding, adjusting, and breaking into maintenance and catchbasins, in conformity with the contract drawings or directions of the City Engineer.

2.02 REFERENCES

This specification refers to the following standards, specifications, or publications:

- S-1 Sewers
- S-4 Granular Base and Aggregates
- S-9 Concrete
- S-17 Steel Reinforcement
- S-24 Unshrinkable Backfill
- AS-301
- AS-302
- AS-303
- AS-304A
- AS-305
- AS-309

- AS-310A
- AS-314
- AS-527
- OPSD 701.021

2.03 MATERIALS

The contractor shall supply all materials in accordance with this specification and the contract documents, unless specified by the City Engineer.

2.03.01 CONCRETE

All concrete shall meet the requirements of City of Windsor Standard Specifications S-9 Concrete unless otherwise specified and pre-approved by the City Engineer.

2.03.02 FRAMES, GRATES AND COVERS

Frames, grates, and covers shall conform to the requirements of the City of Windsor Standard Engineering Drawings (AS-301, AS-302, AS-304A).

2.03.03 GRANULAR MATERIAL

Granular material for bedding and backfill to be Granular ‘A’ unless otherwise approved by the City Engineer.

2.03.04 UNSHRINKABLE BACKFILL

Unshrinkable fill material used for backfill as per City of Windsor Standard Specifications S-24 Unshrinkable backfill.

2.03.05 MAINTENANCE HOLE STEPS

Maintenance hole steps shall conform to the requirements of City of Windsor Standard Engineering Drawings (AS-305).

2.03.06 PRECAST REINFORCED CONCRETE CATCHBASIN AND MAINTENANCE HOLE COMPONENTS

Precast units shall be supplied in accordance with City Windsor Engineering Drawings (AS-303 AS-309, AS314, AS-315).

2.03.07 STEEL REINFORCING

Steel bar reinforcement shall be hard grade deformed bars and shall comply with City of Windsor Standard Specifications S-17 Reinforcing Steel.

2.04 CONSTRUCTION

2.04.01 EXCAVATION

Maintenance holes or catchbasins of the type specified shall be excavated for and constructed to conform to the requirements of the contract drawings and shall be located at the points and elevations required on the contract drawings or as directed by the City Engineer. Structures shall not be placed or constructed on an unsuitable foundation as maybe determined by the City Engineer. Any unsuitable material shall be excavated and the resulting excavation shall be backfilled and compacted to obtain an approved foundation.

2.04.02 GRANULAR BEDDING AND BACKFILL

Once the maintenance hole or catchbasin is constructed, the excavation surrounding the exterior of the unit shall be filled with granular material or unshrinkable fill to a minimum thickness of 300 mm around all sides of the unit. The granular material shall be deposited in layers so that when compacted, each layer shall not exceed 300mm in depth. Care shall be exercised in compacting the granular material to assure the structure is not disturbed. Approved hand compaction equipment shall be used to consolidate the material where necessary. Granular material for bedding and backfill shall be compacted to 100% of the maximum Standard Proctor dry density.

Excavated materials which cannot be incorporated in the work shall be disposed by the contractor outside the contract limits.

2.04.03 CAST IN PLACE CONSTRUCTION

The Contractor shall form and pour the specified unit plumb and true to alignment and grade. Once forms have been stripped, the Contractor shall remove all inside wall protuberances.

2.04.04 PRECAST CONSTRUCTION

The precast unit shall be placed plumb and true to alignment and grade.

Precast bases shall be set to the specified grade, shall be level, and shall have uniform overall contact with the underlying bedding.

Any adjustment of the unit for plumb, alignment, and grade shall be carried out by lifting the unit free of excavation, levelling the base, and replacing the unit to proper alignment and grade.

2.04.04(a) Doghouse Maintenance Hole

When a precast doghouse maintenance hole is specified, the doghouse is to be installed straddling the existing sewer and a concrete slab poured as per AS-559. Once the slab has cured, the contractor can break into the sewer, ensuring the sewer remains free of debris.

2.04.05 JOINTS

Joints are to have a watertight seal as per the manufactures specification.

2.04.06 INSTALLATION OF INLET AND OUTLET PIPES

All connection holes in new, precast structures shall be cored or cast in place by the manufacturer. Any modifications to the OPSD 701.021 shall require the submission of detailed shop drawings for approval by the City Engineer. One hole for a 200/250mm connection and one hole for a 150mm sub drain shall be the maximum permitted in any one side of a structure without the approval of the City Engineer.

Pipe placed in the walls for inlet or outlet connections shall extend through the wall a sufficient distance to allow for connections; shall be trimmed flush with the inside wall; and shall be securely and neatly grouted into place. The inlet and outlet pipe shall be supported with Class “A” bedding to the first pipe joint as per AS-310A and AS-314.

Watertight connections of PVC pipes shall be made to structures by means of KOR-N-SEAL boots, A.C. couplings or manufacturer supplied sanded bells, as approved by the City Engineer. A flexible joint must be provided within 0.3m of the outside of the structure wall.

Watertight connections of HDPE pipes shall be made to structures by carefully grouting and filling the void between the pipe and structure with a non-shrinking, fast-setting hydraulic cement product or by the use of a flexible water stop or other resilient connector approved by the City Engineer. A flexible joint shall be provided within 0.3m of the outside of the structure wall.

When catchbasins are being installed in locations that permit the use of existing catchbasin leads, the first 1 metre of catchbasin lead measured along its centre line, shall be replaced and covered by this specification.

2.04.07 INSTALLATION OF FRAMES, GRATES OR COVERS

2.04.07(a) General

Frames, grates, or covers shall be set in a full mortar bed and adjusted to the required elevation. Mortar shall be composed of one part Portland cement and two parts masonry sand wetted with only sufficient water to make the mixture plastic. A minimum of 1 adjustment unit is required, with the total adjustment height unit to not exceed 450mm.

2.04.07(b) Maintenance Holes

If the maintenance hole frame and cover is to be located in a hard surfaced area, the grade of the frame and cover shall match the finished designed grading of the hard surface in all the directions, and be set to a minimum of +/- 5mm of the finished or temporary hard surface grade. The flat cap or riser section should be to be orientated to the satisfaction of the City Engineer.

When concrete adjustment units are used to set the frame and cover at the required position and elevation, the first adjustment unit shall be laid in a full bed of mortar. Successive units shall be laid plumb to the first unit and sealed according to the manufacturer's recommendations. The frame shall be set in a full bed of mortar.

When High Density Polyethylene (HDPE) adjustment units are used, they shall be installed and sealed strictly according to the manufacturer's instructions.

If the maintenance hole frame and cover is to be located in a concrete pavement area, the maintenance hole shall be fitted with a self-adjusting or Auto Stable maintenance hole frame and cover (AS-533) subject to the approval of the City Engineer.

2.04.07(c) Catchbasins

When concrete adjustment units are used to set the frame with grate at the required position and elevation, the first adjustment unit shall be laid in a full bed of mortar. Any successive units shall be laid plumb to the first unit and sealed according to the manufacturer's recommendations. The frame shall be set in a full bed of mortar.

When High Density Polyethylene (HDPE) adjustment units are used, they shall be installed and sealed strictly according to the manufacturer's instructions. A filter cloth wrap of the top 100mm of the catch basin and all the adjustment units in place shall be mandatory.

2.04.08 INTERNAL DROP STRUCTURE

If a drop structure is required by the City Engineer, it shall comply with City of Windsor Standard Specifications S-1 Sewers.

2.04.09 MAINTENANCE

During the progress of the work and until the completion and final acceptance, maintenance holes and catchbasins shall be kept clean and free of all foreign materials.

2.05 ADJUSTMENT OF MAINTENANCE HOLES AND CATCHBASINS

2.05.01 GENERAL

The work to be carried out shall include change of elevation of any of the above structures, regardless of type or size. Adjustment of maintenance holes or catchbasins will apply where the top of the structure is to be lowered or raised 300 mm of less.

Prior to adjustment, the existing frame and grate or cover shall be carefully removed and salvaged. Once a maintenance hole or catchbasin has been adjusted or rebuilt, the salvaged frame and grate or cover shall be set to the correct elevation in a full mortar bed on the adjusted structure. If in the opinion of the City Engineer, the frame and cover or grate is not salvageable, the material shall be returned to 1531 Crawford Yard and alternative material will be supplied.

Where cast in place units are to be raised, the top surfaces of all existing walls shall be roughened before the walls are extended upwards.

Where required on the contract drawings or when the City Engineer directs additional maintenance hole steps shall be installed in the adjusted unit.

Where asphalt or concrete pavement must be removed to adjust or rebuild a structure the edges of such pavement shall be neatly cut to give a minimum clearance of 300mm to the outside of the flange.

All construction debris resulting from adjustment or rebuilding of maintenance holes or catchbasins shall be removed at the contractor’s expense.

2.05.02 CAST IN PLACE UNITS

Where the top is to be lowered the concrete shall be carefully removed to the required elevation.

2.06 BREAKING INTO MAINTENANCE HOLES AND CATCHBASINS

Under this item, the Contractor shall carefully sawcut or core the openings that are required in the walls of any of the above-mentioned structures and securely and neatly grout in the required pipes, duct banks, or sleeves as directed by the City Engineer.

2.07 MEASUREMENT FOR PAYMENT

2.07.01 MAINTENANCE HOLES

Sewer maintenance holes, unless specified otherwise, shall be on a per item basis, and shall include all labour and material components required to construct the maintenance holes. An extra or credit to the tendered price shall only be considered if there is a 300mm or more difference between the as-built depth to invert and the design depth to invert.

2.07.02 CATCHBASINS

Catchbasins, unless specified otherwise, shall be on a lump per item basis and shall include all labour and material components required to construct the catchbasin.

2.07.03 BREAKING INTO EXISTING MAINTENANCE HOLES

Breaking into existing maintenance holes shall be measured on per item basis.

2.08 BASIS OF PAYMENT

2.08.01 MAINTENANCE HOLES

Payment of maintenance holes at the contract per item prices for the various parts comprising maintenance holes shall be full compensation for all work required by this specification and shown on the contract drawings to provide complete maintenance.

Without in anyway limiting the foregoing, the work shall include the supply of all materials, all excavations, disposal of all surplus materials, the placing and compaction of granular materials, the construction of all cast in place concrete work, the installation of precast units including base, riser sections, transitional sections (where required), adjustment rings, the construction of all masonry work including benching, the installation of frame and cover, aluminum ladder rungs and all other miscellaneous metal works, all required surface restoration and all other work necessary to complete the structure in accordance with the contract requirements. Included in the lump sum price shall be the shop drawing of the maintenance hole showing the orientation, dimensions and transitional sections for any size maintenance hole.

2.08.02 CATCHBASINS

Payment at the contract price shall be full compensation for; supplying all materials, for all excavation, for the disposal of all surplus excavated materials, for the placing and compaction of granular bedding and backfill for the construction or installation of the

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CONCRETE PAVEMENT AND CONCRETE BASE

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7.01. SCOPE OF WORK

This specification refers to the requirements for the construction of concrete pavement and concrete base.

7.02. REFERENCES OR RELATED DOCUMENTS

This specification refers to the following standards, specifications, or publications:

- S-9 Concrete
- S-4 Granular Base and Aggregates
- OPSS 350
- OPSS 369
- OPSS 1306
- OPSS 1308
- OPSS 1441 & 1442
- OPSS.MUNI 908
- OPSS 919
- OPSS.MUNI 1350

- OPSD 552.010
- OPSD 551.032
- AS – 210 and AS - 211
- AS – 225 to 227
- AS – 201
- AS – 553
- AS -103

7.03. MATERIALS

The contractor will supply all materials in accordance with this specification and the contract documents.

7.03.01 Concrete

All concrete shall meet the requirements of S-9 unless otherwise specified and pre-approved by the City Engineer.

7.03.02 Tie Bars and Load Transfer Devices

Tie bars shall be according to OPSS 1442.

Load Transfer Devices shall be according to OPSS 1441

7.03.03 Joint Filler Material.

Joint filler material shall be according to OPSS 1308

7.03.04 Burlap

All burlap used in surface texturing shall be according to OPSS 1306

7.03.05 Forms.

All forms shall be according to OPSS 919

7.04. CONSTRUCTION

Prior to starting the work, documentation shall be submitted, verifying that the Contractor's representative of the placing crew shall be on site and shall have valid Municipal Exterior Flatwork Certification, ACI Flatwork Certification or an approved equivalent.

7.04.01 Granular Base

The type and thickness of the base shall be that which is specified in the contract documents and is to be according to S-4 Granular Base and Aggregates.

All design grades and tolerances must be approved by the City Engineer prior to concrete placement.

Before placing concrete on granular base, the granular immediately ahead of the concrete placing operation shall be wetted down thoroughly to the satisfaction of the City Engineer.

7.04.02 Formwork

Formwork shall be according to OPSS 919, be constructed wood or metal, and be of sufficient strength to resist springing, tipping or other displacement due to the placing of concrete and such other loads as may be superimposed during construction. Forms shall be free from warps, splits, holes, and bulges and all bolts, rivets and fittings shall be countersunk. Forms shall be erected without the use of internal ties and shall be sufficiently tight to prevent the leakage of mortar. The faces of forms against which concrete is to be placed shall, before the placing of concrete, be thoroughly cleaned and coated with an approved release agent or other approved material. Forms when tested with a 3-metre straight edge or curved template shall not deviate on the top surface more than 3mm nor on the inside faces more than 6mm from the testing edge of the template.

7.04.03 Maintenance holes and Utility Valves.

All maintenance holes in concrete pavement shall be according to telescopic manhole frame and cover drawing AS-553

All other valves or appurtenances shall be isolated from the pavement by means of a permanent and appropriately sized PVC or rigid plastic sleeve. The inside sleeve diametre is to match the diameter of the valve within 20mm. The sleeve is to be placed around the obstruction, ahead of the concrete placement and shall be true to the finished grade and extend continuously to the base.

Joint patterns and spacing shall be adjusted to accommodate manholes and sleeve isolated valves such that the projections fall on the center of a joint or at least 900mm away from a joint. When necessary, longitudinal and transverse joints can be skewed to satisfy these requirements as per OPSD 551.032.

7.04.04 Joints

All joints shall be of the type and at the location shown on the contract drawings.

For typical joint detail drawings refer to OPSD 552.010 with the exception that there are no “key way" joints permitted.

7.04.05 Contraction Joints

Transverse weakened-planed contraction joints shall be constructed at or near right angles to the direction of pavement. Longitudinal contraction joints shall be mostly parallel to pavement direction. The width of the contraction joint shall be 3 to 5 mm and a minimum depth of 65 mm or at least one-third of the depth of the concrete slab. Contraction joints maybe sawed, hand-formed, or made by 3mm thick division plates in the formwork. Sawing shall be done early after the concrete has set to prevent the formation of uncontrolled cracking. The joints may be hand-formed either by (1) using a narrow or triangular jointing tool or a thin metal blade to impress a place of weakness into the plastic concrete, or (2) inserting 3mm thick steel strips into the plastic concrete temporarily. Steel strips shall be withdrawn before final finishing of the concrete. Where division plates are used to make contraction joints, the plates shall be removed after the concrete has set and while the forms are still in place.

Longitudinal panel lengths shall not exceed 4.5 m or be less than 2.0 m and are to be approved by the City Engineer prior to concrete placement.

Tie bars shall be placed where specified in the contract. Tie bars shall be at the midpoint of the pavements depth, be perpendicular to the joint are to be between 760mm and 600mm center to center. Tie bars across a longitudinal joint will not be placed within 600mm of a transverse joint that contains load transfer dowels.

Load Transfer devices / dowel bars shall be placed where specified in the contract. The location of the dowel bars shall be marked to ensure joint forming or cutting operations fall directly and precisely over the center of the dowels. Dowels shall be set within a tolerance of +/- 6mm in the vertical and horizontal planes of the pavement. Where transverse joints are skewed to accommodate utilities the dowels are to be similarly skewed so as to remain in the direction of the pavement. (Not necessarily perpendicular to the joint)

Dowels are to be placed at 300mm center to center and be between 300mm and 450mm from the panel’s edge or any utility feature that falls on the joint.

No damaged or contaminated tie bars or load transfer devices shall be used.

All load transfer devises and tie tars location and condition are to be approved by the City Engineer prior to commencement of concrete placement.

7.04.06 Expansion (Isolation) Joints

Isolation joints shall be formed with full-depth joint filler material meeting the requirements of OPSS 1308, except that cork expansion fillers will not be accepted. In all other areas, non-extruding and resilient bituminous type expansion joint is to be used, unless approved by the City Engineer. The thickness of the expansion joint material panels shall be at the discretion of the City Engineer and will not be less than 12mm. Expansion material shall extend the full depth of the pavement and be so placed as to eliminate all concrete to concrete contact at the joint. Panels of expansion joint material shall be pre-cut from a single piece to the shape of the cross-section as shown on the standard drawings, but so as to provide a 6mm recess on the exposed surfaces. Cutting and tolerances shall conform to OPSS 1308.

When an expansion joint falls at a transverse joint which contains load transfer devices, the ends of the dowels shall be fitted with approved isolation caps to provide a clear space at the end of the dowels that is at least equal to the thickness of the expansion joint filler material.

7.04.07 Construction Joints

A construction joint shall be formed or cut and is required at the end of the days paving or at a point of interruption. Such joints shall be full depth, vertical, be perpendicular to the pavement direction, are to include all specified bars or dowels and are to coincide with joint patterns in adjacent lanes.

7.04.08 Concrete Placement

Placement of concrete shall be according to S-9 and the following:

a) Concrete shall not be placed until the foundation and the forms or string line have been inspected and approved by the City Engineer.

b) No exposed concrete pavement shall be placed in the rain.

c) Concrete is to placed at or near its permanent location in such a manner so as to avoid segregation. The concrete shall be placed and consolidated against all formwork; all entrapped air shall be eliminated.

d) Contact with partially set concrete shall be avoided.

e) The concrete placing operation shall be continuous and at a speed that allows complete, proper, and timely finishing operations to follow. When an interruption of more than 45 minutes occurs, a true, vertical construction joint (OPSD 552.010) shall be formed.

The concrete shall be placed either by an acceptable slip form/extrusion machine, or by formed method, or the combination of these methods. The forms or string line shall be set true to the lines and grades specified in the Contract Documents and be in direct contact with the granular base course.

The restrictions on concrete placement shall be as per City of Windsor Standard Specification S-9 – General Concrete Specification

7.04.09 Material Consolidation

All concrete pavements greater than 150mm thick shall be consolidated by means of handheld internal vibrators or machine mounted in the case of a paving machine. The vibrator shall be inserted at regular intervals along the width of pavement and are not to be operated longer than 15 seconds in a single location. Vibratory consolidation shall be completed within ten (10) minutes of the material being deposited.

In the case slip form machine paving, the vibrators shall not operate when the paver is stopped.

Vibrators shall not come into contact with the base material, the forms, tie bars or the dowel bar assemblies.

Pavement less than 150mm thick may be placed without hand held vibrators provided the material is stuck off by means of an approved mechanical vibrating screed to the satisfaction of the City Engineer.

7.04.10 Finishing

No water or chemical agent shall be applied to the concrete surface for finishing purposes.

For concrete pavement that is formed or where concrete is placed adjacent to existing concrete the edge of the new pavement shall be finished with a radius of 6mm prior to surface texturing.

The surface of the concrete shall be shaped, smoothed, and finished to line and grade by means of machine and or hand floats such that the surface tolerance requirements are met after finish texture is applied. Care should be given not to “over work” the surface of the material.

The surface texture shall be uniform across the full panel width and be of the type specified in the contract drawings to the satisfaction of the City Engineer.

7.04.11 Finished Surface Tolerances

The exposed finished surfaces shall be uniform, true to grade and in all cases free from displaced aggregate particles and local projections.

The surface of the concrete shall be free of any deviation greater than 3mm when tested with a 3 m straight edge in any direction. This requirement holds true across all joints except those that are a designed grade changes. This requirement holds true across all utility valves and maintenance hole lids cast in the pavement structure.

