PROFESSIONAL ENGINEERING CONSULTANTS, PA
303 South Topeka
WICHITA, KANSAS 67202

(316) 262-2691

LETTER OF TRANSMITTAL

DATE	JOB NO.
4-3-95	36-94467-210B

ATTENTION

RE: WESLEY WEST
DRAINAGE PLAN

TO VICKY HUANG, P.E.
7TH. FLOOR, CITY HALL

WE ARE SENDING YOU ☒ Attached ☐ Under separate cover via _____ the following items:

☐ Shop drawings ☐ Prints ☐ Plans ☐ Samples ☐ Specifications
☐ Copy of letter ☐ Change order ☐ _____

COPIES	DATE	NO.	DESCRIPTION
2			DRAINAGE PLAN

THESE ARE TRANSMITTED as checked below:

☒ For approval ☐ Approved as submitted ☐ Resubmit _____ copies for approval
☐ For your use ☐ Approved as noted ☐ Submit _____ copies for distribution
☐ As requested ☐ Returned for corrections ☐ Return _____ corrected prints
☐ For review and comment ☐ _____
☐ FOR BIDS DUE _____ 19_____ ☐ PRINTS RETURNED AFTER LOAN TO US

REMARKS _____

COPY TO FILE

SIGNED: GARY WILEY

WESLEY WEST ADDITION

The following is the proposed drainage plan and supporting calculations for an approximately 40 acre site to be developed as a medical office complex. The primary drainage improvement for the site is construction of a detention pond that will limit the 100-year developed conditions runoff rate to the pre-development peak rate of runoff for the 100-year storm Detention pond analysis was done using the Army Corps of Engineers' HEC-1 computer program and the Federal Highway Administration's Culvert program. The outfall for the proposed pond will be a 30" RCP that ties into a 48" RCP City of Wichita storm sewer draining to the East in 13th Street. A 110' overflow at elevation 1343.7 at the South end of the pond will allow the 100-year storm to enter the 13th Street right-of-way.

Hydrologic calculations to determine site runoff were done using three drainage basins. The same basins were also used in the HEC-1 model. These basins were based on a preliminary site development plan, but because the plan is only preliminary, the basins are not shown on the enclosed drainage plan.

PROFESSIONAL ENGINEERING CONSULTANTS
PROFESSIONAL ASSOCIATION
303 S. TOPEKA
WICHITA, KANSAS
ZIP CODE / 67202

Date _____ Page _____ of _____

Project Wesley West

Item Existing Cond. & Devel. Cond. - Hydrology

Existing Group B Soils.

$L = 2400'$

Cover = Cult. Field w/o conservation treatment

$S = (1354 - 1344) / 2400' = 0.42\%$

Assume Vel = 0.5 '/sec.

$T_c = 2400 / 0.5 = 4,800\ s = 1\ hr.\ 20\ min.$

$CN = 81$

D.A. = 30.00 Ac.

Developed

D.A. #1

$L = 1900'$

Cover = 85% Commercial, 15% Residential (1/6 ac. Lots, 45% Imp.)

$S = 0.4\%$ min.

Assume Vel. = 1.5 '/sec.

$T_c = 1900 / 1.5 = 21$ min.

$CN = 92 \times 0.85 + 80 \times 0.15 = 90$

D.A. = 23.62 Ac.

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303 S. TOPEKA
WICHITA, KANSAS
ZIP CODE / 67202

Date _____ Page _____ of _____

Project _____

Item _____

D.A. #2

L = 1,100'

Cover = Commercial

S = 0.4% min

Assume Vel. = 1.5'/sec.

Tc = 1,100'/1.5 = 12.2 min, say 15 min.

CN = 92

D.A. = 6.38 Ac.

D.A. #3 & D.A. #4

Cover = Commercial

Tc = 15 min.

CN = 92

D.A. = 14.96 Ac Total

Under Developed Cond. → Wichita Rehab hosp. drains to 18" S.W.S. to ditch to East, to 36" line.

Total Design Q for 36" according to 13th St. plans = 41.5 cfs

CURRENT DATE: 02-21-1995 FILE DATE: 02-21-1995
CURRENT TIME: 16:16:26 FILE NAME: NWVILL

FHWA CULVERT ANALYSIS
HY-8, VERSION 3.2

C U L V	SITE DATA: INLET ELEV. (FT)	OUTLET ELEV. (FT)	CULVERT LENGTH (FT)	CULVERT SHAPE, MATERIAL, INLET: BARRELS SHAPE MATERIAL	SPAN (FT)	RISE (FT)	MANNING n	INLET TYPE
1	1337.20	1337.00	80.00	1 RCP	2.50	2.50	.012	CONVENTIONAL
2								
3								
4								
5								
6								

