00BREAK00

1) COUNTY: WASHTENAW

2) STUDY NAME: CITY OF MILAN

3) WATERCOURSE: [redacted] SALINE RIVER

4) DOCUMENT TYPE: REPORT

00BREAK00

CAUTION

SEE ATTACHED COMMENTS

HYDRAULIC ANALYSIS FOR THE SALINE RIVER IN THE CITY OF MILAN (WASHTENAW CO., MICH.) FLOOD INSURANCE STUDY

This report was submitted with the orginal submittal. Changes have been made to model, so use caution with any assumptions made in this report. See 4/3/81

A. Historic Flooding

The most serious flooding in recent memory occurred in June, 1968[1/], when Wabash Road, which serves as part of the embankment for the Milan Dam, was overtopped at a point north of the dam spillway. While a precise flood elevation for this event was not found, little serious erosion of the roadway embankment occurred, indicating that the depth of flow over the road did not exceed several tenths of a foot nor last for an extensive period of time. Some relatively minor flooding also occurred in 1977. (Wabash Road was not overtopped).

B. Hydraulic Computations

Peak flood flows used for hydraulic computations were developed in a separate hydrologic analysis and have been approved by the MDNR. The peak flows used were:

Flood Recurrence Interval (years)	Peak Discharge in cfs (Saline River at Milan)
100	4070 4060
500	5180 5190
50	3490 ✓
10	2060 ✓

Flood stages were determined by computer simulation techniques using the Corps of Engineers "HEC-2: Water Surface Profiles" model (Nov. 1978 version with July 1979 update) as compiled for the HP-3000 model computer.

The model represents the Saline River from the City limit immediately west of the US-23 R.O.W. upstream through the Platt Road crossing (city limit).

1/ Same date as the Saline Dam (located about 15 moles upstream on the Saline River) failure.

for a total length of about 11,200 feet. About 2800 feet of stream downstream of US-23 was modeled in a convergence analysis to determine starting flood elevations for the designated detailed study reach. The model consisted of a total of 17 regular channel-floodplain cross sections, designated "A" to "L" (see reference table), and 3 bridge sections -- Norfolk & Western Railroad, Ann Arbor Railroad, and Platt Road. The Wabash Street -- Milan Dam structure was analyzed by hand computation of a rating curve which was then used to determine the resultant upstream elevations. The start up reach used for the convergence analysis was represented by four (4) regular cross sections - designated "5" to "1" (see reference table) and two (2) bridge sections -- US-23 north and southbound.

New submittal used used from U/S limit of Milan Twp study by WTA

~~The starting flood elevations were determined by using normal depth~~ (d_N) ~~computed by the slope-area~~ method as the starting water surface elevation at cross section "5" and computed by backwater simulation at "A". ~~A convergence test run was then made to show that this starting elevation was within a range of starting elevations which would cause profile convergence at "A" for each flood event. The analysis determined that for a 100-year flood a range of two feet in starting elevations at "5" caused convergence to within 0.25 feet at "A".~~

File No 79 01 314 dwg 100 yr est. =

The results of the convergence analysis were:

Recurrence Interval Flood (years)	Range of Starting Water Surface Elevations at Cross Section "5"	Range of computed Water Surface Elevation at Cross Section "A"	Starting Flood Elevation at "A"
100	682.00-684.00	686.02-686.27	686.21
500	683.00-685.00	687.05-687.33	687.18
50	682.00-684.00	685.46-685.82	685.63
10	679.00-681.00	683.28-683.82	683.68

All cross sections were determined by field survey and photogrammetric methods. All elevations are referenced to N.G.V.D. and section stationing increases left to right looking downstream. River stationing reference numbers are in thousands of feet along the river centerline from the river mouth with reference to U.S.G.S. published data.

Manning roughness coefficients (n-values) were determined with reference to field observations and aerial photos using V.T. Chow's method of determining composite n-values. Overbank n-values were horizontally varied from 0.060 to 0.150 depending on the hydraulic characteristics. Channel n-values ranged from 0.040 to 0.070.

Contraction and expansion coefficients were set to 0.1 and 0.3, respectively for reaches with relatively smooth transitions and 0.3 and 0.5 where more abrupt transitions occurred such as at bridges. Artificial encroachments were used to limit the effective convergence areas based on 1:1 contraction and 1:3 expansion slopes.

Floodway encroachments were determined initially by method 4 (with a 0.1 foot target stage increase) and ultimately specified using method 1. Artificial encroachments used to limit effective conveyance were not changed for the floodway analysis.

A total of five flood events were modeled in the multiple profile simulation run; the 100-year flood under existing channel-flood plain conditions; the 100-year flood under floodway conditions (preliminary); and the 500-, 50- and 10-year floods under existing conditions. A seperate run was made for the final floodway run.

C. Results

The 100-year flood stage which was input for the cross section immediatly upstream from Milan Dam is 0.2 foot higher than the low point in the Wabash Road embankment located approximately 600 feet north of the dam spillway bridge structure. As the 1968 flood has been considered approximately a 100-year event on the Saline River, this indicates relatively good correlation of the rating curve computations to historic data.

High water data provided by MDNR indicated that on April 13, 1979, an estimated flood elevation of 685.3 occurred just downstream of Wabash Road which corresponds exactly to the 10-year simulated stage. For the same flood, it was estimated that the stages downstream and upstream of the Ann Arbor Rail-

road were (respectively) 689.8 and 690.1[1/]; this compares to simulated 10-year stages of 690.1 and 690.2. Not enough data was provided at Platt Road to determine the elevation of the observed stage.

The final computer run listing was checked for accuracy of the input data and the reasonableness of the results and found to be acceptable.

[1/] MDNR data actually states that the estimated upstream stages was "1.65 feet above low steel" which would correspond to an elevation of 693.4 or 3.6 feet higher than the downstream stage. It was assumed that "above" was a misprint and should have been "below" which would correspond to a stage of 690.1, 0.3 higher than downstream stage.

AK, BFM

CITY OF MILAN

F.I.S. CROSS SECTION REFERENCE TABLE

Cross Section Identification	River Station (1000's of feet above mouth)	Structure Name
5*	71.83	
4*	73.63	
3*	74.30	
-	74.37-74.42	US-23 (northbound)
2*	74.45	
-	74.49-74.54	US-23 (southbound)
A	74.64	
BB	75.14	
B	76.24	
CC	77.27	
C	78.37	
D	79.35	
E	80.10	
-	80.15-80.18	Norfolk & Western RR
F	80.23	
G	81.00	
H	81.80	
-	81.90	Wabash Road
-	81.95	Milan Dam
-	82.07	
I	83.20	
-	83.35-83.37	Ann Arbor RR
II	83.43	
J	84.91	
K	85.69	
-	85.74-85.78	Platt Rd.
L	85.83	

Incl. with Milan FIS Submittal

REFERENCE TABLE FOR F I.S (H-3970) HYDROLOGIC ANALYSIS

OUTPUT LOCATIONS

TR-20 Designation	Description	Computed Peak Discharges 10-Year	50-Year	100-Year	500-Year
Structure No 1 (Null)	Saline River at Confluence with unnamed tributary (SW 1/4 sec 18, T4S, R5E) about 1.5 miles downstream from McCollum Road Outlet for Sub-basin No 1.	537	996	1149	1456
Structure No 2 (Null)	Birkle Lake outlet at Confluence with Saline River approximately 1200 ft downstream of Saline-Waterworks Road (SE 1/4 sec. 34, T3S, R5E) Outlet to Sub-basin No 3	445	762	882	1127
Structure No 3 (Null)	Wood Outlet Drain at confluence with Saline River (T3S, R5E) about 3200 feet above Saline Dam.Outlet to Sub-basin No. 5	483	847	983	1247
Structure No. 4	Saline Dam on Saline River (NW 1/4 Sec. 1, T4S, R5E) about 100 feet upstream of US-12 Highway Outlet to Sub-basin No 4	1877	3222	3697	4599
Structure No. 5 (Null)	Koch-Warner Drain at confluence with Saline River (NE 1/4 sec. 12, T4S, R5E) about 2 3 miles below Saline Dam. Outlet to Sub-basin No 6.	2270	3820	4375	5468
Structure No 6	Milan Dam on Saline River (NE 1/4 Sec 2, T5S, R6E) at Wabash Road. Outlet to sub-basin 7-B.	2056	3489	4068	5180
Cross Section No. 1	Saline River at confluence with Birkle Lake outlet (SE 1/4, Sec. 34, T3S, R5W) about 2500 feet downstream from Dell Road Outlet to Sub-basin No 2	1516	2544	2937	3714
Cross Section No 2	Saline River at inlet to Saline Impoundment just above Wood Outlet Drain confluence (T3S, R5E)	1860	3146	3644	4620
Cross Section No. 3	Saline River at USGS gage No 04176400 near Maple Road (SE 1/4 Sec 13, T4S, R5E),outlet to Sub-basin 7-A	2031	3463	4023	5131
Cross Section No 4	Saline River at inlet to Milan Impoundment about 500 feet downstream from Platt Road	2058	3489	4062	5187

MICHIGAN DEPARTMENT OF NATURAL RESOURCES

INTEROFFICE COMMUNICATION

TO: Hope Meyers Croskey
Hydrologic Studies

FROM: Suzanne Elms
Technical Programs Unit

DATE:

SUBJECT: FIS Review

Community: Milan, City
County: Washtenaw
Watercourse: Saline River
Contractor: (USGS)

1) Are discharges those that were approved?

✓ yes, ___ no

2) Was TR20 used? calculated by hand

✓ yes ___ no

3) Were there any special problems of which we should be made aware?

SE: mjb

CROSS SECTION IMMEDIATELY UPSTREAM OF DAM

X1	82.070	17.000	45.000	850.000	170.000	170.000	170.000	.000	.000	.000
X5	1.000	692.800	692.800	693.600	692.200	690.100	.000	.000	.000	.000
GR	692.000	1.000	689.700	45.000	686.300	51.000	685.000	150.000	684.900	250.000
GR	685.000	350.000	685.100	450.000	684.900	550.000	684.700	650.000	684.200	708.000
GR	679.900	737.000	679.800	740.000	679.300	745.000	681.900	750.000	683.200	762.000
GR	684.600	850.000	692.000	870.000	.000	.000	.000	.000	.000	.000
NC	.000	.000	.000	.000	.300	.500	.000	.000	.000	.000
ET	.000	.000	9.100	.000	.000	.000	.000	.000	1440.000	2370.000

CROSS SECTION I -DOWNSTREAM OF ANN ARBOR RAILROAD

X1	83.200	22.000	1460.000	1659.000	1100.000	400.000	1130.000	.000	.000	.000
X3	.000	.000	.000	.000	.000	2370.000	.000	.000	.000	.000
GR	699.700	1149.000	696.100	1440.000	682.400	1460.000	681.900	1464.000	681.400	1469.000
GR	680.700	1474.000	680.400	1479.000	680.100	1484.000	679.800	1489.000	679.900	1494.000
GR	680.200	1499.000	680.700	1504.000	681.300	1509.000	681.800	1659.000	681.800	1820.000
GR	681.700	2000.000	681.900	2240.000	681.800	2400.000	682.100	2560.000	688.000	2585.000
GR	692.000	2605.000	696.000	2612.000	.000	.000	.000	.000	.000	.000

ANN ARBOR RAILROAD BRIDGE -ADJACENT DOWNSTREAM SECTION

X1	83.350	28.000	1436.000	1571.000	200.000	40.000	150.000	.000	.000	.000
GR	703.400	1436.000	688.300	1450.000	688.300	1454.000	683.000	1456.000	682.100	1460.000
GR	681.500	1465.000	681.200	1470.000	680.600	1475.000	680.900	1480.000	681.400	1485.000
GR	681.900	1490.000	682.500	1495.000	682.800	1500.000	682.300	1505.000	682.100	1510.000
GR	682.800	1515.000	682.900	1520.000	683.400	1524.000	688.000	1526.000	688.000	1530.000
GR	702.200	1571.000	699.300	2433.000	687.500	2450.000	686.100	2450.600	685.500	2452.000
GR	686.100	2453.400	687.500	2454.000	699.400	2470.000	.000	.000	.000	.000
SB	.000	1.500	2.800	.000	80.000	.000	660.000	.000	682.600	682.600

ANN ARBOR RAILROAD BRIDGE -ADJACENT UPSTREAM SECTION

X1	83.370	.000	.000	.000	15.000	15.000	15.000	.000	.000	.000
X2	.000	.000	1.000	690.800	699.400	.000	.000	.000	.000	.000
BT	30.000	1436.000	703.400	703.400	1450.000	703.300	688.300	1450.000	703.300	690.800
BT	1454.000	703.200	690.800	1456.000	703.200	690.800	1460.000	703.200	690.700	1465.000
BT	703.100	690.700	1470.000	703.100	690.700	1475.000	703.000	690.700	1480.000	703.000
BT	690.700	1485.000	703.000	690.700	1490.000	702.900	690.700	1495.000	702.900	690.600
BT	1500.000	702.800	690.600	1505.000	702.800	690.600	1510.000	702.700	690.600	1515.000
BT	702.700	690.600	1520.000	702.700	690.500	1524.000	702.600	690.500	1526.000	702.600
BT	690.500	1530.000	702.600	690.500	1530.000	702.600	688.000	1571.000	702.200	702.200
BT	2433.000	699.300	699.300	2450.000	699.300	687.500	2450.600	699.300	688.900	2452.000
BT	699.300	689.500	2453.400	699.300	688.900	2454.000	699.300	687.500	2470.000	699.400
BT	699.400	.000	.000	.000	.000	.000	.000	.000	.000	.000
NC	.080	.080	.050	.000	.000	.000	.000	.000	.000	.000
ET	.000	.000	9.100	.000	.000	.000	.000	.000	960.000	2192.000

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  HEC2 RELEASE DATED NOV 76 UPDATED APRIL 1980
  ERROR CORR -  01,02,03,04
  MODIFICATION -  50,51,52,53,54
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C
T1      HUD FLOOD INSURANCE STUDIES-WILLIAMS & WORKS, INC.  H-3970
T2      CITY OF MILAN   SALINE RIVER
T3      SALINE R.-MILAN          10 -YEAR FLOOD UNDER EXISTING CONDITIONS

J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ
        0.       6.         0.         0.    .000000        .00        .0        -1.    682.080       .000

J2  NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE
    1.000        .000    -1.000       .000       .000       .000       .000       .000       .000       .000

J3  VARIABLE CODES FOR SUMMARY PRINTOUT
  150.000    201.000       .000       .000       .000       .000       .000       .000       .000       .000

NC      .080       .080       .040       .100       .300       .000       .000       .000       .000       .000
QT     5.000   4070.000   4070.000   5180.000   3490.000   2060.000       .000       .000       .000       .000
NH     3.000       .080     84.000       .045     116.000       .080    200.000       .000       .000       .000

          CROSS SECTION A

X1    74.590     12.000     84.000    116.000     50.000     50.000     50.000       .000       .000       .000
GR   685.000       .000    684.000      1.000    683.400     53.000    680.200     72.000    670.600     84.000
GR   669.500    100.000    672.000    116.000    674.200    121.000    673.300    128.000    679.900    154.000
GR   680.000    199.000    685.000    200.000       .000       .000       .000       .000       .000       .000
NH     6.000       .070   1300.000       .100   1338.000       .060   1354.100       .065   1408.400       .060
NH  1500.000       .070   2032.000       .000       .000       .000       .000       .000       .000       .000

          CROSS SECTION BB

X1    75.140     19.000   1354.100   1408.400    550.000    550.000    550.000       .000       .000       .000
X3      .000       .000       .000    850.000       .000   1800.000       .000       .000       .000       .000
GR   684.700    250.000    684.800    500.000    684.900    800.000    684.700   1080.000    684.000   1170.000
GR   684.000   1300.000    680.800   1338.000    671.500   1354.100    670.400   1358.100    669.800   1363.000
GR   670.100   1368.100    669.800   1373.100    671.400   1378.100    671.500   1408.400    680.400   1426.200
GR   680.000   1500.000    682.400   1700.000    682.500   2031.000    688.000   2032.000       .000       .000
NH     7.000       .060     50.000       .100   1420.000       .060   1429.000       .065   1448.000       .060
NH  1456.000       .100   1508.000       .060   2325.000       .000       .000       .000       .000       .000
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City of Milan F.I.S. H-3970

Mult. Prof. Run / Flood Zone Data

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*  WATER SURFACE PROFILES                   *
*  VERSION OF NOVEMBER 1976                 *
*  UPDATED APRIL 1980                       *
*                                           *
*  RUN DATE MON, MAR 23, 1981,  5:08 PM     *
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MDNR Copy

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**************************************
*  U.S. ARMY CORPS OF ENGINEERS      *
*  THE HYDROLOGIC ENGINEERING CENTER *
*  609 SECOND STREET, SUITE D        *
*  DAVIS, CALIFORNIA 95616           *
*  (916) 440-2105 (FTS) 448-2105     *
**************************************
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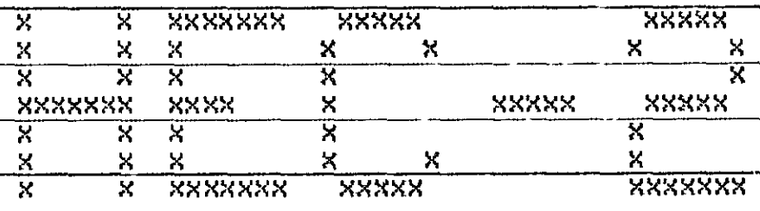

RECEIVED
APR 3 1981
WATER MANAGEMENT

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  HEC2 RELEASE DATED NOV 76 UPDATED APRIL 1980
  ERROR CORR -  01,02,03,04
  MODIFICATION -  50,51,52,53,54
**************************************************

C
T1      HUD FLOOD INSURANCE STUDIES-WILLIAMS & WORKS, INC.  H-3970
T2      CITY OF MILAN   SALINE RIVER
T3      SALINE R.-MILAN          10 -YEAR FLOOD UNDER EXISTING CONDITIONS

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
       0.       6.        0.        0.   .000000       .00       .0      -1.   682.080      .000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
     1.000      .000   -1.000      .000      .000      .000      .000      .000      .000      .000

J3  VARIABLE CODES FOR SUMMARY PRINTOUT
   150.000   201.000      .000      .000      .000      .000      .000      .000      .000      .000

NC      .080      .080      .040      .100      .300      .000      .000      .000      .000      .000
QT     5.000  4070.000  4070.000  5180.000  3490.000  2060.000      .000      .000      .000      .000
NH     3.000      .080    84.000      .045    116.000      .080    200.000      .000      .000      .000

          CROSS SECTION A

X1    74.590    12.000    84.000   116.000    50.000    50.000    50.000      .000      .000      .000
GR   685.000      .000   684.000     1.000   683.400    53.000   680.200    72.000   670.600    84.000
GR   669.500   100.000   672.000   116.000   674.200   121.000   673.300   128.000   679.900   154.000
GR   680.000   199.000   685.000   200.000      .000      .000      .000      .000      .000      .000
NH     6.000      .070  1300.000      .100  1338.000      .060  1354.100      .065  1408.400      .060
NH  1500.000      .070  2032.000      .000      .000      .000      .000      .000      .000      .000