Diamond grinding may be required to ensure the concrete surface meets these requirements.

7.04.12 Identification Stamp

The Contractor shall imprint his official name and the date with a steel stamp, as per City of Windsor AS-103, once per block, per side and or at least one stamp per one hundred cubic metres.

The edge of the stamp shall be four hundred and fifty millimetres (450mm) from the face of the curb and not fall at a joint, with the one hundred and fifty millimetre (150mm) side parallel to the curb. The depth of imprint shall not be less than 6mm.

7.04.13 Curing

Concrete shall be cured according to S-9.

7.04.14 Joint Sealing

Joint sealant shall be of the type and at locations specified in the contract and shall be according to OPSS 369

7.04.15 Protection

The contractor is solely responsible for protection of the surface of the plastic concrete and shall further protect the concrete pavement from any loading until adequately set. Any damage or surface blemish from rain, work or pedestrian traffic what so ever is at the contractors cost.

The concrete pavement shall not be subjected to any loads other than required foot traffic and rubber wheeled joint cutting equipment until the compressive strength field cured cylinders attain 70 % of the specified 28 day design strength.

Any damage to existing, adjacent pavement or curb or new pavement from construction or other activities are the responsibility of the contractor until the pavement is accepted by the City Engineer.

7.04.16 Backfilling

No work shall be performed adjacent to freshly placed concrete pavement until sufficient strength has been attained. No vibratory compaction effort shall take place on materials placed near new pavement until the concrete as developed 70% of the design compressive strength.

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CONSTRUCTION SPECIFICATION FOR HOT MIX ASPHALT

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10.01 SCOPE OF WORK

This specification covers the requirements for the placement and compaction of hot mix asphalt for pavement construction and other uses in the City of Windsor.

10.02 REFERENCES

This specification refers to the following standards, specifications, or publications:

- OPSS.PROV 308
- OPSS.MUNI 310
- OPSS.MUNI 1003
- OPSS.MUNI 1101
- OPSS.MUNI 1103
- OPSS.MUNI 1150
- OPSS.MUNI 1151

10.03 MIX DESIGNS

The mix design shall be the responsibility of the contractor. The job mix formula selected for use shall produce hot mix that will meet the requirements of OPSS.MUNI 1150 and OPSS.MUNI 1151 with amendment to section 1150.04.01.01.01 Reclaimed Asphalt Pavement Proportions: part a) changed to: RAP will not be permitted for surface course mixes; part b) changed to: A maximum of 15% by mass of RAP shall be permitted for HL 4, HL 8, and medium duty binder courses. OPSS.MUNI 1151 Section 1151.04.01.01 RAP Proportions shall be amended such that RAP will not be permitted in SMA, 12.5FC1, 12.5FC2 or any other surface course Superpave mix and up to a maximum of 15% RAP is permitted in binder course Superpave mixes.

Mix Designs shall be submitted for every project to the City Engineer at least two (2) days prior to the paving. Any changes to the Mix Design shall be submitted to the City Engineer before the mix is used on a City project.

If for any reason the Contractor requests to change designed asphalt paving specified in the Contract, a request in writing at least 48 hours prior to the paving shall be submitted to the City Engineer for approval. The request shall outline the reasons for the request, the substituted mix design for use, and the cost difference between substituted mix and the original Contract mix.

10.04 MATERIALS

Materials shall meet the requirements of OPSS.MUNI 310.

Materials used in the production of Hot Mix Asphalt shall meet the requirements of OPSS.MUNI 1150 for Marshall Mixes and OPSS.MUNI 1151 for Superpave and SMA mixes.

Tack coat material shall meet the requirements of OPSS.MUNI 1103.

HMA found to contain any material of any type other than the materials specified in the Mix Design, including but not limited to Re-Refined Engine Oil Bottoms (REOB), shall require that the HMA be removed and replaced at the Contractor's expense.

10.05 EQUIPMENT

Equipment shall meet the requirements of OPSS.MUNI 310.

10.06 CONSTRUCTION

Construction shall meet the requirements of OPSS.MUNI 310 and the requirements of OPSS.PROV 308 construction specification for Tack Coating and Joint Painting.

Where more than one course of HMA is to be placed in the same day, OPSS.MUNI 310.07.06.02 shall be followed.

The use of water to cool the HMA shall not be allowed unless approved by the City Engineer.

10.07 QUALITY ASSURANCE

Quality assurance shall meet the requirements of OPSS.MUNI 310.08 except the following changes:

Aggregate Gradation and Asphalt Cement Content Acceptance

Aggregate gradation and asphalt cement content test results for HMA samples based on LS-282 and LS-292 shall meet the tolerance requirements as specified in Table 7. A total of two borderline test results for the same two attributes representing up to 1000 tonnes of HMA production shall result in the work being deemed rejectable. A total of three borderline test results for the same attribute representing greater than 1000 tonnes up to 5000 tonnes of HMA production shall result in the work being deemed rejectable.

If the HMA is deemed rejectable according to Table 7, both the City and the Contractor shall review, agree, and identify the limits of the rejected HMA that has been placed. Limits of the rejectable HMA based on the first sample shall be represented by the area between the commencement of paving and the second sample. Limits of the rejectable HMA based on the second sample shall be represented by the area between the second sample and the third sample or the completion of the paving, etc. Referee samples within the limits of the affected area shall be delivered to a third party referee laboratory to verify the aggregate gradation or asphalt cement content or both. When the results of the referee samples are deemed rejectable according to Table 7, the HMA pavement shall be removed and replaced with acceptable HMA pavement at the Contractor's costs. Alternatively, the City may accept a payment reduction if a mutual agreement can be made through discussions between the Project Manager and the Contractor.

Hot Mix Asphalt Properties Acceptance

Marshall test results for hot mix samples based on LS test procedures shall meet the requirements specified in Table 8 (in OPSS.MUNI 310). The production air voids for all HMA mixes shall be evaluated according to Table 9.

If the HMA does not meet Table 8 minimum requirements for Marshall stability or Marshall flow or is deemed rejectable for air voids according to Table 9, both the City Engineer and Contractor shall review, agree, and identify the limits of rejected HMA that has been placed. Referee samples within the limits of the affected area shall be delivered by the City to a mutually agreed upon third party referee laboratory to verify Marshall test or air void results or both. When the results from the referee samples do not meet Table 8 minimum requirements or are deemed rejectable according to Table 9, the HMA pavement shall be removed and replaced with acceptable HMA pavement. Alternatively, the City Engineer may accept a payment reduction if a mutual agreement can be made through discussions between the Project Manager and the Contractor.

The Contractor shall notify the City Engineer 24 hours prior to the commencement of paving operations. A representative of the City's Field Services QA staff will contact the Contractor's QC staff to arrange for a mutually agreeable time to carry out Hot Mix Asphalt (HMA) sampling.

A minimum of one (1) HMA Sample will be taken for each 500 tonnes HMA placed on a project. The minimum number of samples for any project less than 500 tonnes HMA shall be two (2). Plate samples will not be allowed on surface course mixes. Plate samples may be used on binder course mixes, however, bulk shovel samples obtained from the paving equipment and split by Quartermaster equipment is the preferred sampling method. Sampling and splitting equipment shall be free of any chemical agents that will be in contact with the HMA sample. A sample shall be jointly obtained by the QC and QA representatives and shall comprise of the minimum sampling size of HMA as outlined in Table 6 of OPSS.MUNI 310. One box will be held by the Contractor for QC testing, two boxes will be held by the City, one box for QA testing and one box for possible referee testing. Each party will supply clean empty boxes for their respective sample(s). The HMA samples obtained shall be accepted by both parties indicating agreement that sampling was carried out in an acceptable manner and that the samples obtained are accepted for laboratory testing purposes. Should one of the parties not be able to attend the sampling event, the other party may sample, split by Quartermaster and box the HMA samples provided that the party not in attendance has a knowledgeable representative on site to witness and confirm the sampling was carried out in an acceptable manner. The boxes shall be labelled and delivered to the other party's site representative.

Lab testing requirements shall be extraction and gradation including Marshall Compliance Properties or Superpave Volumetrics for each of the samples taken unless otherwise approved by the City Engineer. Test results shall be compared to the Mix Design supplied by the Contractor and to other relevant specifications.

HMA QA sample(s), when possible, will be delivered to the testing laboratory the same day as sampled. Testing laboratories will carry all applicable certifications for the test(s) that they will be performing. Tests will be carried out in accordance with the appropriate LS Standards. Note that a dual agent shall not be allowed in the project QA/QC testing. A maximum period of three (3) working days shall be allowed for completion of the testing and a report will be generated and delivered to the City's Field Services Supervisor forthwith. Upon receipt of the test results, the report shall be shared between the City's Field Services Supervisor and the Contractor. QA test results shall be evaluated against the requirements outlined OPSS.MUNI 310, the contract documents and applicable Standard Specifications. Rejectable QA results will necessitate testing of the referee sample if requested by the Contractor. Within a maximum of period of three (3) working days of receipt of rejectable results, the City Engineer and Contractor shall agree upon a laboratory for referee testing to be carried out. The referee testing laboratory shall carry all applicable certifications for the test(s) that they will be performing and testing of the referee sample shall be carried out in accordance with appropriate LS Standards. A maximum period of three (3) working days shall be allowed for completion of the referee testing and a report will be generated and delivered to the Contractor and the City's Field Services Supervisor. The test report shall

categorize the results as acceptable or rejectable. Should a local laboratory not be able to accommodate the testing requirements, another laboratory shall be agreed upon by both the Contractor and the City Engineer and retained by the City Engineer. The agreed upon referee testing laboratory shall allow both the Contractor and the City Engineer the opportunity to witness the referee testing of the HMA. If for specific reasons, witnessing of the referee testing cannot be accommodated, the referee testing laboratory shall provide recorded video record of the testing throughout its entirety, which shall include documentation that records the laboratory technician performing all aspects of the work, dates and times of testing.

Referee test results shall be binding on both the Owner and the Contractor.

For outsourced projects in which the City's QA staff is not involved with the inspection and testing, field sampling and laboratory testing of HMA by geotechnical consultants and/or others will follow the same sampling and testing protocols and timelines as noted above. Upon completion of laboratory testing, the test report shall, within the timeframe noted above, be reported to Engineer of Record copying the City Engineer. Referee testing will follow the same protocols as noted above.

At the discretion of the City Engineer, the Contractor may be requested to provide Performance Graded Asphalt Cement (PGAC) tank samples, **which shall be obtained during the production of HMA**. Sampling of a QC, QA and referee sample shall be obtained in accordance with OPSS.MUNI 1101.08.03 in the presence of a representative of the City's QA staff. Quality Assurance Testing for PGAC Grading shall be carried out as outlined in OPSS.MUNI 1101.08.04. In addition to PGAC Grading, additional PGAC testing outlined in OPSS 1101, Table 1 may be carried out from time to time. The Contractor shall be notified when PGAC testing is required and additional samples will be taken to accommodate testing. Test results shall be compared to OPSS.MUNI 1101. The contractor and the City Engineer shall inform each other of their intended testing laboratory. Note that a dual agent shall not be allowed in the project QA/QC testing. The laboratory shall carry all applicable certifications for the test(s) in which they will perform. QA test results shall be evaluated against the requirements outlined in the OPSS.MUNI 1101. Upon completion of the QA testing the results shall be shared with the Contractor. Rejectable results will necessitate testing of the referee sample. Within a maximum period of three (3) days of receipt of rejectable results, the City Engineer and Contractor shall agree upon a laboratory for referee testing to be carried out. The referee testing laboratory shall carry all applicable certifications for the test(s) that they will perform. Testing of the referee sample shall be carried out according to appropriate LS Standards. A report will be generated and delivered to the Contractor and the City's Field Services Supervisor. The report shall categorize the results as acceptable, or rejectable, where applicable. The agreed upon referee testing laboratory shall allow both the Contractor and the City Engineer the opportunity to witness the referee testing of the PGAC. If for specific reasons, witnessing of the referee testing cannot be accommodated, the referee testing laboratory shall provide a recorded video record of the testing throughout its entirety, which shall include documentation that records the laboratory technician performing all aspects of the work, dates and times of testing.

Referee test results shall be binding on both the Owner and the Contractor.

When requested, the Contractor shall provide the City's QA representative with access to its asphalt plant control room in order to obtain copies of the batching records and to document plant operations during the production of hot mix asphalt for the Contract. If for specific reasons, the City QA representative cannot be granted access to the control room, batching records shall be provided when requested. The information collected from the Contractor's hot mix asphalt control room will be used solely to compare the as-produced mix to the mix design accepted by the City. All information collected by the City's QA representative will be shared with the Contractor and will be kept in strict confidence by the City. The City shall also be granted access to the asphalt plant yard during the construction season, upon request, to routinely sample aggregates, asphalt cement and observe operations.

10.08 MEASUREMENT FOR PAYMENT

Measurement for payment shall meet the requirements of OPSS.MUNI 310.

10.09 BASIS OF PAYMENT

Basis of payment shall meet the requirements of OPSS.MUNI 310 except as otherwise amended in this document.

7.05. DAMAGE TO ADJACENT BOULEVARDS AND PAVEMENTS

The Contractor will be required to make good, as directed, all damage done to the adjacent roadway or pavements while the work is in progress.

The Contractor will be required to remove all rubbish and material from the pavement and boulevards adjoining the new concrete pavement or concrete base and restore the same to as good and clean condition as they were before commencing the work. Should the Contractor choose to use plastic as their method of cure protection, when removed from the concrete, all plastic is to be removed and disposed of at the Contractor's expense. If any of the sod beyond the area of construction is destroyed by the Contractor or his employees, he will be required to replace it, at his expense, with new sod to the approval of the City Engineer.

7.06. TESTING AND QUALITY ASSURANCE

The testing and quality assurance for all concrete pavements shall conform to the requirements contained in the S-9 for Concrete and the following requirements:

The Contractor shall be responsible for the line and grade of the forms as provided by the City Engineer or will be responsible to match existing conditions when required.

The Contractor shall be responsible for the concrete work during the curing time and when the forms are removed until the work is accepted by the City Engineer.

All areas not conforming to the requirements of this specification due to poor construction or finishing methods are to be corrected or replaced at the contractors expense to the satisfaction of the City Engineer.

7.07. MEASUREMENT OF PAYMENT

Measurement of payment for concrete will only be made of that material and work accepted by the City Engineer.

The unit of measurement will be that provided for in the tender.

7.08. BASIS OF PAYMENT

Payment will be made at the unit prices bid in the contract documents and for the quantities determined by the applicable method of measurement.

Such payment shall constitute full compensation for supplying, delivering, placing, finishing, curing, and protecting and any other cause whatsoever for all work performed in connection with the material and ant other incidentals necessary to complete the items that are not herein specified for payment otherwise.

cast in place or precast unit, 1 metre of big 'O' pipe on either side of catchbasin and connection into subdrain, for the installation and adjustment of the frame and cover, installation of asphalt or concrete box-out as specified around the frame and cover, for the installation of up to a maximum of 1 metre of catchbasin lead when connecting to existing catchbasin leads, and all other work necessary to complete the structure in accordance with the contract requirements.

2.08.03 ADJUSTMENTS OF MAINTENANCE HOLES AND CATCHBASINS

Payment at the contract price shall be full compensation, regardless of size or type, for the removal and disposal of asphalt or concrete pavement where required, for all necessary excavation, removal and disposal of concrete in structure, for supplying, handling, placing and compaction of materials; and for all other work necessary for the satisfactory completion of the work, except for the removal and replacement of asphalt of concrete curb and gutter, which work shall be paid at the contract unit price for the items concerned.

2.08.04 BREAKING INTO MAINTENANCE HOLES AND CATCHBASINS

Payment shall be made at the contract unit price per opening and shall be fully compensation for providing opening and grouting in pipes for all pipes.

S-16
PERFORATED CORRUGATED POLYETHYLENE PIPE SUB-DRAINS

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16.01. SCOPE OF WORK

This specification covers the constructing sub-drains of the required diameter of perforated corrugated polyethylene pipe with sock and the required outlets thereto, including all necessary excavation, backfilling and all other items of work as herein described.

16.02. REFERENCES

This specification refers to the following standards, specifications, or publications:

- OPSS 1840

16.03. MATERIALS

The Contractor will supply all materials. Materials shall meet the requirements of OPSS 1840.

16.04. GRANULAR & NATIVE BACKFILL

This material, unless otherwise specified, shall be 16mm nominal size clear stone as per City of Windsor Standard Specification S-4.

16.05. CONSTRUCTION

16.05.01 Time and Order of Performance

The Contractor shall commence the works and carry them on at whatever point or points along the line of the drain that the City Engineer may direct.

16.05.02 Existing Conduits, Tracks, etc., Access to Property and Protection

The Contractor shall be liable and responsible for the adequate support and for protection of sewers, drains, conduits, tracks or other structures owned by the Corporation or any private company or any individual enjoying franchise rights or occupying any portion of the street or way on, or below or above the surface. The Contractor shall provide access for traffic to houses and other premises, provide for proper protection against damage, and comply with all the requirements of the contract.

16.05.03 Excavation

The trench shall be true to the line and grade required to match the line and grade of the concrete curb to be placed. The trench shall be of sufficient width to provide free working space and to permit compaction of backfill material around the pipe, but the width of the trench shall not exceed 300mm, unless permitted by the City Engineer in writing. When trenches are excavated wider than the above maximum caused by the use of power equipment, lack of bracing or other reasons, any increase in quantities of excavation, granular backfill or other items incurred by the excess width shall be borne by the Contractor.

Where required by conditions of the soil, sheeting apparatus shall be furnished and the cost of the sheeting, shoring, and bracing shall be borne by the Contractor.

The bottom of the trench shall be filled with a bed of 16mm nominal size clear stone backfill 50mm deep, and no point of the trench bottom shall be within 50mm of the grade line of the bottom of the pipe.

Where the bottom of the trench is in unstable soils, such as saturated clays and/or silts or quicksand, the trench shall be deepened to the depth required for granular backfill or whatever other means for securing good foundation, as required by the City Engineer.

Not more than 100 metres of cut shall be opened at any one time or placed in advance of the completed drain, unless by written permission of the City Engineer and for such distance as therein specified.

The Contractor shall be permitted to excavate for the placement of the sub-drain while excavating for the roadway, unless otherwise directed by the City Engineer.

The Contractor shall excavate for the sub-drain without any damage to any existing trees or the root systems of any trees adjacent to the trench where the sub-drain is to be placed.

16.05.04 Laying Pipes

The trench shall, at all times, be kept dry and no pipes shall be laid in water or upon a wet bed, except when authorized in writing by the City Engineer. At all times during the progress of laying and backfilling and until the work has been accepted, the pipes shall be thoroughly cleaned, kept clean and protected from coatings of dirt. All pipes shall be laid true to line and grade. No length of pipe shall be laid until the preceding length has been thoroughly embedded and secured in place so as to prevent any movement or disturbance of the joint. All junctions shall be made with insert couplers manufactured by the manufacturer of the pipe. No pipe shall be left in the trench overnight without backfilling to protect it.

The Contractor shall ensure that the geo-textile sock remains intact and is free of tears and rips during and after placement. Where a field connection must be made to connect two pieces of pipe, the geo-textile sock is to overlap at the joint by a minimum of 300mm. The overlapping geo-textile sock is to be secured to the pipe at this point using plastic, one direction, locking ties to ensure the overlapped section remains intact during backfilling.

Proper foundation shall be provided in unstable soils by the addition of granular material as directed by the City Engineer.

16.05.05 Sub-Drain Connections

The sub-drains are to be connected to the pre-cast concrete catch basins by using the factory supplied “knock out” formed into the pre-cast unit. Should it have to be connected to an existing catch basin or other existing concrete structure, the Contractor shall core drill a hole in the existing structure no larger than 25mm greater than the pipe size. All connections to structures are to be mortared in place, using a rapid setting, waterproof, hydraulic cement mixed according to the manufacturer’s directions.

