November 30, 2023
File: LD-00318

VIA EMAIL

The Municipality of Middlesex Centre
1 Tunks Lane
Komoka, ON N0L 1R0

Attention: **Mr. Robert Cascaden, Director of Public Works and Engineering**

Reference: **MN 10919 Longwoods Road, Delaware**
10919 Longwoods Road Inc.
Stormwater Servicing Brief

Introduction

10919 Longwoods Road Inc. has retained LDS Consultants Inc. (LDS) to prepare a stormwater management (SWM) strategy in support of a proposed draft plan redline for a vacant land condominium development in the community of Delaware, as illustrated in **Figure 1**. The subject site comprises agricultural lands currently used as a meadow measuring approximately 6.65 hectares. The site is bound to the north by Longwoods Road, to the south and west by agricultural lands and to the east by low-density residential properties fronting Carriage Road.

Background Information

The proposed stormwater management strategy was developed using the following information presented in the following reports:

- Middlesex Centre Infrastructure Design Standards, dated January 2018;
- Stormwater Management Policy Manual of the Municipality of Middlesex Centre, prepared by Stantec Consulting Ltd., dated June 2011;
- Stormwater Management Planning and Design Manual, organized by the Ministry of the Environment, dated March 2003; and,
- Geotechnical Investigation & Preliminary Hydrogeological Assessment, prepared by LDS Consultants Inc., dated November 2023;

Design Criteria

The SWM outlet for the site is located within the Lower Thames River Watershed. Accordingly, the following SWM design criteria apply to the proposed development area:

- *Water Quantity Control* - Ensure that stormwater flows are attenuated to pre-existing rates on-site, up to the 100-year event. Outflows from the SWM facility (SWMF) will need to be restricted to the capacity of the pipe of the proposed municipal drain for up to the 25-year design storm event. Major flows must be safely conveyed via an Overland Flow Route (OLFR) to an appropriate outlet without causing damage to private property or municipal infrastructure and with minimum risk to the public.
- *Water Quality Control* - Provide quality control based on ‘Enhanced” Level 1 treatment (MOE, 2003).

Existing Condition

Google Maps© shows that the site comprises agricultural lands used as a meadow. Based on the watershed sketch by Spriet Associates London Ltd., a portion of the neighbouring properties and Longwoods Road drain towards the low-lying area of the subject site. Subsequently, stormwater infiltrates the ground where a subsurface agricultural drainage system drains the water south towards a natural surface water ravine feature adjacent to the Elviage Drain, which ultimately discharges into the Thames River. Existing catchment areas are described below. The site was modelled using the

SWMHYMO hydrologic software to calculate existing peak flows summarized in **Table 1,** whereas catchment areas are illustrated in **Figure 2**. Model documentation is attached to this letter report in **Appendix B**.

Catchment 101 – This area comprises the subject property currently used for agriculture and is covered with a meadow. This area drains to a low spot visible with a review of the contours on site, and the southern portion drains to the neighbouring agricultural field.

External Catchment EX-1 – This area comprises a portion of the neighbouring agricultural field located west of the subject site, which flows towards the low spot in *Catchment 101*.

External Catchment EX-2 – This area comprises a neighbouring single-family residential property located northwest of the subject site, which flows towards the low spot in *Catchment 101*.

External Catchment EX-3 – This area comprises half the Longwoods Road right-of-way (ROW) fronting the subject property. Stormwater runoff flows towards the low spot in *Catchment 101*.

External Catchment EX-4 – This area comprises a portion of the neighbouring agricultural field located east of the subject site and a portion of the low-density residential lotting fronting Carriage Road. Stormwater runoff flows towards the low spot in *Catchment 101*.

Table 1 - Existing Runoff Peak Flows

Storm Event	Surface Runoff (m^3/s)
2-year	0.089
5-year	0.194
10-year	0.266
25-year	0.345
50-year	0.410
100-year	0.474
250-year	0.700

LDS conducted a geotechnical investigation to determine existing soil conditions at the subject site. Generally, soils observed in the boreholes consisted of topsoil overlying natural sand and silt soils. Therefore, LDS classified the soils within the Hydrologic Soil Group B category for modelling purposes.

Proposed Condition

It is proposed to develop the site into a light industrial type development comprising eighteen (18) vacant land condominium lots. The proposed development will include paved areas and some grass-landscaped areas. The internal storm sewer will convey runoff generated by minor storm events from the external area and on-site to the proposed municipal drain. Similarly, the OLFR will convey major event-generated runoff to the dry pond, which flows to the proposed municipal drain via the orifice-restricted outlet and emergency overflow structure. The proposed catchments are described below and illustrated in **Figure 3**. External drainage catchment areas will remain as described in this report's existing conditions section. The proposed condition was modelled using SWMHYMO software to estimate post-development peak flow rates, which are included in **Appendix B**.

Catchment 201 – This catchment area comprises the developed site. This area contains the 18 proposed industrial lots, the internal street network with grassed landscaped areas and SWMF. In addition, the sewer system, dry pond and site grading will convey minor and major flows to the site's southwest corner. This catchment will accept overland flows from Catchment EX-1.

Quantity Control

Under proposed conditions, an on-site detention strategy controls additional runoff generated by the development to meet water quantity objectives established by the MECP (Ministry of Environment, Conservation and Parks), Spriet Associates London Ltd. and the Municipality of Middlesex Centre. This strategy comprises a combination approach of an on-site storm sewer network, a dry pond, and an orifice-controlled outlet. It is proposed to provide forty-three hundred (4300) cubic metres of storage in surface ponding and underground storm sewers and maintenance holes, with the majority contained in the dry pond for peak flow attenuation. During major storm events, ponding will occur on the

private roadway. The SWM strategy will attenuate post-development stormwater runoff flow rates for all storm events, including the 250-year storm within the storage elements described above and released through an orifice-controlled pipe outlet and emergency overflow structure connected to the proposed municipal drain. The major storm event hydrographs are included in **Appendix B**. The stage-storage-discharge relationship for the 135 mm orifice-controlled system is outlined in **Table 2**. Orifice sizing is based on the capacity constraints of the outlet drain designed by Spriet Associates London Ltd.

Table 2 - Stage-Storage-Discharge for Orifice-Controlled Outlet

Stage	Total Volume	Discharge	Comment
(m)	(m^3)	(m^3/s)	
232.83	0	0.000	Orifice Invert
236.20	188	0.059	Bottom of Dry Pond
236.50	2700	0.087	Top of Dry Pond
236.65	4003	0.299	Site Emergency Overland Spill Point

The resulting peak flows are presented in **Table 3**.

Table 3 – Post-Development Runoff Peak Flows

Storm Event	Municipal Drain (m^3/s)	Infiltration (m^3/s)
2-year	0.069	0.009
5-year	0.073	0.010
10-year	0.075	0.010
25-year	0.101	0.011
50-year	0.137	0.011
100-year	0.170	0.011
250-year	0.286	0.011

All supporting calculations are included in **Appendix C**.

Quality Control

The MECP recommends that an Enhanced Level of Protection be provided. Quality control will be achieved with the use of OGS technology. The OGS device will be placed at the site's storm sewer outlet and treats up to the 50-year storm event. The OGS will be sized to achieve above 80% total suspended solids (TSS) removal. This reaches the Enhanced Level of Protection recommended by the MECP. The OGS device proposed is the ADS Model FD-8HC or approved equivalent. The OGS device will treat runoff from the entire internal road network and driveways. OGS grit loading information is attached. It is expected that the OGS unit will have to be serviced once every 20-24 months. OGS sizing calculations are included in **Appendix D**.

Operation and Maintenance

During the construction of the SWM facility, it is recommended that monitoring and inspection of the erosion and sediment controls be conducted to ensure the satisfactory performance of these measures.

Reporting of the inspection and monitoring results will be distributed to the Owner. Suppose it is found that the erosion and sediment control measures need to be fixed. Then, based on field decisions, they shall be augmented to the Owner's satisfaction.

Furthermore, it is recommended that the owner initiate a post-construction monitoring program to ensure the long-term effectiveness of the SWM facility. The post-construction monitoring program should include the following:

- Periodic inspection of the SWM control facility and other erosion control works.
- Inspect the SWM facility and its outlet after significant rainfall events (generally more than 10 mm of rainfall).
- Removal of debris that may accumulate and hinder the functioning of the SWM facility.
- Implement remedial measures, including erosion stabilization, repair of damaged vegetation and sediment removal, as required.

The frequency of the post-construction monitoring will be at the Owner's discretion. However, it is recommended that a minimum of four (seasonal) inspections be made annually.

Erosion and Sediment Control

This section describes the Erosion and Sediment Control Plan implemented before, during and immediately after construction to reduce the possibility of sediment being conveyed from the proposed construction site.

Types of Selected Erosion/Sediment Control Methods

The details and locations of the proposed temporary and longer-term erosion and sediment control measures will be identified at the detailed design stage. The construction drawings, once complete, will form a part of the sediment and erosion control plan. Proposed erosion and sediment control measures include the following:

- The Contractor will install a light-duty silt fence along the site's perimeter.
- All disturbed areas where work will not occur for 30 days or more will be stabilized following OPSS 572.
- The Contractor will perform street sweeping to remove soil deposited on adjacent right-of-way by construction traffic.

The proposed temporary erosion and sediment control measures have been selected based on the site's susceptibility to erosion, the sensitivity of the downstream environment, site slopes, and the total drainage area. The proposed measures should provide adequate erosion and sediment control for the project without additional steps. However, the site will be monitored during construction; other actions will be added if required.

Installation of Erosion Control Measures

Proposed erosion and sediment control measures are summarized in **Table 4**.

Table 4 - Erosion and Sediment Control Sequencing

Erosion and Sediment Control Measures	
Pre-Construction	Create a contact list for emergency contingency plan operations.
	As appropriate, install a silt fence around the proposed work limits and the stormwater facility.
	Install robust siltation barrier.
	Preparation of a Construction Dewatering Discharge Plan, including discharge location and temporary storage locations and identifying measures to reduce suspended solids or other treatment, if required.
Construction	Monitor water quality (turbidity) for construction dewatering discharge water discharged at the surface.
	Regularly inspect erosion and sediment control measures to confirm they are practical and operating as intended.
	Monitor weather reports for significant precipitation events for contingency planning.
	Install filter cloth in on-site catch basins.
	Perform street sweeping as necessary to remove accumulated sediment from the adjacent right-of-way.
	Complete final paving.
	Complete final landscaping and vegetation plantings.
Post-Construction	Remove robust siltation barrier.
	Remove the silt fence from the proposed work limits.
	Remove filter cloth from on-site catch basins.
	Remove the construction fence from the proposed work limits.

The proposed erosion and sediment control measures have been designed according to the site slopes, drainage area, and the risks and consequences of failure. Based on these factors, additional steps will likely be optional.

However, the site will be monitored during construction, and additional measures (i.e., additional rows of silt fence) may be installed at the discretion of the Contract Administrator. Although this is not an exhaustive list, inspections should include checks on siltation barriers to confirm it is properly installed and secured, including a review for evidence of damage, tears, overtopping or undermining; checking the condition of surface water ponding areas and storm drain inlets; and documenting areas where seeding/sodding/mulching is implemented to re-establish vegetative cover. In addition, due to the high groundwater condition, inspections shall include checking exposed banks for seepage. If seepage is encountered, erosion control blankets shall be installed to mitigate any damage to the banks.

The triggers for installing enhanced erosion and sediment control measures would include breaching the proposed erosion and sediment control measures and re-evaluation based on site conditions during construction. As described below, site conditions and the proposed erosion and sediment control measures will be monitored regularly.

Inspection Requirements

The effectiveness of the erosion and sediment control measures will need to be monitored during site grading and site servicing work. This will require frequent inspections. Therefore, the following minimum inspection intervals are recommended:

- The Contractor and Contract Administrator shall monitor weather reports daily and record temperatures and rainfall. When rainfall is anticipated, the Contractor and the Contract Administrator shall inspect the erosion control works immediately before and immediately after the rainfall event and snowmelt event (timing for inspections is based on predicted weather forecasts);
- Daily during extended or significant precipitation (i.e., rainfall amounts that exceed 25 millimetres) or during significant snowmelt periods;
- Daily during any construction activity that would potentially yield significant runoff volumes or otherwise impact the quality of the runoff leaving the site;
- Daily while deficiencies are present which fail to contain, filter or otherwise treat runoff or contribute to sediment loading in surface water;
- Weekly during dry periods while construction activity is occurring at the site. The Contractor and the Contract Administrator shall inspect the erosion control measures the day before the last business day of the week (typically Thursday) to allow any work to be completed on damaged erosion control works before the weekend.; and,
- Monthly during inactive periods (> 30 days).

The Contract Administrator will document all inspection activities in weekly erosion and sediment control reports.

The Contractor shall construct and maintain all erosion and sediment control measures. This shall include but not be limited to preserving fencing and removing accumulated sediment. Temporary erosion and sediment control measures will not be removed until the areas they serve are restored and stable. The builder will remove the erosion and sediment control measures after the sod has been rooted on the site.

Contingency Plan

The contingency plan aims to help minimize the risk or consequence of a failure of the erosion and sediment control works. Failure could result from insufficient measures, lack of maintenance, or severe weather conditions. The contingency plan includes two areas of consideration:

- Procedures that will be followed where a failure has occurred; and
- Contingency measures will be implemented where there is potential for loss.

The Contractor shall be responsible for following the contingency plan and will prepare the following items:

- The Contractor will maintain a contact list for emergencies.
- Workers shall be on call for emergencies for all aspects of the emergency, from design to installation of sediment and erosion control measures. Any associated health and safety issues are the responsibility of the Contractor.
- Sediment and erosion control measures such as erosion control blanket, straw bales and stakes, sandbags, and silt fences shall be available for emergency installation.

- Gas-powered pumps, appropriately sized hoses, filtration hose socks, and filter cloth will be available for emergency dewatering.
- Heavy equipment shall be on standby for emergency works.
- A supplemental contact list for any required equipment or materials shall be prepared and available for emergencies.

Monitoring

As noted previously, regular monitoring of the site's erosion and sediment control measures makes up an integral part of the contingency plan by providing an early indication should environmental control measures (such as sediment and erosion control measures) or practices fail to achieve prescribed standards. Recommended inspection intervals were discussed previously.

If monitoring identifies a high potential for failure, steps will be taken to reduce the risk. These measures may include repairing existing efforts, modifying current measures, and adding new measures.

If unforeseen events cause the strategies set out in the contingency plan to be insufficient or inappropriate to meet the objective of containing sediment within the working limits, the Contractor, either independently or as directed by the Contract Administrator, will respond promptly with all reasonable measures to prevent, counteract, or remedy any effects on aquatic habitat, and human interest (i.e., public safety, property value).

Updates to the Erosion and Sediment Control Plan may be required to reflect changes at the site during various stages of construction. The municipality will be circulated with updated plans to ensure they have the most current techniques available for review and consultation.

Severe Weather Anticipated

In cases where the weather forecast indicates that significant rainfall is expected within 24 hours, the Contractor shall immediately complete the following:

- Inspect existing erosion and sediment control measures to confirm that they are secure and in good working order;
- Review site conditions to identify and protect areas of exposed soil that could be susceptible to surface erosion; and,
- Monitor all measures during the rainfall event and take corrective action where a potential for failure is identified.

The Contract Administrator shall document the status of the above-listed steps.

Responding to Failures

The Contractor will cease all construction-related work and focus on erosion and sediment control as required to stabilize the site where a failure has occurred or is imminent. The work shall be completed to the satisfaction of the Contract Administrator and any regulatory agencies having jurisdiction.

Any unexpected discharge of silt, sediment, or other deleterious substance shall be reported to the Municipality of Middlesex Centre within 24 hours. The Contractor is responsible for advising the contract administrator and promptly notifying the incident to the Spills Action Centre. Depending on the type of incident, water sampling and quality testing may be warranted to document the extent of the impact. Scoping for the required testing will depend on the incident report.

The Owner's Engineer will develop a restoration plan if significant long-term damage to aquatic habitat or property is suspected. Consultation with an ecologist and biologist may be required to confirm that the remedial measures are appropriate. Development of the initial restoration plan will begin within 24 hours of discovering sediment discharge. It will be implemented immediately following consultation and approval from the MECP, Lower Thames River Conservation Authority (UTRCA), and Municipality of Middlesex Centre. The plan will address the following:

- Removal and disposal of sediment deposited outside of the work limits; and
- Restoration of any areas disturbed through deposition or removal.

Reporting Schedule

The Contract Administrator shall prepare weekly erosion and sediment control monitoring reports/summaries for the duration of site grading and site servicing and submit them to the Municipality of Thames Center by April 1, July 1, and November 1 of each year until all works and services included in the plan are assumed.

The monitoring reports should document the status of the ESC Plan, any repairs, rainfall or pumping that has occurred since the last report, and any risks of failure that may be present.

Additionally, any failure of erosion and sediment control measures shall be reported as described in the contingency plan.

Construction Dewatering Requirements

Based on the Geotechnical Investigation prepared by LDS, shallow groundwater conditions are observed throughout the site. Therefore, where minor groundwater infiltration occurs within open excavations during construction, conventional sump pumping techniques are expected to be suitable for groundwater control.

Sediment controls should be incorporated into the construction of dewatering discharge outlets. These may be silt bags, constructed sediment traps, or other discharge water filtering methods. The Contractor will be responsible for regular maintenance, including sediment removal. Under no circumstances will dewatering effluent be discharged directly to the receiving watercourse without incorporating suitable measures to prevent sediment discharge or cause erosion or scouring at the waterway. Both the Contractor and the Contract Administrator will be responsible for monitoring the water quality leaving the site.

As an introductory guide, the water discharged at the site should have a turbidity level within 8 NTU of the background levels within the watercourse/municipal drain.

For construction dewatering efforts involving a sizeable daily pumping volume, additional sediment control or filtration measures, such as settlement tanks, may be implemented as part of the construction dewatering plan. The discharge and associated sediment controls will depend on the scope of work and the location of the excavation to be dewatered. Thus, the Owner's Engineer should review the dewatering plan in consultation with the Contractor and the Contract Administrator.

For projects requiring positive groundwater control with a removal rate of 50,000 to 400,000 litres per day, a submission to the Environmental Activity and Sector Registry (EASR) will be required. For construction dewatering activities with volumes over 400,000 litres per day, a Category 3 Permit to Take Water (PTTW) would be necessary for groundwater control. EASR submissions and PTTW applications are submitted to and approved by MECP according to Sections 34 and 98 of the Ontario Water Resources Act R.S.O. 1990 and Water Taking and Transfer Regulation O. Reg. 387/04.

The supporting documents to support an EASR submission or PTTW application should include calculations for the zone of influence and identify potential qualitative and quantitative impacts on the shallow groundwater table. Details regarding volume monitoring, water quality analyses and method/location of discharge water will also be required for either submission type. In addition, impacts on local natural features will need to be assessed considering the proposed construction dewatering plan.

Conclusion and Recommendations

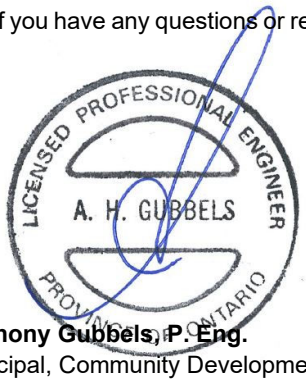
The analysis completed by LDS yields the following conclusions:

- Post-development peak flow rates are attenuated to less than existing flow rates into the proposed municipal drain;
- Post-development peak flow rates are attenuated to less than the capacity of the pipe of the proposed municipal drain for up-to-the 25-year design storm event;
- Surface storage contained within the dry pond will be used to attenuate peak runoff flows;
- Surface runoff from all road and driveway surfaces is treated with an OGS device; and,
- Sediment transport from the site during construction will be minimized by implementing appropriate ESC measures.

We trust this submission will meet with your approval. However, if you have any questions or require further information, please do not hesitate to contact the undersigned.

Respectfully,

LDS CONSULTANTS INC.



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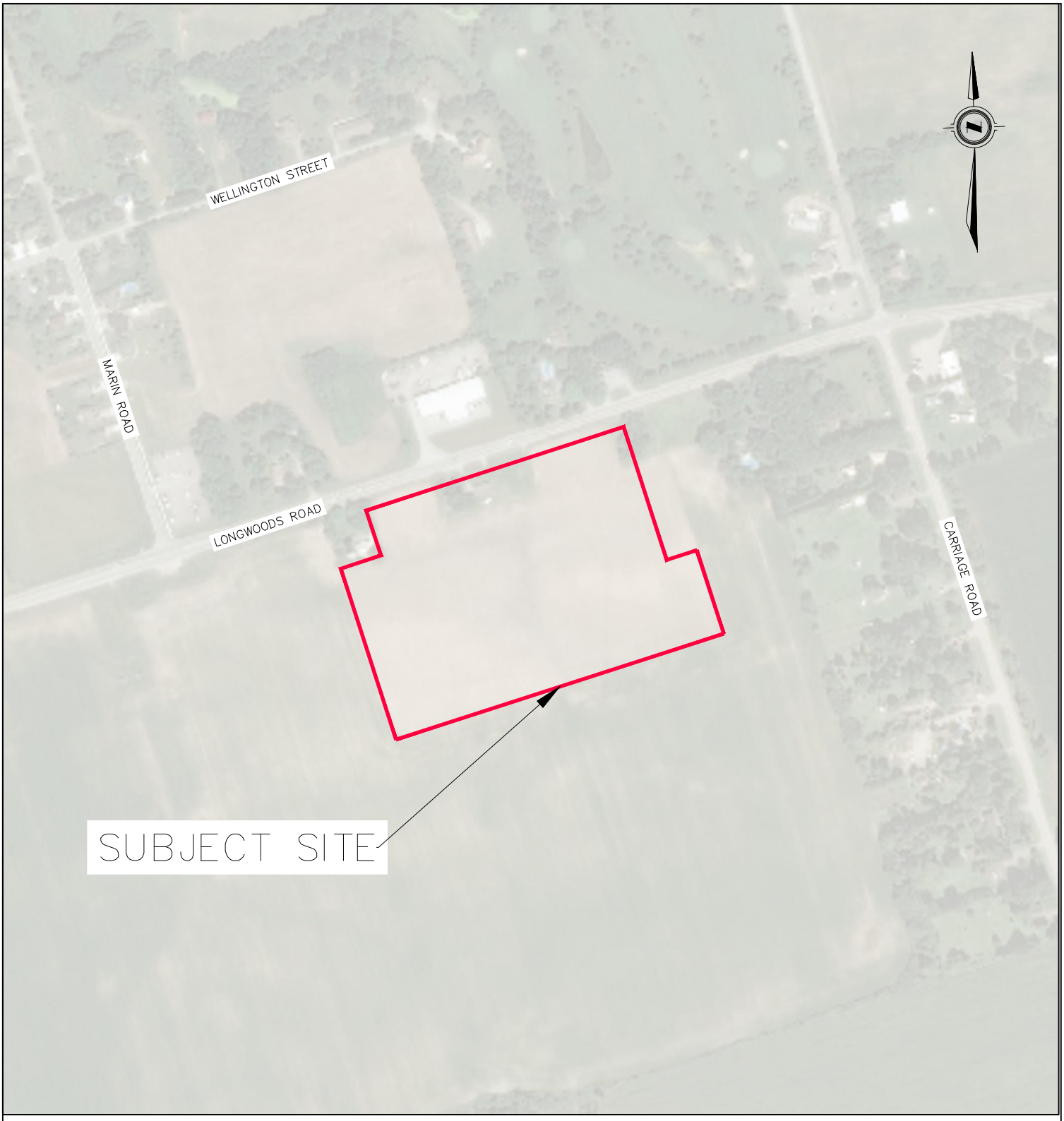
Attachments:
Appendix A – FIGURES
Appendix B – SWMHYMO HYDROLOGIC MODEL
Appendix C – SUPPORTING CALCULATIONS
Appendix D – OGS SIZING SHEET

APPENDIX A

FIGURES



Z:\LD-00318 - 10919 LONGWOODS ROAD\DETAIL DESIGN\REPORTS\SWM\DRAWINGS\LD-00318 - LOCATION PLAN.DWG
2023-03-15 9:13:31 AM by: LUKE.JESSON

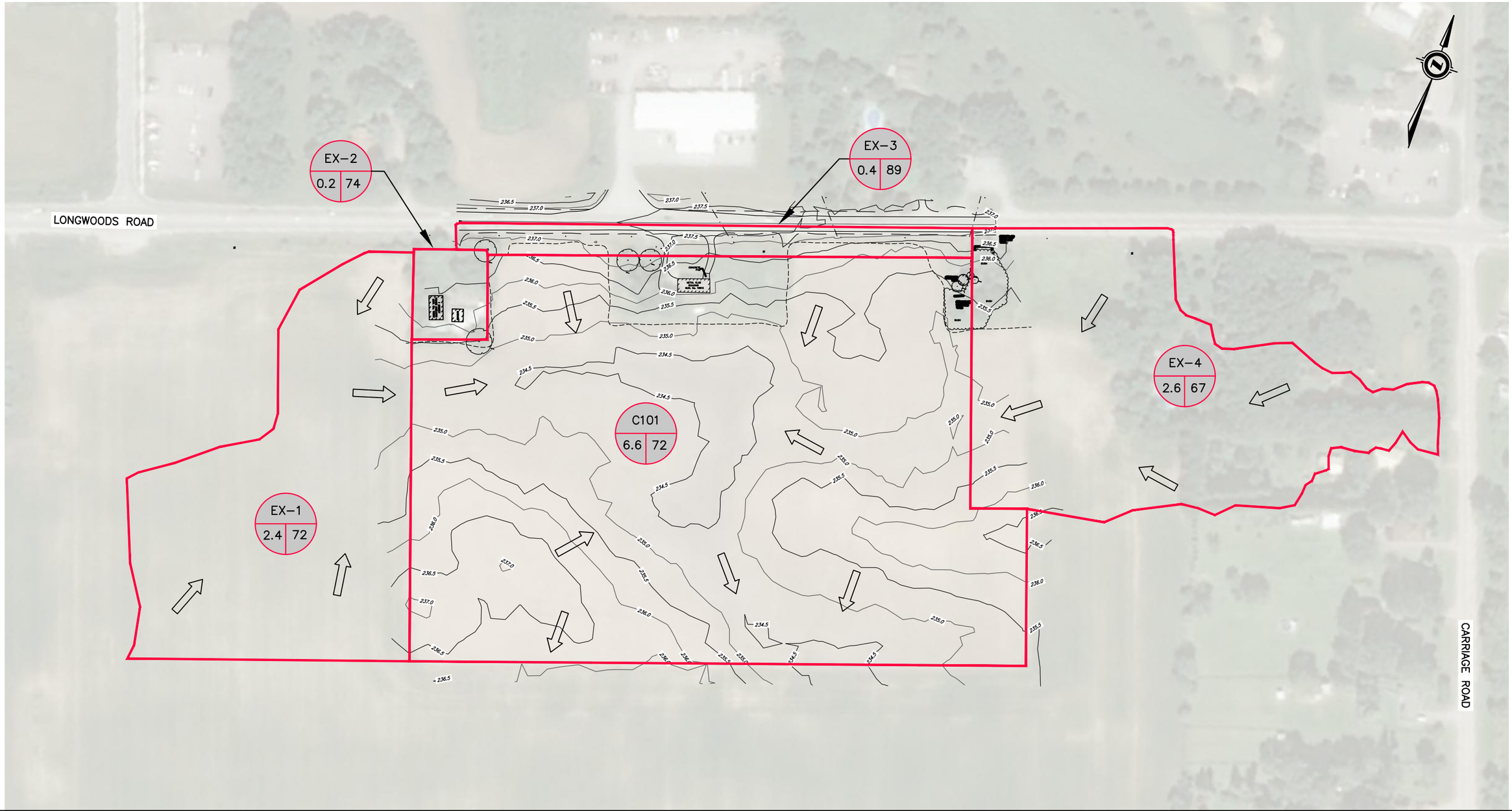
LDS

10919 LONGWOODS ROAD LIGHT INDUSTRIAL

10919 LONGWOODS ROAD INC.

LOCATION PLAN

PROJECT: LD-00318 SCALE: N.T.S. FIGURE 1



LEGEND:

EXISTING CATCHMENT AREA

EXISTING OVERLAND FLOW PATH

STORM DRAINAGE AREA DATA:

C101 — CATCHMENT ID

1.46 | 82 — AREA (ha) | CURVE NUMBER

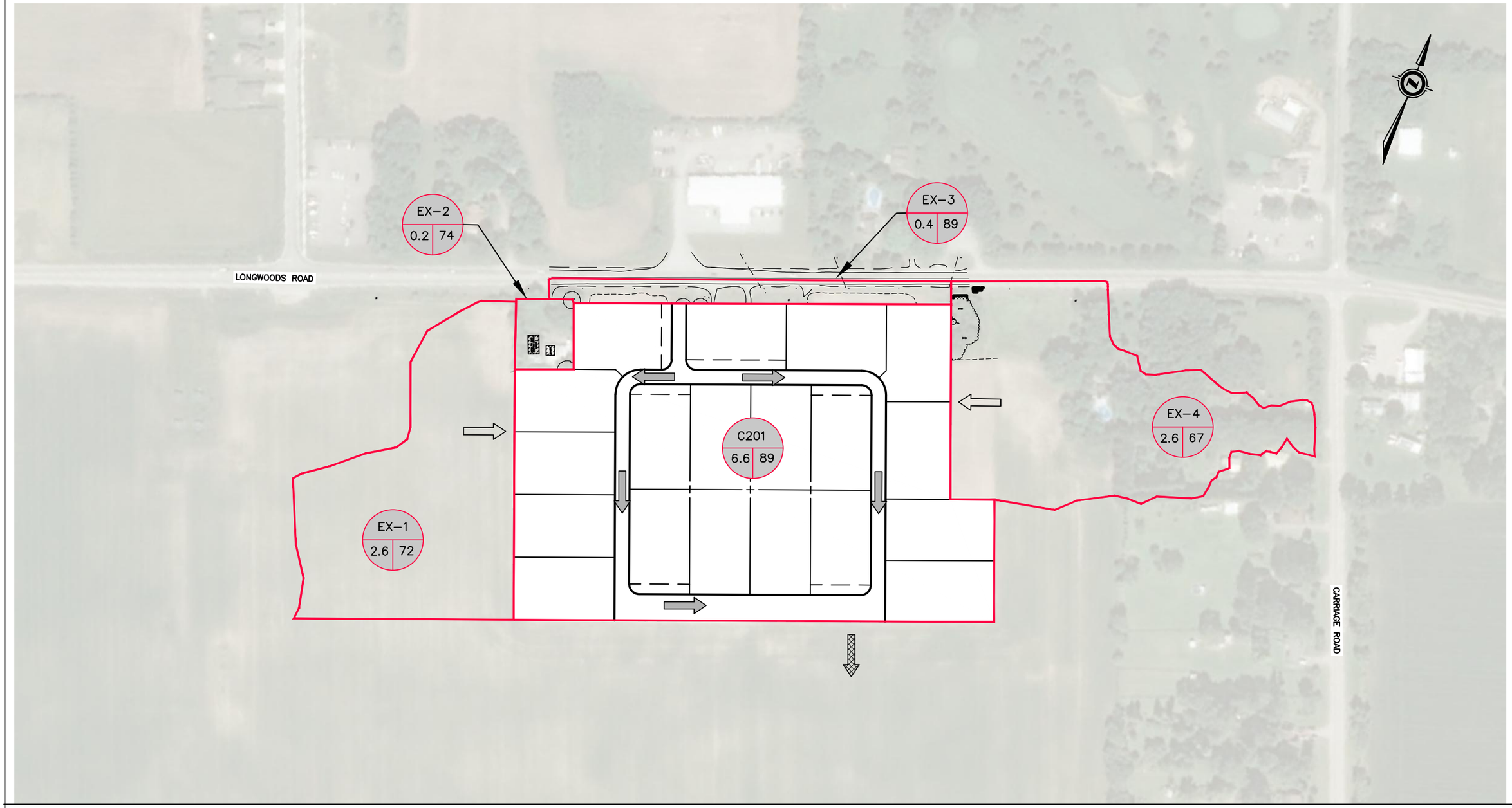
LDS

10919 LONGWOODS ROAD LIGHT INDUSTRIAL

10919 LONGWOODS ROAD INC.

EXISTING CONDITIONS DRAINAGE AREA PLAN

PROJECT: LD-00318 SCALE: N.T.S. FIGURE 2



LDS

LEGEND:

PROPOSED CATCHMENT AREA

PROPOSED OVERLAND FLOW ROUTE

ULTIMATE OVERLAND FLOW ROUTE

STORM DRAINAGE AREA DATA:

CATCHMENT ID

C201

1.46 | 82

AREA (ha) | CURVE NUMBER

10919 LONGWOODS ROAD LIGHT INDUSTRIAL

10919 LONGWOODS ROAD INC.

POST-DEVELOPMENT DRAINAGE AREA PLAN

PROJECT: LD-00318 SCALE: N.T.S. FIGURE 3

CUMMINGS DRAIN

MARTIN ROAD

LONGWOODS ROAD

HIGHWAY 2

BR '4'

MENNIE DRAIN

019-020-056
R. CADE
B. GOEBEL
0.2 ha.

0.2ha

0.60ha

019-020-057-60
THAMES VALLEY
DECORATIVE
3.2 ha.

019-020-057-30
1091919 LONGWOODS
ROAD INC.
6.6 ha.

019-020-050-06
S. & R. BUREN
0.12 ha.

019-020-050-04
J. & B. ACKWORTH
0.12 ha.

019-020-049-24
S. MURUGASON &
S. MAHENDRAN
0.12 ha.

019-020-050-25
MIDDLESEX
WOODS DEVELOPMENT
0.50 ha.

019-020-050-20
TRY RECYCLING INC.
0.67 ha.

019-020-051-01
393923 ONTARIO LTD.
0.50 ha.

019-020-051
2009620 ONTARIO LTD.
0.47 ha.

0+490

0+488

AREA SIZED FOR SUB-SURFACE DRAINAGE ONLY

019-020-057
J. BANMAN
36.1 ha.

MAIN DRAIN EXIST. PRIVATE DRAIN

CARRIAGE ROAD

0+000

0+006

UNOPENED ROAD ALLOWANCE

APPENDIX B

SWMHYMO HYDROLOGIC MODEL

```
00001> ================================================================================
00002>
00003>    SSSSS  W   W  M   M  H   H  Y   Y  M   M   OOO         999    999    =========
00004>    S      W W W  MM MM  H   H   Y Y   MM MM  O   O       9   9  9   9
00005>    SSSSS  W W W  M M M  HHHHH    Y    M M M  O   O  ##   9   9  9   9   Ver  4.05
00006>        S  W W W  M   M  H   H    Y    M   M  O   O        9999   9999   Sept 2011
00007>    SSSSS   W W   M   M  H   H    Y    M   M   OOO           9      9    =========
00008>                                                          9   9  9   9   # 4058874
00009>          StormWater Management HYdrologic Model           999    999    =========
00010>
00011>  ********************************************************************************
00012>  ************************** SWMHYMO Ver/4.05  ***************************
00013>  *********  A single event and continuous hydrologic simulation model  *********
00014>  *********     based on the principles of HYMO and its successors      *********
00015>  *********                  OTTHYMO-83 and OTTHYMO-89.                  *********
00016>  ********************************************************************************
00017>  ******** Distributed by:  J.F. Sabourin and Associates Inc.           *********
00018>  *********                  Ottawa,  Ontario: (613) 836-3884           *********
00019>  *********                  Gatineau, Quebec: (819) 243-6858           *********
00020>  *********                  E-Mail: swmhymo@jfsa.com                   *********
00021>  ********************************************************************************
00022>
00023>  ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
00024>  +++++++++ Licensed user: Land Development Solutions                  +++++++++
00025>  +++++++++                London                 SERIAL#:4058874     +++++++++
00026>  ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
00027>
00028>  ********************************************************************************
00029>  *********           ++++++ PROGRAM ARRAY DIMENSIONS ++++++             *********
00030>  *********           Maximum value for ID numbers  :     10            *********
00031>  *********           Max. number of rainfall points: 105408            *********
00032>  *********           Max. number of flow points    : 105408            *********
00033>  ********************************************************************************
00034>
00035>
00036>  **********************   D E T A I L E D   O U T P U T   **********************
00037>  ********************************************************************************
00038>  *         DATE: 2023-11-21     TIME: 14:53:34     RUN COUNTER: 000760         *
00039>  ********************************************************************************
00040>  * Input   filename: C:\SWMHMY~1\LD-00318\211123.dat                            *
00041>  * Output  filename: C:\SWMHMY~1\LD-00318\211123.out                           *
00042>  * Summary filename: C:\SWMHMY~1\LD-00318\211123.sum                           *
00043>  * User comments:                                                             *
00044>  * 1:_____________________________________________________________________    *
00045>  * 2:_____________________________________________________________________    *
00046>  * 3:_____________________________________________________________________    *
00047>  ********************************************************************************
00048>
00049> --------------------------------------------------------------------------------
00050> 001:0001--------------------------------------------------------------------------
00051> *#*****************************************************************************
00052> *#  Project Name:[LONGWOODS INDUSTRIAL VLC, DELAWARE] Project Number: [LD-00318]
00053> *#  Date        : 20-11-2023
00054> *#  Modeller    : [LJ]
00055> *#  Company     : LDS Consultants Inc.
00056> *#  License #   : 4058874
00057> *#*****************************************************************************
00058> ----------------------
00059> | START            |  Project  dir.: C:\SWMHMY~1\LD-00318\
00060> --------------------  Rainfall dir.: C:\SWMHMY~1\LD-00318\
00061>     TZERO =   .00 hrs on        0
00062>     METOUT=   2 (output = METRIC)
00063>     NRUN  = 001
00064>     NSTORM=   0
00065> --------------------------------------------------------------------------------
00066> 001:0002--------------------------------------------------------------------------
00067> *#*****************************************************************************
00068> *#
00069> *#                                    2-year
00070> *#                                   =======
00071> *#
00072> *#*****************************************************************************
00073> --------------------
00074> | CHICAGO STORM    |    IDF curve parameters: A= 724.690
00075> | Ptotal= 33.31 mm |                          B=   5.500
00076> --------------------                          C=    .800
00077>                          used in:   INTENSITY =  A / (t + B)^C
00078>
00079>                          Duration of storm  =  3.00 hrs
00080>                          Storm time step    =  5.00 min
00081>                          Time to peak ratio =   .33
00082>
00083>              TIME    RAIN |   TIME    RAIN |   TIME    RAIN |   TIME    RAIN
00084>               hrs   mm/hr |    hrs   mm/hr |    hrs   mm/hr |    hrs   mm/hr
00085>               .08   2.718 |    .83  15.099 |   1.58   7.604 |   2.33   3.537
00086>               .17   2.963 |    .92  35.585 |   1.67   6.700 |   2.42   3.350
00087>               .25   3.263 |   1.00 110.459 |   1.75   5.997 |   2.50   3.184
00088>               .33   3.638 |   1.08  45.982 |   1.83   5.435 |   2.58   3.034
00089>               .42   4.124 |   1.17  25.234 |   1.92   4.976 |   2.67   2.899
00090>               .50   4.778 |   1.25  17.203 |   2.00   4.593 |   2.75   2.777
00091>               .58   5.709 |   1.33  13.032 |   2.08   4.268 |   2.83   2.666
00092>               .67   7.143 |   1.42  10.502 |   2.17   3.990 |   2.92   2.564
00093>               .75   9.644 |   1.50   8.812 |   2.25   3.749 |   3.00   2.470
00094>
00095> --------------------------------------------------------------------------------
00096> 001:0003--------------------------------------------------------------------------
00097> *#*****************************************************************************
00098> *#                              ======================
00099> *#                               EXISTING CONDITIONS
00100> *#                              ======================
00101> *#*****************************************************************************
00102> ----------------------
00103> | CALIB NASHYD       |  Area     (ha)=    2.37   Curve Number   (CN)=72.00
00104> | 01:EX-1   DT= 1.00 |  Ia       (mm)=   8.000   # of Linear Res.(N)= 3.00
00105> ----------------------  U.H. Tp(hrs)=    .330
00106>
00107>      Unit Hyd Qpeak  (cms)=     .274
00108>
00109>      PEAK FLOW       (cms)=     .027 (i)
00110>      TIME TO PEAK    (hrs)=    1.517
00111>      RUNOFF VOLUME    (mm)=    5.161
00112>      TOTAL RAINFALL   (mm)=   33.307
00113>      RUNOFF COEFFICIENT   =     .155
00114>
00115>      (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
00116>
00117> --------------------------------------------------------------------------------
00118> 001:0004--------------------------------------------------------------------------
00119> ----------------------
00120> | COMPUTE DUALHYD    |   Average inlet capacities   [CINLET] =    .001  (cms)
00121> | TotalHyd 01:EX-1   |   Number of inlets in system [NINLET] =       1
00122> ----------------------   Total minor system capacity          =    .001  (cms)
00123>                          Total major system storage [TMJSTO] =   99999.(cu.m.)
00124>
00125>                 ID: NHYD       AREA     QPEAK     TPEAK     R.V.      DWF
00126>                                 (ha)     (cms)     (hrs)     (mm)     (cms)
00127>      TOTAL HYD.   01:EX-1       2.37      .027     1.517     5.161     .000
00128>      ==========================================================================
00129>      MAJOR SYST   02:THAMES        .00      .000      .000      .000     .000
00130>      MINOR SYST   03:toDRAI       2.37      .001    43.450     5.162     .000
00131>
00132>      NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
00133>
00134>      Maximum MAJOR SYSTEM storage used =     114.(cu.m.)
00135>
00136> --------------------------------------------------------------------------------
00137> 001:0005--------------------------------------------------------------------------
00138> ----------------------
00139> | CALIB NASHYD       |  Area     (ha)=     .19   Curve Number   (CN)=74.00
00140> | 01:EX-2   DT= 1.00 |  Ia       (mm)=   5.000   # of Linear Res.(N)= 3.00
00141> ----------------------  U.H. Tp(hrs)=    .090
00142>
00143>      Unit Hyd Qpeak  (cms)=     .081
00144>
00145>      PEAK FLOW       (cms)=     .006 (i)
00146>      TIME TO PEAK    (hrs)=    1.117
00147>      RUNOFF VOLUME    (mm)=    6.816
00148>      TOTAL RAINFALL   (mm)=   33.307
00149>      RUNOFF COEFFICIENT   =     .205
00150>
00151>      (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
00152>
00153> --------------------------------------------------------------------------------
00154> 001:0006--------------------------------------------------------------------------
00155> ----------------------
00156> | CALIB STANDHYD     |  Area     (ha)=     .45
00157> | 04:EX-3   DT= 1.00 |  Total Imp(%)=   65.00   Dir. Conn.(%)=    1.00
00158> ----------------------
00159>                                  IMPERVIOUS    PERVIOUS (i)
00160>      Surface Area     (ha)=          .29          .16
00161>      Dep. Storage     (mm)=         2.00         8.00
00162>      Average Slope     (%)=         1.00        20.00
00163>      Length            (m)=         5.00        25.00
00164>      Mannings n            =         .013         .240
00165>
00166>      Max.eff.Inten.(mm/hr)=       110.46       135.03
00167>                 over (min)         1.00         3.00
00168>      Storage Coeff.  (min)=          .41 (ii)    2.72 (ii)
00169>      Unit Hyd. Tpeak (min)=         1.00         3.00
00170>      Unit Hyd. peak  (cms)=         1.55          .40
00171>                                                          *TOTALS*
00172>      PEAK FLOW       (cms)=          .00          .04          .045 (iii)
00173>      TIME TO PEAK    (hrs)=         1.00         1.02         1.017
00174>      RUNOFF VOLUME    (mm)=        31.31        14.20        14.375
00175>      TOTAL RAINFALL   (mm)=        33.31        33.31        33.307
00176>      RUNOFF COEFFICIENT   =          .94          .43          .432
00177>
00178>        (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
00179>            CN* =  72.0     Ia = Dep. Storage  (Above)
00180>       (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
00181>            THAN THE STORAGE COEFFICIENT.
00182>      (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
00183>
00184> --------------------------------------------------------------------------------
00185> 001:0007--------------------------------------------------------------------------
00186> ----------------------
00187> | CALIB NASHYD       |  Area     (ha)=    2.59   Curve Number   (CN)=67.00
00188> | 05:EX-4   DT= 1.00 |  Ia       (mm)=   8.000   # of Linear Res.(N)= 3.00
00189> ----------------------  U.H. Tp(hrs)=    .230
00190>
00191>      Unit Hyd Qpeak  (cms)=     .430
00192>
00193>      PEAK FLOW       (cms)=     .029 (i)
00194>      TIME TO PEAK    (hrs)=    1.367
00195>      RUNOFF VOLUME    (mm)=    4.258
00196>      TOTAL RAINFALL   (mm)=   33.307
00197>      RUNOFF COEFFICIENT   =     .128
00198>
00199>      (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
00200>
00201> --------------------------------------------------------------------------------
00202> 001:0008--------------------------------------------------------------------------
00203> ----------------------
00204> | COMPUTE DUALHYD    |   Average inlet capacities   [CINLET] =    .001  (cms)
00205> | TotalHyd 05:EX-4   |   Number of inlets in system [NINLET] =       1
00206> ----------------------   Total minor system capacity          =    .001  (cms)
00207>                          Total major system storage [TMJSTO] =   99999.(cu.m.)
00208>
00209>                   ID: NHYD        AREA     QPEAK     TPEAK     R.V.      DWF
00210>                                    (ha)     (cms)     (hrs)     (mm)     (cms)
00211>      TOTAL HYD.   05:EX-4         2.59      .029     1.367    4.258     .000
00212>      ==========================================================================
00213>      MAJOR SYST   06:BANMAN        .00      .000      .000     .000     .000
00214>      MINOR SYST   07:toDRAI       2.59      .001    39.250    4.258     .000
00215>
00216>      NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
00217>
00218>      Maximum MAJOR SYSTEM storage used =     102.(cu.m.)
00219>
00220> --------------------------------------------------------------------------------
00221> 001:0009--------------------------------------------------------------------------
00222> ----------------------
00223> | CALIB NASHYD       |  Area     (ha)=    6.64   Curve Number   (CN)=72.00
00224> | 05:C101   DT= 1.00 |  Ia       (mm)=   8.000   # of Linear Res.(N)= 3.00
00225> ----------------------  U.H. Tp(hrs)=    .310
00226>
00227>      Unit Hyd Qpeak  (cms)=     .818
00228>
00229>      PEAK FLOW       (cms)=     .077 (i)
00230>      TIME TO PEAK    (hrs)=    1.483
00231>      RUNOFF VOLUME    (mm)=    5.161
00232>      TOTAL RAINFALL   (mm)=   33.307
00233>      RUNOFF COEFFICIENT   =     .155
00234>
00235>      (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
00236>
00237> --------------------------------------------------------------------------------
00238> 001:0010--------------------------------------------------------------------------
00239> ----------------------
00240> | ADD HYD (PRE      ) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
00241> ----------------------                   (ha)     (cms)   (hrs)   (mm)   (cms)
00242>                       ID1 01:EX-2          .19      .006    1.12   6.82    .000
00243>                     +ID2 03:toDRAIN       2.37      .001   43.45   5.16    .000
00244>                     +ID3 04:EX-3           .45      .045    1.02  14.38    .000
00245>                     +ID4 05:C101          6.64      .077    1.48   5.16    .000
00246>                     +ID5 07:toDRAIN       2.59      .001   39.25   4.26    .000
00247>                      ==========================================================
00248>                      SUM 08:PRE           12.24      .089    1.45   5.33    .000
00249>
00250>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
00251>
00252> --------------------------------------------------------------------------------
00253> 001:0011--------------------------------------------------------------------------
00254> *#*****************************************************************************
00255> *#                              ======================
00256> *#                               PROSPOSED CONDITIONS
00257> *#                              ======================
00258> *#*****************************************************************************
00259> ----------------------
00260> | CALIB NASHYD       |  Area     (ha)=    2.37   Curve Number   (CN)=72.00
00261> | 01:EX-1   DT= 1.00 |  Ia       (mm)=   8.000   # of Linear Res.(N)= 3.00
00262> ----------------------  U.H. Tp(hrs)=    .330
00263>
00264>      Unit Hyd Qpeak  (cms)=     .274
00265>
00266>      PEAK FLOW       (cms)=     .027 (i)
00267>      TIME TO PEAK    (hrs)=    1.517
00268>      RUNOFF VOLUME    (mm)=    5.161
00269>      TOTAL RAINFALL   (mm)=   33.307
00270>      RUNOFF COEFFICIENT   =     .155
```

