LIBERTY ROCK DEVELOPMENT

LEVEL 3
DRAINAGE STUDY
Zone 11C
(PLNP2021-00122)

April 14, 2023

Prepared For:

Liberty Towers Church
5132 Elkhorn Blvd.
Sacramento, CA

Prepared By:
TSD Engineering, Inc.
785 Orchard Dr., Suite 110
Folsom, CA 95630

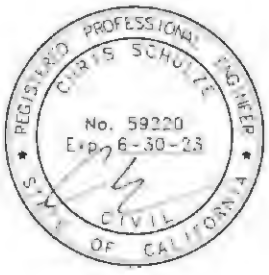


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I. INTRODUCTION

This report discusses the preliminary storm drain design for the Liberty Rock Development located 5132 Elkhorn Boulevard, in Sacramento County (APN: 220-0780-001). The project proposes to construct seven multi-family buildings, an office, and a multi-purpose building on an approximately 10.5 acres site.

The Liberty Towers Church and associated parking lot is located in the northern portion of the site, covering approximately 1/3 of the project site, the remainder of the site is an open field covered with short grass.

The proposed storm drain system will be designed in conformance with the Sacramento County Improvement Standards – Section 9 Storm Drain Design. The purpose of this study is to determine the hydrologic characteristics and estimate design discharge rates and onsite storage that will be required to mitigate increase flow rates due to development of the site. Additional hydraulic analysis will be performed during the design phase of the project.

II. EXISTING CONDITIONS

The Liberty Towers Church and parking lot are located in the north portion of the site. The remainder of the site is an open field with an existing sports field is located in the southwest corner of the site. The parcel is zoned RD-20, multi-family residential, consistent with the proposed use.

The site drains to four general locations, see the Existing Shed Map in Appendix A.

- Shed XA
  - Approximately 6.1 acres
  - Contains a majority of the existing church site and portions of Elkhorn Blvd.
  - Drains northeast toward Elkhorn Blvd
- Shed XB
  - Approximately 2.8 acres
  - Drains west to Hillsdale Blvd.
- Shed XC
  - Approximately 3.1 acres
  - Drains southwest to the corner of Hillsdale Blvd. and Andrea Dr.
- Shed XD
  - Approximately 0.69 acres
  - Drains south to Andrea Dr.

Information provided by the Sacramento County Department of Water Resources staff indicated that flooding had been previously reported at 6661 Hillsdale Blvd., which is located adjacent to the project site, on the west side of Hillsdale Boulevard. 6661 Hillsdale is located at a low point in Hillsdale with an inlet located in the street in front of the house. The finish floor elevation of the house located 6661 Hillsdale is located below the elevation of the street, the overland release route runs through the property from east to west. Visual inspection of the exiting inlet shows signs of damage which may prevent the inlet from functioning at peak performance.

The existing onsite storm drain system collects runoff from the developed portion of the site in drop inlets and conveys storm water toward Elkhorn Boulevard underground in pipes ranging from 6-inches to 10-inches in diameter. The existing onsite storm drain system discharges to a 15-inch public storm drain main located in Elkhorn Boulevard.

A portion of the open space and the northbound lanes of Hillsdale Boulevard drain to a field inlet located on the west side of Hillsdale Boulevard. The remainder of the site drains south, to inlets located in Andrea Drive.

The 10-year and 100-year runoff rates under existing were estimated using the Sacramento Method function within the SacCalc software. The existing design discharge (Nolte) for Shed A, the developed portion of the site, has been estimated using the Nolte function within SacCalc. Assumptions used to estimate the runoff are listed below:

- Sacramento Method
  - Sacramento Method Precipitation Zone 3
  - Shed XA
    - 6.1 acres
    - 10% Highway / Parking (95% Impervious)
    - 50% Commercial (90% Impervious)
    - 40% Open Space (2% Impervious)
  - Shed XB
    - 2.79 acres
    - 25% Highway (95% Impervious)
    - 75% Open Space (2% Impervious)
  - Shed XC
    - 3.1 acres
    - 20% Highway (95% Impervious)

        - 80% Open Space (2% Impervious)
    - Shed XD
        - 0.69 acres
        - 50% Highway (95% Impervious)
        - 50% Open Space (2% Impervious)
- Nolte Method
    - Nolte Hydrologic Zone 2
    - Shed XA
        - 6.1 acres
        - Land use = Commercial

See Appendix B for the SacCalc Reports, the runoff rates under existing conditions are summarized in Table 1 below:

Table 1. Existing Conditions Runoff Rates

	Nolte (cfs)	10-Year Peak Flow (cfs)	100-Year Peak Flow (cfs)
Shed XA	3.17	13	23
Shed XB	N/A	3.4	6.6
Shed XC	N/A	3.8	7.3
Shed XD	N/A	0.9	1.6

Preliminary analysis of the existing storm drain system located in Hillsdale Boulevard has been performed to determine the capacity of the system serving 6661 Hillsdale Boulevard, the location where flooding has been reported in the past.

12-inch concrete pipes located in Hillsdale Boulevard and Weatherby Way have been analyzed for full flow capacity based on pipe diameter, slope and material using FlowMaster software. See Appendix _ for the FlowMaster reports, assumptions used to determine the pipe capacity and results are summarized below:

- Hillsdale Boulevard
    - 12-inch concrete pipe
    - Slope = 0.0040 ft/ft
    - Q_{full} = 1.95 cfs
- Weatherby Way
    - 12-inch concrete pipe
    - Slope = 0.0270 ft/ft
    - Q_{full} = 5.07 cfs

This is a preliminary analysis; detailed Nolte analysis for the connection in Hillsdale Boulevard will be extended to at a minimum to the existing manhole located behind 6641 Weatherby Way. The extent of the analysis for the other connections will be discussed with County DWR prior to the preparation of the Level 4 drainage study.

III. DEVELOPED CONDITIONS

The proposed onsite storm drain system will be privately owned and maintained and consist of bio-retention basins, inlets, pipes, and underground detention structures consisting of oversized pipes. Discharge for the site will be metered using orifice plates at the locations where the private onsite system discharges to the public system. In storm events generating runoff at rates higher than the design storm, the orifice will force water to back up into the system and discharge at the desired rate.

Discharge rates for the developed conditions were estimated using the Nolte and Sacramento Methods within the SacCalc software. The assumptions used to estimate the developed conditions runoff rates are listed below:

- Sacramento Method
  - Sacramento Method Precipitation Zone 3
  - Shed A
    - 6.65 acres
    - 10% Highway / Parking (95% Impervious)
    - 70% Commercial (90% Impervious)
    - 20% HDR (80% Impervious)
  - Shed B
    - 2.5 acres
    - 61% Highway / Parking (95% Impervious)
    - 39% Commercial (90% Impervious)
  - Shed C
    - 3.0 acres
    - 20% Highways, Parking (95% Impervious)
    - 80% HDR (80% Impervious)
  - Shed D
    - 0.5 acres
    - 50% Highways (95% Impervious)
    - 50% Open Space (2%) Impervious)

- Nolte Method
  - Nolte Hydrologic Zone 2
  - Shed A
    - 6.65 acres
    - Land use = RD-20
  - Shed B
    - 2.25 acres
    - Land use = RD-20
  - Shed C
    - 3.00 acres
    - Land use = RD-20
  - Shed D
    - 0.50 acres
    - Land use = RD-20

Table 2. Developed Conditions Runoff Rates

	Nolte Design Flow (cfs)	10-Year Peak Flow (cfs)	100-Year Peak Flow (cfs)
Shed A	2.97	14	25.0
Shed B	1.00	3.2	6.0
Shed C	1.34	3.8	7.2
Shed D	0.22	0.6	1.6

All connections will be limited to discharge rates equal to the Nolte rate or below depending on the results from the Nolte analysis, unless a detailed dynamic simulation of the system downstream is complete to demonstrate there will be no adverse impacts.

The volume required to be stored onsite for Shed A, C, D were estimated assuming that the downstream Nolte analysis determines that existing system has the capacity to convey the runoff from the site under existing conditions. The required volumes were estimated by examining the hydrographs and summing the flow rates generated by the 100-year, 24-hour storm event in excess of the Nolte flow, which is assumed to be conveyed from the site through the proposed storm drain system, and multiplying by the time step of the hydrograph, in this case 60 seconds. The SacCalc hydrographs can be seen in Appendix B the volume of water in excess of the Nolte flows is summarized below:

Table 3. On Site Storage Requirements (Sheds A, C & D)

	Existing Conditions (ft^3)	Developed Conditions (ft^3)	Difference (Dev – Ex) (ft^3)
Shed A	27,100	30,970	3,860
Shed C	14,137	14,732	595
Shed D	3,707	2,232	-1,475

The storage volume required for Shed B was estimated by examining the hydrograph and summing the flow rates in excess of the Nolte flow for the developed 100-year, 24-hour storm event for the onsite Shed B1. The hydrographs and SacCalc report can be seen in Appendix B, the results are summarized in Table 4 below:

Table 3. On Site Storage Requirements (Sheds A, C & D)

	Nolte Flow (cfs)	Required Storage (ft^3)
Shed B1	1.0	2,828

In addition to the onsite work, the project will also be required to widen portions of Hillsdale Boulevard and construct curb, gutter, sidewalk, and landscaping along the project frontage. The frontage improvements will require the existing field drain located on the east side of Hillsdale Boulevard to be replaced by a County standard Type B inlet.

In an effort to improve the existing flooding situation that has been reported at 6661 Hillsdale Boulevard, the proposed onsite storm drain will capture runoff generated onsite from the Shed B1 (currently drains to the existing field inlet under existing conditions) and convey the water through the site in underground pipes to discharge to an existing manhole located at the intersection of Hillsdale Boulevard and Weatherby Way. The storm drainpipe located in Weatherby way is steeper and has more capacity than the storm drain pipe located in Hillsdale Boulevard.

The project also proposes to repair the existing Type B inlet located in front of 6661 Hillsdale Boulevard. If the existing inlet is determined to be damaged beyond repair, the project will replace the inlet with a County standard Type B inlet. This is an effort to improve the existing flooding situation, due to the topography and existing storm drain system, is not expected to solve to problem.

The analysis presented above is preliminary in nature and will require further analysis and modeling during the design phase of the project to confirm inlet capacity to collect the 10-year and 100-year runoff, the size of the underground detention structures and that the system has the capacity to convey runoff offsite while maintaining acceptable freeboard through the system.

IV. SUMMARY OF FINDINGS

Preliminary analysis of the proposed storm drain system shows the system will be designed to convey the runoff generated onsite by a Nolte storm event. The runoff leaving the site will be metered using an orifice(s) installed in structures prior to discharging to the public storm drain system.

Detention volumes required to mitigate the increased flow rate caused by the development of the site have been estimated and enlarged pipe galleries have been proposed to store the water onsite to be released so that it can be released at the desired flow rate.