16.05.06 Backfilling

Backfill, unless otherwise specified, shall consist of 16mm nominal size clear stone and shall be placed over pipe sub-drains only after that section has been approved by the City Engineer. Any earth from cave-ins and all other objectionable matter shall be removed, cracked or crushed pipes removed or replaced and any other repair or attention required for a workman-like job shall be performed before any backfilling is commenced. Backfilling, except for the completion of any section or at the termination of a day’s work, shall be kept back at least 15 metres from the advanced end of the pipe. At the termination of a day’s work, backfilling shall be completed to the end of the pipe to protect it from cave-ins, falling stones, or other damage.

The granular backfill shall be placed in layers not exceeding 150mm in depth when compacted. Care shall be taken to ensure that the backfill is placed under the haunches and around the pipe. Compaction shall be performed in such a manner as not to injure or dislodge the pipe. The granular material shall be used to complete the backfilling to the top of the trench.

16.05.07 Inspection

The Contractor shall prove his work throughout the entire length of the satisfaction of the City Engineer. Defective work or damaged materials shall be remedied or removed and replaced as directed by the City Engineer immediately on its discovery.

16.05.08 Disposal of Surplus Materials, etc.

As the trenches are filled in and the work completed, the Contractor shall, at his own expense and cost, removed and dispose of all surplus earth, stone, and other material from the work in such manner and at such points as directed by the City Engineer.

16.06. MEASUREMENT FOR PAYMENT

16.06.01 Pipe Sub-Drain in Place

Measurements will be made in lineal metres of the length of the pipe in place. Separate measurements shall be made of different diameters laid in accordance with the specifications and schedule of payments as called for on the tender.

16.07. BASIS OF PAYMENT

16.07.01 Bid Prices for Laying Pipe

Bid prices on the above items shall be in full compensation for the excavation of the trench and for the laying of the pipes, backfilling with granular material, the supply and use of all appliances and materials, the disposal of all surplus excavated materials and the satisfactory cleaning of the site and for all work required under this specification, excepting those items for which other payment is herein provided.

16.07.02 Excavation for Pipe Sub-Drains

The cost of the excavation shall be included in the submitted linear price for the placement of the sub-drain.

16.07.03 Granular Backfill

The cost of the granular backfill shall be included in the submitted linear price for the placement of the sub-drain. This payment shall be compensation in full for the supply, handling, hauling, placing and compacting all work herein specified incidental to this item.

16.07.04 Catch Basin/Structure Connection

The cost of connecting the sub-drain to any concrete structure shall be included in the submitted linear price for the placement of the sub-drain. This payment shall be compensation in full for the connection.

The submitted linear price for the placement of the sub-drain shall include any work required to connect sub-drains including 1 linear metre of sub drains in both directions parallel with road for a total of 2 linear metres of sub-drain per connection that shall not be included in the linear measurement of the sub-drain unless otherwise directed by the City Engineer.

S-19
CLEANING OF GRAVITY SEWERS, MANHOLES and CATCHBASINS

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19.01. SCOPE OF WORK

This specification shall cover the flushing and cleaning of all combined, storm and sanitary sewers, manholes and catchbasins including the removal and disposal of all debris from the system.

19.02. REFERENCES OR RELATED DOCUMENTS

This specification refers to the following standards, specifications, or publications:

- S-32 – CCTV Sewer Inspections

19.03. EQUIPMENT

Sewers shall be cleaned using a high velocity sewer jet and must have a 246 LPM / 13,800 kPa (65 gpm / 2000 psi) water pump and 25mm (1”) I.D. hose. The minimum size of the nozzle shall be 125mm (5”) for sewers up to 375mm (15”) in diameter. The nozzle shall be capable of producing a scouring action from 15 to 45 degrees in all diameters of sewers to be cleaned.

In a sewer with a diameter of 450mm (18”) or greater, the nozzle to be used must be a heavy duty action nozzle that rides the invert of the pipe with a 360 degree rotating swivel

attachment so that the hose cannot rotate the nozzle while in the pipe. All jets to be located on the bottom half of the nozzle and must be capable of removing heavy debris.

The equipment shall also include a high pressure wand attachment for washing and scouring manhole walls and benching/bottoms. The wand shall include an attachment capable of producing flows from a fine mist to a solid stream.

The equipment shall also include a vacuum unit for the removal of sewer debris that includes positive displacement pumps or fans producing a minimum of 700 litres per second (1483 cubic feet per minute) of air movement, a storage tank that will allow the liquid portion of the debris to be returned to the sewer (dewatering) and minimum 150mm (6”) diameter suction hoses attached to a hydraulic boom.

The equipment shall also include a water tank with an approved backflow prevention device for filling the water tank from an approved source.

The equipment shall also include a communication system that is enables all crew members to easily communicate with each other and, when required, to the representative of the City Engineer.

The contractor shall provide any required traffic control signage, equipment or personnel as per the Ontario Traffic Manual - Book 7 and have all required documentation on site at all times.

19.04. MATERIALS

The contractor shall supply all required materials. Arrangements for the water required for the cleaning operations will be made by the contractor with the Windsor Utilities Commission. ***Note that hydrant taps are no longer allowed in the City of Windsor.***

19.05. CONSTRUCTION

19.05.01 SEWERS & MANHOLES

The contractor shall completely clean all sewers and manholes of all debris including sludge, dirt, sand, gravel, rocks, bricks, grease, and other solid and semi-solid materials. This material is to then be removed from the system and disposed of by the equipment mentioned above.

The contractor shall take all necessary precautions to ensure that no flooding of public or private property occurs during the operation. The contractor shall lower the pressure of the cleaning equipment when directed by the City Engineer.

The cleaning shall begin at the upstream sewers in the system and proceed downstream with the direction of flow.

The manhole walls and benching is to be cleaned prior to cleaning of the downstream sewer.

The contractor shall immediately notify the City Engineer upon the discovery of any pipe material or backfill material during the cleaning or removal operation and stop the cleaning operation until further directed by the City Engineer.

If a blockage is discovered that prevents the completion of the cleaning of the sewer, the contractor shall attempt to clean the blockage by a reverse setup. This would involve the cleaning equipment to be positioned at the upstream manhole and cleaning the entire sewer run from that location. The contractor is to attempt removal of the blockage for a minimum of one hour before notifying the City Engineer.

Should the blockage not be removed from the system or the sewer condition prevents the completion of the cleaning process, the contractor shall mark the location of the blockage or obstruction on the surface.

The City Engineer will arrange for an emergency sewer repair upon review of the CCTV video of the affected area.

The contractor shall immediately advice the City Engineer should any of their cleaning equipment become stuck in the sewer system. The contractor shall attempt to remove their equipment for a minimum of 4 hours using whatever means necessary. If the equipment cannot be freed after the 4 hour period then the position of the stuck equipment shall be marked on the surface. The City Engineer will then make the necessary arrangements to have the sewer pipe exposed within 48 hours of the equipment being stuck. The contractor shall be available when the sewer is exposed and opened for the remove of their equipment. The City Engineer shall then have the sewer repaired and the contractor shall being their cleaning process again from the manhole upstream of the repaired section.

The contractor shall continuously remove all debris from the downstream manhole while the cleaning operation is being undertaken. No debris is to enter the downstream sections of the system during cleaning unless approved by the City Engineer.

The contractor shall dewater the debris removed from sewers or catchbasins and legally dispose of the debris. All dewatered liquid is to be returned to the system as soon as possible at a location approved by the City Engineer. The contractor shall provide a written procedure to the City Engineer for their method of dewatering and debris disposal prior to the beginning of any work. The contractor shall provide all necessary logs and weigh tickets to prove that the debris was disposed of legally.

Any confined space entry is to be undertaken by the contractor as per the Occupational Health & Safety Act of Ontario.

19.05.02 CATCHBASINS

All catchbasins are to be completely cleaned of debris including sludge, dirt, sand, gravel, rocks, bricks, and all solid or semi-solid materials.

The contractor shall document the existing condition of the catchbasins as well as the catchbasin frame and grates. The cleaning locations shall be documented using the closest

municipal address adjacent to the catchbasin, the closest intersecting municipal streets and the compass orientation of the location.

This list shall be provided to the City Engineer to track locations that have been cleaned.

19.06. QUALITY ASSURANCE

All cleaned sewer and manholes shall be video inspected by CCTV and the inspection results provided to the City Engineer for review and acceptance as per City of Windsor Standard Specification S-32 CCTV Sewer Inspections. The submissions will be reviewed within 10 working days of their submission.

All manholes and catchbasins are to be opened by the contractor for visual inspection by the City Engineer.

Any areas determined to be deficient by the City Engineer shall be cleaned again at the contractor's expense and resubmitted for approval following the procedures above.

19.07. MEASUREMENT FOR PAYMENT

Sewer cleaning will be paid by the linear metre as per the contract document. The measurement is from the center of manhole to the center of manhole for the sewer run cleaned and will be accepted and measured by the City Engineer.

Manhole cleaning will be included in the sewer cleaning price per metre.

The dumping of all debris shall be included in the sewer cleaning price per metre.

Catchbasin cleaning will be measured on a per unit basis.

The dumping of all debris shall be included in the sewer cleaning price per metre.

19.08. BASIS OF PAYMENT

The contractor shall submit all documentation as per this specification for review and acceptance as the basis of payment.

The City Engineer shall undertake all required documentation for any required information for payment.

S-11
CULVERTS, HEADWALLS AND ROADSIDE DRAINAGE

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11.01 SCOPE OF WORK

This specification shall cover the requirements for enclosing existing open channel drains located in the right-of-way or adjacent to municipal roadways. This enclosed drain may be used for drive approaches or sidewalk crossings over the existing drain or as an aesthetic infill to enclose the stormwater drainage system. This specification shall also cover the requirements for the field tapping of existing storm outlets into the drain being enclosed. The work shall include the tying in of the required outlets thereto, including all necessary excavation, backfilling and all other items of work as herein described. This specification is NOT to be applied to Municipal Drains which are covered under the Drainage Act.

11.02 REFERENCES OR RELATED DOCUMENTS

This specification refers to the following standards, specifications, or publications:

- OPSS 421
- OPSS 1820
- OPSS 1840 & OPSS 1841 & OPSS 1843
- OPSD 804.030
- OPSD 804.040
- AS-209

11.03 MATERIALS

Materials shall meet the requirements of OPSS 1820 for concrete pipe products, OPSS 1841 for polyvinyl chloride (PVC) pipe products, OPSS 1840 for polyethylene (PE) plastic pipe products and OPSS 1843 for polypropylene (PP) plastic pipe products.

Any manholes or catchbasins required shall be in accordance with City of Windsor Standard Specification S-2.

The contractor shall supply ALL materials.

11.04 GRANULAR & NATIVE BACKFILL

This material, unless otherwise specified, shall be 19.5mm Granular 'A' stone compacted and graded to accept the placement of the pipe.

If the culvert is to be located under a hard surface, such as a drive approach, then the remainder of the backfill is to be compacted granular 'A' material to the bottom side of the proposed hard surface. The minimum depth is 300mm.

If the culvert is to be located in a grassed area, with no hard surface, than the backfill can be an approved native soil with a minimum topping of 100mm of approved topsoil..

11.05 CONSTRUCTION

11.05.01 OPSS Reference

Installation of the pipe culvert shall be in accordance with OPSS 421 unless otherwise noted in the City of Windsor Standard Specification S-11 or as directed by the City Engineer.

11.05.02 Time and Order of Performance

The Contractor shall commence the works and carry them on at whatever point or points along the line of the drain that the City Engineer may direct.

11.05.03 Existing Conduits, Tracks, etc., Access to Property and Protection

The Contractor shall be liable and responsible for the adequate support and for protection of sewers, drains, conduits, tracks or other structures owned by the Corporation or any private company or any individual enjoying franchise rights or occupying any portion of the street or right-of-way on, or below or above the surface. The Contractor shall provide access for traffic to houses and other premises, provide for proper protection against damage, and comply with all the requirements of the contract.

11.05.04 Excavation

The trench for the new culvert shall be true to the line and grade required to match the existing line and grade of the roadside drain. The trench shall be of sufficient width to provide free working space and to permit compaction of backfill material around the pipe, but the width of the trench shall not exceed the inside diameter of the barrel of the pipe plus 300mm, unless permitted by the City Engineer in writing. When trenches are excavated wider than the above maximum caused by the use of power equipment, lack of bracing or other reasons, any increase in quantities of excavation, granular backfill or other items incurred by the excess width shall be borne by the Contractor.

Where required by conditions of the soil, sheeting apparatus shall be furnished and the cost of the sheeting, shoring, and bracing shall be borne by the Contractor.

The bottom of the trench shall be filled with a bed of 19.5 Granular 'A' stone backfill, 300mm deep, and no point of the trench bottom shall be within 300mm of the grade line of the bottom of the pipe. The foundation beneath the headwalls shall be as per AS-209.

Where the bottom of the trench is in unstable soils, such as saturated clays and/or silts or quicksand, the trench shall be deepened to the depth required for granular backfill or whatever other means for securing good foundation, as required by the City Engineer.

Not more than 100 metres of cut shall be opened at any one time or placed in advance of the completed drain, unless by written permission of the City Engineer and for such distance as therein specified.

The Contractor shall excavate for the culvert without any damage to any existing trees or the root systems of any trees adjacent to the trench where the culvert is to be placed.

11.05.05 Laying Pipes

The trench shall, at all times, be kept dry and no pipes shall be laid in water or upon a wet bed, except when authorized in writing by the City Engineer. At all times during the progress of laying and backfilling and until the work has been accepted, the pipes shall be thoroughly cleaned, kept clean and protected from coatings of dirt. All pipes shall be laid true to line and grade. No length of pipe shall be laid until the preceding length has been thoroughly embedded and secured in place so as to prevent any movement or disturbance of the joint. All junctions, if required, shall be made with the coupler bands manufactured by the culvert manufacturer and approved for use with the type of pipe used for the culvert. The City Engineer, at his discretion, may require that the junctions in the culverts be made with a watertight seal. The Contractor shall then provide culverts that can be jointed in such a way that a watertight seal is obtained. This shall be undertaken by using pipe that has a bell and spigot joining system that provides a watertight seal. No pipe shall be left in the trench overnight without backfilling to protect it.

Proper foundation shall be provided in unstable soils by the addition of granular material as directed by the City Engineer.

11.05.06 Storm Outlet Connections

While placing the culvert, the Contractor may expose existing storm private drain connections or other culverts that drained to the existing ditch and now must drain into the proposed culvert. The connections are to be made using factory or manufactured tee fittings approved for use with the type of culvert installed. At no time shall the pipe being connected to the culvert protrude into the culvert. No connections shall be abandoned unless approved by the City Engineer.

If it is required that the culvert shall be connected to a pre-cast concrete structure, such as a catch basin or manhole, this shall be done by utilizing the factory supplied “knock out” formed into the pre-cast unit for the size of culvert being tied in or by use of a cast-in-place rubber coupling to accept the size of the culvert. Should it have to be connected to an existing concrete structure, the Contractor shall core drill a hole in the existing structure no larger than 25mm greater than the pipe size. All connections to structures are to be mortared in place, using a rapid setting, waterproof, hydraulic cement mixed according to the manufacturer’s directions.

11.05.07 Backfilling

Backfill, unless otherwise specified, shall be in accordance with section 3 and shall be placed over culverts only after it has been approved by the City Engineer. Any earth from cave-ins and all other objectionable matter shall be removed prior to backfilling. Any damaged pipes shall be removed and replaced and also any other repairs shall be performed prior to any backfilling. Backfilling, except for the completion of any section or at the termination of a day’s work, shall be kept back at least 15 metres from the advanced end of the pipe. At the termination of a day’s work, backfilling shall be completed to the end of the pipe to protect it from cave-ins, falling stones, or other damage.

The granular backfill shall be placed in layers not exceeding 150mm in depth when compacted. Care shall be taken to ensure that the backfill is placed under the haunches and around the pipe. Compaction shall be performed in such a manner as not to injure or dislodge the pipe.

11.05.08 Headwalls

Where directed by the City Engineer, the Contractor shall place headwalls at the terminal ends of the culverts. Precast or poured in place concrete headwalls shall be constructed as per OPSD 804.030 and OPSD 804.040 at locations approved by the City Engineer.

Headwalls for pipe diameters of 450mm or less can be constructed with standard jute bags filled with 14 MP a damp concrete mix at locations approved by the City Engineer.

Gabion stone with ready mix concrete poured over it will not be allowed as a headwall in a roadside drain without the approval of the City Engineer.

11.05.09 Catch Basin / Structures

The Contractor shall place all structures such as catchbasins and manholes as shown on the approved plans as per City of Windsor Standard Specification S-2.

11.05.10 Inspection

The Contractor shall prove his work throughout the entire length of the satisfaction of the City Engineer. Defective work or damaged materials shall be remedied or removed and replaced as directed by the City Engineer immediately on its discovery.

11.05.11 Disposal of Surplus Materials, etc.

As the trenches are filled in and the work completed, the Contractor shall, at his own expense and cost, removed and dispose of all surplus earth, stone, and other material from the work in such manner and at such points as directed by the City Engineer.

11.06 MEASUREMENT FOR PAYMENT

Measurements will be made in lineal metres of the length of the pipe in place. Separate measurements shall be made of different diameters laid in accordance with the specifications and schedule of payments as called for on the tender.

11.07 BASIS OF PAYMENT

11.07.01 Bid Prices for Laying Pipe

Bid prices on the above items shall be in full compensation for the excavation of the trench and for the laying of the pipes, backfilling with granular and native (if required) material, the supply and use of all appliances and materials, the disposal of all surplus excavated materials and the satisfactory cleaning of the site and for all work required under this specification, excepting those items for which other payment is herein provided.

11.07.02 Excavation for Culverts

The cost of the excavation shall be included in the linear price for the placement of the culvert.

11.07.03 Granular & Native Backfill

The cost of the granular and native (if required) backfill shall be included in the linear price for the placement of the culvert. This payment shall be compensation in full for the supply, handling, hauling, placing and compacting all work herein specified incidental to this item.

11.07.04 Catch Basin / Structure Connection

The cost of connecting the culvert to any structure shall be included in the linear price for the placement of the culvert. This payment shall be compensation in full for the connection.

11.07.05 Headwalls

The cost of excavating, placing, backfilling, and connecting the culvert to any headwall shall be included in the linear price for the placement of the culvert. This payment shall be compensation in full for the headwalk. Payment shall include, but not be limited to, the supplying and placing of the Unshrinkable Backfill and the supplying, placing and removing of the steel plates, including the steel spikes, the orange construction fencing, including the steel bars to support it or any other protection required by the City Engineer.

S-14
CONSTRUCTION SPECIFICATION FOR SODDING

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14.01 SCOPE OF WORK

This Specification refers the requirements for the restoration of grassed areas by sodding.

Starting from January 1, 2013, sodding shall be placed in single family residential areas and seeding in multi-residential, commercial, industrial and park areas unless specified otherwise in the contract documents or at the discretion of the City Engineer.

The work shall include:

1. Levelling, tilling or otherwise preparing existing areas of suitably arable soil
2. Placing sod
3. Applying fertilizer
4. Watering
5. Maintenance for 60 days

Unless otherwise specified, the prices quoted in the contract documents shall include the furnishing of all materials, supplies, equipment, and labour necessary to complete the work required under the contract documents.

14.02 REFERENCES

This specification refers to the following standards, specifications, or publications:

- S-34 Topsoil
- OPSS.MUNI 802 Construction Specification for Topsoil

- OPSS.MUNI 803 Construction Specification for Sodding
- OPSS.MUNI 206 Grading

14.03 MATERIALS

The Contractor shall supply materials including but not limited to sod, fertilizer, and water as per OPSS.MUNI 803.05 and the contract documents.

14.04 CONSTRUCTION

14.04.01 PREPARATION

All work shall be carried out in a professional manner with care taken to protect existing structures and grassed areas. The work shall be undertaken in such a manner as to minimize the inconvenience to the residents and, as much as possible, blend with existing conditions. The grading shall be carried out as per OPSS.MUNI 206 and in such a manner as to provide positive drainage for all walkways, sidewalks, and driveways. Steps shall be taken to ensure that all existing drainage patterns are maintained and improved if possible and that the City right-of-way has positive drainage over roadside curbs or to an appropriate drainage inlet structure. Any correction required to obtain the above noted shall be at the expense of the Contractor.