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00271>
00272>      (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
00273>
00274> ------------------------------------------------------------------------------
00275> 001:0012------------------------------------------------------------------------
00276> ----------------------
00277> | COMPUTE DUALHYD    |   Average inlet capacities   [CINLET] =    .001  (cms)
00278> | TotalHyd 01:EX-1   |   Number of inlets in system [NINLET] =       1
00279> ----------------------   Total minor system capacity          =    .001  (cms)
00280>                          Total major system storage [TMJSTO] =   99999.(cu.m.)
00281>
00282>                    ID: NHYD        AREA     QPEAK     TPEAK     R.V.      DWF
00283>                                     (ha)     (cms)     (hrs)     (mm)     (cms)
00284>      TOTAL HYD.   01:EX-1         2.37      .027     1.517    5.161     .000
00285>      ================================================================
00286>      MAJOR SYST   02:THAMES        .00      .000      .000     .000     .000
00287>      MINOR SYST   03:toDRAI       2.37      .001    43.450    5.162     .000
00288>
00289>      NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
00290>
00291>      Maximum MAJOR SYSTEM storage used =     114.(cu.m.)
00292>
00293> ------------------------------------------------------------------------------
00294> 001:0013------------------------------------------------------------------------
00295> ----------------------
00296> | CALIB NASHYD       |   Area     (ha)=     .19   Curve Number    (CN)=74.00
00297> | 01:EX-2   DT= 1.00 |   Ia       (mm)=   5.000   # of Linear Res.(N)= 3.00
00298> ----------------------   U.H. Tp(hrs)=    .090
00299>
00300>      Unit Hyd Qpeak  (cms)=     .081
00301>
00302>      PEAK FLOW       (cms)=     .006 (i)
00303>      TIME TO PEAK    (hrs)=    1.117
00304>      RUNOFF VOLUME    (mm)=    6.816
00305>      TOTAL RAINFALL   (mm)=   33.307
00306>      RUNOFF COEFFICIENT   =     .205
00307>
00308>      (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
00309>
00310> ------------------------------------------------------------------------------
00311> 001:0014------------------------------------------------------------------------
00312> ----------------------
00313> | CALIB STANDHYD     |   Area     (ha)=     .45
00314> | 04:EX-3   DT= 1.00 |   Total Imp(%)=   65.00   Dir. Conn.(%)=    1.00
00315> ----------------------
00316>                              IMPERVIOUS    PERVIOUS (i)
00317>      Surface Area     (ha)=       .29          .16
00318>      Dep. Storage     (mm)=      2.00         8.00
00319>      Average Slope     (%)=      1.00        20.00
00320>      Length            (m)=      5.00        25.00
00321>      Mannings n            =      .013         .240
00322>
00323>      Max.eff.Inten.(mm/hr)=    110.46       135.03
00324>                    over (min)      1.00         3.00
00325>      Storage Coeff.  (min)=       .41 (ii)    2.72 (ii)
00326>      Unit Hyd. Tpeak (min)=      1.00         3.00
00327>      Unit Hyd. peak  (cms)=      1.55          .40
00328>                                                        *TOTALS*
00329>      PEAK FLOW       (cms)=       .00          .04        .045 (iii)
00330>      TIME TO PEAK    (hrs)=      1.00         1.02       1.017
00331>      RUNOFF VOLUME    (mm)=     31.31        14.20       14.375
00332>      TOTAL RAINFALL   (mm)=     33.31        33.31       33.307
00333>      RUNOFF COEFFICIENT   =       .94          .43         .432
00334>
00335>        (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
00336>            CN* =  72.0    Ia = Dep. Storage  (Above)
00337>       (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
00338>            THAN THE STORAGE COEFFICIENT.
00339>      (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
00340>
00341> ------------------------------------------------------------------------------
00342> 001:0015------------------------------------------------------------------------
00343> ----------------------
00344> | CALIB NASHYD       |   Area     (ha)=    2.59   Curve Number    (CN)=67.00
00345> | 05:EX-4   DT= 1.00 |   Ia       (mm)=   8.000   # of Linear Res.(N)= 3.00
00346> ----------------------   U.H. Tp(hrs)=    .230
00347>
00348>      Unit Hyd Qpeak  (cms)=     .430
00349>
00350>      PEAK FLOW       (cms)=     .029 (i)
00351>      TIME TO PEAK    (hrs)=    1.367
00352>      RUNOFF VOLUME    (mm)=    4.258
00353>      TOTAL RAINFALL   (mm)=   33.307
00354>      RUNOFF COEFFICIENT   =     .128
00355>
00356>      (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
00357>
00358> ------------------------------------------------------------------------------
00359> 001:0016------------------------------------------------------------------------
00360> ----------------------
00361> | COMPUTE DUALHYD    |   Average inlet capacities   [CINLET] =    .001  (cms)
00362> | TotalHyd 05:EX-4   |   Number of inlets in system [NINLET] =       1
00363> ----------------------   Total minor system capacity          =    .001  (cms)
00364>                          Total major system storage [TMJSTO] =   99999.(cu.m.)
00365>
00366>                    ID: NHYD        AREA     QPEAK     TPEAK     R.V.      DWF
00367>                                     (ha)     (cms)     (hrs)     (mm)     (cms)
00368>      TOTAL HYD.   05:EX-4         2.59      .029     1.367    4.258     .000
00369>      ================================================================
00370>      MAJOR SYST   06:BANMAN        .00      .000      .000     .000     .000
00371>      MINOR SYST   07:toDRAI       2.59      .001    39.250    4.258     .000
00372>
00373>      NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
00374>
00375>      Maximum MAJOR SYSTEM storage used =     102.(cu.m.)
00376>
00377> ------------------------------------------------------------------------------
00378> 001:0017------------------------------------------------------------------------
00379> ----------------------
00380> | CALIB STANDHYD     |   Area     (ha)=    6.64
00381> | 05:C201   DT= 1.00 |   Total Imp(%)=   90.00   Dir. Conn.(%)=   80.00
00382> ----------------------
00383>                              IMPERVIOUS    PERVIOUS (i)
00384>      Surface Area     (ha)=      5.98          .66
00385>      Dep. Storage     (mm)=      2.00         5.00
00386>      Average Slope     (%)=      1.00         2.00
00387>      Length            (m)=     50.00        25.00
00388>      Mannings n            =      .013         .250
00389>
00390>      Max.eff.Inten.(mm/hr)=    110.46        36.87
00391>                    over (min)      2.00        10.00
00392>      Storage Coeff.  (min)=      1.62 (ii)    9.55 (ii)
00393>      Unit Hyd. Tpeak (min)=      2.00        10.00
00394>      Unit Hyd. peak  (cms)=       .64          .12
00395>                                                        *TOTALS*
00396>      PEAK FLOW       (cms)=      1.55          .04       1.565 (iii)
00397>      TIME TO PEAK    (hrs)=      1.00         1.18       1.000
00398>      RUNOFF VOLUME    (mm)=     31.31         8.47      26.740
00399>      TOTAL RAINFALL   (mm)=     33.31        33.31       33.307
00400>      RUNOFF COEFFICIENT   =       .94          .25         .803
00401>
00402>        (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
00403>            CN* =  61.0    Ia = Dep. Storage  (Above)
00404>       (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
00405>            THAN THE STORAGE COEFFICIENT.
00406>      (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
00407>
00408> ------------------------------------------------------------------------------
00409> 001:0018------------------------------------------------------------------------
00410> ----------------------
00411> | ADD HYD (POST      ) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
00412> ----------------------                    (ha)     (cms)   (hrs)   (mm)    (cms)
00413>                          ID1 01:EX-2        .19     .006    1.12   6.82    .000
00414>                         +ID2 03:toDRAIN    2.37     .001   43.45   5.16    .000
00415>                         +ID3 04:EX-3        .45     .045    1.02  14.38    .000
00416>                         +ID4 05:C201       6.64    1.565    1.00  26.74    .000
00417>                         +ID5 07:toDRAIN    2.59     .001   39.25   4.26    .000
00418>                          ==========================================================
00419>                          SUM 09:POST       12.24    1.610    1.00  17.04    .000
00420>
00421>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
00422>
00423> ------------------------------------------------------------------------------
00424> 001:0019------------------------------------------------------------------------
00425> ----------------------
00426> | ROUTE RESERVOIR    |    Requested routing time step =  1.0 min.
00427> |  IN>09:(POST   )   |
00428> | OUT<01:(SWMF   )   |    =========  OUTLFOW STORAGE TABLE  =========
00429> ----------------------    OUTFLOW     STORAGE   |  OUTFLOW     STORAGE
00430>                             (cms)     (ha.m.)   |    (cms)     (ha.m.)
00431>                              .000  .0000E+00    |     .079  .1497E+00
00432>                              .059  .1884E-01     |     .080  .1683E+00
00433>                              .069  .3388E-01     |     .082  .1875E+00
00434>                              .070  .4889E-01     |     .083  .2073E+00
00435>                              .072  .6439E-01     |     .085  .2276E+00
00436>                              .073  .8041E-01     |     .086  .2485E+00
00437>                              .075  .9693E-01     |     .087  .2700E+00
00438>                              .076  .1140E+00     |     .299  .4003E+00
00439>                              .078  .1316E+00     |     .000  .0000E+00
00440>
00441>      ROUTING RESULTS            AREA     QPEAK     TPEAK        R.V.
00442>      --------------------        (ha)     (cms)     (hrs)        (mm)
00443>      INFLOW >09: (POST  )       12.24     1.610     1.000      17.041
00444>      OUTFLOW<01: (SWMF  )       12.24      .078     2.083      17.041
00445>     OVERFLOW<02: (000003)         .00      .000      .000        .000
00446>
00447>                      TOTAL NUMBER OF SIMULATED OVERFLOWS  =        0
00448>                      CUMULATIVE TIME OF OVERFLOWS  (hours)=      .00
00449>                      PERCENTAGE OF TIME OVERFLOWING    (%)=      .00
00450>
00451>
00452>                      PEAK   FLOW   REDUCTION [Qout/Qin](%)=    4.843
00453>                      TIME SHIFT OF PEAK FLOW          (min)=    65.00
00454>                      MAXIMUM  STORAGE   USED        (ha.m.)=.1315E+00
00455>
00456> ------------------------------------------------------------------------------
00457> 001:0020------------------------------------------------------------------------
00458> ----------------------
00459> | DIVERT HYD       |
00460> | INID=01  (SWMF  )|
00461> ----------------------
00462>       Outflow / Inflow  Relationships
00463>       Flow 03 +  Flow 04 +  Flow 05 =  Total
00464>        (cms)      (cms)      (cms)      (cms)
00465>         .000       .000       .000       .000
00466>         .000       .059       .000       .059
00467>         .007       .061       .000       .069
00468>         .007       .063       .000       .070
00469>         .008       .064       .000       .072
00470>         .008       .065       .000       .073
00471>         .008       .066       .000       .075
00472>         .009       .068       .000       .076
00473>         .009       .069       .000       .078
00474>         .009       .070       .000       .079
00475>         .009       .071       .000       .080
00476>         .010       .072       .000       .082
00477>         .010       .073       .000       .083
00478>         .010       .074       .000       .085
00479>         .010       .075       .000       .086
00480>         .011       .077       .000       .087
00481>         .011       .078       .210       .299
00482>
00483>              NHYD       AREA    QPEAK  TpeakDate_hh:mm       R.V.  NFE WetHrs
00484>                          (ha)    (cms)                        (mm)        (hrs)
00485>    IDin = 01:SWMF       12.24     .078  No_date    2:05     17.041    1    51.
00486>    ================================================================================
00487>    IDout= 03:Infilt      1.04     .009  No_date    2:05     17.041    1     6.
00488>    IDout= 04:Orific     11.20     .069  No_date    2:05     17.041    1    51.
00489>    IDout= 05:Emerge       .00     .000  No_date    0:00       .000    0     0.
00490> ------------------------------------------------------------------------------
00491> 001:0021------------------------------------------------------------------------
00492> *#*****************************************************************************
00493> *#
00494> *#                                  5-year
00495> *#                                 ========
00496> *#
00497> *#*****************************************************************************
00498> ----------------------
00499> | CHICAGO STORM    |    IDF curve parameters: A=1330.310
00500> | Ptotal= 45.37 mm |                          B=   7.938
00501> ----------------------                       C=    .855
00502>                          used in:   INTENSITY =  A / (t + B)^C
00503>
00504>                          Duration of storm  =  3.00 hrs
00505>                          Storm time step    =  5.00 min
00506>                          Time to peak ratio =   .33
00507>
00508>              TIME    RAIN |   TIME    RAIN |   TIME    RAIN |   TIME    RAIN
00509>               hrs   mm/hr |    hrs   mm/hr |    hrs   mm/hr |    hrs   mm/hr
00510>               .08   3.038 |    .83  21.781 |   1.58  10.023 |   2.33   4.120
00511>               .17   3.356 |    .92  53.191 |   1.67   8.657 |   2.42   3.868
00512>               .25   3.752 |   1.00 149.041 |   1.75   7.613 |   2.50   3.646
00513>               .33   4.257 |   1.08  68.676 |   1.83   6.790 |   2.58   3.449
00514>               .42   4.925 |   1.17  37.777 |   1.92   6.127 |   2.67   3.273
00515>               .50   5.845 |   1.25  25.123 |   2.00   5.581 |   2.75   3.114
00516>               .58   7.190 |   1.33  18.497 |   2.08   5.125 |   2.83   2.971
00517>               .67   9.326 |   1.42  14.506 |   2.17   4.739 |   2.92   2.841
00518>               .75  13.171 |   1.50  11.874 |   2.25   4.407 |   3.00   2.722
00519>
00520> ------------------------------------------------------------------------------
00521> 001:0022------------------------------------------------------------------------
00522> *#*****************************************************************************
00523> *#                             ======================
00524> *#                              EXISTING CONDITIONS
00525> *#                             ======================
00526> *#*****************************************************************************
00527> ----------------------
00528> | CALIB NASHYD       |   Area     (ha)=    2.37   Curve Number    (CN)=72.00
00529> | 01:EX-1   DT= 1.00 |   Ia       (mm)=   8.000   # of Linear Res.(N)= 3.00
00530> ----------------------   U.H. Tp(hrs)=    .330
00531>
00532>      Unit Hyd Qpeak  (cms)=     .274
00533>
00534>      PEAK FLOW       (cms)=     .060 (i)
00535>      TIME TO PEAK    (hrs)=    1.483
00536>      RUNOFF VOLUME    (mm)=   10.255
00537>      TOTAL RAINFALL   (mm)=   45.366
00538>      RUNOFF COEFFICIENT   =     .226
00539>
00540>      (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
```

```
00541>
00542> ------------------------------------------------------------------------------
00543> 001:0023------------------------------------------------------------------------
00544> ----------------------
00545> | COMPUTE DUALHYD    |   Average inlet capacities   [CINLET] =    .001  (cms)
00546> | TotalHyd 01:EX-1   |   Number of inlets in system [NINLET] =       1
00547> ----------------------   Total minor system capacity         =    .001  (cms)
00548>                          Total major system storage [TMJSTO] =   99999.(cu.m.)
00549>
00550>                  ID: NHYD        AREA     QPEAK     TPEAK     R.V.      DWF
00551>                                   (ha)     (cms)     (hrs)     (mm)     (cms)
00552>     TOTAL HYD.   01:EX-1         2.37      .060     1.483   10.255     .000
00553>     ==========================================================================
00554>     MAJOR SYST   02:THAMES         .00      .000      .000     .000     .000
00555>     MINOR SYST   03:toDRAI        2.37      .001    85.350   10.257     .000
00556>
00557>     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
00558>
00559>     Maximum MAJOR SYSTEM storage used =     234.(cu.m.)
00560>
00561> ------------------------------------------------------------------------------
00562> 001:0024------------------------------------------------------------------------
00563> ----------------------
00564> | CALIB NASHYD       |   Area    (ha)=     .19   Curve Number    (CN)=74.00
00565> | 01:EX-2   DT= 1.00 |   Ia      (mm)=   5.000   # of Linear Res.(N)= 3.00
00566> ----------------------   U.H. Tp(hrs)=    .090
00567>
00568>     Unit Hyd Qpeak  (cms)=     .081
00569>
00570>     PEAK FLOW       (cms)=     .012 (i)
00571>     TIME TO PEAK    (hrs)=    1.117
00572>     RUNOFF VOLUME    (mm)=   12.571
00573>     TOTAL RAINFALL   (mm)=   45.366
00574>     RUNOFF COEFFICIENT   =     .277
00575>
00576>     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
00577>
00578> ------------------------------------------------------------------------------
00579> 001:0025------------------------------------------------------------------------
00580> ----------------------
00581> | CALIB STANDHYD     |   Area    (ha)=     .45
00582> | 04:EX-3   DT= 1.00 |   Total Imp(%)=   65.00   Dir. Conn.(%)=    1.00
00583> ----------------------
00584>                            IMPERVIOUS    PERVIOUS (i)
00585>     Surface Area     (ha)=        .29         .16
00586>     Dep. Storage     (mm)=       2.00        8.00
00587>     Average Slope     (%)=       1.00       20.00
00588>     Length            (m)=       5.00       25.00
00589>     Mannings n            =       .013        .240
00590>
00591>     Max.eff.Inten.(mm/hr)=     149.04      237.09
00592>                   over (min)       1.00        2.00
00593>     Storage Coeff.  (min)=        .36 (ii)    2.20 (ii)
00594>     Unit Hyd. Tpeak (min)=       1.00        2.00
00595>     Unit Hyd. peak  (cms)=       1.59         .52
00596>                                                        *TOTALS*
00597>     PEAK FLOW       (cms)=        .00         .08          .085 (iii)
00598>     TIME TO PEAK    (hrs)=        .98        1.02         1.000
00599>     RUNOFF VOLUME    (mm)=      43.37       23.36        23.560
00600>     TOTAL RAINFALL   (mm)=      45.37       45.37        45.366
00601>     RUNOFF COEFFICIENT   =        .96         .51          .519
00602>
00603>       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
00604>           CN* =  72.0    Ia = Dep. Storage  (Above)
00605>        (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
00606>             THAN THE STORAGE COEFFICIENT.
00607>     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
00608>
00609> ------------------------------------------------------------------------------
00610> 001:0026------------------------------------------------------------------------
00611> ----------------------
00612> | CALIB NASHYD       |   Area    (ha)=    2.59   Curve Number    (CN)=67.00
00613> | 05:EX-4   DT= 1.00 |   Ia      (mm)=   8.000   # of Linear Res.(N)= 3.00
00614> ----------------------   U.H. Tp(hrs)=    .230
00615>
00616>     Unit Hyd Qpeak  (cms)=     .430
00617>
00618>     PEAK FLOW       (cms)=     .067 (i)
00619>     TIME TO PEAK    (hrs)=    1.333
00620>     RUNOFF VOLUME    (mm)=    8.594
00621>     TOTAL RAINFALL   (mm)=   45.366
00622>     RUNOFF COEFFICIENT   =     .189
00623>
00624>     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
00625>
00626> ------------------------------------------------------------------------------
00627> 001:0027------------------------------------------------------------------------
00628> ----------------------
00629> | COMPUTE DUALHYD    |   Average inlet capacities   [CINLET] =    .001  (cms)
00630> | TotalHyd 05:EX-4   |   Number of inlets in system [NINLET] =       1
00631> ----------------------   Total minor system capacity         =    .001  (cms)
00632>                          Total major system storage [TMJSTO] =   99999.(cu.m.)
00633>
00634>                  ID: NHYD        AREA     QPEAK     TPEAK     R.V.      DWF
00635>                                   (ha)     (cms)     (hrs)     (mm)     (cms)
00636>     TOTAL HYD.   05:EX-4         2.59      .067     1.333    8.594     .000
00637>     ==========================================================================
00638>     MAJOR SYST   06:BANMAN         .00      .000      .000     .000     .000
00639>     MINOR SYST   07:toDRAI        2.59      .001    78.217    8.595     .000
00640>
00641>     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
00642>
00643>     Maximum MAJOR SYSTEM storage used =     214.(cu.m.)
00644>
00645> ------------------------------------------------------------------------------
00646> 001:0028------------------------------------------------------------------------
00647> ----------------------
00648> | CALIB NASHYD       |   Area    (ha)=    6.64   Curve Number    (CN)=72.00
00649> | 05:C101   DT= 1.00 |   Ia      (mm)=   8.000   # of Linear Res.(N)= 3.00
00650> ----------------------   U.H. Tp(hrs)=    .310
00651>
00652>     Unit Hyd Qpeak  (cms)=     .818
00653>
00654>     PEAK FLOW       (cms)=     .175 (i)
00655>     TIME TO PEAK    (hrs)=    1.450
00656>     RUNOFF VOLUME    (mm)=   10.255
00657>     TOTAL RAINFALL   (mm)=   45.366
00658>     RUNOFF COEFFICIENT   =     .226
00659>
00660>     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
00661>
00662> ------------------------------------------------------------------------------
00663> 001:0029------------------------------------------------------------------------
00664> ------------------------
00665> | ADD HYD (PRE       ) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
00666> ------------------------                   (ha)     (cms)   (hrs)   (mm)   (cms)
00667>                        ID1 01:EX-2          .19      .012    1.12   12.57   .000
00668>                       +ID2 03:toDRAIN      2.37      .001   85.35   10.26   .000
00669>                       +ID3 04:EX-3          .45      .085    1.00   23.56   .000
00670>                       +ID4 05:C101         6.64      .175    1.45   10.26   .000
00671>                       +ID5 07:toDRAIN      2.59      .001   78.22    8.59   .000
00672>                        ==========================================================
00673>                        SUM 08:PRE          12.24      .194    1.42   10.43   .000
00674>
00675>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
00676>
00677> ------------------------------------------------------------------------------
00678> 001:0030------------------------------------------------------------------------
00679> *##############################################################################
00680> *#                          ====================
00681> *#                           PROSPOSED CONDITIONS
00682> *#                          ====================
00683> *##############################################################################
00684> ----------------------
00685> | CALIB NASHYD       |   Area    (ha)=    2.37   Curve Number    (CN)=72.00
00686> | 01:EX-1   DT= 1.00 |   Ia      (mm)=   8.000   # of Linear Res.(N)= 3.00
00687> ----------------------   U.H. Tp(hrs)=    .330
00688>
00689>     Unit Hyd Qpeak  (cms)=     .274
00690>
00691>     PEAK FLOW       (cms)=     .060 (i)
00692>     TIME TO PEAK    (hrs)=    1.483
00693>     RUNOFF VOLUME    (mm)=   10.255
00694>     TOTAL RAINFALL   (mm)=   45.366
00695>     RUNOFF COEFFICIENT   =     .226
00696>
00697>     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
00698>
00699> ------------------------------------------------------------------------------
00700> 001:0031------------------------------------------------------------------------
00701> ----------------------
00702> | COMPUTE DUALHYD    |   Average inlet capacities   [CINLET] =    .001  (cms)
00703> | TotalHyd 01:EX-1   |   Number of inlets in system [NINLET] =       1
00704> ----------------------   Total minor system capacity         =    .001  (cms)
00705>                          Total major system storage [TMJSTO] =   99999.(cu.m.)
00706>
00707>                  ID: NHYD        AREA     QPEAK     TPEAK     R.V.      DWF
00708>                                   (ha)     (cms)     (hrs)     (mm)     (cms)
00709>     TOTAL HYD.   01:EX-1         2.37      .060     1.483   10.255     .000
00710>     ==========================================================================
00711>     MAJOR SYST   02:THAMES         .00      .000      .000     .000     .000
00712>     MINOR SYST   03:toDRAI        2.37      .001    85.350   10.257     .000
00713>
00714>     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
00715>
00716>     Maximum MAJOR SYSTEM storage used =     234.(cu.m.)
00717>
00718> ------------------------------------------------------------------------------
00719> 001:0032------------------------------------------------------------------------
00720> ----------------------
00721> | CALIB NASHYD       |   Area    (ha)=     .19   Curve Number    (CN)=74.00
00722> | 01:EX-2   DT= 1.00 |   Ia      (mm)=   5.000   # of Linear Res.(N)= 3.00
00723> ----------------------   U.H. Tp(hrs)=    .090
00724>
00725>     Unit Hyd Qpeak  (cms)=     .081
00726>
00727>     PEAK FLOW       (cms)=     .012 (i)
00728>     TIME TO PEAK    (hrs)=    1.117
00729>     RUNOFF VOLUME    (mm)=   12.571
00730>     TOTAL RAINFALL   (mm)=   45.366
00731>     RUNOFF COEFFICIENT   =     .277
00732>
00733>     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
00734>
00735> ------------------------------------------------------------------------------
00736> 001:0033------------------------------------------------------------------------
00737> ----------------------
00738> | CALIB STANDHYD     |   Area    (ha)=     .45
00739> | 04:EX-3   DT= 1.00 |   Total Imp(%)=   65.00   Dir. Conn.(%)=    1.00
00740> ----------------------
00741>                            IMPERVIOUS    PERVIOUS (i)
00742>     Surface Area     (ha)=        .29         .16
00743>     Dep. Storage     (mm)=       2.00        8.00
00744>     Average Slope     (%)=       1.00       20.00
00745>     Length            (m)=       5.00       25.00
00746>     Mannings n            =       .013        .240
00747>
00748>     Max.eff.Inten.(mm/hr)=     149.04      237.09
00749>                   over (min)       1.00        2.00
00750>     Storage Coeff.  (min)=        .36 (ii)    2.20 (ii)
00751>     Unit Hyd. Tpeak (min)=       1.00        2.00
00752>     Unit Hyd. peak  (cms)=       1.59         .52
00753>                                                        *TOTALS*
00754>     PEAK FLOW       (cms)=        .00         .08          .085 (iii)
00755>     TIME TO PEAK    (hrs)=        .98        1.02         1.000
00756>     RUNOFF VOLUME    (mm)=      43.37       23.36        23.560
00757>     TOTAL RAINFALL   (mm)=      45.37       45.37        45.366
00758>     RUNOFF COEFFICIENT   =        .96         .51          .519
00759>
00760>       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
00761>           CN* =  72.0    Ia = Dep. Storage  (Above)
00762>        (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
00763>             THAN THE STORAGE COEFFICIENT.
00764>     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
00765>
00766> ------------------------------------------------------------------------------
00767> 001:0034------------------------------------------------------------------------
00768> ----------------------
00769> | CALIB NASHYD       |   Area    (ha)=    2.59   Curve Number    (CN)=67.00
00770> | 05:EX-4   DT= 1.00 |   Ia      (mm)=   8.000   # of Linear Res.(N)= 3.00
00771> ----------------------   U.H. Tp(hrs)=    .230
00772>
00773>     Unit Hyd Qpeak  (cms)=     .430
00774>
00775>     PEAK FLOW       (cms)=     .067 (i)
00776>     TIME TO PEAK    (hrs)=    1.333
00777>     RUNOFF VOLUME    (mm)=    8.594
00778>     TOTAL RAINFALL   (mm)=   45.366
00779>     RUNOFF COEFFICIENT   =     .189
00780>
00781>     (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
00782>
00783> ------------------------------------------------------------------------------
00784> 001:0035------------------------------------------------------------------------
00785> ----------------------
00786> | COMPUTE DUALHYD    |   Average inlet capacities   [CINLET] =    .001  (cms)
00787> | TotalHyd 05:EX-4   |   Number of inlets in system [NINLET] =       1
00788> ----------------------   Total minor system capacity         =    .001  (cms)
00789>                          Total major system storage [TMJSTO] =   99999.(cu.m.)
00790>
00791>                  ID: NHYD        AREA     QPEAK     TPEAK     R.V.      DWF
00792>                                   (ha)     (cms)     (hrs)     (mm)     (cms)
00793>     TOTAL HYD.   05:EX-4         2.59      .067     1.333    8.594     .000
00794>     ==========================================================================
00795>     MAJOR SYST   06:BANMAN         .00      .000      .000     .000     .000
00796>     MINOR SYST   07:toDRAI        2.59      .001    78.217    8.595     .000
00797>
00798>     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
00799>
00800>     Maximum MAJOR SYSTEM storage used =     214.(cu.m.)
00801>
00802> ------------------------------------------------------------------------------
00803> 001:0036------------------------------------------------------------------------
00804> ----------------------
00805> | CALIB STANDHYD     |   Area    (ha)=    6.64
00806> | 05:C201   DT= 1.00 |   Total Imp(%)=   90.00   Dir. Conn.(%)=   80.00
00807> ----------------------
00808>                            IMPERVIOUS    PERVIOUS (i)
00809>     Surface Area     (ha)=       5.98         .66
00810>     Dep. Storage     (mm)=       2.00        5.00
```

```
00811>      Average Slope     (%)=       1.00        2.00
00812>      Length            (m)=      50.00       25.00
00813>      Mannings n          =       .013        .250
00814>
00815>      Max.eff.Inten.(mm/hr)=     149.04       73.97
00816>                    over (min)       1.00        7.00
00817>      Storage Coeff.  (min)=       1.44 (ii)   7.44 (ii)
00818>      Unit Hyd. Tpeak (min)=       1.00        7.00
00819>      Unit Hyd. peak  (cms)=        .85         .16
00820>                                                          *TOTALS*
00821>      PEAK FLOW       (cms)=       2.16         .09        2.194 (iii)
00822>      TIME TO PEAK    (hrs)=       1.00        1.12        1.000
00823>      RUNOFF VOLUME    (mm)=      43.37       14.81       37.655
00824>      TOTAL RAINFALL   (mm)=      45.37       45.37       45.366
00825>      RUNOFF COEFFICIENT   =        .96         .33         .830
00826>
00827>        (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
00828>            CN* =  61.0    Ia = Dep. Storage  (Above)
00829>       (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
00830>            THAN THE STORAGE COEFFICIENT.
00831>      (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
00832>
00833> ------------------------------------------------------------------------------
00834> 001:0037------------------------------------------------------------------------
00835> ----------------------
00836> | ADD HYD (POST      ) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
00837> ----------------------                   (ha)     (cms)   (hrs)   (mm)   (cms)
00838>                         ID1 01:EX-2         .19      .012    1.12  12.57    .000
00839>                        +ID2 03:toDRAIN     2.37      .001   85.35  10.26    .000
00840>                        +ID3 04:EX-3         .45      .085    1.00  23.56    .000
00841>                        +ID4 05:C201        6.64     2.194    1.00  37.66    .000
00842>                        +ID5 07:toDRAIN     2.59      .001   78.22   8.59    .000
00843>                         ==========================================================
00844>                         SUM 09:POST        12.24     2.287    1.00  25.29    .000
00845>
00846>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
00847>
00848> ------------------------------------------------------------------------------
00849> 001:0038------------------------------------------------------------------------
00850> ----------------------
00851> | ROUTE RESERVOIR   |    Requested routing time step =  1.0 min.
00852> |  IN>09:(POST  )   |
00853> | OUT<01:(SWMF  )   |    =========  OUTLFOW STORAGE TABLE  =========
00854> ----------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
00855>                             (cms)    (ha.m.)   |    (cms)    (ha.m.)
00856>                              .000  .0000E+00    |     .079  .1497E+00
00857>                              .059  .1884E-01    |     .080  .1683E+00
00858>                              .069  .3388E-01    |     .082  .1875E+00
00859>                              .070  .4889E-01    |     .083  .2073E+00
00860>                              .072  .6439E-01    |     .085  .2276E+00
00861>                              .073  .8041E-01    |     .086  .2485E+00
00862>                              .075  .9693E-01    |     .087  .2700E+00
00863>                              .076  .1140E+00    |     .299  .4003E+00
00864>                              .078  .1316E+00    |     .000  .0000E+00
00865>
00866>      ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
00867>      ----------------------      (ha)     (cms)     (hrs)       (mm)
00868>      INFLOW >09: (POST  )      12.24     2.287     1.000     25.294
00869>      OUTFLOW<01: (SWMF  )      12.24      .083     2.250     25.294
00870>     OVERFLOW<02: (000003)        .00      .000      .000       .000
00871>
00872>                    TOTAL NUMBER OF SIMULATED OVERFLOWS  =       0
00873>                    CUMULATIVE TIME OF OVERFLOWS  (hours)=      .00
00874>                    PERCENTAGE OF TIME OVERFLOWING    (%)=      .00
00875>
00876>
00877>                    PEAK   FLOW   REDUCTION [Qout/Qin](%)=    3.620
00878>                    TIME SHIFT OF PEAK FLOW          (min)=    75.00
00879>                    MAXIMUM  STORAGE   USED       (ha.m.)=.2028E+00
00880>
00881> ------------------------------------------------------------------------------
00882> 001:0039------------------------------------------------------------------------
00883> --------------------
00884> | DIVERT HYD      |
00885> | INID=01  (SWMF  )|
00886> --------------------
00887>       Outflow / Inflow  Relationships
00888>       Flow 03 +  Flow 04 +  Flow 05 =  Total
00889>         (cms)      (cms)      (cms)      (cms)
00890>           .000       .000       .000       .000
00891>           .000       .059       .000       .059
00892>           .007       .061       .000       .069
00893>           .007       .063       .000       .070
00894>           .008       .064       .000       .072
00895>           .008       .065       .000       .073
00896>           .008       .066       .000       .075
00897>           .009       .068       .000       .076
00898>           .009       .069       .000       .078
00899>           .009       .070       .000       .079
00900>           .009       .071       .000       .080
00901>           .010       .072       .000       .082
00902>           .010       .073       .000       .083
00903>           .010       .074       .000       .085
00904>           .010       .075       .000       .086
00905>           .011       .077       .000       .087
00906>           .011       .078       .210       .299
00907>
00908>               NHYD       AREA     QPEAK  TpeakDate_hh:mm       R.V.  NFE WetHrs
00909>                           (ha)     (cms)                         (mm)       (hrs)
00910>     IDin = 01:SWMF       12.24      .083  No_date    2:15     25.294    1    93.
00911>     ==========================================================================
00912>     IDout= 03:Infilt      1.07      .010  No_date    2:15     25.294    1     9.
00913>     IDout= 04:Orific     11.16      .073  No_date    2:15     25.294    1    93.
00914>     IDout= 05:Emerge       .00      .000  No_date    0:00       .000    0     0.
00915> ------------------------------------------------------------------------------
00916> 001:0040------------------------------------------------------------------------
00917> *#*****************************************************************************
00918> *#
00919> *#                                    10-year
00920> *#                                   =========
00921> *#
00922> *#*****************************************************************************
00923> --------------------
00924> | CHICAGO STORM    |    IDF curve parameters: A=1497.190
00925> | Ptotal= 52.59 mm |                          B=   7.188
00926> --------------------                          C=    .850
00927>                          used in:   INTENSITY =  A / (t + B)^C
00928>
00929>                          Duration of storm  =  3.00 hrs
00930>                          Storm time step    =  5.00 min
00931>                          Time to peak ratio =   .33
00932>
00933>               TIME    RAIN |   TIME    RAIN |   TIME    RAIN |   TIME    RAIN
00934>                hrs   mm/hr |    hrs   mm/hr |    hrs   mm/hr |    hrs   mm/hr
00935>                .08   3.544 |    .83  24.635 |   1.58  11.418 |   2.33   4.775
00936>                .17   3.907 |    .92  60.893 |   1.67   9.886 |   2.42   4.490
00937>                .25   4.357 |   1.00 178.745 |   1.75   8.714 |   2.50   4.237
00938>                .33   4.931 |   1.08  79.026 |   1.83   7.789 |   2.58   4.013
00939>                .42   5.686 |   1.17  42.842 |   1.92   7.043 |   2.67   3.812
00940>                .50   6.725 |   1.25  28.407 |   2.00   6.428 |   2.75   3.631
00941>                .58   8.239 |   1.33  20.928 |   2.08   5.913 |   2.83   3.467
00942>                .67  10.636 |   1.42  16.445 |   2.17   5.476 |   2.92   3.318
00943>                .75  14.947 |   1.50  13.493 |   2.25   5.101 |   3.00   3.182
00944>
00945> ------------------------------------------------------------------------------
00946> 001:0041------------------------------------------------------------------------
00947> *#*****************************************************************************
00948> *#                              ====================
00949> *#                               EXISTING CONDITIONS
00950> *#                              ====================
00951> *#*****************************************************************************
00952> ----------------------
00953> | CALIB NASHYD       |   Area    (ha)=    2.37   Curve Number   (CN)=72.00
00954> | 01:EX-1   DT= 1.00 |   Ia      (mm)=   8.000   # of Linear Res.(N)= 3.00
00955> ----------------------   U.H. Tp(hrs)=    .330
00956>
00957>      Unit Hyd Qpeak  (cms)=     .274
00958>
00959>      PEAK FLOW       (cms)=     .083 (i)
00960>      TIME TO PEAK    (hrs)=    1.467
00961>      RUNOFF VOLUME    (mm)=   13.868
00962>      TOTAL RAINFALL   (mm)=   52.590
00963>      RUNOFF COEFFICIENT   =     .264
00964>
00965>      (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
00966>
00967> ------------------------------------------------------------------------------
00968> 001:0042------------------------------------------------------------------------
00969> ----------------------
00970> | COMPUTE DUALHYD    |   Average inlet capacities   [CINLET] =    .001  (cms)
00971> | TotalHyd 01:EX-1   |   Number of inlets in system [NINLET] =       1
00972> ----------------------   Total minor system capacity         =    .001  (cms)
00973>                          Total major system storage [TMJSTO] =   99999.(cu.m.)
00974>
00975>                    ID: NHYD        AREA     QPEAK     TPEAK     R.V.      DWF
00976>                                     (ha)     (cms)     (hrs)     (mm)     (cms)
00977>     TOTAL HYD.   01:EX-1           2.37      .083     1.467   13.868     .000
00978>     ==========================================================================
00979>     MAJOR SYST   02:THAMES          .00      .000      .000     .000     .000
00980>     MINOR SYST   03:toDRAI         2.37      .001   115.050   13.867     .000
00981>
00982>     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
00983>
00984>     Maximum MAJOR SYSTEM storage used =     319.(cu.m.)
00985>
00986> ------------------------------------------------------------------------------
00987> 001:0043------------------------------------------------------------------------
00988> ----------------------
00989> | CALIB NASHYD       |   Area    (ha)=     .19   Curve Number   (CN)=74.00
00990> | 01:EX-2   DT= 1.00 |   Ia      (mm)=   5.000   # of Linear Res.(N)= 3.00
00991> ----------------------   U.H. Tp(hrs)=    .090
00992>
00993>      Unit Hyd Qpeak  (cms)=     .081
00994>
00995>      PEAK FLOW       (cms)=     .017 (i)
00996>      TIME TO PEAK    (hrs)=    1.100
00997>      RUNOFF VOLUME    (mm)=   16.551
00998>      TOTAL RAINFALL   (mm)=   52.590
00999>      RUNOFF COEFFICIENT   =     .315
01000>
01001>      (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
01002>
01003> ------------------------------------------------------------------------------
01004> 001:0044------------------------------------------------------------------------
01005> ----------------------
01006> | CALIB STANDHYD     |   Area    (ha)=     .45
01007> | 04:EX-3   DT= 1.00 |   Total Imp(%)=   65.00   Dir. Conn.(%)=    1.00
01008> ----------------------
01009>                                IMPERVIOUS     PERVIOUS (i)
01010>      Surface Area      (ha)=        .29          .16
01011>      Dep. Storage      (mm)=       2.00         8.00
01012>      Average Slope      (%)=       1.00        20.00
01013>      Length             (m)=       5.00        25.00
01014>      Mannings n            =        .013         .240
01015>
01016>      Max.eff.Inten.(mm/hr)=     178.75       311.11
01017>                    over (min)       1.00         2.00
01018>      Storage Coeff.  (min)=        .34 (ii)    1.99 (ii)
01019>      Unit Hyd. Tpeak (min)=       1.00         2.00
01020>      Unit Hyd. peak  (cms)=       1.61          .56
01021>                                                          *TOTALS*
01022>      PEAK FLOW       (cms)=        .00          .11          .116 (iii)
01023>      TIME TO PEAK    (hrs)=        .98         1.00         1.000
01024>      RUNOFF VOLUME    (mm)=      50.59        29.24        29.454
01025>      TOTAL RAINFALL   (mm)=      52.59        52.59        52.590
01026>      RUNOFF COEFFICIENT   =        .96          .56          .560
01027>
01028>        (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
01029>            CN* =  72.0    Ia = Dep. Storage  (Above)
01030>       (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
01031>            THAN THE STORAGE COEFFICIENT.
01032>      (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
01033>
01034> ------------------------------------------------------------------------------
01035> 001:0045------------------------------------------------------------------------
01036> ----------------------
01037> | CALIB NASHYD       |   Area    (ha)=    2.59   Curve Number   (CN)=67.00
01038> | 05:EX-4   DT= 1.00 |   Ia      (mm)=   8.000   # of Linear Res.(N)= 3.00
01039> ----------------------   U.H. Tp(hrs)=    .230
01040>
01041>      Unit Hyd Qpeak  (cms)=     .430
01042>
01043>      PEAK FLOW       (cms)=     .094 (i)
01044>      TIME TO PEAK    (hrs)=    1.317
01045>      RUNOFF VOLUME    (mm)=   11.717
01046>      TOTAL RAINFALL   (mm)=   52.590
01047>      RUNOFF COEFFICIENT   =     .223
01048>
01049>      (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
01050>
01051> ------------------------------------------------------------------------------
01052> 001:0046------------------------------------------------------------------------
01053> ----------------------
01054> | COMPUTE DUALHYD    |   Average inlet capacities   [CINLET] =    .001  (cms)
01055> | TotalHyd 05:EX-4   |   Number of inlets in system [NINLET] =       1
01056> ----------------------   Total minor system capacity         =    .001  (cms)
01057>                          Total major system storage [TMJSTO] =   99999.(cu.m.)
01058>
01059>                    ID: NHYD        AREA     QPEAK     TPEAK     R.V.      DWF
01060>                                     (ha)     (cms)     (hrs)     (mm)     (cms)
01061>     TOTAL HYD.   05:EX-4           2.59      .094     1.317   11.717     .000
01062>     ==========================================================================
01063>     MAJOR SYST   06:BANMAN          .00      .000      .000     .000     .000
01064>     MINOR SYST   07:toDRAI         2.59      .001   106.283   11.717     .000
01065>
01066>     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
01067>
01068>     Maximum MAJOR SYSTEM storage used =     295.(cu.m.)
01069>
01070> ------------------------------------------------------------------------------
01071> 001:0047------------------------------------------------------------------------
01072> ----------------------
01073> | CALIB NASHYD       |   Area    (ha)=    6.64   Curve Number   (CN)=72.00
01074> | 05:C101   DT= 1.00 |   Ia      (mm)=   8.000   # of Linear Res.(N)= 3.00
01075> ----------------------   U.H. Tp(hrs)=    .310
01076>
01077>      Unit Hyd Qpeak  (cms)=     .818
01078>
01079>      PEAK FLOW       (cms)=     .242 (i)
01080>      TIME TO PEAK    (hrs)=    1.433
```

```
      RUNOFF VOLUME     (mm)=   13.868
      TOTAL RAINFALL    (mm)=   52.590
      RUNOFF COEFFICIENT   =     .264

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

001:0048

ADD HYD (PRE)	ID: NHYD	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	DWF (cms)
	ID1 01:EX-2	.19	.017	1.10	16.55	.000
	+ID2 03:toDRAIN	2.37	.001	115.05	13.87	.000
	+ID3 04:EX-3	.45	.116	1.00	29.45	.000
	+ID4 05:C101	6.64	.242	1.43	13.87	.000
	+ID5 07:toDRAIN	2.59	.001	106.28	11.72	.000
	SUM 08:PRE	12.24	.266	1.42	14.03	.000

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

001:0049

```
*#                              ====================
*#                               PROSPOSED CONDITIONS
*#                              ====================
```

CALIB NASHYD	Area (ha)= 2.37	Curve Number (CN)=72.00
01:EX-1 DT= 1.00	Ia (mm)= 8.000	# of Linear Res.(N)= 3.00
	U.H. Tp(hrs)= .330	

```
      Unit Hyd Qpeak  (cms)=     .274

      PEAK FLOW       (cms)=     .083 (i)
      TIME TO PEAK    (hrs)=    1.467
      RUNOFF VOLUME    (mm)=   13.868
      TOTAL RAINFALL   (mm)=   52.590
      RUNOFF COEFFICIENT   =     .264

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

001:0050

COMPUTE DUALHYD	Average inlet capacities [CINLET] = .001 (cms)
TotalHyd 01:EX-1	Number of inlets in system [NINLET] = 1
	Total minor system capacity = .001 (cms)
	Total major system storage [TMJSTO] = 99999.(cu.m.)

	ID: NHYD	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	DWF (cms)
TOTAL HYD.	01:EX-1	2.37	.083	1.467	13.868	.000
MAJOR SYST	02:THAMES	.00	.000	.000	.000	.000
MINOR SYST	03:toDRAI	2.37	.001	115.050	13.867	.000

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

      Maximum MAJOR SYSTEM storage used =     319.(cu.m.)
```

001:0051

CALIB NASHYD	Area (ha)= .19	Curve Number (CN)=74.00
01:EX-2 DT= 1.00	Ia (mm)= 5.000	# of Linear Res.(N)= 3.00
	U.H. Tp(hrs)= .090	

```
      Unit Hyd Qpeak  (cms)=     .081

      PEAK FLOW       (cms)=     .017 (i)
      TIME TO PEAK    (hrs)=    1.100
      RUNOFF VOLUME    (mm)=   16.551
      TOTAL RAINFALL   (mm)=   52.590
      RUNOFF COEFFICIENT   =     .315

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

001:0052

CALIB STANDHYD	Area (ha)= .45	
04:EX-3 DT= 1.00	Total Imp(%)= 65.00	Dir. Conn.(%)= 1.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	.29	.16
Dep. Storage (mm)=	2.00	8.00
Average Slope (%)=	1.00	20.00
Length (m)=	5.00	25.00
Mannings n =	.013	.240

			TOTALS
Max.eff.Inten.(mm/hr)=	178.75	311.11	
over (min)	1.00	2.00	
Storage Coeff. (min)=	.34 (ii)	1.99 (ii)	
Unit Hyd. Tpeak (min)=	1.00	2.00	
Unit Hyd. peak (cms)=	1.61	.56	
PEAK FLOW (cms)=	.00	.11	.116 (iii)
TIME TO PEAK (hrs)=	.98	1.00	1.000
RUNOFF VOLUME (mm)=	50.59	29.24	29.454
TOTAL RAINFALL (mm)=	52.59	52.59	52.590
RUNOFF COEFFICIENT =	.96	.56	.560

```
        (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
            CN* =  72.0    Ia = Dep. Storage  (Above)
       (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
            THAN THE STORAGE COEFFICIENT.
      (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
```

001:0053

CALIB NASHYD	Area (ha)= 2.59	Curve Number (CN)=67.00
05:EX-4 DT= 1.00	Ia (mm)= 8.000	# of Linear Res.(N)= 3.00
	U.H. Tp(hrs)= .230	

```
      Unit Hyd Qpeak  (cms)=     .430

      PEAK FLOW       (cms)=     .094 (i)
      TIME TO PEAK    (hrs)=    1.317
      RUNOFF VOLUME    (mm)=   11.717
      TOTAL RAINFALL   (mm)=   52.590
      RUNOFF COEFFICIENT   =     .223

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

001:0054

CALIB NASHYD	Average inlet capacities [CINLET] = .001 (cms)
TotalHyd 05:EX-4	Number of inlets in system [NINLET] = 1
	Total minor system capacity = .001 (cms)
	Total major system storage [TMJSTO] = 99999.(cu.m.)