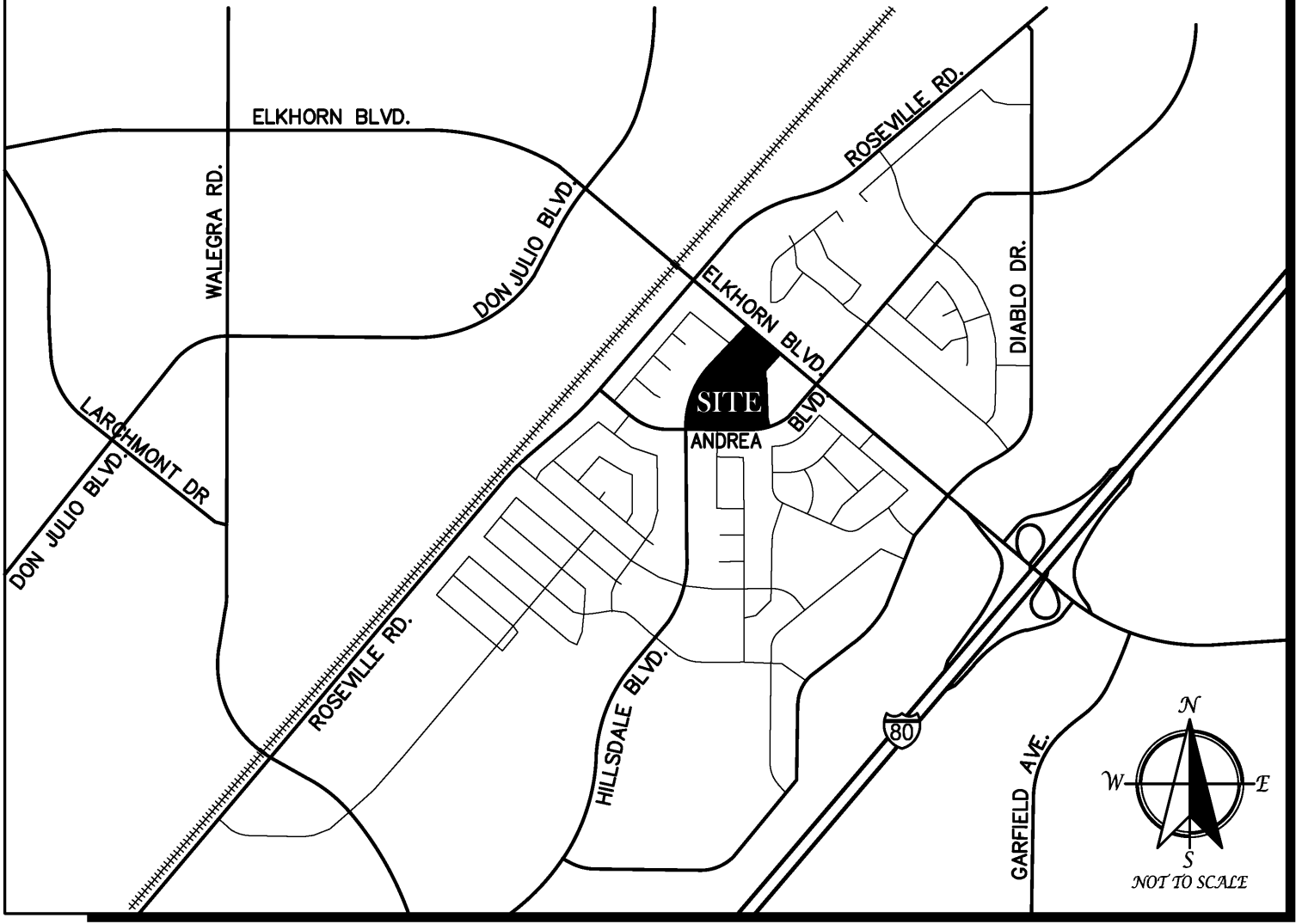
Existing flooding issues along Hillsdale Boulevard have been identified. In an effort to reduce the risk of flooding, the project proposes to convey runoff generated onsite to a discharge location downstream of the area prone to flooding to a location that has a higher capacity to convey the flows entering the system. Additionally, the project also proposes to repair or replace the existing inlet located at 6661 Hillsdale Boulevard.

The analysis presented in this report is preliminary in scope. It is expected that additional analysis and dynamic modeling will be required to confirm the onsite storm drain system can convey runoff generated onsite as well as confirming that the discharge from the site will not overload the existing public storm drain systems the project will discharge to. Modifications to the proposed storm water quality, low impact development and flood control features, including potential increases in detention capacity, may be needed at the design phase based on detailed modeling.

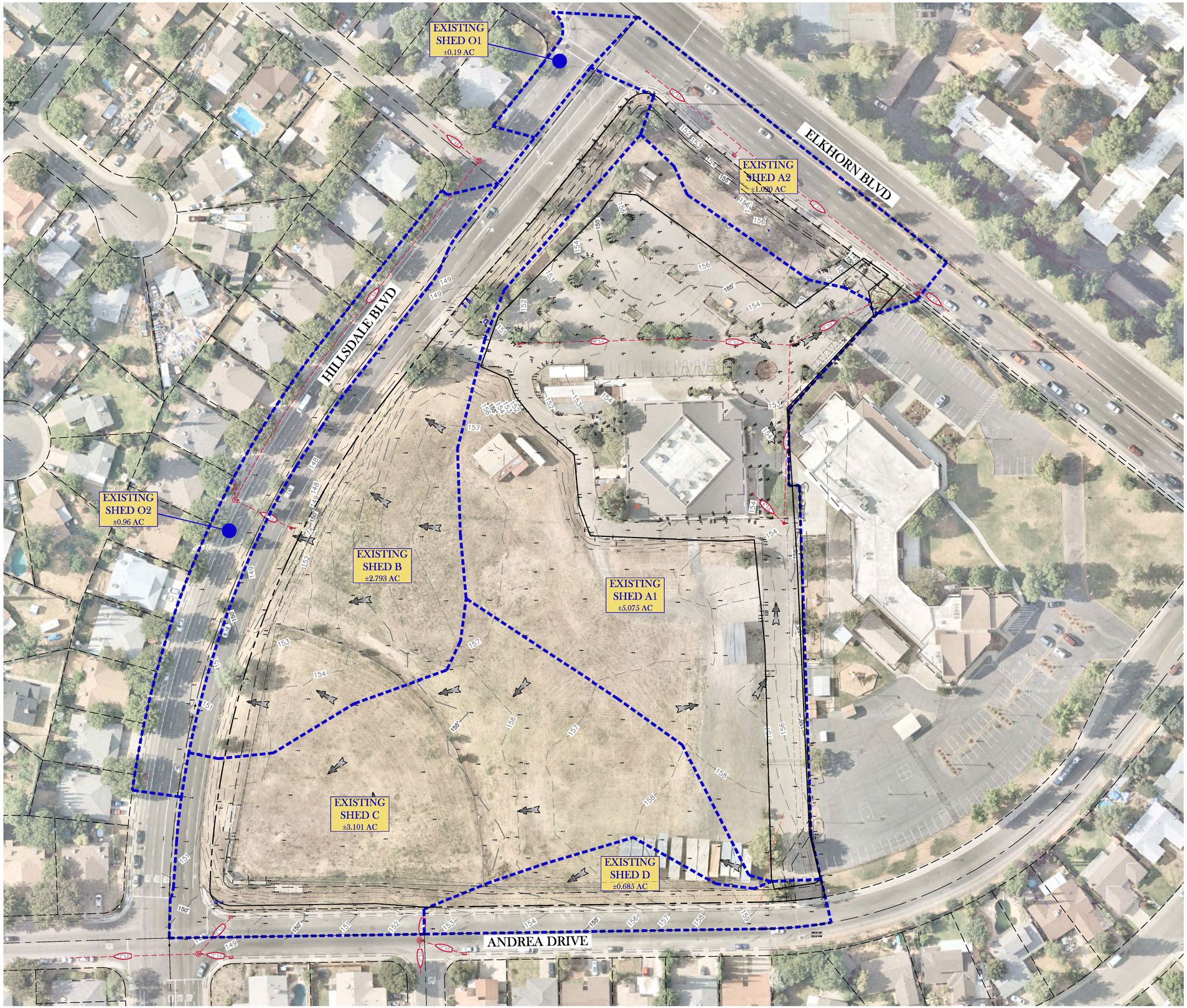
APPENDIX A - FIGURES

Figure 1 - Vicinity Map
Existing Conditions Shed Map
Developed Conditions Shed Map

VICINITY MAP



EXISTING SHED MAP
LIBERTY ROCK DEVELOPMENT
5132 ELKHORN BLVD
SACRAMENTO, CA 95842



LEGEND

PROPOSED	DESCRIPTION
12"SD	EXISTING STORM DRAIN
	SHED BOUNDARY
SHED A15 ±1.15 AC	"SUBSHED ID" "SUBSHED AREA"
	OVERLAND RELEASE

N W E S

scale: 1"=50'

50 0 25 50 100

EXISTING SHED MAP
APRIL 14, 2023

SHED

TSD ENGINEERING, INC.
expect more.
785 Orchard Drive, Suite #110
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PRELIMINARY DRAINAGE PLAN
LIBERTY TOWERS DEVELOPMENT
5132 ELKHORN BLVD
SACRAMENTO, CA 95842



STORMWATER SUMMARY

HYDROMODIFICATION:
THE PROJECT SITE LOCATED IN AN AREA EXEMPT FROM HYDROMODIFICATION REQUIREMENTS PER FIGURE 5-2 OF THE STORMWATER QUALITY DESIGN MANUAL FOR THE SACRAMENTO REGION.

LOW IMPACT DEVELOPMENT:
REDUCE RUNOFF BY DISCONNECTING IMPERVIOUS SURFACES FROM THE UNDERGROUND STORM DRAIN SYSTEM BY ROUTING RUNOFF TO LANDSCAPE OR PERVIOUS SURFACES PRIOR TO DISCHARGE TO THE UNDERGROUND STORM SYSTEM.

STORMWATER TREATMENT:
CAPTURE, RETAIN AND INFILTRATE THE RUNOFF VOLUME GENERATED BY AN 85TH PERCENTILE STORM EVENT.

NOLTE DESIGN FLOW:
SHED A Q=3.46 CFS
SHED B Q=1.17 CFS
SHED C Q=1.34 CFS
SHED D Q=0.22 CFS

HGL_{NOLTE} = REMAINS 1' BELOW MANHOLE RIM, OR 0.5' BELOW INLET GRATE.