SUMMARY OF CULVERT FLOWS (CFS) FILE: NWVILL DATE: 02-21-1995

ELEV (FT)	TOTAL	1	2	3	4	5	6	ROADWAY	ITR
1340.00	0	0	0	0	0	0	0	0	1
1340.07	7	7	0	0	0	0	0	0	1
1340.26	14	14	0	0	0	0	0	0	1
1340.59	21	21	0	0	0	0	0	0	1
1341.04	28	28	0	0	0	0	0	0	1
1341.63	35	35	0	0	0	0	0	0	1
1342.35	41	41	0	0	0	0	0	0	1
1343.19	48	48	0	0	0	0	0	0	1
1343.42	50	50	0	0	0	0	0	0	1
1343.79	62	53	0	0	0	0	0	9	13
1343.83	69	53	0	0	0	0	0	15	5
1343.70	52	52	0	0	0	0	0	OVERTOPPING	

SUMMARY OF ITERATIVE SOLUTION ERRORS FILE: NWVILL DATE: 02-21-1995

HEAD ELEV(FT)	HEAD ERROR(FT)	TOTAL FLOW(CFS)	FLOW ERROR(CFS)	% FLOW ERROR
1340.00	0.00	0	0	0.00
1340.07	0.00	7	0	0.00
1340.26	0.00	14	0	0.00
1340.59	0.00	21	0	0.00
1341.04	0.00	28	0	0.00
1341.63	0.00	35	0	0.00
1342.35	0.00	41	0	0.00
1343.19	0.00	48	0	0.00
1343.42	0.00	50	0	0.00
1343.79	-0.00	62	0	0.63
1343.83	-0.00	69	1	0.95

<1> TOLERANCE (FT) = 0.010 <2> TOLERANCE (%) = 1.000

```
*****************************************
*                                       *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
*             MAY  1991                 *
*          VERSION 4.0.1E               *
*     Lahey F77L-EM/32 version 5.01     *
*       Dodson & Associates, Inc.       *
*  RUN DATE  04/03/95  TIME  07:53:22   *
*                                       *
*****************************************
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*****************************************
*                                       *
*    U.S. ARMY CORPS OF ENGINEERS       *
*    HYDROLOGIC ENGINEERING CENTER      *
*          609 SECOND STREET            *
*       DAVIS, CALIFORNIA 95616         *
*          (916) 551-1748               *
*                                       *
*****************************************
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X    X  XXXXXXX  XXXXX          X
X    X  X       X    X        XX
X    X  X       X             X
XXXXXXX  XXXX   X       XXXXX  X
X    X  X       X             X
X    X  X       X    X        X
X    X  XXXXXXX  XXXXX        XXX
```

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

HEC-1 INPUT PAGE 1

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

  1       ID       Northwest Village Detention Study
  2       ID       5-, 10-, 25-, & 100-Year Storms
  3       ID       Professional Engineering Consultants
  4       ID       Wichita, Ks
  5       ID       DRC  2/21/95
  6       ID       File:  T:\DAR\NWVILL.IH1
  7       IT      6 01FEB95    0600       0 02FEB95    1154
  8       IN     30 01FEB95    0600
  9       IO      3       0
 10       JR    PREC  0.5902  0.6875  0.8125   1.000
           *
           *      UNDEVELOPED BASIN
           *

 11       KK   UNDEV
 12       BA  0.0703
 13       PB    7.8
 14       PC   0.08    .09    .10    .11    .12    .133   .147   .163   .181   .204
 15       PC   .235    .283   .663   .735   .772   .799   .820   .835   .850   .865
 16       PC   .880    .890   .900   .910   .916   .925   .934   .943   .952   .958
 17       PC   .964    .970   .976   .982   .988   .994  1.000
 18       LS     0      81     0
 19       UD    .8
           *
           *       BASIN 1
           *

 20       KK  BASIN1
 21       BA   .0369
 22       PB    7.8
 23       PC   0.08    .09    .10    .11    .12    .133   .147   .163   .181   .204
 24       PC   .235    .283   .663   .735   .772   .799   .820   .835   .850   .865
 25       PC   .880    .890   .900   .910   .916   .925   .934   .943   .952   .958
 26       PC   .964    .970   .976   .982   .988   .994  1.000
 27       LS     0      90     0
 28       UD    .2
           *
           *       BASIN 2
           *