Topsoil shall be supplied and placed as per OPSS.MUNI 802. After the tilling of suitably arable soil, left in place to a depth of at least 50mm, and prior to the placing of the sod, the site shall be reviewed by representatives from the City, General Contractor and Landscaping sub-contractor.

14.04.02 OPERATIONAL CONSTRAINTS

Sodding shall not commence until the surface preparation has been approved in writing by the Engineer. Sodding shall commence within 7 Days of surface preparation. The Contractor shall maintain the surface and control erosion until the sod is in place.

Sod shall not be placed when in a frozen condition, during summer months when weather conditions result in periods of dormancy, under adverse field conditions such as high wind, frozen soil, or soil covered with snow, ice, or standing water.

The following modifications and reminders shall be noted:

Pegging

Pegging shall be done where indicated in the Contract Documents. Plastic biodegradable stakes shall be allowed.

Fertilizer

Fertilizer shall be applied as per OPSS.MUNI 803. The Contractor shall also implement the topsoil improvement recommended by a professional analysis report if it is applicable.

Water

The Contractor is to include all water costs in their bid price. The Contractor shall be responsible for the watering during the maintenance period as specified in Section 14.04.04. Watering shall be carried out as often as necessary to promote growth and rooting of the sod. The sod should never be allowed to become brown or dormant between the placing period and the end of the maintenance period. The City reserves the right to request the Contractor's records of watering. No additional compensation will made for watering.

14.04.03 TRIMMING AND PLACING

The placement of the sod shall be as per OPSS.MUNI 803. The existing areas shall be neatly trimmed by the use of a sod cutter. The finishing grade shall match existing grade exactly and uniformly, blending with the existing surfaces to make a seamless transition. Care shall be taken to place all sod slightly below all sidewalks, lead walks, and driveways to ensure water runoff.

14.04.04 MAINTENANCE OF INSTALLED SOD

The maintenance period does not start until 100 percent of the sod is placed unless mutually agreed by the City of Windsor and the Contractor. The sod shall be maintained for 60 consecutive days after sodding is complete on the entire project, excluding the winter dormant periods between November 15 and April 15 as shown in Table 1 of OPSS.MUNI 803.

The Contractor shall take the responsibility of their lawn mowing, including the first cut during the maintenance period and as required throughout the maintenance period to maintain a height of 50 to 100 millimetres, unless otherwise specified in the contract documents. At the end of the maintenance period the sod shall be cut to a height of between 50 and 75 millimetres.

Where the Engineer is agreeable to late season placement of sod and it is not possible to determine the acceptability of the sod until the following growing season, those areas deemed unacceptable due to causes beyond the control of the Contractor (road salting, heavy pedestrian traffic, etc.) shall, at the discretion of the Engineer in consultation with the Contractor, be resodded at the unit price in the tender documents. The Contractor shall be paid for the original sodding and the area requiring resodding.

14.05 QUALITY CONTROL

The City shall take steps to record the acceptability of the sodded areas by the use of photos, videotaping or other means deemed necessary at the end of the maintenance period when the sodded areas are deemed acceptable. If after the maintenance period, the sodded restoration is not to City approval, the City reserves the right to extend the maintenance period until restoration is deemed acceptable.

14.05.01 INFORMATION TO THE RESIDENT

In conjunction with the placing of sod, the City shall inform the residents of the limits of the Contractor's responsibilities and what steps the resident can take to assist in promoting and maintaining a flourishing lawn (the first notice letter to the residents). The homeowners shall be informed in writing that the sodded areas have been deemed acceptable and further maintenance and care will be their responsibility at the end of the maintenance period (the second notice letter to the residents).

14.06 MEASUREMENT FOR PAYMENT

The placement of sod, including watering, cutting, fertilizing and weed spraying shall be paid based on the Schedule of Unit Prices in the Contract.

14.07 BASIS OF PAYMENT

Payment at the Contract price for the above items shall be full compensation for all labour, equipment, and materials to do the work. Payment shall include the supplying and placing of topsoil, seed, watering, weeding, fertilizing, and maintenance until final acceptance, as well as, seed replacement and water for seed when no separate item for payment exists for such work.

S-15
CONSTRUCTION SPECIFICATION FOR SEEDING

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15.01. SCOPE OF WORK

This specification covers the requirements for restoration of grassed areas by use of the seeding method. OPSS.MUNI 804, Construction Specification for Seed and Cover shall be used as a reference.

Starting January 1, 2013, seeding shall only be used in multi-residential, commercial, industrial and park areas unless specified otherwise in the contract documents or at the discretion of the City Engineer.

15.02. REFERENCES

This specification refers to the following standards, specifications, or publications:

- S-34 Topsoil
- OPSS.MUNI 802 Construction Specification for Topsoil
- OPSS.MUNI 804 Construction Specification for Seeding and Cover
- OPSS.MUNI 206 Grading

15.03. MATERIAL

15.03.01 SEED

The following is acceptable in addition to OPSS.MUNI 804:

Seeding Mix: 40% Turf Type Perennial Rye
40% Fescue
20% Blue Grass

Nurse Crop: Annual Rye Grass

15.03.02 HYDRAULIC MULCH

Hydraulic mulch shall be dry, free of weeds and other foreign materials and shall be supplied in sealed packages bearing the manufacturer's label indicating product name and mass.

Hydraulic mulch shall be capable of dispersing rapidly in water to form homogeneous slurry and remain in such a state when agitated or mixed with other specified materials. When applied, hydraulic mulch shall be capable of forming an absorptive and cohesive mat, which will allow moisture to percolate into the underlying soil. Hydraulic mulch shall not inhibit growth or germination of the seed mix.

15.03.03 BONDED FIBRE MATRIX

Bonded Fibre Matrix (BFM) shall be a hydraulically applied product, which after application is capable of adhering to the soil in a 100% biodegradable uniform and continuous mat. In a dry state, BFM shall be comprised of not less than 70% by weight long stranded wood fibres held together by organic or mineral bonding agents or both. When hydrated, the BFM shall form a viscous material that when applied and dried, creates a high-strength, porous and erosion-resistant mat. The bonding agent shall not dissolve or disperse upon re-wetting. BFM shall not inhibit the germination or growth of plant material.

15.03.04 EROSION CONTROL BLANKET – FUTURA OR EQUIVALENT (BIODEGRADABLE)

ECB shall be supplied in a dry, rolled mat protected with an outer waterproof wrap bearing the manufacturer's original label indicating product name and application instructions.

Erosion control blanket (ECB) shall be of a consistent thickness with a 100% biodegradable even fibre distribution. The ECB shall be covered on top with a biodegradable and photodegradable plastic mesh. ECB may also be sewn together with cotton thread.

15.03.05 EROSION CONTROL BLANKET STAPLES

Staples shall be U-shaped, constructed of wire with a diameter of at least 2.5mm, with legs at least 150mm long and 25mm apart.

15.03.06 FERTILIZER:

5-20-20 (with 50% sulphur coated urea)

15.04. CONSTRUCTION

All work shall be carried out in a professional manner with care taken to protect existing structures and grassed areas. The work shall be undertaken in such a manner as to minimize the inconvenience to the residents and, as much as possible, blend in with existing conditions.

The work shall include:

1. Leveling, tilling or otherwise preparing existing areas of suitably arable soil
2. Applying fertilizer
3. Placing of seed
4. Placing mulch or erosion blanket as per the Contract
5. Weed control
6. Watering
7. Maintenance for 60 days

Unless otherwise specified, the prices quoted in the contract documents shall include the furnishing of all materials, supplies and equipment, all labour, construction tools and transportation services necessary to complete the work required under the contract.

15.04.01 PREPARATION

The grading shall be carried out as per OPSS.MUNI 206 and in such a manner as to provide drainage for all walkways, sidewalks, and driveways. Steps shall be taken to ensure that all existing drainage patterns are maintained and that the City right-of-way has positive drainage over roadside curbs or to an appropriate drainage inlet structure. Any correction required to obtain the above noted shall be at the expense of the Contractor.

At the time of seeding, all surface areas designated for seeding shall have a fine-graded, uniform placed imported topsoil surface and shall exhibit no evidence of erosion. The surface shall be uniformly cultivated to a minimum depth of 50 mm and shall not have surface stones greater than 25 mm in diameter, foreign material, and weeds or other unwanted vegetation.

15.04.02 SEEDING OPERATIONAL CONSTRAINTS

The seeding operation shall not commence until the Engineer has approved in writing the surface preparation, seed mix, and cover types.

Seed and cover application or re-application shall not be carried out under adverse weather conditions such as high wind or heavy rain or when field conditions are not conducive to seed germination such as frozen soil or soil covered with snow, ice, or standing water.

The Contractor shall maintain the site and control erosion until final acceptance of the seed and cover.

The surface to be seeded shall be prepared not more than 7 days before the seeding operation.

No seed or cover shall come in contact with the foliage of any trees, shrubs, or other vegetation, except as specified in the Seeding subsection. No seed or cover shall come in contact with water bodies.

To ensure a suitable drying and curing period, BFM shall not be applied when rainfall is expected, during rainfall, or immediately after rainfall.

15.04.03 PLACEMENT RATE (APPROXIMATE)

Seed:	25kg/1000m²
Nurse Crop:	0.5kg/1000m² (minimal)
Hydraulic Mulch:	170 kg/1000m²
Bonded Fibre Matrix:	340 kg/1000m²
Erosion Control Blanket:	to cover
Fertilizer:	40 kg/1000m²

15.04.04 WATERING

The Contractor is to include all water costs in their bid price. The Contractor shall be responsible for the watering during the maintenance period as specified in Section 15.04.06. The City reserves the right to request the Contractor's records of watering. No additional compensation will be made for watering.

15.04.05 SEASONAL METHODS

Generally, seeding shall not be required between approximately June 1 and July 31. Areas left dormant over this period shall be treated with a suitable weed control method.

Between the spring thaw and May 31 and from October 1 to October 31, seeding with a nurse crop shall be required.

Seeding which takes place between August 1 and September 30 shall not require a nurse crop.

If weather conditions during the time periods specified are not typical, the Contractor, who shall be solely responsible for the final product, shall, based on prevailing weather conditions, determine which method will be used.

Where conditions allow, drill seeding shall be acceptable.

The Contractor may choose to undertake the seeding between June 1 and July 31, with the approval of the Engineer. However, this shall not relieve the Contractor of responsibility to achieve an acceptable final product, and no additional payment shall be made to the Contractor for extra work required when undertaking work during this time period.

When the Engineer instructs the Contractor to carry out seeding during this period, mutually acceptable conditions shall be negotiated.

The Contractor is reminded that these dates are approximate and have been put in place in recognition that seasonal conditions are a factor in achieving an acceptable product.

15.04.06 MAINTENANCE

The maintenance period does not start until 100 percent of the seed is placed unless mutually agreed by the City of Windsor and the Contractor. The seed shall be maintained for 60 consecutive days after seeding is complete on the entire project, excluding the winter dormant periods between November 15 and April 15 as shown in Table 3 of OPSS.MUNI 804.

The Contractor shall be responsible for the watering during the maintenance period specified in Section 15.04.04. The cost for watering shall be included in the square meter price for seed.

The Contractor shall take the responsibility of the lawn mowing, including the first cut during the maintenance period and as required throughout the maintenance period to maintain a height of 50 to 100mm unless otherwise specified in the contract documents. At the end of the maintenance period, the sod shall be cut to a height of between 50 to 75mm. Remove clippings longer than 20mm in length.

When the Engineer is agreeable to late season seeding, where it is not possible to determine the acceptability of the seeded areas until the following growing season, those areas deemed unacceptable due to causes beyond the control of the Contractor (road salting, heavy pedestrian traffic, etc.) shall, at the discretion of the Engineer in consultation with the Contractor, be reseeded at the unit price in the tender documents. The Contractor shall be paid for the original seeding and the area requiring reseeding.

15.05. QUALITY CONTROL

The City shall take steps to record the acceptability of the seeded areas by the use of photos, videotaping or other means deemed necessary at the end of the maintenance period when the seeded areas are deemed acceptable. If after the maintenance period, the seeded restoration is not to City approval, the City reserves the right to extend the maintenance period until restoration is deemed acceptable.

INFORMATION TO THE RESIDENT

In conjunction with the seeding, the City shall inform the residents of the limits of the Contractor's responsibilities and what steps the resident can take to assist in promoting and maintaining a flourishing lawn (the first notice letter to the residents). The homeowners shall be informed in writing that the seeded areas have been deemed acceptable and further maintenance and care will be their responsibility at the end of the maintenance period (the second notice letter to the residents).

15.06. MEASUREMENT FOR PAYMENT

The placement of seed, including watering, cutting, fertilizing and weed spraying shall be paid based on the Schedule of Unit Prices in the Contract.

15.07. BASIS OF PAYMENT

Payment at the Contract price for the above items shall be full compensation for all labour, equipment, and materials to do the work. Payment shall include the supplying and placing of topsoil, seed, watering, weeding, fertilizing, and maintenance until final acceptance, as well as, seed replacement and water for seed when no separate item for payment exists for such work.

CITY OF WINDSOR
GENERAL CONDITIONS

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GC 1 INTERPRETATION

GC 1.01 Captions

The captions appearing in these general conditions have been inserted as a matter of convenience and for ease of reference only and in no way define, limit or enlarge the scope or meaning of the general conditions or any provision hereof.

GC 1.02 Gender and Singular References

References to the masculine or singular throughout the Contract Documents shall be considered to include the feminine and the plural and vice versa as the context requires.

GC 1.03 Definitions

In the Contract (as hereinafter defined) the following words and expressions shall have the meanings hereby assigned to them except where the context requires otherwise:

"ENGINEER"	the City Engineer or his/her representative placed in responsible charge of the work by the City of Windsor.
"SITE REPRESENTATIVE"	Authorized assistants of the Engineer such as construction inspector, quality control inspectors, maintenance supervisors, who are assigned to inspect the materials and workmanship in whole or in part, entering in the work.
"PLANS"	the official plan, profiles, cross-section and other drawings, or reproductions of the same which show the location, dimensions and details of the work to be done.
"SPECIFICATIONS"	the directions, requirements, etc., pertaining to the method or manner of performing the work and to the qualities of the materials to be furnished for the work.
"PROPOSAL"	the offer of the bidder, filed with the Purchasing Manager.
"CONTRACT"	the agreement entered into between the Contractor and the Corporation of the City of

	Windsor for the work described therein in accordance with these specifications.
"CONTRACT DOCUMENTS"	consists of the Agreement, Form of Tender, Form of Bond, General Conditions, the Drawings and the Specifications, together with the Schedule of Unit Prices, Instructions to Tenderers, and any modifications thereof, incorporated in the documents before their execution.
"CITY" OR "CORPORATION"	the Corporation of the City of Windsor.
"TENDERER"	a person, firm, or company who submits a tender for these works, which tender is subsequently accepted.
"CONSTRUCTOR"	means, for the purpose of, and within the meaning of the Occupational Health & Safety Act, R.S.O. 1980, C.321 and amendments thereto, the contractor who executes the contract.
"CONTRACTOR"	a person, firm, or company who submits a tender for these works, which tender is subsequently accepted.
"WORKS	the works described in these tender documents for either or both supply, and installation or construction.
"BASE"	means a layer of material of specified type and thickness placed immediately below the pavement, driving surface, finished grade, curb and gutter or sidewalk.
"CONTRACT TIME"	means the time stipulated in the Contract Documents for Substantial Performance of the Work, including any extension of Contract Time made pursuant to the Contract Documents.
"DAILY WORK RECORDS	mean daily records kept detailing the number and categories of workers and hours worked or on standby; types and quantities of equipment and number of hours in use or on standby; and description and quantities of material utilized.
"EARTH GRADE"	means the earth surface, whether in cut or fill, as prepared for the Base or Sub-base.

"EQUIPMENT"	means all machinery and equipment used for preparing, fabricating, conveying or erecting the work and normally referred to as construction machinery and equipment.
"EXTRA WORK"	means work not provided for in the Contract as awarded but considered by the Engineer essential to the satisfactory completion of the Contract within its intended scope.
"ADDITIONAL WORK"	means work not provided for in the Contract and not considered by the Engineer to be essential to the satisfactory completion of the Contract within its intended scope.
"HAND TOOLS"	means tools that are commonly called tools or implements of the trade and include small power tools. Individually, a tool will be considered as a Hand Tool where the maximum cost is $250.00.
"HAUL ROAD"	means any public road excluding the road under contract, which forms part of a materials haul route.
"MAJOR ITEM"	means any tender item that has a value, calculated on the basis of its actual or estimated tender quantity whichever is the larger, multiplied by its tender unit price, which is equal to or greater than the lesser of: a) $100,000. Or b) 5% of the total tender value calculated on the basis of the total of all the estimated tender quantities and the tender unit prices.
"OWNER"	means the party to the Contract for whom the Work is being performed, as identified in the Agreement.
"PAVEMENT"	means a wearing course or courses placed on the Roadway and consisting of asphaltic concrete, portland cement concrete, or plant or road mixed mulch.
"PROFILE GRADE"	means the required elevation of the surface of the Base.
"ROAD ALLOWANCE"	means the lands acquired at any time for use as

	a Highway.
"ROADBED"	means that part of the Work which is designed to support the wearing surface and shoulders of the Roadway.
"ROADWAY"	means that part of the Highway designed or intended for use by vehicular traffic and includes the shoulders.
"SHOULDER"	means that portion of the Roadway between the edge of the wearing surface and the top inside edge of the ditch or fill slope.
"SPECIAL PROVISIONS"	means special directions containing requirements peculiar to the Work.
"STANDARD SPECIFICATION"	means a standard practice required and stipulated by the Owner for performance of the work.
"SUBBASE"	means a layer of material of specified type and thickness between the Subgrade and the Base.
"SUBCONTRACTOR"	means a person, partnership or corporation undertaking the execution of a part of the Work by virtue of an agreement with the Contractor.
"SUPERINTENDENT"	means the Contractor's authorized representative in responsible charge of the Work.
"WORK"	means the total construction and related services required by the Contract Documents.
"WORKING AREA"	means all the lands and easements owned or acquired by the Owner for the construction of the Work.

GC 2 CONTRACT DOCUMENTS

GC 2.01 GENERAL

The works shall be constructed as called for in the specifications and as shown on the Contract Drawings.

GC 2.02 ACCURACY OF DRAWINGS AS TO LOCATIONS OF STRUCTURES AND UTILITIES

i. The Corporation does not assume any responsibility for the correctness, accuracy or completeness of the Drawings, with respect to the location of existing structures, utilities, services, pipes, catchbasins, manholes, chambers or other objects (man made or natural) above the ground, on the surface and/or accessible from the surface and should the Drawings be found to be incorrect or incomplete, the Contractor shall not have any claim on this account.

ii. The Corporation does not warrant the exact location of any utility or other subsurface condition that is identified in the Drawings. The Contractor will be responsible for all locates to identify exact locations of any utility or other subsurface condition that is identified within the limits of construction. The Contractor shall not be responsible for any utility or other man-made obstruction that is not identified in the Drawings or described in the specifications, if the presence and/or location of the obstruction could not be identified by site inspection made by the Contractor in accordance with these General Conditions.

