SAVOY, RUGGLES & BOHM, P.A.
ENGINEERING AND SURVEYING
924 NORTH MAIN
WICHITA, KANSAS 67203

MEMO

Date: Tuesday, November 05, 1996

To: Vicky Huang, P.E.
City of Wichita

From: Chris Bohm

Project: Brentwood Village Drainage Plan

SRB Project No.:

Other Project Reference No.:

Description:
- ☐ Confirmation
- ☒ Transmittal
- ☐ Transmittal under separate cover by

Purpose:
- ☐ Approval
- ☒ Review & comment
- ☐ Use
- ☐ Other :
- ☐ Distribution
- ☐ Information
- ☐ Record

Enclosures/Attachments:
- ☐ Prints
- ☐ Originals
- ☐ Diskettes containing:
- ☐ Other:
- ☐ Change Order
- ☐ Shop Drawings

Copies	Description
1	Drainage Plan

Remarks: Vicky, here is a copy of the final drainage plan for the above mentioned addition.

Please contact me with any questions.

Thank you.

Copies to:
file

If checked below, please:
- ☐ Acknowledge receipt of enclosures
- ☐ Return enclosures to us.

Signed

If Enclosures are not as noted above, please inform us immediately
Phone (316) 264-8008 *Fax (316) 264-4621*

		C		I		Q	
Section	A	100 yr.	2 yr.	100 yr.	2 yr.	100 yr.	2 yr.
a	1.6	0.68	0.55	7.37	3.83	8.01856	3.3704
b	1.87	0.59	0.46	6.39	3.25	7.050087	2.79565
c	1.06	0.68	0.55	7.37	3.83	5.312296	2.23289
d	2.2	0.59	0.46	7	3.61	9.086	3.65332
e	1.25	0.68	0.55	7.37	3.83	6.2645	2.633125
f	2.26	0.68	0.55	7.37	3.83	11.32622	4.76069
g	1.84	0.68	0.55	7.37	3.83	9.221344	3.87596
h	2.66	0.68	0.55	7.37	3.83	13.33086	5.60329
I	2.23	0.59	0.46	6.13	3.1	8.065241	3.17998
j	2.19	0.68	0.55	7.37	3.83	10.9754	4.613235
k	2.31	0.59	0.46	7.37	3.83	10.04457	4.069758
l	2.01	0.59	0.46	6.39	3.25	7.577901	3.00495
m	1.47	0.68	0.55	7.37	3.83	7.367052	3.096555
n	0.32	0.68	0.55	7.37	3.83	1.603712	0.67408

I-2	I-4	I-7	I-6
12.15367	9.357073	2.23289	3.65332
I-12	I-13	I-14	I-15
2.79565	2.633125	4.76069	9.977465

```
------------------ Beginning Calculation Cycle ------------------
Discharge: 12.15 cfs  at node I-2
Discharge: 21.51 cfs  at node I-4
Discharge: 2.23 cfs  at node I-7
Discharge: 27.39 cfs  at node I-6
Discharge: 2.80 cfs  at node I-12
Discharge: 30.19 cfs  at node J-1
Discharge: 32.82 cfs  at node I-13
Discharge: 37.58 cfs  at node I-14
Discharge: 9.98 cfs  at node I-15
Discharge: 47.56 cfs  at node J-3
Discharge: 47.56 cfs  at node Outlet
Beginning iteration 1
Discharge: 12.15 cfs  at node I-2
Discharge: 21.51 cfs  at node I-4
Discharge: 2.23 cfs  at node I-7
Discharge: 27.39 cfs  at node I-6
Discharge: 2.80 cfs  at node I-12
Discharge: 30.19 cfs  at node J-1
Discharge: 32.82 cfs  at node I-13
Discharge: 37.58 cfs  at node I-14
Discharge: 9.98 cfs  at node I-15
Discharge: 47.56 cfs  at node J-3
Discharge: 47.56 cfs  at node Outlet
Discharge Convergence Achieved in 1 iterations: relative error:  0.0
Information: P-19 Surcharged condition
Information: P-14 Surcharged condition
Information: P-6 Surcharged condition
---------------------- Calculations Complete ----------------------

** Analysis Options **
Friction method:  Manning's Formula
HGL Convergence Test:  0.001000
Maximum Network Traversals:  5
Number of Flow Profile Steps:  5
Discharge Convergence Test:  0.001000
Maximum Design Passes:  3
```

---------- Network Quick View ----------

				Hydraulic Grade	
Label	Length	Size	Discharge	Upstream	Downstream
P-3	300.00	24 inch	12.15	176.90	175.80
P-5	355.00	27 inch	21.51	175.80	174.14
P-6	115.00	12 inch	2.23	174.59	174.14
P-7	130.00	30 inch	27.39	174.14	173.57
P-14	300.00	12 inch	2.80	175.42	173.57
P-15	135.00	30 inch	30.19	173.57	172.80
P-16	32.00	33 inch	32.82	172.80	172.71
P-17	155.00	33 inch	37.58	172.71	172.08
P-18	20.00	36 inch	47.56	172.08	171.98
P-19	160.00	21 inch	9.98	172.72	172.08

		Elevations		
Label	Discharge	Ground	Upstream HGL	Downstream HGL
I-2	12.15	179.60	176.90	176.90
I-4	21.51	179.40	175.80	175.80
I-6	27.39	175.10	174.14	174.14
I-7	2.23	177.30	174.59	174.59
J-1	30.19	174.50	173.57	173.57
I-12	2.80	178.50	175.42	175.42
I-13	32.82	176.40	172.80	172.80
I-14	37.58	176.40	172.71	172.71

J-3	47.56	172.80	172.08	172.08
Outlet	47.56	175.00	171.98	171.98
I-15	9.98	176.20	172.72	172.72

Elapsed: 0 minute(s) 3 second(s)

SOIL TYPE = D

AREA	ft^2	ac	LAWNS	Distance (ft) GRASSED WATERWAY	GUTTER	(min) tc
A	69,562	1.60	40	–	500	15
B	81,301	1.87	300	200	–	20.8
C	46,075	1.06	40	–	422	15
D	95,986	2.2	280	–	–	16.7
E	54,372	1.25	40	–	455	15
F	98,235	2.26	40	–	1200	15
G	80,196	1.34	40	–	970	15
H	115,770	2.66	40	–	570	15
I	97,232	2.23	300	350	–	23
J	95,346	2.19	40	–	761	15
K	100,840	2.31	300	340	–	15
L	87,332	2.01	300	220	–	21
M	64,045	1.47	40	–	930	15
N	13,898	.32	40	–	150	15

C

100yr. BACKYARD: $(.93)\frac{600}{5920} + \frac{5320}{5920}(.55) = .59$

5yr FRONT: $\frac{1258}{5328}(.33) + \frac{600}{5328}(.85) + \frac{3470}{5328}(.44) = .59$