100 YEAR (VOLUME IN EXCESS OF NOLTE):
VOL_{EXA} = 24,959 FT^3 (PEAK Q=23 CFS)
VOL_{DEVA} = 29,799 FT^3 (PEAK Q=25 CFS)
STORAGE REQUIRED = 4,839 FT^3

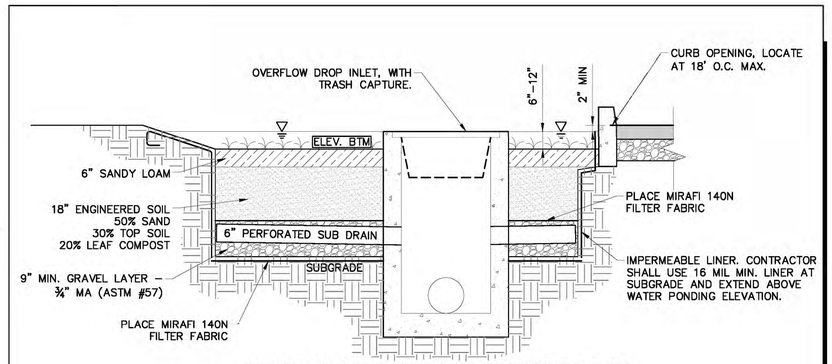
VOL_{EXB} = 12,983 FT^3 (PEAK Q=6.6 CFS)
VOL_{DEVB} = 12,070 FT^3 (PEAK Q=6.0 CFS)
STORAGE REQUIRED = 0 FT^3

VOL_{EXC} = 14,056 FT^3 (PEAK Q=7.3 CFS)
VOL_{DEVC} = 14,651 FT^3 (PEAK Q=7.2 CFS)
STORAGE REQUIRED = 596 FT^3

VOL_{EXD} = 3,707 FT^3 (PEAK Q=1.6 CFS)
VOL_{DEVD} = 2,232 FT^3 (PEAK Q=1.2 CFS)
STORAGE REQUIRED = 0 FT^3

SUMMARY OF DMA AREAS AND TREATMENT

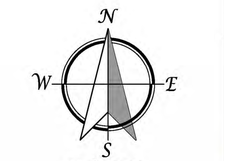
DMA	AREA (AC)	PERVIOUS / LANDSCAPE AREA (AC)	BIO-RETENTION AREA (SF)	PONDING DEPTH (INCHES)	NEW EVERGREEN TREES (EACH)	NEW DECIDUOUS TREES (EACH)	EX. TREE CANOPY (SF)	DISCONNECTED ROOF DRAIN (AC)	DISCONNECTED PAVEMENT (AC)	LID POINTS FROM WORKSHEET	PERCENT OF SITE (%)	WEIGHTED LID POINTS
A1	0.26	0.03	800	10	0	2	0	0.00	0.00	210.4	3%	6
A2	0.28	0.18	-	-	0	33	0	0.10	0.00	176.8	3%	5
A3	0.11	0.02	530	6	0	3	0	0.00	0.00	213.9	1%	3
A4	1.03	0.21	2350	12	0	27	0	0.00	0.00	216.8	11%	25
A5	0.89	0.53	575	6	0	19	0	0.08	0.23	202.7	10%	20
A6	0.44	0.06	1240	12	0	5	0	0.00	0.00	238.4	5%	12
A7	1.64	0.41	3500	12	0	33	0	0.00	0.00	221.4	18%	40
A8	1.01	0.25	2150	12	0	35	0	0.00	0.00	221.3	11%	25
B1	0.98	0.20	2250	12	0	16	0	0.00	0.00	218.9	11%	24
C1	0.73	0.15	1700	12	0	15	0	0.00	0.00	220.0	8%	18
C2	1.66	0.42	2940	12	3	40	0	0.26	0.10	218.2	18%	40
TOTAL	9.02										100%	217



TYPICAL CROSS SECTION BIO-RETENTION BASIN

A/- BIO-RETENTION BASIN - TYPICAL DETAIL
N.T.S.

PRELIMINARY DRAINAGE PLAN
APRIL 14, 2023



scale: 1"=50'

50 0 25 50 100

SHED

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expect more.
785 Orchard Drive, Suite #110
Folsom, CA 95630
Phone: (916) 608-0707
Fax: (916) 608-0701

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SacCalc Results

SacCalc Hec Outputs

Nolte method results
(Project: Liberty Towers - Nolte)
(Hydrologic zone 2)

ID	Drainage area (acres)	Impervious area (%)	Design Q (cfs)
A	6.65	80.00	2.97
B	2.25	80.00	1.00
C	3.00	80.00	1.34
D	0.50	80.00	0.22
XA	6.10	90.00	3.17

View HEC-1 output

Sacramento method results
(Project: Liberty Towers - Sacramento Method)
(100-year, 1-day rainfall)

ID	Peak flow (cfs)	Time of peak (hours)	Basin area (sq. mi)	Peak stage (feet)	Peak storage (ac-ft)	Diversion volume (ac-ft)
XA	23.	12:02	.01			
DEVA	25.	12:02	.01			
XB	6.6	12:09	.00			
DEVB	6.0	12:09	.00			
XC	7.3	12:09	.00			
DEVC	7.2	12:09	.00			
XD	1.6	12:09	.00			
DEVD	1.2	12:09	.00			

(10-year, 1-day rainfall)

ID	Peak flow (cfs)	Time of peak (hours)	Basin area (sq. mi)	Peak stage (feet)	Peak storage (ac-ft)	Diversion volume (ac-ft)
XA	13.	12:02	.01			
DEVA	14.	12:02	.01			
XB	3.4	12:12	.00			
DEVB	3.2	12:12	.00			
XC	3.8	12:12	.00			
DEVC	3.8	12:12	.00			
XD	.9	12:12	.00			
DEVD	.6	12:12	.00			

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Jump to: runoff summary | index

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*           VERSION 4.1(L)             *
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*                                      *
*    U.S. ARMY CORPS OF ENGINEERS      *
*    HYDROLOGIC ENGINEERING CENTER     *
*          609 SECOND STREET           *
*       DAVIS, CALIFORNIA 95616        *
*           (916) 756-1104             *
*                                      *
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X     X  X        X     X         X   X
X     X  XXXXXXX   XXXXX          XXX  XXXX
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Special version of HEC-1 with Extra-large array
Modified by David Ford Consulting Engineers (2000)
 Program dimensions:
 Number of hydrograph ordinates: 20000
 Unit hydrograph ordinates: 3000
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  THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

  THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
  THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
  NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
  DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
  KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM
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                                        HEC-1L INPUT                                                PAGE  1

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                * File generated 06/03/2022 08:36:09
                *
    1           ID
                * Lag computation for station XA
                *   Travel times: To:   3.00, Tg:   0.00, Tp+Tc:   0.00
                *   Resulting lag:    3.0 minutes
                * Lag computation for station DEVA
                *   Travel times: To:   3.00, Tg:   0.00, Tp+Tc:   0.00
                *   Resulting lag:    3.0 minutes
                * Lag computation for station XB
                *   Travel times: To:  17.57, Tg:   0.00, Tp+Tc:   0.00
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                * Lag computation for station DEVB
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                * Lag computation for station XC
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                *   Resulting lag:   17.6 minutes
                * Lag computation for station XD
                *   Travel times: To:  17.57, Tg:   0.00, Tp+Tc:   0.00
                *   Resulting lag:   17.6 minutes
                * Lag computation for station DEVD
                *   Travel times: To:  17.57, Tg:   0.00, Tp+Tc:   0.00
                *   Resulting lag:   17.6 minutes
                * End of lag computations
                *
                *   NMIN  JXDATE  JXTIME      NQ            CENT
    2           IT       1 31DEC99    2400    1562                 1900
                *   IPRT    IPLT
    3           IO       3       0
                *

    4           KK  XA
                *  JXMIN    Time interval for input data
    5           IN       5
    6           KM
                *
                * Design storm construction details
                *
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* Elevation adjustment applied, elev: 155.
* Areal adjustment using area:  0.040
*   multiplier from table 4-4: 1.0000
*
* Adjusted depths for each duration from table 4-1: frequency:  10
* Duration----Regional------Elev-----Areal (adjustments)
* 5 min         0.2625    0.2620    0.2620
* 10 min        0.3780    0.3780    0.3780
* 15 min        0.4515    0.4535    0.4535
* 30 min        0.5985    0.6052    0.6052
* 1 hour        0.8085    0.8240    0.8240
* 2 hours       1.0400    1.0699    1.0699
* 3 hours       1.2300    1.2708    1.2708
* 6 hours       1.6500    1.7171    1.7171
* 12 hours      2.2500    2.3771    2.3771
* 24 hours      2.9800    3.1722    3.1722
* 36 hours      3.5400    3.8019    3.8004
* 2 days        3.9500    3.9500    3.9500
* 3 days        4.6500    4.6500    4.6500
* 5 days        5.7600    6.3665    6.3640
* 10 days       7.5400    8.4680    8.4646
* Storm duration:  24, length:  288 ordinates
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HEC-1L INPUT PAGE 2

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    8         PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
    9         PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
   10         PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
   11         PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
   12         PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
   13         PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
   14         PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
   15         PI  0.0055  0.0055  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092
   16         PI  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092
   17         PI  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092
   18         PI  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0124  0.0124
   19         PI  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124
   20         PI  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0167  0.0167  0.0167  0.0167
   21         PI  0.0167  0.0167  0.0205  0.0205  0.0205  0.0205  0.0205  0.0205  0.0365  0.0365
   22         PI  0.0365  0.0505  0.0755  0.2620  0.1160  0.0505  0.0505  0.0365  0.0365  0.0365
   23         PI  0.0205  0.0205  0.0205  0.0205  0.0205  0.0205  0.0167  0.0167  0.0167  0.0167
   24         PI  0.0167  0.0167  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124
   25         PI  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124
   26         PI  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092
   27         PI  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092
   28         PI  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092
   29         PI  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0055  0.0055  0.0055  0.0055
   30         PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
   31         PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
   32         PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
   33         PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
   34         PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
   35         PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
   36         PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
              *
              * Precipitation losses computation (Chapter 5)
              *   Computing RTIMP (percent impervious) from land use and table 5-2
              *   Computing CNSTL (infiltration rate) from soil type and table 5-2
              *  TAREA   subbasin area (sq mi)
   37         BA  0.0095
              *  STRTL    CNSTL    RTIMP
   38         LU    0.20    0.057  55.300
              *
              * Runoff hydrograph computation (Chapter 6)
              *   (Note: lag increased to lower limit; see Table 9-1)
              *   Using basin lag:   5.0 minutes
              *   Using unit duration (Step 2): 1. min
              *   Lag Time + Unit Duration / 2 (Step 3):  5.50000
              *   Volume of runoff (Step 4) V=    0.256285
   39         UI   8.914  20.521  36.453  54.592  53.088  37.291  27.900  21.533  16.859  13.461
   40         UI  10.988   9.191   7.628   6.652   5.805   5.091   4.494   3.932   3.434   3.022
   41         UI   2.671   2.349   2.061   1.774   1.571   1.383   1.248   1.095   0.938   0.836
   42         UI   0.735   0.661   0.587
   43         ZW   C=FLOW F=010YR-24HR A=LIBERTY
              *
```

HEC-1L INPUT PAGE 3

```
LINE          ID.......1.......2.......3.......4.......5,.......6.......7.......8.......9......10
   44         KK  DEVA
              *  JXMIN    Time interval for input data
   45         IN       5
   46         KM
              *
              * Design storm construction details
              *
              * Regional multiplier (zone 3) applied:  1.050
              * Elevation adjustment applied, elev: 155.
              * Areal adjustment using area:  0.040
              *   multiplier from table 4-4: 1.0000
              *
              * Adjusted depths for each duration from table 4-1: frequency:  10
              * Duration----Regional------Elev-----Areal (adjustments)
```