 29       KK  BASIN2
 30       BA    .010
 31       PB    7.8
 32       PC   0.08    .09    .10    .11    .12    .133   .147   .163   .181   .204
 33       PC   .235    .283   .663   .735   .772   .799   .820   .835   .850   .865
 34       PC   .880    .890   .900   .910   .916   .925   .934   .943   .952   .958
 35       PC   .964    .970   .976   .982   .988   .994  1.000
 36       LS     0      92     0
 37       UD    .2
           *
           *       BASIN 3
           *
```

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

  38      KK  BASIN3
  39      BA   .0234
  40      PB    7.8
  41      PC   0.08    .09    .10    .11    .12    .133   .147   .163   .181   .204
  42      PC   .235    .283   .663   .735   .772   .799   .820   .835   .850   .865
  43      PC   .880    .890   .900   .910   .916   .925   .934   .943   .952   .958
  44      PC   .964    .970   .976   .982   .988   .994  1.000
  45      LS     0     92      0
  46      UD    .2
          *
          *      COMBINE HYDROGRAPHS
          *

  47      KK  INPOND
  48      HC     3
          *
          *      DETENTION AREA FOR FLOOD ROUTING
          *

  49      KK  STORGE
  50      RS     1    ELEV  1337.2
  51      SA  1.25    2.00   2.15
  52      SE 1337.2  1343.0  1343.7
  53      SQ     0     14     21     28     35     41     48     50     62     69
  54      SE 1337.2 1340.26 1340.59 1341.04 1341.63 1342.35 1343.19 1343.42 1343.79 1343.83
  55      ST 1343.7   110     2.7    1.5
  56      ZZ
```

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*******************************************
*                                         *
*  FLOOD HYDROGRAPH PACKAGE  (HEC-1)      *
*             MAY  1991                   *
*          VERSION 4.0.1E                 *
*    Lahey F77L-EM/32 version 5.01        *
*      Dodson & Associates, Inc.          *
* RUN DATE  04/03/95  TIME  07:53:22      *
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*                                         *
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*       DAVIS, CALIFORNIA 95616           *
*         (916) 551-1748                  *
*                                         *
*******************************************
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Northwest Village Detention Study
5-, 10-, 25-, & 100-Year Storms
Professional Engineering Consultants
Wichita, Ks
DRC 2/21/95
File: T:\DAR\NWVILL.IH1

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

    IT        HYDROGRAPH TIME DATA
                    NMIN          6  MINUTES IN COMPUTATION INTERVAL
                   IDATE      1FEB95  STARTING DATE
                   ITIME        0600  STARTING TIME
                      NQ         300  NUMBER OF HYDROGRAPH ORDINATES
                  NDDATE      2FEB95  ENDING DATE
                  NDTIME        1154  ENDING TIME
                   ICENT          19  CENTURY MARK

               COMPUTATION INTERVAL    0.10 HOURS
                   TOTAL TIME BASE   29.90 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

    JP        MULTI-PLAN OPTION
                   NPLAN          1  NUMBER OF PLANS

    JR        MULTI-RATIO OPTION
                 RATIOS OF PRECIPITATION
               0.59      0.69      0.81      1.00
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*** ***

```
            **************
            *            *
 11 KK      *     UNDEV  *
            *            *
            **************

  8 IN        TIME DATA FOR INPUT TIME SERIES
                   JXMIN         30  TIME INTERVAL IN MINUTES
                  JXDATE      1FEB95  STARTING DATE
                  JXTIME        600  STARTING TIME

              SUBBASIN RUNOFF DATA

 12 BA        SUBBASIN CHARACTERISTICS
                   TAREA       0.07  SUBBASIN AREA

              PRECIPITATION DATA

 13 PB             STORM       7.80  BASIN TOTAL PRECIPITATION

 14 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	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.08	0.08	0.08	0.08	0.08
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

18 LS SCS LOSS RATE

STRTL	0.47	INITIAL ABSTRACTION
CRVNBR	81.00	CURVE NUMBER
RTIMP	0.00	PERCENT IMPERVIOUS AREA

19 UD SCS DIMENSIONLESS UNITGRAPH

TLAG	0.80	LAG

***

UNIT HYDROGRAPH
42 END-OF-PERIOD ORDINATES

2.	5.	10.	17.	25.	33.	38.	40.	40.	38.
35.	31.	26.	20.	17.	14.	11.	9.	8.	6.
5.	4.	4.	3.	2.	2.	2.	1.	1.	1.
1.	1.	1.	0.	0.	0.	0.	0.	0.	0.
0.	0.								

TOTAL RAINFALL = 7.80, TOTAL LOSS = 2.25, TOTAL EXCESS = 5.55

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	29.90-HR
+ (CFS)	(HR)					
		(CFS)				
+ 111.	6.60		34.	10.	8.	8.
		(INCHES)	4.532	5.554	5.554	5.554
		(AC-FT)	17.	21.	21.	21.

CUMULATIVE AREA = 0.07 SQ MI

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

HYDROGRAPH AT STATION UNDEV
FOR PLAN 1, RATIO = 0.59

TOTAL RAINFALL = 4.60, TOTAL LOSS = 1.97, TOTAL EXCESS = 2.64

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	29.90-HR
+ (CFS)	(HR)					
		(CFS)				
+ 51.	6.70		16.	5.	4.	4.
		(INCHES)	2.147	2.638	2.638	2.638
		(AC-FT)	8.	10.	10.	10.

CUMULATIVE AREA = 0.07 SQ MI

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

HYDROGRAPH AT STATION UNDEV
FOR PLAN 1, RATIO = 0.69

TOTAL RAINFALL = 5.36, TOTAL LOSS = 2.05, TOTAL EXCESS = 3.31

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	29.90-HR
+ (CFS)	(HR)					
		(CFS)				
+ 65.	6.70		20.	6.	5.	5.