          CROSS SECTION BB

X1    75.140    19.000  1354.100  1408.400   550.000   550.000   550.000      .000      .000      .000
X3      .000      .000      .000   850.000      .000  1800.000      .000      .000      .000      .000
GR   684.700   250.000   684.800   500.000   684.800   800.000   684.700  1080.000   684.000  1170.000
GR   684.000  1300.000   680.800  1338.000   671.500  1354.100   670.400  1358.100   669.800  1363.000
GR   670.100  1368.100   669.800  1373.100   671.400  1378.100   671.500  1408.400   680.400  1426.200
GR   680.000  1500.000   682.400  1700.000   682.500  2031.000   688.000  2032.000      .000      .000
NH     7.000      .060    50.000      .100  1420.000      .060  1429.000      .065  1448.000      .060
NH  1456.000      .100  1508.000      .060  2325.000      .000      .000      .000      .000      .000
```

NH	2337.000	.090	2515.000	.055	2540.000	.100	2692.000	.070	3091.000	.000

CROSS SECTION E -DOWNSTREAM OF NORFOLK AND WESTERN RAILROAD

X1	80.100	34.000	1451.000	1477.000	750.000	750.000	750.000	.000	.000	.000
X3	.000	.000	.000	1430.000	.000	2570.000	.000	.000	.000	.000
X4	1.000	684.100	1380.000	.000	.000	.000	.000	.000	.000	.000
GR	696.000	821.000	693.800	900.000	691.100	1013.000	688.200	1135.000	686.900	1256.000
GR	690.000	1404.000	677.100	1451.000	676.900	1458.000	674.800	1463.000	674.600	1468.000
GR	675.000	1473.000	677.100	1477.000	680.000	1507.000	687.100	1542.000	685.800	1586.000
GR	681.300	1664.000	681.200	1734.000	681.200	1834.000	681.200	1950.000	685.000	2052.000
GR	682.600	2208.000	682.200	2257.000	682.300	2337.000	682.300	2463.000	678.300	2497.000
GR	677.400	2515.000	676.900	2523.000	677.400	2540.000	680.100	2556.000	681.400	2692.000
GR	680.200	2806.000	681.400	2912.000	686.100	3001.000	692.600	3091.000	.000	.000
NC	.000	.000	.050	.300	.500	.000	.000	.000	.000	.000

NORFOLK & WESTERN R.R. -ADJACENT DOWNTSTREAM SECTION

X1	80.150	74.000	1510.000	1616.000	50.000	50.000	50.000	.000	.000	.000
GR	698.800	533.000	697.900	561.000	697.000	629.000	697.200	675.000	697.900	707.000
GR	697.100	748.000	696.500	815.000	696.400	885.000	695.900	950.000	695.500	1029.000
GR	695.500	1100.000	695.000	1188.000	694.400	1264.000	692.500	1353.000	692.300	1477.000
GR	690.600	1500.000	688.200	1504.000	680.500	1510.000	679.400	1514.000	675.600	1518.000
GR	675.500	1524.000	675.900	1530.000	675.700	1534.000	675.400	1540.000	675.300	1546.000
GR	675.800	1550.000	675.600	1556.000	675.800	1562.000	675.300	1566.000	675.400	1572.000
GR	676.000	1578.000	676.800	1582.000	678.300	1588.000	678.700	1594.000	694.000	1594.100
GR	681.400	1600.000	682.100	1608.000	688.200	1616.000	694.000	1616.100	692.000	2549.000
GR	691.200	2550.000	679.900	2558.000	679.800	2565.000	694.000	2565.100	694.000	2568.000
GR	694.000	2568.000	679.900	2575.000	679.100	2582.000	694.000	2582.100	694.000	2585.000
GR	678.700	2585.000	678.700	2592.000	678.600	2598.000	694.000	2598.100	694.000	2601.000
GR	678.800	2601.000	678.200	2608.000	677.900	2615.000	694.000	2615.100	694.000	2618.000
GR	677.900	2618.000	677.800	2627.000	678.000	2631.000	694.000	2631.100	694.000	2634.000
GR	678.900	2634.000	681.700	2642.000	690.800	2650.000	694.000	2650.100	694.000	2654.000
GR	692.200	2704.000	692.100	2775.000	692.100	2858.000	692.300	2920.000	.000	.000
SB	.900	1.450	2.800	.000	64.000	13.300	788.000	1.900	675.600	675.600

NORFOLK & WESTERN R.R. -ADJACENT UPSTREAM SECTION

X1	80.180	.000	.000	.000	28.000	28.000	28.000	.000	.000	.000
X2	.000	.000	1.000	686.600	694.000	.000	.000	.000	.000	.000
NH	6.000	.070	1425.000	.090	1481.000	.055	1532.000	.080	2567.000	.050
NH	2597.000	.060	3125.000	.000	.000	.000	.000	.000	.000	.000

CROSS SECTION F -UPSTREAM OF NORFOLK AND WESTERN RAILROAD

X1	80.230	41.000	1481.000	1532.000	50.000	50.000	50.000	.000	.000	.000
X3	.000	.000	.000	1430.000	.000	2650.000	.000	.000	.000	.000
GR	693.600	838.000	691.900	900.000	689.200	1011.000	686.700	1113.000	683.600	1313.000
GR	685.200	1425.000	685.200	1461.000	676.400	1481.000	675.800	1482.000	675.500	1484.000
GR	675.400	1489.000	675.200	1494.000	675.300	1499.000	675.300	1504.000	675.300	1509.000

GR	675.400	1514.000	675.500	1519.000	675.700	1524.000	676.400	1532.000	684.100	1544.000
GR	685.600	1626.000	683.900	1732.000	682.400	1818.000	682.400	1846.000	682.400	1946.000
GR	682.200	2026.000	681.600	2120.000	681.400	2208.000	681.400	2366.000	681.300	2454.000
GR	681.000	2509.000	680.700	2559.000	677.800	2567.000	677.500	2571.000	677.800	2597.000
GR	682.700	2611.000	686.300	2702.000	687.300	2761.000	687.000	2859.000	690.600	2987.000
GR	690.700	3125.000	.000	.000	.000	.000	.000	.000	.000	.000
NH	4.000	.085	472.000	.055	551.000	.065	830.000	5.000	2147.000	.000

CROSS SECTION G

X1	81.000	56.000	472.000	553.000	860.000	570.000	770.000	.000	.000	.000
GR	699.300	.000	698.400	52.000	689.300	103.000	686.200	161.000	685.500	190.000
GR	685.000	224.000	684.600	328.000	685.300	412.000	685.300	458.000	677.400	472.000
GR	676.900	477.000	676.200	482.000	675.900	487.000	675.800	492.000	675.800	497.000
GR	675.500	502.000	675.600	507.000	675.500	512.000	675.500	517.000	675.500	522.000
GR	675.800	527.000	675.700	532.000	676.300	537.000	676.300	542.000	676.900	547.000
GR	677.000	551.000	677.400	553.000	685.200	557.000	686.200	617.000	686.200	718.000
GR	689.100	803.000	690.300	811.000	690.800	830.000	690.800	987.000	690.500	1026.000
GR	684.800	1057.000	681.900	1128.000	681.700	1204.000	681.600	1288.000	677.600	1299.000
GR	677.000	1301.000	676.700	1306.000	676.700	1316.000	676.600	1321.000	676.900	1326.000
GR	677.600	1329.000	681.700	1337.000	683.000	1406.000	681.200	1520.000	681.400	1625.000
GR	681.400	1714.000	683.600	1761.000	692.400	1827.000	691.900	1938.000	694.500	2052.000
GR	695.700	2147.000	.000	.000	.000	.000	.000	.000	.000	.000
NC	.000	.000	.000	.500	.700	.000	.000	.000	.000	.000
NH	3.000	.080	1530.000	.060	1588.000	.080	2234.000	.000	.000	.000

CROSS SECTION H

X1	81.800	32.000	1530.000	1588.000	680.000	650.000	800.000	.000	.000	.000
GR	699.400	668.000	697.900	726.000	696.100	812.000	693.900	879.000	692.100	948.000
GR	692.100	948.000	689.700	1072.000	691.300	1183.000	691.300	1276.000	692.100	1386.000
GR	690.900	1500.000	677.800	1528.000	677.700	1530.000	676.800	1533.000	676.300	1538.000
GR	676.200	1548.000	675.900	1558.000	675.400	1563.000	675.000	1568.000	674.200	1573.000
GR	674.400	1578.000	674.500	1583.000	674.700	1588.000	693.500	1591.000	716.200	1619.000
GR	705.900	1721.000	694.100	1722.000	692.200	1794.000	695.100	1894.000	695.400	1996.000
GR	696.800	2084.000	694.600	2234.000	.000	.000	.000	.000	.000	.000
NH	3.000	.060	721.000	.040	775.000	.060	1072.000	.000	.000	.000

CROSS SECTION IMMEDIATELY DOWNSTREAM OF DAM

X1	81.900	18.000	721.000	775.000	100.000	100.000	100.000	.000	.000	.000
GR	694.200	350.000	693.100	393.000	692.600	497.000	693.200	720.900	676.900	721.000
GR	676.900	728.000	677.400	733.000	678.400	743.000	678.500	748.000	678.600	758.000
GR	678.400	768.000	678.300	773.000	676.900	775.000	693.100	778.000	693.400	860.000
GR	693.400	942.000	693.500	994.000	694.100	1072.000	.000	.000	.000	.000
NC	.060	.060	.040	.100	.300	.000	.000	.000	.000	.000

CROSS SECTION IMMEDIATELY UPSTREAM OF DAM

X1	82.070	17.000	45.000	850.000	170.000	170.000	170.000	.000	.000	.000
X5	1.000	692.800	692.800	693.600	692.200	690.100	.000	.000	.000	.000
GR	692.000	1.000	689.700	45.000	686.300	51.000	685.000	150.000	684.900	250.000
GR	685.000	350.000	685.100	450.000	684.900	550.000	684.700	650.000	684.200	708.000
GR	679.900	737.000	678.800	740.000	679.300	745.000	681.900	750.000	683.200	762.000
GR	684.600	850.000	692.000	870.000	.000	.000	.000	.000	.000	.000
NC	.000	.000	.000	.000	.300	.500	.000	.000	.000	.000
ET	.000	.000	9.100	.000	.000	.000	.000	.000	1440.000	2370.000

CROSS SECTION I -DOWNSTREAM OF ANN ARBOR RAILROAD

X1	83.200	22.000	1460.000	1659.000	1100.000	400.000	1130.000	.000	.000	.000
X3	.000	.000	.000	.000	.000	2370.000	.000	.000	.000	.000
GR	699.700	1149.000	696.100	1440.000	682.400	1460.000	681.900	1464.000	681.400	1469.000
GR	680.700	1474.000	680.400	1479.000	680.100	1484.000	679.800	1489.000	679.900	1494.000
GR	680.200	1499.000	680.700	1504.000	681.300	1509.000	681.800	1659.000	681.800	1820.000
GR	681.700	2000.000	681.900	2240.000	681.800	2400.000	682.100	2580.000	688.000	2585.000
GR	692.000	2605.000	696.000	2612.000	.000	.000	.000	.000	.000	.000

ANN ARBOR RAILROAD BRIDGE -ADJACENT DOWNSTREAM SECTION

X1	83.350	28.000	1436.000	1571.000	200.000	40.000	150.000	.000	.000	.000
GR	703.400	1436.000	688.300	1450.000	688.300	1454.000	683.000	1456.000	682.100	1460.000
GR	681.500	1465.000	681.200	1470.000	680.600	1475.000	680.900	1480.000	681.400	1485.000
GR	681.900	1490.000	682.500	1495.000	682.800	1500.000	682.300	1505.000	682.100	1510.000
GR	682.800	1515.000	682.900	1520.000	683.400	1524.000	688.000	1526.000	688.000	1530.000
GR	702.200	1571.000	699.300	2433.000	687.500	2450.000	686.100	2450.600	685.500	2452.000
GR	686.100	2453.400	687.500	2454.000	699.400	2470.000	.000	.000	.000	.000
SB	.000	1.500	2.800	.000	80.000	.000	660.000	.000	682.600	682.600

ANN ARBOR RAILROAD BRIDGE -ADJACENT UPSTREAM SECTION

X1	83.370	.000	.000	.000	15.000	15.000	15.000	.000	.000	.000
X2	.000	.000	1.000	690.800	699.400	.000	.000	.000	.000	.000
BT	30.000	1436.000	703.400	703.400	1450.000	703.300	688.300	1450.000	703.300	690.800
BT	1454.000	703.200	690.800	1456.000	703.200	690.800	1460.000	703.200	690.700	1465.000
BT	703.100	690.700	1470.000	703.100	690.700	1475.000	703.000	690.700	1480.000	703.000
BT	690.700	1485.000	703.000	690.700	1490.000	702.900	690.700	1495.000	702.900	690.600
BT	1500.000	702.800	690.600	1505.000	702.800	690.600	1510.000	702.700	690.600	1515.000
BT	702.700	690.600	1520.000	702.700	690.500	1524.000	702.600	690.500	1526.000	702.600
BT	690.500	1530.000	702.600	690.500	1530.000	702.600	688.000	1571.000	702.200	702.200
BT	2433.000	699.300	699.300	2450.000	699.300	687.500	2450.600	699.300	688.900	2452.000
BT	699.300	689.500	2453.400	699.300	688.900	2454.000	699.300	687.500	2470.000	699.400
BT	699.400	.000	.000	.000	.000	.000	.000	.000	.000	.000
NC	.080	.080	.050	.000	.000	.000	.000	.000	.000	.000
ET	.000	.000	9.100	.000	.000	.000	.000	.000	960.000	2192.000

CROSS SECTION II -UPSTREAM OF ANN ARBOR RAILROAD BRIDGE

X1	83.430	33.000	1027.000	1087.000	40.000	80.000	65.000	.000	.000	.000
X3	.000	.000	.000	960.000	.000	.000	.000	.000	.000	.000
GR	704.000	.000	700.000	40.000	700.000	430.000	696.000	830.000	692.000	960.000
GR	689.900	992.000	688.000	995.000	687.000	997.000	682.400	1027.000	681.400	1032.000
GR	681.100	1037.000	681.500	1042.000	681.600	1047.000	681.600	1052.000	681.400	1057.000
GR	680.800	1062.000	681.100	1067.000	681.500	1072.000	682.000	1082.000	682.400	1087.000
GR	687.700	1141.000	687.800	1265.000	687.800	1570.000	688.000	1600.000	688.000	1655.000
GR	687.800	1695.000	685.800	1800.000	685.500	2080.000	685.800	2150.000	687.800	2180.000
GR	688.000	2192.000	692.000	2205.000	696.000	2450.000	.000	.000	.000	.000
NC	.000	.000	.000	.100	.300	.000	.000	.000	.000	.000
NH	5.000	.080	1742.000	.050	1792.000	.060	1870.000	.060	2055.000	.080
NH	2092.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

CROSS SECTION J

X1	84.910	24.000	1742.000	1792.000	1300.000	1550.000	1480.000	.000	.000	.000
X3	.000	.000	.000	1470.000	.000	.000	.000	.000	.000	.000
GR	704.000	.000	697.000	710.000	696.000	1210.000	692.000	1260.000	688.000	1345.000
GR	688.000	1470.000	688.000	1708.000	689.000	1712.000	686.000	1742.000	685.900	1745.000
GR	685.500	1750.000	685.200	1775.000	684.500	1778.000	684.900	1780.000	684.900	1785.000
GR	685.100	1788.000	685.700	1790.000	686.000	1792.000	688.000	1803.000	688.000	1834.000
GR	687.500	1870.000	687.500	2055.000	688.000	2060.000	696.000	2092.000	.000	.000
NH	5.000	.070	871.000	.085	877.000	.050	933.000	.085	960.000	.070
NH	1038.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

CROSS SECTION K -DOWNSTREAM OF PLATT ROAD BRIDGE

X1	85.690	26.000	877.000	933.000	740.000	900.000	780.000	.000	.000	.000
X3	.000	.000	.000	845.000	.000	965.000	.000	.000	.000	.000
GR	698.600	195.000	697.300	250.000	697.100	300.000	697.100	355.000	694.700	458.000
GR	694.200	561.000	692.600	663.000	691.900	767.000	691.900	822.000	691.700	871.000
GR	686.400	877.000	684.800	880.000	684.400	882.000	683.600	887.000	683.600	892.000
GR	683.900	897.000	684.100	902.000	684.100	907.000	683.700	912.000	683.700	917.000
GR	684.000	922.000	684.500	927.000	685.600	932.000	686.400	933.000	691.600	960.000
GR	700.100	1038.000	.000	.000	.000	.000	.000	.000	.000	.000
NC	.080	.080	.050	.300	.500	.000	.000	.000	.000	.000

X1	85.730	.000	.000	.000	40.000	40.000	40.000	.000	.000	.000
X3	.000	.000	.000	855.000	.000	955.000	.000	.000	.000	.000

PLATT ROAD -ADJACENT DOWNSTREAM SECTION

X1	85.740	42.000	805.000	895.000	10.000	10.000	10.000	.000	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	696.900	698.000	.000
GR	698.600	.000	698.900	38.000	698.300	138.000	698.400	178.000	697.600	234.000
GR	697.100	297.000	696.000	436.000	696.900	500.000	698.000	634.000	698.700	758.000
GR	699.900	800.000	693.900	803.000	693.700	805.000	692.900	810.000	690.200	815.000
GR	688.400	820.000	686.500	825.000	684.100	830.000	683.100	835.000	683.800	840.000
GR	684.300	845.000	684.700	850.000	697.400	850.100	697.400	853.000	684.100	853.000
GR	684.100	855.000	684.500	860.000	683.500	865.000	682.400	870.000	683.400	875.000
GR	686.000	880.000	688.600	885.000	691.300	890.000	693.800	895.000	694.500	897.000
GR	701.000	900.000	701.400	953.000	701.400	994.000	702.300	1085.000	702.100	1169.000
GR	702.100	1335.000	702.700	1488.000	.000	.000	.000	.000	.000	.000

PLATT ROAD -ADJACENT UPSTREAM SECTION

X1	85.780	.000	.000	.000	40.000	40.000	40.000	.000	.000	.000
X2	.000	.000	.000	697.400	701.100	.000	.000	.000	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	700.600	701.600	.000
NH	5.000	.080	728.000	.085	803.000	.050	855.000	.085	936.000	.065
NH	2064.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

X1	85.790	30.000	803.000	855.000	10.000	10.000	10.000	.000	.000	.000
X3	.000	.000	.000	730.000	.000	930.000	.000	.000	.000	.000
GR	698.900	202.000	698.900	302.000	695.000	442.000	697.500	565.000	696.200	728.000
GR	688.900	791.000	686.400	803.000	685.900	804.000	684.000	809.000	683.200	814.000
GR	683.200	819.000	682.800	824.000	682.800	829.000	683.100	834.000	683.600	839.000
GR	684.300	844.000	685.400	849.000	686.400	855.000	695.100	881.000	701.300	936.000
GR	703.700	1039.000	701.600	1056.000	701.300	1161.000	701.300	1301.000	701.300	1470.000
GR	701.700	1539.000	701.800	1617.000	700.100	1750.000	702.000	1891.000	702.600	2064.000

CROSS SECTION L -UPSTREAM OF PLATT ROAD

X1	85.830	.000	.000	.000	40.000	40.000	40.000	.000	.000	.000
X3	.000	.000	.000	780.000	.000	880.000	.000	.000	.000	.000
EJ	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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  HEC2 RELEASE DATED NOV 76 UPDATED APRIL 1980
  ERROR CORR -  01,02,03,04
  MODIFICATION -  50,51,52,53,54
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T1      HUD FLOOD INSURANCE STUDIES-WILLIAMS & WORKS, INC.  H-3970
T2      CITY OF MILAN   SALINE RIVER
T3      SALINE R.-MILAN         100 -YEAR FLOOD UNDER EXISTING CONDITIONS

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
        0.        2.        0.        0.   .000000       .00       .0       -1.   684.880      .000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
    3.000      .000      .000      .000      .000      .000      .000      .000      .000    15.000
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	HACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 3

CCHV= .100 CEHV= .300
1490 NH CARD USED
*SECNO 74.590
CROSS SECTION A

74.59	15.38	684.88	.00	684.88	685.21	.33	.00	.00	670.60
4070.	331.	2583.	1156.	234.	463.	576.	0.	0.	672.00
.00	1.41	5.57	2.01	.080	.045	.080	.000	669.50	.12
.000815	50.	50.	50.	0	0	0	.00	199.86	199.98

FLOW DISTRIBUTION FOR SECNO= 74.59 CWSEL= 684.88

STA=	0.	53.	72.	84.	116.	121.	128.	154.	199.	200.
PER Q=	.9	1.6	5.6	63.5	3.7	5.0	11.2	8.4	.0	
AREA=	61.7	58.5	113.8	463.4	58.9	77.9	215.3	221.8	2.4	
VEL=	.6	1.1	2.0	5.6	2.6	2.6	2.1	1.5	.3	

1490 NH CARD USED
*SECNO 75.140

3470 ENCROACHMENT STATIONS= 850.0 1800.0 TYPE= 1 TARGET= 950.000
CROSS SECTION BB

75.14	15.64	685.44	.00	.00	685.48	.04	.25	.03	671.50
4070.	478.	1795.	1796.	710.	788.	1705.	28.	7.	671.50
.10	.67	2.28	1.05	.069	.065	.066	.040	669.80	850.00
.000284	550.	550.	550.	2	0	0	.00	950.00	1800.00

FLOW DISTRIBUTION FOR SECNO= 75.14 CWSEL= 685.44

STA=	850.	1300.	1354.	1408.	1426.	1500.	1700.	1800.
PER Q=	4.1	7.6	44.1	7.2	12.0	19.5	5.4	
AREA=	445.1	265.0	787.6	168.9	386.6	847.6	302.3	
VEL=	.4	1.2	2.3	1.7	1.3	.9	.7	

1490 NH CARD USED
*SECNO 76.240

3470 ENCROACHMENT STATIONS= 1350.0 2400.0 TYPE= 1 TARGET= 1050.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	HACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
			CROSS SECTION B						
76.24	15.78	685.78	.00	.00	685.80	.02	.32	.00	672.10
4070.	125.	677.	3269.	189.	317.	3217.	116.	31.	672.10
.36	.66	2.13	1.02	.074	.060	.063	.040	670.00	1350.00
.000293	1100.	1100.	1100.	2	0	0	.00	934.22	2284.22

FLOW DISTRIBUTION FOR SECNO= 76.24 CWSEL= 685.78

STA=	1350.	1429.	1450.	1508.	2215.	2284.
PER Q=	3.1	16.6	7.9	70.4	2.1	
AREA=	188.6	317.0	346.7	2740.1	130.7	
VEL=	.7	2.1	.9	1.0	.6	

1490 NH CARD USED
*SECNO 77.270

3470 ENCROACHMENT STATIONS= 2030.0 2845.0 TYPE= 1 TARGET= -2030.000

			CROSS SECTION CC						
77.27	16.09	686.09	.00	.00	686.12	.03	.31	.00	672.10
4070.	1839.	782.	1449.	2025.	323.	1160.	201.	51.	672.10
.57	.91	2.42	1.25	.086	.065	.061	.040	670.00	2030.00
.000318	1030.	1030.	1030.	1	0	0	.00	786.19	2816.19

FLOW DISTRIBUTION FOR SECNO= 77.27 CWSEL= 686.09

STA=	2030.	2250.	2479.	2529.	2550.	2606.	2785.	2816.
PER Q=	5.9	17.8	21.5	19.2	15.0	20.2	.4	
AREA=	509.7	1014.3	501.5	323.4	397.7	730.2	32.4	
VEL=	.5	.7	1.7	2.4	1.5	1.1	.5	

1490 NH CARD USED
*SECNO 78.370

3470 ENCROACHMENT STATIONS= 1400.0 1600.0 TYPE= 1 TARGET= 200.000

			CROSS SECTION C						
78.37	15.77	686.37	.00	.00	686.39	.02	.27	.00	674.70
4070.	145.	806.	3119.	134.	424.	5631.	319.	79.	674.10
.92	1.08	1.90	.55	.060	.065	.099	.040	670.60	1476.05
.000213	900.	1100.	1100.	2	0	0	.00	1487.68	2963.74

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	HACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 78.37 CWSEL= 686.37

STA=	1476.	1499.	1528.	1600.	1686.	1738.	1817.	1912.	2048.	2420.	2920.	2964.
PER Q=	3.6	19.8	6.3	5.4	3.2	4.9	5.9	3.9	15.0	31.1	.9	
AREA=	133.9	423.7	360.6	376.1	227.4	345.5	415.5	368.8	1255.0	2186.8	95.6	
VEL=	1.1	1.9	.7	.6	.6	.6	.6	.4	.5	.6	.4	

1490 NH CARD USED
*SECNO 79.350

3265 DIVIDED FLOW

CROSS SECTION D

79.35	14.20	686.60	.00	.00	686.64	.04	.25	.01	674.90
4070.	153.	1127.	2791.	120.	514.	2400.	422.	101.	674.90
1.11	1.27	2.19	1.16	.060	.060	.084	.040	672.40	1394.44
.000300	980.	980.	980.	2	0	0	.00	477.21	2014.11

FLOW DISTRIBUTION FOR SECNO= 79.35 CWSEL= 686.60

STA=	1394.	1415.	1453.	1673.	1734.	1801.	1828.	1848.	1859.	1869.	1882.	2014.
PER Q=	3.8	27.7	7.8	14.5	15.9	3.3	5.4	7.7	7.0	4.2	2.8	
AREA=	120.3	513.8	364.3	537.1	589.9	162.1	144.1	129.5	118.0	104.9	250.3	
VEL=	1.3	2.2	.9	1.1	1.1	.8	1.5	2.4	2.4	1.6	.4	

1490 NH CARD USED
*SECNO 80.100

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 1430.0 2570.0 TYPE= 1 TARGET= 1140.000
CROSS SECTION E -DOWNSTREAM OF NORFOLK AND WESTERN RAILROAD

80.10	12.20	686.80	.00	.00	686.81	.01	.16	.00	677.10
4070.	86.	408.	3576.	143.	287.	5064.	496.	115.	677.10
1.38	.60	1.42	.71	.100	.065	.081	.040	674.60	1430.00
.000165	750.	750.	750.	0	0	0	.00	1128.25	2570.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
@	QLOB	QCH	QROB	ALOB	HACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 80.10 CWSEL= 686.80

STA=	1430.	1451.	1477.	1507.	1664.	1734.	1834.	1950.	2052.	2208.	2257.	2337.	2463.
PER Q=	2.1	10.0	4.7	4.8	7.1	10.4	12.0	5.3	5.7	3.4	5.9	8.1	
AREA=	143.1	286.8	247.4	384.0	388.3	559.7	649.3	377.1	467.5	215.5	363.8	566.6	
VEL=	.6	1.4	.8	.5	.7	.8	.8	.6	.5	.6	.7	.6	

STA=	2463.	2497.	2515.	2540.	2570.
PER Q=	4.0	3.6	9.3	3.6	
AREA=	220.9	161.0	241.2	221.6	
VEL=	.7	.9	1.6	.7	

CCHV= .300 CEHV= .500
*SECNO 80.150

3265 DIVIDED FLOW

NORFOLK & WESTERN R.R. -ADJACENT DOWNTSTREAM SECTION

80.15	11.43	686.73	.00	.00	686.90	.17	.02	.08	680.50	
4070.	13.	3380.	677.	15.	939.	529.	500.	116.	688.20	
1.38	.86	3.60	1.28	.080	.050	.080	.040	675.30	1505.14	
.000897	50.	50.	50.	2	0	0	.00	180.40	2646.42	

FLOW DISTRIBUTION FOR SECNO= 80.15 CWSEL= 686.73

STA=	1505.	1510.	1616.	2582.	2598.	2615.	2631.	2646.
PER Q=	.3	83.0	3.7	3.4	4.0	3.9	1.7	
AREA=	15.1	939.4	127.1	104.9	118.6	115.5	62.8	
VEL=	.9	3.6	1.2	1.3	1.4	1.4	1.1	

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	.90	1.45	2.80	.00	64.00	13.30	788.00	1.90	675.60	675.60

*SECNO 80.180

3265 DIVIDED FLOW

PRESSURE FLOW

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	HACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
687.33	686.93	.02	0.	4070.	788.	788.	686.60	694.00

NORFOLK & WESTERN R.R. -ADJACENT UPSTREAM SECTION

80.18	11.88	687.18	.00	.00	687.33	.15	.43	.00	680.50
4070.	15.	3373.	682.	17.	984.	563.	501.	116.	688.20
1.38	.84	3.43	1.21	.080	.050	.080	.040	675.30	1504.80
.000780	28.	28.	28.	2	0	0	.00	182.48	2646.82

FLOW DISTRIBUTION FOR SECNO= 80.18 CWSEL= 687.18

STA=	1505.	1510.	1616.	2582.	2598.	2615.	2631.	2647.
PER Q=	.4	82.9	3.7	3.4	4.0	3.9	1.8	
AREA=	17.4	984.4	137.1	110.7	124.9	121.3	68.5	
VEL=	.8	3.4	1.1	1.2	1.3	1.3	1.1	

1490 NH CARD USED
*SECNO 80.230

3470 ENCROACHMENT STATIONS= 1430.0 2650.0 TYPE= 1 TARGET= 1220.000
CROSS SECTION F -UPSTREAM OF NORFOLK AND WESTERN RAILROAD

80.23	12.18	687.38	.00	.00	687.39	.01	.01	.04	676.40
4070.	82.	774.	3215.	199.	605.	5763.	506.	116.	676.40
1.40	.41	1.28	.56	.090	.055	.076	.041	675.20	1430.00
.000083	50.	50.	50.	2	0	0	.00	1220.00	2650.00

FLOW DISTRIBUTION FOR SECNO= 80.23 CWSEL= 687.38

STA=	1430.	1481.	1532.	1732.	1818.	1946.	2026.	2120.	2208.	2366.	2454.	2509.	2559.
PER Q=	2.0	19.0	5.0	4.0	7.7	5.0	6.7	7.0	12.9	7.3	4.8	4.7	
AREA=	199.1	605.5	571.3	363.6	637.1	406.2	514.9	517.2	944.5	530.4	342.5	326.4	
VEL=	.4	1.3	.4	.4	.5	.5	.5	.6	.6	.6	.6	.6	

STA=	2559.	2597.	2650.
PER Q=	9.9	4.0	
AREA=	356.9	252.1	
VEL=	1.1	.6	

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	HACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
81.00	11.94	687.44	.00	.00	687.57	.13	.12	.06	677.40
4070.	670.	3095.	306.	802.	923.	4397.	595.	135.	677.40
1.47	.84	3.35	.07	.085	.065	1.672	.042	675.50	137.83
.000628	860.	770.	570.	2	0	0	.00	1363.62	1789.79

1490 NH CARD USED
*SECNO 81.000

3265 DIVIDED FLOW

CROSS SECTION G

FLOW DISTRIBUTION FOR SECNO= 81.00 CWSEL= 687.44

STA=	138.	328.	412.	472.	553.	718.	1790.
PER Q=	7.8	4.1	4.5	76.0	4.8	2.7	
AREA=	409.3	209.0	183.6	923.1	254.0	4142.7	
VEL=	.8	.8	1.0	3.4	.8	.0	

CCHV= .500 CEHV= .700
1490 NH CARD USED
*SECNO 81.800
CROSS SECTION H

81.80	13.88	688.08	.00	.00	688.47	.39	.72	.18	677.70
4070.	298.	3761.	11.	134.	727.	14.	651.	146.	674.70
1.52	2.23	5.17	.75	.080	.060	.080	.043	674.20	1506.02
.001505	680.	800.	650.	2	0	0	.00	84.12	1590.14

FLOW DISTRIBUTION FOR SECNO= 81.80 CWSEL= 688.08

STA=	1506.	1528.	1530.	1588.	1590.
PER Q=	5.6	1.7	92.4	.3	
AREA=	113.0	20.7	727.4	14.3	
VEL=	2.0	3.4	5.2	.7	

1490 NH CARD USED
*SECNO 81.900
CROSS SECTION IMMEDIATELY DOWNSTREAM OF DAM

81.90	11.21	688.11	.00	.00	688.97	.86	.17	.33	676.90
4070.	2.	4055.	13.	4.	545.	12.	652.	146.	676.90
1.52	.52	7.44	1.08	.060	.040	.060	.043	676.90	720.31
.001860	100.	100.	100.	2	0	0	.00	56.76	777.08

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	HACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 81.90 CWSEL= 688.11

STA=	720.	721.	775.	777.
PER Q=	.0	99.6	.3	
AREA=	3.9	545.3	11.6	
VEL=	.5	7.4	1.1	

CCHV= .100 CEHV= .300
*SECNO 82.070
WATER EL=X5 CARD= 692.800
3280 CROSS SECTION 82.07 EXTENDED .80 FEET

CROSS SECTION IMMEDIATELY UPSTREAM OF DAM

82.07	14.00	692.80	.00	.00	692.81	.01	.01	.09	689.70
4070.	13.	4033.	23.	86.	6534.	90.	667.	148.	684.60
1.60	.16	.62	.26	.060	.040	.060	.043	679.80	1.00
.000017	170.	170.	170.	0	0	0	.00	869.00	870.00

FLOW DISTRIBUTION FOR SECNO= 82.07 CWSEL= 692.80

STA=	1.	45.	850.	870.
PER Q=	.3	99.1	.6	
AREA=	85.8	6534.0	90.0	
VEL=	.2	.6	.3	

CCHV= .100 CEHV= .300
*SECNO 83.200

3470 ENCROACHMENT STATIONS= .0 2370.0 TYPE= 1 TARGET= 2369.999
CROSS SECTION I -DOWNSTREAM OF ANN ARBOR RAILROAD

83.20	13.01	692.81	.00	.00	692.82	.00	.01	.00	682.40
4070.	15.	1266.	2789.	79.	2285.	7832.	819.	165.	681.80
2.18	.19	.55	.36	.060	.040	.060	.044	679.80	1444.80
.000009	1100.	1130.	400.	2	0	0	.00	925.20	2370.00

FLOW DISTRIBUTION FOR SECNO= 83.20 CWSEL= 692.81

STA=	1445.	1460.	1659.	1820.	2000.	2240.	2370.
PER Q=	.4	31.1	15.7	17.6	23.3	11.9	
AREA=	79.2	2284.8	1773.2	1991.4	2643.3	1424.0	
VEL=	.2	.6	.4	.4	.4	.3	

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	HACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 83.350

3265 DIVIDED FLOW

ANN ARBOR RAILROAD BRIDGE -ADJACENT DOWNSTREAM SECTION

83.35	11.97	692.57	.00	.00	692.92	.35	.00	.10	703.40
4070.	0.	3959.	111.	0.	821.	62.	829.	166.	702.20
2.19	.00	4.82	1.79	.060	.040	.060	.044	680.60	1446.04
.001110	200.	150.	40.	2	0	0	.00	115.29	2460.82

FLOW DISTRIBUTION FOR SECNO= 83.35 CWSEL= 692.57

STA=	1446.	1571.	2450.	2451.	2452.	2453.	2454.	2461.
PER Q=	97.3	.6	.1	.7	.7	.1	.6	
AREA=	821.2	18.5	3.5	9.5	9.5	3.5	17.3	
VEL=	4.8	1.3	1.4	2.8	2.8	1.4	1.3	

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	.00	1.50	2.80	.00	80.00	.00	660.00	.00	682.60	682.60

*SECNO 83.370

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS= 693.458 EGLWC= 694.792 ELLC= 690.800 PCWSE= 692.572 ELTRD= 699.400

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 30 MIN ELTRD= 699.40 MAX ELLC= 690.80

ANN ARBOR RAILROAD BRIDGE -ADJACENT UPSTREAM SECTION

83.37	11.80	692.40	.00	.00	693.04	.64	.03	.09	703.40
4070.	0.	4046.	24.	0.	629.	11.	829.	166.	702.20
2.19	.00	6.44	2.19	.060	.040	.060	.044	680.60	1446.20
.005334	15.	15.	15.	2	0	0	-223.66	114.17	2460.59

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	HACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 83.37 CWSEL= 692.40

STA=	1446.	1571.	2451.	2452.	2453.	2454.
PER Q=	99.4	.0	.3	.3	.0	
AREA=	628.6	.8	4.8	4.8	.8	
VEL=	6.4	.8	2.4	2.4	.8	

*SECNO 83.430

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 960.0 2450.0 TYPE= 1 TARGET= -960.000
CROSS SECTION II -UPSTREAM OF ANN ARBOR RAILROAD BRIDGE

83.43	12.31	693.11	.00	.00	693.12	.01	.01	.06	682.40
4070.	160.	754.	3156.	345.	696.	6970.	836.	167.	682.40
2.22	.46	1.08	.45	.080	.050	.080	.044	680.80	960.00
.000051	40.	65.	80.	2	0	0	.00	1313.07	2273.07

FLOW DISTRIBUTION FOR SECNO= 83.43 CWSEL= 693.11

STA=	960.	1027.	1087.	1141.	1265.	1570.	1655.	1800.	2080.	2150.	2273.
PER Q=	3.9	18.5	5.7	6.6	16.1	4.2	9.4	26.0	6.5	3.1	
AREA=	345.2	695.9	435.3	664.8	1620.0	437.5	871.1	2089.2	522.3	330.1	
VEL=	.5	1.1	.5	.4	.4	.4	.4	.5	.5	.4	

CCHV= .100 CEHV= .300
1490 NH CARD USED
*SECNO 84.910

3470 ENCROACHMENT STATIONS= 1470.0 2092.0 TYPE= 1 TARGET= -1470.000
CROSS SECTION J

84.91	8.74	693.24	.00	.00	693.27	.03	.15	.01	686.00
4070.	1317.	766.	1987.	1438.	396.	1572.	1034.	201.	686.00
2.55	.92	1.94	1.26	.080	.050	.061	.045	684.50	1470.00
.000271	1300.	1480.	1550.	2	0	0	.00	610.95	2080.95

FLOW DISTRIBUTION FOR SECNO= 84.91 CWSEL= 693.24

STA=	1470.	1708.	1742.	1792.	1834.	1870.	2055.	2081.
PER Q=	27.8	4.5	18.8	7.2	6.2	34.1	1.4	
AREA=	1246.6	191.1	395.8	231.0	197.6	1061.5	82.3	
VEL=	.9	1.0	1.9	1.3	1.3	1.3	.7	

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	HACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 85.690

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 845.0 965.0 TYPE= 1 TARGET= 120.000
CROSS SECTION K -DOWNSTREAM OF PLATT ROAD BRIDGE

85.69	9.68	693.28	.00	.00	694.00	.72	.52	.21	686.40
4070.	113.	3654.	303.	65.	511.	123.	1072.	207.	686.40
2.58	1.74	7.16	2.47	.077	.050	.085	.045	683.60	845.00
.003113	740.	780.	900.	2	0	0	.00	120.00	965.00

FLOW DISTRIBUTION FOR SECNO= 85.69 CWSEL= 693.28

STA=	845.	877.	933.	960.	965.
PER Q=	2.8	89.8	7.2	.2	
AREA=	65.0	510.6	115.5	7.0	
VEL=	1.7	7.2	2.5	1.3	

CCHV= .300 CEHV= .500
*SECNO 85.730

3470 ENCROACHMENT STATIONS= 855.0 955.0 TYPE= 1 TARGET= 100.000

85.73	9.80	693.40	.00	.00	694.12	.72	.12	.00	686.40
4070.	95.	3686.	289.	53.	517.	107.	1073.	208.	686.40
2.58	1.79	7.12	2.69	.080	.050	.080	.045	683.60	855.00
.003031	40.	40.	40.	2	0	0	.00	100.00	955.00

FLOW DISTRIBUTION FOR SECNO= 85.73 CWSEL= 693.40

STA=	855.	871.	877.	933.	955.
PER Q=	.9	1.4	90.6	7.1	
AREA=	26.7	26.1	517.5	107.4	
VEL=	1.3	2.2	7.1	2.7	

*SECNO 85.740

3265 DIVIDED FLOW

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	HACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 696.90 ELREA= 698.00

PLATT ROAD -ADJACENT DOWNSTREAM SECTION

85.74	11.08	693.48	.00	.00	694.17	.69	.04	.01	693.70
4070.	0.	4070.	0.	0.	609.	0.	1073.	208.	693.80
2.58	.00	6.68	.00	.080	.050	.080	.045	682.40	806.38
.005034	10.	10.	10.	2	0	0	.00	85.04	894.36

FLOW DISTRIBUTION FOR SECNO= 85.74 CWSEL= 693.48

STA= 806. 895.
PER Q= 100.0
AREA= 609.2
VEL= 6.7

*SECNO 85.780

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 701.10 MAX ELLC= 697.40

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 700.60 ELREA= 701.60

PLATT ROAD -ADJACENT UPSTREAM SECTION

85.78	11.33	693.73	.00	.00	694.38	.65	.19	.01	693.70
4070.	0.	4070.	0.	0.	631.	0.	1073.	208.	693.80
2.59	.00	6.45	.00	.080	.050	.080	.045	682.40	805.00
.004613	40.	40.	40.	2	0	0	.00	86.94	894.87

FLOW DISTRIBUTION FOR SECNO= 85.78 CWSEL= 693.73

STA= 805. 895.
PER Q= 100.0
AREA= 631.2
VEL= 6.4

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	HACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 85.790

3470 ENCROACHMENT STATIONS= 730.0 930.0 TYPE= 1 TARGET= 200.000

85.79	10.97	693.77	.00	.00	694.41	.65	.03	.00	686.40
4070.	381.	3522.	167.	176.	511.	81.	1073.	208.	686.40
2.59	2.17	6.89	2.05	.085	.050	.095	.045	682.80	748.94
.002602	10.	10.	10.	1	0	0	.00	128.10	877.04

FLOW DISTRIBUTION FOR SECNO= 85.79 CWSEL= 693.77

STA=	749.	791.	803.	855.	877.
PER Q=	4.0	5.3	86.5	4.1	
AREA=	102.5	73.5	511.4	81.2	
VEL=	1.6	2.9	6.9	2.1	

*SECNO 85.830

3470 ENCROACHMENT STATIONS= 780.0 880.0 TYPE= 1 TARGET= 100.000

CROSS SECTION L -UPSTREAM OF PLATT ROAD

85.83	11.06	693.86	.00	.00	694.53	.67	.10	.01	686.40
4070.	315.	3583.	173.	122.	516.	83.	1074.	208.	686.40
2.59	2.58	6.95	2.08	.085	.050	.085	.045	682.80	780.00
.002616	40.	40.	40.	2	0	0	.00	97.29	877.29

FLOW DISTRIBUTION FOR SECNO= 85.83 CWSEL= 693.86

STA=	780.	803.	855.	877.
PER Q=	7.7	88.0	4.2	
AREA=	122.0	515.9	83.1	
VEL=	2.6	6.9	2.1	

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  HEC2 RELEASE DATED NOV 76 UPDATED APRIL 1980
  ERROR CORR -  01,02,03,04
  MODIFICATION -  50,51,52,53,54
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

SALINE R.-MILAN

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	74.590	50.00	.00	.00	669.50	2060.00	682.08	.00	682.27	5.64	4.02	806.39	867.33
	74.590	50.00	.00	.00	669.50	3490.00	684.21	.00	684.50	7.53	5.19	1140.07	1271.54
A	74.590	50.00	.00	.00	669.50	4070.00	684.88	.00	685.21	8.15	5.57	1273.71	1425.66
	74.590	50.00	.00	.00	669.50	5180.00	686.34	.00	686.69	8.25	5.98	1565.70	1803.81
	75.140	550.00	.00	.00	669.80	2060.00	682.48	.00	682.54	3.94	2.30	1291.32	1037.95
BB	75.140	550.00	.00	.00	669.80	3490.00	684.73	.00	684.78	3.15	2.32	2535.87	1966.17
	75.140	550.00	.00	.00	669.80	4070.00	685.44	.00	685.48	2.84	2.28	3202.86	2414.25
	75.140	550.00	.00	.00	669.80	5180.00	686.90	.00	686.93	2.06	2.07	4587.77	3613.26
	76.240	1100.00	.00	.00	670.00	2060.00	683.12	.00	683.22	10.52	3.56	1373.55	635.06
B	76.240	1100.00	.00	.00	670.00	3490.00	685.12	.00	685.15	3.60	2.30	3118.63	1838.58
	76.240	1100.00	.00	.00	670.00	4070.00	685.78	.00	685.80	2.93	2.13	3723.11	2379.17
	76.240	1100.00	.00	.00	670.00	5180.00	687.13	.00	687.15	1.95	1.84	5004.29	3712.51
	77.270	1030.00	.00	.00	670.00	2060.00	683.78	.00	683.82	3.66	2.33	1774.16	1076.52
CC	77.270	1030.00	.00	.00	670.00	3490.00	685.48	.00	685.51	3.36	2.42	3035.51	1905.14
	77.270	1030.00	.00	.00	670.00	4070.00	686.09	.00	686.12	3.18	2.42	3509.29	2284.05
	77.270	1030.00	.00	.00	670.00	5180.00	687.35	.00	687.38	2.62	2.32	4516.57	3198.05
	78.370	1100.00	.00	.00	670.60	2060.00	684.17	.00	684.21	3.66	2.24	2943.12	1077.35
C	78.370	1100.00	.00	.00	670.60	3490.00	685.79	.00	685.81	2.39	1.96	5326.38	2257.56
	78.370	1100.00	.00	.00	670.60	4070.00	686.37	.00	686.39	2.13	1.90	6188.98	2791.56
	78.370	1100.00	.00	.00	670.60	5180.00	687.59	.00	687.60	1.60	1.74	8082.22	4101.13
	79.350	980.00	.00	.00	672.40	2060.00	684.44	.00	684.46	1.90	1.55	2109.98	1494.52
	79.350	980.00	.00	.00	672.40	3490.00	686.03	.00	686.07	2.76	2.05	2769.84	2099.24
	79.350	980.00	.00	.00	672.40	4070.00	686.60	.00	686.64	3.00	2.19	3034.41	2349.71
	79.350	980.00	.00	.00	672.40	5180.00	687.78	.00	687.82	3.13	2.37	3638.98	2929.92
	80.100	750.00	.00	.00	674.60	2060.00	684.60	.00	684.61	2.08	1.37	3103.97	1429.08
	80.100	750.00	.00	.00	674.60	3490.00	686.22	.00	686.23	1.74	1.41	4857.07	2643.35
	80.100	750.00	.00	.00	674.60	4070.00	686.80	.00	686.81	1.65	1.42	5493.65	3165.21
	80.100	750.00	.00	.00	674.60	5180.00	687.96	.00	687.97	1.41	1.40	6811.63	4369.82

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	80.150	50.00	.00	.00	675.30	2060.00	684.58	.00	684.66	5.03	2.38	1106.43	918.22
	80.150	50.00	.00	.00	675.30	3490.00	686.17	.00	686.31	7.96	3.29	1382.81	1237.35
	80.150	50.00	.00	.00	675.30	4070.00	686.73	.00	686.90	8.97	3.60	1483.51	1358.59
	80.150	50.00	.00	.00	675.30	5180.00	687.87	.00	688.09	10.26	4.06	1692.45	1617.46
	80.180	28.00	694.00	686.60	675.30	2060.00	684.59	.00	684.67	5.01	2.38	1108.00	919.97
	80.180	28.00	694.00	686.60	675.30	3490.00	686.19	.00	686.33	7.90	3.28	1386.16	1241.35
	80.180	28.00	694.00	686.60	675.30	4070.00	687.18	.00	687.33	7.80	3.43	1564.38	1457.66
	80.180	28.00	694.00	686.60	675.30	5180.00	688.66	.00	688.85	8.17	3.76	1840.12	1812.09
	80.230	50.00	.00	.00	675.20	2060.00	684.69	.00	684.70	1.28	1.33	3349.91	1824.31
	80.230	50.00	.00	.00	675.20	3490.00	686.37	.00	686.38	1.10	1.38	5341.73	3331.00
	80.230	50.00	.00	.00	675.20	4070.00	687.38	.00	687.39	.83	1.28	6567.69	4465.93
	80.230	50.00	.00	.00	675.20	5180.00	688.90	.00	688.91	.64	1.22	8424.86	6472.99
	81.000	770.00	.00	.00	675.50	2060.00	684.80	.00	684.92	6.07	2.77	2976.53	836.38
	81.000	770.00	.00	.00	675.50	3490.00	686.46	.00	686.63	7.95	3.56	4810.93	1237.59
	81.000	770.00	.00	.00	675.50	4070.00	687.44	.00	687.57	6.28	3.35	6121.67	1624.75
	81.000	770.00	.00	.00	675.50	5180.00	688.95	.00	689.05	4.56	3.10	8250.25	2426.44
	81.800	800.00	.00	.00	674.20	2060.00	685.37	.00	685.54	9.08	3.41	655.42	683.79
	81.800	800.00	.00	.00	674.20	3490.00	687.22	.00	687.56	14.22	4.79	803.89	925.64
	81.800	800.00	.00	.00	674.20	4070.00	688.08	.00	688.47	15.05	5.17	875.41	1049.00
	81.800	800.00	.00	.00	674.20	5180.00	689.44	.00	689.94	16.98	5.88	991.28	1257.25
	81.900	100.00	.00	.00	676.90	2060.00	685.41	.00	685.82	13.49	5.14	408.16	560.96
	81.900	100.00	.00	.00	676.90	3490.00	687.26	.00	688.01	18.34	6.97	512.58	814.87
	81.900	100.00	.00	.00	676.90	4070.00	688.11	.00	688.97	18.60	7.44	560.77	943.79
	81.900	100.00	.00	.00	676.90	5180.00	689.45	.00	690.53	19.90	8.36	636.75	1161.14
*	82.070	170.00	.00	.00	678.80	2060.00	690.10	.00	690.10	.17	.47	4402.91	5006.90
*	82.070	170.00	.00	.00	678.80	3490.00	692.20	.00	692.21	.16	.57	6188.40	8674.59
*	82.070	170.00	.00	.00	678.80	4070.00	692.80	.00	692.81	.17	.62	6709.80	9876.49
*	82.070	170.00	.00	.00	678.80	5180.00	693.60	.00	693.61	.20	.71	7405.00	11577.19
	83.200	1130.00	.00	.00	679.80	2060.00	690.11	.00	690.11	.06	.37	7700.07	8745.67
	83.200	1130.00	.00	.00	679.80	3490.00	692.21	.00	692.21	.08	.50	9639.90	12658.25
	83.200	1130.00	.00	.00	679.80	4070.00	692.81	.00	692.82	.09	.55	10195.91	13881.21
	83.200	1130.00	.00	.00	679.80	5180.00	693.62	.00	693.62	.11	.66	10939.64	15584.70
	83.350	150.00	.00	.00	680.60	2060.00	689.98	.00	690.17	7.90	3.49	606.53	732.99
	83.350	150.00	.00	.00	680.60	3490.00	692.01	.00	692.31	10.00	4.44	818.86	1103.66
	83.350	150.00	.00	.00	680.60	4070.00	692.57	.00	692.92	11.10	4.82	882.96	1221.35
	83.350	150.00	.00	.00	680.60	5180.00	693.29	.00	693.77	14.09	5.63	967.33	1379.87
	83.370	15.00	699.40	690.80	680.60	2060.00	689.99	.00	690.18	7.82	3.56	587.03	736.58
	83.370	15.00	699.40	690.80	680.60	3490.00	691.91	.00	692.38	39.22	5.52	639.80	557.28
	83.370	15.00	699.40	690.80	680.60	4070.00	692.40	.00	693.04	53.34	6.44	639.80	557.28
	83.370	15.00	699.40	690.80	680.60	5180.00	692.94	.00	693.98	86.40	8.19	639.80	557.28

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
83.430	65.00	.00	.00	680.80	2060.00	690.21	.00	690.22	.76	1.09	4389.00	2363.46
83.430	65.00	.00	.00	680.80	3490.00	692.44	.00	692.44	.53	1.06	7139.92	4809.54
83.430	65.00	.00	.00	680.80	4070.00	693.11	.00	693.12	.51	1.08	8011.46	5707.08
83.430	65.00	.00	.00	680.80	5180.00	694.09	.00	694.09	.53	1.16	9320.74	7133.60
84.910	1480.00	.00	.00	684.50	2060.00	690.44	.00	690.47	6.03	2.16	1710.44	838.97
84.910	1480.00	.00	.00	684.50	3490.00	692.58	.00	692.60	2.98	1.91	3001.23	2022.77
84.910	1480.00	.00	.00	684.50	4070.00	693.24	.00	693.27	2.71	1.94	3405.75	2473.74
84.910	1480.00	.00	.00	684.50	5180.00	694.22	.00	694.25	2.61	2.05	4007.41	3207.68
85.690	780.00	.00	.00	683.60	2060.00	691.04	.00	691.42	23.02	5.10	453.22	429.33
85.690	780.00	.00	.00	683.60	3490.00	692.70	.00	693.34	29.44	6.67	630.19	643.22
85.690	780.00	.00	.00	683.60	4070.00	693.28	.00	694.00	31.13	7.16	698.22	729.43
85.690	780.00	.00	.00	683.60	5180.00	694.13	.00	695.03	35.53	8.11	800.08	869.02
85.730	40.00	.00	.00	683.60	2060.00	691.15	.00	691.52	21.52	4.98	462.24	444.10
85.730	40.00	.00	.00	683.60	3490.00	692.84	.00	693.46	28.11	6.58	621.34	658.20
85.730	40.00	.00	.00	683.60	4070.00	693.40	.00	694.12	30.31	7.12	677.70	739.31
85.730	40.00	.00	.00	683.60	5180.00	694.25	.00	695.19	35.48	8.17	762.87	869.69
85.740	10.00	.00	.00	682.40	2060.00	691.19	.00	691.55	33.00	4.80	429.22	358.62
85.740	10.00	.00	.00	682.40	3490.00	692.90	.00	693.50	44.95	6.21	561.61	520.57
85.740	10.00	.00	.00	682.40	4070.00	693.48	.00	694.17	50.34	6.68	609.25	573.62
85.740	10.00	.00	.00	682.40	5180.00	694.37	.00	695.25	57.39	7.54	686.65	683.78
85.780	40.00	701.10	697.40	682.40	2060.00	691.34	.00	691.68	30.57	4.67	441.10	372.58
85.780	40.00	701.10	697.40	682.40	3490.00	693.12	.00	693.69	41.72	6.02	579.52	540.34
85.780	40.00	701.10	697.40	682.40	4070.00	693.73	.00	694.38	46.13	6.45	631.15	599.27
85.780	40.00	701.10	697.40	682.40	5180.00	694.67	.00	695.49	51.06	7.27	712.67	724.93
85.790	10.00	.00	.00	682.80	2060.00	691.36	.00	691.71	19.40	4.93	494.05	467.67
85.790	10.00	.00	.00	682.80	3490.00	693.15	.00	693.72	24.57	6.41	692.12	704.08
85.790	10.00	.00	.00	682.80	4070.00	693.77	.00	694.41	26.02	6.89	768.68	797.90
85.790	10.00	.00	.00	682.80	5180.00	694.73	.00	695.53	29.35	7.78	895.51	956.11
85.830	40.00	.00	.00	682.80	2060.00	691.45	.00	691.79	18.62	4.87	495.73	477.40
85.830	40.00	.00	.00	682.80	3490.00	693.24	.00	693.82	24.34	6.42	661.86	707.44
85.830	40.00	.00	.00	682.80	4070.00	693.86	.00	694.53	26.16	6.95	721.02	795.67
85.830	40.00	.00	.00	682.80	5180.00	694.82	.00	695.68	30.19	7.93	815.56	942.77

SALINE R.-MILAN

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
74.590	2060.00	682.08	.00	.00	.00	138.58	50.00
74.590	3490.00	684.21	2.13	.00	.00	199.05	50.00
74.590	4070.00	684.88	.67	.00	.00	199.86	50.00
74.590	5180.00	686.34	1.46	.00	.00	200.00	50.00
75.140	2060.00	682.48	.00	.40	.00	481.92	550.00
75.140	3490.00	684.73	2.25	.52	.00	809.63	550.00
75.140	4070.00	685.44	.71	.56	.00	950.00	550.00
75.140	5180.00	686.90	1.46	.56	.00	950.00	550.00
76.240	2060.00	683.12	.00	.64	.00	814.86	1100.00
76.240	3490.00	685.12	2.01	.39	.00	922.28	1100.00
76.240	4070.00	685.78	.65	.34	.00	934.22	1100.00
76.240	5180.00	687.13	1.35	.23	.00	959.03	1100.00
77.270	2060.00	683.78	.00	.67	.00	663.88	1030.00
77.270	3490.00	685.48	1.70	.36	.00	773.65	1030.00
77.270	4070.00	686.09	.60	.31	.00	786.19	1030.00
77.270	5180.00	687.35	1.27	.23	.00	805.18	1030.00
78.370	2060.00	684.17	.00	.39	.00	1461.34	1100.00
78.370	3490.00	685.79	1.62	.31	.00	1480.73	1100.00
78.370	4070.00	686.37	.58	.29	.00	1487.68	1100.00
78.370	5180.00	687.59	1.21	.23	.00	1575.91	1100.00
79.350	2060.00	684.44	.00	.27	.00	375.90	980.00
79.350	3490.00	686.03	1.59	.24	.00	453.44	980.00
79.350	4070.00	686.60	.57	.23	.00	477.21	980.00
79.350	5180.00	687.78	1.17	.19	.00	547.66	980.00
80.100	2060.00	684.60	.00	.16	.00	1026.14	750.00
80.100	3490.00	686.22	1.62	.19	.00	1106.16	750.00
80.100	4070.00	686.80	.58	.19	.00	1128.25	750.00
80.100	5180.00	687.96	1.17	.18	.00	1140.00	750.00
80.150	2060.00	684.58	.00	-.02	.00	170.33	50.00
80.150	3490.00	686.17	1.59	-.05	.00	177.76	50.00
80.150	4070.00	686.73	.56	-.06	.00	180.40	50.00
80.150	5180.00	687.87	1.14	-.09	.00	185.74	50.00
80.180	2060.00	684.59	.00	.01	.00	170.37	28.00
80.180	3490.00	686.19	1.60	.02	.00	177.85	28.00
80.180	4070.00	687.18	.99	.45	.00	182.48	28.00
80.180	5180.00	688.66	1.48	.79	.00	189.24	28.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	80.230	2060.00	684.69	.00	.10	.00	1080.98	50.00
	80.230	3490.00	686.37	1.69	.18	.00	1220.00	50.00
	80.230	4070.00	687.38	1.00	.20	.00	1220.00	50.00
	80.230	5180.00	688.90	1.52	.24	.00	1220.00	50.00
	81.000	2060.00	684.80	.00	.12	.00	888.34	770.00
	81.000	3490.00	686.46	1.65	.08	.00	1303.71	770.00
	81.000	4070.00	687.44	.98	.06	.00	1363.62	770.00
	81.000	5180.00	688.95	1.51	.05	.00	1455.67	770.00
	81.800	2060.00	685.37	.00	.57	.00	77.88	800.00
	81.800	3490.00	687.22	1.86	.77	.00	82.14	800.00
	81.800	4070.00	688.08	.86	.65	.00	84.12	800.00
	81.800	5180.00	689.44	1.35	.49	.00	87.22	800.00
	81.900	2060.00	685.41	.00	.04	.00	56.10	100.00
	81.900	3490.00	687.26	1.85	.04	.00	56.55	100.00
	81.900	4070.00	688.11	.85	.03	.00	56.76	100.00
	81.900	5180.00	689.45	1.33	.01	.00	57.09	100.00
*	82.070	2060.00	690.10	.00	4.69	.00	827.52	170.00
*	82.070	3490.00	692.20	2.10	4.94	.00	869.00	170.00
*	82.070	4070.00	692.80	.60	4.69	.00	869.00	170.00
*	82.070	5180.00	693.60	.80	4.15	.00	869.00	170.00
	83.200	2060.00	690.11	.00	.01	.00	921.25	1130.00
	83.200	3490.00	692.21	2.10	.01	.00	924.32	1130.00
	83.200	4070.00	692.81	.60	.01	.00	925.20	1130.00
	83.200	5180.00	693.62	.80	.02	.00	926.37	1130.00
	83.350	2060.00	689.98	.00	-.13	.00	98.20	150.00
	83.350	3490.00	692.01	2.02	-.21	.00	111.56	150.00
	83.350	4070.00	692.57	.57	-.24	.00	115.29	150.00
	83.350	5180.00	693.29	.72	-.33	.00	120.02	150.00
	83.370	2060.00	689.99	.00	.01	.00	98.23	15.00
	83.370	3490.00	691.91	1.93	-.09	.00	110.95	15.00
	83.370	4070.00	692.40	.49	-.17	.00	114.17	15.00
	83.370	5180.00	692.94	.54	-.35	.00	117.73	15.00
	83.430	2060.00	690.21	.00	.22	.00	1211.87	65.00
	83.430	3490.00	692.44	2.23	.52	.00	1271.77	65.00
	83.430	4070.00	693.11	.67	.71	.00	1313.07	65.00
	83.430	5180.00	694.09	.98	1.15	.00	1372.79	65.00
	84.910	2060.00	690.44	.00	.23	.00	599.75	1480.00
	84.910	3490.00	692.58	2.14	.14	.00	608.30	1480.00
	84.910	4070.00	693.24	.67	.13	.00	610.95	1480.00
	84.910	5180.00	694.22	.98	.13	.00	614.88	1480.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
85.690	2060.00	691.04	.00	.60	.00	85.34	780.00
85.690	3490.00	692.70	1.67	.13	.00	120.00	780.00
85.690	4070.00	693.28	.58	.03	.00	120.00	780.00
85.690	5180.00	694.13	.85	-.09	.00	120.00	780.00
85.730	2060.00	691.15	.00	.11	.00	83.38	40.00
85.730	3490.00	692.84	1.69	.13	.00	100.00	40.00
85.730	4070.00	693.40	.56	.12	.00	100.00	40.00
85.730	5180.00	694.25	.85	.13	.00	100.00	40.00
85.740	2060.00	691.19	.00	.04	.00	73.65	10.00
85.740	3490.00	692.90	1.71	.06	.00	80.28	10.00
85.740	4070.00	693.48	.58	.08	.00	85.04	10.00
85.740	5180.00	694.37	.89	.12	.00	87.08	10.00
85.780	2060.00	691.34	.00	.15	.00	74.25	40.00
85.780	3490.00	693.12	1.78	.22	.00	82.11	40.00
85.780	4070.00	693.73	.61	.25	.00	86.94	40.00
85.780	5180.00	694.67	.94	.30	.00	87.08	40.00
85.790	2060.00	691.36	.00	.02	.00	100.14	10.00
85.790	3490.00	693.15	1.79	.03	.00	120.96	10.00
85.790	4070.00	693.77	.61	.03	.00	128.10	10.00
85.790	5180.00	694.73	.96	.06	.00	139.13	10.00
85.830	2060.00	691.45	.00	.09	.00	90.10	40.00
85.830	3490.00	693.24	1.80	.09	.00	95.46	40.00
85.830	4070.00	693.86	.61	.09	.00	97.29	40.00
85.830	5180.00	694.82	.96	.09	.00	100.00	40.00

SUMMARY OF ERRORS

NOTE	SECNO=	82.070	PROFILE= 1	WSEL BASED ON X5 CARD
NOTE	SECNO=	82.070	PROFILE= 2	WSEL BASED ON X5 CARD
NOTE	SECNO=	82.070	PROFILE= 3	WSEL BASED ON X5 CARD
NOTE	SECNO=	82.070	PROFILE= 4	WSEL BASED ON X5 CARD

FLOOD INSURANCE ZONE DATA FOR SALINE R.-MILAN

FLOOD HAZARD FACTOR FOR ENTIRE REACH USING SECTIONS

SECTION NUMBER	CUMULATIVE DISTANCE	ELEVATION DIFFERENCE BETWEEN BASE FLOOD AND 10	2	0.2
74.590	0.	-2.80	-.67	1.46
75.140	550.	-2.96	-.71	1.46
76.240	1650.	-2.66	-.65	1.35
77.270	2680.	-2.30	-.60	1.27
78.370	3780.	-2.20	-.58	1.21
79.350	4760.	-2.16	-.57	1.17
80.100	5510.	-2.20	-.58	1.17
80.150	5560.	-2.15	-.56	1.14
80.180	5588.	-2.59	-.99	1.48
80.230	5638.	-2.69	-1.00	1.52
81.000	6408.	-2.63	-.98	1.51
81.800	7208.	-2.72	-.86	1.35
81.900	7308.	-2.70	-.85	1.33
82.070	7478.	-2.70	-.60	.80
83.200	8608.	-2.70	-.60	.80
83.350	8758.	-2.59	-.57	.72
83.370	8773.	-2.41	-.49	.54
83.430	8838.	-2.90	-.67	.98
84.910	10318.	-2.81	-.67	.98
85.690	11098.	-2.24	-.58	.85
85.730	11138.	-2.25	-.56	.85
85.740	11148.	-2.29	-.58	.89
85.780	11188.	-2.39	-.61	.94
85.790	11198.	-2.41	-.61	.96
85.830	11238.	-2.41	-.61	.96
WEIGHTED AVG FOR REACH		-2.57	-.68	1.18

FHF FOR THE REACH = 025 WITH 100.0 PERCENT OF THE REACH WITHIN 1.0 FEET
ZONE FOR THE REACH = A 5

City of Milan F.I.S. Floodway Data Run
MDNR Copy

H-3970

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*****************************************************
*  WATER SURFACE PROFILES                           *
*  VERSION OF NOVEMBER 1976                         *
*  UPDATED APRIL 1980                               *
*                                                   *
*  RUN DATE TUE, MAR 24, 1981,  2:16 PM             *
*****************************************************
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*****************************************
*  U.S. ARMY CORPS OF ENGINEERS         *
*  THE HYDROLOGIC ENGINEERING CENTER    *
*  609 SECOND STREET, SUITE D           *
*  DAVIS, CALIFORNIA 95616              *
*  (916) 440-2105 (FTS) 448-2105        *
*****************************************
```

```
X     X  XXXXXXX   XXXXX              XXXXX
X     X  X        X     X            X     X
X     X  X        X                  X     X
XXXXXXX  XXXX     X          XXXXX    XXXXX
X     X  X        X                  X
X     X  X        X     X            X
X     X  XXXXXXX   XXXXX              XXXXXXX
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RECEIVED
APR 3 1981
WATER MANAGEMENT

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED APRIL 1980
  ERROR CORR -  01,02,03,04
  MODIFICATION -  50,51,52,53,54
**************************************************

C
T1      HUD FLOOD INSURANCE STUDIES-WILLIAMS & WORKS, INC.  H-3970
T2      CITY OF MILAN   SALINE RIVER
T3      SALINE R.-MILAN         100 -YEAR FLOOD UNDER EXISTING CONDITIONS
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From SECNO 7374. Milan Twp Study, WTA

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	2.	0.	0.	.000000	.00	.0	-1.	684.880	.000
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	1.000	.000	.000	.000	.000	.000	.000	.000	.000	15.000

J3 VARIABLE CODES FOR SUMMARY PRINTOUT

	150.000	200.000	.000	.000	.000	.000	.000	.000	.000	.000
NC	.080	.080	.040	.100	.300	.000	.000	.000	.000	.000
QT	5.000	4070.000	4070.000	5180.000	3490.000	2060.000	.000	.000	.000	.000
NH	3.000	.080	84.000	.045	116.000	.080	200.000	.000	.000	.000

CROSS SECTION A

X1	74.590	12.000	84.000	116.000	50.000	50.000	50.000	.000	.000	.000
GR	685.000	.000	684.000	1.000	683.400	53.000	680.200	72.000	670.600	84.000
GR	669.500	100.000	672.000	116.000	674.200	121.000	673.300	128.000	679.900	154.000
GR	680.000	199.000	685.000	200.000	.000	.000	.000	.000	.000	.000
NH	6.000	.070	1300.000	.100	1338.000	.060	1354.100	.065	1408.400	.060
NH	1500.000	.070	2032.000	.000	.000	.000	.000	.000	.000	.000
ET	.000	7.100	9.100	7.100	7.100	7.100	850.000	1800.000	1100.000	1700.000

CROSS SECTION BB

X1	75.140	19.000	1354.100	1408.400	550.000	550.000	550.000	.000	.000	.000
GR	684.700	250.000	684.800	500.000	684.800	800.000	684.700	1080.000	684.000	1170.000
GR	684.000	1300.000	680.800	1338.000	671.500	1354.100	670.400	1358.100	669.800	1363.000
GR	670.100	1368.100	669.800	1373.100	671.400	1378.100	671.500	1408.400	680.400	1426.200
GR	680.000	1500.000	682.400	1700.000	682.500	2031.000	688.000	2032.000	.000	.000
NH	7.000	.060	50.000	.100	1420.000	.060	1429.000	.065	1448.000	.060
NH	1456.000	.100	1508.000	.060	2325.000	.000	.000	.000	.000	.000
ET	.000	7.100	9.100	7.100	7.100	7.100	1350.000	2400.000	1400.000	2250.000

CROSS SECTION B

X1	76.240	14.000	1429.000	1450.000	1100.000	1100.000	1100.000	.000	.000	.000
GR	688.000	50.000	684.900	1000.000	684.000	1420.000	672.100	1429.000	671.100	1430.000
GR	670.600	1433.000	670.700	1438.000	670.600	1443.000	670.000	1448.000	672.100	1450.000
GR	678.800	1456.000	681.800	1508.000	682.000	2215.000	688.000	2325.000	.000	.000
NH	5.000	.100	2479.000	.070	2530.000	.065	2550.000	.070	2556.000	.060
NH	2845.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
ET	.000	7.100	9.100	7.100	7.100	7.100	2030.000	.000	2030.000	2770.000

CROSS SECTION CC

X1	77.270	20.000	2529.000	2550.000	1030.000	1030.000	1030.000	.000	.000	.000
GR	688.000	520.000	684.700	820.000	684.900	1320.000	688.000	1790.000	688.400	1835.000
GR	688.000	2005.000	684.000	2050.000	683.300	2250.000	680.000	2479.000	672.100	2529.000
GR	671.100	2530.000	670.600	2533.000	670.700	2538.000	670.600	2543.000	670.000	2548.000
GR	672.100	2550.000	678.800	2556.000	680.000	2606.000	684.000	2785.000	688.000	2845.000
NH	5.000	.080	1476.000	.060	1499.000	.065	1528.000	.060	1536.000	.100
NH	2980.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
ET	.000	7.100	9.100	7.100	7.100	7.100	1400.000	.000	1480.000	2740.000

CROSS SECTION C

X1	78.370	35.000	1499.000	1528.000	900.000	1100.000	1100.000	.000	.000	.000
X4	1.000	681.700	1536.000	.000	.000	.000	.000	.000	.000	.000
GR	693.800	347.700	690.200	373.100	693.900	401.500	689.800	435.600	685.500	471.800
GR	685.500	548.800	686.200	642.400	685.700	778.500	686.500	857.700	686.900	964.500
GR	686.900	965.000	687.800	1059.000	687.800	1167.000	687.800	1317.000	686.700	1417.000
GR	686.400	1476.000	674.700	1499.000	672.700	1500.000	672.200	1505.000	670.600	1510.000
GR	670.600	1515.000	671.500	1520.000	672.500	1525.000	674.100	1528.000	681.700	1536.000
GR	682.000	1601.000	682.000	1686.000	682.000	1738.000	682.000	1817.000	682.000	1912.000
GR	684.000	1958.000	684.000	2048.000	681.300	2420.000	680.000	2920.000	688.000	2580.000
NH	12.000	.070	1274.000	.100	1389.000	.060	1417.000	.065	1452.000	.060
NH	1460.000	.080	1641.000	.100	1828.000	.060	1848.000	.055	1871.000	.060
NH	1882.000	.100	2000.000	.070	2416.000	.000	.000	.000	.000	.000
ET	.000	.000	9.100	.000	.000	.000	.000	.000	1390.000	2010.000

CROSS SECTION D

X1	79.350	34.000	1415.000	1453.000	980.000	980.000	980.000	.000	.000	.000
X4	1.000	686.000	2000.000	.000	.000	.000	.000	.000	.000	.000
GR	691.400	1071.000	689.800	1201.000	688.100	1274.000	689.700	1389.000	674.900	1415.000
GR	674.400	1417.000	673.600	1422.000	672.900	1427.000	673.000	1432.000	672.700	1437.000
GR	672.700	1442.000	672.400	1447.000	672.700	1449.000	672.400	1452.000	674.900	1453.000
GR	686.400	1460.000	688.900	1532.000	688.900	1595.000	681.000	1641.000	677.800	1673.000
GR	677.800	1734.000	677.800	1801.000	683.400	1828.000	675.400	1848.000	674.900	1849.000
GR	674.700	1859.000	674.900	1869.000	675.400	1871.000	682.900	1882.000	684.800	1949.000
GR	688.700	2063.000	691.100	2153.000	691.200	2259.000	693.700	2416.000	.000	.000
NH	9.000	.120	1380.000	.100	1451.000	.065	1477.000	.100	1507.000	.080

NH	2337.000	.090	2515.000	.055	2540.000	.100	2692.000	.070	3091.000	.000

CROSS SECTION E -DOWNSTREAM OF NORFOLK AND WESTERN RAILROAD

X1	80.100	34.000	1451.000	1477.000	750.000	750.000	750.000	.000	.000	.000
X3	.000	.000	.000	1430.000	.000	2570.000	.000	.000	.000	.000
X4	1.000	684.100	1380.000	.000	.000	.000	.000	.000	.000	.000
GR	696.000	821.000	693.800	900.000	691.100	1013.000	688.200	1135.000	686.900	1256.000
GR	690.000	1404.000	677.100	1451.000	676.900	1458.000	674.800	1463.000	674.600	1468.000
GR	675.000	1473.000	677.100	1477.000	680.000	1507.000	687.100	1542.000	685.800	1586.000
GR	681.300	1664.000	681.200	1734.000	681.200	1834.000	681.200	1950.000	685.000	2052.000
GR	682.600	2208.000	682.200	2257.000	682.300	2337.000	682.300	2463.000	678.300	2497.000
GR	677.400	2515.000	676.900	2523.000	677.400	2540.000	680.100	2556.000	681.400	2692.000
GR	680.200	2806.000	681.400	2912.000	685.100	3091.000	692.600	3091.000	.000	.000
NC	.000	.000	.050	.300	.500	.000	.000	.000	.000	.000

NORFOLK & WESTERN R.R. -ADJACENT DOWNTSTREAM SECTION

X1	80.150	74.000	1510.000	1616.000	50.000	50.000	50.000	.000	.000	.000
GR	698.800	533.000	697.900	561.000	697.000	629.000	697.200	675.000	697.900	707.000
GR	697.100	748.000	696.500	815.000	696.400	885.000	695.900	950.000	695.500	1029.000
GR	695.500	1100.000	695.000	1188.000	694.400	1264.000	692.500	1353.000	692.300	1477.000
GR	690.600	1500.000	688.200	1504.000	680.500	1510.000	679.400	1514.000	675.600	1518.000
GR	675.500	1524.000	675.900	1530.000	675.700	1534.000	675.400	1540.000	675.300	1546.000
GR	675.800	1550.000	675.600	1556.000	675.800	1562.000	675.300	1566.000	675.400	1572.000
GR	676.000	1578.000	676.800	1582.000	678.300	1588.000	678.700	1594.000	694.000	1594.100
GR	681.400	1600.000	682.100	1608.000	688.200	1616.000	694.000	1616.100	692.000	2549.000
GR	691.200	2550.000	679.900	2558.000	679.800	2565.000	694.000	2565.100	694.000	2568.000
GR	694.000	2568.000	679.900	2575.000	679.100	2582.000	694.000	2582.100	694.000	2585.000
GR	678.700	2585.000	678.700	2592.000	678.600	2598.000	694.000	2598.100	694.000	2601.000
GR	678.800	2601.000	678.200	2608.000	677.900	2615.000	694.000	2615.100	694.000	2618.000
GR	677.900	2618.000	677.800	2627.000	678.000	2631.000	694.000	2631.100	694.000	2634.000
GR	678.900	2634.000	681.700	2642.000	690.800	2650.000	694.000	2650.100	694.000	2654.000
GR	692.200	2704.000	692.100	2775.000	692.100	2858.000	692.300	2920.000	.000	.000
SB	.900	1.450	2.800	.000	64.000	13.300	788.000	1.900	675.600	675.600

NORFOLK & WESTERN R.R. -ADJACENT UPSTREAM SECTION

X1	80.180	.000	.000	.000	28.000	28.000	28.000	.000	.000	.000
X2	.000	.000	1.000	686.600	694.000	.000	.000	.000	.000	.000
NH	6.000	.070	1425.000	.090	1481.000	.055	1532.000	.080	2567.000	.050
NH	2597.000	.060	3125.000	.000	.000	.000	.000	.000	.000	.000

CROSS SECTION F -UPSTREAM OF NORFOLK AND WESTERN RAILROAD

X1	80.230	41.000	1481.000	1532.000	50.000	50.000	50.000	.000	.000	.000
X3	.000	.000	.000	1430.000	.000	2650.000	.000	.000	.000	.000
GR	693.600	838.000	691.900	900.000	689.200	1011.000	686.700	1113.000	683.600	1313.000
GR	685.200	1425.000	685.200	1461.000	676.400	1481.000	675.800	1482.000	675.500	1484.000
GR	675.400	1489.000	675.200	1494.000	675.300	1499.000	675.300	1504.000	675.300	1509.000

GR	675.400	1514.000	675.500	1519.000	675.700	1524.000	676.400	1532.000	684.100	1544.000
GR	685.600	1626.000	683.900	1732.000	682.400	1818.000	682.400	1846.000	682.400	1946.000
GR	682.200	2026.000	681.600	2120.000	681.400	2208.000	681.400	2366.000	681.300	2454.000
GR	681.000	2509.000	680.700	2559.000	677.800	2567.000	677.500	2571.000	677.800	2597.000
GR	682.700	2611.000	686.300	2702.000	687.300	2761.000	687.000	2859.000	690.600	2987.000
GR	690.700	3125.000	.000	.000	.000	.000	.000	.000	.000	.000
NH	4.000	.085	472.000	.055	551.000	.065	830.000	5.000	2147.000	.000
ET	.000	.000	9.100	.000	.000	.000	.000	.000	140.000	830.000

CROSS SECTION G

X1	81.000	56.000	472.000	553.000	860.000	570.000	770.000	.000	.000	.000
GR	699.300	.000	698.400	52.000	689.300	103.000	686.200	161.000	685.500	190.000
GR	685.000	224.000	684.600	328.000	685.300	412.000	685.300	458.000	677.400	472.000
GR	676.900	477.000	676.200	482.000	675.900	487.000	675.800	492.000	675.800	497.000
GR	675.500	502.000	675.600	507.000	675.500	512.000	675.500	517.000	675.500	522.000
GR	675.800	527.000	675.700	532.000	676.300	537.000	676.300	542.000	676.900	547.000
GR	677.000	551.000	677.400	553.000	685.200	557.000	686.200	617.000	686.200	718.000
GR	689.100	803.000	690.300	811.000	690.800	830.000	690.800	987.000	690.500	1026.000
GR	684.800	1057.000	681.900	1128.000	681.700	1204.000	681.600	1288.000	677.600	1299.000
GR	677.000	1301.000	676.700	1306.000	676.700	1316.000	676.600	1321.000	676.900	1326.000
GR	677.600	1329.000	681.700	1337.000	683.000	1406.000	681.200	1520.000	681.400	1625.000
GR	681.400	1714.000	683.300	1761.000	692.400	1827.000	691.900	1938.000	694.500	2052.000
GR	695.700	2147.000	.000	.000	.000	.000	.000	.000	.000	.000
NC	.000	.000	.000	.500	.700	.000	.000	.000	.000	.000
NH	3.000	.080	1530.000	.060	1588.000	.080	2234.000	.000	.000	.000
ET	.000	.000	9.100	.000	.000	.000	.000	.000	1506.000	1590.000

CROSS SECTION H

X1	81.800	32.000	1530.000	1588.000	680.000	650.000	800.000	.000	.000	.000
GR	699.400	668.000	697.900	726.000	696.100	812.000	693.900	879.000	692.100	948.000
GR	692.100	948.000	689.700	1072.000	691.300	1183.000	691.300	1276.000	692.100	1386.000
GR	690.900	1500.000	677.800	1528.000	677.700	1530.000	676.800	1533.000	676.300	1538.000
GR	676.200	1548.000	675.900	1558.000	675.400	1563.000	675.000	1568.000	674.200	1573.000
GR	674.400	1578.000	674.500	1583.000	674.700	1588.000	693.500	1591.000	716.200	1619.000
GR	705.900	1721.000	694.100	1722.000	692.200	1794.000	695.100	1894.000	695.400	1996.000
GR	696.800	2084.000	694.600	2234.000	.000	.000	.000	.000	.000	.000
NH	3.000	.060	721.000	.040	775.000	.060	1072.000	.000	.000	.000
EJ	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	HACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= .100 CEHV= .300
1490 NH CARD USED
*SECNO 74.590
CROSS SECTION A

74.59	15.38	684.88	.00	684.88	685.21	.33	.00	.00	670.60
4070.	331.	2583.	1156.	234.	463.	576.	0.	0.	672.00
.00	1.41	5.57	2.01	.080	.045	.080	.000	669.50	.12
.000815	50.	50.	50.	0	0	0	.00	199.86	199.98

FLOW DISTRIBUTION FOR SECNO= 74.59 CWSEL= 684.88

STA=	0.	53.	72.	84.	116.	121.	128.	154.	199.	200.
PER Q=	.9	1.6	5.6	63.5	3.7	5.0	11.2	8.4	.0	
AREA=	61.7	58.5	113.8	463.4	58.9	77.9	215.3	221.8	2.4	
VEL=	.6	1.1	2.0	5.6	2.6	2.6	2.1	1.5	.3	

1490 NH CARD USED
*SECNO 75.140

3470 ENCROACHMENT STATIONS= 850.0 1800.0 TYPE= 1 TARGET= 950.000
CROSS SECTION BB

75.14	15.64	685.44	.00	.00	685.48	.04	.25	.03	671.50
4070.	478.	1795.	1796.	710.	788.	1705.	28.	7.	671.50
.10	.67	2.28	1.05	.069	.065	.066	.040	669.80	850.00
.000284	550.	550.	550.	2	0	0	.00	950.00	1800.00

FLOW DISTRIBUTION FOR SECNO= 75.14 CWSEL= 685.44

STA=	850.	1300.	1354.	1408.	1426.	1500.	1700.	1800.
PER Q=	4.1	7.6	44.1	7.2	12.0	19.5	5.4	
AREA=	445.1	265.0	787.6	168.9	386.6	847.6	302.3	
VEL=	.4	1.2	2.3	1.7	1.3	.9	.7	

1490 NH CARD USED
*SECNO 76.240

3470 ENCROACHMENT STATIONS= 1350.0 2400.0 TYPE= 1 TARGET= 1050.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	KV	KL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	HACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CCRAR	TOPWID	ENDST

CROSS SECTION B

76.24	15.78	685.78	.00	.00	685.80	.02	.32	.00	672.10
4070.	125.	677.	3269.	189.	317.	3217.	116.	31.	672.10
.36	.66	2.13	1.02	.074	.060	.063	.040	670.00	1350.00
.000293	1100.	1100.	1100.	2	0	0	.00	934.22	2284.22

FLOW DISTRIBUTION FOR SECNO= 76.24 CWSEL= 685.78

STA=	1350.	1429.	1450.	1508.	2215.	2284.
PER Q=	3.1	16.6	7.9	70.4	2.1	
AREA=	188.6	317.0	346.7	2740.1	130.7	
VEL=	.7	2.1	.9	1.0	.6	

1490 NH CARD USED
*SECNO 77.270

3470 ENCROACHMENT STATIONS= 2030.0 2845.0 TYPE= 1 TARGET= -2030.000

CROSS SECTION CC

77.27	16.09	686.09	.00	.00	686.12	.03	.31	.00	672.10
4070.	1839.	782.	1449.	2025.	323.	1160.	201.	51.	672.10
.57	.91	2.42	1.25	.086	.065	.061	.040	670.00	2030.00
.000318	1030.	1030.	1030.	1	0	0	.00	786.19	2816.19

FLOW DISTRIBUTION FOR SECNO= 77.27 CWSEL= 686.09

STA=	2030.	2250.	2479.	2529.	2550.	2606.	2785.	2813.
PER Q=	5.9	17.8	21.5	19.2	15.0	20.2	.4	
AREA=	509.7	1014.3	501.5	323.4	397.7	730.2	32.4	
VEL=	.5	.7	1.7	2.4	1.5	1.1	.5	

1490 NH CARD USED
*SECNO 78.370

3470 ENCROACHMENT STATIONS= 1400.0 2980.0 TYPE= 1 TARGET= -1400.000

CROSS SECTION C

78.37	15.73	686.33	.00	.00	686.34	.01	.22	.00	674.70
4070.	120.	571.	3278.	133.	422.	6427.	329.	79.	674.10
.99	.91	1.59	.51	.060	.065	.099	.040	670.60	1476.14
.000149	900.	1100.	1100.	2	0	0	.00	1491.33	2967.47

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	ML	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	MACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 78.37 CWSEL= 686.33

STA=	1476.	1499.	1528.	1601.	1686.	1817.	1912.	2048.	2420.	2920.	2967.
PER Q=	3.0	16.5	5.2	4.4	6.7	4.9	3.2	14.5	40.3	1.4	
AREA=	132.9	422.5	358.6	368.0	567.2	411.3	362.8	1368.9	2839.9	150.2	
VEL=	.9	1.6	.6	.5	.5	.5	.4	.4	.6	.4	

1490 NH CARD USED
*SECNO 79.350

3265 DIVIDED FLOW

CROSS SECTION D

79.35	14.11	686.51	.00	.00	686.55	.04	.20	.01	674.90
4070.	152.	1134.	2784.	118.	510.	2363.	441.	101.	674.90
1.17	1.28	2.22	1.18	.060	.060	.084	.040	672.40	1394.60
.000311	980.	980.	980.	2	0	0	.00	471.83	2012.01

FLOW DISTRIBUTION FOR SECNO= 79.35 CWSEL= 686.51

STA=	1395.	1415.	1453.	1673.	1734.	1801.	1828.	1848.	1859.	1869.	1882.	2012.
PER Q=	3.7	27.9	7.7	14.5	15.9	3.3	5.4	7.7	7.1	4.2	2.6	
AREA=	118.5	510.4	357.5	531.6	583.9	159.7	142.3	128.5	117.1	103.7	238.5	
VEL=	1.3	2.2	.9	1.1	1.1	.8	1.5	2.4	2.5	1.7	.4	

1490 NH CARD USED
*SECNO 80.100

3265 DIVIDED FLOW — Very minor area of overbank flows in this xsection

3470 ENCROACHMENT STATIONS= 1630.0 2570.0 TYPE= 1 TARGET= 1140.000

CROSS SECTION E -DOWNSTREAM OF NORFOLK AND WESTERN RAILROAD

80.10	12.11	686.71	.00	.00	686.73	.01	.17	.00	677.10
4070.	86.	413.	3571.	141.	285.	4975.	513.	115.	677.10
1.44	.61	1.45	.72	.100	.065	.081	.040	674.60	1430.00
.000174	750.	750.	750.	2	0	0	.00	1125.00	2570.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	HACH	AROB	VOL	TOR	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 80.10 CWSEL= 686.71

STA=	1430.	1451.	1477.	1507.	1664.	1734.	1834.	1950.	2052.	2208.	2257.	2337.	2463.
PER Q=	2.1	10.1	4.8	4.7	7.1	10.4	12.0	5.2	5.6	3.4	5.8	8.0	
AREA=	141.4	284.6	244.9	372.1	382.5	551.5	639.7	368.7	454.7	211.4	357.2	556.2	
VEL=	.6	1.5	.8	.5	.8	.8	.8	.6	.5	.6	.7	.6	

STA=	2463.	2497.	2515.	2523.	2540.	2570.
PER Q=	4.0	3.7	3.0	6.4	3.6	
AREA=	218.1	159.6	76.5	162.6	219.1	
VEL=	.7	.9	1.6	1.6	.7	

CCHV= .300 CEHV= .500
*SECNO 80.150

3265 DIVIDED FLOW

NORFOLK & WESTERN R.R. -ADJACENT DOWNTSTREAM SECTION

80.15	11.35	686.65	.00	.00	686.82	.17	.02	.08	680.50	
4070.	13.	3381.	676.	15.	931.	523.	517.	116.	688.20	
1.44	.86	3.63	1.29	.080	.050	.080	.040	675.30	1505.21	
.000922	50.	50.	50.	2	0	0	.00	180.01	2646.35	

FLOW DISTRIBUTION FOR SECNO= 80.15 CWSEL= 686.65

STA=	1505.	1510.	1615.	2582.	2598.	2615.	2631.	2646.
PER Q=	.3	83.1	3.6	3.4	4.0	3.9	1.7	
AREA=	14.7	931.1	125.2	103.8	117.5	114.4	61.8	
VEL=	.9	3.6	1.2	1.3	1.4	1.4	1.1	

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCRU	ELCHD
	.90	1.45	2.80	.00	64.00	13.30	788.00	1.90	675.60	675.60

*SECNO 80.180

3265 DIVIDED FLOW

PRESSURE FLOW

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	WV	WL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	KACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CCRAR	TOPWID	ENDST

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
687.25	686.85	.02	0.	4070.	788.	788.	686.60	694.30

NORFOLK & WESTERN R.R. -ADJACENT UPSTREAM SECTION

80.18	11.79	687.09	.00	.00	687.25	.16	.43	.00	680.50
4070.	14.	3374.	681.	17.	976.	556.	518.	116.	688.20
1.45	.84	3.46	1.23	.080	.050	.080	.040	675.30	1504.86
.000801	28.	28.	28.	2	0	0	.00	182.08	2646.74

FLOW DISTRIBUTION FOR SECNO= 80.18 CWSEL= 687.09

STA=	1505.	1510.	1616.	2582.	2598.	2615.	2631.	2647.
PER Q=	.4	82.9	3.7	3.4	4.0	3.9	1.8	
AREA=	16.9	975.8	135.2	109.6	123.7	120.2	67.4	
VEL=	.8	3.5	1.1	1.2	1.3	1.3	1.1	

687.30
.65

1490 NH CARD USED
*SECNO 80.230

3470 ENCROACHMENT STATIONS= 1430.0 2650.0 TYPE= 1 TARGET= 1220.000
CROSS SECTION F -UPSTREAM OF NORFOLK AND WESTERN RAILROAD

80.23	12.10	687.30	.00	.00	687.30	.01	.01	.04	676.40
4070.	81.	782.	3207.	195.	801.	5672.	523.	116.	676.40
1.46	.42	1.30	.57	.090	.055	.076	.041	675.20	1430.00
.000087	50.	50.	50.	2	0	0	.00	1220.00	2650.00

FLOW DISTRIBUTION FOR SECNO= 80.23 CWSEL= 687.30

STA=	1430.	1481.	1532.	1732.	1818.	1946.	2026.	2120.	2208.	2336.	2454.	2509.	2559.
PER Q=	2.0	19.2	4.9	3.9	7.7	5.0	6.6	7.0	12.9	7.3	4.8	4.7	
AREA=	194.9	601.3	554.9	356.5	626.6	399.7	507.2	510.0	931.5	523.2	338.0	322.3	
VEL=	.4	1.3	.4	.4	.5	.5	.5	.6	.6	.6	.6	.6	

STA=	2559.	2597.	2650.
PER Q=	10.0	3.9	
AREA=	353.7	247.8	
VEL=	1.1	.6	

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	HACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 81.000

3265 DIVIDED FLOW

CROSS SECTION C

81.00	11.86	687.36	.00	.00	687.50	.14	.13	.07	677.40
4070.	650.	3127.	293.	776.	917.	4322.	611.	135.	677.40
1.53	.84	3.41	.07	.085	.065	1.742	.042	675.50	139.31
.000656	860.	770.	570.	2	0	0	.00	1359.80	1789.20

FLOW DISTRIBUTION FOR SECNO= 81.00 CWSEL= 687.36

STA=	139.	328.	412.	472.	553.	718.	1709.
PER Q=	7.5	4.0	4.5	76.8	4.6	2.6	
AREA=	394.3	202.4	178.9	916.7	240.9	4080.8	
VEL=	.8	.8	1.0	3.4	.8	.0	

CCHV= .500 CEHV= .700
1490 NH CARD USED
*SECNO 81.800
CROSS SECTION H

81.80	13.83	688.03	.00	.00	688.42	.39	.75	.18	677.70
4070.	296.	3763.	11.	132.	724.	14.	663.	146.	674.70
1.58	2.24	5.20	.75	.080	.060	.080	.043	674.20	1506.13
.001528	680.	800.	650.	2	0	0	.00	83.99	1590.13

FLOW DISTRIBUTION FOR SECNO= 81.80 CWSEL= 683.03

STA=	1506.	1528.	1530.	1588.	1590.
PER Q=	5.5	1.7	92.5	.3	
AREA=	111.9	20.6	724.3	14.2	
VEL=	2.0	3.4	5.2	.8	

1490 NH CARD USED

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  HEC2 RELEASE DATED NOV 76 UPDATED APRIL 1980
  ERROR CORR -  01,02,03,04
  MODIFICATION -  50,51,52,53,54
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T1      HUD FLOOD INSURANCE STUDIES-WILLIAMS & WORKS, INC.  H-3970
T2      CITY OF MILAN   SALINE RIVER
T3      SALINE R.-MILAN         100 -YEAR FLOOD UNDER FLOODWAY CONDITIONS

J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ

       0.        3.         0.         0.    .000000        .00         .0        -1.    684.680       .000

J2  NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLOC      IBW        CHNIM      ITRACE

     15.000       .000       .000       .000       .000       .000       .000       .000       .000    15.000
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SECNO	DEPTH	CWSEL	CRICS	WSELK	EG	HV	ML	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	HACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	QTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

CCHV= .100 CEHV= .300
1490 NH CARD USED
*SECNO 74.590
CROSS SECTION A

74.59	15.38	684.88	.00	684.88	685.21	.33	.00	.00	670.60
4070.	331.	2583.	1156.	234.	463.	576.	0.	0.	672.00
.00	1.41	5.57	2.01	.080	.045	.080	.000	669.50	.12
.000815	50.	50.	50.	0	0	0	.00	199.86	199.98

FLOW DISTRIBUTION FOR SECNO= 74.59 CWSEL= 684.88

STA=	0.	53.	72.	84.	116.	121.	128.	154.	199.	200.
PER Q=	.9	1.6	5.6	63.5	3.7	5.0	11.2	3.4	.0	
AREA=	61.7	58.5	113.8	463.4	58.9	77.9	215.3	221.8	2.4	
VEL=	.6	1.1	2.0	5.6	2.6	2.6	2.1	1.5	.3	

1490 NH CARD USED
*SECNO 75.140

3470 ENCROACHMENT STATIONS= 1100.0 1700.0 TYPE= 1 TARGET= 600.000
CROSS SECTION BB

75.14	15.65	685.45	.00	685.44	685.50	.05	.27	.03	671.50
4070.	461.	1925.	1684.	536.	788.	1406.	25.	5.	671.50
.09	.86	2.44	1.20	.068	.065	.065	.040	669.80	1100.00
.000326	550.	550.	550.	2	0	0	.00	600.00	1700.00

FLOW DISTRIBUTION FOR SECNO= 75.14 CWSEL= 685.45

STA=	1100.	1300.	1354.	1408.	1426.	1500.	1700.
PER Q=	3.1	8.2	47.3	7.7	12.9	20.8	
AREA=	270.6	265.5	788.1	169.1	387.3	849.7	
VEL=	.5	1.3	2.4	1.9	1.4	1.0	

1490 NH CARD USED
*SECNO 76.240

3470 ENCROACHMENT STATIONS= 1400.0 2250.0 TYPE= 1 TARGET= 850.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	MACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
	CROSS SECTION B								
76.24	15.82	685.82	.00	685.78	685.84	.03	.34	.00	672.10
4070.	95.	675.	3300.	106.	318.	3219.	106.	23.	672.10
.34	.90	2.12	1.03	.065	.060	.063	.040	670.00	1400.00
.000289	1100.	1100.	1100.	2	0	0	.00	850.00	2250.00

FLOW DISTRIBUTION FOR SECNO= 76.24 CWSEL= 685.82

STA=	1400.	1429.	1450.	1508.	2215.	2250.
PER Q=	2.3	16.6	7.9	71.2	2.0	
AREA=	105.8	317.9	349.1	2769.5	100.2	
VEL=	.9	2.1	.9	1.0	.8	

1490 NH CARD USED
*SECNO 77.270

3470 ENCROACHMENT STATIONS= 2030.0 2770.0 TYPE= 1 TARGET= 740.000

	CROSS SECTION CC								
77.27	16.12	686.12	.00	686.09	686.16	.03	.31	.00	672.10
4070.	1860.	783.	1427.	2050.	324.	1105.	190.	42.	672.10
.56	.91	2.41	1.29	.086	.065	.061	.040	670.00	2030.00
.000315	1030.	1030.	1030.	1	0	0	.00	740.00	2770.00

FLOW DISTRIBUTION FOR SECNO= 77.27 CWSEL= 686.12

STA=	2030.	2250.	2479.	2529.	2550.	2606.	2770.
PER Q=	6.1	18.1	21.6	19.2	15.1	19.9	
AREA=	520.5	1025.6	503.9	324.4	400.5	704.6	
VEL=	.5	.7	1.7	2.4	1.5	1.1	

1490 NH CARD USED
*SECNO 78.370

3470 ENCROACHMENT STATIONS= 1480.0 2740.0 TYPE= 1 TARGET= 1260.000

	CROSS SECTION C								
78.37	15.81	686.41	.00	686.33	686.42	.02	.27	.00	674.70
4070.	148.	805.	3117.	131.	425.	5275.	302.	66.	674.10
.89	1.13	1.89	.59	.060	.065	.099	.040	670.60	1480.00
.000210	900.	1100.	1100.	2	0	0	.00	1260.00	2740.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	HACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 78.37 CWSEL= 686.41

STA=	1480.	1499.	1528.	1601.	1686.	1738.	1817.	1912.	2048.	2420.	2740.
PER Q=	3.6	19.8	6.3	5.3	3.3	5.0	6.0	3.9	17.9	28.9	
AREA=	130.7	424.8	364.4	374.8	229.3	348.3	418.8	373.6	1398.3	1768.0	
VEL=	1.1	1.9	.7	.6	.6	.6	.6	.4	.5	.7	

1490 NH CARD USED
*SECNO 79.350

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 1390.0 2010.0 TYPE= 1 TARGET= 620.000
CROSS SECTION D

79.35	14.24	686.64	.00	686.51	686.67	.04	.24	.01	674.90
4070.	153.	1124.	2793.	121.	515.	2414.	402.	86.	674.90
1.08	1.26	2.18	1.16	.060	.060	.084	.040	672.40	1394.38
.000296	980.	980.	980.	2	0	0	.00	474.30	2010.00

FLOW DISTRIBUTION FOR SECNO= 79.35 CWSEL= 686.64

STA=	1394.	1415.	1453.	1473.	1734.	1801.	1828.	1848.	1859.	1869.	1882.	2010.
PER Q=	3.8	27.6	7.8	14.5	15.9	3.3	5.4	7.6	7.0	4.2	2.8	
AREA=	121.0	515.0	366.9	539.1	592.1	163.8	144.8	129.9	118.4	105.3	254.2	
VEL=	1.3	2.2	.9	1.1	1.1	.8	1.5	2.4	2.4	1.6	.4	

1490 NH CARD USED
*SECNO 80.100

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 1430.0 2570.0 TYPE= 1 TARGET= 1140.000
CROSS SECTION E -DOWNSTREAM OF NORFOLK AND WESTERN RAILROAD

80.10	12.23	686.83	.00	686.71	686.84	.01	.16	.00	677.10
4070.	86.	406.	3578.	144.	288.	5097.	476.	100.	677.10
1.35	.60	1.41	.70	.100	.065	.081	.040	674.60	1430.00
.000162	750.	750.	750.	0	0	0	.00	1129.45	2570.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	HACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

FLOW DISTRIBUTION FOR SECNO= 80.10 CWSEL= 686.83

STA=	1430.	1451.	1477.	1507.	1664.	1734.	1834.	1950.	2052.	2208.	2257.	2337.	2463.
PER Q=	2.1	10.0	4.7	4.8	7.1	10.4	12.0	5.3	5.7	3.4	5.9	9.1	
AREA=	143.8	287.6	248.3	388.5	390.4	562.8	652.8	380.2	472.3	217.0	366.2	570.5	
VEL=	.6	1.4	.8	.5	.7	.7	.7	.6	.5	.6	.7	.6	

STA=	2463.	2497.	2515.	2540.	2570.
PER Q=	4.0	3.6	9.3	3.6	
AREA=	221.9	161.6	241.9	222.5	
VEL=	.7	.9	1.6	.7	

CCHV= .300 CEHV= .500
*SECNO 80.150

3265 DIVIDED FLOW

NORFOLK & WESTERN R.R. -ADJACENT DOWNTSTREAM SECTION

80.15	11.46	686.76	.00	686.65	686.93	.17	.02	.08	680.50	
4070.	13.	3379.	678.	15.	942.	531.	480.	100.	688.20	
1.36	.86	3.59	1.28	.080	.050	.080	.040	675.30	1505.12	
.000889	50.	50.	50.	2	0	0	.00	180.54	2646.45	

FLOW DISTRIBUTION FOR SECNO= 80.15 CWSEL= 686.76

STA=	1505.	1510.	1616.	2582.	2598.	2615.	2631.	2646.
PER Q=	.3	83.0	3.7	3.4	4.0	3.9	1.7	
AREA=	15.3	942.5	127.8	105.3	119.0	115.9	63.2	
VEL=	.9	3.6	1.2	1.3	1.4	1.4	1.1	

SPECIAL BRIDGE

SB	XK	XXOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCKU	ELCHD
	.90	1.45	2.80	.00	64.00	13.30	788.00	1.90	675.60	675.60

*SECNO 80.180

3265 DIVIDED FLOW

PRESSURE FLOW

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	HACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	UTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
687.36	686.95	.02	0.	4070.	788.	788.	686.60	694.00

NORFOLK & WESTERN R.R. -ADJACENT UPSTREAM SECTION

80.18	11.91	687.21	.00	687.09	687.36	.15	.43	.00	680.53
4070.	15.	3373.	682.	18.	983.	565.	481.	100.	688.20
1.36	.84	3.42	1.21	.080	.050	.080	.040	675.30	1504.77
.000772	29.	28.	28.	2	0	0	.00	182.63	2646.84

FLOW DISTRIBUTION FOR SECNO= 80.18 CWSEL= 687.21

STA=	1505.	1510.	1616.	2582.	2598.	2615.	2631.	2647.
PER Q=	.4	82.9	3.8	3.4	4.0	3.9	1.8	
AREA=	17.5	987.6	137.9	111.1	125.3	121.7	68.9	
VEL=	.8	3.4	1.1	1.2	1.3	1.3	1.1	

1490 NH CARD USED
*SECNO 80.230

3470 ENCROACHMENT STATIONS= 1430.0 2650.0 TYPE= 1 TARGET= 1220.000
CROSS SECTION F -UPSTREAM OF NORFOLK AND WESTERN RAILROAD

80.23	12.21	687.41	.00	687.30	687.42	.01	.01	.04	676.40
4070.	82.	771.	3217.	201.	607.	5797.	486.	101.	676.40
1.38	.41	1.27	.56	.090	.055	.076	.041	675.20	1430.00
.000082	50.	50.	50.	2	0	0	.00	1220.00	2650.00

FLOW DISTRIBUTION FOR SECNO= 80.23 CWSEL= 687.41

STA=	1430.	1481.	1532.	1732.	1818.	1946.	2026.	2120.	2208.	2366.	2454.	2509.	2559.
PER Q=	2.0	18.9	5.0	4.0	7.7	5.0	6.7	7.0	12.9	7.3	4.8	4.7	
AREA=	200.6	607.0	577.4	366.2	641.0	408.6	517.7	519.9	949.2	533.1	344.2	327.9	
VEL=	.4	1.3	.4	.4	.5	.5	.5	.5	.6	.6	.6	.6	

STA=	2559.	2597.	2650.
PER Q=	9.9	4.0	
AREA=	358.0	253.7	
VEL=	1.1	.6	

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	HACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 81.000

3470 ENCROACHMENT STATIONS= 140.0 830.0 TYPE= 1 TARGET= 690.000
CROSS SECTION G

81.00	11.96	687.46	.00	687.36	687.61	.14	.12	.07	677.40
4070.	693.	3161.	216.	810.	925.	282.	549.	115.	677.40
1.45	.86	3.42	.77	.085	.065	.065	.042	675.50	140.00
.000650	860.	770.	570.	2	0	0	.00	615.06	755.06

FLOW DISTRIBUTION FOR SECNO= 81.00 CWSEL= 687.46

STA=	140.	328.	412.	472.	553.	718.	735.
PER Q=	8.1	4.3	4.7	77.7	5.1	.2	
AREA=	414.0	211.2	185.2	925.2	258.2	23.4	
VEL=	.8	.8	1.0	3.4	.8	.4	

CCHV= .500 CEHV= .700
1490 NH CARD USED
*SECNO 81.800

3470 ENCROACHMENT STATIONS= 1506.0 1590.0 TYPE= 1 TARGET= 84.000
CROSS SECTION H

81.80	13.93	688.13	.00	688.03	688.51	.39	.74	.17	677.70
4070.	299.	3760.	11.	135.	730.	14.	574.	120.	674.70
1.49	2.22	5.15	.74	.080	.060	.080	.043	674.20	1506.00
.001487	680.	800.	650.	2	0	0	.00	84.00	1590.00

FLOW DISTRIBUTION FOR SECNO= 81.80 CWSEL= 688.13

STA=	1506.	1528.	1530.	1588.	1590.
PER Q=	5.6	1.7	92.4	.3	
AREA=	114.0	20.8	729.9	14.3	
VEL=	2.0	3.4	5.2	.7	

1490 NH CARD USED

641 C5

****
HEC2 RELEASE DATED NOV 76 UPDATED APRIL 1980
ERROR CORR - 01,02,03,04
MODIFICATION - 50,51,52,53,54
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

SALINE R.-MILAN

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
74.590	50.00	.00	.00	669.50	4070.00	684.88	.00	685.21	8.15	5.57	1273.71	1425.66
74.590	50.00	.00	.00	669.50	4070.00	684.88	.00	685.21	8.15	5.57	1273.71	1425.66
75.140	550.00	.00	.00	669.80	4070.00	685.44	.00	685.48	2.84	2.28	3202.86	2414.25
75.140	550.00	.00	.00	669.80	4070.00	685.45	.00	685.50	3.26	2.44	2730.39	2254.30
76.240	1100.00	.00	.00	670.00	4070.00	685.78	.00	685.80	2.93	2.13	3723.11	2379.17
76.240	1100.00	.00	.00	670.00	4070.00	685.82	.00	685.84	2.89	2.12	3642.51	2394.94
77.270	1030.00	.00	.00	670.00	4070.00	686.09	.00	686.12	3.18	2.42	3509.29	2284.05
77.270	1030.00	.00	.00	670.00	4070.00	686.12	.00	686.16	3.15	2.41	3479.54	2293.29
78.370	1100.00	.00	.00	670.60	4070.00	686.33	.00	686.34	1.49	1.59	6982.35	3335.24
78.370	1100.00	.00	.00	670.60	4070.00	686.41	.00	686.42	2.10	1.89	5830.90	2806.75
79.350	980.00	.00	.00	672.40	4070.00	686.51	.00	686.55	3.11	2.22	2991.66	2308.90
79.350	980.00	.00	.00	672.40	4070.00	686.64	.00	686.67	2.96	2.18	3049.73	2364.86
80.100	750.00	.00	.00	674.60	4070.00	686.71	.00	686.73	1.74	1.45	5400.86	3086.96
80.100	750.00	.00	.00	674.60	4070.00	686.83	.00	686.84	1.62	1.41	5528.44	3194.74
80.150	50.00	.00	.00	675.30	4070.00	686.65	.00	686.82	9.22	3.63	1468.59	1340.47
80.150	50.00	.00	.00	675.30	4070.00	686.76	.00	686.93	8.89	3.59	1489.02	1365.28
80.180	28.00	694.00	686.60	675.30	4070.00	687.09	.00	687.25	8.01	3.46	1548.75	1438.40
80.180	28.00	694.00	686.60	675.30	4070.00	687.21	.00	687.36	7.72	3.42	1570.14	1464.77
80.230	50.00	.00	.00	675.20	4070.00	687.30	.00	687.30	.87	1.30	6467.71	4367.49
80.230	50.00	.00	.00	675.20	4070.00	687.41	.00	687.42	.82	1.27	6604.54	4502.47
81.000	770.00	.00	.00	675.50	4070.00	687.36	.00	687.50	6.56	3.41	6013.96	1589.51
81.000	770.00	.00	.00	675.50	4070.00	687.46	.00	687.61	6.50	3.42	2017.25	1596.49

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
81.800	800.00	.00	.00	674.20	4070.00	688.03	.00	688.42	15.28	5.20	870.87	1041.04
81.800	800.00	.00	.00	674.20	4070.00	688.13	.00	688.51	14.87	5.15	878.92	1055.35

SALINE R.-MILAN 1

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
74.590	4070.00	684.88	.00	.00	.00	199.86	50.00
74.590	4070.00	684.88	.00	.00	.00	199.86	50.00
75.140	4070.00	685.44	.00	.56	.00	950.00	550.00
75.140	4070.00	685.45	.01	.57	.01	600.00	550.00
76.240	4070.00	685.78	.00	.34	.00	934.22	1100.00
76.240	4070.00	685.82	.04	.37	.04	850.00	1100.00
77.270	4070.00	686.09	.00	.31	.00	786.19	1030.00
77.270	4070.00	686.12	.04	.31	.04	740.00	1030.00
78.370	4070.00	686.33	.00	.24	.00	1491.33	1100.00
78.370	4070.00	686.41	.08	.29	.08	1260.00	1100.00
79.350	4070.00	686.51	.00	.18	.00	471.83	980.00
79.350	4070.00	686.64	.12	.23	.12	474.30	980.00
80.100	4070.00	686.71	.00	.20	.00	1125.06	750.00
80.100	4070.00	686.83	.11	.19	.11	1129.45	750.00
80.150	4070.00	686.65	.00	-.07	.00	180.01	50.00
80.150	4070.00	686.76	.11	-.06	.11	180.54	50.00
80.180	4070.00	687.09	.00	.44	.00	182.08	28.00
80.180	4070.00	687.21	.12	.45	.12	182.63	28.00
80.230	4070.00	687.30	.00	.20	.00	1220.00	50.00
80.230	4070.00	687.41	.11	.20	.11	1220.00	50.00
81.000	4070.00	687.36	.00	.06	.00	1358.80	770.00
81.000	4070.00	687.46	.11	.06	.11	615.06	770.00
81.800	4070.00	688.03	.00	.67	.00	83.99	800.00
81.800	4070.00	688.13	.10	.66	.10	84.00	800.00

FLOODWAY DATA, SALINE R.-MILAN 1
PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
74.590	200.	1274.	3.2	684.9	684.9	.0
75.140	600.	2730.	1.5	685.4	685.4	.0
76.240	850.	3643.	1.1	685.8	685.8	.0
77.270	740.	3483.	1.2	686.1	686.1	.3
78.370	1260.	5831.	.7	686.4	686.3	.1
79.350	616.	3050.	1.3	686.6	686.5	.1
80.100	1140.	5528.	.7	686.8	686.7	.1
80.150	1141.	1489.	2.7	686.7	686.6	.1
80.180	1142.	1570.	2.6	687.2	687.1	.1
80.230	1220.	6605.	.6	687.4	687.3	.1
81.000	615.	2017.	2.0	687.5	687.4	.1
81.800	84.	879.	4.6	688.1	688.0	.1

00BREAK00

1) COUNTY: WASHTENAW

2) STUDY NAME: CITY OF SALINE

3) WATERCOURSE: SALINE RIVER & WOOD OUTLOT DR.

4) DOCUMENT TYPE: PRINTOUT

00BREAK00

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*****************************************
*  WATER SURFACE PROFILES               *
*  VERSION OF NOVEMBER 1976             *
*  UPDATED APRIL 1980                   *
*                                       *
*  RUN DATE FRI. MAR  6, 1981,  2:54 PM *
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*  U.S. ARMY CORPS OF ENGINEERS      *
*  THE HYDROLOGIC ENGINEERING CENTER *
*  609 SECOND STREET, SUITE D        *
*  DAVIS, CALIFORNIA 95616           *
*  (916) 440-2105 (FTS) 448-2105     *
**************************************
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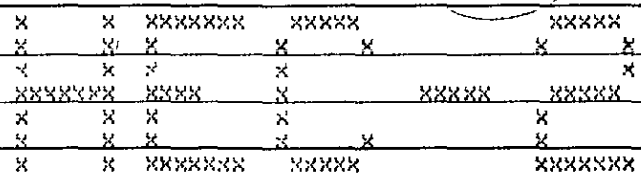
CITY OF SALINE

SALINE RIVER

MARCH 6, 1981

FLOOD INSURANCE ZONE DATA



Received 4/6/81

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED APRIL 1980
  ERROR CORR -  01,02,03,04
  MODIFICATION -  50,51,52,53,54
**************************************************
C
T1      HUD FLOOD INSURANCE STUDIES  H-3970  WILLIAMS & WORKS
T2      CITY OF SALINE  SALINE RIVER AND WOOD CREEK
T3      SALINE RIVER, SALINE      10-YEAR FLOOD
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J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	6.	0.	0.	.000000	.00	.5	0.	729.180	.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	1.000	.000	-1.000	.000	.000	1.300	.000	.000	.000	.000

J3 VARIABLE CODES FOR SUMMARY PRINTOUT

150.000	201.000	.000	.000	.000	.000	.000	.000	.000	.000

NC	.130	.130	.050	.100	.300	.000	.000	.000	.000	.000
QT	5.000	3700.000	3700.000	4600.000	3220.000	1880.000	.000	.000	.000	.000
ET	.000	.000	1.400	.000	.000	.000	.000	.000	.000	.000

CROSS SECTION CX

X1	149.820	18.000	199.000	240.000	.000	.000	.000	.000	.000	.000
GR	750.600	.000	733.500	80.000	729.600	125.000	725.600	147.000	725.500	180.000
GR	724.900	194.000	720.200	199.000	719.700	210.000	719.700	220.000	720.100	230.000
GR	720.300	240.000	721.200	244.000	727.600	280.000	725.400	380.000	735.700	403.000
GR	736.900	430.000	740.000	940.000	750.000	1040.000	.000	.000	.000	.000

CROSS SECTION BX

X1	151.920	28.000	1407.000	1451.000	2000.000	1500.000	2100.000	.000	.000	.000
GE	750.000	.000	740.000	650.000	737.800	658.000	743.800	660.000	743.600	760.000
GP	741.700	860.000	740.700	900.000	729.200	945.000	728.300	960.000	728.600	1060.000
GE	728.700	1160.000	728.100	1260.000	728.000	1360.000	726.400	1404.000	723.600	1407.000
GP	722.100	1410.000	721.300	1420.000	720.600	1430.000	720.800	1440.000	723.600	1451.000
GR	727.800	1455.000	728.400	1460.000	728.900	1560.000	727.800	1660.000	726.100	1760.000
GR	726.300	1785.000	735.900	1810.000	745.000	1820.000	.000	.000	.000	.000

CROSS SECTION AX

X1	152.720	20.000	329.000	383.000	1000.000	500.000	800.000	.000	.000	.000
GR	741.800	.000	738.900	100.000	737.800	140.000	728.500	170.000	729.200	200.000
GR	723.200	303.000	727.300	329.000	726.400	340.000	725.700	350.000	724.500	360.000
GR	723.900	370.000	723.800	380.000	727.000	333.000	730.000	384.000	729.800	400.000
GR	729.200	434.000	735.100	467.000	734.100	736.000	736.100	1242.000	748.600	1432.000
NH	5.000	.050	724.800	.130	1365.400	.040	1377.400	.120	1546.400	.060
NH	1627.300	.000	.000	.000	.000	.000	.000	.000	.000	.000

CROSS SECTION A

X1	154.020	30.000	1365.400	1377.400	1000.000	1500.000	1300.000	.000	.000	.000
X3	.000	.000	.000	713.200	.000	.000	.000	.000	.000	.000
GR	750.800	.000	753.200	62.900	754.300	173.900	734.000	291.400	734.000	331.300
GR	738.200	338.800	732.300	353.400	732.300	642.000	734.900	652.000	734.900	713.200
GR	733.400	724.800	733.400	905.400	735.800	914.000	732.800	944.600	731.600	1053.500
GR	732.300	1171.100	731.600	1310.000	732.900	1363.400	729.000	1365.400	728.700	1368.400
GR	728.400	1371.400	728.500	1373.400	729.000	1377.400	730.700	1383.400	733.400	1450.000
GR	734.900	1546.400	745.600	1614.300	749.900	1717.500	754.800	1795.600	759.900	1877.300
NH	4.000	.130	482.100	.040	507.100	.130	661.800	.070	1020.000	.000

CROSS SECTION B

X1	154.210	18.000	482.100	507.100	730.000	720.000	690.000	.000	.000	.000
X3	.000	.000	.000	375.000	.000	.000	.000	.000	.000	.000
GR	760.000	.000	736.200	59.600	734.600	145.000	733.000	239.800	734.000	345.100
GR	734.300	444.900	729.200	482.100	726.900	484.100	726.200	489.100	726.300	494.100
GR	727.100	499.100	727.600	504.100	729.200	507.100	733.200	558.100	738.200	661.800
GR	743.200	756.100	756.600	858.200	760.000	1020.000	.000	.000	.000	.000
ET	.000	.000	9.100	.000	.000	.000	.000	.000	132.100	419.300
NH	4.000	.120	180.000	.040	216.000	.120	395.000	.070	750.000	.000

CROSS SECTION B'

X1	154.960	26.000	180.000	216.000	350.000	150.000	250.000	.000	.000	.000
GR	760.000	.000	760.000	45.000	756.000	60.000	752.000	75.000	748.000	88.000
GR	744.000	100.000	740.000	120.000	736.000	130.000	732.000	150.000	729.700	180.000
GR	727.500	182.000	727.800	187.000	727.800	197.000	728.000	202.000	728.600	207.000
GR	729.100	212.000	729.700	216.000	730.000	224.000	732.000	230.000	736.000	395.000
GR	740.000	518.000	744.000	545.000	748.000	578.000	752.000	580.000	756.000	590.000
GR	760.000	750.000	.000	.000	.000	.000	.000	.000	.000	.000
NH	4.000	.125	175.000	.050	211.000	.130	500.000	.075	1300.000	.000

CROSS SECTION BB

X1	155.510	20.000	175.000	211.000	530.000	340.000	550.000	.000	.000	.000
X3	.000	.000	.000	.000	.000	550.000	.000	.000	.000	.000
GR	760.000	.000	748.000	80.000	736.000	140.000	732.000	160.000	731.000	175.000
GR	728.800	177.000	729.100	182.000	729.000	187.000	729.100	192.000	729.300	197.000
GR	729.900	202.000	730.400	207.000	731.000	211.000	732.000	225.000	736.000	500.000
GR	737.700	770.000	740.000	1150.000	744.000	1175.000	756.000	1220.000	760.000	1300.000
NH	4.000	.125	133.700	.050	173.200	.130	254.800	.080	710.600	.000

CROSS SECTION C

X1	156.210	19.000	133.700	173.200	790.000	450.000	700.000	.000	.000	.000
X3	.000	.000	.000	.000	.000	191.800	.000	.000	.000	.000
GR	748.300	.000	747.200	57.100	740.300	115.300	732.000	133.700	731.000	136.700
GR	730.300	141.700	729.800	146.700	729.900	151.700	729.700	156.700	729.700	161.700
GR	730.500	166.700	730.900	171.700	732.000	173.200	741.800	191.800	737.600	254.800
GR	748.300	385.300	750.200	487.500	756.000	592.800	760.500	710.600	.000	.000
NC	.030	.080	.040	.400	.500	.000	.000	.000	.000	.000
NH	4.000	.125	133.700	.050	173.200	.130	254.800	.080	710.600	.000

CROSS SECTION AT DOWNSTREAM ENBANKMENT TO BRIDGE

X1	156.270	.000	.000	.000	60.000	90.000	60.000	.000	.400	.000
X3	.000	.000	.000	.000	.000	191.800	.000	.000	.000	.000
NH	3.000	.080	492.500	.040	553.500	.080	895.900	.000	.000	.000

CROSS SECTION AT DOWNSTREAM FACE OF MONROE STREET BRIDGE

SKEW FACTOR OF 0.9397 APPLIED FOR BRIDGE SKEWED 20 DEGREES

X1	156.280	33.000	492.500	553.500	15.000	15.000	15.000	.940	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	747.000	747.000	.000
GR	759.900	.000	757.100	39.900	755.400	98.700	753.000	166.400	750.500	225.100
GR	749.800	296.000	749.100	360.700	748.200	416.900	747.000	480.500	734.800	492.500
GR	733.300	494.000	733.100	435.000	732.000	438.000	731.800	500.000	730.200	505.000
GR	729.500	510.000	729.900	515.000	729.700	520.000	729.200	525.000	729.900	530.000
GR	731.000	535.000	731.900	540.000	732.700	545.000	733.200	550.000	733.000	551.000
GR	735.800	553.500	747.000	564.500	748.600	624.400	749.700	677.700	751.800	717.000
GR	754.400	761.000	757.800	817.500	760.000	895.900	.000	.000	.000	.000
SB	.000	1.760	2.800	.000	39.800	.000	607.000	.700	729.200	729.200

CROSS SECTION AT UPSTREAM FACE OF MONROE STREET BRIDGE

SKEW FACTOR OF 0.9397 APPLIED FOR BRIDGE SKEWED 20 DEGREES

X1	156.320	33.000	492.500	553.500	35.000	35.000	35.000	.940	.000	.000
X2	.000	.000	1.000	741.700	747.000	.000	.000	.000	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	747.000	747.000	.000
GR	759.900	.000	757.100	39.900	755.400	98.700	753.000	166.400	750.500	225.100
GR	749.800	236.000	749.100	360.700	748.200	416.900	747.000	480.500	734.800	492.500
GR	733.300	494.000	733.100	495.000	732.000	496.000	731.800	500.000	730.200	505.000
GR	729.500	510.000	729.900	515.000	729.700	520.000	729.200	525.000	729.900	530.000
GR	731.000	535.000	731.900	540.000	732.700	545.000	733.200	550.000	733.000	551.000
GR	735.800	553.500	747.000	564.500	748.600	624.400	749.700	677.700	751.800	717.000
GR	754.400	761.000	757.800	817.500	760.000	895.900	.000	.000	.000	.000
NH	3.000	.120	738.300	.040	787.100	.120	1214.200	.000	.000	.000

CROSS SECTION AT UPSTREAM EMBANKMENT TO BRIDGE

X1	156.340	28.000	738.300	787.100	15.000	15.000	15.000	.000	-1.200	.000
X3	.000	.000	.000	744.000	.000	820.000	.000	.000	.000	.000
GR	765.400	.000	763.200	85.100	765.100	192.900	777.400	264.900	772.900	354.800
GR	772.900	453.800	751.000	502.300	742.000	593.300	741.600	681.700	741.600	728.700
GR	736.700	733.300	733.700	738.300	732.700	743.300	731.700	745.300	731.700	748.300
GR	732.100	752.300	731.000	755.300	730.600	761.300	731.100	766.300	731.400	771.300
GR	732.100	774.300	735.200	787.100	746.900	857.800	738.500	903.900	737.600	964.300
GR	746.200	1083.500	749.100	1161.900	761.600	1214.200	.000	.000	.000	.000
NH	5.000	.120	728.700	.080	752.300	.040	774.300	.080	787.100	.120
NH	1214.200	.000	.000	.000	.000	.000	.000	.000	.000	.000

CROSS SECTION D

X1	156.410	23.000	752.300	774.300	100.000	100.000	75.000	.000	.000	.000
X3	.000	.000	.000	823.000	.000	830.000	.000	.000	.000	.000
GR	765.400	.000	763.200	85.100	765.100	192.900	777.400	264.900	772.900	354.800
GR	772.900	453.800	751.000	502.300	742.000	593.300	741.600	681.700	741.600	728.700
GR	732.100	752.300	731.000	755.300	730.600	761.300	731.100	766.300	731.400	771.300
GR	732.100	774.300	732.700	787.100	746.900	857.800	738.500	903.900	737.600	964.300
GR	746.200	1083.500	749.100	1161.900	761.600	1214.200	.000	.000	.000	.000
NC	.100	.100	.040	.100	.300	.000	.000	.000	.000	.000
NH	4.000	.065	689.900	.100	995.400	.040	1033.400	.080	1182.600	.000

CROSS SECTION E

X1	157.230	23.000	995.400	1033.400	250.000	850.000	820.000	.000	.000	.000
X3	.000	.000	.000	478.500	.000	.000	.000	.000	.000	.000
GR	760.200	.000	755.000	97.500	756.000	209.700	752.800	294.500	741.600	389.500
GR	741.000	478.500	740.400	583.100	740.400	689.900	739.700	816.600	739.100	916.600
GR	738.900	931.600	735.100	995.400	734.300	1000.400	733.900	1005.400	733.500	1010.400
GR	732.900	1015.400	733.000	1018.400	734.500	1025.400	734.800	1030.400	735.100	1033.400
GR	740.300	1044.900	756.900	1117.700	762.800	1182.600	.000	.000	.000	.000
NH	4.000	.065	171.700	.110	916.200	.040	959.200	.120	1333.600	.000

CROSS SECTION F

X1	158.330	25.000	916.200	959.200	200.000	1550.000	1100.000	.000	.000	.000
X3	.000	.000	.000	350.000	.000	.000	.000	.000	.000	.000
GR	754.700	.000	752.200	72.200	746.800	171.700	744.000	303.200	740.200	420.500
GR	740.200	500.800	741.500	600.000	741.400	680.000	742.400	824.600	742.400	902.300
GR	737.400	916.200	735.300	916.700	734.300	922.200	734.500	927.200	734.900	932.200
GR	735.000	932.200	735.200	942.200	735.200	947.200	735.800	952.200	736.000	955.200
GR	737.400	959.200	740.500	1011.200	743.200	1124.000	748.700	1241.500	752.600	1333.600
NH	4.000	.120	807.800	.040	863.800	.120	931.100	.080	1533.900	.000

CROSS SECTION FF

X1	159.180	27.000	807.800	863.800	530.000	1000.000	850.000	.000	.000	.000
X3	.000	.000	.000	.000	.000	1000.000	.000	.000	.000	.000
GR	756.200	.000	756.000	78.600	746.800	174.200	746.100	289.500	747.000	436.000
GR	744.000	632.700	742.600	762.200	742.600	801.900	737.500	807.800	736.500	813.800
GR	735.700	818.800	735.000	823.800	734.500	828.800	734.300	833.800	734.200	838.800
GR	734.200	843.800	734.600	848.800	735.300	853.800	736.600	861.800	737.500	863.800
GR	744.100	931.100	745.300	1035.100	746.200	1152.700	745.800	1261.000	747.100	1344.200
GR	747.700	1407.500	780.600	1533.900	.000	.000	.000	.000	.000	.000
NH	3.000	.110	82.500	.035	110.500	.085	572.600	.000	.000	.000

CROSS SECTION G

X1	160.370	22.000	82.500	110.500	770.000	400.000	1190.000	.000	.000	.000
X3	.000	.000	.000	.000	.000	970.000	.000	.000	.000	.000
GR	759.900	.000	749.300	39.100	745.400	72.000	740.000	82.500	739.400	84.500
GR	736.300	89.500	738.900	94.500	739.200	99.500	739.600	104.500	739.900	109.500
GR	740.000	110.500	744.600	160.900	745.900	240.300	746.500	324.800	747.900	436.600
GR	744.900	572.600	744.000	700.000	745.500	970.000	748.000	1120.000	752.000	1130.000
GR	756.000	1150.000	760.000	1200.000	.000	.000	.000	.000	.000	.000
NH	3.000	.070	281.500	.035	381.500	.085	553.200	.000	.000	.000

CROSS SECTION D02A

X1	161.120	17.000	281.500	381.500	900.000	60.000	750.000	.000	.000	.000
X3	.000	.000	.000	125.000	.000	600.000	.000	.000	.000	.000
GR	760.000	.000	747.500	78.300	745.400	163.700	744.800	234.100	744.800	262.700
GR	744.100	281.500	743.900	282.000	743.900	381.000	744.100	381.500	748.000	424.300
GR	746.700	498.300	745.900	553.200	745.000	750.000	748.000	910.000	752.000	940.000
GR	756.000	970.000	760.000	1000.000	.000	.000	.000	.000	.000	.000
NH	3.000	.080	443.900	.035	547.900	.080	1439.800	.000	.000	.000

CROSS SECTION H

X1	161.420	31.000	443.900	542.900	400.000	200.000	300.000	.000	.000	.000
X3	.000	.000	.000	445.900	.000	545.900	.000	.000	.000	.000
GR	776.300	.000	776.900	50.400	764.900	118.400	759.500	182.400	755.600	266.700
GR	753.700	370.900	753.900	421.600	744.100	443.900	743.800	444.000	743.900	452.900
GR	743.800	462.900	743.500	472.900	743.300	482.900	742.800	492.900	743.000	502.900
GR	742.800	512 900	742.600	522.900	741.900	532.900	742.200	539.900	743.700	545.900
GR	744.100	547.900	751.000	593.500	747.200	693.800	746.200	783.300	746.100	899.900
GR	746 100	959.600	746.100	1070.400	747.000	1199.800	747.000	1317.800	747.800	1337.300
GR	780.000	1439.800	.000	.000	.000	.000	.000	.000	.000	.000
NC	.060	.080	.035	.400	.650	.000	.000	.000	.000	.000

CROSS SECTION IMMEDIATELY DOWNSTREAM OF MICHIGAN AVE. (US 12) BRIDGE

SKEW FACTOR OF 0.9397 APPLIED FOR BRIDGE SKEWED 20 DEGREES

X1	161.470	36.000	802.500	870.000	50.000	50.000	50.000	.940	.000	.000
X3	.000	.000	.000	802.500	.000	870.000	.000	.000	.000	.000
GR	780.200	.000	778.500	81.700	777.200	164.700	775.100	226.600	772.200	295.500
GR	768.800	361.500	767.000	408.400	764.800	458.500	763.200	516.400	761.600	559.000
GR	759.600	630.900	758.000	706.600	756.600	767.700	756.600	786.000	742.000	802.500
GR	742.000	810.000	742.500	820.000	742.000	830.000	741.500	840.000	742.000	850.000
GR	743.000	860.000	744.000	870.000	757.000	890.000	757.900	937.300	757.600	1000.000
GR	757.500	1080.600	758.600	1144.800	759.600	1207.400	762.800	1254.300	764.700	1322.700
GR	766.700	1367.500	768.300	1412.500	770.800	1459.800	772.500	1509.000	774.200	1558.500
GR	776.000	1600.600	.000	.000	.000	.000	.000	.000	.000	.000

CROSS SECTION AT DOWNSTREAM FACE OF MICHIGAN AVENUE (US 12) BRIDGE

SKEW FACTOR OF 0.9397 APPLIED FOR BRIDGE SKEWED 20 DEGREES

X1	61.471	36.000	802.500	870.000	1.000	1.000	1.000	.940	.000	.000
X2	.000	.000	.000	752.300	756.600	.000	.000	.000	.000	.000
X3	.000	.000	.000	802.500	.000	870.000	.000	.000	.000	.000
GR	780.200	.000	778.500	81.700	777.200	164.700	775.100	226.600	772.200	295.500
GR	768.800	361.500	767.000	408.400	764.800	458.500	763.200	516.400	761.600	559.000
GR	759.600	630.900	758.000	706.600	756.600	767.700	756.600	786.000	742.000	802.500
GR	742.000	810.000	742.500	820.000	742.000	830.000	741.500	840.000	742.000	850.000
GR	743.000	860.000	744.000	870.000	757.000	890.000	757.900	937.300	757.600	1000.000
GR	757.500	1080.600	758.600	1144.800	759.600	1207.400	762.800	1254.300	764.700	1322.700
GR	766.700	1367.500	768.300	1412.500	770.800	1459.800	772.500	1509.000	774.200	1558.500
GR	776.000	1600.600	.000	.000	.000	.000	.000	.000	.000	.000

CROSS SECTION AT UPSTREAM FACE OF MICHIGAN AVENUE (US 12) BRIDGE

SKEW FACTOR OF 0.9397 APPLIED FOR BRIDGE SKEWED 20 DEGREES

X1	61.539	36.000	802.500	870.000	68.000	68.000	68.000	.940	.000	.000
X2	.000	.000	.000	752.300	756.600	.000	.000	.000	.940	.000
X3	.000	.000	.000	802.500	.000	870.000	.000	.000	.000	.000
BT	12.000	786.000	756.600	756.600	802.500	756.600	749.800	802.500	756.600	751.900
BT	810.000	756.600	751.900	820.000	756.700	752.000	830.000	756.800	752.100	840.000
BT	756.800	752.100	850.000	756.900	751.200	860.000	756.900	751.200	870.000	757.000
BT	752.300	870.000	757.000	742.300	890.000	757.000	757.000	.000	.000	.000
GR	760.200	.000	778.500	81.700	777.200	164.700	775.100	226.600	772.200	295.500
GR	766.800	361.500	767.000	408.400	764.800	458.500	763.200	516.400	761.600	559.000
GR	759.600	630.900	758.000	706.600	756.600	767.700	756.600	786.000	742.000	802.500
GR	742.000	810.000	742.500	820.000	742.000	830.000	741.500	840.000	742.000	850.000
GR	743.000	860.000	744.000	870.000	757.000	890.000	757.900	937.300	757.600	1000.000
GR	757.500	1080.600	758.600	1144.800	759.600	1207.400	762.800	1254.300	764.700	1322.700
GR	766.700	1367.500	768.300	1412.500	770.800	1459.800	772.500	1509.000	774.200	1558.500
GR	776.000	1600.600	.000	.000	.000	.000	.000	.000	.000	.000

CROSS SECTION IMMEDIATELY UPSTREAM OF MICHIGAN AVE. (US 12) BRIDGE

SKEW FACTOR OF 0.9397 APPLIED FOR BRIDGE SKEWED 20 DEGREES

X1	161.540	36.000	802.500	870.000	1.000	1.000	1.000	.940	.000	.000
X3	.000	.000	.000	802.500	.000	870.000	.000	.000	.000	.000
GR	780.200	.000	778.500	81.700	777.200	164.700	775.100	226.600	772.200	295.500
GR	768.800	361.500	767.000	408.400	764.800	458.500	763.200	516.400	761.600	559.000
GR	759.600	630.900	758.000	706.600	756.600	767.700	756.600	786.000	742.000	802.500
GR	742.000	810.000	742.500	820.000	742.000	830.000	741.500	840.000	742.000	850.000
GR	743.000	860.000	744.000	870.000	757.000	890.000	757.900	937.300	757.600	1000.000
GR	757.500	1080.600	758.600	1144.800	759.600	1207.400	762.800	1254.300	764.700	1322.700
GR	766.700	1367.500	768.300	1412.500	770.800	1459.800	772.500	1509.000	774.200	1558.500
GR	776.000	1600.600	.000	.000	.000	.000	.000	.000	.000	.000
EJ	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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  HEC2 RELEASE DATED NOV 76 UPDATED APRIL 1980
  ERROR CORR -  01,02,03,04
  MODIFICATION -  50,51,52,53,54
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T1      HUD FLOOD INSURANCE STUDIES  H-3320  WILLIAMS & WORKS
T2      CITY OF SALINE  SALINE RIVER AND WOOD CREEK
T3      SALINE RIVER, SALINE    100-YEAR FLOOD

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
        0.        2.        0.        0.   .000000       .00        .5        0.   732.230      .000
J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
    3.000      .000    -1.000      .000      .000    1.300      .000      .000      .000      .000
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	aLOB	HACH	aROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIal	IDC	ICOUT	CORAR	TOPWID	ENDST

*PROF 3

CCHV= .100 CEHV= .300

+SECNO 149.820

CROSS SECTION CX

149.82	12.53	732.23	.00	732.23	732.41	.18	.00	.00	720.20
3700.	513.	2169.	1018.	503.	504.	953.	0.	0.	720.30
.00	1.01	4.30	1.07	.169	.065	.169	.000	719.70	94.65
.001250	0	0	0	0	0	0	.00	300.60	395.25

+SECNO 151.920

CROSS SECTION BX

151.92	13.01	733.61	.00	.00	733.64	.03	1.22	.01	723.60
3700.	1326.	1255.	1119.	2507.	532.	2001.	145.	24.	723.60
.46	.53	2.36	.56	.169	.065	.169	.072	720.60	927.75
.000391	2000.	2100.	1500.	2	0	0	.00	876.28	1804.03

+SECNO 152.720

3265 DIVIDED FLOW

CROSS SECTION AX

152.72	10.32	734.12	.00	.00	734.34	.22	.64	.06	727.30
3700.	1100.	2268.	332.	869.	479.	303.	206.	35.	727.00
.52	1.27	4.23	1.09	.169	.065	.169	.020	723.80	151.86
.002425	1000.	800.	500.	3	0	0	.00	321.97	800.97

1490 NH CARD USED

+SECNO 154.020

3470 ENCROACHMENT STATIONS= 713.2 1877.3 TYPE= 1 TARGET= -713.200

CROSS SECTION A

154.02	8.32	736.72	.00	.00	736.78	.06	2.42	.02	729.00
3700.	2634.	465.	601.	2690.	97.	611.	272.	50.	729.00
.75	.98	4.81	.98	.167	.052	.155	.020	728.40	713.20
.001769	1000.	1300.	1500.	3	0	0	.00	844.77	1557.97

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	H*V	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	HACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOB1	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 154.710

3470 ENCROACHMENT STATIONS= 375.0 1020.0 TYPE= 1 TARGET= -375.000
CROSS SECTION B

154.71	11.85	738.05	.00	.00	738.60	.55	1.67	.15	729.20
3700.	717.	2134.	849.	503.	276.	593.	311.	60.	729.20
.78	1.42	7.74	1.43	.169	.052	.169	.069	726.20	375.00
.003246	730.	690.	720.	4	0	0	.00	263.61	658.61

1490 NH CARD USED
*SECNO 154.960
CROSS SECTION B'

154.96	11.39	738.89	.00	.00	739.15	.26	.52	.03	729.70
3700.	473.	2059.	1168.	349.	384.	1055.	319.	61.	729.70
.80	1.36	5.37	1.11	.156	.052	.150	.069	727.50	122.78
.001564	350.	250.	150.	2	0	0	.00	361.05	483.83

1490 NH CARD USED
*SECNO 155.510

3470 ENCROACHMENT STATIONS= .0 550.0 TYPE= 1 TARGET= 549.999
CROSS SECTION BB

155.51	10.92	739.72	.00	.00	739.82	.10	.66	.02	731.00
3700.	305.	1411.	1984.	272.	367.	1867.	339.	65.	731.00
.86	1.12	3.84	1.06	.162	.065	.161	.070	728.80	121.39
.001327	530.	550.	340.	2	0	0	.00	428.61	550.00

1490 NH CARD USED
*SECNO 156.210

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= .0 191.8 TYPE= 1 TARGET= 191.799
CROSS SECTION C

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	HACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOB1	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
156.21	10.95	740.65	.00	.00	741.66	1.01	1.56	.27	732.00
3700.	151.	3430.	119.	83.	410.	71.	359.	68.	732.00
.89	1.81	8.37	1.68	.162	.065	.169	.070	729.70	112.37
.006067	790.	700.	450.	2	0	0	.00	77.24	189.61

CCHV= .400 CEHV= .500
1490 NH CARD USED
+SECNO 156.270

3470 ENCROACHMENT STATIONS= 0 191.8 TYPE= 1 TARGET= 191.799
CROSS SECTION AT DOWNSTREAM EMBANKMENT TO BRIDGE

156.27	10.92	741.02	.00	.00	742.04	1.02	.37	.00	732.40
3700.	150.	3432.	118.	83.	408.	70.	360.	68.	732.40
.89	1.82	8.40	1.68	.162	.065	.169	.070	730.10	112.64
.006135	60.	60.	90.	2	0	0	.00	76.91	189.55

1490 NH CARD USED
+SECNO 156.280

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 747.00 ELREA= 747.00

CROSS SECTION AT DOWNSTREAM FACE OF MONROE STREET BRIDGE

SKEW FACTOR OF 0.9397 APPLIED FOR BRIDGE SKEWED 20 DEGREES

156.28	12.51	741.71	.00	.00	742.28	.58	.07	.18	734.80
3700.	0.	3700.	0.	0.	608.	0.	360.	68.	735.80
.89	.00	6.09	.00	.162	.052	.169	.070	729.20	462.80
.003566	15.	15.	15.	3	0	0	.00	57.32	520.12

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	.00	1.76	2.80	.00	39.80	.00	607.00	.70	729.20	729.20

+SECNO 156.320
PRESSURE FLOW

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	HACH	HROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
742.72	742.28	.00	0	3700.	607.	607.	741.20	747.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA= 747.00 ELREA= 747.00

CROSS SECTION AT UPSTREAM FACE OF MONROE STREET BRIDGE

SKEW FACTOR OF 0.9397 APPLIED FOR BRIDGE SKEWED 20 DEGREES

156.32	13.00	742.20	.00	.00	742.72	.53	.44	.00	734.80
3700.	0.	3700.	0.	0.	636.	0.	360.	68.	735.80
.89	.00	5.82	.00	.162	.052	.169	.070	729.20	462.80
.003062	35.	35.	35.	2	0	0	.00	57.32	520.12

1490 NH CARD USED
+SECNO 156.340

3470 ENCROACHMENT STATIONS= 744.0 820.0 TYPE= 1 TARGET= 76.000
CROSS SECTION AT UPSTREAM EMBANKMENT TO BRIDGE

156.34	12.75	742.15	.00	.00	742.86	.71	.05	.09	99998.80
3700.	0.	3417.	283.	0.	488.	179.	360.	68.	734.00
.89	.00	7.00	1.58	.162	.052	.156	.070	729.40	744.00
.003259	15.	15.	15.	2	0	0	.00	76.00	820.00

1490 NH CARD USED
+SECNO 156.410

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 679.0 830.0 TYPE= 1 TARGET= 151.000
CROSS SECTION D

156.41	11.46	742.06	.00	.00	743.68	1.61	.36	.45	732.10
3700.	430.	2789.	480.	146.	240.	165.	362.	68.	732.10
.89	2.94	11.61	2.91	.105	.052	115	.069	730.60	679.00
.006947	100.	75.	100.	3	0	0	.00	141.65	820.65

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	HACH	HROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= .100 CEHV= .300
1490 NH CARD USED
+SECNO 157.230

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 478.5 1182.6 TYPE= 1 TARGET= -478.500
CROSS SECTION E

157.23	11.91	744.81	.00	.00	744.87	.06	1.04	.15	735.10
3700.	2265.	1317.	118.	2525.	411.	126.	394.	75.	735.10
1.02	.90	3.21	.94	.111	.052	.104	.067	732.90	478.50
.000533	750.	820.	850.	2	0	0	.00	586.14	1064.64

1490 NH CARD USED
+SECNO 158.330

3470 ENCROACHMENT STATIONS= 350.0 1333.6 TYPE= 1 TARGET= -350.000
CROSS SECTION F

158.33	10.92	745.22	.00	.00	745.31	.09	.43	.01	732.40
3700.	1595.	1567.	538.	2180.	431.	748.	431.	83.	737.40
1.12	.73	3.64	.72	.143	.052	.156	.069	734.30	350.00
.000798	200.	1100.	1550.	2	0	0	.00	816.98	1166.98

1490 NH CARD USED
+SECNO 159.180

3470 ENCROACHMENT STATIONS= .0 1000.0 TYPE= 1 TARGET= 999.999
CROSS SECTION FF

159.18	11.66	745.86	.00	.00	746.16	.30	.79	.06	732.50
3700.	380.	2918.	402.	610.	593.	435.	471.	93.	737.50
1.17	.62	4.92	.93	.156	.052	.148	.068	734.20	510.49
.001295	530.	850.	1000.	2	0	0	.00	489.51	1000.00

1490 NH CARD USED
+SECNO 160.370

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	HACH	AROB	ZOL	TWa	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	IOPWID	ENDST

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3220 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 0 920.0 TYPE= 1 TARGET= 969.999
CROSS SECTION G

160.37	8.16	746.96	746.96	.00	749.35	2.39	1.83	.63	740.00
3700.	61.	2971.	669.	55.	215.	540.	493.	101.	740.00
1.20	1.10	13.83	1.24	.143	.099	.110	.067	738.80	58.84
.002461	720.	1190.	400.	3	14	0	.00	293.49	970.00

1490 NH CARD USED
+SECNO 161.120

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 125.0 600.0 TYPE= 1 TARGET= 475.000
CROSS SECTION D02A

161.12	6.19	750.09	.00	.00	750.25	.16	.68	.22	744.10
3700.	854.	2421.	425.	722.	619.	585.	509.	104.	744.10
1.26	1.11	3.91	.73	.091	.079	.111	.066	743.90	125.00
.000553	900.	750.	60.	3	0	0	.00	475.00	600.00

1490 NH CARD USED
+SECNO 161.420

3470 ENCROACHMENT STATIONS= 445.9 545.9 TYPE= 1 TARGET= 100.000
CROSS SECTION H

161.42	8.31	750.21	.00	.00	750.63	.42	.30	.08	100000.00
3700.	0.	3700.	0.	0.	715.	0.	519.	106.	100000.00
1.28	.00	5.18	.00	.091	.045	.111	.066	741.90	445.90
.002151	400.	300.	200.	3	0	0	.00	100.00	545.90

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	HACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= .400 CEHV= .650
+SECNO 161.470

3420 ENCROACHMENT STATIONS= 754.1 817.5 TYPE= 1 TARGET= 67.500
CROSS SECTION IMMEDIATELY DOWNSTREAM OF MICHIGAN AVE. (US 12) BRIDGE

SKEW FACTOR OF 0.9397 APPLIED FOR BRIDGE SKEWED 20 DEGREES

161.47	8.71	750.21	.00	.00	751.05	.84	.15	.28	742.00
3700.	0.	3700.	0.	0.	502.	0.	519.	106.	100000.00
1.28	.00	7.37	.00	.104	.045	.104	.066	741.50	754.11
.004259	50.	50.	50.	2	0	0	.00	63.43	817.54

+SECNO 61.471

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 756.60 MAX ELLC= 752.30

3470 ENCROACHMENT STATIONS= 754.1 817.5 TYPE= 1 TARGET= 67.500
CROSS SECTION AT DOWNSTREAM FACE OF MICHIGAN AVENUE (US 12) BRIDGE

SKEW FACTOR OF 0.9397 APPLIED FOR BRIDGE SKEWED 20 DEGREES

61.47	8.71	750.21	.00	.00	751.06	.84	.00	.00	742.00
3700.	0.	3700.	0.	0.	502.	0.	519.	106.	100000.00
1.28	.00	7.37	.00	.104	.045	.104	.066	741.50	754.11
.004261	1.	1.	1.	0	0	0	.00	63.43	817.54

+SECNO 61.539

3370 NORMAL BRIDGE,NRD= 12 MIN ELTRD= 756.60 MAX ELLC= 752.30

3470 ENCROACHMENT STATIONS= 754.1 817.5 TYPE= 1 TARGET= 67.500
CROSS SECTION AT UPSTREAM FACE OF MICHIGAN AVENUE (US 12) BRIDGE

SKEW FACTOR OF 0.9397 APPLIED FOR BRIDGE SKEWED 20 DEGREES

61.54	9.09	750.59	.00	.00	751.36	.77	.27	.03	742.00
3700.	0.	3700.	0.	0.	526.	0.	520.	106.	100000.00
1.28	.00	7.03	.00	.104	.045	.104	.066	741.50	754.11
.003685	68.	68.	68.	2	0	0	.00	63.43	817.54

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	H/	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	aLOB	HACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICOUT	CORWR	TOPWID	ENDST

+SECNO 161.540

3470 ENCROACHMENT STATIONS= 754.1 817.5 TYPE= 1 TARGET= 67.500

CROSS SECTION IMMEDIATELY UPSTREAM OF MICHIGAN AVE. (US 12) BRIDGE

SKEW FACTOR OF 0.9397 APPLIED FOR BRIDGE SKEWED 20 DEGREES

161.54	9.09	750.59	.00	.00	751.36	.77	.00	.00	742.00
3700.	0.	3700.	0.	0.	526.	0.	520.	106.	100000.00
1.28	.00	7.04	.00	.104	.045	.104	.066	741.50	754.11
.003691	1.	1.	1.	0	0	0	.00	63.43	817.54

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  HEC2 RELEASE DATED NOV 76 UPDATED APRIL 1980
  ERROR CORR -  01,02,03,04
  MODIFICATION -  50,51,52,53,54
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

SALINE RIVER, SALINE

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
149.820	.00	.00	.00	719.70	1880.00	729.18	.00	729.32	12.42	3.55	1112.59	533.49
149.820	.00	.00	.00	719.70	3220.00	731.50	.00	731.67	12.60	4.15	1758.12	807.16
149.820	.00	.00	.00	719.70	3700.00	732.23	.00	732.41	12.50	4.30	1965.89	1046.51
149.820	.00	.00	.00	719.70	4600.00	733.45	.00	733.64	12.47	4.58	2342.87	1302.46
151.920	2100.00	.00	.00	720.60	1880.00	730.83	.00	730.88	5.49	2.34	2626.68	802.72
151.920	2100.00	.00	.00	720.60	3220.00	732.94	.00	732.97	4.20	2.35	4449.41	1571.70
151.920	2100.00	.00	.00	720.60	3700.00	733.61	.00	733.64	3.91	2.36	5040.13	1870.04
151.920	2100.00	.00	.00	720.60	4600.00	734.77	.00	734.80	3.57	2.39	6059.95	2435.68
152.720	800.00	.00	.00	723.80	1880.00	731.58	.00	731.78	29.00	4.13	890.19	349.12
152.720	800.00	.00	.00	723.80	3220.00	733.49	.00	733.71	25.43	4.62	1457.91	638.52
152.720	800.00	.00	.00	723.80	3700.00	734.12	.00	734.34	24.25	4.73	1651.11	751.42
152.720	800.00	.00	.00	723.80	4600.00	735.22	.00	735.43	21.56	4.83	2340.61	990.67
154.020	1300.00	.00	.00	728.40	1880.00	734.92	.00	735.00	25.22	4.85	1892.18	374.37
154.020	1300.00	.00	.00	728.40	3220.00	736.26	.00	736.32	19.36	4.84	3011.05	731.85
154.020	1300.00	.00	.00	728.40	3700.00	736.72	.00	736.78	17.69	4.81	3398.00	879.63
154.020	1300.00	.00	.00	728.40	4600.00	737.53	.00	737.58	15.47	4.80	4084.30	1169.50
154.710	690.00	.00	.00	726.20	1880.00	736.33	.00	736.63	19.48	5.36	917.26	425.93
154.710	690.00	.00	.00	726.20	3220.00	737.65	.00	738.14	29.53	7.20	1260.82	592.58
154.710	690.00	.00	.00	726.20	3700.00	738.05	.00	738.60	32.46	7.74	1371.73	649.41
154.710	690.00	.00	.00	726.20	4600.00	738.74	.00	739.38	36.72	8.58	1573.10	759.09
154.960	250.00	.00	.00	727.50	1880.00	736.84	.00	737.01	11.59	4.01	1117.83	552.32
154.960	250.00	.00	.00	727.50	3220.00	738.41	.00	738.65	14.87	5.08	1620.08	834.90
154.960	250.00	.00	.00	727.50	3700.00	738.89	.00	739.15	15.64	5.37	1787.66	935.50
154.960	250.00	.00	.00	727.50	4600.00	739.70	.00	739.98	16.74	5.83	2090.05	1124.33
155.510	550.00	.00	.00	728.80	1880.00	737.51	.00	737.59	12.45	3.16	1570.39	532.74
155.510	550.00	.00	.00	728.80	3220.00	739.22	.00	739.31	13.02	3.68	2230.28	832.26
155.510	550.00	.00	.00	728.80	3700.00	739.72	.00	739.82	13.27	3.84	2506.92	1015.64
155.510	550.00	.00	.00	728.80	4600.00	740.58	.00	740.69	13.76	4.13	2875.57	1240.06

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	%CH	AREA	.01K
	156.210	700.00	.00	.00	729.70	1880.00	738.53	.00	738.97	35.21	5.48	413.45	316.83
	156.210	700.00	.00	.00	729.70	3220.00	740.16	.00	741.03	54.29	7.68	528.62	437.01
	156.210	700.00	.00	.00	729.70	3700.00	740.65	.00	741.66	60.67	8.37	563.87	475.02
	156.210	700.00	.00	.00	729.70	4600.00	741.42	.00	742.73	72.25	9.59	626.65	541.16
	156.270	60.00	.00	.00	730.10	1880.00	738.74	.00	739.20	38.20	5.62	400.96	304.19
	156.270	60.00	.00	.00	730.10	3220.00	740.50	.00	741.38	55.22	7.74	523.34	431.37
	156.270	60.00	.00	.00	730.10	3700.00	741.02	.00	742.04	61.35	8.40	561.41	472.29
	156.270	60.00	.00	.00	730.10	4600.00	741.88	.00	743.18	70.32	9.53	631.93	546.63
	156.280	15.00	.00	.00	729.20	1880.00	739.07	.00	739.33	24.12	4.12	456.37	382.79
	156.280	15.00	.00	.00	729.20	3220.00	741.10	.00	741.59	32.91	5.62	573.01	561.29
	156.280	15.00	.00	.00	729.20	3700.00	741.71	.00	742.28	35.66	6.03	607.73	619.58
	156.280	15.00	.00	.00	729.20	4600.00	742.74	.00	743.48	40.33	6.90	666.99	724.32
	156.320	35.00	747.00	741.70	729.20	1880.00	739.16	.00	739.41	23.21	4.07	461.61	390.23
	156.320	35.00	747.00	741.70	729.20	3220.00	741.23	.00	741.71	31.50	5.55	580.54	573.73
	156.320	35.00	747.00	741.70	729.20	3700.00	742.20	.00	742.72	30.62	5.82	635.98	668.69
	156.320	35.00	747.00	741.70	729.20	4600.00	743.68	.00	744.31	31.06	6.38	720.98	825.36
	156.340	15.00	.00	.00	729.40	1880.00	739.13	.00	739.51	23.91	5.06	437.42	384.47
	156.340	15.00	.00	.00	729.40	3220.00	741.19	.00	741.85	33.24	6.74	593.61	558.47
	156.340	15.00	.00	.00	729.40	3700.00	742.15	.00	742.86	32.59	7.00	667.05	648.11
	156.340	15.00	.00	.00	729.40	4600.00	743.64	.00	744.45	33.58	7.57	779.67	793.83
	156.410	75.00	.00	.00	730.60	1880.00	739.07	.00	740.15	64.51	9.03	295.19	234.08
	156.410	75.00	.00	.00	730.60	3220.00	741.07	.00	742.73	78.20	11.56	441.04	364.12
	156.410	75.00	.00	.00	730.60	3700.00	742.06	.00	743.68	69.47	11.61	551.39	443.93
	156.410	75.00	.00	.00	730.60	4600.00	743.65	.00	745.13	57.92	11.60	784.54	604.42
	157.230	820.00	.00	.00	732.90	1880.00	741.87	.00	742.00	10.85	3.21	1366.80	520.64
	157.230	820.00	.00	.00	732.90	3220.00	744.04	.00	744.11	6.30	3.32	2615.25	1232.95
	157.230	820.00	.00	.00	732.90	3700.00	744.81	.00	744.87	5.33	3.21	3062.27	1603.35
	157.230	820.00	.00	.00	732.90	4600.00	746.07	.00	746.13	4.35	3.12	3810.17	2206.07
	158.330	1100.00	.00	.00	734.30	1880.00	742.84	.00	742.99	12.17	3.75	1477.89	538.97
	158.330	1100.00	.00	.00	734.30	3220.00	744.55	.00	744.65	9.38	3.76	2813.01	1051.50
	158.330	1100.00	.00	.00	734.30	3700.00	745.22	.00	745.31	7.98	3.64	3359.13	1309.66
	158.330	1100.00	.00	.00	734.30	4600.00	746.39	.00	746.46	6.36	3.49	4329.26	1824.70
	159.180	850.00	.00	.00	734.20	1880.00	743.70	.00	743.89	9.66	3.65	787.52	604.82
	159.180	850.00	.00	.00	734.20	3220.00	745.29	.00	745.58	12.99	4.75	1367.22	893.37
	159.180	850.00	.00	.00	734.20	3700.00	745.86	.00	746.16	12.95	4.92	1637.45	1028.22
	159.180	850.00	.00	.00	734.20	4600.00	746.90	.00	747.19	12.19	5.08	2284.13	1317.38
	160.370	1190.00	.00	.00	738.80	1880.00	744.88	743.89	746.32	49.25	10.35	312.33	267.89
+	160.370	1190.00	.00	.00	738.80	3220.00	746.20	746.20	748.68	38.19	13.84	549.80	521.05
*	160.370	1190.00	.00	.00	738.80	3700.00	746.96	746.96	749.35	24.61	13.83	809.31	745.82
+	160.370	1190.00	.00	.00	738.80	4600.00	748.03	748.03	750.40	15.51	14.19	1308.57	1168.03

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRTWS	EG	10K*S	VCH	AREA	.01K
161.120	750.00	.00	.00	743.90	1880.00	747.66	.00	747.82	10.34	3.23	939.09	584.66
161.120	750.00	.00	.00	743.90	3220.00	749.58	.00	749.74	5.84	3.78	1759.37	1332.80
161.120	750.00	.00	.00	743.90	3700.00	750.09	.00	750.25	5.53	3.91	1976.13	1523.35
161.120	750.00	.00	.00	743.90	4600.00	750.97	.00	751.15	5.13	4.14	2353.10	2030.51
161.420	300.00	.00	.00	741.90	1880.00	748.03	.00	748.25	17.73	3.79	496.65	446.44
161.420	300.00	.00	.00	741.90	3220.00	749.74	.00	750.10	20.22	4.82	662.66	716.11
161.420	300.00	.00	.00	741.90	3700.00	750.21	.00	750.63	21.51	5.18	714.69	797.69
161.420	300.00	.00	.00	741.90	4600.00	751.02	.00	751.54	23.65	5.76	796.16	945.87
161.470	50.00	.00	.00	741.50	1880.00	748.08	.00	748.48	29.05	5.13	366.64	348.83
161.470	50.00	.00	.00	741.50	3220.00	749.75	.00	750.47	38.72	6.81	472.85	517.50
161.470	50.00	.00	.00	741.50	3700.00	750.21	.00	751.05	42.59	7.37	501.83	566.96
161.470	50.00	.00	.00	741.50	4600.00	750.99	.00	752.07	49.30	8.34	551.67	655.12
61.471	1.00	756.60	752.30	741.50	1880.00	748.08	.00	748.49	29.06	5.13	366.56	348.72
61.471	1.00	756.60	752.30	741.50	3220.00	749.75	.00	750.47	38.73	6.81	472.78	517.36
61.471	1.00	756.60	752.30	741.50	3700.00	750.21	.00	751.06	42.61	7.37	501.76	566.83
61.471	1.00	756.60	752.30	741.50	4600.00	751.00	.00	752.08	49.32	8.34	551.61	655.00
61.539	68.00	756.60	752.30	741.50	1880.00	748.31	.00	748.68	25.69	4.93	381.35	370.32
61.539	68.00	756.60	752.30	741.50	3220.00	750.09	.00	750.74	33.80	6.52	494.23	553.85
61.539	68.00	756.60	752.30	741.50	3700.00	750.59	.00	751.36	36.85	7.03	526.14	609.48
61.539	68.00	756.60	752.30	741.50	4600.00	751.47	.00	752.45	46.53	7.92	580.51	674.35
161.540	1.00	.00	.00	741.50	1880.00	748.31	.00	748.69	25.71	4.93	381.28	370.81
161.540	1.00	.00	.00	741.50	3220.00	750.09	.00	750.75	33.84	6.52	494.04	553.53
161.540	1.00	.00	.00	741.50	3700.00	750.59	.00	751.36	36.91	7.04	525.88	609.02
161.540	1.00	.00	.00	741.50	4600.00	751.48	.00	752.45	41.86	7.90	582.23	710.97

SALINE RIVER, SALINE

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
149.820	1880.00	729.18	.00	.00	.00	261.13	.00
149.820	3220.00	731.50	2.32	.00	.00	290.54	.00
149.820	3700.00	732.23	.73	.00	.00	300.60	.00
149.820	4600.00	733.45	1.22	.00	.00	317.40	.00
151.920	1880.00	730.83	.00	1.65	.00	858.14	2100.00
151.920	3220.00	732.94	2.10	1.44	.00	871.87	2100.00
151.920	3700.00	733.61	.67	1.38	.00	876.28	2100.00
151.920	4600.00	734.77	1.16	1.32	.00	883.83	2100.00
152.720	1880.00	731.58	.00	.74	.00	287.19	800.00
152.720	3220.00	733.49	1.92	.55	.00	304.12	800.00
152.720	3700.00	734.12	.63	.51	.00	321.97	800.00
152.720	4600.00	735.22	1.10	.45	.00	897.59	800.00
154.020	1880.00	734.92	.00	3.34	.00	821.26	1300.00
154.020	3220.00	736.26	1.34	2.77	.00	841.86	1300.00
154.020	3700.00	736.72	.46	2.60	.00	844.77	1300.00
154.020	4600.00	737.53	.81	2.31	.00	849.91	1300.00
154.710	1880.00	736.33	.00	1.42	.00	248.16	690.00
154.710	3220.00	737.65	1.32	1.39	.00	275.38	690.00
154.710	3700.00	738.05	.40	1.33	.00	283.61	690.00
154.710	4600.00	738.74	.69	1.21	.00	296.98	690.00
154.960	1880.00	736.84	.00	.50	.00	292.94	250.00
154.960	3220.00	738.41	1.57	.76	.00	345.27	250.00
154.960	3700.00	738.89	.47	.84	.00	361.05	250.00
154.960	4600.00	739.70	.81	.35	.00	387.90	250.00
155.510	1880.00	737.51	.00	.67	.00	417.54	550.00
155.510	3220.00	739.22	1.71	.80	.00	426.08	550.00
155.510	3700.00	739.72	.51	.84	.00	428.61	550.00
155.510	4600.00	740.58	.86	.88	.00	432.89	550.00
156.210	1880.00	738.53	.00	1.01	.00	66.35	700.00
156.210	3220.00	740.18	1.65	.96	.00	73.15	700.00
156.210	3700.00	740.65	.47	.92	.00	77.24	700.00
156.210	4600.00	741.42	.77	.84	.00	85.23	700.00
156.270	1880.00	738.74	.00	.21	.00	65.57	60.00
156.270	3220.00	740.50	1.77	.33	.00	72.85	60.00
156.270	3700.00	741.02	.51	.37	.00	76.91	60.00
156.270	4600.00	741.88	.87	.46	.00	85.86	60.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	156.280	1880.00	739.07	.00	.33	.00	57.32	15.00
	156.280	3220.00	741.10	2.04	.60	.00	57.32	15.00
	156.280	3700.00	741.71	.61	.69	.00	57.32	15.00
	156.280	4600.00	742.74	1.03	.86	.00	57.32	15.00
	156.320	1880.00	739.16	.00	.09	.00	57.32	35.00
	156.320	3220.00	741.23	2.07	.13	.00	57.32	35.00
	156.320	3700.00	742.20	.97	.49	.00	57.32	35.00
	156.320	4600.00	743.68	1.48	.94	.00	57.32	35.00
	156.340	1880.00	739.13	.00	-.03	.00	74.09	15.00
	156.340	3220.00	741.19	2.06	-.04	.00	76.00	15.00
	156.340	3700.00	742.15	.97	-.04	.00	76.00	15.00
	156.340	4600.00	743.64	1.48	-.04	.00	76.00	15.00
	156.410	1880.00	739.07	.00	-.06	.00	62.63	75.00
	156.410	3220.00	741.07	2.00	-.12	.00	83.00	75.00
	156.410	3700.00	742.06	.99	-.09	.00	141.65	75.00
	156.410	4600.00	743.65	1.58	.01	.00	151.00	75.00
	157.230	1880.00	741.87	.00	2.80	.00	573.31	820.00
	157.230	3220.00	744.04	2.17	2.96	.00	582.78	820.00
	157.230	3700.00	744.81	.77	2.74	.00	586.14	820.00
	157.230	4600.00	746.07	1.26	2.42	.00	591.71	820.00
	158.330	1880.00	742.84	.00	.37	.00	758.69	1100.00
	158.330	3220.00	744.55	1.71	.51	.00	802.57	1100.00
	158.330	3700.00	745.22	.67	.41	.00	816.98	1100.00
	158.330	4600.00	746.39	1.17	.32	.00	841.97	1100.00
	159.180	1880.00	743.70	.00	.86	.00	266.13	850.00
	159.180	3220.00	745.29	1.59	.74	.00	451.87	850.00
	159.180	3700.00	745.86	.57	.64	.00	489.51	850.00
	159.180	4600.00	746.90	1.04	.51	.00	804.09	850.00
	160.370	1880.00	744.88	.00	1.18	.00	388.74	1190.00
*	160.370	3220.00	746.20	1.32	.91	.00	673.79	1190.00
*	160.370	3700.00	746.96	.76	1.10	.00	793.49	1190.00
*	160.370	4600.00	748.03	1.07	1.13	.00	920.19	1190.00
	161.120	1880.00	747.66	.00	2.78	.00	452.12	750.00
	161.120	3220.00	749.58	1.92	3.38	.00	475.00	750.00
	161.120	3700.00	750.09	.51	3.13	.00	475.00	750.00
	161.120	4600.00	750.97	.88	2.94	.00	475.00	750.00
	161.420	1880.00	748.03	.00	.37	.00	100.00	300.00
	161.420	3220.00	749.74	1.71	.16	.00	100.00	300.00
	161.420	3700.00	750.21	.47	.12	.00	100.00	300.00
	161.420	4600.00	751.02	.81	.05	.00	100.00	300.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
161.470	1880.00	748.08	.00	.05	.00	63.43	50.00
161.470	3220.00	749.75	1.67	.01	.00	63.43	50.00
161.470	3700.00	750.21	.46	-.00	.00	63.43	50.00
161.470	4600.00	750.99	.79	-.03	.00	63.43	50.00
61.471	1880.00	748.08	.00	.00	.00	63.43	1.00
61.471	3220.00	749.75	1.68	.00	.00	63.43	1.00
61.471	3700.00	750.21	.46	.00	.00	63.43	1.00
61.471	4600.00	751.00	.79	.00	.00	63.43	1.00
61.539	1880.00	748.31	.00	.23	.00	63.43	68.00
61.539	3220.00	750.09	1.78	.33	.00	63.43	68.00
61.539	3700.00	750.59	.50	.38	.00	63.43	68.00
61.539	4600.00	751.47	.88	.47	.00	63.43	68.00
161.540	1880.00	748.31	.00	.00	.00	63.43	1.00
161.540	3220.00	750.09	1.78	.00	.00	63.43	1.00
161.540	3700.00	750.59	.50	.00	.00	63.43	1.00
161.540	4600.00	751.48	.89	.01	.00	63.43	1.00

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*****************************************************
*  WATER SURFACE PROFILES                           *
*  VERSION OF NOVEMBER 1976                         *
*  UPDATED APRIL 1980                               *
*                                                   *
*  RUN DATE MON, AUG 23, 1982,  2:42 PM             *
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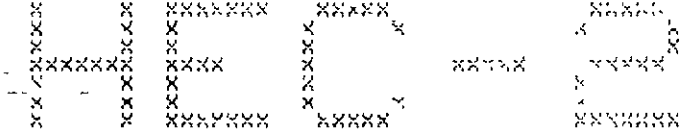

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*****************************************
*  U.S. ARMY CORPS OF ENGINEERS         *
*  THE HYDROLOGIC ENGINEERING CENTER    *
*  609 SECOND STREET, SUITE D           *
*  DAVIS, CALIFORNIA 95616              *
*  (916) 440-2105 (FTS) 448-2105        *
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AUGUST 23, 1982

FLOOD INSURANCE ZONE TABLE

FLOOD OUTLET DRAIN, SALINE. (RELOCATION)

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*****************************************************
 HEC2 RELEASE DATED NOV 76 UPDATED APRIL 1980
 ERROR CORR - 01,02,03,04
 MODIFICATION - 50,51,52,53,54
*****************************************************

C
T1      HUD FLOOD INSURANCE STUDIES  H-3970  WILLIAMS & WORKS
T2      CITY OF SALINE  SALINE RIVER AND WOOD CREEK
T3      WOOD OUTLET DRAIN          10-YEAR FLOOD

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC    HVINS     G       WSEL     FG
      0.       6.       0.       0.   .000000     .00       .0       0.   805.420    .000

J2  NPROF    IPLOT    PRFVS    XSECV    XSECH     FN       ALLDC     IBW      CHNIM    ITRACE
    1.000     .000   -1.000     .000     .000    1.300     .000     000      .000     .000

J3  VARIABLE CODES FOR SUMMARY PRINTOUT
    150.000  201.000    .000     .000     .000     .000     .000     000      .000     000

NC      .100     .100     040      100      .300     .000     .000     .000     .000     .000
QT     5.000  325.000  325.000  420.000  285.000  195.000     000     .000     .000     .000
ET      .000     .000    1.400     .000     .000     .000     .000     .000     .000     .000
NH     3.000     .075 1662.700     .045 1672.700     .075 2202.700     .000     .000     .000

        CROSS SECTION AB

X1     11.270   22.000 1662.700 1672.700   70.000   70.000   50.000     .000     .000     .000
X3      .000     .000     .000 1610.200     .000 1725.200     .000     .000     .000     .000
GR    821.500     .000  820.600  152.700  820.600  277.200  823.500  462.500  822.200  660.600
GR    820.800  860.100  817.300 1053.300  812.600 1280.700  808.800 1438.900  805.900 1608.800
GR    805.900 1660.300  801.900 1662.700  800.400 1667.700  801.900 1672.700  807.800 1679.900
GR    812.700 1864.700  822.500 2042.200  817.000 2251.100  816.200 2435.300  821.700 2605.700
GR    824.800 2734.100  829.000 2802.700     .000     .000     .000     .000     .000     .000
NC      .100     .100     .045     .100     .300     .000     .000     .000     .000     .000
NH     3.000     .080 2039.700     .045 2046.700     .075 3550.900     .000     .000     .000

        CROSS SECTION AC

X1     12.870   20.000 2039.700 2046.700 1650.000 1600.000 1600.000     .000     .000     .000
GR    830.800     .000  828.500  513.900  827.600  685.000  815.500  857.200  812.300 1050.500
GR    810.300 1230.600  810.500 1467.800  811.900 1659.400  810.000 1887.700  802.200 2039.700
GR    801.800 2042.700  802.800 2046.700  808.400 2162.300  810.300 2365.400  816.000 2559.100
GR    823.000 2791.100  821.300 3045.000  821.800 3293.200  825.600 3471.200  828.000 3550.900
NH      3.000     .030 2036.500     .030 2048.000     .030 3550.900     .000     .000     .000
```

X1	12.970	21.000	2036.500	2048.000	100.000	100.000	100.000	.000	.000	.000	.000
GR	830.800	.000	828.500	513.900	827.600	665.000	815.500	857.800	814.300	1050.500	2035.500
GR	810.300	1230.600	810.500	1467.800	811.900	1659.400	810.000	1007.700	809.000	2035.500	2365.400
GR	801.800	2040.000	801.800	2045.000	802.900	2048.000	808.400	1162.300	810.300	2365.400	3471.200
GR	816.000	2558.100	823.000	2791.100	821.700	2045.000	821.800	2297.200	825.600	3471.200	.000
GR	828.000	3550.900	.000	.000	.000	.000	.000	.000	.000	.000	.000
NH	3.000	.030	2036.500	.030	2048.000	.030	2550.000	.030	.000	.000	.000
X1	13.520	21.000	2036.500	2048.000	550.000	550.000	550.000	.000	.719	.000	.000
X5	-6.000	.250	.250	.250	.250	.250	.250	.000	.000	.000	.000
GR	830.800	.000	828.500	513.900	827.600	665.000	815.500	857.800	814.300	1050.500	2035.500
GR	810.300	1227.600	810.500	1467.800	811.900	1659.400	810.000	1007.700	809.000	2035.500	2365.400
GR	801.800	2040.000	801.800	2045.000	802.900	2048.000	808.400	1162.300	810.300	2365.400	3471.200
GR	816.000	2558.100	823.000	2791.100	821.700	2045.000	821.800	2297.200	825.600	3471.200	.000
GR	828.000	3550.900	.000	.000	.000	.000	.000	.000	.000	.000	.000
NH	3.000	.030	2270.000	.030	2290.000	.030	2772.120	.000	.000	.000	.000

CROSS SECTION AD

X1	14.060	21.000	2270.000	2290.000	650.000	650.000	540.000	.000	.000	.000	.000
GR	810.000	.000	811.700	917.000	811.900	957.600	812.000	1114.100	813.100	1303.700	1707.100
GR	810.800	1510.000	810.900	1689.000	811.000	1972.800	811.000	2030.100	809.500	2270.000	2365.400
GR	803.200	2275.000	803.200	2295.000	805.700	2295.000	809.100	2405.100	809.200	2365.400	3584.100
GR	809.300	2762.800	809.300	2932.200	816.000	3115.500	822.300	2740.600	820.000	3584.100	.000
GR	818.800	3773.100	.000	.000	.000	.000	.000	.000	.000	.000	.000
NH	3.000	.030	2265.000	.030	2295.000	.030	3373.100	.000	.000	.000	.000
X1	14.110	21.000	2265.000	2295.000	50.000	50.000	50.000	.000	.000	.000	.000
GR	810.000	.000	811.700	917.000	811.900	957.600	812.000	1114.100	813.100	1303.700	1707.100
GR	810.800	1510.000	810.900	1689.000	811.000	1972.800	811.000	2030.100	809.500	2270.000	2365.400
GR	803.200	2275.000	803.200	2295.000	805.700	2295.000	809.100	2405.100	809.200	2365.400	3584.100
GR	809.300	2762.800	809.300	2932.200	816.000	3115.500	822.300	2740.600	820.000	3584.100	.000
GR	818.800	3773.100	.000	.000	.000	.000	.000	.000	.000	.000	.000
ET	.000	.000	5.100	.000	.000	.000	.000	.000	.000	120.000	.000
NH	3.000	.030	57.000	.030	104.000	.030	700.000	.000	.000	.000	.000
X1	14.860	15.000	57.000	104.000	900.000	700.000	900.000	.000	.000	.000	.000
GR	811.400	.000	810.000	10.000	809.000	15.000	808.000	15.000	807.000	21.000	25.000
GR	807.000	28.000	808.500	55.000	808.500	57.000	804.000	25.000	804.000	55.000	65.000
GR	808.800	104.000	808.500	300.000	808.200	480.000	808.100	650.000	810.000	700.000	700.000
ET	.000	.000	5.100	.000	.000	.000	.000	.000	.000	120.000	.000
NH	3.000	.030	55.000	.030	102.000	.030	610.000	.000	.000	.000	.000

X1	15.460	12.000	55.000	102.000	600.000	600.000	600.000	.000	.000	.000
GR	811.300	.000	811.000	6.000	810.000	11.000	809.400	55.000	804.500	75.000
GR	804.500	85.000	808.700	102.000	808.600	120.000	808.800	270.000	808.900	510.000
GR	809.000	570.000	810.000	610.000	.000	.000	.000	.000	.000	.000
ET	.000	7.100	9.100	.000	.000	.000	929.000	.000	1140.000	1610.000
NH	3.000	.030	1491.000	.030	1536.000	.030	1733.200	.000	.000	.000

X1	16.000	19.000	1491.000	1536.000	600.000	600.000	600.000	.000	.000	.000
GR	819.900	.000	811.500	78.800	812.800	209.500	810.600	379.400	810.200	595.400
GR	809.900	728.900	809.900	876.500	811.900	929.500	809.800	1070.500	809.900	1235.500
GR	809.900	1331.800	809.900	1422.600	812.800	1490.000	812.800	1491.000	805.200	1518.500
GR	805.200	1528.500	807.000	1536.000	810.600	1597.600	812.900	1733.200	.000	.000
ET	.000	7.100	9.100	.000	.000	.000	929.000	.000	1140.000	1610.000
NH	5.000	.080	929.500	.075	1520.600	.035	1527.600	.075	2040.000	.100
NH	2331.100	.000	.000	.000	.000	.000	.000	.000	.000	.000

CROSS SECTION AE

X1	16.060	23.000	1520.600	1527.600	100.000	100.000	100.000	.000	.000	.000
GR	819.900	.000	811.500	78.800	812.800	209.500	810.100	379.400	810.200	595.400
GR	809.900	726.900	809.900	876.500	811.900	929.500	809.800	1070.500	809.900	1235.500
GR	809.900	1331.800	809.900	1422.600	812.800	1490.000	809.500	1527.600	805.200	1527.600
GR	806.500	1527.600	810.600	1597.600	812.900	1733.200	814.500	1904.100	814.400	2040.000
GR	815.800	2134.600	817.400	2265.600	818.000	2331.100	.000	.000	.000	.000
EJ	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	PV	ML	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	HACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTH	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
1490 NH CARD USED									
*SECNO 14.060									
CROSS SECTION AD									
14.06	5.17	808.37	.00	.00	808.39	.02	.07	.00	825.50
325.	101.	131.	93.	135.	86.	126.	26.	12.	805.40
1.18	.75	1.52	.72	.029	.029	.030	.057	803.20	2176.05
.000240	650.	540.	650.	2	0	0	.00	205.13	2361.17
1490 NH CARD USED									
*SECNO 14.110									
14.11	5.18	808.38	.00	.00	808.40	.02	.01	.00	805.70
325.	75.	177.	73.	119.	131.	116.	29.	12.	805.70
1.19	.63	1.36	.63	.039	.039	.039	.057	803.20	2176.55
.000184	50.	50.	50.	0	0	0	.00	205.24	2361.79
1490 NH CARD USED									
*SECNO 14.660									
3265 DIVIDED FLOW									
14.86	4.63	808.62	.00	.00	808.66	.04	.25	.01	808.50
325.	29.	231.	65.	31.	131.	139.	35.	18.	802.80
1.26	.92	1.76	.47	.029	.029	.029	.058	804.00	16.12
.000549	900.	900.	700.	2	0	0	.00	532.12	663.83
1490 NH CARD USED									
*SECNO 15.460									
15.46	4.51	809.01	.00	.00	809.08	.07	.41	.01	809.40
325.	0.	282.	43.	0.	128.	99.	29.	20.	809.70
1.44	.00	2.20	.44	.039	.039	.039	.058	804.50	56.56
.000867	600.	600.	600.	2	0	0	.00	514.15	570.71
1490 NH CARD USED									
*SECNO 16.000									
3470 ENCROACHMENT STATION=		329.0	1733.2	TYPE=	1	TARGET=		-929.000	
16.00	4.33	809.53	.00	808.82	809.61	.07	.53	.00	812.00
325.	0.	252.	73.	0.	107.	55.	41.	20.	807.70
1.52	.00	2.36	1.33	.039	.039	.039	.058	805.20	1500.97
.000896	600.	600.	600.	2	0	0	.00	78.38	1579.35

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SECNO   DEPTH   CWSEL   CRIWS   WSELK   EG      HV      HL      CLOSS   BANK ELEV
Q       QLOB    QCH     QROB    ALOB    HACH    AROB    VOL     TWA     LEFT/RIGHT
TIME    VLOB    VCH     VROB    XNL     XNCP    XNR     WTN     ELMIN   SSTA
SLOPE   XLOBL   XLCH    XLOBR   ITRIAL  IDC     ICONT   CORAR   TOPWID  ENDST

*PPOF 3

CCHV=    .100 CEHV=    .300
1490 NH CARD USED
*SECNO 11.270

3470 ENCROACHMENT STATIONS=    1610.2    1725.2  TYPE=     1  TARGET=     115.000
        CROSS SECTION AB

    11.27     6.03   806.43      .00   806.43   806.82      .39      .00      .00   801.90
     325.      27.     282.      16.      33.      53.      11.       0.       0.   801.90
      .00      .82     5.34     1.51     .097     .059     .097     .000   800.40  1610.20
  .005093      70.      50.      70.        0        0        0      .00    67.26  1677.46

CCHV=    .100 CEHV=    .300
1490 NH CARD USED
*SECNO 12.870
        CROSS SECTION AC

    12.87     6.24   808.04      .00      .00   808.05      .01     1.20      .04   802.80
     325.     133.      54.     138.     290.      40.     284.      13       5.   802.80
      .73      .46     1.34      .49     .104     .058     .097     .058   801.80  1928.97
  .000284    1650.    1600.    1600.        6        0        0      .00   226.00  2154.97

1490 NH CARD USED
*SECNO 12.970
    12.97     6.26   808.06      .00      .00   808.06      .00      .01      .00   802.90
     325.     135      57.     134.     279.      68.     276       15       6.   802.90
      .78      .48      .83      .48     .039     .039     .039     .058   801.80  1928.42
  .000046     100.     100.     100.        2        0        0      .00   226.75  2155.17

1490 NH CARD USED
*SECNO 13.520
 WATER EL=X5 CARD=   808.307
    13.52     5.80   808.31      .00      .00   808.31      .01      .03      .00   803.61
     325.     132.      62.     131.     231.      63.     229.      22       9.   803.61
     1.01      .57      .99      .57     .039     .039     .039     .058   802.51  1938.06
  .000072     550.     550.     550.        0        0        0      .00   207.55  2145.61
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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED APRIL 1980
  ERROR CORR -  01,02,03,04
  MODIFICATION -  50,51,52,53,54
*****************************************************

T1      HUD FLOOD INSURANCE STUDIES  H-3970  WILLIAMS & WORKS
T2      CITY OF SALINE  SALINE RIVER AND WOOD CREEK
T3      WOOD OUTLET DRAIN          100-YEAR FLOOD

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         JSEL      FQ
     0.        2.        0.        0.    .000000      .00        .0        0.    806.430     000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
    3.000      .000    -1.000      .000      .000     1.300      .000      .000      000       000
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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED APRIL 1980
  ERROR CORR -  01,02,03,04
  MODIFICATION -  50,51,52,53,54
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

WOOD OUTLET DRAIN

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K+S	VCH	AREA	01K
	11.270	50.00	.00	.00	800.40	195.00	805.42	.00	805.69	43.88	4.30	52.97	29.44
	11.270	50.00	.00	.00	800.40	285.00	806.14	.00	806.52	52.08	5.20	76.75	39.49
	11.270	50.00	.00	.00	800.40	325.00	806.43	.00	806.82	50.93	5.34	96.21	45.54
	11.270	50.00	.00	.00	800.40	420.00	807.10	.00	807.45	43.96	5.37	141.51	63.35
	12.870	1600.00	.00	.00	801.80	195.00	806.97	.00	806.98	3.14	1.22	395.92	110.65
	12.870	1600.00	.00	.00	801.80	285.00	807.76	.00	807.77	2.96	1.30	552.94	168.54
	12.870	1600.00	.00	.00	801.80	325.00	808.04	.00	808.05	2.84	1.34	614.53	192.99
	12.870	1600.00	.00	.00	801.80	420.00	808.62	.00	808.63	2.77	1.41	752.34	252.13
	12.970	100.00	.00	.00	801.80	195.00	806.98	.00	806.99	.51	.77	404.07	273.38
	12.970	100.00	.00	.00	801.80	285.00	807.78	.00	807.78	.46	.81	561.54	419.69
	12.970	100.00	.00	.00	801.80	325.00	808.06	.00	808.06	.46	.83	623.40	491.12
	12.970	100.00	.00	.00	801.80	420.00	808.63	.00	808.64	.44	.87	762.48	630.73
*	13.520	550.00	.00	.00	802.51	195.00	807.23	.00	807.24	.90	.95	324.79	206.03
+	13.520	550.00	.00	.00	802.51	285.00	808.03	.00	808.03	.75	.97	467.03	330.02
*	13.520	550.00	.00	.00	802.51	325.00	808.31	.00	808.31	.72	.99	523.51	382.97
*	13.520	550.00	.00	.00	802.51	420.00	808.88	.00	808.89	.69	1.03	649.31	507.46
	14.060	540.00	.00	.00	803.20	195.00	807.32	.00	807.35	4.80	1.79	167.71	99.97
	14.060	540.00	.00	.00	803.20	285.00	808.10	.00	808.12	2.79	1.57	292.96	170.69
	14.060	540.00	.00	.00	803.20	325.00	808.37	.00	808.39	2.40	1.52	347.14	209.62
	14.060	540.00	.00	.00	803.20	420.00	808.94	.00	808.96	1.86	1.46	474.05	307.85
	14.110	50.00	.00	.00	803.20	195.00	807.35	.00	807.37	3.02	1.45	187.33	112.24
	14.110	50.00	.00	.00	803.20	285.00	808.11	.00	808.13	2.06	1.38	311.23	198.57
	14.110	50.00	.00	.00	803.20	325.00	808.38	.00	808.40	1.84	1.36	365.24	239.30
	14.110	50.00	.00	.00	803.20	420.00	808.95	.00	808.96	1.51	1.34	491.83	341.31
	14.860	900.00	.00	.00	804.00	195.00	807.76	.00	807.82	9.19	2.01	101.84	64.75
	14.860	900.00	.00	.00	804.00	285.00	808.40	.00	808.45	7.60	2.00	198.48	103.37
	14.860	900.00	.00	.00	804.00	325.00	808.63	.00	808.66	5.49	1.76	302.13	138.67
	14.860	900.00	.00	.00	804.00	420.00	809.11	.00	809.12	2.33	1.26	601.19	275.07

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
16.060	195.00	808.85	.00	.02	.00	59.64	100.00
16.060	285.00	809.44	.59	.03	.00	71.48	100.00
16.060	725.00	809.57	.12	.03	.71	74.27	100.00
16.060	420.00	809.80	.24	.04	.00	83.17	100.00

WOOD OUTLET DRAIN

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	11.270	195.00	805.42	.00	.00	.00	15.81	50.00
	11.270	285.00	806.14	.72	.00	.00	66.96	50.00
	11.270	325.00	806.43	.29	.00	.00	67.26	50.00
	11.270	420.00	807.10	.67	.00	.00	67.96	50.00
	12.870	195.00	806.97	.00	1.55	.00	181.16	1600.00
	12.870	285.00	807.76	.79	1.62	.00	214.32	1600.00
	12.870	325.00	808.04	.28	1.61	.00	226.00	1600.00
	12.870	420.00	808.62	.57	1.52	.00	268.44	1600.00
	12.970	195.00	806.98	.00	.01	.00	181.95	100.00
	12.970	285.00	807.78	.79	.01	.00	215.06	100.00
	12.970	325.00	808.06	.28	.01	.00	226.75	100.00
	12.970	420.00	808.62	.57	.01	.00	270.48	100.00
*	13.520	195.00	807.23	.00	.25	.00	162.75	550.00
*	13.520	285.00	808.03	.79	.25	.00	195.86	550.00
*	13.520	325.00	808.31	.29	.25	.00	207.55	550.00
*	13.520	420.00	808.88	.57	.25	.00	231.47	550.00
	14.060	195.00	807.32	.00	.09	.00	136.15	540.00
	14.060	285.00	808.10	.78	.07	.00	187.00	540.00
	14.060	325.00	808.37	.28	.07	.00	205.13	540.00
	14.060	420.00	808.94	.57	.06	.00	242.73	540.00
	14.110	195.00	807.35	.00	.03	.00	137.32	50.00
	14.110	285.00	808.11	.76	.01	.00	187.24	50.00
	14.110	325.00	808.38	.27	.01	.00	205.24	50.00
	14.110	420.00	808.95	.56	.01	.00	242.23	50.00
	14.860	195.00	807.76	.00	.41	.00	54.45	900.00
	14.860	285.00	808.40	.64	.29	.00	377.27	900.00
	14.860	325.00	808.63	.23	.24	.00	533.12	900.00
	14.860	420.00	809.11	.48	.16	.00	661.75	900.00
	15.460	195.00	808.20	.00	.55	.00	40.92	600.00
	15.460	285.00	808.88	.68	.49	.00	428.69	600.00
	15.460	325.00	809.01	.13	.39	.00	514.15	600.00
	15.460	420.00	809.30	.29	.20	.00	526.70	600.00
	16.000	195.00	808.82	.00	.52	.00	63.35	600.00
	16.000	285.00	809.41	.59	.52	.00	76.55	600.00
	16.000	325.00	809.53	.13	.52	.71	78.38	600.00
	16.000	420.00	809.76	.23	.46	.00	83.16	600.00