```
            * 5 min         0.2625    0.2620    0.2620
            * 10 min        0.3780    0.3780    0.3780
            * 15 min        0.4515    0.4535    0.4535
            * 30 min        0.5985    0.6052    0.6052
            * 1 hour        0.8085    0.8240    0.8240
            * 2 hours       1.0400    1.0699    1.0699
            * 3 hours       1.2300    1.2708    1.2708
            * 6 hours       1.6500    1.7171    1.7171
            * 12 hours      2.2500    2.3771    2.3771
            * 24 hours      2.9800    3.1722    3.1722
            * 36 hours      3.5400    3.8019    3.8004
            * 2 days        3.9500    3.9500    3.9500
            * 3 days        4.6500    4.6500    4.6500
            * 5 days        5.7600    6.3665    6.3640
            * 10 days       7.5400    8.4680    8.4646
            * Storm duration:  24, length:  288 ordinates
 47         PB       0
 48         PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
 49         PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
 50         PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
 51         PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
 52         PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
 53         PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
 54         PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
 55         PI  0.0055  0.0055  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092
 56         PI  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092
 57         PI  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092
 58         PI  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0124  0.0124
 59         PI  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124
 60         PI  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0167  0.0167  0.0167  0.0167
 61         PI  0.0167  0.0167  0.0205  0.0205  0.0205  0.0205  0.0205  0.0205  0.0365  0.0365
 62         PI  0.0365  0.0505  0.0755  0.2620  0.1160  0.0505  0.0505  0.0365  0.0365  0.0365
 63         PI  0.0205  0.0205  0.0205  0.0205  0.0205  0.0205  0.0167  0.0167  0.0167  0.0167
 64         PI  0.0167  0.0167  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124
 65         PI  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124
 66         PI  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092
 67         PI  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092
 68         PI  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092
 69         PI  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0055  0.0055  0.0055  0.0055
 70         PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055


                                      HEC-1L INPUT                                          PAGE  4

LINE          ID.......1.......2.......3.......4.......5,.......6.......7.......8.......9......10

 71         PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
 72         PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
 73         PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
 74         PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
 75         PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
 76         PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
            *
            * Precipitation losses computation (Chapter 5)
            *   Computing RTIMP (percent impervious) from land use and table 5-2
            *   Computing CNSTL (infiltration rate) from soil type and table 5-2
            *  TAREA   subbasin area (sq mi)
 77         BA  0.0104
            *  STRTL   CNSTL   RTIMP
 78         LU    0.20   0.050  88.500
            *
            * Runoff hydrograph computation (Chapter 6)
            *   (Note: lag increased to lower limit; see Table 9-1)
            *   Using basin lag:   5.0 minutes
            *   Using unit duration (Step 2): 1. min
            *   Lag Time + Unit Duration / 2 (Step 3):  5.50000
            *   Volume of runoff (Step 4) V=    0.279392
 79         UI   9.717  22.372  39.739  59.515  57.874  40.654  30.415  23.475  18.379  14.674
 80         UI  11.978  10.019   8.315   7.251   6.329   5.550   4.899   4.286   3.743   3.295
 81         UI   2.912   2.560   2.247   1.934   1.712   1.507   1.360   1.194   1.022   0.912
 82         UI   0.801   0.720   0.640
 83         ZW   C=FLOW F=010YR-24HR A=LIBERTY
            *

 84         KK  XB
            *  JXMIN    Time interval for input data
 85         IN       5
 86         KM
            *
            * Design storm construction details
            *
            * Regional multiplier (zone 3) applied:  1.050
            * Elevation adjustment applied, elev: 155.
            * Areal adjustment using area:  0.040
            *   multiplier from table 4-4: 1.0000
            *
            * Adjusted depths for each duration from table 4-1: frequency:  10
            * Duration----Regional------Elev-----Areal (adjustments)
            * 5 min         0.2625    0.2620    0.2620
            * 10 min        0.3780    0.3780    0.3780
            * 15 min        0.4515    0.4535    0.4535
            * 30 min        0.5985    0.6052    0.6052
            * 1 hour        0.8085    0.8240    0.8240
            * 2 hours       1.0400    1.0699    1.0699
            * 3 hours       1.2300    1.2708    1.2708
            * 6 hours       1.6500    1.7171    1.7171
            * 12 hours      2.2500    2.3771    2.3771
            * 24 hours      2.9800    3.1722    3.1722
            * 36 hours      3.5400    3.8019    3.8004
            * 2 days        3.9500    3.9500    3.9500
```

```
* 3 days         4.6500    4.6500    4.6500
* 5 days         5.7600    6.3665    6.3640
* 10 days        7.5400    8.4680    8.4646
* Storm duration:  24, length:  288 ordinates
```

HEC-1L INPUT PAGE 5

```
LINE      ID.......1.......2.......3.......4.......5,.......6.......7.......8.......9......10
  87      PB       0
  88      PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
  89      PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
  90      PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
  91      PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
  92      PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
  93      PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
  94      PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
  95      PI  0.0055  0.0055  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092
  96      PI  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092
  97      PI  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092
  98      PI  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0124  0.0124
  99      PI  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124
 100      PI  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0167  0.0167  0.0167
 101      PI  0.0167  0.0167  0.0205  0.0205  0.0205  0.0205  0.0205  0.0205  0.0365  0.0365
 102      PI  0.0365  0.0505  0.0755  0.2620  0.1160  0.0505  0.0505  0.0365  0.0365  0.0365
 103      PI  0.0205  0.0205  0.0205  0.0205  0.0205  0.0205  0.0205  0.0167  0.0167  0.0167
 104      PI  0.0167  0.0167  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124
 105      PI  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124
 106      PI  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092
 107      PI  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092
 108      PI  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092
 109      PI  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0055  0.0055  0.0055  0.0055
 110      PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
 111      PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
 112      PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
 113      PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
 114      PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
 115      PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
 116      PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
          *
          * Precipitation losses computation (Chapter 5)
          *   Computing RTIMP (percent impervious) from land use and table 5-2
          *   Computing CNSTL (infiltration rate) from soil type and table 5-2
          *  TAREA   subbasin area (sq mi)
 117      BA  0.0044
          *  STRTL   CNSTL   RTIMP
 118      LU    0.20   0.063  25.250
          *
          * Runoff hydrograph computation (Chapter 6)
          *   Using basin lag:  17.6 minutes
          *   Using unit duration (Step 2): 1. min
          *   Lag Time + Unit Duration / 2 (Step 3): 18.06654
          *   Volume of runoff (Step 4) V=    0.117219
 119      UI   0.287   0.687   1.112   1.521   1.997   2.545   3.123   3.759   4.461   5.189
 120      UI   6.057   6.958   7.573   7.735   7.725   7.554   7.007   6.321   5.626   5.043
 121      UI   4.661   4.259   3.883   3.601   3.307   3.061   2.833   2.628   2.428   2.280
 122      UI   2.122   1.987   1.855   1.743   1.648   1.544   1.455   1.377   1.303   1.239
 123      UI   1.167   1.106   1.052   1.001   0.966   0.926   0.894   0.856   0.818   0.786
 124      UI   0.757   0.724   0.699   0.672   0.642   0.623   0.594   0.574   0.549   0.530
 125      UI   0.506   0.486   0.473   0.451   0.433   0.416   0.399   0.386   0.372   0.356
 126      UI   0.343   0.330   0.318   0.305   0.292   0.282   0.267   0.257   0.246   0.237
 127      UI   0.228   0.220   0.211   0.203   0.194   0.190   0.184   0.177   0.171   0.162
 128      UI   0.157   0.152   0.144   0.140   0.132   0.127   0.123   0.119   0.114   0.110
 129      UI   0.106   0.102   0.097   0.093   0.093   0.088   0.084   0.082
```

HEC-1L INPUT PAGE 6

```
LINE      ID.......1.......2.......3.......4.......5,.......6.......7.......8.......9......10
 130      ZW   C=FLOW F=010YR-24HR A=LIBERTY
          *
 131      KK  DEVB
          *  JXMIN    Time interval for input data
 132      IN       5
 133      KM
          *
          * Design storm construction details
          *
          * Regional multiplier (zone 3) applied:  1.050
          * Elevation adjustment applied, elev: 155.
          * Areal adjustment using area:  0.040
          *   multiplier from table 4-4: 1.0000
          *
          * Adjusted depths for each duration from table 4-1: frequency:  10
          * Duration----Regional------Elev-----Areal (adjustments)
          * 5 min         0.2625    0.2620    0.2620
          * 10 min        0.3780    0.3780    0.3780
          * 15 min        0.4515    0.4535    0.4535
          * 30 min        0.5985    0.6052    0.6052
          * 1 hour        0.8085    0.8240    0.8240
          * 2 hours       1.0400    1.0699    1.0699
          * 3 hours       1.2300    1.2708    1.2708
          * 6 hours       1.6500    1.7171    1.7171
          * 12 hours      2.2500    2.3771    2.3771
          * 24 hours      2.9800    3.1722    3.1722
          * 36 hours      3.5400    3.8019    3.8004
          * 2 days        3.9500    3.9500    3.9500
```

```
            * 3 days        4.6500    4.6500    4.6500
            * 5 days        5.7600    6.3665    6.3640
            * 10 days       7.5400    8.4680    8.4646
            * Storm duration:  24, length:  288 ordinates
134         PB       0
135         PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
136         PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
137         PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
138         PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
139         PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
140         PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
141         PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
142         PI  0.0055  0.0055  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092
143         PI  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092
144         PI  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092
145         PI  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0124  0.0124
146         PI  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124
147         PI  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0167  0.0167  0.0167  0.0167
148         PI  0.0167  0.0167  0.0205  0.0205  0.0205  0.0205  0.0205  0.0205  0.0365  0.0365
149         PI  0.0365  0.0505  0.0755  0.2620  0.1160  0.0505  0.0505  0.0365  0.0365  0.0365
150         PI  0.0205  0.0205  0.0205  0.0205  0.0205  0.0205  0.0167  0.0167  0.0167  0.0167
151         PI  0.0167  0.0167  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124
152         PI  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124
153         PI  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092
154         PI  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092
155         PI  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092
```