2yr Front: $\frac{1258}{5328}(.87) + \frac{600}{5328}(.80) + \frac{3470}{5328}(.40) = .55$

2yr BACK: $(.80)\frac{600}{5920} + \frac{5320}{5920}(.42) = .46$

100yr. FRONT: $\frac{1258}{5328}(.93) + \frac{600}{5328}(.93) + \frac{3470}{5328}(.55) = .68$

2yr. $= \frac{600}{5920}(.80) + \frac{5320}{5920}(.40) = .44$

INLET 1

Q_{100} = A = 8.02
H = 13.53
I = 8.07
29.42 cfs

Q_2 = A = 3.37
H = 5.60
I = 3.18
12.15 cfs

Q_{100} = 29.42
$-Q_2$ = 12.15
BYPASS 17.27 cfs

INLET 2

Q_{100} = J = 10.98
K = 10.04
N = 1.60
22.62

Q_2 = J = 4.61
K = 4.07
N = 0.67
9.35

Q_{100} = 22.62
$-Q_2$ = 9.35
BYPASS 13.27 cfs

INLET 3

Q_{100} = D = 9.09
E = 6.26
F = 11.33
26.68

Q_2 = D = 3.65
E = 2.63
F = 4.76
11.04

Q_{100} = 26.68
$-Q_2$ = 11.04
BYBASS 15.64 cfs

INLET 4

Q_{100} L = 7.58
M = 7.37
G = 9.22
24.17

Q_2 = L = 3.00
M = 3.10
G = 3.88
9.98

Q_{100} 24.17
$-Q_2$ -9.98
BYPASS 14.19 cfs

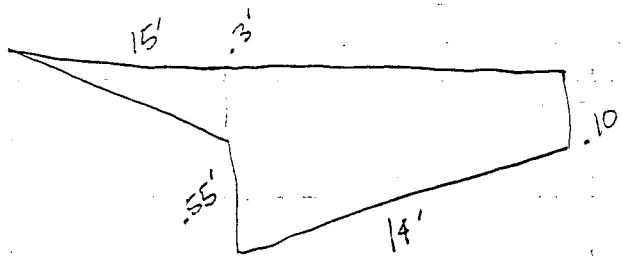
CAPACITY OF ROAD = 50.6 cfs

IC 2 BYPASS = 13.27 cfs
100yr e = 6.26 cfs
f = 11.33 cfs
30.86 < 50.6 cfs OK
+ IC 4 BYPASS 14.19
46.05 < 50.6 cfs OK

Q For SWALE

46.05 cfs − (BYPASS IC 3 15.64) = 30.41 cfs

13-782 500 SHEETS, FILLER 5 SQUARE
42-381 100 SHEETS EYE-EASE® 5 SQUARE
42-382 100 SHEETS EYE-EASE® 5 SQUARE
42-383 200 SHEETS EYE-EASE® 5 SQUARE
42-392 100 RECYCLED WHITE 5 SQUARE
42-399 200 RECYCLED WHITE 5 SQUARE
Made in U.S.A.
National® Brand



$$A = \left[(.5)(15)(.3) + \left(\frac{.35 + .10}{2}\right)(14) \right] 2$$

$$A = 17.8 \text{ ft}^2$$

$$wp = 29.55 \text{ ft}$$

$$\bar{n} = \frac{15(.03) + 14.55(.017)}{29.55} = .0236$$

$$V = \frac{1.49}{n}\left(\frac{A}{wp}\right)^{.67}\sqrt{S}$$

$$V = \frac{1.49}{.0236}\left(\frac{17.8}{29.55}\right)^{.67}\sqrt{.004}$$

$$V = 2.34 \text{ ft/s}$$

$$Q = VA$$

$$Q = (2.34)(17.8)$$

$$Q = 50.6 \text{ cfs}$$

13-782 500 SHEETS, FILLER 5 SQUARE
42-381 50 SHEETS EYE-EASE® 5 SQUARE
42-382 100 SHEETS EYE-EASE® 5 SQUARE
42-389 200 SHEETS EYE-EASE® 5 SQUARE
42-392 100 RECYCLED WHITE 5 SQUARE
42-399 200 RECYCLED WHITE 5 SQUARE
Made in U.S.A.
National® Brand

HEC1 S/N: 1343000364 HMVersion: 6.33 Data File: bv.hc1

```
*****************************************
*****************************************
*                                       *                                       *
*                                       *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *                                       *    U.S. ARMY CORPS OF
ENGINEERS     *
*               MAY   1991              *                                       *    HYDROLOGIC
ENGINEERING CENTER    *
*            VERSION 4.0.1E             *                                       *          609 SECOND
STREET          *
*                                       *                                       *       DAVIS,
CALIFORNIA 95616       *
*  RUN DATE  10/22/1996  TIME  15:17:25 *                                       *           (916) 756-
1104            *
*                                       *                                       *
*                                       *
*****************************************
*****************************************
```

```
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
```

```
::::::::::::::::::::::::::::::::::::::::::::
::::::::::::::::::::::::::::::::::::::::::::
:::                                      :::
```

::: Full Microcomputer Implementation :::
::: by :::
::: Haestad Methods, Inc. :::
::: :::
:::
:::

37 Brookside Road * Waterbury, Connecticut 06708 * (203) 755-1666

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

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

*** FREE ***
               1        ID   MILLERS CROSSING 100 POND RUN
               2        IT       5                   289
               3        IN      30
               4        IO       1

               5        KK     DEV
               6        BA  0.0611
               7        PC       0    0.04    0.08     .12     .17     .22     .27     .32     .37     .43
               8        PC     .49     .56     .62     .69     .77     .85     .94    1.04    1.15    1.27
               9        PC    1.41    1.59    1.83    2.21    5.17    5.73    6.02    6.23    6.40    6.54
              10        PC    6.65    6.76    6.86    6.95    7.02    7.09    7.16    7.23    7.29    7.36
              11        PC    7.43    7.49    7.54    7.59    7.63    7.68    7.72    7.76    7.80
              12        UD    0.20
              13        LS       0      90

              14        KK    POND
              15        RS       1    ELEV   167.7
              16        SA    0.01    0.16    1.33    1.67    1.77    1.87    1.97
              17        SE   167.7     168     169     170     171     172     173
              18        SQ     .10     1.0    18.4    44.1    43.5    59.0    71.6
              19        SE   167.7     168     169     170     171     172     173
              20        ZZ
```

HEC1 S/N: 1343000364 HMVersion: 6.33 Data File: bv.hc1