	ID: NHYD	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	DWF (cms)
TOTAL HYD.	05:EX-4	2.59	.094	1.317	11.717	.000
MAJOR SYST	06:BANMAN	.00	.000	.000	.000	.000
MINOR SYST	07:toDRAI	2.59	.001	106.283	11.717	.000

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

      Maximum MAJOR SYSTEM storage used =     295.(cu.m.)
```

001:0055

CALIB STANDHYD	Area (ha)= 6.64	
05:C201 DT= 1.00	Total Imp(%)= 90.00	Dir. Conn.(%)= 80.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	5.98	.66
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	50.00	25.00
Mannings n =	.013	.250

			TOTALS
Max.eff.Inten.(mm/hr)=	178.75	100.19	
over (min)	1.00	7.00	
Storage Coeff. (min)=	1.34 (ii)	6.66 (ii)	
Unit Hyd. Tpeak (min)=	1.00	7.00	
Unit Hyd. peak (cms)=	.90	.17	
PEAK FLOW (cms)=	2.60	.13	2.653 (iii)
TIME TO PEAK (hrs)=	1.00	1.10	1.000
RUNOFF VOLUME (mm)=	50.59	19.11	44.294
TOTAL RAINFALL (mm)=	52.59	52.59	52.590
RUNOFF COEFFICIENT =	.96	.36	.842

```
        (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
            CN* =  61.0    Ia = Dep. Storage  (Above)
       (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
            THAN THE STORAGE COEFFICIENT.
      (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
```

001:0056

ADD HYD (POST)	ID: NHYD	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	DWF (cms)
	ID1 01:EX-2	.19	.017	1.10	16.55	.000
	+ID2 03:toDRAIN	2.37	.001	115.05	13.87	.000
	+ID3 04:EX-3	.45	.116	1.00	29.45	.000
	+ID4 05:C201	6.64	2.653	1.00	44.29	.000
	+ID5 07:toDRAIN	2.59	.001	106.28	11.72	.000
	SUM 09:POST	12.24	2.779	1.00	30.53	.000

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

001:0057

ROUTE RESERVOIR	Requested routing time step = 1.0 min.
IN>09:(POST)	
OUT<01:(SWMF)	========= OUTFLOW STORAGE TABLE =========

OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
.000	.0000E+00	.079	.1497E+00
.059	.1884E-01	.080	.1683E+00
.069	.3388E-01	.082	.1875E+00
.070	.4889E-01	.083	.2073E+00
.072	.6439E-01	.085	.2276E+00
.073	.8041E-01	.086	.2485E+00
.075	.9693E-01	.087	.2700E+00
.076	.1140E+00	.299	.4003E+00
.078	.1316E+00	.000	.0000E+00

ROUTING RESULTS	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW >09: (POST)	12.24	2.779	1.000	30.531
OUTFLOW<01: (SWMF)	12.24	.086	2.383	30.531
OVERFLOW<02: (000003)	.00	.000	.000	.000

```
                    TOTAL NUMBER OF SIMULATED OVERFLOWS  =        0
                    CUMULATIVE TIME OF OVERFLOWS  (hours)=       .00
                    PERCENTAGE OF TIME OVERFLOWING    (%)=       .00

                    PEAK   FLOW   REDUCTION [Qout/Qin](%)=    3.089
                    TIME SHIFT OF PEAK FLOW          (min)=    83.00
                    MAXIMUM  STORAGE   USED       (ha.m.)=.2452E+00
```

001:0058

DIVERT HYD	
INID=01 (SWMF)	

```
      Outflow / Inflow  Relationships
      Flow 03 +  Flow 04 +  Flow 05 =  Total
       (cms)      (cms)      (cms)      (cms)
         .000       .000       .000       .000
         .000       .059       .000       .059
         .007       .061       .000       .069
         .007       .063       .000       .070
         .008       .064       .000       .072
         .008       .065       .000       .073
         .008       .066       .000       .075
         .009       .068       .000       .076
         .009       .069       .000       .078
         .009       .070       .000       .079
         .009       .071       .000       .080
         .010       .072       .000       .082
         .010       .073       .000       .083
         .010       .074       .000       .085
         .010       .075       .000       .086
         .011       .077       .000       .087
         .011       .078       .210       .299
```

	NHYD	AREA (ha)	QPEAK (cms)	TpeakDate_hh:mm	R.V. (mm)	NFE	WetHrs (hrs)
IDin =	01:SWMF	12.24	.086	No_date 2:23	30.531	1	123.
IDout=	03:Infilt	1.07	.010	No_date 2:23	30.531	1	11.
IDout=	04:Orific	11.14	.075	No_date 2:23	30.531	1	123.
IDout=	05:Emerge	.00	.000	No_date 0:00	.000	0	0.

001:0059

```
*#                                  25-year
*#                                 =========
```

CHICAGO STORM	IDF curve parameters: A=1455.000
Ptotal= 60.37 mm	B= 5.000

```
                                                C=    .820
                        used in:   INTENSITY =  A / (t + B)^C

                        Duration of storm  =  3.00 hrs
                        Storm time step    =  5.00 min
                        Time to peak ratio =   .33

              TIME    RAIN |   TIME    RAIN |   TIME    RAIN |   TIME    RAIN
               hrs   mm/hr |    hrs   mm/hr |    hrs   mm/hr |    hrs   mm/hr
               .08   4.464 |    .83  26.338 |   1.58  12.906 |   2.33   5.854
               .17   4.878 |    .92  65.076 |   1.67  11.320 |   2.42   5.536
               .25   5.387 |   1.00 220.223 |   1.75  10.095 |   2.50   5.253
               .33   6.027 |   1.08  85.162 |   1.83   9.119 |   2.58   4.999
               .42   6.858 |   1.17  45.078 |   1.92   8.324 |   2.67   4.771
               .50   7.983 |   1.25  30.164 |   2.00   7.664 |   2.75   4.564
               .58   9.594 |   1.33  22.579 |   2.08   7.106 |   2.83   4.376
               .67  12.097 |   1.42  18.039 |   2.17   6.629 |   2.92   4.204
               .75  16.515 |   1.50  15.035 |   2.25   6.216 |   3.00   4.046

001:0060--------------------------------------------------------------------------------
*#*****************************************************************************
*#                          ====================
*#                           EXISTING CONDITIONS
*#                          ====================
*#*****************************************************************************
----------------------
| CALIB NASHYD       |   Area    (ha)=    2.37   Curve Number   (CN)=72.00
| 01:EX-1   DT= 1.00 |   Ia      (mm)=   8.000   # of Linear Res.(N)= 3.00
----------------------   U.H. Tp(hrs)=    .330

     Unit Hyd Qpeak  (cms)=     .274

     PEAK FLOW       (cms)=     .109 (i)
     TIME TO PEAK    (hrs)=    1.433
     RUNOFF VOLUME    (mm)=   18.147
     TOTAL RAINFALL   (mm)=   60.373
     RUNOFF COEFFICIENT   =     .301

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

001:0061--------------------------------------------------------------------------------
----------------------
| COMPUTE DUALHYD    |   Average inlet capacities   [CINLET] =    .001  (cms)
| TotalHyd 01:EX-1   |   Number of inlets in system [NINLET] =       1
----------------------   Total minor system capacity          =    .001  (cms)
                         Total major system storage [TMJSTO] =   99999.(cu.m.)

                    ID: NHYD        AREA     QPEAK     TPEAK     R.V.      DWF
                                     (ha)     (cms)     (hrs)     (mm)     (cms)
     TOTAL HYD.   01:EX-1          2.37      .109     1.433   18.147     .000
     ==========================================================================
     MAJOR SYST   02:THAMES         .00      .000      .000     .000     .000
     MINOR SYST   03:toDRAI        2.37      .001   150.250   18.146     .000

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

     Maximum MAJOR SYSTEM storage used =     421.(cu.m.)

001:0062--------------------------------------------------------------------------------
----------------------
| CALIB NASHYD       |   Area    (ha)=     .19   Curve Number   (CN)=74.00
| 01:EX-2   DT= 1.00 |   Ia      (mm)=   5.000   # of Linear Res.(N)= 3.00
----------------------   U.H. Tp(hrs)=    .090

     Unit Hyd Qpeak  (cms)=     .081

     PEAK FLOW       (cms)=     .023 (i)
     TIME TO PEAK    (hrs)=    1.100
     RUNOFF VOLUME    (mm)=   21.201
     TOTAL RAINFALL   (mm)=   60.373
     RUNOFF COEFFICIENT   =     .351

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

001:0063--------------------------------------------------------------------------------
----------------------
| CALIB STANDHYD     |   Area    (ha)=     .45
| 04:EX-3   DT= 1.00 |   Total Imp(%)=   65.00   Dir. Conn.(%)=    1.00
----------------------

                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=        .29          .16
     Dep. Storage     (mm)=       2.00         8.00
     Average Slope     (%)=       1.00        20.00
     Length            (m)=       5.00        25.00
     Mannings n           =       .013         .240

     Max.eff.Inten.(mm/hr)=     220.22       414.90
               over (min)          1.00         2.00
     Storage Coeff.  (min)=       .31 (ii)    1.78 (ii)
     Unit Hyd. Tpeak (min)=      1.00         2.00
     Unit Hyd. peak  (cms)=      1.63          .60
                                                        *TOTALS*
     PEAK FLOW       (cms)=       .00          .16          .159 (iii)
     TIME TO PEAK    (hrs)=       .98         1.00         1.000
     RUNOFF VOLUME    (mm)=     58.37        35.81        36.038
     TOTAL RAINFALL   (mm)=     60.37        60.37        60.373
     RUNOFF COEFFICIENT   =       .97          .59          .597

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  72.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

001:0064--------------------------------------------------------------------------------
----------------------
| CALIB NASHYD       |   Area    (ha)=    2.59   Curve Number   (CN)=67.00
| 05:EX-4   DT= 1.00 |   Ia      (mm)=   8.000   # of Linear Res.(N)= 3.00
----------------------   U.H. Tp(hrs)=    .230

     Unit Hyd Qpeak  (cms)=     .430

     PEAK FLOW       (cms)=     .126 (i)
     TIME TO PEAK    (hrs)=    1.300
     RUNOFF VOLUME    (mm)=   15.455
     TOTAL RAINFALL   (mm)=   60.373
     RUNOFF COEFFICIENT   =     .256

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

001:0065--------------------------------------------------------------------------------
----------------------
| COMPUTE DUALHYD    |   Average inlet capacities   [CINLET] =    .001  (cms)
| TotalHyd 05:EX-4   |   Number of inlets in system [NINLET] =       1
----------------------   Total minor system capacity          =    .001  (cms)
                         Total major system storage [TMJSTO] =   99999.(cu.m.)

                    ID: NHYD        AREA     QPEAK     TPEAK     R.V.      DWF
                                     (ha)     (cms)     (hrs)     (mm)     (cms)
     TOTAL HYD.   05:EX-4          2.59      .126     1.300   15.455     .000
     ==========================================================================
     MAJOR SYST   06:BANMAN         .00      .000      .000     .000     .000
     MINOR SYST   07:toDRAI        2.59      .001   139.883   15.454     .000

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

     Maximum MAJOR SYSTEM storage used =     392.(cu.m.)

001:0066--------------------------------------------------------------------------------
----------------------
| CALIB NASHYD       |   Area    (ha)=    6.64   Curve Number   (CN)=72.00
| 05:C101   DT= 1.00 |   Ia      (mm)=   8.000   # of Linear Res.(N)= 3.00
----------------------   U.H. Tp(hrs)=    .310

     Unit Hyd Qpeak  (cms)=     .818

     PEAK FLOW       (cms)=     .317 (i)
     TIME TO PEAK    (hrs)=    1.417
     RUNOFF VOLUME    (mm)=   18.147
     TOTAL RAINFALL   (mm)=   60.373
     RUNOFF COEFFICIENT   =     .301

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

001:0067--------------------------------------------------------------------------------
----------------------
| ADD HYD (PRE       ) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
----------------------                     (ha)     (cms)   (hrs)   (mm)   (cms)
                         ID1 01:EX-2         .19     .023    1.10  21.20    .000
                        +ID2 03:toDRAIN     2.37     .001  150.25  18.15    .000
                        +ID3 04:EX-3         .45     .159    1.00  36.04    .000
                        +ID4 05:C101        6.64     .317    1.42  18.15    .000
                        +ID5 07:toDRAIN     2.59     .001  139.88  15.45    .000
                         ========================================================
                         SUM 08:PRE        12.24     .345    1.40  18.28    .000

   NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

001:0068--------------------------------------------------------------------------------
*#*****************************************************************************
*#                          ====================
*#                           PROSPOSED CONDITIONS
*#                          ====================
*#*****************************************************************************
----------------------
| CALIB NASHYD       |   Area    (ha)=    2.37   Curve Number   (CN)=72.00
| 01:EX-1   DT= 1.00 |   Ia      (mm)=   8.000   # of Linear Res.(N)= 3.00
----------------------   U.H. Tp(hrs)=    .330

     Unit Hyd Qpeak  (cms)=     .274

     PEAK FLOW       (cms)=     .109 (i)
     TIME TO PEAK    (hrs)=    1.433
     RUNOFF VOLUME    (mm)=   18.147
     TOTAL RAINFALL   (mm)=   60.373
     RUNOFF COEFFICIENT   =     .301

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

001:0069--------------------------------------------------------------------------------
----------------------
| COMPUTE DUALHYD    |   Average inlet capacities   [CINLET] =    .001  (cms)
| TotalHyd 01:EX-1   |   Number of inlets in system [NINLET] =       1
----------------------   Total minor system capacity          =    .001  (cms)
                         Total major system storage [TMJSTO] =   99999.(cu.m.)

                    ID: NHYD        AREA     QPEAK     TPEAK     R.V.      DWF
                                     (ha)     (cms)     (hrs)     (mm)     (cms)
     TOTAL HYD.   01:EX-1          2.37      .109     1.433   18.147     .000
     ==========================================================================
     MAJOR SYST   02:THAMES         .00      .000      .000     .000     .000
     MINOR SYST   03:toDRAI        2.37      .001   150.250   18.146     .000

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

     Maximum MAJOR SYSTEM storage used =     421.(cu.m.)

001:0070--------------------------------------------------------------------------------
----------------------
| CALIB NASHYD       |   Area    (ha)=     .19   Curve Number   (CN)=74.00
| 01:EX-2   DT= 1.00 |   Ia      (mm)=   5.000   # of Linear Res.(N)= 3.00
----------------------   U.H. Tp(hrs)=    .090

     Unit Hyd Qpeak  (cms)=     .081

     PEAK FLOW       (cms)=     .023 (i)
     TIME TO PEAK    (hrs)=    1.100
     RUNOFF VOLUME    (mm)=   21.201
     TOTAL RAINFALL   (mm)=   60.373
     RUNOFF COEFFICIENT   =     .351

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

001:0071--------------------------------------------------------------------------------
----------------------
| CALIB STANDHYD     |   Area    (ha)=     .45
| 04:EX-3   DT= 1.00 |   Total Imp(%)=   65.00   Dir. Conn.(%)=    1.00
----------------------

                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=        .29          .16
     Dep. Storage     (mm)=       2.00         8.00
     Average Slope     (%)=       1.00        20.00
     Length            (m)=       5.00        25.00
     Mannings n           =       .013         .240

     Max.eff.Inten.(mm/hr)=     220.22       414.90
               over (min)          1.00         2.00
     Storage Coeff.  (min)=       .31 (ii)    1.78 (ii)
     Unit Hyd. Tpeak (min)=      1.00         2.00
     Unit Hyd. peak  (cms)=      1.63          .60
                                                        *TOTALS*
     PEAK FLOW       (cms)=       .00          .16          .159 (iii)
     TIME TO PEAK    (hrs)=       .98         1.00         1.000
     RUNOFF VOLUME    (mm)=     58.37        35.81        36.038
     TOTAL RAINFALL   (mm)=     60.37        60.37        60.373
     RUNOFF COEFFICIENT   =       .97          .59          .597

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  72.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

001:0072--------------------------------------------------------------------------------
----------------------
| CALIB NASHYD       |   Area    (ha)=    2.59   Curve Number   (CN)=67.00
| 05:EX-4   DT= 1.00 |   Ia      (mm)=   8.000   # of Linear Res.(N)= 3.00
```

```
----------------------  U.H. Tp(hrs)=    .230

     Unit Hyd Qpeak  (cms)=     .430

     PEAK FLOW       (cms)=     .126 (i)
     TIME TO PEAK    (hrs)=    1.300
     RUNOFF VOLUME    (mm)=   15.455
     TOTAL RAINFALL   (mm)=   60.373
     RUNOFF COEFFICIENT   =     .256

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

001:0073----------------------------------------------------------------------------
----------------------
| COMPUTE DUALHYD    |   Average inlet capacities   [CINLET] =    .001  (cms)
| TotalHyd 05:EX-4   |   Number of inlets in system [NINLET] =       1
----------------------   Total minor system capacity         =    .001  (cms)
                         Total major system storage [TMJSTO] =   99999.(cu.m.)

                  ID: NHYD        AREA     QPEAK     TPEAK     R.V.      DWF
                                   (ha)     (cms)     (hrs)     (mm)     (cms)
     TOTAL HYD.   05:EX-4          2.59      .126    1.300   15.455     .000
     ==========================================================================
     MAJOR SYST   06:BANMAN         .00      .000      .000     .000     .000
     MINOR SYST   07:toDRAI        2.59      .001   139.883   15.454     .000

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

     Maximum MAJOR SYSTEM storage used =     392.(cu.m.)

001:0074----------------------------------------------------------------------------
----------------------
| CALIB STANDHYD     |   Area    (ha)=    6.64
| 05:C201   DT= 1.00 |   Total Imp(%)=   90.00   Dir. Conn.(%)=   80.00
----------------------
                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=       5.98         .66
     Dep. Storage     (mm)=       2.00        5.00
     Average Slope     (%)=       1.00        2.00
     Length            (m)=      50.00       25.00
     Mannings n             =     .013        .250

     Max.eff.Inten.(mm/hr)=     220.22      144.22
                 over (min)        1.00        6.00
     Storage Coeff.  (min)=       1.23 (ii)   5.83 (ii)
     Unit Hyd. Tpeak (min)=       1.00        6.00
     Unit Hyd. peak  (cms)=        .95         .19
                                                        *TOTALS*
     PEAK FLOW       (cms)=       3.21         .18        3.306 (iii)
     TIME TO PEAK    (hrs)=       1.00        1.08         1.000
     RUNOFF VOLUME    (mm)=      58.37       24.08        51.515
     TOTAL RAINFALL   (mm)=      60.37       60.37        60.373
     RUNOFF COEFFICIENT   =        .97         .40          .853

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  61.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

001:0075----------------------------------------------------------------------------
------------------------
| ADD HYD (POST      ) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
------------------------                   (ha)     (cms)   (hrs)   (mm)    (cms)
                       ID1 01:EX-2          .19      .023    1.10  21.20    .000
                      +ID2 03:toDRAIN      2.37      .001  150.25  18.15    .000
                      +ID3 04:EX-3          .45      .159    1.00  36.04    .000
                      +ID4 05:C201         6.64     3.306    1.00  51.52    .000
                      +ID5 07:toDRAIN      2.59      .001  139.88  15.45    .000
                       ==========================================================
                       SUM 09:POST        12.24     3.478    1.00  36.37    .000

   NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

001:0076----------------------------------------------------------------------------
----------------------
| ROUTE RESERVOIR    |    Requested routing time step =  1.0 min.
|  IN>09:(POST  )    |
| OUT<01:(SWMF  )    |    =========  OUTLFOW STORAGE TABLE  =========
----------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
                            (cms)     (ha.m.)   |    (cms)    (ha.m.)
                             .000  .0000E+00    |     .079  .1497E+00
                             .059  .1884E-01    |     .080  .1683E+00
                             .069  .3388E-01    |     .082  .1875E+00
                             .070  .4889E-01    |     .083  .2073E+00
                             .072  .6439E-01    |     .085  .2276E+00
                             .073  .8041E-01    |     .086  .2485E+00
                             .075  .9693E-01    |     .087  .2700E+00
                             .076  .1140E+00    |     .299  .4003E+00
                             .078  .1316E+00    |     .000  .0000E+00

     ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
     ---------------------       (ha)     (cms)     (hrs)       (mm)
     INFLOW >09: (POST  )      12.24     3.478     1.000     36.373
     OUTFLOW<01: (SWMF  )      12.24      .112     2.317     36.375
    OVERFLOW<02: (000003)        .00      .000      .000       .000

                    TOTAL NUMBER OF SIMULATED OVERFLOWS  =        0
                    CUMULATIVE TIME OF OVERFLOWS  (hours)=      .00
                    PERCENTAGE OF TIME OVERFLOWING    (%)=      .00


                    PEAK   FLOW   REDUCTION [Qout/Qin](%)=    3.209
                    TIME SHIFT OF PEAK FLOW          (min)=    79.00
                    MAXIMUM  STORAGE   USED       (ha.m.)=.2851E+00

001:0077----------------------------------------------------------------------------
--------------------
| DIVERT HYD     |
| INID=01  (SWMF  )|
--------------------
      Outflow / Inflow  Relationships
      Flow 03 +  Flow 04 +  Flow 05 =  Total
       (cms)      (cms)      (cms)      (cms)
        .000       .000       .000       .000
        .000       .059       .000       .059
        .007       .061       .000       .069
        .007       .063       .000       .070
        .008       .064       .000       .072
        .008       .065       .000       .073
        .008       .066       .000       .075
        .009       .068       .000       .076
        .009       .069       .000       .078
        .009       .070       .000       .079
        .009       .071       .000       .080
        .010       .072       .000       .082
        .010       .073       .000       .083
        .010       .074       .000       .085
        .010       .075       .000       .086
        .011       .077       .000       .087
        .011       .078       .210       .299

              NHYD       AREA    QPEAK  TpeakDate_hh:mm       R.V.  NFE WetHrs
                          (ha)    (cms)                       (mm)       (hrs)
   IDin = 01:SWMF      12.24     .112  No_date    2:19     36.375    1   158.
   ========================================================================
   IDout= 03:Infilt     1.04     .011  No_date    2:19     36.375    1    12.
   IDout= 04:Orific    10.88     .077  No_date    2:19     36.375    1   158.
   IDout= 05:Emerge      .31     .024  No_date    2:19     36.375    1     2.

001:0078----------------------------------------------------------------------------
*#*************************************************************************
*#                                    50-year
*#                                    ========
*#*************************************************************************
--------------------
| CHICAGO STORM    |    IDF curve parameters: A=1499.060
| Ptotal= 66.11 mm |                          B=   4.188
--------------------                          C=    .809
                         used in:   INTENSITY =  A / (t + B)^C

                         Duration of storm  =  3.00 hrs
                         Storm time step    =  5.00 min
                         Time to peak ratio =   .33

              TIME    RAIN |   TIME    RAIN |   TIME    RAIN |   TIME    RAIN
               hrs   mm/hr |    hrs   mm/hr |    hrs   mm/hr |    hrs   mm/hr
               .08   5.048 |    .83  27.983 |   1.58  14.045 |   2.33   6.561
               .17   5.501 |    .92  68.751 |   1.67  12.381 |   2.42   6.216
               .25   6.054 |   1.00 249.214 |   1.75  11.088 |   2.50   5.909
               .33   6.747 |   1.08  90.168 |   1.83  10.056 |   2.58   5.633
               .42   7.643 |   1.17  47.427 |   1.92   9.210 |   2.67   5.384
               .50   8.846 |   1.25  31.940 |   2.00   8.506 |   2.75   5.158
               .58  10.558 |   1.33  24.096 |   2.08   7.909 |   2.83   4.952
               .67  13.195 |   1.42  19.393 |   2.17   7.396 |   2.92   4.763
               .75  17.808 |   1.50  16.269 |   2.25   6.951 |   3.00   4.590

001:0079----------------------------------------------------------------------------
*#*************************************************************************
*#                              ====================
*#                               EXISTING CONDITIONS
*#                              ====================
*#*************************************************************************
----------------------
| CALIB NASHYD       |   Area    (ha)=    2.37   Curve Number   (CN)=72.00
| 01:EX-1   DT= 1.00 |   Ia      (mm)=   8.000   # of Linear Res.(N)= 3.00
----------------------  U.H. Tp(hrs)=    .330

     Unit Hyd Qpeak  (cms)=     .274

     PEAK FLOW       (cms)=     .130 (i)
     TIME TO PEAK    (hrs)=    1.433
     RUNOFF VOLUME    (mm)=   21.525
     TOTAL RAINFALL   (mm)=   66.112
     RUNOFF COEFFICIENT   =     .326

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

001:0080----------------------------------------------------------------------------
----------------------
| COMPUTE DUALHYD    |   Average inlet capacities   [CINLET] =    .001  (cms)
| TotalHyd 01:EX-1   |   Number of inlets in system [NINLET] =       1
----------------------   Total minor system capacity         =    .001  (cms)
                         Total major system storage [TMJSTO] =   99999.(cu.m.)

                  ID: NHYD        AREA     QPEAK     TPEAK     R.V.      DWF
                                   (ha)     (cms)     (hrs)     (mm)     (cms)
     TOTAL HYD.   01:EX-1          2.37      .130    1.433   21.525     .000
     ==========================================================================
     MAJOR SYST   02:THAMES         .00      .000      .000     .000     .000
     MINOR SYST   03:toDRAI        2.37      .001   178.033   21.524     .000

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

     Maximum MAJOR SYSTEM storage used =     500.(cu.m.)

001:0081----------------------------------------------------------------------------
----------------------
| CALIB NASHYD       |   Area    (ha)=     .19   Curve Number   (CN)=74.00
| 01:EX-2   DT= 1.00 |   Ia      (mm)=   5.000   # of Linear Res.(N)= 3.00
----------------------  U.H. Tp(hrs)=    .090

     Unit Hyd Qpeak  (cms)=     .081

     PEAK FLOW       (cms)=     .027 (i)
     TIME TO PEAK    (hrs)=    1.083
     RUNOFF VOLUME    (mm)=   24.839
     TOTAL RAINFALL   (mm)=   66.112
     RUNOFF COEFFICIENT   =     .376

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

001:0082----------------------------------------------------------------------------
----------------------
| CALIB STANDHYD     |   Area    (ha)=     .45
| 04:EX-3   DT= 1.00 |   Total Imp(%)=   65.00   Dir. Conn.(%)=    1.00
----------------------
                              IMPERVIOUS    PERVIOUS (i)
     Surface Area     (ha)=        .29         .16
     Dep. Storage     (mm)=       2.00        8.00
     Average Slope     (%)=       1.00       20.00
     Length            (m)=       5.00       25.00
     Mannings n             =     .013        .240

     Max.eff.Inten.(mm/hr)=     249.21      491.16
                 over (min)        1.00        2.00
     Storage Coeff.  (min)=        .29 (ii)   1.67 (ii)
     Unit Hyd. Tpeak (min)=       1.00        2.00
     Unit Hyd. peak  (cms)=       1.64         .62
                                                        *TOTALS*
     PEAK FLOW       (cms)=        .00         .19         .191 (iii)
     TIME TO PEAK    (hrs)=        .98        1.00        1.000
     RUNOFF VOLUME    (mm)=      64.11       40.78       41.014
     TOTAL RAINFALL   (mm)=      66.11       66.11       66.112
     RUNOFF COEFFICIENT   =        .97         .62         .620

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  72.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

001:0083----------------------------------------------------------------------------
----------------------
| CALIB NASHYD       |   Area    (ha)=    2.59   Curve Number   (CN)=67.00
| 05:EX-4   DT= 1.00 |   Ia      (mm)=   8.000   # of Linear Res.(N)= 3.00
----------------------  U.H. Tp(hrs)=    .230
```