```
LINE        ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10
156         PI  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0055  0.0055  0.0055  0.0055
157         PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
158         PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
159         PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
160         PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
161         PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
162         PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
163         PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
            *
            * Precipitation losses computation (Chapter 5)
            *   Computing RTIMP (percent impervious) from land use and table 5-2
            *   Computing CNSTL (infiltration rate) from soil type and table 5-2
            *  TAREA   subbasin area (sq mi)
164         BA  0.0039
            *  STRTL   CNSTL   RTIMP
165         LU    0.20   0.044  93.050
            *
            * Runoff hydrograph computation (Chapter 6)
            *   Using basin lag:  17.6 minutes
            *   Using unit duration (Step 2): 1. min
            *   Lag Time + Unit Duration / 2 (Step 3): 18.06654
            *   Volume of runoff (Step 4) V=    0.105035
166         UI   0.258   0.616   0.997   1.363   1.790   2.281   2.798   3.368   3.997   4.650
167         UI   5.427   6.235   6.786   6.931   6.922   6.769   6.279   5.664   5.041   4.519
168         UI   4.176   3.817   3.479   3.226   2.963   2.743   2.539   2.355   2.175   2.043
169         UI   1.902   1.780   1.662   1.562   1.477   1.384   1.304   1.234   1.168   1.111
170         UI   1.046   0.991   0.942   0.897   0.865   0.829   0.801   0.767   0.733   0.704
171         UI   0.678   0.649   0.627   0.602   0.575   0.558   0.532   0.515   0.492   0.475
172         UI   0.453   0.435   0.424   0.404   0.388   0.372   0.358   0.346   0.333   0.319
173         UI   0.308   0.296   0.285   0.273   0.261   0.253   0.239   0.230   0.220   0.212
174         UI   0.205   0.197   0.189   0.181   0.174   0.170   0.165   0.159   0.153   0.146
175         UI   0.140   0.137   0.129   0.125   0.118   0.114   0.110   0.106   0.103   0.099
176         UI   0.095   0.091   0.087   0.084   0.083   0.079   0.075   0.073
177         ZW   C=FLOW F=010YR-24HR A=LIBERTY
            *

178         KK  XC
            *  JXMIN    Time interval for input data
179         IN       5
180         KM
            *
            * Design storm construction details
            *
            * Regional multiplier (zone 3) applied:  1.050
            * Elevation adjustment applied, elev: 155.
            * Areal adjustment using area:  0.040
            *   multiplier from table 4-4: 1.0000
            *
            * Adjusted depths for each duration from table 4-1: frequency:  10
            * Duration----Regional------Elev-----Areal (adjustments)
            * 5 min         0.2625    0.2620    0.2620
            * 10 min        0.3780    0.3780    0.3780
            * 15 min        0.4515    0.4535    0.4535
            * 30 min        0.5985    0.6052    0.6052
            * 1 hour        0.8085    0.8240    0.8240
            * 2 hours       1.0400    1.0699    1.0699
            * 3 hours       1.2300    1.2708    1.2708
            * 6 hours       1.6500    1.7171    1.7171
            * 12 hours      2.2500    2.3771    2.3771
            * 24 hours      2.9800    3.1722    3.1722
            * 36 hours      3.5400    3.8019    3.8004
            * 2 days        3.9500    3.9500    3.9500
            * 3 days        4.6500    4.6500    4.6500
            * 5 days        5.7600    6.3665    6.3640
            * 10 days       7.5400    8.4680    8.4646
            * Storm duration:  24, length:  288 ordinates
```

```
LINE      ID.......1.......2.......3.......4.......5,.......6.......7.......8.......9......10

 181       PB       0
 182       PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
 183       PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
 184       PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
 185       PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
 186       PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
 187       PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
 188       PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
 189       PI  0.0055  0.0055  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092
 190       PI  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092
 191       PI  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092
 192       PI  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0124  0.0124
 193       PI  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124
 194       PI  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0167  0.0167  0.0167  0.0167
 195       PI  0.0167  0.0167  0.0205  0.0205  0.0205  0.0205  0.0205  0.0205  0.0365  0.0365
 196       PI  0.0365  0.0505  0.0755  0.2620  0.1160  0.0505  0.0505  0.0365  0.0365  0.0365
 197       PI  0.0205  0.0205  0.0205  0.0205  0.0205  0.0205  0.0167  0.0167  0.0167  0.0167
 198       PI  0.0167  0.0167  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124
 199       PI  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124
 200       PI  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092
 201       PI  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092
 202       PI  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092
 203       PI  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0055  0.0055  0.0055  0.0055
 204       PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
 205       PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
 206       PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
 207       PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
 208       PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
 209       PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
 210       PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
           *
           * Precipitation losses computation (Chapter 5)
           *   Computing RTIMP (percent impervious) from land use and table 5-2
           *   Computing CNSTL (infiltration rate) from soil type and table 5-2
           *  TAREA   subbasin area (sq mi)
 211       BA  0.0048
           *  STRTL   CNSTL   RTIMP
 212       LU    0.20   0.064  20.600
           *
           * Runoff hydrograph computation (Chapter 6)
           *   Using basin lag:  17.6 minutes
           *   Using unit duration (Step 2): 1. min
           *   Lag Time + Unit Duration / 2 (Step 3): 18.06654
           *   Volume of runoff (Step 4) V=    0.130243
 213       UI   0.319   0.764   1.236   1.690   2.219   2.828   3.470   4.177   4.957   5.766
 214       UI   6.730   7.731   8.415   8.594   8.583   8.394   7.786   7.024   6.251   5.604
 215       UI   5.179   4.733   4.314   4.001   3.674   3.401   3.148   2.920   2.697   2.534
 216       UI   2.358   2.208   2.061   1.936   1.831   1.716   1.617   1.530   1.448   1.377
 217       UI   1.296   1.229   1.169   1.112   1.073   1.028   0.994   0.951   0.909   0.873
 218       UI   0.841   0.805   0.777   0.746   0.713   0.692   0.660   0.638   0.610   0.588
 219       UI   0.562   0.540   0.526   0.501   0.481   0.462   0.443   0.429   0.413   0.396
 220       UI   0.382   0.367   0.353   0.338   0.324   0.313   0.296   0.285   0.273   0.263
 221       UI   0.254   0.244   0.235   0.225   0.216   0.211   0.205   0.197   0.190   0.181
 222       UI   0.174   0.169   0.160   0.155   0.146   0.142   0.137   0.132   0.127   0.122
 223       UI   0.118   0.113   0.108   0.104   0.103   0.098   0.093   0.091
```



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LINE      ID.......1.......2.......3.......4.......5,.......6.......7.......8.......9......10

 224       ZW   C=FLOW F=010YR-24HR A=LIBERTY
           *

 225       KK  DEVC
           *  JXMIN    Time interval for input data
 226       IN       5
 227       KM
           *
           * Design storm construction details
           *
           * Regional multiplier (zone 3) applied:  1.050
           * Elevation adjustment applied, elev: 155.
           * Areal adjustment using area:  0.040
           *   multiplier from table 4-4: 1.0000
           *
           * Adjusted depths for each duration from table 4-1: frequency:  10
           * Duration----Regional------Elev-----Areal (adjustments)
           * 5 min         0.2625    0.2620    0.2620
           * 10 min        0.3780    0.3780    0.3780
           * 15 min        0.4515    0.4535    0.4535
           * 30 min        0.5985    0.6052    0.6052
           * 1 hour        0.8085    0.8240    0.8240
           * 2 hours       1.0400    1.0699    1.0699
           * 3 hours       1.2300    1.2708    1.2708
           * 6 hours       1.6500    1.7171    1.7171
           * 12 hours      2.2500    2.3771    2.3771
           * 24 hours      2.9800    3.1722    3.1722
           * 36 hours      3.5400    3.8019    3.8004
           * 2 days        3.9500    3.9500    3.9500
           * 3 days        4.6500    4.6500    4.6500
           * 5 days        5.7600    6.3665    6.3640
           * 10 days       7.5400    8.4680    8.4646
           * Storm duration:  24, length:  288 ordinates
 228       PB       0
 229       PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
```

```
 230          PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
 231          PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
 232          PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
 233          PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
 234          PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
 235          PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
 236          PI  0.0055  0.0055  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092
 237          PI  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092
 238          PI  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092
 239          PI  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0124  0.0124
 240          PI  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124
 241          PI  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0167  0.0167  0.0167  0.0167
 242          PI  0.0167  0.0167  0.0205  0.0205  0.0205  0.0205  0.0205  0.0205  0.0365  0.0365
 243          PI  0.0365  0.0505  0.0755  0.2620  0.1160  0.0505  0.0505  0.0365  0.0365  0.0365
 244          PI  0.0205  0.0205  0.0205  0.0205  0.0205  0.0205  0.0167  0.0167  0.0167  0.0167
 245          PI  0.0167  0.0167  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124
 246          PI  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124
 247          PI  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092
 248          PI  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092
 249          PI  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092
```



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LINE          ID.......1.......2.......3.......4.......5,.......6.......7.......8.......9......10

 250          PI  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0055  0.0055  0.0055  0.0055
 251          PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
 252          PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
 253          PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
 254          PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
 255          PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
 256          PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
 257          PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
              *
              * Precipitation losses computation (Chapter 5)
              *   Computing RTIMP (percent impervious) from land use and table 5-2
              *   Computing CNSTL (infiltration rate) from soil type and table 5-2
              *  TAREA   subbasin area (sq mi)
 258          BA  0.0047
              *  STRTL   CNSTL   RTIMP
 259          LU    0.20   0.052  83.000
              *
              * Runoff hydrograph computation (Chapter 6)
              *   Using basin lag:  17.6 minutes
              *   Using unit duration (Step 2): 1. min
              *   Lag Time + Unit Duration / 2 (Step 3): 18.06654
              *   Volume of runoff (Step 4) V=    0.126042
 260          UI   0.309   0.739   1.196   1.636   2.148   2.737   3.358   4.042   4.797   5.580
 261          UI   6.513   7.482   8.143   8.317   8.306   8.123   7.535   6.797   6.050   5.423
 262          UI   5.012   4.580   4.175   3.872   3.555   3.291   3.047   2.826   2.610   2.452
 263          UI   2.282   2.137   1.995   1.874   1.772   1.660   1.565   1.481   1.401   1.333
 264          UI   1.255   1.189   1.131   1.076   1.039   0.995   0.962   0.920   0.879   0.845
 265          UI   0.813   0.779   0.752   0.722   0.690   0.670   0.639   0.618   0.590   0.570
 266          UI   0.544   0.523   0.509   0.485   0.465   0.447   0.429   0.415   0.400   0.383
 267          UI   0.369   0.355   0.341   0.328   0.314   0.303   0.287   0.276   0.264   0.255
 268          UI   0.246   0.236   0.227   0.218   0.209   0.204   0.198   0.191   0.184   0.175
 269          UI   0.169   0.164   0.155   0.150   0.142   0.137   0.132   0.128   0.123   0.118
 270          UI   0.114   0.109   0.105   0.100   0.099   0.095   0.090   0.088
 271          ZW   C=FLOW F=010YR-24HR A=LIBERTY
              *