```
*****************************************
*****************************************
*                                       *                                       *
*                                       |
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *                                       *    U.S. ARMY CORPS OF
ENGINEERS     *
*               MAY   1991              *                                       *    HYDROLOGIC
ENGINEERING CENTER    *
*            VERSION 4.0.1E             *                                       *          609 SECOND
STREET          *
*                                       *                                       *       DAVIS,
CALIFORNIA 95616       *
*  RUN DATE  10/22/1996  TIME  15:17:25 *                                       *           (916) 756-
1104            *
*                                       *                                       *
*                                       |
*****************************************
*****************************************
```

MILLERS CROSSING 100 POND RUN

4	IO	OUTPUT CONTROL VARIABLES		
		IPRNT	1	PRINT CONTROL
		IPLOT	0	PLOT CONTROL
		QSCAL	0.	HYDROGRAPH PLOT SCALE
	IT	HYDROGRAPH TIME DATA		
		NMIN	5	MINUTES IN COMPUTATION INTERVAL
		IDATE 1	0	STARTING DATE

```
                    ITIME         0000  STARTING TIME
                       NQ          289  NUMBER OF HYDROGRAPH ORDINATES
                   NDDATE       2    0  ENDING DATE
                   NDTIME         0000  ENDING TIME
                   ICENT            19  CENTURY MARK

                COMPUTATION INTERVAL     0.08 HOURS
                     TOTAL TIME BASE    24.00 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


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

             **************
             *            *
   5 KK      *       DEV  *
             *            *
             **************

   3 IN           TIME DATA FOR INPUT TIME SERIES
                       JXMIN          30  TIME INTERVAL IN MINUTES
                     JXDATE       1    0  STARTING DATE
                     JXTIME            0  STARTING TIME