GC 2.03 SOUNDINGS, BORINGS & INSPECTION OF SITE

i. The Tenderer shall be required to carry out all the necessary site investigation to arrive at his Total Tender Price for this Contract and under no circumstances will he, as the Contractor, be entitled to receive any extra payment because he may have neglected to investigate the site or because he may encounter ground conditions which he might have thought were not present. He shall satisfy himself; as to the nature of the soil, the bearing capacity and other physical characteristics as well as the location of various earth and rock strata, ground water level, etc. He shall be entirely responsible for determining all of the necessary information relevant to the construction of the Works and he shall not hold the Corporation liable for any item in this regard. He shall verify all matters concerning access to the work, power supplies, location of existing services, utilities, etc., prior to submission of his Tender. Should the Corporation, prior to asking for tenders, have made a soil investigation, soil engineering report, and environmental audits, copies of the same shall be kept on file at the office of the Engineer, and the Tenderer may at any time between the hours of 8:30 a.m. and 4:30 p.m. local time, visit the said office of the Engineer on any working day and examine the said soil report. The Tenderer shall note that the said soil report will have been prepared for the purpose of designing the Works, and he shall in no way hold the Corporation liable for any of the contents of the said report. The report shall be intended to be a guide for the Contractor in ascertaining the

best possible construction methods to be used by him in carrying out the Contract.

ii. If any time during the execution of the works, the Engineer shall require the Contractor to make bore holes or to carry out exploratory excavation, such requirement shall be ordered in writing and shall be deemed to be an addition ordered under the provisions of Clause 7.03 hereof, unless provisional sum in respect of such anticipated work shall have been included in the Schedule of Unit Prices.

GC 2.04 DOCUMENTS MUTUALLY EXPLANATORY

The several documents forming the Contract are to be taken as mutually explanatory of the one another, and in case of ambiguities or discrepancies, the same shall be explained and adjusted by the Engineer, who shall thereupon issue to the Contractor instructions directing in what manner the work is to be carried out.

GC 2.05 CUSTODY OF DRAWINGS

i. The Drawings shall remain in the sole custody of the Engineer but up to six (6) copies thereof shall be furnished to the Contractor free of cost. The Contractor shall provide and make at his own expense any further copies required by him. At the completion of the Contract, the Contractor shall return to the Engineer all drawings provided under the Contract.

ii. The Contractor shall give adequate notice in writing to the Engineer of any further drawing or specification that may be required for the execution of the Works, or otherwise, under the Contract.

iii. One copy of the Drawings furnished to the Contractor as aforesaid, shall be kept by the Contractor on Site, and the same shall at all reasonable times, be available for inspection and use by the Engineer, the Engineer's Representative, and by any other person authorized by the Engineer in writing.

iv. The Engineer shall have full power and authority to supply to the Contractor, from time to time, during the progress of the Works, such further drawings and instructions as shall be necessary for the purpose of the proper and adequate execution and maintenance of the Works, and the Contractor shall carry out and be bound by the same.

GC 2.06 ORDER OF PRECEDENCE

i. In the event of any inconsistency or conflict in the contents of the following documents, such documents shall take precedence and govern in the following order:

a. Agreement
b. Addenda
c. Special Provisions
d. Contract Drawings
e. Supplementary Specifications and Mandatory Procedures and Practices
f. Standard Specifications
g. Form of Tender
h. Supplemental General Conditions
i. General Conditions
j. Working Drawings

Later dates shall govern within each of the above categories of documents.

ii. In the event of any conflict among or inconsistency in the information shown on Drawings, the following rules shall apply:

a. Dimensions shown in figures on a Drawing shall govern where they differ from dimensions scaled from the same Drawing;
b. Drawings of larger scale shall govern over those of smaller scales;
c. Detailed Drawings shall govern over general Drawings; and
d. Drawings of a later date shall govern over those of an earlier date in the same series.

iii. In the event of any conflict in the contents of Standard Specifications the following order of precedence shall govern:

a. Specifications approved or modified by the Engineer
b. City of Windsor Standard Specifications

GC 3 ADMINISTRATION OF CONTRACT

GC 3.01 ENGINEERS AUTHORITY

i. The Engineer will be the Corporation's representative during the construction and until the issuance of the Completion Certificate or the

issuance of the final acceptance certificate whichever is later. All instructions to the Contractor will be issued by the Engineer. The Engineer will have the authority to act on behalf of the Corporation only to the extent provided in the Contract Documents.

ii. All claims, disputes and other matters in question relating to the performance and the quality of the Work or the interpretation of the Contract Documents shall be initially referred to the Engineer in writing by the Contractor. The Engineer will give a decision in writing within a reasonable time.

iii. The Engineer will inspect the Work for its conformity with the plans and specifications, and will record the necessary data to establish payment quantities under the schedule of tender quantities and unit prices or to make an assessment of the value of the Work completed in the case of a lump sum price contract.

iv. The Engineer will determine the amounts owing to the Contractor under the Contract and will issue certificates for payment in such amounts as provided for in Section 7. Measurement and Payment.

v. The Engineer will, with reasonable promptness, review and take appropriate action upon the Contractor's submissions such as shop drawings, product data, and samples in accordance with the Contract Documents.

vi. The Engineer will investigate all allegations of a change in the character of the Work made by the Contractor and issue appropriate instructions.

vii. The Engineer will prepare Change Orders for the Contractor's signature and the Commissioner's approval.

viii. Upon written application by the Contractor, the Engineer and the Contractor will jointly conduct an inspection of the Work to establish the date of Substantial Performance of the Work and/or the date of Completion of the Work.

ix. The Engineer will be, in the first instance, the interpreter of the Contract Documents and the judge of the performance thereunder by both parties to the Contract. Interpretations and decisions of the Engineer shall be consistent with the intent of the Contract Documents.

x. The Engineer will have the authority to reject work or material which does not conform to the Contract Documents.

xi. Defective work, whether the result of poor workmanship, use of defective material or damage through carelessness or other act or omission of the Contractor and whether incorporated in the Work or not, which has been rejected by the Engineer as failing to conform to the Contract Documents shall be removed promptly from the Work by the Contractor and replaced or re-executed promptly in accordance with the Contract Documents at no additional cost to the Corporation.

xii. Any part of the Works destroyed or damaged by such removals, replacements or re-executions shall be made good, promptly, at no additional cost to the Corporation.

xiii. If, in the opinion of the Engineer, it is not expedient to correct defective work or work not performed in accordance with the Contract Documents, the Corporation may deduct from monies otherwise due to the Contractor the difference in value between the work as performed and that called for by the Contract Documents, the amount of which will be determined in the first instance by the Engineer.

xiv. In case of default on the part of the Contractor in carrying out the corrections of defective work, the Corporation shall be entitled to employ and pay other persons to carry out the same, and all expenses consequent thereon, or incidental thereto, shall be borne by the Contractor, and shall be recoverable from him by the Corporation, or may be deducted by the Corporation from any monies due, or which may become due, to the Contractor.

xv. Notwithstanding any inspections made by the Engineer or the issuance of any certificates or the making of any payment by the Corporation, the failure of the Engineer to reject any defective work or Material shall not constitute acceptance of defective work or Material.

xvi. The Engineer will have the authority to temporarily suspend the Work for such reasonable time as may be necessary to facilitate the checking of any portion of the Contractor's construction layout or the inspection of any portion of the Work. There shall not be any extra compensation for this suspension of work.

GC 3.02 DUTIES AND POWERS OF ENGINEER'S REPRESENTATIVES

i. The duties of the Site Representative are to monitor and inspect the Works and to test and examine any materials (GC 3.12 & GC 3.13) to be used, or workmanship employed, in connection with the works. The Site Representative shall have no authority to relieve the Contractor of any of his duties or obligations under the Contract.

ii. The Site Representative will inspect the work for conformity with plans and specifications, and will measure, tabulate and record quantities under the schedule of tender quantities and unit prices.

iii. In the case of extra work, the Site Representatives will keep records of quantities, materials, labour and equipment as per section GC 7.09.

iv. The Site Representative will investigate all allegations of a change in character of the Work, made by the Contractor, and will report the details to the Engineer.

v. The Site Representative will have the authority to reject work or material which does not conform to Contract Specifications.

vi. The Site Representative will have the authority to temporarily suspend the work for such reasonable time as it may be necessary to facilitate the checking of any portion of Contractor's construction layout or the inspection on any portion of the work. There will be no compensation for the suspension of work.

GC 3.03 WORKING DRAWINGS

i. The Contractor shall arrange for the preparation of clearly identified and dated Working Drawings as called for by the Contract Documents.

ii. The Contractor shall submit Working Drawings to the Engineer with reasonable promptness and in orderly sequence so as to not cause delay in the Work. If either the Contractor or the Engineer so requests they shall jointly prepare a schedule fixing the dates for submission and return of Working Drawings. Working Drawings shall be submitted in the form of prints. At the time of submission the Contractor shall notify the Engineer in writing of any deviations from the Contract requirements that exist in the Working Drawings.

iii. The Engineer will review and return Working Drawings in accordance with an agreed upon schedule, or otherwise, with reasonable promptness so as not to cause delay.

iv. The Engineer's review will be to check for conformity to the design concept and for general arrangement only and such review shall not relieve the Contractor of responsibility for errors or omissions in the Working Drawings or of responsibility for meeting all requirements of the Contract Documents unless a deviation on the Working Drawings has been approved in writing by the Engineer.

v. The Contractor shall make any changes in Working Drawings which the Engineer may require consistent with the Contract Documents and resubmit unless otherwise directed by the Engineer. When resubmitting, the Contractor shall notify the Engineer in writing of any revisions other than those requested by the Engineer.

vi. Work related to the Working Drawings shall not proceed until the Working Drawings have been reviewed by the Engineer.

vii. The Contractor shall keep one set of the reviewed Working Drawings, marked as above, at the site at all times.

GC 3.04 RIGHT OF THE ENGINEER TO MODIFY METHODS AND EQUIPMENT

i. The Contractor shall, when requested in writing, make alterations in the method, equipment or work force at any time the Engineer considers the Contractor's actions to be unsafe, or damaging to either the Work or existing facilities or the environment.

ii. The Contractor shall alter the sequence of operations on the Contract, when requested in writing, so as to avoid interference with other work.

iii. Notwithstanding the foregoing, the Contractor shall ensure that all necessary safety precautions and protection are maintained throughout the Work.

GC 3.05 ASSIGNMENT AND SUB-LETTING

i. The Contractor shall not assign the Contract, or any part thereof, or any benefit or interest therein, or thereunder, without the written consent of the Corporation.

ii. The Contractor shall, at the request of the Engineer, notify the Engineer in writing of the names of the Sub-Contractors proposed for the principal parts of the Work and for such others as the Engineer may direct and shall not employ any to whom the Engineer may object.

iii. If the Engineer should object or refuse to accept any Sub-Contractor or manufacturer's product for inclusion in the Work, he shall not be required to give any reason whatsoever for such objection or refusal. Further, neither the Contractor nor the Sub-Contractor nor any other person shall pursue the matter in any way or at any time subsequently after the Engineer's decision in such matter has been given.

iv. The Contractor shall preserve and protect the rights of the parties under the Contract with respect to the work to be performed under subcontract and shall:

a. enter into agreements with the intended Subcontractors to require them to perform their work in accordance with the Contract Documents; and

b. be as fully responsible to the Corporation for acts and omissions of the Contractor's Subcontractors and of persons directly or indirectly employed by them as for acts and omissions of persons directly employed by the Contractor.

v. Neither a subcontracting, nor the Corporation's consent to a subcontracting by the Contractor, shall be construed to relieve the Contractor from any obligation under the Contract or to impose any liability upon the Corporation. Nothing contained in the Contract Documents shall create a contractual relationship between a Subcontractor and the Corporation.

GC 3.06 WORKING AREA

i. The Corporation will acquire all property rights which are deemed necessary by the Corporation for the construction of the work including temporary working easements and will indicate the full extent of the working area on the Contract Drawings.

ii. Should the Contractor require additional temporary right of ways or easements, not shown on the contract drawings, the Contractor shall bear all expenses and charges. The Contractor shall also provide at his own cost, any additional accommodation outside the site required by him for the purpose of the Works.

iii. The Contractor's sheds, site offices, toilets, other temporary structures and storage areas for material and equipment shall be grouped in a compact manner and maintained in a neat and orderly condition at all times.

iv. The Contractor shall not enter upon or occupy any private property for any purpose, unless the Contractor has received prior written permission from the property owner.

GC 3.07 REMOVAL OF WORKERS

The Contractor shall employ in and about the execution of the works, only such persons as are careful, skilled and experienced in their several

trades and callings, and the Engineer shall be at liberty to object to, and require the Contractor to remove from the works, who in the opinion of the Engineer misconducts himself, or is incompetent or negligent in the proper performance of his duties; and such persons shall not be again employed upon the works without the permission of the Engineer. This clause does not apply to the provisions of the Occupational Health & Safety Act.

GC 3.08 SERVICE OF NOTICE ON CONTRACTOR

i. Any notice to be given to the Contractor under the terms of the Contract, shall be served by sending the same by post, or leaving the same at the Contractor's principal place of business, (or in the event of the Contractor being a Company, to or at its registered office).

ii. Any notice, given to the Corporation under the terms of the Contract, shall be served by sending the same by registered mail to the Engineer of the Corporation of the City of Windsor, P. O. Box 1607, City Hall, Windsor, Ontario, N9A 6S1.

GC 3.09 LAYOUT

i. The Engineer will provide base lines, monuments and bench marks only, as shown on the drawings and as required by the Contractor for establishing line and grade. The Corporation will be responsible only for the correctness of the information provided by the Engineer.

ii. The Contractor shall give the Engineer at least forty-eight (48) hours notice before requiring any setting out of any base lines or bench marks on any portion of the Works and shall state clearly in such notice the exact locality or localities where setting out is required.

iii. The Contractor shall supply, at his own expense, incidental labour and material required by the Engineer for setting base lines and bench marks and shall facilitate such work in every way.

iv. The Contractor will be held responsible for the preservation in their proper position of all bench marks, reference points, iron bars and stakes, and if any of them are disturbed, lost or destroyed after once being given, he shall at once notify the Engineer and the cost incurred in replacing them be borne by the Contractor.

GC 3.10 ACCESS TO SITE

The Engineer, and any person authorized by him, shall at all times have access to the Works and to the Site, and to all workshops and places where work is being prepared, or when materials, manufactured articles

and machinery are being obtained for the works; and the Contractor shall afford every facility for, and every assistance in, or in obtaining, the right to such access.

GC 3.11 EXAMINATION OF WORK BEFORE COVERING UP

i. No work shall be covered up or put out of view without the approval of the Engineer, and the Contractor shall afford full opportunity for the Engineer to examine and measure any work which is about to be covered up, or put out of view, and to examine foundations before permanent work is placed thereon. The Contractor shall give due notice to the Engineer whenever any such work or foundations is, or are ready, or about to be ready for examination, and the Engineer shall without reasonable delay, unless he considers it unnecessary and advises the Contractor accordingly, attend for the purpose of examining and measuring such work, or of examining such foundations.

ii. The Contractor shall uncover any part or parts of the Works, or make openings in or through the same as the Engineer may from time to time direct, and shall reinstate and make good such part or parts to the satisfaction of the Engineer. If any such part or parts have been covered up, or put out of view, after compliance with the above requirements, and are found to be executed in accordance with the Contract, the expense of uncovering, making openings in, or through, reinstating and make good the same, shall be borne by the Corporation; but in any other case, all such expenses shall be borne by the Contractor and shall be recoverable from him by the Corporation, or may be deducted by the Corporation from any monies due, or which may become due to the Contractor.

GC 3.12 QUALITY OF MATERIALS, WORKMANSHIP AND TESTS

i. All materials and workmanship shall be of the respective kinds described in the Contract, and in accordance with the Engineer's instructions, and shall be subjected from time to time to such tests as the Engineer may direct, at the place of manufacture or fabrication, or on the Site, or at all or any of such places. The Contractor shall provide such assistance, instruments, machines, labour and materials as are normally required for examining, measuring and testing any work, and the quality, weight or quantity of any material used; and shall supply samples of materials before incorporation in the Works, for testing, as may be selected and required by the Engineer. All samples shall be supplied by the Contractor at his own cost.

ii. The Contractor shall supply at his own expense, certified copies of all tests upon all materials entering into the Contract. Such tests shall be

made, as and when directed by the Engineer, and by an approved testing laboratory.

GC 3.13 PAYMENT FOR TESTING

i. The following tests, called for as required by the Engineer, will be paid for by the Corporation:

1. Air entrainment tests during concrete work.
2. Slump tests during concrete work.
3. Casting and compression testing of concrete cylinders.
4. Compaction tests. Limit of one test per location. If the result of any compaction test is below that specified, the Engineer may call for retesting, and all costs associated with such retesting shall be paid by the Contractor.
5. Analysis of granular materials and approval of sources. Limit of one analysis per type of materials.
6. Asphalt extraction tests.

ii. The above tests are for compliance purposes only. The test results shall not be the basis for any mix designs and shall not bind the Corporation to accept any material for use in the Contract.

iii. The Contractor and suppliers are responsible for maintaining an adequate quality control program and for conducting tests on all materials incorporated into the Contract at their own expense. The results of the quality control program and material tests shall be made available to the Engineer promptly, upon request.

GC 3.14 URGENT REPAIRS

If by reason of any accident or failure or other event occurring to, in, or in connection with, the Works or any part thereof, either during the execution of the Works or during the Period of Maintenance, any remedial or other work or repair shall in the opinion of the Engineer be urgently necessary for security, and the Contractor is unable or unwilling at once to do such work or repair, the Corporation may have its own or other workers to do such work as the Engineer may consider necessary. If the work or repair, so done by the Corporation is work, which in the opinion of the Engineer, the Contractor was liable to do at his own expense under the Contract all costs and charges properly incurred by the Corporation in so doing, shall on demand, be paid by the Contractor to the Corporation from any monies due, or which may become due to the Contractor. Provided always that the Engineer shall as soon after the occurrence of any such emergency as may be reasonably practicable, notify the Contractor thereof in writing.

GC 3.15 SUSPENSION OF WORK

The Contractor shall, on the written order of the Engineer, suspend the progress of the Works or any part thereof for such time or times and in such manner as the Engineer may consider necessary and shall during such suspension properly protect and secure the work so far as is necessary in the opinion of the Engineer.

GC 3.16 EXTENSION OF TIME FOR COMPLETION

i. Should the amount of extra or additional work of any kind, or other special circumstances of any kind whatsoever which may occur, be such as fairly to entitle to the Contractor to an extension of time for the completion of the work, the Engineer shall determine the amount of such extension. Provided that the Engineer is not bound to take into account any extra or additional work or other special circumstances unless the Contractor has, within fourteen (14) calendar days after such work has been commenced, or such circumstances have arisen, or as soon thereafter as is practicable, delivered to the Engineer full and detailed particulars of any claim to extension of time to which he may consider himself entitled, in order that such claim may be investigated at the time.

ii. Circumstances suitable for consideration include the following:

a. Delays GC 3.17
b. Variations GC 3.18
c. Extra Work GC 3.19
d. Additional Work GC 3.20

iii. The terms and conditions of the contract shall continue for such extension of Contract time.

GC 3.17 DELAYS

If the Contractor is delayed in the performance of the Work by:

a. War, blockades, and civil commotions, errors in the Contract Documents; an act of omission of the Corporation Engineer, other contractors, or anyone employed or engaged by them directly or indirectly, contrary to the provisions of the Contract Documents; or
b. A stop work order issued by a court or public authority, provided that such order was not issued as the result of an act or omission of the Contractor or anyone employed or engaged by the Contractor directly or indirectly; or
c. The Engineer giving notice under subsection 3.15 Suspension of Work; or

d. Abnormal inclement weather;

then consideration may be given to reimburse the Contractor by the Corporation for reasonable costs incurred by the Contractor as the result of such delay. Extension of Contract Time will be granted in accordance with subsection GC 3.16 Extension of Contract Time.

The Contractor shall not be entitled to payment for the cost of delays incurred as a result of a dispute between the Contractor and Owner. The Contractor shall execute the Work and may pursue resolution of the dispute in accordance with subsection GC 3.21, Claims, Negotiations, Mediation, Arbitration.