 272          KK  XD
              *  JXMIN    Time interval for input data
 273          IN       5
 274          KM
              *
              * Design storm construction details
              *
              * Regional multiplier (zone 3) applied:  1.050
              * Elevation adjustment applied, elev: 155.
              * Areal adjustment using area:  0.040
              *   multiplier from table 4-4: 1.0000
              *
              * Adjusted depths for each duration from table 4-1: frequency:  10
              * Duration----Regional------Elev-----Areal (adjustments)
              * 5 min          0.2625    0.2620    0.2620
              * 10 min         0.3780    0.3780    0.3780
              * 15 min         0.4515    0.4535    0.4535
              * 30 min         0.5985    0.6052    0.6052
              * 1 hour         0.8085    0.8240    0.8240
              * 2 hours        1.0400    1.0699    1.0699
              * 3 hours        1.2300    1.2708    1.2708
              * 6 hours        1.6500    1.7171    1.7171
              * 12 hours       2.2500    2.3771    2.3771
              * 24 hours       2.9800    3.1722    3.1722
              * 36 hours       3.5400    3.8019    3.8004
              * 2 days         3.9500    3.9500    3.9500
              * 3 days         4.6500    4.6500    4.6500
              * 5 days         5.7600    6.3665    6.3640
              * 10 days        7.5400    8.4680    8.4646
              * Storm duration:  24, length:  288 ordinates
```



```
LINE          ID.......1.......2.......3.......4.......5,.......6.......7.......8.......9......10

 275          PB       0
 276          PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
```

```
277          PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
278          PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
279          PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
280          PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
281          PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
282          PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
283          PI  0.0055  0.0055  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092
284          PI  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092
285          PI  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092
286          PI  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0124  0.0124
287          PI  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124
288          PI  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0167  0.0167  0.0167  0.0167
289          PI  0.0167  0.0167  0.0205  0.0205  0.0205  0.0205  0.0205  0.0205  0.0365  0.0365
290          PI  0.0365  0.0505  0.0755  0.2620  0.1160  0.0505  0.0505  0.0365  0.0365  0.0365
291          PI  0.0205  0.0205  0.0205  0.0205  0.0205  0.0205  0.0167  0.0167  0.0167  0.0167
292          PI  0.0167  0.0167  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124
293          PI  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124
294          PI  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092
295          PI  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092
296          PI  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092
297          PI  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0055  0.0055  0.0055  0.0055
298          PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
299          PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
300          PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
301          PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
302          PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
303          PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
304          PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
             *
             * Precipitation losses computation (Chapter 5)
             *   Computing RTIMP (percent impervious) from land use and table 5-2
             *   Computing CNSTL (infiltration rate) from soil type and table 5-2
             *  TAREA   subbasin area (sq mi)
305          BA  0.0011
             *  STRTL   CNSTL   RTIMP
306          LU    0.20   0.055  48.500
             *
             * Runoff hydrograph computation (Chapter 6)
             *   Using basin lag:  17.6 minutes
             *   Using unit duration (Step 2): 1. min
             *   Lag Time + Unit Duration / 2 (Step 3): 18.06654
             *   Volume of runoff (Step 4) V=    0.028990
307          UI   0.071   0.170   0.275   0.376   0.494   0.629   0.772   0.930   1.103   1.283
308          UI   1.498   1.721   1.873   1.913   1.910   1.868   1.733   1.563   1.391   1.247
309          UI   1.153   1.053   0.960   0.890   0.818   0.757   0.701   0.650   0.600   0.564
310          UI   0.525   0.491   0.459   0.431   0.408   0.382   0.360   0.341   0.322   0.307
311          UI   0.289   0.274   0.260   0.248   0.239   0.229   0.221   0.212   0.202   0.194
312          UI   0.187   0.179   0.173   0.166   0.159   0.154   0.147   0.142   0.136   0.131
313          UI   0.125   0.120   0.117   0.112   0.107   0.103   0.099   0.095   0.092   0.088
314          UI   0.085   0.082   0.079   0.075   0.072   0.070   0.066   0.064   0.061   0.059
315          UI   0.056   0.054   0.052   0.050   0.048   0.047   0.046   0.044   0.042   0.040
316          UI   0.039   0.038   0.036   0.035   0.033   0.032   0.030   0.029   0.028   0.027
317          UI   0.026   0.025   0.024   0.023   0.023   0.022   0.021   0.020
```

HEC-1L INPUT PAGE 12

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LINE         ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

318          ZW   C=FLOW F=010YR-24HR A=LIBERTY
             *

319          KK  DEVD
             *  JXMIN    Time interval for input data
320          IN       5
321          KM
             *
             * Design storm construction details
             *
             * Regional multiplier (zone 3) applied:  1.050
             * Elevation adjustment applied, elev: 155.
             * Areal adjustment using area:  0.040
             *   multiplier from table 4-4: 1.0000
             *
             * Adjusted depths for each duration from table 4-1: frequency:  10
             * Duration----Regional------Elev-----Areal (adjustments)
             * 5 min         0.2625    0.2620    0.2620
             * 10 min        0.3780    0.3780    0.3780
             * 15 min        0.4515    0.4535    0.4535
             * 30 min        0.5985    0.6052    0.6052
             * 1 hour        0.8085    0.8240    0.8240
             * 2 hours       1.0400    1.0699    1.0699
             * 3 hours       1.2300    1.2708    1.2708
             * 6 hours       1.6500    1.7171    1.7171
             * 12 hours      2.2500    2.3771    2.3771
             * 24 hours      2.9800    3.1722    3.1722
             * 36 hours      3.5400    3.8019    3.8004
             * 2 days        3.9500    3.9500    3.9500
             * 3 days        4.6500    4.6500    4.6500
             * 5 days        5.7600    6.3665    6.3640
             * 10 days       7.5400    8.4680    8.4646
             * Storm duration:  24, length:  288 ordinates
322          PB       0
323          PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
324          PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
325          PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
326          PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
327          PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
328          PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
329          PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
```

```
 330          PI  0.0055  0.0055  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092
 331          PI  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092
 332          PI  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092
 333          PI  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0124  0.0124
 334          PI  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124
 335          PI  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0167  0.0167  0.0167  0.0167
 336          PI  0.0167  0.0167  0.0205  0.0205  0.0205  0.0205  0.0205  0.0205  0.0365  0.0365
 337          PI  0.0365  0.0505  0.0755  0.2620  0.1160  0.0505  0.0505  0.0365  0.0365  0.0365
 338          PI  0.0205  0.0205  0.0205  0.0205  0.0205  0.0205  0.0167  0.0167  0.0167  0.0167
 339          PI  0.0167  0.0167  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124
 340          PI  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124  0.0124
 341          PI  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092
 342          PI  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092
 343          PI  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092
```



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LINE          ID.......1.......2.......3.......4.......5,.......6.......7.......8.......9......10

 344          PI  0.0092  0.0092  0.0092  0.0092  0.0092  0.0092  0.0055  0.0055  0.0055  0.0055
 345          PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
 346          PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
 347          PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
 348          PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
 349          PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
 350          PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
 351          PI  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055  0.0055
              *
              * Precipitation losses computation (Chapter 5)
              *   Computing CNSTL (infiltration rate) from soil type and table 5-2
              *  TAREA   subbasin area (sq mi)
 352          BA  0.0008
              *  STRTL   CNSTL   RTIMP
 353          LU    0.20   0.055   0.000
              *
              * Runoff hydrograph computation (Chapter 6)
              *   Using basin lag:  17.6 minutes
              *   Using unit duration (Step 2): 1. min
              *   Lag Time + Unit Duration / 2 (Step 3): 18.06654
              *   Volume of runoff (Step 4) V=    0.021007
 354          UI   0.052   0.123   0.199   0.273   0.358   0.456   0.560   0.674   0.799   0.930
 355          UI   1.085   1.247   1.357   1.386   1.384   1.354   1.256   1.133   1.008   0.904
 356          UI   0.835   0.763   0.696   0.645   0.593   0.549   0.508   0.471   0.435   0.409
 357          UI   0.380   0.356   0.332   0.312   0.295   0.277   0.261   0.247   0.234   0.222
 358          UI   0.209   0.198   0.188   0.179   0.173   0.166   0.160   0.153   0.147   0.141
 359          UI   0.136   0.130   0.125   0.120   0.115   0.112   0.106   0.103   0.098   0.095
 360          UI   0.091   0.087   0.085   0.081   0.078   0.074   0.072   0.069   0.067   0.064
 361          UI   0.062   0.059   0.057   0.055   0.052   0.051   0.048   0.046   0.044   0.042
 362          UI   0.041   0.039   0.038   0.036   0.035   0.034   0.033   0.032   0.031   0.029
 363          UI   0.028   0.027   0.026   0.025   0.024   0.023   0.022   0.021   0.021   0.020
 364          UI   0.019   0.018   0.017   0.017   0.017   0.016   0.015   0.015
 365          ZW   C=FLOW F=010YR-24HR A=LIBERTY
 366          ZZ
```

```
*****************************************
*                                       *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1L)  *
*              JULY   1998              *
*            VERSION 4.1(L)             *
*                                       *
*  RUN DATE   03JUN22  TIME  08:36:09   *
*                                       *
*****************************************
```

```
*****************************************
*                                       *
*    U.S. ARMY CORPS OF ENGINEERS       *
*    HYDROLOGIC ENGINEERING CENTER      *
*          609 SECOND STREET            *
*        DAVIS, CALIFORNIA 95616        *
*           (916) 756-1104              *
*                                       *
*****************************************
```

```
  3 IO          OUTPUT CONTROL VARIABLES
                     IPRNT          3  PRINT CONTROL
                     IPLOT          0  PLOT CONTROL
                     QSCAL         0.  HYDROGRAPH PLOT SCALE

    IT          HYDROGRAPH TIME DATA
                      NMIN          1  MINUTES IN COMPUTATION INTERVAL
                     IDATE    31DEC99  STARTING DATE
                     ITIME       0000  STARTING TIME
                        NQ       1562  NUMBER OF HYDROGRAPH ORDINATES
                    NDDATE     2JAN 0  ENDING DATE
                    NDTIME       0201  ENDING TIME
                     ICENT         19  CENTURY MARK

                  COMPUTATION INTERVAL    0.02 HOURS
                      TOTAL TIME BASE   26.02 HOURS

          ENGLISH UNITS
               DRAINAGE AREA         SQUARE MILES
               PRECIPITATION DEPTH   INCHES
               LENGTH, ELEVATION     FEET
               FLOW                  CUBIC FEET PER SECOND
               STORAGE VOLUME        ACRE-FEET
               SURFACE AREA          ACRES
               TEMPERATURE           DEGREES FAHRENHEIT
```

```
*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

           **************
           *            *
  4 KK     *     XA     *
           *            *
           **************

  5 IN          TIME DATA FOR INPUT TIME SERIES
                     JXMIN          5  TIME INTERVAL IN MINUTES
                    JXDATE    31DEC99  STARTING DATE
                    JXTIME       2400  STARTING TIME

              SUBBASIN RUNOFF DATA

 37 BA          SUBBASIN CHARACTERISTICS
                     TAREA,      0.01  SUBBASIN AREA

                PRECIPITATION DATA

  7 PB               STORM       3.17  BASIN TOTAL PRECIPITATION

  8 PI            INCREMENTAL PRECIPITATION PATTERN
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
                   0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
                   0.02      0.02      0.02      0.02      0.02      0.05      0.05      0.05      0.05      0.05
                   0.02      0.02      0.02      0.02      0.02      0.01      0.01      0.01      0.01      0.01
                   0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
                   0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
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                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00

  38 LU          UNIFORM LOSS RATE
                       STRTL        0.20  INITIAL LOSS
                       CNSTL        0.06  UNIFORM LOSS RATE
                       RTIMP       55.30  PERCENT IMPERVIOUS AREA

  37 UI          INPUT UNITGRAPH,  33 ORDINATES,  VOLUME = 1.00
                       8.9      20.5      36.5      54.6      53.1      37.3      27.9      21.5      16.9      13.5
                      11.0       9.2       7.6       6.7       5.8       5.1       4.5       3.9       3.4       3.0
                       2.7       2.3       2.1       1.8       1.6       1.4       1.2       1.1       0.9       0.8
                       0.7       0.7       0.6

                                                             ***

     ***             ***             ***             ***             ***

                         HYDROGRAPH AT STATION   XA

    TOTAL RAINFALL =    3.17, TOTAL LOSS =    0.62, TOTAL EXCESS =    2.55

  PEAK FLOW     TIME                           MAXIMUM AVERAGE FLOW
    (CFS)       (HR)                    6-HR        24-HR        72-HR       26.02-HR
      13.      12.03        (CFS)          2.           1.           1.             1.
                          (INCHES)      1.565        2.552        2.554          2.554
                           (AC-FT)         1.           1.           1.             1.