SECND	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K+S	VCH	AREA	.01K
15.460	600.00	.00	.00	804.50	195.00	808.30	.00	808.37	9.13	2.01	96.82	64.54
15.460	600.00	.00	.00	804.50	285.00	808.88	.00	808.96	9.19	2.22	164.66	94.00
15.460	600.00	.00	.00	804.50	325.00	809.01	.00	809.08	8.67	2.20	226.55	110.39
15.460	600.00	.00	.00	804.50	420.00	809.30	.00	809.34	6.31	1.97	374.67	167.23
16.000	600.00	.00	.00	805.20	195.00	808.82	.00	808.88	7.96	2.00	111.63	69.12
16.000	600.00	.00	.00	805.20	285.00	809.41	.00	809.47	8.01	2.20	151.69	100.70
16.000	600.00	.00	.00	805.20	325.00	809.57	.00	809.61	9.86	2.36	162.00	109.22
16.000	600.00	.00	.00	805.20	420.00	809.76	.00	809.86	11.35	2.75	180.22	124.65
16.060	100.00	.00	.00	805.20	195.00	808.85	.00	809.12	66.10	5.29	81.84	23.98
16.060	100.00	.00	.00	805.20	285.00	809.44	.00	809.70	59.25	5.64	119.92	37.02
16.060	100.00	.00	.00	805.20	325.00	809.57	.00	809.86	64.88	6.04	129.18	40.35
16.060	100.00	.00	.00	805.20	420.00	809.80	.00	810.19	79.94	6.99	147.24	46.98

WATER SURFACE PROFILES
VERSION OF NOVEMBER 1976
UPDATED APRIL 1980

RUN DATE TUE, JUL 6, 1982, 4:43 PM

- FILE COPY -

U.S. ARMY CORPS OF ENGINEERS
THE HYDROLOGIC ENGINEERING CENTER
609 SECOND STREET, SUITE D
DAVIS, CALIFORNIA 95616
(916) 440-2105 (FTS) 449-2105

JULY 6, 1982

W/0.25' INCREASE FOR CROSSING

FLOOD WAY DATA

WOOD OUTLET DRAIN, SALINE (RELOCATION)



TUE, JUL 26, 1982, 4:43 PM

PAGE

****
HEC2 RELEASE DATED NOV 75 UPDATED APRIL 1980
ERROR CORR - 01,02,03,04
MODIFICATION - 50,51,52 53,54
****

T1 HUD FLOOD INSURANCE STUDIES H-3970 WILLIAMS & WORKS
T2 CITY OF SALINE SALINE RIVER AND DOE CREEK
T3 WOOD OUTLET DRAIN 100-YEAR FLOOD

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS		SEL	FD
	0	2.	0	0	.000000	.100	.0	0	6.0 930	PLO
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	1.000	7000	-1.000	000	000	1.300	.000	000	000	000
J3	VARIABLE CODES FOR SUMMARY PRINTOUT									
	150.000	200.000	7.000	.000	.000	.000	.0000	000	000	000

| | | | | | | | | |

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TUE, JUL 6, 1982, 4:47 PM PAGE 4

SECNO	DEPTH	CWSEL	CRIWS	WSELI	EG	H	HL	QLOBS	BAR ELE
Q	QLOB	QCH	QROB	ALOB	PACH	ARCE	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTH	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAP	TOPWID	ENDST

*PROF 1

CCHV= .100 CEHV= .300
1490 NH CARD USED
*SECNO 11.270

3470 ENCROACHMENT STATIONS= 1610.2 1725.2 TYPE= 1 TARGET= 115.000
CROSS SECTION AB

11.27	6.03	806.43	.00	806.43	806.92	.39	.00	.00	801.[illegible]
325.	27.	262.	16.	33.	53.	11.	0.	0.	801.90
.00	.82	5.34	1.51	.097	.059	.097	.000	800.[illegible]	1611.2
.005093	70.	50.	70.	0	0	0	.00	67.2[illegible]	1607.4[illegible]

CCHV= .100 CEHV= .300
1490 NH CARD USED
*SECNO 12.970
CROSS SECTION AC

"P" IN FIS

12.87	6.24	803.04	.00	.00	803.05	.01	1.20	.04	802.30
325.	137.	54.	138.	290.	40.	294.	13.	[illegible]	[illegible]
.73	.46	1.34	.49	.104	.056	.097	.053	801.8[illegible]	1928.9[illegible]
.000284	1650.	1600.	1600	6	0	0	.00	226.[illegible]	2154.[illegible]

1490 NH CARD USED
*SECNO 12.970

12.97	6.26	808.06	.00	.00	808.06	.00	.01	.0[illegible]	80[illegible]
325.	135.	57.	134.	279.	56.	276.	15.	6.	802.30
.78	.48	.87	.49	.039	.039	.039	.058	801.[illegible]	1928.4[illegible]
.000046	100.	100.	100	2	0	0	.00	226.75	2155.1[illegible]

1490 NH CARD USED
*SECNO 13.520
WATER EL=X5 CARD= 808.307

13.52	5.80	803.31	.00	.00	808.31	.01	.03	.00	803.61
325.	132.	62.	131.	231.	63.	229.	2[illegible]	9.	81[illegible]
1.01	.57	.99	.57	.039	.039	.039	.058	802.51	1938.0[illegible]
.000072	550.	550.	550	0	0	1	.0[illegible]	20[illegible].55	2145.[illegible]

SECNO / TIME / SLOPE	DEPTH / QLOB / VLOB / XLOBL	CWSEL / QCH / VCH / XLOB	CRTWS / QFOB / VFOB / YLOBR	WSELK / ELOB / YNL / ITRIAL	EG / PHLH / ANLH / IBC	HV / HFOB / VNP / ICONT	HL / VEL / WTR / COPER	CLOSS / TIE / ELMTH / JOPTIC	SHTX LEFT / SHTX RGHT / SKTP / EGOS
1490 NH CARD USED									
*SECNO 14.060									
CROSS SECTION AD									
14.06	5.17	806.37	.00	.00	806.33	.02	.07	.00	995.50
325.	101.	101.	97.	126.	126.	126.	28.	12.	997.05
1.18	.75	1.52	.73	.039	.039	.039	.057	.013	1000.55
.000240	650.	540.	250.	2	0	0	0	1.00	1001.17
1490 NH CARD USED									
*SECNO 14.110									
14.11	5.18	806.32	.00	.00	806.40	.02	.01	.00	995.50
325.	.75	177.	73.	119.	130.	116.	29.	12.	997.05
1.19	.67	1.56	.52	.039	.039	.039	.051	.000	1000.55
.000164	50.	50.	50.	0	0	0	.00	205.24	1001.17
1490 NH CARD USED									
*SECNO 14.860									
3265 DIVIDED FLOW									
14.86	4.63	806.63	.00	.00	806.66	.04	.25	.01	995.50
325.	.29	221.	65.	71.	171.	139.	28.	12.	997.05
1.36	.92	1.76	.47	.039	.039	.039	.058	504.09	1000.55
.000549	900.	900.	700.	2	0	0	.00	771.12	1001.17
1490 NH CARD USED									
*SECNO 15.460									
15.46	4.51	809.01	.00	.00	809.09	.07	.41	.01	995.50
325.	.0	262.	43.	0	142.	99.	38.	12.	997.05
1.44	.00	2.20	.44	.039	.039	.039	.065	504.09	1000.55
.000867	600.	600.	600.	2	0	0	.00	514.15	573.71
1490 NH CARD USED									
*SECNO 16.000									
3470 ENCROACHMENT STATIONS=		929.0	1733.2	TYPE=	1	TARGET=	-929.000		
16.00	4.77	809.57	.00	.00	809.61	.04	.57	.01	995.50
325.	.0	284.	73.	0	100.	58.	41.	20.	997.05
1.52	.00	2.16	.73	.039	.039	.039	.055	504.09	1000.55
.000886	600.	600.	600	2	0	0	.00	70.32	1573.71

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HI	HL	[illegible]	[illegible]
0	QLOB	QCH	QROB	ALOB	PACH	AROB	VCL	[illegible]	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	[illegible]	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	COPAR	TOPWID	ENDST

1490 NH CARD USED
+SECNO 16.060

3470 ENCROACHMENT STATIONS= 929.0 2731.1 TYPE= 1 TARGET= -309.000
CROSS SECTION AE

16.06	4.37	809.57	.00	.00	809.66	.30	.15	.07	806.50
325.	37.	157.	131.	27.	26.	[illegible]	42.	[illegible]	[illegible]
1.53	1.61	6.04	1.63	.097	.045	.097	.056	805.20	1505.70
.006493	100.	100.	100.	2	0	0	.00	74.27	[illegible]

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED APRIL 1980
  ERROR CORR -  01,02,03,04
  MODIFICATION -  50,51,52,53,54
*****************************************************

T1      HUD FLOOD INSURANCE STUDIES  H-3970  WILLIAMS & MOFKS
T2      CITY OF SALINE  SALINE RIVER AND WOOD CREEK
T3      WOOD OUTLET DRAIN        100-YEAR FLOODWAY

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    C        VSEL     FD
      0.       3.       0.       0.   .000000      .00      .0       0     [illegible]  .000

J2  NPROF     IPLOT    PRFVS    XSECV    XSECH    FN       ALLDC    IBR      CHNIM    ITRACE
     15.000     .000   -1.000     .000     .000    1.700     .000     .00      .00      .00
```



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TUE, JUL  6, 1982,  4:43 PM                                                                                    PAGE  2

   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HC        QLOSS     BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      HACH      ARCE      VCL       TUA       LEFT RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     BETA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDSTA

*PROF 2

CCHV=     .100 CEHV=     .300
1490 NH CARD USED
*SECNO 11.270

3470 ENCROACHMENT STATIONS=    1610.2    1725.2  TYPE=     1  TARGET=    115.000
          CROSS SECTION AF

    11.27      6.13    806.53       .00    806.43    806.88       .35       .00       .00    801.9
     325.       32.      277.       16.       32.       54.       11.        0.        0.    801.9
      .00       .84      5.14      1.46      .097      .058      .097      .000    801.40   1610.2
  .004607       70.       50.       70.        0         0         0       .00     67.37   1677.5

CCHV=     .100 CEHV=     .300
1490 NH CARD USED
*SECNO 12.870
 2800 NAT Q1=    192.99  WSEL=    805.04  ENC Q1=    192.99  WSEL=    805.14  RATIO=    .0100
 NAT Q1=    202.  RATIOS LOB,CH,ROB=   .4100   .1624   .4276  WSEL=    802.14

3470 ENCROACHMENT STATIONS=    1984.2    2101.2  TYPE=     4  TARGET=      .046
          CROSS SECTION AC

    12.87      6.31    808.11       .00    802.04    808.12       .01      1.20       .03    802.80
     325.      132.       55.      138.      222.       41.      217.       11.        7.    802.90
      .60       .59      1.36       .63      .104      .058      .097      .058    801.80   1984.24
  .000291     1650.     1600.     1600         4         0         0       .00    [illegible]   2101.25

1490 NH CARD USED
*SECNO 12.970
 2800 NAT Q1=    481.12  WSEL=    808.06  ENC Q1=    481.12  WSEL=    808.16  RATIO=    .0000
 NAT Q1=    504.  RATIOS LOB,CH,ROB=   .4164   .1708   .4129  WSEL=    808.16

3470 ENCROACHMENT STATIONS=    1982.3    2101.7  TYPE=     4  TARGET=      .046
    12.97      6.32    808.12       .00    808.06    808.13       .01       .11       .0.    802.90
     325.      134.       55.      133.      213.       69.      211.       12.        4.    802.90
      .64       .63       .84       .63      .039      .039      .039       .58    801.90   1982.23
  .000047      100.      100       100         0         0         0       .00    119.44   2101.73
```

```
   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       [illegible]
   Q        QLOB     QCH      QROB     ALOB     HACH     APOB     VOL      TOA      LOFT/RIGHT
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNP      WTH      ELMIN    SSTA
   SLOPE    XLOEL    XLCH     XLOER    ITRIAL   IDC      ICONT    CORAR    TCPUID   ENDCT

1490 NH CARD USED
*SECNO 13.520
 WATER EL=X5 CARD=    808.370
 2800 NAT Q1=    392.97  WSEL=    808.31  ENC Q1=    392.97  WSEL=    808.41  RATIO=    .00
 NAT Q1=    403.  RATIOS LOB,CH,ROB=    .4081    .1872    .4047  WSEL=    808.41

3470 ENCROACHMENT STATIONS=    1987.6    2096.5  TYPE=    4  TARGET=    .050
    13.52     5.86    808.37      .00    808.31    808.38      .01      .03      [illegible]
     325.      131.      64.      130.      176.      64.      174.      18      [illegible]
      .84       .75     1.01      .74      .039     .039     .039     .055    802.[illegible]
  .000074     550.     550.     550.        0        0        0      .00    106.27   2096.46

1490 NH CARD USED
*SECNO 14.060
 2800 NAT Q1=    209.62  WSEL=    808.37  ENC Q1=    209.62  WSEL=    808.47  RATIO=    -.0000
 NAT Q1=    225.  RATIOS LOB,CH,ROB=    .3184    .3894    .2922  WSEL=    808.47

3470 ENCROACHMENT STATIONS=    2227.6    2330.5  TYPE=    4  TARGET=    .069
          CROSS SECTION 4D

    14.06     5.24    808.44      .00    808.37    808.46      .03      .09      .00    [illegible]
     325.      99.     137.      90.       97.      87.      90.      23.      [illegible]
      .97     1.02     1.57     1.00      .039     .039     .039     .057    803.[illegible]
  .000249     650.     540.     650.        2        0        0      .00    102.[illegible]

1490 NH CARD USED
*SECNO 14.110
 2800 NAT Q1=    239.30  WSEL=    808.38  ENC Q1=    239.30  WSEL=    808.48  RATIO=    -.0000
 NAT Q1=    256.  RATIOS LOB,CH,ROB=    .2371    .5302    .2327  WSEL=    808.48

3470 ENCROACHMENT STATIONS=    2227.1    2332.0  TYPE=    4  TARGET=    .066
    14.11     5.25    808.45      .00    808.38    808.47      .02      .01      .00    [illegible]
     325.      71.     185.      69.       82.     132.      80.      23      [illegible]
      .99       .86     1.40      .86      .039     .039     .039     .057    803.[illegible]
  .000191      50.      50.      50         0        0        0      .00    104.[illegible]

1490 NH CARD USED
*SECNO 14.860
    14.86     4.72    808.72      .00    808.67    808.78      .05      .30      .01    [illegible]
     325.      39.     286.       0.       35.     126.       0.      28       9.     [illegible]
      1.11     1.12     2.10      .00      .039     .039     .039     .057    [illegible]
  .000758     900.     900.     700         2        0        0      .00     67.84    103.62
```

TUE, JUL 6, 1982, 4:43 PM PAGE [illegible]

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLDSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	HACH	HROB	VCL	TWA	LEFT, RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	QTN	ELMIN	[illegible]
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICCNT	CORAR	TOPWID	EXCST

1490 NH CARD USED
*SECNO 15.460

15.46	4.47	808.97	.00	809.01	809.07	.10	.27	.01	[illegible]
325.	0.	325.	0.	0.	126.	0.	30.	1.	[illegible]
1.17	.00	2.59	.00	.039	.039	.039	.059	804.50	[illegible]
0.0306	600.	600.	600	2	0	0	.00	45.[illegible]	[illegible]

1490 NH CARD USED
*SECNO 16.000

3470 ENCROACHMENT STATIONS= 1140.0 1610.0 TYPE= 1 TARGET= 470.000

16.00	4.10	809.70	.00	809.[illegible]	809.75	.09	.32	[illegible]	[illegible]
325.	0.	260.	65	0.	99.	45.	31.	10.	[illegible]
1.24	.00	2.64	1.44	.039	.039	.039	.059	[illegible]	[illegible]
.001190	600.	600.	600	1	0	0	.00	73.[illegible]	[illegible]

1490 NH CARD USED
*SECNO 16.060

3470 ENCROACHMENT STATIONS= 1140.0 1610.0 TYPE= 1 TARGET= 470.000
CROSS SECTION AE

16.06	4.15	809.35	.00	809.57	809.73	.38	.25	.0[illegible]	[illegible]
325	35	165.	125.	20.	25.	69.	32.	11	806.50
1.25	1.78	6.72	1.80	.097	.045	.097	.059	[illegible]	[illegible]
.008695	100.	100.	100.	2	0	0	.00	69.[illegible]	1576.31

HEC2 RELEASE DATED NOV 76 UPDATED APRIL 1980
ERROR CORR - 01.02.03.04
MODIFICATION - 50,51,52,53,54

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN ERROR OR WARNING LIST

WOOD OUTLET DRAIN

SUMMARY PRINTOUT TABLE 150

	SECNO	XLOB	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	VLOB	VCH	AREA	OIC
	11.270	50.00	.00	.00	800.40	325.00	806.47	.01	808.61	50.90	5.34	45.54	
	11.270	50.00	.00	.00	800.40	325.00	806.52	.01	808.66	48.07	5.14	47.00	
	12.870	1600.00	.00	.00	801.80	325.00	806.04	.00	808.05	2.84	1.34	214.63	193.62
	12.870	1600.00	.00	.00	801.80	325.00	806.11	.00	808.14	2.91	1.36	213.62	193.62
	12.970	100.00	.00	.00	801.80	325.00	806.06	.00	808.06	49	.63	514.40	46.71
	12.970	100.00	.00	.00	801.80	325.00	806.11	.00	808.12	54	.65	498.49	46.71
*	13.520	550.00	.00	.00	802.51	325.00	806.31	.00	808.30	.64	.01	513.24	47.26
*	13.520	550.00	.00	.00	802.51	325.00	806.37	.00	808.36	.64	.01	513.24	47.26
	14.060	540.00	.00	.00	803.20	325.00	806.37	.00	808.35	2.40	1.52	341.14	205.62
	14.060	540.00	.00	.00	803.20	325.00	806.44	.00	808.42	2.38	1.51	341.14	205.62
	14.110	50.00	.00	.00	803.20	325.00	806.38	.00	808.40	1.84	1.30	355.24	177.62
	14.110	50.00	.00	.00	803.20	325.00	806.45	.00	808.47	1.81	1.29	355.24	177.62
	14.860	800.00	.00	.00	804.00	325.00	806.63	.00	808.66	2.41	1.76	302.10	193.62
	14.860	800.00	.00	.00	804.00	325.00	806.72	.00	808.76	2.38	1.75	302.10	193.62
	15.460	600.00	.00	.00	804.50	325.00	806.81	.00	808.91	2.56	1.96	285.56	181.76
	15.460	600.00	.00	.00	804.50	325.00	806.97	.00	809.07	2.54	1.95	285.56	181.76
	16.000	600.00	.00	.00	805.20	325.00	806.53	.00	808.61	1.86	1.66	196.00	193.62
	16.000	600.00	.00	.00	805.20	325.00	806.60	.00	808.68	1.84	1.64	196.00	193.62
	16.060	100.00	.00	.00	805.20	325.00	806.57	.00	808.64	1.56	1.39	234.00	54.26
	16.060	100.00	.00	.00	805.20	325.00	806.65	.00	808.72	1.54	1.38	234.00	54.26

WOOD OUTLET DRAIN

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CUSEL	DIFWSP	DIFWSX	DIFMS	TOPWID	LCH
11.270	325.00	806.43	.00	.00	.00	67.26	50.00
11.270	325.00	806.53	.10	.00	.10	67.37	50.00
12.870	325.00	808.04	.00	1.61	.00	226.00	1600.00
12.970	325.00	809.11	.06	1.59	.06	117.01	1600.00
12.970	325.00	808.06	.00	.01	.00	229.75	100.00
12.970	325.00	808.12	.06	.01	.06	119.44	100.00
13.520	325.00	808.31	.00	.25	.00	207.55	550.00
13.520	325.00	808.37	.06	.25	.06	109.87	550.00
14.060	325.00	808.37	.00	.07	.00	205.13	540.00
14.060	325.00	808.44	.06	.07	.06	102.89	540.00
14.110	325.00	808.38	.00	.01	.00	205.24	50.00
14.110	325.00	808.45	.07	.01	.07	104.86	50.00
14.860	325.00	808.63	.00	.24	.00	533.12	900.00
14.860	325.00	808.72	.09	.27	.09	87.84	900.00
15.460	325.00	809.01	.00	.39	.00	514.15	600.00
15.460	325.00	808.97	-.05	.25	-.05	45.23	600.00
16.000	325.00	809.53	.00	.52	.00	73.38	600.00
16.000	325.00	809.30	-.23	.34	-.23	73.29	600.00
16.060	325.00	809.57	.00	.03	.00	74.27	100.00
16.060	325.00	809.35	-.21	.05	-.21	69.57	100.00

Received 9/22/81

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*****************************************
*  WATER SURFACE PROFILES               *
*  VERSION OF NOVEMBER 1976             *
*  UPDATED APRIL 1980                   *
*                                       *
*  RUN DATE THU, FEB 19, 1981,  3:25 PM *
*****************************************
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WOOD OUTLET DRAIN
MODIFICATION
SUPERCEDED
RUN DATED
FEB 20, 1981

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*****************************************
*  U.S. ARMY CORPS OF ENGINEERS         *
*  THE HYDROLOGIC ENGINEERING CENTER    *
*  609 SECOND STREET, SUITE D           *
*  DAVIS, CALIFORNIA 95616              *
*  (916) 440-2105 (FTS) 448-2105        *
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X     X  XXXXXXX   XXXXX          XXXXX
X     X  X        X     X        X     X
X     X  X        X              X     X
XXXXXXX  XXXX     X        XXXXX  XXXXX
X     X  X        X              X
X     X  X        X     X        X
X     X  XXXXXXX  XXXXX          XXXXXXX
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CITY OF SALINE
SALINE RIVER ~~AND WOOD~~
~~OUTLET DRAIN~~
FEB. 19, 1981

FLOODWAY DATA

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**********************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED APRIL 1980
  ERROR CORP -  01,02,03,04
  MODIFICATION -  50,51,52,53,54
**********************************************************

C
T1      HUD FLOOD INSURANCE STUDIES  H-3970  WILLIAMS & WORKS
T2      CITY OF SALINE  SALINE RIVER AND WOOD CREEK
T3      SALINE RIVER, SALINE    100-YEAR FLOOD

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
        0.       2.        0.        0.   .000000       .00       .5        0.   732.230      .000

J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
    1.000       .000    -1.000       .000      .000    1.300      .000      .000      .000      .000

J3  VARIABLE CODES FOR SUMMARY PRINTOUT

  150.000   200.000       .000      .000      .000      .000      .000      .000      .000      .000

NC      .130      .130      .050      .100      .300      .000      .000      .000      .000      .000
QT     5.000  3700.000  3700.000  4600.000  3220.000  1880.000      .000      .000      .000      .000
ET      .000      .000     1.400      .000      .000      .000      .000      .000      .000      .000

        CROSS SECTION CX

X1    149.820    18.000   199.000   240.000      .000      .000      .000      .000      .000      .000
GR    750.600      .000   733.500    80.000   729.600   125.000   725.600   147.000   725.500   180.000
GR    724.900   194.000   720.200   199.000   719.700   210.000   719.700   220.000   720.100   230.000
GR    720.300   240.000   721.200   244.000   727.600   280.000   725.400   380.000   735.700   403.000
GP    736.900   430.000   740.000   940.000   750.000  1040.000      .000      .000      .000      .000

        CROSS SECTION BX

X1    151.920    28.000  1407.000  1451.000  2000.000  1500.000  2100.000      .000      .000      .000
GR    750.000      .000   740.000   650.000   737.800   658.000   743.800   660.000   743.600   760.000
GR    741.700   860.000   740.700   900.000   729.200   945.000   728.300   960.000   728.600  1060.000
GR    728.700  1160.000   728.100  1260.000   728.000  1360.000   726.400  1404.000   723.600  1407.000
GP    722.100  1410.000   721.300  1420.000   720.600  1430.000   720.800  1440.000   723.600  1451.000
GR    727.800  1455.000   728.400  1460.000   728.900  1560.000   727.800  1660.000   726.100  1760.000
GR    726.300  1785.000   735.900  1810.000   745.000  1820.000      .000      .000      .000      .000
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CROSS SECTION AX

X1	152.720	20.000	329.000	383.000	1000.000	500.000	800.000	.000	.000	.000
GR	741.800	.000	738.900	100.000	737.800	140.600	728.500	170.000	729.200	200.000
GR	729.200	303.000	727.300	329.000	726.400	340.000	725.700	350.000	724.500	360.000
GR	723.900	370.000	723.800	380.000	727.000	383.000	730.000	384.000	729.600	400.000
GR	729.200	434.000	735.100	462.000	734.100	796.000	736.100	1242.000	748.600	1492.000
NH	5.000	.050	724.800	.130	1365.400	.040	1377.400	.120	1546.400	.060
NH	1877.300	.000	.000	.000	.000	.000	.000	.000	.000	.000

CROSS SECTION A

X1	154.020	30.000	1365.400	1377.400	1000.000	1500.000	1300.000	.000	.000	.000
X3	.000	.000	.000	713.200	.000	.000	.000	.000	.000	.000
GR	750.800	.000	753.200	62.900	754.300	173.900	734.000	291.400	734.000	331.300
GR	738.200	338.800	732.300	353.400	732.300	642.000	734.900	652.000	734.900	713.200
GR	733.400	724.800	733.400	905.400	735.800	914.000	732.800	944.600	731.600	1053.500
GR	732.300	1171.100	731.600	1310.000	732.900	1363.400	729.000	1365.400	728.700	1368.400
GR	728.400	1371.400	728.500	1373.400	729.000	1377.400	730.700	1383.400	733.400	1450.000
GR	734.900	1546.400	745.600	1614.300	749.900	1717.500	754.800	1795.600	759.900	1877.300
NH	4.000	.130	482.100	.040	507.100	.130	661.800	.070	1020.000	.000

CROSS SECTION B

X1	154.710	18.000	482.100	507.100	730.000	720.000	690.000	.000	.000	.000
X3	.000	.000	.000	375.000	.000	.000	.000	.000	.000	.000
GR	760.000	.000	736.200	59.600	734.600	145.000	733.000	239.800	734.000	345.100
GR	734.300	444.900	729.200	482.100	726.900	484.100	726.200	489.100	726.300	494.100
GR	727.100	499.100	727.600	504.100	729.200	507.100	733.200	558.100	738.200	661.800
GR	743.200	756.100	756.600	858.200	760.000	1020.000	.000	.000	.000	.000
ET	.000	.000	9.100	.000	.000	.000	.000	.000	137.100	419.300
NH	4.000	.120	180.000	.040	216.000	.120	395.000	.070	750.000	.000

CROSS SECTION B'

X1	154.960	26.000	180.000	216.000	350.000	150.600	250.000	.000	.000	.000
GR	760.000	.000	760.000	45.000	756.000	60.000	752.000	75.000	748.000	88.000
GR	744.000	100.000	740.000	120.000	736.000	130.000	732.000	150.000	729.700	180.000
GR	727.500	182.000	727.800	187.000	727.800	197.000	728.000	202.000	728.600	207.000
GR	729.100	212.000	729.700	216.000	730.000	224.000	732.000	230.000	736.000	395.000
GR	740.000	518.000	744.000	545.000	748.000	578.000	752.000	580.000	756.000	590.000
GR	760.000	750.000	.000	.000	.000	.000	.000	.000	.000	.000
NH	4.000	.125	175.000	.050	211.000	.130	500.000	.075	1300.000	.000

CROSS SECTION BB

X1	155.510	20.000	175.000	211.000	530.000	340.000	550.000	.000	.000	.000
X3	.000	.000	.000	.000	.000	550.000	.000	.000	.000	.000
GR	760.000	.000	748.000	80.000	736.000	140.000	732.000	160.000	731.000	175.000
GR	728.800	177.000	729.100	182.000	729.000	187.000	729.100	192.000	729.300	197.000
GP	729.900	202.000	730.400	207.000	731.000	211.000	732.000	225.000	736.000	500.000
GR	737.700	770.000	740.000	1150.000	744.000	1175.000	756.000	1220.000	760.000	1300.000
NH	4.000	.125	133.700	.050	173.200	.130	254.800	.080	710.600	.000

CROSS SECTION C

X1	156.210	19.000	133.700	173.200	790.000	450.000	700.000	.000	.000	.000
X3	.000	.000	.000	.000	.000	191.800	.000	.000	.000	.000
GR	748.300	.000	747.200	57.100	740.300	115.300	732.000	133.700	731.000	136.700
GR	730.300	141.700	729.800	146.700	729.900	151.700	729.700	156.700	729.700	161.700
GR	730.500	166.700	730.900	171.700	732.000	173.200	741.800	191.800	737.600	254.800
GR	748.300	385.300	750.200	487.500	756.000	592.800	760.500	710.600	.000	.000
NC	.080	.080	.040	.400	.500	.000	.000	.000	.000	.000
NH	4.000	.125	133.700	.050	173.200	.130	254.800	.080	710.600	.000

CROSS SECTION AT DOWNSTREAM EMBANKMENT TO BRIDGE

X1	156.270	.000	.000	.000	60.000	90.000	60.000	.000	.400	.000
X3	.000	.000	.000	.000	.000	191.800	.000	.000	.000	.000
NH	3.000	.080	492.500	.040	553.500	.080	895.900	.000	.000	.000

CROSS SECTION AT DOWNSTREAM FACE OF MONROE STREET BRIDGE

SKEW FACTOR OF 0.9397 APPLIED FOR BRIDGE SKEWED 20 DEGREES

X1	156.280	33.000	492.500	553.500	15.000	15.000	15.000	.940	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	747.000	747.000	.000
GR	759.900	.000	757.100	39.900	755.400	98.700	753.000	166.400	750.500	225.100
GP	749.800	296.000	749.100	360.700	748.200	416.900	747.000	480.500	734.800	492.500
GP	733.300	494.000	733.100	495.000	732.000	498.000	731.800	500.000	730.200	505.000
GR	729.500	510.000	729.900	515.000	729.700	520.000	729.200	525.000	729.900	530.000
GP	731.000	535.000	731.900	540.000	732.700	545.000	733.200	550.000	733.000	551.000
GR	735.800	553.500	747.000	564.500	748.600	624.400	749.700	677.700	751.800	717.000
GR	754.400	761.000	757.800	817.500	760.000	895.900	.000	.000	.000	.000
SB	.000	1.760	2.800	.000	39.800	.000	607.000	.700	729.200	729.200

CROSS SECTION AT UPSTREAM FACE OF MONROE STREET BRIDGE

SKEW FACTOR OF 0.9397 APPLIED FOR BRIDGE SKEWED 20 DEGREES

X1	156.320	33.000	492.500	553.500	35.000	35.000	35.000	.940	.000	.000
X2	.000	.000	1.000	741.700	747.000	.000	.000	.000	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	747.000	747.000	.000
GR	759.900	.000	757.100	39.900	755.400	98.700	753.000	166.400	750.500	225.100
GR	749.800	296.000	749.100	360.700	748.200	416.900	747.000	480.500	734.800	492.500
GR	733.300	494.000	733.100	495.000	732.000	498.000	731.800	500.000	730.200	505.000
GR	729.500	510.000	729.900	515.000	729.700	520.000	729.200	525.000	729.900	530.000
GR	731.000	535.000	731.900	540.000	732.700	545.000	733.200	550.000	733.000	551.000
GR	735.800	553.500	747.000	564.500	748.600	624.400	749.700	677.700	751.800	717.000
GR	754.400	761.000	757.800	817.500	760.000	895.900	.000	.000	.000	.000
NH	3.000	.120	738.300	.040	787.100	.120	1214.200	.000	.000	.000

CROSS SECTION AT UPSTREAM EMBANKMENT TO BRIDGE

X1	156.340	28.000	738.300	787.100	15.000	15.000	15.000	.000	-1.200	.000
X3	.000	.000	.000	744.000	.000	820.000	.000	.000	.000	.000
GR	765.400	.000	763.200	85.100	765.100	192.900	777.400	264.900	772.900	354.800
GR	772.900	453.800	751.000	502.300	742.000	593.300	741.600	681.700	741.600	728.700
GR	736.700	733.300	733.700	738.300	732.700	743.300	731.700	745.300	731.700	748.300
GR	732.100	752.300	731.000	755.300	730.600	761.300	731.100	766.300	731.400	771.300
GR	732.100	774.300	735.200	787.100	746.900	857.800	738.500	903.900	737.600	964.300
GR	746.200	1083.500	749.100	1161.900	761.600	1214.200	.000	.000	.000	.000
NH	5.000	.120	728.700	.080	752.300	.040	774.300	.080	787.100	.120
NH	1214.200	.000	.000	.000	.000	.000	.000	.000	.000	.000

CROSS SECTION D

X1	156.410	23.000	752.300	774.300	100.000	100.000	75.000	.000	.000	.000
X3	.000	.000	.000	679.000	.000	830.000	.000	.000	.000	.000
GR	765.400	.000	763.200	85.100	765.100	192.900	777.400	264.900	772.900	354.800
GR	772.900	453.800	751.000	502.300	742.000	593.300	741.600	681.700	741.600	728.700
GR	732.100	752.300	731.000	755.300	730.600	761.300	731.100	766.300	731.400	771.300
GR	732.100	774.300	737.700	787.100	746.900	857.800	738.500	903.900	737.600	964.300
GR	746.200	1083.500	749.100	1161.900	761.600	1214.200	.000	.000	.000	.000
NC	.100	.100	.040	.100	.300	.000	.000	.000	.000	.000
NH	4.000	.065	689.900	.100	995.400	.040	1033.400	.080	1182.600	.000

CROSS SECTION E

X1	157.230	23.000	995.400	1033.400	750.000	850.000	820.000	.000	.000	.000
X3	.000	.000	.000	428.500	.000	.000	.000	.000	.000	.000
GR	760.200	.000	755.000	97.500	756.000	209.700	752.800	294.500	741.600	389.500
GR	741.000	478.500	740.400	583.100	740.400	689.900	739.700	816.600	739.100	916.600
GR	738.900	981.600	735.100	995.400	734.300	1000.400	733.900	1005.400	733.500	1010.400
GR	732.900	1015.400	733.000	1018.400	734.500	1025.400	734.800	1030.400	735.100	1033.400
GR	740.300	1044.900	756.900	1117.700	762.800	1182.600	.000	.000	.000	.000
NH	4.000	.065	171.700	.110	916.200	.040	959.200	.120	1333.600	.000

CROSS SECTION F

X1	158.330	25.000	916.200	959.200	200.000	1550.000	1100.000	.000	.000	.000
X3	.000	.000	.000	350.000	.000	.000	.000	.000	.000	.000
GR	754.700	.000	752.200	72.200	746.800	171.700	744.000	303.200	740.200	420.500
GR	740.200	500.800	741.500	600.000	741.400	680.000	742.400	824.600	742.400	902.300
GR	737.400	916.200	735.300	916.700	734.300	922.200	734.500	927.200	734.900	932.200
GR	735.000	937.200	735.200	942.200	735.200	947.200	735.800	952.200	736.000	955.200
GR	737.400	959.200	740.500	1011.200	743.200	1124.000	748.700	1241.500	752.600	1333.600
NH	4.000	.120	807.800	.040	863.800	.120	931.100	.080	1533.900	.000

CROSS SECTION FF

X1	159.180	27.000	807.800	863.800	530.000	1000.000	850.000	.000	.000	.000
X3	.000	.000	.000	.000	.000	1000.000	.000	.000	.000	.000
GR	756.200	.000	756.000	78.600	746.800	174.200	746.100	289.500	747.000	436.000
GR	744.000	632.700	742.600	762.200	742.600	801.900	737.500	807.800	736.500	813.800
GR	735.700	818.800	735.000	823.800	734.500	828.800	734.300	833.800	734.200	838.800
GR	734.200	843.800	734.600	848.800	735.300	853.800	736.600	861.800	737.500	863.800
GR	744.100	931.100	745.300	1035.100	746.200	1152.700	745.900	1261.000	747.100	1344.200
GR	747.700	1407.500	780.600	1533.900	.000	.000	.000	.000	.000	.000
NH	3.000	.110	82.500	.035	110.500	.085	572.600	.000	.000	.000

CROSS SECTION G

X1	160.370	22.000	82.500	110.500	770.000	400.000	1190.000	.000	.000	.000
X3	.000	.000	.000	.000	.000	970.000	.000	.000	.000	.000
GR	759.900	.000	749.300	39.100	745.400	72.000	740.000	82.500	739.400	84.500
GR	738.800	89.500	738.900	94.500	739.200	99.500	739.600	104.500	739.900	109.500
GR	740.000	110.500	744.600	160.900	745.900	240.300	746.500	324.800	747.900	436.600
GR	744.900	572.600	744.000	700.000	745.500	970.000	748.000	1120.000	752.000	1130.000
GR	756.000	1150.000	760.000	1200.000	.000	.000	.000	.000	.000	.000
NH	3.000	.070	281.500	.035	381.500	.085	553.200	.000	.000	.000

CROSS SECTION D02A

X1	161.120	17.000	281.500	381.500	900.000	60.000	750.000	.000	.000	.000
X3	.000	.000	.000	125.000	.000	600.000	.000	.000	.000	.000
GR	760.000	.000	747.500	78.300	745.400	163.700	744.800	234.100	744.800	262.700
GR	744.100	281.500	743.900	282.000	743.900	381.000	744.100	381.500	748.000	424.800
GR	746.700	498.300	745.900	553.200	745.000	750.000	748.000	910.000	752.000	940.000
GR	756.000	970.000	760.000	1000.000	.000	.000	.000	.000	.000	.000
NH	3.000	.080	443.900	.035	547.900	.080	1439.800	.000	.000	.000

CROSS SECTION H

X1	161.420	31.000	443.900	547.900	400.000	200.000	300.000	.000	.000	.000
X3	.000	.000	.000	445.900	.000	545.900	.000	.000	.000	.000
GR	778.300	.000	776.900	50.400	764.900	118.400	759.500	182.400	755.600	266.700
GR	753.700	370.900	753.900	421.600	744.100	443.900	743.800	444.000	743.900	452.900
GR	743.800	462.900	743.500	472.900	743.300	482.900	742.800	492.500	743.000	502.900
GR	742.800	512.900	742.600	522.900	741.900	532.900	742.200	539.900	743.700	545.900
GR	744.100	547.900	751.000	593.500	747.200	693.800	746.200	783.300	746.100	899.900
GR	746.100	959.600	746.100	1070.400	747.000	1199.800	747.000	1317.800	747.800	1337.300
GR	780.000	1439.800	.000	.000	.000	.000	.000	.000	.000	.000
NC	.080	.080	.035	.400	.650	.000	.000	.000	.000	.000

CROSS SECTION IMMEDIATELY DOWNSTREAM OF MICHIGAN AVE. (US 12) BRIDGE

SKEW FACTOR OF 0.9397 APPLIED FOR BRIDGE SKEWED 20 DEGREES

X1	161.470	36.000	802.500	870.000	50.000	50.000	50.000	.940	.000	.000
X3	.000	.000	.000	802.500	.000	870.000	.000	.000	.000	.000
GR	780.200	.000	778.500	81.700	777.200	164.700	775.100	226.600	772.200	295.500
GR	768.800	361.500	767.000	408.400	764.800	458.500	763.200	516.400	761.600	559.000
GR	759.600	630.900	758.000	706.600	756.600	767.700	756.600	786.000	742.000	802.500
GR	742.000	810.000	742.500	820.000	742.000	830.000	741.500	840.000	742.000	850.000
GR	743.000	860.000	744.000	870.000	757.000	890.000	757.900	937.300	757.600	1000.000
GR	757.500	1080.600	758.600	1144.800	759.600	1207.400	762.800	1254.300	764.700	1322.700
GR	766.700	1367.500	768.300	1412.500	770.800	1459.800	772.500	1509.000	774.200	1558.500
GR	776.000	1600.600	.000	.000	.000	.000	.000	.000	.000	.000

CROSS SECTION AT DOWNSTREAM FACE OF MICHIGAN AVENUE (US 12) BRIDGE

SKEW FACTOR OF 0.9397 APPLIED FOR BRIDGE SKEWED 20 DEGREES

X1	61.471	36.000	802.500	870.000	1.000	1.000	1.000	.940	.000	.000
X2	.000	.000	.000	752.300	756.600	.000	.000	.000	.000	.000
X3	.000	.000	.000	802.500	.000	870.000	.000	.000	.000	.000
GR	780.200	.000	778.500	81.700	777.200	164.700	775.100	226.600	772.200	295.500
GR	768.800	361.500	767.000	408.400	764.800	458.500	763.200	516.400	761.600	559.000
GR	759.600	630.900	758.000	706.600	756.600	767.700	756.600	786.000	742.000	802.500
GR	742.000	810.000	742.500	820.000	742.000	830.000	741.500	840.000	742.000	850.000
GR	743.000	860.000	744.000	870.000	757.000	890.000	757.900	937.300	757.600	1000.000
GR	757.500	1080.600	758.600	1144.800	759.600	1207.400	762.800	1254.300	764.700	1322.700
GR	766.700	1367.500	768.300	1412.500	770.800	1459.800	772.500	1509.000	774.200	1558.500
GR	776.000	1600.600	.000	.000	.000	.000	.000	.000	.000	.000

CROSS SECTION AT UPSTREAM FACE OF MICHIGAN AVENUE (US 12) BRIDGE

SKEW FACTOR OF 0.9397 APPLIED FOR BRIDGE SKEWED 20 DEGREES

X1	61.539	36.000	802.500	870.000	68.000	68.000	68.000	.940	.000	.000
X2	.000	.000	.000	752.300	756.600	.000	.000	.000	.940	.000
X3	.000	.000	.000	802.500	.000	870.000	.000	.000	.000	.000
BT	12.000	786.000	756.600	756.600	802.500	756.600	749.800	802.500	756.600	751.900
BT	810.000	756.600	751.900	820.000	756.700	752.000	830.000	756.800	752.100	840.000
BT	756.800	752.100	850.000	756.900	751.200	860.000	756.900	751.200	870.000	757.000
BT	752.300	870.000	757.000	747.300	890.000	757.000	757.000	.000	.000	.000
GR	780.200	.000	778.500	81.700	777.200	164.700	775.100	226.600	772.200	295.500
GR	768.800	361.500	767.000	408.400	764.800	458.500	763.200	516.400	761.600	559.000
GR	759.600	630.900	758.000	706.600	756.600	767.700	756.600	786.000	742.000	802.500
GR	742.000	810.000	742.500	820.000	742.000	830.000	741.500	840.000	742.000	850.000
GR	743.000	860.000	744.000	870.000	757.000	890.000	757.900	937.300	757.600	1000.000
GR	757.500	1080.600	758.600	1144.800	759.600	1207.400	762.800	1254.300	764.700	1322.700
GR	766.700	1367.500	768.300	1412.500	770.800	1459.800	772.500	1509.000	774.200	1558.500
GR	776.000	1600.600	.000	.000	.000	.000	.000	.000	.000	.000

CROSS SECTION IMMEDIATELY UPSTREAM OF MICHIGAN AVE. (US 12) BRIDGE

SKEW FACTOR OF 0.9397 APPLIED FOR BRIDGE SKEWED 20 DEGREES

X1	161.540	36.000	802.500	870.000	1.000	1.000	1.000	.940	.000	.000
X3	.000	.000	.000	802.500	.000	870.000	.000	.000	.000	.000
GR	780.200	.000	778.500	81.700	777.200	164.700	775.100	226.600	772.200	295.500
GR	768.800	361.500	767.000	408.400	764.800	458.500	763.200	516.400	761.600	559.000
GR	759.600	630.900	758.000	706.600	756.600	767.700	756.600	786.000	742.000	802.500
GR	742.000	810.000	742.500	820.000	742.000	830.000	741.500	840.000	742.000	850.000
GR	743.000	860.000	744.000	870.000	757.000	890.000	757.900	937.300	757.600	1000.000
GR	757.500	1080.600	758.600	1144.800	759.600	1207.400	762.800	1254.300	764.700	1322.700
GR	766.700	1367.500	768.300	1412.500	770.800	1459.800	772.500	1509.000	774.200	1558.500
GR	776.000	1600.600	.000	.000	.000	.000	.000	.000	.000	.000
NC	.100	.100	.040	.100	.300	.000	.000	.000	.000	.000
QT	5.000	3640.000	3640.000	4620.000	3150.000	1860.000	.000	.000	.000	.000
ET	.000	.000	9.100	.000	.000	.000	.000	.000	194.400	477.400
NH	5.000	.100	94.700	.060	194.400	.030	477.400	.120	556.200	.070
NH	602.500	.000	.000	.000	.000	.000	.000	.000	.000	.000

CROSS SECTION I

X1	163.250	37.000	194.400	477.400	1860.000	1885.000	1710.000	.000	.000	.000
X5	5.000	758.950	758.950	759.750	758.890	758.720	.000	.000	.000	.000
GP	794.200	.000	783.900	28.700	759.000	94.700	757.800	168.900	758.000	194.400
GP	757.800	196.400	756.800	204.400	756.000	214.400	755.300	224.400	754.300	234.400
GR	753.300	244.400	752.400	254.400	751.700	264.400	751.700	274.400	751.100	284.400
GP	750.700	294.400	750.500	304.400	750.200	314.400	749.900	324.400	749.400	334.400
GR	749.400	344.400	748.600	364.400	748.600	374.400	748.500	384.400	748.100	394.400
GR	748.100	404.400	749.100	414.400	749.500	424.400	749.400	434.400	751.300	444.400
GR	755.500	454.400	757.000	468.400	757.600	474.400	758.000	477.400	760.000	499.400
GR	789.600	556.200	792.500	602.500	.000	.000	.000	.000	.000	.000
ET	.000	.000	9.100	.000	.000	.000	.000	.000	612.600	775.600

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  HEC2 RELEASE DATED NOV 76 UPDATED APRIL 1980
  ERROR CORR -  01,02,03,04
  MODIFICATION -  50,51,52,53,54
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T1      HUD FLOOD INSURANCE STUDIES  H-3970  WILLIAMS & WORKS
T2      CITY OF SALINE  SALINE RIVER ~~AND WOOD CREEK~~
T3      SALINE RIVER, SALINE    100-YEAR FLOOD W/ENCR.

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
        0.        3.        0.        0.   .000000       .00        .5        0.   732.230      .000
J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
   15.000      .000    -1.000      .000      .000     1.300      .000      .000      .000      .000
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	HACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

+PROF 2

CCHV= .100 CEHV= .300

*SECNO 149.820

2800 NAT Q1= 1046.51 WSEL= 732.23 ENC Q1= 1046.51 WSEL= 732.33 RATIO= .0000

NAT Q1= 1066. RATIOS LOB,CH,ROB= .1398 .5831 .2771 WSEL= 732.33

3470 ENCROACHMENT STATIONS= 129.4 380.2 TYPE= 4 TARGET= .019

CROSS SECTION CX

149.82	12.53	732.23	.00	732.23	732.42	.19	.00	.00	720.20
3700.	490.	2208.	1002.	456.	504.	902.	0.	0.	720.30
.00	1.08	4.38	1.11	.169	.065	.169	.000	719.70	129.42
.001295	0.	0.	0.	0	0	0	.00	250.73	380.15

*SECNO 151.920

2800 NAT Q1= 1870.04 WSEL= 733.61 ENC Q1= 1870.04 WSEL= 733.71 RATIO= .0000

NAT Q1= 1918. RATIOS LOB,CH,ROB= .3608 .3355 .3037 WSEL= 733.71

3470 ENCROACHMENT STATIONS= 959.2 1785.1 TYPE= 4 TARGET= .025

CROSS SECTION BX

151.92	13.05	733.65	.00	733.61	733.69	.03	1.26	.02	723.60
3700.	1309.	1275.	1116.	2419.	534.	1946.	140.	22.	723.60
.45	.54	2.39	.57	.169	.065	.169	.072	720.60	959.16
.000399	2000.	2100.	1500.	2	0	0	.00	825.95	1785.11

*SECNO 152.720

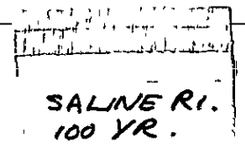
2800 NAT Q1= 751.42 WSEL= 734.12 ENC Q1= 751.42 WSEL= 734.22 RATIO= -.0000

NAT Q1= 770. RATIOS LOB,CH,ROB= .2997 .6094 .0909 WSEL= 734.22

3470 ENCROACHMENT STATIONS= 167.3 436.1 TYPE= 4 TARGET= .024

CROSS SECTION AX

152.72	10.37	734.17	.00	734.12	734.40	.23	.66	.06	727.30
3700.	1096.	2312.	293.	841.	482.	248.	199.	32.	727.00
.51	1.30	4.79	1.18	.169	.065	.169	.069	723.80	167.30
.002464	1000.	800.	500.	2	0	0	.00	268.80	436.09



SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	HACH	AROB	VOL	TWA	LEFT,RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 154.020

3470 ENCROACHMENT STATIONS= 713.2 1877.3 TYPE= 1 TARGET= -713.200
CROSS SECTION A

154.02	8.36	736.76	.00	736.72	736.81	.06	2.39	.02	729.00
3700.	2636.	462.	603.	2716.	97.	618.	264.	47.	729.00
.74	.97	4.76	.98	.167	.052	.155	.070	728.40	713.20
.001717	1000.	1300.	1500.	3	0	0	.00	845.02	1558.22

1490 NH CARD USED
*SECNO 154.710

3470 ENCROACHMENT STATIONS= 375.0 1020.0 TYPE= 1 TARGET= -375.000
CROSS SECTION B

154.71	11.86	738.06	.00	738.05	738.60	.55	1.64	.15	729.20
3700.	718.	2132.	850.	504.	276.	594.	304.	56.	729.20
.78	1.42	7.73	1.43	.169	.052	.169	.069	726.20	375.00
.003234	730.	690.	720.	4	0	0	.00	283.78	658.78

1490 NH CARD USED
*SECNO 154.960

3470 ENCROACHMENT STATIONS= 137.1 419.3 TYPE= 1 TARGET= 282.200
CROSS SECTION B'

154.96	11.39	738.89	.00	738.89	739.16	.28	.53	.03	729.70
3700.	443.	2103.	1154.	313.	384.	987.	312.	57.	729.70
.79	1.41	5.48	1.17	.156	.052	.152	.069	727.50	137.10
.001632	350.	250.	150.	2	0	0	.00	282.20	419.30

1490 NH CARD USED
*SECNO 155.510

3470 ENCROACHMENT STATIONS= .0 550.0 TYPE= 1 TARGET= 549.999
CROSS SECTION BB

155.51	10.95	739.75	.00	739.72	739.85	.10	.67	.02	731.00
3700.	305.	1408.	1987.	274.	368.	1877.	331.	61.	731.00
.85	1.11	3.82	1.06	.162	.065	.161	.070	728.80	121.24
.001309	530.	550.	340.	2	0	0	.00	428.75	550.00

SECNO	DEPTH	CNSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	HACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
156.21	10.96	740.66	.00	740.65	741.67	1.01	1.55	.27	732.00
3700.	151.	3430.	119.	83.	410.	71.	351.	64.	732.00
.88	1.81	8.37	1.67	.162	.065	.169	.070	729.70	112.33
.006057	790.	700.	450.	0	0	0	.00	77.29	189.62

1490 NH CARD USED
*SECNO 156.210

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= .0 191.8 TYPE= 1 TARGET= 191.799
CROSS SECTION C

CCHV= .400 CEHV= .500

1490 NH CARD USED
*SECNO 156.270

3470 ENCROACHMENT STATIONS= .0 191.8 TYPE= 1 TARGET= 191.799
CROSS SECTION AT DOWNSTREAM EMBANKMENT TO BRIDGE

156.27	10.93	741.03	.00	741.02	742.05	1.02	.37	.00	732.40
3700.	150.	3431.	119.	83.	409.	71.	352.	64.	732.40
.88	1.82	8.39	1.68	.163	.065	.169	.070	730.10	112.56
.006114	60.	60.	90.	2	0	0	.00	77.01	189.57

1490 NH CARD USED
*SECNO 156.280

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 747.00 ELREA= 747.00

CROSS SECTION AT DOWNSTREAM FACE OF MONROE STREET BRIDGE

SKEW FACTOR OF 0.9397 APPLIED FOR BRIDGE SKEWED 20 DEGREES

156.28	12.52	741.72	.00	741.71	742.29	.57	.07	.18	734.80
3700.	0.	3700.	0.	0.	608.	0.	352.	64.	735.80
.88	.00	6.08	.00	.163	.052	.169	.070	729.20	462.80
.003555	15.	15.	15.	3	0	0	.00	57.32	520.12

SECNO	DEPTH	CWSEL	CRIWS	WSELV	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	HACH	APOB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

SPECIAL BRIDGE

SB	XK	XKOR	COPO	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	.00	1.76	2.80	.00	39.80	.00	607.00	.70	729.20	729.20

*SECNO 156.320
PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
742.73	742.29	.00	0.	3700.	607.	607.	741.70	747.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 747.00 ELREA= 747.00

CROSS SECTION AT UPSTREAM FACE OF MONROE STREET BRIDGE

SKEW FACTOR OF 0.9397 APPLIED FOR BRIDGE SKEWED 20 DEGREES

156.32	13.01	742.21	.00	742.20	742.73	.52	.44	.00	734.80	
3700.	0.	3700.	0.	0.	637.	0.	352.	64.	735.80	
.88	.00	5.81	.00	.163	.052	.169	.070	729.20	462.80	
.003051	35.	35.	35.	2	0	0	.00	57.32	520.12	

1490 NH CARD USED
*SECNO 156.340

3470 ENCROACHMENT STATIONS= 744.0 820.0 TYPE= 1 TARGET= 76.000
CROSS SECTION AT UPSTREAM EMBANKMENT TO BRIDGE

156.34	12.77	742.17	.00	742.15	742.87	.70	.05	.09	99998.80	
3700.	0.	3417.	283.	0.	489.	179.	352.	64.	734.00	
.88	.00	6.99	1.58	.163	.052	.156	.070	729.40	744.00	
.003248	15.	15.	15.	2	0	0	.00	76.00	820.00	

1490 NH CARD USED
*SECNO 156.410

3301 HV CHANGED MORE THAN HVINS

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	HACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNP	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAP	TOPWID	ENDST
156.41	11.48	742.08	.00	742.06	743.68	1.60	.36	.45	732.10
3700.	431.	2788.	481.	147.	241.	166.	354.	64.	732.10
.88	2.93	11.59	2.91	.105	.052	.115	.069	730.60	679.00
.006912	100.	75.	100.	3	0	0	.00	141.74	820.74

3470 ENCROACHMENT STATIONS= 679.0 830.0 TYPE= 1 TARGET= 151.000
CROSS SECTION D

CCHV= .100 CEHV= .300
1490 NH CARD USED
*SECNO 157.230

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 478.5 1182.6 TYPE= 1 TARGET= -478.500
CROSS SECTION E

157.23	11.91	744.81	.00	744.81	744.87	.06	1.04	.15	735.10
3700.	2265.	1316.	118.	2527.	411.	126.	386.	70.	735.10
1.01	.90	3.20	.94	.111	.052	.104	.067	732.90	478.50
.000532	750.	820.	850.	2	0	0	.00	586.15	1064.65

1490 NH CARD USED
*SECNO 158.330

3470 ENCROACHMENT STATIONS= 350.0 1333.6 TYPE= 1 TARGET= -350.000
CROSS SECTION F

158.33	10.92	745.22	.00	745.22	745.31	.09	.43	.01	737.40
3700.	1595.	1566.	538.	2181.	431.	749.	423.	78.	737.40
1.11	.73	3.64	.72	.143	.052	.156	.069	734.30	350.00
.000797	200.	1100.	1550.	2	0	0	.00	817.03	1167.03

1490 NH CARD USED
*SECNO 159.180

3470 ENCROACHMENT STATIONS= .0 1000.0 TYPE= 1 TARGET= 999.999

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	AHCH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
	CROSS SECTION FF								
159.18	11.66	745.86	.00	745.86	746.16	.30	.78	.06	737.50
3700.	380.	2917.	403.	610.	593.	435.	463.	88.	737.50
1.16	.62	4.92	.93	.156	.052	.148	.068	734.20	510.40
.001294	530.	850.	1000.	2	0	0	.00	489.60	1000.00

1490 NH CARD USED
*SECNO 160.370

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= .0 970.0 TYPE= 1 TARGET= 969.999
CROSS SECTION G

160.37	8.16	746.96	746.96	746.96	749.35	2.39	1.83	.63	740.00
3700.	61.	2971.	669.	55.	215.	540.	485.	96.	740.00
1.19	1.10	13.83	1.24	.143	.099	.111	.067	738.80	58.84
.002461	770.	1190.	400.	3	14	0	.00	793.49	970.00

1490 NH CARD USED
*SECNO 161.120

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 125.0 600.0 TYPE= 1 TARGET= 475.000
CROSS SECTION D02A

161.12	6.19	750.09	.00	750.09	750.25	.16	.68	.22	744.10
3700.	854.	2421.	425.	772.	619.	585.	501.	100.	744.10
1.25	1.11	3.91	.73	.091	.079	.110	.066	743.90	125.00
.000553	900.	750.	60.	3	0	0	.00	475.00	600.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	HACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBP	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 161.420

3470 ENCROACHMENT STATIONS= 445.9 545.9 TYPE= 1 TARGET= 100.000
CROSS SECTION H

161.42	8.31	750.21	.00	750.21	750.63	.42	.30	.08	100000.00
3700.	0.	3700.	0.	0.	715.	0.	511.	102.	100000.00
1.27	.00	5.18	.00	.091	.045	.110	.066	741.90	445.90
.002151	400.	300.	200.	3	0	0	.00	100.00	545.90

CCHV= .400 CEHV= .650
*SECNO 161.470

3470 ENCROACHMENT STATIONS= 754.1 817.5 TYPE= 1 TARGET= 67.500
CROSS SECTION IMMEDIATELY DOWNSTREAM OF MICHIGAN AVE. (US 12) BRIDGE

SKEW FACTOR OF 0.9397 APPLIED FOR BRIDGE SKEWED 20 DEGREES

161.47	8.71	750.21	.00	750.21	751.05	.84	.15	.28	742.00
3700.	0.	3700.	0.	0.	502.	0.	511.	102.	100000.00
1.27	.00	7.37	.00	.104	.045	.104	.066	741.50	754.11
.004259	50.	50.	50.	2	0	0	.00	63.43	817.54

*SECNO 61.471

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 756.60 MAX ELLC= 752.30

3470 ENCROACHMENT STATIONS= 754.1 817.5 TYPE= 1 TARGET= 67.500
CROSS SECTION AT DOWNSTREAM FACE OF MICHIGAN AVENUE (US 12) BRIDGE

SKEW FACTOR OF 0.9397 APPLIED FOR BRIDGE SKEWED 20 DEGREES

61.47	8.71	750.21	.00	750.21	751.06	.84	.00	.00	742.00
3700.	0.	3700.	0.	0.	502.	0.	511.	102.	100000.00
1.27	.00	7.37	.00	.104	.045	.104	.066	741.50	754.11
.004261	1.	1.	1.	0	0	0	.00	63.43	817.54

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	OLOB	OCH	OROB	HLOB	HACH	HROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 61.539

3370 NORMAL BRIDGE,NRD= 12 MIN ELTRD= 756.60 MAX ELLC= 752.30

3470 ENCROACHMENT STATIONS= 754.1 817.5 TYPE= 1 TARGET= 67.500
CROSS SECTION AT UPSTREAM FACE OF MICHIGAN AVENUE (US 12) BRIDGE

SKEW FACTOR OF 0.9397 APPLIED FOR BRIDGE SKEWED 20 DEGREES

61.54	9.09	750.59	.00	750.59	751.36	.77	.27	.03	742.00
3700.	0.	3700.	0.	0.	526.	0.	512.	102.	100000.00
1.27	.00	7.03	.00	.104	.045	.104	.066	741.50	754.11
.003685	68.	68.	68.	2	0	0	.00	63.43	817.54

*SECNO 161.540

3470 ENCROACHMENT STATIONS= 754.1 817.5 TYPE= 1 TARGET= 67.500
CROSS SECTION IMMEDIATELY UPSTREAM OF MICHIGAN AVE. (US 12) BRIDGE

SKEW FACTOR OF 0.9397 APPLIED FOR BRIDGE SKEWED 20 DEGREES

161.54	9.09	750.59	.00	750.59	751.36	.77	.00	.00	742.00
3700.	0.	3700.	0.	0.	526.	0.	512.	102.	100000.00
1.27	.00	7.04	.00	.104	.045	.104	.066	741.50	754.11
.003691	1.	1.	1.	0	0	0	.00	63.43	817.54

CCHV= .100 CEHV= .300
1490 NH CARD USED
*SECNO 163.250
WATER EL=X5 CARD= 758.950

3470 ENCROACHMENT STATIONS= 194.4 477.4 TYPE= 1 TARGET= 283.000
CROSS SECTION I

163.25	10.85	758.95	.00	758.95	759.00	.05	.72	.07	758.00
3640.	0.	3640.	0.	0.	2081.	0.	563.	109.	100000.00
1.54	.00	1.75	.00	.104	.039	.104	.064	748.10	194.40
.000150	1860.	1710.	1885.	0	0	0	.00	283.00	477.40

****
HEC2 RELEASE DATED NOV 76 UPDATED APRIL 1980
ERROR CORR - 01,02,03,04
MODIFICATION - 50,51,52,53,54
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

SALINE RIVER, SALINE

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
149.820	.00	.00	.00	719.70	3700.00	732.23	.00	732.41	12.50	4.30	1965.89	1046.51
149.820	.00	.00	.00	719.70	3700.00	732.23	.00	732.42	12.95	4.38	1861.53	1028.04
151.920	2100.00	.00	.00	720.60	3700.00	733.61	.00	733.64	3.91	2.36	5040.13	1870.04
151.920	2100.00	.00	.00	720.60	3700.00	733.65	.00	733.69	3.99	2.39	4899.45	1851.22
152.720	800.00	.00	.00	723.80	3700.00	734.12	.00	734.34	24.25	4.73	1651.11	751.42
152.720	800.00	.00	.00	723.80	3700.00	734.17	.00	734.40	24.64	4.79	1572.00	745.44
154.020	1300.00	.00	.00	728.40	3700.00	736.72	.00	736.78	17.69	4.81	3398.00	879.63
154.020	1300.00	.00	.00	728.40	3700.00	736.76	.00	736.81	17.17	4.76	3431.36	892.91
154.710	690.00	.00	.00	726.20	3700.00	738.05	.00	738.60	32.46	7.74	1371.73	649.41
154.710	690.00	.00	.00	726.20	3700.00	738.06	.00	738.60	32.34	7.73	1374.04	650.61
154.960	250.00	.00	.00	727.50	3700.00	738.89	.00	739.15	15.64	5.37	1787.66	935.50
154.960	250.00	.00	.00	727.50	3700.00	738.89	.00	739.16	16.32	5.48	1683.76	915.84
155.510	550.00	.00	.00	728.80	3700.00	739.72	.00	739.82	13.27	3.84	2506.92	1015.64
155.510	550.00	.00	.00	728.80	3700.00	739.75	.00	739.85	13.09	3.82	2519.14	1022.79
156.210	700.00	.00	.00	729.70	3700.00	740.65	.00	741.66	60.67	8.37	563.87	475.02
156.210	700.00	.00	.00	729.70	3700.00	740.66	.00	741.67	60.57	8.37	564.24	475.42
156.270	60.00	.00	.00	730.10	3700.00	741.02	.00	742.04	61.35	8.40	561.41	472.39
156.270	60.00	.00	.00	730.10	3700.00	741.03	.00	742.05	61.14	8.39	562.17	473.20
156.280	15.00	.00	.00	729.20	3700.00	741.71	.00	742.28	35.66	6.09	607.73	619.58
156.280	15.00	.00	.00	729.20	3700.00	741.72	.00	742.29	35.55	6.08	608.31	620.57
156.320	35.00	747.00	741.70	729.20	3700.00	742.20	.00	742.72	30.62	5.82	635.98	668.69
156.320	35.00	747.00	741.70	729.20	3700.00	742.21	.00	742.73	30.51	5.81	636.62	669.82

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	APEA	.01K
	156.340	15.00	.00	.00	729.40	3700.00	742.15	.00	742.86	32.59	7.00	667.05	648.11
	156.340	15.00	.00	.00	729.40	3700.00	742.17	.00	742.87	32.48	6.99	667.91	649.19
	156.410	75.00	.00	.00	730.60	3700.00	742.06	.00	743.68	69.47	11.61	551.39	443.93
	156.410	75.00	.00	.00	730.60	3700.00	742.08	.00	743.68	69.12	11.59	553.15	445.04
	157.230	820.00	.00	.00	732.90	3700.00	744.81	.00	744.87	5.33	3.21	3062.27	1603.35
	157.230	820.00	.00	.00	732.90	3700.00	744.81	.00	744.87	5.32	3.20	3064.03	1604.68
	158.330	1100.00	.00	.00	734.30	3700.00	745.22	.00	745.31	7.98	3.64	3359.18	1309.66
	158.330	1100.00	.00	.00	734.30	3700.00	745.22	.00	745.31	7.97	3.64	3360.88	1310.50
	159.180	850.00	.00	.00	734.20	3700.00	745.86	.00	746.16	12.95	4.92	1637.45	1028.22
	159.180	850.00	.00	.00	734.20	3700.00	745.86	.00	746.16	12.94	4.92	1638.09	1028.54
*	160.370	1190.00	.00	.00	738.80	3700.00	746.96	746.96	749.35	24.61	13.83	809.31	745.82
*	160.370	1190.00	.00	.00	738.80	3700.00	746.96	746.96	749.35	24.61	13.83	809.30	745.81
	161.120	750.00	.00	.00	743.90	3700.00	750.09	.00	750.25	5.53	3.91	1976.13	1573.35
	161.120	750.00	.00	.00	743.90	3700.00	750.09	.00	750.25	5.53	3.91	1976.13	1573.36
	161.420	300.00	.00	.00	741.90	3700.00	750.21	.00	750.63	21.51	5.18	714.69	797.69
	161.420	300.00	.00	.00	741.90	3700.00	750.21	.00	750.63	21.51	5.18	714.69	797.69
	161.470	50.00	.00	.00	741.50	3700.00	750.21	.00	751.05	42.59	7.37	501.83	566.96
	161.470	50.00	.00	.00	741.50	3700.00	750.21	.00	751.05	42.59	7.37	501.83	566.96
	61.471	1.00	756.60	752.30	741.50	3700.00	750.21	.00	751.06	42.61	7.37	501.76	566.83
	61.471	1.00	756.60	752.30	741.50	3700.00	750.21	.00	751.06	42.61	7.37	501.76	566.83
	61.539	68.00	756.60	752.30	741.50	3700.00	750.59	.00	751.36	36.85	7.03	526.14	609.48
	61.539	68.00	756.60	752.30	741.50	3700.00	750.59	.00	751.36	36.85	7.03	526.14	609.48
	161.540	1.00	.00	.00	741.50	3700.00	750.59	.00	751.36	36.91	7.04	525.88	609.02
	161.540	1.00	.00	.00	741.50	3700.00	750.59	.00	751.36	36.91	7.04	525.88	609.02
*	163.250	1710.00	.00	.00	748.10	3640.00	758.95	.00	759.00	1.47	1.74	2154.08	2999.42
*	163.250	1710.00	.00	.00	748.10	3640.00	758.95	.00	759.00	1.50	1.75	2081.45	2975.25
*	164.390	1140.00	.00	.00	753.30	3640.00	759.08	759.08	760.77	158.79	10.55	390.39	289.86
*	164.390	1140.00	.00	.00	753.30	3640.00	759.11	759.11	760.76	153.26	10.42	395.12	294.03
	165.240	850.00	.00	.00	760.70	980.00	765.59	.00	765.61	8.19	2.28	1117.21	342.38
	165.240	850.00	.00	.00	760.70	980.00	765.57	.00	765.59	8.42	2.30	1107.06	337.79
*	165.690	450.00	.00	.00	763.70	980.00	766.45	766.45	767.20	423.13	10.88	269.92	47.64
*	165.690	450.00	.00	.00	763.70	980.00	766.45	766.45	767.20	422.48	10.88	270.08	47.68
	166.120	430.00	.00	.00	766.60	980.00	772.04	.00	772.62	86.50	7.73	323.38	105.37
	166.120	430.00	.00	.00	766.60	980.00	772.04	.00	772.62	86.55	7.73	323.30	105.34

SALINE RIVER, SALINE

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
149.820	3700.00	732.23	.00	.00	.00	300.60	.00
149.820	3700.00	732.23	.00	.00	.00	250.73	.00
151.920	3700.00	733.61	.00	1.38	.00	876.28	2100.00
151.920	3700.00	733.65	.04	1.42	.04	825.95	2100.00
152.720	3700.00	734.12	.00	.51	.00	321.97	800.00
152.720	3700.00	734.17	.05	.52	.05	268.80	800.00
154.020	3700.00	736.72	.00	2.60	.00	844.77	1300.00
154.020	3700.00	736.76	.04	2.59	.04	845.02	1300.00
154.710	3700.00	738.05	.00	1.33	.00	283.61	690.00
154.710	3700.00	738.06	.01	1.30	.01	283.78	690.00
154.960	3700.00	738.89	.00	.84	.00	361.05	250.00
154.960	3700.00	738.89	-.00	.83	-.00	282.20	250.00
155.510	3700.00	739.72	.00	.84	.00	428.61	550.00
155.510	3700.00	739.75	.03	.86	.03	428.75	550.00
156.210	3700.00	740.65	.00	.92	.00	77.24	700.00
156.210	3700.00	740.66	.01	.91	.01	77.29	700.00
156.270	3700.00	741.02	.00	.37	.00	76.91	60.00
156.270	3700.00	741.03	.01	.37	.01	77.01	60.00
156.280	3700.00	741.71	.00	.69	.00	57.32	15.00
156.280	3700.00	741.72	.01	.69	.01	57.32	15.00
156.320	3700.00	742.20	.00	.49	.00	57.32	35.00
156.320	3700.00	742.21	.01	.49	.01	57.32	35.00
156.340	3700.00	742.15	.00	-.04	.00	76.00	15.00
156.340	3700.00	742.17	.01	-.04	.01	76.00	15.00
156.410	3700.00	742.06	.00	-.09	.00	141.65	75.00
156.410	3700.00	742.08	.01	-.09	.01	141.74	75.00
157.230	3700.00	744.81	.00	2.74	.00	586.14	820.00
157.230	3700.00	744.81	.00	2.73	.00	586.15	820.00
158.330	3700.00	745.22	.00	.41	.00	816.98	1100.00
158.330	3700.00	745.22	.00	.41	.00	817.03	1100.00
159.180	3700.00	745.86	.00	.64	.00	489.51	850.00
159.180	3700.00	745.86	.00	.64	.00	489.60	850.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	KLCH
+	160.370	3700.00	746.96	.00	1.10	.00	793.49	1190.00
+	160.370	3700.00	746.96	-.00	1.10	-.00	793.49	1190.00
	161.120	3700.00	750.09	.00	3.13	.00	475.00	750.00
	161.120	3700.00	750.09	.00	3.13	.00	475.00	750.00
	161.420	3700.00	750.21	.00	.12	.00	100.00	300.00
	161.420	3700.00	750.21	.00	.12	.00	100.00	300.00
	161.470	3700.00	750.21	.00	-.00	.00	63.43	50.00
	161.470	3700.00	750.21	.00	-.00	.00	63.43	50.00
	61.471	3700.00	750.21	.00	.00	.00	63.43	1.00
	61.471	3700.00	750.21	.00	.00	.00	63.43	1.00
	61.539	3700.00	750.59	.00	.38	.00	63.43	68.00
	61.539	3700.00	750.59	.00	.38	.00	63.43	68.00
	161.540	3700.00	750.59	.00	.00	.00	63.43	1.00
	161.540	3700.00	750.59	.00	.00	.00	63.43	1.00
+	163.250	3640.00	758.95	.00	8.36	.00	390.06	1710.00
+	163.250	3640.00	758.95	.00	8.36	.00	283.00	1710.00
+	164.390	3640.00	759.08	.00	.13	.00	177.95	1140.00
+	164.390	3640.00	759.11	.04	.16	.04	163.00	1140.00
	165.240	980.00	765.59	.00	6.51	.00	480.00	850.00
	165.240	980.00	765.57	-.02	6.46	-.02	480.00	850.00
+	165.690	980.00	766.45	.00	.86	.00	183.62	450.00
+	165.690	980.00	766.45	.00	.89	.00	183.67	450.00
	166.120	980.00	772.04	.00	5.59	.00	131.22	430.00
	166.120	980.00	772.04	-.00	5.59	-.00	131.21	430.00
	166.450	980.00	774.75	.00	2.70	.00	75.00	330.00
	166.450	980.00	774.75	.00	2.70	.00	75.00	330.00
	166.500	980.00	776.25	.00	1.51	.00	40.50	50.00
	166.500	980.00	776.25	-.00	1.51	-.00	40.50	50.00
	66.501	980.00	776.24	.00	-.01	.00	38.35	1.00
	66.501	980.00	776.24	-.00	-.01	-.00	38.35	1.00
	66.509	980.00	776.59	.00	.35	.00	39.28	10.00
	66.509	980.00	776.59	-.00	.35	-.00	39.28	10.00
	166.510	980.00	776.67	.00	.08	.00	41.90	1.00
	166.510	980.00	776.67	-.00	.08	-.00	41.90	1.00

00BREAK00

1) COUNTY: WASHTENAW

2) STUDY NAME: CITY OF SALINE

3) WATERCOURSE: WOOD OUTLET DRAIN

4) DOCUMENT TYPE: ~~MAPS~~ REVISION

00BREAK00

RECEIVED
OCT 27 1981
WATER MANAGEMENT

FLOOD INSURANCE STUDY
CITY OF SALINE, MICHIGAN
• SALINE RIVER •

CROSS SECTION IDENTIFICATION LISTING

HEC-2 Computer Output		Preliminary Published Study	
Cross Section	Identification Number	Cross Section	Feet Above Mouth
CX	149.82	-	-
BX	151.92	-	-
AX	152.72	-	-
A	154.02	A	154,020
B	154.71	B	154,710
B^1	154.96	C	154,960
BB	155.51	D	155,510
C	156.21	E	156,210
Monroe Street	156.28	-	-
Monroe Street	156.32	-	-
D	156.41	F	156,410
E	157.23	G	157,230
F	158.33	H	158,330
FF	159.18	I	159,180
G	160.37	J	160,370
D02A	161.12	-	-
H	161.42	K	161,420
Michigan Ave.	161.47	-	-
Michigan Ave.	161.54	-	-
I	163.25	-	-
J	164.39	L	164,390

RECEIVED
OCT 27 1981
FLOOD MANAGEMENT

FLOOD INSURANCE STUDY
CITY OF SALINE, MICHIGAN
• WOOD OUTLET DRAIN •

CROSS SECTION IDENTIFICATION LISTING

HEC-2 Computer Output		Preliminary Published Study	
Cross Section	Identification Number	Cross Section	Feet Above Mouth
J1	0.00	A	60
K	0.85	-	-
K1	1.30	B	960
K2	1.73	C	1,390
L	2.06	-	-
N.Y.C. Railroad	2.11	-	-
N.Y.C. Railroad	2.12	-	-
M	2.17	D	1,830
MM	2.82	E	2,480
N	3.63	F	3,290
Local Road	3.68	-	-
Local Road	3.71	-	-
O	3.76	-	-
P	4.22	-	-
Water Works Road	4.27	-	-
Water Works Road	4.31	-	-
Q	4.36	G	4,020
R	5.38	H	5,040
R1	5.73	I	5,390
S	6.18	J	5,840
Ann Arbor-Saline Road	6.23	-	-
Ann Arbor-Saline Road	6.27	-	-
T	6.32	K	5,980
U	7.34	L	7,000
V	8.50	M	8,160
W	9.37	N	9,030
X	10.10	O	9,760
AA	11.13	-	-
Maple Road	11.18	-	-

HEC-2 Computer Output		Preliminary Published Study	
Cross Section	Identification Number	Cross Section	Feet Above Mouth
Maple Road	11.22	-	-
AB	11.27	-	-
AC	12.87	P	12,530
AD	14.06	Q	13,720
AE	16.06	R	15,720

This report is from an original submittal. Assumptions or information within may have changed

CAUTION SEE ATTACHED COMMENTS

HYDRAULIC ANALYSIS OF THE SALINE RIVER
CITY OF SALINE, WASHTENAW COUNTY

Historic Flooding:

The most significant flooding of the Saline River in Saline on record occurred in June, 1968. During this flood, the west embankment of the Saline River Dam failed, but the dam was not rebuilt until 1973. Based on records from the U.S.G.S. stream gaging station on the Saline River near Saline, the June, 1968 flood had a peak discharge of 3,990 cfs. No gage records are available prior to 1965.

The US-12 bridge, located about 50 feet downstream from the dam, was rebuilt in 1971. An extreme high water surface elevation of 751.5 was recorded in 1961, according to Michigan State Highway Department plans for the proposed structure (copy enclosed). However, the bridge alignment with respect to the dam was modified and its skew lessened by about 25^{0}, thus increasing the clear opening by 12 feet on the new bridge.

According to personnel of the Saline Wastewater Treatment Plant, during the '68 flood, water rose to within 6-inches of the office doorway, which is at an elevation of about 741.0. The 100-year flood stage of 740.65 at cross section C is in close agreement with this high water mark. Dikes with a top elevation of 743.0 have since been constructed around the plant to prevent future flooding.

Local officials and residents report that while flooding occurs periodically in Saline, little significant damage occurs as a result.

Hydraulic Computations:

The hydraulic computations were made utilizing the November, 1976 (updated July, 1979) version of the U.S. Army Corps of Engineers HEC-2 water surface profile computer program.

The flood discharges used in the analysis are as follows:

Recurrence Interval	Discharge (CFS) Cross Section CX	Cross Section I	Cross Section K
500 years	4600	4620	1250
100 years	3700	3640	980
50 years	3220	3150	850
10 years	1880	1860	480
		DA = 75.3 mi²	DA = 14.9 mi²

These flows were determined in a separate hydrologic analysis by computer simulation techniques using the SCS TR-20 Hydrology Model. The computer output and resultant flows were submitted to and approved by letter by the Hydrologic Studies Unit - Water Management Division of the Michigan Department of Natural Resources on September 9, 1980.

Backwater computations for the Saline River were initiated at a point identified as Cross Section CX, approximately 2.2 miles (11,650 feet) downstream of the US 12 bridge in Saline, and continued upstream 2.8 miles (14,770 feet) to the confluence of Wood Creek. The computations are continued along Wood Creek for approximately 3.0 miles (15,860 feet). The Monroe Street Bridge and the US 12 bridge crossing the Saline River, and the New York Central Railroad bridge (abandoned), a local road bridge, the Water Works Road bridge, the Ann Arbor-Saline Road bridge, and the Maple Road bridge crossing Wood Creek were incorporated into the computations. Separate bridge descriptions and analysis are enclosed.

The starting water surface elevations used at cross section CX were initially obtained using the slope-area method to determine normal depth. Multiple profiles were then run to show that for each recurrence interval flood, normal depth at cross section **CX** was within a range of starting stages which caused flood stage profiles to converge at cross section A.

The Manning's roughness coefficients initially used in the hydraulic analysis are shown on the plotted cross sections. Coefficients used for the channel varied from 0.035 in the lower reaches of the Saline River to 0.050 in the upper

reaches of Wood Creek. Side bank and overbank roughness coefficients varied from 0.050 in lawn and clear areas to 0.130 in areas of heavy brush and tree growth. These channel and overbank coefficients were all uniformly increased 30% to calibrate the model to existing high water data. Gradual expansion and contraction coefficients of 0.3 and 0.1 respectively, were used between cross sections. These coefficients were increased to 0.5 and 0.3 immediately upstream and downstream of the bridge sections to reflect more abrupt flow transitions at these points.

Artificial encroachments were utilized in the HEC-2 model to limit the effective conveyance area, particularly upstream and downstream from bridges and natural restrictions. Flow lines were assumed to expand at a 1:3 slope (Δ top width: Δ reach length) and contract at a 1:1 slope for the purpose of computing effective top widths.

Initially, the floodway was determined using encroachment method no. 4 with a maximum allowable flood stage increase of 0.10 feet above the natural 100-year flood stage. These preliminary floodway encroachments were checked for reasonableness, modified where necessary, and reinserted manually using encroachment method no. 1. Where artificial encroachments were utilized to define the effective flow areas, these encroachments also delineated the floodway limits.

Results:

Existing high water marks mentioned earlier tend to substantiate flood stages from the computer model. Although the 100-year flood stage at the US 12 bridge is below the 1961 high water surface, the recurrence interval of this 1961 flood is not known, and the existing bridge at that time was more restrictive. A rough estimate of 1968 flood stages of about 1 foot over the top of the local road crossing Wood Creek by residents living in the area at that time also tend to verify the computer model. Channel and floodplain geometry, as well as other hydraulic characteristics, and the resultant flood stages were checked for reasonableness and found to be acceptable.

Flood stages determined for the 100- and 500-year floods have been delineated on the attached work map as were the computed floodway limits. The 100-year flood stage and floodway limits are also shown on the cross section plots.

BRIDGE ANALYSIS - SALINE RIVER, CITY OF SALINE

MONROE STREET BRIDGE

THE MONROE STREET BRIDGE CROSSING THE SALINE RIVER CONSISTS OF A CONCRETE DECK AND CONCRETE WINGWALLS THAT PROJECT OUTWARD. IT HAS A TOTAL SPAN OF 61 FEET, A WIDTH OF 35 FEET, AND NO INTERMEDIATE PIERS. THE BRIDGE DECK AND CONCRETE GUARDRAILS ARE IN POOR CONDITION.

HEC-2 ANALYSIS INDICATES THAT THE BRIDGE WILL OPERATE UNDER PRESSURE FLOW CONDITIONS FOR THE 500-YEAR AND 100-YEAR FLOODS, AND UNDER LOW FLOW CONDITIONS FOR THE 50-YEAR AND 10-YEAR FLOODS. THE SPECIAL BRIDGE ROUTINE WAS USED IN THE ANALYSIS OF THIS BRIDGE.

CALCULATION OF XKOR (LOSS COEFFICIENT)

$XKOR = 1.0 + \Sigma k$

	k	
INTAKE	0.45	(SQUARE CORNERED ENTRANCE WITH WINGWALLS)
INTERMEDIATE PIERS	0	
FRICTION	k_f	

$$k_f = \frac{29.1\,\eta^2 L}{R^{4/3}} \qquad \text{MANNING'S EQ'N}$$

$\eta = 0.05$ $\quad L = \text{LENGTH} = 35\ FT$

$R = \text{HYDRAULIC RADIUS} = \frac{A}{P} = \frac{646\ FT^2}{134\ FT} = 4.82\ FT$

$$k_f = \frac{29.1\,(0.05)^2\,35}{4.82^{4/3}} = 0.31$$

$XKOK = 0.45 + 0.0 + 0.31 + 1.0 = \underline{1.76}$

VERIFICATION OF HEC-2 RESULTS

ELEV. LOW CHORD = 741.7
ELEV. TOP OF ROAD = 747.0

SINCE WATER SURFACE DOWNSTREAM = 741.71, PRESSURE FLOW IS PRESENT (FROM HEC-2 ANALYSIS).

$$Q_{PR} = C(b_N z)(2g\,\Delta h)^{1/2} \quad \text{OR} \quad \Delta h = \left[\frac{Q_{PR}}{C(b_N z)}\right]^2 \times \frac{1}{2g}$$

$$C = \sqrt{\frac{1}{K}} = \sqrt{\frac{1}{1.76}} = 0.75 \qquad \Delta h = \left[\frac{3700}{0.75(607)}\right]^2 \times \frac{1}{2g} = \underline{1.02}$$

SINCE W.S. DOWNSTREAM = 741.71 AS PER HEC-2, ENERGY GRADIENT UPSTREAM = 741.71 + 1.02 = 742.73

HEC-2 ANALYSIS SHOWS ENERGY GRADIENT UPSTREAM AT 742.72, THUS RESULTS ARE IN CLOSE AGREEMENT.

MICHIGAN AVENUE (US 12)

THE MICHIGAN AVENUE (US 12) BRIDGE CROSSING THE SALINE RIVER, LOCATED 50 FEET DOWNSTREAM FROM THE SALINE RIVER DAM, CONSISTS OF A SINGLE SPAN CONCRETE DECK SUPPORTED BY STEEL I-BEAMS. IT HAS A SPAN OF 70 FEET AND A WIDTH OF 70 FEET. THE EXISTING STRUCTURE WAS BUILT IN 1971.

LOW FLOW CONDITIONS RESULT AT THIS BRIDGE FOR EACH FLOOD DISCHARGE FROM HEC-2 ANALYSIS. THE BRIDGE WAS MODELED USING THE NORMAL BRIDGE ROUTINE.

NEW YORK CENTRAL RAILROAD BRIDGE (ABANDONED)

THIS ABANDONED RAILROAD BRIDGE CROSSES WOOD CREEK. IT IS A WOODEN TRUSS-TYPE BRIDGE WITH 10 PIERS AND SPANS A TOTAL OF 115 FEET, AND IS 12 FEET WIDE.

LOW FLOW CONDITIONS RESULT AT THIS BRIDGE FOR EACH FLOOD DISCHARGE FROM HEC-2 ANALYSIS. THE NORMAL BRIDGE ROUTINE WAS USED TO MODEL THIS BRIDGE.

LOCAL ROAD BRIDGE

THIS BRIDGE CROSSES WOOD CREEK AND SERVES THE SALINE DEPARTMENT OF PUBLIC WORKS. IT CONSISTS OF TWO CORRUGATED METAL ARCH CULVERTS, EACH HAVING A HEIGHT OF 6.75 FEET AND A WIDTH OF 10 FEET, APPROXIMATELY. THE CULVERTS ARE APPROXIMATELY ONE FOOT APART AND ARE 30 FEET IN LENGTH.

HEC-2 ANALYSIS INDICATES THAT THE BRIDGE WILL OPERATE UNDER PRESSURE AND WEIR FLOW CONDITIONS FOR THE 500-, 100-, AND 50-YEAR FLOODS AND UNDER LOW FLOW CONDITIONS FOR THE 10-YEAR FLOOD. THE SPECIAL BRIDGE ROUTINE WAS USED IN THIS ANALYSIS.

CALCULATION OF XKOR (LOSS COEFFICIENT)

$XKOR = 1.0 + \Sigma k$

	k	
INTAKE	0.55	(ENTRANCE FLUSH WITH WALL)
INTERMEDIATE PIERS	0.05	
FRICTION	k_f	

$$k_f = \frac{29.1\,\eta^2 L}{R^{4/3}}$$ MANNING'S EQ'N

$\eta = 0.05$ L = LENGTH = 30 FT

R = HYDRAULIC RADIUS = $\frac{A}{P} = \frac{51.8\ FT^2}{26.6\ FT} = 1.95$ FT

$$k_f = \frac{29.1\,(0.035)^2\,30}{1.95^{4/3}} = 0.44$$

$XKOR = 0.55 + 0.05 + 0.44 + 1.0 = \underline{2.04}$

VERIFICATION OF HEC-2 RESULTS

ELEV. LOW CHORD = 788.1
ELEV. TOP OF ROAD = 788.3

SINCE WATER SURFACE DOWNSTREAM = 787.94 ;
WATER SURFACE UPSTREAM = 789.33, A COMBINATION OF PRESSURE AND WEIR IS PRESENT

$$\Delta h = \left[\frac{Q_{PR}}{C(b_N z)}\right]^2 \times \frac{1}{2g} \qquad C = \sqrt{\frac{1}{k}} = \sqrt{\frac{1}{2.04}} = 0.70$$

$$\Delta h = \left[\frac{782}{0.70(103.6)}\right]^2 \times \frac{1}{64.4} \quad \underline{1.81 \text{ FT}}$$

Q_{PR} = 782 CFS FROM HEC-2

SINCE W.S. DOWNSTREAM = 787.94 AS PER HEC-2,
ENERGY GRADIENT UPSTREAM = 787.94 + 1.81 = 789.75

HEC-2 ANALYSIS SHOWS ENERGY GRADIENT UPSTREAM AT 789.74, THUS RESULTS ARE IN CLOSE AGREEMENT.

WATER WORKS ROAD BRIDGE

THE WATER WORKS ROAD BRIDGE CROSSING WOOD CREEK CONSISTS OF THREE CORRUGATED METAL ARCH CULVERTS, EACH HAVING A HEIGHT OF 7.0 FEET AND A WIDTH OF 10.1 FEET, APPROXIMATELY. THE CULVERTS ARE SPACED ABOUT 1 FOOT APART AND ARE EACH 45 FEET IN LENGTH.

HEC-2 ANALYSIS INDICATES THAT THE BRIDGE WILL OPERATE UNDER PRESSURE FLOW CONDITIONS FOR THE 500- AND 100-YEAR FLOODS AND UNDER LOW FLOW CONDITIONS FOR THE 50- AND 10-YEAR FLOODS. THE SPECIAL BRIDGE ROUTINE WAS USED IN THIS ANALYSIS.

CALCULATION OF XKOR

$$k_f = \frac{29.1\,\eta^2 L}{R^{4/3}} \qquad R = \frac{A}{P} = \frac{53.2\ FT}{27.4\ FT} = 1.94\ FT$$

$\eta = 0.035$ $L = 45\ FT$

$$k_f = \frac{29.1\,(0.035)^2\,(45)}{(1.94)^{4/3}} = 0.66$$

INTAKE $K = 0.55$ (ENTRANCE FLUSH WITH WALL)

XKOR = 0.55 + 0.05 + 0.66 + 1.0 = 2.26

VERIFICATION OF HEC-2 RESULTS

ELEV. LOW CHORD = 792.0
ELEV. TOP OF ROAD = 794.5

SINCE WATER SURFACE DOWNSTREAM = 791.18; WATER SURFACE UPSTREAM = 792.10, PRESSURE FLOW IS PRESENT.

$$\Delta h = \left[\frac{Q_{PR}}{C\,(b_N z)}\right]^2 \frac{1}{2g} \qquad C = \sqrt{\frac{1}{K}} = \sqrt{\frac{1}{2.26}} = 0.66$$

$$\Delta h = \left[\frac{980}{0.66\,(159.6)}\right]^2 \frac{1}{64.4} = 1.34\ FT$$

SINCE W.S. DOWNSTREAM = 791.18 AS PER HEC-2, ENERGY GRADIENT UPSTREAM = 792.52

HEC-2 ANALYSIS SHOWS ENERGY GRADIENT UPSTREAM AT 792.51, THUS RESULTS ARE IN CLOSE AGREEMENT.

ANN ARBOR - SALINE ROAD BRIDGE

THIS BRIDGE CROSSING WOOD CREEK HAS A CONCRETE DECK, LARGE CONCRETE ABUTMENTS, AND SOLID CONCRETE GUARDRAILS. IT SPANS 14 FEET WITH NO INTERMEDIATE PIERS AND IS 40 FEET WIDE.

PRESSURE FLOW CONDITIONS RESULT AT THIS BRIDGE FOR THE 500-, 100-, AND 50-YEAR FLOODS, AND LOW FLOW CONDITIONS FOR THE 10-YEAR FLOOD. THE BRIDGE WAS MODELED USING THE SPECIAL BRIDGE ROUTINE.

CALCULATION OF XKOR

$$k_f = \frac{29.1\,\eta^2 L}{R^{4/3}} \qquad R = \frac{A}{P} = \frac{92.75}{40} = 2.318$$

$\eta = 0.040$ $\quad L = 40$ FT

$$k_f = \frac{29.1\,(0.04)^2\,40}{(2.318)^{4/3}} = 0.61$$

INTAKE $k = 0.50$ (SQUARE CORNERED ENTRANCE)

XKOR = 0.50 + 0.0 + 0.61 + 1.0 = <u>2.11</u>

VERIFICATION OF HEC-2 RESULTS

ELEV. LOW CHORD = 798.3
ELEV. TOP OF ROAD = 800.0

SINCE WATER SURFACE DOWNSTREAM = 797.42; WATER SURFACE UPSTREAM = 801.77, PRESSURE FLOW IS PRESENT.

$$\Delta h = \left[\frac{Q_{PR}}{C\,(b_M E)}\right]^2 \times \frac{1}{2g} \qquad C = \sqrt{\frac{1}{k}} = \sqrt{\frac{1}{2.11}} = 0.69$$

$$\Delta h = \left[\frac{978}{0.69\,(82.64)}\right]^2 \times \frac{1}{64.4} = \underline{4.59}\ \text{FT}$$

SINCE W.S. DOWNSTREAM = 797.42 AS PER HEC-2, ENERGY GRADIENT UPSTREAM = 797.42 + 4.59 = <u>802.01</u>

HEC-2 ANALYSIS SHOWS ENERGY GRADIENT UPSTREAM AT <u>802.01</u>; RESULTS ARE IN AGREEMENT.

MAPLE ROAD BRIDGE

THE MAPLE ROAD BRIDGE CONSISTS OF A CONCRETE SLAB SUPPORTED BY LARGE CONCRETE ABUTMENTS. IT SPANS 15 FEET AND IS 35 FEET WIDE WITH NO PIERS.

THE BRIDGE WILL OPERATE UNDER PRESSURE FLOW CONDITIONS FOR THE 500-, 100-, AND 50-YEAR FLOODS AND UNDER LOW FLOW CONDITIONS FOR THE 10-YEAR FLOOD. THE SPECIAL BRIDGE ROUTINE WAS USED.

CALCULATION OF XKOR

$$R = \frac{A}{P} = \frac{110.25}{43.5} = 2.534 \qquad \eta = 0.04 \qquad L = 35 \text{ FT}$$

$$k_f = \frac{29.1\,(0.04)^2\,35}{(2.534)^{4/3}} = 0.47 \qquad \text{INTAKE } K = 0.50$$

$$XKOR = 0.50 + 0.0 + 0.47 + 1.0 = \underline{1.97}$$

VERIFICATION OF HEC-2 RESULTS

$$C = \sqrt{\frac{1}{1.97}} = 0.72 \qquad \Delta h = \left[\frac{985}{0.72\,(110.25)}\right]^2 \times \frac{1}{64.4} = 2.39$$

SINCE W.S. DOWNSTREAM = 808.23 AS PER HEC-2,
ENERGY GRADIENT UPSTREAM = 808.23 + 2.39 = $\underline{810.62}$

HEC-2 ANALYSIS SHOWS ENERGY GRADIENT UPSTREAM AT $\underline{810.67}$; RESULTS ARE IN CLOSE AGREEMENT.