```
                (INCHES)    2.698      3.308      3.308       3.308
                 (AC-FT)      10.        12.        12.         12.

                 CUMULATIVE AREA =    0.07 SQ MI

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

                    HYDROGRAPH AT STATION    UNDEV
                      FOR PLAN 1, RATIO = 0.81

       TOTAL RAINFALL =    6.34, TOTAL LOSS =    2.14, TOTAL EXCESS =    4.19

     PEAK FLOW     TIME                     MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR      72-HR     29.90-HR
   +   (CFS)       (HR)
                             (CFS)
   +      83.      6.70                26.         8.         6.          6.
                          (INCHES)   3.423      4.193      4.193       4.193
                           (AC-FT)     13.        16.        16.         16.

                 CUMULATIVE AREA =    0.07 SQ MI

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

                    HYDROGRAPH AT STATION    UNDEV
                      FOR PLAN 1, RATIO = 1.00

       TOTAL RAINFALL =    7.80, TOTAL LOSS =    2.25, TOTAL EXCESS =    5.55

     PEAK FLOW     TIME                     MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR      72-HR     29.90-HR
   +   (CFS)       (HR)
                             (CFS)
   +     111.      6.60                34.        10.         8.          8.
                          (INCHES)   4.532      5.554      5.554       5.554
                           (AC-FT)     17.        21.        21.         21.

                 CUMULATIVE AREA =    0.07 SQ MI


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


                **************
                *            *
     20 KK      *   BASIN1   *
                *            *
                **************

      8 IN          TIME DATA FOR INPUT TIME SERIES
                       JXMIN        30  TIME INTERVAL IN MINUTES
                      JXDATE    1FEB95  STARTING DATE
                      JXTIME       600  STARTING TIME

                 SUBBASIN RUNOFF DATA

     21 BA          SUBBASIN CHARACTERISTICS
                       TAREA      0.04  SUBBASIN AREA

                    PRECIPITATION DATA

     22 PB             STORM      7.80  BASIN TOTAL PRECIPITATION

     23 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    0.01    0.01    0.01    0.01    0.01
                      0.01    0.01    0.01    0.01    0.01    0.08    0.08    0.08    0.08    0.08
                      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

```
27 LS        SCS LOSS RATE
                STRTL        0.22  INITIAL ABSTRACTION
               CRVNBR       90.00  CURVE NUMBER
                RTIMP        0.00  PERCENT IMPERVIOUS AREA

28 UD        SCS DIMENSIONLESS UNITGRAPH
                 TLAG        0.20  LAG

                                          ***

                                     UNIT HYDROGRAPH
                               12 END-OF-PERIOD ORDINATES
          22.      67.      67.      40.      20.      11.      6.      3.      2.      1.
           0.       0.

    TOTAL RAINFALL =    7.80, TOTAL LOSS =    1.19, TOTAL EXCESS =    6.61

  PEAK FLOW    TIME                     MAXIMUM AVERAGE FLOW
                                 6-HR       24-HR       72-HR     29.90-HR
+   (CFS)      (HR)
                        (CFS)
+    131.      6.00                21.          7.          5.          5.
                     (INCHES)    5.370      6.609       6.609       6.609
                      (AC-FT)      11.         13.         13.         13.

                    CUMULATIVE AREA =     0.04 SQ MI


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

                   HYDROGRAPH AT STATION    BASIN1
                     FOR PLAN 1, RATIO = 0.59

    TOTAL RAINFALL =    4.60, TOTAL LOSS =    1.11, TOTAL EXCESS =    3.50

  PEAK FLOW    TIME                     MAXIMUM AVERAGE FLOW
                                 6-HR       24-HR       72-HR     29.90-HR
+   (CFS)      (HR)
                        (CFS)
+     70.      6.00                11.          3.          3.          3.
                     (INCHES)    2.865      3.495       3.495       3.495
                      (AC-FT)       6.          7.          7.          7.

                    CUMULATIVE AREA =     0.04 SQ MI


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

                   HYDROGRAPH AT STATION    BASIN1
                     FOR PLAN 1, RATIO = 0.69

    TOTAL RAINFALL =    5.36, TOTAL LOSS =    1.14, TOTAL EXCESS =    4.23

  PEAK FLOW    TIME                     MAXIMUM AVERAGE FLOW
                                 6-HR       24-HR       72-HR     29.90-HR
+   (CFS)      (HR)
                        (CFS)
+     84.      6.00                14.          4.          3.          3.
                     (INCHES)    3.457      4.227       4.227       4.227
                      (AC-FT)       7.          8.          8.          8.

                    CUMULATIVE AREA =     0.04 SQ MI


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

                   HYDROGRAPH AT STATION    BASIN1
                     FOR PLAN 1, RATIO = 0.81

    TOTAL RAINFALL =    6.34, TOTAL LOSS =    1.16, TOTAL EXCESS =    5.18

  PEAK FLOW    TIME                     MAXIMUM AVERAGE FLOW
                                 6-HR       24-HR       72-HR     29.90-HR
```

```
+  (CFS)      (HR)
                          (CFS)
+    103.     6.00                 17.          5.          4.          4.
                       (INCHES)   4.222       5.175       5.175       5.175
                        (AC-FT)      8.         10.         10.         10.

                        CUMULATIVE AREA =    0.04 SQ MI


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

                         HYDROGRAPH AT STATION    BASIN1
                           FOR PLAN 1, RATIO = 1.00

    TOTAL RAINFALL =    7.80, TOTAL LOSS =    1.19, TOTAL EXCESS =    6.61

  PEAK FLOW    TIME                       MAXIMUM AVERAGE FLOW
                                   6-HR        24-HR       72-HR      29.90-HR
+  (CFS)      (HR)
                          (CFS)
+    131.     6.00                 21.          7.          5.          5.
                       (INCHES)   5.370       6.609       6.609       6.609
                        (AC-FT)     11.         13.         13.         13.

                        CUMULATIVE AREA =    0.04 SQ MI


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

              **************
              *            *
  29 KK       *   BASIN2   *
              *            *
              **************

   8 IN          TIME DATA FOR INPUT TIME SERIES
                       JXMIN         30  TIME INTERVAL IN MINUTES
                      JXDATE     1FEB95  STARTING DATE
                      JXTIME        600  STARTING TIME

                 SUBBASIN RUNOFF DATA

  30 BA          SUBBASIN CHARACTERISTICS
                       TAREA       0.01  SUBBASIN AREA

                 PRECIPITATION DATA

  31 PB                STORM       7.80  BASIN TOTAL PRECIPITATION

  32 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     0.01     0.01     0.01     0.01     0.01
                      0.01     0.01     0.01     0.01     0.01     0.08     0.08     0.08     0.08     0.08
                      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

  36 LS          SCS LOSS RATE
                      STRTL        0.17  INITIAL ABSTRACTION
                     CRVNBR       92.00  CURVE NUMBER
                      RTIMP        0.00  PERCENT IMPERVIOUS AREA

  37 UD          SCS DIMENSIONLESS UNITGRAPH
                       TLAG        0.20  LAG
```