                       CUMULATIVE AREA =    0.01 SQ MI
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*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

               **************
               *            *
   44 KK       *    DEVA    *
               *            *
               **************


   45 IN          TIME DATA FOR INPUT TIME SERIES
                        JXMIN         5  TIME INTERVAL IN MINUTES
                       JXDATE   31DEC99  STARTING DATE
                       JXTIME      2400  STARTING TIME

                SUBBASIN RUNOFF DATA

   77 BA          SUBBASIN CHARACTERISTICS
                        TAREA,     0.01  SUBBASIN AREA

                  PRECIPITATION DATA

   47 PB                STORM      3.17  BASIN TOTAL PRECIPITATION

   48 PI            INCREMENTAL PRECIPITATION PATTERN
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                       0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
                       0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
                       0.02      0.02      0.02      0.02      0.02      0.05      0.05      0.05      0.05      0.05
                       0.02      0.02      0.02      0.02      0.02      0.01      0.01      0.01      0.01      0.01
                       0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
                       0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
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          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
          0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00

 78 LU          UNIFORM LOSS RATE
                      STRTL         0.20  INITIAL LOSS
                      CNSTL         0.05  UNIFORM LOSS RATE
                      RTIMP        88.50  PERCENT IMPERVIOUS AREA

 77 UI          INPUT UNITGRAPH,  33 ORDINATES,  VOLUME = 1.00
                       9.7      22.4      39.7      59.5      57.9      40.7      30.4      23.5      18.4      14.7
                      12.0      10.0       8.3       7.3       6.3       5.6       4.9       4.3       3.7       3.3
                       2.9       2.6       2.2       1.9       1.7       1.5       1.4       1.2       1.0       0.9
                       0.8       0.7       0.6

                                                         ***

   ***             ***             ***             ***             ***

                        HYDROGRAPH AT STATION    DEVA

   TOTAL RAINFALL =     3.17, TOTAL LOSS =     0.14, TOTAL EXCESS =     3.03

 PEAK FLOW      TIME                             MAXIMUM AVERAGE FLOW
   (CFS)        (HR)                    6-HR        24-HR       72-HR      26.02-HR
      14.       12.03        (CFS)        2.           1.          1.            1.
                           (INCHES)    1.677        3.019       3.022         3.022
                            (AC-FT)       1.           2.          2.            2.

                        CUMULATIVE AREA =     0.01 SQ MI
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*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

          **************
          *            *
 84 KK    *     XB     *
          *            *
          **************

 85 IN          TIME DATA FOR INPUT TIME SERIES
                     JXMIN           5  TIME INTERVAL IN MINUTES
                    JXDATE     31DEC99  STARTING DATE
                    JXTIME        2400  STARTING TIME

              SUBBASIN RUNOFF DATA

117 BA          SUBBASIN CHARACTERISTICS
                     TAREA,       0.00  SUBBASIN AREA

                PRECIPITATION DATA

 87 PB               STORM        3.17  BASIN TOTAL PRECIPITATION

 88 PI            INCREMENTAL PRECIPITATION PATTERN
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
                   0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
                   0.02      0.02      0.02      0.02      0.02      0.05      0.05      0.05      0.05      0.05
                   0.02      0.02      0.02      0.02      0.02      0.01      0.01      0.01      0.01      0.01
                   0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
                   0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
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                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00

118 LU          UNIFORM LOSS RATE
                      STRTL         0.20  INITIAL LOSS
                      CNSTL         0.06  UNIFORM LOSS RATE
                      RTIMP        25.25  PERCENT IMPERVIOUS AREA

117 UI          INPUT UNITGRAPH, 108 ORDINATES,  VOLUME = 0.99
                      0.3       0.7       1.1       1.5       2.0       2.5       3.1       3.8       4.5       5.2
                      6.1       7.0       7.6       7.7       7.7       7.6       7.0       6.3       5.6       5.0
                      4.7       4.3       3.9       3.6       3.3       3.1       2.8       2.6       2.4       2.3
                      2.1       2.0       1.9       1.7       1.6       1.5       1.5       1.4       1.3       1.2
                      1.2       1.1       1.1       1.0       1.0       0.9       0.9       0.9       0.8       0.8
                      0.8       0.7       0.7       0.7       0.6       0.6       0.6       0.6       0.5       0.5
                      0.5       0.5       0.5       0.5       0.4       0.4       0.4       0.4       0.4       0.4
                      0.3       0.3       0.3       0.3       0.3       0.3       0.3       0.3       0.2       0.2
                      0.2       0.2       0.2       0.2       0.2       0.2       0.2       0.2       0.2       0.2
                      0.2       0.2       0.1       0.1       0.1       0.1       0.1       0.1       0.1       0.1
                      0.1       0.1       0.1       0.1       0.1       0.1       0.1       0.1

                                                                ***

     ***             ***             ***             ***             ***

                         HYDROGRAPH AT STATION    XB

   TOTAL RAINFALL =     3.17, TOTAL LOSS =     1.14, TOTAL EXCESS =     2.03

PEAK FLOW     TIME                            MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                     6-HR       24-HR       72-HR      26.02-HR
      3.      12.20        (CFS)          1.          0.          0.           0.
                         (INCHES)     1.411       2.009       2.013        2.013
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                    (AC-FT)         0.          0.          0.           0.

                    CUMULATIVE AREA =     0.00 SQ MI


*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

            **************
            *            *
131 KK      *    DEVB    *
            *            *
            **************

132 IN          TIME DATA FOR INPUT TIME SERIES
                      JXMIN           5  TIME INTERVAL IN MINUTES
                     JXDATE     31DEC99  STARTING DATE
                     JXTIME        2400  STARTING TIME

              SUBBASIN RUNOFF DATA

164 BA          SUBBASIN CHARACTERISTICS
                      TAREA,       0.00  SUBBASIN AREA

                PRECIPITATION DATA

134 PB                STORM        3.17  BASIN TOTAL PRECIPITATION

135 PI            INCREMENTAL PRECIPITATION PATTERN
                     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
                     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
                     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
                     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
                     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
                     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
                     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
                     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
                     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
                     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
                     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
                     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
                     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
                     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
                     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
                     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
                     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
                     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
                     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
                     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
                     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
                     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
                     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
                     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
                     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
                     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
                     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
                     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
                     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
                     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
                     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
                     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
                     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
                     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
                     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
                     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
                     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
                     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
                     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
                     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
                     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
                     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
                     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
                     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
                     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
                     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
                     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
                     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
                     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
                     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
                     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
                     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
                     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
                     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
                     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
                     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
                     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
                     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
                     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
                     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
                     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
                     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
                     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
                     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
                     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
                     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
                     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
                     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
```

0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.02	0.02	0.02	0.02	0.02	0.05	0.05	0.05	0.05	0.05
0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

165 LU   UNIFORM LOSS RATE

STRTL   0.20 INITIAL LOSS
CNSTL   0.04 UNIFORM LOSS RATE
RTIMP   93.05 PERCENT IMPERVIOUS AREA

164 UI   INPUT UNITGRAPH, 108 ORDINATES, VOLUME = 1.00

0.3	0.6	1.0	1.4	1.8	2.3	2.8	3.4	4.0	4.7
5.4	6.2	6.8	6.9	6.9	6.8	6.3	5.7	5.0	4.5
4.2	3.8	3.5	3.2	3.0	2.7	2.5	2.4	2.2	2.0
1.9	1.8	1.7	1.6	1.5	1.4	1.3	1.2	1.2	1.1
1.0	1.0	0.9	0.9	0.9	0.8	0.8	0.8	0.7	0.7
0.7	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5
0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3
0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2
0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1
0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		

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HYDROGRAPH AT STATION   DEVB

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 TOTAL RAINFALL =    3.17, TOTAL LOSS =    0.08, TOTAL EXCESS =    3.09

PEAK FLOW     TIME                             MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR        24-HR       72-HR      26.02-HR
     3.      12.20        (CFS)       1.           0.          0.           0.
                        (INCHES)   1.691        3.082       3.094        3.094
                         (AC-FT)      0.           1.          1.           1.

                    CUMULATIVE AREA =    0.00 SQ MI


*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

            **************
            *            *
178 KK      *     XC     *
            *            *
            **************


179 IN          TIME DATA FOR INPUT TIME SERIES
                      JXMIN           5   TIME INTERVAL IN MINUTES
                      JXDATE    31DEC99   STARTING DATE
                      JXTIME       2400   STARTING TIME

              SUBBASIN RUNOFF DATA

211 BA          SUBBASIN CHARACTERISTICS
                      TAREA,        0.00   SUBBASIN AREA

                PRECIPITATION DATA

181 PB                STORM         3.17   BASIN TOTAL PRECIPITATION

182 PI            INCREMENTAL PRECIPITATION PATTERN
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
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0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.02	0.02	0.02	0.02	0.02	0.05	0.05	0.05	0.05	0.05
0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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212 LU          UNIFORM LOSS RATE
                     STRTL        0.20  INITIAL LOSS
                     CNSTL        0.06  UNIFORM LOSS RATE
                     RTIMP       20.60  PERCENT IMPERVIOUS AREA

211 UI          INPUT UNITGRAPH, 108 ORDINATES,  VOLUME = 1.01
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0.3	0.8	1.2	1.7	2.2	2.8	3.5	4.2	5.0	5.8
6.7	7.7	8.4	8.6	8.6	8.4	7.8	7.0	6.3	5.6
5.2	4.7	4.3	4.0	3.7	3.4	3.1	2.9	2.7	2.5
2.4	2.2	2.1	1.9	1.8	1.7	1.6	1.5	1.4	1.4
1.3	1.2	1.2	1.1	1.1	1.0	1.0	1.0	0.9	0.9
0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.6	0.6	0.6
0.6	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4
0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3
0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1

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                  0.1       0.1       0.1       0.1       0.1       0.1       0.1       0.1
                                                            ***

      ***             ***             ***             ***             ***

                    HYDROGRAPH AT STATION    XC

    TOTAL RAINFALL =    3.17, TOTAL LOSS =    1.22, TOTAL EXCESS =    1.95

 PEAK FLOW      TIME                           MAXIMUM AVERAGE FLOW
   (CFS)        (HR)                  6-HR         24-HR        72-HR      26.02-HR
       4.      12.20       (CFS)         1.           0.           0.           0.
                         (INCHES)     1.415        1.959        1.962        1.962
                          (AC-FT)        0.           1.           1.           1.

                       CUMULATIVE AREA =     0.00 SQ MI


*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

            **************
            *            *
 225 KK     *     DEVC   *
            *            *
            **************

 226 IN         TIME DATA FOR INPUT TIME SERIES
                      JXMIN           5   TIME INTERVAL IN MINUTES
                     JXDATE     31DEC99   STARTING DATE
                     JXTIME        2400   STARTING TIME

              SUBBASIN RUNOFF DATA

 258 BA         SUBBASIN CHARACTERISTICS
                      TAREA,       0.00   SUBBASIN AREA

                PRECIPITATION DATA

 228 PB               STORM        3.17   BASIN TOTAL PRECIPITATION

 229 PI           INCREMENTAL PRECIPITATION PATTERN
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                     0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
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0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.02	0.02	0.02	0.02	0.02	0.05	0.05	0.05	0.05	0.05
0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

259 LU UNIFORM LOSS RATE

STRTL	0.20	INITIAL LOSS
CNSTL	0.05	UNIFORM LOSS RATE
RTIMP	83.00	PERCENT IMPERVIOUS AREA

258 UI INPUT UNITGRAPH, 108 ORDINATES, VOLUME = 1.00

0.3	0.7	1.2	1.6	2.1	2.7	3.4	4.0	4.8	5.6
6.5	7.5	8.1	8.3	8.3	8.1	7.5	6.8	6.1	5.4
5.0	4.6	4.2	3.9	3.6	3.3	3.0	2.8	2.6	2.5