```
01891>      Unit Hyd Qpeak  (cms)=     .430
01892>
01893>      PEAK FLOW       (cms)=     .151 (i)
01894>      TIME TO PEAK    (hrs)=    1.300
01895>      RUNOFF VOLUME    (mm)=   18.432
01896>      TOTAL RAINFALL   (mm)=   66.112
01897>      RUNOFF COEFFICIENT   =     .279
01898>
01899>      (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
01900>
01901> ---------------------------------------------------------------------------
01902> 001:0084-----------------------------------------------------------------
01903> ----------------------
01904> | COMPUTE DUALHYD    |   Average inlet capacities   [CINLET] =    .001  (cms)
01905> | TotalHyd 05:EX-4   |   Number of inlets in system [NINLET] =       1
01906> ----------------------   Total minor system capacity          =    .001  (cms)
01907>                          Total major system storage [TMJSTO] =   99999.(cu.m.)
01908>
01909>                   ID: NHYD        AREA     QPEAK     TPEAK     R.V.      DWF
01910>                                    (ha)     (cms)     (hrs)     (mm)    (cms)
01911>      TOTAL HYD.   05:EX-4          2.59      .151     1.300   18.432     .000
01912>      ------------------------------------------------------------------------
01913>      MAJOR SYST   06:BANMAN        .00      .000      .000     .000     .000
01914>      MINOR SYST   07:toDRAI        2.59      .001   166.633   18.430     .000
01915>
01916>      NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
01917>
01918>      Maximum MAJOR SYSTEM storage used =     469.(cu.m.)
01919>
01920> ---------------------------------------------------------------------------
01921> 001:0085-----------------------------------------------------------------
01922> ----------------------
01923> | CALIB NASHYD       |   Area     (ha)=    6.64   Curve Number    (CN)=72.00
01924> | 05:C101    DT= 1.00 |   Ia       (mm)=   8.000   # of Linear Res.(N)= 3.00
01925> ----------------------   U.H. Tp(hrs)=    .310
01926>
01927>      Unit Hyd Qpeak  (cms)=     .818
01928>
01929>      PEAK FLOW       (cms)=     .379 (i)
01930>      TIME TO PEAK    (hrs)=    1.400
01931>      RUNOFF VOLUME    (mm)=   21.525
01932>      TOTAL RAINFALL   (mm)=   66.112
01933>      RUNOFF COEFFICIENT   =     .326
01934>
01935>      (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
01936>
01937> ---------------------------------------------------------------------------
01938> 001:0086-----------------------------------------------------------------
01939> ----------------------
01940> | ADD HYD (PRE       ) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
01941> ----------------------                    (ha)     (cms)   (hrs)   (mm)   (cms)
01942>                        ID1 01:EX-2          .19      .027    1.08  24.84    .000
01943>                       +ID2 03:toDRAIN      2.37      .001  178.03  21.52    .000
01944>                       +ID3 04:EX-3          .45      .191    1.00  41.01    .000
01945>                       +ID4 05:C101         6.64      .379    1.40  21.52    .000
01946>                       +ID5 07:toDRAIN      2.59      .001  166.63  18.43    .000
01947>                        ================================================
01948>                        SUM 08:PRE          12.24      .410    1.38  21.64    .000
01949>
01950>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
01951>
01952> ---------------------------------------------------------------------------
01953> 001:0087-----------------------------------------------------------------
01954> --------------------
01955> | PRINT HYD        |   AREA       (ha)=   12.240
01956> | ID=08 (PRE   )   |   QPEAK     (cms)=    .410 (i)
01957> | DT= 1.00 PCYC= 5 |   TPEAK     (hrs)=   1.383
01958> --------------------   VOLUME      (mm)=  21.640
01959>
01960>      (i)  PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
01961>   TIME    FLOW |  TIME    FLOW |  TIME    FLOW |  TIME    FLOW |  TIME    FLOW
01962>    hrs     cms |   hrs     cms |   hrs     cms |   hrs     cms |   hrs     cms
01963>    .00    .000|  35.67    .002|  71.33    .002| 107.01    .002| 142.68    .002
01964>    .08    .000|  35.75    .002|  71.42    .002| 107.09    .002| 142.76    .002
01965>    .17    .000|  35.83    .002|  71.50    .002| 107.18    .002| 142.84    .002
01966>    .25    .000|  35.92    .002|  71.58    .002| 107.26    .002| 142.93    .002
01967>    .33    .000|  36.00    .002|  71.67    .002| 107.34    .002| 143.01    .002
01968>    .42    .000|  36.08    .002|  71.75    .002| 107.43    .002| 143.09    .002
01969>    .50    .000|  36.17    .002|  71.83    .002| 107.51    .002| 143.18    .002
01970>    .58    .001|  36.25    .002|  71.92    .002| 107.59    .002| 143.26    .002
01971>    .67    .002|  36.33    .002|  72.00    .002| 107.68    .002| 143.34    .002
01972>    .75    .004|  36.42    .002|  72.08    .002| 107.76    .002| 143.43    .002
01973>    .83    .009|  36.50    .002|  72.17    .002| 107.84    .002| 143.51    .002
01974>    .92    .037|  36.58    .002|  72.25    .002| 107.93    .002| 143.59    .002
01975>   1.00    .238|  36.67    .002|  72.33    .002| 108.01    .002| 143.68    .002
01976>   1.08    .249|  36.75    .002|  72.42    .002| 108.09    .002| 143.76    .002
01977>   1.17    .312|  36.83    .002|  72.50    .002| 108.18    .002| 143.84    .002
01978>   1.25    .374|  36.92    .002|  72.58    .002| 108.26    .002| 143.93    .002
01979>   1.33    .406|  37.00    .002|  72.67    .002| 108.34    .002| 144.01    .002
01980>   1.42    .408|  37.08    .002|  72.75    .002| 108.43    .002| 144.09    .002
01981>   1.50    .388|  37.17    .002|  72.83    .002| 108.51    .002| 144.18    .002
01982>   1.58    .355|  37.25    .002|  72.92    .002| 108.59    .002| 144.26    .002
01983>   1.67    .318|  37.33    .002|  73.00    .002| 108.68    .002| 144.34    .002
01984>   1.75    .280|  37.42    .002|  73.08    .002| 108.76    .002| 144.43    .002
01985>   1.83    .245|  37.50    .002|  73.17    .002| 108.84    .002| 144.51    .002
01986>   1.92    .215|  37.58    .002|  73.25    .002| 108.93    .002| 144.59    .002
01987>   2.00    .188|  37.67    .002|  73.33    .002| 109.01    .002| 144.68    .002
01988>   2.08    .166|  37.75    .002|  73.42    .002| 109.09    .002| 144.76    .002
01989>   2.17    .148|  37.83    .002|  73.50    .002| 109.18    .002| 144.84    .002
01990>   2.25    .133|  37.92    .002|  73.58    .002| 109.26    .002| 144.93    .002
01991>   2.33    .121|  38.00    .002|  73.67    .002| 109.34    .002| 145.01    .002
01992>   2.42    .111|  38.08    .002|  73.75    .002| 109.43    .002| 145.09    .002
01993>   2.50    .102|  38.17    .002|  73.83    .002| 109.51    .002| 145.18    .002
01994>   2.58    .095|  38.25    .002|  73.92    .002| 109.59    .002| 145.26    .002
01995>   2.67    .089|  38.33    .002|  74.00    .002| 109.68    .002| 145.34    .002
01996>   2.75    .083|  38.42    .002|  74.08    .002| 109.76    .002| 145.43    .002
01997>   2.83    .079|  38.50    .002|  74.17    .002| 109.84    .002| 145.51    .002
01998>   2.92    .075|  38.58    .002|  74.25    .002| 109.93    .002| 145.59    .002
01999>   3.00    .071|  38.67    .002|  74.33    .002| 110.01    .002| 145.68    .002
02000>   3.08    .062|  38.75    .002|  74.42    .002| 110.09    .002| 145.76    .002
02001>   3.17    .055|  38.83    .002|  74.50    .002| 110.18    .002| 145.84    .002
02002>   3.25    .046|  38.92    .002|  74.58    .002| 110.26    .002| 145.93    .002
02003>   3.33    .037|  39.00    .002|  74.67    .002| 110.34    .002| 146.01    .002
02004>   3.42    .029|  39.08    .002|  74.75    .002| 110.43    .002| 146.09    .002
02005>   3.50    .022|  39.17    .002|  74.83    .002| 110.51    .002| 146.18    .002
02006>   3.58    .016|  39.25    .002|  74.92    .002| 110.59    .002| 146.26    .002
02007>   3.67    .012|  39.33    .002|  75.00    .002| 110.68    .002| 146.34    .002
02008>   3.75    .009|  39.42    .002|  75.08    .002| 110.76    .002| 146.43    .002
02009>   3.83    .007|  39.50    .002|  75.17    .002| 110.84    .002| 146.51    .002
02010>   3.92    .005|  39.58    .002|  75.25    .002| 110.93    .002| 146.59    .002
02011>   4.00    .004|  39.67    .002|  75.33    .002| 111.01    .002| 146.67    .002
02012>   4.08    .003|  39.75    .002|  75.42    .002| 111.09    .002| 146.76    .002
02013>   4.17    .003|  39.83    .002|  75.50    .002| 111.18    .002| 146.84    .002
02014>   4.25    .002|  39.92    .002|  75.58    .002| 111.26    .002| 146.92    .002
02015>   4.33    .002|  40.00    .002|  75.67    .002| 111.34    .002| 147.01    .002
02016>   4.42    .002|  40.08    .002|  75.75    .002| 111.43    .002| 147.09    .002
02017>   4.50    .002|  40.17    .002|  75.84    .002| 111.51    .002| 147.17    .002
02018>   4.58    .002|  40.25    .002|  75.92    .002| 111.59    .002| 147.26    .002
02019>   4.67    .002|  40.33    .002|  76.00    .002| 111.68    .002| 147.34    .002
02020>   4.75    .002|  40.42    .002|  76.09    .002| 111.76    .002| 147.42    .002
02021>   4.83    .002|  40.50    .002|  76.17    .002| 111.84    .002| 147.51    .002
02022>   4.92    .002|  40.58    .002|  76.25    .002| 111.93    .002| 147.59    .002
02023>   5.00    .002|  40.67    .002|  76.34    .002| 112.01    .002| 147.67    .002
02024>   5.08    .002|  40.75    .002|  76.42    .002| 112.09    .002| 147.76    .002
02025>   5.17    .002|  40.83    .002|  76.50    .002| 112.18    .002| 147.84    .002
02026>   5.25    .002|  40.92    .002|  76.59    .002| 112.26    .002| 147.92    .002
02027>   5.33    .002|  41.00    .002|  76.67    .002| 112.34    .002| 148.01    .002
02028>   5.42    .002|  41.08    .002|  76.75    .002| 112.43    .002| 148.09    .002
02029>   5.50    .002|  41.17    .002|  76.84    .002| 112.51    .002| 148.17    .002
02030>   5.58    .002|  41.25    .002|  76.92    .002| 112.59    .002| 148.26    .002
02031>   5.67    .002|  41.33    .002|  77.00    .002| 112.68    .002| 148.34    .002
02032>   5.75    .002|  41.42    .002|  77.09    .002| 112.76    .002| 148.42    .002
02033>   5.83    .002|  41.50    .002|  77.17    .002| 112.84    .002| 148.51    .002
02034>   5.92    .002|  41.58    .002|  77.25    .002| 112.93    .002| 148.59    .002
02035>   6.00    .002|  41.67    .002|  77.34    .002| 113.01    .002| 148.67    .002
02036>   6.08    .002|  41.75    .002|  77.42    .002| 113.09    .002| 148.76    .002
02037>   6.17    .002|  41.83    .002|  77.50    .002| 113.18    .002| 148.84    .002
02038>   6.25    .002|  41.92    .002|  77.59    .002| 113.26    .002| 148.92    .002
02039>   6.33    .002|  42.00    .002|  77.67    .002| 113.34    .002| 149.01    .002
02040>   6.42    .002|  42.08    .002|  77.75    .002| 113.43    .002| 149.09    .002
02041>   6.50    .002|  42.17    .002|  77.84    .002| 113.51    .002| 149.17    .002
02042>   6.58    .002|  42.25    .002|  77.92    .002| 113.59    .002| 149.26    .002
02043>   6.67    .002|  42.33    .002|  78.00    .002| 113.68    .002| 149.34    .002
02044>   6.75    .002|  42.42    .002|  78.09    .002| 113.76    .002| 149.42    .002
02045>   6.83    .002|  42.50    .002|  78.17    .002| 113.84    .002| 149.51    .002
02046>   6.92    .002|  42.58    .002|  78.25    .002| 113.93    .002| 149.59    .002
02047>   7.00    .002|  42.67    .002|  78.34    .002| 114.01    .002| 149.67    .002
02048>   7.08    .002|  42.75    .002|  78.42    .002| 114.09    .002| 149.76    .002
02049>   7.17    .002|  42.83    .002|  78.50    .002| 114.18    .002| 149.84    .002
02050>   7.25    .002|  42.92    .002|  78.59    .002| 114.26    .002| 149.92    .002
02051>   7.33    .002|  43.00    .002|  78.67    .002| 114.34    .002| 150.01    .002
02052>   7.42    .002|  43.08    .002|  78.75    .002| 114.43    .002| 150.09    .002
02053>   7.50    .002|  43.17    .002|  78.84    .002| 114.51    .002| 150.17    .002
02054>   7.58    .002|  43.25    .002|  78.92    .002| 114.59    .002| 150.26    .002
02055>   7.67    .002|  43.33    .002|  79.00    .002| 114.68    .002| 150.34    .002
02056>   7.75    .002|  43.42    .002|  79.09    .002| 114.76    .002| 150.42    .002
02057>   7.83    .002|  43.50    .002|  79.17    .002| 114.84    .002| 150.51    .002
02058>   7.92    .002|  43.58    .002|  79.25    .002| 114.93    .002| 150.59    .002
02059>   8.00    .002|  43.67    .002|  79.34    .002| 115.01    .002| 150.67    .002
02060>   8.08    .002|  43.75    .002|  79.42    .002| 115.09    .002| 150.76    .002
02061>   8.17    .002|  43.83    .002|  79.50    .002| 115.18    .002| 150.84    .002
02062>   8.25    .002|  43.92    .002|  79.59    .002| 115.26    .002| 150.92    .002
02063>   8.33    .002|  44.00    .002|  79.67    .002| 115.34    .002| 151.01    .002
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02065>   8.50    .002|  44.17    .002|  79.84    .002| 115.51    .002| 151.17    .002
02066>   8.58    .002|  44.25    .002|  79.92    .002| 115.59    .002| 151.26    .002
02067>   8.67    .002|  44.33    .002|  80.00    .002| 115.68    .002| 151.34    .002
02068>   8.75    .002|  44.42    .002|  80.09    .002| 115.76    .002| 151.42    .002
02069>   8.83    .002|  44.50    .002|  80.17    .002| 115.84    .002| 151.51    .002
02070>   8.92    .002|  44.58    .002|  80.25    .002| 115.93    .002| 151.59    .002
02071>   9.00    .002|  44.67    .002|  80.34    .002| 116.01    .002| 151.67    .002
02072>   9.08    .002|  44.75    .002|  80.42    .002| 116.09    .002| 151.76    .002
02073>   9.17    .002|  44.83    .002|  80.50    .002| 116.18    .002| 151.84    .002
02074>   9.25    .002|  44.92    .002|  80.59    .002| 116.26    .002| 151.92    .002
02075>   9.33    .002|  45.00    .002|  80.67    .002| 116.34    .002| 152.01    .002
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02077>   9.50    .002|  45.17    .002|  80.84    .002| 116.51    .002| 152.17    .002
02078>   9.58    .002|  45.25    .002|  80.92    .002| 116.59    .002| 152.26    .002
02079>   9.67    .002|  45.33    .002|  81.00    .002| 116.68    .002| 152.34    .002
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02081>   9.83    .002|  45.50    .002|  81.17    .002| 116.84    .002| 152.51    .002
02082>   9.92    .002|  45.58    .002|  81.25    .002| 116.93    .002| 152.59    .002
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02085>  10.17    .002|  45.83    .002|  81.50    .002| 117.18    .002| 152.84    .002
02086>  10.25    .002|  45.92    .002|  81.59    .002| 117.26    .002| 152.92    .002
02087>  10.33    .002|  46.00    .002|  81.67    .002| 117.34    .002| 153.01    .002
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02089>  10.50    .002|  46.17    .002|  81.84    .002| 117.51    .002| 153.17    .002
02090>  10.58    .002|  46.25    .002|  81.92    .002| 117.59    .002| 153.26    .002
02091>  10.67    .002|  46.33    .002|  82.00    .002| 117.68    .002| 153.34    .002
02092>  10.75    .002|  46.42    .002|  82.09    .002| 117.76    .002| 153.42    .002
02093>  10.83    .002|  46.50    .002|  82.17    .002| 117.84    .002| 153.51    .002
02094>  10.92    .002|  46.58    .002|  82.25    .002| 117.93    .002| 153.59    .002
02095>  11.00    .002|  46.67    .002|  82.34    .002| 118.01    .002| 153.67    .002
02096>  11.08    .002|  46.75    .002|  82.42    .002| 118.09    .002| 153.76    .002
02097>  11.17    .002|  46.83    .002|  82.50    .002| 118.18    .002| 153.84    .002
02098>  11.25    .002|  46.92    .002|  82.59    .002| 118.26    .002| 153.92    .002
02099>  11.33    .002|  47.00    .002|  82.67    .002| 118.34    .002| 154.01    .002
02100>  11.42    .002|  47.08    .002|  82.75    .002| 118.43    .002| 154.09    .002
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02103>  11.67    .002|  47.33    .002|  83.00    .002| 118.68    .002| 154.34    .002
02104>  11.75    .002|  47.42    .002|  83.09    .002| 118.76    .002| 154.42    .002
02105>  11.83    .002|  47.50    .002|  83.17    .002| 118.84    .002| 154.51    .002
02106>  11.92    .002|  47.58    .002|  83.25    .002| 118.93    .002| 154.59    .002
02107>  12.00    .002|  47.67    .002|  83.34    .002| 119.01    .002| 154.67    .002
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02109>  12.17    .002|  47.83    .002|  83.50    .002| 119.18    .002| 154.84    .002
02110>  12.25    .002|  47.92    .002|  83.59    .002| 119.26    .002| 154.92    .002
02111>  12.33    .002|  48.00    .002|  83.67    .002| 119.34    .002| 155.01    .002
02112>  12.42    .002|  48.08    .002|  83.75    .002| 119.43    .002| 155.09    .002
02113>  12.50    .002|  48.17    .002|  83.84    .002| 119.51    .002| 155.17    .002
02114>  12.58    .002|  48.25    .002|  83.92    .002| 119.59    .002| 155.26    .002
02115>  12.67    .002|  48.33    .002|  84.00    .002| 119.68    .002| 155.34    .002
02116>  12.75    .002|  48.42    .002|  84.09    .002| 119.76    .002| 155.42    .002
02117>  12.83    .002|  48.50    .002|  84.17    .002| 119.84    .002| 155.51    .002
02118>  12.92    .002|  48.58    .002|  84.25    .002| 119.93    .002| 155.59    .002
02119>  13.00    .002|  48.67    .002|  84.34    .002| 120.01    .002| 155.67    .002
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02121>  13.17    .002|  48.83    .002|  84.50    .002| 120.18    .002| 155.84    .002
02122>  13.25    .002|  48.92    .002|  84.59    .002| 120.26    .002| 155.92    .002
02123>  13.33    .002|  49.00    .002|  84.67    .002| 120.34    .002| 156.01    .002
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02126>  13.58    .002|  49.25    .002|  84.92    .002| 120.59    .002| 156.26    .002
02127>  13.67    .002|  49.33    .002|  85.00    .002| 120.68    .002| 156.34    .002
02128>  13.75    .002|  49.42    .002|  85.09    .002| 120.76    .002| 156.42    .002
02129>  13.83    .002|  49.50    .002|  85.17    .002| 120.84    .002| 156.51    .002
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02133>  14.17    .002|  49.83    .002|  85.50    .002| 121.18    .002| 156.84    .002
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02135>  14.33    .002|  50.00    .002|  85.67    .002| 121.34    .002| 157.01    .002
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02137>  14.50    .002|  50.17    .002|  85.84    .002| 121.51    .002| 157.17    .002
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02139>  14.67    .002|  50.33    .002|  86.00    .002| 121.68    .002| 157.34    .002
02140>  14.75    .002|  50.42    .002|  86.09    .002| 121.76    .002| 157.42    .002
02141>  14.83    .002|  50.50    .002|  86.17    .002| 121.84    .002| 157.51    .002
02142>  14.92    .002|  50.58    .002|  86.25    .002| 121.93    .002| 157.59    .002
02143>  15.00    .002|  50.67    .002|  86.34    .002| 122.01    .002| 157.67    .002
02144>  15.08    .002|  50.75    .002|  86.42    .002| 122.09    .002| 157.76    .002
02145>  15.17    .002|  50.83    .002|  86.50    .002| 122.18    .002| 157.84    .002
02146>  15.25    .002|  50.92    .002|  86.59    .002| 122.26    .002| 157.92    .002
02147>  15.33    .002|  51.00    .002|  86.67    .002| 122.34    .002| 158.01    .002
02148>  15.42    .002|  51.08    .002|  86.75    .002| 122.43    .002| 158.09    .002
02149>  15.50    .002|  51.17    .002|  86.84    .002| 122.51    .002| 158.17    .002
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02151>  15.67    .002|  51.33    .002|  87.00    .002| 122.68    .002| 158.34    .002
02152>  15.75    .002|  51.42    .002|  87.09    .002| 122.76    .002| 158.42    .002
02153>  15.83    .002|  51.50    .002|  87.17    .002| 122.85    .002| 158.51    .002
02154>  15.92    .002|  51.58    .002|  87.25    .002| 122.93    .002| 158.59    .002
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02157>  16.17    .002|  51.83    .002|  87.50    .002| 123.18    .002| 158.84    .002
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02165>  16.83  .002|  52.50  .002|  88.17  .002| 123.85  .002| 159.51  .002
02166>  16.92  .002|  52.58  .002|  88.25  .002| 123.93  .002| 159.59  .002
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02171>  17.33  .002|  53.00  .002|  88.67  .002| 124.35  .002| 160.01  .002
02172>  17.42  .002|  53.08  .002|  88.75  .002| 124.43  .002| 160.09  .002
02173>  17.50  .002|  53.17  .002|  88.84  .002| 124.51  .002| 160.17  .002
02174>  17.58  .002|  53.25  .002|  88.92  .002| 124.60  .002| 160.25  .002
02175>  17.67  .002|  53.33  .002|  89.00  .002| 124.68  .002| 160.34  .002
02176>  17.75  .002|  53.42  .002|  89.09  .002| 124.76  .002| 160.42  .002
02177>  17.83  .002|  53.50  .002|  89.17  .002| 124.85  .002| 160.50  .002
02178>  17.92  .002|  53.58  .002|  89.25  .002| 124.93  .002| 160.59  .002
02179>  18.00  .002|  53.67  .002|  89.34  .002| 125.01  .002| 160.67  .002
02180>  18.08  .002|  53.75  .002|  89.42  .002| 125.10  .002| 160.75  .002
02181>  18.17  .002|  53.83  .002|  89.50  .002| 125.18  .002| 160.84  .002
02182>  18.25  .002|  53.92  .002|  89.59  .002| 125.26  .002| 160.92  .002
02183>  18.33  .002|  54.00  .002|  89.67  .002| 125.35  .002| 161.00  .002
02184>  18.42  .002|  54.08  .002|  89.75  .002| 125.43  .002| 161.09  .002
02185>  18.50  .002|  54.17  .002|  89.84  .002| 125.51  .002| 161.17  .002
02186>  18.58  .002|  54.25  .002|  89.92  .002| 125.60  .002| 161.25  .002
02187>  18.67  .002|  54.33  .002|  90.00  .002| 125.68  .002| 161.34  .002
02188>  18.75  .002|  54.42  .002|  90.09  .002| 125.76  .002| 161.42  .002
02189>  18.83  .002|  54.50  .002|  90.17  .002| 125.85  .002| 161.50  .002
02190>  18.92  .002|  54.58  .002|  90.25  .002| 125.93  .002| 161.59  .002
02191>  19.00  .002|  54.67  .002|  90.34  .002| 126.01  .002| 161.67  .002
02192>  19.08  .002|  54.75  .002|  90.42  .002| 126.10  .002| 161.75  .002
02193>  19.17  .002|  54.83  .002|  90.50  .002| 126.18  .002| 161.84  .002
02194>  19.25  .002|  54.92  .002|  90.59  .002| 126.26  .002| 161.92  .002
02195>  19.33  .002|  55.00  .002|  90.67  .002| 126.35  .002| 162.00  .002
02196>  19.42  .002|  55.08  .002|  90.75  .002| 126.43  .002| 162.09  .002
02197>  19.50  .002|  55.17  .002|  90.84  .002| 126.51  .002| 162.17  .002
02198>  19.58  .002|  55.25  .002|  90.92  .002| 126.60  .002| 162.25  .002
02199>  19.67  .002|  55.33  .002|  91.00  .002| 126.68  .002| 162.34  .002
02200>  19.75  .002|  55.42  .002|  91.09  .002| 126.76  .002| 162.42  .002
02201>  19.83  .002|  55.50  .002|  91.17  .002| 126.85  .002| 162.50  .002
02202>  19.92  .002|  55.58  .002|  91.26  .002| 126.93  .002| 162.59  .002
02203>  20.00  .002|  55.67  .002|  91.34  .002| 127.01  .002| 162.67  .002
02204>  20.08  .002|  55.75  .002|  91.42  .002| 127.10  .002| 162.75  .002
02205>  20.17  .002|  55.83  .002|  91.51  .002| 127.18  .002| 162.84  .002
02206>  20.25  .002|  55.92  .002|  91.59  .002| 127.26  .002| 162.92  .002
02207>  20.33  .002|  56.00  .002|  91.67  .002| 127.35  .002| 163.00  .002
02208>  20.42  .002|  56.08  .002|  91.76  .002| 127.43  .002| 163.09  .002
02209>  20.50  .002|  56.17  .002|  91.84  .002| 127.51  .002| 163.17  .002
02210>  20.58  .002|  56.25  .002|  91.92  .002| 127.60  .002| 163.25  .002
02211>  20.67  .002|  56.33  .002|  92.01  .002| 127.68  .002| 163.34  .002
02212>  20.75  .002|  56.42  .002|  92.09  .002| 127.76  .002| 163.42  .002
02213>  20.83  .002|  56.50  .002|  92.17  .002| 127.85  .002| 163.50  .002
02214>  20.92  .002|  56.58  .002|  92.26  .002| 127.93  .002| 163.59  .002
02215>  21.00  .002|  56.67  .002|  92.34  .002| 128.01  .002| 163.67  .002
02216>  21.08  .002|  56.75  .002|  92.42  .002| 128.10  .002| 163.75  .002
02217>  21.17  .002|  56.83  .002|  92.51  .002| 128.18  .002| 163.84  .002
02218>  21.25  .002|  56.92  .002|  92.59  .002| 128.26  .002| 163.92  .002
02219>  21.33  .002|  57.00  .002|  92.67  .002| 128.35  .002| 164.00  .002
02220>  21.42  .002|  57.08  .002|  92.76  .002| 128.43  .002| 164.09  .002
02221>  21.50  .002|  57.17  .002|  92.84  .002| 128.51  .002| 164.17  .002
02222>  21.58  .002|  57.25  .002|  92.92  .002| 128.60  .002| 164.25  .002
02223>  21.67  .002|  57.33  .002|  93.01  .002| 128.68  .002| 164.34  .002
02224>  21.75  .002|  57.42  .002|  93.09  .002| 128.76  .002| 164.42  .002
02225>  21.83  .002|  57.50  .002|  93.17  .002| 128.85  .002| 164.50  .002
02226>  21.92  .002|  57.58  .002|  93.26  .002| 128.93  .002| 164.59  .002
02227>  22.00  .002|  57.67  .002|  93.34  .002| 129.01  .002| 164.67  .002
02228>  22.08  .002|  57.75  .002|  93.42  .002| 129.10  .002| 164.75  .002
02229>  22.17  .002|  57.83  .002|  93.51  .002| 129.18  .002| 164.84  .002
02230>  22.25  .002|  57.92  .002|  93.59  .002| 129.26  .002| 164.92  .002
02231>  22.33  .002|  58.00  .002|  93.67  .002| 129.35  .002| 165.00  .002
02232>  22.42  .002|  58.08  .002|  93.76  .002| 129.43  .002| 165.09  .002
02233>  22.50  .002|  58.17  .002|  93.84  .002| 129.51  .002| 165.17  .002
02234>  22.58  .002|  58.25  .002|  93.92  .002| 129.60  .002| 165.25  .002
02235>  22.67  .002|  58.33  .002|  94.01  .002| 129.68  .002| 165.34  .002
02236>  22.75  .002|  58.42  .002|  94.09  .002| 129.76  .002| 165.42  .002
02237>  22.83  .002|  58.50  .002|  94.17  .002| 129.85  .002| 165.50  .002
02238>  22.92  .002|  58.58  .002|  94.26  .002| 129.93  .002| 165.59  .002
02239>  23.00  .002|  58.67  .002|  94.34  .002| 130.01  .002| 165.67  .002
02240>  23.08  .002|  58.75  .002|  94.42  .002| 130.10  .002| 165.75  .002
02241>  23.17  .002|  58.83  .002|  94.51  .002| 130.18  .002| 165.84  .002
02242>  23.25  .002|  58.92  .002|  94.59  .002| 130.26  .002| 165.92  .002
02243>  23.33  .002|  59.00  .002|  94.67  .002| 130.35  .002| 166.00  .002
02244>  23.42  .002|  59.08  .002|  94.76  .002| 130.43  .002| 166.09  .002
02245>  23.50  .002|  59.17  .002|  94.84  .002| 130.51  .002| 166.17  .002
02246>  23.58  .002|  59.25  .002|  94.92  .002| 130.60  .002| 166.25  .002
02247>  23.67  .002|  59.33  .002|  95.01  .002| 130.68  .002| 166.34  .002
02248>  23.75  .002|  59.42  .002|  95.09  .002| 130.76  .002| 166.42  .002
02249>  23.83  .002|  59.50  .002|  95.17  .002| 130.85  .002| 166.50  .002
02250>  23.92  .002|  59.58  .002|  95.26  .002| 130.93  .002| 166.59  .002
02251>  24.00  .002|  59.67  .002|  95.34  .002| 131.01  .002| 166.67  .001
02252>  24.08  .002|  59.75  .002|  95.42  .002| 131.10  .002| 166.75  .001
02253>  24.17  .002|  59.83  .002|  95.51  .002| 131.18  .002| 166.84  .001
02254>  24.25  .002|  59.92  .002|  95.59  .002| 131.26  .002| 166.92  .001
02255>  24.33  .002|  60.00  .002|  95.67  .002| 131.35  .002| 167.00  .001
02256>  24.42  .002|  60.08  .002|  95.76  .002| 131.43  .002| 167.09  .001
02257>  24.50  .002|  60.17  .002|  95.84  .002| 131.51  .002| 167.17  .001
02258>  24.58  .002|  60.25  .002|  95.92  .002| 131.60  .002| 167.25  .001
02259>  24.67  .002|  60.33  .002|  96.01  .002| 131.68  .002| 167.34  .001
02260>  24.75  .002|  60.42  .002|  96.09  .002| 131.76  .002| 167.42  .001
02261>  24.83  .002|  60.50  .002|  96.17  .002| 131.85  .002| 167.50  .001
02262>  24.92  .002|  60.58  .002|  96.26  .002| 131.93  .002| 167.59  .001
02263>  25.00  .002|  60.67  .002|  96.34  .002| 132.01  .002| 167.67  .001
02264>  25.08  .002|  60.75  .002|  96.42  .002| 132.10  .002| 167.75  .001
02265>  25.17  .002|  60.83  .002|  96.51  .002| 132.18  .002| 167.84  .001
02266>  25.25  .002|  60.92  .002|  96.59  .002| 132.26  .002| 167.92  .001
02267>  25.33  .002|  61.00  .002|  96.67  .002| 132.35  .002| 168.00  .001
02268>  25.42  .002|  61.08  .002|  96.76  .002| 132.43  .002| 168.09  .001
02269>  25.50  .002|  61.17  .002|  96.84  .002| 132.51  .002| 168.17  .001
02270>  25.58  .002|  61.25  .002|  96.92  .002| 132.60  .002| 168.25  .001
02271>  25.67  .002|  61.33  .002|  97.01  .002| 132.68  .002| 168.34  .001
02272>  25.75  .002|  61.42  .002|  97.09  .002| 132.76  .002| 168.42  .001
02273>  25.83  .002|  61.50  .002|  97.17  .002| 132.85  .002| 168.50  .001
02274>  25.92  .002|  61.58  .002|  97.26  .002| 132.93  .002| 168.59  .001
02275>  26.00  .002|  61.67  .002|  97.34  .002| 133.01  .002| 168.67  .001
02276>  26.08  .002|  61.75  .002|  97.42  .002| 133.09  .002| 168.75  .001
02277>  26.17  .002|  61.83  .002|  97.51  .002| 133.18  .002| 168.84  .001
02278>  26.25  .002|  61.92  .002|  97.59  .002| 133.26  .002| 168.92  .001
02279>  26.33  .002|  62.00  .002|  97.67  .002| 133.34  .002| 169.00  .001
02280>  26.42  .002|  62.08  .002|  97.76  .002| 133.43  .002| 169.09  .001
02281>  26.50  .002|  62.17  .002|  97.84  .002| 133.51  .002| 169.17  .001
02282>  26.58  .002|  62.25  .002|  97.92  .002| 133.59  .002| 169.25  .001
02283>  26.67  .002|  62.33  .002|  98.01  .002| 133.68  .002| 169.34  .001
02284>  26.75  .002|  62.42  .002|  98.09  .002| 133.76  .002| 169.42  .001
02285>  26.83  .002|  62.50  .002|  98.17  .002| 133.84  .002| 169.50  .001
02286>  26.92  .002|  62.58  .002|  98.26  .002| 133.93  .002| 169.59  .001
02287>  27.00  .002|  62.67  .002|  98.34  .002| 134.01  .002| 169.67  .001
02288>  27.08  .002|  62.75  .002|  98.42  .002| 134.09  .002| 169.75  .001
02289>  27.17  .002|  62.83  .002|  98.51  .002| 134.18  .002| 169.84  .001
02290>  27.25  .002|  62.92  .002|  98.59  .002| 134.26  .002| 169.92  .001
02291>  27.33  .002|  63.00  .002|  98.67  .002| 134.34  .002| 170.00  .001
02292>  27.42  .002|  63.08  .002|  98.76  .002| 134.43  .002| 170.09  .001
02293>  27.50  .002|  63.17  .002|  98.84  .002| 134.51  .002| 170.17  .001
02294>  27.58  .002|  63.25  .002|  98.92  .002| 134.59  .002| 170.25  .001
02295>  27.67  .002|  63.33  .002|  99.01  .002| 134.68  .002| 170.34  .001