GC 3.18 VARIATIONS

i. The Engineer will make any variations of the form, quality or quantity of the Works, or any part thereof, that may in his opinion be necessary, and for that purpose, or if for any other reason it shall in his opinion be desirable, will have the power to order the Contractor to do, and the Contractor shall do, any of the following:

a. increase or decrease the quantity of any work included in the Contract,
b. omit any such work,
c. change the character or quality or kind of such work,
d. change the levels, lines, position and dimensions of any part of the Works, and
e. execute additional work of any kind necessary for the completion of the Works

and no such variations shall in any way vitiate, or invalidate, the Contract, but the value (if any), of all such variations shall be taken into account in ascertaining the amount of the Contract Price.

ii. No such variation shall be made by the Contractor without an order in writing of the Engineer. Provided that no order in writing shall be required for increase or decrease in the quantity of any work, where such increase or decrease is not the result of an order given under this Clause, but is the result of the quantities exceeding or being less than those stated in the Schedule of Prices. Provided also that if for any reason the Engineer shall consider it desirable to give any such order verbally, the Contractor shall comply with such order, and any confirmation in writing of such verbal order given by the Engineer, whether before or after the carrying out of the order, shall be deemed to be an order in writing within the meaning of this Clause. Provided further that if the Contractor shall confirm in writing to

the Engineer any verbal order of the Engineer, and such confirmation shall not be contradicted in writing by the Engineer, it shall be deemed to be an order in writing by the Engineer.

iii. The Contract may apply for an extension of Contract Time.

iv. If the Changes in the Work relate solely to quantities as in the pay items, payment will be made according to the contract. If the Changes in the Work do not solely relate to pay items, payment may be negotiated.

GC 3.19 EXTRA WORK

i. The Corporation, or Engineer where so authorized, may instruct the Contractor to perform Extra Work without invalidating the Contract. The Contractor shall not be required to proceed with the Extra Work until receipt of a Written Order. Upon receipt of the Written Order the Contract shall proceed with the Work.

ii. The Contractor may apply for an extension of Contract Time.

GC 3.20 ADDITIONAL WORK

i. The Corporation, or Engineer where so authorized, may request the Contractor to perform Additional Work without invalidating the Contract, if the Contractor agrees to perform Additional Work, the Contractor shall proceed with such work upon receipt of a Written Order.

ii. The Contractor may apply for an extension of Contract Time.

GC 3.21 CLAIMS, NEGOTIATIONS, MEDIATION, ARBITRATION

GC 3.21.01 Continuance of the Work

i Unless the Contract has been terminated or completed, the Contractor shall in every case, after serving or receiving any notification of a claim or dispute, verbal or written, continue to proceed with the Work with due diligence and expedition. It is understood by the parties that such action shall not jeopardize any claim it may have.

GC 3.21.02 Record Keeping

i Immediately upon commencing work that may result in a claim, the Contractor shall keep Daily Work Records during the course of the Work, sufficient to substantiate the Contractor's claim, and the Engineer shall keep Daily Work Records to be used in assessing the Contractor's claim. The Contractor shall preserve all such original Records until 12 months

after the Final Acceptance Certificate is issued or until all claims have been settled, whichever is longer. The Contractor shall require that Subcontractors employed by the Contractor preserve all original Records pertaining to the Work, Changes in the Work, Extra Work, and claims arising therefrom for a similar period of time.

ii The Contractor and the Engineer shall attempt to reconcile their respective Daily Work Records on a daily basis, to simplify review of the claim, when submitted. If the Contractor and the Engineer fail to reconcile their respective Daily Work Records, then the Contractor shall submit its Daily Work Records as part of its claim, whereby the resolution of the dispute about the Daily Work Records shall not be resolved until there is a resolution of the claim.

iii The keeping of Daily Work Records by the Engineer or the reconciling of such Daily Work Records with those of the Contractor shall not be construed to be acceptance of the claim.

GC 3.21.03 Claims Procedure

i The Contractor shall give verbal notice of any situation that may lead to a claim for additional payment immediately upon becoming aware of the situation.

ii The Contractor shall provide written notice within 7 calendar Days of the commencement of any part of the Work that may be affected by the situation.

iii The Contractor shall submit detailed claims as soon as reasonably possible and in any event no later than 30 Days after completion of the work affected by the situation. The detailed claim shall:
   a identify the item or items in respect of which the claim arises;
   b state the grounds, contractual or otherwise, upon which the claim is made; and
   c include the Records maintained by the Contractor supporting such claim. In exceptional cases, the 30 Days may be increased to a maximum of 90 Days with approval in writing from the Engineer.

iv Within 30 Days of the receipt of the Contractor's detailed claim, the Engineer may request the Contractor to submit any further and other particulars as the Engineer considers necessary to assess the claim. The Contractor shall submit the requested information within 30 Days of receipt of such request.

v Within 90 Days of receipt of the detailed claim, the Engineer shall advise the Contractor, in writing, of the Engineer's opinion with regard to the validity of the claim.

GC 3.21.04 Negotiations

i The parties shall make all reasonable efforts to resolve their dispute by amicable negotiations and agree to provide, without prejudice, open and timely disclosure of relevant facts, information, and documents to facilitate these negotiations.

ii Should the Contractor disagree with the opinion given in paragraph GC 3.21.03 (v), with respect to any part of the claim, the Engineer shall enter into negotiations with the Contractor to resolve the matters in dispute. Where a negotiated settlement cannot be reached and it is agreed that payment cannot be made on a Time and Material basis in accordance with clause GC 7.10, Payment for Extra work, the parties shall proceed in accordance with clause GC 3.21.05, Mediation, or subsection GC 3.21.08, Arbitration.

GC 3.21.05 Mediation

i If a claim is not resolved satisfactorily through the negotiation stage noted in clause GC 3.21.04, Negotiations, within a period of 30 Days following the opinion given in paragraph GC 3.21.03 (v), and the Contractor wishes to pursue the issue further, the parties may, upon mutual agreement, utilize the services of an independent third party mediator.

ii The mediator shall be mutually agreed upon by the Owner and Contractor.

iii The mediator shall be knowledgeable regarding the area of the disputed issue. The mediator shall meet with the parties together or separately, as necessary, to review all aspects of the issue. In a final attempt to assist the parties in resolving the issue themselves prior to proceeding to arbitration the mediator shall provide, without prejudice, a non-binding recommendation for settlement.

iv The review by the mediator shall be completed within 90 Days following the opinion given in paragraph GC 3.21.03 (v).

v Each party is responsible for its own costs related to the use of the third party mediator process. The cost of the third party mediator shall be equally shared by the Owner and Contractor.

GC 3.21.06 Payment

i Payment of the claim shall be made no later than 30 Days after the date of resolution of the claim or dispute.

GC 3.21.07 Rights of Both Parties

i It is agreed that no action taken under subsection GC 3.21, Claims, Negotiations, Mediation, by either party shall be construed as a renunciation or waiver of any of the rights or recourse available to the parties, provided that the requirements set out in this subsection are fulfilled.

GC 3.21.08 Arbitration

GC 3.21.08.01 Conditions of Arbitration

i If a claim is not resolved satisfactorily through the negotiation stage noted in clause GC 3.21.04, Negotiations, or the mediation stage noted in clause GC 3.21.05, Mediation, either party may invoke the provisions of subsection GC 3.21.08, Arbitration, by giving written notice to the other party.

ii Notification that arbitration shall be implemented to resolve the issue shall be communicated in writing as soon as possible and no later than 60 Days following the opinion given in paragraph GC 3.21.03 (v). Where the use of a third party mediator was implemented, notification shall be within 120 Days of the opinion given in paragraph GC 3.21.03 (v).

iii The parties shall be bound by the decision of the arbitrator.

iv The rules and procedures of the *Arbitration Act*, 1991, S.O. 1991, c.17, as amended, shall apply to any arbitration conducted hereunder except to the extent that they are modified by the express provisions of subsection GC 3.21.08, Arbitration.

GC 3.21.08.02 Arbitration Procedure

i The following provisions are to be included in the agreement to arbitrate and are subject only to such right of appeal as exist where the arbitrator has exceeded his or her jurisdiction or have otherwise disqualified him or herself:

- a All existing actions in respect of the matters under arbitration shall be stayed pending arbitration;
- b All outstanding claims and matters to be settled are to be set out in a schedule to the agreement. Only such claims and matters as are in the schedule shall be arbitrated; and
- c Before proceeding with the arbitration, the Contractor shall confirm that all matters in dispute are set out in the schedule.

GC 3.21.08.03 Appointment of Arbitrator

i The arbitrator shall be mutually agreed upon by the Owner and Contractor to adjudicate the dispute.

ii Where the Owner and Contractor cannot agree on a sole arbitrator within 30 Days of the notification of arbitration noted in paragraph GC 3.21.08.01 (ii), the Owner and the Contractor shall each choose an appointee within 37 Days of the notice of arbitration.

iii The appointees shall mutually agree upon an arbitrator to adjudicate the dispute within 15 Days after the last appointee was chosen or they shall refer the matter to the Arbitration and Mediation Institute of Ontario Inc.,

which may select an arbitrator to adjudicate the dispute within 7 Days of being requested to do so.

iv The arbitrator shall not be interested financially in the Contract nor in either party's business and shall not be employed by either party.

v The arbitrator may appoint independent experts and any other persons to assist him or her.

vi The arbitrator is not bound by the rules of evidence that govern the trial of cases in court but may hear and consider any evidence that the arbitrator considers relevant.

vii The hearing shall commence within 90 Days of the appointment of the arbitrator.

GC 3.21.08.04 Costs

i The arbitrator's fee shall be equally shared by the Owner and the Contractor.

ii The fees of any independent experts and any other persons appointed to assist the arbitrator shall be shared equally by the Owner and the Contractor.

iii The arbitration hearing shall be held in a place mutually agreed upon by both parties or in the event the parties do not agree, a site shall be chosen by the arbitrator. The cost of obtaining appropriate facilities shall be shared equally by the Owner and the Contractor.

iv The arbitrator may, in his or her discretion, award reasonable costs, related to the arbitration.

GC 3.21.08.05 The Decision

i The reasoned decision shall be made in writing within 90 Days of the conclusion of the hearing. An extension of time to make a decision may be granted with consent of both parties. Payment of any award shall be made in accordance with clause GC 3.21.06, Payment.

GC 3.22 NOTICES

i. Any notice permitted or required to be given to the Engineer or the Superintendent in respect of the Work shall be deemed to have been given to and received by the addressee on the date of delivery if delivered by hand or by facsimile transmission and on the fifth day after the date of mailing if sent by mail.

ii. The Contractor shall provide the mailing addresses, telephone numbers, e-mail addresses, after working hours telephone numbers, and facsimile terminal numbers for the Superintendent at the commencement of the Work.

iii. In the event of an emergency situation or other urgent matter the Engineer or the Superintendent may give a verbal notice, provided that such notice is confirmed in writing.

iv. Any notice permitted or required to be given to the Corporation or the Contractor shall be given in accordance with the notice provision of the Agreement.

GC 3.23 NOTICE OF COMPLETION OF WORKS

i. As soon as in the opinion of the Engineer the Works shall have been "Substantially Performed" or "Deemed Completed" as defined under the Construction Lien Act, have passed any test that may be prescribed by the Contract, and have been accepted in writing by the Engineer as completed and to his satisfaction; the Engineer shall, on receiving an undertaking by the Contractor to finish any outstanding work during the Period of Maintenance, issue the appropriate certificate as provided for under the Construction Lien Act in respect of the Works, and the Period of Maintenance of the Works shall commence from the date of such certificate. Provided that the Engineer may give such a certificate with respect to any part of the Works before the completion of the whole of the Works; subject to such part of the Works having been accepted in writing by the Engineer as completed and to his satisfaction. When any such certificate is given in respect of a part of the Works, such part shall be considered as completed; and the Period of Maintenance of such part shall commence from the date of such Notice.

ii. Following the issuance of the appropriate certificate as provided for under the Construction Lien Act, the Engineer will provide the Contractor with a Letter of Acceptance for Maintenance for the Works confirming the Period of Maintenance and any special conditions related thereto.

GC 3.24 END OF MAINTENANCE PERIOD

i. Only written notice shall be deemed to constitute approval of any work, or other matter in respect of which it is issued, or shall be taken as an admission of the due performance of the Contract, or any part thereof, or of the accuracy of any claim or demand made by the Contractor, or of additional or varied work having been ordered by the Engineer, and no other certificate conclude or prejudice any of the powers of the Engineer.

ii. The Contract shall not be considered as completed, until a Letter Assuming the works shall have been signed by the Engineer stating that the Works have been completed and maintained to the satisfaction of the Engineer. The Letter Assuming the Works shall be given by the Engineer upon the expiration of the Period of Maintenance, or as soon thereafter as

any works ordered during such period, pursuant to Clauses 4.21 and 4.01.xvii hereof, shall have been completed to the satisfaction of the Engineer and full effect shall be given to the Clause, notwithstanding any previous entry on the Works, or the taking possession working or using thereof, or any part thereof, by the Corporation.

GC 3.25 ASSUMPTION OF WORKS

i The Corporation shall not be liable to the Contractor for any matter or thing arising out of, or in connection with the Contract or the execution of the Works, unless the Contractor shall have made a claim in writing in respect thereof, before the giving of the Letter Assuming the Works under this Clause.

ii. Notwithstanding the issue of the Letter Assuming the Works, the Contractor shall remain liable for the fulfillment of any obligation incurred under the provisions of the Contract prior to the issue of the Letter Assuming the Works, which remains unperformed at the time such letter is issued; and for the purposes of determining the nature and extent of any such obligation, the Contract shall be deemed to remain in force between the parties hereto.

GC 3.26 SITE MEETINGS

Site meetings shall be held at regular intervals as directed by the Engineer. The Contractor shall provide a responsible representative for such meetings.

GC 3.27 DEFAULT BY CONTRACTOR

i. If the Contractor becomes bankrupt or has a receiving order made against him, or presents his petition in bankruptcy, or makes an arrangement with, or assignment in favour of his creditors, or agrees to carry out the contract under a committee of inspection of his creditors, or (being a corporation), goes into liquidation (other than a voluntary liquidation for the purposes of amalgamation or reconstruction), or if the Contractor assigns the contract without the consent in writing of the Corporation first obtained, or has an execution levied on his goods, then the Corporation may, without prejudice to any other right or remedy it may have, by giving the Contractor or Receiver or Trustee in bankruptcy five (5) day written notice terminate this contract.

ii. If the Contractor:

a. has abandoned the contract, or

b. has without reasonable excuse has failed to commence the works, or has suspended the progress of the works for 14 days after receiving from the Engineer written notice to proceed, or
c. has failed to proceed with due diligence, or
d. has failed to remove materials from the site, or to pull down and replace work for 14 days after receiving from the Engineer written notice that the said materials or work have been condemned, and rejected by the Engineer under these conditions, or
e. is not executing the works in accordance with the contract, or is persistently or flagrantly neglecting to carry out his obligations under the contract, or
f. has to the detriment of good workmanship, or in defiance of the Engineer's instructions to the contrary, sub-let any part of the contract.

then the Corporation may notify the Contractor in writing that he is in default of his contractual obligations and instruct him to correct the default within five (5) working days of receiving the notice.

iii. 1. The Contractor shall have the right within the given five (5) full working days following the receipt of a notice of default to correct the default and provide the owner with satisfactory proof that appropriate corrective measures have been taken.

2. If the correction of the default cannot be completed within the five (5) full working days following receipt of the notice, the Contractor shall not be in default if the Contractor:

a. commences the correction of the default within the five (5) full working days following receipt of the notice;
b. provides the Corporation with an acceptable schedule for the progress of such correction; and
c. completes the correction in accordance with such schedule.

iv. If the Contractor is in default of the contract and the contractor has provided a Performance Bond, the provisions of this section shall be exercised in accordance with the conditions of the Performance Bond.

v. If the contractor fails to comply with the provisions of 3(1) or 3(2) the Corporation may without prejudice to any other right or remedy it may have:

a. correct such default and deduct the cost thereof from the payment then or thereafter due the contractor; or
b. terminate the Contractor's rights to continue with the work in whole or in part or terminate the contact.

vi. If the Corporation terminates the Contractor's right to continue with the work in whole or in part, the Corporation will be entitled to:

a. take possession of the working area or that portion of the working area devoted to that part of the work terminated;
b. utilize the Contractor's equipment and any material within the working area which is intended to be incorporated into the work, the whole subject to the right of third parties;
c. withhold further payments to the Contractor with respect to the work or the portion of the work withdrawn from the contractor until the work or portion thereof withdrawn is completed;
d. charge the Contractor the additional cost over the contract price of completing the work or portion thereof withdrawn from the Contractor, as certified by the Engineer and any additional compensation paid to the Corporation for such additional service arising from the correction of the default;
e. charge the Contractor a reasonable allowance, as determined by the Engineer, to cover correction to the work performed by the Contractor that may be required;
f. charge the Contractor for any damages the Corporation may have sustained as a result of the default; and
g. charge the Contractor the amount by which the cost of corrections to the work exceeds the allowance provided for such corrections.

vii. If the Corporation's cost to correct and complete the work in whole or in part is less than the amount withheld from the Contractor the Corporation will pay the balance to the Contractor as soon as the final accounting for the contract is complete.

viii. The Contractor's obligation under the contract as to quality, correction and warranty of the work performed prior to the time of termination of the contract or termination of the Contractor's right to continue with the work in whole or in part shall continue to be in force after such termination.

GC 4 CONTRACTOR'S RESPONSIBILITIES AND CONTROL OF THE WORK

GC 4.01 GENERAL

i. The Contractor shall have complete control of the work and shall effectively direct and supervise the work, to the satisfaction of the Engineer, so as to ensure conformity with the contract documents. The Contractor shall be responsible for construction means, methods,

techniques, sequences and procedures and for coordinating various parts of the work.

ii. The Contractor shall comply with and adhere strictly to, the Engineer's instructions and directions on any matter (whether mentioned in the contract or not). The Contractor shall take instructions and directions from the Engineer.

iii. The Contractor shall have the sole responsibility for the design, erection, operation, maintenance and removal of temporary structures and other temporary facilities and the design and execution of construction methods required in their use.

iv. Notwithstanding paragraph iii of subsection 4.01, where the Contract Documents include designs for temporary structures and other temporary facilities or specify a method of construction in whole or part, such facilities and methods shall be considered to be part of the design or the specified method of construction. The Contractor shall, however, be responsible for the execution of such design or specified method of construction in the same manner that the Contractor is responsible for the execution of the Work.

v. The Contractor shall be responsible for construction health and safety within the working areas and for compliance with the current Occupational Health and Safety Act and Regulations and the current Workers Compensation Act. So as to avoid any misunderstanding as to the extent of the Contractor's responsibility, the Contractor, by executing the Contract unequivocally acknowledges that the Contractor is the Constructor within the meaning of the Act.

vi. The Contractor shall be required to submit a progress schedule to the Engineer for approval prior to commencement of the work. Such schedule shall be in a form acceptable to the Engineer, and shall indicate clearly the allowance for the various phases of the work, in sufficient detail to show weekly progress.

vii. The Contractor shall submit to the Engineer an updated construction schedule each month immediately following the cut-off date and before preparation of the Monthly Payment Certificate. Failure to comply with this Clause may delay the issuing of the Monthly Payment Certificate.

viii. The approval of the progress schedule by the Engineer shall not cast any responsibility upon the Engineer or the Corporation in seeing to it that the progress schedule is adhered to since timely execution of the work is the entire responsibility of the Contractor. The Engineer may, in his discretion, vary the progress schedule in whole or in part without relieving

the Contractor from any of his responsibility to execute the contract in a timely way, nor shall such variation cast any responsibility whatsoever, upon either the Engineer or the Corporation.

ix. The Contractor shall note that upon the commencement of any construction item within any designated local area which is construed to be a portion of the general area, it shall be agreed to by the parties to the contract, that any period of more than six (6) consecutive "working days" shall not be allowed to pass without further progress toward the completion of any and all other tender items such as grading of the boulevards, placement of topsoil, sodding, driveway and leadwalk reconstruction.

x. The Contractor shall cooperate at all times with all utility companies and other contractors either working for a utility or the Corporation, while the said utilities or contractors are maintaining, altering or installing new plant. The Contractor shall coordinate the reconstruction work to allow a reasonable length of time for the utility to carry out its work and shall allow free access at all times. The Contractor shall not be entitled to any extra remuneration nor any extension in the time of completion for such cooperation. The Engineer will be the sole judge in the case of all disputes in this regard. In addition, the Contractor shall notify Utility companies for the purpose of adjusting all shut offs and other parts of their plant.

xi. The Contractor shall keep on the work site during its progress a competent supervisor satisfactory to the Engineer for the duration of the contract. The Contractor shall inform the Engineer in writing of the name of such supervisor prior to the commencement of the Contract and if at any time the Engineer shall require such supervisor to be replaced, then the Contractor is to arrange for him to vacate his position and be removed from the site within forty-eight (48) hours after receiving formal notice in writing to replace him with another supervisor. The Engineer shall not be required to give any reason for such removal of supervisor or other worker he may from time to time require.

xii. The supervisor shall not be changed except with the consent of the Engineer unless the supervisor proves to be unsatisfactory to the Contractor and ceases to be in his employ. The supervisor shall represent the Contractor in his absence and directions on matters given to him shall be held to be given to the Contractor. The Contractor shall give efficient supervision to the work using his best skill and attention at all times.

xiii. During the construction of work which the Engineer considers it necessary, the Contractor shall employ on the work a responsible

experienced Professional Engineer to generally supervise any supervisor or worker.

xiv. The Contractor shall, at no additional cost to the Corporation, furnish all reasonable aid, facilities and assistance required by the Engineer for the proper inspection and examination of the Work or the taking of measurements for the purpose of payment.

xv. Where the Contractor finds any errors, inconsistency or omission relating to the Contract, the Contractor shall promptly report it to the Engineer and shall not proceed with the activity affected until receiving direction from the Engineer.

xvi. The Contractor shall promptly notify the Engineer in writing, if the subsurface conditions observed in the Working Area differ materially from those indicated in the Contract Documents.

xvii. The Contractor shall, if required by the Engineer in writing, search for the cause of any defect, imperfection, or fault under the directions of the Engineer, and the cost of the work carried out in searching as aforesaid shall be borne by the Contractor, and he shall repair, rectify, and make good such defects, imperfections, or defaults at his own expense.

xviii. The Contractor shall arrange with the appropriate utility authorities for the stake out of all underground utilities and service connections which may be affected by the Work. The Contractor shall be responsible for any damage done to the underground utilities by the Contractor's forces during construction. The Contractor shall be responsible for any damage done to the private service connections.