***

UNIT HYDROGRAPH
12 END-OF-PERIOD ORDINATES

6. 18. 18. 11. 5. 3. 1. 1. 0. 0.
0. 0.

TOTAL RAINFALL = 7.80, TOTAL LOSS = 0.95, TOTAL EXCESS = 6.85

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	29.90-HR
+ (CFS)	(HR)					
		(CFS)				
+ 36.	6.00		6.	2.	1.	1.
		(INCHES)	5.532	6.846	6.846	6.846
		(AC-FT)	3.	4.	4.	4.

CUMULATIVE AREA = 0.01 SQ MI

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

HYDROGRAPH AT STATION BASIN2
FOR PLAN 1, RATIO = 0.59

TOTAL RAINFALL = 4.60, TOTAL LOSS = 0.90, TOTAL EXCESS = 3.70

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	29.90-HR
+ (CFS)	(HR)					
		(CFS)				
+ 20.	6.00		3.	1.	1.	1.
		(INCHES)	3.025	3.703	3.703	3.703
		(AC-FT)	2.	2.	2.	2.

CUMULATIVE AREA = 0.01 SQ MI

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

HYDROGRAPH AT STATION BASIN2
FOR PLAN 1, RATIO = 0.69

TOTAL RAINFALL = 5.36, TOTAL LOSS = 0.92, TOTAL EXCESS = 4.44

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	29.90-HR
+ (CFS)	(HR)					
		(CFS)				
+ 24.	6.00		4.	1.	1.	1.
		(INCHES)	3.621	4.444	4.444	4.444
		(AC-FT)	2.	2.	2.	2.

CUMULATIVE AREA = 0.01 SQ MI

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

HYDROGRAPH AT STATION BASIN2
FOR PLAN 1, RATIO = 0.81

TOTAL RAINFALL = 6.34, TOTAL LOSS = 0.94, TOTAL EXCESS = 5.40

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	29.90-HR
+ (CFS)	(HR)					
		(CFS)				
+ 29.	6.00		5.	1.	1.	1.
		(INCHES)	4.386	5.402	5.402	5.402
		(AC-FT)	2.	3.	3.	3.