02296>  27.75  .002|  63.42  .002|  99.09  .002| 134.76  .002| 170.42  .001
02297>  27.83  .002|  63.50  .002|  99.17  .002| 134.84  .002| 170.50  .001
02298>  27.92  .002|  63.58  .002|  99.26  .002| 134.93  .002| 170.59  .001
02299>  28.00  .002|  63.67  .002|  99.34  .002| 135.01  .002| 170.67  .001
02300>  28.08  .002|  63.75  .002|  99.42  .002| 135.09  .002| 170.75  .001
02301>  28.17  .002|  63.83  .002|  99.51  .002| 135.18  .002| 170.84  .001
02302>  28.25  .002|  63.92  .002|  99.59  .002| 135.26  .002| 170.92  .001
02303>  28.33  .002|  64.00  .002|  99.67  .002| 135.34  .002| 171.00  .001
02304>  28.42  .002|  64.08  .002|  99.76  .002| 135.43  .002| 171.09  .001
02305>  28.50  .002|  64.17  .002|  99.84  .002| 135.51  .002| 171.17  .001
02306>  28.58  .002|  64.25  .002|  99.92  .002| 135.59  .002| 171.25  .001
02307>  28.67  .002|  64.33  .002| 100.01  .002| 135.68  .002| 171.34  .001
02308>  28.75  .002|  64.42  .002| 100.09  .002| 135.76  .002| 171.42  .001
02309>  28.83  .002|  64.50  .002| 100.17  .002| 135.84  .002| 171.50  .001
02310>  28.92  .002|  64.58  .002| 100.26  .002| 135.93  .002| 171.59  .001
02311>  29.00  .002|  64.67  .002| 100.34  .002| 136.01  .002| 171.67  .001
02312>  29.08  .002|  64.75  .002| 100.42  .002| 136.09  .002| 171.75  .001
02313>  29.17  .002|  64.83  .002| 100.51  .002| 136.18  .002| 171.84  .001
02314>  29.25  .002|  64.92  .002| 100.59  .002| 136.26  .002| 171.92  .001
02315>  29.33  .002|  65.00  .002| 100.67  .002| 136.34  .002| 172.00  .001
02316>  29.42  .002|  65.08  .002| 100.76  .002| 136.43  .002| 172.09  .001
02317>  29.50  .002|  65.17  .002| 100.84  .002| 136.51  .002| 172.17  .001
02318>  29.58  .002|  65.25  .002| 100.92  .002| 136.59  .002| 172.25  .001
02319>  29.67  .002|  65.33  .002| 101.01  .002| 136.68  .002| 172.34  .001
02320>  29.75  .002|  65.42  .002| 101.09  .002| 136.76  .002| 172.42  .001
02321>  29.83  .002|  65.50  .002| 101.17  .002| 136.84  .002| 172.50  .001
02322>  29.92  .002|  65.58  .002| 101.26  .002| 136.93  .002| 172.59  .001
02323>  30.00  .002|  65.67  .002| 101.34  .002| 137.01  .002| 172.67  .001
02324>  30.08  .002|  65.75  .002| 101.42  .002| 137.09  .002| 172.75  .001
02325>  30.17  .002|  65.83  .002| 101.51  .002| 137.18  .002| 172.84  .001
02326>  30.25  .002|  65.92  .002| 101.59  .002| 137.26  .002| 172.92  .001
02327>  30.33  .002|  66.00  .002| 101.67  .002| 137.34  .002| 173.00  .001
02328>  30.42  .002|  66.08  .002| 101.76  .002| 137.43  .002| 173.09  .001
02329>  30.50  .002|  66.17  .002| 101.84  .002| 137.51  .002| 173.17  .001
02330>  30.58  .002|  66.25  .002| 101.92  .002| 137.59  .002| 173.25  .001
02331>  30.67  .002|  66.33  .002| 102.01  .002| 137.68  .002| 173.34  .001
02332>  30.75  .002|  66.42  .002| 102.09  .002| 137.76  .002| 173.42  .001
02333>  30.83  .002|  66.50  .002| 102.17  .002| 137.84  .002| 173.50  .001
02334>  30.92  .002|  66.58  .002| 102.26  .002| 137.93  .002| 173.59  .001
02335>  31.00  .002|  66.67  .002| 102.34  .002| 138.01  .002| 173.67  .001
02336>  31.08  .002|  66.75  .002| 102.42  .002| 138.09  .002| 173.75  .001
02337>  31.17  .002|  66.83  .002| 102.51  .002| 138.18  .002| 173.84  .001
02338>  31.25  .002|  66.92  .002| 102.59  .002| 138.26  .002| 173.92  .001
02339>  31.33  .002|  67.00  .002| 102.67  .002| 138.34  .002| 174.00  .001
02340>  31.42  .002|  67.08  .002| 102.76  .002| 138.43  .002| 174.08  .001
02341>  31.50  .002|  67.17  .002| 102.84  .002| 138.51  .002| 174.17  .001
02342>  31.58  .002|  67.25  .002| 102.92  .002| 138.59  .002| 174.25  .001
02343>  31.67  .002|  67.33  .002| 103.01  .002| 138.68  .002| 174.33  .001
02344>  31.75  .002|  67.42  .002| 103.09  .002| 138.76  .002| 174.42  .001
02345>  31.83  .002|  67.50  .002| 103.17  .002| 138.84  .002| 174.50  .001
02346>  31.92  .002|  67.58  .002| 103.26  .002| 138.93  .002| 174.58  .001
02347>  32.00  .002|  67.67  .002| 103.34  .002| 139.01  .002| 174.67  .001
02348>  32.08  .002|  67.75  .002| 103.42  .002| 139.09  .002| 174.75  .001
02349>  32.17  .002|  67.83  .002| 103.51  .002| 139.18  .002| 174.83  .001
02350>  32.25  .002|  67.92  .002| 103.59  .002| 139.26  .002| 174.92  .001
02351>  32.33  .002|  68.00  .002| 103.67  .002| 139.34  .002| 175.00  .001
02352>  32.42  .002|  68.08  .002| 103.76  .002| 139.43  .002| 175.08  .001
02353>  32.50  .002|  68.17  .002| 103.84  .002| 139.51  .002| 175.17  .001
02354>  32.58  .002|  68.25  .002| 103.92  .002| 139.59  .002| 175.25  .001
02355>  32.67  .002|  68.33  .002| 104.01  .002| 139.68  .002| 175.33  .001
02356>  32.75  .002|  68.42  .002| 104.09  .002| 139.76  .002| 175.42  .001
02357>  32.83  .002|  68.50  .002| 104.17  .002| 139.84  .002| 175.50  .001
02358>  32.92  .002|  68.58  .002| 104.26  .002| 139.93  .002| 175.58  .001
02359>  33.00  .002|  68.67  .002| 104.34  .002| 140.01  .002| 175.67  .001
02360>  33.08  .002|  68.75  .002| 104.42  .002| 140.09  .002| 175.75  .001
02361>  33.17  .002|  68.83  .002| 104.51  .002| 140.18  .002| 175.83  .001
02362>  33.25  .002|  68.92  .002| 104.59  .002| 140.26  .002| 175.92  .001
02363>  33.33  .002|  69.00  .002| 104.67  .002| 140.34  .002| 176.00  .001
02364>  33.42  .002|  69.08  .002| 104.76  .002| 140.43  .002| 176.08  .001
02365>  33.50  .002|  69.17  .002| 104.84  .002| 140.51  .002| 176.17  .001
02366>  33.58  .002|  69.25  .002| 104.92  .002| 140.59  .002| 176.25  .001
02367>  33.67  .002|  69.33  .002| 105.01  .002| 140.68  .002| 176.33  .001
02368>  33.75  .002|  69.42  .002| 105.09  .002| 140.76  .002| 176.42  .001
02369>  33.83  .002|  69.50  .002| 105.17  .002| 140.84  .002| 176.50  .001
02370>  33.92  .002|  69.58  .002| 105.26  .002| 140.93  .002| 176.58  .001
02371>  34.00  .002|  69.67  .002| 105.34  .002| 141.01  .002| 176.67  .001
02372>  34.08  .002|  69.75  .002| 105.42  .002| 141.09  .002| 176.75  .001
02373>  34.17  .002|  69.83  .002| 105.51  .002| 141.18  .002| 176.83  .001
02374>  34.25  .002|  69.92  .002| 105.59  .002| 141.26  .002| 176.92  .001
02375>  34.33  .002|  70.00  .002| 105.67  .002| 141.34  .002| 177.00  .001
02376>  34.42  .002|  70.08  .002| 105.76  .002| 141.43  .002| 177.08  .001
02377>  34.50  .002|  70.17  .002| 105.84  .002| 141.51  .002| 177.17  .001
02378>  34.58  .002|  70.25  .002| 105.92  .002| 141.59  .002| 177.25  .001
02379>  34.67  .002|  70.33  .002| 106.01  .002| 141.68  .002| 177.33  .001
02380>  34.75  .002|  70.42  .002| 106.09  .002| 141.76  .002| 177.42  .001
02381>  34.83  .002|  70.50  .002| 106.17  .002| 141.84  .002| 177.50  .001
02382>  34.92  .002|  70.58  .002| 106.26  .002| 141.93  .002| 177.58  .001
02383>  35.00  .002|  70.67  .002| 106.34  .002| 142.01  .002| 177.67  .001
02384>  35.08  .002|  70.75  .002| 106.42  .002| 142.09  .002| 177.75  .001
02385>  35.17  .002|  70.83  .002| 106.51  .002| 142.18  .002| 177.83  .001
02386>  35.25  .002|  70.92  .002| 106.59  .002| 142.26  .002| 177.92  .001
02387>  35.33  .002|  71.00  .002| 106.67  .002| 142.34  .002| 178.00  .001
02388>  35.42  .002|  71.08  .002| 106.76  .002| 142.43  .002|
02389>  35.50  .002|  71.17  .002| 106.84  .002| 142.51  .002|
02390>  35.58  .002|  71.25  .002| 106.93  .002| 142.59  .002|
02391> ------------------------------------------------------------------------------
02392> 001:0088------------------------------------------------------------------------
02393> *#############################################################################
02394> *#                          ====================
02395> *#                           PROSPOSED CONDITIONS
02396> *#                          ====================
02397> *#############################################################################
02398> ----------------------
02399> | CALIB NASHYD     |   Area     (ha)=    2.37   Curve Number    (CN)=72.00
02400> | 01:EX-1    DT= 1.00 |   Ia       (mm)=    8.000   # of Linear Res.(N)= 3.00
02401> ----------------------   U.H. Tp(hrs)=     .330
02402>
02403>      Unit Hyd Qpeak  (cms)=      .274
02404>
02405>      PEAK FLOW       (cms)=      .130 (i)
02406>      TIME TO PEAK    (hrs)=     1.433
02407>      RUNOFF VOLUME     (mm)=   21.525
02408>      TOTAL RAINFALL    (mm)=   66.112
02409>      RUNOFF COEFFICIENT   =      .326
02410>
02411>      (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
02412>
02413> ------------------------------------------------------------------------------
02414> 001:0089------------------------------------------------------------------------
02415> ----------------------
02416> | COMPUTE DUALHYD    |   Average inlet capacities   [CINLET] =     .001  (cms)
02417> | TotalHyd 01:EX-1   |   Number of inlets in system [NINLET] =       1
02418> ----------------------   Total minor system capacity          =     .001  (cms)
02419>                          Total major system storage [TMJSTO] =   99999.(cu.m.)
02420>
02421>                    ID: NHYD        AREA     QPEAK     TPEAK      R.V.      DWF
02422>                                     (ha)     (cms)     (hrs)      (mm)     (cms)
02423>      TOTAL HYD.   01:EX-1          2.37      .130     1.433    21.525     .000
02424>      ================================================================================
02425>      MAJOR SYST   02:THAMES          .00      .000      .000      .000     .000
02426>      MINOR SYST   03:toDRAI         2.37      .001   178.033    21.524     .000
02427>
02428>      NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
02429>
02430>      Maximum MAJOR SYSTEM storage used =     500.(cu.m.)
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```
02431>
02432> ------------------------------------------------------------------------------
02433> 001:0090------------------------------------------------------------------------
02434> ----------------------
02435> | CALIB NASHYD       |   Area    (ha)=     .19   Curve Number   (CN)=74.00
02436> | 01:EX-2   DT= 1.00 |   Ia      (mm)=   5.000   # of Linear Res.(N)= 3.00
02437> ----------------------   U.H. Tp(hrs)=    .090
02438>
02439>      Unit Hyd Qpeak  (cms)=     .081
02440>
02441>      PEAK FLOW       (cms)=     .027 (i)
02442>      TIME TO PEAK    (hrs)=    1.083
02443>      RUNOFF VOLUME    (mm)=   24.839
02444>      TOTAL RAINFALL   (mm)=   66.112
02445>      RUNOFF COEFFICIENT   =     .376
02446>
02447>      (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
02448>
02449> ------------------------------------------------------------------------------
02450> 001:0091------------------------------------------------------------------------
02451> ----------------------
02452> | CALIB STANDHYD     |   Area    (ha)=     .45
02453> | 04:EX-3   DT= 1.00 |   Total Imp(%)=   65.00   Dir. Conn.(%)=    1.00
02454> ----------------------
02455>                              IMPERVIOUS    PERVIOUS (i)
02456>      Surface Area     (ha)=        .29         .16
02457>      Dep. Storage     (mm)=       2.00        8.00
02458>      Average Slope     (%)=       1.00       20.00
02459>      Length            (m)=       5.00       25.00
02460>      Mannings n             =       .013        .240
02461>
02462>      Max.eff.Inten.(mm/hr)=     249.21      491.16
02463>                    over (min)       1.00        2.00
02464>      Storage Coeff.  (min)=        .29 (ii)    1.67 (ii)
02465>      Unit Hyd. Tpeak (min)=       1.00        2.00
02466>      Unit Hyd. peak  (cms)=       1.64         .62
02467>                                                          *TOTALS*
02468>      PEAK FLOW       (cms)=        .00         .19          .191 (iii)
02469>      TIME TO PEAK    (hrs)=        .98        1.00         1.000
02470>      RUNOFF VOLUME    (mm)=      64.11       40.78        41.014
02471>      TOTAL RAINFALL   (mm)=      66.11       66.11        66.112
02472>      RUNOFF COEFFICIENT   =        .97         .62          .620
02473>
02474>        (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
02475>            CN* =  72.0    Ia = Dep. Storage  (Above)
02476>       (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
02477>            THAN THE STORAGE COEFFICIENT.
02478>      (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
02479>
02480> ------------------------------------------------------------------------------
02481> 001:0092------------------------------------------------------------------------
02482> ----------------------
02483> | CALIB NASHYD       |   Area    (ha)=    2.59   Curve Number   (CN)=67.00
02484> | 05:EX-4   DT= 1.00 |   Ia      (mm)=   8.000   # of Linear Res.(N)= 3.00
02485> ----------------------   U.H. Tp(hrs)=    .230
02486>
02487>      Unit Hyd Qpeak  (cms)=     .430
02488>
02489>      PEAK FLOW       (cms)=     .151 (i)
02490>      TIME TO PEAK    (hrs)=    1.300
02491>      RUNOFF VOLUME    (mm)=   18.432
02492>      TOTAL RAINFALL   (mm)=   66.112
02493>      RUNOFF COEFFICIENT   =     .279
02494>
02495>      (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
02496>
02497> ------------------------------------------------------------------------------
02498> 001:0093------------------------------------------------------------------------
02499> ----------------------
02500> | COMPUTE DUALHYD    |   Average inlet capacities   [CINLET] =    .001  (cms)
02501> | TotalHyd 05:EX-4   |   Number of inlets in system [NINLET] =       1
02502> ----------------------   Total minor system capacity           =    .001  (cms)
02503>                          Total major system storage [TMJSTO] =   99999.(cu.m.)
02504>
02505>                  ID: NHYD        AREA     QPEAK     TPEAK     R.V.      DWF
02506>                                   (ha)     (cms)     (hrs)     (mm)    (cms)
02507>      TOTAL HYD.   05:EX-4         2.59      .151     1.300   18.432     .000
02508>      ================================================================
02509>      MAJOR SYST   06:BANMAN         .00      .000      .000     .000     .000
02510>      MINOR SYST   07:toDRAI        2.59      .001   166.633   18.430     .000
02511>
02512>      NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
02513>
02514>      Maximum MAJOR SYSTEM storage used =     469.(cu.m.)
02515>
02516> ------------------------------------------------------------------------------
02517> 001:0094------------------------------------------------------------------------
02518> ----------------------
02519> | CALIB STANDHYD     |   Area    (ha)=    6.64
02520> | 05:C201   DT= 1.00 |   Total Imp(%)=   90.00   Dir. Conn.(%)=   80.00
02521> ----------------------
02522>                              IMPERVIOUS    PERVIOUS (i)
02523>      Surface Area     (ha)=       5.98         .66
02524>      Dep. Storage     (mm)=       2.00        5.00
02525>      Average Slope     (%)=       1.00        2.00
02526>      Length            (m)=      50.00       25.00
02527>      Mannings n             =       .013        .250
02528>
02529>      Max.eff.Inten.(mm/hr)=     249.21      191.11
02530>                    over (min)       1.00        5.00
02531>      Storage Coeff.  (min)=       1.17 (ii)   5.28 (ii)
02532>      Unit Hyd. Tpeak (min)=       1.00        5.00
02533>      Unit Hyd. peak  (cms)=        .98         .22
02534>                                                          *TOTALS*
02535>      PEAK FLOW       (cms)=       3.64         .22         3.786 (iii)
02536>      TIME TO PEAK    (hrs)=       1.00        1.00         1.000
02537>      RUNOFF VOLUME    (mm)=      64.11       27.94        56.879
02538>      TOTAL RAINFALL   (mm)=      66.11       66.11        66.112
02539>      RUNOFF COEFFICIENT   =        .97         .42          .860
02540>
02541>        (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
02542>            CN* =  61.0    Ia = Dep. Storage  (Above)
02543>       (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
02544>            THAN THE STORAGE COEFFICIENT.
02545>      (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
02546>
02547> ------------------------------------------------------------------------------
02548> 001:0095------------------------------------------------------------------------
02549> ----------------------
02550> | ADD HYD (POST      ) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
02551> ----------------------                    (ha)     (cms)   (hrs)   (mm)   (cms)
02552>                        ID1 01:EX-2          .19     .027    1.08  24.84    .000
02553>                       +ID2 03:toDRAIN      2.37     .001  178.03  21.52    .000
02554>                       +ID3 04:EX-3          .45     .191    1.00  41.01    .000
02555>                       +ID4 05:C201         6.64    3.786    1.00  56.88    .000
02556>                       +ID5 07:toDRAIN      2.59     .001  166.63  18.43    .000
02557>                        ==========================================================
02558>                        SUM 09:POST         12.24    3.994    1.00  40.80    .000
02559>
02560>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
02561>
02562> ------------------------------------------------------------------------------
02563> 001:0096------------------------------------------------------------------------
02564> ----------------------
02565> | ROUTE RESERVOIR    |    Requested routing time step =  1.0 min.
02566> |  IN>09:(POST  )    |
02567> | OUT<01:(SWMF  )    |    =========  OUTLFOW STORAGE TABLE  =========
02568> ----------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
02569>                             (cms)     (ha.m.)   |    (cms)    (ha.m.)
02570>                              .000  .0000E+00    |     .079  .1497E+00
02571>                              .059  .1884E-01     |     .080  .1683E+00
02572>                              .069  .3388E-01     |     .082  .1875E+00
02573>                              .070  .4889E-01     |     .083  .2073E+00
02574>                              .072  .6439E-01     |     .085  .2276E+00
02575>                              .073  .8041E-01     |     .086  .2485E+00
02576>                              .075  .9693E-01     |     .087  .2700E+00
02577>                              .076  .1140E+00     |     .299  .4003E+00
02578>                              .078  .1316E+00     |     .000  .0000E+00
02579>
02580>      ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
02581>      --------------------       (ha)     (cms)     (hrs)       (mm)
02582>      INFLOW >09: (POST  )      12.24     3.994     1.000     40.804
02583>      OUTFLOW<01: (SWMF  )      12.24      .147     2.100     40.805
02584>     OVERFLOW<02: (000003)        .00      .000      .000       .000
02585>
02586>                    TOTAL NUMBER OF SIMULATED OVERFLOWS  =         0
02587>                    CUMULATIVE TIME OF OVERFLOWS  (hours)=       .00
02588>                    PERCENTAGE OF TIME OVERFLOWING     (%)=      .00
02589>
02590>
02591>                    PEAK   FLOW   REDUCTION [Qout/Qin](%)=    3.691
02592>                    TIME SHIFT OF PEAK FLOW         (min)=    66.00
02593>                    MAXIMUM  STORAGE   USED        (ha.m.)=.3071E+00
02594>
02595> ------------------------------------------------------------------------------
02596> 001:0097------------------------------------------------------------------------
02597> --------------------
02598> | DIVERT HYD       |
02599> | INID=01  (SWMF  )|
02600> --------------------
02601>       Outflow / Inflow  Relationships
02602>       Flow 03 +  Flow 04 +  Flow 05 =  Total
02603>        (cms)      (cms)      (cms)      (cms)
02604>          .000       .000       .000       .000
02605>          .000       .059       .000       .059
02606>          .007       .061       .000       .069
02607>          .007       .063       .000       .070
02608>          .008       .064       .000       .072
02609>          .008       .065       .000       .073
02610>          .008       .066       .000       .075
02611>          .009       .068       .000       .076
02612>          .009       .069       .000       .078
02613>          .009       .070       .000       .079
02614>          .009       .071       .000       .080
02615>          .010       .072       .000       .082
02616>          .010       .073       .000       .083
02617>          .010       .074       .000       .085
02618>          .010       .075       .000       .086
02619>          .011       .077       .000       .087
02620>          .011       .078       .210       .299
02621>
02622>              NHYD       AREA    QPEAK  TpeakDate_hh:mm       R.V.  NFE WetHrs
02623>                          (ha)    (cms)                       (mm)        (hrs)
02624>    IDin = 01:SWMF      12.24     .147  No_date    2:06     40.805    1   186.
02625>    ================================================================================
02626>    IDout= 03:Infilt      .97     .011  No_date    2:06     40.805    1    12.
02627>    IDout= 04:Orific    10.38     .077  No_date    2:06     40.805    1   186.
02628>    IDout= 05:Emerge      .89     .060  No_date    2:06     40.805    1     2.
02629> ------------------------------------------------------------------------------
02630> 001:0098------------------------------------------------------------------------
02631> --------------------
02632> | PRINT HYD        |   AREA       (ha)=     .894
02633> | ID=05 (Emerge)   |   QPEAK      (cms)=    .060 (i)
02634> | DT= 1.00 PCYC= 5 |   TPEAK      (hrs)=   2.100
02635> --------------------   VOLUME       (mm)=   40.805
02636>
02637>      (i)  PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
02638>   TIME    FLOW |  TIME    FLOW |  TIME    FLOW |  TIME    FLOW |  TIME    FLOW |  TIME    FLOW
02639>    hrs     cms |   hrs     cms |   hrs     cms |   hrs     cms |   hrs     cms |   hrs     cms
02640>     .00    .000|    .83    .000|   1.67    .051|   2.50    .056|   3.33    .023
02641>     .08    .000|    .92    .000|   1.75    .054|   2.58    .054|   3.42    .018
02642>     .17    .000|   1.00    .000|   1.83    .057|   2.67    .052|   3.50    .013
02643>     .25    .000|   1.08    .000|   1.92    .059|   2.75    .050|   3.58    .008
02644>     .33    .000|   1.17    .000|   2.00    .060|   2.83    .048|   3.67    .004
02645>     .42    .000|   1.25    .000|   2.08    .060|   2.92    .046|
02646>     .50    .000|   1.33    .013|   2.17    .060|   3.00    .044|
02647>     .58    .000|   1.42    .028|   2.25    .059|   3.08    .039|
02648>     .67    .000|   1.50    .038|   2.33    .058|   3.17    .034|
02649>     .75    .000|   1.58    .045|   2.42    .057|   3.25    .028|
02650> ------------------------------------------------------------------------------
02651> 001:0099------------------------------------------------------------------------
02652> *#*****************************************************************************
02653> *#
02654> *#                                  100-year
02655> *#                                 ==========
02656> *#
02657> *#*****************************************************************************
02658> --------------------
02659> | CHICAGO STORM    |    IDF curve parameters: A=1499.530
02660> | Ptotal= 71.79 mm |                          B=   3.297
02661> --------------------                          C=    .794
02662>                          used in:   INTENSITY =  A / (t + B)^C
02663>
02664>                          Duration of storm   =  3.00 hrs
02665>                          Storm time step     =  5.00 min
02666>                          Time to peak ratio  =   .33
02667>
02668>              TIME    RAIN |   TIME    RAIN |   TIME    RAIN |   TIME    RAIN
02669>              hrs   mm/hr |    hrs   mm/hr |    hrs   mm/hr |    hrs   mm/hr
02670>               .08   5.747 |    .83  29.418 |   1.58  15.260 |   2.33   7.390
02671>               .17   6.241 |    .92  70.969 |   1.67  13.536 |   2.42   7.017
02672>               .25   6.842 |   1.00 279.468 |   1.75  12.190 |   2.50   6.684
02673>               .33   7.590 |   1.08  93.045 |   1.83  11.107 |   2.58   6.384
02674>               .42   8.550 |   1.17  48.987 |   1.92  10.216 |   2.67   6.113
02675>               .50   9.830 |   1.25  33.402 |   2.00   9.469 |   2.75   5.867
02676>               .58  11.634 |   1.33  25.503 |   2.08   8.834 |   2.83   5.641
02677>               .67  14.380 |   1.42  20.737 |   2.17   8.287 |   2.92   5.435
02678>               .75  19.119 |   1.50  17.547 |   2.25   7.809 |   3.00   5.244
02679>
02680> ------------------------------------------------------------------------------
02681> 001:0100------------------------------------------------------------------------
02682> *#*****************************************************************************
02683> *#                             ======================
02684> *#                              EXISTING CONDITIONS
02685> *#                             ======================
02686> *#*****************************************************************************
02687> ----------------------
02688> | CALIB NASHYD       |   Area    (ha)=    2.37   Curve Number   (CN)=72.00
02689> | 01:EX-1   DT= 1.00 |   Ia      (mm)=   8.000   # of Linear Res.(N)= 3.00
02690> ----------------------   U.H. Tp(hrs)=    .330
02691>
02692>      Unit Hyd Qpeak  (cms)=     .274
02693>
02694>      PEAK FLOW       (cms)=     .151 (i)
02695>      TIME TO PEAK    (hrs)=    1.417
02696>      RUNOFF VOLUME    (mm)=   25.031
02697>      TOTAL RAINFALL   (mm)=   71.791
02698>      RUNOFF COEFFICIENT   =     .349
02699>
02700>      (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
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02701>
02702> ------------------------------------------------------------------------------
02703> 001:0101------------------------------------------------------------------------
02704> ---------------------
02705> | COMPUTE DUALHYD    |   Average inlet capacities   [CINLET] =    .001  (cms)
02706> | TotalHyd 01:EX-1   |   Number of inlets in system [NINLET] =      1
02707> ---------------------   Total minor system capacity          =    .001  (cms)
02708>                         Total major system storage [TMJSTO] =   99999.(cu.m.)
02709>
02710>                   ID: NHYD        AREA     QPEAK     TPEAK     R.V.      DWF
02711>                                    (ha)     (cms)     (hrs)     (mm)     (cms)
02712>      TOTAL HYD.   01:EX-1          2.37      .151     1.417   25.031     .000
02713>      ==========================================================================
02714>      MAJOR SYST   02:THAMES          .00      .000      .000     .000     .000
02715>      MINOR SYST   03:toDRAI         2.37      .001   206.867   25.031     .000
02716>
02717>      NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
02718>
02719>      Maximum MAJOR SYSTEM storage used =     583.(cu.m.)
02720>
02721> ------------------------------------------------------------------------------
02722> 001:0102------------------------------------------------------------------------
02723> ---------------------
02724> | CALIB NASHYD       |   Area    (ha)=     .19   Curve Number    (CN)=74.00
02725> | 01:EX-2   DT= 1.00 |   Ia      (mm)=   5.000   # of Linear Res.(N)= 3.00
02726> ---------------------   U.H. Tp(hrs)=    .090
02727>
02728>      Unit Hyd Qpeak  (cms)=     .081
02729>
02730>      PEAK FLOW       (cms)=     .032 (i)
02731>      TIME TO PEAK    (hrs)=    1.083
02732>      RUNOFF VOLUME    (mm)=   28.589
02733>      TOTAL RAINFALL   (mm)=   71.791
02734>      RUNOFF COEFFICIENT   =     .398
02735>
02736>      (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
02737>
02738> ------------------------------------------------------------------------------
02739> 001:0103------------------------------------------------------------------------
02740> ---------------------
02741> | CALIB STANDHYD     |   Area    (ha)=     .45
02742> | 04:EX-3   DT= 1.00 |   Total Imp(%)=   65.00   Dir. Conn.(%)=    1.00
02743> ---------------------
02744>                              IMPERVIOUS    PERVIOUS (i)
02745>      Surface Area     (ha)=        .29         .16
02746>      Dep. Storage     (mm)=       2.00        8.00
02747>      Average Slope     (%)=       1.00       20.00
02748>      Length            (m)=       5.00       25.00
02749>      Mannings n            =       .013        .240
02750>
02751>      Max.eff.Inten.(mm/hr)=     279.47      571.98
02752>                  over (min)       1.00        2.00
02753>      Storage Coeff.  (min)=        .28 (ii)    1.58 (ii)
02754>      Unit Hyd. Tpeak (min)=       1.00        2.00
02755>      Unit Hyd. peak  (cms)=       1.65         .65
02756>                                                          *TOTALS*
02757>      PEAK FLOW       (cms)=        .00         .22          .225 (iii)
02758>      TIME TO PEAK    (hrs)=        .98        1.00         1.000
02759>      RUNOFF VOLUME    (mm)=      69.79       45.78        46.020
02760>      TOTAL RAINFALL   (mm)=      71.79       71.79        71.791
02761>      RUNOFF COEFFICIENT   =        .97         .64          .641
02762>
02763>        (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
02764>            CN* =  72.0    Ia = Dep. Storage  (Above)
02765>         (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
02766>              THAN THE STORAGE COEFFICIENT.
02767>      (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
02768>
02769> ------------------------------------------------------------------------------
02770> 001:0104------------------------------------------------------------------------
02771> ---------------------
02772> | CALIB NASHYD       |   Area    (ha)=    2.59   Curve Number    (CN)=67.00
02773> | 05:EX-4   DT= 1.00 |   Ia      (mm)=   8.000   # of Linear Res.(N)= 3.00
02774> ---------------------   U.H. Tp(hrs)=    .230
02775>
02776>      Unit Hyd Qpeak  (cms)=     .430
02777>
02778>      PEAK FLOW       (cms)=     .177 (i)
02779>      TIME TO PEAK    (hrs)=    1.283
02780>      RUNOFF VOLUME    (mm)=   21.542
02781>      TOTAL RAINFALL   (mm)=   71.791
02782>      RUNOFF COEFFICIENT   =     .300
02783>
02784>      (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
02785>
02786> ------------------------------------------------------------------------------
02787> 001:0105------------------------------------------------------------------------
02788> ---------------------
02789> | COMPUTE DUALHYD    |   Average inlet capacities   [CINLET] =    .001  (cms)
02790> | TotalHyd 05:EX-4   |   Number of inlets in system [NINLET] =      1
02791> ---------------------   Total minor system capacity          =    .001  (cms)
02792>                         Total major system storage [TMJSTO] =   99999.(cu.m.)
02793>
02794>                   ID: NHYD        AREA     QPEAK     TPEAK     R.V.       DWF
02795>                                    (ha)     (cms)     (hrs)     (mm)     (cms)
02796>      TOTAL HYD.   05:EX-4          2.59      .177     1.283   21.542     .000
02797>      ==========================================================================
02798>      MAJOR SYST   06:BANMAN          .00      .000      .000     .000     .000
02799>      MINOR SYST   07:toDRAI         2.59      .001   194.583   21.541     .000
02800>
02801>      NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
02802>
02803>      Maximum MAJOR SYSTEM storage used =     549.(cu.m.)
02804>
02805> ------------------------------------------------------------------------------
02806> 001:0106------------------------------------------------------------------------
02807> ---------------------
02808> | CALIB NASHYD       |   Area    (ha)=    6.64   Curve Number    (CN)=72.00
02809> | 05:C101   DT= 1.00 |   Ia      (mm)=   8.000   # of Linear Res.(N)= 3.00
02810> ---------------------   U.H. Tp(hrs)=    .310
02811>
02812>      Unit Hyd Qpeak  (cms)=     .818
02813>
02814>      PEAK FLOW       (cms)=     .440 (i)
02815>      TIME TO PEAK    (hrs)=    1.400
02816>      RUNOFF VOLUME    (mm)=   25.031
02817>      TOTAL RAINFALL   (mm)=   71.791
02818>      RUNOFF COEFFICIENT   =     .349
02819>
02820>      (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
02821>
02822> ------------------------------------------------------------------------------
02823> 001:0107------------------------------------------------------------------------
02824> ------------------------
02825> | ADD HYD (PRE        ) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
02826> ------------------------                    (ha)     (cms)   (hrs)   (mm)   (cms)
02827>                        ID1 01:EX-2          .19      .032    1.08  28.59    .000
02828>                       +ID2 03:toDRAIN      2.37      .001  206.87  25.03    .000
02829>                       +ID3 04:EX-3          .45      .225    1.00  46.02    .000
02830>                       +ID4 05:C101         6.64      .440    1.40  25.03    .000
02831>                       +ID5 07:toDRAIN      2.59      .001  194.58  21.54    .000
02832>                        ==========================================================
02833>                        SUM 08:PRE          12.24      .474    1.37  25.12    .000
02834>
02835>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
02836>
02837> ------------------------------------------------------------------------------
02838> 001:0108------------------------------------------------------------------------
02839> ---------------------
02840> | PRINT HYD          |   AREA       (ha)=   12.240
02841> | ID=08 (PRE    )    |   QPEAK      (cms)=     .474 (i)
02842> | DT= 1.00 PCYC= 5 |   TPEAK      (hrs)=    1.367
02843> ---------------------   VOLUME        (mm)=   25.122
02844>
02845>      (i)  PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
02846>  TIME    FLOW |  TIME    FLOW |  TIME    FLOW |  TIME    FLOW |  TIME    FLOW
02847>  hrs     cms  |  hrs     cms  |  hrs     cms  |  hrs     cms  |  hrs     cms
02848>   .00    .000| 41.42    .002| 82.84    .002| 124.26   .002| 165.67   .002
02849>   .08    .000| 41.50    .002| 82.92    .002| 124.35   .002| 165.75   .002
02850>   .17    .000| 41.58    .002| 83.00    .002| 124.43   .002| 165.84   .002
02851>   .25    .000| 41.67    .002| 83.09    .002| 124.51   .002| 165.92   .002
02852>   .33    .000| 41.75    .002| 83.17    .002| 124.60   .002| 166.00   .002
02853>   .42    .000| 41.83    .002| 83.25    .002| 124.68   .002| 166.09   .002
02854>   .50    .000| 41.92    .002| 83.34    .002| 124.76   .002| 166.17   .002
02855>   .58    .001| 42.00    .002| 83.42    .002| 124.85   .002| 166.25   .002
02856>   .67    .003| 42.08    .002| 83.50    .002| 124.93   .002| 166.34   .002
02857>   .75    .005| 42.17    .002| 83.59    .002| 125.01   .002| 166.42   .002
02858>   .83    .011| 42.25    .002| 83.67    .002| 125.10   .002| 166.50   .002
02859>   .92    .042| 42.33    .002| 83.75    .002| 125.18   .002| 166.59   .002
02860>  1.00    .283| 42.42    .002| 83.84    .002| 125.26   .002| 166.67   .002
02861>  1.08    .288| 42.50    .002| 83.92    .002| 125.35   .002| 166.75   .002
02862>  1.17    .366| 42.58    .002| 84.00    .002| 125.43   .002| 166.84   .002
02863>  1.25    .437| 42.67    .002| 84.09    .002| 125.51   .002| 166.92   .002
02864>  1.33    .472| 42.75    .002| 84.17    .002| 125.60   .002| 167.00   .002
02865>  1.42    .471| 42.83    .002| 84.25    .002| 125.68   .002| 167.09   .002
02866>  1.50    .446| 42.92    .002| 84.34    .002| 125.76   .002| 167.17   .002
02867>  1.58    .407| 43.00    .002| 84.42    .002| 125.85   .002| 167.25   .002
02868>  1.67    .363| 43.08    .002| 84.50    .002| 125.93   .002| 167.34   .002
02869>  1.75    .319| 43.17    .002| 84.59    .002| 126.01   .002| 167.42   .002
02870>  1.83    .279| 43.25    .002| 84.67    .002| 126.10   .002| 167.50   .002
02871>  1.92    .244| 43.33    .002| 84.75    .002| 126.18   .002| 167.59   .002
02872>  2.00    .215| 43.42    .002| 84.84    .002| 126.26   .002| 167.67   .002
02873>  2.08    .190| 43.50    .002| 84.92    .002| 126.35   .002| 167.75   .002
02874>  2.17    .170| 43.58    .002| 85.00    .002| 126.43   .002| 167.84   .002
02875>  2.25    .153| 43.67    .002| 85.09    .002| 126.51   .002| 167.92   .002
02876>  2.33    .139| 43.75    .002| 85.17    .002| 126.60   .002| 168.00   .002
02877>  2.42    .128| 43.83    .002| 85.25    .002| 126.68   .002| 168.09   .002
02878>  2.50    .118| 43.92    .002| 85.34    .002| 126.76   .002| 168.17   .002
02879>  2.58    .110| 44.00    .002| 85.42    .002| 126.85   .002| 168.25   .002
02880>  2.67    .104| 44.08    .002| 85.50    .002| 126.93   .002| 168.34   .002
02881>  2.75    .097| 44.17    .002| 85.59    .002| 127.01   .002| 168.42   .002
02882>  2.83    .092| 44.25    .002| 85.67    .002| 127.10   .002| 168.50   .002
02883>  2.92    .088| 44.33    .002| 85.75    .002| 127.18   .002| 168.59   .002
02884>  3.00    .084| 44.42    .002| 85.84    .002| 127.26   .002| 168.67   .002
02885>  3.08    .074| 44.50    .002| 85.92    .002| 127.35   .002| 168.75   .002
02886>  3.17    .065| 44.58    .002| 86.00    .002| 127.43   .002| 168.84   .002
02887>  3.25    .054| 44.67    .002| 86.09    .002| 127.51   .002| 168.92   .002
02888>  3.33    .044| 44.75    .002| 86.17    .002| 127.60   .002| 169.00   .002
02889>  3.42    .034| 44.83    .002| 86.25    .002| 127.68   .002| 169.09   .002
02890>  3.50    .026| 44.92    .002| 86.34    .002| 127.76   .002| 169.17   .002
02891>  3.58    .019| 45.00    .002| 86.42    .002| 127.85   .002| 169.25   .002
02892>  3.67    .014| 45.08    .002| 86.50    .002| 127.93   .002| 169.34   .002
02893>  3.75    .010| 45.17    .002| 86.59    .002| 128.01   .002| 169.42   .002
02894>  3.83    .008| 45.25    .002| 86.67    .002| 128.10   .002| 169.50   .002
02895>  3.92    .006| 45.33    .002| 86.75    .002| 128.18   .002| 169.59   .002
02896>  4.00    .004| 45.42    .002| 86.84    .002| 128.26   .002| 169.67   .002
02897>  4.08    .003| 45.50    .002| 86.92    .002| 128.35   .002| 169.75   .002
02898>  4.17    .003| 45.58    .002| 87.00    .002| 128.43   .002| 169.84   .002
02899>  4.25    .002| 45.67    .002| 87.09    .002| 128.51   .002| 169.92   .002
02900>  4.33    .002| 45.75    .002| 87.17    .002| 128.60   .002| 170.00   .002
02901>  4.42    .002| 45.83    .002| 87.25    .002| 128.68   .002| 170.09   .002
02902>  4.50    .002| 45.92    .002| 87.34    .002| 128.76   .002| 170.17   .002
02903>  4.58    .002| 46.00    .002| 87.42    .002| 128.85   .002| 170.25   .002
02904>  4.67    .002| 46.08    .002| 87.50    .002| 128.93   .002| 170.34   .002
02905>  4.75    .002| 46.17    .002| 87.59    .002| 129.01   .002| 170.42   .002
02906>  4.83    .002| 46.25    .002| 87.67    .002| 129.10   .002| 170.50   .002
02907>  4.92    .002| 46.33    .002| 87.75    .002| 129.18   .002| 170.59   .002
02908>  5.00    .002| 46.42    .002| 87.84    .002| 129.26   .002| 170.67   .002
02909>  5.08    .002| 46.50    .002| 87.92    .002| 129.35   .002| 170.75   .002
02910>  5.17    .002| 46.58    .002| 88.00    .002| 129.43   .002| 170.84   .002
02911>  5.25    .002| 46.67    .002| 88.09    .002| 129.51   .002| 170.92   .002
02912>  5.33    .002| 46.75    .002| 88.17    .002| 129.60   .002| 171.00   .002
02913>  5.42    .002| 46.83    .002| 88.25    .002| 129.68   .002| 171.09   .002
02914>  5.50    .002| 46.92    .002| 88.34    .002| 129.76   .002| 171.17   .002
02915>  5.58    .002| 47.00    .002| 88.42    .002| 129.85   .002| 171.25   .002
02916>  5.67    .002| 47.08    .002| 88.50    .002| 129.93   .002| 171.34   .002
02917>  5.75    .002| 47.17    .002| 88.59    .002| 130.01   .002| 171.42   .002
02918>  5.83    .002| 47.25    .002| 88.67    .002| 130.10   .002| 171.50   .002
02919>  5.92    .002| 47.33    .002| 88.75    .002| 130.18   .002| 171.59   .002
02920>  6.00    .002| 47.42    .002| 88.84    .002| 130.26   .002| 171.67   .002
02921>  6.08    .002| 47.50    .002| 88.92    .002| 130.35   .002| 171.75   .002
02922>  6.17    .002| 47.58    .002| 89.00    .002| 130.43   .002| 171.84   .002
02923>  6.25    .002| 47.67    .002| 89.09    .002| 130.51   .002| 171.92   .002
02924>  6.33    .002| 47.75    .002| 89.17    .002| 130.60   .002| 172.00   .002
02925>  6.42    .002| 47.83    .002| 89.25    .002| 130.68   .002| 172.09   .002
02926>  6.50    .002| 47.92    .002| 89.34    .002| 130.76   .002| 172.17   .002
02927>  6.58    .002| 48.00    .002| 89.42    .002| 130.85   .002| 172.25   .002
02928>  6.67    .002| 48.08    .002| 89.50    .002| 130.93   .002| 172.34   .002
02929>  6.75    .002| 48.17    .002| 89.59    .002| 131.01   .002| 172.42   .002
02930>  6.83    .002| 48.25    .002| 89.67    .002| 131.10   .002| 172.50   .002
02931>  6.92    .002| 48.33    .002| 89.75    .002| 131.18   .002| 172.59   .002
02932>  7.00    .002| 48.42    .002| 89.84    .002| 131.26   .002| 172.67   .002
02933>  7.08    .002| 48.50    .002| 89.92    .002| 131.35   .002| 172.75   .002
02934>  7.17    .002| 48.58    .002| 90.00    .002| 131.43   .002| 172.84   .002
02935>  7.25    .002| 48.67    .002| 90.09    .002| 131.51   .002| 172.92   .002
02936>  7.33    .002| 48.75    .002| 90.17    .002| 131.60   .002| 173.00   .002
02937>  7.42    .002| 48.83    .002| 90.25    .002| 131.68   .002| 173.09   .002
02938>  7.50    .002| 48.92    .002| 90.34    .002| 131.76   .002| 173.17   .002
02939>  7.58    .002| 49.00    .002| 90.42    .002| 131.85   .002| 173.25   .002
02940>  7.67    .002| 49.08    .002| 90.50    .002| 131.93   .002| 173.34   .002
02941>  7.75    .002| 49.17    .002| 90.59    .002| 132.01   .002| 173.42   .002
02942>  7.83    .002| 49.25    .002| 90.67    .002| 132.10   .002| 173.50   .002
02943>  7.92    .002| 49.33    .002| 90.75    .002| 132.18   .002| 173.59   .002
02944>  8.00    .002| 49.42    .002| 90.84    .002| 132.26   .002| 173.67   .002
02945>  8.08    .002| 49.50    .002| 90.92    .002| 132.35   .002| 173.75   .002
02946>  8.17    .002| 49.58    .002| 91.00    .002| 132.43   .002| 173.84   .002
02947>  8.25    .002| 49.67    .002| 91.09    .002| 132.51   .002| 173.92   .002
02948>  8.33    .002| 49.75    .002| 91.17    .002| 132.60   .002| 174.00   .002
02949>  8.42    .002| 49.83    .002| 91.26    .002| 132.68   .002| 174.08   .002
02950>  8.50    .002| 49.92    .002| 91.34    .002| 132.76   .002| 174.17   .002
02951>  8.58    .002| 50.00    .002| 91.42    .002| 132.85   .002| 174.25   .002
02952>  8.67    .002| 50.08    .002| 91.51    .002| 132.93   .002| 174.33   .002
02953>  8.75    .002| 50.17    .002| 91.59    .002| 133.01   .002| 174.42   .002
02954>  8.83    .002| 50.25    .002| 91.67    .002| 133.09   .002| 174.50   .002
02955>  8.92    .002| 50.33    .002| 91.76    .002| 133.18   .002| 174.58   .002
02956>  9.00    .002| 50.42    .002| 91.84    .002| 133.26   .002| 174.67   .002
02957>  9.08    .002| 50.50    .002| 91.92    .002| 133.34   .002| 174.75   .002
02958>  9.17    .002| 50.58    .002| 92.01    .002| 133.43   .002| 174.83   .002
02959>  9.25    .002| 50.67    .002| 92.09    .002| 133.51   .002| 174.92   .002
02960>  9.33    .002| 50.75    .002| 92.17    .002| 133.59   .002| 175.00   .002
02961>  9.42    .002| 50.83    .002| 92.26    .002| 133.68   .002| 175.08   .002
02962>  9.50    .002| 50.92    .002| 92.34    .002| 133.76   .002| 175.17   .002
02963>  9.58    .002| 51.00    .002| 92.42    .002| 133.84   .002| 175.25   .002
02964>  9.67    .002| 51.08    .002| 92.51    .002| 133.93   .002| 175.33   .002
02965>  9.75    .002| 51.17    .002| 92.59    .002| 134.01   .002| 175.42   .002
02966>  9.83    .002| 51.25    .002| 92.67    .002| 134.09   .002| 175.50   .002
02967>  9.92    .002| 51.33    .002| 92.76    .002| 134.18   .002| 175.58   .002
02968> 10.00    .002| 51.42    .002| 92.84    .002| 134.26   .002| 175.67   .002
02969> 10.08    .002| 51.50    .002| 92.92    .002| 134.34   .002| 175.75   .002
02970> 10.17    .002| 51.58    .002| 93.01    .002| 134.43   .002| 175.83   .002
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02971>	10.25	.002	51.67	.002	93.09	.002	134.51	.002	175.92	.002	03106>	21.50	.002	62.92	.002	104.34	.002	145.76	.002	187.17	.002
02972>	10.33	.002	51.75	.002	93.17	.002	134.59	.002	176.00	.002	03107>	21.58	.002	63.00	.002	104.42	.002	145.84	.002	187.25	.002
02973>	10.42	.002	51.83	.002	93.26	.002	134.68	.002	176.08	.002	03108>	21.67	.002	63.08	.002	104.51	.002	145.93	.002	187.33	.002
02974>	10.50	.002	51.92	.002	93.34	.002	134.76	.002	176.17	.002	03109>	21.75	.002	63.17	.002	104.59	.002	146.01	.002	187.42	.002
02975>	10.58	.002	52.00	.002	93.42	.002	134.84	.002	176.25	.002	03110>	21.83	.002	63.25	.002	104.67	.002	146.09	.002	187.50	.002
02976>	10.67	.002	52.08	.002	93.51	.002	134.93	.002	176.33	.002	03111>	21.92	.002	63.33	.002	104.76	.002	146.18	.002	187.58	.002
02977>	10.75	.002	52.17	.002	93.59	.002	135.01	.002	176.42	.002	03112>	22.00	.002	63.42	.002	104.84	.002	146.26	.002	187.66	.002
02978>	10.83	.002	52.25	.002	93.67	.002	135.09	.002	176.50	.002	03113>	22.08	.002	63.50	.002	104.92	.002	146.34	.002	187.75	.002
02979>	10.92	.002	52.33	.002	93.76	.002	135.18	.002	176.58	.002	03114>	22.17	.002	63.58	.002	105.01	.002	146.43	.002	187.83	.002
02980>	11.00	.002	52.42	.002	93.84	.002	135.26	.002	176.67	.002	03115>	22.25	.002	63.67	.002	105.09	.002	146.51	.002	187.91	.002
02981>	11.08	.002	52.50	.002	93.92	.002	135.34	.002	176.75	.002	03116>	22.33	.002	63.75	.002	105.17	.002	146.59	.002	188.00	.002
02982>	11.17	.002	52.58	.002	94.01	.002	135.43	.002	176.83	.002	03117>	22.42	.002	63.83	.002	105.26	.002	146.67	.002	188.08	.002
02983>	11.25	.002	52.67	.002	94.09	.002	135.51	.002	176.92	.002	03118>	22.50	.002	63.92	.002	105.34	.002	146.76	.002	188.16	.002
02984>	11.33	.002	52.75	.002	94.17	.002	135.59	.002	177.00	.002	03119>	22.58	.002	64.00	.002	105.42	.002	146.84	.002	188.25	.002
02985>	11.42	.002	52.83	.002	94.26	.002	135.68	.002	177.08	.002	03120>	22.67	.002	64.08	.002	105.51	.002	146.92	.002	188.33	.002
02986>	11.50	.002	52.92	.002	94.34	.002	135.76	.002	177.17	.002	03121>	22.75	.002	64.17	.002	105.59	.002	147.01	.002	188.41	.002
02987>	11.58	.002	53.00	.002	94.42	.002	135.84	.002	177.25	.002	03122>	22.83	.002	64.25	.002	105.67	.002	147.09	.002	188.50	.002
02988>	11.67	.002	53.08	.002	94.51	.002	135.93	.002	177.33	.002	03123>	22.92	.002	64.33	.002	105.76	.002	147.17	.002	188.58	.002
02989>	11.75	.002	53.17	.002	94.59	.002	136.01	.002	177.42	.002	03124>	23.00	.002	64.42	.002	105.84	.002	147.26	.002	188.66	.002
02990>	11.83	.002	53.25	.002	94.67	.002	136.09	.002	177.50	.002	03125>	23.08	.002	64.50	.002	105.92	.002	147.34	.002	188.75	.002
02991>	11.92	.002	53.33	.002	94.76	.002	136.18	.002	177.58	.002	03126>	23.17	.002	64.58	.002	106.01	.002	147.42	.002	188.83	.002
02992>	12.00	.002	53.42	.002	94.84	.002	136.26	.002	177.67	.002	03127>	23.25	.002	64.67	.002	106.09	.002	147.51	.002	188.91	.002
02993>	12.08	.002	53.50	.002	94.92	.002	136.34	.002	177.75	.002	03128>	23.33	.002	64.75	.002	106.17	.002	147.59	.002	189.00	.002
02994>	12.17	.002	53.58	.002	95.01	.002	136.43	.002	177.83	.002	03129>	23.42	.002	64.83	.002	106.26	.002	147.67	.002	189.08	.002
02995>	12.25	.002	53.67	.002	95.09	.002	136.51	.002	177.92	.002	03130>	23.50	.002	64.92	.002	106.34	.002	147.76	.002	189.16	.002
02996>	12.33	.002	53.75	.002	95.17	.002	136.59	.002	178.00	.002	03131>	23.58	.002	65.00	.002	106.42	.002	147.84	.002	189.25	.002
02997>	12.42	.002	53.83	.002	95.26	.002	136.68	.002	178.08	.002	03132>	23.67	.002	65.08	.002	106.51	.002	147.92	.002	189.33	.002
02998>	12.50	.002	53.92	.002	95.34	.002	136.76	.002	178.17	.002	03133>	23.75	.002	65.17	.002	106.59	.002	148.01	.002	189.41	.002
02999>	12.58	.002	54.00	.002	95.42	.002	136.84	.002	178.25	.002	03134>	23.83	.002	65.25	.002	106.67	.002	148.09	.002	189.50	.002
03000>	12.67	.002	54.08	.002	95.51	.002	136.93	.002	178.33	.002	03135>	23.92	.002	65.33	.002	106.76	.002	148.17	.002	189.58	.002
03001>	12.75	.002	54.17	.002	95.59	.002	137.01	.002	178.42	.002	03136>	24.00	.002	65.42	.002	106.84	.002	148.26	.002	189.66	.002
03002>	12.83	.002	54.25	.002	95.67	.002	137.09	.002	178.50	.002	03137>	24.08	.002	65.50	.002	106.93	.002	148.34	.002	189.75	.002
03003>	12.92	.002	54.33	.002	95.76	.002	137.18	.002	178.58	.002	03138>	24.17	.002	65.58	.002	107.01	.002	148.42	.002	189.83	.002
03004>	13.00	.002	54.42	.002	95.84	.002	137.26	.002	178.67	.002	03139>	24.25	.002	65.67	.002	107.09	.002	148.51	.002	189.91	.002
03005>	13.08	.002	54.50	.002	95.92	.002	137.34	.002	178.75	.002	03140>	24.33	.002	65.75	.002	107.18	.002	148.59	.002	190.00	.002
03006>	13.17	.002	54.58	.002	96.01	.002	137.43	.002	178.83	.002	03141>	24.42	.002	65.83	.002	107.26	.002	148.67	.002	190.08	.002
03007>	13.25	.002	54.67	.002	96.09	.002	137.51	.002	178.92	.002	03142>	24.50	.002	65.92	.002	107.34	.002	148.76	.002	190.16	.002
03008>	13.33	.002	54.75	.002	96.17	.002	137.59	.002	179.00	.002	03143>	24.58	.002	66.00	.002	107.43	.002	148.84	.002	190.25	.002
03009>	13.42	.002	54.83	.002	96.26	.002	137.68	.002	179.08	.002	03144>	24.67	.002	66.08	.002	107.51	.002	148.92	.002	190.33	.002
03010>	13.50	.002	54.92	.002	96.34	.002	137.76	.002	179.17	.002	03145>	24.75	.002	66.17	.002	107.59	.002	149.01	.002	190.41	.002
03011>	13.58	.002	55.00	.002	96.42	.002	137.84	.002	179.25	.002	03146>	24.83	.002	66.25	.002	107.68	.002	149.09	.002	190.50	.002
03012>	13.67	.002	55.08	.002	96.51	.002	137.93	.002	179.33	.002	03147>	24.92	.002	66.33	.002	107.76	.002	149.17	.002	190.58	.002
03013>	13.75	.002	55.17	.002	96.59	.002	138.01	.002	179.42	.002	03148>	25.00	.002	66.42	.002	107.84	.002	149.26	.002	190.66	.002
03014>	13.83	.002	55.25	.002	96.67	.002	138.09	.002	179.50	.002	03149>	25.08	.002	66.50	.002	107.93	.002	149.34	.002	190.75	.002
03015>	13.92	.002	55.33	.002	96.76	.002	138.18	.002	179.58	.002	03150>	25.17	.002	66.58	.002	108.01	.002	149.42	.002	190.83	.002
03016>	14.00	.002	55.42	.002	96.84	.002	138.26	.002	179.67	.002	03151>	25.25	.002	66.67	.002	108.09	.002	149.51	.002	190.91	.002
03017>	14.08	.002	55.50	.002	96.92	.002	138.34	.002	179.75	.002	03152>	25.33	.002	66.75	.002	108.18	.002	149.59	.002	191.00	.002
03018>	14.17	.002	55.58	.002	97.01	.002	138.43	.002	179.83	.002	03153>	25.42	.002	66.83	.002	108.26	.002	149.67	.002	191.08	.002
03019>	14.25	.002	55.67	.002	97.09	.002	138.51	.002	179.92	.002	03154>	25.50	.002	66.92	.002	108.34	.002	149.76	.002	191.16	.002
03020>	14.33	.002	55.75	.002	97.17	.002	138.59	.002	180.00	.002	03155>	25.58	.002	67.00	.002	108.43	.002	149.84	.002	191.25	.002
03021>	14.42	.002	55.83	.002	97.26	.002	138.68	.002	180.08	.002	03156>	25.67	.002	67.08	.002	108.51	.002	149.92	.002	191.33	.002
03022>	14.50	.002	55.92	.002	97.34	.002	138.76	.002	180.17	.002	03157>	25.75	.002	67.17	.002	108.59	.002	150.01	.002	191.41	.002
03023>	14.58	.002	56.00	.002	97.42	.002	138.84	.002	180.25	.002	03158>	25.83	.002	67.25	.002	108.68	.002	150.09	.002	191.50	.002
03024>	14.67	.002	56.08	.002	97.51	.002	138.93	.002	180.33	.002	03159>	25.92	.002	67.33	.002	108.76	.002	150.17	.002	191.58	.002
03025>	14.75	.002	56.17	.002	97.59	.002	139.01	.002	180.42	.002	03160>	26.00	.002	67.42	.002	108.84	.002	150.26	.002	191.66	.002
03026>	14.83	.002	56.25	.002	97.67	.002	139.09	.002	180.50	.002	03161>	26.08	.002	67.50	.002	108.93	.002	150.34	.002	191.75	.002
03027>	14.92	.002	56.33	.002	97.76	.002	139.18	.002	180.58	.002	03162>	26.17	.002	67.58	.002	109.01	.002	150.42	.002	191.83	.002
03028>	15.00	.002	56.42	.002	97.84	.002	139.26	.002	180.67	.002	03163>	26.25	.002	67.67	.002	109.09	.002	150.51	.002	191.91	.002
03029>	15.08	.002	56.50	.002	97.92	.002	139.34	.002	180.75	.002	03164>	26.33	.002	67.75	.002	109.18	.002	150.59	.002	192.00	.002
03030>	15.17	.002	56.58	.002	98.01	.002	139.43	.002	180.83	.002	03165>	26.42	.002	67.83	.002	109.26	.002	150.67	.002	192.08	.002
03031>	15.25	.002	56.67	.002	98.09	.002	139.51	.002	180.92	.002	03166>	26.50	.002	67.92	.002	109.34	.002	150.76	.002	192.16	.002
03032>	15.33	.002	56.75	.002	98.17	.002	139.59	.002	181.00	.002	03167>	26.58	.002	68.00	.002	109.43	.002	150.84	.002	192.25	.002
03033>	15.42	.002	56.83	.002	98.26	.002	139.68	.002	181.08	.002	03168>	26.67	.002	68.08	.002	109.51	.002	150.92	.002	192.33	.002
03034>	15.50	.002	56.92	.002	98.34	.002	139.76	.002	181.17	.002	03169>	26.75	.002	68.17	.002	109.59	.002	151.01	.002	192.41	.002
03035>	15.58	.002	57.00	.002	98.42	.002	139.84	.002	181.25	.002	03170>	26.83	.002	68.25	.002	109.68	.002	151.09	.002	192.50	.002
03036>	15.67	.002	57.08	.002	98.51	.002	139.93	.002	181.33	.002	03171>	26.92	.002	68.33	.002	109.76	.002	151.17	.002	192.58	.002
03037>	15.75	.002	57.17	.002	98.59	.002	140.01	.002	181.42	.002	03172>	27.00	.002	68.42	.002	109.84	.002	151.26	.002	192.66	.002
03038>	15.83	.002	57.25	.002	98.67	.002	140.09	.002	181.50	.002	03173>	27.08	.002	68.50	.002	109.93	.002	151.34	.002	192.75	.002
03039>	15.92	.002	57.33	.002	98.76	.002	140.18	.002	181.58	.002	03174>	27.17	.002	68.58	.002	110.01	.002	151.42	.002	192.83	.002
03040>	16.00	.002	57.42	.002	98.84	.002	140.26	.002	181.67	.002	03175>	27.25	.002	68.67	.002	110.09	.002	151.51	.002	192.91	.002
03041>	16.08	.002	57.50	.002	98.92	.002	140.34	.002	181.75	.002	03176>	27.33	.002	68.75	.002	110.18	.002	151.59	.002	193.00	.002
03042>	16.17	.002	57.58	.002	99.01	.002	140.43	.002	181.83	.002	03177>	27.42	.002	68.83	.002	110.26	.002	151.67	.002	193.08	.002
03043>	16.25	.002	57.67	.002	99.09	.002	140.51	.002	181.92	.002	03178>	27.50	.002	68.92	.002	110.34	.002	151.76	.002	193.16	.002
03044>	16.33	.002	57.75	.002	99.17	.002	140.59	.002	182.00	.002	03179>	27.58	.002	69.00	.002	110.43	.002	151.84	.002	193.25	.002
03045>	16.42	.002	57.83	.002	99.26	.002	140.68	.002	182.08	.002	03180>	27.67	.002	69.08	.002	110.51	.002	151.92	.002	193.33	.002
03046>	16.50	.002	57.92	.002	99.34	.002	140.76	.002	182.17	.002	03181>	27.75	.002	69.17	.002	110.59	.002	152.01	.002	193.41	.002
03047>	16.58	.002	58.00	.002	99.42	.002	140.84	.002	182.25	.002	03182>	27.83	.002	69.25	.002	110.68	.002	152.09	.002	193.50	.002
03048>	16.67	.002	58.08	.002	99.51	.002	140.93	.002	182.33	.002	03183>	27.92	.002	69.33	.002	110.76	.002	152.17	.002	193.58	.002
03049>	16.75	.002	58.17	.002	99.59	.002	141.01	.002	182.42	.002	03184>	28.00	.002	69.42	.002	110.84	.002	152.26	.002	193.66	.002
03050>	16.83	.002	58.25	.002	99.67	.002	141.09	.002	182.50	.002	03185>	28.08	.002	69.50	.002	110.93	.002	152.34	.002	193.75	.002
03051>	16.92	.002	58.33	.002	99.76	.002	141.18	.002	182.58	.002	03186>	28.17	.002	69.58	.002	111.01	.002	152.42	.002	193.83	.002
03052>	17.00	.002	58.42	.002	99.84	.002	141.26	.002	182.67	.002	03187>	28.25	.002	69.67	.002	111.09	.002	152.51	.002	193.91	.002
03053>	17.08	.002	58.50	.002	99.92	.002	141.34	.002	182.75	.002	03188>	28.33	.002	69.75	.002	111.18	.002	152.59	.002	194.00	.002
03054>	17.17	.002	58.58	.002	100.01	.002	141.43	.002	182.83	.002	03189>	28.42	.002	69.83	.002	111.26	.002	152.67	.002	194.08	.002
03055>	17.25	.002	58.67	.002	100.09	.002	141.51	.002	182.92	.002	03190>	28.50	.002	69.92	.002	111.34	.002	152.76	.002	194.16	.002
03056>	17.33	.002	58.75	.002	100.17	.002	141.59	.002	183.00	.002	03191>	28.58	.002	70.00	.002	111.43	.002	152.84	.002	194.25	.002
03057>	17.42	.002	58.83	.002	100.26	.002	141.68	.002	183.08	.002	03192>	28.67	.002	70.08	.002	111.51	.002	152.92	.002	194.33	.002
03058>	17.50	.002	58.92	.002	100.34	.002	141.76	.002	183.17	.002	03193>	28.75	.002	70.17	.002	111.59	.002	153.01	.002	194.41	.002
03059>	17.58	.002	59.00	.002	100.42	.002	141.84	.002	183.25	.002	03194>	28.83	.002	70.25	.002	111.68	.002	153.09	.002	194.50	.002
03060>	17.67	.002	59.08	.002	100.51	.002	141.93	.002	183.33	.002	03195>	28.92	.002	70.33	.002	111.76	.002	153.17	.002	194.58	.002
03061>	17.75	.002	59.17	.002	100.59	.002	142.01	.002	183.42	.002	03196>	29.00	.002	70.42	.002	111.84	.002	153.26	.002	194.66	.001
03062>	17.83	.002	59.25	.002	100.67	.002	142.09	.002	183.50	.002	03197>	29.08	.002	70.50	.002	111.93	.002	153.34	.002	194.75	.001
03063>	17.92	.002	59.33	.002	100.76	.002	142.18	.002	183.58	.002	03198>	29.17	.002	70.58	.002	112.01	.002	153.42	.002	194.83	.001
03064>	18.00	.002	59.42	.002	100.84	.002	142.26	.002	183.67	.002	03199>	29.25	.002	70.67	.002	112.09	.002	153.51	.002	194.91	.001
03065>	18.08	.002	59.50	.002	100.92	.002	142.34	.002	183.75	.002	03200>	29.33	.002	70.75	.002	112.18	.002	153.59	.002	195.00	.001
03066>	18.17	.002	59.58	.002	101.01	.002	142.43	.002	183.83	.002	03201>	29.42	.002	70.83	.002	112.26	.002	153.67	.002	195.08	.001
03067>	18.25	.002	59.67	.002	101.09	.002	142.51	.002	183.92	.002	03202>	29.50	.002	70.92	.002	112.34	.002	153.76	.002	195.16	.001
03068>	18.33	.002	59.75	.002	101.17	.002	142.59	.002	184.00	.002	03203>	29.58	.002	71.00	.002	112.43	.002	153.84	.002	195.25	.001
03069>	18.42	.002	59.83	.002	101.26	.002	142.68	.002	184.08	.002	03204>	29.67	.002	71.08	.002	112.51	.002	153.92	.002	195.33	.001
03070>	18.50	.002	59.92	.002	101.34	.002	142.76	.002	184.17	.002	03205>	29.75	.002	71.17	.002	112.59	.002	154.01	.002	195.41	.001
03071>	18.58	.002	60.00	.002	101.42	.002	142.84	.002	184.25	.002	03206>	29.83	.002	71.25	.002	112.68	.002	154.09	.002	195.50	.001
03072>	18.67	.002	60.08	.002	101.51	.002	142.93	.002	184.33	.002	03207>	29.92	.002	71.33	.002	112.76	.002	154.17	.002	195.58	.001
03073>	18.75	.002	60.17	.002	101.59	.002	143.01	.002	184.42	.002	03208>	30.00	.002	71.42	.002	112.84	.002	154.26	.002	195.66	.001
03074>	18.83	.002	60.25	.002	101.67	.002	143.09	.002	184.50	.002	03209>	30.08	.002	71.50	.002	112.93	.002	154.34	.002	195.75	.001
03075>	18.92	.002	60.33	.002	101.76	.002	143.18	.002	184.58	.002	03210>	30.17	.002	71.58	.002	113.01	.002	154.42	.002	195.83	.001
03076>	19.00	.002	60.42	.002	101.84	.002	143.26	.002	184.67	.002	03211>	30.25	.002	71.67	.002	113.09	.002	154.51	.002	195.91	.001
03077>	19.08	.002	60.50	.002	101.92	.002	143.34	.002	184.75	.002	03212>	30.33	.002	71.75	.002	113.18	.002	154.59	.002	196.00	.001
03078>	19.17	.002	60.58	.002	102.01	.002	143.43	.002	184.83	.002	03213>	30.42	.002	71.83	.002	113.26	.002	154.67	.002	196.08	.001
03079>	19.25	.002	60.67	.002	102.09	.002	143.51	.002	184.92	.002	03214>	30.50	.002	71.92	.002	113.34	.002	154.76	.002	196.16	.001
03080>	19.33	.002	60.75	.002	102.17	.002	143.59	.002	185.00	.002	03215>	30.58	.002	72.00	.002	113.43	.002	154.84	.002	196.25	.001
03081>	19.42	.002	60.83	.002	102.26	.002	143.68	.002	185.08	.002	03216>	30.67	.002	72.08	.002	113.51	.002	154.92	.002	196.33	.001
03082>	19.50	.002	60.92	.002	102.34	.002	143.76	.002	185.17	.002	03217>	30.75	.002	72.17	.002	113.59	.002	155.01	.002	196.41	.001
03083>	19.58	.002	61.00	.002	102.42	.002	143.84	.002	185.25	.002	03218>	30.83	.002	72.25	.002	113.68	.002	155.09	.002	196.50	.001
03084>	19.67	.002	61.08	.002	102.51	.002	143.93	.002	185.33	.002	03219>	30.92	.002	72.33	.002	113.76	.002	155.17	.002	196.58	.001
03085>	19.75	.002	61.17	.002	102.59	.002	144.01	.002	185.42	.002	03220>	31.00	.002	72.42	.002	113.84	.002	155.26	.002	196.66	.001
03086>	19.83	.002	61.25	.002	102.67	.002	144.09	.002	185.50	.002	03221>	31.08	.002	72.50	.002	113.93	.002	155.34	.002	196.75	.001
03087>	19.92	.002	61.33	.002	102.76	.002	144.18	.002	185.58	.002	03222>	31.17	.002	72.58	.002	114.01	.002	155.42	.002	196.83	.001
03088>	20.00	.002	61.42	.002	102.84	.002	144.26	.002	185.67	.002	03223>	31.25	.002	72.67	.002	114.09	.002	155.51	.002	196.91	.001
03089>	20.08	.002	61.50	.002	102.92	.002	144.34	.002	185.75	.002	03224>	31.33	.002	72.75	.002	114.18	.002	155.59	.002	197.00	.001
03090>	20.17	.002	61.58	.002	103.01	.002	144.43	.002	185.83	.002	03225>	31.42	.002	72.83	.002	114.26	.002	155.67	.002	197.08	.001
03091>	20.25	.002	61.67	.002	103.09	.002	144.51	.002	185.92	.002	03226>	31.50	.002	72.92	.002	114.34	.002	155.76	.002	197.16	.001
03092>	20.33	.002	61.75	.002	103.17	.002	144.59	.002	186.00	.002	03227>	31.58	.002	73.00	.002	114.43	.002	155.84	.002	197.25	.001
03093>	20.42	.002	61.83	.002	103.26	.002	144.68	.002	186.08	.002	03228>	31.67	.002	73.08	.002	114.51	.002	155.92	.002	197.33	.001
03094>	20.50	.002	61.92	.002	103.34	.002	144.76	.002	186.17	.002	03229>	31.75	.002	73.17	.002	114.59	.002	156.01	.002	197.41	.001
03095>	20.58	.002	62.00	.002	103.42	.002	144.84	.002	186.25	.002	03230>	31.83	.002	73.25	.002	114.68	.002	156.09	.002	197.50	.001
03096>	20.67	.002	62.08	.002	103.51	.002	144.93	.002	186.33	.002	03231>	31.92	.002	73.33	.002	114.76	.002	156.17	.002	197.58	.001
03097>	20.75	.002	62.17	.002	103.59	.002	145.01	.002	186.42	.002	03232>	32.00	.002	73.42	.002	114.84	.002	156.26	.002	197.66	.001
03098>	20.83	.002	62.25	.002	103.67	.002	145.09	.002	186.50	.002	03233>	32.08	.002	73.50	.002	114.93	.002	156.34	.002	197.75	.001
03099>	20.92	.002	62.33	.002	103.76	.002	145.18	.002	186.58	.002	03234>	32.17	.002	73.58	.002	115.01	.002	156.42	.002	197.83	.001
03100>	21.00	.002	62.42	.002	103.84	.002	145.26	.002	186.67	.002	03235>	32.25	.002	73.67	.002	115.09	.002	156.51	.002	197.91	.001
03101>	21.08	.002	62.50	.002	103.92	.002	145.34	.002	186.75	.002	03236>	32.33	.002	73.75	.002	115.18	.002	156.59	.002	198.00	.001
03102>	21.17	.002	62.58	.002	104.01	.002	145.43	.002	186.83	.002	03237>	32.42	.002	73.83	.002	115.26	.002	156.67	.002	198.08	.001
03103>	21.25	.002	62.67	.002	104.09	.002	145.51	.002	186.92	.002	03238>	32.50	.002	73.92	.002	115.34	.002	156.76	.002	198.16	.001
03104>	21.33	.002	62.75	.002	104.17	.002	145.59	.002	187.00	.002	03239>	32.58	.002	74.00	.002	115.43	.002	156.84	.002	198.25	.001
03105>	21.42	.002	62.83	.002	104.26	.002	145.68	.002	187.08	.002	03240>	32.67	.002	74.08	.002	115.51	.002	156.92	.002	198.33	.001