ELMS/SALINERATING

d_c sim.t = ELMS/CHECK

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED JULY1979
  ERROR CORR -  01,02,03
  MODIFICATION -  50,51,52,53
**************************************************

T1CHECK TO DETERMINE IF OVERLAND FLOW OCCURS D/S OF TEXTILE ROAD RATING CURVE
T2CITY OF SALINE F.I.S. QUESTIONED BY CITY(NEW Q=3250/S OF TEXTILE;190 U/S)
T3       WOOD OUTLET DRAIN   OVERBANK FLOW   NEW 100 YEAR DISCHARGES

J1  ICHECK     INQ       NINV      IOTR      STRT      METRIC    HVINS     Q         WSEL      FQ

      -1.        2.        0.        0.  0.000000      0.00     -1.0        0.    809.000   0.000

J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

     1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC     0.090     0.090     0.050     0.100     0.300     0.000     0.000     0.000     0.000     0.000
QT     5.000   325.000   325.000   325.000   325.000   325.000     0.000     0.000     0.000     0.000

X1     1.000    12.000  1856.000  1892.000     0.000     0.000     0.000     0.000     0.000     0.000
GR   810.400  1856.000   808.000  1866.000   806.000  1872.000   803.600  1877.000   805.000  1880.000
GR   808.700  1884.000   809.500  1892.000   809.700  1904.000   808.200  1926.000   807.800  2125.000
GR   809.100  2260.000   811.600  2400.000     0.000     0.000     0.000     0.000     0.000     0.000

X1     1.100     0.000     0.000     0.000   500.000   500.000   500.000     0.000     0.600     0.000

X1     1.200     0.000     0.000     0.000   500.000   500.000   500.000     0.000     0.700     0.000
NC     0.120     0.120     0.120     0.200     0.600     0.000     0.000     0.000     0.000     0.000
QT     5.000    50.000    75.000   100.000   150.000   200.000     0.000     0.000     0.000     0.000

X1     2.200     5.000   562.000  1400.000  1050.000  1050.000  1050.000     0.000     0.000     0.000
GR   810.800   562.000   809.800   578.000   810.200   865.000   810.900   895.000   813.700  1400.000

X1     3.000     8.000  1742.000  2765.000  1560.000  1560.000  1560.000     0.000     0.000     0.000
GR   814.400  1742.000   811.400  1785.000   811.800  1855.000   811.700  1895.000   812.200  1916.000
GR   812.300  2240.000   812.500  2330.000   814.900  2765.000     0.000     0.000     0.000     0.000

X1     3.200     4.000     0.000  1300.000   270.000   270.000   270.000     0.000     0.000     0.000
GR   816.000     0.000   814.000    50.000   814.000   800.000   816.000  1300.000     0.000     0.000

X1     3.400     4.000     0.000  1200.000   340.000   340.000   340.000     0.000     0.000     0.000
GR   816.000     0.000   814.500    50.000   814.800   700.000   816.000  1200.000     0.000     0.000

X1     4.800    10.000   616.000  1435.000   420.000   420.000   420.000     0.000     0.000     0.000
GR   816.300   616.000   815.200   630.000   814.000   652.000   814.100   678.000   815.500   708.000
GR   816.600   764.000   816.300   830.000   815.300   975.000   816.100  1300.000   817.100  1435.000
EJ     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
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*PROF 5

CCHV= 0.100 CEHV= 0.300
*SECNO 1.000

3265 DIVIDED FLOW

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	NXR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
1.00	5.40	809.00	0.00	809.00	809.03	0.03	0.00	0.00	810.40
325.	0.	129.	196.	0.	58.	287.	0.	0.	809.50
0.00	0.00	2.21	0.68	0.090	0.050	0.090	0.000	803.60	1861.83
0.002080	0.	0.	0.	0	0	0	0.00	375.28	2249.62

*SECNO 1.100

3265 DIVIDED FLOW

1.10	5.61	809.81	0.00	0.00	809.83	0.02	0.79	0.00	811.00
325.	0.	108.	217.	0.	64.	361.	4.	4.	810.10
0.14	0.00	1.70	0.60	0.090	0.050	0.090	0.050	804.20	1860.97
0.001245	500.	500.	500.	2	0	0	0.00	397.70	2266.00

*SECNO 1.200

3265 DIVIDED FLOW

1.20	5.56	810.46	0.00	0.00	810.49	0.02	0.66	0.00	811.70
325.	0.	112.	213.	0.	63.	345.	9.	9.	810.80
0.28	0.00	1.80	0.62	0.090	0.050	0.090	0.050	804.90	1861.16
0.001390	500.	500.	500.	2	0	0	0.00	393.88	2263.48

CCHV= 0.200 CEHV= 0.600
*SECNO 2.200
3280 CROSS SECTION 2.20 EXTENDED 0.77 FEET

2.20	1.78	811.58	0.00	0.00	811.58	0.00	1.09	0.00	810.80
200.	0.	200.	0.	0.	544.	0.	21.	19.	813.70
1.07	0.00	0.37	0.00	0.120	0.120	0.120	0.086	809.80	562.00
0.000695	1050.	1050.	1050.	1	0	0	0.00	454.72	1016.72

*SECNO 3.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	NXR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
3.00	1.62	813.02	0.00	0.00	813.03	0.00	1.45	0.00	814.40
200.	0.	200.	0.	0.	524.	0.	40.	39.	814.90
2.21	0.00	0.38	0.00	0.120	0.120	0.120	0.100	811.40	1761.72
0.001300	1560.	1560.	1560.	3	0	0	0.00	663.32	2425.04

*SECNO 3.200

3235 SLOPE TOO STEEP-EXCEEDS 0.10

3.20	0.18	814.18	0.00	0.00	814.21	0.03	1.17	0.02	816.00
200.	0.	200.	0.	0.	139.	0.	42.	44.	816.00
2.26	0.00	1.44	0.00	0.120	0.120	0.120	0.102	814.00	45.53
0.140618	270.	270.	270.	4	0	0	0.00	799.19	844.71

*SECNO 3.400

3.40	0.97	815.47	0.00	0.00	815.47	0.00	1.25	0.01	816.00
200.	0.	200.	0.	0.	641.	0.	45.	51.	816.00
2.56	0.00	0.31	0.00	0.120	0.120	0.120	0.103	814.50	17.71
0.001090	340.	340.	340.	10	0	0	0.00	960.91	978.62

*SECNO 4.800

3265 DIVIDED FLOW

4.80	2.20	816.20	0.00	0.00	816.21	0.00	0.74	0.00	816.30
200.	0.	200.	0.	0.	381.	0.	50.	58.	817.10
2.79	0.00	0.53	0.00	0.120	0.120	0.120	0.105	814.00	617.12
0.003292	420.	420.	420.	6	0	0	0.00	599.42	1315.09

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED JULY1979
  ERROR CORR -  01,02,03
  MODIFICATION -  50,51,52,53
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

WOOD OUTLET DRAIN OV

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	1.000	0.00	0.00	0.00	803.60	325.00	809.00	0.00	809.03	20.80	2.21	344.78	71.26
	1.000	0.00	0.00	0.00	803.60	325.00	809.00	0.00	809.03	20.80	2.21	344.78	71.26
	1.000	0.00	0.00	0.00	803.60	325.00	809.00	0.00	809.03	20.80	2.21	344.78	71.26
	1.000	0.00	0.00	0.00	803.60	325.00	809.00	0.00	809.03	20.80	2.21	344.78	71.26
	1.000	0.00	0.00	0.00	803.60	325.00	809.00	0.00	809.03	20.80	2.21	344.78	71.26
	1.100	500.00	0.00	0.00	804.20	325.00	809.81	0.00	809.83	12.45	1.70	425.08	92.11
	1.100	500.00	0.00	0.00	804.20	325.00	809.81	0.00	809.83	12.45	1.70	425.08	92.11
	1.100	500.00	0.00	0.00	804.20	325.00	809.81	0.00	809.83	12.45	1.70	425.08	92.11
	1.100	500.00	0.00	0.00	804.20	325.00	809.81	0.00	809.83	12.45	1.70	425.08	92.11
	1.100	500.00	0.00	0.00	804.20	325.00	809.81	0.00	809.83	12.45	1.70	425.08	92.11
	1.200	500.00	0.00	0.00	804.90	325.00	810.46	0.00	810.49	13.90	1.80	407.31	87.17
	1.200	500.00	0.00	0.00	804.90	325.00	810.46	0.00	810.49	13.90	1.80	407.31	87.17
	1.200	500.00	0.00	0.00	804.90	325.00	810.46	0.00	810.49	13.90	1.80	407.31	87.17
	1.200	500.00	0.00	0.00	804.90	325.00	810.46	0.00	810.49	13.90	1.80	407.31	87.17
	2.200	1050.00	0.00	0.00	809.80	50.00	811.26	0.00	811.26	0.94	0.12	408.88	51.56
	2.200	1050.00	0.00	0.00	809.80	75.00	811.31	0.00	811.31	1.82	0.17	431.96	55.54
	2.200	1050.00	0.00	0.00	809.80	100.00	811.37	0.00	811.37	2.82	0.22	454.88	59.56
	2.200	1050.00	0.00	0.00	809.80	150.00	811.48	0.00	811.48	4.93	0.30	499.22	67.53
	2.200	1050.00	0.00	0.00	809.80	200.00	811.58	0.00	811.58	6.95	0.37	544.21	75.87
*	3.000	1560.00	0.00	0.00	811.40	50.00	811.83	811.83	811.92	4053.42	2.42	20.66	0.79
	3.000	1560.00	0.00	0.00	811.40	75.00	812.29	0.00	812.30	306.83	0.80	94.02	4.28
	3.000	1560.00	0.00	0.00	811.40	100.00	812.52	0.00	812.52	50.57	0.46	215.79	14.06
	3.000	1560.00	0.00	0.00	811.40	150.00	812.81	0.00	812.81	18.31	0.39	387.84	35.06
	3.000	1560.00	0.00	0.00	811.40	200.00	813.02	0.00	813.03	13.00	0.38	524.14	55.47
	3.200	270.00	0.00	0.00	814.00	50.00	814.26	814.05	814.26	25.01	0.24	204.21	10.00
	3.200	270.00	0.00	0.00	814.00	75.00	814.31	0.00	814.31	32.62	0.31	241.97	13.13
	3.200	270.00	0.00	0.00	814.00	100.00	814.26	0.00	814.27	85.41	0.47	214.49	10.82
	3.200	270.00	0.00	0.00	814.00	150.00	814.20	0.00	814.22	507.57	0.94	158.81	6.66
*	3.200	270.00	0.00	0.00	814.00	200.00	814.18	0.00	814.21	1406.18	1.44	138.54	5.33

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
3.400	340.00	0.00	0.00	814.50	50.00	814.97	814.67	814.97	17.77	0.23	216.52	11.86
3.400	340.00	0.00	0.00	814.50	75.00	815.07	0.00	815.07	16.30	0.26	290.02	18.58
3.400	340.00	0.00	0.00	814.50	100.00	815.17	0.00	815.17	12.83	0.26	379.67	27.92
3.400	340.00	0.00	0.00	814.50	150.00	815.35	0.00	815.35	10.90	0.28	526.60	45.42
3.400	340.00	0.00	0.00	814.50	200.00	815.47	0.00	815.47	10.90	0.31	640.95	60.59
4.800	420.00	0.00	0.00	814.00	50.00	815.74	0.00	815.74	19.06	0.32	156.47	11.45
4.800	420.00	0.00	0.00	814.00	75.00	815.87	0.00	815.87	22.98	0.37	204.59	15.64
4.800	420.00	0.00	0.00	814.00	100.00	815.95	0.00	815.95	28.60	0.42	237.16	18.70
4.800	420.00	0.00	0.00	814.00	150.00	816.09	0.00	816.09	33.53	0.49	308.59	25.90
4.800	420.00	0.00	0.00	814.00	200.00	816.20	0.00	816.21	32.92	0.53	380.89	34.86

WOOD OUTLET DRAIN DV

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
1.000	325.00	809.00	0.00	0.00	0.00	375.28	0.00
1.000	325.00	809.00	0.00	0.00	0.00	375.28	0.00
1.000	325.00	809.00	0.00	0.00	0.00	375.28	0.00
1.000	325.00	809.00	0.00	0.00	0.00	375.28	0.00
1.000	325.00	809.00	0.00	0.00	0.00	375.28	0.00
1.100	325.00	809.81	0.00	0.81	0.00	397.70	500.00
1.100	325.00	809.81	0.00	0.81	0.00	397.70	500.00
1.100	325.00	809.81	0.00	0.81	0.00	397.70	500.00
1.100	325.00	809.81	0.00	0.81	0.00	397.70	500.00
1.100	325.00	809.81	0.00	0.81	0.00	397.70	500.00
1.200	325.00	810.46	0.00	0.66	0.00	393.88	500.00
1.200	325.00	810.46	0.00	0.66	0.00	393.88	500.00
1.200	325.00	810.46	0.00	0.66	0.00	393.88	500.00
1.200	325.00	810.46	0.00	0.66	0.00	393.88	500.00
1.200	325.00	810.46	0.00	0.66	0.00	393.88	500.00
2.200	50.00	811.26	0.00	0.79	0.00	397.44	1050.00
2.200	75.00	811.31	0.06	0.85	0.00	407.77	1050.00
2.200	100.00	811.37	0.06	0.91	0.00	417.79	1050.00
2.200	150.00	811.48	0.11	1.01	0.00	436.51	1050.00
2.200	200.00	811.58	0.10	1.11	0.00	454.72	1050.00
* 3.000	50.00	811.83	0.00	0.57	0.00	121.48	1560.00
3.000	75.00	812.29	0.46	0.98	0.00	421.57	1560.00
3.000	100.00	812.52	0.23	1.15	0.00	565.13	1560.00
3.000	150.00	812.81	0.29	1.33	0.00	621.83	1560.00
3.000	200.00	813.02	0.21	1.45	0.00	663.32	1560.00
3.200	50.00	814.26	0.00	2.43	0.00	821.47	270.00
3.200	75.00	814.31	0.05	2.01	0.00	834.02	270.00
3.200	100.00	814.26	-0.04	1.74	0.00	824.91	270.00
3.200	150.00	814.20	-0.06	1.39	0.00	806.13	270.00
* 3.200	200.00	814.18	-0.02	1.16	0.00	799.19	270.00
3.400	50.00	814.97	0.00	0.71	0.00	735.78	340.00
3.400	75.00	815.07	0.10	0.76	0.00	779.44	340.00
3.400	100.00	815.17	0.11	0.91	0.00	829.58	340.00
3.400	150.00	815.35	0.17	1.14	0.00	905.78	340.00
3.400	200.00	815.47	0.12	1.29	0.00	960.91	340.00
4.800	50.00	815.74	0.00	0.77	0.00	344.25	420.00
4.800	75.00	815.87	0.13	0.81	0.00	421.53	420.00
4.800	100.00	815.95	0.07	0.77	0.00	466.63	420.00
4.800	150.00	816.09	0.14	0.74	0.00	552.80	420.00
4.800	200.00	816.20	0.12	0.74	0.00	599.42	420.00

SUMMARY OF ERRORS

CAUTION SECNO= 3.000 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 3.000 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 3.000 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 3.000 PROFILE= 1 SLOPE TOO STEEP

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  HEC2 RELEASE DATED NOV 76 UPDATED JULY1979
  ERROR CORR -  01,02,03
  MODIFICATION -  50,51,52,53
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TICITY OF SALINE FIS  CHECK OF OVERLAND FLOW ASSUMPTIONS JUST D/S OF TEXTILE
T2INPUT IS FROM M.P.S."PITTSFIELD TWP CONVERGENCE/RATING CURVE DATA (Q ADJUSTED)
T3        WOOD OUTLET DRAIN  FOR RATING CURVE FOR CHANNEL. START. WSEL ASSUMED

J1  ICHECK     INQ        NINV       IDTR       STRT       METRIC     HVINS      Q          WSEL       FQ

      -1.        2.         0.         0.  0.000000       0.00       -1.0         0.    805.000      0.000

J2  NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE

     1.000      0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

NC     0.090      0.090      0.050      0.100      0.300      0.000      0.000      0.000      0.000      0.000
QT     5.000    190.000    190.000    190.000    190.000    190.000      0.000      0.000      0.000      0.000

X1     1.000     12.000   1856.000   1892.000      0.000      0.000      0.000      0.000      0.000      0.000
GR   810.400   1856.000    808.000   1866.000    805.000   1872.000    803.600   1877.000    805.000   1880.000
GR   808.700   1884.000    809.500   1892.000    808.700   1904.000    808.200   1926.000    807.800   2125.000
GR   809.100   2260.000    811.700   2400.000      0.000      0.000      0.000      0.000      0.000      0.000

X1     1.100      0.000      0.000      0.000    500.000    500.000    500.000      0.000      0.600      0.000

X1     1.200      0.000      0.000      0.000    500.000    500.000    500.000      0.000      0.700      0.000
QT     5.000     10.000     20.000     50.000    100.000    150.000      0.000      0.000      0.000      0.000

X1     1.800     12.000    520.000    536.000    500.000    500.000    500.000      0.000     -0.700      0.000
GR   812.000    484.000    811.800    500.000    811.200    508.000    809.800    520.000    807.000    522.000
GR   806.500    525.000    806.300    527.000    806.500    528.000    807.000    530.000    810.000    536.000
GR   810.600    542.000    810.800    562.000      0.000      0.000      0.000      0.000      0.000      0.000

X1     2.200      0.000      0.000      0.000    550.000    550.000    550.000      0.000      0.700      0.000

X1     2.280      6.000    668.100    672.300    188.000    188.000    188.000      0.000      0.000      0.000
X3    10.000      0.000      0.000      0.000      0.000      0.000      0.000    813.300    813.300      0.000
GR   812.900    650.000    808.700    668.100    806.700    668.200    806.700    672.200    808.700    672.300
GR   812.900    700.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
SB     0.000      2.300      2.600     50.000      4.000      0.000     12.500      0.000    806.700    806.700

X1     2.320      0.000      0.000      0.000     24.000     24.000     24.000      0.000      0.000      0.000
X2     0.000      0.000      1.000    810.700    813.300      0.000      0.000      0.000      0.000      0.000
X3    10.000      0.000      0.000      0.000      0.000      0.000      0.000    813.300    813.300      0.000

X1     2.800      7.000   1341.000   1360.000     63.000     63.000     63.000      0.000      0.000      0.000
GR   811.100   1335.000    809.800   1341.000    807.700   1345.000    807.200   1348.000    807.700   1355.000
GR   809.600   1360.000    811.400   1380.000    811.500   1410.000      0.000      0.000      0.000      0.000
NC     0.000      0.000      0.000      0.100      0.300      0.000      0.000      0.000      0.000      0.000
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MS-21

X1	2.900	11.000	1460.000	1489.000	300.000	300.000	300.000	0.000	-1.700	0.000
GR	815.200	1460.000	812.500	1470.000	810.100	1472.000	809.600	1479.000	810.100	1485.000
GR	812.500	1489.000	814.000	1491.000	813.400	1498.000	812.400	1575.000	812.400	1677.000
GR	814.300	1735.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	3.000	0.000	0.000	0.000	1100.000	1100.000	1100.000	0.000	1.700	0.000
X1	4.100	7.000	410.000	437.100	425.000	425.000	425.000	0.000	-0.400	0.000
GR	815.000	380.000	814.500	410.000	812.700	420.000	810.900	421.000	810.300	428.000
GR	811.000	437.000	812.400	437.100	0.000	0.000	0.000	0.000	0.000	0.000
X1	4.200	0.000	0.000	0.000	450.000	450.000	450.000	0.000	0.400	0.000
NC	0.000	0.000	0.000	0.450	0.900	0.000	0.000	0.000	0.000	0.000
X1	4.220	6.000	752.100	756.300	50.000	50.000	50.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	818.300	818.300	0.000
GR	817.700	730.000	811.500	752.100	810.500	752.200	810.500	756.200	811.500	756.300
GR	817.700	780.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	2.400	2.600	50.000	4.000	0.000	10.100	0.000	810.500	810.500
X1	4.320	0.000	0.000	0.000	24.000	24.000	24.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	813.600	818.300	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	818.300	818.300	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
X1	4.800	6.000	581.000	616.000	88.000	88.000	88.000	0.000	0.000	0.000
GR	817.200	565.000	816.700	581.000	813.700	588.000	810.600	600.000	813.400	613.000
GR	816.300	616.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

*PROF 5

CCHV= 0.100 CEHV= 0.300
*SECNO 1.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	NXR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
3720 CRITICAL DEPTH ASSUMED									
1.00	3.16	806.76	806.76	805.00	807.70	0.93	0.00	0.00	810.40
190.	0.	190.	0.	0.	25.	0.	0.	0.	809.50
0.00	0.00	7.75	0.00	0.090	0.050	0.090	0.000	803.60	1868.47
0.035521	0.	0.	0.	0	19	0	0.00	13.43	1881.91

*SECNO 1.100

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

1.10	5.16	809.36	0.00	0.00	809.39	0.03	1.60	0.09	811.00
190.	0.	102.	88.	0.	58.	207.	2.	2.	810.10
0.12	0.00	1.76	0.42	0.090	0.050	0.090	0.050	804.20	1862.82
0.001107	500.	500.	500.	8	0	0	0.00	343.85	2225.07

*SECNO 1.200

3265 DIVIDED FLOW

1.20	5.07	809.97	0.00	0.00	810.01	0.04	0.62	0.00	811.70
190.	0.	112.	78.	0.	56.	178.	5.	6.	810.80
0.22	0.00	1.98	0.44	0.090	0.050	0.090	0.050	804.90	1863.20
0.001392	500.	500.	500.	4	0	0	0.00	331.14	2215.59

*SECNO 1.800
3280 CROSS SECTION 1.80 EXTENDED 0.50 FEET

1.80	5.00	810.60	0.00	0.00	810.67	0.07	0.65	0.01	809.10
150.	5.	137.	8.	10.	60.	18.	6.	8.	809.30
0.29	0.49	2.28	0.46	0.090	0.050	0.090	0.050	805.60	506.71
0.001212	500.	500.	500.	0	0	0	0.00	55.29	562.00

*SECNO 2.200
3280 CROSS SECTION 2.20 EXTENDED 0.47 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	NXR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
2.20	4.97	811.27	0.00	0.00	811.35	0.08	0.68	0.00	809.80
150.	5.	138.	8.	9.	60.	17.	7.	9.	810.00
0.36	0.49	2.31	0.46	0.090	0.050	0.090	0.050	806.30	507.01
0.001245	550.	550.	550.	2	0	0	0.00	54.99	562.00

MR5-11

*SECNO 2.280

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 813.30 ELREA= 813.30

2.28	4.56	811.26	0.00	0.00	812.23	0.97	0.61	0.27	808.70
150.	0.	150.	0.	0.	19.	0.	8.	9.	808.70
0.37	0.00	7.91	0.00	0.090	0.050	0.090	0.050	806.70	668.10
0.022403	188.	188.	188.	2	0	0	0.00	4.20	672.30

SPECIAL BRIDGE

SB	XK	XKOR	CDFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.30	2.60	50.00	4.00	0.00	12.50	0.00	806.70	806.70

*SECNO 2.320
3280 CROSS SECTION 2.32 EXTENDED 0.88 FEET

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWIER	QRP	BAREA	TRAPEZOID AREA	ELLC	ELTRD
816.40	812.23	0.00	45.	105.	13.	16.	810.70	813.30
2.32	7.07	813.77	0.00	0.00	813.79	0.02	1.56	0.00	808.70
150.	40.	48.	62.	54.	30.	83.	8.	9.	808.70
0.37	0.74	1.61	0.76	0.090	0.050	0.090	0.050	806.70	650.00
0.000516	24.	24.	24.	1	0	5	0.00	50.00	700.00

*SECNO 2.800
3280 CROSS SECTION 2.80 EXTENDED 2.69 FEET

2.80	6.59	813.79	0.00	0.00	813.81	0.01	0.01	0.00	809.80
150.	7.	117.	26.	20.	109.	66.	8.	9.	809.60
0.39	0.33	1.07	0.39	0.090	0.050	0.090	0.050	807.20	1335.00
0.000135	63.	63.	63.	2	0	0	0.00	45.00	1380.00

CCHV= 0.100 CEHV= 0.300
*SECNO 2.900
3280 CROSS SECTION 2.90 EXTENDED 1.22 FEET

2.90	5.92	813.82	0.00	0.00	813.82	0.00	0.01	0.00	813.50
150.	0.	41.	109.	0.	116.	664.	11.	10.	810.80
0.78	0.00	0.36	0.16	0.090	0.050	0.090	0.050	807.90	1460.00
0.000026	300.	300.	300.	2	0	0	0.00	275.00	1735.00

*SECNO 3.000

3265 DIVIDED FLOW

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	NXR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IOC	ICONT	CORAR	TOPWID	ENDST
3.00	4.28	813.88	0.00	0.00	813.89	0.01	0.07	0.00	815.20
150.	0.	68.	82.	0.	71.	263.	25.	17.	812.50
1.28	0.00	0.96	0.31	0.090	0.050	0.090	0.050	809.60	1464.87
0.000270	1100.	1100.	1100.	2	0	0	0.00	255.92	1722.30

*SECNO 4.100
3280 CROSS SECTION 4.10 EXTENDED 2.07 FEET

4.10	4.17	814.07	0.00	0.00	814.14	0.07	0.23	0.02	814.10
150.	0.	150.	0.	0.	73.	0.	27.	18.	812.00
1.34	0.00	2.05	0.00	0.090	0.050	0.090	0.050	809.90	410.15
0.001552	425.	425.	425.	2	0	0	0.00	26.95	437.10

*SECNO 4.200
3280 CROSS SECTION 4.20 EXTENDED 2.30 FEET

4.20	4.40	814.70	0.00	0.00	814.75	0.06	0.61	0.00	814.50
150.	0.	150.	0.	1.	79.	0.	28.	19.	812.40
1.41	0.12	1.89	0.00	0.090	0.050	0.090	0.050	810.30	398.25
0.001207	450.	450.	450.	2	0	0	0.00	38.85	437.10

CCHV= 0.450 CEHV= 0.900
*SECNO 4.220

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 818.30 ELREA= 818.30

4.22	4.25	814.75	0.00	0.00	815.86	1.11	0.15	0.95	811.50
150.	0.	150.	0.	0.	18.	0.	28.	19.	811.50
1.41	0.00	8.46	0.00	0.090	0.050	0.090	0.050	810.50	752.10
0.019152	50.	50.	50.	2	0	0	0.00	4.20	756.30

SPECIAL BRIDGE

SB XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
0.00	2.40	2.60	50.00	4.00	0.00	10.10	0.00	810.50	810.50

*SECNO 4.320
3280 CROSS SECTION 4.32 EXTENDED 1.09 FEET

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWIER	QRP	BAREA	TRAPEZOID AREA	ELLC	ELTRD
822.96	815.86	0.00	45.	105.	10.	12.	813.60	818.30

R57709

4.32	8.28	818.78	0.00	0.00	818.79	0.01	2.94	0.00	811.50
150.	51.	45.	55.	93.	35.	99.	28.	19.	811.50
1.42	0.55	1.29	0.55	0.090	0.050	0.090	0.050	810.50	730.00
0.000182	24.	24.	24.	1	0	5	0.00	50.00	780.00

CCHV= 0.100 CEHV= 0.300
*SECND 4.800
3280 CROSS SECTION 4.80 EXTENDED 2.50 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	NXR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IOC	ICONT	CORAR	TOPWID	ENDST
4.80	8.20	818.80	0.00	0.00	818.80	0.01	0.01	0.00	816.70
150.	5.	145.	0.	30.	205.	0.	29.	19.	816.30
1.45	0.19	0.70	0.00	0.090	0.050	0.090	0.050	810.60	565.00
0.000064	88.	88.	88.	2	0	0	0.00	51.00	616.00

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  HEC2 RELEASE DATED NOV'76 UPDATED JULY1979
  ERROR CORR -  01,02,03
  MODIFICATION -  50,51,52,53
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

WOOD OUTLET DRAIN FOR

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
*	1.000	0.00	0.00	0.00	803.60	190.00	806.76	806.76	807.70	355.21	7.75	24.50	10.08
*	1.000	0.00	0.00	0.00	803.60	190.00	806.76	806.76	807.70	355.21	7.75	24.50	10.08
*	1.000	0.00	0.00	0.00	803.60	190.00	806.76	806.76	807.70	355.21	7.75	24.50	10.08
*	1.000	0.00	0.00	0.00	803.60	190.00	806.76	806.76	807.70	355.21	7.75	24.50	10.08
*	1.000	0.00	0.00	0.00	803.60	190.00	806.76	806.76	807.70	355.21	7.75	24.50	10.08
	1.100	500.00	0.00	0.00	804.20	190.00	809.36	0.00	809.39	11.07	1.76	265.30	57.10
	1.100	500.00	0.00	0.00	804.20	190.00	809.36	0.00	809.39	11.07	1.76	265.30	57.10
	1.100	500.00	0.00	0.00	804.20	190.00	809.36	0.00	809.39	11.07	1.76	265.30	57.10
	1.100	500.00	0.00	0.00	804.20	190.00	809.36	0.00	809.39	11.07	1.76	265.30	57.10
	1.100	500.00	0.00	0.00	804.20	190.00	809.36	0.00	809.39	11.07	1.76	265.30	57.10
	1.200	500.00	0.00	0.00	804.90	190.00	809.97	0.00	810.01	13.92	1.98	234.46	50.93
	1.200	500.00	0.00	0.00	804.90	190.00	809.97	0.00	810.01	13.92	1.98	234.46	50.93
	1.200	500.00	0.00	0.00	804.90	190.00	809.97	0.00	810.01	13.92	1.98	234.46	50.93
	1.200	500.00	0.00	0.00	804.90	190.00	809.97	0.00	810.01	13.92	1.98	234.46	50.93
	1.800	500.00	0.00	0.00	805.60	10.00	810.28	0.00	810.28	0.08	0.17	70.54	35.58
	1.800	500.00	0.00	0.00	805.60	20.00	810.30	0.00	810.30	0.31	0.34	71.72	36.07
	1.800	500.00	0.00	0.00	805.60	50.00	810.37	0.00	810.38	1.77	0.84	75.26	37.58
	1.800	500.00	0.00	0.00	805.60	100.00	810.48	0.00	810.52	6.20	1.60	81.13	40.14
	1.800	500.00	0.00	0.00	805.60	150.00	810.60	0.00	810.67	12.12	2.28	87.55	43.09
	2.200	550.00	0.00	0.00	806.30	10.00	810.29	0.00	810.29	0.18	0.23	45.25	23.41
	2.200	550.00	0.00	0.00	806.30	20.00	810.33	0.00	810.33	0.69	0.45	46.18	24.01
	2.200	550.00	0.00	0.00	806.30	50.00	810.50	0.00	810.52	3.52	1.05	50.54	26.67
	2.200	550.00	0.00	0.00	806.30	100.00	810.88	0.00	810.93	8.95	1.81	65.25	33.43
	2.200	550.00	0.00	0.00	806.30	150.00	811.27	0.00	811.35	12.45	2.31	86.29	42.51
	2.280	188.00	0.00	0.00	806.70	10.00	810.29	0.00	810.30	2.24	0.67	14.87	6.68
	2.280	188.00	0.00	0.00	806.70	20.00	810.34	0.00	810.37	8.58	1.33	15.07	6.83
	2.280	188.00	0.00	0.00	806.70	50.00	810.56	0.00	810.72	43.95	3.13	16.00	7.54
	2.280	188.00	0.00	0.00	806.70	100.00	810.99	0.00	811.48	123.06	5.62	17.80	9.01
	2.280	188.00	0.00	0.00	806.70	150.00	811.26	0.00	812.23	224.03	7.91	18.97	10.02

0757/70

SECNO	XLCH	ELTRD	FLLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
2.320	24.00	813.30	810.70	806.70	10.00	810.30	0.00	810.30	2.24	0.67	14.88	6.68
2.320	24.00	813.30	810.70	806.70	20.00	810.36	0.00	810.39	8.38	1.32	15.18	6.91
2.320	24.00	813.30	810.70	806.70	50.00	811.01	0.00	811.14	30.08	2.79	17.92	9.12
2.320	24.00	813.30	810.70	806.70	100.00	813.05	0.00	813.27	32.78	3.78	26.47	17.46
2.320	24.00	813.30	810.70	806.70	150.00	813.77	0.00	813.79	5.16	1.61	166.15	66.05
2.800	63.00	0.00	0.00	807.20	10.00	810.31	0.00	810.31	0.21	0.23	46.52	21.72
2.800	63.00	0.00	0.00	807.20	20.00	810.40	0.00	810.40	0.73	0.44	49.44	23.39
2.800	63.00	0.00	0.00	807.20	50.00	811.17	0.00	811.17	1.64	0.79	77.28	39.01
2.800	63.00	0.00	0.00	807.20	100.00	813.30	0.00	813.31	0.84	0.80	173.09	108.89
2.800	63.00	0.00	0.00	807.20	150.00	813.79	0.00	813.81	1.35	1.07	195.22	129.05
2.900	300.00	0.00	0.00	807.90	10.00	810.31	0.00	810.32	0.52	0.31	32.72	13.85
2.900	300.00	0.00	0.00	807.90	20.00	810.43	0.00	810.43	1.74	0.57	34.78	15.14
2.900	300.00	0.00	0.00	807.90	50.00	811.23	0.00	811.23	2.42	0.79	118.64	32.17
2.900	300.00	0.00	0.00	807.90	100.00	813.32	0.00	813.32	0.21	0.30	641.38	220.23
2.900	300.00	0.00	0.00	807.90	150.00	813.82	0.00	813.82	0.26	0.36	779.56	296.39
3.000	1100.00	0.00	0.00	809.60	10.00	810.48	0.00	810.50	32.51	1.19	8.40	1.75
3.000	1100.00	0.00	0.00	809.60	20.00	810.89	0.00	810.92	24.51	1.39	14.37	4.04
3.000	1100.00	0.00	0.00	809.60	50.00	811.78	0.00	811.83	19.35	1.75	28.60	11.37
3.000	1100.00	0.00	0.00	809.60	100.00	813.37	0.00	813.38	3.43	1.01	211.44	53.99
3.000	1100.00	0.00	0.00	809.60	150.00	813.88	0.00	813.89	2.70	0.96	334.88	91.23
4.100	425.00	0.00	0.00	809.90	10.00	811.09	0.00	811.10	7.73	0.72	13.94	3.60
4.100	425.00	0.00	0.00	809.90	20.00	811.50	0.00	811.51	8.97	0.97	20.61	6.68
4.100	425.00	0.00	0.00	809.90	50.00	812.39	0.00	812.42	10.56	1.40	35.67	15.39
4.100	425.00	0.00	0.00	809.90	100.00	813.59	0.00	813.63	11.07	1.64	60.84	30.06
4.100	425.00	0.00	0.00	809.90	150.00	814.07	0.00	814.14	15.52	2.05	73.18	38.08
4.200	450.00	0.00	0.00	810.30	10.00	811.46	0.00	811.47	8.70	0.74	13.43	3.39
4.200	450.00	0.00	0.00	810.30	20.00	811.90	0.00	811.92	8.87	0.97	20.68	6.71
4.200	450.00	0.00	0.00	810.30	50.00	812.85	0.00	812.88	9.80	1.36	36.77	15.97
4.200	450.00	0.00	0.00	810.30	100.00	814.07	0.00	814.11	10.21	1.59	62.80	31.30
4.200	450.00	0.00	0.00	810.30	150.00	814.70	0.00	814.75	12.07	1.89	80.39	43.17
4.220	50.00	0.00	0.00	810.50	10.00	811.55	0.00	811.64	93.97	2.31	4.32	1.03
4.220	50.00	0.00	0.00	810.50	20.00	811.99	0.00	812.16	114.40	3.24	6.18	1.87
4.220	50.00	0.00	0.00	810.50	50.00	812.94	0.00	813.32	137.17	4.93	10.14	4.27
4.220	50.00	0.00	0.00	810.50	100.00	814.13	0.00	814.81	143.93	6.60	15.14	8.34
4.220	50.00	0.00	0.00	810.50	150.00	814.75	0.00	815.86	191.52	8.46	17.73	10.84
4.320	24.00	818.30	813.60	810.50	10.00	811.75	0.00	811.81	52.06	1.94	5.16	1.39
4.320	24.00	818.30	813.60	810.50	20.00	812.27	0.00	812.38	64.83	2.73	7.32	2.48
4.320	24.00	818.30	813.60	810.50	50.00	813.33	0.00	813.61	82.82	4.24	11.79	5.49
4.320	24.00	818.30	813.60	810.50	100.00	817.61	0.00	817.79	15.12	3.36	29.78	25.72
4.320	24.00	818.30	813.60	810.50	150.00	818.78	0.00	818.79	1.82	1.29	226.54	111.22
4.800	88.00	0.00	0.00	810.60	10.00	812.07	0.00	812.09	20.74	1.08	9.23	2.20
4.800	88.00	0.00	0.00	810.60	20.00	812.62	0.00	812.64	15.49	1.16	17.31	5.08
4.800	88.00	0.00	0.00	810.60	50.00	813.78	0.00	813.80	8.11	1.17	42.83	17.55
4.800	88.00	0.00	0.00	810.60	100.00	817.81	0.00	817.82	0.53	0.58	184.52	137.80
4.800	88.00	0.00	0.00	810.60	150.00	818.80	0.00	818.80	0.64	0.70	234.63	188.22

WOOD OUTLET DRAIN FOR

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	1.000	190.00	806.76	0.00	0.00	1.76	13.43	0.00
*	1.000	190.00	806.76	0.00	0.00	1.76	13.43	0.00
*	1.000	190.00	806.76	0.00	0.00	1.76	13.43	0.00
*	1.000	190.00	806.76	0.00	0.00	1.76	13.43	0.00
*	1.000	190.00	806.76	0.00	0.00	1.76	13.43	0.00
	1.100	190.00	809.36	0.00	2.60	0.00	343.85	500.00
	1.100	190.00	809.36	0.00	2.60	0.00	343.85	500.00
	1.100	190.00	809.36	0.00	2.60	0.00	343.85	500.00
	1.100	190.00	809.36	0.00	2.60	0.00	343.85	500.00
	1.100	190.00	809.36	0.00	2.60	0.00	343.85	500.00
	1.200	190.00	809.97	0.00	0.61	0.00	331.14	500.00
	1.200	190.00	809.97	0.00	0.61	0.00	331.14	500.00
	1.200	190.00	809.97	0.00	0.61	0.00	331.14	500.00
	1.200	190.00	809.97	0.00	0.61	0.00	331.14	500.00
	1.200	190.00	809.97	0.00	0.61	0.00	331.14	500.00
	1.800	10.00	810.28	0.00	0.31	0.00	52.11	500.00
	1.800	20.00	810.30	0.02	0.33	0.00	52.30	500.00
	1.800	50.00	810.37	0.07	0.40	0.00	52.88	500.00
	1.800	100.00	810.48	0.11	0.51	0.00	53.82	500.00
	1.800	150.00	810.60	0.12	0.63	0.00	55.29	500.00
	2.200	10.00	810.29	0.00	0.01	0.00	23.02	550.00
	2.200	20.00	810.33	0.04	0.02	0.00	23.77	550.00
	2.200	50.00	810.50	0.17	0.13	0.00	26.96	550.00
	2.200	100.00	810.88	0.38	0.40	0.00	51.23	550.00
	2.200	150.00	811.27	0.40	0.67	0.00	54.99	550.00
	2.280	10.00	810.29	0.00	0.00	0.00	4.20	188.00
	2.280	20.00	810.34	0.05	0.01	0.00	4.20	188.00
	2.280	50.00	810.56	0.22	0.07	0.00	4.20	188.00
	2.280	100.00	810.99	0.42	0.11	0.00	4.20	188.00
	2.280	150.00	811.26	0.28	-0.01	0.00	4.20	188.00
	2.320	10.00	810.30	0.00	0.01	0.00	4.20	24.00
	2.320	20.00	810.36	0.07	0.02	0.00	4.20	24.00
	2.320	50.00	811.01	0.65	0.45	0.00	4.20	24.00
	2.320	100.00	813.05	2.04	2.06	0.00	4.20	24.00
	2.320	150.00	813.77	0.72	2.51	0.00	50.00	24.00
	2.800	10.00	810.31	0.00	0.01	0.00	29.23	63.00
	2.800	20.00	810.40	0.09	0.04	0.00	30.76	63.00
	2.800	50.00	811.17	0.77	0.15	0.00	42.39	63.00
	2.800	100.00	813.30	2.14	0.25	0.00	45.00	63.00
	2.800	150.00	813.79	0.49	0.02	0.00	45.00	63.00
	2.900	10.00	810.31	0.00	0.01	0.00	17.79	300.00
	2.900	20.00	810.43	0.12	0.03	0.00	18.07	300.00
	2.900	50.00	811.23	0.80	0.06	0.00	179.65	300.00
	2.900	100.00	813.32	2.09	0.02	0.00	274.33	300.00
	2.900	150.00	813.82	0.50	0.03	0.00	275.00	300.00

SECNO	Q	CWSEL	DTFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
3.000	10.00	810.48	0.00	0.17	0.00	13.96	1100.00
3.000	20.00	810.89	0.41	0.46	0.00	14.99	1100.00
3.000	50.00	811.78	0.89	0.55	0.00	17.20	1100.00
3.000	100.00	813.37	1.59	0.05	0.00	230.58	1100.00
3.000	150.00	813.88	0.51	0.06	0.00	255.92	1100.00
4.100	10.00	811.09	0.00	0.61	0.00	16.36	425.00
4.100	20.00	811.50	0.41	0.61	0.00	16.62	425.00
4.100	50.00	812.39	0.89	0.61	0.00	17.59	425.00
4.100	100.00	813.59	1.20	0.22	0.00	24.27	425.00
4.100	150.00	814.07	0.48	0.19	0.00	26.95	425.00
4.200	10.00	811.46	0.00	0.37	0.00	16.34	450.00
4.200	20.00	811.90	0.44	0.40	0.00	16.62	450.00
4.200	50.00	812.85	0.95	0.46	0.00	17.93	450.00
4.200	100.00	814.07	1.22	0.48	0.00	24.71	450.00
4.200	150.00	814.70	0.63	0.62	0.00	38.85	450.00
4.220	10.00	811.55	0.00	0.09	0.00	4.20	50.00
4.220	20.00	811.99	0.44	0.09	0.00	4.20	50.00
4.220	50.00	812.94	0.94	0.09	0.00	4.20	50.00
4.220	100.00	814.13	1.20	0.06	0.00	4.20	50.00
4.220	150.00	814.75	0.61	0.05	0.00	4.20	50.00
4.320	10.00	811.75	0.00	0.20	0.00	4.20	24.00
4.320	20.00	812.27	0.51	0.27	0.00	4.20	24.00
4.320	50.00	813.33	1.07	0.39	0.00	4.20	24.00
4.320	100.00	817.61	4.28	3.48	0.00	4.20	24.00
4.320	150.00	818.78	1.17	4.04	0.00	50.00	24.00
4.800	10.00	812.07	0.00	0.32	0.00	12.53	88.00
4.800	20.00	812.62	0.54	0.35	0.00	17.17	88.00
4.800	50.00	813.78	1.17	0.45	0.00	25.59	88.00
4.800	100.00	817.81	4.03	0.20	0.00	51.00	88.00
4.800	150.00	818.80	0.98	0.01	0.00	51.00	88.00

SUMMARY OF ERRORS

CAUTION SECNO= 1.000 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 1.000 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 1.000 PROFILE= 3 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 1.000 PROFILE= 4 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 1.000 PROFILE= 5 CRITICAL DEPTH ASSUMED

ELMS/SALINECHANNEL

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED JULY1979
  ERROR CORR =  01,02,03
  MODIFICATION =  50,51,52,53
*****************************************************

T1CITY OF SALINE FIS  CHECK OF OVERLAND FLOW ASSUMPTIONS JUST D/S OF TEXTILE
T2INPUT IS FROM M.P.S. PITTSFIELD TWP CONVERGENCE/RATING CURVE DATA (Q ADJUSTED)
T3        WOOD OUTLET DRAIN  FOR RATING CURVE FOR CHANNEL START. WSEL ASSUMED

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

     -1.        2.        0.        0.  0.000000      0.00      -1.0        0.   809.000     0.000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

     1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC      0.090     0.090     0.050     0.100     0.300     0.000     0.000     0.000     0.000     0.000
QT      5.000   325.000   325.000   325.000   325.000   325.000     0.000     0.000     0.000     0.000

X1      1.000    12.000  1856.000  1892.000     0.000     0.000     0.000     0.000     0.000     0.000
GR    810.400  1856.000   808.000  1866.000   805.000  1872.000   803.600  1877.000   805.000  1880.000
GR    808.700  1884.000   809.500  1892.000   808.700  1904.000   808.200  1926.000   807.800  2125.000
GR    809.100  2260.000   811.700  2400.000     0.000     0.000     0.000     0.000     0.000     0.000

X1      1.100     0.000     0.000     0.000   500.000   500.000   500.000     0.000     0.600     0.000

X1      1.200     0.000     0.000     0.000   500.000   500.000   500.000     0.000     0.700     0.000
QT      5.000    20.000    50.000   100.000   150.000   150.000     0.000     0.000     0.000     0.000

X1      1.800    12.000   520.000   536.000   500.000   500.000   500.000     0.000    -0.700     0.000
GR    812.000   484.000   811.800   500.000   811.200   508.000   809.800   520.000   807.000   522.000
GR    806.500   525.000   806.300   527.000   806.500   528.000   807.000   530.000   810.000   536.000
GR    810.600   542.000   810.800   562.000     0.000     0.000     0.000     0.000     0.000     0.000

X1      2.200     0.000     0.000     0.000   550.000   550.000   550.000     0.000     0.700     0.000

X1      2.280     6.000   668.100   672.300   188.000   188.000   188.000     0.000     0.000     0.000
X3     10.000     0.000     0.000     0.000     0.000     0.000     0.000   813.300   813.300     0.000
GR    812.900   650.000   808.700   668.100   806.700   668.200   806.700   672.200   808.700   672.300
GR    812.900   700.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
SB      0.000     2.300     2.600    50.000     4.000     0.000    12.500     0.000   806.700   806.700

X1      2.320     0.000     0.000     0.000    24.000    24.000    24.000     0.000     0.000     0.000
X2      0.000     0.000     1.000   810.700   813.300     0.000     0.000     0.000     0.000     0.000
X3     10.000     0.000     0.000     0.000     0.000     0.000     0.000   813.300   813.300     0.000

X1      2.800     7.000  1341.000  1360.000    63.000    63.000    63.000     0.000     0.000     0.000
GR    811.100  1335.000   809.800  1341.000   807.700  1345.000   807.200  1348.000   807.700  1355.000
GR    809.600  1360.000   811.400  1380.000   811.500  1410.000     0.000     0.000     0.000     0.000
NC      0.000     0.000     0.000     0.100     0.300     0.000     0.000     0.000     0.000     0.000
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X1	2.900	11.000	1460.000	1489.000	300.000	300.000	300.000	0.000	-1.700	0.000
GR	815.200	1460.000	812.500	1470.000	810.100	1472.000	809.600	1479.000	810.100	1485.000
GR	812.500	1489.000	814.000	1491.000	813.400	1498.000	812.400	1575.000	812.400	1677.000
GR	814.300	1735.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	3.000	0.000	0.000	0.000	1100.000	1100.000	1100.000	0.000	1.700	0.000
X1	4.100	7.000	410.000	437.100	425.000	425.000	425.000	0.000	-0.400	0.000
GR	815.000	380.000	814.500	410.000	812.700	420.000	810.900	421.000	810.300	428.000
GR	811.000	437.000	812.400	437.100	0.000	0.000	0.000	0.000	0.000	0.000
X1	4.200	0.000	0.000	0.000	450.000	450.000	450.000	0.000	0.400	0.000
NC	0.000	0.000	0.000	0.450	0.900	0.000	0.000	0.000	0.000	0.000
X1	4.220	6.000	752.100	756.300	50.000	50.000	50.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	818.300	818.300	0.000
GR	817.700	730.000	811.500	752.100	810.500	752.200	810.500	756.200	811.500	756.300
GR	817.700	780.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	2.400	2.600	50.000	4.000	0.000	10.100	0.000	810.500	810.500
X1	4.320	0.000	0.000	0.000	24.000	24.000	24.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	813.600	818.300	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	818.300	818.300	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
X1	4.800	6.000	581.000	616.000	88.000	88.000	88.000	0.000	0.000	0.000
GR	817.200	565.000	816.700	581.000	813.700	588.000	810.600	600.000	813.400	613.000
GR	816.300	616.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

*PROF 5

CCHV= 0.100 CEHV= 0.300
*SECNO 1.000
3280 CROSS SECTION 1.00 EXTENDED 0.10 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	NXR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
1.00	6.90	810.50	0.00	810.50	810.50	0.00	0.00	0.00	810.40
325.	0.	70.	255.	0.	112.	889.	0.	0.	809.50
0.00	0.00	0.62	0.29	0.090	0.050	0.090	0.000	803.60	1856.00
0.000106	0.	0.	0.	0	0	0	0.00	479.38	2335.38

*SECNO 1.100

1.10	6.38	810.58	0.00	0.00	810.58	0.00	0.08	0.00	811.00
325.	0.	80.	245.	0.	94.	664.	10.	5.	810.10
0.28	0.00	0.85	0.37	0.090	0.050	0.090	0.050	804.20	1857.77
0.000240	500.	500.	500.	2	0	0	0.00	449.36	2307.13

*SECNO 1.200

3265 DIVIDED FLOW

1.20	5.86	810.76	0.00	0.00	810.77	0.01	0.19	0.00	811.70
325.	0.	99.	226.	0.	77.	456.	17.	10.	810.80
0.47	0.00	1.29	0.50	0.090	0.050	0.090	0.050	804.90	1859.93
0.000654	500.	500.	500.	2	0	0	0.00	418.21	2279.22

*SECNO 1.800
3280 CROSS SECTION 1.80 EXTENDED 0.97 FEET

1.80	5.47	811.07	0.00	0.00	811.11	0.05	0.33	0.01	809.10
150.	8.	127.	14.	17.	68.	30.	21.	13.	809.30
0.56	0.47	1.89	0.48	0.090	0.050	0.090	0.050	805.60	500.45
0.000707	500.	500.	500.	2	0	0	0.00	61.55	562.00

*SECNO 2.200
3280 CROSS SECTION 2.20 EXTENDED 0.70 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	NXR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
2.20	5.20	811.50	0.00	0.00	811.57	0.06	0.45	0.00	809.80
150.	6.	133.	11.	13.	63.	23.	23.	14.	810.00
0.64	0.49	2.10	0.47	0.090	0.050	0.090	0.050	806.30	503.94
0.000949	550.	550.	550.	2	0	0	0.00	58.06	562.00

*SECNO 2.280

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 813.30 ELREA= 813.30

2.28	4.69	811.39	0.00	0.00	812.31	0.92	0.48	0.26	808.70
150.	0.	150.	0.	0.	19.	0.	23.	14.	808.70
0.64	0.00	7.69	0.00	0.090	0.050	0.090	0.050	806.70	668.10
0.020440	188.	188.	188.	2	0	0	0.00	4.20	672.30

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.30	2.60	50.00	4.00	0.00	12.50	0.00	806.70	806.70

*SECNO 2.320
3280 CROSS SECTION 2.32 EXTENDED 0.90 FEET

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWIER	QRP	BAREA	TRAPEZOID AREA	ELLC	ELTRD
816.53	812.31	0.00	47.	103.	13.	16.	810.70	813.30

2.32	7.09	813.79	0.00	0.00	813.81	0.02	1.50	0.00	808.70
150.	40.	47.	63.	54.	30.	83.	23.	14.	808.70
0.65	0.74	1.60	0.75	0.090	0.050	0.090	0.050	806.70	650.00
0.000508	24.	24.	24.	1	0	5	0.00	50.00	700.00

*SECNO 2.800
3280 CROSS SECTION 2.80 EXTENDED 2.71 FEET

2.80	6.61	813.81	0.00	0.00	813.82	0.01	0.01	0.00	809.80
150.	7.	117.	26.	20.	110.	66.	23.	14.	809.60
0.67	0.33	1.07	0.39	0.090	0.050	0.090	0.050	807.20	1335.00
0.000134	63.	63.	63.	2	0	0	0.00	45.00	1380.00

CCHV= 0.100 CEHV= 0.300
*SECNO 2.900
3280 CROSS SECTION 2.90 EXTENDED 1.24 FEET

2.90	5.94	813.84	0.00	0.00	813.84	0.00	0.01	0.00	813.50
150.	0.	41.	109.	0.	116.	668.	27.	15.	810.80
1.05	0.00	0.36	0.16	0.090	0.050	0.090	0.050	807.90	1460.00
0.000025	300.	300.	300.	2	0	0	0.00	275.00	1735.00

*SECNO 3.000

3265 DIVIDED FLOW

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	NXR	WTN	ELMIN	SSTA
SLOPE	YLOBI	YLCH	YLOBR	LT TAI	TOC	TCONT	CORAR	TOP WD	E DST

3.00	4.30	813.90	0.00	0.00	813.91	0.01	0.06	0.00	815.20
150.	0.	68.	82.	0.	72.	267.	41.	22.	812.50
1.57	0.00	0.94	0.31	0.090	0.050	0.090	0.050	809.60	1464.82
0.000263	1100.	1100.	1100.	2	0	0	0.00	256.63	1722.76

*SECNO 4.100
3280 CROSS SECTION 4.10 EXTENDED 2.08 FEET

4.10	4.18	814.08	0.00	0.00	814.15	0.06	0.22	0.02	814.10
150.	0.	150.	0.	0.	73.	0.	43.	23.	812.00
1.62	0.00	2.04	0.00	0.090	0.050	0.090	0.050	809.90	410.10
0.001537	425.	425.	425.	2	0	0	0.00	27.00	437.10

*SECNO 4.200
3280 CROSS SECTION 4.20 EXTENDED 2.30 FEET

4.20	4.40	814.70	0.00	0.00	814.76	0.06	0.61	0.00	814.50
150.	0.	150.	0.	1.	79.	0.	43.	24.	812.40
1.69	0.12	1.89	0.00	0.090	0.050	0.090	0.050	810.30	397.95
0.001201	450.	450.	450.	2	0	0	0.00	39.15	437.10

CCHV= 0.450 CEHV= 0.900
*SECNO 4.220

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 818.30 ELREA= 818.30

4.22	4.25	814.75	0.00	0.00	815.86	1.11	0.15	0.95	811.50
150.	0.	150.	0.	0.	18.	0.	44.	24.	811.50
1.69	0.00	8.45	0.00	0.090	0.050	0.090	0.050	810.50	752.10
0.019082	50.	50.	50.	2	0	0	0.00	4.20	756.30

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.40	2.60	50.00	4.00	0.00	10.10	0.00	810.50	810.50

*SECNO 4.320
3280 CROSS SECTION 4.32 EXTENDED 1.09 FEET

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWIER	QRP	BAREA	TRAPEZOID AREA	ELLC	ELTRD
822.97	815.86	0.00	45.	105.	10.	12.	813.60	818.30

4.32	8.28	818.78	0.00	0.00	818.79	0.01	2.94	0.00	811.50
150.	51.	45.	55.	93.	35.	99.	44.	24.	811.50
1.70	0.15	1.20	0.50	0.090	0.050	0.090	0.050	810.50	730.00

0.000182	24.	24.	24.	1	0	5	-0.00	50.00	780.00

CCHV= 0.100 CEHV= 0.300
*SECNO 4.800
3280 CROSS SECTION 4.80 EXTENDED 2.50 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	NXR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
4.80	8.20	818.80	0.00	0.00	818.80	0.01	0.01	0.00	816.70
150.	5.	145.	0.	30.	205.	0.	44.	24.	816.30
1.74	0.19	0.70	0.00	0.090	0.050	0.090	0.050	810.60	565.00
0.000063	88.	88.	88.	2	0	0	0.00	51.00	616.00

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  HEC2 RELEASE DATED NOV 76 UPDATED JULY1979
  ERROR CORR =  01,02,03
  MODIFICATION =  50,51,52,53
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NOTE= ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

WOOD OUTLET DRAIN FOR

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
1.000	0.00	0.00	0.00	803.60	325.00	809.00	0.00	809.04	18.37	2.21	350.28	75.82
1.000	0.00	0.00	0.00	803.60	325.00	809.00	0.00	809.04	18.37	2.21	350.28	75.82
1.000	0.00	0.00	0.00	803.60	325.00	809.00	0.00	809.04	18.37	2.21	350.28	75.82
1.000	0.00	0.00	0.00	803.60	325.00	809.00	0.00	809.04	18.37	2.21	350.28	75.82
1.000	0.00	0.00	0.00	803.60	325.00	810.50	0.00	810.50	1.06	0.62	1001.32	314.96
1.100	500.00	0.00	0.00	804.20	325.00	809.77	0.00	809.79	12.49	1.80	413.84	91.98
1.100	500.00	0.00	0.00	804.20	325.00	809.77	0.00	809.79	12.49	1.80	413.84	91.98
1.100	500.00	0.00	0.00	804.20	325.00	809.77	0.00	809.79	12.49	1.80	413.84	91.98
1.100	500.00	0.00	0.00	804.20	325.00	809.77	0.00	809.79	12.49	1.80	413.84	91.98
1.100	500.00	0.00	0.00	804.20	325.00	810.58	0.00	810.58	2.40	0.85	757.54	209.86
1.200	500.00	0.00	0.00	804.90	325.00	810.42	0.00	810.45	13.88	1.90	396.38	87.24
1.200	500.00	0.00	0.00	804.90	325.00	810.42	0.00	810.45	13.88	1.90	396.38	87.24
1.200	500.00	0.00	0.00	804.90	325.00	810.42	0.00	810.45	13.88	1.90	396.38	87.24
1.200	500.00	0.00	0.00	804.90	325.00	810.42	0.00	810.45	13.88	1.90	396.38	87.24
1.200	500.00	0.00	0.00	804.90	325.00	810.76	0.00	810.77	6.54	1.29	532.43	127.12
1.800	500.00	0.00	0.00	805.60	20.00	810.77	0.00	810.78	0.17	0.28	97.52	47.83
1.800	500.00	0.00	0.00	805.60	50.00	810.82	0.00	810.83	1.04	0.69	100.19	49.12
1.800	500.00	0.00	0.00	805.60	100.00	810.89	0.00	810.92	3.81	1.35	104.49	51.22
1.800	500.00	0.00	0.00	805.60	150.00	810.97	0.00	811.02	7.84	1.96	109.21	53.56
1.800	500.00	0.00	0.00	805.60	150.00	811.07	0.00	811.11	7.07	1.89	114.95	56.43
2.200	550.00	0.00	0.00	806.30	20.00	810.79	0.00	810.79	0.40	0.38	60.71	31.66
2.200	550.00	0.00	0.00	806.30	50.00	810.90	0.00	810.91	2.19	0.90	66.24	33.82
2.200	550.00	0.00	0.00	806.30	100.00	811.15	0.00	811.19	6.42	1.62	79.61	39.47
2.200	550.00	0.00	0.00	806.30	150.00	811.45	0.00	811.51	10.10	2.14	96.21	47.20
2.200	550.00	0.00	0.00	806.30	150.00	811.50	0.00	811.57	9.49	2.10	99.31	48.69
2.280	188.00	0.00	0.00	806.70	20.00	810.79	0.00	810.81	5.75	1.18	16.99	8.34
2.280	188.00	0.00	0.00	806.70	50.00	810.92	0.00	811.05	32.26	2.85	17.55	8.80
2.280	188.00	0.00	0.00	806.70	100.00	811.17	0.00	811.62	106.44	5.38	18.59	9.69
2.280	188.00	0.00	0.00	806.70	150.00	811.35	0.00	812.29	209.33	7.75	19.36	10.37
2.280	188.00	0.00	0.00	806.70	150.00	811.39	0.00	812.31	204.40	7.69	19.50	10.49

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
2.320	24.00	813.30	810.70	806.70	20.00	810.86	0.00	810.88	5.43	1.16	17.29	8.58
2.320	24.00	813.30	810.70	806.70	50.00	811.39	0.00	811.49	22.73	2.56	19.50	10.49
2.320	24.00	813.30	810.70	806.70	100.00	813.36	0.00	813.37	3.37	1.25	145.38	54.46
2.320	24.00	813.30	810.70	806.70	150.00	813.79	0.00	813.80	5.10	1.61	166.76	66.40
2.320	24.00	813.30	810.70	806.70	150.00	813.79	0.00	813.81	5.08	1.60	166.98	66.53
2.800	63.00	0.00	0.00	807.20	20.00	810.89	0.00	810.89	0.37	0.35	66.48	32.97
2.800	63.00	0.00	0.00	807.20	50.00	811.51	0.00	811.52	1.09	0.69	92.62	47.96
2.800	63.00	0.00	0.00	807.20	100.00	813.37	0.00	813.38	0.80	0.79	176.40	111.82
2.800	63.00	0.00	0.00	807.20	150.00	813.80	0.00	813.82	1.34	1.07	195.77	129.56
2.800	63.00	0.00	0.00	807.20	150.00	813.81	0.00	813.82	1.34	1.07	195.97	129.75
2.900	300.00	0.00	0.00	807.90	20.00	810.91	0.00	810.91	0.81	0.43	66.86	22.27
2.900	300.00	0.00	0.00	807.90	50.00	811.55	0.00	811.55	1.14	0.57	182.75	46.83
2.900	300.00	0.00	0.00	807.90	100.00	813.39	0.00	813.39	0.19	0.29	661.39	230.47
2.900	300.00	0.00	0.00	807.90	150.00	813.83	0.00	813.84	0.25	0.36	782.84	298.33
2.900	300.00	0.00	0.00	807.90	150.00	813.84	0.00	813.84	0.25	0.36	784.02	299.03
3.000	1100.00	0.00	0.00	809.60	20.00	811.12	0.00	811.14	12.73	1.12	17.81	5.60
3.000	1100.00	0.00	0.00	809.60	50.00	811.84	0.00	811.88	17.40	1.69	29.65	11.99
3.000	1100.00	0.00	0.00	809.60	100.00	813.44	0.00	813.45	2.94	0.94	227.59	58.30
3.000	1100.00	0.00	0.00	809.60	150.00	813.90	0.00	813.90	2.65	0.95	337.72	92.18
3.000	1100.00	0.00	0.00	809.60	150.00	813.90	0.00	813.91	2.63	0.94	338.73	92.52
4.100	425.00	0.00	0.00	809.90	20.00	811.55	0.00	811.56	7.94	0.93	21.42	7.10
4.100	425.00	0.00	0.00	809.90	50.00	812.41	0.00	812.44	10.28	1.39	36.06	15.60
4.100	425.00	0.00	0.00	809.90	100.00	813.63	0.00	813.67	10.61	1.62	61.86	30.70
4.100	425.00	0.00	0.00	809.90	150.00	814.08	0.00	814.14	15.41	2.04	73.38	38.21
4.100	425.00	0.00	0.00	809.90	150.00	814.08	0.00	814.15	15.37	2.04	73.45	38.26
4.200	450.00	0.00	0.00	810.30	20.00	811.92	0.00	811.93	8.54	0.96	20.93	6.85
4.200	450.00	0.00	0.00	810.30	50.00	812.86	0.00	812.89	9.65	1.35	37.01	16.10
4.200	450.00	0.00	0.00	810.30	100.00	814.10	0.00	814.14	9.95	1.58	63.42	31.70
4.200	450.00	0.00	0.00	810.30	150.00	814.70	0.00	814.76	12.02	1.89	80.53	43.26
4.200	450.00	0.00	0.00	810.30	150.00	814.70	0.00	814.76	12.01	1.89	80.58	43.29
4.220	50.00	0.00	0.00	810.50	20.00	812.01	0.00	812.17	111.06	3.21	6.23	1.90
4.220	50.00	0.00	0.00	810.50	50.00	812.95	0.00	813.32	135.04	4.91	10.18	4.30
4.220	50.00	0.00	0.00	810.50	100.00	814.16	0.00	814.83	141.52	6.57	15.22	8.41
4.220	50.00	0.00	0.00	810.50	150.00	814.75	0.00	815.86	191.01	8.45	17.74	10.85
4.220	50.00	0.00	0.00	810.50	150.00	814.75	0.00	815.86	190.82	8.45	17.75	10.86
4.320	24.00	818.30	813.60	810.50	20.00	812.27	0.00	812.39	64.07	2.72	7.35	2.50
4.320	24.00	818.30	813.60	810.50	50.00	813.34	0.00	813.62	82.31	4.23	11.82	5.51
4.320	24.00	818.30	813.60	810.50	100.00	817.64	0.00	817.81	14.95	3.35	29.88	25.87
4.320	24.00	818.30	813.60	810.50	150.00	818.78	0.00	818.79	1.82	1.29	226.55	111.24
4.320	24.00	818.30	813.60	810.50	150.00	818.78	0.00	818.79	1.82	1.29	226.56	111.24
4.800	88.00	0.00	0.00	810.60	20.00	812.62	0.00	812.64	15.37	1.15	17.36	5.10
4.800	88.00	0.00	0.00	810.60	50.00	813.78	0.00	813.81	8.07	1.17	42.91	17.60
4.800	88.00	0.00	0.00	810.60	100.00	817.84	0.00	817.84	0.52	0.57	185.67	138.88
4.800	88.00	0.00	0.00	810.60	150.00	818.80	0.00	818.80	0.64	0.70	234.64	188.23
4.800	88.00	0.00	0.00	810.60	150.00	818.80	0.00	818.80	0.63	0.70	234.65	188.24

WOOD OUTLET DRAIN FOR

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
1.000	325.00	809.00	0.00	0.00	0.00	375.28	0.00
1.000	325.00	809.00	0.00	0.00	0.00	375.28	0.00
1.000	325.00	809.00	0.00	0.00	0.00	375.28	0.00
1.000	325.00	809.00	0.00	0.00	0.00	375.28	0.00
1.000	325.00	810.50	1.50	0.00	0.00	479.38	0.00
1.100	325.00	809.77	0.00	0.77	0.00	393.97	500.00
1.100	325.00	809.77	0.00	0.77	0.00	393.97	500.00
1.100	325.00	809.77	0.00	0.77	0.00	393.97	500.00
1.100	325.00	809.77	0.00	0.77	0.00	393.97	500.00
1.100	325.00	810.58	0.81	0.08	0.00	449.36	500.00
1.200	325.00	810.42	0.00	0.66	0.00	390.27	500.00
1.200	325.00	810.42	0.00	0.66	0.00	390.27	500.00
1.200	325.00	810.42	0.00	0.66	0.00	390.27	500.00
1.200	325.00	810.42	0.00	0.66	0.00	390.27	500.00
1.200	325.00	810.76	0.34	0.18	0.00	418.21	500.00
1.800	20.00	810.77	0.00	0.35	0.00	57.65	500.00
1.800	50.00	810.82	0.05	0.40	0.00	58.26	500.00
1.800	100.00	810.89	0.07	0.47	0.00	59.24	500.00
1.800	150.00	810.97	0.08	0.55	0.00	60.29	500.00
1.800	150.00	811.07	0.09	0.31	0.00	61.55	500.00
2.200	20.00	810.79	0.00	0.01	0.00	49.21	550.00
2.200	50.00	810.90	0.11	0.08	0.00	51.40	550.00
2.200	100.00	811.15	0.25	0.26	0.00	53.58	550.00
2.200	150.00	811.45	0.30	0.48	0.00	57.34	550.00
2.200	150.00	811.50	0.05	0.44	0.00	58.06	550.00
2.280	20.00	810.79	0.00	0.01	0.00	4.20	188.00
2.280	50.00	810.92	0.13	0.02	0.00	4.20	188.00
2.280	100.00	811.17	0.25	0.02	0.00	4.20	188.00
2.280	150.00	811.35	0.18	-0.10	0.00	4.20	188.00
2.280	150.00	811.39	0.03	-0.12	0.00	4.20	188.00
2.320	20.00	810.86	0.00	0.07	0.00	4.20	24.00
2.320	50.00	811.39	0.53	0.47	0.00	4.20	24.00
2.320	100.00	813.36	1.97	2.19	0.00	50.00	24.00
2.320	150.00	813.79	0.42	2.43	0.00	50.00	24.00
2.320	150.00	813.79	0.00	2.40	0.00	50.00	24.00
2.800	20.00	810.89	0.00	0.03	0.00	38.50	63.00
2.800	50.00	811.51	0.62	0.12	0.00	45.00	63.00
2.800	100.00	813.37	1.86	0.01	0.00	45.00	63.00
2.800	150.00	813.80	0.43	0.02	0.00	45.00	63.00
2.800	150.00	813.81	0.00	0.02	0.00	45.00	63.00
2.900	20.00	810.91	0.00	0.02	0.00	143.59	300.00
2.900	50.00	811.55	0.64	0.04	0.00	216.12	300.00
2.900	100.00	813.39	1.84	0.02	0.00	274.60	300.00
2.900	150.00	813.83	0.44	0.03	0.00	275.00	300.00
2.900	150.00	813.84	0.00	0.03	0.00	275.00	300.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
3.000	20.00	811.12	0.00	0.21	0.00	15.55	1100.00
3.000	50.00	811.84	0.72	0.29	0.00	17.35	1100.00
3.000	100.00	813.44	1.60	0.05	0.00	235.29	1100.00
3.000	150.00	813.90	0.45	0.06	0.00	256.44	1100.00
3.000	150.00	813.90	0.00	0.06	0.00	256.63	1100.00
4.100	20.00	811.55	0.00	0.43	0.00	16.65	425.00
4.100	50.00	812.41	0.87	0.57	0.00	17.71	425.00
4.100	100.00	813.63	1.22	0.19	0.00	24.50	425.00
4.100	150.00	814.08	0.45	0.18	0.00	26.99	425.00
4.100	150.00	814.08	0.00	0.18	0.00	27.00	425.00
4.200	20.00	811.92	0.00	0.37	0.00	16.63	450.00
4.200	50.00	812.86	0.95	0.45	0.00	18.00	450.00
4.200	100.00	814.10	1.23	0.46	0.00	24.85	450.00
4.200	150.00	814.70	0.60	0.62	0.00	39.07	450.00
4.200	150.00	814.70	0.00	0.62	0.00	39.15	450.00
4.220	20.00	812.01	0.00	0.09	0.00	4.20	50.00
4.220	50.00	812.95	0.94	0.09	0.00	4.20	50.00
4.220	100.00	814.16	1.21	0.06	0.00	4.20	50.00
4.220	150.00	814.75	0.59	0.05	0.00	4.20	50.00
4.220	150.00	814.75	0.00	0.05	0.00	4.20	50.00
4.320	20.00	812.27	0.00	0.26	0.00	4.20	24.00
4.320	50.00	813.34	1.07	0.39	0.00	4.20	24.00
4.320	100.00	817.64	4.30	3.48	0.00	4.20	24.00
4.320	150.00	818.78	1.15	4.03	0.00	50.00	24.00
4.320	150.00	818.78	0.00	4.03	0.00	50.00	24.00
4.800	20.00	812.62	0.00	0.35	0.00	17.20	88.00
4.800	50.00	813.78	1.17	0.45	0.00	25.60	88.00
4.800	100.00	817.84	4.05	0.20	0.00	51.00	88.00
4.800	150.00	818.80	0.96	0.01	0.00	51.00	88.00
4.800	150.00	818.80	0.00	0.01	0.00	51.00	88.00

SUMMARY OF ERRORS

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  HEC2 RELEASE DATED NOV 76 UPDATED JULY1979
  ERROR CORR -  01,02,03
  MODIFICATION -  50,51,52,53
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T1CITY OF SALINE FIS  CHECK OF OVERLAND FLOW ASSUMPTIONS JUST D/S OF TEXTILE
T2INPUT IS FROM M.P.S.'PITTSFIELD TWP CONVERGENCE/RATING CURVE DATA (Q ADJUSTED)
T3        WOOD OUTLET DRAIN  FOR RATING CURVE FOR CHANNEL.START. WSEL ASSUMED

J1  ICHECK     INQ        NINV       IDTR       STRT       METRIC     HVINS      Q          WSEL       FQ

      -1.        2.         0.         0.  0.000000       0.00      -1.0         0.    805.000     0.000

J2  NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE

     1.000      0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

NC     0.090      0.090      0.050      0.100      0.300      0.000      0.000      0.000      0.000      0.000
QT     5.000    325.000    325.000    325.000    325.000    325.000      0.000      0.000      0.000      0.000

X1     1.000     12.000   1856.000   1892.000      0.000      0.000      0.000      0.000      0.000      0.000
GR   810.400   1856.000    808.000   1866.000    805.000   1872.000    803.600   1877.000    805.000   1880.000
GR   808.700   1884.000    809.500   1892.000    808.700   1904.000    808.200   1926.000    807.800   2125.000
GR   809.100   2260.000    811.700   2400.000      0.000      0.000      0.000      0.000      0.000      0.000

X1     1.100      0.000      0.000      0.000    500.000    500.000    500.000      0.000      0.600      0.000

X1     1.200      0.000      0.000      0.000    500.000    500.000    500.000      0.000      0.700      0.000
QT     5.000     20.000     50.000    100.000    150.000    150.000      0.000      0.000      0.000      0.000

X1     1.800     12.000    520.000    536.000    500.000    500.000    500.000      0.000     -0.700      0.000
GR   812.000    484.000    811.800    500.000    811.200    508.000    809.800    520.000    807.000    522.000
GR   806.500    525.000    806.300    527.000    806.500    528.000    807.000    530.000    810.000    536.000
GR   810.600    542.000    810.800    562.000      0.000      0.000      0.000      0.000      0.000      0.000

X1     2.200      0.000      0.000      0.000    550.000    550.000    550.000      0.000      0.700      0.000

X1     2.280      6.000    668.100    672.300    188.000    188.000    188.000      0.000      0.000      0.000
X3    10.000      0.000      0.000      0.000      0.000      0.000      0.000    813.300    813.300      0.000
GR   812.900    650.000    808.700    668.100    806.700    668.200    806.700    672.200    808.700    672.300
GR   812.900    700.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
SB     0.000      2.300      2.600     50.000      4.000      0.000     12.500      0.000    806.700    806.700

X1     2.320      0.000      0.000      0.000     24.000     24.000     24.000      0.000      0.000      0.000
X2     0.000      0.000      1.000    810.700    813.300      0.000      0.000      0.000      0.000      0.000
X3    10.000      0.000      0.000      0.000      0.000      0.000      0.000    813.300    813.300      0.000

X1     2.800      7.000   1341.000   1360.000     63.000     63.000     63.000      0.000      0.000      0.000
GR   811.100   1335.000    809.800   1341.000    807.700   1345.000    807.200   1348.000    807.700   1355.000
GR   809.600   1360.000    811.400   1380.000    811.500   1410.000      0.000      0.000      0.000      0.000
NC     0.000      0.000      0.000      0.100      0.300      0.000      0.000      0.000      0.000      0.000
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X1	2.900	11.000	1460.000	1489.000	300.000	300.000	300.000	0.000	-1.700	0.000
GR	815.200	1460.000	812.500	1470.000	810.100	1472.000	809.600	1479.000	810.100	1485.000
GR	812.500	1489.000	814.000	1491.000	813.400	1498.000	812.400	1575.000	812.400	1677.000
GR	814.300	1735.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	3.000	0.000	0.000	0.000	1100.000	1100.000	1100.000	0.000	1.700	0.000
X1	4.100	7.000	410.000	437.100	425.000	425.000	425.000	0.000	-0.400	0.000
GR	815.000	380.000	814.500	410.000	812.700	420.000	810.900	421.000	810.300	428.000
GR	811.000	437.000	812.400	437.100	0.000	0.000	0.000	0.000	0.000	0.000
X1	4.200	0.000	0.000	0.000	450.000	450.000	450.000	0.000	0.400	0.000
NC	0.000	0.000	0.000	0.450	0.900	0.000	0.000	0.000	0.000	0.000
X1	4.220	6.000	752.100	756.300	50.000	50.000	50.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	818.300	818.300	0.000
GR	817.700	730.000	811.500	752.100	810.500	752.200	810.500	756.200	811.500	756.300
GR	817.700	780.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	2.400	2.600	50.000	4.000	0.000	10.100	0.000	810.500	810.500
X1	4.320	0.000	0.000	0.000	24.000	24.000	24.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	813.600	818.300	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	818.300	818.300	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
X1	4.800	6.000	581.000	616.000	88.000	88.000	88.000	0.000	0.000	0.000
GR	817.200	565.000	816.700	581.000	813.700	588.000	810.600	600.000	813.400	613.000
GR	816.300	616.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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  HEC2 RELEASE DATED NOV 76 UPDATED JULY1979
  ERROR CORR -  01,02,03
  MODIFICATION -  50,51,52,53
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

WOOD OUTLET DRAIN FOR

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
*	1.000	0.00	0.00	0.00	803.60	325.00	807.61	807.61	808.81	338.57	8.78	37.01	17.66
*	1.000	0.00	0.00	0.00	803.60	325.00	807.61	807.61	808.81	338.57	8.78	37.01	17.66
*	1.000	0.00	0.00	0.00	803.60	325.00	807.61	807.61	808.81	338.57	8.78	37.01	17.66
*	1.000	0.00	0.00	0.00	803.60	325.00	807.61	807.61	808.81	338.57	8.78	37.01	17.66
	1.000	0.00	0.00	0.00	803.60	325.00	808.50	0.00	808.70	65.42	4.24	179.66	40.18
	1.100	500.00	0.00	0.00	804.20	325.00	810.01	0.00	810.02	7.19	1.36	513.68	121.24
	1.100	500.00	0.00	0.00	804.20	325.00	810.01	0.00	810.02	7.19	1.36	513.68	121.24
	1.100	500.00	0.00	0.00	804.20	325.00	810.01	0.00	810.02	7.19	1.36	513.68	121.24
	1.100	500.00	0.00	0.00	804.20	325.00	810.01	0.00	810.02	7.19	1.36	513.68	121.24
	1.100	500.00	0.00	0.00	804.20	325.00	809.81	0.00	809.83	11.19	1.70	432.51	97.17
	1.200	500.00	0.00	0.00	804.90	325.00	810.47	0.00	810.49	12.44	1.80	414.43	92.14
	1.200	500.00	0.00	0.00	804.90	325.00	810.47	0.00	810.49	12.44	1.80	414.43	92.14
	1.200	500.00	0.00	0.00	804.90	325.00	810.47	0.00	810.49	12.44	1.80	414.43	92.14
	1.200	500.00	0.00	0.00	804.90	325.00	810.42	0.00	810.45	13.52	1.88	400.63	88.38
	1.800	500.00	0.00	0.00	805.60	20.00	810.79	0.00	810.79	0.17	0.28	98.62	48.36
	1.800	500.00	0.00	0.00	805.60	50.00	810.84	0.00	810.84	1.02	0.69	101.10	49.56
	1.800	500.00	0.00	0.00	805.60	100.00	810.90	0.00	810.93	3.76	1.34	105.14	51.54
	1.800	500.00	0.00	0.00	805.60	150.00	810.98	0.00	811.03	7.86	1.96	109.09	53.50
	1.800	500.00	0.00	0.00	805.60	150.00	810.97	0.00	811.02	7.90	1.96	108.82	53.36
	2.200	550.00	0.00	0.00	806.30	20.00	810.81	0.00	810.81	0.39	0.37	61.62	32.01
	2.200	550.00	0.00	0.00	806.30	50.00	810.91	0.00	810.92	2.15	0.89	66.95	34.11
	2.200	550.00	0.00	0.00	806.30	100.00	811.16	0.00	811.20	6.36	1.61	80.04	39.66
	2.200	550.00	0.00	0.00	806.30	150.00	811.46	0.00	811.52	10.03	2.14	96.58	47.37
	2.200	550.00	0.00	0.00	806.30	150.00	811.45	0.00	811.51	10.14	2.15	96.01	47.10
	2.280	188.00	0.00	0.00	806.70	20.00	810.81	0.00	810.83	5.67	1.17	17.07	8.40
	2.280	188.00	0.00	0.00	806.70	50.00	810.93	0.00	811.06	31.91	2.84	17.61	8.85
	2.280	188.00	0.00	0.00	806.70	100.00	811.18	0.00	811.63	105.98	5.37	18.62	9.71
	2.280	188.00	0.00	0.00	806.70	150.00	811.36	0.00	812.29	208.76	7.74	19.38	10.38
	2.280	188.00	0.00	0.00	806.70	150.00	811.35	0.00	812.28	209.67	7.75	19.35	10.36

ARS-78-71

SECNO	XLCH	ELTRD	FLLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
2.320	24.00	813.30	810.70	806.70	20.00	810.88	0.00	810.90	5.35	1.15	17.36	8.65
2.320	24.00	813.30	810.70	806.70	50.00	811.40	0.00	811.50	22.51	2.56	19.55	10.54
2.320	24.00	813.30	810.70	806.70	100.00	813.36	0.00	813.38	3.36	1.25	145.50	54.52
2.320	24.00	813.30	810.70	806.70	150.00	813.79	0.00	813.80	5.10	1.61	166.79	66.42
2.320	24.00	813.30	810.70	806.70	150.00	813.79	0.00	813.80	5.10	1.61	166.75	66.40
2.800	63.00	0.00	0.00	807.20	20.00	810.91	0.00	810.91	0.36	0.35	67.15	33.35
2.800	63.00	0.00	0.00	807.20	50.00	811.53	0.00	811.53	1.07	0.69	93.18	48.31
2.800	63.00	0.00	0.00	807.20	100.00	813.38	0.00	813.38	0.80	0.79	176.51	111.92
2.800	63.00	0.00	0.00	807.20	150.00	813.81	0.00	813.82	1.34	1.07	195.79	129.58
2.800	63.00	0.00	0.00	807.20	150.00	813.80	0.00	813.82	1.34	1.07	195.76	129.55
2.900	300.00	0.00	0.00	807.90	20.00	810.92	0.00	810.93	0.78	0.42	69.37	22.69
2.900	300.00	0.00	0.00	807.90	50.00	811.56	0.00	811.56	1.11	0.56	185.33	47.46
2.900	300.00	0.00	0.00	807.90	100.00	813.40	0.00	813.40	0.19	0.29	662.02	230.79
2.900	300.00	0.00	0.00	807.90	150.00	813.84	0.00	813.84	0.25	0.36	782.98	298.41
2.900	300.00	0.00	0.00	807.90	150.00	813.83	0.00	813.84	0.25	0.36	782.76	298.29
3.000	1100.00	0.00	0.00	809.60	20.00	811.13	0.00	811.15	12.41	1.11	17.96	5.68
3.000	1100.00	0.00	0.00	809.60	50.00	811.84	0.00	811.89	17.26	1.68	29.73	12.04
3.000	1100.00	0.00	0.00	809.60	100.00	813.44	0.00	813.45	2.93	0.94	228.11	58.45
3.000	1100.00	0.00	0.00	809.60	150.00	813.90	0.00	813.90	2.65	0.95	337.83	92.22
3.000	1100.00	0.00	0.00	809.60	150.00	813.89	0.00	813.90	2.65	0.95	337.65	92.16
4.100	425.00	0.00	0.00	809.90	20.00	811.55	0.00	811.56	7.88	0.93	21.47	7.12
4.100	425.00	0.00	0.00	809.90	50.00	812.42	0.00	812.45	10.26	1.39	36.10	15.61
4.100	425.00	0.00	0.00	809.90	100.00	813.63	0.00	813.67	10.59	1.62	61.89	30.72
4.100	425.00	0.00	0.00	809.90	150.00	814.08	0.00	814.14	15.40	2.04	73.39	38.22
4.100	425.00	0.00	0.00	809.90	150.00	814.08	0.00	814.14	15.41	2.04	73.38	38.21
4.200	450.00	0.00	0.00	810.30	20.00	811.92	0.00	811.93	8.51	0.95	20.95	6.86
4.200	450.00	0.00	0.00	810.30	50.00	812.86	0.00	812.89	9.63	1.35	37.02	16.11
4.200	450.00	0.00	0.00	810.30	100.00	814.10	0.00	814.14	9.95	1.58	63.44	31.71
4.200	450.00	0.00	0.00	810.30	150.00	814.70	0.00	814.76	12.02	1.89	80.54	43.26
4.200	450.00	0.00	0.00	810.30	150.00	814.70	0.00	814.76	12.03	1.89	80.53	43.26
4.220	50.00	0.00	0.00	810.50	20.00	812.01	0.00	812.17	110.86	3.21	6.24	1.90
4.220	50.00	0.00	0.00	810.50	50.00	812.95	0.00	813.32	134.87	4.91	10.19	4.31
4.220	50.00	0.00	0.00	810.50	100.00	814.16	0.00	814.83	141.41	6.57	15.23	8.41
4.220	50.00	0.00	0.00	810.50	150.00	814.75	0.00	815.86	190.99	8.45	17.74	10.85
4.220	50.00	0.00	0.00	810.50	150.00	814.75	0.00	815.86	191.02	8.45	17.74	10.85
4.320	24.00	818.30	813.60	810.50	20.00	812.27	0.00	812.39	64.03	2.72	7.35	2.50
4.320	24.00	818.30	813.60	810.50	50.00	813.34	0.00	813.62	82.27	4.23	11.82	5.51
4.320	24.00	818.30	813.60	810.50	100.00	817.64	0.00	817.81	14.94	3.35	29.88	25.87
4.320	24.00	818.30	813.60	810.50	150.00	818.78	0.00	818.79	1.82	1.29	226.56	111.24
4.320	24.00	818.30	813.60	810.50	150.00	818.78	0.00	818.79	1.82	1.29	226.55	111.23
4.800	88.00	0.00	0.00	810.60	20.00	812.62	0.00	812.64	15.36	1.15	17.37	5.10
4.800	88.00	0.00	0.00	810.60	50.00	813.79	0.00	813.81	8.06	1.16	42.92	17.61
4.800	88.00	0.00	0.00	810.60	100.00	817.84	0.00	817.84	0.52	0.57	185.71	138.92
4.800	88.00	0.00	0.00	810.60	150.00	818.80	0.00	818.80	0.64	0.70	234.65	188.23
4.800	88.00	0.00	0.00	810.60	150.00	818.80	0.00	818.80	0.64	0.70	234.64	188.23

St. # =
807.6 +
808.5

WOOD OUTLET DRAIN FOR

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	1.000	325.00	807.61	0.00	0.00	2.61	16.05	0.00
*	1.000	325.00	807.61	0.00	0.00	2.61	16.05	0.00
*	1.000	325.00	807.61	0.00	0.00	2.61	16.05	0.00
*	1.000	325.00	807.61	0.00	0.00	2.61	16.05	0.00
	1.000	325.00	808.50	0.89	0.00	0.00	304.76	0.00
	1.100	325.00	810.01	0.00	2.40	0.00	414.47	500.00
	1.100	325.00	810.01	0.00	2.40	0.00	414.47	500.00
	1.100	325.00	810.01	0.00	2.40	0.00	414.47	500.00
	1.100	325.00	810.01	0.00	2.40	0.00	414.47	500.00
	1.100	325.00	809.81	-0.20	1.31	0.00	397.88	500.00
	1.200	325.00	810.47	0.00	0.46	0.00	394.09	500.00
	1.200	325.00	810.47	0.00	0.46	0.00	394.09	500.00
	1.200	325.00	810.47	0.00	0.46	0.00	394.09	500.00
	1.200	325.00	810.47	0.00	0.46	0.00	394.09	500.00
	1.200	325.00	810.42	-0.04	0.61	0.00	391.17	500.00
	1.800	20.00	810.79	0.00	0.32	0.00	57.90	500.00
	1.800	50.00	810.84	0.04	0.37	0.00	58.47	500.00
	1.800	100.00	810.90	0.07	0.44	0.00	59.38	500.00
	1.800	150.00	810.98	0.08	0.51	0.00	60.27	500.00
	1.800	150.00	810.97	-0.01	0.54	0.00	60.20	500.00
	2.200	20.00	810.81	0.00	0.01	0.00	50.62	550.00
	2.200	50.00	810.91	0.10	0.07	0.00	51.51	550.00
	2.200	100.00	811.16	0.25	0.26	0.00	53.65	550.00
	2.200	150.00	811.46	0.30	0.48	0.00	57.43	550.00
	2.200	150.00	811.45	-0.01	0.48	0.00	57.30	550.00
	2.280	20.00	810.81	0.00	0.00	0.00	4.20	188.00
	2.280	50.00	810.93	0.12	0.02	0.00	4.20	188.00
	2.280	100.00	811.18	0.25	0.02	0.00	4.20	188.00
	2.280	150.00	811.36	0.18	-0.10	0.00	4.20	188.00
	2.280	150.00	811.35	-0.01	-0.10	0.00	4.20	188.00
	2.320	20.00	810.88	0.00	0.07	0.00	4.20	24.00
	2.320	50.00	811.40	0.52	0.47	0.00	4.20	24.00
	2.320	100.00	813.36	1.96	2.18	0.00	50.00	24.00
	2.320	150.00	813.79	0.42	2.43	0.00	50.00	24.00
	2.320	150.00	813.79	-0.00	2.43	0.00	50.00	24.00
	2.800	20.00	810.91	0.00	0.03	0.00	38.77	63.00
	2.800	50.00	811.53	0.62	0.12	0.00	45.00	63.00
	2.800	100.00	813.38	1.85	0.01	0.00	45.00	63.00
	2.800	150.00	813.81	0.43	0.02	0.00	45.00	63.00
	2.800	150.00	813.80	-0.00	0.02	0.00	45.00	63.00
	2.900	20.00	810.92	0.00	0.01	0.00	145.54	300.00
	2.900	50.00	811.56	0.64	0.04	0.00	217.46	300.00
	2.900	100.00	813.40	1.83	0.02	0.00	274.61	300.00
	2.900	150.00	813.84	0.44	0.03	0.00	275.00	300.00
	2.900	150.00	813.83	-0.00	0.03	0.00	275.00	300.00

ARS-87-0

SECNO	Q	CWSEL	DTFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
3.000	20.00	811.13	0.00	0.21	0.00	15.57	1100.00
3.000	50.00	811.84	0.71	0.28	0.00	17.36	1100.00
3.000	100.00	813.44	1.60	0.05	0.00	235.39	1100.00
3.000	150.00	813.90	0.45	0.06	0.00	256.46	1100.00
3.000	150.00	813.89	-0.00	0.06	0.00	256.43	1100.00
4.100	20.00	811.55	0.00	0.42	0.00	16.65	425.00
4.100	50.00	812.42	0.86	0.57	0.00	17.72	425.00
4.100	100.00	813.63	1.22	0.19	0.00	24.51	425.00
4.100	150.00	814.08	0.45	0.18	0.00	26.99	425.00
4.100	150.00	814.08	-0.00	0.18	0.00	26.99	425.00
4.200	20.00	811.92	0.00	0.37	0.00	16.63	450.00
4.200	50.00	812.86	0.95	0.45	0.00	18.01	450.00
4.200	100.00	814.10	1.23	0.46	0.00	24.86	450.00
4.200	150.00	814.70	0.60	0.62	0.00	39.08	450.00
4.200	150.00	814.70	-0.00	0.62	0.00	39.07	450.00
4.220	20.00	812.01	0.00	0.09	0.00	4.20	50.00
4.220	50.00	812.95	0.94	0.09	0.00	4.20	50.00
4.220	100.00	814.16	1.21	0.06	0.00	4.20	50.00
4.220	150.00	814.75	0.59	0.05	0.00	4.20	50.00
4.220	150.00	814.75	-0.00	0.05	0.00	4.20	50.00
4.320	20.00	812.27	0.00	0.26	0.00	4.20	24.00
4.320	50.00	813.34	1.07	0.39	0.00	4.20	24.00
4.320	100.00	817.64	4.30	3.48	0.00	4.20	24.00
4.320	150.00	818.78	1.15	4.03	0.00	50.00	24.00
4.320	150.00	818.78	-0.00	4.03	0.00	50.00	24.00
4.800	20.00	812.62	0.00	0.35	0.00	17.20	88.00
4.800	50.00	813.79	1.17	0.45	0.00	25.60	88.00
4.800	100.00	817.84	4.05	0.20	0.00	51.00	88.00
4.800	150.00	818.80	0.96	0.01	0.00	51.00	88.00
4.800	150.00	818.80	-0.00	0.01	0.00	51.00	88.00

SUMMARY OF ERRORS

CAUTION SECNO= 1.000 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 1.000 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 1.000 PROFILE= 3 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 1.000 PROFILE= 4 CRITICAL DEPTH ASSUMED

ELMS/SALINE TEXTILE

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED JULY1979
  ERROR CORR =  01,02,03
  MODIFICATION =  50,51,52,53
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T1CONTINUATION OF INVESTIGATION ON CITY OF SALINE F.I.S.    NEW TAILWATER ELEVS.
T2FROM CONVERGENCE/RATING CURVE RUNS.   SECTIONS FROM MPS' PITTSFIELD FIS
T3          WOOD OUTLET DRAIN***TAILWATER ELEVS. VS U/S TEXTILE RD. ?WEIR FLOW?**

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

     -1.        2.        0.        0.  0.000000      0.00      -1.0        0.   815.500     0.000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

     1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC      0.100     0.100     0.055     0.100     0.300     0.000     0.000     0.000     0.000     0.000
QT      4.000   115.000     0.000   190.000     0.000     0.000     0.000     0.000     0.000     0.000
ET      0.000     0.000     0.000     0.000     0.000     1.400     5.400    10.400    15.400     0.000

X1      4.800    15.000   582.000   616.000     0.000     0.000     0.000     0.000     0.000     0.000
GR    817.200   565.000   816.700   581.000   813.700   588.000   810.600   600.000   813.400   613.000
GR    816.300   616.000   815.200   630.000   814.000   652.000   814.100   678.000   815.500   708.000
GR    816.600   764.000   816.300   830.000   815.300   975.000   816.100  1300.000   817.100  1435.000

X1      5.200    21.000   756.000   794.000   675.000   675.000   675.000     0.850     0.000     0.000
X3      0.000     0.000     0.000     0.000     0.000  1050.000     0.000     0.000     0.000     0.000
X4      4.000   817.500    90.000   816.300   155.000   814.800   200.000   815.200   370.000     0.000
GR    820.000     0.000   814.700   440.000   814.400   482.000   814.600   544.000   814.500   602.000
GR    814.400   642.000   815.500   688.000   816.200   732.000   816.500   756.000   816.000   764.000
GR    811.600   778.000   811.400   780.000   811.500   781.000   811.600   782.000   811.900   783.000
GR    816.400   794.000   815.800   814.000   815.200   870.000   815.200   918.000   816.200   962.000
GR    817.000  1350.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

X1      5.300     0.000     0.000     0.000   150.000   150.000   150.000     0.000    -0.300     0.000
X3      0.000     0.000     0.000     0.000     0.000   900.000     0.000     0.000     0.000     0.000
SB      0.000     2.700     3.000     0.000     3.000     0.000    11.600     0.000   811.100   811.600

X1      5.400     0.000     0.000     0.000    41.000    41.000    41.000     0.000     0.000     0.000
X2      0.000     0.000     1.000   815.100     0.000     0.000     0.000     0.000     0.850     0.000
X3      0.000     0.000     0.000     0.000     0.000   900.000     0.000     0.000     0.000     0.000
BT     13.000    45.000   819.000     0.000   180.000   817.300     0.000   395.000   816.500     0.000
BT    460.000   816.700     0.000   700.000   816.800     0.000   755.000   816.900     0.000   868.000
BT    817.100     0.000  1025.000   817.200     0.000  1090.000   817.500     0.000  1240.000   817.600
BT      0.000  1300.000   817.900     0.000  1370.000   818.000     0.000  1550.000   818.700     0.000
EJ      0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
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*PROF 1

CCHV=   0.100 CEHV=   0.300
*SECNO 4.800

3265 DIVIDED FLOW

   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        QLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      NXR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

    4.800     4.900   815.500     0.000   815.500   815.511     0.010     0.000     0.000   867.200
    115.        0.       91.       24.       0.        92.       90.       0.        0.      816.300
    0.000     0.000     0.990     0.260     0.100     0.055     0.100     0.000   810.600   583.800
0.000350        0.        0.        0.         0         0         0     0.000   223.440  1056.250

*SECNO 5.200

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS=       0.0     892.5  TYPE=     1  TARGET=   1049.999
    5.200     4.299   815.699     0.000     0.000   815.699     0.000     0.180     0.000   816.500
    115.       75.       36.        4.      364.       55.       34.        5.        6.      816.400
    0.540     0.210     0.660     0.110     0.100     0.055     0.100     0.055   811.400   173.320
0.000207      675.      675.      675.         2         0         0     0.000   542.690   798.600

*SECNO 5.300

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS=       0.0     900.0  TYPE=     1  TARGET=    899.999
    5.300     4.610   815.710     0.000     0.000   815.710     0.000     0.020     0.000   816.200
    115.       74.       35.        6.      434.       74.       55.        7.        8.      816.100
    0.700     0.170     0.470     0.110     0.100     0.055     0.100     0.055   811.100   330.330
0.000096      150.      150.      150.         1         0         0     0.000   513.200   900.000

SPECIAL BRIDGE

SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
    0.000     2.700     3.000     0.000     3.000     0.000    11.600     0.000   811.100   811.600

*SECNO 5.400
3280 CROSS SECTION      5.40 EXTENDED      0.14 FEET

PRESSURE AND WEIR FLOW

 EGPRS      EGLWC       H3        QWIER     QRP       BAREA   TRAPEZOID AREA     ELLC      ELTRD
819.830   815.710     0.000        55.       60.       12.      =2433.          0.000   816.500

3470 ENCROACHMENT STATIONS=       0.0     900.0  TYPE=     1  TARGET=    899.999
    5.400     5.740   816.840     0.000     0.000   816.840     0.000     1.130     0.000   816.200
    115.       81.       22.       12.      976.      115.      171.        7.        8.      811.100
```

0.81	0.08	0.19	0.07	0.100	0.055	0.100	0.055	811.10	237.04
0.000012	41.	41.	41.	0	0	8	0.00	662.96	900.00

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED JULY1979
  ERROR CORR =  01,02,03
  MODIFICATION =  50,51,52,53
**************************************************


T1
T2
T3

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      -1.       4.        0.        0.  0.000000      0.00     -1.0       0.   816.000     0.000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

    15.000    0.0000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
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*PROF 2

CCHV=   0.100 CEHV=   0.300
*SECNO 4.800

3265 DIVIDED FLOW

   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      NXR       WTN       ELMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST

     4.80      5.40    816.00      0.00    816.00    816.01      0.01      0.00      0.00    867.20
     190.        0.     122.       68.        0.      108.      263.        0.        0.    816.30
     0.00      0.00      1.13      0.26     0.100     0.055     0.100     0.000    810.60    582.63
 0.000395        0.        0.        0.         0         0         0      0.00    532.57   1259.37

*SECNO 5.200

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS=        0.0      892.5  TYPE=      1  TARGET=     1049.999
     5.20      4.78    816.18      0.00      0.00    816.18      0.00      0.16      0.00    816.50
     190.      135.       40.       14.      578.       67.       92.        9.        9.    816.40
     0.61      0.23      0.60      0.16     0.100     0.055     0.100     0.055    811.40    158.73
 0.000164      675.      675.      675.         2         0         0      0.00    625.13    816.79

*SECNO 5.300

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS=        0.0      900.0  TYPE=      1  TARGET=      899.999
     5.30      5.10    816.20      0.00      0.00    816.20      0.00      0.02      0.00    816.20
     190.      131.       43.       16.      637.       90.      103.       11.       11.    816.10
     0.77      0.21      0.47      0.15     0.100     0.055     0.100     0.055    811.10    290.91
 0.000103      150.      150.      150.         2         0         0      0.00    608.69    900.00

SPECIAL BRIDGE

SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     0.00      2.70      3.00      0.00      3.00      0.00     11.60      0.00    811.10    811.60

*SECNO 5.400
3280 CROSS SECTION      5.40 EXTENDED      0.27 FEET

PRESSURE AND WEIR FLOW

 EGPRS      EGLWC       H3       QWIER      QRP       BAREA   TRAPEZOID      ELLC     ELTRD
                                                                AREA
   827.44    816.20      0.00      141.       50.       12.    -2433.        0.00    816.50

3470 ENCROACHMENT STATIONS=        0.0      900.0  TYPE=      1  TARGET=      899.999
     5.40      5.87    816.97      0.00      0.00    816.97      0.00      0.77      0.00    816.20
     1.0       133       3[illegible]      21      10.0      120       184       12        12      [illegible]10
```

0.84	0.13	0.30	0.11	0.100	0.055	0.100	0.055	81.10	226.91
0.000028	41.	41.	41.	0	0	9	0.00	673.09	900.00

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**********************************************
  HEC2 RELEASE DATED NOV 76 UPDATED JULY1979
  ERROR CORR =  01,02,03
  MODIFICATION =  50,51,52,53
**********************************************
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NOTE= ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

WOOD OUTLET DRAIN***T

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
4.800	0.00	0.00	0.00	810.60	115.00	815.50	0.00	815.51	3.50	0.99	181.86	61.50
4.800	0.00	0.00	0.00	810.60	190.00	816.00	0.00	816.01	3.95	1.13	370.86	95.59
5.200	675.00	0.00	0.00	811.40	115.00	815.69	0.00	815.69	2.07	0.66	452.56	79.87
5.200	675.00	0.00	0.00	811.40	190.00	816.18	0.00	816.18	1.64	0.60	737.36	148.47
5.300	150.00	0.00	0.00	811.10	115.00	815.71	0.00	815.71	0.96	0.47	563.33	117.67
5.300	150.00	0.00	0.00	811.10	190.00	816.20	0.00	816.20	1.03	0.47	829.87	187.58
5.400	41.00	816.50	0.00	811.10	115.00	816.84	0.00	816.84	0.12	0.19	1242.58	328.73
5.400	41.00	816.50	0.00	811.10	190.00	816.97	0.00	816.97	0.28	0.30	1324.07	359.76

WOOD OUTLET DRAIN****T

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
4.800	115.00	815.50	0.00	0.00	0.00	223.44	0.00
4.800	190.00	816.00	0.50	0.00	0.00	532.57	0.00
5.200	115.00	815.69	0.00	0.19	0.00	542.69	675.00
5.200	190.00	816.18	0.49	0.18	0.00	625.13	675.00
5.300	115.00	815.71	0.00	0.02	0.00	513.20	150.00
5.300	190.00	816.20	0.48	0.02	0.00	608.69	150.00
5.400	115.00	816.84	0.00	1.13	0.00	662.96	41.00
5.400	190.00	816.97	0.12	0.77	0.00	673.09	41.00

SUMMARY OF ERRORS

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*********************************************
*  WATER SURFACE PROFILES                   *
*  VERSION OF NOVEMBER 1976                 *
*  UPDATED APRIL 1980                       *
*                                           *
*  RUN DATE THU, JUN 10, 1982,  5:45 PM     *
*********************************************
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RECEIVED
JUN 15 1982
WATER MANAGEMENT

HEC-2

****
* U.S. ARMY CORPS OF ENGINEERS   *
* THE HYDROLOGIC ENGINEERING CENTER *
* 609 SECOND STREET, SUITE D   *
* DAVIS, CALIFORNIA 95616   *
* (916) 440-2105 (FTS) 448-2105 *
****

CITY OF SALINE
FLOOD INSURANCE STUDY
WOOD OUTLET DRAIN
FLOODWAY DATA
JUNE 10, 1982

Caution

SECNO. 11.27 and upstream have been revised — See revision in packet

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*****************************************************
 HEC2 RELEASE DATED NOV 76 UPDATED APRIL 1980
 ERROR CORR -  01,02,03,04
 MODIFICATION -  50,51,52,53,54
*****************************************************
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C
T1      HUD FLOOD INSURANCE STUDIES  H-3970  WILLIAMS & WORKS
T2      CITY OF SALINE  SALINE RIVER AND WOOD CREEK
T3      WOOD OUTLET DRAIN          100-YEAR FLOOD
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J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	2.	0.	0.	.007000	.00	.0	0.	760.000	.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	1.000	.000	-1.000	.000	.000	1.300	.000	.000	.000	.000

J3 VARIABLE CODES FOR SUMMARY PRINTOUT

	150.000	200.000	.000	.000	.000	.000	.000	.000	.000	.000

NC	.100	.100	.040	.100	.300	.000	.000	.000	.000	.000
QT	5.000	980.000	980.000	1250.000	850.000	480.000	.000	.000	.000	.000
NH	3.000	.070	910.000	.040	940.000	.070	1600.000	.000	.000	.000

CROSS SECTION J1

X1	.060	13.000	910.000	940.000	.000	.000	.000	.000	.000	.000
GR	800.000	.000	764.000	70.000	760.000	680.000	756.000	905.000	755.000	910.000
GR	754.000	911.000	754.000	939.000	755.000	940.000	756.000	942.000	760.000	1165.000
GR	764.000	1430.000	768.000	1530.000	780.000	1600.000	.000	.000	.000	.000
NH	3.000	.060	797.100	.040	810.100	.120	1273.300	.000	.000	.000

CROSS SECTION K

X1	.530	22.000	797.100	810.100	500.000	500.000	470.000	.000	.000	.000
X3	.000	.000	.000	450.000	.000	930.000	.000	.000	.000	.000
GR	777.100	.000	765.600	60.000	763.700	143.700	763.600	217.400	762.300	288.600
GR	762.300	404.400	762.600	536.700	764.800	651.700	764.800	737.200	764.300	784.100
GR	763.300	791.100	761.300	797.100	760.800	801.100	760.700	806.100	761.000	808.100
GR	761.300	810.100	760.800	813.100	763.000	911.800	763.000	1004.500	763.000	1105.300
GR	763.800	1176.200	789.300	1273.300	.000	.000	.000	.000	.000	.000
ET	.000	.000	9.100	.000	.000	.000	.000	.000	165.000	350.000
NH	3.000	.060	175.000	.040	188.000	.120	490.000	.000	.000	.000

CROSS SECTION K1

X1	.930	15.000	175.000	188.000	600.000	400.000	450.000	.000	.000	.000
GR	800.000	.000	780.000	45.000	776.000	70.000	772.000	95.000	768.000	160.000
GR	764.300	175.000	763.800	179.000	763.700	184.000	764.000	186.000	764.300	188.000
GR	764.000	215.000	768.000	435.000	772.000	440.000	780.000	460.000	800.000	490.000
ET	.000	.000	9.100	.000	.000	.000	.000	.000	85.000	216.000
NH	3.000	.120	110.000	.040	125.000	.110	630.000	.000	.000	.000

CROSS SECTION K2

X1	1.730	14.000	110.000	125.000	350.000	220.000	430.000	.000	.000	.000
GR	800.000	.000	780.000	40.000	776.000	55.000	772.000	85.000	767.800	110.000
GR	767.000	111.000	766.900	114.000	766.600	119.000	767.400	124.000	767.800	125.000
GR	772.000	215.000	776.000	290.000	780.000	345.000	800.000	630.000	.000	.000
NH	3.000	.120	421.300	.040	436.300	.110	927.500	.000	.000	.000

CROSS SECTION L

X1	2.060	17.000	421.300	436.300	300.000	250.000	330.000	.000	.000	.000
X3	.000	.000	.000	375.000	.000	450.000	.000	.000	.000	.000
GR	801.700	.000	783.700	56.200	779.800	138.200	776.500	221.200	774.300	339.200
GR	772.900	418.100	770.000	421.300	769.200	422.200	769.000	425.300	768.600	430.300
GR	769.600	435.300	770.000	436.300	776.800	456.800	776.700	525.800	789.300	633.800
GR	798.300	753.800	805.400	927.500	.000	.000	.000	.000	.000	.000
NC	.080	.080	.050	.300	.600	.000	.000	.000	.000	.000

CROSS SECTION IMMEDIATELY DOWNSTREAM OF N.Y.C. RAILROAD BRIDGE

X1	2.110	32.000	610.000	727.000	60.000	60.000	50.000	.000	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	300.500	800.500	.000
GR	806.300	.000	806.300	33.700	806.000	103.900	804.800	193.500	803.600	281.300
GR	802.700	393.400	802.200	486.500	802.200	563.400	802.200	605.000	797.000	610.000
GR	794.800	620.000	788.600	630.000	783.300	640.000	777.900	650.000	771.900	655.000
GR	770.200	663.000	769.000	670.000	768.700	676.000	768.800	680.000	775.500	690.000
GR	779.500	700.000	786.400	710.000	794.900	720.000	797.000	727.000	802.200	733.000
GR	802.200	787.300	803.600	854.500	803.600	953.600	805.100	1028.300	806.200	1158.500
GR	808.000	1244.100	807.900	1303.900	.000	.000	.000	.000	.000	.000

CROSS SECTION AT DOWNSTREAM FACE OF ABANDONED N.Y.C. RAILROAD BRIDGE.