```
                    2.3       2.1       2.0       1.9       1.8       1.7       1.6       1.5       1.4       1.3
                    1.3       1.2       1.1       1.1       1.0       1.0       1.0       0.9       0.9       0.8
                    0.8       0.8       0.8       0.7       0.7       0.7       0.6       0.6       0.6       0.6
                    0.5       0.5       0.5       0.5       0.5       0.4       0.4       0.4       0.4       0.4
                    0.4       0.4       0.3       0.3       0.3       0.3       0.3       0.3       0.3       0.3
                    0.2       0.2       0.2       0.2       0.2       0.2       0.2       0.2       0.2       0.2
                    0.2       0.2       0.2       0.2       0.1       0.1       0.1       0.1       0.1       0.1
                    0.1       0.1       0.1       0.1       0.1       0.1       0.1       0.1

                                                            ***

        ***             ***             ***             ***             ***

                      HYDROGRAPH AT STATION    DEVC

     TOTAL RAINFALL =     3.17, TOTAL LOSS =     0.22, TOTAL EXCESS =     2.95

  PEAK FLOW     TIME                             MAXIMUM AVERAGE FLOW
    (CFS)       (HR)                  6-HR        24-HR       72-HR     26.02-HR
        4.     12.20       (CFS)        1.           0.          0.           0.
                          (INCHES)    1.649       2.929       2.940        2.940
                           (AC-FT)       0.          1.          1.           1.

                          CUMULATIVE AREA =     0.00 SQ MI


*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

              **************
              *            *
 272 KK       *     XD     *
              *            *
              **************

 273 IN          TIME DATA FOR INPUT TIME SERIES
                       JXMIN           5  TIME INTERVAL IN MINUTES
                      JXDATE     31DEC99  STARTING DATE
                      JXTIME        2400  STARTING TIME

               SUBBASIN RUNOFF DATA

 305 BA          SUBBASIN CHARACTERISTICS
                       TAREA,       0.00  SUBBASIN AREA

                 PRECIPITATION DATA

 275 PB                STORM        3.17  BASIN TOTAL PRECIPITATION

 276 PI            INCREMENTAL PRECIPITATION PATTERN
                    0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                    0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                    0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                    0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                    0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                    0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                    0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                    0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                    0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                    0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                    0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                    0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                    0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                    0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                    0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                    0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                    0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                    0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                    0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                    0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                    0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                    0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                    0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                    0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                    0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                    0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                    0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                    0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                    0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                    0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                    0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                    0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                    0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                    0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                    0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                    0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                    0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                    0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                    0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                    0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                    0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                    0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                    0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                    0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                    0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                    0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                    0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
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0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.02	0.02	0.02	0.02	0.02	0.05	0.05	0.05	0.05	0.05
0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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306 LU          UNIFORM LOSS RATE
                    STRTL          0.20  INITIAL LOSS
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                    CNSTL         0.05  UNIFORM LOSS RATE
                    RTIMP        48.50  PERCENT IMPERVIOUS AREA

 305 UI          INPUT UNITGRAPH, 108 ORDINATES,  VOLUME = 0.98
                    0.1       0.2        0.3       0.4       0.5       0.6       0.8       0.9       1.1       1.3
                    1.5       1.7        1.9       1.9       1.9       1.9       1.7       1.6       1.4       1.2
                    1.2       1.1        1.0       0.9       0.8       0.8       0.7       0.6       0.6       0.6
                    0.5       0.5        0.5       0.4       0.4       0.4       0.4       0.3       0.3       0.3
                    0.3       0.3        0.3       0.2       0.2       0.2       0.2       0.2       0.2       0.2
                    0.2       0.2        0.2       0.2       0.2       0.2       0.1       0.1       0.1       0.1
                    0.1       0.1        0.1       0.1       0.1       0.1       0.1       0.1       0.1       0.1
                    0.1       0.1        0.1       0.1       0.1       0.1       0.1       0.1       0.1       0.1
                    0.1       0.1        0.1       0.1       0.0       0.0       0.0       0.0       0.0       0.0
                    0.0       0.0        0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0
                    0.0       0.0        0.0       0.0       0.0       0.0       0.0       0.0

                                                           ***

      ***            ***             ***             ***             ***

                          HYDROGRAPH AT STATION    XD

    TOTAL RAINFALL =     3.17, TOTAL LOSS =     0.70, TOTAL EXCESS =     2.47

 PEAK FLOW      TIME                              MAXIMUM AVERAGE FLOW
   (CFS)        (HR)                  6-HR          24-HR         72-HR        26.02-HR
       1.      12.20        (CFS)        0.            0.            0.             0.
                          (INCHES)   1.506         2.415         2.422          2.422
                           (AC-FT)      0.            0.            0.             0.

                            CUMULATIVE AREA =     0.00 SQ MI


*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

              **************
              *            *
 319 KK       *    DEVD    *
              *            *
              **************

 320 IN          TIME DATA FOR INPUT TIME SERIES
                    JXMIN            5  TIME INTERVAL IN MINUTES
                   JXDATE      31DEC99  STARTING DATE
                   JXTIME         2400  STARTING TIME

               SUBBASIN RUNOFF DATA

 352 BA          SUBBASIN CHARACTERISTICS
                    TAREA,        0.00  SUBBASIN AREA

                 PRECIPITATION DATA

 322 PB             STORM         3.17  BASIN TOTAL PRECIPITATION

 323 PI             INCREMENTAL PRECIPITATION PATTERN
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
```

0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.02	0.02	0.02	0.02	0.02	0.05	0.05	0.05	0.05	0.05
0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00

353 LU          UNIFORM LOSS RATE
                     STRTL        0.20  INITIAL LOSS
                     CNSTL        0.05  UNIFORM LOSS RATE
                     RTIMP        0.00  PERCENT IMPERVIOUS AREA

352 UI          INPUT UNITGRAPH, 108 ORDINATES,  VOLUME = 0.98
                     0.1       0.1       0.2       0.3       0.4       0.5       0.6       0.7       0.8       0.9
                     1.1       1.2       1.4       1.4       1.4       1.4       1.3       1.1       1.0       0.9
                     0.8       0.8       0.7       0.6       0.6       0.5       0.5       0.5       0.4       0.4
                     0.4       0.4       0.3       0.3       0.3       0.3       0.3       0.2       0.2       0.2
                     0.2       0.2       0.2       0.2       0.2       0.2       0.2       0.2       0.1       0.1
                     0.1       0.1       0.1       0.1       0.1       0.1       0.1       0.1       0.1       0.1
                     0.1       0.1       0.1       0.1       0.1       0.1       0.1       0.1       0.1       0.1
                     0.1       0.1       0.1       0.1       0.1       0.1       0.0       0.0       0.0       0.0
                     0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0
                     0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0
                     0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0

                                                                   ***

    ***             ***             ***             ***             ***

                          HYDROGRAPH AT STATION   DEVD

   TOTAL RAINFALL =    3.17, TOTAL LOSS =    1.35, TOTAL EXCESS =    1.82

PEAK FLOW     TIME                              MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                   6-HR       24-HR       72-HR     26.02-HR
    1.      12.20        (CFS)          0.          0.          0.          0.
                       (INCHES)      1.345       1.773       1.773       1.773
                        (AC-FT)          0.          0.          0.          0.

                       CUMULATIVE AREA =    0.00 SQ MI
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RUNOFF SUMMARY
FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
HYDROGRAPH AT	XA	13.	12.03	2.	1.	1.	0.01		
HYDROGRAPH AT	DEVA	14.	12.03	2.	1.	1.	0.01		
HYDROGRAPH AT	XB	3.	12.20	1.	0.	0.	0.00		
HYDROGRAPH AT	DEVB	3.	12.20	1.	0.	0.	0.00		
HYDROGRAPH AT	XC	4.	12.20	1.	0.	0.	0.00		
HYDROGRAPH AT	DEVC	4.	12.20	1.	0.	0.	0.00		
HYDROGRAPH AT	XD	1.	12.20	0.	0.	0.	0.00		
HYDROGRAPH AT	DEVD	1.	12.20	0.	0.	0.	0.00		

*** NORMAL END OF HEC-1L ***

Index to station computation sections

XA
DEVA
XB
DEVB
XC
DEVC
XD
DEVD

(C) 2001 David Ford Consulting Engineers, Inc.

FlowMaster Report – Hillsdale Boulevard System

Circular Pipe (Liberty Towers (Offsite).fm8)

Label	Roughness Coefficient	Channel Slope (ft/ft)	Normal Depth (in)	Diameter (in)	Percent Full (%)	Velocity (ft/s)	Discharge (cfs)
12-in. Hillsdale	0.015	0.004	12.0	12.0	100.0	2.49	1.95
12-in. Weatherby	0.015	0.027	12.0	12.0	100.0	6.46	5.07
15-in. Weatherby	0.015	0.005	15.0	15.0	100.0	3.23	3.96