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03241>   32.75    .002|  74.17    .002| 115.59    .002| 157.01    .002| 198.41    .001
03242>   32.83    .002|  74.25    .002| 115.68    .002| 157.09    .002| 198.50    .001
03243>   32.92    .002|  74.33    .002| 115.76    .002| 157.17    .002| 198.58    .001
03244>   33.00    .002|  74.42    .002| 115.84    .002| 157.26    .002| 198.66    .001
03245>   33.08    .002|  74.50    .002| 115.93    .002| 157.34    .002| 198.75    .001
03246>   33.17    .002|  74.58    .002| 116.01    .002| 157.42    .002| 198.83    .001
03247>   33.25    .002|  74.67    .002| 116.09    .002| 157.51    .002| 198.91    .001
03248>   33.33    .002|  74.75    .002| 116.18    .002| 157.59    .002| 199.00    .001
03249>   33.42    .002|  74.83    .002| 116.26    .002| 157.67    .002| 199.08    .001
03250>   33.50    .002|  74.92    .002| 116.34    .002| 157.76    .002| 199.16    .001
03251>   33.58    .002|  75.00    .002| 116.43    .002| 157.84    .002| 199.25    .001
03252>   33.67    .002|  75.08    .002| 116.51    .002| 157.92    .002| 199.33    .001
03253>   33.75    .002|  75.17    .002| 116.59    .002| 158.01    .002| 199.41    .001
03254>   33.83    .002|  75.25    .002| 116.68    .002| 158.09    .002| 199.50    .001
03255>   33.92    .002|  75.33    .002| 116.76    .002| 158.17    .002| 199.58    .001
03256>   34.00    .002|  75.42    .002| 116.84    .002| 158.26    .002| 199.66    .001
03257>   34.08    .002|  75.50    .002| 116.93    .002| 158.34    .002| 199.75    .001
03258>   34.17    .002|  75.58    .002| 117.01    .002| 158.42    .002| 199.83    .001
03259>   34.25    .002|  75.67    .002| 117.09    .002| 158.51    .002| 199.91    .001
03260>   34.33    .002|  75.75    .002| 117.18    .002| 158.59    .002| 200.00    .001
03261>   34.42    .002|  75.84    .002| 117.26    .002| 158.67    .002| 200.08    .001
03262>   34.50    .002|  75.92    .002| 117.34    .002| 158.76    .002| 200.16    .001
03263>   34.58    .002|  76.00    .002| 117.43    .002| 158.84    .002| 200.25    .001
03264>   34.67    .002|  76.09    .002| 117.51    .002| 158.92    .002| 200.33    .001
03265>   34.75    .002|  76.17    .002| 117.59    .002| 159.01    .002| 200.41    .001
03266>   34.83    .002|  76.25    .002| 117.68    .002| 159.09    .002| 200.50    .001
03267>   34.92    .002|  76.34    .002| 117.76    .002| 159.17    .002| 200.58    .001
03268>   35.00    .002|  76.42    .002| 117.84    .002| 159.26    .002| 200.66    .001
03269>   35.08    .002|  76.50    .002| 117.93    .002| 159.34    .002| 200.75    .001
03270>   35.17    .002|  76.59    .002| 118.01    .002| 159.42    .002| 200.83    .001
03271>   35.25    .002|  76.67    .002| 118.09    .002| 159.51    .002| 200.91    .001
03272>   35.33    .002|  76.75    .002| 118.18    .002| 159.59    .002| 201.00    .001
03273>   35.42    .002|  76.84    .002| 118.26    .002| 159.67    .002| 201.08    .001
03274>   35.50    .002|  76.92    .002| 118.34    .002| 159.76    .002| 201.16    .001
03275>   35.58    .002|  77.00    .002| 118.43    .002| 159.84    .002| 201.24    .001
03276>   35.67    .002|  77.09    .002| 118.51    .002| 159.92    .002| 201.33    .001
03277>   35.75    .002|  77.17    .002| 118.59    .002| 160.01    .002| 201.41    .001
03278>   35.83    .002|  77.25    .002| 118.68    .002| 160.09    .002| 201.49    .001
03279>   35.92    .002|  77.34    .002| 118.76    .002| 160.17    .002| 201.58    .001
03280>   36.00    .002|  77.42    .002| 118.84    .002| 160.25    .002| 201.66    .001
03281>   36.08    .002|  77.50    .002| 118.93    .002| 160.34    .002| 201.74    .001
03282>   36.17    .002|  77.59    .002| 119.01    .002| 160.42    .002| 201.83    .001
03283>   36.25    .002|  77.67    .002| 119.09    .002| 160.50    .002| 201.91    .001
03284>   36.33    .002|  77.75    .002| 119.18    .002| 160.59    .002| 201.99    .001
03285>   36.42    .002|  77.84    .002| 119.26    .002| 160.67    .002| 202.08    .001
03286>   36.50    .002|  77.92    .002| 119.34    .002| 160.75    .002| 202.16    .001
03287>   36.58    .002|  78.00    .002| 119.43    .002| 160.84    .002| 202.24    .001
03288>   36.67    .002|  78.09    .002| 119.51    .002| 160.92    .002| 202.33    .001
03289>   36.75    .002|  78.17    .002| 119.59    .002| 161.00    .002| 202.41    .001
03290>   36.83    .002|  78.25    .002| 119.68    .002| 161.09    .002| 202.49    .001
03291>   36.92    .002|  78.34    .002| 119.76    .002| 161.17    .002| 202.58    .001
03292>   37.00    .002|  78.42    .002| 119.84    .002| 161.25    .002| 202.66    .001
03293>   37.08    .002|  78.50    .002| 119.93    .002| 161.34    .002| 202.74    .001
03294>   37.17    .002|  78.59    .002| 120.01    .002| 161.42    .002| 202.83    .001
03295>   37.25    .002|  78.67    .002| 120.09    .002| 161.50    .002| 202.91    .001
03296>   37.33    .002|  78.75    .002| 120.18    .002| 161.59    .002| 202.99    .001
03297>   37.42    .002|  78.84    .002| 120.26    .002| 161.67    .002| 203.08    .001
03298>   37.50    .002|  78.92    .002| 120.34    .002| 161.75    .002| 203.16    .001
03299>   37.58    .002|  79.00    .002| 120.43    .002| 161.84    .002| 203.24    .001
03300>   37.67    .002|  79.09    .002| 120.51    .002| 161.92    .002| 203.33    .001
03301>   37.75    .002|  79.17    .002| 120.59    .002| 162.00    .002| 203.41    .001
03302>   37.83    .002|  79.25    .002| 120.68    .002| 162.09    .002| 203.49    .001
03303>   37.92    .002|  79.34    .002| 120.76    .002| 162.17    .002| 203.58    .001
03304>   38.00    .002|  79.42    .002| 120.84    .002| 162.25    .002| 203.66    .001
03305>   38.08    .002|  79.50    .002| 120.93    .002| 162.34    .002| 203.74    .001
03306>   38.17    .002|  79.59    .002| 121.01    .002| 162.42    .002| 203.83    .001
03307>   38.25    .002|  79.67    .002| 121.09    .002| 162.50    .002| 203.91    .001
03308>   38.33    .002|  79.75    .002| 121.18    .002| 162.59    .002| 203.99    .001
03309>   38.42    .002|  79.84    .002| 121.26    .002| 162.67    .002| 204.08    .001
03310>   38.50    .002|  79.92    .002| 121.34    .002| 162.75    .002| 204.16    .001
03311>   38.58    .002|  80.00    .002| 121.43    .002| 162.84    .002| 204.24    .001
03312>   38.67    .002|  80.09    .002| 121.51    .002| 162.92    .002| 204.33    .001
03313>   38.75    .002|  80.17    .002| 121.59    .002| 163.00    .002| 204.41    .001
03314>   38.83    .002|  80.25    .002| 121.68    .002| 163.09    .002| 204.49    .001
03315>   38.92    .002|  80.34    .002| 121.76    .002| 163.17    .002| 204.58    .001
03316>   39.00    .002|  80.42    .002| 121.84    .002| 163.25    .002| 204.66    .001
03317>   39.08    .002|  80.50    .002| 121.93    .002| 163.34    .002| 204.74    .001
03318>   39.17    .002|  80.59    .002| 122.01    .002| 163.42    .002| 204.83    .001
03319>   39.25    .002|  80.67    .002| 122.09    .002| 163.50    .002| 204.91    .001
03320>   39.33    .002|  80.75    .002| 122.18    .002| 163.59    .002| 204.99    .001
03321>   39.42    .002|  80.84    .002| 122.26    .002| 163.67    .002| 205.08    .001
03322>   39.50    .002|  80.92    .002| 122.34    .002| 163.75    .002| 205.16    .001
03323>   39.58    .002|  81.00    .002| 122.43    .002| 163.84    .002| 205.24    .001
03324>   39.67    .002|  81.09    .002| 122.51    .002| 163.92    .002| 205.33    .001
03325>   39.75    .002|  81.17    .002| 122.60    .002| 164.00    .002| 205.41    .001
03326>   39.83    .002|  81.25    .002| 122.68    .002| 164.09    .002| 205.49    .001
03327>   39.92    .002|  81.34    .002| 122.76    .002| 164.17    .002| 205.58    .001
03328>   40.00    .002|  81.42    .002| 122.85    .002| 164.25    .002| 205.66    .001
03329>   40.08    .002|  81.50    .002| 122.93    .002| 164.34    .002| 205.74    .001
03330>   40.17    .002|  81.59    .002| 123.01    .002| 164.42    .002| 205.83    .001
03331>   40.25    .002|  81.67    .002| 123.10    .002| 164.50    .002| 205.91    .001
03332>   40.33    .002|  81.75    .002| 123.18    .002| 164.59    .002| 205.99    .001
03333>   40.42    .002|  81.84    .002| 123.26    .002| 164.67    .002| 206.08    .001
03334>   40.50    .002|  81.92    .002| 123.35    .002| 164.75    .002| 206.16    .001
03335>   40.58    .002|  82.00    .002| 123.43    .002| 164.84    .002| 206.24    .001
03336>   40.67    .002|  82.09    .002| 123.51    .002| 164.92    .002| 206.33    .001
03337>   40.75    .002|  82.17    .002| 123.60    .002| 165.00    .002| 206.41    .001
03338>   40.83    .002|  82.25    .002| 123.68    .002| 165.09    .002| 206.49    .001
03339>   40.92    .002|  82.34    .002| 123.76    .002| 165.17    .002| 206.58    .001
03340>   41.00    .002|  82.42    .002| 123.85    .002| 165.25    .002| 206.66    .001
03341>   41.08    .002|  82.50    .002| 123.93    .002| 165.34    .002| 206.74    .001
03342>   41.17    .002|  82.59    .002| 124.01    .002| 165.42    .002| 206.83    .001
03343>   41.25    .002|  82.67    .002| 124.10    .002| 165.50    .002|
03344>   41.33    .002|  82.75    .002| 124.18    .002| 165.59    .002|
03345> ----------------------------------------------------------------------------
03346> 001:0109----------------------------------------------------------------------
03347> *#*****************************************************************************
03348> *#                          ====================
03349> *#                           PROSPOSED CONDITIONS
03350> *#                          ====================
03351> *#*****************************************************************************
03352> ----------------------
03353> | CALIB NASHYD       |   Area     (ha)=    2.37   Curve Number    (CN)=72.00
03354> | 01:EX-1   DT= 1.00 |   Ia       (mm)=   8.000   # of Linear Res.(N)= 3.00
03355> ----------------------   U.H. Tp(hrs)=    .330
03356>
03357>      Unit Hyd Qpeak  (cms)=     .274
03358>
03359>      PEAK FLOW       (cms)=     .151 (i)
03360>      TIME TO PEAK    (hrs)=    1.417
03361>      RUNOFF VOLUME    (mm)=   25.031
03362>      TOTAL RAINFALL   (mm)=   71.791
03363>      RUNOFF COEFFICIENT   =     .349
03364>
03365>      (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
03366>
03367> ----------------------------------------------------------------------------
03368> 001:0110----------------------------------------------------------------------
03369> ----------------------
03370> | COMPUTE DUALHYD    |   Average inlet capacities   [CINLET] =    .001  (cms)
03371> | TotalHyd 01:EX-1   |   Number of inlets in system [NINLET] =      1
03372> ----------------------   Total minor system capacity         =    .001  (cms)
03373>                          Total major system storage [TMJSTO] =   99999.(cu.m.)
03374>
03375>                    ID: NHYD        AREA     QPEAK     TPEAK     R.V.      DWF
03376>                                      (ha)      (cms)      (hrs)      (mm)     (cms)
03377>      TOTAL HYD.   01:EX-1         2.37      .151     1.417   25.031     .000
03378>      ==========================================================================
03379>      MAJOR SYST   02:THAMES        .00      .000      .000     .000     .000
03380>      MINOR SYST   03:toDRAI       2.37      .001   206.867   25.031     .000
03381>
03382>      NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
03383>
03384>      Maximum MAJOR SYSTEM storage used =     583.(cu.m.)
03385>
03386> ----------------------------------------------------------------------------
03387> 001:0111----------------------------------------------------------------------
03388> ----------------------
03389> | CALIB NASHYD       |   Area     (ha)=     .19   Curve Number    (CN)=74.00
03390> | 01:EX-2   DT= 1.00 |   Ia       (mm)=   5.000   # of Linear Res.(N)= 3.00
03391> ----------------------   U.H. Tp(hrs)=    .090
03392>
03393>      Unit Hyd Qpeak  (cms)=     .081
03394>
03395>      PEAK FLOW       (cms)=     .032 (i)
03396>      TIME TO PEAK    (hrs)=    1.083
03397>      RUNOFF VOLUME    (mm)=   28.589
03398>      TOTAL RAINFALL   (mm)=   71.791
03399>      RUNOFF COEFFICIENT   =     .398
03400>
03401>      (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
03402>
03403> ----------------------------------------------------------------------------
03404> 001:0112----------------------------------------------------------------------
03405> ----------------------
03406> | CALIB STANDHYD     |   Area     (ha)=     .45
03407> | 04:EX-3   DT= 1.00 |   Total Imp(%)=   65.00   Dir. Conn.(%)=    1.00
03408> ----------------------
03409>                                IMPERVIOUS    PERVIOUS (i)
03410>      Surface Area     (ha)=        .29          .16
03411>      Dep. Storage     (mm)=       2.00         8.00
03412>      Average Slope     (%)=       1.00        20.00
03413>      Length            (m)=       5.00        25.00
03414>      Mannings n             =      .013         .240
03415>
03416>      Max.eff.Inten.(mm/hr)=     279.47       571.98
03417>                over (min)        1.00         2.00
03418>      Storage Coeff.  (min)=        .28 (ii)    1.58 (ii)
03419>      Unit Hyd. Tpeak (min)=       1.00         2.00
03420>      Unit Hyd. peak  (cms)=       1.65          .65
03421>                                                          *TOTALS*
03422>      PEAK FLOW       (cms)=        .00          .22          .225 (iii)
03423>      TIME TO PEAK    (hrs)=        .98         1.00         1.000
03424>      RUNOFF VOLUME    (mm)=      69.79        45.78        46.020
03425>      TOTAL RAINFALL   (mm)=      71.79        71.79        71.791
03426>      RUNOFF COEFFICIENT   =        .97          .64          .641
03427>
03428>        (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
03429>            CN* =  72.0    Ia = Dep. Storage  (Above)
03430>         (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
03431>              THAN THE STORAGE COEFFICIENT.
03432>        (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
03433>
03434> ----------------------------------------------------------------------------
03435> 001:0113----------------------------------------------------------------------
03436> ----------------------
03437> | CALIB NASHYD       |   Area     (ha)=    2.59   Curve Number    (CN)=67.00
03438> | 05:EX-4   DT= 1.00 |   Ia       (mm)=   8.000   # of Linear Res.(N)= 3.00
03439> ----------------------   U.H. Tp(hrs)=    .230
03440>
03441>      Unit Hyd Qpeak  (cms)=     .430
03442>
03443>      PEAK FLOW       (cms)=     .177 (i)
03444>      TIME TO PEAK    (hrs)=    1.283
03445>      RUNOFF VOLUME    (mm)=   21.542
03446>      TOTAL RAINFALL   (mm)=   71.791
03447>      RUNOFF COEFFICIENT   =     .300
03448>
03449>      (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
03450>
03451> ----------------------------------------------------------------------------
03452> 001:0114----------------------------------------------------------------------
03453> ----------------------
03454> | COMPUTE DUALHYD    |   Average inlet capacities   [CINLET] =    .001  (cms)
03455> | TotalHyd 05:EX-4   |   Number of inlets in system [NINLET] =      1
03456> ----------------------   Total minor system capacity         =    .001  (cms)
03457>                          Total major system storage [TMJSTO] =   99999.(cu.m.)
03458>
03459>                    ID: NHYD        AREA     QPEAK     TPEAK     R.V.      DWF
03460>                                      (ha)      (cms)      (hrs)      (mm)     (cms)
03461>      TOTAL HYD.   05:EX-4         2.59      .177     1.283   21.542     .000
03462>      ==========================================================================
03463>      MAJOR SYST   06:BANMAN        .00      .000      .000     .000     .000
03464>      MINOR SYST   07:toDRAI       2.59      .001   194.583   21.541     .000
03465>
03466>      NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
03467>
03468>      Maximum MAJOR SYSTEM storage used =     549.(cu.m.)
03469>
03470> ----------------------------------------------------------------------------
03471> 001:0115----------------------------------------------------------------------
03472> ----------------------
03473> | CALIB STANDHYD     |   Area     (ha)=    6.64
03474> | 05:C201   DT= 1.00 |   Total Imp(%)=   90.00   Dir. Conn.(%)=   80.00
03475> ----------------------
03476>                                IMPERVIOUS    PERVIOUS (i)
03477>      Surface Area     (ha)=       5.98          .66
03478>      Dep. Storage     (mm)=       2.00         5.00
03479>      Average Slope     (%)=       1.00         2.00
03480>      Length            (m)=      50.00        25.00
03481>      Mannings n             =      .013         .250
03482>
03483>      Max.eff.Inten.(mm/hr)=     279.47       228.24
03484>                over (min)        1.00         5.00
03485>      Storage Coeff.  (min)=       1.12 (ii)    4.94 (ii)
03486>      Unit Hyd. Tpeak (min)=       1.00         5.00
03487>      Unit Hyd. peak  (cms)=       1.00          .23
03488>                                                          *TOTALS*
03489>      PEAK FLOW       (cms)=       4.09          .27         4.268 (iii)
03490>      TIME TO PEAK    (hrs)=       1.00         1.07         1.000
03491>      RUNOFF VOLUME    (mm)=      69.79        31.90        62.214
03492>      TOTAL RAINFALL   (mm)=      71.79        71.79        71.791
03493>      RUNOFF COEFFICIENT   =        .97          .44          .867
03494>
03495>        (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
03496>            CN* =  61.0    Ia = Dep. Storage  (Above)
03497>         (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
03498>              THAN THE STORAGE COEFFICIENT.
03499>        (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
03500>
03501> ----------------------------------------------------------------------------
03502> 001:0116----------------------------------------------------------------------
03503> ----------------------
03504> | ADD HYD (POST      ) | ID: NHYD        AREA     QPEAK   TPEAK   R.V.    DWF
03505> ----------------------                   (ha)      (cms)   (hrs)   (mm)   (cms)
03506>                       ID1 01:EX-2         .19      .032    1.08   28.59    .000
03507>                     +ID2 03:toDRAIN      2.37      .001  206.87   25.03    .000
03508>                     +ID3 04:EX-3          .45      .225    1.00   46.02    .000
03509>                     +ID4 05:C201         6.64     4.268    1.00   62.21    .000
03510>                     +ID5 07:toDRAIN      2.59      .001  194.58   21.54    .000
```

```
                    ============================================================
                    SUM 09:POST          12.24    4.514    1.00  45.27    .000

   NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

------------------------------------------------------------------------------
001:0117----------------------------------------------------------------------
----------------------
| ROUTE RESERVOIR    |    Requested routing time step =  1.0 min.
|  IN>09:(POST  )    |
| OUT<01:(SWMF  )    |    =========  OUTLFOW STORAGE TABLE  =========
----------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
                            (cms)     (ha.m.)  |    (cms)    (ha.m.)
                            .000  .0000E+00    |     .079  .1497E+00
                            .059  .1884E-01    |     .080  .1683E+00
                            .069  .3388E-01    |     .082  .1875E+00
                            .070  .4889E-01    |     .083  .2073E+00
                            .072  .6439E-01    |     .085  .2276E+00
                            .073  .8041E-01    |     .086  .2485E+00
                            .075  .9693E-01    |     .087  .2700E+00
                            .076  .1140E+00    |     .299  .4003E+00
                            .078  .1316E+00    |     .000  .0000E+00

     ROUTING RESULTS            AREA     QPEAK     TPEAK       R.V.
     -------------------         (ha)     (cms)     (hrs)       (mm)
     INFLOW >09: (POST  )       12.24     4.514     1.000     45.274
     OUTFLOW<01: (SWMF  )       12.24      .181     1.983     45.276
    OVERFLOW<02: (000003)         .00      .000      .000       .000

                    TOTAL NUMBER OF SIMULATED OVERFLOWS  =        0
                    CUMULATIVE TIME OF OVERFLOWS  (hours)=      .00
                    PERCENTAGE OF TIME OVERFLOWING    (%)=      .00


                    PEAK   FLOW   REDUCTION [Qout/Qin](%)=    4.017
                    TIME SHIFT OF PEAK FLOW          (min)=    59.00
                    MAXIMUM  STORAGE   USED       (ha.m.)=.3280E+00

------------------------------------------------------------------------------
001:0118----------------------------------------------------------------------
--------------------
| DIVERT HYD       |
| INID=01  (SWMF  )|
--------------------
      Outflow / Inflow  Relationships
      Flow 03 +  Flow 04 +  Flow 05 =  Total
       (cms)      (cms)      (cms)      (cms)
         .000       .000       .000       .000
         .000       .059       .000       .059
         .007       .061       .000       .069
         .007       .063       .000       .070
         .008       .064       .000       .072
         .008       .065       .000       .073
         .008       .066       .000       .075
         .009       .068       .000       .076
         .009       .069       .000       .078
         .009       .070       .000       .079
         .009       .071       .000       .080
         .010       .072       .000       .082
         .010       .073       .000       .083
         .010       .074       .000       .085
         .010       .075       .000       .086
         .011       .077       .000       .087
         .011       .078       .210       .299

             NHYD       AREA    QPEAK   TpeakDate_hh:mm       R.V.  NFE WetHrs
                         (ha)    (cms)                         (mm)       (hrs)
   IDin = 01:SWMF      12.24     .181  No_date    1:59     45.276    1   215.
   ========================================================================
   IDout= 03:Infilt      .91     .011  No_date    1:59     45.276    1    13.
   IDout= 04:Orific     9.92     .077  No_date    1:59     45.276    1   215.
   IDout= 05:Emerge     1.42     .093  No_date    1:59     45.276    1     3.
------------------------------------------------------------------------------
001:0119----------------------------------------------------------------------
--------------------
| PRINT HYD          |   AREA       (ha)=    1.416
| ID=05 (Emerge)     |   QPEAK     (cms)=     .093 (i)
| DT= 1.00 PCYC= 5 |   TPEAK     (hrs)=    1.983
--------------------   VOLUME      (mm)=   45.276

     (i)  PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
  TIME    FLOW |  TIME    FLOW |  TIME    FLOW |  TIME    FLOW |  TIME    FLOW
   hrs     cms |   hrs     cms |   hrs     cms |   hrs     cms |   hrs     cms
   .00    .000|    .83    .000|   1.67    .087|   2.50    .085|   3.33    .044
   .08    .000|    .92    .000|   1.75    .090|   2.58    .083|   3.42    .038
   .17    .000|   1.00    .000|   1.83    .092|   2.67    .080|   3.50    .032
   .25    .000|   1.08    .000|   1.92    .093|   2.75    .078|   3.58    .027
   .33    .000|   1.17    .000|   2.00    .093|   2.83    .075|   3.67    .021
   .42    .000|   1.25    .032|   2.08    .093|   2.92    .072|   3.75    .016
   .50    .000|   1.33    .053|   2.17    .092|   3.00    .070|   3.83    .011
   .58    .000|   1.42    .066|   2.25    .091|   3.08    .064|   3.92    .007
   .67    .000|   1.50    .076|   2.33    .089|   3.17    .057|   4.00    .003
   .75    .000|   1.58    .083|   2.42    .087|   3.25    .051|
------------------------------------------------------------------------------
001:0120----------------------------------------------------------------------
*#*************************************************************************
*#
*#                                  250-year
*#                                  ==========
*#
*#*************************************************************************
--------------------
| CHICAGO STORM    |    IDF curve parameters: A=3048.220
| Ptotal= 86.60 mm |                          B=  10.030
--------------------                          C=   .888
                          used in:   INTENSITY =  A / (t + B)^C

                          Duration of storm  =  3.00 hrs
                          Storm time step    =  5.00 min
                          Time to peak ratio =   .33

               TIME    RAIN |  TIME    RAIN |  TIME    RAIN |  TIME    RAIN
               hrs   mm/hr |   hrs   mm/hr |   hrs   mm/hr |   hrs   mm/hr
               .08   5.146 |   .83  43.789 |  1.58  19.207 |  2.33   7.218
               .17   5.748 |   .92 106.492 |  1.67  16.378 |  2.42   6.730
               .25   6.505 |  1.00 274.730 |  1.75  14.228 |  2.50   6.302
               .33   7.486 |  1.08 136.493 |  1.83  12.548 |  2.58   5.925
               .42   8.799 |  1.17  76.628 |  1.92  11.204 |  2.67   5.589
               .50  10.637 |  1.25  50.754 |  2.00  10.107 |  2.75   5.289
               .58  13.366 |  1.33  36.943 |  2.08   9.197 |  2.83   5.020
               .67  17.763 |  1.42  28.579 |  2.17   8.431 |  2.92   4.776
               .75  25.782 |  1.50  23.067 |  2.25   7.779 |  3.00   4.554

------------------------------------------------------------------------------
001:0121----------------------------------------------------------------------
*#*************************************************************************
*#                                 ====================
*#                                  EXISTING CONDITIONS
*#                                 ====================
*#*************************************************************************
--------------------
| CALIB NASHYD       |   Area     (ha)=    2.37   Curve Number   (CN)=72.00
| 01:EX-1   DT= 1.00 |   Ia       (mm)=   8.000   # of Linear Res.(N)= 3.00
--------------------   U.H. Tp(hrs)=    .330

     Unit Hyd Qpeak  (cms)=     .274

     PEAK FLOW       (cms)=     .223 (i)
     TIME TO PEAK    (hrs)=    1.433
     RUNOFF VOLUME    (mm)=   34.829
     TOTAL RAINFALL   (mm)=   86.599
     RUNOFF COEFFICIENT   =     .402

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

------------------------------------------------------------------------------
001:0122----------------------------------------------------------------------
----------------------
| COMPUTE DUALHYD    |   Average inlet capacities   [CINLET] =    .001  (cms)
| TotalHyd 01:EX-1   |   Number of inlets in system [NINLET] =       1
----------------------   Total minor system capacity         =    .001  (cms)
                         Total major system storage [TMJSTO] =   99999.(cu.m.)

                    ID: NHYD        AREA     QPEAK     TPEAK     R.V.      DWF
                                     (ha)     (cms)     (hrs)     (mm)     (cms)
     TOTAL HYD.   01:EX-1           2.37      .223     1.433   34.829     .000
     ========================================================================
     MAJOR SYST   02:THAMES          .00      .000      .000     .000     .000
     MINOR SYST   03:toDRAI         2.37      .001   287.433   34.829     .000

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

     Maximum MAJOR SYSTEM storage used =     816.(cu.m.)

------------------------------------------------------------------------------
001:0123----------------------------------------------------------------------
----------------------
| CALIB NASHYD       |   Area     (ha)=     .19   Curve Number   (CN)=74.00
| 01:EX-2   DT= 1.00 |   Ia       (mm)=   5.000   # of Linear Res.(N)= 3.00
----------------------   U.H. Tp(hrs)=    .090

     Unit Hyd Qpeak  (cms)=     .081

     PEAK FLOW       (cms)=     .041 (i)
     TIME TO PEAK    (hrs)=    1.100
     RUNOFF VOLUME    (mm)=   38.973
     TOTAL RAINFALL   (mm)=   86.599
     RUNOFF COEFFICIENT   =     .450

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

------------------------------------------------------------------------------
001:0124----------------------------------------------------------------------
----------------------
| CALIB STANDHYD     |   Area     (ha)=     .45
| 04:EX-3   DT= 1.00 |   Total Imp(%)=   65.00   Dir. Conn.(%)=    1.00
----------------------

                                IMPERVIOUS    PERVIOUS (i)
     Surface Area      (ha)=        .29          .16
     Dep. Storage      (mm)=       2.00         8.00
     Average Slope      (%)=       1.00        20.00
     Length             (m)=       5.00        25.00
     Mannings n            =       .013         .240

     Max.eff.Inten.(mm/hr)=     274.73       590.27
                over (min)        1.00         2.00
     Storage Coeff.  (min)=        .28 (ii)    1.56 (ii)
     Unit Hyd. Tpeak (min)=       1.00         2.00
     Unit Hyd. peak  (cms)=       1.65          .65
                                                          *TOTALS*
     PEAK FLOW       (cms)=        .00          .23          .238 (iii)
     TIME TO PEAK    (hrs)=        .98         1.00         1.000
     RUNOFF VOLUME    (mm)=      84.60        59.12        59.379
     TOTAL RAINFALL   (mm)=      86.60        86.60        86.599
     RUNOFF COEFFICIENT   =        .98          .68          .686

       (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
           CN* =  72.0    Ia = Dep. Storage  (Above)
      (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
           THAN THE STORAGE COEFFICIENT.
     (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

------------------------------------------------------------------------------
001:0125----------------------------------------------------------------------
----------------------
| CALIB NASHYD       |   Area     (ha)=    2.59   Curve Number   (CN)=67.00
| 05:EX-4   DT= 1.00 |   Ia       (mm)=   8.000   # of Linear Res.(N)= 3.00
----------------------   U.H. Tp(hrs)=    .230

     Unit Hyd Qpeak  (cms)=     .430

     PEAK FLOW       (cms)=     .262 (i)
     TIME TO PEAK    (hrs)=    1.317
     RUNOFF VOLUME    (mm)=   30.328
     TOTAL RAINFALL   (mm)=   86.599
     RUNOFF COEFFICIENT   =     .350

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

------------------------------------------------------------------------------
001:0126----------------------------------------------------------------------
----------------------
| COMPUTE DUALHYD    |   Average inlet capacities   [CINLET] =    .001  (cms)
| TotalHyd 05:EX-4   |   Number of inlets in system [NINLET] =       1
----------------------   Total minor system capacity         =    .001  (cms)
                         Total major system storage [TMJSTO] =   99999.(cu.m.)

                    ID: NHYD        AREA     QPEAK     TPEAK     R.V.      DWF
                                     (ha)     (cms)     (hrs)     (mm)     (cms)
     TOTAL HYD.   05:EX-4           2.59      .262     1.317   30.328     .000
     ========================================================================
     MAJOR SYST   06:BANMAN          .00      .000      .000     .000     .000
     MINOR SYST   07:toDRAI         2.59      .001   273.550   30.329     .000

     NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

     Maximum MAJOR SYSTEM storage used =     777.(cu.m.)

------------------------------------------------------------------------------
001:0127----------------------------------------------------------------------
----------------------
| CALIB NASHYD       |   Area     (ha)=    6.64   Curve Number   (CN)=72.00
| 05:C101   DT= 1.00 |   Ia       (mm)=   8.000   # of Linear Res.(N)= 3.00
----------------------   U.H. Tp(hrs)=    .310

     Unit Hyd Qpeak  (cms)=     .818

     PEAK FLOW       (cms)=     .651 (i)
     TIME TO PEAK    (hrs)=    1.417
     RUNOFF VOLUME    (mm)=   34.829
     TOTAL RAINFALL   (mm)=   86.599
     RUNOFF COEFFICIENT   =     .402

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

------------------------------------------------------------------------------
001:0128----------------------------------------------------------------------
-------------------------
| ADD HYD (PRE       ) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
-------------------------                   (ha)     (cms)   (hrs)   (mm)    (cms)
```

```
                      ID1 01:EX-2          .19     .041    1.10   38.97    .000
                     +ID2 03:toDRAIN      2.37     .001  287.43   34.83    .000
                     +ID3 04:EX-3          .45     .238    1.00   59.38    .000
                     +ID4 05:C101         6.64     .651    1.42   34.83    .000
                     +ID5 07:toDRAIN      2.59     .001  273.55   30.33    .000
                      ==========================================================
                      SUM 08:PRE         12.24     .700    1.40   34.83    .000

    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

---------------------------------------------------------------------------------
001:0129-----------------------------------------------------------------------
--------------------
| PRINT HYD        |   AREA       (ha)=   12.240
| ID=08 (PRE   )   |   QPEAK     (cms)=    .700 (i)
| DT= 1.00 PCYC= 5 |   TPEAK     (hrs)=   1.400
--------------------   VOLUME      (mm)=  34.834