CUMULATIVE AREA = 0.01 SQ MI

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

HYDROGRAPH AT STATION BASIN2
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 7.80, TOTAL LOSS = 0.95, TOTAL EXCESS = 6.85

```
  PEAK FLOW     TIME                           MAXIMUM AVERAGE FLOW
                                     6-HR        24-HR        72-HR      29.90-HR
+   (CFS)       (HR)
                            (CFS)
+      36.       6.00                  6.           2.           1.           1.
                          (INCHES)  5.532        6.846        6.846        6.846
                           (AC-FT)     3.           4.           4.           4.

                          CUMULATIVE AREA =     0.01 SQ MI


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

              **************
              *            *
   38 KK      *   BASIN3   *
              *            *
              **************

    8 IN          TIME DATA FOR INPUT TIME SERIES
                       JXMIN          30  TIME INTERVAL IN MINUTES
                       JXDATE     1FEB95  STARTING DATE
                       JXTIME        600  STARTING TIME

                 SUBBASIN RUNOFF DATA

   39 BA          SUBBASIN CHARACTERISTICS
                       TAREA        0.02  SUBBASIN AREA

                  PRECIPITATION DATA

   40 PB               STORM        7.80  BASIN TOTAL PRECIPITATION

   41 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      0.01      0.01      0.01      0.01      0.01
                       0.01      0.01      0.01      0.01      0.01      0.08      0.08      0.08      0.08      0.08
                       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

   45 LS          SCS LOSS RATE
                       STRTL        0.17  INITIAL ABSTRACTION
                      CRVNBR       92.00  CURVE NUMBER
                       RTIMP        0.00  PERCENT IMPERVIOUS AREA

   46 UD          SCS DIMENSIONLESS UNITGRAPH
                        TLAG        0.20  LAG

                                                ***

                                             UNIT HYDROGRAPH
                                        12 END-OF-PERIOD ORDINATES
                 14.       42.       42.       26.       13.        7.        4.        2.        1.        1.
                  0.        0.

      TOTAL RAINFALL =    7.80, TOTAL LOSS =    0.95, TOTAL EXCESS =    6.85

  PEAK FLOW     TIME                           MAXIMUM AVERAGE FLOW
                                     6-HR        24-HR        72-HR      29.90-HR
+   (CFS)       (HR)
                            (CFS)
+      85.       6.00                 14.           4.           3.           3.
                          (INCHES)  5.532        6.846        6.846        6.846
```

	(AC-FT)	7.	9.	9.	9.

CUMULATIVE AREA = 0.02 SQ MI

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

HYDROGRAPH AT STATION BASIN3
FOR PLAN 1, RATIO = 0.59

TOTAL RAINFALL = 4.60, TOTAL LOSS = 0.90, TOTAL EXCESS = 3.70

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	29.90-HR
+ (CFS)	(HR)				
		(CFS)			
+ 47.	6.00	8.	2.	2.	2.
		(INCHES) 3.025	3.703	3.703	3.703
		(AC-FT) 4.	5.	5.	5.

CUMULATIVE AREA = 0.02 SQ MI

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

HYDROGRAPH AT STATION BASIN3
FOR PLAN 1, RATIO = 0.69

TOTAL RAINFALL = 5.36, TOTAL LOSS = 0.92, TOTAL EXCESS = 4.44

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	29.90-HR
+ (CFS)	(HR)				
		(CFS)			
+ 56.	6.00	9.	3.	2.	2.
		(INCHES) 3.621	4.444	4.444	4.444
		(AC-FT) 5.	6.	6.	6.

CUMULATIVE AREA = 0.02 SQ MI

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

HYDROGRAPH AT STATION BASIN3
FOR PLAN 1, RATIO = 0.81

TOTAL RAINFALL = 6.34, TOTAL LOSS = 0.94, TOTAL EXCESS = 5.40

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	29.90-HR
+ (CFS)	(HR)				
		(CFS)			
+ 68.	6.00	11.	3.	3.	3.
		(INCHES) 4.386	5.402	5.402	5.402
		(AC-FT) 5.	7.	7.	7.

CUMULATIVE AREA = 0.02 SQ MI

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

HYDROGRAPH AT STATION BASIN3
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 7.80, TOTAL LOSS = 0.95, TOTAL EXCESS = 6.85

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	29.90-HR
+ (CFS)	(HR)				
		(CFS)			
+ 85.	6.00	14.	4.	3.	3.
		(INCHES) 5.532	6.846	6.846	6.846
		(AC-FT) 7.	9.	9.	9.

CUMULATIVE AREA = 0.02 SQ MI

*** ***

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          **************
          *            *
 47 KK    *   INPOND   *
          *            *
          **************

 48 HC         HYDROGRAPH COMBINATION
                  ICOMP         3  NUMBER OF HYDROGRAPHS TO COMBINE
                                                              ***

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

                    HYDROGRAPH AT STATION   INPOND
                      FOR PLAN 1, RATIO = 0.59

 PEAK FLOW     TIME                    MAXIMUM AVERAGE FLOW
                                  6-HR      24-HR      72-HR     29.90-HR
+  (CFS)       (HR)
                          (CFS)
+     137.     6.00                22.         7.         5.           5.
                       (INCHES)   2.940      3.594      3.594        3.594
                        (AC-FT)     11.        13.        13.          13.