DIVIDED FLOW DUE TO BRIDGE PIERS

X1	2.111	57.000	610.000	727.000	1.000	1.000	1.000	.000	.000	.000
X2	.000	.000	.000	800.500	802.600	.000	.000	.000	.000	.000
GR	806.300	.000	806.300	33.700	806.000	103.900	804.800	193.500	803.600	281.300
GR	802.700	393.400	802.200	486.500	802.200	563.400	802.200	605.000	802.600	611.000
GR	797.000	611.000	794.800	622.000	800.500	622.000	800.500	623.000	793.000	623.000

GR	786.500	634.000	800.500	634.000	800.500	635.000	786.000	635.000	779.500	647.000
GR	800.500	647.000	800.500	648.000	779.000	648.000	777.900	650.000	771.900	655.000
GR	771.000	660.000	800.500	660.000	800.500	661.000	770.500	661.000	769.000	670.000
GR	800.500	673.000	800.500	674.000	768.700	674.000	768.800	680.000	774.500	685.500
GR	800.500	685.500	800.500	686.500	773.000	686.500	779.000	699.000	800.500	698.000
GR	800.500	699.000	779.500	693.000	787.000	711.000	800.500	711.000	800.500	712.000
GR	788.000	712.000	794.900	720.000	797.000	725.500	802.600	725.500	802.200	733.000
GR	802.200	787.300	802.600	854.500	803.600	953.600	805.100	1028.300	806.200	1158.500
GR	808.000	1244.100	807.900	1303.900	.000	.000	.000	.000	.000	.000

CROSS SECTION AT UPSTREAM FACE OF ABANDONED N.Y.C. RAILROAD BRIDGE

DIVIDED FLOW DUE TO BRIDGE PIERS

X1	2.121	.000	.000	.000	10.000	10.000	10.000	.000	.000	.000
X2	.000	.000	.000	800.500	802.600	.000	.000	.000	.000	.000

CROSS SECTION IMMEDIATELY UPSTREAM OF N.Y.C. RAILROAD BRIDGE

X1	2.122	32.000	610.000	727.000	1.000	1.000	1.000	.000	.000	.000
XCV	10.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
GR	806.300	.000	806.300	33.700	806.000	103.900	804.800	193.500	803.600	281.300
GR	802.700	393.400	802.200	486.500	802.200	563.400	802.200	655.000	797.000	610.000
GR	794.800	620.000	788.600	630.000	783.300	640.000	777.900	650.000	771.900	655.000
GR	770.200	663.000	769.000	670.000	768.700	676.000	768.800	680.000	774.500	698.000
GR	779.500	700.000	786.400	710.000	794.900	720.000	797.000	727.000	804.200	733.000
GR	802.200	787.300	802.600	854.500	803.600	953.600	805.100	1028.300	806.200	1158.500
GR	808.000	1244.100	807.900	1303.900	.000	.000	.000	.000	.000	.000
ET	.000	.000	9.100	.000	.000	.000	.000	.000	37.100	69.100
NH	4.000	.120	48.500	.045	60.100	.095	356.800	.120	464.700	.000

CROSS SECTION M

X1	2.170	13.000	48.500	60.100	70.000	70.000	50.000	.000	.000	.000
GR	793.700	.000	774.700	37.400	770.600	48.500	769.800	49.500	769.700	50.500
GR	769.500	55.500	770.100	58.500	770.600	60.100	776.700	74.200	784.500	161.900
GR	793.000	243.800	797.700	356.800	805.300	464.700	.000	.000	.000	.000
NC	.100	.100	.045	.100	.300	.000	.000	.000	.000	.000
ET	.000	.000	9.100	.000	.000	.000	.000	.000	44.900	93.200
NH	4.000	.120	62.000	.045	72.500	.120	185.200	.070	588.600	.000

CROSS SECTION MM

X1	2.820	13.000	62.000	72.500	650.000	580.000	650.000	.000	.000	.000
GR	811.200	.000	781.800	42.600	776.500	62.000	776.200	63.500	776.000	65.500
GR	776.100	70.500	776.500	72.500	783.000	106.800	785.500	185.200	791.400	319.300
GR	795.900	398.100	800.800	529.000	804.000	588.600	.000	.000	.000	.000
ET	.000	.000	9.100	.000	.000	.000	.000	.000	359.000	529.000
NH	5.000	.065	310.400	.120	400.100	.045	414.000	.120	586.900	.075
NH	1034.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

CROSS SECTION N

X1	3.630	18.000	400.100	414.000	780.000	650.000	810.000	.000	.000	.000	
GR	803.800	.000	801.200	48.600	799.900	100.700	797.300	223.400	795.500	310.400	
GR	787.800	360.500	791.900	400.100	781.500	402.000	781.600	412.000	791.900	414.000	
GR	784.400	424.000	786.500	472.900	789.700	586.900	793.600	685.800	797.000	736.100	
GR	797.500	840.600	800.700	944.900	804.000	1034.000	.000	.000	.000	.000	
NC	.100	.100	.027	.450	.500	.000	.000	.000	.000	.000	

CROSS SECTION AT DOWNSTREAM FACE OF BRIDGE OVER LOCAL ROAD

X1	3.680	41.000	435.500	456.500	60.000	60.000	50.000	.000	.000	.000	
GR	805.200	.000	803.600	26.600	800.700	86.900	797.300	150.400	792.300	230.300	
GR	789.000	297.400	789.100	360.800	788.800	425.000	785.800	430.000	784.200	433.200	
GR	784.200	435.500	783.000	436.000	782.100	437.500	781.600	439.000	781.300	440.500	
GR	781.600	442.000	782.100	443.500	783.000	444.500	784.200	445.400	784.200	446.500	
GR	783.000	447.000	782.100	448.500	781.600	450.000	781.300	451.500	781.600	453.000	
GR	782.100	454.500	783.000	456.000	784.200	456.500	784.200	462.000	785.000	485.900	
GR	789.700	556.100	792.700	616.300	793.600	646.300	794.700	689.800	796.200	730.400	
GR	797.200	802.000	799.500	850.500	800.900	912.700	801.900	966.800	803.700	1030.900	
GR	804.100	1055.200	.000	.000	.000	.000	.000	.000	.000	.000	
SB	1.250	2.040	2.600	.009	17.000	2.000	103.600	.000	.000	.000	

CROSS SECTION AT UPSTREAM FACE OF BRIDGE OVER LOCAL ROAD

X1	3.710	.000	.000	.000	30.000	30.000	30.000	.000	.000	.000	
X2	.000	.000	1.000	788.100	788.300	.000	.000	.000	.000	.000	
BT	23.000	425.000	788.800	788.800	430.000	788.600	785.800	433.200	788.600	784.200	
BT	435.500	789.500	784.200	436.000	788.500	786.100	437.500	788.500	787.500	439.000	
BT	788.500	788.100	440.500	788.500	788.300	442.000	788.500	788.100	443.500	788.500	
BT	797.500	445.000	788.500	788.100	445.400	788.500	784.200	446.500	788.500	784.200	
BT	447.000	788.500	786.100	448.500	788.500	787.500	450.000	788.500	788.000	451.500	
BT	788.500	789.100	453.000	789.600	789.000	454.500	788.500	787.500	456.000	788.500	
BT	786.100	456.500	788.500	784.200	462.000	788.400	784.200	485.900	789.000	789.000	
NH	5.000	.079	228.400	.120	507.800	.050	518.800	.120	543.900	.060	
NH	1072.500	.000	.000	.000	.000	.000	.000	.000	.000	.000	

CROSS SECTION O

X1	3.760	21.000	507.800	518.800	70.000	70.000	50.000	.000	.000	.000	
X3	.000	.000	.000	455.000	.000	570.000	.000	.000	.000	.000	
GR	805.100	.000	807.100	62.900	807.000	137.800	800.900	228.400	790.400	295.400	
GR	788.700	341.900	786.800	403.000	786.800	480.300	785.700	503.500	782.400	507.800	
GR	781.900	508.800	781.600	512.900	781.800	517.800	782.400	518.900	787.200	543.900	
GR	789.300	614.900	796.100	701.600	796.900	802.900	800.000	898.700	802.700	987.600	
GR	804.400	1072.500	.000	.000	.000	.000	.000	.000	.000	.000	
NC	.100	.100	.045	.100	.300	.000	.000	.000	.000	.000	
NH	4.000	.085	288.000	.050	301.500	.100	406.000	.070	792.400	.000	

CROSS SECTION P

X1	4.220	16.000	288.000	301.500	450.000	450.000	460.000	.000	.000	.000	
X3	.000	.000	.000	262.300	.000	327.300	.000	.000	.000	.000	
GR	807.900	.000	800.700	43.500	791.700	135.500	789.500	229.800	788.700	287.900	
GR	784.600	288.000	784.200	288.500	783.600	294.500	783.900	299.500	784.600	301.500	
GR	786.600	309.500	787.800	330.700	794.600	406.000	800.000	515.400	801.300	638.800	
GR	804.600	792.400	.000	.000	.000	.000	.000	.000	.000	.000	
NC	.080	.080	.032	.400	.650	.000	.000	.000	.000	.000	

CROSS SECTION AT DOWNSTREAM FACE OF WATER WORKS ROAD BRIDGE

X1	4.270	40.000	274.000	306.000	60.000	60.000	50.000	.000	.000	.000	
X3	10.000	.000	.000	.000	.000	.000	.000	794.500	794.500	.000	
GR	807.900	.000	803.300	53.600	797.600	127.600	796.300	182.700	794.500	260.800	
GR	791.800	260.000	787.000	274.000	785.800	275.000	785.200	277.000	785.000	279.000	
GR	785.200	281.000	785.800	283.000	787.000	284.000	788.000	284.000	788.000	285.000	
GR	787.000	285.000	785.800	286.000	788.500	288.000	785.700	289.000	785.500	292.000	
GR	785.800	294.000	787.000	295.000	788.000	295.000	788.000	296.000	787.500	296.000	
GR	786.500	297.000	785.700	299.000	785.500	301.000	785.700	303.000	785.500	303.000	
GR	787.500	306.000	792.300	320.000	794.500	320.000	795.000	294.300	795.900	474.700	
GR	798.200	541.000	798.800	620.700	800.800	701.300	803.100	831.200	804.100	869.600	
SB	1.250	2.260	2.800	.000	26.800	4.000	159.600	.000	.000	.000	

CROSS SECTION AT UPSTREAM FACE OF WATER WORKS ROAD BRIDGE

X1	4.310	.000	.000	.000	45.000	45.000	45.000	.000	.000	.000	
X2	.000	.000	1.000	792.000	794.500	.000	.000	.000	.000	.000	
X3	10.000	.000	.000	.000	.000	.000	.000	794.500	794.500	.000	
BT	27.000	260.000	794.500	794.500	260.000	794.500	791.800	274.000	794.500	787.000	
BT	274.000	794.500	788.500	275.000	794.500	790.300	277.000	794.500	791.600	279.000	
BT	794.500	792.000	281.000	794.500	791.600	283.000	794.500	790.300	284.000	794.500	
BT	788.000	285.000	794.500	788.000	286.000	794.500	790.500	288.000	794.500	791.900	
BT	290.000	794.500	792.300	292.000	794.500	791.900	294.000	794.500	790.500	295.000	
BT	794.500	788.000	296.000	794.500	788.000	297.000	794.500	790.700	299.000	794.500	
BT	792.100	301.000	794.500	792.500	303.000	794.500	792.100	305.000	794.500	790.700	
BT	306.000	794.500	789.000	306.000	795.000	787.500	320.000	794.500	792.700	320.000	
BT	794.500	794.500	.000	.000	.000	.000	.000	.000	.000	.000	
NH	4.000	.090	319.700	.050	333.700	.100	551.200	.080	770.200	.000	

CROSS SECTION Q

X1	4.360	18.000	319.700	333.700	70.000	70.000	50.000	.000	.000	.000	
X3	.000	.000	.000	269.700	.000	392.700	.000	.000	.000	.000	
GR	808.200	.000	798.300	53.600	793.800	145.100	790.500	209.600	788.500	309.300	
GR	785.000	219.700	784.600	320.700	784.100	324.700	784.300	329.700	784.600	332.700	
GR	785.000	333.700	786.600	335.700	788.000	344.700	788.400	367.200	791.700	456.700	
GR	799.400	551.200	801.800	702.600	804.100	770.200	.000	.000	.000	.000	
NC	.100	.100	.045	.100	.300	.000	.000	.000	.000	.000	

ET	.000	.000	9.100	.000	.000	.000	.000	.000	226.600	404.200
NH	4.000	.100	231.900	.050	243.900	.120	521.300	.070	1766.200	.000

CROSS SECTION R

X1	5.380	19.000	231.900	243.900	900.000	850.000	1020.000	.000	.000	.000
GR	810.200	.000	808.500	46.400	803.900	157.500	790.400	230.900	787.900	237.900
GR	786.800	232.900	787.000	235.900	787.100	240.900	787.900	243.900	789.900	248.900
GR	790.200	256.400	791.000	373.000	796.800	521.300	796.800	691.600	802.700	921.400
GR	801.800	1125.900	801.800	1401.700	803.600	1617.200	804.000	1766.200	.000	.000
ET	.000	.000	9.100	.000	.000	.000	.000	.000	266.000	465.000
NH	3.000	.100	310.000	.050	322.000	.120	600.000	.000	.000	.000

CROSS SECTION R1

X1	5.730	15.000	310.000	322.000	270.000	400.000	350.000	.000	.000	.000
GR	810.000	.000	808.000	50.000	804.000	100.000	800.000	150.000	796.000	260.000
GR	792.000	300.000	789.800	310.000	788.700	311.000	788.900	314.000	789.000	319.000
GR	789.800	322.000	792.000	345.000	796.000	485.000	800.000	540.000	804.000	600.000
ET	5.000	325.000	325.000	420.000	285.000	195.000	.000	.000	.000	.000
NH	3.000	.110	420.900	.045	426.900	.085	1176.400	.000	.000	.000

CROSS SECTION S

X1	6.180	14.000	420.900	426.900	430.000	500.000	450.000	.000	.000	.000
X3	.000	.000	.000	403.000	.000	445.000	.000	.000	.000	.000
GR	804.500	.000	802.700	107.800	794.000	207.400	794.000	346.500	794.300	389.900
GR	791.300	420.900	791.100	423.900	791.300	426.900	794.300	430.900	794.600	499.800
GR	800.100	674.300	801.500	895.400	808.700	1100.300	809.800	1176.400	.000	.000
NC	.080	.080	.030	.400	.500	.000	.000	.000	.000	.000

CROSS SECTION IMMEDIATELY DOWNSTREAM OF ANN ARBOR-SALINE ROAD BRIDGE

SKEW FACTOR OF 0.8910 APPLIED FOR BRIDGE SKEWED 27 DEGREES

X1	6.230	28.000	1566.000	1580.000	60.000	60.000	50.000	.891	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	798.300	798.300	.000
GR	813.000	.000	810.000	48.500	805.900	150.500	804.700	231.300	806.600	347.700
GR	806.200	407.900	807.600	464.800	808.000	533.600	807.800	610.500	808.400	695.000
GR	808.400	915.400	806.400	1088.900	805.400	1180.800	803.400	1329.400	802.900	1400.300
GR	802.000	1469.200	800.400	1550.000	791.900	1566.000	791.000	1573.000	792.800	1580.000
GR	800.000	1595.500	799.600	1619.200	800.400	1719.200	801.300	1868.200	802.000	1917.200
GR	803.400	2061.800	806.700	2218.500	812.100	2390.500	.000	000	.000	.000

CROSS SECTION AT DOWNSTREAM FACE OF ANN ARBOR - SALINE ROAD BRIDGE

SKEW FACTOR OF 0.8910 APPLIED FOR BRIDGE SKEWED 27 DEGREES

GX	X1	6.231	28.000	1566.000	1580.000	1.000	1.000	1.000	.891	.000	.000	
GX	X3	.000	.000	.000	798.300	800.000	.000	.000	.000	.000	.000	
GR		10.000	.000	.000	.000	.000	.000	798.300	798.300	798.300	.000	
GR		813.000	.000	810.000	48.500	805.900	150.500	804.700	221.300	806.600	347.700	
GR		806.200	407.900	807.600	464.800	808.000	533.600	807.800	610.500	808.400	695.000	
GR		808.400	915.400	806.400	1088.900	805.400	1180.800	803.400	1329.400	802.900	1400.300	
GR		802.000	1469.200	800.400	1550.000	791.900	1566.000	791.000	1573.000	792.800	1580.000	
GR		800.000	1595.500	799.600	1619.200	800.400	1719.200	801.300	1868.200	802.000	1917.200	
GR		803.400	2061.800	806.700	2218.500	812.100	2390.500	.000	.000	.000	.000	

CROSS SECTION AT UPSTREAM FACE OF ANN ARBOR - SALINE ROAD BRIDGE

SKEW FACTOR OF 0.8910 APPLIED FOR BRIDGE SKEWED 27 DEGREES

GX	X1	6.269	28.000	1566.000	1580.000	38.000	38.000	38.000	.891	.000	.000	
GX	X3	.000	.000	.000	798.300	800.000	.000	.000	.000	.000	.000	
GR		10.000	.000	.000	.000	.000	.000	798.300	798.300	798.300	.000	
GR		813.000	.000	810.000	48.500	805.900	150.500	804.700	221.300	806.600	347.700	
GR		806.200	407.900	807.600	464.800	808.000	533.600	807.800	610.500	808.400	695.000	
GR		808.400	915.400	806.400	1088.900	805.400	1180.800	803.400	1329.400	802.900	1400.300	
GR		802.000	1469.200	800.400	1550.000	791.900	1566.000	791.000	1573.000	792.800	1580.000	
GR		800.000	1595.500	799.600	1619.200	800.400	1719.200	801.300	1868.200	802.000	1917.200	
GR		803.400	2061.800	806.700	2218.500	812.100	2390.500	.000	.000	.000	.000	

CROSS SECTION IMMEDIATELY UPSTREAM OF ANN ARBOR-SALINE ROAD BRIDGE

SKEW FACTOR OF 0.8910 APPLIED FOR BRIDGE SKEWED 27 DEGREES

X1		6.270	28.000	1566.000	1580.000	1.000	1.000	1.000	.891	.000	.000	
X3		10.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	
BT		22.000	915.400	808.400	808.400	1088.900	806.400	806.400	1180.800	805.400	805.400	
BT		1329.400	803.400	803.400	1400.300	802.900	802.900	1469.200	802.000	802.000	1550.000	
BT		800.400	800.400	1550.000	803.800	800.400	1566.000	803.800	791.900	1566.000	803.800	
BT		798.300	1573.000	803.800	798.300	1580.000	803.800	798.300	1580.000	803.000	792.800	
BT		1595.500	803.800	800.000	1595.500	800.000	800.000	1619.200	799.600	799.600	1719.200	
BT		800.400	800.400	1868.200	801.300	801.300	1917.200	802.000	802.000	2061.800	803.400	
BT		803.400	2218.500	806.700	806.700	2390.500	812.100	812.100	.000	.000	.000	
GR		813.000	.000	810.000	48.500	805.900	150.500	804.700	221.300	806.600	347.700	
GR		806.200	407.900	807.600	464.800	808.000	533.600	807.800	610.500	808.400	695.000	
GR		808.400	915.400	806.400	1088.900	805.400	1180.800	803.400	1329.400	802.900	1400.300	
GR		802.000	1469.200	800.400	1550.000	791.900	1566.000	791.000	1573.000	792.800	1580.000	
GR		800.000	1595.500	799.600	1619.200	800.400	1719.200	801.300	1868.200	802.000	1917.200	
GR		803.400	2061.800	806.700	2218.500	812.100	2390.500	.000	.000	.000	.000	
NH		3.000	.080	1569.200	.045	1576.200	.070	2335.400	.000	.000	.000	

CROSS SECTION T

X1	6.320	22.000	1569.200	1576.200	70.000	70.000	50.000	.000	.000	.000	
X3	.000	.000	.000	1512.000	.000	1632.000	.000	.000	.000	.000	
GR	812.700	.000	808.600	95.500	804.000	229.500	805.000	373.800	810.100	477.700	
GR	808.500	589.200	810.000	734.600	809.000	907.000	807.700	1104.700	807.700	1291.300	
GR	796.400	1521.900	795.100	1563.300	793.000	1567.200	791.500	1569.200	791.100	1571.200	
GR	791.500	1576.200	793.500	1580.200	797.300	1597.300	800.400	1748.300	802.600	1951.400	
GR	804.600	2184.100	815.400	2335.400	.000	.000	.000	.000	.000	.000	
NC	.100	.100	.045	.100	.300	.000	.000	.000	.000	.000	
ET	.000	.000	1.400	.000	.000	.000	.000	.000	.000	.000	
NH	4.000	.070	458.900	.100	703.500	.045	710.500	.100	2195.000	.000	

CROSS SECTION U

X1	7.340	18.000	703.500	710.500	1100.000	1100.000	1020.000	.000	.000	.000	
GR	815.800	.000	813.300	111.200	809.600	270.100	803.200	458.900	801.800	589.200	
GR	793.200	703.500	792.700	707.500	793.200	710.500	794.300	711.500	796.300	720.500	
GR	799.700	783.700	802.500	955.000	809.900	1158.200	807.600	1372.800	807.600	1637.800	
GR	807.700	1851.200	814.200	2025.300	814.300	2195.000	.000	.000	.000	.000	
NH	4.000	.075	413.500	.120	645.500	.050	652.500	.120	1522.900	.000	

CROSS SECTION V

X1	8.500	16.000	645.500	652.500	1150.000	1200.000	1160.000	.000	.000	.000	
GR	825.500	.000	820.200	92.500	814.700	202.800	810.600	298.800	806.500	413.500	
GR	803.700	558.100	800.700	671.800	796.000	645.500	795.500	648.500	796.000	652.500	
GR	800.400	790.200	805.100	945.900	809.800	1127.200	808.300	1309.300	812.900	1443.900	
GR	816.000	1522.900	.000	.000	.000	.000	.000	.000	.000	.000	
NH	4.000	.075	545.800	.120	630.200	.050	644.200	.120	2081.600	.000	

CROSS SECTION W

X1	9.370	16.000	630.200	644.200	900.000	900.000	870.000	.000	.000	.000	
GR	824.000	.000	820.300	96.900	816.700	209.600	808.800	384.600	803.000	545.800	
GR	798.400	630.200	798.000	636.200	798.400	644.200	803.900	721.000	807.200	906.000	
GR	807.200	1096.200	808.400	1313.000	809.000	1526.300	811.000	1753.700	812.400	1984.000	
GR	820.000	2081.600	.000	.000	.000	.000	.000	.000	.000	.000	
NH	5.000	.070	1049.200	.050	1057.200	.120	1132.900	.085	1512.300	.120	
NH	2620.200	.000	.000	.000	.000	.000	.000	.000	.000	.000	

CROSS SECTION X

X1	10.100	19.000	1049.200	1057.200	750.000	700.000	730.000	.000	.000	.000	
GR	823.900	.000	820.000	177.700	817.900	331.400	814.300	502.100	809.900	693.900	
GR	806.600	859.200	804.500	974.300	799.600	1049.200	799.100	1053.200	799.600	1057.200	
GR	803.200	1132.900	805.800	1318.600	812.000	1512.300	811.100	1796.600	809.400	1992.800	
GR	807.600	2172.500	817.500	2387.200	815.800	2529.400	820.000	2620.200	.000	.000	

NH	3.000	.075	1660.100	.045	1665.100	.075	2859.000	.000	.000	.000

CROSS SECTION AA

X1	11.130	22.000	1660.100	1565.100	950.000	1200.000	1030.000	.000	.000	.000
X3	.000	.000	.000	1637.600	.000	1687.600	.000	.000	.000	.000
GR	819.300	.000	819.400	106.300	819.400	270.600	824.800	450.000	823.200	610.400
GR	821.900	767.600	816.900	960.000	813.700	1145.100	810.900	1336.200	806.100	1557.600
GR	806.100	1607.900	801.400	1660.100	800.500	1662.100	801.400	1665.100	807.800	1678.800
GR	811.100	1847.700	810.100	2035.800	816.200	2231.000	813.000	2436.800	818.200	2642.100
GR	824.300	2786.500	829.200	2859.300	.000	.000	.000	.000	.000	.000
NC	.080	.080	.030	.300	.500	.000	.000	.000	.000	.000

CROSS SECTION AT DOWNSTREAM FACE OF MAPLE ROAD BRIDGE

X1	11.180	28.000	1525.000	1540.000	60.000	60.000	50.000	.000	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	808.700	808.700	.000
GR	821.500	.000	822.600	144.500	823.500	221.500	824.600	277.900	825.700	464.900
GR	825.100	538.900	823.700	666.400	819.500	851.400	815.800	1049.500	814.700	1131.700
GR	813.500	1205.800	811.500	1393.400	811.100	1467.700	810.400	1507.000	809.900	1525.000
GR	801.800	1525.000	800.900	1532.500	801.800	1540.000	809.900	1540.000	810.100	1554.000
GR	812.600	1735.400	816.000	1891.700	817.700	2006.000	819.600	2193.400	819.000	2288.400
GR	819.900	2376.900	821.800	2463.700	824.100	2519.600	825.400	2552.000	826.700	2601.200
SB	.000	1.970	2.800	.000	13.270	.000	110.250	.111	.000	.000

CROSS SECTION AT UPSTREAM FACE OF MAPLE ROAD BRIDGE

X1	11.220	.000	.000	.000	35.000	35.000	35.000	.000	.000	.000
X2	.000	.000	1.000	808.700	809.900	.000	.000	.000	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	809.900	809.900	.000
NH	3.000	.075	1662.700	.045	1672.700	.075	2802.700	.000	.000	.000

CROSS SECTION AB

X1	11.270	22.000	1662.700	1672.700	70.000	70.000	50.000	.000	.000	.000
X3	.000	.000	.000	1610.200	.000	1725.200	.000	.000	.000	.000
GR	821.500	.000	820.600	152.700	820.600	277.200	822.500	462.500	822.200	660.600
GR	820.800	860.100	817.300	1053.300	812.600	1280.700	808.800	1438.900	805.900	1608.800
GR	805.900	1660.300	801.900	1662.700	800.400	1667.700	801.900	1672.700	807.800	1678.900
GR	812.700	1864.700	822.500	2042.200	817.000	2251.100	816.200	2435.300	821.700	2605.700
GR	824.800	2734.100	829.000	2802.700	.000	.000	.000	.000	.000	.000
NC	.100	.100	.045	.100	.300	.000	.000	.000	.000	.000
NH	3.000	.080	2039.700	.045	2046.700	.075	3550.900	.000	.000	.000

CROSS SECTION AC

X1	12.870	20.000	2039.700	2046.700	1650.000	1600.000	1600.000	.000	.000	.000	
GR	830.800	.000	828.500	513.900	827.600	685.000	815.500	857.800	812.300	1050.500	
GR	810.300	1230.600	810.500	1467.800	811.900	1659.400	810.000	1887.700	802.800	2039.700	
GR	801.800	2042.700	802.800	2046.700	808.400	2162.300	810.300	2365.400	816.000	2558.100	
GR	823.000	2791.100	821.300	3045.000	821.800	3293.200	825.600	3471.200	828.000	3550.900	
NH	3.000	.090	2274.900	.045	2284.900	.075	3773.100	.000	.000	.000	

CROSS SECTION AD

X1	14.060	20.000	2274.900	2284.900	1300.000	1250.000	1190.000	.000	.000	.000	
GR	810.000	.000	811.700	817.000	811.900	957.600	812.000	1114.100	813.200	1303.100	
GR	810.800	1510.000	810.900	1689.000	811.000	1872.800	811.000	2090.700	805.400	2274.900	
GR	804.500	2279.900	805.400	2284.900	809.100	2405.100	809.200	2573.400	809.300	2763.800	
GR	809.300	2932.200	816.000	3115.500	822.300	3340.600	820.000	3584.100	818.800	3773.100	
ET	.000	7.100	9.100	.000	.000	.000	850.000	.000	1140.000	1610.000	
NH	5.000	.080	929.500	.120	1520.600	.045	1527.600	.120	2040.000	.120	
NH	2331.100	.000	.000	.000	.000	.000	.000	.000	.000	.000	

CROSS SECTION AE

X1	16.060	23.000	1520.600	1527.600	2400.000	1500.000	2000.000	.000	.000	.000	
GR	819.900	.000	811.500	728.800	812.000	209.500	810.100	379.400	810.200	550.400	
GR	809.900	728.900	809.900	876.500	811.900	929.500	809.000	1070.500	809.900	1238.500	
GR	809.900	1331.800	809.900	1422.600	812.000	1490.000	806.500	1520.600	805.200	1523.600	
GR	806.500	1527.600	810.600	1597.600	812.900	1733.200	814.500	1904.100	814.400	2040.000	
GR	815.800	2134.600	817.400	2265.600	818.000	2331.100	.000	.000	.000	.000	
EJ	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	BLOB	QCH	QROB	ALOB	HACH	APOB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= .100 CEHV= .300
1490 NH CARD USED
*SECNO .060
CROSS SECTION J1

.06	3.90	757.90	.00	760.00	758.27	.37	.00	.00	755.00
980.	164.	672.	144.	114.	116.	106.	0.	0.	755.00
.00	1.44	5.78	1.36	.091	.052	.091	.000	754.00	797.89
.006990	0.	0.	0.	0	0	4	.00	250.27	1048.16

1490 NH CARD USED
*SECNO .530

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 450.0 930.0 TYPE= 1 TARGET= 480.000
CROSS SECTION K

.53	2.85	763.55	763.48	.00	763.92	.37	5.65	.00	761.30
980.	337.	283.	360.	123.	34.	181.	4.	3.	761.30
.03	2.75	8.26	1.99	.078	.052	.156	.050	760.70	450.00
.023143	500.	470.	500.	17	14	0	.00	277.18	930.00

1490 NH CARD USED
*SECNO .930
CROSS SECTION K1

.93	4.33	768.03	.00	.00	768.16	.13	4.22	.02	764.30
980.	56.	274.	650.	28.	53.	549.	9.	6.	764.30
.09	2.00	5.14	1.18	.078	.052	.156	.051	763.70	159.67
.004968	600.	450.	400.	4	0	0	.00	275.36	435.03

1490 NH CARD USED
*SECNO 1.730

3301 HV CHANGED MORE THAN HVINS

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	HACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

Z185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
CROSS SECTION K2

1.73	4.54	771.14	771.14	.00	772.33	1.20	2.96	.32	767.80
980.	64.	664.	252.	33.	63.	119.	11.	7.	767.80
.10	1.92	10.57	5.12	.156	.052	.143	.055	766.60	90.15
.021026	350.	430.	220.	5	8	0	.00	106.33	196.47

1490 NH CARD USED
*SECNO 2.060

3470 ENCROACHMENT STATIONS= 375.0 450.0 TYPE= 1 TARGET= 75.000
CROSS SECTION L

2.06	6.50	775.30	.00	.00	776.16	.86	3.79	.03	770.00
980.	135.	770.	75.	99.	92.	42.	13.	8.	770.00
.11	1.36	8.34	1.80	.156	.052	.143	.055	768.80	375.00
.007839	300.	330.	250.	3	0	0	.00	75.00	450.00

CCHV= .300 CEHV= .600
*SECNO 2.110

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 800.50 ELREA= 800.50
CROSS SECTION IMMEDIATELY DOWNSTREAM OF N.Y.C. RAILROAD BRIDGE

2.11	7.61	776.31	.00	.00	776.63	.32	.32	.16	797.00
980.	0.	980.	0.	0.	215.	0.	13.	8.	797.00
.11	.00	4.57	.00	.104	.065	.104	.055	768.70	651.33
.005012	60.	50.	60.	2	0	0	.00	40.70	692.02

*SECNO 2.111

3265 DIVIDED FLOW

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	KV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	AACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 802.60 MAX ELLC= 800.50

CROSS SECTION AT DOWNSTREAM FACE OF ABANDONED N.Y.C. RAILROAD BRIDGE

DIVIDED FLOW DUE TO BRIDGE PIERS

2.11	7.60	776.30	.00	.00	776.68	.38	.01	.03	856.30
980.	0.	0.	980.	0.	0.	193.	13.	8.	856.30
.11	.00	.00	4.95	.104	.065	.104	.055	768.70	651.33
.029851	1.	1.	1.	1	0	0	.00	38.51	692.84

*SECNO 2.121

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 802.60 MAX ELLC= 800.50

CROSS SECTION AT UPSTREAM FACE OF ABANDONED N.Y.C. RAILROAD BRIDGE

DIVIDED FLOW DUE TO BRIDGE PIERS

2.12	7.93	776.63	.00	.00	776.97	.34	.28	.01	806.30
980.	0.	0.	980.	0.	0.	211.	13.	8.	806.30
.12	.00	.00	4.65	.104	.065	.104	.055	768.70	651.06
.025731	10.	10.	10.	2	0	0	.00	39.40	693.46

*SECNO 2.122

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 802.60 ELREA= 802.60

CROSS SECTION IMMEDIATELY UPSTREAM OF N.Y.C. RAILROAD BRIDGE

2.12	8.01	776.71	.00	.00	776.99	.28	.01	.02	797.00
980.	0.	980.	0.	0.	231.	0.	13.	8.	797.00
.12	.00	4.24	.00	.104	.065	.104	.055	768.70	650.99
.004089	1.	1.	1.	2	0	0	.00	42.04	693.03

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	HACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTH	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 2.170

3301 HV CHANGED MORE THAN HVINS

CROSS SECTION M

2.17	7.22	776.72	.00	.00	777.81	1.09	.33	.49	770.60
980.	114.	757.	109.	49.	80.	47.	12.	8.	770.60
.12	2.32	9.45	2.52	.156	.058	.124	.055	769.50	33.43
.011062	70	50.	70.	3	0	0	.00	40.99	74.41

CCHV= .100 CEHV= .300
1490 NH CARD USED
*SECNO 2.820

CROSS SECTION MM

2.82	7.12	783.12	.00	.00	783.79	.67	5.93	.04	776.50
980.	161.	601.	218.	78.	73.	116.	16.	9.	776.50
.15	2.05	8.21	1.88	.156	.058	.156	.057	776.00	40.68
.007924	650.	650.	580.	4	0	0	.00	69.96	110.65

1490 NH CARD USED
*SECNO 3.630

CROSS SECTION N

3.63	6.55	788.05	.00	.00	788.36	.31	4.54	.04	781.90
980.	177.	534.	269.	127.	90.	219.	22.	10.	781.90
.20	1.39	5.96	1.23	.156	.058	.156	.058	781.50	358.85
.004603	780.	810.	650.	3	0	0	.00	169.40	528.25

CCHV= .450 CEHV= .500
*SECNO 3.680

CROSS SECTION AT DOWNSTREAM FACE OF BRIDGE OVER LOCAL ROAD

3.68	6.76	788.06	.00	.00	788.77	.71	.21	.20	784.20
980.	31.	875.	74.	23.	123.	58.	23.	11.	784.20
.21	1.34	7.13	1.27	.130	.035	.130	.057	781.30	426.23
.003526	60.	50.	60.	2	0	0	.00	55.01	481.23

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	HACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

SPECIAL BRIDGE

5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	2.04	2.60	.00	17.00	2.00	103.60	.00	781.30	781.30

*SECNO 3.710
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
790.90	789.13	.36	209.	767.	104.	102.	788.10	788.30

CROSS SECTION AT UPSTREAM FACE OF BRIDGE OVER LOCAL ROAD

3.71	8.10	789.40	.00	.00	789.80	.40	1.03	.00	784.20
980.	53.	827.	100.	90.	151.	104.	23.	11.	784.20
.21	.58	5.48	.96	.130	.035	130	.057	781.30	289.14
.001580	30.	30.	30.	2	0	2	.00	237.48	526.63

1490 NH CARD USED
*SECNO 3.760

3470 ENCROACHMENT STATIONS= 455.0 570.0 TYPE= 1 TARGET= 115.000
CROSS SECTION 9

3.76	8.20	789.80	.00	.00	790.01	.21	.13	.08	782.40
980.	223.	456.	302.	183.	88.	183.	23.	11.	782.40
.21	1.22	5.18	1.65	.156	.065	.139	.057	781.60	455.00
.003318	70.	50.	70.	2	0	0	.00	115.00	570.00

CCHV= .100 CEHV= .300
1490 NH CARD USED
*SECNO 4.220

3470 ENCROACHMENT STATIONS= 262.3 327.3 TYPE= 1 TARGET= 65.000
CROSS SECTION P

4.22	7.88	791.48	.00	.00	791.84	.37	1.79	.05	784.60
980.	110.	609.	261.	67.	102.	125.	27.	12.	784.60
.24	1.64	5.97	2.09	.111	.065	.130	.057	783.60	302.30
.004729	450.	460.	450.	2	0	0	.00	65.00	327.30

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	HACH	4ROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= .400 CEHV= .650
*SECNO 4.270

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 794.50 ELREA= 794.50

CROSS SECTION AT DOWNSTREAM FACE OF WATER WORKS ROAD BRIDGE

4.27	6.65	791.65	.00	.00	792.12	.47	.21	.07	787.00
980.	0.	980.	0.	0.	178.	0	28.	12.	787.50
.24	.00	5.51	.00	.104	.042	.104	.057	785.00	274.00
.003505	60.	50.	60.	2	0	0	.00	32.00	306.00

SPECIAL BRIDGE

5070 VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED

SB XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
1.25	2.26	2.80	.00	26.80	4.00	159.60	.00	785.00	785.00

*SECNO 4.310
PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
792.97	792.33	.25	0.	980.	160.	160.	792.00	794.50

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 794.50 ELREA= 794.50

CROSS SECTION AT UPSTREAM FACE OF WATER WORKS ROAD BRIDGE

4.31	7.63	792.63	.00	.00	792.97	.34	.85	.00	787.00
980.	0.	980.	0.	0.	209.	0.	28.	12.	787.50
.25	.00	4.68	.00	.104	.042	.104	.057	785.00	274.00
.002035	45.	45.	45.	2	0	0	.00	32.00	306.00

1490 NH CARD USED
*SECNO 4.360

3470 ENCROACHMENT STATIONS= 260.7 392.7 TYPE= 1 TARGET= 132.000

SECNO / Q / TIME / SLOPE	DEPTH / QLOB / VLOB / XLOBL	CWSEL / QCH / VCH / XLCH	CRIWS / QROB / VROB / XLOBR	WSELK / ALOB / XNL / ITRIAL	EG / HACH / XNCH / IDC	HV / AROB / XNR / ICONT	HL / VOL / WTN / CORAR	QLOSS / TWA / ELMIN / TOPWID	BANK ELEV LEFT/RIGHT / SSTA / ENDST
CROSS SECTION Q									
4.36	8.99	793.09	.00	.00	793.16	.07	.08	.11	785.00
980.	296.	386.	297.	265.	122.	284.	28.	12.	785.00
.25	1.12	3.17	1.05	.117	.065	.130	.056	784.10	260.70
.001094	70.	50.	70.	2	0	0	.00	132.00	392.70
CCHV= .100 CEHV= .300									
1490 NH CARD USED									
*SECNO 5.380									
CROSS SECTION R									
5.38	7.61	794.41	.00	.00	794.49	.08	1.32	.00	787.90
980.	39.	321.	620.	49.	37.	653.	43.	16.	787.90
.39	.80	3.69	.95	.130	.065	.156	.058	786.80	209.11
.001976	900.	1020.	850.	2	0	0	.00	251.04	460.15
1490 NH CARD USED									
*SECNO 5.730									
CROSS SECTION R1									
5.73	6.72	795.42	.00	.00	795.63	.21	1.11	.04	789.80
980.	168.	417.	394.	104.	76.	309.	49.	18.	789.80
.43	1.62	5.46	1.28	.130	.065	.156	.058	788.70	265.76
.005140	270.	350.	400.	2	0	0	.00	199.09	464.85
1490 NH CARD USED									
*SECNO 6.180									
3470 ENCROACHMENT STATIONS= 403.0 445.0 TYPE= 1 TARGET= 42.000									
CROSS SECTION S									
6.18	6.23	797.33	.00	.00	797.44	.11	1.80	.01	791.30
325.	112.	141.	73.	92.	37.	60.	53.	19.	791.30
.48	1.21	3.82	1.20	.143	.058	.110	.058	791.10	403.00
.002025	430.	450.	500.	2	0	0	.00	42.00	445.00
CCHV= .400 CEHV= .500									

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	MACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTH	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 6.230

3495_OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 798.30 ELREA= 798.30

CROSS SECTION IMMEDIATELY DOWNSTREAM OF ANN ARBOR-SALINE ROAD BRIDGE

SKEW FACTOR OF 0.8910 APPLIED FOR BRIDGE SKEWED 27 DEGREES

6.23	6.31	797.31	.00	.00	797.64	.33	.09	.11	791.90
325.	0.	325.	0.	0.	70.	0.	53.	19.	792.80
.48	.00	4.62	.00	.104	.039	.104	.057	791.00	1395.21
.001516	60.	50.	60.	2	0	0	.00	12.47	1407.78

*SECNO 6.231

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 800.00 MAX ELLC= 798.30

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 798.30 ELREA= 798.30

CROSS SECTION AT DOWNSTREAM FACE OF ANN ARBOR - SALINE ROAD BRIDGE

SKEW FACTOR OF 0.8910 APPLIED FOR BRIDGE SKEWED 27 DEGREES.

6.23	6.31	797.31	.00	.00	797.65	.33	.00	.00	791.90
325.	0.	325.	0.	0.	70.	0.	53.	19.	792.80
.48	.00	4.62	.00	.104	.039	.104	.057	791.00	1395.21
.001515	1.	1.	1.	0	0	0	.00	12.47	1407.78

*SECNO 6.269

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 800.00 MAX ELLC= 798.30

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 798.30 ELREA= 798.30

CROSS SECTION AT UPSTREAM FACE OF ANN ARBOR - SALINE ROAD BRIDGE

SKEW FACTOR OF 0.8910 APPLIED FOR BRIDGE SKEWED 27 DEGREES

6.27	6.38	797.38	.00	.00	797.70	.32	.06	.00	791.90
325.	0.	325.	0.	0.	71.	0.	53.	19.	792.80
.49	.00	4.57	.00	.104	.039	.104	.057	791.00	1395.21
.001464	38.	38.	38.	0	0	0	.00	12.47	1407.78

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	MV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	HACH	HROB	VOL	TWA	LEFT,RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 6.270

3370 NORMAL BRIDGE,NRD= 22 MIN ELTRD= 799.60 MAX ELLC= 812.10

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 800.00 ELREA= 800.00

CROSS SECTION IMMEDIATELY UPSTREAM OF ANN ARBOR-SALINE ROAD BRIDGE

SKEW FACTOR OF 0.8910 APPLIED FOR BRIDGE SKEWED 27 DEGREES

6.27	6.38	797.38	.00	.00	797.71	.32	.00	.00	791.90
325.	0.	325.	0.	0.	71.	0.	53.	19.	792.80
.49	.00	4.57	.00	.104	.039	.104	.057	791.00	1395.31
.001456	1.	1.	1.	0	0	0	.00	12.47	1407.78

1490 NH CARD USED

*SECNO 6.320

3470 ENCROACHMENT STATIONS= 1512.0 1632.0 TYPE= 1 TARGET= 120.000

CROSS SECTION T

6.32	6.71	797.81	.00	.00	797.88	.07	.07	.10	791.50
325.	107.	141.	78.	123.	46.	69.	53.	19.	791.50
.49	.87	3.09	1.13	.104	.058	.091	.057	791.10	1512.00
.001226	70.	50.	70.	2	0	0	.00	110.26	1622.26

CCHV= .100 CEHV= .300

1490 NH CARD USED

*SECNO 7.340

CROSS SECTION U

7.34	6.29	798.99	.00	.00	799.02	.04	1.14	.00	793.20
325.	157.	108.	60.	222.	42.	105.	61.	23.	793.20
.72	.71	2.55	.57	.130	.058	.130	.057	792.70	626.83
.000933	1100.	1020.	1100.	2	0	0	.00	143.75	770.38

1490 NH CARD USED

*SECNO 8.500

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	HACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
		CROSS SECTION V							
8.50	4.96	800.46	.00	.00	800.50	.04	1.48	.00	796.00
325.	19.	89.	217.	29.	33.	312.	71.	27.	796.00
.99	.66	2.70	.69	.156	.065	.156	.057	795.50	632.48
.001786	1150.	1160.	1200.	2	0	0	.00	159.91	792.40
1490 NH CARD USED									
*SECNO 9.370									
		CROSS SECTION W							
9.37	4.19	802.19	.00	.00	802.26	.06	1.75	.01	798.40
325.	95.	158.	72.	132.	56.	100.	77.	30.	798.40
1.12	.72	2.83	.72	.156	.065	.156	.057	798.00	560.64
.002429	900.	870.	800.	2	0	0	.00	136.50	697.14
1490 NH CARD USED									
*SECNO 10.100									
		CROSS SECTION X							
10.10	4.54	803.64	.00	.00	803.68	.03	1.42	.00	799.60
325.	130.	82.	112.	125.	34.	177.	82.	32.	799.60
1.28	1.04	2.40	.63	.091	.065	.155	.057	799.10	987.32
.001590	750.	730.	700.	1	0	0	.00	177.59	1164.91
1490 NH CARD USED									
*SECNO 11.130									
3470 ENCROACHMENT STATIONS=		1637.6	1687.6	TYPE=	1	TARGET=		50.000	
		CROSS SECTION AA							
11.13	5.53	806.03	.00	.00	806.19	.16	2.48	.04	801.40
325.	172.	116.	36.	81.	25.	23.	88.	35.	801.40
1.38	2.12	4.57	1.59	.097	.058	.098	.057	800.50	1637.60
.004037	950.	1030.	1200.	2	0	0	.00	37.41	1675.01
CCHV= .300 CEHV= .500									
*SECNO 11.180									

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	HACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 808.70 ELREA= 808.70

CROSS SECTION AT DOWNSTREAM FACE OF MAPLE ROAD BRIDGE

11.18	5.24	806.14	.00	.00	806.46	.32	.19	.08	809.90
325.	0.	325.	0.	0.	72.	0.	88.	35.	809.90
1.38	.00	4.52	.00	.104	.039	.104	.057	800.90	1525.00
.003220	60.	50.	60.	2	0	0	.00	15.00	1540.00

SPECIAL BRIDGE

5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	.00	1.97	2.80	.00	13.27	.00	110.25	.11	800.90	800.90

*SECNO 11.220

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS= .000 EGLWC= 806.461 ELLC= 808.700 PCWSE= 806.144 ELTRD= 809.900

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 809.90 MAX ELLC= 808.70

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 809.90 ELREA= 809.90

CROSS SECTION AT UPSTREAM FACE OF MAPLE ROAD BRIDGE

11.22	5.37	806.27	.00	.00	806.57	.30	.11	.00	809.90
325.	0.	325.	0.	0.	74.	0.	88.	35.	809.90
1.39	.00	4.40	.00	.104	.039	.104	.057	800.90	1525.00
.002988	35.	35.	35.	2	0	0	.00	15.00	1540.00

1490 NH CARD USED
*SECNO 11.270

3470 ENCROACHMENT STATIONS= 1610.2 1725.2 TYPE= 1 TARGET= 115.000
CROSS SECTION AB

11.27	6.03	806.43	.00	.00	806.82	.39	.20	.04	801.90
325.	27.	282.	16.	32.	53.	11.	88.	35.	801.90
1.39	.82	5.35	1.51	.097	.058	.097	.057	800.40	1610.20
.005108	70.	50.	70.	2	0	0	.00	67.26	1677.46

See Revised runs Dated 7/6/82

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	DLOSS	BANK ELEV
Q	ALOB	OCH	OROB	ALOB	HACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= .100 CEHV= .300
1490 NH CARD USED
*SECNO 12.070
CROSS SECTION AC

12.87	6.25	808.05	.00	.00	808.05	.01	1.20	.04	802.80
325.	133.	54.	138.	290.	40.	284.	101.	40.	802.80
2.12	.46	1.34	.49	.104	.058	.097	.057	801.80	1929.02
.000284	1650.	1600.	1600.	5	0	0	.00	225.91	2184.93

1490 NH CARD USED
*SECNO 14.060
CROSS SECTION AD

14.06	4.19	808.69	.00	.00	808.71	.02	.66	.00	805.40
325.	112.	80.	132.	179.	37.	176.	116.	47.	805.40
2.45	.63	2.15	.75	.117	.058	.097	.057	804.50	2166.35
.001261	1300.	1190.	1250.	3	0	0	.00	225.41	2391.76

1490 NH CARD USED
*SECNO 16.060

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 850.0 2331.1 TYPE= 1 TARGET= 850.000
CROSS SECTION AE

16.06	5.70	810.90	.00	.00	810.92	.02	2.21	.00	806.50
325.	159.	79.	87.	501.	35.	168.	142.	68.	806.50
3.11	.32	2.24	.52	.151	.058	.156	.057	805.20	850.00
.000977	2400.	2000.	1500.	4	0	0	.00	218.99	1615.53

See Revised Runs Date 7/6/82

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  HEC2 RELEASE DATED NOV 76 UPDATED APRIL 1980
  ERROR CORR -  01,02,03,04
  MODIFICATION -  50,51,52,53,54
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T1      HUD FLOOD INSURANCE STUDIES  H-3970  WILLIAMS & WORKS
T2      CITY OF SALINE  SALINE RIVER AND WOOD CREEK
T3      WOOD OUTLET DRAIN        100-YEAR FLOODWAY

J1   ICHECK     INQ        NINV       IDIR       STRT      METRIC     HVINS      Q          WSEL       FQ
        0.        3.         0.         0.    .007000        .00        .0        0.    760.000       .000
J2   NPROF     IPLOT      PRFVS      XSECV      XSECH        FN      ALLDC      IBW       CHNIM      ITRACE
     15.000      .000    -1.000       .000       .000     1.300       .000      .000       .000       .000
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	HACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

CCHV= .100 CEHV= .300
1490 NH CARD USED
*SECNO ,060
CROSS SECTION J1

.06	3.90	757.90	.00	760.00	758.27	.37	.00	.00	755.00
980.	164.	672.	144.	114.	116.	106.	0.	0.	755.00
.00	1.44	5.78	1.36	.091	.052	.091	.000	754.00	797.89
.006990	0.	0.	0.	0	0	4	.00	250.27	1048 16

1490 NH CARD USED
*SECNO ,530

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 450.0 930.0 TYPE= 1 TARGET= 490.000
CROSS SECTION K

.53	2.85	763.55	763.48	.00	763.92	.37	5.65	.00	761.30
980.	337.	283.	360.	123.	34.	181.	4.	3.	761.30
.03	2.75	8.26	1.99	.078	.052	.156	.050	760.70	450.00
.023143	500.	470.	500.	17	14	0	.00	277.18	930.00

1490 NH CARD USED
*SECNO ,930

3470 ENCROACHMENT STATIONS= 165.0 350.0 TYPE= 1 TARGET= 185.000
CROSS SECTION K1

.93	4.29	767.99	.00	768.03	768.13	.13	4.18	.02	764.30
980.	54.	269.	656.	25.	53.	477.	8.	6.	764.30
.08	2.21	5.09	1.38	.078	.052	.156	.051	763.70	165.00
.004912	600.	450.	400.	4	0	0	.00	185.00	350.00

1490 NH CARD USED
*SECNO 1,730

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
W	QLOB	QCH	QROB	ALOB	HACH	HROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 85.0 216.0 TYPE= 1 TARGET= 131.000

CROSS SECTION K2

1.73	4.54	771.14	771.14	771.14	772.33	1.20	2.93	.32	767.80
980.	64.	664.	252.	33.	63.	119.	11.	6.	767.80
.10	1.92	10.56	2.12	.156	.052	.143	.055	766.60	90.14
.021013	350.	430.	220.	20	8	0	.00	106.34	196.49

1490 NH CARD USED
*SECNO 2.060

3470 ENCROACHMENT STATIONS= 375.0 450.0 TYPE= 1 TARGET= 75.000

CROSS SECTION L

2.06	6.50	775.30	.00	775.30	776.16	.86	3.79	.03	770.00
980.	135.	770.	75.	99.	92.	42.	12.	7.	770.00
.11	1.36	8.34	1.80	.156	.052	.143	.055	769.80	375.00
.007842	300.	330.	250.	3	0	0	.00	75.00	450.00

CCHV= .300 CEHV= .600
*SECNO 2.110

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 800.50 ELREA= 800.50

CROSS SECTION IMMEDIATELY DOWNSTREAM OF N.Y.C. RAILROAD BRIDGE

2.11	7.61	776.31	.00	776.31	776.63	.32	.32	.16	797.00
980.	0.	980.	0.	0.	215.	0.	12.	7.	797.00
.11	.00	4.57	.00	.104	.065	.104	.055	768.70	651.33
.005013	60.	50.	60.	2	0	0	.00	40.70	692.02

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	HACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 2.111

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 802.60 MAX ELLC= 800.50

CROSS SECTION AT DOWNSTREAM FACE OF ABANDONED N.Y.C. RAILROAD BRIDGE

DIVIDED FLOW DUE TO BRIDGE PIERS

2.11	7.60	776.30	.00	776.30	776.68	.38	.01	.03	856.30
980.	0.	0.	980.	0.	0.	198.	12.	7.	856.30
.11	.00	.00	4.95	.104	.065	.104	.055	768.70	651.33
.029852	1.	1.	1.	1	0	0	.00	38.51	692.83

*SECNO 2.121

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 802.60 MAX ELLC= 800.50

CROSS SECTION AT UPSTREAM FACE OF ABANDONED N.Y.C. RAILROAD BRIDGE

DIVIDED FLOW DUE TO BRIDGE PIERS

2.12	7.93	776.63	.00	776.63	776.97	.34	.28	.01	806.30
980.	0.	0.	980.	0.	0.	211.	12.	7.	806.30
.11	.00	.00	4.65	.104	.065	.104	.055	768.70	651.06
.025732	10.	10.	10.	2	0	0	.00	39.40	693.46

*SECNO 2.122

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 802.60 ELREA= 802.60

CROSS SECTION IMMEDIATELY UPSTREAM OF N.Y.C. RAILROAD BRIDGE

2.12	8.01	776.71	.00	776.71	776.99	.28	.01	.02	797.00
980.	0.	980.	0.	0.	231.	0.	12.	7.	797.00
.11	.00	4.24	.00	.104	.065	.104	.055	768.70	650.99
.004089	1.	1.	1.	2	0	0	.00	42.04	693.03

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	HACH	AROB	VOL	IWR	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 2.170

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 37.1 69.1 TYPE= 1 TARGET= 32.000
CROSS SECTION M

2.17	7.20	776.70	.00	776.72	777.84	1.14	.33	.52	770.60
980.	112.	766.	103.	46.	80.	37.	12.	7.	770.60
.11	2.45	9.59	2.74	.156	.058	.123	.056	769.50	37.10
.011415	70.	50.	70.	3	0	0	.00	32.00	69.10

CCHV= .100 CEHV= .300
1490 NH CARD USED
*SECNO 2.820

3470 ENCROACHMENT STATIONS= 44.9 93.2 TYPE= 1 TARGET= 48.300
CROSS SECTION MM

2.82	7.21	783.21	.00	783.12	783.90	.69	6.01	.04	776.50
980.	154.	613.	214.	75.	74.	98.	16.	8.	776.50
.14	2.06	8.26	2.18	.156	.056	.156	.057	776.00	44.90
.007894	650.	650.	580.	4	0	0	.00	48.30	93.20

1490 NH CARD USED
+SECNO 3.630

3470 ENCROACHMENT STATIONS= 359.0 529.0 TYPE= 1 TARGET= 170.000
CROSS SECTION N

3.63	6.59	788.09	.00	788.05	788.39	.30	4.45	.04	781.90
980.	178.	531.	271.	129.	90.	223.	21.	9.	781.90
.20	1.38	5.89	1.21	.156	.058	.156	.058	781.50	359.00
.004469	780.	810.	650.	3	0	0	.00	170.00	529.00

CCHV= .450 CEHV= .500
*SECNO 3.680

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	HACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CROSS SECTION AT DOWNSTREAM FACE OF BRIDGE OVER LOCAL ROAD

3.68	6.80	788.10	.00	788.06	788.79	.70	.21	.20	784.20
980.	31.	874.	75.	23.	124.	59.	22.	10.	784.20
.20	1.33	7.08	1.26	.130	.035	.130	.057	781.30	426.17
.003446	60.	50.	60.	2	0	0	.00	55.25	481.42

SPECIAL BRIDGE

5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	2.04	2.60	.00	17.00	2.00	103.60	.00	781.30	781.30

*SECNO 3.710
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
790.93	789.15	.35	213.	763.	104.	102.	788.10	788.30

CROSS SECTION AT UPSTREAM FACE OF BRIDGE OVER LOCAL ROAD

3.71	8.13	789.43	.00	789.40	789.82	.39	1.02	.00	784.20
980.	.54.	825.	101.	93.	151.	106.	22.	10.	784.20
.20	.58	5.45	.95	.130	.035	.130	.057	781.30	288.70
.001558	30.	30.	30.	2	0	2	.00	240.11	528.81

1490 NH CARD USED
*SECNO 3.760

3470 ENCROACHMENT STATIONS= 455.0 570.0 TYPE= 1 TARGET= 115.000
CROSS SECTION 0

3.76	8.21	789.81	.00	789.80	790.02	.21	.12	.08	782.40
980.	223.	455.	302.	184.	88.	184.	23.	10.	782.40
.21	1.21	5.15	1.64	.156	.065	.129	.057	781.60	455.00
.003281	70.	50.	70.	2	0	0	.00	115.00	570.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	HACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= .100 CEHV= .300
1490 NH CARD USED
+SECNO 4.220

3470 ENCROACHMENT STATIONS= 262.3 327.3 TYPE= 1 TARGET= 65.000
CROSS SECTION P

4.22	7.88	791.48	.00	791.48	791.85	.37	1.78	.05	784.60
980.	110.	609.	261.	67.	102.	125.	26.	11.	784.60
.24	1.64	5.97	2.09	.111	.065	.130	.057	783.60	262.30
.004721	450.	460.	450.	2	0	0	.00	65.00	327.30

CCHV= .400 CEHV= .650
*SECNO 4.270

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 794.50 ELREA= 794.50

CROSS SECTION AT DOWNSTREAM FACE OF WATER WORKS ROAD BRIDGE

4.27	6.65	791.65	.00	791.65	792.12	.47	.21	.07	787.00
980.	0.	980.	0.	0.	178.	0.	27.	11.	787.50
.24	.00	5.51	.00	.104	.042	.104	.057	785.00	274.00
.003500	60.	50.	60.	2	0	0	.00	32.00	306.00

SPECIAL BRIDGE

5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED

SB. XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
1.25	2.26	2.80	.00	26.80	4.00	159.60	.00	785.00	785.00

*SECNO 4.310
PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
792.98	792.34	.25	0.	980.	160.	160.	792.00	794.50

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 794.50 ELREA= 794.50

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	WLOB	WCH	WROB	ALOB	HACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNP	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IBC	ICONT	CORAR	TOPWID	ENDST

CROSS SECTION AT UPSTREAM FACE OF WATER WORKS ROAD BRIDGE

4.31	7.64	792.64	.00	792.63	792.98	.34	.85	.00	787.00
980.	0.	980.	0.	0.	209.	0.	27.	11.	787.50
.24	.00	4.68	.00	.104	.042	.104	.057	785.00	274.00
.002032	45.	45.	45.	2	0	0	.00	32.00	306.00

1490 NH CARD USED
*SECNO 4.360

3470 ENCROACHMENT STATIONS= 260.7 392.7 TYPE= 1 TARGET= 132.000
CROSS SECTION Q

4.36	8.99	793.09	.00	793.09	793.16	.07	.08	.11	785.00
980.	296.	386.	297.	265.	122.	284.	28.	11.	785.00
.25	1.12	3.17	1.05	.117	.065	.130	.056	784.10	260.70
.001092	70.	50.	70.	2	0	0	.00	132.00	392.70

CCHV= .100 CEHV= .300
1490 NH CARD USED
*SECNO 5.380

3470 ENCROACHMENT STATIONS= 226.6 404.2 TYPE= 1 TARGET= 177.600
CROSS SECTION R

5.38	7.64	794.44	.00	794.41	794.53	.09	1.36	.00	787.90
980.	18.	334.	628.	21.	87.	597.	42.	14.	787.90
.38	.84	3.82	1.05	.130	.065	.156	.058	786.80	226.60
.002106	900.	1020.	850.	2	0	0	.00	177.60	404.20

1490 NH CARD USED
*SECNO 5.730

3470 ENCROACHMENT STATIONS= 266.0 465.0 TYPE= 1 TARGET= 199.000
CROSS SECTION R1

5.73	6.79	795.49	.00	795.42	795.69	.20	1.12	.03	789.80
980.	170.	411.	399.	107.	77.	319.	47.	16.	789.80
.41	1.59	5.32	1.25	.130	.065	.156	.058	788.70	266.00
.004817	270.	350.	400.	2	0	0	.00	199.00	465.00

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  HEC2 RELEASE DATED NOV 76 UPDATED APRIL 1980
  ERROR CORR -  01,02,03,04
  MODIFICATION -  50,51,52,53,54
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

WOOD OUTLET DRAIN

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K+S	VCH	AREA	.01K
	.060	.00	.00	.00	754.00	980.00	757.90	.00	758.27	69.90	5.78	336.02	117.22
	.060	.00	.00	.00	754.00	980.00	757.90	.00	758.27	69.90	5.78	336.02	117.22
	.530	470.00	.00	.00	760.70	980.00	763.55	763.48	763.92	231.43	8.26	337.57	64.42
	.530	470.00	.00	.00	760.70	980.00	763.55	763.48	763.92	231.43	8.26	337.57	64.42
	.930	450.00	.00	.00	763.70	980.00	768.03	.00	768.16	49.68	5.14	630.37	139.04
	.930	450.00	.00	.00	763.70	980.00	767.99	.00	768.13	49.12	5.09	554.22	139.83
*	1.730	430.00	.00	.00	766.60	980.00	771.14	771.14	772.33	210.26	10.57	215.13	67.58
*	1.730	430.00	.00	.00	766.60	980.00	771.14	771.14	772.33	210.13	10.56	215.20	67.61
	2.060	330.00	.00	.00	768.80	980.00	775.30	.00	776.16	78.39	8.34	233.22	110.68
	2.060	330.00	.00	.00	768.80	980.00	775.30	.00	776.16	78.42	8.34	233.19	110.67
	2.110	50.00	.00	.00	768.70	980.00	776.31	.00	776.63	50.12	4.57	214.52	138.42
	2.110	50.00	.00	.00	768.70	980.00	776.31	.00	776.63	50.13	4.57	214.52	138.42
	2.111	1.00	802.60	800.50	768.70	980.00	776.30	.00	776.68	298.51	.00	197.93	56.72
	2.111	1.00	802.60	800.50	768.70	980.00	776.30	.00	776.68	298.52	.00	197.93	56.72
	2.121	10.00	802.60	800.50	768.70	980.00	776.63	.00	776.97	257.31	.00	210.60	61.09
	2.121	10.00	802.60	800.50	768.70	980.00	776.63	.00	776.97	257.32	.00	210.60	61.09
	2.122	1.00	.00	.00	768.70	980.00	776.71	.00	776.99	40.89	4.24	231.25	153.25
	2.122	1.00	.00	.00	768.70	980.00	776.71	.00	776.99	40.89	4.24	231.25	153.25
	2.170	50.00	.00	.00	769.50	980.00	776.72	.00	777.81	110.62	9.45	172.48	93.18
	2.170	50.00	.00	.00	769.50	980.00	776.70	.00	777.84	114.15	9.59	162.83	91.72
	2.820	650.00	.00	.00	776.00	980.00	783.12	.00	783.79	79.24	8.21	267.47	110.09
	2.820	650.00	.00	.00	776.00	980.00	783.21	.00	783.90	78.94	8.26	247.19	110.30

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIMS	EG	10K*S	VCH	AREA	.01K
3,630	810.00	.00	.00	781.50	980.00	788.05	.00	788.36	46.03	5.96	436.13	144.45
3,630	810.00	.00	.00	781.50	980.00	788.09	.00	788.39	44.69	5.89	442.22	146.60
3,680	50.00	.00	.00	781.30	980.00	788.06	.00	788.37	35.26	7.13	204.11	165.05
3,680	50.00	.00	.00	781.30	980.00	788.10	.00	788.79	34.46	7.08	206.12	166.95
3,710	30.00	788.30	788.10	781.30	980.00	789.40	.00	789.80	15.80	5.48	345.07	246.54
3,710	30.00	788.30	788.10	781.30	980.00	789.43	.00	789.82	15.58	5.45	350.28	248.30
3,760	50.00	.00	.00	781.60	980.00	789.80	.00	790.01	33.18	5.18	454.15	170.13
3,760	50.00	.00	.00	781.60	980.00	789.81	.00	790.02	32.81	5.15	456.02	171.09
4,220	460.00	.00	.00	783.60	980.00	791.48	.00	791.84	47.29	5.97	293.88	142.51
4,220	460.00	.00	.00	783.60	980.00	791.48	.00	791.85	47.21	5.97	294.08	142.63
4,270	50.00	.00	.00	785.00	980.00	791.65	.00	792.12	35.05	5.51	177.81	165.53
4,270	50.00	.00	.00	785.00	980.00	791.65	.00	792.12	35.00	5.51	177.89	165.66
4,310	45.00	794.50	792.00	785.00	980.00	792.63	.00	792.97	20.35	4.68	209.30	217.23
4,310	45.00	794.50	792.00	785.00	980.00	792.64	.00	792.98	20.32	4.68	209.39	217.38
4,360	50.00	.00	.00	784.10	980.00	793.09	.00	793.16	10.94	3.17	671.60	296.32
4,360	50.00	.00	.00	784.10	980.00	793.09	.00	793.16	10.92	3.17	671.92	296.52
5,380	1020.00	.00	.00	786.80	980.00	794.41	.00	794.48	19.76	3.63	788.86	220.49
5,380	1020.00	.00	.00	786.80	980.00	794.44	.00	794.53	21.06	3.82	705.11	213.57
5,730	350.00	.00	.00	788.70	980.00	795.42	.00	795.63	51.40	5.46	489.63	136.69
5,730	350.00	.00	.00	788.70	980.00	795.49	.00	795.69	48.17	5.32	502.94	141.19
6,180	450.00	.00	.00	791.10	325.00	797.33	.00	797.44	20.25	3.82	189.62	72.21
6,180	450.00	.00	.00	791.10	325.00	797.31	.00	797.43	20.48	3.84	188.90	71.81
6,230	50.00	.00	.00	791.00	325.00	797.31	.00	797.64	15.16	4.62	70.32	83.46
6,230	50.00	.00	.00	791.00	325.00	797.30	.00	797.63	15.32	4.64	70.11	83.04
6,231	1.00	800.00	798.30	791.00	325.00	797.31	.00	797.65	15.15	4.62	70.34	83.50
6,231	1.00	800.00	798.30	791.00	325.00	797.30	.00	797.63	15.30	4.63	70.13	83.08
6,269	38.00	800.00	798.30	791.00	325.00	797.38	.00	797.70	14.64	4.57	71.06	84.93
6,269	38.00	800.00	798.30	791.00	325.00	797.36	.00	797.69	14.79	4.59	70.86	84.52
6,270	1.00	799.60	812.10	791.00	325.00	797.38	.00	797.71	14.56	4.57	71.18	85.17
6,270	1.00	799.60	812.10	791.00	325.00	797.37	.00	797.69	14.70	4.58	70.98	84.77
6,320	50.00	.00	.00	791.10	325.00	797.81	.00	797.88	12.26	3.09	237.36	92.81
6,320	50.00	.00	.00	791.10	325.00	797.79	.00	797.87	12.43	3.10	235.81	92.17
7,340	1020.00	.00	.00	792.70	325.00	798.99	.00	799.02	9.33	2.55	369.85	106.38
7,340	1020.00	.00	.00	792.70	325.00	799.01	.00	799.05	9.89	2.64	295.25	103.37

SECNO	XLOC	ELTRO	ELLO	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
8.500	1160.00	.00	.00	795.50	325.00	800.46	.00	800.50	17.86	2.70	374.22	76.91
8.500	1160.00	.00	.00	795.50	325.00	800.55	.00	800.59	18.28	2.76	296.02	76.02
9.370	870.00	.00	.00	798.00	325.00	802.19	.00	802.26	24.29	2.83	288.09	65.95
9.370	870.00	.00	.00	798.00	325.00	802.30	.00	802.37	24.29	2.88	229.13	65.95
10.100	730.00	.00	.00	799.10	325.00	803.64	.00	803.69	15.90	2.40	336.99	81.51
10.100	730.00	.00	.00	799.10	325.00	803.75	.00	803.79	15.84	2.43	275.79	81.67
11.130	1030.00	.00	.00	800.50	325.00	806.03	.00	806.19	40.37	4.57	129.79	51.15
11.130	1030.00	.00	.00	800.50	325.00	806.09	.00	806.24	38.41	4.50	132.06	52.44
11.180	50.00	.00	.00	800.90	325.00	806.14	.00	806.46	32.20	4.52	71.91	57.27
11.180	50.00	.00	.00	800.90	325.00	806.20	.00	806.51	31.22	4.47	72.71	58.17
11.220	35.00	809.90	808.70	800.90	325.00	806.27	.00	806.57	29.88	4.40	73.86	59.46
11.220	35.00	999999.00	.00	800.90	325.00	806.33	.00	806.62	29.00	4.35	74.66	60.36
11.270	50.00	.00	.00	800.40	325.00	806.43	.00	806.82	51.08	5.35	96.01	45.47
11.270	50.00	.00	.00	800.40	325.00	806.48	.00	806.85	48.47	5.24	99.52	46.68
12.870	1600.00	.00	.00	801.80	325.00	808.05	.00	808.05	2.84	1.34	614.04	192.79
12.870	1600.00	.00	.00	801.80	325.00	808.10	.00	808.11	2.94	1.37	472.70	189.42
14.060	1190.00	.00	.00	804.50	325.00	808.69	.00	808.71	12.61	2.15	391.67	91.54
14.060	1190.00	.00	.00	804.50	325.00	808.76	.00	808.79	12.98	2.21	297.37	90.21
16.060	2000.00	.00	.00	805.20	325.00	810.90	.00	810.92	9.77	2.24	704.39	104.00
16.060	2000.00	.00	.00	805.20	325.00	811.05	.00	811.07	10.35	2.35	609.32	101.04

WOOD OUTLET DRAIN

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	.060	980.00	757.90	.00	.00	-2.10	250.27	.00
	.060	980.00	757.90	.00	.00	-2.10	250.27	.00
	.530	980.00	763.55	.00	5.65	.00	277.18	470.00
	.530	980.00	763.55	.00	5.65	.00	277.18	470.00
	.930	980.00	768.03	-.04	4.48	-.04	275.36	450.00
	.930	980.00	767.99	-.04	4.44	-.04	185.00	450.00
*	1.730	980.00	771.14	.00	3.11	.00	106.33	430.00
*	1.730	980.00	771.14	.00	3.14	.00	106.34	430.00
	2.060	980.00	775.30	-.00	4.16	-.00	75.00	330.00
	2.060	980.00	775.30	-.00	4.16	-.00	75.00	330.00
	2.110	980.00	776.31	-.00	1.01	-.00	40.70	50.00
	2.110	980.00	776.31	-.00	1.01	-.00	40.70	50.00
	2.111	980.00	776.30	-.00	-.01	-.00	38.51	1.00
	2.111	980.00	776.30	-.00	-.01	-.00	38.51	1.00
	2.121	980.00	776.63	-.00	.33	-.00	39.40	10.00
	2.121	980.00	776.63	-.00	.33	-.00	39.40	10.00
	2.122	980.00	776.71	-.00	.08	-.00	42.04	1.00
	2.122	980.00	776.71	-.00	.08	-.00	42.04	1.00
	2.170	980.00	776.72	-.00	.01	-.00	40.99	50.00
	2.170	980.00	776.70	-.02	-.01	-.02	32.00	50.00
	2.820	980.00	783.12	.00	6.40	.00	69.96	650.00
	2.820	980.00	783.21	.09	6.51	.09	48.30	650.00
	3.630	980.00	788.05	.00	4.92	.00	169.40	810.00
	3.630	980.00	788.09	.04	4.88	.04	170.00	810.00
	3.680	980.00	788.06	.00	.01	.00	55.01	50.00
	3.680	980.00	788.10	.04	.01	.04	55.25	50.00
	3.710	980.00	789.40	.00	1.34	.00	237.48	30.00
	3.710	980.00	789.43	.02	1.33	.02	240.11	30.00
	3.760	980.00	789.80	.00	.39	.00	115.00	50.00
	3.760	980.00	789.81	.02	.39	.02	115.00	50.00
	4.220	980.00	791.48	.00	1.68	.00	65.00	460.00
	4.220	980.00	791.48	.00	1.67	.00	65.00	460.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFXWS	TOPWID	XLCH
4.270	980.00	791.65	.00	.17	.00	32.00	50.00
4.270	980.00	791.65	.00	.17	.00	32.00	50.00
4.310	980.00	792.63	.00	.98	.00	32.00	45.00
4.310	980.00	792.64	.00	.98	.00	32.00	45.00
4.360	980.00	793.09	.00	.46	.00	132.00	50.00
4.360	980.00	793.09	.00	.46	.00	132.00	50.00
5.380	980.00	794.41	.00	1.32	.00	251.04	1020.00
5.380	980.00	794.44	.03	1.35	.03	177.60	1020.00
5.730	980.00	795.42	.00	1.01	.00	199.00	350.00
5.730	980.00	795.49	.07	1.05	.07	199.00	350.00
6.180	325.00	797.33	.00	1.91	.00	42.00	450.00
6.180	325.00	797.31	-.02	1.83	-.02	42.00	450.00
6.230	325.00	797.31	.00	-.02	.00	12.47	50.00
6.230	325.00	797.30	-.02	-.02	-.02	12.47	50.00
6.231	325.00	797.31	.00	.00	.00	12.47	1.00
6.231	325.00	797.30	-.02	.00	-.02	12.47	1.00
6.269	325.00	797.38	.00	.07	.00	12.47	38.00
6.269	325.00	797.36	-.02	.07	-.02	12.47	38.00
6.270	325.00	797.38	.00	.00	.00	12.47	1.00
6.270	325.00	797.37	-.02	.00	-.02	12.47	1.00
6.320	325.00	797.81	.00	.43	.00	110.26	50.00
6.320	325.00	797.79	-.01	.43	-.01	109.57	50.00
7.340	325.00	798.99	.00	1.18	.00	143.75	1020.00
7.340	325.00	799.01	.02	1.21	.02	75.85	1020.00
8.500	325.00	800.46	.00	1.48	.00	159.91	1160.00
8.500	325.00	800.55	.09	1.54	.09	84.14	1160.00
9.370	325.00	802.19	.00	1.73	.00	136.50	870.00
9.370	325.00	802.30	.11	1.75	.11	71.13	870.00
10.100	325.00	803.64	.00	1.45	.00	177.59	730.00
10.100	325.00	803.75	.11	1.45	.11	86.53	730.00
11.130	325.00	806.03	.00	2.39	.00	37.41	1030.00
11.130	325.00	806.09	.06	2.34	.06	37.54	1030.00
11.180	325.00	806.14	.00	.11	.00	15.00	50.00
11.180	325.00	806.20	.05	.10	.05	15.00	50.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
11.220	325.00	806.27	.00	.13	.00	15.00	35.00
11.220	325.00	806.33	.05	.13	.05	15.00	35.00
11.270	325.00	806.43	.00	.15	.00	67.26	50.00
11.270	325.00	806.48	.05	.15	.05	67.31	50.00
12.870	325.00	808.05	.00	1.62	.00	225.91	1600.00
12.870	325.00	808.10	.05	1.62	.05	116.67	1600.00
14.060	325.00	808.69	.00	.65	.00	225.41	1190.00
14.060	325.00	808.76	.07	.66	.07	109.72	1190.00
16.060	325.00	810.90	.00	2.21	.00	618.99	2000.00
16.060	325.00	811.05	.15	2.29	.15	420.85	2000.00

FLOODWAY DATA, WOOD OUTLET DRAIN
PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WATER SURFACE ELEVATION WITHOUT FLOODWAY	DIFFERENCE
.060	250.	336.	2.9	757.9	757.9	.0
.530	480.	338.	2.9	763.6	763.6	.0
.930	185.	554.	1.8	768.0	768.0	.0
1.730	106.	215.	4.6	771.1	771.1	.0
2.060	75.	233.	4.2	775.3	775.3	.0
2.110	41.	215.	4.6	776.3	776.3	.0
2.111	42.	198.	5.0	776.3	776.3	.0
2.121	42.	211.	4.7	776.6	776.6	.0
2.122	42.	231.	4.2	776.7	776.7	.0
2.170	32.	163.	6.0	776.7	776.7	.0
2.820	48.	247.	4.0	783.2	783.1	.1
3.630	170.	442.	2.2	788.0	788.0	.0
3.680	55.	206.	4.8	788.1	788.1	.0
3.710	240.	350.	2.8	789.4	789.4	.0
3.760	115.	456.	2.1	789.8	789.8	.0
4.220	65.	294.	3.3	791.5	791.5	.0
4.270	32.	178.	5.5	791.7	791.7	.0
4.310	32.	209.	4.7	792.6	792.6	.0
4.360	132.	672.	1.5	793.1	793.1	.0
5.380	178.	705.	1.4	794.4	794.4	.0
5.730	199.	503.	1.9	795.5	795.4	.1
6.180	42.	189.	1.7	797.3	797.3	.0
6.230	12.	70.	4.6	797.3	797.3	.0
6.231	12.	70.	4.6	797.3	797.3	.0
6.269	12.	71.	4.6	797.4	797.4	.0
6.270	12.	71.	4.6	797.4	797.4	.0
6.320	110.	236.	1.4	797.8	797.8	.0
7.340	76.	295.	1.1	799.0	799.0	.0
8.500	84.	296.	1.1	800.6	800.5	.1
9.370	71.	229.	1.4	802.3	802.2	.1
10.100	87.	276	1.2	803.7	803.6	.1
11.130	38.	132.	2.5	806.1	806.0	.1
11.180	15.	73.	4.5	806.2	806.1	.1
11.220	15.	75.	4.4	806.4	806.3	.1
11.270	67.	100.	3.3	806.5	806.4	.1
12.870	117.	478.	.7	808.1	808.0	.1
14.060	110.	297.	1.1	808.8	808.7	.1
16.060	470.	609.	.5	811.0	810.9	.1

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*****************************************************
*  WATER SURFACE PROFILES                           *
*  VERSION OF NOVEMBER 1976                         *
*  UPDATED APRIL 1980                               *
*                                                   *
*  RUN DATE FRI, JUN 11, 1982,  4:38 PM             *
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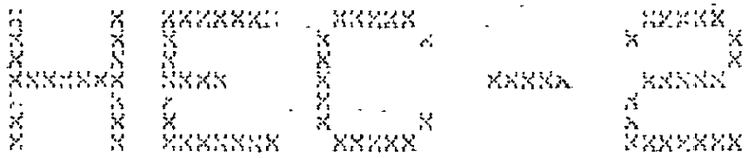
RECEIVED
JUN 15 1982
WATER MANAGEMENT



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*****************************************************
*  U.S. ARMY CORPS OF ENGINEERS                     *
*  THE HYDROLOGIC ENGINEERING CENTER                *
*  609 SECOND STREET, SUITE D                       *
*  DAVIS, CALIFORNIA 95616                          *
*  (916) 440-2105 (FTS) 448-2105                    *
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CITY OF SALINE
FLOOD INSURANCE STUDY
WOOD OUTLET DRAIN
FLOOD INSURANCE ZONE DATA
JUNE 11, 1982

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  HEC2 RELEASE DATED NOV 76 UPDATED APRIL 1980
  ERROR CORR -  01,02,03,04
  MODIFICATION -  50,51,52,53,54
*****************************************************

C
T1      HUD FLOOD INSURANCE STUDIES  H-3970  WILLIAMS & WORKS
T2      CITY OF SALINE  SALINE RIVER AND WOOD CREEK
T3      WOOD OUTLET DRAIN              10-YEAR FLOOD
J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q        WSEL      FQ
       0.        6.        0.        0.   .007000       .00       .0        0.   760.000      .000
J2  NPROF     IPLOT     PRFVS     XSECV     XSECH      FN       ALLDC     IBW      CHNIM     ITRACE
     1.000      .000    -1.000      .000      .000     1.300      .000      .000      .000      .000
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
    150.000   203.000    17.000    59.000   156.000      .000      .000      .000      .000      .000
NC      .100      .100      .040      .100      .300      .000      .000      .000      .000      .000
QT     5.000   980.000   930.000  1250.000   850.000   480.000      .000      .000      .000      .000
NH     3.000      .070   910.000      .040   940.000      .070  1600.000      .000      .000      .000

        CROSS SECTION J1

X1      .060    13.000   910.000   940.000      .000      .000      .000      .000      .000      .000
GR   800.000      .000   764.000    70.000   760.000   680.000   756.000   905.000   755.000   910.000
GR   754.000   911.000   754.000   939.000   755.000   940.000   756.000   942.000   760.000  1165.000
GR   764.000  1430.000   768.000  1530.000   780.000  1600.000      .000      .000      .000      .000
NH     3.000      .060   797.100      .040   810.100      .120  1273.300      .000      .000      .000

        CROSS SECTION K

X1      .530    22.000   797.100   810.100   500.000   500.000   470.000      .000      .000      .000
X3      .000      .000      .000   450.000      .000   930.000      .000      .000      .000      .000
GR   777.100      .000   765.600    60.000   763.700   143.700   763.600   217.400   762.300   288.600
GR   762.300   404.400   762.600   536.700   764.800   651.700   764.800   737.200   764.300   784.100
GR   763.300   791.100   761.300   797.100   760.800   801.100   760.700   806.100   761.000   808.100
GR   761.300   810.100   760.800   813.100   763.000   911.800   763.000  1004.500   763.000  1105.300
GR   763.800  1176.200   789.300  1273.300      .000      .000      .000      .000      .000      .000
ET      .000      .000     9.100      .000      .000      .000      .000      .000   165.000   350.000
NH     3.000      .060   175.000      .040   188.000      .120   490.000      .000      .000      .000
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CROSS SECTION K1

X1	.930	15.000	175.000	188.000	600.000	400.000	456.000	.000	.000	.000	
GR	800.000	.000	780.000	45.000	776.000	70.000	772.000	95.000	768.000	160.000	
GR	764.300	175.000	763.800	179.000	763.700	184.000	764.000	196.000	764.300	198.000	
GR	764.000	215.000	768.000	435.000	772.000	440.000	780.000	460.000	809.000	490.000	
ET	.000	.000	9.100	.000	.000	.000	.000	.000	85.000	216.000	
NH	3.000	.120	110.000	.040	125.000	.110	630.000	.000	.000	.000	

CROSS SECTION K2

X1	1.730	14.000	110.000	125.000	350.000	220.000	430.000	.000	.000	.000	
GR	800.000	.000	780.000	40.000	776.000	55.000	772.000	85.000	767.800	110.000	
GR	767.000	111.000	766.800	114.000	766.600	119.000	767.400	124.000	767.800	125.000	
GR	772.000	215.000	776.000	290.000	780.000	345.000	300.000	630.000	.000	.000	
NH	3.000	.120	421.300	.040	436.300	.110	927.500	.000	.000	.000	

CROSS SECTION L

X1	2.060	17.000	421.300	436.300	300.000	250.000	330.000	.000	.000	.000	
X3	.000	.000	.000	375.000	.000	450.000	.000	.000	.000	.000	
GR	801.700	.000	783.700	56.200	779.800	138.200	776.500	321.200	774.500	339.200	
GR	772.900	418.100	770.000	421.300	769.200	422.300	769.000	425.300	769.800	430.300	
GR	769.600	435.300	770.000	436.300	776.800	456.800	776.700	525.800	789.300	633.800	
GR	798.300	753.800	805.400	927.500	.000	.000	.000	.000	.000	.000	
NC	.080	.080	.050	.300	.600	.000	.000	.000	.000	.000	

CROSS SECTION IMMEDIATELY DOWNSTREAM OF N.Y.C. RAILROAD BRIDGE

X1	2.119	32.000	610.000	727.000	60.000	60.000	50.000	.000	.000	.000	
X3	10.000	.000	.000	.000	.000	.000	.000	830.500	800.500	.000	
GR	806.300	.000	806.300	33.700	806.000	103.900	804.800	193.500	803.600	281.300	
GR	802.700	393.400	802.200	486.500	802.200	563.400	802.200	605.000	797.000	610.000	
GR	794.800	620.000	788.600	630.000	783.300	640.000	777.900	656.000	771.900	655.000	
GR	770.200	663.000	769.000	670.000	768.700	676.000	768.800	680.000	775.500	690.000	
GR	779.500	700.000	786.400	710.000	794.900	720.000	797.000	727.000	802.200	732.000	
GR	802.200	787.300	803.600	854.500	803.600	953.600	805.100	1028.300	806.200	1158.500	
GR	808.000	1244.100	807.900	1303.900	.000	.000	.000	.000	.000	.000	

CROSS SECTION AT DOWNSTREAM FACE OF ABANDONED N.Y.C. RAILROAD BRIDGE

DIVIDED FLOW DUE TO BRIDGE PIERS

X1	2.111	57.000	610.000	727.000	1.000	1.000	1.000	.000	.000	.000	
X2	.000	.000	.000	600.500	802.600	.000	.000	.000	.000	.000	
GR	806.300	.000	806.300	33.700	806.000	103.900	804.800	193.500	803.600	281.300	
GR	802.700	393.400	802.200	486.500	802.200	563.400	802.200	605.000	802.600	611.000	
GR	797.000	611.000	794.800	622.000	800.500	622.000	800.500	623.000	793.000	623.000	

GR	786.500	634.000	800.500	634.000	800.500	635.000	786.000	635.000	779.500	647.000	
GR	800.500	647.000	800.500	648.000	779.900	648.000	777.900	650.000	771.900	655.000	
GR	771.000	660.000	800.500	660.000	800.500	661.000	770.500	651.000	769.000	673.000	
GR	800.500	673.000	800.500	674.000	768.700	674.000	768.000	680.000	775.500	685.500	
GR	800.500	685.500	800.500	686.500	773.000	686.500	779.000	698.000	800.500	698.000	
GR	800.500	699.000	779.500	699.000	787.000	711.000	800.500	711.000	800.500	712.000	
GR	788.000	712.000	794.900	720.000	797.000	725.500	802.600	725.500	802.200	733.000	
GR	802.200	787.300	803.600	854.500	803.600	953.600	805.100	1028.300	806.200	1158.500	
GR	808.000	1244.100	807.900	1303.900	.000	.000	.000	.000	.000	.000	

CROSS SECTION AT UPSTREAM FACE OF ABANDONED N.Y.C. RAILROAD BRIDGE

DIVIDED FLOW DUE TO BRIDGE PIERS

X1	2.121	.000	.000	.000	10.000	10.000	10.000	.000	.000	.000	
X2	.000	.000	.000	800.500	802.600	.000	.000	.000	.000	.000	

CROSS SECTION IMMEDIATELY UPSTREAM OF N.Y.C. RAILROAD BRIDGE

X1	2.122	32.000	610.000	727.000	1.000	1.000	1.000	.000	.000	.000	
X3	10.000	.000	.000	.000	.000	.000	.000	802.600	802.600	.000	
GR	806.300	.000	806.300	33.700	806.000	103.900	804.300	193.500	803.600	281.300	
GR	802.700	393.400	802.200	486.500	802.200	563.400	802.200	605.000	797.000	610.000	
GR	794.800	620.000	788.600	630.000	783.300	640.000	777.900	650.000	771.900	655.000	
GR	770.200	663.000	769.000	670.000	768.700	676.000	768.000	680.000	775.500	690.000	
GR	779.500	700.000	786.400	710.000	794.900	720.000	791.000	725.000	802.200	733.000	
GR	802.200	787.300	803.600	854.500	803.600	953.600	805.100	1028.300	806.200	1158.500	
GR	808.000	1244.100	807.900	1303.900	.000	.000	.000	.000	.000	.000	
ET	.000	.000	9.100	.000	.000	.000	.000	.000	37.100	69.100	
NH	4.000	.120	48.500	.045	60.100	.095	356.800	.120	464.700	.000	

CROSS SECTION M

X1	2.170	13.000	48.500	60.100	70.000	70.000	50.000	.000	.000	.000	
GR	793.700	.000	774.700	37.400	770.600	48.500	769.800	49.500	769.700	50.500	
GR	769.500	55.500	770.100	58.500	770.600	60.100	776.700	74.200	784.500	161.900	
GR	793.000	243.800	797.700	356.800	805.300	464.700	.000	.000	.000	.000	
NC	.100	.100	.045	.100	.300	.000	.000	.000	.000	.000	
ET	.000	.000	9.100	.000	.000	.000	.000	.000	44.900	93.200	
NH	4.000	.120	62.000	.045	72.500	.120	185.200	.070	588.600	.000	

CROSS SECTION MM

X1	2.820	13.000	62.000	72.500	650.000	580.000	650.000	.000	.000	.000	
GR	811.200	.000	781.800	42.600	776.500	62.000	776.200	63.500	776.000	65.500	
GR	776.100	70.500	776.500	72.500	783.000	106.800	785.500	185.200	791.400	319.300	
GR	795.900	398.100	800.800	529.000	804.000	588.600	.000	.000	.000	.000	
ET	.000	.000	9.100	.000	.000	.000	.000	.000	359.000	529.000	
NH	5.000	.065	310.400	.120	400.100	.045	414.000	.120	586.900	.075	
NH	1034.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	

CROSS SECTION N

X1	3.630	18.000	400.100	414.000	780.000	650.000	810.000	.000	.000	.000	
GR	803.800	.000	801.200	48.600	799.900	100.700	797.300	223.400	795.500	310.400	
GR	787.900	360.500	791.900	400.100	791.500	402.000	791.600	412.000	791.900	414.000	
GR	784.400	424.000	786.500	472.900	789.700	586.900	793.800	685.800	797.000	736.100	
GR	797.500	840.600	800.700	944.900	804.000	1034.000	.000	.000	.000	.000	
NC	.100	.100	.027	.450	.500	.000	.000	.000	.000	.000	

CROSS SECTION AT DOWNSTREAM FACE OF BRIDGE OVER LOCAL ROAD

X1	3.680	41.000	435.500	456.500	60.000	60.000	50.000	.000	.000	.000	
GR	805.200	.000	803.600	26.600	800.700	86.900	797.300	152.400	792.300	230.300	
GR	789.000	297.400	789.100	360.800	788.800	425.000	785.800	420.000	784.200	433.200	
GR	784.200	435.500	783.000	436.000	782.100	437.500	781.600	439.000	781.300	440.500	
GR	781.600	442.000	782.100	443.500	783.000	445.000	784.200	446.400	784.200	446.500	
GR	783.000	447.000	782.100	448.500	781.600	450.000	781.300	451.500	781.600	453.000	
GR	782.100	454.500	783.000	456.000	784.200	456.500	784.200	462.000	789.000	465.900	
GR	789.700	556.100	792.700	616.300	793.600	646.300	794.700	689.800	796.200	730.400	
GR	797.200	802.000	799.500	850.500	800.900	912.700	801.900	966.800	803.700	1030.900	
GR	804.100	1055.200	.000	.000	.000	.000	.000	.000	.000	.000	
SB	1.250	2.040	2.600	.000	17.000	2.000	103.600	.000	.000	.000	

CROSS SECTION AT UPSTREAM FACE OF BRIDGE OVER LOCAL ROAD

X1	3.710	.000	.000	.000	30.000	30.000	30.000	.000	.000	.000	
X2	.000	.000	1.000	788.100	788.300	.000	.000	.000	.000	.000	
BT	23.000	425.000	788.800	788.800	430.000	788.600	785.800	433.200	788.600	784.200	
BT	435.500	788.500	784.200	436.000	788.500	786.100	437.500	788.500	787.500	439.000	
BT	788.500	788.100	440.500	788.500	788.300	442.000	788.500	788.100	443.500	788.500	
BT	787.500	445.000	788.500	786.100	445.400	788.500	784.200	446.500	788.500	784.200	
BT	447.000	788.500	786.100	448.500	788.500	787.500	450.000	788.500	788.000	451.500	
BT	788.500	788.100	453.000	788.500	788.000	454.500	788.500	787.500	456.000	788.500	
BT	786.100	456.500	788.500	784.200	462.000	788.400	784.200	485.900	789.000	789.000	
NH	5.000	.070	228.400	.120	507.800	.050	518.800	.120	543.900	.060	
NH	1072.500	.000	.000	.000	.000	.000	.000	.000	.000	.000	

CROSS SECTION O

X1	3.760	21.000	507.800	518.800	70.000	70.000	50.000	.000	.000	.000	
X3	.000	.000	455.000	.000	570.000	.000	.000	.000	.000	.000	
GR	805.100	.000	807.100	62.900	807.000	137.800	800.900	228.400	790.400	295.400	
GR	788.700	341.900	786.800	403.000	786.800	480.300	785.200	503.500	782.400	507.800	
GR	781.900	508.800	781.600	512.800	781.800	517.800	782.400	518.800	787.200	543.900	
GR	789.300	614.900	796.100	701.600	796.900	802.900	800.000	898.700	802.700	987.600	
GR	804.400	1072.500	.000	.000	.000	.000	.000	.000	.000	.000	
NC	.100	.100	.045	.100	.300	.000	.000	.000	.000	.000	
NH	4.000	.085	288.000	.050	301.500	.100	406.000	.070	792.400	.000	

CROSS SECTION P

X1	4.220	16.000	288.000	301.500	450.000	450.000	460.000	.000	.000	.000	
X3	.000	.000	.000	262.300	.000	327.300	.000	.000	.000	.000	
GR	807.900	.000	800.700	43.500	791.700	135.500	789.500	229.800	788.700	287.900	
GR	784.600	288.000	784.200	288.500	783.600	294.500	783.900	299.500	784.600	301.500	
GR	786.600	309.500	787.800	330.700	794.600	406.000	800.000	515.400	801.300	638.800	
GR	804.600	792.400	.000	.000	.000	.000	.000	.000	.000	.000	
NC	.080	.080	.032	.400	.650	.000	.000	.000	.000	.000	

CROSS SECTION AT DOWNSTREAM FACE OF WATER WORKS ROAD BRIDGE

X1	4.270	40.000	274.000	306.000	60.000	60.000	50.000	.000	.000	.000	
X3	10.000	.000	.000	.000	.000	.000	.000	794.500	794.500	.000	
GR	807.900	.000	803.300	53.600	797.600	127.600	796.300	122.700	794.500	260.000	
GR	791.800	260.000	787.000	274.000	785.800	275.000	785.200	277.000	785.000	279.000	
GR	785.200	281.000	785.800	283.000	787.000	284.000	788.000	284.000	788.000	285.000	
GR	787.000	285.000	785.900	286.000	788.500	288.000	785.300	290.000	785.500	292.000	
GR	785.800	294.000	787.000	295.000	788.000	295.000	788.000	296.000	787.500	296.000	
GR	786.500	297.000	785.700	299.000	785.500	301.000	785.700	303.000	786.500	305.000	
GR	787.500	306.000	792.300	320.000	794.500	320.000	795.000	394.300	795.900	474.700	
GR	798.200	541.000	798.800	620.700	800.800	701.700	803.100	831.200	804.100	869.600	
SB	1.250	2.260	2.800	.000	26.800	4.000	159.600	.000	.000	.000	

CROSS SECTION AT UPSTREAM FACE OF WATER WORKS ROAD BRIDGE

X1	4.310	.000	.000	.000	45.000	45.000	45.000	.000	.000	.000	
X2	.000	.000	1.000	792.000	794.500	.000	.000	.000	.000	.000	
X3	10.000	.000	.000	.000	.000	.000	.000	794.500	794.500	.000	
BT	27.000	260.000	794.500	794.500	260.000	794.500	791.800	274.000	794.500	787.000	
BT	274.000	794.500	788.500	275.000	794.500	790.300	277.000	794.500	791.600	279.000	
BT	794.500	792.000	281.000	794.500	791.600	283.000	794.500	790.300	284.000	794.500	
BT	789.000	285.000	794.500	788.000	286.000	794.500	790.500	288.000	794.500	791.900	
BT	290.000	794.500	792.300	292.000	794.500	791.900	294.000	794.500	790.500	295.000	
BT	794.500	788.000	296.000	794.500	788.000	297.000	794.500	790.700	299.000	794.500	
BT	792.100	301.000	794.500	792.500	303.000	794.500	792.100	305.000	794.500	790.700	
BT	306.000	794.500	789.000	306.000	795.000	787.500	320.000	794.500	792.300	320.000	
BT	794.500	794.500	.000	.000	.000	.000	.000	.000	.000	.000	
NH	4.000	.090	319.700	.050	333.700	.100	551.200	.080	770.200	.000	

CROSS SECTION Q

X1	4.360	18.000	319.700	333.700	70.000	70.000	50.000	.000	.000	.000	
X3	.000	.000	.000	260.700	.000	392.700	.000	.000	.000	.000	
GR	808.200	.000	798.300	53.600	793.800	145.100	790.500	209.600	788.500	309.300	
GR	785.000	319.700	784.600	320.700	784.100	324.700	784.300	329.700	784.600	332.700	
GR	785.000	333.700	786.600	335.700	788.000	344.700	788.400	367.200	791.700	456.700	
GR	799.400	551.200	801.800	702.600	804.100	770.200	.000	.000	.000	.000	
NC	.100	.100	.045	.100	.300	.000	.000	.000	.000	.000	

ET	.000	.000	9.100	.000	.000	.000	.000	.000	226.600	404.200
NH	4.000	.100	231.900	.050	243.900	.120	521.300	.070	1766.200	.000

CROSS SECTION R

X1	5.380	19.000	231.900	243.900	900.000	950.000	1020.000	.000	.000	.000
GR	810.200	.000	808.500	46.400	803.900	157.500	790.400	230.900	787.900	231.900
GR	786.800	232.900	787.000	235.900	787.100	240.900	787.900	247.900	789.900	248.900
GR	790.200	256.400	791.000	373.000	796.800	521.300	796.800	691.600	802.700	921.400
GR	801.800	1125.900	801.800	1401.700	803.600	1617.200	804.000	1766.200	.000	.000
ET	.000	.000	9.100	.000	.000	.000	.000	.000	266.000	465.000
NH	3.000	.100	310.000	.050	322.000	.120	600.000	.000	.000	.000

CROSS SECTION R1

X1	5.730	15.000	310.000	322.000	270.000	400.000	350.000	.000	.000	.000
GR	810.000	.000	808.000	50.000	804.000	100.000	800.000	150.000	796.000	260.000
GR	792.000	300.000	769.800	310.000	788.700	311.000	788.900	314.000	789.000	319.000
GR	789.800	322.000	792.000	345.000	796.000	485.000	800.000	540.000	804.000	600.000
QT	5.000	325.000	325.000	420.000	285.000	195.000	.000	.000	.000	.000
NH	3.000	.110	420.900	.045	426.900	.085	1176.400	.000	.000	.000

CROSS SECTION S

X1	6.180	14.000	420.900	426.900	430.000	500.000	450.000	.000	.000	.000
X3	.000	.000	.000	403.000	.000	445.000	.000	.000	.000	.000
GR	804.500	.000	802.700	107.800	794.000	207.400	794.000	346.500	794.300	389.900
GR	791.300	420.900	791.100	423.900	791.300	426.900	794.300	430.900	794.600	499.800
GR	800.100	674.300	801.500	895.400	808.700	1100.300	809.800	1176.400	.000	.000
NC	.080	.080	.030	.400	.500	.000	.000	.000	.000	.000

CROSS SECTION IMMEDIATELY DOWNSTREAM OF ANN ARBOR-SALINE ROAD BRIDGE

SKEW FACTOR OF 0.3910 APPLIED FOR BRIDGE SKEWED 27 DEGREES

X1	6.230	28.000	1566.000	1580.000	60.000	60.000	50.000	.891	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	798.300	798.300	.000
GR	813.000	.000	810.000	48.500	805.900	150.500	804.700	231.300	806.600	347.200
GR	806.200	407.900	807.600	464.800	808.000	533.600	807.900	610.500	808.400	695.000
GR	808.400	915.400	806.400	1088.900	805.400	1180.800	803.400	1329.400	802.900	1400.300
GR	802.000	1469.200	800.400	1550.000	791.900	1566.000	791.000	1573.000	792.800	1580.000
GP	800.000	1595.500	799.600	1619.200	800.400	1719.200	801.300	1868.200	802.000	1917.200
GP	803.400	2061.800	806.700	2218.500	812.100	2390.500	.000	.000	.000	.000

CROSS SECTION AT DOWNSTREAM FACE OF ANN ARBOR - SALINE ROAD BRIDGE

SKEW FACTOR OF 0.8910 APPLIED FOR BRIDGE SKEWED 27 DEGREES

X1	6.231	28.000	1566.000	1580.000	1.000	1.000	1.000	.891	.000	.000	
X2	.000	.000	.000	798.300	800.000	.000	.000	.000	.000	.000	
X3	10.000	.000	.000	.000	.000	.000	798.300	.000	798.300	.000	
GR	813.000	.000	810.000	48.500	805.900	150.500	804.700	231.300	806.600	347.700	
GR	806.200	407.900	807.600	464.800	808.000	533.600	807.800	610.500	808.400	595.000	
GR	808.400	915.400	806.400	1088.900	805.400	1180.800	803.400	1329.400	802.900	1400.300	
GR	802.000	1469.200	800.400	1550.000	791.900	1566.000	791.000	1573.000	792.800	1580.000	
GR	800.000	1595.500	799.600	1619.200	800.400	1719.200	801.300	1868.200	802.000	1917.200	
GR	803.400	2061.800	806.700	2218.500	812.100	2390.500	.000	.000	.000	.000	

CROSS SECTION AT UPSTREAM FACE OF ANN ARBOR - SALINE ROAD BRIDGE

SKEW FACTOR OF 0.8910 APPLIED FOR BRIDGE SKEWED 27 DEGREES

X1	6.269	28.000	1566.000	1580.000	38.000	38.000	38.000	.891	.000	.000	
X2	.000	.000	.000	798.300	800.000	.000	.000	.000	.000	.000	
X3	10.000	.000	.000	.000	.000	.000	798.300	.000	798.300	.000	
GR	813.000	.000	810.000	48.500	805.900	150.500	804.700	231.300	806.600	347.700	
GR	806.200	407.900	807.600	464.800	808.000	533.600	807.800	610.500	808.400	595.000	
GR	808.400	915.400	806.400	1088.900	805.400	1180.800	803.400	1329.400	802.900	1400.300	
GR	802.000	1469.200	800.400	1550.000	791.900	1566.000	791.000	1573.000	792.800	1580.000	
GR	800.000	1595.500	799.600	1619.200	800.400	1719.200	801.300	1868.200	802.000	1917.200	
GR	803.400	2061.800	806.700	2218.500	812.100	2390.500	.000	.000	.000	.000	

CROSS SECTION IMMEDIATELY UPSTREAM OF ANN ARBOR-SALINE ROAD BRIDGE

SKEW FACTOR OF 0.8910 APPLIED FOR BRIDGE SKEWED 27 DEGREES

X1	6.270	28.000	1566.000	1580.000	1.000	1.000	1.000	.891	.000	.000	
X3	10.000	.000	.000	.000	.000	.000	.000	800.000	800.000	.000	
BT	22.000	915.400	808.400	808.400	1088.900	806.400	806.400	1180.800	805.400	805.400	
BT	1329.400	803.400	803.400	1400.300	802.900	802.900	1469.200	802.000	802.000	1550.000	
BT	800.400	800.400	1550.000	803.800	800.400	1566.000	803.800	791.900	1566.000	803.800	
BT	798.300	1573.000	803.800	798.300	1580.000	803.800	798.300	1580.000	803.000	792.800	
BT	1595.500	803.800	800.000	1595.500	800.000	800.000	1619.200	799.600	799.600	1719.200	
BT	800.400	800.400	1868.200	801.300	801.300	1917.200	802.000	802.000	2061.800	803.400	
BT	803.400	2218.500	806.700	806.700	2390.500	812.100	812.100	.000	.000	.000	
GR	813.000	.000	810.000	48.500	805.900	150.500	804.700	231.300	806.600	347.700	
GR	806.200	407.900	807.600	464.800	808.000	533.600	807.800	610.500	808.400	595.000	
GR	808.400	915.400	806.400	1088.900	805.400	1180.800	803.400	1329.400	802.900	1400.300	
GR	802.000	1469.200	800.400	1550.000	791.900	1566.000	791.000	1573.000	792.800	1580.000	
GR	800.000	1595.500	799.600	1619.200	800.400	1719.200	801.300	1868.200	802.000	1917.200	
GR	803.400	2061.800	806.700	2218.500	812.100	2390.500	.000	.000	.000	.000	
NH	3.000	.080	1569.200	.045	1576.200	.070	2335.400	.000	.000	.000	

CROSS SECTION T

X1	6.320	22.000	1569.200	1576.200	70.000	70.000	50.000	.000	.000	.000	
X3	.000	.000	.000	1512.000	.000	1632.000	.000	.000	.000	.000	
GR	812.700	.000	808.600	95.500	804.000	229.500	806.000	373.800	810.100	477.700	
GR	808.500	589.200	810.000	734.600	809.000	907.000	807.700	1104.700	807.700	1291.300	
GR	796.400	1521.800	795.100	1563.300	793.000	1567.200	791.500	1569.200	791.100	1571.200	
GR	791.500	1576.200	793.500	1580.200	797.300	1597.300	800.400	1748.300	802.600	1951.400	
GR	804.600	2184.100	815.400	2335.400	.000	.000	.000	.000	.000	.000	
NC	.100	.100	.045	.100	.300	.000	.000	.000	.000	.000	
ET	.000	.000	1.400	.000	.000	.000	.000	.000	.000	.000	
NH	4.000	.070	458.900	.100	703.500	.045	710.500	.100	2195.000	.000	

CROSS SECTION U

X1	7.340	18.000	703.500	710.500	1100.000	1100.000	1020.000	.000	.000	.000	
GR	815.800	.000	813.300	111.200	809.600	270.100	803.200	458.900	801.800	589.200	
GR	793.200	703.500	792.700	707.500	793.200	710.500	794.300	711.500	796.300	720.500	
GR	799.700	783.700	802.500	955.000	809.900	1158.200	807.600	1372.800	807.600	1637.800	
GR	807.700	1851.200	814.200	2025.300	814.300	2195.000	.000	.000	.000	.000	
NH	4.000	.075	413.500	.120	645.500	.050	652.500	.120	1522.900	.000	

CROSS SECTION V

X1	8.500	16.000	645.500	652.500	1150.000	1200.000	1160.000	.000	.000	.000	
GR	825.500	.000	820.200	92.500	814.700	202.800	810.600	298.800	806.500	413.500	
GR	803.700	558.100	800.700	631.800	796.000	645.500	795.500	648.500	796.000	652.500	
GR	800.400	790.200	805.100	945.900	809.800	1127.200	808.300	1309.300	812.900	1443.900	
GR	816.000	1522.900	.000	.000	.000	.000	.000	.000	.000	.000	
NH	4.000	.075	545.800	.120	630.200	.050	644.200	.120	2081.600	.000	

CROSS SECTION W

X1	9.370	16.000	630.200	644.200	900.000	800.000	870.000	.000	.000	.000	
GR	824.000	.000	820.300	96.900	816.700	209.600	808.800	384.600	803.000	545.800	
GR	798.400	630.200	798.000	636.200	798.400	644.200	803.900	721.000	807.200	906.000	
GR	807.200	1096.200	808.400	1313.000	809.000	1526.300	811.000	1753.700	812.400	1984.000	
GR	820.000	2081.600	.000	.000	.000	.000	.000	.000	.000	.000	
NH	5.000	.070	1049.200	.050	1057.200	.120	1132.900	.085	1512.300	.120	
NH	2620.200	.000	.000	.000	.000	.000	.000	.000	.000	.000	

CROSS SECTION X

X1	10.100	19.000	1049.200	1057.200	750.000	700.000	730.000	.000	.000	.000	
GR	823.900	.000	820.000	177.700	817.800	331.400	814.300	502.100	809.900	692.900	
GR	806.600	859.200	804.500	974.300	799.600	1049.200	799.100	1053.200	799.600	1057.200	
GR	803.200	1132.900	805.800	1318.600	812.000	1512.300	811.100	1796.600	809.400	1992.800	
GR	807.600	2172.500	817.500	2387.200	815.800	2529.400	820.000	2620.200	.000	.000	

NH	3.000	.075	1660.100	.045	1665.100	.075	2859.000	000	.000	.000

CROSS SECTION AA

X1	11.130	22.000	1660.100	1665.100	950.000	1200.000	1030.000	.000	.000	.000
X3	.000	.000	.000	1637.600	.000	1687.600	.000	.000	.000	.000
GR	819.300	.000	819.400	106.300	819.400	270.600	824.800	450.000	823.200	610.400
GR	821.800	767.600	816.900	960.000	813.700	1145.100	810.900	1736.200	806.100	1557.600
GR	806.100	1607.900	801.400	1660.100	800.500	1662.100	801.400	1665.100	807.800	1678.800
GR	811.100	1847.700	818.100	2035.800	816.200	2231.000	813.000	2436.800	818.200	2642.100
GR	824.300	2786.500	829.200	2859.300	.000	.000	.000	.000	.000	.000
NC	.080	.080	.030	.300	.500	.000	.000	.000	.000	.000