GC 4.02 LAYOUT

i. Prior to commencement of construction, the Engineer and the Contractor will locate on site those property bars, baselines and benchmarks which are necessary to delineate the Working Area and to lay out the Work, all as shown on the Contract Drawings.

ii. The Contractor shall be responsible for the preservation of all property bars while the Work is in progress, except those property bars which must be removed to facilitate the Work. Any property bars disturbed, damaged or removed by the Contractor's operations shall be replaced under the supervision of an Ontario Land Surveyor, at no extra cost to the Corporation.

iii. The Contractor shall provide qualified personnel to lay out and establish all lines and grades necessary for construction. The Contractor shall

notify the Engineer of any layout work carried out, so that the same may be checked by the Engineer.

iv. The Contractor shall install and maintain substantial alignment markers and secondary benchmarks as may be required for the proper execution of the Work. The Contractor shall supply one copy of alignment and grade sheets to the Engineer.

v. The Contractor shall assume full responsibility for alignment, elevations and dimensions of each of all parts of the Work, regardless of whether the Contractor's layout work has been checked by the Engineer.

vi. All stakes, marks and reference points provided by the Engineer shall be carefully preserved by the Contractor. In the case of their destruction or removal, such stakes, marks and reference points will be replaced by the Contractor at no extra cost to the Corporation.

GC 4.03 TRAFFIC CONTROL REQUIREMENTS

i. The Contractor shall provide a minimum of two lanes of traffic at all times and shall not close the highway unless permitted by the Engineer. With approval of the Engineer, the Contractor will be permitted to reduce the two lanes to a single 14 foot lane in isolated areas or will be allowed total closure of the highway. When single lane traffic is allowed, the Contractor shall provide competent flagmen at each limit of the restriction. When total closure and detouring is permitted the Contractor shall advise the Traffic Engineering, Fire and Police Departments of the City of Windsor as to the character, duration, etc. of the said detour and comply with their requirements.

ii. The Contractor shall at his own expense, provide, erect, maintain adequate traffic protection signs, barricades, lights, delineators, trench plating, flag persons, etc. in accordance with the requirements of the City of Windsor, to ensure safety to the public and the smooth flow of traffic. He shall designate an employee to be responsible for the traffic, the maintenance of traffic protection devices at night, Sundays and holidays. All barricades on obstructions shall be illuminated at night and all lights shall be kept illuminated from sunset to sunrise. The Contractor shall be responsible for all accidents or expense arising by reason of neglect or failure to comply with this clause.

iii. Traffic Control shall be in conformity with the procedure outlined in the current "Occupational Health and Safety Act, and Regulations for Construction Projects" and the current "Traffic Control Manual for Roadway Work Operations", Ministry of Transportation and Communications, and as amended. Twenty-four (24) hours prior to

commencing work, the proposed traffic control will be discussed and reviewed by the Engineer's representative.

iv. Should the Contractor fail to provide the above mentioned precautions, the Engineer may direct that the work be suspended forthwith and such suspension shall remain in effect until the Contractor has taken proper remedies. Suspension of the work on this account shall not entitle the Contractor to any extension of time of completion, nor any additional remuneration.

GC 4.04 MAINTAINING ROADWAYS AND DETOURS

i. The Contractor shall not be required to maintain a road through the working area until such time as the Contractor has commenced operations or on any part of the Contract that has been accepted by the Corporation.

ii. Where the Contract Document provides for or the Engineer requires detours at specific locations, payment for the construction of the detours, and if required, for the subsequent removal of the detours, will be made at the Contract prices appropriate to such work.

iii. Where the Contractor constructs a detour which is not specifically provided for in the Contract Document, or required by the Engineer, the construction of the detour and, if required, the subsequent removal shall be performed at the Contractor's expense. The detour shall be constructed and maintained to structural and geometric standard approved by the Engineer. Removal shall be performed as directed by the Engineer.

iv. Compliance with the foregoing provisions shall in no way relieve the Contractor of obligations under subsection 6.01, Protection of Work, Persons and Property, dealing with the Contractor's responsibility for damage claims, except for claims arising on sections of Highway within the Working Area that are being maintained by others.

GC 4.05 ACCESS TO PROPERTIES ADJOINING THE WORK AND INTERRUPTION OF UTILITY SERVICES

i. The Contractor shall provide at all times and at no extra cost to the Corporation:

   a. adequate pedestrian and vehicular access including such items as temporary board walks, gravelled or asphalted steps or ramps, temporary bus stops;
   b. continuity of utility services to properties adjoining the working area; and

c. access to fire hydrants, and water and gas valves located in the working area.

ii. Where any interruptions in the supply of utility services are required and are authorized by the Engineer, the Contractor shall give notice to the affected property owners.

GC 4.06 APPROVALS AND PERMITS

i. The Contractor shall give all notices and pay all fees, required to be given, or paid, by any and all competent and constitutional legislation or any regulation or by-law of any local or other authority in relation to the execution of the Works, or any Temporary Works; and by the rules and regulations of all public bodies and companies whose property or, rights, are, or may be affected in any way by the Works or Temporary Works. The Contractor shall conform in all respects with the provisions of any and all competent and constitutional legislation, and the regulations or by-laws of any local or other authority, which may be applicable to the Works, or any Temporary Works and with such rules and regulations of public bodies and companies as aforesaid, and shall keep the Corporation indemnified against all penalties and liabilities of every kind for breach of any such legislation, regulation, By-law or the Common law as applicable to the Contractor's Works and duties under this contract.

ii. The Contractor shall pay and arrange for all necessary plumbing and building permits and subsequent inspections.

GC 4.07 EXCESS MATERIALS AND DISPOSAL

i. The Contractor shall remove from the worksite all excess materials including earth and rock excavation, broken concrete, rubble, broken asphalt, tree stumps, etc.

ii. All materials such as metal, wood, asphalt, etc. which are not considered to be "inert fill" as defined in section 18 of regulation 309 under the Environmental Protection Act must be disposed of at waste disposal sites certified by the Ministry of Environment to accept and dispose of these wastes or to sites certified to recycle the waste in question.

GC 4.08 TRAFFIC AND PARKING SIGNS

Prior to commencing work on any street the Contractor shall, with the Engineer and a representative of the Traffic Engineering Department, inspect all signs and ascertain which are to be removed or relocated so as not to interfere with his operations. The Contractor shall then remove or otherwise relocate these signs as directed by the Traffic Engineering Department. Twenty-four (24) hours prior to the completion of any

operation to a point that additional or permanent signs are required for the general safety of pedestrians and/or the motoring public, the Contractor shall notify the Traffic Engineering Department. Also, at any time during or subsequent to construction, the Contractor shall immediately notify the Corporation's Site Representative of any signs removed or damaged due to his operations, so that these signs may be repaired, replaced and erected immediately. The cost of repair or replacement of any signs, etc. damaged or removed by the Contractor shall be at the expense of the Contractor. Any and all stop signs removed must be reinstalled by the Contractor at the end of each working day should the road be opened for evening traffic.

GC 4.09 SIDE CASTING

The Contractor shall not side cast excavated material unless specifically authorized by the Engineer prior to construction. Excavated material shall be removed from the site immediately or stockpiled at a site/location approved by the Engineer.

GC 4.10 NOTICE TO OWNERS

The Contractor may be required to contact, in writing, the owners of property abutting the area where the work is to be constructed. Notices shall be delivered one week prior to the construction starting date in that area. This notice shall include notification of any necessary removal of rocks, trees, shrubs, etc. and the expected starting and completion date.

GC 4.11 ARTIFACTS

All fossils, artifacts and articles of value or antiquity and structures and other remains or things of geological or archaeological interest discovered on the Site, shall as between the Corporation and the Contractor, be deemed to be the absolute property of the Corporation; and the Contractor shall take reasonable precautions to prevent his workers, or any other persons, from removing or damaging any such article or thing, and shall immediately upon discovery thereof, and before removal, acquaint the Engineer of such discovery, and carry out at the expense of the Corporation, the Engineer's orders as to the disposal of the same.

GC 4.12 PATENT RIGHTS AND ROYALTIES

The Contractor shall save harmless and indemnify the Corporation from and against all claims and proceedings for, or on account of, infringements of any patent right, design, trade-mark or name or material used for, or in connection with, the Works or Temporary proceedings, damages, costs,

charges and expenses whatsoever in respect thereof, or in relation thereto.

GC 4.13 FACILITIES FOR OTHER CONTRACTORS

The Contractor shall in accordance with the requirements of the Engineer, afford all reasonable facilities for any other contractors employed by the Corporation and their workers; and the workers of the Corporation and of any other properly authorized authorities or statutory bodies who may be employed in the execution, on or near the Site, of any work not included in the Contract; or of any Contract which the Corporation may enter into connection with, or ancillary to, the Works.

GC 4.14 PRESERVATION OF TREES

The Contractor shall exercise the utmost caution to ensure that living trees, not to be removed, are not damaged by his operations on this Contract.

GC 4.15 SHRUBBERY

The property owners will be given the opportunity to remove shrubbery in the contract area prior to commencement of the contract, but remaining shrubbery will be removed by the Contractor. Payment for this work shall be included in the price bid per cubic yard of excavation. No additional payment shall be made for the removal of tree stumps unless an item is provided in the Tender.

GC 4.16 LABOUR CLASSIFICATION AND RATES

The Contractor shall, if required by the Engineer, deliver to the Engineer, or at his office; a schedule showing in detail the classification and rates of labour employed by the Contractor on the site.

GC 4.17 DUST CONTROL

The Contractor will be solely responsible for controlling dust nuisance resulting from his operations, both within the right-of-way and elsewhere.

GC 4.18 EMPLOYMENT

The Contractor and any sub-contractor of the Contractor will,

a. employ only persons legally entitled to work in Canada.
b. in employing persons, refrain from discriminating against any person by reason of their race, religious views, political affiliations, or sex.

GC 4.19 LIMITATIONS OF OPERATIONS

Except for such work as may be required by the Engineer to maintain the Work in a safe and satisfactory condition, the Contractor shall not carry on operations under the Contract on Sundays or holidays without permission in writing from the Engineer.

GC 4.20 CLEARANCE OF SITE ON COMPLETION

i. The Contractor shall remove surplus materials, tools, debris, construction machinery and equipment not required for the performance of the remaining Work.

ii. The Work shall not be deemed to have reached Completion until the Contractor has removed surplus materials, tools, construction machinery, equipment and debris.

GC 4.21 PERIOD OF MAINTENANCE

i. In these conditions, the expression “Period of Maintenance”, shall mean the period of maintenance named in the Tender, calculated from the date of the Notice of Completion of the Works issued by the Engineer in accordance with Clause 3.24 hereof, or in the event of more than one Notice having been issued by the Engineer under the said Clause, from the respective dates so notified; and in relation to the Period of Maintenance the expression “the Works” shall be construed accordingly. Unless otherwise specified, the Period of Maintenance shall be one year.

ii. To the intent that the Works shall, at or as soon as practicable after the expiration of the Period of Maintenance, be delivered up to the Corporation in as good and perfect condition, (fair wear and tear excepted) to the satisfaction of the Engineer, as that in which they were at the commencement of the Period of Maintenance, the Contractor shall execute all such work of repair, amendment, reconstruction, rectification and making good of defects, imperfections, shrinkages or other faults, as may be required of the Contractor in writing by the Engineer during the Period of Maintenance, or within fourteen (14) days after its expiration, as a result of an inspection made by, or on behalf of, the Engineer, prior to its expiration.

iii. All such work shall be carried out by the Contractor at his own expense if the necessity thereof shall, in the opinion of the Engineer, be due to the use of materials or workmanship not in accordance with the Contract, or to neglect or failure on the part of the Contractor to comply with any obligations, expressed or implied on the Contractor’s part under the Contract.

iv. If the Contractor shall fail to commence and proceed diligently to execute any such work as aforesaid required by the Engineer within three (3) days of receipt of notice to do so from the Engineer or the Corporation, the Corporation shall be entitled to carry out such work by its own workers, or by other Contractors, and if such work is work which the Contractor should have carried out at the Contractor's own cost, shall be entitled to recover from the Contractor the cost thereof, or may deduct the same from any monies due, or that may become due to the Contractor.

GC 5 MATERIAL

GC 5.01 SUPPLY OF MATERIAL

All material necessary for the proper completion of the Work, except that listed as being supplied by the Corporation, shall be supplied by the Contractor. The contract prices for the appropriate tender items shall be deemed to include full compensation for the supply of such Material.

GC 5.02 QUALITY OF MATERIAL

i. All Material provided by the Contractor shall be new.

ii. Material supplied by the Contractor shall conform to the requirements of the Contract.

iii. As specified or as requested by the Engineer, the Contractor shall make available for inspection or testing a sample of any Material to be provided by the Contractor.

iv. The Contractor shall obtain for the Engineer the right to enter upon the premises of the Material manufacturer or supplier to carry out such inspection, sampling and testing as specified or as requested by the Engineer.

v. The Contractor shall notify the Engineer of the sources of supply sufficiently in advance of the Material shipping dates to enable the Engineer to perform the required inspection, sampling and testing.

vi. The Corporation will not be responsible for any delays to the Contractor's operations where the Contractor fails to give sufficient advance notice to the Engineer to enable the Engineer to carry out the required inspection, sampling and testing before the scheduled shipping dates.

vii. The Contractor shall not change the sources of supply of any Material without the written authorization of the Engineer.

viii. Material which is not specified shall be of a quality best suited to the purpose required and the use of such Material shall be subject to the approval of the Engineer.

GC 5.03 REJECTED MATERIAL

Rejected Material shall be removed from the work site expeditiously after the notification to that effect from the Engineer. Where the Contractor fails to comply with such notice the Engineer may cause the rejected Material to be removed from the site and disposed of in what the Engineer considers to be the most appropriate manner and the Contractor shall pay the costs of disposal and the appropriate overhead charges.

GC 6 INSURANCE, PROTECTION AND DAMAGE

GC 6.01 PROTECTION OF WORK, PERSONS AND PROPERTY

i. The Contractor, the Contractor's agents and all workers employed by or under the control of the Contractor, including sub-contractors shall protect the work, structures, utilities, persons and property from damage or injury. The Contractor shall indemnify, and keep indemnified, the Corporation against all claims for injuries or damages to any such person, property, structure, utilities, etc.; which may arise out of, or in consequence of, the construction and maintenance of the Works, and against all claims, demands, proceedings, damages, costs, charges and expenses whatsoever, in respect of, or in relation thereto.

ii. From the commencement to the completion of the Works, the Contractor shall take full responsibility for the care thereof, and in case any damage, loss or injury shall happen to the Works, or to any part thereof, from any cause whatsoever, shall at his own cost, repair and make good the same, so that at completion, the Works shall be in good order and condition, and in conformity in every respect with the requirements of the Contract and the Engineer's instructions. The Contractor shall also be liable for any damage to the work occasioned by him in the course of any operations carried out by him for the purpose of complying with his obligations under Clause 4.21 hereof.

iii. The Contractor shall assume full responsibility for crossing or making use of private property. Before the Contractor or any of his sub-contractors

shall make use of any private property for any purpose, he shall first submit to the Engineer a copy of a written agreement granting permission by the owner.

iv. The Contractor shall immediately inform the Engineer of all damage and injuries which occur during the term of the Contract.

v. The Contractor shall not be responsible for loss and damage that occurs as a result of:

a. war
b. blockades and civil commotions
c. errors in the Contract Documents
d. acts or omissions of the Corporation, the Engineer, their agents and employees, or others not under the control of the Contractor, but within the Working area with the Engineer's permission.

vi. The Contractor and his Surety or Sureties will not be released from any term or provision of any responsibility, obligation or liability under the Contract or waive or impair any of the rights of the Corporation except by a release duly executed by the Corporation.

GC 6.02 LIABILITY INSURANCE

i. As stated in the General Information to Tenders and prior to any work being commenced in accordance with the Contract, the Contractor shall deliver to the Corporation proof that an insurance policy has been issued by an insurance company satisfactory to the Corporation to insure the Contract against any claims arising out of the construction or installation of the Works or any operations of the Contractor in connection therewith until the termination of the Contractor's obligation respecting guarantee and maintenance.

ii. Such insurance shall carry limits of Liability in the amount not less than as shown in the Form of Tender, for public liability and property damage. The policy shall have no exclusion for blasting and must contain a "Completed Operations" clause. The Contractor shall prove to the satisfaction of the Corporation from time to time as the Engineer may require, that all premiums on such policy or policies, of insurance have been paid, and that the insurance is in full provisions of the Worker's Compensation Act.

GC 7 MEASUREMENT AND PAYMENT

GC 7.01 QUANTITIES

i. The quantities set out in the Schedule of Unit Prices are the estimated quantities of the Works, and they are not to be taken as the actual and correct quantities of the Works to be executed by the Contractor in fulfillment of his obligations under the Contract.

ii. The Engineer shall, except as otherwise stated or agreed, determine by measurement the value of the Work done all in accordance with the Contract. He shall, when he requires any part or parts of the Works to be measured, give notice to the Contractor who shall forthwith attend, or send a qualified agent, to assist the Engineer in making such measurements; and shall furnish all particulars. Should the Contractor not attend, or neglect or omit to send such agent, then the measurement made by the Engineer, or approved by him, shall be taken to be the correct measurement of the work.

GC 7.02 WEIGHING GRANULAR MATERIALS

The scale location shall be as approved by the Engineer and the material shall be hauled directly from the scale to the point of application. The scale may be located at the source. Except that where there is a waste or loss of material, the hauling operation shall terminate until the Contractor shall provide, at his expense, scales licensed in accordance with the Weights and Measurements Act.