                    CUMULATIVE AREA =    0.07 SQ MI

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

                    HYDROGRAPH AT STATION   INPOND
                      FOR PLAN 1, RATIO = 0.69

 PEAK FLOW     TIME                    MAXIMUM AVERAGE FLOW
                                  6-HR      24-HR      72-HR     29.90-HR
+  (CFS)       (HR)
                          (CFS)
+     164.     6.00                27.         8.         7.           7.
                       (INCHES)   3.534      4.330      4.330        4.330
                        (AC-FT)     13.        16.        16.          16.

                    CUMULATIVE AREA =    0.07 SQ MI

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

                    HYDROGRAPH AT STATION   INPOND
                      FOR PLAN 1, RATIO = 0.81

 PEAK FLOW     TIME                    MAXIMUM AVERAGE FLOW
                                  6-HR      24-HR      72-HR     29.90-HR
+  (CFS)       (HR)
                          (CFS)
+     199.     6.00                33.        10.         8.           8.
                       (INCHES)   4.300      5.283      5.283        5.283
                        (AC-FT)     16.        20.        20.          20.

                    CUMULATIVE AREA =    0.07 SQ MI

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

                    HYDROGRAPH AT STATION   INPOND
                      FOR PLAN 1, RATIO = 1.00

 PEAK FLOW     TIME                    MAXIMUM AVERAGE FLOW
                                  6-HR      24-HR      72-HR     29.90-HR
+  (CFS)       (HR)
                          (CFS)
+     252.     6.00                41.        13.        10.          10.
                       (INCHES)   5.447      6.721      6.721        6.721
                        (AC-FT)     20.        25.        25.          25.

                    CUMULATIVE AREA =    0.07 SQ MI


*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***
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                **************
                *            *
     49 KK      *   STORGE   *
                *            *
                **************

                   HYDROGRAPH ROUTING DATA

     50 RS           STORAGE ROUTING
                          NSTPS          1  NUMBER OF SUBREACHES
                           ITYP       ELEV  TYPE OF INITIAL CONDITION
                         RSVRIC    1337.20  INITIAL CONDITION
                              X       0.00 WORKING R AND D COEFFICIENT

     51 SA                AREA        1.3       2.0       2.2

     52 SE           ELEVATION    1337.20   1343.00   1343.70

     53 SQ           DISCHARGE         0.       14.       21.       28.       35.       41.       48.       50.       62.       69.

     54 SE           ELEVATION    1337.20   1340.26   1340.59   1341.04   1341.63   1342.35   1343.19   1343.42   1343.79   1343.83

     55 ST           TOP OF DAM
                          TOPEL    1343.70  ELEVATION AT TOP OF DAM
                         DAMWID     110.00  DAM WIDTH
                           COQD       2.70  WEIR COEFFICIENT
                           EXPD       1.50  EXPONENT OF HEAD
                                                             ***

                                                     COMPUTED STORAGE-ELEVATION DATA

             STORAGE       0.00      9.34     10.79
           ELEVATION    1337.20   1343.00   1343.70

                                                   COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

                                                        (INCLUDING FLOW OVER DAM)

             STORAGE       0.00      4.38      4.93      5.69      6.73      8.07      9.34      9.72     10.20     10.79
             OUTFLOW       0.00     14.00     21.00     28.00     35.00     41.00     46.42     48.00     50.00     59.08
           ELEVATION    1337.20   1340.26   1340.59   1341.04   1341.63   1342.35   1343.00   1343.19   1343.42   1343.70

             STORAGE      10.99     11.07
             OUTFLOW      70.03     82.92
           ELEVATION    1343.79   1343.83

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

                                HYDROGRAPH AT STATION   STORGE
                                  FOR PLAN 1, RATIO = 0.59

    PEAK OUTFLOW IS        33. AT TIME   6.60 HOURS

     PEAK FLOW     TIME                         MAXIMUM AVERAGE FLOW
                                         6-HR        24-HR       72-HR      29.90-HR
   +   (CFS)       (HR)
                               (CFS)
   +      33.      6.60                   18.          7.          5.           5.
                            (INCHES)    2.336       3.600       3.614        3.614
                             (AC-FT)       9.         13.         14.          14.

    PEAK STORAGE   TIME                        MAXIMUM AVERAGE STORAGE
                                         6-HR        24-HR       72-HR      29.90-HR
   +  (AC-FT)      (HR)
            6.     6.60                    4.          2.          1.           1.