                SUBBASIN RUNOFF DATA
```

6 BA SUBBASIN CHARACTERISTICS
TAREA 0.06 SUBBASIN AREA

PRECIPITATION DATA

6 PB STORM 7.80 BASIN TOTAL PRECIPITATION

6 PI INCREMENTAL PRECIPITATION PATTERN

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	0.01	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	0.01	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	0.02	0.01	0.01	0.01	0.02	0.02	0.02
0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
0.02	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04
0.04								

0.04 0.04 0.06 0.06 0.06 0.06 0.06 0.06 0.49
0.49
0.49 0.49 0.49 0.49 0.09 0.09 0.09 0.09 0.09
0.09
0.05 0.05 0.05 0.05 0.05 0.05 0.03 0.04 0.03
0.03
0.04 0.03 0.03 0.03 0.03 0.03 0.03 0.03 0.02
0.02
0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02
0.02
0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02
0.02
0.02 0.02 0.01 0.01 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
0.01 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 0.01 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
0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01

13 LS SCS LOSS RATE

STRTL	0.22	INITIAL ABSTRACTION
CRVNBR	90.00	CURVE NUMBER
RTIMP	0.00	PERCENT IMPERVIOUS AREA

12 UD SCS DIMENSIONLESS UNITGRAPH
TLAG 0.20 LAG

***

WARNING *** TIME INTERVAL IS GREATER THAN .29*LAG

UNIT HYDROGRAPH
14 END-OF-PERIOD ORDINATES

30. 98. 122. 97. 54. 31. 18. 10. 6. 3.
2. 1. 1. 0.

****

HYDROGRAPH AT STATION DEV

****

DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q	DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q
1		0000	1	0.00	0.00	0.00	0.	1		1205	146	0.09	0.00	0.09	200.
1		0005	2	0.01	0.01	0.00	0.	1		1210	147	0.09	0.00	0.09	168.
1		0010	3	0.01	0.01	0.00	0.	1		1215	148	0.09	0.00	0.09	125.
1		0015	4	0.01	0.01	0.00	0.	1		1220	149	0.09	0.00	0.09	89.
1		0020	5	0.01	0.01	0.00	0.	1		1225	150	0.09	0.00	0.09	69.
1		0025	6	0.01	0.01	0.00	0.	1		1230	151	0.09	0.00	0.09	58.

1	0030	7	0.01	0.01	0.00	0.	*	1	1235	152	0.05	0.00	0.05	50.
1	0035	8	0.01	0.01	0.00	0.	*	1	1240	153	0.05	0.00	0.05	42.
1	0040	9	0.01	0.01	0.00	0.	*	1	1245	154	0.05	0.00	0.05	35.
1	0045	10	0.01	0.01	0.00	0.	*	1	1250	155	0.05	0.00	0.05	29.
1	0050	11	0.01	0.01	0.00	0.	*	1	1255	156	0.05	0.00	0.05	26.
1	0055	12	0.01	0.01	0.00	0.	*	1	1300	157	0.05	0.00	0.05	24.
1	0100	13	0.01	0.01	0.00	0.	*	1	1305	158	0.03	0.00	0.03	23.
1	0105	14	0.01	0.01	0.00	0.	*	1	1310	159	0.04	0.00	0.03	21.
1	0110	15	0.01	0.01	0.00	0.	*	1	1315	160	0.03	0.00	0.03	19.
1	0115	16	0.01	0.01	0.00	0.	*	1	1320	161	0.03	0.00	0.03	18.
1	0120	17	0.01	0.01	0.00	0.	*	1	1325	162	0.04	0.00	0.03	17.
1	0125	18	0.01	0.01	0.00	0.	*	1	1330	163	0.03	0.00	0.03	17.
1	0130	19	0.01	0.01	0.00	0.	*	1	1335	164	0.03	0.00	0.03	16.
1	0135	20	0.01	0.01	0.00	0.	*	1	1340	165	0.03	0.00	0.03	15.
1	0140	21	0.01	0.01	0.00	0.	*	1	1345	166	0.03	0.00	0.03	15.
1	0145	22	0.01	0.01	0.00	0.	*	1	1350	167	0.03	0.00	0.03	14.
1	0150	23	0.01	0.01	0.00	0.	*	1	1355	168	0.03	0.00	0.03	14.
1	0155	24	0.01	0.01	0.00	0.	*	1	1400	169	0.03	0.00	0.03	13.

1	0200	25	0.01	0.01	0.00	0.	*	1	1405	170	0.02	0.00	0.02
13.													
1	0205	26	0.01	0.01	0.00	0.	*	1	1410	171	0.02	0.00	0.02
13.													
1	0210	27	0.01	0.01	0.00	0.	*	1	1415	172	0.02	0.00	0.02
12.													
1	0215	28	0.01	0.01	0.00	0.	*	1	1420	173	0.02	0.00	0.02
11.													
1	0220	29	0.01	0.01	0.00	0.	*	1	1425	174	0.02	0.00	0.02
11.													
1	0225	30	0.01	0.01	0.00	0.	*	1	1430	175	0.02	0.00	0.02
11.													
1	0230	31	0.01	0.01	0.00	0.	*	1	1435	176	0.02	0.00	0.02
11.													
1	0235	32	0.01	0.01	0.00	0.	*	1	1440	177	0.02	0.00	0.02
10.													
1	0240	33	0.01	0.01	0.00	0.	*	1	1445	178	0.02	0.00	0.02
10.													
1	0245	34	0.01	0.01	0.00	0.	*	1	1450	179	0.02	0.00	0.02
9.													
1	0250	35	0.01	0.01	0.00	0.	*	1	1455	180	0.02	0.00	0.02
9.													
1	0255	36	0.01	0.01	0.00	0.	*	1	1500	181	0.02	0.00	0.02
9.													
1	0300	37	0.01	0.01	0.00	0.	*	1	1505	182	0.02	0.00	0.02
9.													
1	0305	38	0.01	0.01	0.00	0.	*	1	1510	183	0.02	0.00	0.02
9.													
1	0310	39	0.01	0.01	0.00	0.	*	1	1515	184	0.02	0.00	0.02
9.													
1	0315	40	0.01	0.01	0.00	0.	*	1	1520	185	0.02	0.00	0.02
9.													
1	0320	41	0.01	0.01	0.00	0.	*	1	1525	186	0.02	0.00	0.02
8.													
1	0325	42	0.01	0.01	0.00	0.	*	1	1530	187	0.02	0.00	0.02
8.													

1	0330	43	0.01	0.01	0.00	0.	*	1	1535	188	0.02	0.00	0.02
8.													
1	0335	44	0.01	0.01	0.00	1.	*	1	1540	189	0.02	0.00	0.02
8.													
1	0340	45	0.01	0.01	0.00	1.	*	1	1545	190	0.02	0.00	0.02
8.													
1	0345	46	0.01	0.01	0.00	1.	*	1	1550	191	0.02	0.00	0.02
8.													
1	0350	47	0.01	0.01	0.00	1.	*	1	1555	192	0.02	0.00	0.02
8.													
1	0355	48	0.01	0.01	0.00	1.	*	1	1600	193	0.02	0.00	0.02
8.													
1	0400	49	0.01	0.01	0.00	1.	*	1	1605	194	0.01	0.00	0.01
8.													
1	0405	50	0.01	0.01	0.00	1.	*	1	1610	195	0.01	0.00	0.01
8.													
1	0410	51	0.01	0.01	0.00	1.	*	1	1615	196	0.02	0.00	0.01
7.													
1	0415	52	0.01	0.01	0.00	1.	*	1	1620	197	0.01	0.00	0.01
7.													
1	0420	53	0.01	0.01	0.00	1.	*	1	1625	198	0.01	0.00	0.01
7.													
1	0425	54	0.01	0.01	0.00	1.	*	1	1630	199	0.01	0.00	0.01
7.													
1	0430	55	0.01	0.01	0.00	1.	*	1	1635	200	0.01	0.00	0.01
7.													
1	0435	56	0.01	0.01	0.00	1.	*	1	1640	201	0.01	0.00	0.01
7.													
1	0440	57	0.01	0.01	0.00	1.	*	1	1645	202	0.01	0.00	0.01
6.													
1	0445	58	0.01	0.01	0.00	1.	*	1	1650	203	0.01	0.00	0.01
6.													
1	0450	59	0.01	0.01	0.00	1.	*	1	1655	204	0.01	0.00	0.01
6.													
1	0455	60	0.01	0.01	0.00	1.	*	1	1700	205	0.01	0.00	0.01
6.													

1	0500	61	0.01	0.01	0.00	2.	*	1	1705	206	0.01	0.00	0.01	5.
1	0505	62	0.01	0.01	0.00	2.	*	1	1710	207	0.01	0.00	0.01	5.
1	0510	63	0.01	0.01	0.00	2.	*	1	1715	208	0.01	0.00	0.01	5.
1	0515	64	0.01	0.01	0.00	2.	*	1	1720	209	0.01	0.00	0.01	5.
1	0520	65	0.01	0.01	0.00	2.	*	1	1725	210	0.01	0.00	0.01	5.
1	0525	66	0.01	0.01	0.00	2.	*	1	1730	211	0.01	0.00	0.01	5.
1	0530	67	0.01	0.01	0.00	2.	*	1	1735	212	0.01	0.00	0.01	5.
1	0535	68	0.01	0.01	0.00	2.	*	1	1740	213	0.01	0.00	0.01	5.
1	0540	69	0.01	0.01	0.00	2.	*	1	1745	214	0.01	0.00	0.01	5.
1	0545	70	0.01	0.01	0.00	2.	*	1	1750	215	0.01	0.00	0.01	5.
1	0550	71	0.01	0.01	0.00	2.	*	1	1755	216	0.01	0.00	0.01	5.
1	0555	72	0.01	0.01	0.00	2.	*	1	1800	217	0.01	0.00	0.01	5.
1	0600	73	0.01	0.01	0.00	2.	*	1	1805	218	0.01	0.00	0.01	5.
1	0605	74	0.01	0.01	0.01	2.	*	1	1810	219	0.01	0.00	0.01	5.
1	0610	75	0.01	0.01	0.01	2.	*	1	1815	220	0.01	0.00	0.01	5.
1	0615	76	0.01	0.01	0.01	2.	*	1	1820	221	0.01	0.00	0.01	5.
1	0620	77	0.01	0.01	0.01	2.	*	1	1825	222	0.01	0.00	0.01	5.
1	0625	78	0.01	0.01	0.01	3.	*	1	1830	223	0.01	0.00	0.01	5.

1	0630	79	0.01	0.01	0.01	3.	*	1	1835	224	0.01	0.00	0.01	5.
1	0635	80	0.01	0.01	0.01	3.	*	1	1840	225	0.01	0.00	0.01	5.
1	0640	81	0.01	0.01	0.01	3.	*	1	1845	226	0.01	0.00	0.01	5.
1	0645	82	0.01	0.01	0.01	3.	*	1	1850	227	0.01	0.00	0.01	5.
1	0650	83	0.01	0.01	0.01	3.	*	1	1855	228	0.01	0.00	0.01	5.
1	0655	84	0.01	0.01	0.01	3.	*	1	1900	229	0.01	0.00	0.01	5.
1	0700	85	0.01	0.01	0.01	3.	*	1	1905	230	0.01	0.00	0.01	5.
1	0705	86	0.01	0.01	0.01	3.	*	1	1910	231	0.01	0.00	0.01	5.
1	0710	87	0.01	0.01	0.01	3.	*	1	1915	232	0.01	0.00	0.01	5.
1	0715	88	0.01	0.01	0.01	3.	*	1	1920	233	0.01	0.00	0.01	5.
1	0720	89	0.01	0.01	0.01	4.	*	1	1925	234	0.01	0.00	0.01	5.
1	0725	90	0.01	0.01	0.01	4.	*	1	1930	235	0.01	0.00	0.01	5.
1	0730	91	0.01	0.01	0.01	4.	*	1	1935	236	0.01	0.00	0.01	5.
1	0735	92	0.01	0.01	0.01	4.	*	1	1940	237	0.01	0.00	0.01	5.
1	0740	93	0.01	0.01	0.01	4.	*	1	1945	238	0.01	0.00	0.01	5.
1	0745	94	0.02	0.01	0.01	4.	*	1	1950	239	0.01	0.00	0.01	5.
1	0750	95	0.01	0.01	0.01	4.	*	1	1955	240	0.01	0.00	0.01	5.
1	0755	96	0.01	0.01	0.01	4.	*	1	2000	241	0.01	0.00	0.01	5.

1	0800	97	0.01	0.01	0.01	4.	*	1	2005	242	0.01	0.00	0.01
5.													
1	0805	98	0.02	0.01	0.01	4.	*	1	2010	243	0.01	0.00	0.01
5.													
1	0810	99	0.02	0.01	0.01	5.	*	1	2015	244	0.01	0.00	0.01
5.													
1	0815	100	0.02	0.01	0.01	5.	*	1	2020	245	0.01	0.00	0.01
5.													
1	0820	101	0.02	0.01	0.01	5.	*	1	2025	246	0.01	0.00	0.01
5.													
1	0825	102	0.02	0.01	0.01	5.	*	1	2030	247	0.01	0.00	0.01
5.													
1	0830	103	0.02	0.01	0.01	5.	*	1	2035	248	0.01	0.00	0.01
5.													
1	0835	104	0.02	0.01	0.01	5.	*	1	2040	249	0.01	0.00	0.01
4.													
1	0840	105	0.02	0.01	0.01	5.	*	1	2045	250	0.01	0.00	0.01
4.													
1	0845	106	0.02	0.01	0.01	6.	*	1	2050	251	0.01	0.00	0.01
4.													
1	0850	107	0.02	0.01	0.01	6.	*	1	2055	252	0.01	0.00	0.01
4.													
1	0855	108	0.02	0.01	0.01	6.	*	1	2100	253	0.01	0.00	0.01
4.													
1	0900	109	0.02	0.01	0.01	6.	*	1	2105	254	0.01	0.00	0.01
4.													
1	0905	110	0.02	0.01	0.01	6.	*	1	2110	255	0.01	0.00	0.01
4.													
1	0910	111	0.02	0.01	0.01	6.	*	1	2115	256	0.01	0.00	0.01
4.													
1	0915	112	0.02	0.01	0.01	6.	*	1	2120	257	0.01	0.00	0.01
4.													
1	0920	113	0.02	0.01	0.01	7.	*	1	2125	258	0.01	0.00	0.01
4.													
1	0925	114	0.02	0.01	0.01	7.	*	1	2130	259	0.01	0.00	0.01
4.													

1	0930	115	0.02	0.01	0.01	7.	*	1	2135	260	0.01	0.00	0.01
4.													
1	0935	116	0.02	0.01	0.02	7.	*	1	2140	261	0.01	0.00	0.01
4.													
1	0940	117	0.02	0.01	0.02	7.	*	1	2145	262	0.01	0.00	0.01
3.													
1	0945	118	0.02	0.01	0.02	8.	*	1	2150	263	0.01	0.00	0.01
3.													
1	0950	119	0.02	0.01	0.02	8.	*	1	2155	264	0.01	0.00	0.01
3.													
1	0955	120	0.02	0.01	0.02	8.	*	1	2200	265	0.01	0.00	0.01
3.													
1	1000	121	0.02	0.01	0.02	8.	*	1	2205	266	0.01	0.00	0.01
3.													
1	1005	122	0.03	0.01	0.02	8.	*	1	2210	267	0.01	0.00	0.01
3.													
1	1010	123	0.03	0.01	0.02	9.	*	1	2215	268	0.01	0.00	0.01
4.													
1	1015	124	0.03	0.01	0.02	10.	*	1	2220	269	0.01	0.00	0.01
4.													
1	1020	125	0.03	0.01	0.02	10.	*	1	2225	270	0.01	0.00	0.01
4.													
1	1025	126	0.03	0.01	0.02	11.	*	1	2230	271	0.01	0.00	0.01
4.													
1	1030	127	0.03	0.01	0.02	11.	*	1	2235	272	0.01	0.00	0.01
4.													
1	1035	128	0.04	0.01	0.03	11.	*	1	2240	273	0.01	0.00	0.01
4.													
1	1040	129	0.04	0.01	0.03	12.	*	1	2245	274	0.01	0.00	0.01
3.													
1	1045	130	0.04	0.01	0.03	13.	*	1	2250	275	0.01	0.00	0.01
3.													
1	1050	131	0.04	0.01	0.03	14.	*	1	2255	276	0.01	0.00	0.01
3.													
1	1055	132	0.04	0.01	0.03	15.	*	1	2300	277	0.01	0.00	0.01
3.													

1	1100	133	0.04	0.01	0.03	15.	*	1	2305	278	0.01	0.00	0.01
3.													
1	1105	134	0.06	0.01	0.05	16.	*	1	2310	279	0.01	0.00	0.01
3.													
1	1110	135	0.06	0.01	0.05	18.	*	1	2315	280	0.01	0.00	0.01
3.													
1	1115	136	0.06	0.01	0.05	21.	*	1	2320	281	0.01	0.00	0.01
3.													
1	1120	137	0.06	0.01	0.05	23.	*	1	2325	282	0.01	0.00	0.01
3.													
1	1125	138	0.06	0.01	0.05	24.	*	1	2330	283	0.01	0.00	0.01
3.													
1	1130	139	0.06	0.01	0.06	25.	*	1	2335	284	0.01	0.00	0.01
3.													
1	1135	140	0.49	0.05	0.44	37.	*	1	2340	285	0.01	0.00	0.01
3.													
1	1140	141	0.49	0.04	0.45	75.	*	1	2345	286	0.01	0.00	0.01
3.													
1	1145	142	0.49	0.03	0.46	124.	*	1	2350	287	0.01	0.00	0.01
3.													
1	1150	143	0.49	0.03	0.47	164.	*	1	2355	288	0.01	0.00	0.01
3.													
1	1155	144	0.49	0.02	0.47	188.	*	2	0000	289	0.01	0.00	0.01
3.													
1	1200	145	0.49	0.02	0.48	203.	*						
							*						

****

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

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	24.00-HR
(CFS)	(HR)	(CFS)			
203.	12.00	33.	11.	11.	11.

(INCHES)	5.077	6.587	6.587	6.587
(AC-FT)	17.	21.	21.	21.

CUMULATIVE AREA = 0.06 SQ MI

*** ***