CROSS SECTION AT DOWNSTREAM FACE OF MAPLE ROAD BRIDGE

X1	11.180	28.000	1525.000	1540.000	60.000	60.000	50.000	.000	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	808.700	808.700	.000
GR	821.500	.000	824.600	144.500	823.500	221.500	824.600	277.900	825.700	464.900
GR	825.100	538.900	823.700	666.400	819.500	851.400	815.800	1049.500	814.700	1131.700
GR	813.500	1205.800	811.500	1393.400	811.100	1467.700	810.400	1507.000	809.900	1525.000
GR	801.800	1525.000	800.900	1532.500	801.800	1540.000	809.900	1540.000	810.100	1554.000
GR	812.600	1735.400	816.000	1891.700	817.700	2006.000	819.600	2193.400	819.000	2288.400
GR	819.900	2376.900	821.800	2463.700	824.100	2519.600	825.400	2553.000	826.700	2601.200
SB	.000	1.970	2.800	.000	13.270	.000	110.250	.111	.000	.000

CROSS SECTION AT UPSTREAM FACE OF MAPLE ROAD BRIDGE

X1	11.220	.000	.000	.000	35.000	35.000	25.000	.000	.000	.000
X2	.000	.000	1.000	808.700	809.900	.000	.000	.000	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	809.900	809.900	.000
NH	3.000	.075	1662.700	.045	1672.700	.075	2802.700	.000	.000	.000

CROSS SECTION AB

X1	11.270	22.000	1662.700	1672.700	70.000	70.000	50.000	.000	.000	.000
X3	.000	.000	.000	1610.200	.000	1725.200	.000	.000	.000	.000
GR	821.500	.000	820.600	152.700	820.600	277.200	823.500	462.500	822.200	660.600
GR	820.800	860.100	817.300	1053.300	812.600	1280.700	809.800	1438.900	805.900	1608.800
GR	805.900	1660.300	801.900	1662.700	800.400	1667.700	801.900	1672.700	807.800	1678.900
GR	812.700	1864.700	822.500	2042.200	817.000	2251.100	816.200	2435.300	821.700	2605.700
GR	824.800	2734.100	829.000	2802.700	.000	.000	.000	.000	.000	.000
NC	.100	.100	.045	.100	.300	.000	.000	.000	.000	.000
NH	3.000	.080	2039.700	.045	2046.700	.075	3550.900	.000	.000	000

CROSS SECTION AC

X1	12.870	20.000	2039.700	2046.700	1650.000	1600.000	1600.000	.000	.000	.000
GR	830.800	.000	828.500	513.900	827.600	685.000	815.500	857.800	812.300	1050.500
GR	810.300	1230.600	810.500	1467.800	811.900	1659.400	810.000	1887.200	802.800	2039.700
GR	801.800	2042.700	802.800	2046.700	808.400	2162.300	810.300	2365.400	816.000	2558.100
GR	823.000	2791.100	821.300	3045.000	821.800	3293.200	825.600	3471.200	828.000	3550.900
NH	3.000	.090	2274.900	.045	2284.900	.075	3773.100	.000	.000	.000

CROSS SECTION AD

X1	14.060	20.000	2274.900	2284.900	1300.000	1250.000	1190.000	.000	.000	.000
GR	810.000	.000	811.700	817.000	811.900	957.600	812.000	1114.100	813.200	1303.100
GR	810.800	1510.000	810.900	1689.000	811.000	1872.800	811.000	2090.100	805.400	2274.900
GR	804.500	2279.900	805.400	2284.900	809.100	2405.100	809.200	2573.400	809.300	2763.800
GR	809.300	2932.200	816.000	3115.500	822.300	3340.600	820.000	3584.100	818.800	3773.100
ET	.000	7.100	9.100	.000	.000	.000	850.000	.000	1140.000	1610.000
NH	5.000	.080	929.500	.120	1520.600	.045	1527.600	.120	2040.000	.100
NH	2331.100	.000	.000	.000	.000	.000	.000	.000	.000	.000

CROSS SECTION AE

X1	16.060	23.000	1520.600	1527.600	2400.000	1500.000	2000.000	.000	.000	.000
GR	819.900	.000	811.500	78.800	812.800	209.500	810.100	379.400	810.200	505.400
GR	809.900	728.900	809.900	876.500	811.900	929.500	809.800	1070.500	809.900	1235.500
GR	809.900	1331.800	809.900	1422.600	812.800	1490.000	806.500	1520.600	805.200	1523.600
GR	806.500	1527.600	810.600	1597.600	812.900	1733.200	814.500	1904.100	814.400	2040.000
GR	815.800	2134.600	817.400	2265.600	818.000	2331.100	.000	.000	.000	.000
EJ	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

100 YR

SECNO	DEPTH	QWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	HACH	AROE	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNP	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 3

CCHV= .100 CEHV= .300
1490 NH CARD USED
*SECNO .060
CROSS SECTION J1

.06	3.90	757.90	.00	760.00	758.27	.37	.00	.00	755.00
980.	164.	672.	144.	114.	116.	106.	0.	0.	755.00
.00	1.44	5.78	1.36	.091	.052	.091	.000	754.00	797.89
.006990	0.	0.	0.	0	0	4	.00	250.27	1048.16

1490 NH CARD USED
*SECNO .530

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 450.0 930.0 TYPE= 1 TARGET= 480.000
CROSS SECTION K

.53	2.85	763.55	763.48	.00	763.92	.37	5.65	.00	761.30
980.	337.	283.	360.	123.	34.	191.	4.	3.	761.30
.03	2.75	8.26	1.99	.078	.052	.156	.050	760.70	450.00
.023143	500.	470.	500.	17	14	0	.00	277.18	930.00

1490 NH CARD USED
*SECNO .930
CROSS SECTION K1

.93	4.33	768.03	.00	.00	768.16	.13	4.22	.02	764.30
980.	56.	274.	650.	28.	52.	549.	9.	6.	764.30
.09	2.00	5.14	1.18	.078	.052	.156	.051	763.70	159.67
.004968	600.	450.	400.	4	0	0	.00	275.36	435.03

1490 NH CARD USED
*SECNO 1.730

3301 HV CHANGED MORE THAN HVINS

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	HACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTH	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
CROSS SECTION K2

1.73	4.54	771.14	771.14	.00	772.33	1.20	2.96	.32	767.80
980.	64.	664.	252.	33.	63.	119.	11.	7.	767.80
.10	1.92	10.57	2.12	.156	.052	.143	.055	766.60	90.15
.021026	350.	430.	220.	5	8	0	.00	106.33	196.47

1490 NH CARD USED
*SECNO 2.060

3470 ENCROACHMENT STATIONS= 375.0 450.0 TYPE= 1 TARGET= 75.000
CROSS SECTION L

2.06	6.50	775.30	.00	.00	776.16	.86	3.79	.03	770.00
980.	135.	770.	75.	99.	92.	42.	13.	8.	770.00
.11	1.36	8.34	1.80	.156	.052	.143	.055	768.80	375.00
.007839	300.	330.	250.	3	0	0	.00	75.00	450.00

CCHV= .300 CEHV= .600
*SECNO 2.110
3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 800.50 ELREA= 800.50
CROSS SECTION IMMEDIATELY DOWNSTREAM OF N.Y.C. RAILROAD BRIDGE

2.11	7.61	776.31	.00	.00	776.63	.32	.32	.16	797.00
980.	0.	980.	0.	0.	215.	0.	12.	8.	797.00
.11	.00	4.57	.00	.104	.065	.104	.055	768.70	651.33
.005012	60.	50.	60.	2	0	0	.00	40.70	692.02

*SECNO 2.111
3265 DIVIDED FLOW

SECNO	DEPTH	QWSEL	QRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	HACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 802.60 MAX ELLC= 800.50

CROSS SECTION AT DOWNSTREAM FACE OF ABANDONED N.Y.C. RAILROAD BRIDGE

DIVIDED FLOW DUE TO BRIDGE PIERS

2.11	7.60	776.30	.00	.00	776.68	.38	.01	.03	856.30
980.	0.	0.	980.	0.	0.	198.	13.	8.	856.30
.11	.00	.00	4.95	.104	.065	.104	.055	768.70	651.33
.029851	1.	1.	1.	1	0	0	.00	38.51	692.84

*SECNO 2.121

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 802.60 MAX ELLC= 800.50

CROSS SECTION AT UPSTREAM FACE OF ABANDONED N.Y.C. RAILROAD BRIDGE

DIVIDED FLOW DUE TO BRIDGE PIERS

2.12	7.93	776.63	.00	.00	776.97	.34	.28	.01	806.30
980.	0.	0.	980.	0.	0.	211.	13.	8.	806.30
.12	.00	.00	4.65	.104	.065	.104	.055	768.70	651.06
.025731	10.	10.	10.	2	0	0	.00	39.40	693.46

*SECNO 2.122

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA= 802.60 ELPEA= 802.60

CROSS SECTION IMMEDIATELY UPSTREAM OF N.Y.C. RAILROAD BRIDGE

2.12	8.01	776.71	.00	.00	776.99	.28	.01	.02	797.00
980.	0.	980.	0.	0.	231.	0.	13.	8.	797.00
.12	.00	4.24	.00	.104	.065	.104	.055	768.70	650.99
.004089	1.	1.	1.	2	0	0	.00	42.04	693.03

SECNO	DEPTH	QWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	HACH	AROB	VCL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1490 NH CARD USED
*SECNO 2.170

3301 HV CHANGED MORE THAN HVINS

CROSS SECTION M

2.17	7.22	776.72	.00	.00	777.81	1.09	.33	.49	770.60
980.	114.	757.	109.	49.	80.	43.	13.	8.	770.60
.12	2.32	9.45	2.52	.156	.058	.124	.056	769.50	33.45
.011062	70.	50.	70.	3	0	0	.00	40.99	74.41

CCHV= .100 CEHV= .300
1490 NH CARD USED
*SECNO 2.820

CROSS SECTION MM

2.82	7.12	783.12	.00	.00	783.79	.67	5.93	.04	776.50
980.	161.	601.	218.	78.	73.	116.	16.	9.	776.50
.15	2.05	8.21	1.88	.156	.058	.156	.057	776.00	40.62
.007924	650.	650.	580.	4	0	0	.00	69.96	110.65

1490 NH CARD USED
*SECNO 3.630

CROSS SECTION N

3.63	6.55	788.05	.00	.00	788.36	.31	4.54	.04	781.90
980.	177.	534.	269.	127.	90.	219.	22.	10.	781.90
.20	1.39	5.96	1.23	.156	.058	.156	.058	781.50	358.85
.004603	780.	810.	650.	3	0	0	.00	169.40	528.25

CCHV= .450 CEHV= .500
*SECNO 3.680

CROSS SECTION AT DOWNSTREAM FACE OF BRIDGE OVER LOCAL ROAD

3.68	6.76	788.06	.00	.00	788.77	.71	.21	.20	784.20
980.	31.	875.	74.	23.	123.	58.	23.	11.	784.20
.21	1.34	7.13	1.27	.130	.035	.130	.057	781.30	426.23
.003526	60.	50.	60.	2	0	0	.00	55.01	481.23

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	HACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTU	ELMIN	SST#
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDCT

SPECIAL BRIDGE

5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	2.04	2.60	.00	17.00	2.00	103.60	.00	781.30	781.30

*SECNO 3.710
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
790.90	789.13	.36	209.	767.	104.	102.	788.10	788.30

CROSS SECTION AT UPSTREAM FACE OF BRIDGE OVER LOCAL ROAD

3.71	8.10	789.40	.00	.00	789.80	.40	1.03	.00	784.20
980.	53.	827.	100.	90.	151.	104.	23.	11.	784.20
.21	.58	5.48	.96	.130	.035	.130	.057	781.30	289.14
.001580	30.	30.	30.	2	0	2	.00	237.48	526.63

1490 NH CARD USED
*SECNO 3.760

3470 ENCROACHMENT STATIONS= 455.0 570.0 TYPE= 1 TARGET= 115.000
CROSS SECTION D

3.76	8.20	789.80	.00	.00	790.01	.21	.13	.08	782.40
980.	223.	456.	302.	183.	68.	183.	23.	11.	782.40
.21	1.22	5.18	1.65	.156	.065	.129	.057	781.60	455.00
.003318	70.	50.	70.	2	0	0	.00	115.00	570.00

CCHV= .100 CEHV= .300
1490 NH CARD USED
*SECNO 4.220

3470 ENCROACHMENT STATIONS= 262.3 327.3 TYPE= 1 TARGET= 65.000
CROSS SECTION P

4.22	7.88	791.48	.00	.00	791.84	.37	1.79	.05	784.60
980.	110.	609.	261.	67.	102.	125.	27.	12.	784.60
.24	1.64	5.97	2.09	.111	.065	.130	.057	783.60	262.30
.004729	450.	460.	450.	2	0	0	.00	65.00	327.30

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	HACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= .400 CEHV= .650
*SECNO 4.270

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 794.50 ELREA= 794.50

CROSS SECTION AT DOWNSTREAM FACE OF WATER WORKS ROAD BRIDGE

4.27	6.65	791.65	.00	.00	792.12	.47	.21	.07	787.00
980.	0.	980.	0.	0.	178.	0.	28.	12.	787.50
.24	.00	5.51	.00	.104	.042	.104	.057	785.00	274.00
.003505	60.	50.	60.	2	0	0	00	32.00	306.00

SPECIAL BRIDGE

5070,VARIABLE ELCHU OR ELCHD ON CAPD SB NOT SPECIFIED

SB XK	XKOR	COPO	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
1.25	2.26	2.80	.00	26.80	4.00	159.60	.00	785.00	785.00

*SECNO 4.310
PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
792.97	792.33	.25	0.	980.	160.	160.	792.00	794.50

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 794.50 ELREA= 794.50

CROSS SECTION AT UPSTREAM FACE OF WATER WORKS ROAD BRIDGE

4.31	7.63	792.63	.00	.00	792.97	.34	.85	.00	787.00
980.	0.	980.	0.	0.	209.	0.	28.	12.	787.50
.25	.00	4.68	.00	.104	.042	.104	.057	785.00	274.00
.002035	45.	45.	45.	2	0	0	.00	32.00	306.00

1490 NH CARD USED
*SECNO 4.360

3470 ENCROACHMENT STATIONS= 260.7 392.7 TYPE= 1 TARGET= 132.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	HACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTH	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
CROSS SECTION Q									
4.36	8.99	793.09	.00	.00	793.16	.07	.08	.11	785.00
980.	296.	386.	297.	265.	122.	284.	28.	12.	785.00
.25	1.12	3.17	1.05	.117	.065	.130	.056	784.10	260.70
.001094	70.	50.	70.	2	0	0	.00	132.00	392.70
CCHV= .100 CEHV= .300									
1490 NH CARD USED									
*SECNO 5.380									
CROSS SECTION R									
5.38	7.61	794.41	.00	.00	794.49	.08	1.32	.00	787.90
980.	39.	321.	620.	49.	87.	653.	43.	16.	787.90
.39	.80	3.69	.95	.130	.065	.156	.058	786.80	209.11
.001976	900.	1020.	850.	2	0	0	.00	251.04	460.15
1490 NH CARD USED									
*SECNO 5.730									
CROSS SECTION R1 .49									
5.73	6.72	795.42	.00	.00	795.63	.21	1.11	.04	789.80
980.	168.	417.	394.	104.	76.	309.	49.	18.	789.80
.43	1.62	5.46	1.28	.130	.065	.156	.058	788.70	265.76
.005140	270.	350.	400.	2	0	0	.00	199.09	464.85
1490 NH CARD USED									
*SECNO 6.180									
3470 ENCROACHMENT STATIONS= 403.0 445.0 TYPE= 1 TARGET= 42.000									
CROSS SECTION S .80									
650 6.18	6.23	797.33	.00	.00	797.44	.11	1.80	.01	791.30
325.	112.	141.	73.	92.	37.	60.	53.	19.	791.30
.48	1.21	3.82	1.20	.143	.058	.110	.058	791.10	403.00
.002025	430.	450.	500.	2	0	0	.00	42.00	445.00
CCHV= .400 CEHV= .500									

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	HACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 6.230

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 798.30 ELREA= 798.30

CROSS SECTION IMMEDIATELY DOWNSTREAM OF ANN ARBOR-SALINE ROAD BRIDGE

SKEW FACTOR OF 0.8910 APPLIED FOR BRIDGE SKEWED 27 DEGREES

6.23	6.31	797.31	.00	.00	797.64	.33	.09	.11	791.90
325.	0.	325.	0.	0.	70.	0.	53.	19.	792.80
.48	.00	4.62	.00	.104	.039	.104	.057	791.00	1395.31
.001516	60.	50.	60.	2	0	0	.00	12.47	1407.78

*SECNO 6.231

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 800.00 MAX ELLC= 798.30

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 798.30 ELREA= 798.30

CROSS SECTION AT DOWNSTREAM FACE OF ANN ARBOR - SALINE ROAD BRIDGE

SKEW FACTOR OF 0.8910 APPLIED FOR BRIDGE SKEWED 27 DEGREES

6.23	6.31	797.31	.00	.00	797.65	.33	.00	.00	791.90
325.	0.	325.	0.	0.	70.	0.	53.	19.	792.80
.48	.00	4.62	.00	.104	.039	.104	.057	791.00	1395.31
.001515	1.	1.	1.	0	0	0	.00	12.47	1407.78

*SECNO 6.269

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 800.00 MAX ELLC= 798.30

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 798.30 ELREA= 798.30

CROSS SECTION AT UPSTREAM FACE OF ANN ARBOR - SALINE ROAD BRIDGE

SKEW FACTOR OF 0.8910 APPLIED FOR BRIDGE SKEWED 27 DEGREES

6.27	6.38	797.38	.00	.00	797.70	.32	.06	.00	791.90
325.	0.	325.	0.	0.	71.	0.	53.	19.	792.80
.49	.00	4.57	.00	.104	.039	.104	.057	791.00	1395.31
.001464	38.	38.	38.	0	0	0	.00	12.47	1407.78

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	HACH	AROB	VOL	TW#	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 6.270

3370 NORMAL BRIDGE,NRD= 22 MIN ELTRD= 799.60 MAX ELLC= 812.10

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 800.00 ELREA= 800.00

CROSS SECTION IMMEDIATELY UPSTREAM OF ANN ARBOR-SALINE ROAD BRIDGE.

SKEW FACTOR OF 0.8910 APPLIED FOR BRIDGE SKEWED 27 DEGREES

6.27	6.38	797.38	.00	.00	797.71	.32	.00	.00	791.90
325.	0.	325.	0.	0.	71.	0.	53.	19.	792.80
.49	.00	4.57	.00	.104	.039	.104	.057	791.00	1395.31
.001456	1.	1.	1.	0	0	0	.00	12.42	1407.78

1490 NH CARD USED
*SECNO 6.320

3470 ENCROACHMENT STATIONS= 1512.0 1632.0 TYPE= 1 TARGET= 120.000

CROSS SECTION I 600.04

650

6.32	6.71	797.81	.00	.00	797.88	.07	.07	.10	791.50
325.	107.	141.	78.	123.	46.	69.	53.	19.	791.50
.49	.87	3.09	1.13	.104	.058	.091	.057	791.10	1512.00
.001226	70.	50.	70.	2	0	0	.00	110.26	1622.26

CCHV= .100 CEHV= .300
1490 NH CARD USED
*SECNO 7.340

CROSS SECTION U 800.9

7.34	6.29	798.99	.00	.00	799.02	.04	1.14	.00	793.20
325.	157.	108.	60.	222.	42.	105.	61.	23.	793.20
.72	.71	2.55	.57	.130	.058	.130	.057	792.70	626.63
.000933	1100.	1020.	1100.	2	0	0	.00	143.75	770.38

1490 NH CARD USED
*SECNO 8.500

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	AACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTH
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CROSS SECTION Y

8.50	4.96	800.46	.00	.00	800.50	.04	1.48	.00	796.00
325.	19.	89.	217.	29.	33.	312.	71.	27.	796.00
.99	.66	2.70	.69	.156	.065	.156	.052	795.50	632.48
.001786	1150.	1160.	1200.	2	0	0	.00	159.91	792.40

1490 NH CARD USED
*SECNO 9.370

CROSS SECTION W

9.37	4.19	802.19	.00	.00	802.26	.06	1.75	.01	798.40
325.	95.	158.	72.	132.	56.	100.	77.	30.	798.40
1.12	.72	2.83	.72	.156	.065	.156	.057	798.00	560.64
.002429	900.	870.	800	2	0	0	.00	136.50	697.14

1490 NH CARD USED
*SECNO 10.100

CROSS SECTION X

10.10	4.54	803.64	.00	.00	803.68	.03	1.42	.00	799.60
325.	130.	82.	112.	125.	34.	177.	82.	32.	799.60
1.28	1.04	2.40	.63	.091	.065	.155	.057	799.10	987.32
.001590	750.	730.	700.	1	0	0	.00	177.59	1164.91

1490 NH CARD USED
*SECNO 11.130

3470 ENCROACHMENT STATIONS= 1637.6 1687.6 TYPE= 1 TARGET= 50.000

CROSS SECTION AA

11.13	5.53	806.03	.00	.00	806.19	.16	2.48	.04	801.40
325.	172.	116.	36.	81.	25.	23.	88.	35.	801.40
1.38	2.12	4.57	1.59	.097	.058	.098	.057	800.50	1637.60
.004037	950.	1030.	1200.	2	0	0	.00	37.41	1675.01

CCHV= .300 CEHV= .500
*SECNO 11.180

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	HACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 808.70 ELREA= 808.70

CROSS SECTION AT DOWNSTREAM FACE OF MAPLE ROAD BRIDGE

650	11.18	5.24	806.14	.00	.00	806.46	.32	.19	.08	809.90
	325.	0.	325.	0.	0.	72.	0.	88.	35.	809.90
	1.38	.00	4.52	.00	.104	.039	.104	.057	800.90	1525.00
	.003220	60.	50.	60.	2	0	0	.00	15.00	1540.00

SPECIAL BRIDGE

5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	.00	1.97	2.80	.00	13.27	.00	110.25	.11	800.90	800.90

*SECNO 11.220

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS= .000 EGLWC= 806.461 ELLC= 808.700 PCWSE= 806.144 ELTRD= 809.900

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 809.90 MAX ELLC= 808.70

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 809.90 ELREA= 809.90

CROSS SECTION AT UPSTREAM FACE OF MAPLE ROAD BRIDGE

	11.22	5.37	806.27	.00	.00	806.57	.30	.11	.00	809.90
	325.	0.	325.	0.	0.	74.	0.	88.	35.	809.90
	1.39	.00	4.40	.00	.104	.039	.104	.057	800.90	1525.00
	.002988	35.	35.	35.	2	0	0	.00	15.00	1540.00

1490 NH CARD USED
*SECNO 11.270

3470 ENCROACHMENT STATIONS= 1610.2 1725.2 TYPE= 1 TARGET= 115.000
CROSS SECTION AB

	11.27	6.03	806.43	.00	.00	806.32	.39	.20	.04	801.90
	325.	27.	282.	16.	32.	53.	11.	88.	35.	801.90
	1.39	.82	5.35	1.51	.097	.058	.097	.057	800.40	1610.20
	.005108	70.	50.	70.	2	0	0	.00	67.26	1677.46

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	HACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNP	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= .100 CEHV= .300
1490 NH CARD USED
*SECNO 12.870
CROSS SECTION AC

12.87	6.25	808.05	.00	.00	808.05	.01	1.20	.04	809.80
325.	133.	54.	138.	290.	40.	284.	101.	40.	802.80
2.12	.46	1.34	.49	.104	.058	.097	.057	801.89	1929.02
.000284	1650.	1600.	1600.	5	0	0	.00	225.91	2154.93

1490 NH CARD USED
*SECNO 14.060
CROSS SECTION AD

14.06	4.19	808.69	.00	.00	808.71	.02	.56	.00	805.40
650 325.	112.	80.	132.	179.	32.	175.	116.	47.	805.40
2.45	.63	2.15	.75	.117	.058	.097	.057	804.50	2166.35
.001261	1300.	1190.	1250.	3	0	0	.00	225.41	2391.76

1490 NH CARD USED
*SECNO 16.060

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 850.0 2331.1 TYPE= 1 TARGET= -850.000
CROSS SECTION AE

16.06	5.70	810.90	.00	810.34	810.92	.02	2.21	.00	806.50
650 325.	159.	79.	87.	501.	35.	168.	142.	68.	806.50
3.11	.32	2.24	.52	.151	.058	.156	.057	805.20	850.00
.000977	2400.	2000.	1500.	4	0	0	.00	618.99	1615.53

See
Main relocation
Support data
(in packet #2)

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  HEC2 RELEASE DATED NOV 76 UPDATED APRIL 1980
  ERROR CORR -  01,02,03,04
  MODIFICATION -  50,51,52,53,54
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

WOOD OUTLET DRAIN

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	.060	.00	.00	.00	754.00	480.00	756.96	.00	757.27	69.83	4.79	148.92	57.44
	.060	.00	.00	.00	754.00	850.00	757.72	.00	758.07	68.95	5.56	290.69	102.36
	.060	.00	.00	.00	754.00	980.00	757.99	.00	758.27	69.19	5.78	336.02	117.22
	.060	.00	.00	.00	754.00	1250.00	758.26	.00	758.64	69.43	6.12	433.02	150.02
*	.530	470.00	.00	.00	760.70	480.00	763.03	763.03	763.36	228.09	7.06	199.38	31.78
	.530	470.00	.00	.00	760.70	850.00	763.41	763.34	763.79	246.17	8.20	298.24	54.18
	.530	470.00	.00	.00	760.70	980.00	763.55	763.48	763.92	231.43	8.26	337.57	64.42
	.530	470.00	.00	.00	760.70	1250.00	763.80	763.66	764.17	218.94	8.53	408.61	84.48
	.930	450.00	.00	.00	763.70	480.00	767.00	.00	767.09	42.88	3.95	379.96	73.30
	.930	450.00	.00	.00	763.70	850.00	767.82	.00	767.94	41.16	4.84	575.74	123.78
	.930	450.00	.00	.00	763.70	980.00	768.03	.00	768.16	49.68	5.14	630.37	139.04
	.930	450.00	.00	.00	763.70	1250.00	768.38	.00	768.53	52.49	5.59	729.65	172.52
*	1.730	430.00	.00	.00	766.60	480.00	769.91	769.91	770.84	221.71	8.62	105.70	32.24
*	1.730	430.00	.00	.00	766.60	850.00	770.87	770.87	771.81	211.71	10.14	187.55	58.42
*	1.730	430.00	.00	.00	766.60	980.00	771.14	771.14	772.13	210.26	10.57	215.13	67.58
*	1.730	430.00	.00	.00	766.60	1250.00	771.61	771.61	772.93	212.94	11.42	268.17	85.66
	2.060	330.00	.00	.00	768.80	480.00	773.79	.00	774.35	63.52	6.23	121.16	60.22
	2.060	330.00	.00	.00	768.80	850.00	774.97	.00	775.79	74.99	7.86	208.62	98.15
	2.060	330.00	.00	.00	768.80	980.00	775.30	.00	776.16	78.39	8.34	253.22	119.68
	2.060	330.00	.00	.00	768.80	1250.00	775.92	.00	776.92	84.34	9.22	279.42	136.11
	2.110	50.00	.00	.00	768.70	480.00	774.52	.00	774.68	35.20	3.28	146.41	80.90
	2.110	50.00	.00	.00	768.70	850.00	775.92	.00	776.20	46.36	4.28	198.80	124.82
	2.110	50.00	.00	.00	768.70	980.00	776.31	.00	776.64	50.14	4.57	214.52	138.42
	2.110	50.00	.00	.00	768.70	1250.00	777.04	.00	777.45	56.63	5.09	245.43	166.11
	2.111	1.00	802.60	800.50	768.70	480.00	774.51	.00	774.71	187.72	.00	133.38	35.83
	2.111	1.00	802.60	800.50	768.70	850.00	775.90	.00	776.24	270.98	.00	183.06	51.64
	2.111	1.00	802.60	800.50	768.70	980.00	776.30	.00	776.68	298.51	.00	197.93	56.72
	2.111	1.00	802.60	800.50	768.70	1250.00	777.03	.00	777.50	352.00	.00	226.48	66.63

SECNO	XLOC	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10KHS	VCH	AREA	.01K
2.121	10.00	802.60	800.50	768.70	480.00	774.71	.00	774.99	166.48	.00	139.97	37.20
2.121	10.00	802.60	800.50	768.70	850.00	776.21	.00	776.50	235.25	.00	194.10	55.41
2.121	10.00	802.60	800.50	768.70	980.00	776.63	.00	776.97	257.31	.00	210.60	61.09
2.121	10.00	802.60	800.50	768.70	1250.00	777.43	.00	777.84	297.42	.00	243.11	72.48
2.122	1.00	.00	.00	768.70	480.00	774.76	.00	774.91	29.74	3.09	155.19	88.02
2.122	1.00	.00	.00	768.70	850.00	776.28	.00	776.53	38.88	3.98	213.33	137.39
2.122	1.00	.00	.00	768.70	980.00	776.71	.00	776.99	40.89	4.24	231.25	153.25
2.122	1.00	.00	.00	768.70	1250.00	777.53	.00	777.87	45.19	4.68	266.81	185.95
2.170	50.00	.00	.00	769.50	480.00	774.81	.00	775.46	94.21	7.03	102.45	49.45
2.170	50.00	.00	.00	769.50	850.00	776.30	.00	777.20	106.16	8.89	156.01	82.50
2.170	50.00	.00	.00	769.50	980.00	776.74	.00	777.81	110.64	9.45	179.48	93.18
2.170	50.00	.00	.00	769.50	1250.00	777.59	.00	778.78	113.83	10.32	209.97	117.16
2.820	650.00	.00	.00	776.00	480.00	780.93	.00	781.47	92.66	6.90	137.67	49.87
2.820	650.00	.00	.00	776.00	850.00	782.62	.00	783.27	83.46	7.97	234.56	93.60
2.820	650.00	.00	.00	776.00	980.00	783.12	.00	783.77	79.24	8.41	267.47	110.09
2.820	650.00	.00	.00	776.00	1250.00	783.98	.00	784.60	75.67	8.67	339.36	143.70
3.630	810.00	.00	.00	781.50	480.00	786.35	.00	786.62	49.02	5.01	208.63	68.56
3.630	810.00	.00	.00	781.50	850.00	787.68	.00	787.96	47.03	5.79	376.28	123.94
3.630	810.00	.00	.00	781.50	980.00	788.06	.00	788.36	46.03	5.96	436.13	144.45
3.630	810.00	.00	.00	781.50	1250.00	788.72	.00	789.04	44.36	6.24	558.91	187.68
3.680	50.00	.00	.00	781.30	480.00	786.49	.00	786.85	26.56	5.02	125.67	93.13
3.680	50.00	.00	.00	781.30	850.00	787.74	.00	788.35	24.14	6.61	186.54	148.55
3.680	50.00	.00	.00	781.30	980.00	788.06	.00	788.75	35.26	7.13	204.11	165.05
3.680	50.00	.00	.00	781.30	1250.00	788.65	.00	789.55	40.22	8.12	237.74	197.10
3.710	30.00	788.30	788.10	781.30	480.00	786.64	.00	786.97	23.45	4.83	132.41	99.12
3.710	30.00	788.30	788.10	781.30	850.00	788.98	.00	789.35	15.45	5.20	260.93	216.27
3.710	30.00	788.30	788.10	781.30	980.00	789.40	.00	789.80	15.80	5.48	345.07	286.54
3.710	30.00	788.30	788.10	781.30	1250.00	790.21	.00	790.60	14.72	5.68	566.87	325.82
3.760	50.00	.00	.00	781.60	480.00	786.75	.00	787.32	109.73	6.81	127.48	46.03
3.760	50.00	.00	.00	781.60	850.00	789.33	.00	789.54	35.05	5.11	400.15	143.57
3.760	50.00	.00	.00	781.60	980.00	789.80	.00	790.01	33.18	5.18	454.15	170.13
3.760	50.00	.00	.00	781.60	1250.00	790.57	.00	790.79	32.76	5.47	543.08	218.40
4.220	460.00	.00	.00	783.60	480.00	789.77	.00	790.00	35.76	4.38	183.60	80.27
4.220	460.00	.00	.00	783.60	850.00	791.06	.00	791.40	45.79	5.66	266.71	125.61
4.220	460.00	.00	.00	783.60	980.00	791.48	.00	791.84	47.29	5.97	293.88	142.51
4.220	460.00	.00	.00	783.60	1250.00	792.25	.00	792.68	50.31	6.57	344.30	176.24
4.270	50.00	.00	.00	785.00	480.00	789.93	.00	790.17	22.82	3.91	122.88	89.41
4.270	50.00	.00	.00	785.00	850.00	791.24	.00	791.65	34.13	5.16	164.57	145.58
4.270	50.00	.00	.00	785.00	980.00	791.65	.00	792.10	35.05	5.51	177.81	165.53
4.270	50.00	.00	.00	785.00	1250.00	792.42	.00	793.01	37.05	6.18	202.37	205.37

SECNO	XLCH	ELTRO	ELLC	ELMIN	Q	CWSEL	CRIMS	EG	10K*S	VCH	AREA	.01K
4.310	45.00	794.50	792.00	785.00	480.00	790.04	.00	790.26	26.35	3.80	126.23	93.52
4.310	45.00	794.50	792.00	785.00	850.00	791.45	.00	791.69	39.80	4.96	171.40	155.70
4.310	45.00	794.50	792.00	785.00	980.00	792.63	.00	792.87	50.38	4.68	209.30	211.23
4.310	45.00	794.50	792.00	785.00	1250.00	794.17	.00	794.54	16.37	4.83	258.54	308.90
4.360	50.00	.00	.00	784.10	480.00	790.33	.00	790.44	20.63	3.38	306.84	105.67
4.360	50.00	.00	.00	784.10	850.00	791.97	.00	792.07	16.69	4.56	523.55	208.52
4.360	50.00	.00	.00	784.10	980.00	793.08	.00	793.17	10.94	5.17	671.60	296.32
4.360	50.00	.00	.00	784.10	1250.00	794.66	.00	794.74	8.11	3.05	878.24	439.07
5.380	1020.00	.00	.00	786.80	480.00	792.59	.00	792.68	27.65	3.60	382.10	91.28
5.380	1020.00	.00	.00	786.80	850.00	793.82	.00	793.92	24.45	4.88	646.76	171.90
5.380	1020.00	.00	.00	786.80	980.00	794.41	.00	794.50	19.77	5.37	788.86	220.49
5.380	1020.00	.00	.00	786.80	1250.00	795.60	.00	795.66	13.47	3.37	1109.87	340.57
5.730	350.00	.00	.00	788.70	480.00	793.89	.00	794.09	54.72	4.69	236.66	64.89
5.730	350.00	.00	.00	788.70	850.00	795.02	.00	795.18	55.17	5.41	414.08	114.43
5.730	350.00	.00	.00	788.70	980.00	795.43	.00	795.60	51.40	5.46	489.60	136.69
5.730	350.00	.00	.00	788.70	1250.00	796.31	.00	796.48	39.08	5.19	683.99	199.95
6.180	450.00	.00	.00	791.10	195.00	795.86	.00	795.95	22.46	3.35	127.70	41.15
6.180	450.00	.00	.00	791.10	285.00	797.00	.00	797.10	19.36	4.60	175.92	64.77
6.180	450.00	.00	.00	791.10	325.00	797.33	.00	797.44	20.25	5.02	199.62	72.21
6.180	450.00	.00	.00	791.10	420.00	797.91	.00	798.06	23.75	4.40	214.06	86.19
6.230	50.00	.00	.00	791.00	195.00	795.89	.00	796.10	14.41	3.71	52.56	51.38
6.230	50.00	.00	.00	791.00	285.00	797.00	.00	797.20	14.12	4.29	66.40	75.84
6.230	50.00	.00	.00	791.00	325.00	797.31	.00	797.52	15.16	4.62	70.32	83.46
6.230	50.00	.00	.00	791.00	420.00	797.86	.00	798.32	18.54	5.44	77.22	97.54
6.231	1.00	800.00	798.30	791.00	195.00	795.89	.00	796.10	14.39	3.71	52.58	51.41
6.231	1.00	800.00	798.30	791.00	285.00	797.00	.00	797.20	14.11	4.29	66.42	75.88
6.231	1.00	800.00	798.30	791.00	325.00	797.31	.00	797.52	15.15	4.62	70.34	83.50
6.231	1.00	800.00	798.30	791.00	420.00	797.87	.00	798.33	18.52	5.44	77.24	97.59
6.269	38.00	800.00	798.30	791.00	195.00	795.95	.00	796.16	13.78	3.66	53.26	52.53
6.269	38.00	800.00	798.30	791.00	285.00	797.06	.00	797.26	13.64	4.25	67.08	77.15
6.269	38.00	800.00	798.30	791.00	325.00	797.38	.00	797.58	14.64	4.57	71.06	84.93
6.269	38.00	800.00	798.30	791.00	420.00	797.95	.00	798.40	12.78	5.37	78.20	99.62
6.270	1.00	799.60	812.10	791.00	195.00	795.95	.00	796.16	13.70	3.65	53.36	52.69
6.270	1.00	799.60	812.10	791.00	285.00	797.06	.00	797.26	13.55	4.24	67.19	77.36
6.270	1.00	799.60	812.10	791.00	325.00	797.38	.00	797.58	14.56	4.57	71.18	85.17
6.270	1.00	799.60	812.10	791.00	420.00	797.96	.00	798.40	12.69	5.36	78.32	99.87
6.320	50.00	.00	.00	791.10	195.00	796.15	.00	796.25	25.53	3.66	97.71	38.59
6.320	50.00	.00	.00	791.10	285.00	797.41	.00	797.51	24.92	3.16	197.57	76.12
6.320	50.00	.00	.00	791.10	325.00	797.81	.00	797.91	22.26	3.09	337.36	99.81
6.320	50.00	.00	.00	791.10	420.00	798.57	.00	798.63	9.93	2.99	328.10	132.31

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIMS	EG	10K*S	VCH	AREA	.01K
7.340	1020.00	.00	.00	792.70	195.00	797.86	.00	797.89	9.96	2.30	227.88	61.78
7.340	1020.00	.00	.00	792.70	285.00	798.60	.00	798.64	9.46	2.48	327.56	92.67
7.340	1020.00	.00	.00	792.70	325.00	798.99	.00	799.03	9.33	2.55	369.85	106.38
7.340	1020.00	.00	.00	792.70	420.00	799.61	.00	799.65	9.13	2.70	466.50	138.98
8.500	1160.00	.00	.00	795.50	195.00	799.49	.00	799.52	20.74	2.49	233.74	42.82
8.500	1160.00	.00	.00	795.50	285.00	800.20	.00	800.23	18.66	2.65	332.34	65.98
8.500	1160.00	.00	.00	795.50	325.00	800.46	.00	800.50	17.86	2.70	374.22	76.91
8.500	1160.00	.00	.00	795.50	420.00	801.01	.00	801.04	15.94	2.74	467.17	105.27
9.370	870.00	.00	.00	798.00	195.00	801.37	.00	801.43	24.28	2.43	187.10	39.57
9.370	870.00	.00	.00	798.00	285.00	801.97	.00	802.03	24.17	2.73	259.49	52.97
9.370	870.00	.00	.00	798.00	325.00	802.19	.00	802.26	24.29	2.83	288.09	65.95
9.370	870.00	.00	.00	798.00	420.00	802.64	.00	802.72	25.02	3.09	352.65	83.96
10.100	730.00	.00	.00	799.10	195.00	802.86	.00	802.89	16.80	2.15	220.12	47.58
10.100	730.00	.00	.00	799.10	285.00	803.43	.00	803.46	16.75	2.34	300.45	70.70
10.100	730.00	.00	.00	799.10	325.00	803.64	.00	803.68	15.90	2.40	336.99	81.51
10.100	730.00	.00	.00	799.10	420.00	804.09	.00	804.12	15.28	2.51	424.96	107.43
11.130	1030.00	.00	.00	800.50	195.00	805.15	.00	805.26	35.78	3.63	97.71	34.06
11.130	1030.00	.00	.00	800.50	285.00	805.80	.00	805.94	37.86	4.29	121.09	46.32
11.130	1030.00	.00	.00	800.50	325.00	806.03	.00	806.19	40.37	4.57	129.79	51.15
11.130	1030.00	.00	.00	800.50	420.00	806.52	.00	806.72	46.09	5.20	148.29	61.87
11.180	50.00	.00	.00	800.90	195.00	805.26	.00	805.43	20.69	3.33	58.59	42.87
11.180	50.00	.00	.00	800.90	285.00	805.91	.00	806.18	28.54	4.17	68.36	53.34
11.180	50.00	.00	.00	800.90	325.00	806.14	.00	806.46	32.20	4.52	71.91	57.27
11.180	50.00	.00	.00	800.90	420.00	806.63	.00	807.07	41.04	5.30	79.25	65.56
11.220	35.00	809.90	808.70	800.90	195.00	805.34	.00	805.50	19.54	3.26	59.78	44.11
11.220	35.00	809.90	808.70	800.90	285.00	806.02	.00	806.28	26.64	4.07	70.06	55.22
11.220	35.00	809.90	808.70	800.90	325.00	806.27	.00	806.57	29.88	4.40	73.86	59.46
11.220	35.00	809.90	808.70	800.90	420.00	806.81	.00	807.22	37.53	5.13	81.86	68.55
11.270	50.00	.00	.00	800.40	195.00	805.42	.00	805.70	43.74	4.30	52.99	29.49
11.270	50.00	.00	.00	800.40	285.00	806.14	.00	806.53	52.03	5.20	76.81	39.51
11.270	50.00	.00	.00	800.40	325.00	806.43	.00	806.82	51.08	5.35	96.01	45.47
11.270	50.00	.00	.00	800.40	420.00	807.10	.00	807.45	44.02	5.38	141.42	63.31
12.870	1600.00	.00	.00	801.80	195.00	806.97	.00	806.98	3.14	1.22	385.89	110.03
12.870	1600.00	.00	.00	801.80	285.00	807.77	.00	807.77	2.86	1.30	552.54	168.38
12.870	1600.00	.00	.00	801.80	325.00	808.05	.00	808.05	2.84	1.34	614.04	192.79
12.870	1600.00	.00	.00	801.80	420.00	808.62	.00	808.63	2.77	1.41	752.36	252.14
14.060	1190.00	.00	.00	804.50	195.00	807.77	.00	807.80	20.65	2.28	212.21	42.92
14.060	1190.00	.00	.00	804.50	285.00	808.44	.00	808.46	14.08	2.17	337.28	75.95
14.060	1190.00	.00	.00	804.50	325.00	808.69	.00	808.71	12.61	2.15	391.67	91.54
14.060	1190.00	.00	.00	804.50	420.00	809.21	.00	809.23	10.26	2.12	526.85	131.09

SECNO	XLOCH	ELTRD	ELLC	ELMIN	θ	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
16.060	2000.00	.00	.00	805.20	195.00	810.34	.00	810.36	8.83	1.97	531.55	65.63
16.060	2000.00	.00	.00	805.20	285.00	810.59	.00	810.60	9.92	1.97	785.56	99.42
16.060	2000.00	.00	.00	805.20	325.00	810.90	.00	810.92	9.77	2.24	704.39	104.00
16.060	2000.00	.00	.00	805.20	420.00	810.91	.00	810.92	6.74	1.86	1142.34	161.75

WOOD OUTLET DRAIN

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWEX	DIFKWS	TOPWID	XLEN
	.060	480.00	756.96	.00	.00	-3.04	143.97	.00
	.060	850.00	757.72	.76	.00	-2.28	229.09	.00
	.060	980.00	757.90	.19	.00	-2.10	250.27	.00
	.060	1250.00	758.26	.36	.00	-1.74	290.46	.00
*	.530	480.00	763.03	.00	6.07	.00	247.00	470.00
	.530	850.00	763.41	.38	5.69	.00	262.64	470.00
	.530	980.00	763.55	.14	5.55	.00	277.19	470.00
	.530	1250.00	763.80	.25	5.54	.00	291.98	470.00
	.930	480.00	767.00	.00	3.98	.00	216.13	450.00
	.930	850.00	767.82	.82	4.41	.00	264.27	450.00
	.930	980.00	768.03	.21	4.48	.00	275.36	450.00
	.930	1250.00	768.38	.35	4.57	.00	281.60	450.00
*	1.730	480.00	769.91	.00	2.91	.00	72.88	430.00
*	1.730	850.00	770.87	.95	3.05	.00	98.97	430.00
*	1.730	980.00	771.14	.27	3.11	.00	106.33	430.00
*	1.730	1250.00	771.61	.47	3.23	.00	119.20	430.00
	2.060	480.00	773.79	.00	3.87	.00	72.75	330.00
	2.060	850.00	774.97	1.18	4.10	.00	75.00	330.00
	2.060	980.00	775.30	.33	4.16	.00	75.00	330.00
	2.060	1250.00	775.92	.62	4.31	.00	75.00	330.00
	2.110	480.00	774.52	.00	.73	.00	35.71	50.00
	2.110	850.00	775.92	1.40	.94	.00	39.39	50.00
	2.110	980.00	776.31	.39	1.01	.00	40.79	50.00
	2.110	1250.00	777.04	.74	1.13	.00	43.15	50.00
	2.111	480.00	774.51	.00	-.01	.00	33.58	1.00
	2.111	850.00	775.90	1.40	-.01	.00	37.43	1.00
	2.111	980.00	776.30	.39	-.01	.00	38.51	1.00
	2.111	1250.00	777.03	.73	-.02	.00	40.49	1.00
	2.121	480.00	774.71	.00	.20	.00	34.12	10.00
	2.121	850.00	776.21	1.50	.30	.00	38.23	10.00
	2.121	980.00	776.63	.43	.33	.00	39.40	10.00
	2.121	1250.00	777.43	.80	.40	.00	41.61	10.00
	2.122	480.00	774.76	.00	.05	.00	36.28	1.00
	2.122	850.00	776.28	1.52	.07	.00	40.60	1.00
	2.122	980.00	776.71	.43	.08	.00	42.04	1.00
	2.122	1250.00	777.53	.82	.10	.00	44.77	1.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	2.170	480.00	774.91	.00	.05	.00	382.66	50.00
	2.170	850.00	776.30	1.49	.02	.00	389.05	50.00
	2.170	980.00	776.72	.42	.01	.00	390.99	50.00
	2.170	1250.00	777.53	.81	1.01	.00	51.65	50.00
	2.820	480.00	780.93	.00	6.12	.00	50.05	650.00
	2.820	850.00	782.62	1.69	.32	.00	63.38	650.00
	2.820	980.00	783.12	.50	6.40	.00	69.96	650.00
	2.820	1250.00	784.09	.96	6.46	.00	98.04	650.00
	3.630	480.00	786.35	.00	4.42	.00	99.13	810.00
	3.630	850.00	787.68	1.33	.96	.00	150.77	810.00
	3.630	980.00	788.05	.37	4.93	.00	169.40	810.00
	3.630	1250.00	788.72	.67	4.74	.00	197.59	810.00
	3.680	480.00	786.49	.00	.14	.00	44.53	50.00
	3.680	850.00	787.74	1.25	.05	.00	52.84	550.00
	3.680	980.00	788.06	.33	.07	.00	55.01	550.00
	3.680	1250.00	788.65	.59	1.07	.00	58.93	550.00
	3.710	480.00	786.64	.00	.15	.00	45.53	330.00
	3.710	850.00	788.98	2.35	1.25	.00	99.63	330.00
	3.710	980.00	789.40	.42	1.34	.00	237.48	330.00
*	3.710	1250.00	790.21	.81	1.56	.00	293.86	330.00
	3.760	480.00	786.75	.00	.12	.00	60.31	50.00
	3.760	850.00	789.33	2.57	.34	.00	115.00	550.00
	3.760	980.00	789.80	.47	.39	.00	115.00	550.00
	3.760	1250.00	790.57	.77	.36	.00	115.00	550.00
	4.220	480.00	789.77	.00	3.02	.00	65.00	460.00
	4.220	850.00	791.06	1.29	1.73	.00	65.00	460.00
	4.220	980.00	791.48	.42	1.68	.00	65.00	460.00
	4.220	1250.00	792.25	.77	1.68	.00	65.00	460.00
	4.270	480.00	789.93	.00	.16	.00	32.00	50.00
	4.270	850.00	791.24	1.30	.19	.00	32.00	550.00
	4.270	980.00	791.65	.41	.17	.00	32.00	50.00
	4.270	1250.00	792.42	.77	.17	.00	32.00	50.00
	4.310	480.00	790.04	.00	.19	.00	32.00	45.00
	4.310	850.00	791.45	1.41	.27	.00	32.00	45.00
	4.310	980.00	792.63	1.18	.98	.00	32.00	45.00
	4.310	1250.00	794.17	1.54	1.78	.00	32.00	45.00
	4.360	480.00	790.33	.00	.29	.00	132.00	50.00
	4.360	850.00	791.97	1.64	.52	.00	132.00	550.00
	4.360	980.00	793.09	1.12	.46	.00	132.00	550.00
	4.360	1250.00	794.66	1.57	.48	.00	132.00	50.00

SECNO	Q	CWSEL	DIFWSP	DIFWSW	DIFKWS	TOPWID	XLCH
5.380	480.00	792.58	.00	2.26	.00	194.42	1020.00
5.380	850.00	793.82	1.24	1.86	.00	232.83	1020.00
5.380	980.00	794.41	.59	1.32	.00	251.04	1020.00
5.380	1250.00	795.60	1.19	.94	.00	287.98	1020.00
5.730	480.00	793.89	.00	1.30	.00	129.89	350.00
5.730	850.00	795.02	1.14	1.20	.00	181.21	350.00
5.730	980.00	795.42	.40	1.01	.00	199.09	350.00
5.730	1250.00	796.31	.89	.71	.00	237.88	350.00
6.180	195.00	795.86	.00	1.97	.00	42.00	450.00
6.180	285.00	797.00	1.15	1.98	.00	42.00	450.00
6.180	325.00	797.33	.32	1.91	.00	42.00	450.00
6.180	420.00	797.91	.58	1.60	.00	42.00	450.00
6.230	195.00	795.89	.00	.03	.00	12.47	50.00
6.230	285.00	797.00	1.11	-.01	.00	12.47	50.00
6.230	325.00	797.31	.31	-.02	.00	12.47	50.00
6.230	420.00	797.86	.55	-.05	.00	12.47	50.00
6.231	195.00	795.89	.00	.00	.00	12.47	1.00
6.231	285.00	797.00	1.11	.00	.00	12.47	1.00
6.231	325.00	797.31	.31	.00	.00	12.47	1.00
6.231	420.00	797.87	.55	.00	.00	12.47	1.00
6.269	195.00	795.95	.00	.06	.00	12.47	38.00
6.269	285.00	797.06	1.11	.06	.00	12.47	38.00
6.269	325.00	797.38	.32	.07	.00	12.47	38.00
6.269	420.00	797.95	.57	.08	.00	12.47	38.00
6.270	195.00	795.95	.00	.00	.00	12.47	1.00
6.270	285.00	797.06	1.11	.00	.00	12.47	1.00
6.270	325.00	797.38	.32	.00	.00	12.47	1.00
6.270	420.00	797.96	.57	.00	.00	12.47	1.00
6.320	195.00	796.15	.00	.19	.00	62.21	50.00
6.320	285.00	797.41	1.27	.35	.00	91.00	50.00
6.320	325.00	797.81	.39	.43	.00	110.26	50.00
6.320	420.00	798.57	.76	.61	.00	120.00	50.00
7.340	195.00	797.86	.00	1.71	.00	107.77	1020.00
7.340	285.00	798.68	.82	1.27	.00	134.05	1020.00
7.340	325.00	798.99	.30	1.18	.00	143.75	1020.00
7.340	420.00	799.61	.63	1.04	.00	163.79	1020.00
8.500	195.00	799.49	.00	1.63	.00	126.18	1160.00
8.500	285.00	800.20	.71	1.52	.00	150.56	1160.00
8.500	325.00	800.46	.27	1.48	.00	159.91	1160.00
8.500	420.00	801.01	.55	1.40	.00	186.11	1160.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
9.370	195.00	801.37	.00	1.88	.00	110.03	870.00
9.370	285.00	801.97	.59	1.77	.00	129.30	870.00
9.370	325.00	802.19	.23	1.73	.00	136.50	870.00
9.370	420.00	802.64	.45	1.63	.00	151.01	870.00
10.100	195.00	802.86	.00	1.49	.00	126.12	730.00
10.100	285.00	803.43	.57	1.46	.00	156.75	730.00
10.100	325.00	803.64	.21	1.45	.00	177.59	730.00
10.100	420.00	804.09	.45	1.45	.00	216.32	730.00
11.130	195.00	805.15	.00	2.29	.00	35.52	1030.00
11.130	285.00	805.80	.64	2.37	.00	36.91	1030.00
11.130	325.00	806.03	.23	2.39	.00	37.41	1030.00
11.130	420.00	806.52	.49	2.43	.00	38.46	1030.00
11.180	195.00	805.26	.00	.10	.00	15.00	50.00
11.180	285.00	805.91	.65	.11	.00	15.00	50.00
11.180	325.00	806.14	.24	.11	.00	15.00	50.00
11.180	420.00	806.63	.49	.11	.00	15.00	50.00
11.220	195.00	805.34	.00	.08	.00	15.00	35.00
11.220	285.00	806.02	.69	.11	.00	15.00	35.00
11.220	325.00	806.27	.25	.13	.00	15.00	35.00
11.220	420.00	806.81	.53	.17	.00	15.00	35.00
11.270	195.00	805.42	.00	.09	.00	15.82	50.00
11.270	285.00	806.14	.72	.12	.00	66.96	50.00
11.270	325.00	806.43	.29	.15	.00	67.26	50.00
11.270	420.00	807.10	.67	.29	.00	67.96	50.00
12.870	195.00	806.97	.00	1.55	.00	181.15	1600.00
12.870	285.00	807.77	.79	1.63	.00	214.24	1600.00
12.870	325.00	808.05	.28	1.62	.00	225.91	1600.00
12.870	420.00	808.62	.57	1.52	.00	260.45	1600.00
14.060	195.00	807.77	.00	.80	.00	165.24	1190.00
14.060	285.00	808.44	.67	.67	.00	209.01	1190.00
14.060	325.00	808.69	.25	.65	.00	225.41	1190.00
14.060	420.00	809.21	.52	.60	.00	438.67	1190.00
16.060	195.00	810.34	.00	2.57	.00	1014.68	2000.00
16.060	285.00	810.59	.25	2.15	.00	1063.99	2000.00
16.060	325.00	810.90	.32	2.21	.56	618.99	2000.00
16.060	420.00	810.91	.01	1.70	.00	1143.42	2000.00

Revised
8/23/82

SUMMARY OF ERRORS

CAUTION	SECNO=	.530	PROFILE= 1	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	.530	PROFILE= 1	MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	1.730	PROFILE= 1	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	1.730	PROFILE= 1	MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	1.730	PROFILE= 2	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	1.730	PROFILE= 2	MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	1.730	PROFILE= 3	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	1.730	PROFILE= 3	MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	1.730	PROFILE= 4	CRITICAL DEPTH ASSUMED
CAUTION	SECNO=	1.730	PROFILE= 4	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=	1.730	PROFILE= 4	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION	SECNO=	3.710	PROFILE= 4	HYDRAULIC JUMP D.S.

FLOOD INSURANCE ZONE DATA FOR WOOD OUTLET DRAIN

FLOOD HAZARD FACTOR FOR ENTIRE REACH USING SECTIONS

SECTION NUMBER	CUMULATIVE DISTANCE	ELEVATION DIFFERENCE BETWEEN BASE FLOOD AND 10	2	0.2
.060	0.	-.95	-.19	.36
.530	470.	-.53	-.14	.25
.930	920.	-1.03	-.21	.35
1.730	1350.	-1.22	-.27	.47
2.060	1680.	-1.51	-.33	.62
2.110	1730.	-1.79	-.39	.74
2.111	1731.	-1.79	-.39	.73
2.121	1741.	-1.92	-.43	.80
2.122	1742.	-1.95	-.43	.82
2.170	1792.	-1.91	-.42	.81
2.820	2442.	-2.20	-.50	.86
3.630	3252.	-1.70	-.36	.67
3.680	3302.	-1.58	-.33	.59
3.710	3332.	-2.77	-.42	.81
3.760	3382.	-3.04	-.47	.77
4.220	3842.	-1.70	-.42	.77
4.270	3892.	-1.72	-.41	.77
4.310	3937.	-2.59	-1.18	1.54
4.360	3987.	-2.76	-1.12	1.57
5.380	5007.	-1.83	-.50	1.19
5.730	5357.	-1.54	-.40	.89
6.180	5807.	-1.47	-.33	.88
6.230	5857.	-1.42	-.31	.85
6.231	5858.	-1.42	-.31	.85
6.269	5896.	-1.43	-.32	.87
6.270	5897.	-1.43	-.32	.87
6.320	5947.	-1.66	-.39	.96
7.340	6967.	-1.13	-.30	.63
8.500	8127.	-.98	-.27	.55
9.370	8997.	-.82	-.21	.45
10.100	9727.	-.78	-.20	.45
11.130	10757.	-.88	-.23	.49
11.180	10807.	-.98	-.24	.54
11.220	10847.	-.94	-.24	.53
12.270	11897.	-1.00	-.26	.57
12.870	12497.	-1.07	-.28	.57
14.060	13682.	-.92	-.25	.52
16.060	15682.	-.95	-.24	.51

WEIGHTED AVG FOR REACH -1.25 -.34 .61

FHF FOR THE REACH = 015 WITH 64.0 PERCENT OF THE REACH WITHIN .5 FEET
ZONE FOR THE REACH = A 3

CONTINUOUS FLOOD HAZARD FACTORS BY EVEN INCREMENTS

INC NO.	TOTAL LENGTH	AVG ELEVATION DATA 10	1	DIFF.	WTD. AVG.	FHF	PERCENT WITHIN
	0.				SEC.		.060
1	100.	757.60	758.51	-.91	-.91	010	100.
2	200.	758.89	759.71	-.82	-.87	010	100.
3	300.	760.18	760.91	-.73	-.82	010	100.
4	400.	761.48	762.11	-.63	-.77	010	100.
	470.				SEC.		.520
5	500.	762.71	763.28	-.57	-.73	005	100.
6	600.	763.73	764.35	-.62	-.71	005	100.
7	700.	764.62	765.34	-.72	-.71	005	100.
8	800.	765.50	766.34	-.84	-.73	005	100.
9	900.	766.38	767.33	-.95	-.75	010	100.
	920.				SEC.		.930
10	1000.	767.19	768.22	-1.03	-.78	010	100.
11	1100.	767.88	768.97	-1.09	-.81	010	100.
12	1200.	768.56	769.69	-1.13	-.84	010	100.
13	1300.	769.24	770.41	-1.17	-.86	010	100.
	1350.				SEC.		1.730
14	1400.	770.04	771.27	-1.23	-.89	010	100.
15	1500.	771.09	772.40	-1.31	-.92	010	100.
16	1600.	772.26	773.66	-1.40	-.95	010	100.
	1680.				SEC.		2.060
17	1700.	773.46	775.00	-1.54	-.98	010	94.
	1730.				SEC.		2.110
	1731.				SEC.		2.111
	1741.				SEC.		2.121
	1742.				SEC.		2.122
	1792.				SEC.		2.170

	ELEVATION DIFFERENCE BETWEEN BASE FLOOD AND 10	2	0.2
WEIGHTED AVG. FOR REACH	-.98	-.22	.38

FHF FOR REACH 1 = 010 WITH 94. PERCENT OF THE REACH WITHIN .5 FEET
ZONE FOR THE REACH = A 2

18	1800.	774.48	776.25	-1.77	-1.77	020	100.

19	1900.	775.35	777.29	-1.94	-1.86	020	100.	
20	2000.	776.29	778.28	-1.99	-1.90	020	100.	
21	2100.	777.24	779.26	-2.02	-1.93	020	100.	
22	2200.	778.18	780.25	-2.07	-1.98	020	100.	
23	2300.	779.12	781.23	-2.11	-1.98	020	100.	
24	2400.	780.06	782.22	-2.16	-2.01	020	100.	
	2442.				SEC.		2.820	
25	2500.	780.92	783.09	-2.17	-2.03	020	100.	
26	2600.	781.65	783.78	-2.13	-2.04	020	100.	
27	2700.	782.39	784.39	-2.00	-2.04	020	100.	
28	2800.	782.99	785.00	-2.01	-2.04	020	100.	
29	2900.	783.66	785.60	-1.94	-2.03	020	100.	
30	3000.	784.33	786.21	-1.88	-2.02	020	100.	
31	3100.	785.00	786.80	-1.80	-2.01	020	100.	
32	3200.	785.67	787.43	-1.76	-1.99	020	100.	
	3252.				SEC.		3.630	
33	3300.	786.24	787.90	-1.66	-1.97	020	100.	
	3302.				SEC.		3.690	
	3332.				SEC.		3.710	
	3382.				SEC.		3.760	
34	3400.	786.68	788.96	-2.28	-1.99	020	100.	
35	3500.	787.20	790.04	-2.84	-2.03	020	100.	
36	3600.	787.86	790.41	-2.55	-2.06	020	100.	
37	3700.	788.51	790.78	-2.27	-2.07	020	100.	
38	3800.	789.17	791.14	-1.97	-2.07	020	100.	
	3842.				SEC.		4.220	
	3892.				SEC.		4.270	
39	3900.	789.73	791.57	-1.84	-2.06	020	100.	
	3937.				SEC.		4.310	
	3987.				SEC.		4.360	
40	4000.	790.15	792.47	-2.32	-2.07	020	100.	
41	4100.	790.47	793.17	-2.70	-2.09	020	100.	
42	4200.	790.69	793.30	-2.61	-2.12	020	100.	
43	4300.	790.91	793.43	-2.52	-2.13	020	100.	
44	4400.	791.13	793.56	-2.43	-2.14	020	100.	
45	4500.	791.35	793.69	-2.34	-2.15	020	100.	
46	4600.	791.57	793.82	-2.25	-2.15	020	100.	
47	4700.	791.79	793.95	-2.16	-2.15	020	100.	
48	4800.	792.01	794.08	-2.07	-2.15	020	100.	
49	4900.	792.23	794.21	-1.98	-2.14	020	100.	
50	5000.	792.46	794.34	-1.88	-2.14	020	100.	
	5007.				SEC.		5.380	
51	5100.	792.75	794.54	-1.79	-2.13	020	100.	
52	5200.	793.11	794.82	-1.71	-2.11	020	100.	
53	5300.	793.49	795.11	-1.62	-2.10	020	100.	
	5357.				SEC.		5.730	
54	5400.	793.87	795.43	-1.56	-2.09	020	100.	
55	5500.	794.29	795.82	-1.53	-2.07	020	100.	
56	5600.	794.73	796.24	-1.51	-2.06	020	100.	
57	5700.	795.17	796.66	-1.49	-2.04	020	100.	
58	5800.	795.61	797.09	-1.48	-2.03	020	100.	
	5807.				SEC.		6.180	
	5857.				SEC.		6.230	
	5858.				SEC.		6.231	

	5896.					SEC.	6.269	
	5897.					SEC.	6.270	
59	5900.	795.90	797.35	-1.45	-2.02	020	100.	
	5947.					SEC.	6.320	

ELEVATION DIFFERENCE BETWEEN BASE FLOOD AND

	10	2	0.2
WEIGHTED AVG FOR REACH	-2.02	-.54	.95

FHF FOR REACH 2 = 020 WITH 100. PERCENT OF THE REACH WITHIN 1.0 FEET
ZONE FOR THE REACH = A 4

60	6000.	796.10	797.64	-1.54	-1.54	015	100.	
61	6100.	796.32	797.93	-1.61	-1.58	015	100.	
62	6200.	796.49	798.04	-1.55	-1.57	015	100.	
63	6300.	796.65	798.16	-1.51	-1.55	015	100.	
64	6400.	796.82	798.27	-1.45	-1.53	015	100.	
65	6500.	796.99	798.39	-1.40	-1.51	015	100.	
66	6600.	797.16	798.50	-1.34	-1.49	015	100.	
67	6700.	797.33	798.62	-1.29	-1.46	015	100.	
68	6800.	797.49	798.74	-1.25	-1.44	015	100.	
69	6900.	797.66	798.85	-1.19	-1.41	015	100.	
	6967.					SEC.	7.340	
70	7000.	797.82	798.97	-1.15	-1.39	015	100.	
71	7100.	797.97	799.09	-1.12	-1.37	015	100.	
72	7200.	798.11	799.22	-1.11	-1.35	015	100.	
73	7300.	798.26	799.35	-1.09	-1.33	015	100.	
74	7400.	798.40	799.47	-1.07	-1.31	015	100.	
75	7500.	798.54	799.60	-1.06	-1.30	015	100.	
76	7600.	798.68	799.73	-1.05	-1.28	015	100.	
77	7700.	798.82	799.86	-1.04	-1.27	015	100.	
78	7800.	798.96	799.98	-1.02	-1.25	015	100.	
79	7900.	799.10	800.11	-1.01	-1.24	010	100.	
80	8000.	799.24	800.24	-1.00	-1.23	010	100.	
81	8100.	799.38	800.37	-.99	-1.22	010	100.	
	8127.					SEC.	8.500	
82	8200.	799.55	800.52	-.97	-1.21	010	100.	
83	8300.	799.75	800.71	-.96	-1.20	010	100.	
84	8400.	799.97	800.91	-.94	-1.19	010	100.	
85	8500.	800.19	801.11	-.92	-1.18	010	100.	
86	8600.	800.40	801.30	-.90	-1.17	010	100.	
87	8700.	800.62	801.50	-.88	-1.16	010	100.	
88	8800.	800.84	801.70	-.86	-1.15	010	100.	
89	8900.	801.05	801.90	-.85	-1.14	010	100.	
	8997.					SEC.	9.370	
90	9000.	801.27	802.10	-.83	-1.13	010	100.	
91	9100.	801.48	802.30	-.82	-1.12	010	100.	
92	9200.	801.68	802.50	-.82	-1.11	010	100.	
93	9300.	801.89	802.70	-.81	-1.10	010	97.	
94	9400.	802.09	802.89	-.80	-1.09	010	97.	
95	9500.	802.29	803.09	-.80	-1.08	010	97.	
96	9600.	802.50	803.29	-.79	-1.08	010	97.	

97	9700.	802.70	803.49	-.79	-1.07	010		97.	
	9727.				SEC.		10.100		
98	9800.	802.91	803.70	-.79	-1.06	010		97.	
99	9900.	803.13	803.93	-.80	-1.05	010		97.	
100	10000.	803.36	804.16	-.80	-1.05	010		97.	
101	10100.	803.58	804.39	-.81	-1.04	010		97.	
102	10200.	803.80	804.62	-.82	-1.04	010		97.	
103	10300.	804.02	804.86	-.84	-1.03	010		97.	
104	10400.	804.25	805.09	-.84	-1.03	010		97.	
105	10500.	804.47	805.32	-.85	-1.02	010		97.	
106	10600.	804.69	805.55	-.86	-1.02	010		97.	
107	10700.	804.92	805.78	-.86	-1.02	010		97.	
	10757.				SEC.		11.130		
108	10800.	805.13	806.01	-.88	-1.01	010		97.	
	10807.				SEC.		11.180		
	10842.				SEC.		11.350		
	10892.				SEC.		11.270		
109	10900.	805.34	806.28	-.94	-1.01	010		97.	
110	11000.	805.48	806.49	-1.01	-1.01	010		97.	
111	11100.	805.58	806.59	-1.01	-1.01	010		97.	
112	11200.	805.67	806.69	-1.02	-1.01	010		97.	
113	11300.	805.77	806.79	-1.02	-1.01	010		97.	
114	11400.	805.87	806.89	-1.02	-1.01	010		97.	
115	11500.	805.96	806.99	-1.03	-1.01	010		97.	
116	11600.	806.06	807.09	-1.03	-1.01	010		97.	
117	11700.	806.16	807.19	-1.03	-1.01	010		97.	
118	11800.	806.25	807.30	-1.05	-1.02	010		97.	
119	11900.	806.35	807.40	-1.05	-1.02	010		97.	
120	12000.	806.45	807.50	-1.05	-1.02	010		97.	
121	12100.	806.55	807.60	-1.05	-1.02	010		97.	
122	12200.	806.64	807.70	-1.06	-1.02	010		97.	
123	12300.	806.74	807.80	-1.06	-1.02	010		97.	
124	12400.	806.84	807.90	-1.06	-1.02	010		97.	
	12492.				SEC.		12.870		
125	12500.	806.93	808.00	-1.07	-1.02	010		97.	
126	12600.	807.01	808.08	-1.07	-1.02	010		96.	
127	12700.	807.08	808.13	-1.05	-1.02	010		96.	
128	12800.	807.15	808.19	-1.04	-1.02	010		96.	
129	12900.	807.21	808.24	-1.03	-1.02	010		96.	
130	13000.	807.28	808.29	-1.01	-1.02	010		96.	
131	13100.	807.35	808.35	-1.00	-1.02	010		96.	
132	13200.	807.41	808.40	-.99	-1.02	010		96.	
133	13300.	807.48	808.46	-.98	-1.02	010		96.	
134	13400.	807.55	808.51	-.96	-1.02	010		96.	
135	13500.	807.61	808.57	-.96	-1.02	010		96.	
136	13600.	807.68	808.62	-.94	-1.02	010		96.	
	13682.				SEC.		14.060		
137	13700.	807.75	808.68	-.93	-1.02	010		96.	
138	13800.	807.86	808.77	-.91	-1.01	010		96.	
139	13900.	807.98	808.88	-.90	-1.01	010		96.	
140	14000.	808.11	808.99	-.88	-1.01	010		96.	
141	14100.	808.24	809.10	-.86	-1.01	010		96.	
142	14200.	808.37	809.21	-.84	-1.01	010		96.	
143	14300.	808.50	809.32	-.82	-1.01	010		96.	

144	14400.	808.63	809.43	-.80	-1.00	010		95.
145	14500.	808.76	809.54	-.78	-1.00	010		95.
146	14600.	808.88	809.65	-.77	-1.00	010		95.
147	14700.	809.01	809.76	-.75	-.99	010		95.
148	14800.	809.14	809.87	-.73	-.99	010		96.
149	14900.	809.27	809.98	-.71	-.99	010		96.
150	15000.	809.40	810.09	-.69	-.99	010		96.
151	15100.	809.53	810.20	-.67	-.98	010		96.
152	15200.	809.65	810.31	-.66	-.98	010		96.
153	15300.	809.78	810.42	-.64	-.98	010		96.
154	15400.	809.91	810.53	-.62	-.97	010		96.
155	15500.	810.04	810.65	-.61	-.97	010		96.
156	15600.	810.17	810.76	-.59	-.96	010		96.
	15682.				SEC.		16.060	

	ELEVATION DIFFERENCE BETWEEN BASE FLOOD AND		
	10	2	0.2
WEIGHTED AVG FOR REACH	-.96	-.27	.51

FHF FOR REACH 3 = 010 WITH 96. PERCENT OF THE REACH WITHIN .5 FEET
ZONE FOR THE REACH = A 2



1) COUNTY: WASHTENAW

2) STUDY NAME: CITY OF YPSILANTI

3) WATERCOURSE: HURON RIVER

4) DOCUMENT TYPE: FIS



HYDRAULIC REPORT

REVISION ON HURON RIVER
FOR RELOCATED BRIDGE AT FACTORY/SPRING STREET

INTRODUCTION

While the Flood Insurance Study of the City of Ypsilanti was underway, it was discovered that the Spring/Factory St. bridge was being replaced by a wider and more adequate structure. As a result, the recently completed hydraulic analysis had to be revised to reflect this change. The revision is for a reach that extends from upstream of the I-94 bridge to cross section no 85, a distance of approximately 3100 feet. The rest of the hydraulic analysis from Ford to Superior Dams is the same as that prepared for the Special Flood Hazard Information Report of the Huron River, 1976.

The flood discharges used were those prepared for the report and approved by the Michigan Department of Natural Resources on July 13, 1975.

METHOD OF ANALYSIS

The same technique employed in the Flood Hazard Report (HEC 2 backwater program) were used to determine water profiles.

The proposed bridge at Spring/Factory St. was coded as a special bridge. Data for bridge cross section was

obtained from the construction plans provided by the architectural/engineering firm which designed it. The new bridge will be a four lane concrete bridge with prestressed concrete girders and precast concrete deck. This project is a cooperative effort of the City of Ypsilanti, Michigan Department of State Highways and the Federal Highway Administration. It is listed in the plans as Michigan Job No. 062194.

REMARKS

1. The starting water surfaces were identical to those used in the prior hydraulic analysis for the Special Flood Hazard Information Report of the Huron River

2. The roughness coefficients ("n") were generally those used in the prior hydraulic analysis. The one exception was the use of a "n" factor of 0.2 on the overbanks between Sccno. 87.0 and 85.0. This was essentially a modeling technique to restrict flows in areas where there are obstructions in the overbanks. For example in cross section 86.0 and 85.1 an "n" factor of 0.2

was used in the right overbank to incorporate the obstruction of flow caused by the City of Pittsburg's water treatment plant, located next to the right bank and just upstream of the proposed bridge.

3. The bridge coefficients for the new bridge were determined according to the guidelines provided by the HEC 2 manual and the Bureau of Public Roads. These were:

XK = 1.15

XKOR = 1.65

COFQ = 2.94

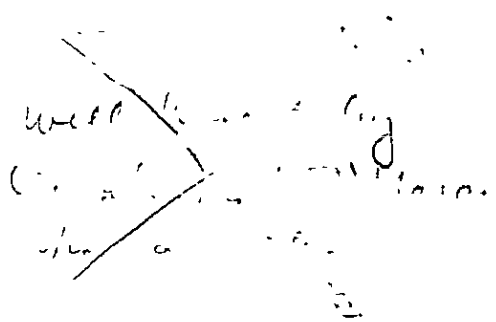
FLOOD INSURANCE STUDY
TOWNSHIP OF YPSILANTI
WASHTENAW COUNTY, MICHIGAN

NOVEMBER 1979
~~DECEMBER, 1978~~

Prepared by:

U.S. Army Corps of Engineers
Detroit District, Box 1027
Detroit, Michigan 48231

CAUTION;
CROSS SECTION
I.D. LETTERS MAY
BE "DIFFERENT" IN
FIS and SUPPORT DATA !



for

U. S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
Federal Insurance Administration

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Flood Boundary and Floodway Map.....Panels

PUBLISHED SEPARATELY:

Flood Insurance Rate Map Index

Flood Insurance Rate Map.....Panels

FLOOD INSURANCE STUDY

TOWNSHIP OF YPSILANTI, MICHIGAN

1.0 INTRODUCTION

1.1 Purpose of Study

This Flood Insurance Study investigates the existence and severity of flood hazards in the Township of Ypsilanti of Washtenaw County, Michigan and aids in the administration of the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973. This study will be used to convert the Township of Ypsilanti to the regular program of flood insurance by the Federal Insurance Administration (FIA). Local and regional planners will use this study in their efforts to promote sound flood plain management.

In some states or communities, flood plain management criteria or regulations may exist that are more restrictive or comprehensive than those on which these Federally-supported studies are based. These criteria take precedence over the minimum Federal criteria for purposes of regulating development in the flood plain, as set forth in Section 1910.1(d) of the Code of Federal Regulations, Title 24, April 1, 1976. In such cases, however, it shall be understood that the state (or other jurisdictional agency) shall be able to explain these requirements and criteria.

1.2 Authority and Acknowledgements

The source of authority for this Flood Insurance Study is the

National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973.

The hydrologic and hydraulic analyses of this study were performed by U. S. Army - Corps of Engineers, Detroit District for the Federal Insurance Administration, under Inter-Agency Agreement No. IAA-H-10-77 Project Order No. 15, AS amended. This study was completed in NOVEMBER 1979.

1.3 Coordination

Streams requiring either detailed or approximate study were identified at the initial coordination meeting held on September 1976, between representatives of the Township of Ypsilanti, the Federal Insurance Administration and the U. S. Army Corps of Engineers.

The technical aspects of the study were coordinated with and approved on 1978, by the Bureau of Water Management of the Michigan Department of Natural Resources, the State Coordinating Agency. Other agencies contacted in the course of the study included: Washtenaw County Planning Commission, Washtenaw County Drain Commission, the Southeastern Michigan Council of Governments, and U. S. Soil Conservation Service.

On 1978, the results of the study were reviewed at the final meeting attended by representatives of the Township of Ypsilanti, the Michigan Department of Natural Resources, the Federal Insurance Administration and the U. S. Army Corps of Engineers.

2.0 AREA STUDIED

2.1 Scope of Study

This Flood Insurance Study covers the incorporated area of the Township of Ypsilanti, Washtenaw County, Michigan. The area of study is shown on the Vicinity Map (Figure 1).

The limits of detailed studies in Ypsilanti Township were determined by FIA with community and study contractor consultation at the meeting in September, 1976.

Floods caused by the overflow of the Huron River and of Paint Creek within the township were studied in detail. Flooding on Willow Run from the downstream corporate limit to Airport Drive were studied by approximate methods.

Approximate methods of analyses were used to study those areas having minimal development or a minimal flood hazard. The areas studied by detailed methods were selected with priority given to all known flood hazard areas, and areas of projected development or proposed construction for the next five years, through December, 1983.

2.2 Community Description

The Township of Ypsilanti is located on the eastern half of Washtenaw County in Southeastern Michigan. It is approximately 28 miles west of Detroit and just southeast of Ann Arbor. It borders Superior Township and the City of Ypsilanti to the north, Van Buren

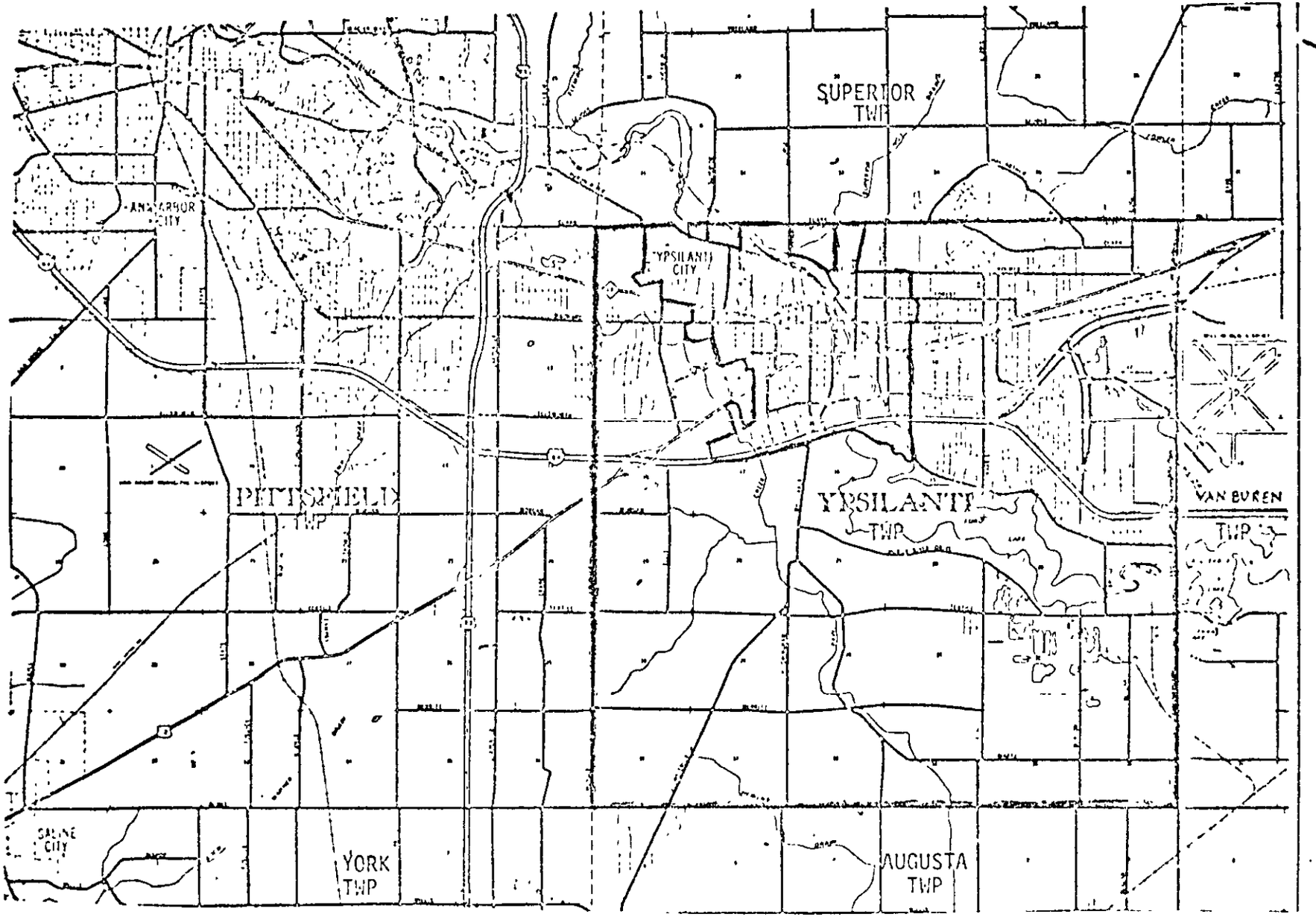


FIGURE 1

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
Federal Insurance Administration

TOWNSHIP OF YPSILANTI, MI
Washtenaw Co

APPROXIMATE SCALE
0 1 2 3 4 Miles

VICINITY MAP

Township to the east, Augusta Township to the south, and the City of Ann Arbor and Pittsfield Township to the west. In 1970, the township had a population 33,200 (Reference 1), the 1975 population was estimated to be approximately 44,000 (Reference 1).

Residential development is concentrated on the northern half of the township, specifically east and west of the City of Ypsilanti. Commercial development in this area has been along the arterial roads, such as Washtenaw and Michigan Avenues. On the southern half, commercial, industrial and residential development has been along the mile roads. Flood plains on the Huron River, Paint Creek and West Branch are used primarily for agricultural and recreational purposes. There are a few exceptions, on Paint Creek where apartments and single family are built within the flood way.

The Township topography is varied, the northwestern third is a relatively level moraine that terminates at a previous existing glacial lake. The southeastern two thirds is part of that lake. Both of these sections have been modified by the streams studied, i.e. the Huron River, Paint Creek and Willow Run (approximate study), which have cut flood plains of varying depth and widths into the glacial topography.

The average annual temperature is 48.3°F. Extremes in average monthly temperatures have ranged from 11.4°F in January 1918 to 77.6°F in July 1955. Precipitation is 30.8 inches a year at which

58 percent occurs from April to September (Reference 2).

2.3 Principal Flood Problems

The more severe flooding in the Huron River, Paint Creek and Willow Run can occur in late winter and early spring from a combination of frozen ground, melting snow and heavy rain. The probability of severe flooding is increased in the Huron River by the constrictive bridges in the Township and the debris which lodges itself on these structures. A similar effect occurs on Paint Creek with its constrictive culverts and its poor alignment.

The greatest floods in the Huron River during the past 60 years, as recorded by U. S. Geological Survey gages in Ann Arbor, have occurred in March 1918, April 1947, and June 1968. These floods have had, respectively, an estimated recurrence interval of approximately: 38, 19 and 15 years, based on a flood frequency analysis for the period of records. Paint Creek, during the June 1968 flood, extended itself throughout its flood plain and flowed over Michigan Avenue and Textile Roads.

2.4 Flood Protection Measures

There are no flood control projects for the reaches of the Huron River located in the Township of Ypsilanti. The combined flood control capability of dams in the Huron River is minor due to levels that must be maintained for water supply, waste disposal and recreation. Reservoir capacity is not available for large flood stage reduction (Reference 3).

On Paint Creek, a retention pond has been built just South of I-94 to reduce the impact of flooding on the downstream properties located in the Township. Between I-94 and Congress, the channel has been cleaned, widened and straightened.

3.0 ENGINEERING METHODS

For the flooding sources studied in detail in the community, standard hydrologic and hydraulic study methods were used to determine the flood hazard data required for this study. Flood events of a magnitude which are expected to be equalled or exceeded once on the average during any 10, 50, 100, or 500 year period (recurrence intervals), have been selected as having special significance for flood plain management and for flood insurance premium rates. These events, commonly termed the 10, 50, 100, and 500 year floods, have a 10, 2, 1, and 0.2 percent chance, respectively, of being equalled or exceeded during any year. Although the recurrence interval represents the long term, average period between floods of a specific magnitude, rare floods could occur at short intervals or even within the same year. The risk of experiencing a rare flood increases when periods greater than one year are considered. For example, the risk of having a flood which equals or exceeds the 100-year flood (one percent chance of annual occurrence) in any 50 year period is about 40 percent (four in 10), and for any 90 year period, the risk increases to about 60 percent (six in ten). The analyses reported here reflect flooding potentials based on conditions of this study.

Maps and flood elevations will be amended periodically to reflect future changes.

3.1 Hydrologic Analysis

Analyses were carried out to establish peak discharge-frequency relationships for floods of the selected recurrence intervals for each flooding source studied in detail in the community.

To define the discharge-frequency data for the Huron River, the flows recorded for the past 60 years by the U.S.G.S. at the Ann Arbor gage WERE used. Values for the 10-, 50-, 100-, and 500-year peak flow were obtained from a log-Pearson type III distribution of annual peak flow data, as outlined by the U.S. Water Resource Council (Reference 4). For the stretch between Rawsonville Road and Bridge Road, these flows were modified. The flows at Belleville Road as used in the National Dam Safety Program, Inspection Report, Huron River, French Landing Dam, differed from those calculated. The Inspection Report flows for 50- and 100-year conditions were near the value of flows used in the City of Ypsilanti FIS. In order to coordinate as close as possible between the present report, City of Ypsilanti FIS and Inspection Report, the City of Ypsilanti flows were used on the Huron River from Rawsonville Road to Bridge Road.

For Paint Creek, the rainfall data was obtained from the Rainfall Frequency Atlas of the United States (Reference 5). Peak discharges (10, 50, 100 and 500 year flows) and the hydrographs were determined with techniques developed by the Soil Conservation Service (Reference 6) which combine drainage characteristics, such as: drainage area, stream

slope, soil cover, vegetation and land use, in determining flows. The resulting hydrographs were combined and routed using the U.S. Army, Corps of Engineers HEC-1, Flood Hydrograph Package (Reference 7).

A division of flows for Paint Creek and its West Branch was established by constructing a hydraulic grade line--discharge relationSHIP--WHICH ASSUMES THAT, AT THEIR DIVERSION, BOTH HYDRAULIC GRADE LINES ARE EQUAL.

Peak discharge-drainage area relationships for the Huron River, Paint Creek and its West Branch are shown in Table 1.

3.2 Hydraulic Analyses

Analyses of the hydraulic characteristics of the flooding sources studied in detail in the community were carried out to provide estimates of the elevations of floods of the selected recurrence intervals along each of the flood sources.

Water-surface profiles were developed through the use of the U. S. Army Corps of Engineers HEC-2 step-backwater program (Reference 8). For the Huron River, a total of 10 valley sections and 5 bridge sections were field surveyed. For Paint Creek, 55 valley and 18 bridge sections were surveyed and similarly for the West Branch, 16 valley and 2 bridge sections. Valley cross sections were located near bridges and places typical of a stream reach. Locations of selected cross sections used in the hydraulic analyses are shown on the Flood Profiles. For stream segments for which a floodway is computed (Section 4.2), selected cross section locations are shown on the Flood Boundary and Floodway Map.

Roughness coefficients (Manning's "n") for the Huron River were determined for the channel from the analysis at the highwater marks for the June 1968 and April 1947 floods (Reference 3) and for the

TABLE 1 - SUMMARY OF DISCHARGES

Flooding Source and Location	Drainage Area (Sq. Miles)	Peak Discharges 10-Year	50-Year	100-Year	500-Year
HURON RIVER					
Belleville Rd.	820	5870	8739	10,006	13,475
Interstate 94	809	5775	8597	9844	13,256
Peninsular Dam	802	5643	8401	9619	12,954
U.S. 629124, Sts.	736	4400	6550	7500	10,100
PAINT CREEK					
Bemis Rd.	20.3	406	608	748	952
Martz Rd.		419	636	777	991
MerrittRd.		422	638	779	994
U/S West Branch	17.3	583	932	1521	2511
Textile Road		606	1020	1555	2549
Stoney Creek Rd.		706	1292	1888	2950
U/S Chicking Ditch	5.8	149	279	506	885
At I-94	4.4	469	589	644	1269
At. W. Michigan Ave.	4.1	585	1075	1407	2662
At. S. Congress St.	3.1	535	980	1215	2250
WEST BRANCH PAINT CREEK					
West Branch	--[1]	110	190	410	875

[1] No exclusive drainage area at diversion

overbanks from field observation of the flood plains at the time of measurement of the cross-sections. The channel roughness coefficients ranged from .03 to .045; the overbank roughness ranged from .04 to 0.10. For Paint Creek, channel roughness coefficients varied from .03 to .06; the overbanks, from .03 to .10. Similarly for the West Branch of Paint Creek, channel varied from .027 to .045 and the overbanks, from .03 to .05. Starting water surface elevations were determined by two methods. On the Huron River and upper Paint Creek, stage-discharge curves were developed for existing structures. On Paint Creek below the retention basin and West Branch of Paint Creek the backwater curves were begun 2000 feet below the study area and were allowed to converge on an appropriate elevation.

Flood profiles were drawn to an accuracy of 0.5 foot for floods of selected recurrence intervals.

All elevations are referenced to the National Geodetic Vertical Datum of 1929 (NGVD). Elevation reference marks used in the study are shown on the maps.

The hydraulic analyses for this study are based only on the effects of unobstructed flow. The flood elevations, as shown on the profiles, are considered valid only if hydraulic STRUCTURES in general, remain unobstructed and upstream dams operate properly and do not fail.

4.0 FLOOD PLAIN MANAGEMENT APPLICATIONS

The National Flood Insurance Program encourages state and local

governments to adopt sound flood plain management programs. Therefore, each Flood Insurance Study includes a flood boundary map DESIGNED TO ASSIST COMMUNITIES IN DEVELOPING SOUND FLOOD PLAIN MANAGEMENT MEASURES.

4.1 Flood Boundaries

In order to provide a national standard without regional discrimination, the 100-year flood has been adopted by the FIA as the base flood for purposes of flood plain management measures. The 500-year flood is employed to indicate additional areas of flood risk in the community. For each stream studied in detail, the boundaries of the 100- and the 500-year floods have been delineated using the flood elevations determined at each cross section; between cross sections, the boundaries were interpolated using topographic maps at a scale of 1:24,000 with a contour interval of either 5 or 10 feet (Reference 10). In cases where the 100- and the 500-year flood boundaries are close together, only the 100-year boundary has been shown.

For the streams studied by approximate methods, the boundary of the 100-year flood was developed from normal depth calculations and the topographic maps referenced above.

The boundaries of the 100- and 500-year floods are shown on the Flood Boundary and Floodway Map. Small areas within the flood boundaries may lie above the flood elevations, and therefore, may not be subject to flooding. Owing to limitations of the map scale and/or lack of detailed topographic data, such areas are not shown.

4.2 Floodways

Encroachment on flood plains, such as artificial fill, reduces the flood-carrying capacity and increases flood heights, thus increasing flood hazards in areas beyond the encroachment itself. One aspect of flood plain management involves balancing the economic gain from flood plain development against the resulting increase in flood hazard. For purposes of the Flood Insurance Program, the concept of a floodway is used as a tool to assist local communities in this aspect of flood plain management. Under this concept, the area of the 100-year flood is divided into a floodway and a floodway fringe. The floodway is the channel of a stream, plus any adjacent flood plain areas, that must be kept free of encroachment in order that the 100-year flood be carried without substantial increases in flood heights. Minimum criteria adopted by the Federal Insurance Administration limit such increases in flood heights to 1.0 foot, provided that hazardous velocities are not produced. The Michigan Flood Plain Act (Act 167, P.A. 1968), however, limits flood plain encroachment to that which will cause only insignificant increases in flood heights (less than 0.10 foot).

In general, the technique used to define the floodways in this report was to describe the sweep and extent of moving floodwater by applying engineering judgment and basic rules of hydraulics to the flooded outline maps.

The results of these computations are tabulated at selected

cross sections for each stream segment for which a floodway is computed (Table 2).

As shown on the Flood Boundary and Floodway Map, the floodway boundaries were determined at cross sections; between cross sections, the boundaries were interpolated. In cases where the floodway and 100-year flood boundaries coincide, only the floodway boundary has been shown.

The area between the floodway and the boundary of the 100-year flood is termed the floodway fringe. The floodway fringe thus encompasses the portion of the flood plain that could be completely obstructed without increasing the water-surface elevation of the 100-year flood more than 0.1 foot at any point. With the technique of determing floodways used in this study, the areas in the floodway fringe are areas of ponded water. Only areas with no conveyance (water-carrying) ability) are included in the floodway fringe. Typical relationships between the floodway and the floodway fringe and their significance to flood plain development are shown in Figure 2.

5.0 INSURANCE APPLICATION

In order to establish actuarial insurance rates, the FIA has developed a process to transform the data from the engineering study into flood insurance criteria. This process includes the determination of reaches, Flood Hazard Factors (FHFs), and flood

TABLE 2 FLOODWAY DATA

FLOODING SOURCE CROSS SECTION	DISTANCE[1]	FLOODWAY WIDTH (FT.)	FLOODWAY SECTION AREA (SQ.FT.)	FLOODWAY MEAN VELOCITY (F.P.S.)	BASE FLOOD WATER SURFACE ELEVATION WITH FLOODWAY (NGVD)	BASE FLOOD WATER SURFACE ELEVATION WITHOUT FLOODWAY	BASE FLOOD WATER SURFACE ELEVATION DIFFERENCE (FT.)
Huron River							
A	190,917	404	3889	2.6	654.6	654.5	0.1
B	191,687	348	2927	3.4	654.8	654.7	0.1
C	192,862	508	3619	2.8	655.5	655.4	0.1
D	193,702	416	3151	3.2	656.0	655.9	0.1
E	194,712	353	3077	3.3	656.6	656.5	0.1
F	196,592	295	3169	3.2	657.4	657.3	0.1
G	228,593	254[2]	2315	4.3	705.7	705.7	0.0
H	229,593	210[2]	1830	5.4	706.8	706.8	0.0
I	233,548	663	7340	1.3	719.1	719.1	0.0
J	235,010	589[2]	4884	2.0	719.8	719.8	0.0

[1]Feet above mouth

[2]These widths extend beyond corporate limits

TABLE 2 FLOODWAY DATA
(cont'd)

FLOODING SOURCE			FLOODWAY		BASE FLOOD WATER SURFACE ELEVATION		
CROSS SECTION	DISTANCE[1]	WIDTH (FT.)	SECTION AREA (SQ.FT.)	MEAN VELOCITY (F.P.S.)	WITH FLOODWAY (NGVD)	WITHOUT FLOODWAY	DIFFERENCE (FT.)
Paint Creek							
A	36,590	227	550	1.4	693.2	693.1	0.1
B	37,480	148	379	2.0	694.9	694.8	0.1
C	38,530	395	280	2.7	696.0	695.9	0.1
D	39,580	123	303	2.5	698.7	698.6	0.1
E	40,140	183	624	1.2	700.2	700.1	0.1
F	40,790	210	701	1.1	700.4	700.3	0.1
G	41,570	776	581	1.3	700.9	700.8	0.1
H	42,860	355	436	1.8	703.5	703.5	0.0
I	43,340	284	425	1.8	704.4	704.4	0.0
J	44,510	224	469	1.7	706.9	706.8	0.1

[1]FEET ABOVE MOUTH

TABLE 2 FLOODWAY DATA
(cont'd)

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION		
CROSS SECTION	DISTANCE[1]	WIDTH (FT.)	SECTION AREA (SQ.FT.)	MEAN VELOCITY (F.P.S.)	WITH FLOODWAY (NGVD)	WITHOUT FLOODWAY	DIFFERENCE (FT.)
Paint Creek (cont.)							
K	45,210	220	406	1.9	708.2	708.2	0.0
L	45,940	300	761	1.0	709.5	709.4	0.1
M	46,810	172	587	2.6	712.1	712.1	0.0
N	47,210	430	1305	1.2	712.6	712.6	0.0
O	48,130	181	459	3.3	713.7	713.6	0.1
P	49,760	248	883	1.7	716.9	716.8	0.1
Q	50,510	234	610	2.5	719.9	717.8	0.1
R	51,510	273	714	2.1	720.2	720.1	0.1
S	52,610	427	1317	1.2	723.3	723.2	0.1
T	54,770	608	1701	0.9	726.5	726.4	0.1
U	56,070	294	554	2.8	728.6	728.5	0.1
V	56,740	628	2136	0.9	730.5	730.4	0.1

[1]FEET ABOVE MOUTH

TABLE 2 FLOODWAY DATA
(cont'd)

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION		
CROSS SECTION	DISTANCE[1]	WIDTH (FT.)	SECTION AREA (SQ.FT.)	MEAN VELOCITY (F.P.S)	WITH FLOODWAY (NGVD)	WITHOUT FLOODWAY	DIFFERENCE (FT.)
Paint Creek (cont.)							
W	57,740	425	904	2.1	730.8	730.7	0.1
X	59,060	339	1023	1.8	733.3	733.2	0.1
Y	60,220	218	393	1.3	735.2	735.1	0.1
Z	60,662	57	140	3.6	736.0	735.9	0.1
AA	61,709	68	350	1.8	741.8	741.8	0.0
AB	61,979	19	164	3.9	741.8	741.8	0.0
AC	62,381	183	430	1.5	742.6	742.6	0.0
AD	62,881	205	300	2.1	743.0	743.0	0.0
AE	63,381	281	291	2.2	743.9	743.9	0.0
AF	63,981	240	384	1.7	746.0	746.0	0.0
AG	64,381	470	459	1.4	748.2	748.2	0.0

[1]FEET ABOVE MOUTH

TABLE 2 FLOODWAY DATA
(cont'd)

FLOODING SOURCE			FLOODWAY		BASE FLOOD WATER SURFACE ELEVATION		
CROSS SECTION	DISTANCE[1]	WIDTH[2] (FT.)	SECTION AREA (SQ.FT.)	MEAN VELOCITY (F.P.S.)	WITH FLOODWAY (NGVD)	WITHOUT FLOODWAY	DIFFERENCE (FT.)
Paint Creek (cont'd.)							
AH	67,087	923[2]	1720	.6	755.1	755.1	0.0
AI	67,567	515[2]	771	1.7	755.2	755.2	0.0
AJ	68,397	55[2]	338	3.9	755.9	755.9	0.0
AK	68,725	390	787	1.8	759.9	759.9	0.0
AL	69,261	209	523	2.8	760.1	760.1	0.0
AM	69,641	158	432	3.4	760.3	760.3	0.0
AN	69,858	114	432	3.4	760.5	760.5	0.0
AO	70,669	88	489	3.0	762.3	762.3	0.0
AP	70,894	31	145	8.4	762.0	762.0	0.0

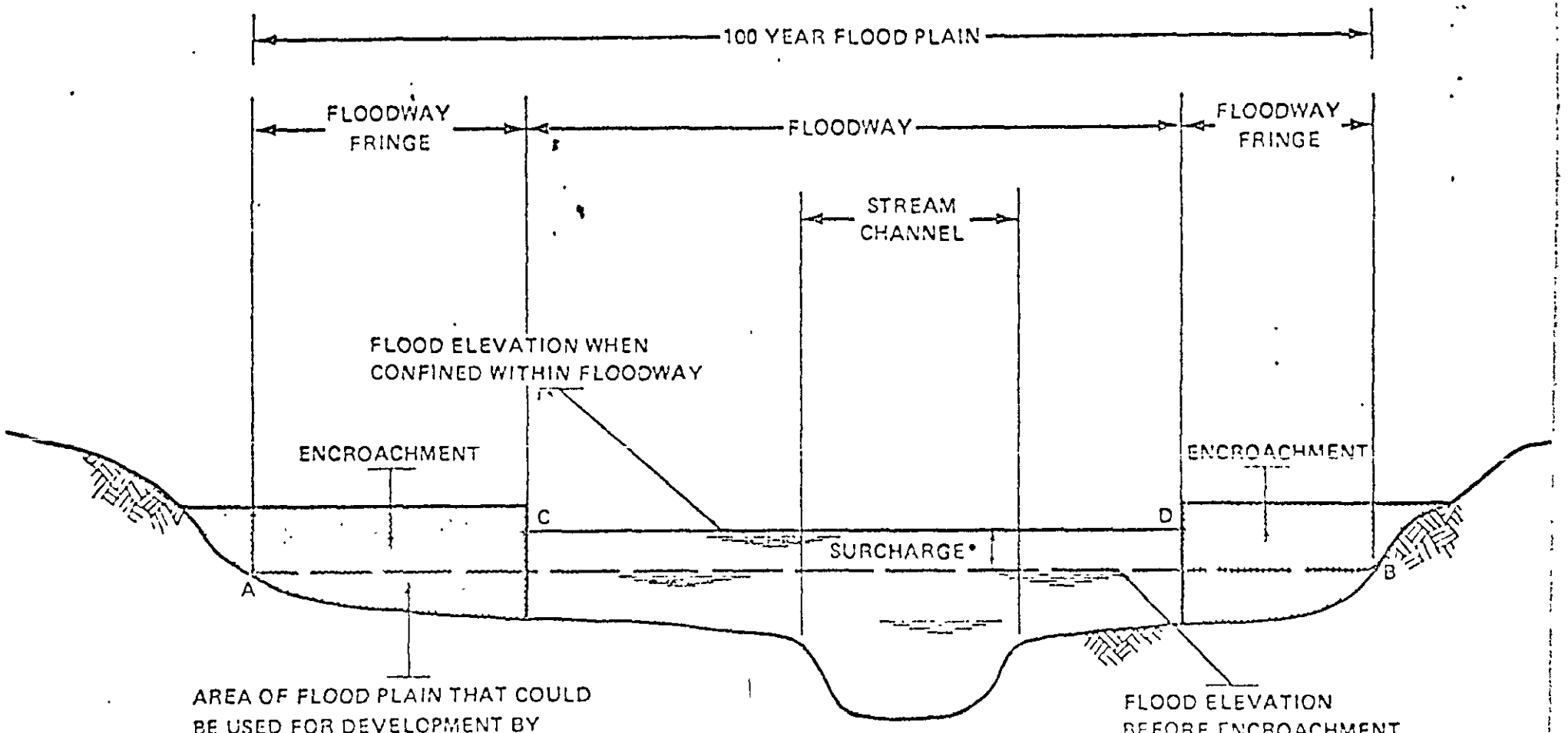
[1]FEET ABOVE MOUTH

[2]THESE WIDTHS EXTEND BEYOND THE CORPORATE LIMITS

TABLE 2 FLOODWAY DATA
(cont'd)

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION		
CROSS SECTION	DISTANCE[1]	WIDTH (FT.)	SECTION AREA (SQ.FT.)	MEAN VELOCITY (F.P.S.)	WITH FLOODWAY (NGVD)	WITHOUT FLOODWAY	DIFFERENCE (FT.)
West Branch, Paint Creek							
A	15,046	236	347	1.2	700.7	700.5	0.2
B	16,046	195	335	1.2	701.1	701.0	0.1
C	17,046	141	223	1.8	702.1	702.0	0.1
D	18,146	197	142	2.9	703.9	703.8	0.1
E	19,146	69	134	3.1	706.5	706.4	0.1
F	20,146	144	192	2.1	707.7	707.6	0.1
G	21,166	55	106	3.9	710.9	710.8	0.1
H	21,366	205	436	0.9	711.9	711.9	0.0
I	21,786	113	245	1.7	712.0	712.0	0.0

[1]FEET ABOVE MOUTH



FLOODWAY SCHEMATIC

LINE A - B IS THE FLOOD ELEVATION BEFORE ENCROACHMENT
LINE C - D IS THE FLOOD ELEVATION AFTER ENCROACHMENT

*SURCHARGE NOT TO EXCEED 1.0 FOOT (FIA REQUIREMENT) OR LESSER AMOUNT IF SPECIFIED BY STATE.

insurance zone designations for each significant flooding source affecting the Township of Ypsilanti.

5.1 Reach Determinations

Reaches are defined as lengths of watercourses having relatively the same flood hazard, based on the average weighted difference in water surface elevations between the 10- and 100-year floods. This difference does not have a variation greater than that indicated in the following table for more than 20 percent of the reach.