     PEAK STAGE    TIME                         MAXIMUM AVERAGE STAGE
                                         6-HR        24-HR       72-HR      29.90-HR
   +   (FEET)      (HR)
      1341.44      6.60                1340.26     1338.49     1338.24      1338.24

                              CUMULATIVE AREA =     0.07 SQ MI
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*** *** *** *** ***

HYDROGRAPH AT STATION STORGE
FOR PLAN 1, RATIO = 0.69

PEAK OUTFLOW IS 39. AT TIME 6.60 HOURS

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	29.90-HR
+ (CFS)	(HR)					
		(CFS)				
+ 39.	6.60		22.	8.	7.	7.
		(INCHES)	2.877	4.337	4.355	4.355
		(AC-FT)	11.	16.	16.	16.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
		6-HR	24-HR	72-HR	29.90-HR
+ (AC-FT)	(HR)				
8.	6.60	5.	2.	2.	2.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
		6-HR	24-HR	72-HR	29.90-HR
+ (FEET)	(HR)				
1342.14	6.60	1340.64	1338.66	1338.38	1338.38

CUMULATIVE AREA = 0.07 SQ MI

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

HYDROGRAPH AT STATION STORGE
FOR PLAN 1, RATIO = 0.81

PEAK OUTFLOW IS 47. AT TIME 6.60 HOURS

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	29.90-HR
+ (CFS)	(HR)					
		(CFS)				
+ 47.	6.60		27.	10.	8.	8.
		(INCHES)	3.575	5.277	5.301	5.301
		(AC-FT)	13.	20.	20.	20.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
		6-HR	24-HR	72-HR	29.90-HR
+ (AC-FT)	(HR)				
9.	6.60	6.	2.	2.	2.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
		6-HR	24-HR	72-HR	29.90-HR
+ (FEET)	(HR)				
1343.03	6.60	1341.16	1338.89	1338.57	1338.57

CUMULATIVE AREA = 0.07 SQ MI

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

HYDROGRAPH AT STATION STORGE
FOR PLAN 1, RATIO = 1.00

PEAK OUTFLOW IS 106. AT TIME 6.40 HOURS

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	29.90-HR
+ (CFS)	(HR)					
		(CFS)				
+ 106.	6.40		35.	13.	10.	10.
		(INCHES)	4.681	6.700	6.733	6.733
		(AC-FT)	18.	25.	25.	25.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
		6-HR	24-HR	72-HR	29.90-HR
+ (AC-FT)	(HR)				
11.	6.40	7.	3.	2.	2.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE

+	(FEET)	(HR)	6-HR	24-HR	72-HR	29.90-HR
	1343.90	6.40	1341.70	1339.16	1338.78	1338.78

CUMULATIVE AREA = 0.07 SQ MI

PEAK FLOW AND STAGE (END-OF-PERIOD) SUMMARY FOR MULTIPLE PLAN-RATIO ECONOMIC COMPUTATIONS
FLOWS IN CUBIC FEET PER SECOND, AREA IN SQUARE MILES
TIME TO PEAK IN HOURS

OPERATION	STATION	AREA	PLAN		RATIOS APPLIED TO PRECIPITATION RATIO 1	RATIO 2	RATIO 3	RATIO 4
					0.59	0.69	0.81	1.00
HYDROGRAPH AT								
+	UNDEV	0.07	1	FLOW	51.	65.	83.	111.
				TIME	6.70	6.70	6.70	6.60
HYDROGRAPH AT								
+	BASIN1	0.04	1	FLOW	70.	84.	103.	131.
				TIME	6.00	6.00	6.00	6.00
HYDROGRAPH AT								
+	BASIN2	0.01	1	FLOW	20.	24.	29.	36.
				TIME	6.00	6.00	6.00	6.00
HYDROGRAPH AT								
+	BASIN3	0.02	1	FLOW	47.	56.	68.	85.
				TIME	6.00	6.00	6.00	6.00
3 COMBINED AT								
+	INPOND	0.07	1	FLOW	137.	164.	199.	252.
				TIME	6.00	6.00	6.00	6.00
ROUTED TO								
+	STORGE	0.07	1	FLOW	33.	39.	47.	106.
				TIME	6.60	6.60	6.60	6.40
			** PEAK STAGES IN FEET **					
			1	STAGE	1341.44	1342.14	1343.03	1343.90
				TIME	6.60	6.60	6.60	6.40

SUMMARY OF DAM OVERTOPPING/BREACH ANALYSIS FOR STATION STORGE
(PEAKS SHOWN ARE FOR INTERNAL TIME STEP USED DURING BREACH FORMATION)

PLAN 1 .....

	INITIAL VALUE	SPILLWAY CREST	TOP OF DAM
ELEVATION	1337.20	1343.70	1343.70
STORAGE	0.	11.	11.
OUTFLOW	0.	59.	59.

RATIO OF PMF	MAXIMUM RESERVOIR W.S.ELEV	MAXIMUM DEPTH OVER DAM	MAXIMUM STORAGE AC-FT	MAXIMUM OUTFLOW CFS	DURATION OVER TOP HOURS	TIME OF MAX OUTFLOW HOURS	TIME OF FAILURE HOURS
0.59	1341.44	0.00	6.	33.	0.00	6.60	0.00
0.69	1342.14	0.00	8.	39.	0.00	6.60	0.00
0.81	1343.03	0.00	9.	47.	0.00	6.60	0.00
1.00	1343.90	0.20	11.	106.	0.50	6.40	0.00

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