```
          **************
          *            *
14 KK     *      POND  *
          *            *
          **************
```

HYDROGRAPH ROUTING DATA

15 RS STORAGE ROUTING

NSTPS	1	NUMBER OF SUBREACHES
ITYP	ELEV	TYPE OF INITIAL CONDITION
RSVRIC	167.70	INITIAL CONDITION
X	0.00	WORKING R AND D COEFFICIENT

16 SA	AREA	0.0	0.2	1.3	1.7	1.8	1.9	2.0
17 SE	ELEVATION	167.70	168.00	169.00	170.00	171.00	172.00	173.00
18 SQ	DISCHARGE	0.	1.	18.	44.	44.	59.	72.
19 SE	ELEVATION	167.70	168.00	169.00	170.00	171.00	172.00	173.00

***

COMPUTED STORAGE-ELEVATION DATA

STORAGE	0.00	0.02	0.67	2.17	3.89	5.71	7.63
ELEVATION	167.70	168.00	169.00	170.00	171.00	172.00	173.00

COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

STORAGE	0.00	0.02	0.67	2.17	3.89	5.71	7.63
OUTFLOW	0.10	1.00	18.40	44.10	43.50	59.00	71.60
ELEVATION	167.70	168.00	169.00	170.00	171.00	172.00	173.00

****
****

HYDROGRAPH AT STATION POND

****
****

DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE
1		0000	1	0.	0.0	167.7	1		0805	98	4.	0.1	168.2	1		1610	195	10.	0.3	168.5
1		0005	2	0.	0.0	167.7	1		0810	99	4.	0.1	168.2	1		1615	196	9.	0.3	168.5
1		0010	3	0.	0.0	167.7	1		0815	100	4.	0.1	168.2	1		1620	197	9.	0.3	168.5
1		0015	4	0.	0.0	167.7	1		0820	101	4.	0.1	168.2	1		1625	198	9.	0.3	168.4
1		0020	5	0.	0.0	167.7	1		0825	102	4.	0.1	168.2	1		1630	199	8.	0.3	168.4
1		0025	6	0.	0.0	167.7	1		0830	103	4.	0.1	168.2	1		1635	200	8.	0.3	168.4
1		0030	7	0.	0.0	167.7	1		0835	104	5.	0.2	168.2	1		1640	201	8.	0.3	168.4