Average Difference Between 10- and 100-Year Floods	Variation
Less than 2 feet	0.5 foot
2 to 7 feet	1.0 foot

ELEVAN reaches meeting the above criteria were required for the flooding sources of Ypsilanti Township. These included: four on the Huron River, SEVEN on Paint Creek, and ONE on the West Branch of Paint Creek. The locations of these reaches are shown on the flood profiles.

5.2 Flood Hazard Factors (FHFs)

The Flood Hazard Factor is used to correlate flood information with insurance rate tables. Correlations between property damages from floods and their assigned FHFs are used to set actuarial insurance premium rate tables based on FHFs from 005 to 200.

The FHF for a reach is the average weighted difference between the 10- and 100-year flood water surface elevations expressed to

the nearest one-half foot, and shown as a three-digit code. For example, if the difference between the water surface elevations of the 10- and 100-year floods is 0.7 foot, the FHF is 005; if the difference is 1.4 feet, the FHF is 015; if the difference is 5.0 feet, the FHF is 050. When the difference between the 10- and 100-year flood water surface elevations is greater than 10.0 feet, the accuracy for the FHF is to the nearest foot.

5.3 Flood Insurance Zones

After the determination of reaches and their respective FHFs, the entire incorporated area of Ypsilanti Township was divided into zones, each having a specific flood potential or hazard. Each zone was assigned one of the following flood insurance zone designations:

Zone A: Special Flood Hazard Areas inundated by the 100-year flood, determined by approximate methods, no base flood elevations shown or FHFs determined.

Zones A1, A2, A3, A4, A5, A6, A7, A9: Special Flood Hazard Areas inundated by the 100-year flood, determined by detailed methods; base flood elevations shown, and zones assigned according to FHFs.

Zone B:	Areas between the Special Flood Hazard Areas and the limits of the 500-year flood, including areas of the 500-year flood plain that are protected from the 100-year flood by dike, levee, or other water control structure; areas subject to certain types of 100-year shallow flooding where depths are less than 1.0 foot; or, areas subject to 100-year flooding from sources with drainage areas of less than one square mile. Zone B is not subdivided.
Zone C:	Areas of minimal flooding.

Table 3, "Flood Insurance Zone Data," summarizes the flood elevation differences, FHFs, flood insurance zones, and base flood elevations for each flooding source studied in detail in the community.

5.4 Flood Insurance Rate Map Description

The Flood Insurance Rate Map for the Township of Ypsilanti is, for insurance purposes, the principal result of the Flood Insurance Study. This map (published separately) contains the official delineation of flood insurance zones and base flood elevation lines.

TABLE 3 - FLOOD INSURANCE ZONE DATA
FOR TOWNSHIP OF YPSILANTI

Flooding Source	Panel[1]	Elevation Difference[2] Between 1.0% (100-Yr.) Flood & 10% (10-Yr.)	2% (50-Yr.)	0.2% (500-Yr.)	FHF	Zone	Base Flood Elevation[3]
Huron River							
Reach 1		-3.2	-0.8	+2.0	030	A6	Varies
Reach 2		-0.5	-0.0	+2.6	005	A1	686
Reach 3		-3.0	-0.8	+2.2	030	A6	Varies
Reach 4		-1.9	-0.6	+1.4	020	A4	Varies
Paint Creek							
Reach 1		-0.8	-0.3	+0.4	010	A2	Varies
Reach 2		-1.4	-0.6	+0.8	015	A3	Varies
Reach 3		-3.6	-0.8	+1.4	035	A7	742
Reach 4		-0.6	-0.1	+0.6	005	A1	Varies
Reach 5		-1.8	-0.8	+2.5	020	A4	Varies
Reach 6		-4.5	-0.5	+0.9	045	A9	Varies
Reach 7		-2.2	-0.3	+1.2	020	A4	Varies
West Branch							
Reach 1		-1.2	-0.7	+0.7	010	A2	Varies

[1]Flood Insurance Rate Panel

[2]Weighted Average

[3]Rounded to Nearest Foot - See Map

Base flood elevation lines show the locations of the expected whole-foot water surface elevations of the base (100-year) flood. This map is developed in accordance with the latest flood insurance map preparation guidelines published by the FIA.

6.0 OTHER STUDIES

In 1976, the U. S. Army-Corps of Engineers, Detroit District, completed a hydraulic analysis of the Huron River (Reference 3) for a reach extending from the downtown limits of the City of Ypsilanti at Ford Lake through the upstream limits of the Township of Ann Arbor to Barton Pond, a distance of approximately 16.4 miles. This previous analysis of the Huron River was used for those two reaches of the Township located between the City of Ypsilanti and Superior Township.

A Flood Insurance Study has been completed for the City of Ypsilanti. The results of this study will match exactly this previous study.

7.0 LOCATION OF DATA

Survey, hydrologic, hydraulic, and other pertinent data used in this study can be obtained by contacting the office of the Federal Insurance Administration, Regional Director, 300 South Wacker Drive, Chicago, Illinois 60606.

8.0 BIBLIOGRAPHY AND REFERENCES

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Countour interval 10 feet: Ann Arbor East, Michigan (1973) and Ypsilanti West, Michigan (1973).

ELEVATION REFERENCE MARKS

REFERENCE MARKS	DESCRIPTION
RM #1	Northwest corner of Rawsonville Road Bridge; A Wayne County BM., brass plug. Elev. 659.11
RM #2	Standard tablet stamped "5T 1936 696" located 20 ft. west of center of road and 3 ft. north of north end of side rail, in top of the concrete sidewall at the north end of Ford Dam over the Huron River, Sec. 24. Elev. 695.63
RM #3	On top of the second step at the east headwall of the north abutment of the Grove Road overpass at I-94, standard tablet stamped "3 PJH 1966" Elev. 736.90
RM #4	Square cut and painted red in center and upstream face of concrete rail post of LeForge Road bridge at upstream and left side. Elev. 722.51

RM #5 — Square cut IN left and downstream corner of railroad bridge.

Elev. 724.03

RM #6 — Disc set in second step of south abutment on east side of Superior Road bridge (downstream and right corner)

Elev. 722.35

RM #7 — Chiseled square on southwest corner headwall on south side of Bemis Road bridge.

Elev. 694.02

RM #8 — Boat spike east face Detroit Edison power pole on northwest corner of Whittaker and Bemis road.

Elev 701.10

RM #9 — Painted square on northwest corner of northwest wingwall of culvert under Merritt Road.

Elev. 712.38

RM #10 — Spike on west side of Michigan Bell telephone pole. Located on north-east corner of Merritt and Whittaker Roads.

Elev. 712.37

RM #11 — Painted square on southeast corner of north abutment of box culvert under Whittaker Road.

Elev. 714.71

RM #12 — Painted square on southeast corner of upstream headwall of culvert under Textile Road Creek.

Elev. 724.57

RM #13 — Concrete post projecting 0.2 ft; with standard tablet stamped "4 PJH 1966", painted "BM"; located 160 ft. South, 33 ft. west of the Hitchingham and Whittaker Road intersection.

Elev. 748.15

RM #14 — 2½" Bronze Cap on the west side of Stony Creek Road on a concrete wingwall at Paint Creek, WCDC 15.

Elev. 728.71

RM #15 — Southeast corner of east abutment of bridge over weir at Retention Pond on south limit of P.C. 681.

Elev. 746.06

RM #16 — Yellow Square on northwest corner of north headwall of L-94 and

Paint Creek.

Elev. 754.41

RM #17 — 2½" Bronze Cap on the north side of Michigan Avenue at the east end of a headwell at Paint Creek, WCDC 10.

Elev. 757.10

RM #18 — 2½" Bronze Cap south of Congress St. at the west end of a headwall at Paint Creek, WCDC 9.

Elev. 766.58

THIS RUN EXECUTED 21 SEP 78 09.17.08

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED  AUG1977
  ERROR CORR -  01,02
  MODIFICATION -  50,51,52,53
**************************************************
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Run from Sta 91.000 to 83.10
superceded by 29 Mar 79 run.

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T1       CITY OF YPSILANTI, FIS
T2       HURON RIVER: FORD TO PENINSULAR DAMS
T3       TEN YEAR FLOW

J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ

       0.        2.         0.         0.  0.000000       0.00       0.0         0.    685.500      0.000

J2  NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE

     1.000      0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

NC       .060       .050       .045       .100       .300      0.000      0.000      0.000      0.000      0.000
QT      4.000   5775.000   8597.000   9844.000  13256.000      0.000      0.000      0.000      0.000      0.000

X1     91.000      7.000    100.000   1305.000      0.000      0.000      0.000      0.000      0.000      0.000
X3      0.000      0.000      0.000    850.000      0.000   1006.000      0.000      0.000      0.000      0.000
GR    700.000      0.000    690.000    100.000    676.000    120.000    676.000   1290.000    680.000   1300.000
GR    685.000   1305.000    690.000   1600.000      0.000      0.000      0.000      0.000      0.000      0.000

X1     91.100      0.000      0.000      0.000     50.000     50.000     50.000      0.000      0.000      0.000
X3      0.000      0.000      0.000    862.500      0.000    993.500      0.000      0.000      0.000      0.000

X1     91.200      0.000      0.000      0.000     30.000     30.000     30.000      0.000      0.000      0.000
X3      0.000      0.000      0.000    870.000      0.000    986.000      0.000      0.000      0.000      0.000
NC       .050       .050       .045       .600       .800      0.000      0.000      0.000      0.000      0.000

X1     90.100      6.000     35.250    141.590     20.000     20.000     20.000      0.000      0.000      0.000
X3     10.000      0.000      0.000      0.000      0.000      0.000      0.000    692.000    692.000      0.000
GR    694.170      0.000    694.170     10.000    676.000     35.250    676.000    141.590    694.170    168.840
GR    694.170    178.840      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
SB       .900      1.500      2.800      0.000    106.340      5.000   1571.000      0.000    676.000    676.000

X1     90.000      0.000      0.000      0.000    108.000    108.000    108.000      0.000      0.000      0.000
X2      0.000      0.000      1.000    691.500    694.170      0.000      0.000      0.000      0.000      0.000
X3     10.000      0.000      0.000      0.000      0.000      0.000      0.000    692.000    692.000      0.000
BT      8.000      0.000    694.170    694.170     10.000    694.170    694.170     35.250    694.170    676.000
BT     35.250    694.170    691.500    141.590    694.170    691.500    141.590    694.170    676.000    168.840
BT    694.170    694.170    178.840    694.170    694.170      0.000      0.000      0.000      0.000      0.000
NC       .040       .025       .045       .300       .500      0.000      0.000      0.000      0.000      0.000

X1     89.200     32.000    505.000    725.000     20.000     20.000     20.000      0.000      0.000      0.000
X3      0.000      0.000      0.000    530.000      0.000    670.000      0.000      0.000      0.000      0.000
GR    700.000      0.000    688.100      0.000    688.100    500.000    688.100    505.000    684.500    510.000
GR    677.700    520.000    677.000    530.000    676.800    540.000    677.200    550.000    677.500    560.000
GR    678.500    570.000    678.700    580.000    678.800    590.000    678.700    600.000    679.000    610.000
GR    678.700    620.000    678.400    630.000    678.700    640.000    678.500    650.000    678.500    660.000
```

GR	678.600	670.000	680.000	680.000	681.700	690.000	682.000	700.000	682.700	710.000
GR	684.500	720.000	685.900	725.000	687.000	1025.000	687.800	1175.000	687.400	1325.000
GR	688.800	1450.000	700.000	1450.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	89.210	0.000	0.000	0.000	20.000	20.000	20.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	525.000	0.000	695.000	0.000	0.000	0.000	0.000
X1	89.100	0.000	0.000	0.000	30.000	30.000	30.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	515.000	0.000	730.000	0.000	0.000	0.000	0.000
X1	89.000	0.000	0.000	0.000	80.000	80.000	80.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	500.000	0.000	800.000	0.000	0.000	0.000	0.000
X1	88.100	0.000	0.000	0.000	370.000	480.000	380.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	500.000	0.000	925.000	0.000	0.000	0.000	0.000
X1	88.000	27.000	300.000	422.000	50.000	50.000	50.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	300.000	0.000	720.000	0.000	0.000	0.000	0.000
GR	700.000	0.000	688.660	0.000	688.650	100.000	687.920	149.000	688.160	186.000
GR	688.160	300.000	683.500	300.000	679.300	310.000	677.000	320.000	676.900	330.000
GR	677.100	340.000	676.800	350.000	676.700	360.000	676.100	370.000	674.700	380.000
GR	675.800	390.000	676.400	400.000	678.400	410.000	683.300	422.000	685.900	422.000
GR	686.200	467.000	686.700	522.000	687.500	622.000	688.200	722.000	688.830	822.000
GR	688.500	1000.000	689.000	1300.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	1.500	3.000	0.000	122.000	0.000	1630.000	0.000	0.000	0.000
X1	87.300	0.000	0.000	0.000	10.000	10.000	10.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	689.800	686.200	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	300.000	0.000	720.000	0.000	0.000	0.000	0.000
BT	14.000	0.000	688.700	0.000	100.000	688.600	0.000	149.000	687.900	0.000
BT	186.000	688.200	0.000	300.000	691.200	690.700	360.000	691.900	691.400	422.000
BT	691.200	690.700	467.000	689.200	688.700	522.000	689.100	688.600	622.000	689.300
BT	688.800	722.000	689.700	689.200	822.000	688.800	0.000	1000.000	688.500	0.000
BT	1300.000	689.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.030	.025	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	87.200	32.000	505.000	725.000	50.000	50.000	50.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	500.000	0.000	970.000	0.000	0.000	0.000	0.000
GR	700.000	0.000	688.100	0.000	688.100	500.000	688.100	505.000	684.500	510.000
GR	676.900	520.000	676.200	530.000	676.000	540.000	676.400	550.000	676.700	560.000
GR	677.700	570.000	677.900	580.000	678.000	590.000	677.900	600.000	678.200	610.000
GR	677.900	620.000	677.600	630.000	677.900	640.000	677.700	650.000	677.700	660.000
GR	677.800	670.000	679.200	680.000	680.900	690.000	681.200	700.000	681.900	710.000
GR	684.500	720.000	685.900	725.000	687.000	1025.000	687.800	1175.000	687.400	1325.000
GR	688.800	1450.000	700.000	1450.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	87.100	0.000	0.000	0.000	430.000	500.000	530.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	500.000	0.000	1300.000	0.000	0.000	0.000	0.000
NH	4.000	.100	400.000	.045	620.000	.200	684.000	.025	1740.000	0.000
X1	87.000	36.000	400.000	620.000	50.000	50.000	50.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	400.000	0.000	1200.000	0.000	0.000	0.000	0.000
GR	689.750	35.000	689.300	100.000	688.500	200.000	687.800	300.000	687.000	400.000
GR	678.000	400.000	678.000	410.000	679.500	420.000	678.000	430.000	679.100	440.000
GR	677.100	450.000	675.200	457.000	676.500	473.000	678.200	480.000	677.600	490.000
GR	677.700	500.000	677.900	510.000	677.000	520.000	687.000	520.000	687.500	600.000
GR	687.700	620.000	687.900	660.000	688.600	674.000	687.200	684.000	687.100	720.000

GR	688.500	740.000	688.300	840.000	687.800	940.000	687.400	1040.000	687.800	1140.000
GR	688.100	1240.000	689.400	1340.000	692.600	1440.000	697.800	1540.000	704.800	1640.000
GR	712.800	1740.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	86.200	36.000	400.000	620.000	23.000	23.000	23.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	400.000	0.000	1200.000	0.000	0.000	0.000	0.000
GR	689.750	35.000	689.300	100.000	688.500	200.000	687.800	300.000	687.000	400.000
GR	678.000	400.000	678.000	410.000	679.500	420.000	678.000	430.000	679.100	440.000
GR	677.100	450.000	675.200	457.000	676.500	473.000	678.200	480.000	677.600	490.000
GR	677.700	500.000	677.900	510.000	677.000	520.000	687.000	520.000	687.500	600.000
GR	687.700	620.000	687.900	660.000	688.600	674.000	687.200	684.000	687.100	720.000
GR	688.500	740.000	688.300	840.000	687.800	940.000	687.400	1040.000	687.800	1140.000
GR	688.100	1240.000	689.400	1340.000	692.600	1440.000	697.800	1540.000	704.800	1640.000
GR	712.800	1740.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	4.000	.013	1109.000	.045	1311.000	.200	1482.000	.025	2482.000	0.000
X1	864.000	50.000	1109.000	1311.000	40.000	1.000	85.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	1109.000	0.000	1960.000	0.000	0.000	0.000	0.000
GR	706.600	0.000	706.500	100.000	706.200	200.000	705.900	300.000	703.700	400.000
GR	700.200	500.000	695.500	600.000	691.700	700.000	689.700	800.000	689.600	900.000
GR	691.600	1000.000	694.000	1100.000	694.000	1109.000	689.500	1109.000	685.000	1119.000
GR	684.000	1120.000	683.000	1124.000	682.000	1126.000	681.000	1131.000	680.000	1134.000
GR	681.000	1142.000	682.000	1149.000	683.000	1153.000	683.000	1169.000	682.500	1174.500
GR	682.200	1177.500	682.000	1180.000	681.000	1188.000	680.000	1210.000	679.000	1231.000
GR	678.000	1241.000	678.000	1242.500	678.000	1245.500	678.000	1300.000	679.000	1301.000
GR	680.000	1303.000	686.000	1311.000	694.000	1311.000	692.700	1382.000	690.000	1482.000
GR	688.300	1582.000	687.800	1682.000	687.400	1782.000	687.800	1882.000	688.100	1982.000
GR	689.400	2082.000	692.600	2182.000	697.800	2282.000	704.800	2382.000	712.800	2482.000
SB	1.500	1.650	3.000	0.000	129.500	6.000	2171.300	2.760	0.000	0.000
X1	864.100	50.000	1109.000	1311.000	80.000	80.000	80.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	691.700	687.400	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	1109.000	0.000	1960.000	0.000	0.000	0.000	0.000
BT	27.000	600.000	695.500	0.000	700.000	691.700	0.000	800.000	689.700	0.000
BT	900.000	689.600	0.000	1000.000	691.600	0.000	1100.000	694.000	0.000	1109.000
BT	694.000	0.000	1109.000	694.000	691.100	1174.500	694.300	691.400	1174.500	694.300
BT	682.500	1177.500	694.300	682.200	1177.500	694.300	691.400	1242.500	694.600	691.700
BT	1242.500	694.600	678.000	1245.500	694.600	678.000	1245.500	694.600	691.700	1311.000
BT	694.100	691.100	1311.000	694.100	0.000	1382.000	692.700	0.000	1482.000	690.000
BT	0.000	1582.000	688.300	0.000	1682.000	687.800	0.000	1782.000	687.400	0.000
BT	1882.000	687.800	0.000	1982.000	688.100	0.000	2082.000	689.400	0.000	2182.000
BT	697.800	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	706.600	0.000	706.500	100.000	706.200	200.000	705.900	300.000	703.700	400.000
GR	700.200	500.000	695.500	600.000	691.700	700.000	689.700	800.000	689.600	900.000
GR	691.600	1000.000	694.000	1100.000	694.000	1109.000	689.500	1109.000	685.000	1119.000
GR	684.000	1120.000	683.000	1124.000	682.000	1126.000	681.000	1131.000	680.000	1134.000
GR	681.000	1142.000	682.000	1149.000	683.000	1153.000	683.000	1169.000	682.500	1174.500
GR	682.200	1177.500	682.000	1180.000	681.000	1188.000	680.000	1210.000	679.000	1231.000
GR	678.000	1241.000	678.000	1242.500	678.000	1245.500	678.000	1300.000	679.000	1301.000
GR	680.000	1303.000	686.000	1311.000	694.000	1311.000	692.700	1382.000	690.000	1482.000
GR	688.300	1582.000	687.800	1682.000	687.400	1782.000	687.800	1882.000	688.100	1982.000
GR	689.400	2082.000	692.600	2182.000	697.800	2282.000	704.800	2382.000	712.800	2482.000
NH	4.000	.013	950.000	.045	1252.000	.200	1500.000	.040	2000.000	0.000
X1	86.000	41.000	1050.000	1252.000	1.000	270.000	85.000	0.000	0.000	0.000
GR	706.600	0.000	706.500	100.000	706.200	200.000	705.900	300.000	703.700	400.000
GR	700.500	500.000	695.500	600.000	691.700	700.000	689.700	800.000	689.600	900.000
GR	690.600	950.000	690.500	1050.000	684.500	1060.000	680.200	1070.000	679.800	1080.000
GR	681.900	1091.000	682.500	1100.000	681.900	1110.000	680.700	1120.000	680.100	1130.000
GR	680.100	1140.000	680.300	1150.000	680.100	1160.000	679.200	1170.000	678.600	1180.000
GR	677.700	1190.000	677.900	1200.000	678.100	1210.000	677.200	1220.000	678.000	1230.000
GR	679.500	1240.000	681.500	1250.000	687.800	1252.000	687.800	1470.000	687.500	1550.000

GR	687.400	1650.000	687.600	1750.000	687.500	1850.000	687.800	1900.000	690.000	1960.000
GR	695.000	2070.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NH	4.000	.060	100.000	.045	220.000	.200	1200.000	.040	1690.000	0.000
X1	85.100	23.000	100.000	220.000	1170.000	220.000	1170.000	0.000	0.000	0.000
GR	707.500	5.000	695.400	25.000	694.500	60.000	699.100	85.000	698.500	100.000
GR	684.100	120.000	679.600	130.000	678.900	140.000	679.400	150.000	679.900	160.000
GR	681.100	170.000	681.900	180.000	682.600	190.000	683.100	200.000	683.700	210.000
GR	684.100	215.000	685.500	220.000	687.000	290.000	686.600	600.000	686.600	1200.000
GR	686.600	1400.000	690.000	1600.000	695.000	1690.000	0.000	0.000	0.000	0.000
NH	4.000	.060	100.000	.045	220.000	.080	700.000	.040	1500.000	0.000
X1	85.000	22.000	100.000	220.000	450.000	500.000	450.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	111.000	0.000	1460.000	0.000	0.000	0.000	0.000
GR	707.500	5.000	695.400	25.000	694.500	60.000	699.100	85.000	698.500	100.000
GR	684.800	120.000	680.300	130.000	679.600	140.000	680.100	150.000	680.600	160.000
GR	681.800	170.000	682.600	180.000	683.300	190.000	683.800	200.000	684.400	210.000
GR	684.800	215.000	685.500	220.000	687.000	290.000	686.600	600.000	686.600	1300.000
GR	690.000	1400.000	695.000	1500.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.060	.060	.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	84.000	17.000	400.000	520.000	1450.000	1045.000	1450.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	100.000	0.000	594.000	0.000	0.000	0.000	0.000
GR	691.500	80.000	693.700	270.000	692.600	400.000	685.700	413.000	684.100	420.000
GR	683.300	430.000	682.400	440.000	681.700	450.000	680.800	460.000	680.200	470.000
GR	680.000	480.000	681.800	490.000	684.600	500.000	685.700	502.000	694.600	520.000
GR	694.000	540.000	694.900	565.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	.080	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	83.100	24.000	500.000	613.000	1170.000	1170.000	1170.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	480.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	701.960	0.000	700.090	100.000	698.540	200.000	698.100	300.000	697.700	400.000
GR	697.000	490.000	685.500	500.000	682.600	503.000	680.100	513.000	678.500	523.000
GR	678.600	533.000	678.400	543.000	678.400	553.000	679.500	563.000	680.800	573.000
GR	681.500	583.000	683.600	593.000	685.100	603.000	686.600	613.000	704.000	660.000
GR	718.200	713.000	725.140	813.000	727.530	858.000	729.210	913.000	0.000	0.000
NC	0.000	0.000	0.000	.100	.300	0.000	0.000	0.000	0.000	0.000
X1	83.000	0.000	0.000	0.000	50.000	50.000	50.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	698.100	710.000	0.000
SB	0.000	1.500	3.000	0.000	100.000	0.000	2200.000	0.000	680.000	680.000
X1	82.100	0.000	0.000	0.000	80.500	80.500	80.500	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	698.100	710.000	0.000
X2	0.000	0.000	1.000	706.250	698.100	0.000	0.000	0.000	.850	0.000
BT	23.000	0.000	701.960	701.960	100.000	700.090	700.090	200.000	698.540	698.540
BT	300.000	698.100	698.100	400.000	700.100	697.700	490.000	703.500	697.000	500.000
BT	704.650	685.500	513.000	705.000	695.000	523.000	705.600	698.500	533.000	706.000
BT	701.300	543.000	706.500	703.300	553.000	707.000	705.000	563.000	707.500	706.250
BT	573.000	708.100	703.500	583.000	708.900	701.600	593.000	709.400	699.000	603.000
BT	710.000	695.000	613.000	710.700	686.600	660.000	704.000	704.000	713.000	718.200
BT	718.200	813.000	725.140	725.140	858.000	727.530	727.530	913.000	729.210	729.210
NC	.080	.080	.050	.100	.300	0.000	0.000	0.000	0.000	0.000
X1	82.000	18.000	175.000	305.000	100.000	100.000	100.000	0.000	0.000	0.000
GR	699.600	118.000	699.900	175.000	689.800	190.000	688.700	200.000	686.600	205.000
GR	682.900	215.000	682.700	225.000	682.600	235.000	682.200	245.000	682.800	255.000
GR	682.800	265.000	683.900	275.000	685.300	285.000	686.600	290.000	693.300	305.000
GR	693.600	405.000	695.700	475.000	704.200	490.000	0.000	0.000	0.000	0.000

NC	.080	.070	0.000	.100	.300	0.000	0.000	0.000	0.000	0.000
X1	81.000	30.000	100.000	313.000	1940.000	1940.000	1940.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	714.000	714.000	0.000
GR	714.200	0.000	710.000	80.000	690.900	100.000	690.900	110.000	689.600	120.000
GR	689.000	130.000	688.750	133.000	688.500	140.000	688.000	150.000	687.500	160.000
GR	689.000	166.000	688.300	170.000	687.500	174.000	688.700	180.000	689.000	190.000
GR	689.000	200.000	688.800	210.000	689.200	220.000	689.300	230.000	689.400	241.000
GR	688.700	249.000	689.700	260.000	689.700	270.000	689.400	280.000	689.600	290.000
GR	689.200	300.000	690.300	310.000	690.600	313.000	710.000	333.000	717.800	413.000
SB	0.000	1.500	2.800	0.000	213.000	0.000	3720.000	0.000	689.000	689.000
X1	80.100	0.000	0.000	0.000	46.000	46.000	46.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	713.100	714.200	0.000	0.000	0.000	.820	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	715.900	716.100	0.000
BT	32.000	0.000	714.200	714.200	80.000	715.500	710.000	100.000	715.900	690.900
BT	100.000	715.900	700.000	110.000	715.900	707.000	120.000	715.900	710.300	133.000
BT	715.900	713.100	140.000	715.950	711.700	150.000	715.950	709.000	160.000	715.950
BT	705.000	166.000	715.950	700.000	166.000	715.950	689.000	174.000	716.000	687.500
BT	174.000	716.000	700.000	180.000	716.000	704.000	190.000	716.000	709.000	205.000
BT	716.000	713.100	220.000	716.000	709.500	230.000	716.000	706.000	240.000	716.000
BT	696.000	241.000	716.000	689.400	249.000	716.050	688.700	250.000	716.050	696.000
BT	260.000	716.060	707.000	270.000	716.070	710.500	280.000	716.080	713.100	290.000
BT	716.080	710.800	300.000	716.090	707.700	310.000	716.100	702.000	313.000	716.100
BT	690.600	333.000	716.300	710.000	413.000	717.800	717.800	0.000	0.000	0.000
NC	.100	.070	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	80.000	20.000	103.000	235.000	200.000	200.000	200.000	0.000	0.000	0.000
GR	704.400	75.000	693.000	100.000	690.900	103.000	689.800	110.000	689.500	120.000
GR	689.400	130.000	689.200	140.000	688.800	150.000	688.500	160.000	687.900	170.000
GR	687.700	180.000	687.600	190.000	688.400	200.000	688.000	210.000	688.100	220.000
GR	688.900	230.000	690.900	235.000	700.800	257.000	701.900	351.000	723.300	380.000
NC	0.000	0.000	0.000	.100	.300	0.000	0.000	0.000	0.000	0.000
X1	79.000	23.000	300.000	427.000	860.000	860.000	860.000	0.000	0.000	0.000
GR	706.500	80.000	707.000	115.000	703.800	265.000	696.600	279.000	694.000	300.000
GR	691.800	305.000	690.300	310.000	688.800	320.000	688.000	330.000	687.100	340.000
GR	686.700	350.000	686.800	360.000	686.900	370.000	687.300	380.000	688.000	390.000
GR	687.800	400.000	687.500	410.000	690.400	420.000	691.800	422.000	693.400	427.000
GR	697.800	432.000	708.000	454.000	713.300	470.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.100	.300	0.000	0.000	0.000	0.000	0.000
X1	78.000	19.000	200.000	343.000	175.000	175.000	175.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	710.000	710.000	0.000
GR	716.900	100.000	710.000	160.000	689.700	200.000	689.500	203.000	688.400	213.000
GR	688.200	223.000	688.300	233.000	688.700	243.000	688.700	253.000	689.500	263.000
GR	689.600	273.000	690.400	283.000	690.600	293.000	690.600	296.000	690.800	303.000
GR	691.800	309.000	704.900	343.000	707.000	343.000	712.900	443.000	0.000	0.000
SB	1.250	1.500	2.700	0.000	99.000	2.000	1822.000	1.330	689.000	689.000
X1	77.200	0.000	0.000	0.000	60.000	60.000	60.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	704.900	712.900	0.000	0.000	0.000	.980	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	710.000	710.000	0.000
BT	8.000	100.000	716.900	716.900	160.000	715.500	710.000	200.000	714.700	689.700
BT	200.000	714.700	703.500	293.000	714.000	704.400	343.000	713.300	704.900	343.000
BT	713.300	707.000	443.000	712.900	712.900	0.000	0.000	0.000	0.000	0.000
NC	.080	.080	0.000	.200	.400	0.000	0.000	0.000	0.000	0.000
X1	77.100	0.000	0.000	0.000	35.000	35.000	35.000	0.000	0.000	0.000

GROSS ST.

8112'

1,300'

	C	.080	.080	0.000	.200	.400	0.000	0.000	0.000	0.000	0.000
	X1	77.000	16.000	200.000	319.000	35.000	35.000	35.000	0.000	0.000	0.000
	X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	715.000	715.000	0.000
	GR	716.800	100.000	716.800	180.000	692.200	200.000	690.900	210.000	687.200	220.000
	GR	684.400	230.000	684.700	240.000	686.700	250.000	690.000	251.000	689.100	264.500
	GR	688.400	270.000	690.600	280.000	692.200	287.000	702.400	319.000	716.500	350.000
	GR	716.300	419.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	SB	1.250	1.500	2.700	0.000	65.000	7.000	1753.000	1.250	686.000	686.000
	X1	76.100	0.000	0.000	0.000	28.000	28.000	28.000	0.000	0.000	0.000
	X2	0.000	0.000	1.000	706.300	716.300	0.000	0.000	0.000	0.000	0.000
	X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	715.000	715.000	0.000
	BT	8.000	100.000	716.800	716.800	180.000	716.800	716.800	200.000	716.800	692.200
	BT	200.000	716.800	706.300	319.000	716.500	706.300	319.000	716.500	702.400	350.000
	BT	716.500	716.500	419.000	716.300	716.300	0.000	0.000	0.000	0.000	0.000
	NC	.100	.080	0.000	.100	.300	0.000	0.000	0.000	0.000	0.000
	X1	76.000	15.000	15.000	107.000	200.000	200.000	200.000	0.000	0.000	0.000
	GR	721.300	0.000	692.200	15.000	690.600	17.000	688.600	27.000	688.000	37.000
	GR	688.500	47.000	690.000	57.000	689.200	67.000	690.000	77.000	690.800	87.000
	GR	692.200	92.000	697.900	107.000	696.500	257.000	697.300	347.000	706.400	427.000
	NC	.100	.070	0.000	.100	.300	0.000	0.000	0.000	0.000	0.000
	X1	75.000	26.000	210.000	345.000	2790.000	2570.000	2570.000	0.000	0.000	0.000
	GR	755.500	51.000	747.800	67.000	722.800	115.000	705.400	175.000	703.300	200.000
	GR	697.500	205.000	696.200	210.000	694.800	212.000	692.900	220.000	692.100	230.000
	GR	691.900	240.000	691.800	250.000	691.900	260.000	691.900	270.000	692.100	280.000
	GR	692.600	290.000	693.100	300.000	693.600	310.000	694.100	320.000	694.500	330.000
	GR	693.900	340.000	694.800	342.000	696.800	345.000	698.300	365.000	701.900	420.000
	GR	706.800	430.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	NC	.080	.090	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	X1	74.000	23.000	225.000	375.000	1000.000	1000.000	1000.000	0.000	0.000	0.000
	GR	727.000	60.000	725.200	75.000	709.300	160.000	705.000	200.000	698.200	225.000
	GR	697.400	235.000	696.700	245.000	696.000	255.000	696.100	265.000	695.900	275.000
	GR	695.800	285.000	695.900	295.000	695.800	305.000	695.300	315.000	695.400	325.000
	GR	695.200	335.000	695.400	345.000	696.300	355.000	696.500	365.000	698.200	375.000
	GR	712.800	405.000	714.300	480.000	717.400	565.000	0.000	0.000	0.000	0.000
	NC	0.000	0.000	0.000	.100	.300	0.000	0.000	0.000	0.000	0.000
	X1	73.000	47.000	500.000	639.000	200.000	200.000	200.000	0.000	0.000	0.000
	X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	718.000	716.500	0.000
	GR	749.500	0.000	746.000	100.000	740.000	200.000	731.500	300.000	724.000	400.000
	GR	715.000	450.000	701.000	500.000	699.000	510.000	698.200	514.000	697.500	519.000
	GR	697.500	520.000	697.000	529.000	697.000	530.000	697.000	539.000	697.000	540.000
	GR	695.200	549.000	693.500	559.000	693.500	560.000	694.000	563.000	694.500	567.000
	GR	695.500	569.000	695.500	573.000	695.000	575.000	694.800	576.000	694.500	579.000
	GR	694.400	580.000	693.300	589.000	693.300	590.000	696.100	599.000	696.000	605.000
	GR	696.000	609.000	695.300	619.000	695.300	620.000	694.500	629.000	694.500	630.000
	GR	696.300	638.000	696.300	639.000	710.000	660.000	714.500	739.000	716.500	775.000
	GR	721.000	900.000	725.300	975.000	725.000	1020.000	726.300	1075.000	726.800	1120.000
	GR	731.100	1133.000	732.500	1300.000	0.000	0.000	0.000	0.000	0.000	0.000
	SB	0.000	1.500	3.000	0.000	120.000	0.000	2140.000	0.000	695.000	695.000
	X1	72.300	0.000	0.000	0.000	30.000	30.000	30.000	0.000	0.000	0.000
	X2	0.000	0.000	1.000	716.000	716.500	0.000	0.000	0.000	0.000	0.000
	X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	719.700	716.500	0.000
	BT	34.000	0.000	749.500	749.500	100.000	746.000	746.000	200.000	740.000	740.000

BT	300.000	731.500	731.500	400.000	724.000	724.000	450.000	721.000	715.000	500.000
BT	719.700	701.000	510.000	719.600	708.000	520.000	719.500	712.000	530.000	719.500
BT	714.000	540.000	719.400	716.000	560.000	719.300	710.000	563.000	719.300	706.300
BT	567.000	719.300	701.000	569.000	719.200	695.500	575.000	719.200	695.500	576.000
BT	719.200	705.300	580.000	719.200	709.000	590.000	719.200	713.000	605.000	719.100
BT	716.000	620.000	719.100	713.000	630.000	719.000	710.000	638.000	719.000	701.000
BT	639.000	719.000	696.300	660.000	718.900	710.000	739.000	717.500	714.300	775.000
BT	716.500	716.500	900.000	721.000	721.000	975.000	725.300	725.300	1020.000	725.000
BT	725.000	1075.000	726.300	726.300	1120.000	726.800	726.800	1133.000	731.100	731.100
BT	1300.000	732.500	732.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

THIS RUN EXECUTED 21 SEP 78 09.17.22

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED  AUG1977
  ERROR CORR -  01,02
  MODIFICATION -  50,51,52,53
**************************************************

T1      CITY OF YPSILANTI, FIS
T2      HURON RIVER: FORD TO PENINSULAR DAMS
T3      ONE HUNDRED YEAR FLOW

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

       0.       4.        0.        0.  0.000000      0.00      0.0       0.   686.000     0.000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

     3.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
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Data Sta 91 — 82.10 superceded

by 29 Mar 79 ram

*PROF 3

CCHV= .100 CEHV= .300
*SECNO 91.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

687.9

3470 ENCROACHMENT STATIONS= 850.0 1006.0 TYPE= 1 TARGET= 156.000

91.00	10.00	686.00	0.00	686.00	686.62	.62	0.00	0.00	100000.00
9844.	0.	9844.	0.	0.	1560.	0.	0.	0.	100000.00
0.00	0.00	6.31	0.00	.060	.045	.050	0.000	676.00	850.00
.001990	0.	0.	0.	0	0	0	0.00	156.00	1006.00

*SECNO 91.100

3470 ENCROACHMENT STATIONS= 862.5 993.5 TYPE= 1 TARGET= 131.000

91.10	9.93	685.93	0.00	0.00	686.82	.89	.12	.08	100000.00
9844.	0.	9844.	0.	0.	1301.	0.	2.	0.	100000.00
.00	0.00	7.57	0.00	.060	.045	.050	.044	676.00	862.50
.002969	50.	50.	50.	2	0	0	0.00	131.00	993.50

*SECNO 91.200

3470 ENCROACHMENT STATIONS= 870.0 986.0 TYPE= 1 TARGET= 116.000

91.20	9.85	685.85	0.00	0.00	687.00	1.15	.10	.08	100000.00
9844.	0.	9844.	0.	0.	1142.	0.	2.	0.	100000.00
.00	0.00	8.62	0.00	.060	.045	.050	.044	676.00	870.00
.003974	30.	30.	30.	2	0	0	0.00	116.00	986.00

CCHV= .600 CEHV= .800
*SECNO 90.100

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 692.00 ELREA= 692.00

90.10	9.88	685.88	0.00	0.00	687.25	1.36	.08	.17	676.00
9844.	0.	9844.	0.	0.	1051.	0.	3.	0.	676.00
.00	0.00	9.37	0.00	.050	.045	.050	.044	676.00	35.25
.003813	20.	20.	20.	2	0	0	0.00	106.34	141.59

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	.90	1.50	2.80	0.00	106.34	5.00	1571.00	0.00	676.00	676.00

*SECNO 90.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CLASS A LOW FLOW

3420 BRIDGE W.S.= 685.68 BRIDGE VELOCITY=, 10.04 CALCULATED CHANNEL AREA=, 981.

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
0.00	687.39	.19	0.	9844.	1571.	1571.	691.50	694.17

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 692.00 ELREA= 692.00

90.00	10.08	686.08	0.00	0.00	687.39	1.31	.14	0.00	676.00
9844.	0.	9844.	0.	0.	1072.	0.	6.	1.	676.00
.01	0.00	9.19	0.00	.050	.045	.050	.044	676.00	35.25
.003575	108.	108.	108.	0	0	0	0.00	106.34	141.59

CCHV= .300 CEHV= .500
*SECNO 89.200

3470 ENCROACHMENT STATIONS= 530.0 670.0 TYPE= 1 TARGET= 140.000

89.20	9.53	686.33	0.00	0.00	687.51	1.18	.08	.04	100000.00
9844.	0.	9844.	0.	0.	1128.	0.	6.	1.	100000.00
.01	0.00	8.72	0.00	.040	.045	.025	.044	676.80	530.00
.005043	20.	20.	20.	2	0	0	0.00	140.00	670.00

*SECNO 89.210

3470 ENCROACHMENT STATIONS= 525.0 695.0 TYPE= 1 TARGET= 170.000

89.21	10.19	686.99	0.00	0.00	687.72	.73	.07	.14	100000.00
9844.	0.	9844.	0.	0.	1436.	0.	7.	1.	100000.00
.01	0.00	6.86	0.00	.040	.045	.025	.044	676.80	525.00
.002808	20.	20.	20.	2	0	0	0.00	170.00	695.00

*SECNO 89.100

3470 ENCROACHMENT STATIONS= 515.0 730.0 TYPE= 1 TARGET= 215.000

89.10	10.54	687.34	0.00	0.00	687.86	.51	.07	.07	100000.00
9844.	0.	9824.	20.	0.	1708.	7.	8.	1.	685.90
.01	0.00	5.75	2.82	.040	.045	.025	.044	676.80	515.00
.001949	30.	30.	30.	2	0	0	0.00	215.00	730.00

*SECNO 89.000

3470 ENCROACHMENT STATIONS= 500.0 800.0 TYPE= 1 TARGET= 300.000

89.00	10.80	687.60	0.00	0.00	688.02	.42	.14	.03	688.10
9844.	0.	9475.	369.	0.	1793.	117.	11.	1.	685.90
.01	0.00	5.29	3.15	.040	.045	.025	.044	676.80	505.70
.001592	80.	80.	80.	2	0	0	0.00	294.30	800.00

$A_T = 1910$

$Y_n = 5.15 \sim 5.2$

*SECNO 88.100

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 500.0 925.0 TYPE= 1 TARGET= 425.000

88.10	11.46	688.26	0.00	0.00	688.55	.29	.49	.04	688.10
9844.	0.	8643.	1200.	1.	1939.	400.	30.	5.	685.90
.04	.35	4.46	3.00	.040	.045	.025	.044	676.80	500.00
.001025	370.	380.	480.	2	0	0	0.00	425.00	925.00

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*SECNO 88.000

3470 ENCROACHMENT STATIONS=      300.0      720.0  TYPE=      1  TARGET=      420.000
    88.00     13.46    688.16      0.00      0.00    688.80       .64       .07       .18    688.16
    9844.        0.     8761.     1083.        0.     1308.      326.       33.        5.    685.90
      .04      0.00      6.70      3.33      .040      .045      .025      .044    674.70    300.00
  .001929       50.       50.       50.         2         0         0      0.00    416.07    716.07


SPECIAL BRIDGE

5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
SB  XK         XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
     0.00       1.50       3.00       0.00     122.00       0.00    1630.00       0.00     674.70     674.70

*SECNO 87.300

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS=      0.000  EGLWC=    688.797  ELLC=    689.800  PCWSE=    688.158  ELTRD=    686.200

3370 NORMAL BRIDGE,NRD= 14 MIN ELTRD=  686.20 MAX ELLC=  689.80
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689.2 is lowest in effective area ⇒ no weir flow

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3470 ENCROACHMENT STATIONS=      300.0      720.0  TYPE=      1  TARGET=      420.000
    87.30     13.49    688.19      0.00      0.00    688.82       .63       .02       .00    688.16
    9844.        0.     8728.     1116.        0.     1311.      335.       33.        5.    685.90
      .04      0.00      6.66      3.33      .040      .045      .025      .044    674.70    300.00
  .001900       10.       10.       10.         2         0         0      0.00    420.00    720.00


*SECNO 87.200

3470 ENCROACHMENT STATIONS=      500.0      970.0  TYPE=      1  TARGET=      470.000
    87.20     12.80    688.80      0.00      0.00    689.00       .20       .05       .13    688.10
    9844.        3.     8256.     1585.        4.     2217.      601.       35.        6.    685.90
      .05       .88      3.72      2.64      .030      .045      .025      .044    676.00    500.00
  .000600       50.       50.       50.         2         0         0      0.00    470.00    970.00


*SECNO 87.100

3470 ENCROACHMENT STATIONS=      500.0     1300.0  TYPE=      1  TARGET=      800.000
    87.10     13.14    689.14      0.00      0.00    689.28       .13       .26       .02    688.10
    9844.        5.     7204.     2635.        5.     2292.     1259.       74.       13.    685.90
      .10       .91      3.14      2.09      .030      .045      .025      .045    676.00    500.00
  .000409      430.      530.      500.         2         0         0      0.00    800.00   1300.00


1490 NH CARD USED
*SECNO 87.000
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


3470 ENCROACHMENT STATIONS=      400.0     1200.0  TYPE=      1  TARGET=      800.000
    87.00     13.88    689.08      0.00      0.00    689.42       .34       .04       .11    687.00
    9844.        0.     7816.     2028.        0.     1548.      707.       77.       14.    687.70
      .10      0.00      5.05      2.87      .030      .045      .027      .045    675.20    400.00
  .001973       50.       50.       50.         2         0         0      0.00    800.00   1200.00
```
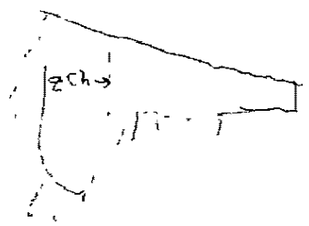

Trap Area = (689.8 - 674.7) 122 = 1842 ft² ≠ 1630 ft²

V = 5.98 @ d/s

V = 5.98 @ u/s



*SECNO 86.200

3470 ENCROACHMENT STATIONS= 400.0 1200.0 TYPE= 1 TARGET= 800.000

86.20	13.94	689.14	0.00	0.00	689.47	.32	.04	.01	687.00
9844.	0.	7705.	2139.	0.	1562.	746.	78.	15.	687.70
.10	0.00	4.93	2.87	.030	.045	.027	.044	675.20	400.00
.001858	23.	23.	23.	2	0	0	0.00	800.00	1200.00

1490 NH CARD USED
*SECNO 864.000

3265 DIVIDED FLOW

Spring Ave.

3470 ENCROACHMENT STATIONS= 1109.0 1960.0 TYPE= 1 TARGET= 851.000

864.00	11.27	689.27	0.00	0.00	689.57	.31	.10	.01	694.00
9844.	0.	8304.	1540.	0.	1766.	589.	81.	15.	694.00
.11	0.00	4.70	2.62	.030	.045	.025	.045	678.00	1109.51
.001183	40.	85.	1.	2	0	0	0.00	636.47	1960.00

SPECIAL BRIDGE

5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.50	1.65	3.00	0.00	129.50	6.00	2171.30	2.76	678.00	678.00

*SECNO 864.100
6840,FLOW IS BY WEIR AND LOW FLOW
6870 D.S. ENERGY OF 689.57 HIGHER THAN COMPUTED ENERGY OF 689.57

3265 DIVIDED FLOW

3420 BRIDGE W.S.= 689.30 BRIDGE VELOCITY= 4.19 CALCULATED CHANNEL AREA= 1748.

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
691.70	689.57	.03	2541.	7321.	2171.	2210.	691.70	687.40

Perched → normal bridge?
little effect on profile maybe .1ft

3470 ENCROACHMENT STATIONS= 1109.0 1960.0 TYPE= 1 TARGET= 851.000

864.10	11.27	689.27	0.00	0.00	689.57	.31	0.00	0.00	694.00
9844.	0.	8300.	1544.	0.	1767.	590.	86.	16.	694.00
.11	0.00	4.70	2.62	.030	.045	.025	.045	678.00	1109.51
.001180	80.	80.	80.	2	0	4	0.00	636.69	1960.00

1490 NH CARD USED
*SECNO 86.000

	86.00	12.25	689.45	0.00	0.00	689.71	.26	.12	.01	690.50
	9844.	0.	8231.	1613.	0.	1859.	1217.	95.	20.	687.80
B	.12	0.00	4.43	1.33	.030	.045	.052	.044	677.20	1051.75
	.000968	1.	85.	270.	2	0	0	0.00	893.31	1945.06

A_T = 3076
V_2 = 3.20

1490 NH CARD USED
*SECNO 85.100

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

85.10	11.56	690.46	0.00	0.00	690.61	.15	.87	.03	698.50
9844.	0.	4237.	5607.	0.	926.	4948.	148.	29.	685.50
.21	0.00	4.57	1.13	.030	.045	.106	.051	678.90	111.17
.001150	1170.	1170.	220.	2	0	0	0.00	1497.07	1608.24

— Treatment Plant in ROB

Possible divided flow

1490 NH CARD USED
*SECNO 85.000

3470 ENCROACHMENT STATIONS= 111.0 1460.0 TYPE= 1 TARGET= 1349.000

85.00	11.28	690.88	0.00	0.00	690.93	.05	.29	.03100000	0.00
9844.	0.	2310.	7534.	0.	899.	4851.	214.	45.	685.50
.28	0.00	2.57	1.55	.030	.045	.048	.049	679.60	111.12
.000376	450.	450.	500.	2	0	0	0.00	1306.48	1417.60

$A_T = 5190.$

$V_n = 1.11$

*SECNO 84.000

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 100.0 594.0 TYPE= 1 TARGET= 494.000

84.00	11.22	691.22	0.00	0.00	693.21	1.99	1.31	.97	692.60
9844.	0.	9844.	0.	0.	869.	0.	301.	63.	694.60
.31	0.00	11.32	0.00	.060	.045	.060	.049	680.00	402.58
.007872	1450.	1450.	1045.	2	0	0	0.00	110.61	513.19

*SECNO 83.100

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 480.0 913.0 TYPE= 1 TARGET= ~480.000

83.10	17.09	695.49	0.00	0.00	696.01	.52	2.35	.44	685.50
9844.	71.	9619.	154.	43.	1647.	107.	337.	67.	686.60
.37	1.64	5.84	1.44	.060	.045	.080	.049	678.40	491.31
.000901	1170.	1170.	1170.	2	0	0	0.00	145.70	637.01

USE 29 Mar 1979

CCHV= .100 CEHV= .300
*SECNO 83.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 698.10 ELREA= 710.00

83.00	17.12	695.52	0.00	0.00	696.07	.55	.05	.01	685.50
9844.	0.	9844.	0.	0.	1650.	0.	339.	67.	686.60
.37	0.00	5.96	0.00	.060	.045	.080	.048	678.40	500.00
.001038	50.	50.	50.	2	0	0	0.00	113.00	613.00

SPECIAL BRIDGE Michigan Ave

$A_{TRAP} = 2625$?

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.50	3.00	0.00	100.00	0.00	2200.00	0.00	680.00	680.00

Arch span, since it is flow in the wide section of the bridge, the rectangle is not too bad of an estimate

*SECNO 82.100

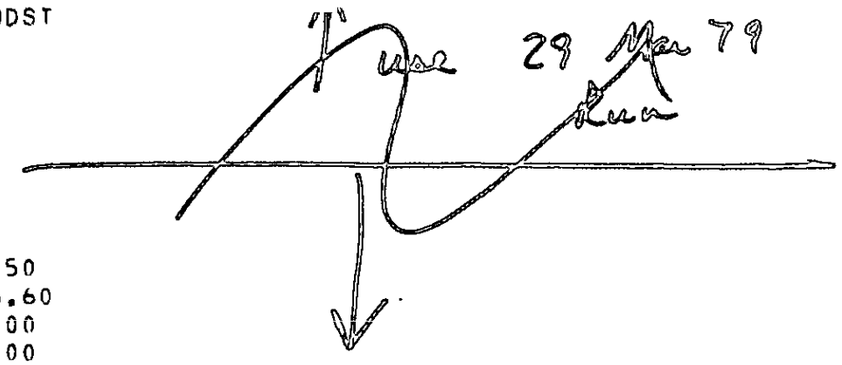
6070,LOW FLOW BY NORMAL BRIDGE

EGPRS= 0.000 EGLWC= 697.566 ELLC= 706.250 PCWSE= 695.517 ELTRD= 698.100

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA

A

SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOP.ID	ENDST



3370 NORMAL BRIDGE,NRD= 23 MIN ELTRD= 698.10 MAX ELLC= 706.25

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 698.10 ELREA= 710.00

82.10	17.16	695.56	0.00	0.00	696.21	.65	.11	.03	685.50
9844.	0.	9844.	0.	0.	1527.	0.	342.	67.	686.60
.37	0.00	6.45	0.00	.060	.045	.080	.048	678.40	500.00
.001793	81.	81.	81.	2	0	0	-129.00	113.00	613.00

CCHV= .100 CEHV= .300
*SECNO 82.000

82.00	13.46	695.66	0.00	0.00	696.49	.83	.23	.05	699.90
9844.	0.	9388.	456.	0.	1258.	292.	345.	68.	693.30
.38	0.00	7.46	1.56	.080	.050	.080	.048	682.20	181.29
.003005	100.	100.	100.	2	0	0	0.00	292.43	473.73

A_T = 1540

CCHV= .100 CEHV= .300
*SECNO 81.000

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 714.00 ELREA= 714.00

81.00	11.94	699.44	0.00	0.00	699.76	.31	3.22	.05	690.90
9844.	0.	9844.	0.	0.	2189.	0.	429.	79.	690.60
.50	0.00	4.50	0.00	.080	.050	.070	.049	687.50	100.00
.001050	1940.	1940.	1940.	3	0	0	0.00	213.00	313.00

Cross st

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.50	2.80	0.00	213.00	0.00	3720.00	0.00	689.00	689.00

Appears to be a triple arch span, flow is in a rectangular portion of the bridge. There does appear to be "piers", it would appear there is less area available than as modeled.

Loss appears reasonable ✓

*SECNO 80.100

6070,LOW FLOW BY NORMAL BRIDGE $A = 2223.7\ ft^2$

EGPRS= 0.000 EGLWC= 701.182 ELLC= 713.100 PCWSE= 699.443 ELTRD= 714.200

3370 NORMAL BRIDGE,NRD= 32 MIN ELTRD= 714.20 MAX ELLC= 713.10

$2(125)\left(125+10\frac{.31}{17.12}-.6\right)\left(\frac{=150}{3720}+(.043)^{\frac{1}{2}}15\right).31$

$= .026$

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 715.90 ELREA= 716.10

80.10	11.95	699.45	0.00	0.00	699.84	.40	.06	.03	690.90
9844.	0.	9844.	0.	0.	1942.	0.	431.	79.	690.60
.50	0.00	5.07	0.00	.080	.050	.070	.049	687.50	100.00
.001769	46.	46.	46.	2	0	0	-247.50	213.00	313.00

*SECNO 80.000

80.00	12.05	699.65	0.00	0.00	700.30	.65	.38	.08	690.90
9844.	120.	9519.	204.	72.	1447.	85.	439.	80.	690.90
.51	1.68	6.58	2.40	.100	.050	.070	.049	687.60	85.43
.002024	200.	200.	200.	2	0	0	0.00	169.01	254.44

CCHV= .100 CEHV= .300
*SECNO 79.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
79.00	14.48	701.18	0.00	0.00	701.70	.52	1.38	.01	694.00
9844.	233.	9542.	68.	144.	1633.	40.	473.	83.	693.40
.55	1.62	5.84	1.70	.100	.050	.070	.049	686.70	270.09
.001311	860.	860.	860.	2	0	0	0.00	169.20	439.29

CCHV= .100 CEHV= .300
*SECNO 78.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 710.00 ELREA= 710.00

78.00	13.13	701.33	0.00	0.00	702.08	.74	.31	.07	689.70
9844.	0.	9844.	0.	0.	1422.	0.	479.	84.	707.00
.56	0.00	6.92	0.00	.100	.050	.070	.049	688.20	200.00
.002585	175.	175.	175.	2	0	0	0.00	133.75	333.75

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.50	2.70	0.00	99.00	2.00	1822.00	1.33	689.00	689.00

*SECNO 77.200
CLASS A LOW FLOW

3420 BRIDGE W.S.= 701.30 BRIDGE VELOCITY=, 7.06 CALCULATED CHANNEL AREA=, 1395.

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
0.00	702.11	.04	0.	9844.	1822.	1879.	704.90	712.90

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 710.00 ELREA= 710.00

77.20	13.17	701.37	0.00	0.00	702.11	.74	.03	0.00	689.70
9844.	0.	9844.	0.	0.	1427.	0.	481.	84.	707.00
.56	0.00	6.90	0.00	.100	.050	.070	.049	688.20	200.00
.002556	60.	60.	60.	0	0	0	0.00	133.85	333.85

CCHV= .200 CEHV= .400
*SECNO 77.100

77.10	13.37	701.57	0.00	0.00	702.21	.64	.08	.02	689.70
9844.	355.	9489.	0.	139.	1453.	0.	482.	84.	707.00
.56	2.56	6.53	0.00	.080	.050	.080	.049	688.20	176.61
.002058	35.	35.	35.	2	0	0	0.00	157.75	334.36

CCHV= .200 CEHV= .400
*SECNO 77.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 715.00 ELREA= 715.00

77.00	17.09	701.49	0.00	0.00	702.41	.92	.09	.11	692.20
9844.	0.	9844.	0.	0.	1278.	0.	484.	84.	702.40

.56	0.00	7.70	0.00	.080	.050	.080	.049	684.40	200.00
.003066	35.	35.	35.	2	0	0	0.00	116.15	316.15

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	ROLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.50	2.70	0.00	65.00	7.00	1753.00	1.25	686.00	686.00

*SECNO 76.100

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CLASS A LOW FLOW

3420 BRIDGE W.S.= 701.29 BRIDGE VELOCITY=, 8.35 CALCULATED CHANNEL AREA=, 1179.

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
0.00	702.61	.24	0.	9844.	1753.	1693.	706.30	716.30

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 715.00 ELREA= 715.00

76.10	17.33	701.73	0.00	0.00	702.61	.88	.20	0.00	692.20
9844.	0.	9844.	0.	0.	1306.	0.	484.	85.	702.40
.56	0.00	7.54	0.00	.080	.050	.080	.049	684.40	200.00
.002883	28.	28.	28.	0	0	0	0.00	116.90	316.90

CCHV= .100 CEHV= .300

*SECNO 76.000

76.00	14.67	702.67	0.00	0.00	703.06	.39	.40	.05	692.20
9844.	29.	6672.	3144.	28.	1129.	1466.	493.	86.	697.90
.58	1.01	5.91	2.14	.100	.050	.080	.049	688.00	9.60
.001440	200.	200.	200.	2	0	0	0.00	384.59	394.20

H

CCHV= .100 CEHV= .300

*SECNO 75.000

75.00	13.91	705.71	0.00	0.00	706.06	.35	3.00	.00	696.20
9844.	133.	8620.	1091.	105.	1723.	487.	640.	105.	696.80
.73	1.27	5.00	2.24	.100	.050	.070	.049	691.80	173.92
.000964	2790.	2570.	2570.	3	0	0	0.00	253.86	427.78

I

*SECNO 74.000

74.00	11.64	706.84	0.00	0.00	707.35	.51	1.24	.05	698.20
9844.	302.	9415.	127.	147.	1606.	77.	687.	110.	698.20
.78	2.06	5.86	1.66	.080	.050	.090	.049	695.20	182.92
.001651	1000.	1000.	1000.	2	0	0	0.00	209.83	392.75

J

CCHV= .100 CEHV= .300

*SECNO 73.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 718.00 ELREA= 716.50

73.00	13.81	707.11	0.00	0.00	707.73	.62	.35	.03	701.00
9844.	0.	9844.	0.	0.	1558.	0.	695.	111.	696.30
.79	0.00	6.32	0.00	.080	.050	.090	.049	693.30	500.00

.001880	200.	200.	200.	1	0	0	0.00	139.00	639.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.50	3.00	0.00	120.00	0.00	2140.00	0.00	695.00	695.00

*SECNO 72.300

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS= 0.000 EGLWC= 709.280 ELLC= 716.000 PCWSE= 707.113 ELTRD= 716.500

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3370 NORMAL BRIDGE,NRD= 34 MIN ELTRD= 716.50 MAX ELLC= 716.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 719.70 ELREA= 716.50

72.30	13.79	707.09	0.00	0.00	707.84	.76	.07	.04	701.00
9844.	0.	9844.	0.	0.	1411.	0.	696.	111.	696.30
.79	0.00	6.97	0.00	.080	.050	.090	.049	693.30	500.00
.003059	30.	30.	30.	2	0	0	-233.57	139.00	639.00

THIS RUN EXECUTED 29 MAR 79 10.18.38

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED  AUG1977
  ERROR CORR -  01,02
  MODIFICATION -  50,51,52,53
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HURON RIVER
CROSS SECTIONAL PROFS FROM 91 (I-94) TO 85

Use d/s of Michigan Ave - City of Ypsilanti.

T1 CITY OF YPSILANTI, FIS
T2 HURON RIVER: FORD TO PENINSULAR DAMS
T3 ONE HUNDRED YEAR FLOW

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ	
	-0.	4.	-0.	-0.	-0.	-0.	-0.	-0.	686.000	-0.	
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE	
	-1.000	1.000	-1.000	-0.	-0.	-0.	-0.	-0.	-0.	-0.	
NC	.060	.050	.045	.100	.300	-0.	-0.	-0.	-0.	-0.	
QT	4.000	5775.000	8597.000	9844.000	13256.000	-0.	-0.	-0.	-0.	-0.	
X1	91.000	7.000	100.000	1305.000	0.	0.	0.	-0.	-0.	-0.	
X3	-0.	-0.	-0.	850.000	-0.	1006.000	-0.	-0.	-0.	-0.	
GR	700.000	0.	690.000	100.000	676.000	120.000	676.000	1290.000	680.000	1300.000	
GR	685.000	1305.000	690.000	1600.000	-0.	-0.	-0.	-0.	-0.	-0.	
X1	91.100	-0.	-0.	-0.	50.000	50.000	50.000	-0.	-0.	-0.	
X3	-0.	-0.	-0.	862.500	-0.	993.500	-0.	-0.	-0.	-0.	
X1	91.200	-0.	-0.	-0.	30.000	30.000	30.000	-0.	-0.	-0.	
X3	-0.	-0.	-0.	870.000	-0.	986.000	-0.	-0.	-0.	-0.	
NC	.050	.050	.045	.600	.800	-0.	-0.	-0.	-0.	-0.	
X1	90.100	6.000	35.250	141.590	20.000	20.000	20.000	-0.	-0.	-0.	
X3	10.000	-0.	-0.	-0.	-0.	-0.	-0.	692.000	692.000	-0.	
GR	694.170	0.	694.170	10.000	676.000	35.250	676.000	141.590	694.170	168.840	
GR	694.170	178.840	-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.	
SB	.900	1.500	2.800	-0.	106.340	5.000	1571.000	0.	676.000	676.000	
X1	90.000	-0.	-0.	-0.	108.000	108.000	108.000	-0.	-0.	-0.	
X2	-0.	-0.	1.000	691.500	694.170	-0.	-0.	-0.	-0.	-0.	
X3	10.000	-0.	-0.	-0.	-0.	-0.	-0.	692.000	692.000	-0.	
BT	8.000	0.	694.170	694.170	10.000	694.170	694.170	35.250	694.170	676.000	
BT	35.250	694.170	691.500	141.590	694.170	691.500	141.590	694.170	676.000	168.840	
BT	694.170	694.170	178.840	694.170	694.170	-0.	-0.	-0.	-0.	-0.	
NC	.040	.025	.045	.300	.500	-0.	-0.	-0.	-0.	-0.	
X1	89.200	32.000	505.000	725.000	20.000	20.000	20.000	-0.	-0.	-0.	
X3	-0.	-0.	-0.	530.000	-0.	670.000	-0.	-0.	-0.	-0.	
GR	700.000	0.	688.100	0.	688.100	500.000	688.100	505.000	684.500	510.000	
GR	677.700	520.000	677.000	530.000	676.800	540.000	677.200	550.000	677.500	560.000	
GR	678.500	570.000	678.700	580.00	678.800	590.000	678.700	600.000	679.000	610.000	

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GR	678.700	620.000	678.400	630.000	678.700	640.000	678.500	650.000	678.500	660.000
GR	678.600	670.000	680.000	680.000	681.700	690.000	682.000	700.000	682.700	710.000
GR	684.500	720.000	685.900	725.000	687.000	1025.000	687.800	1175.000	687.400	1325.000
GR	688.800	1450.000	700.000	1450.000	-0.	-0.	-0.	-0.	-0.	-0.
X1	89.210	-0.	-0.	-0.	20.000	20.000	20.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	525.000	-0.	695.000	-0.	-0.	-0.	-0.
X1	89.100	-0.	-0.	-0.	30.000	30.000	30.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	515.000	-0.	730.000	-0.	-0.	-0.	-0.
X1	89.000	-0.	-0.	-0.	80.000	80.000	80.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	500.000	-0.	800.000	-0.	-0.	-0.	-0.
X1	88.100	-0.	-0.	-0.	370.000	480.000	380.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	500.000	-0.	925.000	-0.	-0.	-0.	-0.
X1	88.000	27.000	300.000	422.000	50.000	50.000	50.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	300.000	-0.	720.000	-0.	-0.	-0.	-0.
GR	700.000	0.	688.660	0.	688.650	100.000	687.920	149.000	688.160	186.000
GR	688.160	300.000	683.500	300.000	679.300	310.000	677.000	320.000	676.900	330.000
GR	677.100	340.000	676.800	350.000	676.700	360.000	676.100	370.000	674.700	380.000
GR	675.800	390.000	676.400	400.000	678.400	410.000	683.300	422.000	685.900	422.000
GR	686.200	467.000	686.700	522.000	687.500	622.000	688.200	722.000	688.830	822.000
GR	688.500	1000.000	689.000	1300.000	-0.	-0.	-0.	-0.	-0.	-0.
SB	-0.	1.500	3.000	-0.	122.000	-0.	1630.000	-0.	-0.	-0.
X1	87.300	-0.	-0.	-0.	10.000	10.000	10.000	-0.	-0.	-0.
X2	-0.	-0.	1.000	689.800	686.200	-0.	-0.	-0.	-0.	-0.
X3	-0.	-0.	-0.	300.000	-0.	720.000	-0.	-0.	-0.	-0.
BT	14.000	0.	688.700	0.	100.000	688.600	0.	149.000	687.900	-0.
BT	186.000	688.200	0.	300.000	691.200	690.700	360.000	691.900	691.400	422.000
BT	691.200	690.700	467.000	689.200	688.700	522.000	689.100	688.600	622.000	689.300
BT	688.800	722.000	689.700	689.200	822.000	688.800	0.	1000.000	688.500	-0.
BT	1300.000	689.000	0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.
NC	.030	.025	.045	-0.	-0.	-0.	-0.	-0.	-0.	-0.
X1	87.200	32.000	505.000	725.000	50.000	50.000	50.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	500.000	-0.	970.000	-0.	-0.	-0.	-0.
GR	700.000	0.	688.100	0.	688.100	500.000	688.100	505.000	684.500	510.000
GR	676.900	520.000	676.200	530.000	676.000	540.000	676.400	550.000	676.700	560.000
GR	677.700	570.000	677.900	580.000	678.000	590.000	677.900	600.000	678.200	610.000
GR	677.900	620.000	677.600	630.000	677.900	640.000	677.700	650.000	677.700	660.000
GR	677.800	670.000	679.200	680.000	680.900	690.000	681.200	700.000	681.900	710.000
GR	684.500	720.000	685.900	725.000	687.000	1025.000	687.800	1175.000	687.400	1325.000
GR	688.800	1450.000	700.000	1450.000	-0.	-0.	-0.	-0.	-0.	-0.
X1	87.100	-0.	-0.	-0.	430.000	500.000	530.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	500.000	-0.	1300.000	-0.	-0.	-0.	-0.
NH	4.000	.100	400.000	.045	620.000	.200	684.000	.025	1740.000	-0.
X1	87.000	36.000	400.000	620.000	50.000	50.000	50.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	400.000	-0.	1200.000	-0.	-0.	-0.	-0.
GR	689.750	35.000	689.300	100.000	688.500	200.000	687.800	300.000	687.000	400.000
GR	678.000	400.000	678.000	410.000	679.500	420.000	678.000	430.000	679.100	440.000
GR	677.100	450.000	675.200	457.000	676.500	473.000	678.200	480.000	677.600	490.000
GR	677.700	500.00	677.900	510.000	677.000	520.000	687.000	520.000	687.500	600.000

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GR	687.700	620.000	687.900	660.000	688.600	674.000	687.200	684.000	687.100	720.000
GR	688.500	740.000	688.300	840.000	687.800	940.000	687.400	1040.000	687.800	1140.000
GR	688.100	1240.000	689.400	1340.000	692.600	1440.000	697.800	1540.000	704.800	1640.000
GR	712.800	1740.000	-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.
X1	86.200	36.000	400.000	620.000	23.000	23.000	23.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	400.000	-0.	1200.000	-0.	-0.	-0.	-0.
GR	689.750	35.000	689.300	100.000	688.500	200.000	687.800	300.000	687.000	400.000
GR	678.000	400.000	678.000	410.000	679.500	420.000	678.000	430.000	679.100	440.000
GR	677.100	450.000	675.200	457.000	676.500	473.000	678.200	480.000	677.600	490.000
GR	677.700	500.000	677.900	510.000	677.000	520.000	687.000	520.000	687.500	600.000
GR	687.700	620.000	687.900	660.000	688.600	674.000	687.200	684.000	687.100	720.000
GR	688.500	740.000	688.300	840.000	687.800	940.000	687.400	1040.000	687.800	1140.000
GR	688.100	1240.000	689.400	1340.000	692.600	1440.000	697.800	1540.000	704.800	1640.000
GR	712.800	1740.000	-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.
NH	4.000	.013	1109.000	.045	1311.000	.200	1482.000	.025	2482.000	-0.
X1	864.000	50.000	1109.000	1311.000	40.000	1.000	85.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	1109.000	-0.	1960.000	-0.	-0.	-0.	-0.
GR	706.600	0.	706.500	100.000	706.200	200.000	705.900	300.000	703.700	400.000
GR	700.200	500.000	695.500	600.000	691.700	700.000	689.700	800.000	689.600	900.000
GR	691.600	1000.000	694.000	1100.000	694.000	1109.000	689.500	1109.000	685.000	1119.000
GR	684.000	1120.000	683.000	1124.000	682.000	1126.000	681.000	1131.000	680.000	1134.000
GR	681.000	1142.000	682.000	1149.000	683.000	1153.000	683.000	1169.000	682.500	1174.500
GR	682.200	1177.500	682.000	1180.000	681.000	1188.000	680.000	1210.000	679.000	1231.000
GR	678.000	1241.000	678.000	1242.500	678.000	1245.500	678.000	1300.000	679.000	1301.000
GR	680.000	1303.000	686.000	1311.000	694.000	1311.000	692.700	1382.000	690.000	1482.000
GR	688.300	1582.000	687.800	1682.000	687.400	1782.000	687.800	1882.000	688.100	1982.000
GR	689.400	2082.000	692.600	2182.000	697.800	2282.000	704.800	2382.000	712.800	2482.000
SB	1.500	1.650	2.940	-0.	129.500	6.000	2171.300	2.760	-0.	-0.
X1	864.100	50.000	1109.000	1311.000	80.000	80.000	80.000	-0.	-0.	-0.
X2	-0.	-0.	1.000	691.700	687.400	-0.	-0.	-0.	-0.	-0.
X3	-0.	-0.	-0.	1109.000	-0.	1960.000	-0.	-0.	-0.	-0.
BT	27.000	600.000	695.500	0.	700.000	691.700	0.	800.000	689.700	0.
BT	900.000	689.600	0.	1000.000	691.600	0.	1100.000	694.000	0.	1109.000
BT	694.000	0.	1109.000	694.000	691.100	1174.500	694.300	691.400	1174.500	694.300
BT	682.500	1177.500	694.300	682.200	1177.500	694.300	691.400	1242.500	694.600	691.700
BT	1242.500	694.600	678.000	1245.500	694.600	678.000	1245.500	694.600	691.700	1311.000
BT	694.100	691.100	1311.000	694.100	0.	1382.000	692.700	0.	1482.000	690.000
BT	0.	1582.000	688.300	0.	1682.000	687.800	0.	1782.000	687.400	0.
BT	1882.000	687.800	0.	1982.000	688.100	0.	2082.000	689.400	0.	2182.000
BT	697.800	0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.
GR	706.600	0.	706.500	100.000	706.200	200.000	705.900	300.000	703.700	400.000
GR	700.200	500.000	695.500	600.000	691.700	700.000	689.700	800.000	689.600	900.000
GR	691.600	1000.000	694.000	1100.000	694.000	1109.000	689.500	1109.000	685.000	1119.000
GR	684.000	1120.000	683.000	1124.000	682.000	1126.000	681.000	1131.000	680.000	1134.000
GR	681.000	1142.000	682.000	1149.000	683.000	1153.000	683.000	1169.000	682.500	1174.500
GR	682.200	1177.500	682.000	1180.000	681.000	1188.000	680.000	1210.000	679.000	1231.000
GR	678.000	1241.000	678.000	1242.500	678.000	1245.500	678.000	1300.000	679.000	1301.000
GR	680.000	1303.000	686.000	1311.000	694.000	1311.000	692.700	1382.000	690.000	1482.000
GR	688.300	1582.000	687.800	1682.000	687.400	1782.000	687.800	1882.000	688.100	1982.000
GR	689.400	2082.000	692.600	2182.000	697.800	2282.000	704.800	2382.000	712.800	2482.000
NH	4.000	.013	950.000	.045	1252.000	.200	1500.000	.040	2000.000	-0.
X1	86.000	41.000	1050.000	1252.000	1.000	270.000	85.000	-0.	-0.	-0.
GR	706.600	0.	706.500	100.000	706.200	200.000	705.900	300.000	703.700	400.000
GR	700.500	500.000	695.500	600.000	691.700	700.000	689.700	800.000	689.600	900.000
GR	690.600	950.000	690.500	1050.000	684.500	1060.000	680.200	1070.000	679.800	1080.000
GR	681.900	1091.000	682.500	1100.000	681.900	1110.000	680.700	1120.000	680.100	1130.000
GR	680.100	1140.000	680.300	1150.000	680.100	1160.000	679.200	1170.000	678.600	1180.000
GR	677.700	1190.000	677.900	1200.000	678.100	1210.000	677.200	1220.000	678.000	1230.000

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GR	679.500	1240.000	681.500	1250.000	687.800	1252.000	687.800	1470.000	687.500	1550.000
GR	687.400	1650.000	687.600	1750.000	687.500	1850.000	687.800	1900.000	690.000	1960.000
GR	695.000	2070.000	-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.
NH	4.000	.060	100.000	.045	220.000	.200	1200.000	.040	1690.000	-0.

X1	85.100	23.000	100.000	220.000	1170.000	220.000	1170.000	-0.	-0.	-0.
GR	707.500	5.000	695.400	25.000	694.500	60.000	699.100	85.000	698.500	100.000
GR	684.100	120.000	679.600	130.000	678.900	140.000	679.400	150.000	679.900	160.000
GR	681.100	170.000	681.900	180.000	682.600	190.000	683.100	200.000	683.700	210.000
GR	684.100	215.000	685.500	220.000	687.000	290.000	686.600	600.000	686.600	1200.000
GR	686.600	1400.000	690.000	1600.000	695.000	1690.000	-0.	-0.	-0.	-0.
NH	4.000	.060	100.000	.045	220.000	.080	700.000	.040	1500.000	-0.

X1	85.000	22.000	100.000	220.000	450.000	500.000	450.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	111.000	-0.	1460.000	-0.	-0.	-0.	-0.
GR	707.500	5.000	695.400	25.000	694.500	60.000	699.100	85.000	698.500	100.000
GR	684.800	120.000	680.300	130.000	679.600	140.000	680.100	150.000	680.600	160.000
GR	681.800	170.000	682.600	180.000	683.300	190.000	683.800	200.000	684.400	210.000
GR	684.800	215.000	685.500	220.000	687.000	290.000	686.600	600.000	686.600	1300.000
GR	690.000	1400.000	695.000	1500.000	-0.	-0.	-0.	-0.	-0.	-0.
NC	.060	.040	.045	-0.	-0.	-0.	-0.	-0.	-0.	-0.

X1	84.100	21.000	100.000	220.000	600.000	200.000	600.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	111.000	-0.	1110.000	-0.	-0.	-0.	-0.
GR	707.500	5.000	695.400	25.000	694.500	60.000	699.100	85.000	698.500	100.000
GR	685.000	120.000	680.500	130.000	679.800	140.000	680.300	150.000	680.800	160.000
GR	682.000	170.000	682.800	180.000	683.500	190.000	684.000	200.000	684.600	210.000
GR	685.000	215.000	685.700	220.000	686.800	370.000	686.800	950.000	690.000	1050.000
GR	695.000	1150.000	-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.

X1	84.200	21.000	100.000	220.000	330.000	500.000	330.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	111.000	-0.	550.000	-0.	-0.	-0.	-0.
GR	707.500	5.000	695.400	25.000	694.500	60.000	699.100	85.000	698.500	100.000
GR	685.100	120.000	680.600	130.000	679.900	140.000	680.400	150.000	680.900	160.000
GR	682.100	170.000	682.900	180.000	683.600	190.000	684.100	200.000	684.700	210.000
GR	685.100	215.000	685.800	220.000	686.800	330.000	686.800	500.000	690.000	600.000
GR	695.000	610.000	-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.
NC	.060	.060	.045	-0.	-0.	-0.	-0.	-0.	-0.	-0.

X1	84.000	17.000	400.000	520.000	520.000	545.000	520.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	100.000	-0.	594.000	-0.	-0.	-0.	-0.
GR	691.500	80.000	693.700	270.000	692.600	400.000	685.700	413.000	684.100	420.000
GR	683.300	430.000	682.400	440.000	681.700	450.000	680.800	460.000	680.200	470.000
GR	680.000	480.000	681.800	490.000	684.600	500.000	685.700	502.000	694.600	520.000
GR	694.000	540.000	694.900	565.000	-0.	-0.	-0.	-0.	-0.	-0.
NC	-0.	.080	-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.

X1	83.100	24.000	500.000	613.000	1170.000	1170.000	1170.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	480.000	-0.	-0.	-0.	-0.	-0.	-0.
GR	701.960	0.	700.090	100.000	698.540	200.000	698.100	300.000	697.700	400.000
GR	697.000	490.000	685.500	500.000	682.600	503.000	680.100	513.000	678.500	523.000
GR	678.600	533.000	678.400	543.000	678.400	553.000	679.500	563.000	680.800	573.000
GR	681.500	583.000	683.600	593.000	685.100	603.000	686.600	613.000	704.000	660.000
GR	718.200	713.000	725.140	813.000	727.530	858.000	729.210	913.000	-0.	-0.
EJ	-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.

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*PROF 1

CCHV= .100 CEHV= .300

*SECNO 91.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
3470 ENCROACHMENT STATIONS=		850.0		1006.0	TYPE=	1	TARGET=	156.000	
91.00	10.00	686.00	0.	686.00	686.62	.62	0.	0.	100000.00
9844.	0.	9844.	0.	0.	1560.	0.	0.	0.	100000.00
0.	0.	6.31	0.	.060	.045	.050	0.	676.00	850.00
.001990	0.	0.	0.	0	0	0	0.	156.00	1006.00

*SECNO 91.100

3470 ENCROACHMENT STATIONS=		862.5		993.5	TYPE=	1	TARGET=	131.000	
91.10	9.93	685.93	0.	0.	686.82	.89	.12	.08	100000.00
9844.	0.	9844.	0.	0.	1301.	0.	2.	0.	100000.00
.00	0.	7.57	0.	.060	.045	.050	.044	676.00	862.50
.002969	50.	50.	50.	2	0	0	0.	131.00	993.50

*SECNO 91.200

3470 ENCROACHMENT STATIONS=		870.0		986.0	TYPE=	1	TARGET=	116.000	
91.20	9.85	685.85	0.	0.	687.00	1.15	.10	.08	100000.00
9844.	0.	9844.	0.	0.	1142.	0.	2.	0.	100000.00
.00	0.	8.62	0.	.060	.045	.050	.044	676.00	870.00
.003974	30.	30.	30.	2	0	0	0.	116.00	986.00

CCHV= .600 CEHV= .800

*SECNO 90.100

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 692.00 ELREA= 692.00

90.10	9.88	685.88	0.	0.	687.25	1.36	.08	.17	676.00
9844.	0.	9844.	0.	0.	1051.	0.	3.	0.	676.00
.00	0.	9.37	0.	.050	.045	.050	.044	676.00	35.25
.003813	20.	20.	20.	2	0	0	0.	106.34	141.59

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	.90	1.50	2.80	-0.	106.34	5.00	1571.00	0.	676.00	676.00

*SECNO 90.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CLASS A LOW FLOW

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3420 BRIDGE W.S.= 685.68 BRIDGE VELOCITY=, 10.04 CALCULATED CHANNEL AREA=, 981.

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
.0.	687.39	.19	0.	9844.	1571.	1571.	691.50	694.17

3495 OVERBANK AREA ASSUMED NON-EFFECTIVF,ELLEA= 692.00 ELREA= 692.00

90.00	10.08	686.08	0.	0.	687.39	1.31	.14	0.	676.00
9844.	0.	9844.	0.	0.	1072.	0.	6.	1.	676.00
.01	0.	9.19	0.	.050	.045	.050	.044	676.00	35.25
.003575	108.	108.	108.	0	0	0	0.	106.34	141.59

CCHV= .300 CEHV= .500

*SECNO 89.200

3470 ENCROACHMENT STATIONS= 530.0 670.0 TYPE= 1 TARGET= 140.000

89.20	9.53	686.33	0.	0.	687.51	1.18	.08	.04	100000.00
9844.	0.	9844.	0.	0.	1128.	0.	6.	1.	100000.00
.01	0.	8.72	0.	.040	.045	.025	.044	676.80	530.00
.005043	20.	20.	20.	2	0	0	0.	140.00	670.00

*SECNO 89.210

3470 ENCROACHMENT STATIONS= 525.0 695.0 TYPE= 1 TARGET= 170.000

89.21	10.19	686.99	0.	0.	687.72	.73	.07	.14	100000.00
9844.	0.	9844.	0.	0.	1436.	0.	7.	1.	100000.00
.01	0.	6.86	0.	.040	.045	.025	.044	676.80	525.00
.002808	20.	20.	20.	2	0	0	0.	170.00	695.00

*SECNO 89.100

3470 ENCROACHMENT STATIONS= 515.0 730.0 TYPE= 1 TARGET= 215.000

89.10	10.54	687.34	0.	0.	687.86	.51	.07	.07	100000.00
9844.	0.	9824.	20.	0.	1708.	7.	8.	1.	685.90
.01	0.	5.75	2.82	.040	.045	.025	.044	676.80	515.00
.001949	30.	30.	30.	2	0	0	0.	215.00	730.00

*SECNO 89.000

3470 ENCROACHMENT STATIONS= 500.0 800.0 TYPE= 1 TARGET= 300.000

89.00	10.80	687.60	0.	0.	688.02	.42	.14	.03	688.10
9844.	0.	9475.	369.	0.	1795.	117.	11.	1.	685.90
.01	0.	5.29	3.15	.040	.045	.025	.044	676.80	505.70
.001592	80.	80.	80.	2	0	0	0.	294.30	800.00

*SECNO 88.100

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROR	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 500.0 925.0 TYPE= 1 TARGET= 425.000

88.10	11.46	688.26	0.	0.	688.55	.29	.49	.04	688.10
9844.	0.	8643.	1200.	1.	1939.	400.	30.	5.	685.90
.04	.35	4.46	5.00	.040	.045	.025	.044	676.80	500.00
.001025	370.	380.	480.	2	0	0	0	425.00	925.00

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*SECNO 88.000

3470 ENCROACHMENT STATIONS=			300.0	720.0	TYPE=	1	TARGET=	420.000		
88.00	13.46	688.16	0.	0.	688.80	.64	.07	.18	688.16	
9844.	0.	8761.	1083.	0.	1308.	326.	33.	5.	685.90	
.04	0.	6.70	3.33	.040	.045	.025	.044	674.70	300.00	
.001929	50.	50.	50.	2	0	0	0.	416.07	716.07	

SPECIAL BRIDGE

5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	-0.	1.50	3.00	-0.	122.00	-0.	1630.00	-0.	674.70	674.70

*SECNO 87.300

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS= 0. EGLWC= 688.797 ELLC= 689.800 PCWSE= 688.158 ELTRD= 686.200

3370 NORMAL BRIDGE,NRD= 14 MIN ELTRD= 686.20 MAX ELLC= 689.80

3470 ENCROACHMENT STATIONS=			300.0	720.0	TYPE=	1	TARGET=	420.000		
87.30	13.49	688.19	0.	0.	688.82	.63	.02	.00	688.16	
9844.	0.	8728.	1116.	0.	1311.	335.	33.	5.	685.90	
.04	0.	6.66	3.33	.040	.045	.025	.044	674.70	300.00	
.001900	10.	10.	10.	2	0	0	0.	420.00	720.00	

*SECNO 87.200

3470 ENCROACHMENT STATIONS=			500.0	970.0	TYPE=	1	TARGET=	470.000		
87.20	12.80	688.80	0.	0.	689.00	.20	.05	.13	688.10	
9844.	3.	8256.	1585.	4.	2217.	601.	35.	6.	685.90	
.05	.88	3.72	2.64	.030	.045	.025	.044	676.00	500.00	
.000600	50.	50.	50.	2	0	0	0.	470.00	970.00	

*SECNO 87.100

3470 ENCROACHMENT STATIONS=			500.0	1300.0	TYPE=	1	TARGET=	800.000		
87.10	13.14	689.14	0.	0.	689.28	.13	.26	.02	688.10	
9844.	5.	7204.	2635.	5.	2292.	1259.	74.	13.	685.90	
.10	.91	3.14	2.09	.030	.045	.025	.045	676.00	500.00	
.000409	430.	530.	500.	2	0	0	0.	800.00	1300.00	

1490 NH CARD USED

*SECNO 87.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS=			400.0	1200.0	TYPE=	1	TARGET=	800.000		
87.00	13.88	689.08	0.	0.	689.42	.34	.04	.11	687.00	
9844.	0.	7816.	2028.	0.	1548.	707.	77.	14.	687.70	
.10	0.	5.05	2.87	.030	.045	.027	.045	675.20	400.00	
.001973	50	50.	50	2	0	0	0	800.00	1200.00	

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*SECNO 86.200

3470 ENCROACHMENT STATIONS=		400.0	1200.0	TYPE=	1	TARGET=	800.000		
.86.20	13.94	689.14	0.	0.	689.47	.32	.04	.01	687.00
9844.	0.	7705.	2139.	0.	1562.	746.	78.	15.	687.70
.10	0.	4.93	2.87	.030	.045	.027	.044	675.20	400.00
.001058	23.	23.	23.	2	0	0	0.	800.00	1200.00

1490 NH CARD USED
*SECNO 864.000

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS=		1109.0	1960.0	TYPE=	1	TARGET=	851.000		
864.00	11.27	689.27	0.	0.	689.57	.31	.10	.01	694.00
9844.	0.	8304.	1540.	0.	1766.	589.	81.	15.	694.00
.11	0.	4.70	2.62	.030	.045	.025	.045	678.00	1109.51
.001183	40.	85.	1.	2	0	0	0.	636.47	1960.00

SPECIAL BRIDGE

5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED

SB XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
1.50	1.65	2.94	-0.	129.50	6.00	2171.30	2.76	678.00	678.00

*SECNO 864.100
6840,FLOW IS BY WEIR AND LOW FLOW

3265 DIVIDED FLOW

3420 BRIDGE W.S.= 689.30 BRIDGE VELOCITY= 4.21 CALCULATED CHANNEL AREA= 1749.

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
691.70	689.58	.03	2506.	7357.	2171.	2210.	691.70	687.40

3470 ENCROACHMENT STATIONS=		1109.0	1960.0	TYPE=	1	TARGET=	851.000		
864.10	11.27	689.27	0.	0.	689.58	.30	.00	0.	694.00
9844.	0.	8295.	1549.	0.	1768.	592.	86.	16.	694.00
.11	0.	4.69	2.62	.030	.045	.025	.045	678.00	1109.50
.001178	80.	80.	80.	2	0	4	0.	636.91	1960.00

8930,RUST NOT ON GR CARD 599.99
1490 NH CARD USED
*SECNO 86.000

86.00	12.26	689.46	0.	0.	689.71	.26	.12	.01	690.50
9844.	0.	8228.	1616.	0.	1860.	1220.	95.	20.	687.80
.12	0.	4.42	1.33	.030	.045	.052	.044	677.20	1051.74
.000966	1.	85.	270.	2	0	0	0.	893.41	1945.15

1490 NH CARD USED
*SECNO 85.100

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOP ID --	ENDST

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    85.10     11.56    690.46      0.        0.      690.61       .15       .86       .03    698.50
    9844.       0.      4236.     5608.       0.       926.     4950.      148.       29.    685.50
      .21       0.       4.57      1.13      .030      .045      .106      .051    678.90    111.17
  .001149     1170.     1170.      220.        2         0         0        0.    1497.09   1608.26


1490 NH CARD USED
*SECNO 85.000

3470 ENCROACHMENT STATIONS=      111.0     1460.0  TYPE=      1  TARGET=     1349.000
    85.00     11.28    690.88      0.        0.      690.93       .05       .29       .03100000.00
    9844.       0.      2310.     7534.       0.       899.     4852.      214.       45.    685.50
      .28       0.       2.57      1.55      .030      .045      .048      .049    679.60    111.12
  .000376      450.      450.      500.        2         0         0        0.    1306.50   1417.62


*SECNO 84.100

3470 ENCROACHMENT STATIONS=      111.0     1110.0  TYPE=      1  TARGET=      999.000
    84.10     11.19    690.99      0.        0.      691.08       .09       .13       .02100000.00
    9844.       0.      2591.     7253.       0.       890.     3412.      245.       52.    685.70
      .32       0.       2.91      2.13      .060      .045      .040      .053    679.80    111.12
  .000489      600.      600.      200.        2         0         0        0.     958.72   1069.85


*SECNO 84.200

3470 ENCROACHMENT STATIONS=      111.0      550.0  TYPE=      1  TARGET=      439.000
    84.20     11.23    691.13      0.        0.      691.42       .29       .24       .10100000.00
    9844.       0.      4436.     5408.       0.       894.     1444.      268.       57.    685.80
      .34       0.       4.96      3.75      .060      .045      .040      .052    679.90    111.00
  .001415      330.      330.      300.        0         0         0        0.     439.00    550.00


*SECNO 84.000

3265 DIVIDED FLOW


3301 HV CHANGED MORE THAN HVINS
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THIS RUN EXECUTED 21 SEP 78 09.17.23

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED  AUG1977
  ERROR CORR -  01,02
  MODIFICATION -  50,51,52,53
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

TEN YEAR FLOW

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
91.000	0.00	0.00	0.00	676.00	5775.00	685.50	0.00	685.74	8.07	3.90	1481.99	2033.40
91.000	0.00	0.00	0.00	676.00	8597.00	685.50	0.00	686.02	17.88	5.80	1481.99	2033.40
91.000	0.00	0.00	0.00	676.00	9844.00	686.00	0.00	686.62	19.90	6.31	1559.99	2206.48
91.000	0.00	0.00	0.00	676.00	13256.00	689.10	0.00	689.75	15.37	6.49	2043.59	3381.68
91.100	50.00	0.00	0.00	676.00	5775.00	685.48	0.00	685.81	11.84	4.65	1241.65	1678.27
91.100	50.00	0.00	0.00	676.00	8597.00	685.45	0.00	686.20	26.50	6.95	1237.87	1670.18
91.100	50.00	0.00	0.00	676.00	9844.00	685.93	0.00	686.82	29.69	7.57	1300.96	1806.73
91.100	50.00	0.00	0.00	676.00	13256.00	688.99	0.00	689.93	23.18	7.79	1701.87	2753.08
91.200	30.00	0.00	0.00	676.00	5775.00	685.45	0.00	685.88	15.56	5.27	1096.48	1463.82
91.200	30.00	0.00	0.00	676.00	8597.00	685.39	0.00	686.36	35.25	7.89	1088.94	1448.01
91.200	30.00	0.00	0.00	676.00	9844.00	685.85	0.00	687.00	39.74	8.62	1142.47	1561.47
91.200	30.00	0.00	0.00	676.00	13256.00	688.87	0.00	690.10	31.27	8.88	1493.49	2370.44
90.100	20.00	0.00	0.00	676.00	5775.00	685.47	0.00	685.98	15.11	5.73	1007.43	1485.65
90.100	20.00	0.00	0.00	676.00	8597.00	685.42	0.00	686.56	34.10	8.58	1001.88	1472.10
90.100	20.00	0.00	0.00	676.00	9844.00	685.88	0.00	687.25	38.13	9.37	1051.14	1594.28
90.100	20.00	0.00	0.00	676.00	13256.00	688.89	0.00	690.34	28.66	9.67	1370.59	2476.17
90.000	108.00	694.17	691.50	676.00	5775.00	685.50	0.00	686.01	14.95	5.71	1010.61	1493.46
90.000	108.00	694.17	691.50	676.00	8597.00	685.57	0.00	686.68	32.40	8.45	1017.48	1510.38
90.000	108.00	694.17	691.50	676.00	9844.00	686.08	0.00	687.39	35.75	9.19	1071.74	1646.50
90.000	108.00	694.17	691.50	676.00	13256.00	689.06	0.00	690.48	27.40	9.54	1389.27	2532.35
89.200	20.00	0.00	0.00	676.80	5775.00	685.55	0.00	686.05	24.15	5.67	1017.77	1175.21
89.200	20.00	0.00	0.00	676.80	8597.00	685.71	0.00	686.77	49.61	8.25	1042.11	1220.60
89.200	20.00	0.00	0.00	676.80	9844.00	686.33	0.00	687.51	50.43	8.72	1128.30	1386.18
89.200	20.00	0.00	0.00	676.80	13256.00	689.54	0.00	690.63	31.56	8.40	1577.55	2359.59
89.210	20.00	0.00	0.00	676.80	5775.00	685.79	0.00	686.14	15.86	4.69	1230.93	1449.92
89.210	20.00	0.00	0.00	676.80	8597.00	686.30	0.00	686.96	28.15	6.52	1318.73	1620.26
89.210	20.00	0.00	0.00	676.80	9844.00	686.99	0.00	687.72	28.08	6.86	1435.73	1857.60
89.210	20.00	0.00	0.00	676.80	13256.00	690.09	0.00	690.80	18.82	6.76	1960.99	3055.79
89.100	30.00	0.00	0.00	676.80	5775.00	685.94	0.00	686.20	12.53	4.08	1414.55	1631.67
89.100	30.00	0.00	0.00	676.80	8597.00	686.62	0.00	687.09	20.25	5.52	1559.53	1910.51
89.100	30.00	0.00	0.00	676.80	9844.00	687.34	0.00	687.86	19.49	5.75	1715.27	2229.71
89.100	30.00	0.00	0.00	676.80	13256.00	690.42	0.00	690.91	12.24	5.59	2377.92	3789.72

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	89.000	80.00	0.00	0.00	676.80	5775.00	686.06	0.00	686.30	11.63	3.97	1459.57	1693.10
A	89.000	80.00	0.00	0.00	676.80	8597.00	686.84	0.00	687.26	17.43	5.20	1687.51	2059.36
	89.000	80.00	0.00	0.00	676.80	9844.00	687.60	0.00	688.02	15.92	5.29	1909.66	2467.05
	89.000	80.00	0.00	0.00	676.80	13256.00	690.69	0.00	691.03	8.27	4.71	2834.17	4610.33
	88.100	380.00	0.00	0.00	676.80	5775.00	686.50	0.00	686.71	9.33	3.70	1600.86	1891.14
	88.100	380.00	0.00	0.00	676.80	8597.00	687.54	0.00	687.83	11.62	4.49	2033.05	2521.95
	88.100	380.00	0.00	0.00	676.80	9844.00	688.26	0.00	688.55	10.25	4.46	2339.26	3074.13
	88.100	380.00	0.00	0.00	676.80	13256.00	691.10	0.00	691.32	4.99	3.75	3548.44	5935.53
	88.000	50.00	0.00	0.00	674.70	5775.00	686.45	0.00	686.87	14.57	5.23	1120.62	1512.76
	88.000	50.00	0.00	0.00	674.70	8597.00	687.43	0.00	688.10	21.23	6.73	1366.47	1865.69
	88.000	50.00	0.00	0.00	674.70	9844.00	688.16	0.00	688.80	19.29	6.70	1633.30	2241.32
	88.000	50.00	0.00	0.00	674.70	13256.00	691.07	0.00	691.41	7.81	4.93	2857.42	4743.07
	87.300	10.00	686.20	689.80	674.70	5775.00	686.47	0.00	686.89	14.53	5.23	1122.04	1514.96
	87.300	10.00	686.20	689.80	674.70	8597.00	687.46	0.00	688.12	20.92	6.69	1376.66	1879.81
	87.300	10.00	686.20	689.80	674.70	9844.00	688.19	0.00	688.82	19.00	6.66	1646.52	2258.39
	87.300	10.00	686.20	689.80	674.70	13256.00	691.01	0.00	691.50	19.42	6.21	2676.83	3008.01
	87.200	50.00	0.00	0.00	676.00	5775.00	686.86	0.00	687.01	5.69	3.16	1915.50	2422.02
	87.200	50.00	0.00	0.00	676.00	8597.00	688.12	0.00	688.32	6.47	3.69	2504.69	3380.63
	87.200	50.00	0.00	0.00	676.00	9844.00	688.80	0.00	689.00	6.00	3.72	2822.33	4018.03
	87.200	50.00	0.00	0.00	676.00	13256.00	691.47	0.00	691.63	3.41	3.28	4075.12	7183.31
	87.100	530.00	0.00	0.00	676.00	5775.00	687.16	0.00	687.30	4.86	2.99	2072.45	2619.83
	87.100	530.00	0.00	0.00	676.00	8597.00	688.48	0.00	688.63	4.78	3.25	3027.51	3933.66
	87.100	530.00	0.00	0.00	676.00	9844.00	689.14	0.00	689.28	4.09	3.14	3556.98	4867.37
	87.100	530.00	0.00	0.00	676.00	13256.00	691.70	0.00	691.78	1.85	2.45	5598.15	9735.39
	87.000	50.00	0.00	0.00	675.20	5775.00	687.07	0.00	687.47	16.31	5.11	1130.71	1430.12
	87.000	50.00	0.00	0.00	675.20	8597.00	688.37	0.00	688.83	28.51	5.67	1693.18	1610.03
	87.000	50.00	0.00	0.00	675.20	9844.00	689.08	0.00	689.42	19.73	5.05	2254.83	2216.30
	87.000	50.00	0.00	0.00	675.20	13256.00	691.68	0.00	691.83	5.10	3.14	4337.73	5872.58
	86.200	23.00	0.00	0.00	675.20	5775.00	687.11	0.00	687.51	16.85	5.09	1135.07	1406.93
	86.200	23.00	0.00	0.00	675.20	8597.00	688.48	0.00	688.91	25.79	5.45	1780.35	1692.72
	86.200	23.00	0.00	0.00	675.20	9844.00	689.14	0.00	689.47	18.58	4.93	2308.09	2283.64
	86.200	23.00	0.00	0.00	675.20	13256.00	691.69	0.00	691.84	5.07	3.14	4344.12	5886.67
	864.000	85.00	0.00	0.00	678.00	5775.00	687.41	0.00	687.67	12.06	4.14	1394.95	1662.80
	864.000	85.00	0.00	0.00	678.00	8597.00	688.76	0.00	689.08	12.62	4.69	2038.91	2419.61
	864.000	85.00	0.00	0.00	678.00	9844.00	689.27	0.00	689.57	11.83	4.70	2355.10	2861.88
	864.000	85.00	0.00	0.00	678.00	13256.00	691.71	0.00	691.87	4.78	3.47	4057.70	6062.53
	864.100	80.00	687.40	691.70	678.00	5775.00	687.44	0.00	687.70	11.90	4.12	1401.30	1674.22
	864.100	80.00	687.40	691.70	678.00	8597.00	688.76	0.00	689.08	12.60	4.69	2040.41	2421.56
	864.100	80.00	687.40	691.70	678.00	9844.00	689.27	0.00	689.57	11.80	4.70	2357.37	2865.27
	864.100	80.00	687.40	691.70	678.00	13256.00	691.75	0.00	691.92	4.69	3.44	4083.79	6119.69
	86.000	85.00	0.00	0.00	677.20	5775.00	687.57	0.00	687.80	9.79	3.88	1509.76	1845.66
B	86.000	85.00	0.00	0.00	677.20	8597.00	688.95	0.00	689.21	9.97	4.34	2628.20	2722.87
	86.000	85.00	0.00	0.00	677.20	9844.00	689.45	0.00	689.71	9.68	4.43	3076.65	3163.61
	86.000	85.00	0.00	0.00	677.20	13256.00	691.88	0.00	691.99	3.79	3.21	5842.00	6811.51

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	85.100	1170.00	0.00	0.00	678.90	5775.00	688.79	0.00	688.99	15.28	4.64	3431.12	1477.59
	85.100	1170.00	0.00	0.00	678.90	8597.00	690.03	0.00	690.18	12.11	4.55	5229.42	2470.43
	85.100	1170.00	0.00	0.00	678.90	9844.00	690.46	0.00	690.61	11.50	4.57	5874.35	2902.26
	85.100	1170.00	0.00	0.00	678.90	13256.00	692.26	0.00	692.35	6.85	3.94	8585.72	5064.29
	85.000	450.00	0.00	0.00	679.60	5775.00	689.36	0.00	689.41	4.59	2.52	3795.26	2696.15
C	85.000	450.00	0.00	0.00	679.60	8597.00	690.47	0.00	690.52	3.88	2.53	5218.63	4364.55
	85.000	450.00	0.00	0.00	679.60	9844.00	690.88	0.00	690.93	3.76	2.57	5750.08	5074.21
	85.000	450.00	0.00	0.00	679.60	13256.00	692.51	0.00	692.55	2.51	2.34	7897.33	8363.14
	84.000	1450.00	0.00	0.00	680.00	5775.00	690.28	0.00	691.16	39.37	7.54	765.70	920.39
	84.000	1450.00	0.00	0.00	680.00	8597.00	690.99	0.00	692.61	65.56	10.19	843.72	1061.76
D	84.000	1450.00	0.00	0.00	680.00	9844.00	691.22	0.00	693.21	78.72	11.32	869.40	1109.50
	84.000	1450.00	0.00	0.00	680.00	13256.00	692.02	0.00	694.99	107.71	13.85	960.70	1277.29
	83.100	1170.00	0.00	0.00	678.40	5775.00	692.61	0.00	692.90	6.60	4.32	1392.41	2247.67
	83.100	1170.00	0.00	0.00	678.40	8597.00	694.65	0.00	695.10	8.44	5.43	1675.38	2958.56
	83.100	1170.00	0.00	0.00	678.40	9844.00	695.49	0.00	696.01	9.01	5.84	1797.25	3279.19
	83.100	1170.00	0.00	0.00	678.40	13256.00	697.73	0.00	698.42	9.95	6.75	2138.77	4201.76
	83.000	50.00	0.00	0.00	678.40	5775.00	692.64	0.00	692.93	7.21	4.36	1324.92	2151.35
	83.000	50.00	0.00	0.00	678.40	8597.00	694.67	0.00	695.15	9.57	5.53	1554.96	2779.44
	83.000	50.00	0.00	0.00	678.40	9844.00	695.52	0.00	696.07	10.38	5.96	1650.30	3055.71
	83.000	50.00	0.00	0.00	678.40	13256.00	697.74	0.00	698.49	12.01	6.97	1901.32	3824.59
	82.100	80.50	698.10	706.25	678.40	5775.00	692.69	0.00	693.01	10.20	4.55	1268.83	1808.01
	82.100	80.50	698.10	706.25	678.40	8597.00	694.72	0.00	695.27	15.91	5.90	1456.48	2155.51
	82.100	80.50	698.10	706.25	678.40	9844.00	695.56	0.00	696.21	17.93	6.45	1527.24	2324.49
	82.100	80.50	698.10	706.25	678.40	13256.00	697.74	0.00	698.69	25.61	7.84	1691.15	2619.65
	82.000	100.00	0.00	0.00	682.20	5775.00	692.62	0.00	693.28	33.44	6.49	890.03	998.71
	82.000	100.00	0.00	0.00	682.20	8597.00	694.75	0.00	695.57	32.42	7.34	1298.06	1509.79
E	82.000	100.00	0.00	0.00	682.20	9844.00	695.66	0.00	696.49	30.05	7.46	1550.41	1795.84
	82.000	100.00	0.00	0.00	682.20	13256.00	698.22	0.00	698.95	22.36	7.32	2311.24	2803.36
	81.000	1940.00	0.00	0.00	687.50	5775.00	696.53	0.00	696.74	10.86	3.68	1568.47	1752.20
	81.000	1940.00	0.00	0.00	687.50	8597.00	698.64	0.00	698.93	10.46	4.26	2018.45	2658.19
	81.000	1940.00	0.00	0.00	687.50	9844.00	699.44	0.00	699.76	10.50	4.50	2188.84	3037.91
	81.000	1940.00	0.00	0.00	687.50	13256.00	701.46	0.00	701.86	10.56	5.06	2619.29	4080.10
	80.100	46.00	714.20	713.10	687.50	5775.00	696.56	0.00	696.82	17.55	4.10	1409.80	1378.54
	80.100	46.00	714.20	713.10	687.50	8597.00	698.65	0.00	699.01	17.47	4.79	1795.98	2057.01
	80.100	46.00	714.20	713.10	687.50	9844.00	699.45	0.00	699.84	17.69	5.07	1942.35	2340.65
	80.100	46.00	714.20	713.10	687.50	13256.00	701.45	0.00	701.96	18.11	5.74	2311.11	3115.18
	80.000	200.00	0.00	0.00	687.60	5775.00	696.81	0.00	697.24	19.43	5.28	1142.25	1310.13
	80.000	200.00	0.00	0.00	687.60	8597.00	698.87	0.00	699.45	19.91	6.21	1472.81	1926.63
F	80.000	200.00	0.00	0.00	687.60	9844.00	699.65	0.00	700.30	20.24	6.58	1603.36	2187.85
	80.000	200.00	0.00	0.00	687.60	13256.00	701.62	0.00	702.44	20.62	7.41	1973.03	2919.43
	79.000	860.00	0.00	0.00	686.70	5775.00	698.18	0.00	698.50	11.33	4.55	1328.09	1715.68
	79.000	860.00	0.00	0.00	686.70	8597.00	700.35	0.00	700.81	12.62	5.48	1677.79	2420.19
G	79.000	860.00	0.00	0.00	686.70	9844.00	701.18	0.00	701.70	13.11	5.84	1816.77	2718.32
	79.000	860.00	0.00	0.00	686.70	13256.00	703.24	0.00	703.91	14.15	6.70	2173.16	3523.41