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

TIME	FLOW	TIME	FLOW	TIME	FLOW	TIME	FLOW	TIME	FLOW
hrs	cms	hrs	cms	hrs	cms	hrs	cms	hrs	cms
.00	.000	57.50	.002	115.01	.002	172.50	.002	229.99	.002
.08	.000	57.58	.002	115.09	.002	172.59	.002	230.07	.002
.17	.000	57.67	.002	115.18	.002	172.67	.002	230.15	.002
.25	.000	57.75	.002	115.26	.002	172.75	.002	230.24	.002
.33	.000	57.83	.002	115.34	.002	172.84	.002	230.32	.002
.42	.000	57.92	.002	115.43	.002	172.92	.002	230.40	.002
.50	.000	58.00	.002	115.51	.002	173.00	.002	230.49	.002
.58	.001	58.08	.002	115.59	.002	173.09	.002	230.57	.002
.67	.003	58.17	.002	115.68	.002	173.17	.002	230.65	.002
.75	.008	58.25	.002	115.76	.002	173.25	.002	230.74	.002
.83	.020	58.33	.002	115.84	.002	173.34	.002	230.82	.002
.92	.079	58.42	.002	115.93	.002	173.42	.002	230.90	.002
1.00	.326	58.50	.002	116.01	.002	173.50	.002	230.99	.002
1.08	.402	58.58	.002	116.09	.002	173.59	.002	231.07	.002
1.17	.520	58.67	.002	116.18	.002	173.67	.002	231.15	.002
1.25	.629	58.75	.002	116.26	.002	173.75	.002	231.24	.002
1.33	.690	58.83	.002	116.34	.002	173.84	.002	231.32	.002
1.42	.699	58.92	.002	116.43	.002	173.92	.002	231.40	.002
1.50	.668	59.00	.002	116.51	.002	174.00	.002	231.49	.002
1.58	.613	59.08	.002	116.59	.002	174.08	.002	231.57	.002
1.67	.546	59.17	.002	116.68	.002	174.17	.002	231.65	.002
1.75	.478	59.25	.002	116.76	.002	174.25	.002	231.74	.002
1.83	.414	59.33	.002	116.84	.002	174.33	.002	231.82	.002
1.92	.356	59.42	.002	116.93	.002	174.42	.002	231.90	.002
2.00	.306	59.50	.002	117.01	.002	174.50	.002	231.99	.002
2.08	.264	59.58	.002	117.09	.002	174.58	.002	232.07	.002
2.17	.229	59.67	.002	117.18	.002	174.67	.002	232.15	.002
2.25	.200	59.75	.002	117.26	.002	174.75	.002	232.24	.002
2.33	.177	59.83	.002	117.34	.002	174.83	.002	232.32	.002
2.42	.157	59.92	.002	117.43	.002	174.92	.002	232.40	.002
2.50	.141	60.00	.002	117.51	.002	175.00	.002	232.49	.002
2.58	.128	60.08	.002	117.59	.002	175.08	.002	232.57	.002
2.67	.117	60.17	.002	117.68	.002	175.17	.002	232.65	.002
2.75	.107	60.25	.002	117.76	.002	175.25	.002	232.74	.002
2.83	.099	60.33	.002	117.84	.002	175.33	.002	232.82	.002
2.92	.092	60.42	.002	117.93	.002	175.42	.002	232.90	.002
3.00	.087	60.50	.002	118.01	.002	175.50	.002	232.99	.002
3.08	.075	60.58	.002	118.09	.002	175.58	.002	233.07	.002
3.17	.065	60.67	.002	118.18	.002	175.67	.002	233.15	.002
3.25	.055	60.75	.002	118.26	.002	175.75	.002	233.24	.002
3.33	.044	60.83	.002	118.34	.002	175.83	.002	233.32	.002
3.42	.034	60.92	.002	118.43	.002	175.92	.002	233.40	.002
3.50	.026	61.00	.002	118.51	.002	176.00	.002	233.49	.002
3.58	.019	61.08	.002	118.59	.002	176.08	.002	233.57	.002
3.67	.014	61.17	.002	118.68	.002	176.17	.002	233.65	.002
3.75	.010	61.25	.002	118.76	.002	176.25	.002	233.74	.002
3.83	.007	61.33	.002	118.84	.002	176.33	.002	233.82	.002
3.92	.006	61.42	.002	118.93	.002	176.42	.002	233.90	.002
4.00	.004	61.50	.002	119.01	.002	176.50	.002	233.99	.002
4.08	.003	61.58	.002	119.09	.002	176.58	.002	234.07	.002
4.17	.003	61.67	.002	119.18	.002	176.67	.002	234.15	.002
4.25	.002	61.75	.002	119.26	.002	176.75	.002	234.24	.002
4.33	.002	61.83	.002	119.34	.002	176.83	.002	234.32	.002
4.42	.002	61.92	.002	119.43	.002	176.92	.002	234.40	.002
4.50	.002	62.00	.002	119.51	.002	177.00	.002	234.49	.002
4.58	.002	62.08	.002	119.59	.002	177.08	.002	234.57	.002
4.67	.002	62.17	.002	119.68	.002	177.17	.002	234.65	.002
4.75	.002	62.25	.002	119.76	.002	177.25	.002	234.74	.002
4.83	.002	62.33	.002	119.84	.002	177.33	.002	234.82	.002
4.92	.002	62.42	.002	119.93	.002	177.42	.002	234.90	.002
5.00	.002	62.50	.002	120.01	.002	177.50	.002	234.99	.002
5.08	.002	62.58	.002	120.09	.002	177.58	.002	235.07	.002
5.17	.002	62.67	.002	120.18	.002	177.67	.002	235.15	.002
5.25	.002	62.75	.002	120.26	.002	177.75	.002	235.24	.002
5.33	.002	62.83	.002	120.34	.002	177.83	.002	235.32	.002
5.42	.002	62.92	.002	120.43	.002	177.92	.002	235.40	.002
5.50	.002	63.00	.002	120.51	.002	178.00	.002	235.49	.002
5.58	.002	63.08	.002	120.59	.002	178.08	.002	235.57	.002
5.67	.002	63.17	.002	120.68	.002	178.17	.002	235.65	.002
5.75	.002	63.25	.002	120.76	.002	178.25	.002	235.74	.002
5.83	.002	63.33	.002	120.84	.002	178.33	.002	235.82	.002
5.92	.002	63.42	.002	120.93	.002	178.42	.002	235.90	.002
6.00	.002	63.50	.002	121.01	.002	178.50	.002	235.99	.002
6.08	.002	63.58	.002	121.09	.002	178.58	.002	236.07	.002
6.17	.002	63.67	.002	121.18	.002	178.67	.002	236.15	.002
6.25	.002	63.75	.002	121.26	.002	178.75	.002	236.24	.002
6.33	.002	63.83	.002	121.34	.002	178.83	.002	236.32	.002
6.42	.002	63.92	.002	121.43	.002	178.92	.002	236.40	.002
6.50	.002	64.00	.002	121.51	.002	179.00	.002	236.49	.002
6.58	.002	64.08	.002	121.59	.002	179.08	.002	236.57	.002
6.67	.002	64.17	.002	121.68	.002	179.17	.002	236.65	.002
6.75	.002	64.25	.002	121.76	.002	179.25	.002	236.74	.002
6.83	.002	64.33	.002	121.84	.002	179.33	.002	236.82	.002
6.92	.002	64.42	.002	121.93	.002	179.42	.002	236.90	.002
7.00	.002	64.50	.002	122.01	.002	179.50	.002	236.99	.002
7.08	.002	64.58	.002	122.09	.002	179.58	.002	237.07	.002
7.17	.002	64.67	.002	122.18	.002	179.67	.002	237.15	.002
7.25	.002	64.75	.002	122.26	.002	179.75	.002	237.24	.002
7.33	.002	64.83	.002	122.34	.002	179.83	.002	237.32	.002
7.42	.002	64.92	.002	122.43	.002	179.92	.002	237.40	.002
7.50	.002	65.00	.002	122.51	.002	180.00	.002	237.49	.002
7.58	.002	65.08	.002	122.60	.002	180.08	.002	237.57	.002
7.67	.002	65.17	.002	122.68	.002	180.17	.002	237.65	.002
7.75	.002	65.25	.002	122.76	.002	180.25	.002	237.74	.002
7.83	.002	65.33	.002	122.85	.002	180.33	.002	237.82	.002
7.92	.002	65.42	.002	122.93	.002	180.42	.002	237.90	.002
8.00	.002	65.50	.002	123.01	.002	180.50	.002	237.99	.002
8.08	.002	65.58	.002	123.10	.002	180.58	.002	238.07	.002
8.17	.002	65.67	.002	123.18	.002	180.67	.002	238.15	.002
8.25	.002	65.75	.002	123.26	.002	180.75	.002	238.24	.002
8.33	.002	65.83	.002	123.35	.002	180.83	.002	238.32	.002
8.42	.002	65.92	.002	123.43	.002	180.92	.002	238.40	.002
8.50	.002	66.00	.002	123.51	.002	181.00	.002	238.49	.002
8.58	.002	66.08	.002	123.60	.002	181.08	.002	238.57	.002
8.67	.002	66.17	.002	123.68	.002	181.17	.002	238.65	.002
8.75	.002	66.25	.002	123.76	.002	181.25	.002	238.74	.002
8.83	.002	66.33	.002	123.85	.002	181.33	.002	238.82	.002
8.92	.002	66.42	.002	123.93	.002	181.42	.002	238.90	.002
9.00	.002	66.50	.002	124.01	.002	181.50	.002	238.99	.002
9.08	.002	66.58	.002	124.10	.002	181.58	.002	239.07	.002
9.17	.002	66.67	.002	124.18	.002	181.67	.002	239.15	.002
9.25	.002	66.75	.002	124.26	.002	181.75	.002	239.24	.002
9.33	.002	66.83	.002	124.35	.002	181.83	.002	239.32	.002
9.42	.002	66.92	.002	124.43	.002	181.92	.002	239.40	.002
9.50	.002	67.00	.002	124.51	.002	182.00	.002	239.49	.002
9.58	.002	67.08	.002	124.60	.002	182.08	.002	239.57	.002
9.67	.002	67.17	.002	124.68	.002	182.17	.002	239.65	.002
9.75	.002	67.25	.002	124.76	.002	182.25	.002	239.74	.002
9.83	.002	67.33	.002	124.85	.002	182.33	.002	239.82	.002
9.92	.002	67.42	.002	124.93	.002	182.42	.002	239.90	.002
10.00	.002	67.50	.002	125.01	.002	182.50	.002	239.99	.002
10.08	.002	67.58	.002	125.10	.002	182.58	.002	240.07	.002
10.17	.002	67.67	.002	125.18	.002	182.67	.002	240.15	.002
10.25	.002	67.75	.002	125.26	.002	182.75	.002	240.24	.002
10.33	.002	67.83	.002	125.35	.002	182.83	.002	240.32	.002
10.42	.002	67.92	.002	125.43	.002	182.92	.002	240.40	.002
10.50	.002	68.00	.002	125.51	.002	183.00	.002	240.49	.002
10.58	.002	68.08	.002	125.60	.002	183.08	.002	240.57	.002
10.67	.002	68.17	.002	125.68	.002	183.17	.002	240.65	.002
10.75	.002	68.25	.002	125.76	.002	183.25	.002	240.74	.002
10.83	.002	68.33	.002	125.85	.002	183.33	.002	240.82	.002
10.92	.002	68.42	.002	125.93	.002	183.42	.002	240.90	.002
11.00	.002	68.50	.002	126.01	.002	183.50	.002	240.99	.002
11.08	.002	68.58	.002	126.10	.002	183.58	.002	241.07	.002
11.17	.002	68.67	.002	126.18	.002	183.67	.002	241.15	.002
11.25	.002	68.75	.002	126.26	.002	183.75	.002	241.24	.002
11.33	.002	68.83	.002	126.35	.002	183.83	.002	241.32	.002
11.42	.002	68.92	.002	126.43	.002	183.92	.002	241.40	.002
11.50	.002	69.00	.002	126.51	.002	184.00	.002	241.49	.002
11.58	.002	69.08	.002	126.60	.002	184.08	.002	241.57	.002
11.67	.002	69.17	.002	126.68	.002	184.17	.002	241.65	.002
11.75	.002	69.25	.002	126.76	.002	184.25	.002	241.74	.002
11.83	.002	69.33	.002	126.85	.002	184.33	.002	241.82	.002
11.92	.002	69.42	.002	126.93	.002	184.42	.002	241.90	.002
12.00	.002	69.50	.002	127.01	.002	184.50	.002	241.99	.002
12.08	.002	69.58	.002	127.10	.002	184.58	.002	242.07	.002
12.17	.002	69.67	.002	127.18	.002	184.67	.002	242.15	.002
12.25	.002	69.75	.002	127.26	.002	184.75	.002	242.23	.002
12.33	.002	69.83	.002	127.35	.002	184.83	.002	242.32	.002
12.42	.002	69.92	.002	127.43	.002	184.92	.002	242.40	.002
12.50	.002	70.00	.002	127.51	.002	185.00	.002	242.48	.002
12.58	.002	70.08	.002	127.60	.002	185.08	.002	242.57	.002
12.67	.002	70.17	.002	127.68	.002	185.17	.002	242.65	.002
12.75	.002	70.25	.002	127.76	.002	185.25	.002	242.73	.002
12.83	.002	70.33	.002	127.85	.002	185.33	.002	242.82	.002
12.92	.002	70.42	.002	127.93	.002	185.42	.002	242.90	.002
13.00	.002	70.50	.002	128.01	.002	185.50	.002	242.98	.002
13.08	.002	70.58	.002	128.10	.002	185.58	.002	243.07	.002
13.17	.002	70.67	.002	128.18	.002	185.67	.002	243.15	.002
13.25	.002	70.75	.002	128.26	.002	185.75	.002	243.23	.002
13.33	.002	70.83	.002	128.35	.002	185.83	.002	243.32	.002
13.42	.002	70.92	.002	128.43	.002	185.92	.002	243.40	.002
13.50	.002	71.00	.002	128.51	.002	186.00	.002	243.48	.002
13.58	.002	71.08	.002	128.60	.002	186.08	.002	243.57	.002
13.67	.002	71.17	.002	128.68	.002	186.17	.002	243.65	.002
13.75	.002	71.25	.002	128.76	.002	186.25	.002	243.73	.002
13.83	.002	71.33	.002	128.85	.002	186.33	.002	243.82	.002
13.92	.002	71.42	.002	128.93	.002	186.42	.002	243.90	.002
14.00	.002	71.50	.002	129.01	.002	186.50	.002	243.98	.002
14.08	.002	71.58	.002	129.10	.002	186.58	.002	244.07	.002
14.17	.002	71.67	.002	129.18	.002	186.67	.002	244.15	.002
14.25	.002	71.75	.002	129.26	.002	186.75	.002	244.23	.002
14.33	.002	71.83	.002	129.35	.002	186.83	.002	244.32	.002
14.42	.002	71.92	.002	129.43	.002	186.92	.002	244.40	.002
14.50	.002	72.00	.002	129.51	.002	187.00	.002	244.48	.002
14.58	.002	72.08	.002	129.60	.002	187.08	.002	244.57	.002
14.67	.002	72.17	.002	129.68	.002	187.17	.002	244.65	.002
14.75	.002	72.25	.002	129.76	.002	187.25	.002	244.73	.002
14.83	.002	72.33	.002	129.85	.002	187.33	.002	244.82	.002
14.92	.002	72.42	.002	129.93	.002	187.42	.002	244.90	.002
15.00	.002	72.50	.002	130.01	.002	187.50	.002	244.98	.002
15.08	.002	72.58	.002	130.10	.002	187.58	.002	245.07	.002
15.17	.002	72.67	.002	130.18	.002	187.66	.002	245.15	.002
15.25	.002	72.75	.002	130.26	.002	187.75	.002	245.23	.002
15.33	.002	72.83	.002	130.35	.002	187.83	.002	245.32	.002
15.42	.002	72.92	.002	130.43	.002	187.91	.002	245.40	.002
15.50	.002	73.00	.002	130.51	.002	188.00	.002	245.48	.002
15.58	.002	73.08	.002	130.60	.002	188.08	.002	245.57	.002
15.67	.002	73.17	.002	130.68	.002	188.16	.002	245.65	.002
15.75	.002	73.25	.002	130.76	.002	188.25	.002	245.73	.002
15.83	.002	73.33	.002	130.85	.002	188.33	.002	245.82	.002
15.92	.002	73.42	.002	130.93	.002	188.41	.002	245.90	.002
16.00	.002	73.50	.002	131.01	.002	188.50	.002	245.98	.002
16.08	.002	73.58	.002	131.10	.002	188.58	.002	246.07	.002
16.17	.002	73.67	.002	131.18	.002	188.66	.002	246.15	.002
16.25	.002	73.75	.002	131.26	.002	188.75	.002	246.23	.002
16.33	.002	73.83	.002	131.35	.002	188.83	.002	246.32	.002
16.42	.002	73.92	.002	131.43	.002	188.91	.002	246.40	.002
16.50	.002	74.00	.002	131.51	.002	189.00	.002	246.48	.002
16.58	.002	74.08	.002	131.60	.002	189.08	.002	246.57	.002
16.67	.002	74.17	.002	131.68	.002	189.16	.002	246.65	.002
16.75	.002	74.25	.002	131.76	.002	189.25	.002	246.73	.002
16.83	.002	74.33	.002	131.85	.002	189.33	.002	246.82	.002
16.92	.002	74.42	.002	131.93	.002	189.41	.002	246.90	.002
17.00	.002	74.50	.002	132.01	.002	189.50	.002	246.98	.002
17.08	.002	74.58	.002	132.10	.002	189.58	.002	247.07	.002
17.17	.002	74.67	.002	132.18	.002	189.66	.002	247.15	.002
17.25	.002	74.75	.002	132.26	.002	189.75	.002	247.23	.002
17.33	.002	74.83	.002	132.35	.002	189.83	.002	247.32	.002
17.42	.002	74.92	.002	132.43	.002	189.91	.002	247.40	.002
17.50	.002	75.00	.002	132.51	.002	190.00	.002	247.48	.002
17.58	.002	75.08	.002	132.60	.002	190.08	.002	247.57	.002
17.67	.002	75.17	.002	132.68	.002	190.16	.002	247.65	.002
17.75	.002	75.25	.002	132.76	.002	190.25	.002	247.73	.002
17.83	.002	75.33	.002	132.85	.002	190.33	.002	247.82	.002
17.92	.002	75.42	.002	132.93	.002	190.41	.002	247.90	.002
18.00	.002	75.50	.002	133.01	.002	190.50	.002	247.98	.002
18.08	.002	75.58	.002	133.09	.002	190.58	.002	248.07	.002
18.17	.002	75.67	.002	133.18	.002	190.66	.002	248.15	.002
18.25	.002	75.75	.002	133.26	.002	190.75	.002	248.23	.002
18.33	.002	75.84	.002	133.34	.002	190.83	.002	248.32	.002
18.42	.002	75.92	.002	133.43	.002	190.91	.002	248.40	.002
18.50	.002	76.00	.002	133.51	.002	191.00	.002	248.48	.002
18.58	.002	76.09	.002	133.59	.002	191.08	.002	248.57	.002
18.67	.002	76.17	.002	133.68	.002	191.16	.002	248.65	.002
18.75	.002	76.25	.002	133.76	.002	191.25	.002	248.73	.002
18.83	.002	76.34	.002	133.84	.002	191.33	.002	248.82	.002
18.92	.002	76.42	.002	133.93	.002	191.41	.002	248.90	.002
19.00	.002	76.50	.002	134.01	.002	191.50	.002	248.98	.002
19.08	.002	76.59	.002	134.09	.002	191.58	.002	249.07	.002
19.17	.002	76.67	.002	134.18	.002	191.66	.002	249.15	.002
19.25	.002	76.75	.002	134.26	.002	191.75	.002	249.23	.002
19.33	.002	76.84	.002	134.34	.002	191.83	.002	249.32	.002
19.42	.002	76.92	.002	134.43	.002	191.91	.002	249.40	.002
19.50	.002	77.00	.002	134.51	.002	192.00	.002	249.48	.002
19.58	.002	77.09	.002	134.59	.002	192.08	.002	249.57	.002
19.67	.002	77.17	.002	134.68	.002	192.16	.002	249.65	.002
19.75	.002	77.25	.002	134.76	.002	192.25	.002	249.73	.002
19.83	.002	77.34	.002	134.84	.002	192.33	.002	249.82	.002
19.92	.002	77.42	.002	134.93	.002	192.41	.002	249.90	.002
20.00	.002	77.50	.002	135.01	.002	192.50	.002	249.98	.002
20.08	.002	77.59	.002	135.09	.002	192.58	.002	250.07	.002
20.17	.002	77.67	.002	135.18	.002	192.66	.002	250.15	.002
20.25	.002	77.75	.002	135.26	.002	192.75	.002	250.23	.002
20.33	.002	77.84	.002	135.34	.002	192.83	.002	250.32	.002
20.42	.002	77.92	.002	135.43	.002	192.91	.002	250.40	.002
20.50	.002	78.00	.002	135.51	.002	193.00	.002	250.48	.002
20.58	.002	78.09	.002	135.59	.002	193.08	.002	250.57	.002
20.67	.002	78.17	.002	135.68	.002	193.16	.002	250.65	.002

04051>	20.75	.002	78.25	.002	135.76	.002	193.25	.002	250.73	.002	04186>	32.00	.002	89.50	.002	147.01	.002	204.49	.002	261.98	.002
04052>	20.83	.002	78.34	.002	135.84	.002	193.33	.002	250.82	.002	04187>	32.08	.002	89.59	.002	147.09	.002	204.58	.002	262.06	.002
04053>	20.92	.002	78.42	.002	135.93	.002	193.41	.002	250.90	.002	04188>	32.17	.002	89.67	.002	147.17	.002	204.66	.002	262.15	.002
04054>	21.00	.002	78.50	.002	136.01	.002	193.50	.002	250.98	.002	04189>	32.25	.002	89.75	.002	147.26	.002	204.74	.002	262.23	.002
04055>	21.08	.002	78.59	.002	136.09	.002	193.58	.002	251.07	.002	04190>	32.33	.002	89.84	.002	147.34	.002	204.83	.002	262.31	.002
04056>	21.17	.002	78.67	.002	136.18	.002	193.66	.002	251.15	.002	04191>	32.42	.002	89.92	.002	147.42	.002	204.91	.002	262.40	.002
04057>	21.25	.002	78.75	.002	136.26	.002	193.75	.002	251.23	.002	04192>	32.50	.002	90.00	.002	147.51	.002	204.99	.002	262.48	.002
04058>	21.33	.002	78.84	.002	136.34	.002	193.83	.002	251.32	.002	04193>	32.58	.002	90.09	.002	147.59	.002	205.08	.002	262.56	.002
04059>	21.42	.002	78.92	.002	136.43	.002	193.91	.002	251.40	.002	04194>	32.67	.002	90.17	.002	147.67	.002	205.16	.002	262.65	.002
04060>	21.50	.002	79.00	.002	136.51	.002	194.00	.002	251.48	.002	04195>	32.75	.002	90.25	.002	147.76	.002	205.24	.002	262.73	.002
04061>	21.58	.002	79.09	.002	136.59	.002	194.08	.002	251.57	.002	04196>	32.83	.002	90.34	.002	147.84	.002	205.33	.002	262.81	.002
04062>	21.67	.002	79.17	.002	136.68	.002	194.16	.002	251.65	.002	04197>	32.92	.002	90.42	.002	147.92	.002	205.41	.002	262.90	.002
04063>	21.75	.002	79.25	.002	136.76	.002	194.25	.002	251.73	.002	04198>	33.00	.002	90.50	.002	148.01	.002	205.49	.002	262.98	.002
04064>	21.83	.002	79.34	.002	136.84	.002	194.33	.002	251.82	.002	04199>	33.08	.002	90.59	.002	148.09	.002	205.58	.002	263.06	.002
04065>	21.92	.002	79.42	.002	136.93	.002	194.41	.002	251.90	.002	04200>	33.17	.002	90.67	.002	148.17	.002	205.66	.002	263.15	.002
04066>	22.00	.002	79.50	.002	137.01	.002	194.50	.002	251.98	.002	04201>	33.25	.002	90.75	.002	148.26	.002	205.74	.002	263.23	.002
04067>	22.08	.002	79.59	.002	137.09	.002	194.58	.002	252.07	.002	04202>	33.33	.002	90.84	.002	148.34	.002	205.83	.002	263.31	.002
04068>	22.17	.002	79.67	.002	137.18	.002	194.66	.002	252.15	.002	04203>	33.42	.002	90.92	.002	148.42	.002	205.91	.002	263.40	.002
04069>	22.25	.002	79.75	.002	137.26	.002	194.75	.002	252.23	.002	04204>	33.50	.002	91.00	.002	148.51	.002	205.99	.002	263.48	.002
04070>	22.33	.002	79.84	.002	137.34	.002	194.83	.002	252.32	.002	04205>	33.58	.002	91.09	.002	148.59	.002	206.08	.002	263.56	.002
04071>	22.42	.002	79.92	.002	137.43	.002	194.91	.002	252.40	.002	04206>	33.67	.002	91.17	.002	148.67	.002	206.16	.002	263.65	.002
04072>	22.50	.002	80.00	.002	137.51	.002	195.00	.002	252.48	.002	04207>	33.75	.002	91.26	.002	148.76	.002	206.24	.002	263.73	.002
04073>	22.58	.002	80.09	.002	137.59	.002	195.08	.002	252.57	.002	04208>	33.83	.002	91.34	.002	148.84	.002	206.33	.002	263.81	.002
04074>	22.67	.002	80.17	.002	137.68	.002	195.16	.002	252.65	.002	04209>	33.92	.002	91.42	.002	148.92	.002	206.41	.002	263.90	.002
04075>	22.75	.002	80.25	.002	137.76	.002	195.25	.002	252.73	.002	04210>	34.00	.002	91.51	.002	149.01	.002	206.49	.002	263.98	.002
04076>	22.83	.002	80.34	.002	137.84	.002	195.33	.002	252.82	.002	04211>	34.08	.002	91.59	.002	149.09	.002	206.58	.002	264.06	.002
04077>	22.92	.002	80.42	.002	137.93	.002	195.41	.002	252.90	.002	04212>	34.17	.002	91.67	.002	149.17	.002	206.66	.002	264.15	.002
04078>	23.00	.002	80.50	.002	138.01	.002	195.50	.002	252.98	.002	04213>	34.25	.002	91.76	.002	149.26	.002	206.74	.002	264.23	.002
04079>	23.08	.002	80.59	.002	138.09	.002	195.58	.002	253.07	.002	04214>	34.33	.002	91.84	.002	149.34	.002	206.83	.002	264.31	.002
04080>	23.17	.002	80.67	.002	138.18	.002	195.66	.002	253.15	.002	04215>	34.42	.002	91.92	.002	149.42	.002	206.91	.002	264.40	.002
04081>	23.25	.002	80.75	.002	138.26	.002	195.75	.002	253.23	.002	04216>	34.50	.002	92.01	.002	149.51	.002	206.99	.002	264.48	.002
04082>	23.33	.002	80.84	.002	138.34	.002	195.83	.002	253.32	.002	04217>	34.58	.002	92.09	.002	149.59	.002	207.08	.002	264.56	.002
04083>	23.42	.002	80.92	.002	138.43	.002	195.91	.002	253.40	.002	04218>	34.67	.002	92.17	.002	149.67	.002	207.16	.002	264.65	.002
04084>	23.50	.002	81.00	.002	138.51	.002	196.00	.002	253.48	.002	04219>	34.75	.002	92.26	.002	149.76	.002	207.24	.002	264.73	.002
04085>	23.58	.002	81.09	.002	138.59	.002	196.08	.002	253.57	.002	04220>	34.83	.002	92.34	.002	149.84	.002	207.33	.002	264.81	.002
04086>	23.67	.002	81.17	.002	138.68	.002	196.16	.002	253.65	.002	04221>	34.92	.002	92.42	.002	149.92	.002	207.41	.002	264.90	.002
04087>	23.75	.002	81.25	.002	138.76	.002	196.25	.002	253.73	.002	04222>	35.00	.002	92.51	.002	150.01	.002	207.49	.002	264.98	.002
04088>	23.83	.002	81.34	.002	138.84	.002	196.33	.002	253.82	.002	04223>	35.08	.002	92.59	.002	150.09	.002	207.58	.002	265.06	.002
04089>	23.92	.002	81.42	.002	138.93	.002	196.41	.002	253.90	.002	04224>	35.17	.002	92.67	.002	150.17	.002	207.66	.002	265.15	.002
04090>	24.00	.002	81.50	.002	139.01	.002	196.50	.002	253.98	.002	04225>	35.25	.002	92.76	.002	150.26	.002	207.74	.002	265.23	.002
04091>	24.08	.002	81.59	.002	139.09	.002	196.58	.002	254.07	.002	04226>	35.33	.002	92.84	.002	150.34	.002	207.83	.002	265.31	.002
04092>	24.17	.002	81.67	.002	139.18	.002	196.66	.002	254.15	.002	04227>	35.42	.002	92.92	.002	150.42	.002	207.91	.002	265.40	.002
04093>	24.25	.002	81.75	.002	139.26	.002	196.75	.002	254.23	.002	04228>	35.50	.002	93.01	.002	150.51	.002	207.99	.002	265.48	.002
04094>	24.33	.002	81.84	.002	139.34	.002	196.83	.002	254.32	.002	04229>	35.58	.002	93.09	.002	150.59	.002	208.08	.002	265.56	.002
04095>	24.42	.002	81.92	.002	139.43	.002	196.91	.002	254.40	.002	04230>	35.67	.002	93.17	.002	150.67	.002	208.16	.002	265.65	.002
04096>	24.50	.002	82.00	.002	139.51	.002	197.00	.002	254.48	.002	04231>	35.75	.002	93.26	.002	150.76	.002	208.24	.002	265.73	.002
04097>	24.58	.002	82.09	.002	139.59	.002	197.08	.002	254.57	.002	04232>	35.83	.002	93.34	.002	150.84	.002	208.33	.002	265.81	.002
04098>	24.67	.002	82.17	.002	139.68	.002	197.16	.002	254.65	.002	04233>	35.92	.002	93.42	.002	150.92	.002	208.41	.002	265.90	.002
04099>	24.75	.002	82.25	.002	139.76	.002	197.25	.002	254.73	.002	04234>	36.00	.002	93.51	.002	151.01	.002	208.49	.002	265.98	.002
04100>	24.83	.002	82.34	.002	139.84	.002	197.33	.002	254.82	.002	04235>	36.08	.002	93.59	.002	151.09	.002	208.58	.002	266.06	.002
04101>	24.92	.002	82.42	.002	139.93	.002	197.41	.002	254.90	.002	04236>	36.17	.002	93.67	.002	151.17	.002	208.66	.002	266.15	.002
04102>	25.00	.002	82.50	.002	140.01	.002	197.50	.002	254.98	.002	04237>	36.25	.002	93.76	.002	151.26	.002	208.74	.002	266.23	.002
04103>	25.08	.002	82.59	.002	140.09	.002	197.58	.002	255.07	.002	04238>	36.33	.002	93.84	.002	151.34	.002	208.83	.002	266.31	.002
04104>	25.17	.002	82.67	.002	140.18	.002	197.66	.002	255.15	.002	04239>	36.42	.002	93.92	.002	151.42	.002	208.91	.002	266.40	.002
04105>	25.25	.002	82.75	.002	140.26	.002	197.75	.002	255.23	.002	04240>	36.50	.002	94.01	.002	151.51	.002	208.99	.002	266.48	.002
04106>	25.33	.002	82.84	.002	140.34	.002	197.83	.002	255.32	.002	04241>	36.58	.002	94.09	.002	151.59	.002	209.08	.002	266.56	.002
04107>	25.42	.002	82.92	.002	140.43	.002	197.91	.002	255.40	.002	04242>	36.67	.002	94.17	.002	151.67	.002	209.16	.002	266.65	.002
04108>	25.50	.002	83.00	.002	140.51	.002	198.00	.002	255.48	.002	04243>	36.75	.002	94.26	.002	151.76	.002	209.24	.002	266.73	.002
04109>	25.58	.002	83.09	.002	140.59	.002	198.08	.002	255.57	.002	04244>	36.83	.002	94.34	.002	151.84	.002	209.33	.002	266.81	.002
04110>	25.67	.002	83.17	.002	140.68	.002	198.16	.002	255.65	.002	04245>	36.92	.002	94.42	.002	151.92	.002	209.41	.002	266.90	.002
04111>	25.75	.002	83.25	.002	140.76	.002	198.25	.002	255.73	.002	04246>	37.00	.002	94.51	.002	152.01	.002	209.49	.002	266.98	.002
04112>	25.83	.002	83.34	.002	140.84	.002	198.33	.002	255.81	.002	04247>	37.08	.002	94.59	.002	152.09	.002	209.58	.002	267.06	.002
04113>	25.92	.002	83.42	.002	140.93	.002	198.41	.002	255.90	.002	04248>	37.17	.002	94.67	.002	152.17	.002	209.66	.002	267.15	.002
04114>	26.00	.002	83.50	.002	141.01	.002	198.50	.002	255.98	.002	04249>	37.25	.002	94.76	.002	152.26	.002	209.74	.002	267.23	.002
04115>	26.08	.002	83.59	.002	141.09	.002	198.58	.002	256.06	.002	04250>	37.33	.002	94.84	.002	152.34	.002	209.83	.002	267.31	.002
04116>	26.17	.002	83.67	.002	141.18	.002	198.66	.002	256.15	.002	04251>	37.42	.002	94.92	.002	152.42	.002	209.91	.002	267.40	.002
04117>	26.25	.002	83.75	.002	141.26	.002	198.75	.002	256.23	.002	04252>	37.50	.002	95.01	.002	152.51	.002	209.99	.002	267.48	.002
04118>	26.33	.002	83.84	.002	141.34	.002	198.83	.002	256.31	.002	04253>	37.58	.002	95.09	.002	152.59	.002	210.08	.002	267.56	.002
04119>	26.42	.002	83.92	.002	141.43	.002	198.91	.002	256.40	.002	04254>	37.67	.002	95.17	.002	152.67	.002	210.16	.002	267.65	.002
04120>	26.50	.002	84.00	.002	141.51	.002	199.00	.002	256.48	.002	04255>	37.75	.002	95.26	.002	152.76	.002	210.24	.002	267.73	.002
04121>	26.58	.002	84.09	.002	141.59	.002	199.08	.002	256.56	.002	04256>	37.83	.002	95.34	.002	152.84	.002	210.33	.002	267.81	.002
04122>	26.67	.002	84.17	.002	141.68	.002	199.16	.002	256.65	.002	04257>	37.92	.002	95.42	.002	152.92	.002	210.41	.002	267.90	.002
04123>	26.75	.002	84.25	.002	141.76	.002	199.25	.002	256.73	.002	04258>	38.00	.002	95.51	.002	153.01	.002	210.49	.002	267.98	.002
04124>	26.83	.002	84.34	.002	141.84	.002	199.33	.002	256.81	.002	04259>	38.08	.002	95.59	.002	153.09	.002	210.58	.002	268.06	.002
04125>	26.92	.002	84.42	.002	141.93	.002	199.41	.002	256.90	.002	04260>	38.17	.002	95.67	.002	153.17	.002	210.66	.002	268.15	.002
04126>	27.00	.002	84.50	.002	142.01	.002	199.50	.002	256.98	.002	04261>	38.25	.002	95.76	.002	153.26	.002	210.74	.002	268.23	.002
04127>	27.08	.002	84.59	.002	142.09	.002	199.58	.002	257.06	.002	04262>	38.33	.002	95.84	.002	153.34	.002	210.83	.002	268.31	.002
04128>	27.17	.002	84.67	.002	142.18	.002	199.66	.002	257.15	.002	04263>	38.42	.002	95.92	.002	153.42	.002	210.91	.002	268.40	.002
04129>	27.25	.002	84.75	.002	142.26	.002	199.75	.002	257.23	.002	04264>	38.50	.002	96.01	.002	153.51	.002	210.99	.002	268.48	.002
04130>	27.33	.002	84.84	.002	142.34	.002	199.83	.002	257.31	.002	04265>	38.58	.002	96.09	.002	153.59	.002	211.08	.002	268.56	.002
04131>	27.42	.002	84.92	.002	142.43	.002	199.91	.002	257.40	.002	04266>	38.67	.002	96.17	.002	153.67	.002	211.16	.002	268.65	.002
04132>	27.50	.002	85.00	.002	142.51	.002	200.00	.002	257.48	.002	04267>	38.75	.002	96.26	.002	153.76	.002	211.24	.002	268.73	.002
04133>	27.58	.002	85.09	.002	142.59	.002	200.08	.002	257.56	.002	04268>	38.83	.002	96.34	.002	153.84	.002	211.33	.002	268.81	.002
04134>	27.67	.002	85.17	.002	142.68	.002	200.16	.002	257.65	.002	04269>	38.92	.002	96.42	.002	153.92	.002	211.41	.002	268.90	.002
04135>	27.75	.002	85.25	.002	142.76	.002	200.25	.002	257.73	.002	04270>	39.00	.002	96.51	.002	154.01	.002	211.49	.002	268.98	.002
04136>	27.83	.002	85.34	.002	142.84	.002	200.33	.002	257.81	.002	04271>	39.08	.002	96.59	.002	154.09	.002	211.58	.002	269.06	.002
04137>	27.92	.002	85.42	.002	142.93	.002	200.41	.002	257.90	.002	04272>	39.17	.002	96.67	.002	154.17	.002	211.66	.002	269.15	.002
04138>	28.00	.002	85.50	.002	143.01	.002	200.50	.002	257.98	.002	04273>	39.25	.002	96.76	.002	154.26	.002	211.74	.002	269.23	.002
04139>	28.08	.002	85.59	.002	143.09	.002	200.58	.002	258.06	.002	04274>	39.33	.002	96.84	.002	154.34	.002	211.83	.002	269.31	.002
04140>	28.17	.002	85.67	.002	143.18	.002	200.66	.002	258.15	.002	04275>	39.42	.002	96.92	.002	154.42	.002	211.91	.002	269.40	.002
04141>	28.25	.002	85.75	.002	143.26	.002	200.75	.002	258.23	.002	04276>	39.50	.002	97.01	.002	154.51	.002	211.99	.002	269.48	.002
04142>	28.33	.002	85.84	.002	143.34	.002	200.83	.002	258.31	.002	04277>	39.58	.002	97.09	.002	154.59	.002	212.08	.002	269.56	.002
04143>	28.42	.002	85.92	.002	143.43	.002	200.91	.002	258.40	.002	04278>	39.67	.002	97.17	.002	154.67	.002	212.16	.002	269.64	.002
04144>	28.50	.002	86.00	.002	143.51	.002	201.00	.002	258.48	.002	04279>	39.75	.002	97.26	.002	154.76	.002	212.24	.002	269.73	.002
04145>	28.58	.002	86.09	.002	143.59	.002	201.08	.002	258.56	.002	04280>	39.83	.002	97.34	.002	154.84	.002	212.33	.002	269.81	.002
04146>	28.67	.002	86.17	.002	143.68	.002	201.16	.002	258.65	.002	04281>	39.92	.002	97.42	.002	154.92	.002	212.41	.002	269.89	.002
04147>	28.75	.002	86.25	.002	143.76	.002	201.24	.002	258.73	.002	04282>	40.00	.002	97.51	.002	155.01	.002	212.49	.002	269.98	.002
04148>	28.83	.002	86.34	.002	143.84	.002	201.33	.002	258.81	.002	04283>	40.08	.002	97.59	.002	155.09	.002	212.58	.002	270.06	.002
04149>	28.92	.002	86.42	.002	143.93	.002	201.41	.002	258.90	.002	04284>	40.17	.002	97.67	.002	155.17	.002	212.66	.002	270.14	.002
04150>	29.00	.002	86.50	.002	144.01	.002	201.49	.002	258.98	.002	04285>	40.25	.002	97.76	.002	155.26	.002	212.74	.002	270.23	.002
04151>	29.08	.002	86.59	.002	144.09	.002	201.58	.002	259.06	.002	04286>	40.33	.002	97.84	.002	155.34	.002	212.83	.002	270.31	.002
04152>	29.17	.002	86.67	.002	144.18	.002	201.66	.002	259.15	.002	04287>	40.42	.002	97.92	.002	155.42	.002	212.91	.002	270.39	.002
04153>	29.25	.002	86.75	.002	144.26	.002	201.74	.002	259.23	.002	04288>	40.50	.002	98.01	.002	155.51	.002	212.99	.002	270.48	.002
04154>	29.33	.002	86.84	.002	144.34	.002	201.83	.002	259.31	.002	04289>	40.58	.002	98.09	.002	155.59	.002	213.08	.002	270.56	.002
04155>	29.42	.002	86.92	.002	144.43	.002	201.91	.002	259.40	.002	04290>	40.67	.002	98.17	.002	155.67	.002	213.16	.002	270.64	.002
04156>	29.50	.002	87.00	.002	144.51	.002	201.99	.002	259.48	.002	04291>	40.75	.002	98.26	.002	155.76	.002	213.24	.002	270.73	.002
04157>	29.58	.002	87.09	.002	144.59	.002	202.08	.002	259.56	.002	04292>	40.83	.002	98.34	.002	155.84	.002	213.33	.002	270.81	.002
04158>	29.67	.002	87.17	.002	144.68	.002	202.16	.002	259.65	.002	04293>	40.92	.002	98.42	.002	155.92	.002	213.41	.002	270.89	.002
04159>	29.75	.002	87.25	.002	144.76	.002	202.24	.002	259.73	.002	04294>	41.00	.002	98.51	.002	156.01	.002	213.49	.002	270.98	.002
04160>	29.83	.002	87.34	.002	144.84	.002	202.33	.002	259.81	.002	04295>	41.08	.002	98.59	.002	156.09	.002	213.58	.002	271.06	.002
04161>	29.92	.002	87.42	.002	144.93	.002	202.41	.002	259.90	.002	04296>	41.17	.002	98.67	.002	156.17	.002	213.66	.002	271.14	.002
04162>	30.00	.002	87.50	.002	145.01	.002	202.49	.002	259.98	.002	04297>	41.25	.002	98.76	.002	156.26	.002	213.74	.002	271.23	.002
04163>	30.08	.002	87.59	.002	145.09	.002	202.58	.002	260.06	.002	04298>	41.33	.002	98.84	.002	156.34	.002	213.83	.002	271.31	.002
04164>	30.17	.002	87.67	.002	145.18	.002	202.66	.002	260.15	.002	04299>	41.42	.002	98.92	.002	156.42	.002	213.91	.002	271.39	.002
04165>	30.25	.002	87.75	.002	145.26	.002	202.74	.002	260.23	.002	04300>	41.50	.002	99.01	.002	156.51	.002	213.99	.002	271.48	.002
04166>	30.33	.002	87.84	.002	145.34	.002	202.83	.002	260.31	.002	04301>	41.58	.002	99.09	.002	156.59	.002	214.08	.002	271.56	.002
04167>	30.42	.002	87.92	.002	145.43	.002	202.91	.002	260.40	.002	04302>	41.67	.002	99.17	.002	156.67	.002	214.16	.002	271.64	.002
04168>	30.50	.002	88.00	.002	145.51	.002	202.99	.002	260.48	.002	04303>	41.75	.002	99.26	.002	156.76	.002	214.24	.002	271.73	.002
04169>	30.58	.002	88.09	.002	145.59	.002	203.08	.002	260.56	.002	04304>	41.83	.002	99.34	.002	156.84	.002	214.33	.002	271.81	.002
04170>	30.67	.002	88.17	.002	145.68	.002	203.16	.002	260.65	.002	04305>	41.92	.002	99.42	.002	156.92	.002	214.41	.002	271.89	.002
04171>	30.75	.002	88.25	.002	145.76	.002	203.24	.002	260.73	.002	04306>	42.00	.002	99.51	.002	157.01	.002	214.49	.002	271.98	.002
04172>	30.83	.002	88.34	.002	145.84	.002	203.33	.002	260.81	.002	04307>	42.08	.002	99.59	.002	157.09	.002	214.58	.002	272.06	.002
04173>	30.92	.002	88.42	.002	145.93	.002	203.41	.002	260.90	.002	04308>	42.17	.002	99.67	.002	157.17	.002	214.66	.002	272.14	.002
04174>	31.00	.002	88.50	.002	146.01	.002	203.49	.002	260.98	.002	04309>	42.25	.002	99.76	.002	157.26	.002	214.74	.002	272.23	.002
04175>	31.08	.002	88.59	.002	146.09	.002	203.58	.002	261.06	.002	04310>	42.33	.002	99.84	.002	157.34	.002	214.82	.002	272.31	.002
04176>	31.17	.002	88.67	.002	146.18	.002	203.66	.002	261.15	.002	04311>	42.42	.002	99.92	.002	157.42	.002	214.91	.002	272.39	.002
04177>	31.25	.002	88.75	.002	146.26	.002	203.74	.002	261.23	.002	04312>	42.50	.002	100.01	.002	157.51	.002	214.99	.002	272.48	.002
04178>	31.33	.002	88.84	.002	146.34	.002	203.83	.002	261.31	.002	04313>	42.58	.002	100.09	.002	157.59	.002	215.07	.002	272.56	.002
04179>	31.42	.002	88.92	.002	146.43	.002	203.91	.002	261.40	.002	04314>	42.67	.002	100.17	.002	157.67	.002	215.16	.002	272.64	.002
04180>	31.50	.002	89.00	.002	146.51	.002	203.99	.002	261.48	.002	04315>	42.75	.002	100.26	.002	157.76	.002	215.24	.002	272.73	.002
04181>	31.58	.002	89.09	.002	146.59	.002	204.08	.002	261.56	.002	04316>	42.83	.002	100.34	.002	157.84	.002	215.32	.002	272.81	.002
04182>	31.67	.002	89.17	.002	146.67	.002	204.16	.002	261.65	.002	04317>	42.92	.002	100.42	.002	157.92	.002	215.41	.002	272.89	.002
04183>	31.75	.002	89.25	.002	146.76	.002	204.24	.002	261.73	.002	04318>	43.00	.002	100.51	.002	158.01	.002	215.49	.002	272.98	.002
04184>	31.83	.002	89.34	.002	146.84	.002	204.33	.002	261.81	.002	04319>	43.08	.002	100.59	.002	158.09	.002	215.57	.002	273.06	.002
04185>	31.92	.002	89.42	.002	146.92	.002	204.41	.002	261.90	.002	04320>	43.17	.002	100.67	.002	158.17	.002	215.66	.002	273.14	.002