```
  1     0035   8        0.      0.0    167.7 *  1     0840 105        5.      0.2    168.2 *  1     1645 202        8.
0.3    168.4
  1     0040   9        0.      0.0    167.7 *  1     0845 106        5.      0.2    168.2 *  1     1650 203        7.
0.3    168.4
  1     0045  10        0.      0.0    167.7 *  1     0850 107        5.      0.2    168.2 *  1     1655 204        7.
0.2    168.3
  1     0050  11        0.      0.0    167.7 *  1     0855 108        5.      0.2    168.2 *  1     1700 205        7.
0.2    168.3
  1     0055  12        0.      0.0    167.7 *  1     0900 109        5.      0.2    168.2 *  1     1705 206        7.
0.2    168.3
  1     0100  13        0.      0.0    167.7 *  1     0905 110        5.      0.2    168.2 *  1     1710 207        6.
0.2    168.3
  1     0105  14        0.      0.0    167.7 *  1     0910 111        5.      0.2    168.3 *  1     1715 208        6.
0.2    168.3
  1     0110  15        0.      0.0    167.7 *  1     0915 112        6.      0.2    168.3 *  1     1720 209        6.
0.2    168.3
  1     0115  16        0.      0.0    167.7 *  1     0920 113        6.      0.2    168.3 *  1     1725 210        6.
0.2    168.3
  1     0120  17        0.      0.0    167.7 *  1     0925 114        6.      0.2    168.3 *  1     1730 211        6.
0.2    168.3
  1     0125  18        0.      0.0    167.7 *  1     0930 115        6.      0.2    168.3 *  1     1735 212        6.
0.2    168.3
  1     0130  19        0.      0.0    167.7 *  1     0935 116        6.      0.2    168.3 *  1     1740 213        6.
0.2    168.3
  1     0135  20        0.      0.0    167.7 *  1     0940 117        6.      0.2    168.3 *  1     1745 214        6.
0.2    168.3
  1     0140  21        0.      0.0    167.7 *  1     0945 118        6.      0.2    168.3 *  1     1750 215        6.
0.2    168.3
  1     0145  22        0.      0.0    167.7 *  1     0950 119        7.      0.2    168.3 *  1     1755 216        6.
0.2    168.3
  1     0150  23        0.      0.0    167.7 *  1     0955 120        7.      0.2    168.3 *  1     1800 217        6.
0.2    168.3
  1     0155  24        0.      0.0    167.7 *  1     1000 121        7.      0.2    168.4 *  1     1805 218        6.
0.2    168.3
  1     0200  25        0.      0.0    167.7 *  1     1005 122        7.      0.3    168.4 *  1     1810 219        6.
0.2    168.3
```

```
  1     0205  26        0.      0.0   167.7 *  1     1010 123        8.      0.3   168.4 *  1     1815 220        6.
0.2   168.3
  1     0210  27        0.      0.0   167.7 *  1     1015 124        8.      0.3   168.4 *  1     1820 221        5.
0.2   168.3
  1     0215  28        0.      0.0   167.7 *  1     1020 125        8.      0.3   168.4 *  1     1825 222        5.
0.2   168.3
  1     0220  29        0.      0.0   167.7 *  1     1025 126        9.      0.3   168.4 *  1     1830 223        5.
0.2   168.3
  1     0225  30        0.      0.0   167.7 *  1     1030 127        9.      0.3   168.5 *  1     1835 224        5.
0.2   168.3
  1     0230  31        0.      0.0   167.7 *  1     1035 128        9.      0.3   168.5 *  1     1840 225        5.
0.2   168.3
  1     0235  32        0.      0.0   167.7 *  1     1040 129       10.      0.3   168.5 *  1     1845 226        5.
0.2   168.3
  1     0240  33        0.      0.0   167.7 *  1     1045 130       10.      0.4   168.5 *  1     1850 227        5.
0.2   168.2
  1     0245  34        0.      0.0   167.7 *  1     1050 131       11.      0.4   168.6 *  1     1855 228        5.
0.2   168.2
  1     0250  35        0.      0.0   167.7 *  1     1055 132       11.      0.4   168.6 *  1     1900 229        5.
0.2   168.2
  1     0255  36        0.      0.0   167.7 *  1     1100 133       12.      0.4   168.6 *  1     1905 230        5.
0.2   168.2
  1     0300  37        0.      0.0   167.7 *  1     1105 134       13.      0.5   168.7 *  1     1910 231        5.
0.2   168.2
  1     0305  38        0.      0.0   167.7 *  1     1110 135       13.      0.5   168.7 *  1     1915 232        5.
0.2   168.2
  1     0310  39        0.      0.0   167.7 *  1     1115 136       14.      0.5   168.8 *  1     1920 233        5.
0.2   168.2
  1     0315  40        0.      0.0   167.7 *  1     1120 137       16.      0.6   168.8 *  1     1925 234        5.
0.2   168.2
  1     0320  41        0.      0.0   167.7 *  1     1125 138       17.      0.6   168.9 *  1     1930 235        5.
0.2   168.2
  1     0325  42        0.      0.0   167.8 *  1     1130 139       18.      0.7   169.0 *  1     1935 236        5.
0.2   168.2
  1     0330  43        0.      0.0   167.8 *  1     1135 140       20.      0.7   169.0 *  1     1940 237        5.
0.2   168.2
```