GC 7.03 VALUATION OF VARIATIONS

i. The Engineer shall determine the amount (if any), to be added to, or deducted from, the sum named in the Tender in respect of any extra or additional work done, or work omitted by his order. All such work shall be valued at the rates set out in the Contract, if in the opinion of the Engineer, the same shall be applicable. If the Contract shall not contain any rates applicable to the extra or additional work, then reasonable prices shall be fixed by the Engineer.

   a. Provided that if the nature or amount of any omission, or addition relative to the nature or amount of the whole of the contract work or to any part thereof, shall be such, that in the opinion of the Engineer, the rate or price contained in the Contract for any item of the Works is, by reason of such omission of addition, rendered unreasonable, or inapplicable, the Engineer shall fix such other rate or price as under the circumstances, he shall think reasonable and proper.

ii. Provided also that no increase of the Contract Price or variation of rate or price, shall be made, unless as soon after the date of the order as is practicable, and in the case of extra or additional work, before the commencement of the work, or as soon thereafter as is practicable, notice shall have been given in writing:

a. by the Contractor to the Engineer of his intention to claim extra payment, or a varied rate or,
b. by the Engineer to the Contractor of his intention to vary a rate or price,

as the case may be,

iii. The Engineer may, if in his opinion it is necessary or desirable, order in writing that any additional substituted work shall be paid for by one or more of the following ways:

a. By estimate and acceptance in a lump sum
b. By unit prices agreed upon
c. By cost and percentage or by cost and a fixed fee

iv. Where extra or additional work is to be paid for by method ©, the value shall be determined by the actual cost of:

a. Labour, including Workers' Compensation and insurance. The labour rates shall not exceed those paid by the Contractor on the contracted part of the work.
b. Materials, which shall not exceed the costs paid by the Corporation for similar materials.

To which labour and/or materials cost, shall be added fifteen per centum (15%) to cover general expenses, superintendence, use of tools and profit.

v. In the event that the Engineer directs that additional work is to be done, in a location other than that which is shown in the contract drawings, the Contractor shall be requested to submit a quotation for this work. Payment shall then be made in the form of a Change Order.

GC 7.04 VARIATIONS IN TENDER QUANTITIES

i. Where it appears that the quantity of work to be done and/or material to be supplied by the Contractor under a unit price tender item will exceed or be less than the tender quantity, the Contractor shall proceed to do the work and/or supply the material required to complete the tender item and

payment will be made for the actual amount of work done and/or materials supplied at the unit prices stated in the tender except as provided below:

a. in the case of a major item where the amount of work performed and/or material supplied by the Contractor exceeds the tender quantity by more than 15%,either party to the Contract may make a written request to the other party to negotiate a revised unit price for that portion of the Work performed and/or material supplied which exceeds 115% of the tender quantity. The negotiation shall be carried out as soon as reasonably possible. Any revision of the unit price shall be based on the actual cost of doing the work and/or supplying the material under the tender item plus a reasonable allowance for profit and applicable overhead.

b. In the case of a major item where the quantity of work performed and/or materials supplied by the Contractor is less than 85% of the tender quantity, either party to the Contract may make a written request to the other party to negotiate a revised unit price for that portion of the work performed and/or material supplied. The negotiation shall be carried out as soon as reasonably possible. Any revision of the unit price shall be based on the actual cost of performing the work and/or supplying the material under the tender item plus a reasonable allowance for profit and applicable overhead. Alternatively, where both parties agree, an allowance equal to 10% of the unit price on the amount of the underrun which is less than 85% of the tender quantity will be paid.

GC 7.05 USE OF CONTINGENCY ITEMS

All sums set out in the Schedule of Prices which shall be stated to be used for contingencies, shall be used only at the direction and discretion of the Engineer; and if not used, either wholly or in part, shall as to the amount not used, be deducted from the Contract Price.

GC 7.06 CLAIMS

i. The Contractor's attention is brought to the following provisions in the General Conditions:

a. Clause 2.01, Accuracy of Drawings as to Locations of Structures and Utilities.
b. Clause 2.02, Soundings, Boring and Inspection of Site.
c. Clause 3.18, Variations.
d. Clause 7.03, Valuations of Variations.

ii. When the Contractor considers that he has a claim for compensation for costs which he has incurred or for loss he has suffered during the performance of the contract, he should immediately advise the Engineer of Intent to Claim on any specific portion of the Contract.

iii. The Engineer shall record the circumstances of the claim in his "Daily Work Records" and this shall not be construed as acceptance of the claim.

iv. The Contractor shall further notify the Engineer in writing as soon as possible of his intent to Claim but no later than seven (7) calendar days of the commencement of work for which the claim is being made. Upon receipt of such a written notice of claim, the Engineer shall immediately arrange a meeting with the Contractor or arbitrate the claim in accordance with subsection GC 3.21, Claims, Negotiations, Mediation, Arbitration.

GC 7.07 SUPPLY OF PLANT AND MATERIAL

Except where otherwise specified, the Contractor shall at his own expense, supply and provide all the Plant, Temporary Works, materials both for the temporary and for the permanent Works, equipment, labour, (including the supervision thereof) transport to or from the site, and in and about the Works; and other things of every kind required for the construction, completion and maintenance of the Works.

The term "labour" and "equipment" shall include hand tools, supplies and other incidentals.

GC 7.08 CERTIFICATES AND PAYMENTS

i. A certificate will be given by the Engineer once a month certifying as to the amount of work done and material furnished and of the value thereof according to the terms of the Contract.

ii. The first certificate shall be of the amount, quantity and value of the work done since the Contractor commenced the performance of this Contract, and every subsequent certificate, except the final one, shall be the amount quantity and value of the work done since the last preceding certificate was given. The Corporation will hold back 10% of the amount shown on the payment certificate in accordance with the Construction Lien Act provided always that the Contractor complies with the requirements of the Construction Lien Act.

iii. The Engineer may, by any certificate, make any correction or modification in any previous certificate which shall have been issued by him and shall have power to withhold any certificate if the Works or any part thereof are not being carried out to his satisfaction.

GC 7.09 EXTRA WORK

"Extra Work" means work not provided for in the Contract as awarded but considered by the Engineer essential to the satisfactory completion of the Contract within its intended scope.

"Additional Work" means work not provided for in the Contract and not considered by the Engineer to be essential to the satisfactory completion of the Contract within its intended scope.

i. No work shall be regarded as extra work unless it is approved in writing by the Engineer, and with the agreed price and method of payment for it specified in the said approval, provided the said price is not otherwise determined by this contract.

ii. All notifications of claims for extra work shall be submitted to the Engineer before the extra work is started.

GC 7.10 PAYMENT FOR EXTRA WORK

i. Notwithstanding anything contained in the General Conditions when it is necessary to perform work which is additional to the Tender items, unit prices to cover the cost of the work shall be negotiated whenever possible.

ii. Where it is impracticable, due to the nature of the work, to negotiate unit prices for extra work not included in the Tender, the cost of this work may be paid for by a force account, and authorized by an order issued prior to carrying out the work, and for which payment is based on hourly rates for labour and equipment and on material invoices.

a. Supervision and Control

1. Force account work will be generally overseen by the Engineer who will keep a daily record of all work on the City's standard "Daily Work Record" Form. These records must be reconciled with the Contractor's representative EACH day. The Contractor, while working on force account work, will remain the "Constructor" within the meaning of the O.H.S.A.

b. Method of Billing by Contractor

1. In the case of extra work which has received prior approval with unit prices, all information must be clearly described on the "Change Order Form" complete with final monetary value.
2. In the case of extra work which is to be paid by actual labour, material and equipment, the "Daily Work Record" must be

summarized per work item and this information reported in total on a "Change Order Form". This information from the daily force accounts summarized on the Change Order Form will become the basis for payment on the progress draw.

3. Contractors will not submit invoices for extra or additional work on projects. This will be paid for by progress draw as states in Item (7.08) and the submission of invoices will only service to delay the progress payment.
4. All change orders will be numerically numbered per contract.
5. No payment for extra work will be made until the change order has been mutually approved by the Engineer and the contractor.

c. Labour

The charge for labour and supervision thereof shall be based on the hourly recorded time of the labourers, mechanics and operators actively and of necessity engaged on the extra work. The contractor's designated representative shall be included and he must be actively involved on a continuous basis in the operation unless otherwise agreed to by the Engineer. In no case shall the time of any employee of the contractor or other person be charged for on a lump sum, percentage or estimated basis, and in no case shall any charge be made for administration or management whether the time therefore had or had not been recorded as having been spent on the extra work. To the amount of labour and supervision agreed on may be added to the proper percentages of the amount paid for Workmen's Compensation, Vacation Pay, Unemployment Insurance and the Firm's Contribution to Pension Plan. Payment will be made on such itemized bills of cost to the contractor plus 15% of that bill.

d. Materials

The charge for materials will be based on itemized invoices of costs of materials purchased by the Contractor for the extra work, plus 15%, or for the cost of material from the Contractor's stock based on the current price of the materials, plus 15% to cover administration, overhead and profit. Material so charged becomes the property of the Corporation.

e. Equipment

i. The charges for equipment used by the Contractor shall be based on the O.P.S.S. 127 Rates. Rental rates include depreciation, interest, taxes, insurance, repairs, maintenance, supplies, fuel, lubricants, supervision, overhead and profit. No charge is to be

made for office expense, office supplies or stationery, bookkeeping, financing, or any other overhead accounts. Rental rates other than O.P.S.S. rates must be approved by the Engineer.

ii. The charges for equipment used by the Contractor will be made on the actual number of hours on which the equipment is actively engaged in the extra work. If a unit of equipment is not performing its normal function for a period of time exceeding one hour, it will be on standby time from the time it ceased performing its normal function, provided that the unit of equipment is fully operable and cannot practically be used on other work but must remain on the site in order to continue with its assigned task. This time, together with actual working time will only be paid up to the period of time which constitutes one working day. Payment, if any, for additional gaps must be negotiated and approved by the Engineer. The City will pay the operator or operating crew on an hourly rate for the length of standby, plus 25% of the scheduled equipment rental rate for the machine while standing by.

iii. Equipment rented by the Contractor will be paid at the invoice rate plus 15% unless the invoice rate exceeds the O.P.S.S. rate or when the invoice rate includes an operator exceeds the O.P.S.S. rate when the established rate of the operator is deducted. Equipment exceeding the O.P.S.S. rate will be paid at the invoice rate only, provided approval from the engineer was given prior to commencement of work.

iv. Floating charges will only be paid when the equipment is being transported within the limits of the contract on and off the site of the force account work and is not moving under its own power. When equipment is moved under its own power, the full rental rate will be paid. Payment for transporting equipment from sources outside the limits of the contract must be negotiated through the Engineer.

v. When the Contractor wishes to use oversize equipment, he may do so upon written notice of the Engineer who will determine the rate to be paid.

vi. When force account work is carried out by a sub-contractor, the allowance to the prime contractor will be 5% of the invoice submitted by the sub-contractor exclusive of the sub-contractor's 15% allowance.

vii. No payment will be made for or in respect to any tools, hand or otherwise which are considered part of the trade.

viii. No payment shall be made for any vehicle (pick up truck, etc.) unless it is actively necessary for the work being carried out. (i.e. the force account work is being carried out at more than one location, or the force account

work is for one day or less and workers and small tools, supplies, etc. must be transported to or from another site).

ix. At the start of the force account work the Contractor shall provide the applicable labour and equipment rates not already submitted to the Engineer. Any subsequent invoices for rental equipment and material will be submitted for the “daily work record”. (NOTE: The conditions for rental equipment invoices.)

APPENDIX

H

Schedule of Assessment

Schedule of Assessment
Dawson Drain
City of Windsor, ON May 14, 2025

Block		Affected Area (ha)	Special Benefit	Benefit	Outlet Liability	Total Assessment
A	Private Landowners	9.32	0	$33,713.28	$33,713.28	$67,426.55
B	Private Landowners	7.31	0	$30,274.24	$30,274.24	$60,548.48
C	Private Landowners	18.69	0	$36,262.61	$36,262.61	$72,525.22
D	Private Landowners	2.00	0	$43,314.50	$43,314.50	$86,629.00
	City of Windsor	13.65	0	$42,275.37	$42,275.37	$84,550.74
	Essex Region Conservation Authority	42.57	0	$3,750.00	$3,750.00	$7,500.00
					Total	$379,180.00

		Affected Area (ha)	Allowance	Benefit	Outlet Liability	Total Allowance
	Windsor Memorial Gardens Cemetery	3.60	$200,000.00	$2,250.00	$2,250.00	$195,500.00

Assessment blocks for Dawson Drain



*Each block contains private landowners and the lands owned by the municipality (road authority) and have been assessed as such based on affected area as presented in table above.

ROLL NUMBERS WITHIN BLOCKS SHOWN ABOVE

Block A	Block B	Block C	Block D
070-260-21600	070-260-24901	070-250-00400	070-170-15000
070-260-03000	070-260-01600	070-250-03998	070-170-85965
070-260-03700	070-260-23101	070-240-31300	070-170-85964
070-260-09500	070-260-23102	070-260-05480	070-170-91300
070-260-02500	070-260-18800	070-250-14900	070-170-85963
070-260-21802	070-260-14200	070-260-00900	070-170-91400
070-260-24900	070-260-07700	070-240-29100	070-170-85962
070-260-24803	070-260-01200	070-240-29200	070-170-91500
070-260-21801	070-260-23600	070-240-30300	070-170-85961
070-260-21800	070-260-23650	070-240-30400	070-170-91600
070-260-21700	070-260-12800	070-240-29000	070-170-85960
070-260-16901	070-260-04900	070-240-29300	070-170-91700
070-260-16600	070-260-23100	070-240-30500	070-170-85959
070-260-10100	070-260-20600	070-240-30200	070-170-91800
070-260-02600	070-260-14300	070-240-28900	070-170-85958
070-260-17800	070-260-07800	070-240-29400	070-170-91900
070-260-11600	070-260-18701	070-240-30600	070-170-85957
070-260-22400	070-260-12700	070-240-30100	070-170-92000
070-260-15300	070-260-04800	070-240-29500	070-170-85956
070-260-09100	070-260-20620	070-240-30700	070-170-92100
070-260-24400	070-260-12500	070-240-27800	070-170-85955
070-260-21200	070-260-04700	070-240-28800	070-170-85954
070-260-17702	070-260-23001	070-240-30000	070-170-85953
070-260-11500	070-260-20640	070-240-29600	070-170-98300
070-260-22300	070-260-08000	070-240-30800	070-170-98200
070-260-21225	070-260-01300	070-240-26900	070-170-98100
070-260-09200	070-260-23700	070-240-26100	070-170-98000
070-260-02000	070-260-18601	070-240-26600	070-170-97900
070-260-24401	070-260-23000	070-240-26800	070-170-97800
070-260-17701	070-260-14400	070-240-26000	070-170-97700
070-260-11400	070-260-23800	070-240-26700	070-170-97600
070-260-15400	070-260-20700	070-240-25900	070-170-97500
070-260-17700	070-260-18600	070-260-23203	070-170-97400
070-260-11300	070-260-12400	070-250-00200	070-170-97300
070-260-21240	070-260-04600	070-250-05700	070-170-97200
070-260-24500	070-260-14500	070-250-00201	070-170-97100
070-260-22200	070-260-08220	070-250-00300	070-170-97000
070-260-09300	070-260-18500	070-250-05400	070-170-96900
070-260-21250	070-260-14600	070-250-00500	070-170-96800

Block A	Block B	Block C	Block D
070-260-15500	070-260-08210	070-250-05300	070-170-96700
070-260-24501	070-260-01500	070-250-00600	
070-260-17602	070-260-04500	070-250-05200	
070-260-21300	070-260-20701	070-250-00851	
070-260-17601	070-260-18400	070-250-06800	
070-260-11200	070-260-22900	070-250-05000	
070-260-22100	070-260-23900	070-250-06900	
070-260-15600	070-260-12300	070-250-00852	
070-260-21301	070-260-24000	070-250-04900	
070-260-24600	070-260-18300	070-250-01000	
070-260-11100	070-260-08400	070-250-07000	
070-260-15700	070-260-04400	070-250-12200	
070-260-17600	070-260-20800	070-250-07100	
070-260-11000	070-260-14700	070-250-04800	
070-260-21302	070-260-18201	070-250-10200	
070-260-22000	070-260-22800	070-250-01100	
070-260-17501	070-260-24001	070-250-07101	
070-260-03300	070-260-12200	070-250-15600	
070-260-15800	070-260-20801	070-250-12400	
070-260-21303	070-260-18200	070-250-17800	
070-260-03200	070-260-04300	070-250-04700	
070-260-17500	070-260-22750	070-250-15500	
070-260-10900	070-260-14800	070-250-01200	
070-260-24601	070-260-08500	070-250-07102	
070-260-21901	070-260-20802	070-250-12500	
070-260-21304	070-260-24002	070-250-10100	
070-260-02200	070-260-12100	070-250-07103	
070-260-10800	070-260-18100	070-250-04600	
070-260-17300	070-260-24003	070-250-07104	
070-260-02300	070-260-04200	070-250-12600	
070-260-10700	070-260-22700	070-250-07105	
070-260-21400	070-260-20900	070-250-00148	
070-260-15900	070-260-01801	070-250-04500	
070-260-09600	070-260-18001	070-250-10000	
070-260-24602	070-260-15000	070-250-15401	
070-260-17201	070-260-08700	070-250-01300	
070-260-10600	070-260-24100	070-250-15200	
070-260-16100	070-260-20901	070-250-04400	
070-260-21900	070-260-12000	070-250-12700	
070-260-21401	070-260-18000	070-250-18000	
070-260-17200	070-260-04100	070-250-09900	
070-260-21804	070-260-22600	070-250-15100	

Block A	Block B	Block C	Block D
070-260-10500	070-260-21000	070-250-07200	
070-260-21803	070-260-15100	070-250-04300	
070-260-02400	070-260-08800	070-250-12800	
070-260-24700	070-260-24200	070-250-04200	
070-260-21402	070-260-11800	070-250-15000	
070-260-17101	070-260-21001	070-250-07300	
070-260-16300	070-260-08900	070-250-18100	
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		070-240-27909	
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		070-250-02350	
		070-240-28700	
		070-250-14400	
		070-250-02400	
		070-250-13500	
		070-250-03600	

Block A	Block B	Block C	Block D
		070-250-09000	
		070-240-28600	
		070-250-02600	
		070-250-08000	
		070-250-18300	
		070-250-13600	
		070-250-03500	
		070-250-02700	
		070-250-08100	
		070-250-18200	
		070-250-14305	
		070-240-28500	
		070-250-13601	
		070-250-08900	
		070-250-14300	
		070-240-28400	
		070-250-02800	
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		070-250-08800	
		070-250-03400	
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		070-250-08700	
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		070-240-29700	
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		070-250-14200	
		070-240-28101	
		070-240-29800	
		070-250-14100	
		070-250-03000	
		070-250-08500	
		070-250-18400	
		070-240-28100	
		070-250-03200	
		070-240-29900	
		070-250-08600	
		070-250-03100	
		070-250-08501	
		070-250-13900	

Block A	Block B	Block C	Block D
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		070-260-13500	
		070-260-06200	
		070-260-00100	
		070-260-19600	
		070-260-13501	
		070-260-19500	
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		070-260-05501	
		070-260-23306	
		070-260-13202	
		070-260-20200	
		070-260-23401	
		070-260-19304	

Block A	Block B	Block C	Block D
		070-260-06600	
		070-260-00500	
		070-260-13201	
		070-260-23305	
		070-260-13800	
		070-260-19303	
		070-260-13200	
		070-260-20201	
		070-260-23402	
		070-260-13801	
		070-260-06700	
		070-260-13102	
		070-260-19302	
		070-260-05450	
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		070-260-20301	
		070-260-06900	
		070-260-19300	
		070-260-05400	
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		070-260-14000	
		070-260-19101	
		070-260-23302	
		070-260-07200	
		070-260-13001	
		070-260-05200	

Block A	Block B	Block C	Block D
		070-260-20400	
		070-260-14020	
		070-260-23405	
		070-260-19100	
		070-260-13000	
		070-260-14050	
		070-260-07400	
		070-260-23301	
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		070-260-05150	
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		070-260-20402	
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		070-260-14100	
		070-260-23500	
		070-260-12801	
		070-260-23520	

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