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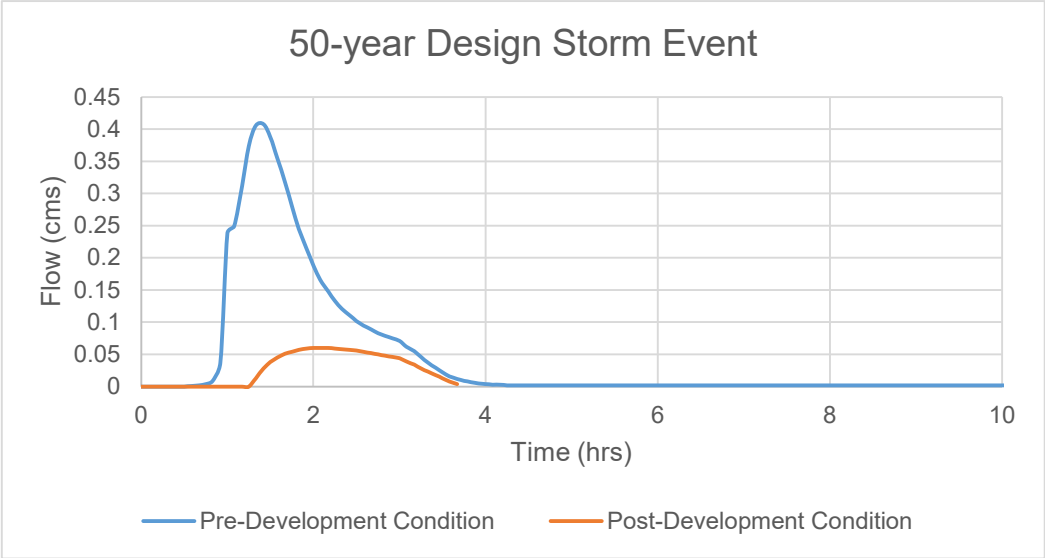
04321>   43.25    .002| 100.76    .002| 158.26    .002| 215.74    .002| 273.23    .002
04322>   43.33    .002| 100.84    .002| 158.34    .002| 215.82    .002| 273.31    .002
04323>   43.42    .002| 100.92    .002| 158.42    .002| 215.91    .002| 273.39    .002
04324>   43.50    .002| 101.01    .002| 158.51    .002| 215.99    .002| 273.48    .002
04325>   43.58    .002| 101.09    .002| 158.59    .002| 216.07    .002| 273.56    .001
04326>   43.67    .002| 101.17    .002| 158.67    .002| 216.16    .002| 273.64    .001
04327>   43.75    .002| 101.26    .002| 158.76    .002| 216.24    .002| 273.73    .001
04328>   43.83    .002| 101.34    .002| 158.84    .002| 216.32    .002| 273.81    .001
04329>   43.92    .002| 101.42    .002| 158.92    .002| 216.41    .002| 273.89    .001
04330>   44.00    .002| 101.51    .002| 159.01    .002| 216.49    .002| 273.98    .001
04331>   44.08    .002| 101.59    .002| 159.09    .002| 216.57    .002| 274.06    .001
04332>   44.17    .002| 101.67    .002| 159.17    .002| 216.66    .002| 274.14    .001
04333>   44.25    .002| 101.76    .002| 159.26    .002| 216.74    .002| 274.23    .001
04334>   44.33    .002| 101.84    .002| 159.34    .002| 216.82    .002| 274.31    .001
04335>   44.42    .002| 101.92    .002| 159.42    .002| 216.91    .002| 274.39    .001
04336>   44.50    .002| 102.01    .002| 159.51    .002| 216.99    .002| 274.48    .001
04337>   44.58    .002| 102.09    .002| 159.59    .002| 217.07    .002| 274.56    .001
04338>   44.67    .002| 102.17    .002| 159.67    .002| 217.16    .002| 274.64    .001
04339>   44.75    .002| 102.26    .002| 159.76    .002| 217.24    .002| 274.73    .001
04340>   44.83    .002| 102.34    .002| 159.84    .002| 217.32    .002| 274.81    .001
04341>   44.92    .002| 102.42    .002| 159.92    .002| 217.41    .002| 274.89    .001
04342>   45.00    .002| 102.51    .002| 160.01    .002| 217.49    .002| 274.98    .001
04343>   45.08    .002| 102.59    .002| 160.09    .002| 217.57    .002| 275.06    .001
04344>   45.17    .002| 102.67    .002| 160.17    .002| 217.66    .002| 275.14    .001
04345>   45.25    .002| 102.76    .002| 160.25    .002| 217.74    .002| 275.23    .001
04346>   45.33    .002| 102.84    .002| 160.34    .002| 217.82    .002| 275.31    .001
04347>   45.42    .002| 102.92    .002| 160.42    .002| 217.91    .002| 275.39    .001
04348>   45.50    .002| 103.01    .002| 160.50    .002| 217.99    .002| 275.48    .001
04349>   45.58    .002| 103.09    .002| 160.59    .002| 218.07    .002| 275.56    .001
04350>   45.67    .002| 103.17    .002| 160.67    .002| 218.16    .002| 275.64    .001
04351>   45.75    .002| 103.26    .002| 160.75    .002| 218.24    .002| 275.73    .001
04352>   45.83    .002| 103.34    .002| 160.84    .002| 218.32    .002| 275.81    .001
04353>   45.92    .002| 103.42    .002| 160.92    .002| 218.41    .002| 275.89    .001
04354>   46.00    .002| 103.51    .002| 161.00    .002| 218.49    .002| 275.98    .001
04355>   46.08    .002| 103.59    .002| 161.09    .002| 218.57    .002| 276.06    .001
04356>   46.17    .002| 103.67    .002| 161.17    .002| 218.66    .002| 276.14    .001
04357>   46.25    .002| 103.76    .002| 161.25    .002| 218.74    .002| 276.23    .001
04358>   46.33    .002| 103.84    .002| 161.34    .002| 218.82    .002| 276.31    .001
04359>   46.42    .002| 103.92    .002| 161.42    .002| 218.91    .002| 276.39    .001
04360>   46.50    .002| 104.01    .002| 161.50    .002| 218.99    .002| 276.48    .001
04361>   46.58    .002| 104.09    .002| 161.59    .002| 219.07    .002| 276.56    .001
04362>   46.67    .002| 104.17    .002| 161.67    .002| 219.16    .002| 276.64    .001
04363>   46.75    .002| 104.26    .002| 161.75    .002| 219.24    .002| 276.73    .001
04364>   46.83    .002| 104.34    .002| 161.84    .002| 219.32    .002| 276.81    .001
04365>   46.92    .002| 104.42    .002| 161.92    .002| 219.41    .002| 276.89    .001
04366>   47.00    .002| 104.51    .002| 162.00    .002| 219.49    .002| 276.98    .001
04367>   47.08    .002| 104.59    .002| 162.09    .002| 219.57    .002| 277.06    .001
04368>   47.17    .002| 104.67    .002| 162.17    .002| 219.66    .002| 277.14    .001
04369>   47.25    .002| 104.76    .002| 162.25    .002| 219.74    .002| 277.23    .001
04370>   47.33    .002| 104.84    .002| 162.34    .002| 219.82    .002| 277.31    .001
04371>   47.42    .002| 104.92    .002| 162.42    .002| 219.91    .002| 277.39    .001
04372>   47.50    .002| 105.01    .002| 162.50    .002| 219.99    .002| 277.48    .001
04373>   47.58    .002| 105.09    .002| 162.59    .002| 220.07    .002| 277.56    .001
04374>   47.67    .002| 105.17    .002| 162.67    .002| 220.16    .002| 277.64    .001
04375>   47.75    .002| 105.26    .002| 162.75    .002| 220.24    .002| 277.73    .001
04376>   47.83    .002| 105.34    .002| 162.84    .002| 220.32    .002| 277.81    .001
04377>   47.92    .002| 105.42    .002| 162.92    .002| 220.41    .002| 277.89    .001
04378>   48.00    .002| 105.51    .002| 163.00    .002| 220.49    .002| 277.98    .001
04379>   48.08    .002| 105.59    .002| 163.09    .002| 220.57    .002| 278.06    .001
04380>   48.17    .002| 105.67    .002| 163.17    .002| 220.66    .002| 278.14    .001
04381>   48.25    .002| 105.76    .002| 163.25    .002| 220.74    .002| 278.23    .001
04382>   48.33    .002| 105.84    .002| 163.34    .002| 220.82    .002| 278.31    .001
04383>   48.42    .002| 105.92    .002| 163.42    .002| 220.91    .002| 278.39    .001
04384>   48.50    .002| 106.01    .002| 163.50    .002| 220.99    .002| 278.48    .001
04385>   48.58    .002| 106.09    .002| 163.59    .002| 221.07    .002| 278.56    .001
04386>   48.67    .002| 106.17    .002| 163.67    .002| 221.16    .002| 278.64    .001
04387>   48.75    .002| 106.26    .002| 163.75    .002| 221.24    .002| 278.73    .001
04388>   48.83    .002| 106.34    .002| 163.84    .002| 221.32    .002| 278.81    .001
04389>   48.92    .002| 106.42    .002| 163.92    .002| 221.41    .002| 278.89    .001
04390>   49.00    .002| 106.51    .002| 164.00    .002| 221.49    .002| 278.98    .001
04391>   49.08    .002| 106.59    .002| 164.09    .002| 221.57    .002| 279.06    .001
04392>   49.17    .002| 106.67    .002| 164.17    .002| 221.66    .002| 279.14    .001
04393>   49.25    .002| 106.76    .002| 164.25    .002| 221.74    .002| 279.23    .001
04394>   49.33    .002| 106.84    .002| 164.34    .002| 221.82    .002| 279.31    .001
04395>   49.42    .002| 106.93    .002| 164.42    .002| 221.91    .002| 279.39    .001
04396>   49.50    .002| 107.01    .002| 164.50    .002| 221.99    .002| 279.48    .001
04397>   49.58    .002| 107.09    .002| 164.59    .002| 222.07    .002| 279.56    .001
04398>   49.67    .002| 107.18    .002| 164.67    .002| 222.16    .002| 279.64    .001
04399>   49.75    .002| 107.26    .002| 164.75    .002| 222.24    .002| 279.73    .001
04400>   49.83    .002| 107.34    .002| 164.84    .002| 222.32    .002| 279.81    .001
04401>   49.92    .002| 107.43    .002| 164.92    .002| 222.41    .002| 279.89    .001
04402>   50.00    .002| 107.51    .002| 165.00    .002| 222.49    .002| 279.98    .001
04403>   50.08    .002| 107.59    .002| 165.09    .002| 222.57    .002| 280.06    .001
04404>   50.17    .002| 107.68    .002| 165.17    .002| 222.66    .002| 280.14    .001
04405>   50.25    .002| 107.76    .002| 165.25    .002| 222.74    .002| 280.23    .001
04406>   50.33    .002| 107.84    .002| 165.34    .002| 222.82    .002| 280.31    .001
04407>   50.42    .002| 107.93    .002| 165.42    .002| 222.91    .002| 280.39    .001
04408>   50.50    .002| 108.01    .002| 165.50    .002| 222.99    .002| 280.48    .001
04409>   50.58    .002| 108.09    .002| 165.59    .002| 223.07    .002| 280.56    .001
04410>   50.67    .002| 108.18    .002| 165.67    .002| 223.16    .002| 280.64    .001
04411>   50.75    .002| 108.26    .002| 165.75    .002| 223.24    .002| 280.73    .001
04412>   50.83    .002| 108.34    .002| 165.84    .002| 223.32    .002| 280.81    .001
04413>   50.92    .002| 108.43    .002| 165.92    .002| 223.41    .002| 280.89    .001
04414>   51.00    .002| 108.51    .002| 166.00    .002| 223.49    .002| 280.98    .001
04415>   51.08    .002| 108.59    .002| 166.09    .002| 223.57    .002| 281.06    .001
04416>   51.17    .002| 108.68    .002| 166.17    .002| 223.66    .002| 281.14    .001
04417>   51.25    .002| 108.76    .002| 166.25    .002| 223.74    .002| 281.23    .001
04418>   51.33    .002| 108.84    .002| 166.34    .002| 223.82    .002| 281.31    .001
04419>   51.42    .002| 108.93    .002| 166.42    .002| 223.91    .002| 281.39    .001
04420>   51.50    .002| 109.01    .002| 166.50    .002| 223.99    .002| 281.48    .001
04421>   51.58    .002| 109.09    .002| 166.59    .002| 224.07    .002| 281.56    .001
04422>   51.67    .002| 109.18    .002| 166.67    .002| 224.16    .002| 281.64    .001
04423>   51.75    .002| 109.26    .002| 166.75    .002| 224.24    .002| 281.73    .001
04424>   51.83    .002| 109.34    .002| 166.84    .002| 224.32    .002| 281.81    .001
04425>   51.92    .002| 109.43    .002| 166.92    .002| 224.41    .002| 281.89    .001
04426>   52.00    .002| 109.51    .002| 167.00    .002| 224.49    .002| 281.98    .001
04427>   52.08    .002| 109.59    .002| 167.09    .002| 224.57    .002| 282.06    .001
04428>   52.17    .002| 109.68    .002| 167.17    .002| 224.66    .002| 282.14    .001
04429>   52.25    .002| 109.76    .002| 167.25    .002| 224.74    .002| 282.23    .001
04430>   52.33    .002| 109.84    .002| 167.34    .002| 224.82    .002| 282.31    .001
04431>   52.42    .002| 109.93    .002| 167.42    .002| 224.91    .002| 282.39    .001
04432>   52.50    .002| 110.01    .002| 167.50    .002| 224.99    .002| 282.48    .001
04433>   52.58    .002| 110.09    .002| 167.59    .002| 225.07    .002| 282.56    .001
04434>   52.67    .002| 110.18    .002| 167.67    .002| 225.16    .002| 282.64    .001
04435>   52.75    .002| 110.26    .002| 167.75    .002| 225.24    .002| 282.73    .001
04436>   52.83    .002| 110.34    .002| 167.84    .002| 225.32    .002| 282.81    .001
04437>   52.92    .002| 110.43    .002| 167.92    .002| 225.41    .002| 282.89    .001
04438>   53.00    .002| 110.51    .002| 168.00    .002| 225.49    .002| 282.98    .001
04439>   53.08    .002| 110.59    .002| 168.09    .002| 225.57    .002| 283.06    .001
04440>   53.17    .002| 110.68    .002| 168.17    .002| 225.66    .002| 283.14    .001
04441>   53.25    .002| 110.76    .002| 168.25    .002| 225.74    .002| 283.22    .001
04442>   53.33    .002| 110.84    .002| 168.34    .002| 225.82    .002| 283.31    .001
04443>   53.42    .002| 110.93    .002| 168.42    .002| 225.91    .002| 283.39    .001
04444>   53.50    .002| 111.01    .002| 168.50    .002| 225.99    .002| 283.47    .001
04445>   53.58    .002| 111.09    .002| 168.59    .002| 226.07    .002| 283.56    .001
04446>   53.67    .002| 111.18    .002| 168.67    .002| 226.16    .002| 283.64    .001
04447>   53.75    .002| 111.26    .002| 168.75    .002| 226.24    .002| 283.72    .001
04448>   53.83    .002| 111.34    .002| 168.84    .002| 226.32    .002| 283.81    .001
04449>   53.92    .002| 111.43    .002| 168.92    .002| 226.41    .002| 283.89    .001
04450>   54.00    .002| 111.51    .002| 169.00    .002| 226.49    .002| 283.97    .001
04451>   54.08    .002| 111.59    .002| 169.09    .002| 226.57    .002| 284.06    .001
04452>   54.17    .002| 111.68    .002| 169.17    .002| 226.66    .002| 284.14    .001
04453>   54.25    .002| 111.76    .002| 169.25    .002| 226.74    .002| 284.22    .001
04454>   54.33    .002| 111.84    .002| 169.34    .002| 226.82    .002| 284.31    .001
04455>   54.42    .002| 111.93    .002| 169.42    .002| 226.91    .002| 284.39    .001

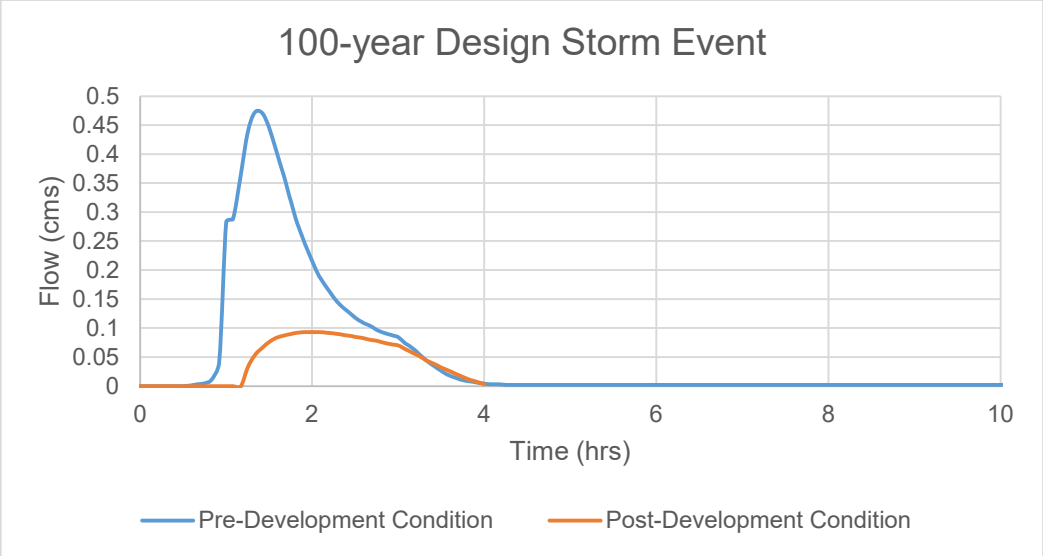
04456>   54.50    .002| 112.01    .002| 169.50    .002| 226.99    .002| 284.47    .001
04457>   54.58    .002| 112.09    .002| 169.59    .002| 227.07    .002| 284.56    .001
04458>   54.67    .002| 112.18    .002| 169.67    .002| 227.16    .002| 284.64    .001
04459>   54.75    .002| 112.26    .002| 169.75    .002| 227.24    .002| 284.72    .001
04460>   54.83    .002| 112.34    .002| 169.84    .002| 227.32    .002| 284.81    .001
04461>   54.92    .002| 112.43    .002| 169.92    .002| 227.41    .002| 284.89    .001
04462>   55.00    .002| 112.51    .002| 170.00    .002| 227.49    .002| 284.97    .001
04463>   55.08    .002| 112.59    .002| 170.09    .002| 227.57    .002| 285.06    .001
04464>   55.17    .002| 112.68    .002| 170.17    .002| 227.66    .002| 285.14    .001
04465>   55.25    .002| 112.76    .002| 170.25    .002| 227.74    .002| 285.22    .001
04466>   55.33    .002| 112.84    .002| 170.34    .002| 227.82    .002| 285.31    .001
04467>   55.42    .002| 112.93    .002| 170.42    .002| 227.91    .002| 285.39    .001
04468>   55.50    .002| 113.01    .002| 170.50    .002| 227.99    .002| 285.47    .001
04469>   55.58    .002| 113.09    .002| 170.59    .002| 228.07    .002| 285.56    .001
04470>   55.67    .002| 113.18    .002| 170.67    .002| 228.16    .002| 285.64    .001
04471>   55.75    .002| 113.26    .002| 170.75    .002| 228.24    .002| 285.72    .001
04472>   55.83    .002| 113.34    .002| 170.84    .002| 228.32    .002| 285.81    .001
04473>   55.92    .002| 113.43    .002| 170.92    .002| 228.41    .002| 285.89    .001
04474>   56.00    .002| 113.51    .002| 171.00    .002| 228.49    .002| 285.97    .001
04475>   56.08    .002| 113.59    .002| 171.09    .002| 228.57    .002| 286.06    .001
04476>   56.17    .002| 113.68    .002| 171.17    .002| 228.65    .002| 286.14    .001
04477>   56.25    .002| 113.76    .002| 171.25    .002| 228.74    .002| 286.22    .001
04478>   56.33    .002| 113.84    .002| 171.34    .002| 228.82    .002| 286.31    .001
04479>   56.42    .002| 113.93    .002| 171.42    .002| 228.90    .002| 286.39    .001
04480>   56.50    .002| 114.01    .002| 171.50    .002| 228.99    .002| 286.47    .001
04481>   56.58    .002| 114.09    .002| 171.59    .002| 229.07    .002| 286.56    .001
04482>   56.67    .002| 114.18    .002| 171.67    .002| 229.15    .002| 286.64    .001
04483>   56.75    .002| 114.26    .002| 171.75    .002| 229.24    .002| 286.72    .001
04484>   56.83    .002| 114.34    .002| 171.84    .002| 229.32    .002| 286.81    .001
04485>   56.92    .002| 114.43    .002| 171.92    .002| 229.40    .002| 286.89    .001
04486>   57.00    .002| 114.51    .002| 172.00    .002| 229.49    .002| 286.97    .001
04487>   57.08    .002| 114.59    .002| 172.09    .002| 229.57    .002| 287.06    .001
04488>   57.17    .002| 114.68    .002| 172.17    .002| 229.65    .002| 287.14    .001
04489>   57.25    .002| 114.76    .002| 172.25    .002| 229.74    .002| 287.22    .001
04490>   57.33    .002| 114.84    .002| 172.34    .002| 229.82    .002| 287.31    .001
04491>   57.42    .002| 114.93    .002| 172.42    .002| 229.90    .002| 287.39    .001
04492> ------------------------------------------------------------------------------
04493> 001:0130-------------------------------------------------------------------
04494> *#*****************************************************************************
04495> *#                          ====================
04496> *#                           PROSPOSED CONDITIONS
04497> *#                          ====================
04498> *#*****************************************************************************
04499> ----------------------
04500> | CALIB NASHYD       |   Area    (ha)=    2.37   Curve Number   (CN)=72.00
04501> | 01:EX-1    DT= 1.00 |   Ia      (mm)=    8.000   # of Linear Res.(N)= 3.00
04502> ----------------------   U.H. Tp(hrs)=    .330
04503>
04504>      Unit Hyd Qpeak  (cms)=     .274
04505>
04506>      PEAK FLOW       (cms)=     .223 (i)
04507>      TIME TO PEAK    (hrs)=    1.433
04508>      RUNOFF VOLUME    (mm)=   34.829
04509>      TOTAL RAINFALL   (mm)=   86.599
04510>      RUNOFF COEFFICIENT   =     .402
04511>
04512>      (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
04513>
04514> ------------------------------------------------------------------------------
04515> 001:0131-------------------------------------------------------------------
04516> ----------------------
04517> | COMPUTE DUALHYD     |   Average inlet capacities   [CINLET] =    .001  (cms)
04518> | TotalHyd 01:EX-1    |   Number of inlets in system [NINLET] =       1
04519> ----------------------   Total minor system capacity          =    .001  (cms)
04520>                          Total major system storage [TMJSTO] =   99999.(cu.m.)
04521>
04522>                  ID: NHYD        AREA     QPEAK     TPEAK     R.V.      DWF
04523>                                   (ha)     (cms)     (hrs)     (mm)     (cms)
04524>      TOTAL HYD.   01:EX-1         2.37      .223     1.433   34.829     .000
04525>      ==========================================================================
04526>      MAJOR SYST   02:THAMES        .00      .000      .000     .000     .000
04527>      MINOR SYST   03:toDRAI       2.37      .001   287.433   34.829     .000
04528>
04529>      NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
04530>
04531>      Maximum MAJOR SYSTEM storage used =     816.(cu.m.)
04532>
04533> ------------------------------------------------------------------------------
04534> 001:0132-------------------------------------------------------------------
04535> ----------------------
04536> | CALIB NASHYD       |   Area    (ha)=     .19   Curve Number   (CN)=74.00
04537> | 01:EX-2    DT= 1.00 |   Ia      (mm)=   5.000   # of Linear Res.(N)= 3.00
04538> ----------------------   U.H. Tp(hrs)=    .090
04539>
04540>      Unit Hyd Qpeak  (cms)=     .081
04541>
04542>      PEAK FLOW       (cms)=     .041 (i)
04543>      TIME TO PEAK    (hrs)=    1.100
04544>      RUNOFF VOLUME    (mm)=   38.973
04545>      TOTAL RAINFALL   (mm)=   86.599
04546>      RUNOFF COEFFICIENT   =     .450
04547>
04548>      (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
04549>
04550> ------------------------------------------------------------------------------
04551> 001:0133-------------------------------------------------------------------
04552> ----------------------
04553> | CALIB STANDHYD      |   Area    (ha)=     .45
04554> | 04:EX-3    DT= 1.00 |   Total Imp(%)=   65.00   Dir. Conn.(%)=    1.00
04555> ----------------------
04556>                                IMPERVIOUS    PERVIOUS (i)
04557>      Surface Area      (ha)=        .29          .16
04558>      Dep. Storage      (mm)=       2.00         8.00
04559>      Average Slope      (%)=       1.00        20.00
04560>      Length             (m)=       5.00        25.00
04561>      Mannings n             =       .013         .240
04562>
04563>      Max.eff.Inten.(mm/hr)=     274.73       590.27
04564>                 over (min)        1.00         2.00
04565>      Storage Coeff.  (min)=        .28 (ii)    1.56 (ii)
04566>      Unit Hyd. Tpeak (min)=       1.00         2.00
04567>      Unit Hyd. peak  (cms)=       1.65          .65
04568>                                                          *TOTALS*
04569>      PEAK FLOW       (cms)=        .00          .23          .238 (iii)
04570>      TIME TO PEAK    (hrs)=        .98         1.00         1.000
04571>      RUNOFF VOLUME    (mm)=      84.60        59.12        59.379
04572>      TOTAL RAINFALL   (mm)=      86.60        86.60        86.599
04573>      RUNOFF COEFFICIENT   =        .98          .68          .686
04574>
04575>        (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
04576>            CN* =  72.0    Ia = Dep. Storage  (Above)
04577>       (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
04578>            THAN THE STORAGE COEFFICIENT.
04579>      (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
04580>
04581> ------------------------------------------------------------------------------
04582> 001:0134-------------------------------------------------------------------
04583> ----------------------
04584> | CALIB NASHYD       |   Area    (ha)=    2.59   Curve Number   (CN)=67.00
04585> | 05:EX-4    DT= 1.00 |   Ia      (mm)=    8.000   # of Linear Res.(N)= 3.00
04586> ----------------------   U.H. Tp(hrs)=    .230
04587>
04588>      Unit Hyd Qpeak  (cms)=     .430
04589>
04590>      PEAK FLOW       (cms)=     .262 (i)
```

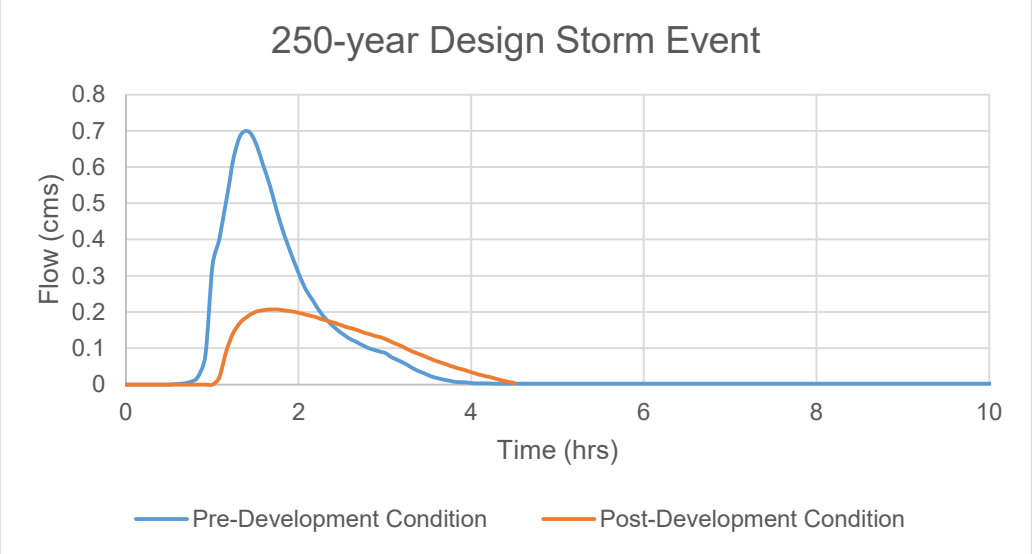
```
04591>      TIME TO PEAK    (hrs)=    1.317
04592>      RUNOFF VOLUME    (mm)=   30.328
04593>      TOTAL RAINFALL   (mm)=   86.599
04594>      RUNOFF COEFFICIENT   =     .350
04595>
04596>      (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
04597>
04598> ---------------------------------------------------------------------------
04599> 001:0135-----------------------------------------------------------------
04600> --------------------
04601> | COMPUTE DUALHYD    |   Average inlet capacities   [CINLET] =    .001  (cms)
04602> | TotalHyd 05:EX-4   |   Number of inlets in system [NINLET] =       1
04603> --------------------   Total minor system capacity          =    .001  (cms)
04604>                        Total major system storage [TMJSTO] =   99999.(cu.m.)
04605>
04606>                   ID: NHYD        AREA     QPEAK     TPEAK     R.V.      DWF
04607>                                    (ha)     (cms)     (hrs)     (mm)    (cms)
04608>      TOTAL HYD.   05:EX-4         2.59      .262     1.317   30.328     .000
04609>      ======================================================================
04610>      MAJOR SYST   06:BANMAN         .00      .000      .000     .000     .000
04611>      MINOR SYST   07:toDRAI        2.59      .001   273.550   30.329     .000
04612>
04613>      NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
04614>
04615>      Maximum MAJOR SYSTEM storage used =     777.(cu.m.)
04616>
04617> ---------------------------------------------------------------------------
04618> 001:0136-----------------------------------------------------------------
04619> ----------------------
04620> | CALIB STANDHYD     |   Area    (ha)=    6.64
04621> | 05:C201   DT= 1.00 |   Total Imp(%)=   90.00   Dir. Conn.(%)=   80.00
04622> ----------------------
04623>                              IMPERVIOUS    PERVIOUS (i)
04624>      Surface Area     (ha)=       5.98         .66
04625>      Dep. Storage     (mm)=       2.00        5.00
04626>      Average Slope     (%)=       1.00        2.00
04627>      Length            (m)=      50.00       25.00
04628>      Mannings n             =       .013        .250
04629>
04630>      Max.eff.Inten.(mm/hr)=     274.73      252.84
04631>                   over (min)       1.00        5.00
04632>      Storage Coeff.  (min)=       1.13 (ii)   4.80 (ii)
04633>      Unit Hyd. Tpeak (min)=       1.00        5.00
04634>      Unit Hyd. peak  (cms)=       1.00         .23
04635>                                                          *TOTALS*
04636>      PEAK FLOW       (cms)=       4.02         .33         4.250 (iii)
04637>      TIME TO PEAK    (hrs)=       1.00        1.07         1.000
04638>      RUNOFF VOLUME    (mm)=      84.60       42.79        76.237
04639>      TOTAL RAINFALL   (mm)=      86.60       86.60        86.599
04640>      RUNOFF COEFFICIENT   =        .98         .49          .880
04641>
04642>        (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
04643>            CN* =  61.0    Ia = Dep. Storage  (Above)
04644>       (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
04645>            THAN THE STORAGE COEFFICIENT.
04646>      (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
04647>
04648> ---------------------------------------------------------------------------
04649> 001:0137-----------------------------------------------------------------
04650> ------------------------
04651> | ADD HYD (POST      ) | ID: NHYD         AREA     QPEAK   TPEAK   R.V.    DWF
04652> ------------------------                   (ha)     (cms)   (hrs)   (mm)   (cms)
04653>                        ID1 01:EX-2          .19      .041    1.10  38.97    .000
04654>                       +ID2 03:toDRAIN      2.37      .001  287.43  34.83    .000
04655>                       +ID3 04:EX-3          .45      .238    1.00  59.38    .000
04656>                       +ID4 05:C201         6.64    4.250    1.00  76.24    .000
04657>                       +ID5 07:toDRAIN      2.59      .001  273.55  30.33    .000
04658>                        ========================================================
04659>                        SUM 09:POST         12.24    4.514    1.00  57.28    .000
04660>
04661>    NOTE:  PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
04662>
04663> ---------------------------------------------------------------------------
04664> 001:0138-----------------------------------------------------------------
04665> ----------------------
04666> | ROUTE RESERVOIR    |    Requested routing time step =  1.0 min.
04667> |  IN>09:(POST  )    |
04668> | OUT<01:(SWMF  )    |    =========  OUTLFOW STORAGE TABLE  =========
04669> ----------------------    OUTFLOW    STORAGE   |  OUTFLOW    STORAGE
04670>                             (cms)    (ha.m.)   |    (cms)    (ha.m.)
04671>                             .000  .0000E+00    |     .079  .1497E+00
04672>                             .059  .1884E-01    |     .080  .1683E+00
04673>                             .069  .3388E-01    |     .082  .1875E+00
04674>                             .070  .4889E-01    |     .083  .2073E+00
04675>                             .072  .6439E-01    |     .085  .2276E+00
04676>                             .073  .8041E-01    |     .086  .2485E+00
04677>                             .075  .9693E-01    |     .087  .2700E+00
04678>                             .076  .1140E+00    |     .299  .4003E+00
04679>                             .078  .1316E+00    |     .000  .0000E+00
04680>
04681>      ROUTING RESULTS             AREA     QPEAK     TPEAK       R.V.
04682>      ------------------          (ha)     (cms)     (hrs)       (mm)
04683>      INFLOW >09: (POST  )       12.24    4.514     1.000     57.283
04684>      OUTFLOW<01: (SWMF  )       12.24     .296     1.683     57.285
04685>     OVERFLOW<02: (000003)         .00     .000      .000       .000
04686>
04687>                     TOTAL NUMBER OF SIMULATED OVERFLOWS  =        0
04688>                     CUMULATIVE TIME OF OVERFLOWS  (hours)=      .00
04689>                     PERCENTAGE OF TIME OVERFLOWING    (%)=      .00
04690>
04691>
04692>                     PEAK   FLOW   REDUCTION [Qout/Qin](%)=    6.568
04693>                     TIME SHIFT OF PEAK FLOW         (min)=    41.00
04694>                     MAXIMUM  STORAGE   USED       (ha.m.)=.3988E+00
04695>
04696> ---------------------------------------------------------------------------
04697> 001:0139-----------------------------------------------------------------
04698> --------------------
04699> | DIVERT HYD       |
04700> | INID=01  (SWMF  )|
04701> --------------------
04702>       Outflow / Inflow  Relationships
04703>       Flow 03 +  Flow 04 +  Flow 05 =  Total
04704>        (cms)      (cms)      (cms)      (cms)
04705>          .000       .000       .000       .000
04706>          .000       .059       .000       .059
04707>          .007       .061       .000       .069
04708>          .007       .063       .000       .070
04709>          .008       .064       .000       .072
04710>          .008       .065       .000       .073
04711>          .008       .066       .000       .075
04712>          .009       .068       .000       .076
04713>          .009       .069       .000       .078
04714>          .009       .070       .000       .079
04715>          .009       .071       .000       .080
04716>          .010       .072       .000       .082
04717>          .010       .073       .000       .083
04718>          .010       .074       .000       .085
04719>          .010       .075       .000       .086
04720>          .011       .077       .000       .087
04721>          .011       .078       .210       .299
04722>
04723>              NHYD       AREA    QPEAK  TpeakDate_hh:mm       R.V.  NFE WetHrs
04724>                          (ha)    (cms)                        (mm)       (hrs)
04725>    IDin = 01:SWMF      12.24     .296  No_date    1:41     57.285    1   295.
04726>    ===========================================================================
04727>    IDout= 03:Infilt      .75     .011  No_date    1:41     57.285    1    13.
04728>    IDout= 04:Orific     8.90     .078  No_date    1:41     57.285    1   295.
04729>    IDout= 05:Emerge     2.58     .208  No_date    1:41     57.285    1     4.
04730> ---------------------------------------------------------------------------
04731> 001:0140-----------------------------------------------------------------
04732> --------------------
04733> | PRINT HYD        |   AREA       (ha)=    2.583
04734> | ID=05 (Emerge)   |   QPEAK      (cms)=     .208 (i)
04735> | DT= 1.00 PCYC= 5 |   TPEAK      (hrs)=    1.683
04736> --------------------   VOLUME       (mm)=   57.285
04737>
04738>      (i)  PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
04739>   TIME    FLOW |  TIME    FLOW |  TIME    FLOW |  TIME    FLOW |  TIME    FLOW |  TIME    FLOW
04740>    hrs     cms |   hrs     cms |   hrs     cms |   hrs     cms |   hrs     cms |   hrs     cms
04741>    .00    .000|  1.00    .000|  2.00    .198|  3.00    .126|  4.00    .034
04742>    .08    .000|  1.08    .020|  2.08    .193|  3.08    .117|  4.08    .028
04743>    .17    .000|  1.17    .099|  2.17    .188|  3.17    .108|  4.17    .023
04744>    .25    .000|  1.25    .145|  2.25    .182|  3.25    .099|  4.25    .018
04745>    .33    .000|  1.33    .173|  2.33    .176|  3.33    .090|  4.33    .013
04746>    .42    .000|  1.42    .190|  2.42    .170|  3.42    .082|  4.42    .008
04747>    .50    .000|  1.50    .200|  2.50    .163|  3.50    .074|  4.50    .004
04748>    .58    .000|  1.58    .205|  2.58    .157|  3.58    .066|
04749>    .67    .000|  1.67    .207|  2.67    .151|  3.67    .059|
04750>    .75    .000|  1.75    .207|  2.75    .144|  3.75    .052|
04751>    .83    .000|  1.83    .205|  2.83    .138|  3.83    .046|
04752>    .92    .000|  1.92    .202|  2.92    .132|  3.92    .040|
04753> ---------------------------------------------------------------------------
04754> 001:0141-----------------------------------------------------------------
04755>       FINISH
04756> ---------------------------------------------------------------------------
04757> ***************************************************************************
04758>      WARNINGS / ERRORS / NOTES
04759>      -------------------------
04760>    Simulation ended on 2023-11-21     at 14:53:40
04761> ===========================================================================
04762>
04763>
```

Major Storm Event Hydrographs

10919 Longwoods Road Light Industrial
Project Number: LD-00318
2023-11-21







APPENDIX C

SUPPORTING CALCULATIONS

LDS

Subsurface Storage Volume Calculation

10919 Longwoods Road Light Industrial
Project Number: LD-00318
2023-11-16

Upstream of Maintenace Hole R20

Pipe Storage			
Description	**Pipe Size** (mm)	**Length** (m)	**Volume** (m³)
R20 - R9	750	42.9	18.95
R9 - CB	300	21.5	1.52
R9 - R8	600	28.3	8.00
R8 - R7	600	32.8	9.27
R7 - R6	600	37.0	10.46
R6 - RYCB	300	52.3	3.70
R6 - R5	600	8.3	2.35
R5 - R4	525	25.5	5.52
R4 - R3	525	35.0	7.58
R3 - R2	450	41.6	6.62
R2 - R1	300	25.9	1.83
R20 - R19	750	28.0	12.37
R19 - R18	750	32.5	14.36
R18 - R17	750	71.6	31.63
R17 - R16	750	35.9	15.86
R16 - R15	750	30.6	13.52
R15 - CB	300	17.8	1.26
R15 - R14	600	45.0	12.72
R14 - R13	525	31.6	6.84
R13 - R12	525	11.5	2.49
R12 - R11	450	52.9	8.41
R12 - RYCB	300	77.2	5.46
R11 - R10	300	8.3	0.59
TOTAL			**146**

Structure Storage					
Structures	**Diameter** (mm)	**Invert** (m)	**Lid** (m)	**Height** (m)	**Vol @ Max Ponding**
R1	1200	234.42	236.69	2.23	2.52
R2	1200	234.25	236.80	2.40	2.71
R3	1200	234.07	236.59	2.52	2.85
R4	1200	233.94	236.41	2.47	2.79
R5	1200	233.83	236.55	2.72	3.08
R6	1200	233.78	236.61	2.83	3.20
R7	1200	233.64	236.53	2.89	3.27
R8	1200	233.45	236.37	2.92	3.30
R9	1500	233.28	236.50	3.22	5.69
R10	1200	234.06	236.81	2.59	2.93
R11	1200	233.99	236.74	2.66	3.01
R12	1200	233.77	236.47	2.70	3.05
R13	1200	233.70	236.41	2.71	3.06
R14	1200	233.56	236.57	3.01	3.40
R15	1800	233.37	236.57	3.20	8.14
R16	1500	233.28	236.37	3.09	5.46
R17	1500	233.18	236.54	3.36	5.94
R18	1500	233.05	236.48	3.43	6.06
R19	1500	232.93	236.32	3.39	5.99
R20	1800	232.83	236.52	3.69	9.39
TOTAL					**86**

Max Ponding (m)	236.65	**Total Storage Volume Available** (m³)	**232**

SWMF Stage-Storage Information

10919 Longwoods Road Light Industrial
Project Number: LD-00318
2023-11-16

Stage (m)	**Depth** (m)	**Main Pond**			**Underground Storage**		**Surface Ponding**	**Total Pond Volume** (m^3)	**Comments**	**Stage** (m)
		Area (m^2)	**Volume** (m^3)	**Cumulative Volume** (m^3)	**Incremental Volume** (m^3)	**Cumulative Volume** (m^3)	**Volume** (m^3)			
235.00	0.00	0	0	0	188	188	0	188		235.00
235.20	0.20	1447	145	145	6	194	0	339	**Bottom of Dry Pond**	235.20
235.30	0.30	1497	147	292	3	197	0	489		235.30
235.40	0.40	1547	152	444	3	200	0	644		235.40
235.50	0.50	1598	157	601	3	203	0	804		235.50
235.60	0.60	1650	162	764	3	206	0	969		235.60
235.70	0.70	1702	168	931	3	208	0	1140		235.70
235.80	0.80	1756	173	1104	3	211	0	1316		235.80
235.90	0.90	1810	178	1283	3	214	0	1497		235.90
236.00	1.00	1864	184	1466	3	217	0	1683		236.00
236.10	1.10	1920	189	1655	3	220	0	1875		236.10
236.20	1.20	1976	195	1850	3	223	0	2073		236.20
236.30	1.30	2033	200	2051	3	226	0	2276		236.30
236.40	1.40	2090	206	2257	3	228	0	2485		236.40
236.50	1.50	2166	213	2470	2	230	0	2700	**Top of Pond**	236.50
236.65	1.65	0	0	2470	1	232	1302	4003	**Emergency Overland Spill Point**	236.65

SWMF
Stage-Storage-Discharge Information

10919 Longwoods Road Light Industrial
Project Number: LD-00318
2023-11-20

Orifice Calculation			
$Q_O = C_d A\sqrt{2gH_O}$			
	Orifice 1	**Orifice 2**	**Orifice 3**
C_d	0.63	0.63	-
Invert (m)	232.83	236.55	-
Diameter/Height (m)	0.135	0.55	-
Area(m²)	0.014	0.238	-

Infiltration Rate	
Infiltration Rate (mm/hr)	18
Bottom Contact Area (m²)	1447
Top Contact Area (m²)	2166

Stage	**Infiltration**	**Orifice 1**		**Orifice 2**		**Total Flow** (m³/s)	**Active Volume**	
	Flow (m³/s)	**H$_o$** (m)	**Flow** (m³/s)	**H$_o$** (m)	**Flow** (m³/s)		(m³)	(ha-m)
235.00	0.000	2.17	0.059	0.00	0.000	0.059	188	0.01884
235.20	0.007	2.37	0.061	0.00	0.000	#REF!	339	0.03388
235.30	0.007	2.47	0.063	0.00	0.000	0.070	489	0.04889
235.40	0.008	2.57	0.064	0.00	0.000	0.072	644	0.06439
235.50	0.008	2.67	0.065	0.00	0.000	0.073	804	0.08041
235.60	0.008	2.77	0.066	0.00	0.000	0.075	969	0.09693
235.70	0.009	2.87	0.068	0.00	0.000	0.076	1140	0.11398
235.80	0.009	2.97	0.069	0.00	0.000	0.078	1316	0.13156
235.90	0.009	3.07	0.070	0.00	0.000	0.079	1497	0.14967
236.00	0.009	3.17	0.071	0.00	0.000	0.080	1683	0.16833
236.10	0.010	3.27	0.072	0.00	0.000	0.082	1875	0.18753
236.20	0.010	3.37	0.073	0.00	0.000	0.083	2073	0.20730
236.30	0.010	3.47	0.074	0.00	0.000	0.085	2276	0.22762
236.40	0.010	3.57	0.075	0.00	0.000	0.086	2485	0.24850
236.50	0.011	3.67	0.077	0.00	0.000	0.087	2700	0.26999
236.65	0.011	3.82	0.078	0.10	0.210	0.299	4003	0.40033

APPENDIX D

OGS SIZING SHEET

ADS OGS Sizing Summary

Project Name: 10919 Longwoods Rd

Consulting Engineer: LDS Consultants Inc.

Location: Delaware, ON

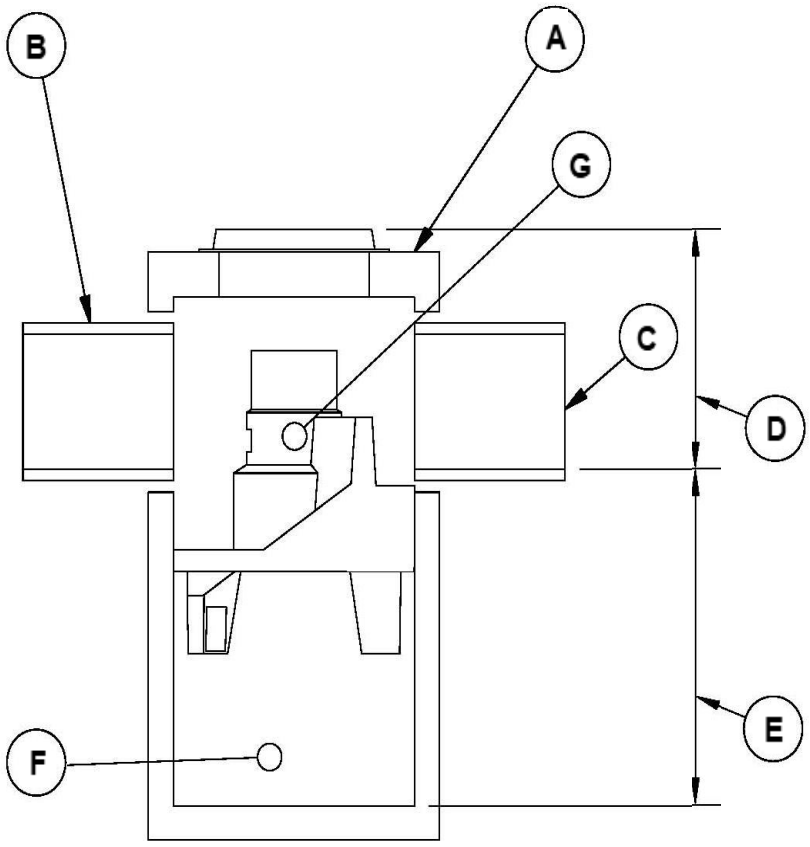
Sizing Completed By: C. Neath **Email:** cody.neath@ads-pipe.com

Treatment Requirements		
Treatment Goal:	Enhanced (MOE)	
Selected Parameters:	80% TSS	90% Volume
Selected Unit:	**FD-8HC**	

Site Details	
Site Area:	12.25 ha
% Impervious:	44%
Rational C:	0.59
Rainfall Station:	London Intl Airport, ON
Particle Size Distribution:	Fine
Peak Flowrate:	---

Summary of Results		
Model	**TSS Removal**	**Volume Treated**
FD-4HC	70.0%	83.6%
FD-5HC	74.0%	>90%
FD-6HC	76.0%	>90%
FD-8HC	80.0%	>90%
FD-10HC	83.0%	>90%

FD-8HC Specification	
Unit Diameter (A):	2,400 mm
Inlet Pipe Diameter (B):	600 mm
Outlet Pipe Diameter (C):	600 mm
Height, T/G to Outlet Invert (D):	2500 mm
Height, Outlet Invert to Sump (E):	2260 mm
Sediment Storage Capacity (F):	3.47 m³
Oil Storage Capacity (G):	4,239 L
Recommended Sediment Depth for Maintenance:	465 mm
Max. Pipe Diameter:	1,200 mm
Peak Flow Capacity:	1,415 L/s



Site Elevations:	
Rim Elevation:	100.00
Inlet Pipe Elevation:	97.50
Outlet Pipe Elevation:	97.50

Notes:

Removal efficiencies are based on NJDEP Test Protocols and independently verified.

All units supplied by ADS have numerous local, provincial, and international certifications (copies of which can be provided upon request). The design engineer is responsible for ensuring compliance with applicable regulations.

Project Name:	10929 Longwoods Rd
Consulting Engineer:	LDS Consultants Inc.
Location:	Delaware, ON

Net Annual Removal Efficiency Summary: FD-8HC

Rainfall Intensity[1]	Fraction of Rainfall[1]	FD-8HC Removal Efficiency[2]	Weighted Net-Annual Removal Efficiency
mm/hr	%	%	%
0.50	0.2%	95.5%	0.2%
1.00	13.7%	89.5%	12.3%
1.50	17.3%	86.2%	14.9%
2.00	13.5%	83.9%	11.4%
2.50	2.7%	82.2%	2.2%
3.00	2.3%	80.8%	1.8%
3.50	8.5%	79.7%	6.8%
4.00	4.7%	78.7%	3.7%
4.50	1.5%	77.8%	1.1%
5.00	5.2%	77.1%	4.0%
6.00	4.1%	75.8%	3.1%
7.00	4.4%	74.7%	3.3%
8.00	3.3%	73.8%	2.4%
9.00	2.4%	73.0%	1.8%
10.00	2.3%	72.3%	1.7%
20.00	9.2%	67.7%	6.2%
30.00	2.5%	65.2%	1.6%
40.00	1.1%	63.5%	0.7%
50.00	0.4%	62.2%	0.3%
100.00	0.6%	58.3%	0.4%
150.00	0.1%	56.2%	0.1%
200.00	0.0%	54.7%	0.0%
		Total Net Annual Removal Efficiency:	79.9%
		Total Runoff Volume Treated:	>90%

Notes:

(1) Rainfall Data: 1960:2002, HLY03, London AP, ONT, 6144475.

(2) Based on third party verified data and appoximating the removal of a PSD similar to the STC Fine distribution

(3) Rainfall adjusted to 5 min peak intensity based on hourly average.

LDS CONSULTANTS INC.

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