```
  1     0335  44        0.      0.0   167.8 *  1     1140 141        24.      1.0   169.2 *  1     1945 238        5.
0.2   168.2
  1     0340  45        0.      0.0   167.8 *  1     1145 142        32.      1.5   169.5 *  1     1950 239        5.
0.2   168.2
  1     0345  46        0.      0.0   167.8 *  1     1150 143        44.      2.2   170.0 *  1     1955 240        5.
0.2   168.2
  1     0350  47        0.      0.0   167.8 *  1     1155 144        44.      3.1   170.5 *  1     2000 241        5.
0.2   168.2
  1     0355  48        1.      0.0   167.8 *  1     1200 145        46.      4.1   171.1 *  1     2005 242        5.
0.2   168.2
  1     0400  49        1.      0.0   167.9 *  1     1205 146        55.      5.2   171.7 *  1     2010 243        5.
0.2   168.2
  1     0405  50        1.      0.0   167.9 *  1     1210 147        61.      6.1   172.2 *  1     2015 244        5.
0.2   168.2
  1     0410  51        1.      0.0   167.9 *  1     1215 148        65.      6.6   172.5 *  1     2020 245        5.
0.2   168.2
  1     0415  52        1.      0.0   167.9 *  1     1220 149        67.      6.9   172.6 *  1     2025 246        5.
0.2   168.2
  1     0420  53        1.      0.0   167.9 *  1     1225 150        67.      7.0   172.7 *  1     2030 247        5.
0.2   168.2
  1     0425  54        1.      0.0   168.0 *  1     1230 151        67.      7.0   172.7 *  1     2035 248        5.
0.2   168.2
  1     0430  55        1.      0.0   168.0 *  1     1235 152        67.      6.9   172.6 *  1     2040 249        5.
0.2   168.2
  1     0435  56        1.      0.0   168.0 *  1     1240 153        66.      6.7   172.5 *  1     2045 250        5.
0.2   168.2
  1     0440  57        1.      0.0   168.0 *  1     1245 154        65.      6.6   172.4 *  1     2050 251        5.
0.2   168.2
  1     0445  58        1.      0.0   168.0 *  1     1250 155        63.      6.3   172.3 *  1     2055 252        5.
0.2   168.2
  1     0450  59        1.      0.0   168.0 *  1     1255 156        62.      6.1   172.2 *  1     2100 253        5.
0.2   168.2
  1     0455  60        1.      0.0   168.0 *  1     1300 157        60.      5.9   172.1 *  1     2105 254        4.
0.1   168.2
  1     0500  61        1.      0.0   168.0 *  1     1305 158        58.      5.6   171.9 *  1     2110 255        4.
0.1   168.2
```

1	0505	62	1.	0.0	168.0	*	1	1310	159	56.	5.4	171.8	*	1	2115	256	4.		
0.1	168.2																		
1	0510	63	1.	0.0	168.0	*	1	1315	160	54.	5.1	171.7	*	1	2120	257	4.		
0.1	168.2																		
1	0515	64	1.	0.0	168.0	*	1	1320	161	52.	4.9	171.6	*	1	2125	258	4.		
0.1	168.2																		
1	0520	65	1.	0.0	168.0	*	1	1325	162	50.	4.7	171.4	*	1	2130	259	4.		
0.1	168.2																		
1	0525	66	2.	0.0	168.0	*	1	1330	163	48.	4.4	171.3	*	1	2135	260	4.		
0.1	168.2																		
1	0530	67	2.	0.0	168.0	*	1	1335	164	46.	4.2	171.2	*	1	2140	261	4.		
0.1	168.2																		
1	0535	68	2.	0.0	168.0	*	1	1340	165	45.	4.0	171.1	*	1	2145	262	4.		
0.1	168.2																		
1	0540	69	2.	0.1	168.0	*	1	1345	166	44.	3.8	171.0	*	1	2150	263	4.		
0.1	168.2																		
1	0545	70	2.	0.1	168.0	*	1	1350	167	44.	3.6	170.8	*	1	2155	264	4.		
0.1	168.2																		
1	0550	71	2.	0.1	168.1	*	1	1355	168	44.	3.4	170.7	*	1	2200	265	4.		
0.1	168.2																		
1	0555	72	2.	0.1	168.1	*	1	1400	169	44.	3.2	170.6	*	1	2205	266	4.		
0.1	168.1																		
1	0600	73	2.	0.1	168.1	*	1	1405	170	44.	3.0	170.5	*	1	2210	267	4.		
0.1	168.1																		
1	0605	74	2.	0.1	168.1	*	1	1410	171	44.	2.8	170.4	*	1	2215	268	4.		
0.1	168.1																		
1	0610	75	2.	0.1	168.1	*	1	1415	172	44.	2.6	170.2	*	1	2220	269	4.		
0.1	168.1																		
1	0615	76	2.	0.1	168.1	*	1	1420	173	44.	2.3	170.1	*	1	2225	270	4.		
0.1	168.1																		
1	0620	77	2.	0.1	168.1	*	1	1425	174	43.	2.1	170.0	*	1	2230	271	4.		
0.1	168.1																		
1	0625	78	2.	0.1	168.1	*	1	1430	175	40.	1.9	169.8	*	1	2235	272	4.		
0.1	168.2																		
1	0630	79	2.	0.1	168.1	*	1	1435	176	36.	1.7	169.7	*	1	2240	273	4.		
0.1	168.2																		

```
  1     0635  80       2.      0.1   168.1 *  1     1440 177      34.      1.6   169.6 *  1     2245 274      4.
0.1   168.2
  1     0640  81       2.      0.1   168.1 *  1     1445 178      31.      1.4   169.5 *  1     2250 275      4.
0.1   168.1
  1     0645  82       2.      0.1   168.1 *  1     1450 179      28.      1.3   169.4 *  1     2255 276      4.
0.1   168.1
  1     0650  83       3.      0.1   168.1 *  1     1455 180      26.      1.1   169.3 *  1     2300 277      3.
0.1   168.1
  1     0655  84       3.      0.1   168.1 *  1     1500 181      24.      1.0   169.2 *  1     2305 278      3.
0.1   168.1
  1     0700  85       3.      0.1   168.1 *  1     1505 182      23.      0.9   169.2 *  1     2310 279      3.
0.1   168.1
  1     0705  86       3.      0.1   168.1 *  1     1510 183      21.      0.8   169.1 *  1     2315 280      3.
0.1   168.1
  1     0710  87       3.      0.1   168.1 *  1     1515 184      20.      0.7   169.0 *  1     2320 281      3.
0.1   168.1
  1     0715  88       3.      0.1   168.1 *  1     1520 185      18.      0.7   169.0 *  1     2325 282      3.
0.1   168.1
  1     0720  89       3.      0.1   168.1 *  1     1525 186      17.      0.6   168.9 *  1     2330 283      3.
0.1   168.1
  1     0725  90       3.      0.1   168.1 *  1     1530 187      15.      0.6   168.8 *  1     2335 284      3.
0.1   168.1
  1     0730  91       3.      0.1   168.1 *  1     1535 188      14.      0.5   168.8 *  1     2340 285      3.
0.1   168.1
  1     0735  92       3.      0.1   168.1 *  1     1540 189      13.      0.5   168.7 *  1     2345 286      3.
0.1   168.1
  1     0740  93       3.      0.1   168.1 *  1     1545 190      12.      0.4   168.7 *  1     2350 287      3.
0.1   168.1
  1     0745  94       3.      0.1   168.1 *  1     1550 191      12.      0.4   168.6 *  1     2355 288      3.
0.1   168.1
  1     0750  95       4.      0.1   168.1 *  1     1555 192      11.      0.4   168.6 *  2     0000 289      3.
0.1   168.1
  1     0755  96       4.      0.1   168.2 *  1     1600 193      10.      0.4   168.5 *
  1     0800  97       4.      0.1   168.2 *  1     1605 194      10.      0.4   168.5 *
                                       *                                                  *
```

****

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.00-HR
(CFS)	(HR)					
		(CFS)				
67.	12.42		33.	11.	11.	11.
		(INCHES)	5.055	6.563	6.563	6.563
		(AC-FT)	16.	21.	21.	21.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
		6-HR	24-HR	72-HR	24.00-HR
(AC-FT)	(HR)				
7.	12.42	2.	1.	1.	1.

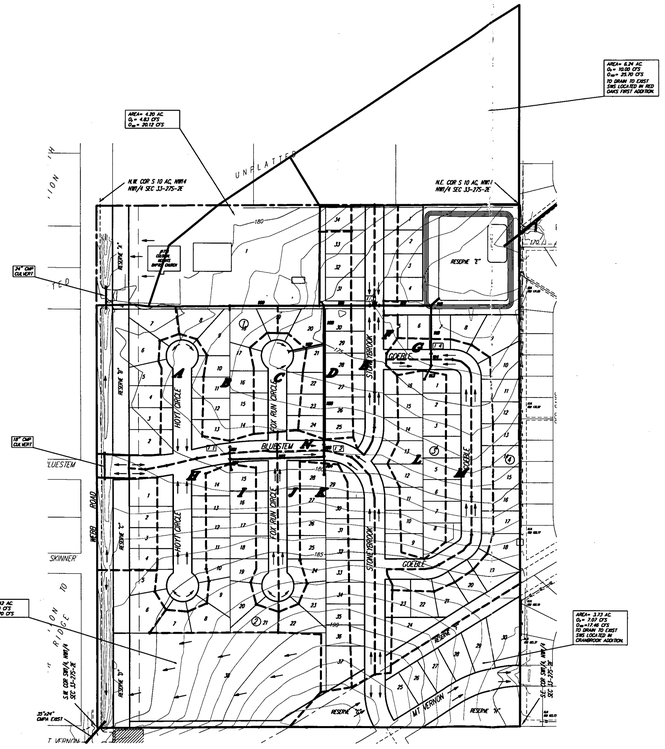
PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
		6-HR	24-HR	72-HR	24.00-HR
(FEET)	(HR)				
172.67	12.42	170.02	168.56	168.56	168.56

CUMULATIVE AREA = 0.06 SQ MI

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			BASIN AREA	MAXIMUM STAGE
				6-HOUR	24-HOUR	72-HOUR		
HYDROGRAPH AT								
DEV	203. 12.00	33.	11.	11.	0.06			
ROUTED TO								
POND	67. 12.42	33.	11.	11.	0.06			
172.67	12.42							

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



CONDUIT DATA

PIPE	SIZE	Q	TYPE
P10	18"	4.82 CFS	HDPE
P20	18"	4.82 CFS	HDPE
P30	18"	4.82 CFS	HDPE
P40	18"	4.82 CFS	HDPE
P50	24"	9.64 CFS	HDPE
P60	24"	9.64 CFS	HDPE
P70	24"	9.64 CFS	HDPE
P80	24"	9.64 CFS	HDPE
P90	24"	9.64 CFS	HDPE
P100	24"	9.64 CFS	HDPE
P110	24"	9.64 CFS	HDPE
P120	24"	9.64 CFS	HDPE
P130	24"	9.64 CFS	HDPE
P140	24"	9.64 CFS	HDPE
P150	24"	9.64 CFS	HDPE
P160	24"	9.64 CFS	HDPE

POND DATA
SIDE SLOPES 4:1
FLOW OUT 36" RCP = 167.70
TOP ELEVATION = 171.00
100 YR. WATER SURFACE = 170.83

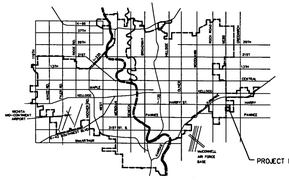
AREA	C	Cf	Tc (min)	Q (CFS)	Q100 (CFS)
A	0.25	1.00	10	1.23	3.70
B	0.25	1.00	10	1.23	3.70
C	0.25	1.00	10	1.23	3.70
D	0.25	1.00	10	1.23	3.70
E	0.25	1.00	10	1.23	3.70
F	0.25	1.00	10	1.23	3.70
G	0.25	1.00	10	1.23	3.70
H	0.25	1.00	10	1.23	3.70
I	0.25	1.00	10	1.23	3.70
J	0.25	1.00	10	1.23	3.70
K	0.25	1.00	10	1.23	3.70
L	0.25	1.00	10	1.23	3.70
M	0.25	1.00	10	1.23	3.70
N	0.25	1.00	10	1.23	3.70
O	0.25	1.00	10	1.23	3.70
P	0.25	1.00	10	1.23	3.70
Q	0.25	1.00	10	1.23	3.70
R	0.25	1.00	10	1.23	3.70
S	0.25	1.00	10	1.23	3.70
T	0.25	1.00	10	1.23	3.70
U	0.25	1.00	10	1.23	3.70
V	0.25	1.00	10	1.23	3.70
W	0.25	1.00	10	1.23	3.70
X	0.25	1.00	10	1.23	3.70
Y	0.25	1.00	10	1.23	3.70
Z	0.25	1.00	10	1.23	3.70

INLET TYPES

1	=	2 14 INLETS L=4'6" (GRIP INLET)
2	=	2 14 INLETS L=4'6" (GRIP INLET)
3	=	2 14 INLETS L=4'6"
4	=	2 14 INLETS L=4'6" (GRIP INLET)

SRB

SCALE: 1" = 120



DRAINAGE PLAN
BRENTWOOD VILLAGE
WICHITA, KANSAS

SRB
825 NORTH MAIN
WICHITA, KANSAS 67203
316-264-8008
FAX 264-8021
SAVOY, RUGGLES & BOHM, P.A.
ENGINEERING & SURVEYING

PROJECT NUMBER

DESIGN	DRAWN	UTILITY	REVIEW	DATE	REVISED
AML	AML			Nov. 4, 1996	

SHEET 1 OF 1 SHEETS