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	,01K
78.000	175.00	0.00	0.00	688.20	5775.00	698.34	0.00	698.83	23.17	5.59	1033.05	1199.69
78.000	175.00	0.00	0.00	688.20	8597.00	700.51	0.00	701.17	25.05	6.55	1311.76	1717.74
78.000	175.00	0.00	0.00	688.20	9844.00	701.33	0.00	702.08	25.85	6.92	1421.64	1936.04
78.000	175.00	0.00	0.00	688.20	13256.00	703.38	0.00	704.33	27.62	7.79	1701.03	2522.44
77.200	60.00	712.90	704.90	688.20	5775.00	698.37	0.00	698.85	22.96	5.57	1036.25	1205.33
77.200	60.00	712.90	704.90	688.20	8597.00	700.54	0.00	701.20	24.78	6.53	1316.47	1726.94
77.200	60.00	712.90	704.90	688.20	9844.00	701.37	0.00	702.11	25.56	6.90	1427.03	1946.95
77.200	60.00	712.90	704.90	688.20	13256.00	703.43	0.00	704.37	27.28	7.76	1708.26	2538.17
77.100	35.00	0.00	0.00	688.20	5775.00	698.50	0.00	698.93	19.38	5.34	1129.50	1311.92
77.100	35.00	0.00	0.00	688.20	8597.00	700.72	0.00	701.30	20.22	6.20	1459.40	1912.02
77.100	35.00	0.00	0.00	688.20	9844.00	701.57	0.00	702.21	20.58	6.53	1592.30	2170.14
77.100	35.00	0.00	0.00	688.20	13256.00	703.69	0.00	704.48	21.25	7.28	1936.37	2875.79
77.000	35.00	0.00	0.00	684.40	5775.00	698.49	0.00	699.07	25.43	6.12	943.94	1145.24
77.000	35.00	0.00	0.00	684.40	8597.00	700.66	0.00	701.48	29.24	7.27	1182.90	1589.81
77.000	35.00	0.00	0.00	684.40	9844.00	701.49	0.00	702.41	30.66	7.70	1278.48	1777.67
77.000	35.00	0.00	0.00	684.40	13256.00	703.55	0.00	704.73	32.60	8.71	1522.03	2321.79
76.100	28.00	716.30	706.30	684.40	5775.00	698.63	0.00	699.19	24.27	6.02	959.14	1172.35
76.100	28.00	716.30	706.30	684.40	8597.00	700.87	0.00	701.66	27.60	7.12	1206.82	1636.32
76.100	28.00	716.30	706.30	684.40	9844.00	701.73	0.00	702.61	28.83	7.54	1306.39	1833.50
76.100	28.00	716.30	706.30	684.40	13256.00	703.86	0.00	704.99	30.13	8.50	1559.56	2414.93
76.000	200.00	0.00	0.00	688.00	5775.00	699.17	0.00	699.69	24.68	6.18	1335.40	1162.37
76.000	200.00	0.00	0.00	688.00	8597.00	701.70	0.00	702.11	16.19	5.93	2256.41	2136.46
76.000	200.00	0.00	0.00	688.00	9844.00	702.67	0.00	703.06	14.40	5.91	2623.81	2594.03
76.000	200.00	0.00	0.00	688.00	13256.00	705.05	0.00	705.41	11.49	5.94	3565.83	3911.37
75.000	2570.00	0.00	0.00	691.80	5775.00	702.93	0.00	703.15	8.36	3.95	1655.52	1997.11
75.000	2570.00	0.00	0.00	691.80	8597.00	704.92	0.00	705.23	9.38	4.73	2116.04	2807.27
75.000	2570.00	0.00	0.00	691.80	9844.00	705.71	0.00	706.06	9.64	5.00	2315.37	3170.75
75.000	2570.00	0.00	0.00	691.80	13256.00	707.75	0.00	708.18	9.95	5.61	2843.07	4202.99
74.000	1000.00	0.00	0.00	695.20	5775.00	703.99	0.00	704.33	16.62	4.78	1274.85	1416.76
74.000	1000.00	0.00	0.00	695.20	8597.00	706.03	0.00	706.50	16.56	5.57	1664.43	2112.86
74.000	1000.00	0.00	0.00	695.20	9844.00	706.84	0.00	707.35	16.51	5.86	1829.70	2422.58
74.000	1000.00	0.00	0.00	695.20	13256.00	708.86	0.00	709.49	16.22	6.52	2278.40	3291.47
73.000	200.00	0.00	0.00	693.30	5775.00	704.30	0.00	704.68	16.68	4.95	1167.54	1414.03
73.000	200.00	0.00	0.00	693.30	8597.00	706.32	0.00	706.87	18.18	5.93	1448.88	2016.23
73.000	200.00	0.00	0.00	693.30	9844.00	707.11	0.00	707.73	18.80	6.32	1557.87	2270.22
73.000	200.00	0.00	0.00	693.30	13256.00	709.09	0.00	709.90	20.03	7.23	1834.10	2961.71
72.300	30.00	716.50	716.00	693.30	5775.00	704.31	0.00	704.76	25.03	5.38	1073.36	1154.34
72.300	30.00	716.50	716.00	693.30	8597.00	706.31	0.00	706.97	29.10	6.52	1319.30	1593.72
72.300	30.00	716.50	716.00	693.30	9844.00	707.09	0.00	707.84	30.59	6.97	1411.35	1779.83
72.300	30.00	716.50	716.00	693.30	13256.00	709.02	0.00	710.05	38.70	8.13	1630.34	2130.98

TEN YEAR FLOW

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
91.000	5775.00	685.50	0.00	0.00	0.00	156.00	0.00
91.000	8597.00	685.50	0.00	0.00	0.00	156.00	0.00
91.000	9844.00	686.00	.50	0.00	0.00	156.00	0.00
91.000	13256.00	689.10	3.10	0.00	0.00	156.00	0.00
91.100	5775.00	685.48	0.00	-.02	0.00	131.00	50.00
91.100	8597.00	685.45	-.03	-.05	0.00	131.00	50.00
91.100	9844.00	685.93	.48	-.07	0.00	131.00	50.00
91.100	13256.00	688.99	3.06	-.11	0.00	131.00	50.00
91.200	5775.00	685.45	0.00	-.03	0.00	116.00	30.00
91.200	8597.00	685.39	-.07	-.06	0.00	116.00	30.00
91.200	9844.00	685.85	.46	-.08	0.00	116.00	30.00
91.200	13256.00	688.87	3.03	-.12	0.00	116.00	30.00
90.100	5775.00	685.47	0.00	.01	0.00	106.34	20.00
90.100	8597.00	685.42	-.05	.03	0.00	106.34	20.00
90.100	9844.00	685.88	.46	.04	0.00	106.34	20.00
90.100	13256.00	688.89	3.00	.01	0.00	106.34	20.00
90.000	5775.00	685.50	0.00	.04	0.00	106.34	108.00
90.000	8597.00	685.57	.06	.15	0.00	106.34	108.00
90.000	9844.00	686.08	.51	.19	0.00	106.34	108.00
90.000	13256.00	689.06	2.99	.18	0.00	106.34	108.00
89.200	5775.00	685.55	0.00	.05	0.00	140.00	20.00
89.200	8597.00	685.71	.16	.15	0.00	140.00	20.00
89.200	9844.00	686.33	.61	.25	0.00	140.00	20.00
89.200	13256.00	689.54	3.21	.47	0.00	140.00	20.00
89.210	5775.00	685.79	0.00	.24	0.00	170.00	20.00
89.210	8597.00	686.30	.51	.59	0.00	170.00	20.00
89.210	9844.00	686.99	.69	.66	0.00	170.00	20.00
89.210	13256.00	690.09	3.10	.55	0.00	170.00	20.00
89.100	5775.00	685.94	0.00	.15	0.00	215.00	30.00
89.100	8597.00	686.62	.67	.31	0.00	215.00	30.00
89.100	9844.00	687.34	.72	.35	0.00	215.00	30.00
89.100	13256.00	690.42	3.08	.34	0.00	215.00	30.00
89.000	5775.00	686.06	0.00	.12	0.00	260.27	80.00
89.000	8597.00	686.84	.78	.22	0.00	293.25	80.00
89.000	9844.00	687.60	.76	.26	0.00	294.30	80.00
89.000	13256.00	690.69	3.09	.26	0.00	300.00	80.00
88.100	5775.00	686.50	0.00	.44	0.00	381.05	380.00
88.100	8597.00	687.54	1.04	.69	0.00	419.22	380.00
88.100	9844.00	688.26	.73	.67	0.00	425.00	380.00
88.100	13256.00	691.10	2.84	.41	0.00	425.00	380.00
88.000	5775.00	686.45	0.00	-.05	0.00	194.49	50.00
88.000	8597.00	687.43	.98	-.11	0.00	312.61	50.00
88.000	9844.00	688.16	.73	-.11	0.00	416.07	50.00
88.000	13256.00	691.07	2.92	-.03	0.00	420.00	50.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	87.300	5775.00	686.47	0.00	.02	0.00	195.29	10.00
	87.300	8597.00	687.46	.99	.03	0.00	316.66	10.00
	87.300	9844.00	688.19	.73	.03	0.00	420.00	10.00
	87.300	13256.00	691.01	2.82	-.07	0.00	420.00	10.00
	87.200	5775.00	686.86	0.00	.39	0.00	463.28	50.00
	87.200	8597.00	688.12	1.26	.67	0.00	470.00	50.00
	87.200	9844.00	688.80	.68	.61	0.00	470.00	50.00
	87.200	13256.00	691.47	2.67	.46	0.00	470.00	50.00
	87.100	5775.00	687.16	0.00	.30	0.00	548.95	530.00
	87.100	8597.00	688.48	1.32	.36	0.00	800.00	530.00
	87.100	9844.00	689.14	.66	.34	0.00	800.00	530.00
	87.100	13256.00	691.70	2.55	.23	0.00	800.00	530.00
	87.000	5775.00	687.07	0.00	-.09	0.00	130.61	50.00
	87.000	8597.00	688.37	1.30	-.11	0.00	726.91	50.00
	87.000	9844.00	689.08	.71	-.07	0.00	800.00	50.00
	87.000	13256.00	691.68	2.60	-.01	0.00	800.00	50.00
	86.200	5775.00	687.11	0.00	.04	0.00	135.85	23.00
	86.200	8597.00	688.48	1.38	.12	0.00	789.17	23.00
	86.200	9844.00	689.14	.66	.07	0.00	800.00	23.00
	86.200	13256.00	691.69	2.55	.01	0.00	800.00	23.00
	864.000	5775.00	687.41	0.00	.30	0.00	200.30	85.00
	864.000	8597.00	688.76	1.35	.27	0.00	605.39	85.00
	864.000	9844.00	689.27	.51	.12	0.00	636.47	85.00
	864.000	13256.00	691.71	2.44	.01	0.00	743.54	85.00
	864.100	5775.00	687.44	0.00	.03	0.00	215.63	80.00
	864.100	8597.00	688.76	1.32	.00	0.00	605.54	80.00
	864.100	9844.00	689.27	.51	.00	0.00	636.69	80.00
	864.100	13256.00	691.75	2.48	.04	0.00	744.84	80.00
B	86.000	5775.00	687.57	0.00	.13	0.00	489.04	85.00
	86.000	8597.00	688.95	1.38	.19	0.00	878.67	85.00
	86.000	9844.00	689.45	.51	.18	0.00	893.31	85.00
	86.000	13256.00	691.88	2.43	.13	0.00	1306.01	85.00
	85.100	5775.00	688.79	0.00	1.22	0.00	1415.19	1170.00
	85.100	8597.00	690.03	1.24	1.08	0.00	1488.69	1170.00
	85.100	9844.00	690.46	.43	1.01	0.00	1497.07	1170.00
	85.100	13256.00	692.26	1.80	.38	0.00	1531.78	1170.00
C	85.000	5775.00	689.36	0.00	.57	0.00	1267.94	450.00
	85.000	8597.00	690.47	1.12	.45	0.00	1297.72	450.00
	85.000	9844.00	690.88	.41	.42	0.00	1306.48	450.00
	85.000	13256.00	692.51	1.63	.25	0.00	1339.07	450.00
D	84.000	5775.00	690.28	0.00	.92	0.00	106.89	1450.00
	84.000	8597.00	690.99	.72	.52	0.00	109.70	1450.00
	84.000	9844.00	691.22	.23	.34	0.00	110.61	1450.00
	84.000	13256.00	692.02	.79	-.49	0.00	138.21	1450.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
83.100	5775.00	692.61	0.00	2.33	0.00	135.41	1170.00
83.100	8597.00	694.65	2.04	3.65	0.00	142.68	1170.00
83.100	9844.00	695.49	.85	4.27	0.00	145.70	1170.00
83.100	13256.00	697.73	2.24	5.72	0.00	163.05	1170.00
83.000	5775.00	692.64	0.00	.03	0.00	113.00	50.00
83.000	8597.00	694.67	2.04	.03	0.00	113.00	50.00
83.000	9844.00	695.52	.84	.02	0.00	113.00	50.00
83.000	13256.00	697.74	2.22	.01	0.00	113.00	50.00
82.100	5775.00	692.69	0.00	.05	0.00	113.00	80.50
82.100	8597.00	694.72	2.04	.05	0.00	113.00	80.50
82.100	9844.00	695.56	.84	.04	0.00	113.00	80.50
82.100	13256.00	697.74	2.18	-.00	0.00	113.00	80.50
82.000	5775.00	692.62	0.00	-.06	0.00	117.68	100.00
82.000	8597.00	694.75	2.12	.02	0.00	260.66	100.00
82.000	9844.00	695.66	.91	.10	0.00	292.43	100.00
82.000	13256.00	698.22	2.55	.48	0.00	301.94	100.00
81.000	5775.00	696.53	0.00	3.91	0.00	213.00	1940.00
81.000	8597.00	698.64	2.11	3.89	0.00	213.00	1940.00
81.000	9844.00	699.44	.80	3.78	0.00	213.00	1940.00
81.000	13256.00	701.46	2.02	3.25	0.00	213.00	1940.00
80.100	5775.00	696.56	0.00	.03	0.00	213.00	46.00
80.100	8597.00	698.65	2.09	.01	0.00	213.00	46.00
80.100	9844.00	699.45	.79	.00	0.00	213.00	46.00
80.100	13256.00	701.45	2.00	-.02	0.00	213.00	46.00
80.000	5775.00	696.81	0.00	.25	0.00	156.50	200.00
80.000	8597.00	698.87	2.05	.21	0.00	165.57	200.00
80.000	9844.00	699.65	.78	.20	0.00	169.01	200.00
80.000	13256.00	701.62	1.97	.17	0.00	245.79	200.00
79.000	5775.00	698.18	0.00	1.37	0.00	156.91	860.00
79.000	8597.00	700.35	2.17	1.49	0.00	165.80	860.00
79.000	9844.00	701.18	.83	1.54	0.00	169.20	860.00
79.000	13256.00	703.24	2.06	1.62	0.00	177.63	860.00
78.000	5775.00	698.34	0.00	.16	0.00	125.98	175.00
78.000	8597.00	700.51	2.16	.15	0.00	131.60	175.00
78.000	9844.00	701.33	.83	.15	0.00	133.75	175.00
78.000	13256.00	703.38	2.05	.15	0.00	139.06	175.00
77.200	5775.00	698.37	0.00	.03	0.00	126.05	60.00
77.200	8597.00	700.54	2.17	.04	0.00	131.69	60.00
77.200	9844.00	701.37	.83	.04	0.00	133.85	60.00
77.200	13256.00	703.43	2.06	.05	0.00	139.20	60.00
77.100	5775.00	698.50	0.00	.13	0.00	143.74	35.00
77.100	8597.00	700.72	2.22	.18	0.00	153.86	35.00
77.100	9844.00	701.57	.85	.20	0.00	157.75	35.00
77.100	13256.00	703.69	2.12	.25	0.00	167.42	35.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
77.000	5775.00	698.49	0.00	-.01	0.00	106.73	35.00
77.000	8597.00	700.66	2.17	-.06	0.00	113.54	35.00
77.000	9844.00	701.49	.83	-.08	0.00	116.15	35.00
77.000	13256.00	703.55	2.06	-.14	0.00	119.00	35.00
76.100	5775.00	698.63	0.00	.14	0.00	107.18	28.00
76.100	8597.00	700.87	2.24	.21	0.00	114.20	28.00
76.100	9844.00	701.73	.86	.24	0.00	116.90	28.00
76.100	13256.00	703.86	2.13	.32	0.00	119.00	28.00
76.000	5775.00	699.17	0.00	.54	0.00	352.04	200.00
76.000	8597.00	701.70	2.53	.83	0.00	375.60	200.00
76.000	9844.00	702.67	.97	.94	0.00	384.59	200.00
76.000	13256.00	705.05	2.38	1.18	0.00	406.75	200.00
75.000	5775.00	702.93	0.00	3.76	0.00	221.79	2570.00
75.000	8597.00	704.92	1.99	3.21	0.00	245.41	2570.00
75.000	9844.00	705.71	.80	3.04	0.00	253.86	2570.00
75.000	13256.00	707.75	2.04	2.70	0.00	263.11	2570.00
74.000	5775.00	703.99	0.00	1.06	0.00	183.16	1000.00
74.000	8597.00	706.03	2.04	1.12	0.00	200.68	1000.00
74.000	9844.00	706.84	.81	1.12	0.00	209.83	1000.00
74.000	13256.00	708.86	2.03	1.11	0.00	232.85	1000.00
73.000	5775.00	704.30	0.00	.31	0.00	139.00	200.00
73.000	8597.00	706.32	2.02	.29	0.00	139.00	200.00
73.000	9844.00	707.11	.79	.28	0.00	139.00	200.00
73.000	13256.00	709.09	1.98	.23	0.00	139.00	200.00
72.300	5775.00	704.31	0.00	.01	0.00	139.00	30.00
72.300	8597.00	706.31	2.00	-.01	0.00	139.00	30.00
72.300	9844.00	707.09	.78	-.02	0.00	139.00	30.00
72.300	13256.00	709.02	1.93	-.07	0.00	139.00	30.00

SUMMARY OF ERRORS

THIS RUN EXECUTED 29 MAR 79 10.18.51

****
HEC2 RELEASE DATED NOV 76 UPDATED AUG1977
ERROR CORR - 01,02
MODIFICATION - 50,51,52,53
****

NOTE= ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

ONE HUNDRED YEAR FLOW

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
91.000	0.	0.	0.	676.00	9844.00	686.00	0.	686.62	19.90	6.31	1559.99	2206.48
91.100	50.00	0.	0.	676.00	9844.00	685.93	0.	686.82	29.69	7.57	1300.96	1806.73
91.200	30.00	0.	0.	676.00	9844.00	685.85	0.	687.00	39.74	8.62	1142.47	1561.47
90.100	20.00	0.	0.	676.00	9844.00	685.88	0.	687.25	38.13	9.37	1051.14	1594.28
90.000	108.00	694.17	691.50	676.00	9844.00	686.08	0.	687.39	35.75	9.19	1071.74	1646.50
89.200	20.00	0.	0.	676.80	9844.00	686.33	0.	687.51	50.43	8.72	1128.30	1386.18
89.210	20.00	0.	0.	676.80	9844.00	686.99	0.	687.72	28.08	6.86	1435.73	1857.60
89.100	30.00	0.	0.	676.80	9844.00	687.34	0.	687.86	19.49	5.75	1715.27	2229.71
89.000	80.00	0.	0.	676.80	9844.00	687.60	0.	688.02	15.92	5.29	1909.66	2467.05
88.100	380.00	0.	0.	676.80	9844.00	688.26	0.	688.55	10.25	4.46	2339.26	3074.13
88.000	50.00	0.	0.	674.70	9844.00	688.16	0.	688.80	19.29	6.70	1633.30	2241.32
87.300	10.00	686.20	689.80	674.70	9844.00	688.19	0.	688.82	19.00	6.66	1646.52	2258.39
87.200	50.00	0.	0.	676.00	9844.00	688.80	0.	689.00	6.00	3.72	2822.33	4018.03
87.100	530.00	0.	0.	676.00	9844.00	689.14	0.	689.28	4.09	3.14	3556.98	4867.37
87.000	50.00	0.	0.	675.20	9844.00	689.08	0.	689.42	19.73	5.05	2254.83	2216.30
86.200	25.00	0.	0.	675.20	9844.00	689.14	0.	689.47	18.58	4.93	2308.09	2283.64
864.000	85.00	0.	0.	678.00	9844.00	689.27	0.	689.57	11.83	4.70	2355.10	2861.88
864.100	80.00	687.40	691.70	678.00	9844.00	689.27	0.	689.58	11.78	4.69	2359.68	2868.70
86.000	85.00	0.	0.	677.20	9844.00	689.46	0.	689.71	9.66	4.42	3079.51	3166.58
85.100	1170.00	0.	0.	678.90	9844.00	690.46	0.	690.61	11.49	4.57	5876.36	2903.66

PRINTED IN U.S.A.

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
85.000	450.00	0.	0.	679.60	9844.00	690.88	0.	690.93	3.76	2.57	5751.34	5075.94
84.100	600.00	0.	0.	679.80	9844.00	690.99	0.	691.08	4.89	2.91	4302.04	4449.58
84.200	330.00	0.	0.	679.90	9844.00	691.13	0.	691.42	14.15	4.96	2338.63	2616.64
84.000	520.00	0.	0.	680.00	9844.00	691.79	0.	693.52	64.25	10.56	932.07	1228.12
83.100	1170.00	0.	0.	678.40	9844.00	695.58	0.	696.09	8.84	5.80	1809.46	3311.74

PRINTED IN U.S.A

ONE HUNDRED YEAR FLOW

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
91.000	9844.00	686.00	0.	0.	0.	156.00	0.
91.100	9844.00	685.93	0.	-.07	0.	131.00	50.00
91.200	9844.00	685.85	0.	-.08	0.	116.00	30.00
90.100	9844.00	685.88	0.	.04	0.	106.34	20.00
90.000	9844.00	686.08	0.	.19	0.	106.34	108.00
89.200	9844.00	686.33	0.	.25	0.	140.00	20.00
89.210	9844.00	686.99	0.	.66	0.	170.00	20.00
89.100	9844.00	687.34	0.	.35	0.	215.00	30.00
89.000	9844.00	687.60	0.	.26	0.	294.30	80.00
88.100	9844.00	688.26	0.	.67	0.	425.00	380.00
88.000	9844.00	688.16	0.	-.11	0.	416.07	50.00
87.300	9844.00	688.19	0.	.03	0.	420.00	10.00
87.200	9844.00	688.80	0.	.61	0.	470.00	50.00
87.100	9844.00	689.14	0.	.34	0.	800.00	530.00
87.000	9844.00	689.08	0.	-.07	0.	800.00	50.00
86.200	9844.00	689.14	0.	.07	0.	800.00	23.00
864.000	9844.00	689.27	0.	.12	0.	636.47	85.00
864.100	9844.00	689.27	0.	.00	0.	636.91	80.00
86.000	9844.00	689.46	0.	.18	0.	893.41	85.00
85.100	9844.00	690.46	0.	1.00	0.	1497.09	1170.00
85.000	9844.00	690.88	0.	.42	0.	1306.50	450.00
84.100	9844.00	690.99	0.	.11	0.	958.72	600.00
84.200	9844.00	691.13	0.	.14	0.	439.00	330.00
84.000	9844.00	691.79	0.	.66	0.	118.04	520.00
83.100	9844.00	695.58	0.	3.79	0.	146.00	1170.00

SUMMARY OF ERRORS

PRINTED IN U.S.A.

00BREAK00

1) COUNTY: WASHTENAW

2) STUDY NAME: DEXTER TWP

3) WATERCOURSE: HURON RIVER - PORTAGE LK.

4) DOCUMENT TYPE: REPORT

00BREAK00

STS Consultants Ltd.
Consulting Engineers
3340 Ranger Road
Lansing, Michigan 48906
(517) 321-4964

January 24, 1984

RECEIVED
JAN 28 1985
WATER MANAGEMENT

Mr. Steve Miller
Department of Natural Resources
Water Management Division
P.O. Box 30028
Lansing, Michigan 48909

RE: Dexter Township Flood Insurance Study
Hydrologic Analysis Report

Dear Steve:

Enclosed is a hydrologic and hydraulic analysis report for the Township of Dexter Flood Insurance Study (FIS). The Township of Dexter is located in Washtenaw County, Michigan. This report was generated for the Federal Emergency Management Agency (FEMA) as part of the National Flood Insurance Program (Contract No. EMW-83-C-1169).

The enclosed report summarizes the technical analyses which were performed to assess flooding conditions in the Township of Dexter. These analyses included the estimation of peak flow rates and peak flood elevations for Little Portage Lake, Silver Lake, Losee Lake, North Lake and Half Moon Lake.

Your review of this report is requested. If you anticipate an extensive review period which might impact the overall schedule of the Flood Insurance Study, please let us know so that we can make appropriate adjustments. If you have any questions regarding the enclosed report, please feel free to call.

Sincerely,

STS CONSULTANTS, LTD.

William J. Weaver, P.E.
Project Manager

Bernard B. Sheff, EIT
Assistant Project Engineer

cc: Mr. Don Glondys, Federal Emergency Management Agency

TOWNSHIP OF DEXTER
FLOOD INSURANCE STUDY

REPORT ON HYDROLOGIC
AND HYDRAULIC ANALYSES

SUBMITTED TO:

MICHIGAN DEPARTMENT OF NATURAL RESOURCES
WATER MANAGEMENT DIVISION
LANSING, MICHIGAN

PREPARED FOR:

FEDERAL EMERGENCY MANAGEMENT AGENCY
WASHINGTON, D.C.

PREPARED BY:

STS CONSULTANTS, LTD.
LANSING, MICHIGAN

FEMA CONTRACT NO. EMW-83-C-1169

STS JOB NO. 1053E

JANUARY 1985

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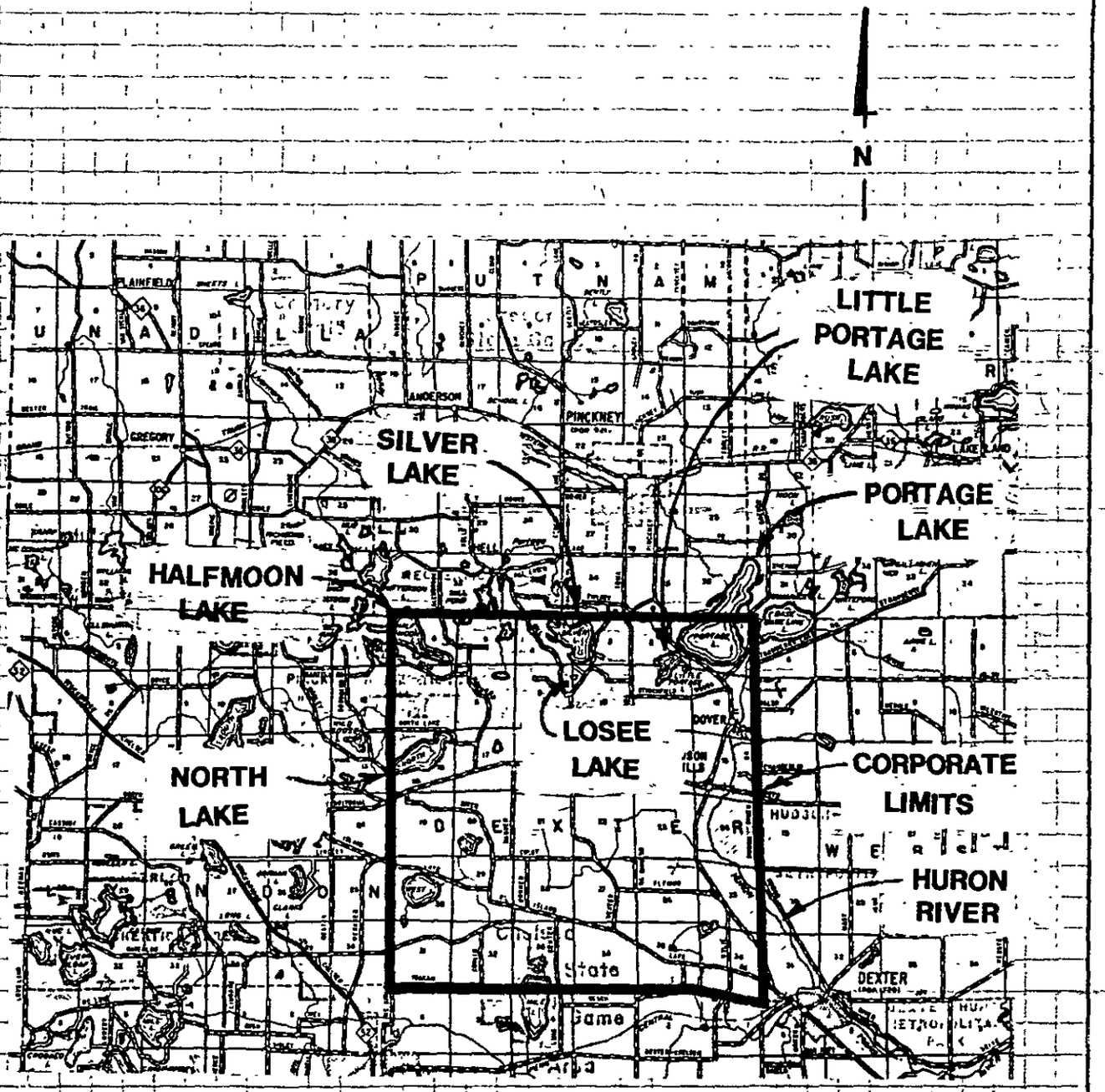
A	Little Portage Lake Computations
B	Silver Lake and Losee Lake Computations
C	North Lake Computations
D	Halfmoon Lake Computations
E	Flood Boundary and Floodway Maps
F	TR-20 and HEC-2 Computer Output

1.0 INTRODUCTION

The Township of Dexter Flood Insurance Study (FIS) is being performed for the Federal Emergency Management Agency as part of the National Flood Insurance Program. The Township of Dexter is located in Washtenaw County, Michigan. A vicinity map of the township is presented in Figure 1.

Detailed technical studies performed for the FIS have been developed in two phases for the various water resource systems in Dexter. The results of the first phase addressed the hydrologic and hydraulic aspects of flooding along the Huron River and Portage Lake. These results were presented in a report which was transmitted to your office for review on June 21, 1984.

This report presents the results of the second phase which addresses hydrologic and hydraulic aspects of flooding for several lakes. The objective of this study was to develop flood flows and elevations for these lakes which are located in the northern areas of the township. The scope of this study includes an analysis of the 10-, 50-, 100-, and 500-year frequency flood events for the following lakes: Little Portage Lake, Losee Lake, Silver Lake, North Lake, and Half Moon Lake.



STS Consultants Ltd. FIGURE SHEET	PROJECT: DEXTER FLOOD INSURANCE STUDY			FIGURE NO.: 1
	TITLE: VICINITY MAP			JOB NO.: 1053–E
	DATE: 12–18–84	DRAWN BY: TMR	APPROVED BY: WJW	SCALE: 1"≈2.6 MI.

Maps showing these areas are presented in Figures 2, 3 and 4. The peak flood elevations estimated by the enclosed hydrologic analyses will be used to develop flood hazard boundary maps and flood insurance zone maps for the five lakes listed above.

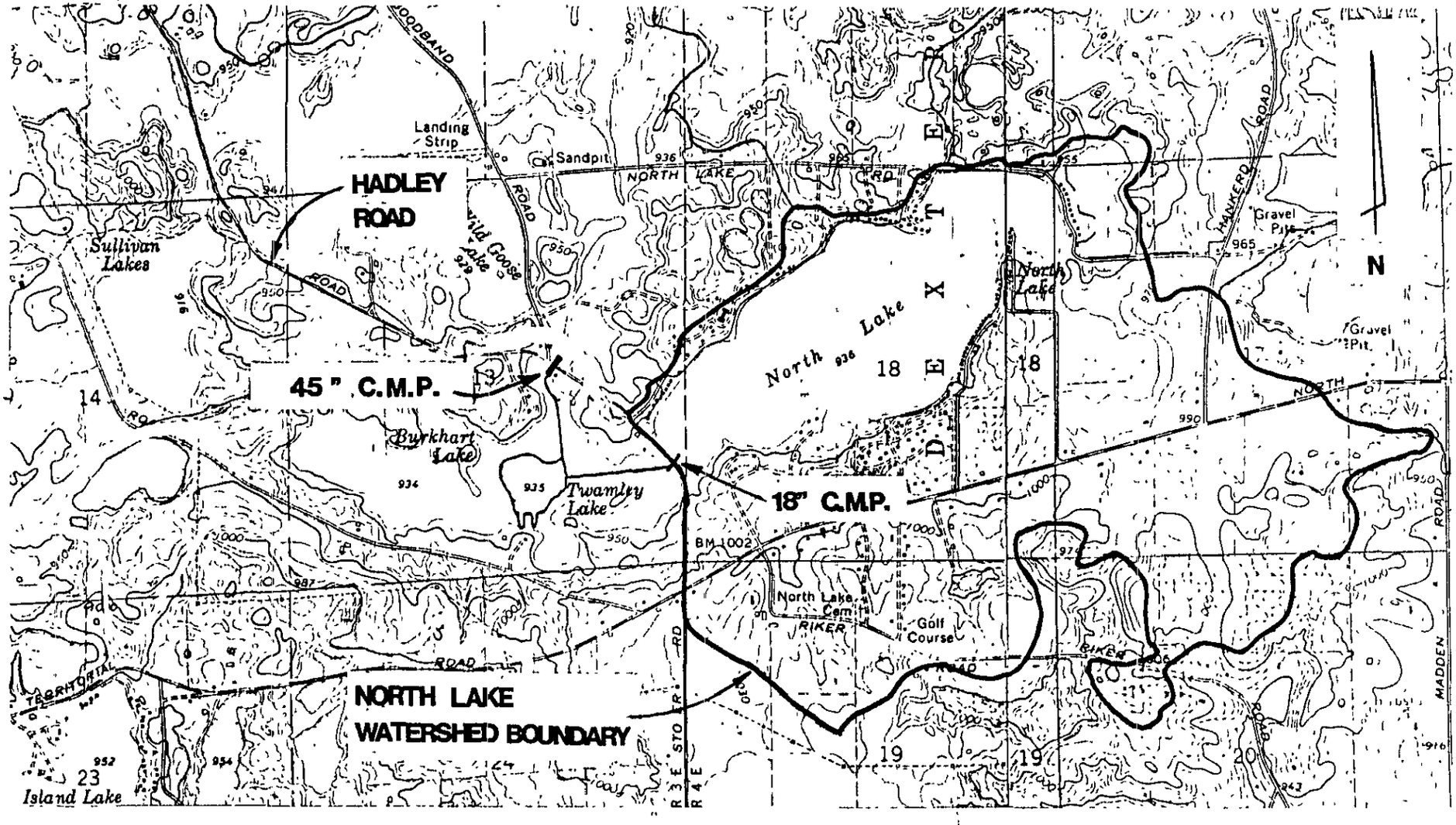
2.0 FLOOD ELEVATION DETERMINATION

2.1 General

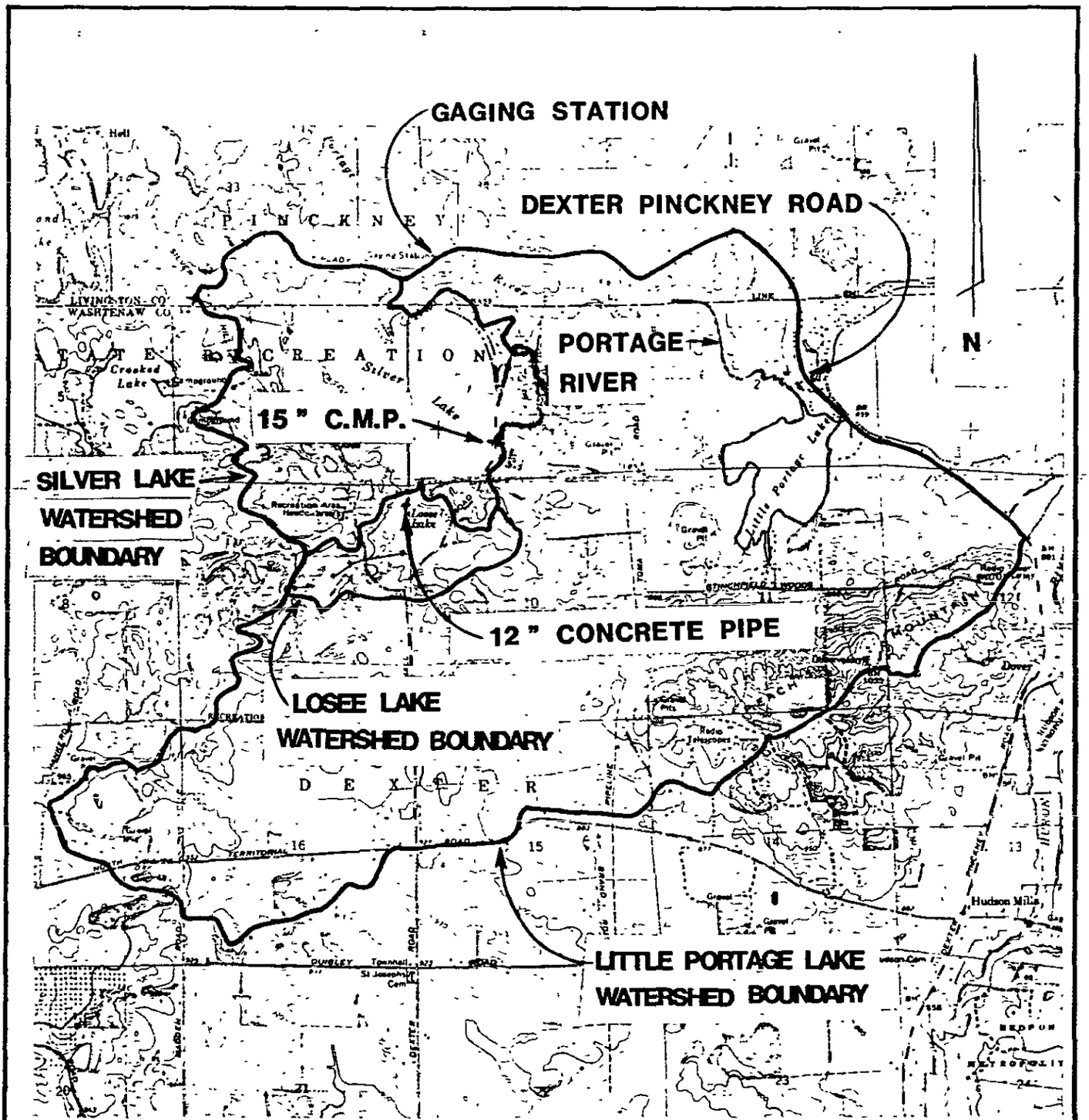
Hydrologic analyses for the Township of Dexter were performed for North Lake (Figure 2), Little Portage Lake (Figure 3), Silver Lake (Figure 3), Losee Lake (Figure 3), and Halfmoon Lake (Figure 4). The objective of the hydrologic analyses for these systems was to estimate the 10-, 50-, 100-, and 500-year frequency flood elevations.

To begin the study effort, reconnaissance was performed to collect all available data for the areas under study. The agencies which were contacted during this phase included the Michigan Department of Natural Resources, Federal Emergency Management Agency, United States Army Corp of Engineers, The United States Geological Survey, Soil Conservation Service, The Washtenaw County Drain Commissioner, The Washtenaw County Road Commissioner, The Washtenaw County Planning Commission, and the Township of Dexter.

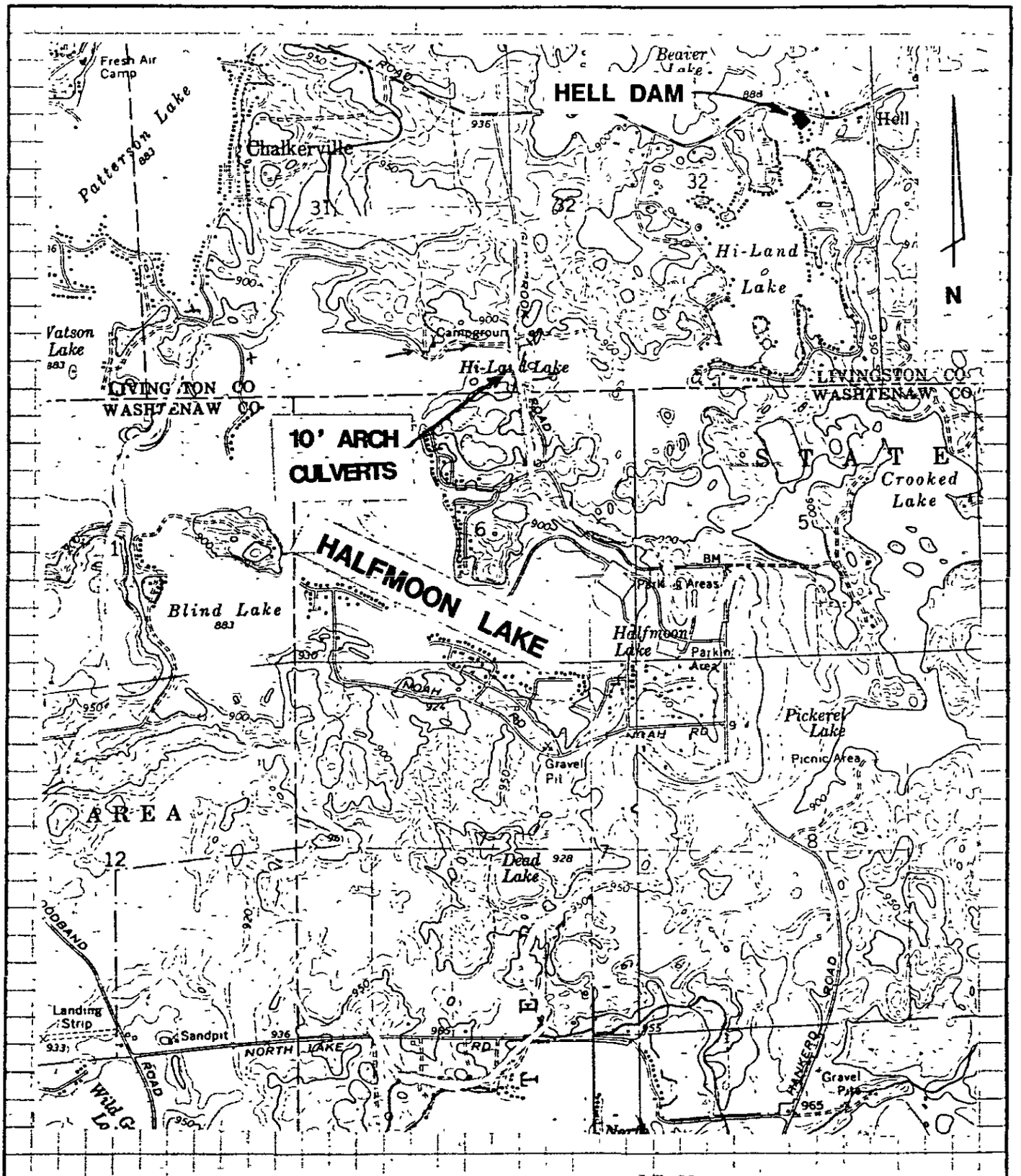
All of the lakes under study are interconnected and are tributary to the Huron River. Little Portage Lake has a total drainage area of approximately 84.0 square miles. This lake is connected to Portage Lake through the bridge on Dexter-Pinckney Road. The major inflows to Little Portage Lake are the Portage



STS Consultants Ltd. FIGURE SHEET		PROJECT: DEXTER FLOOD INSURANCE STUDY		FIGURE NO: 2
		TITLE: NORTH LAKE WATERSHED MAP		JOB NO: 1053-E
	DATE: 12-20-84	DRAWN BY: TMR	APPROVED BY: WJW	SCALE: 1" 2000'



STS Consultants Ltd. FIGURE SHEET	PROJECT: DEXTER FLOOD INSURANCE STUDY			FIGURE NO: 3
	TITLE: SILVER, LOSEE, AND LITTLE PORTAGE LAKES WATERSHED MAP			JOB NO.: 1053-E
	DATE: 12-20-84	DRAWN BY: TMR	APPROVED BY: WJW	SCALE: NONE



STS Consultants Ltd. FIGURE SHEET	PROJECT: DEXTER FLOOD INSURANCE STUDY			FIGURE NO.: 4
	TITLE: HALFMOON LAKE			JOB NO.: 1053-E
	DATE: 12-20-84	DRAWN BY: TMR	APPROVED BY: WJW	SCALE: 1" 2000'

River and the Silver Lake outflow. Losee Lake has a drainage area of approximately 0.25 square miles. This lake is tributary to Silver Lake by a channel and culvert system. Silver Lake, which has a drainage area of 1.1 square miles, has its outlet at the culvert on Townhall Road and empties into Little Portage Lake. North Lake, which has a drainage area of approximately 1.7 square miles, has one outlet underneath Hadley Road which drains to Twamley Lake, and ultimately discharges to the Portage River. Halfmoon Lake is controlled by an open channel and culvert between this lake and the Hi-Land Lake system. The area of Dexter Township currently under study is mostly wooded and used for recreational purposes with a population that is concentrated around the lakes. The soil classification in the watershed is mostly glacial till.

Flood conditions in the Township of Dexter are generally caused by increased lake levels which are a result of major rain storm events within the respective watersheds. The resulting increase in flood elevations has an impact upon residential and commercial developments which have been constructed in the flood plains adjacent to these lakes.

2.2 Methodology

Flood discharge records for the area of Dexter Township currently under study is limited to two stream gages. One on the Portage River between Hell Dam and Little Portage Lake, and another on the Huron River approximately 2 miles downstream from the Portage Lake control structure. Data from the Portage River gage was utilized for the analysis of Little Portage and Halfmoon Lakes. The Huron River gage was utilized previously for the Huron River analysis (Reference 11). The Soil Conservation Service TR-20 computer model was utilized to route the selected storm events through these lakes. A description of the various methodologies which were utilized for this project follows:

2.2.1 TR-20 Watershed Model

The Soil Conservation Service TR-20 computer program (Reference 1) was utilized to describe the hydrologic processes which occur in the watershed. This program computes storm water runoff which would result from a given rain storm event. Parameters which this program considers in the calculation of the rainfall-runoff process include precipitation (Reference 2), land use (Reference 13), soil types (References 3 and 4), topography (References 5 and 6), time of concentration,

and drainage area. Detailed calculations of these parameters for Little Portage Lake, Losee Lake, Silver Lake, North Lake, and Halfmoon Lake are presented in Appendices A, B, C and D.

In estimating peak flow rates and flood elevations for the watershed, the TR-20 model is utilized to simulate time history hydrographs which describe the quantity of runoff which results from a rainfall event. These hydrographs are simulated for each sub-basin in the watershed and are added together on a common time scale. The TR-20 program also has an option which routes flood hydrographs through lakes to account for the impact of lake storage upon peak flood elevations and lake outflows.

2.2.2 Drainage Area Proportion Method

Historic stream gage records are available for the Portage River (Gage No. 04172500). This gage is located upstream of Portage Lake as illustrated in Figure 3 and has a period of record of approximately 25 years. Flood discharge/frequency analyses which were performed for this gage data by the USGS (Reference 14) resulted in the following:

Flood Frequency (years)	Flood Discharge (cfs)
10	310
50	450
100	500
500	650

The maximum discharge recorded for this gage on April 9, and 10, 1947, was 529 cfs. The average discharge is estimated to be approximately 40 cfs. This data was utilized in the assessment of hydrologic conditions for Little Portage and Halfmoon Lakes. For these lakes, the drainage area proportion method was used to transfer the gage data to the desired location. This method is useful when the incremental area between the gage and the desired point is small with regards to total drainage area. Also,

the hydraulic properties of the incremental area should be the same as those in the overall area which is reflected in the gage data. The drainage area proportion equation which was utilized is as follows:

$$\frac{Q_m}{Q_g} = \frac{A_m}{A_g}^{0.947}$$

Where Q_m and Q_g equal discharge at the mouth and gage, respectively, and A_m and A_g equal the size of the drainage basin at the location of the point in question and gage location, respectively. The transposition coefficient of 0.947 in this equation was determined by the United States Geological Survey (Reference 12) to be reflective of regional gage data in the Dexter area.

2.2.3 Backwater Analyses

The stream channels between Halfmoon and Hi-Land Lakes, and Little Portage and Portage Lakes control flood elevations and outflows from these lakes. Backwater analyses were performed for these areas. The Corps of Engineers HEC-2 computer program (Reference 7) was used to perform this analysis.

This program calculates water surface profiles for steady gradually varied flow in natural or manmade channels based on the solution of the one-dimensional energy equation. Energy losses due to friction are evaluated using Manning's equation. The program has the capability to assess the impacts of various obstructions to flow including bridges, culverts and weirs. The computational procedure utilized by the program is generally known as the Standard Step Method. The parameters which were input to the HEC-2 model include stream and culvert cross section dimensions and elevations, roughness coefficients associated with the stream-bed and overbank areas, expansion and contraction loss coefficients, and distance between cross sections and structures.

2.3 Little Portage Lake

2.3.1 General

Little Portage Lake is located in the northeastern corner of Dexter Township. The inflows to Little Portage Lake are the Silver Lake outlet and the Portage River. The outlet is the bridge on Dexter Pinckney Road. The drainage area above this point is approximately 84 square miles. A site map for Little Portage Lake is provided in Figure 3.

The objective of the analyses which were performed for Little Portage Lake was to estimate the 10-, 50-, 100-, and 500-year flood elevations. The analysis was performed as follows:

1. Estimate the flood discharges between the Little Portage and Portage Lakes at the Dexter Pinckney Road bridge.

2. Perform a backwater analysis through the connecting channel at Dexter Pinckney Road utilizing the legal lake level of Portage Creek as a starting point. Estimate losses through the channel and bridge.

3. Compare the results of the backwater analysis with the Portage Lake flood elevation/frequency relationship as estimated in previous studies (Reference 11).

2.3.2 Hydrology and Hydraulic Analysis

Little Portage Lake is located approximately 2.5 miles downstream from the Portage River gage (#04172500). Flood discharges at this lake were estimated based upon a transposition of the gage with the drainage area proportion method.

The incremental area between the Portage River gage and the Little Portage Lake outlet is approximately 4.7 square miles. Using the drainage area proportion method, the flows estimated at the Little Portage Lake outflow are as follows:

Recurrence Interval (years)	Discharge (cfs)
10	330
50	480
100	530
500	690

A backwater analysis through the Little Portage Lake outlet at the Dexter Pinckney Road bridge was performed to estimate flood elevations for this lake. The Portage Lake legal level was utilized as a starting point for the backwater analysis. The cross sections which were utilized for the hydraulic analysis were based upon a land survey which was performed in January 1984, and an aerial survey which was performed in May 1983. The Dexter-Pinckney Road bridge was modeled with the HEC-2 normal bridge routine. The Manning's roughness coefficients (Reference 8) utilized in the computer model was .018. Expansion and contraction loss coefficients were 0.5 and 0.3, respectively.

Following is a summary which presents a comparison between the results of the backwater analysis and the Portage Lake flood elevations which were developed as part of a previous study (Reference 11):

Recurrence Interval (year)	Backwater Analysis Flood Elevation (ft)	Portage Lake Flood Elev. (ft)
10	851.6	851.5
50	851.7	852.0
100	851.8	852.5
500	852.0	853.6

Comparison of these results indicates that for some flood events, the Portage Lake elevations are higher than those which resulted from the backwater analysis. The highest of the two elevations was selected for use in the flood insurance study as follows:

SELECTED FLOOD ELEVATIONS FOR LITTLE PORTAGE LAKE

Recurrence Interval (yr)	Flood Elevation (ft)
10	851.6
50	852.0
100	852.5
500	853.6

Detailed computations for Little Portage Lake are presented in Appendix A.

2.4 Losee Lake

2.4.1 General

Losee Lake is located in the northern part of Dexter Township. There is sparse population located on the north side of this lake. There is no visible tributary to Losee Lake. The outlet structure is a 12" reinforced concrete pipe which is located on the north side of the lake. The drainage area of the lake is approximately 0.25 square miles. A site map for Losee Lake is provided in Figure 3.

The objective of the analysis performed for Losee Lake was to estimate the 10-, 50-, 100-, and 500-year flood elevations in the lake. This estimation involved the development of input parameters for the SCS TR-20 computer model. These parameters include: time of concentration, runoff curve number (RCN), drainage area, and the stage-discharge-storage relationship for the outlet structure.

2.4.2 Hydrologic Analysis

The Soil Conservation Service TR-20 computer program (Reference 1) was utilized to describe the hydrologic processes which occur in the Losee Lake watershed.

Detailed computations of the input parameters from the watershed are presented in Appendix B. Following is a summary of the various parameters which were developed: the Runoff Curve Number for the watershed is 61.0; the time of concentration is 0.7 hours; and the drainage area is .25 square miles.

The starting elevation for Losee Lake was established based upon the lake elevation published on the U.S.G.S. Pinckney, Michigan quadrangle (Reference 5) and the invert elevation of the outlet structure from Losee Lake. This elevation was utilized since no legal lake level has been established for Losee Lake.

Following is a table which lists the stage/discharge/storage relationship for Losee Lake:

Stage (ft)	Discharge (cfs)	Storage (acre-ft)
879.0	0	0
879.3	0.3	3.3
879.5	0.8	7.2
879.8	1.5	11.5
880.0	2.5	16.9

The estimated flood frequency/discharge/elevation relationships for Losee Lake are as follows:

Recurrence Interval (year)	Flood Elevation (ft)	Discharge (cfs)
10	879.6	0.9
50	879.8	1.8
100	879.9	2.2
500	880.2	3.4

2.5 Silver Lake

2.5.1 General

Silver Lake is located in the north central part of Dexter Township. Inflow to the lake is from Losee Lake and outflow is through a 15" C.M.P. to a small, unnamed tributary. The drainage area of the lake is approximately 1.08 square miles. A site map for Silver Lake is provided in Figure 3.

The objective of the analyses performed for Silver Lake was to estimate the 10-, 50-, 100-, and 500-year flood discharges and elevations for Silver Lake. This analysis involved the estimation of input parameters for the SCS

TR-20 computer model and simulation of flooding conditions. These parameters include: time of concentration; runoff curve number (RCN); drainage area; and stage/storage/discharge relationship for the lake and outlet structure.

2.5.2 Hydrologic Analysis

The Soil Conservation Service TR-20 computer program (Reference 1) was utilized to describe the hydrologic processes which occur in the Silver Lake watershed. Detailed computations of the input parameters for the computer model are presented in Appendix B. Following is a summary of the various parameters which were estimated: the runoff curve number for the watershed is 70.5; the time of concentration is 0.6 hours; and the drainage area is 1.08 square miles.

A legal lake level has not been established for Silver Lake; therefore, the starting elevation for flood routing was established based upon the lake elevation published on the U.S.G.S. Pinckney, Michigan quadrangle (Reference 5). This normal lake level is consistent with the invert elevation of the outlet structure which controls discharge from Silver Lake.

Following is a summary of the stage/discharge/storage relationships which have been developed for Silver Lake:

Stage (ft)	Discharge (cfs)	Storage (acre-ft)
874.0	0.1	0
875.0	2.5	0
875.4	4.0	95.4
875.8	4.7	195.0
876.0	5.0	245.5

Following is a summary of the results of the TR-20 flood routing for Silver Lake:

Recurrence Interval (years)	Flood Elevation (ft)	Discharge (cfs)
10	875.3	3.4
50	875.4	4.0
100	875.5	4.1
500	875.6	4.4

2.6 North Lake

2.6.1 General

North Lake is located in the northwest portion of Dexter Township. There are no visible tributaries flowing into the lake; however, there is outflow into a small tributary which passes through Twamley Lake. Two structures exist on the outlet waterway: 1) an 18-inch c.m.p. located at the outlet of North Lake on Hadley Road, and 2) a 45-inch c.m.p. located approximately 1,350 feet downstream of Twamley Lake, also on Hadley Road. The drainage area of North Lake is approximately 1.7 square miles. A site map for North Lake is provided in Figure 2. The objective of the hydrologic analysis of North Lake was to estimate 10-, 50-, 100-, and 500-year flood elevations.

2.6.2 Hydrologic and Hydraulic Analyses

The Soil Conservation Service TR-20 computer program (Reference 1) was utilized to describe the hydrologic processes which occur in the North Lake watershed. Detailed computations of the input parameters from the watershed are presented in Appendix C. Following is a summary of the various parameters which were developed:

the runoff curve number for the watershed is 84.5; the time of concentration is 3.2 hours; and the drainage area is 1.68 square miles.

A legal lake elevation has not been established for North Lake. The normal lake elevation for the flood routing analysis of North Lake was estimated to be 938.0. This elevation is approximately one foot above the invert elevation of the outlet structure and is consistent with the water level which was measured during the land survey in April 1984. Furthermore, the assumed normal lake level is consistent with descriptions provided by various residents living around the lake.

Following is a summary of the stage/discharge/storage relationships which have been developed for North Lake:

Stage (ft)	Discharge (cfs)	Storage (acre-ft)
937.0	0	0.0
938.0	2.5	201.0
939.0	5.0	441.0
940.0	7.2	702.0
941.0	9.0	975.0

Following is a summary of the results from the TR-20 flood routing for North Lake:

Recurrence Interval (year)	Flood Elevation (ft)	Discharge (cfs)
10	938.9	4.4
50	939.0	5.1
100	939.1	5.3
500	939.4	5.9

2.7 Halfmoon Lake

2.7.1 General

Halfmoon Lake is located at the northwest corner of Dexter Township. This lake receives inflows from two major tributary systems: Watson Lake and Blind Lake. Discharge from Halfmoon Lake is transported via a stream channel which is tributary to Hi-Land Lake. Dual 120 inch corrugated metal arch culverts located on Glenbrook Road are located along the outlet channel approximately 2,400 feet downstream of the Halfmoon Lake outlet. The drainage area of the watershed above this point is approximately 72 square miles. A site map showing the location of the

outlet structure is presented in Figure 4. The objective of the hydrologic anlayses performed for Halfmoon Lake was to estimate the 10-, 50-, 100-, and 500-year flood elevations.

2.7.2 Hydrologic and Hydraulic Analyses

The 10-, 50-, 100-, and 500-year flow rates for Halfmoon Lake were estimated based upon transposition of flow discharge/frequency data from the Portage gage with the drainage area proportion method. The computations performed for this method are identical for each lake with the exception of the incremental area which is approximately 7 square miles from the Portage River gage to the outlet at Halfmoon Lake. Detailed computations are presented in Appendix E. Following are the results of these analyses:

Recurrence Interval (years)	Discharge (cfs)
10	280
50	410
100	460
500	600

Flood conditions on Halfmoon Lake are controlled by the outlet channel located between this lake and Hi-Land Lake. Following is the computation procedure which was utilized for this study:

1. Flood discharge/frequency relationships were estimated based upon a transposition of data from the Portage River gage, located downstream of Hell Dam, to the Halfmoon Lake outlet channel. This transposition was based upon the drainage area proportion method.

2. Hydraulic computations were performed for Hell Dam to assess any impact which the Hi-Land Lake control structure might have upon flood levels in Halfmoon Lake.

3. A backwater analysis was performed in the Halfmoon Lake outlet channel to develop flood elevation/frequency relationships for this lake.

Results of the hydraulic analysis of Hell Dam indicated that the legal lake level of 883.0 could be maintained for all flood events analyzed including the 500-year event.

The Corps of Engineers HEC-2 computer model (Reference 7) was utilized to perform a backwater analysis through the Halfmoon Lake outlet channel. Elevation data which was utilized in the development of the HEC-2 model was obtained from a land survey which was performed in April 1984, and an aerial survey which was performed in May 1983. Results of this analysis were utilized to estimate flood levels for Halfmoon Lake. The starting elevation for this backwater analysis was the legal lake level of Hi-Land Lake. Following are the results of the hydrologic and hydraulic analyses for Halfmoon Lake:

Recurrence Interval (years)	Flood Elevation (ft)	Discharge (cfs)
10	884.3	280
50	885.0	410
100	885.3	460
500	886.0	600

3.0 SUMMARY OF RESULTS

Hydrologic and hydraulic studies were performed to develop flood elevations, discharges and delineations for Little Portage, Silver Lake, Losee, North and Halfmoon Lakes for the Dexter FIS. The areas of detailed study are shown on Figures 2, 3 and 4. An overview of the study for each lake is presented in the following paragraphs.

The drainage area proportion method was utilized to estimate the flood discharges from Little Portage Lake. A backwater analysis was then performed to estimate the flood elevations. These flood elevations were then compared with those established for Portage Lake (Reference 11) to estimate the controlling elevations in the interconnected system. Detailed computations for this lake are presented in Appendix A.

Hydrologic analyses performed for Losee, Silver, and North Lakes utilized the SCS TR-20 computer program to route the flood events through these lakes in the estimation of flood discharges and elevations. Detailed computations for Losee and Silver Lakes, and North Lake are presented in Appendices B and C, respectively.

The hydraulic analysis of Halfmoon Lake also used the drainage area proportion method to transpose historic gage data in the estimatation of flood flows. Hydraulic computations performed for the Hell Dam and hydraulic analysis of the tributary between Halfmoon Lake and Hi-Land Lake resulted in the estimation of flood elevations in Halfmoon Lake. Detailed computations for Halfmoon Lake are presented in Appendix D.

A hydrologic summary which includes flood elevations for each of the lakes under study is presented in Table 1. These elevations were utilized to plot the 100- and 500-year flood plain delineations which are illustrated in Appendix E. Finally, TR-20 and HEC-2 computer outputs for each of the lakes which were studied are presented in Appendix F.

TABLE 1

DEXTER TOWNSHIP FLOOD INSURANCE STUDY
HYDROLOGIC ANALYSIS SUMMARY

Flooding Source	Drainage Area (sq. mi.)	Peak Elevation* (ft) 10-Year	50-Year	100-Year	500-Year
Little Portage Lake	84.0	851.6	852.0	852.5	853.6
Losee Lake	0.3	880.2 879.6	880.9 879.8	880.5 879.9	880.7 880.2
Silver Lake	1.1	875.9 875.3	876.0 875.4	876.1 875.5	876.2 875.6
North Lake	1.7	939.3 938.9	939.4 939.0	939.5 939.1	939.8 939.4
Half Moon Lake	72.0	884.3	885.0	885.3	886.0

*USGS Datum

4.0 REFERENCES

1. U.S. Department of Agriculture, Soil Conservation Service, Computer Program for Project Formulation - Hydrology, Technical Release No. 20, Washington, D.C.

2. U.S. Department of Agriculture, Soil Conservation Service, Urban Hydrology for Small Watersheds, TR-55, charts prepared by U.S. Weather Bureau, January 1975, Pages C-2 through C-5.

3. U.S. Department of Agriculture, Soil Conservation Service, Soil Survey of Washtenaw County, Michigan.

4. U.S. Department of Agriculture, Soil Conservation Service, Soil Survey of Livingston County, Michigan.

5. U.S. Geological Survey, 7.5 Minute Series Topographic Maps; Scale 1:24000, Contour Interval 10 feet: Pinckney Quadrangle, Michigan, (Photorevised) 1975, Gregory Quadrangle, Michigan 1974.

6. Abrams Aerial Survey Corporation, Aerial Topographic Map: Portage Lake, North Lake, Silver Lake, Half Moon Lake, and Losee Lake, 2' Contour Interval, Scale 1:4800, Photography May 1983.

7. U.S. Army Corps of Engineers, Hydrologic Engineering Center, Computer Program 723-X6-L202A, HEC-2 Water Surface Profiles; Davis, California, September 1982.

8. Chow, Ven Te, Open - Channel Hydraulics, McGraw-Hill, New York, 1959.

9. Washtenaw and Livingston County Drain Commissioners, Plans of Hi-Land Lake Chain of Lakes Lake Level Project, Prepared by Ayres, Lewis, Norris & May, As-built January 1984.

10. Bureau of Public Roads, Stage-Discharge Nomographs for Culverts, January 1963.

11. STS Consultants, Ltd., Hydrologic and Hydraulic Analysis Report of Portage Lake and the Huron River, Lansing, Michigan, June 1984.

12. U.S. Geological Survey and Michigan Department of Natural Resources, Statistical Models for Estimating Flow Characteristics of Michigan Streams, Open File Report 83-, unpublished.

13. Washtenaw County Metropolitan Planning Commission, Existing Land Use Map, Dexter Township. Updated March, 1981.

14. U.S. Geological Survey, Statistical Analysis of Stream Flow Records, Lansing, Michigan.

APPENDIX A

DEXTER TOWNSHIP FLOOD INSURANCE STUDY
LITTLE PORTAGE LAKE COMPUTATIONS

APPENDIX

CALCULATION COVER SHEET

PROJECT DEXTER TWP. F.I.S. JOB NO 1053E DIVISION H/H

SUBJECT LITTLE PORTAGE LAKE HYDROLOGY FILE NO 1053E

CALC. NO

ORIGINATOR TMR DATE 8-24-84

CHECKER B.B.S. DATE AUG 84 NO OF SHEETS 6

RECORD OF ISSUES

NO	DESCRIPTION	BY	DATE	CHKD.	DATE	APPRD		
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PRELIMINARY CALC ☐

SUPERSEDED CALC ☐ FINAL CALC ☐

BRIEF SUMMARY OF CALCULATIONS INCLUDING SCOPE AND RESULTS

ESTIMATION OF FLOWS BETWEEN LITTLE PORTAGE AND PORTAGE LAKES, AND COMPUTATION OF LAKE LEVEL DIFFERENCES.

1.0 PROBLEM STATEMENT

2.0 PORTAGE RIVER GAGE ANALYSIS

2.1 GAGE DATA

2.2 TRANSFER DATA

3.0 DETERMINATION OF LAKE LEVELS IN LITTLE PORTAGE LAKE.

3.1 HEC-2 INPUT PARAMETERS

3.2 HEC-2 OUTPUT SUMMARY

Minor Increases in Flood Stage were computed Between Portage and Little Portage Lake. Analysis was performed with a starting condition in Portage lake at legal lake level. Actual Portage Lake Flood Levels for 10-, 50-, 100- and 500-year events submerge the results generated by this study. Thus, No difference in flood stage between the two Lakes will be delineated.

BBS 8251

STS Consultants Ltd.
CALCULATION SHEET

PROJECT: DEXTER TWP. F.I.S. JOB NO.: 1053E PAGE: 1 OF: 6

SUBJECT: LITTLE PORTAGE LAKE HYDROLOGY DIVISION: H/H

ORIGINATOR: TMR DATE: 6-23-84 CHECKED BY: B B S. DATE: AUG 84

W/O

1.0 PROBLEM STATEMENT

TO COMPUTE LITTLE PORTAGE LAKE AND PORTAGE LAKE LEVELS IN THE EVENT OF FLOOD, FLOWS BETWEEN THESE LAKES MUST BE ESTIMATED. THE LAKE LEVELS AND THEIR DIFFERENCES, IF ANY, CAN THEN BE COMPUTED. FLOW MUST FIRST BE TRANSFERRED FROM THE GAGING STATION TO THE CHANNEL BETWEEN THE LAKES. SEE WATERSHED MAP, PAGE 2.

2.0 PORTAGE RIVER GAGE ANALYSIS

2.1 GAGE DATA

FLOOD FLOWS FOR PORTAGE RIVER @ PINCKNEY, MI
GAGE # 04172500
OBTAINED FROM DAVE HAMILTON, P.E., M.D.N.R.
28 JUN 84 BY PHONE

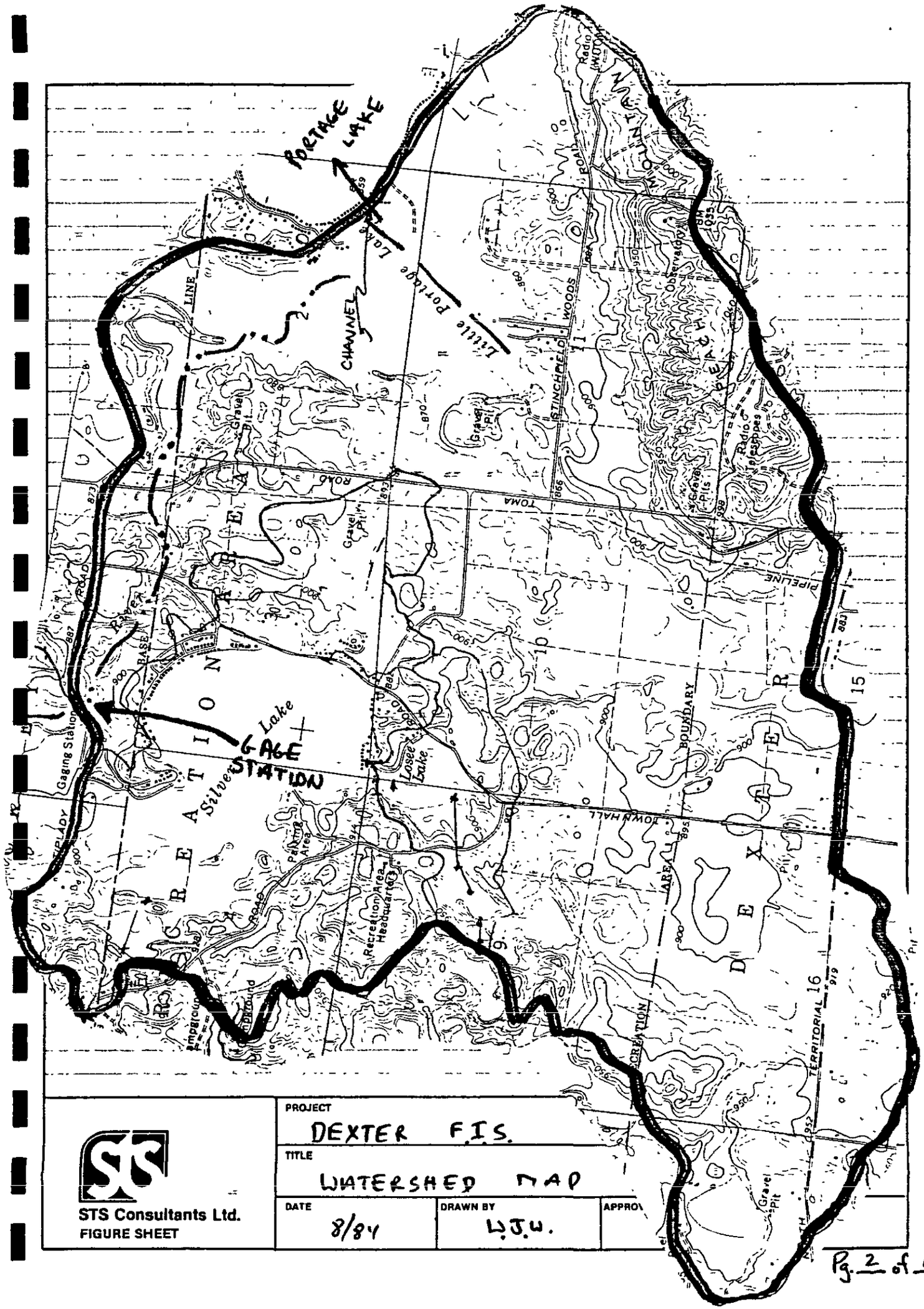
10-YR	310 CFS
50-YR	450 CFS
100-YR	500 CFS
500-YR	650 CFS

2.2 TRANSFER DATA

TO TRANSFER FLOWS FROM GAGE @ PINCKNEY TO CHANNEL BETWEEN LITTLE PORTAGE AND PORTAGE LAKES USE FORMULA:

$$Q_d = Q_g \left(\frac{A_d}{A_g}\right)^{0.947}$$

FROM: MAGNITUDE OF FREQUENCY AND FLOOD FLOWS IN THE U.S., PART III - ST. LAWRENCE RIVER BASIN, U.S.G.S. WATER SUPPLY PAPER NO. 1677.



PROJECT	DEXTER F.I.S.
TITLE	WATERSHED MAP
DATE	8/84
DRAWN BY	L.J.U.
APPROV	

STS Consultants Ltd.
FIGURE SHEET

STS Consultants Ltd.
CALCULATION SHEET

PROJECT: DEXTER TWP. F.I.S JOB NO.: 1053E PAGE: 3 OF: 6

SUBJECT: LITTLE PORTAGE LAKE HYDROLOGY DIVISION: H/H

ORIGINATOR: TMR DATE: 6-28-84 CHECKED BY: WJW DATE: 1/15/85

2.2 TRANSFER DATA (cont.)

WHERE Q_d = FLOW AT DESIGN POINT, cfs

Q_g = FLOW AT GAGE, cfs

A_d = AREA AT DESIGN POINT, sq. mi.

A_g = AREA AT GAGE, sq. mi.

0.947 = TRANSFER COEFFICIENT (FROM PHONE CONVERSATION w/ DAVE HAMILTON, P.E. N.D.N.R., 28 JUN 84.)

Q_g = 310 cfs
450 cfs
500 cfs
650 cfs

A_g = 79.1 sq. mi (FROM PHONE CONVERSATION, D. HAMILTON, 28 JUN 84)

A_d = 79.1 + A LITTLE PORTAGE LAKE

$$= 79.1 + (2992 \text{ Acre})\left(43560 \frac{ft^2}{\text{acre}}\right)\left(\frac{1 \text{ mi}}{5280 \text{ ft}}\right)^2$$

A_d = 83.8 sq. mi.

$$Q_d = Q_g \left(\frac{83.8}{79.1}\right)^{0.947}$$

RECURRENCE INTERVAL (YRS)	Q_g (cfs)	Q_d (cfs)		FLOODING FLOWS @ CHANNEL BETWEEN PORTAGE AND LITTLE PORTAGE LAKES
10	310	327	say	325 cfs
50	450	475	say	475 cfs
100	500	528	say	525 cfs
500	650	687	say	690 cfs

STS Consultants Ltd.
CALCULATION SHEET

PROJECT: DEXTER TWP. F.I.S. JOB NO.: 1053E PAGE: 4 OF: 6

SUBJECT: LITTLE PORTAGE LAKE HYDROLOGY DIVISION: H/H

ORIGINATOR: TMR DATE: 6-28-84 CHECKED BY: W.W DATE: 1/6/85

3.0 DETERMINATION OF LAKE LEVELS IN LITTLE PORTAGE LAKE

USE HEC-2 MODEL TO ESTIMATE LITTLE PORTAGE LAKE LEVELS, STARTING WITH LEGAL LAKE LEVEL OF 851.5 IN PORTAGE LAKE. (REF. STS JOB # 1053F, DEXTER TWP. F.I.S. HYDROLOGIC AND HYDRAULIC ANALYSIS OF PORTAGE LAKE AND THE HURON RIVER, JUNE 21, 1984, p.15)

3.1 HEC-2 INPUT PARAMETERS

FLOOD FLOWS, SEE PAGE 3.

* CHANNEL CROSS-SECTIONS FROM 1" = 400' CONTOUR MAP BY ABRAMS AERIAL SURVEY, MAY 1983. SEE APPENDIX A, FIG 3.

BRIDGE CROSS-SECTION - FROM STS LAND SURVEY OF JANUARY, 1984. SEE APPENDIX A, FIGURE 2.

MANNINGS COEFFICIENTS FROM SITE INSPECTION, (REF. CHOW, OPEN CHANNEL HYDRAULICS, McGRAW HILL, 1959.)

COMPOSITE MANNINGS COEFFICIENT FOR BRIDGE AT DEXTER-PINCKNEY ROAD.

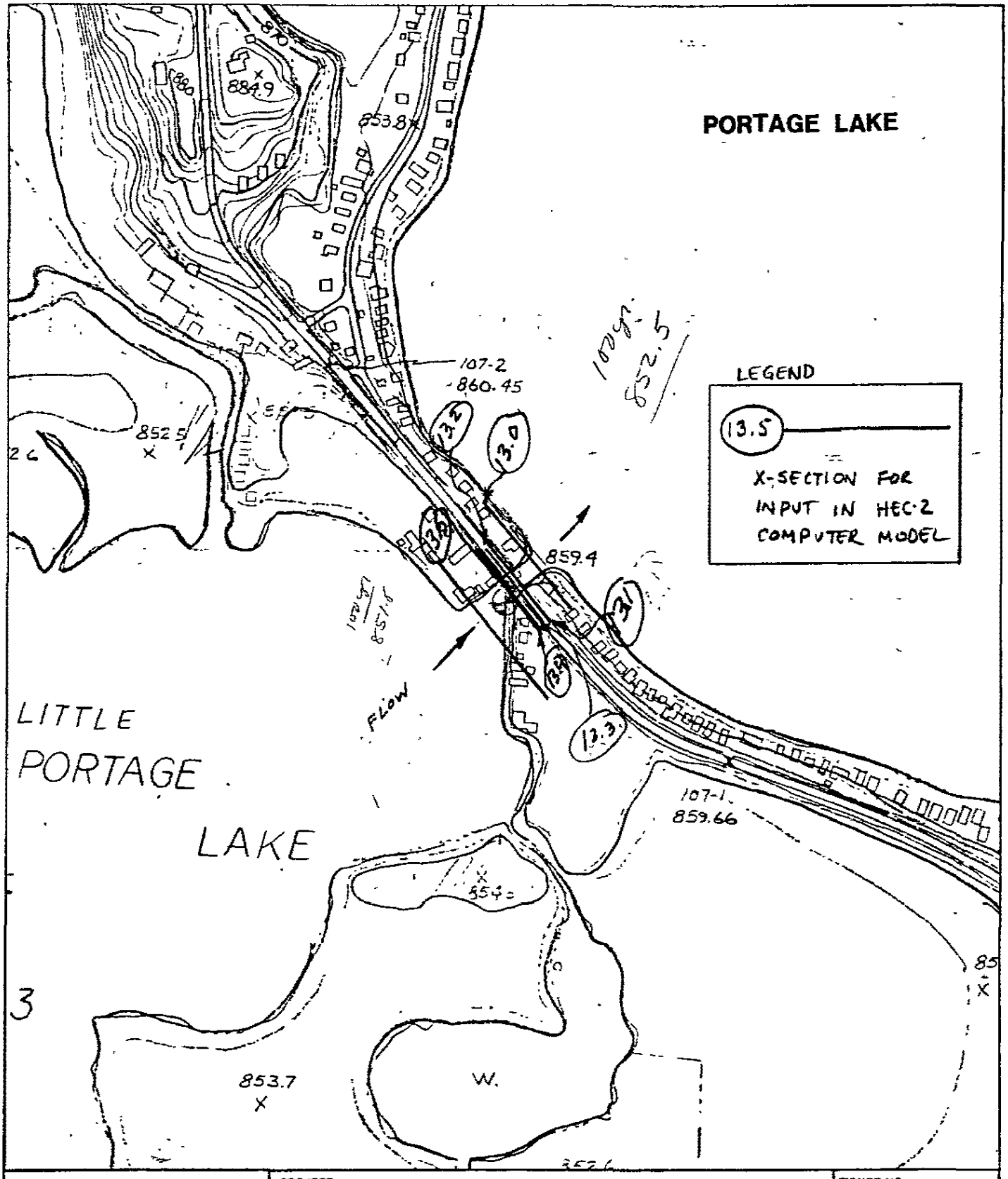
n- channel = 0.03 ~ 75% OF TOTAL PERIMETER
n- abutments - concrete = 0.014 ~25 % " "

$$\text{COMPOSITE } n = (0.03)(0.75) + (0.014)(0.25)$$

$$n = 0.026$$

SEE HEC-2 COMPUTER MODEL PRINTOUT, APPENDIX B.

* FOR CROSS SECTION LOCATIONS, SEE FIGURE 1, PAGE 5.



STS Consultants Ltd. FIGURE SHEET	PROJECT: DEXTER TWP. F. I. S.			FIGURE NO.: 1
	TITLE: CROSS SECTION LOCATION MAP			JOB NO.: 1053 E
	DATE: 6 – 28 – 84	DRAWN BY: TMR	APPROVED BY: WJW	SCALE:

STS Consultants Ltd.
CALCULATION SHEET

PROJECT: DEXTER TWP. F.I.S. JOB NO.: 1053 E PAGE: 6 OF: 6

SUBJECT: LITTLE PORTAGE LAKE HYDROLOGY DIVISION: H/H

ORIGINATOR: TMR DATE: 6-28-84 CHECKED BY: DJW DATE: 1/15/85

3.2 HEC-2 OUTPUT SUMMARY

LITTLE PORTAGE LAKE

RECURRENCE INTERVAL	FLOW (cfs)	LAKE ELEVATION (ft)
10 yr	325	851.6
50 yr	475	851.7
100 yr	525	851.8
500 yr	690	852.0

STS Consultants Ltd.
CALCULATION SHEET

PROJECT: DEXTER TWP. F.I.S. JOB NO.: 1053E PAGE: ____ OF: ____

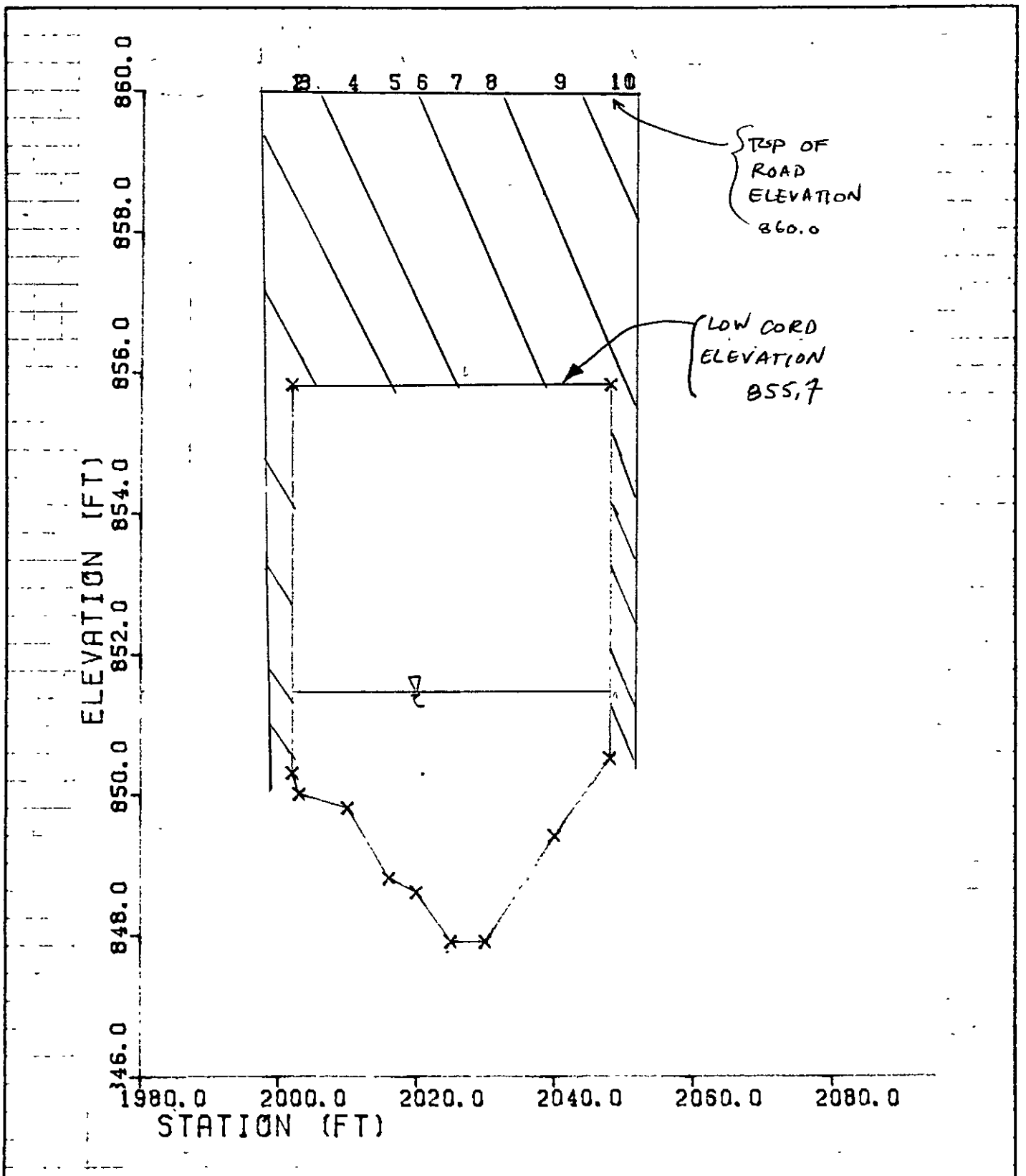
SUBJECT: LITTLE PORTAGE LAKE HYDROLOGY DIVISION: H/H

ORIGINATOR: TMR DATE: 6-28-81 CHECKED BY: ____ DATE: ____

APPENDIX A

CROSS-SECTIONS 13.0, 13.1, & 13.5

DEXTER TOWNSHIP



STS Consultants Ltd. FIGURE SHEET	PROJECT: DEXTER TOWNSHIP F.I.S.			FIGURE NO.: 2
	TITLE: CROSS SECTION 13.1 @ DEXTER-PINCKNEY ROAD BRIDGE			JOB NO.: 1053F
	DATE: 6-28-84	DRAWN BY: TMR	APPROVED BY: WJW	SCALE: AS SHOWN

DEXTER TOWNSHIP F.I.S FIGURE 3

LITTLE PORTAGE LAKE HYDROLOGY

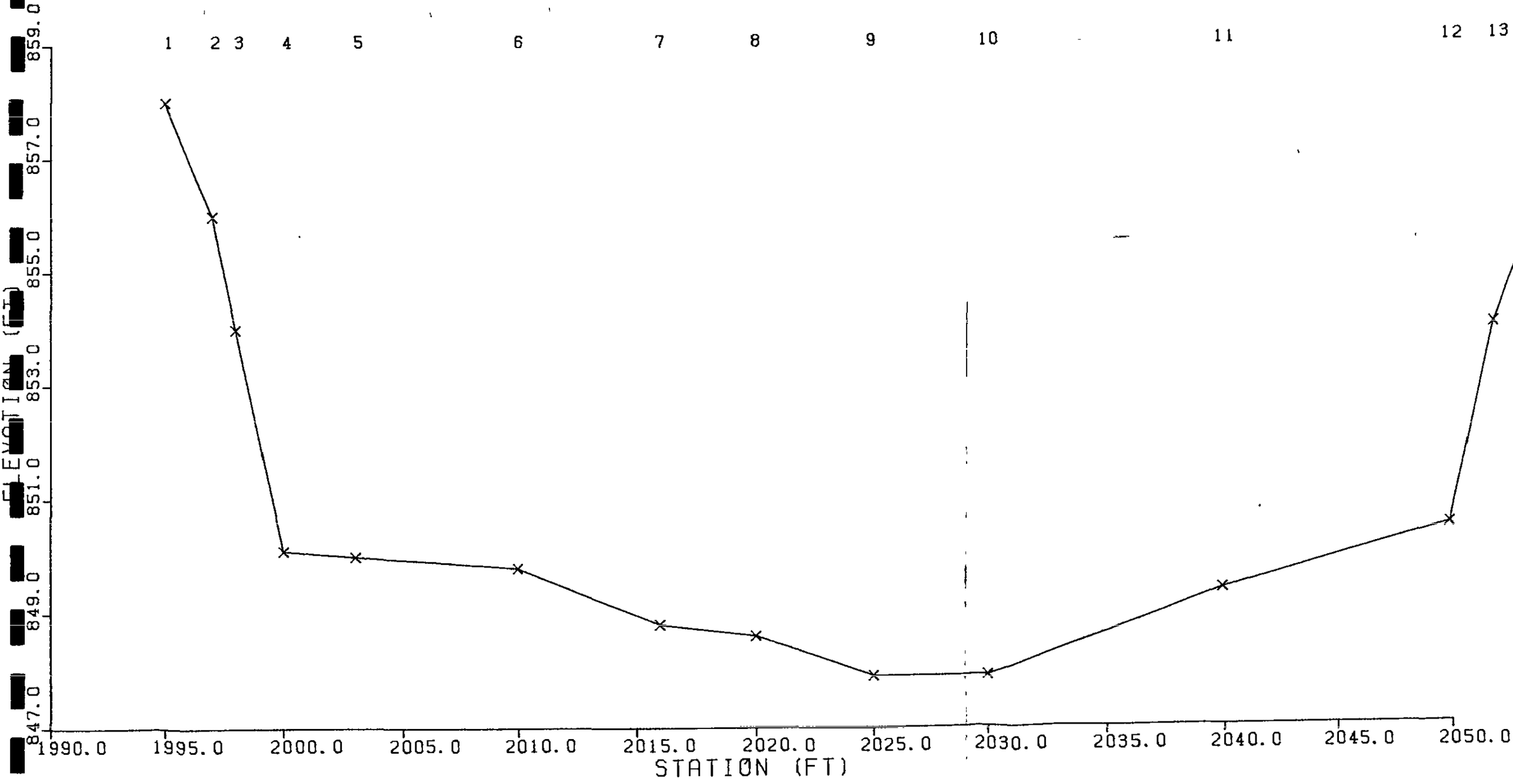
JOB # 1053 E

TMR 6-28-84

SCALE: AS SHOWN

CROSS SECTION #13.0 DEXTER TWP.

* NOTE CROSS SECTION #13.5 IDENTICAL TO 13.0



APPENDIX B

DEXTER TOWNSHIP FLOOD INSURANCE STUDY
SILVER LAKE AND LOSEE LAKE COMPUTATIONS

APPENDIX B

sts

CALCULATION COVER SHEET

PROJECT DEXTER F.I.S. JOB NO 1053 DIVISION H/H

SUBJECT SILVER AND LOSEE LAKES; HYDROLOGY AND HYDRAULICS FILE NO 1053 CALC NO.

ORIGINATOR BBS - TMR DATE APR-AUG '84

CHECKER [signature] DATE 1/15/85 NO OF SHEETS 25

RECORD OF ISSUES

NO	DESCRIPTION	BY	DATE	CHKD	DATE	APPRD.		
△								
△								
△								
△								
△								
△								

PRELIMINARY CALC ☐

SUPERSEDED CALC ☐ FINAL CALC ☒

BRIEF SUMMARY OF CALCULATIONS INCLUDING SCOPE AND RESULTS

TR-20 MODEL PARAMETER COMPUTATIONS:

DESCRIPTION	PG.
1.0: OBJECTIVE	1
2.0: SUMMARY OF HYDROLOGIC PARAMETERS	1
3.0: DEVELOPMENT OF RUNOFF CURVE NUMBERS - SOIL TYPE MAP	2-5
3.1: DRAINAGE AREA OF WATERSHEDS	3
3.2: LAND USE MAP	4
3.3: RUNOFF CURVE NUMBER CALCULATION	5
4.0: TIME OF CONCENTRATION (SILVER LAKE)	6-7
4.1 REACH 1 (SHEET FLOW)	6
4.2 REACH 2 (WATERWAY FLOW)	6
5.0: STAGE-AREA, STAGE-VOLUME (SILVER LAKE)	7
6.0: SILVER LAKE OUTLET STRUCTURE	8
6.1: ELEVATION - DISCHARGE RELATIONSHIP.	9-11
6.2 ELEVATION - STORAGE RELATIONSHIP	12-13
7.0: DEVELOPMENT OF RUNOFF CURVE NUMBER (LOSEE LAKE).	14

CONT.

CALCULATION COVER SHEET

PROJECT DEXTER E.L.S. JOB NO 1053 DIVISION H/H

SUBJECT SILVER AND LOSEE LAKES: FILE NO 1053

HYDROLOGY AND HYDRAULICS CALC. NO.

ORIGINATOR BBS - TMR DATE APR-AUG '84

CHECKER D.W. DATE 1/15/85 NO OF SHEETS

RECORD OF ISSUES

NO.	DESCRIPTION	BY	DATE	CHKD	DATE	APPRD.		
△								
△								
△								
△								
△								
△								

PRELIMINARY CALC ☐

SUPERSEDED CALC ☐ FINAL CALC ☐

BRIEF SUMMARY OF CALCULATIONS INCLUDING SCOPE AND RESULTS

TR-20 MODEL PARAMETER COMPUTATIONS (CONT.):

DESCRIPTION	PG.
8.0: TIME OF CONCENTRATION (LOSEE LAKE)	15-16
8.1: REACH 1 & 3 (SHEET FLOW)	15
8.2: REACH 2 (WATERWAY FLOW)	16
8.3: REACH 4 (SMALL TRIBUTARY FLOW)	16
9.0: STAGE-AREA, STAGE VOLUME (LOSEE LAKE)	17
10.0: LOSEE LAKE OUTLET STRUCTURE	18-22
10.1: ELEVATION-DISCHARGE RELATIONSHIP	19
10.2: SLOPE	19
10.3: TAILWATER CONDITION	19-20
10.4: HEADWATER CONDITION	20
11.0: SUMMARY OF STAGE-DISCHARGE FOR LOSEE LAKE.	22
12.0: FLOWCHART FOR TR-20 ANALYSIS	23

STS Consultants Ltd.
CALCULATION SHEET

PROJECT: DEXTER F.I.S. JOB NO.: 1053E PAGE: 1 OF: 23
SILVER AND LOSEE LAKES;
SUBJECT: HYDROLOGY/HYDRAULICS DIVISION: H/H
ORIGINATOR: TDR DATE: 8/84 CHECKED BY: DJW DATE: 1/15/85

1.0 OBJECTIVE:

DEVELOP 10-, 50-, 100-, AND 500-YEAR PEAK DISCHARGES AND ELEVATIONS FOR SILVER AND LOSEE LAKES, LOCATED NORTH CENTRAL PORTION OF DEXTER TOWNSHIP. SILVER LAKE OUTLET IS A 15" C.M.P. AND LOSEE LAKE OUTLET IS A 12" CONCRETE PIPE.

USE THE SCS TR-20 COMPUTER PROGRAM TO SIMULATE HYDROLOGIC CONDITIONS IN THE SILVER/LOSEE LAKE WATERSHED.

2.0 SUMMARY OF HYDROLOGIC PARAMETERS

SILVER LAKE:

DRAINAGE AREA = 740 (691.2) ACRES = 1.08 MI.²

RUNOFF CURVE NUMBER = 70.5

TIME OF CONCENTRATION = 0.55 HRS.

LOSEE LAKE:

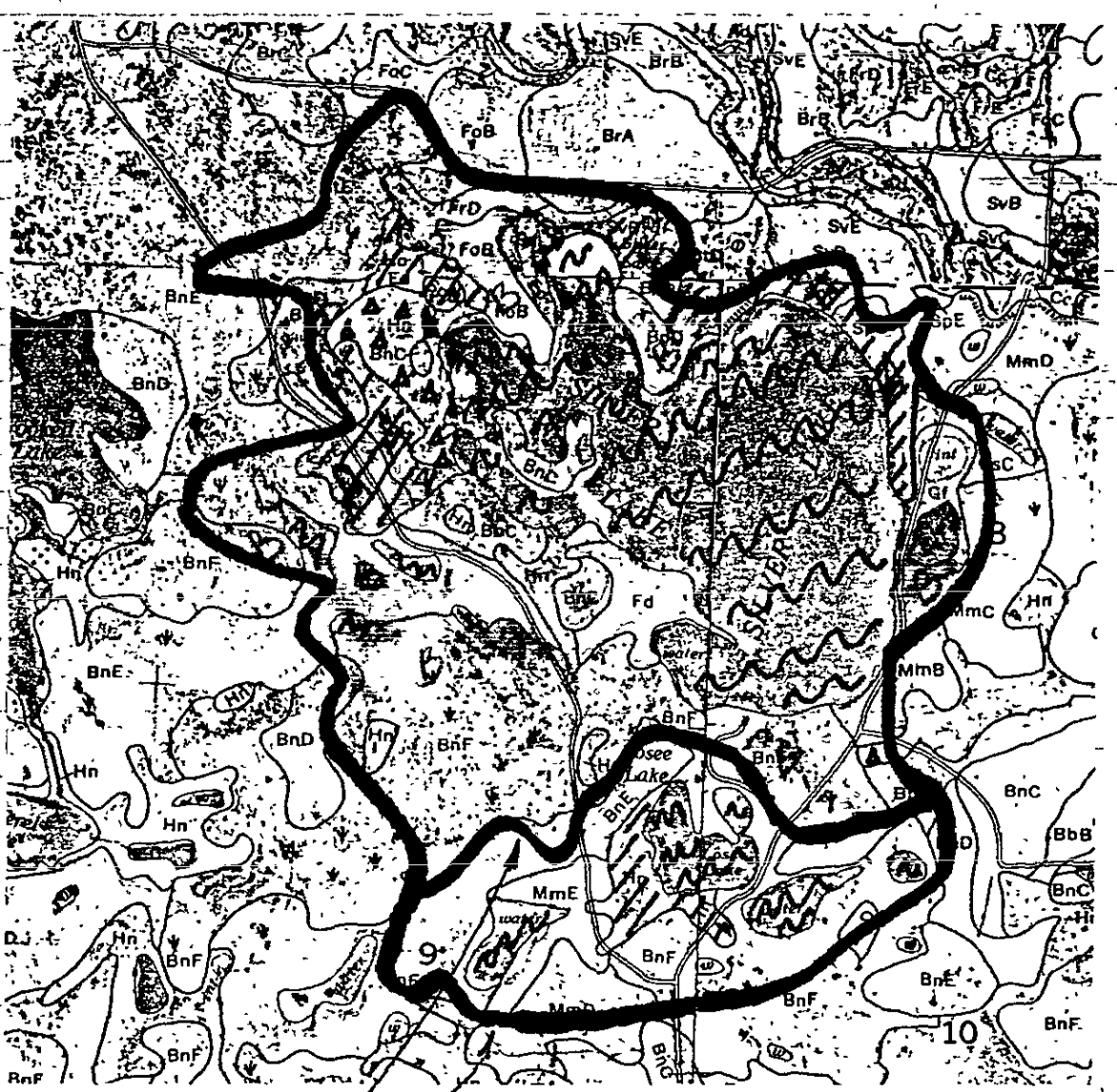
DRAINAGE AREA = 162 ACRES = 0.25 MI.²

RUNOFF CURVE NUMBER = 61

TIME OF CONCENTRATION = 0.72 HRS

SEE MAP ON PAGE 2 FOR WATERSHED BOUNDARIES.

3.0 : DEVELOPMENT OF RUNOFF CURVE NUMBERS.



WATERSHED BOUNDARIES

FROM SCS SOIL SURVEY:
WASHTENAW CTY, 1977
LIVINGSTON CTY, 1974

LEGEND

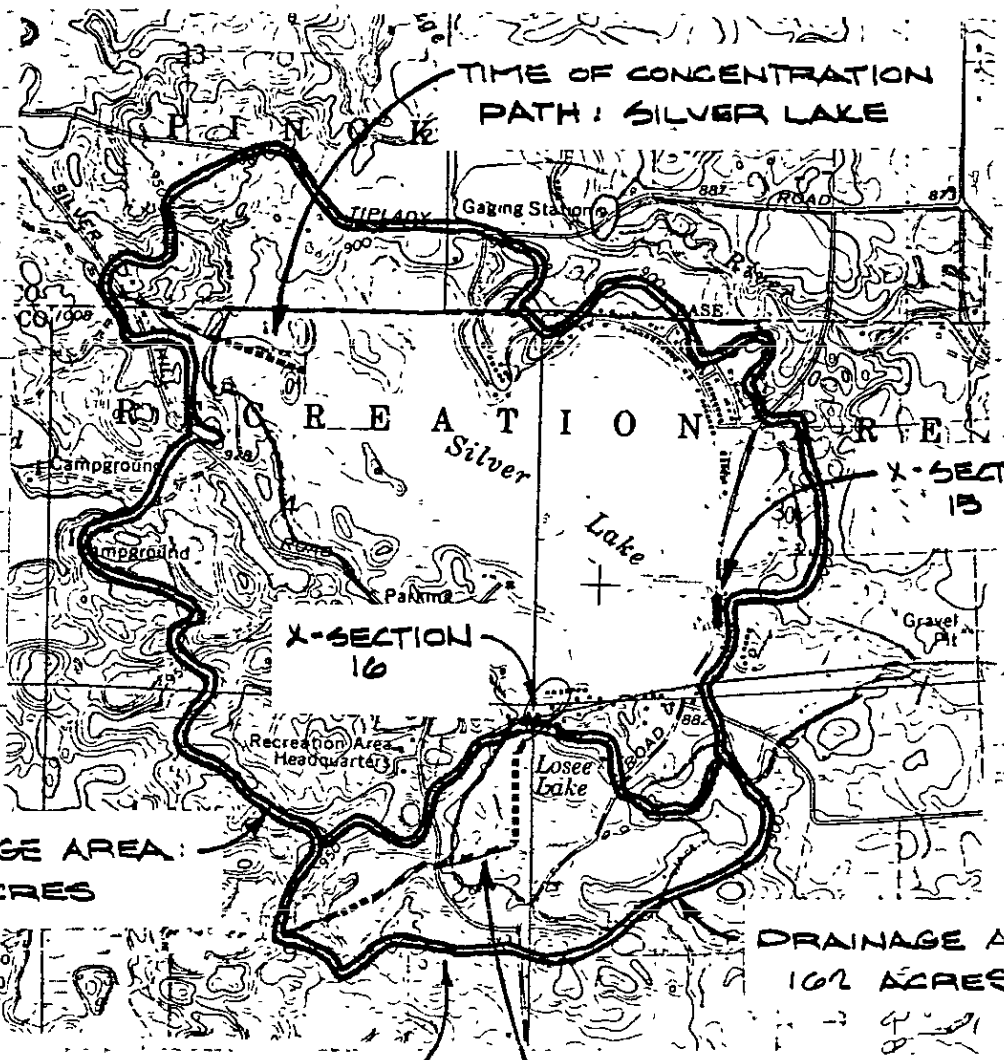
SOIL TYPE	SYMBOL
(A)	
B	
C	
D	
DEPRESSION	
WATER	

A/D

(B/D)

STS Consultants Ltd. FIGURE SHEET	PROJECT: DEXTER F.I.S.			FIGURE NO.: 1
	TITLE: SOIL TYPE MAP			JOB NO.: 1053
	DATE: 8/84	DRAWN BY: THR	APPROVED BY: W.W. 1/15/85	SCALE:

3.1 : DEVELOPMENT OF RUNOFF CURVE NUMBERS (CONT):



underground 12" ϕ CMP ± 200'-300'

TIME OF CONCENTRATION PATH

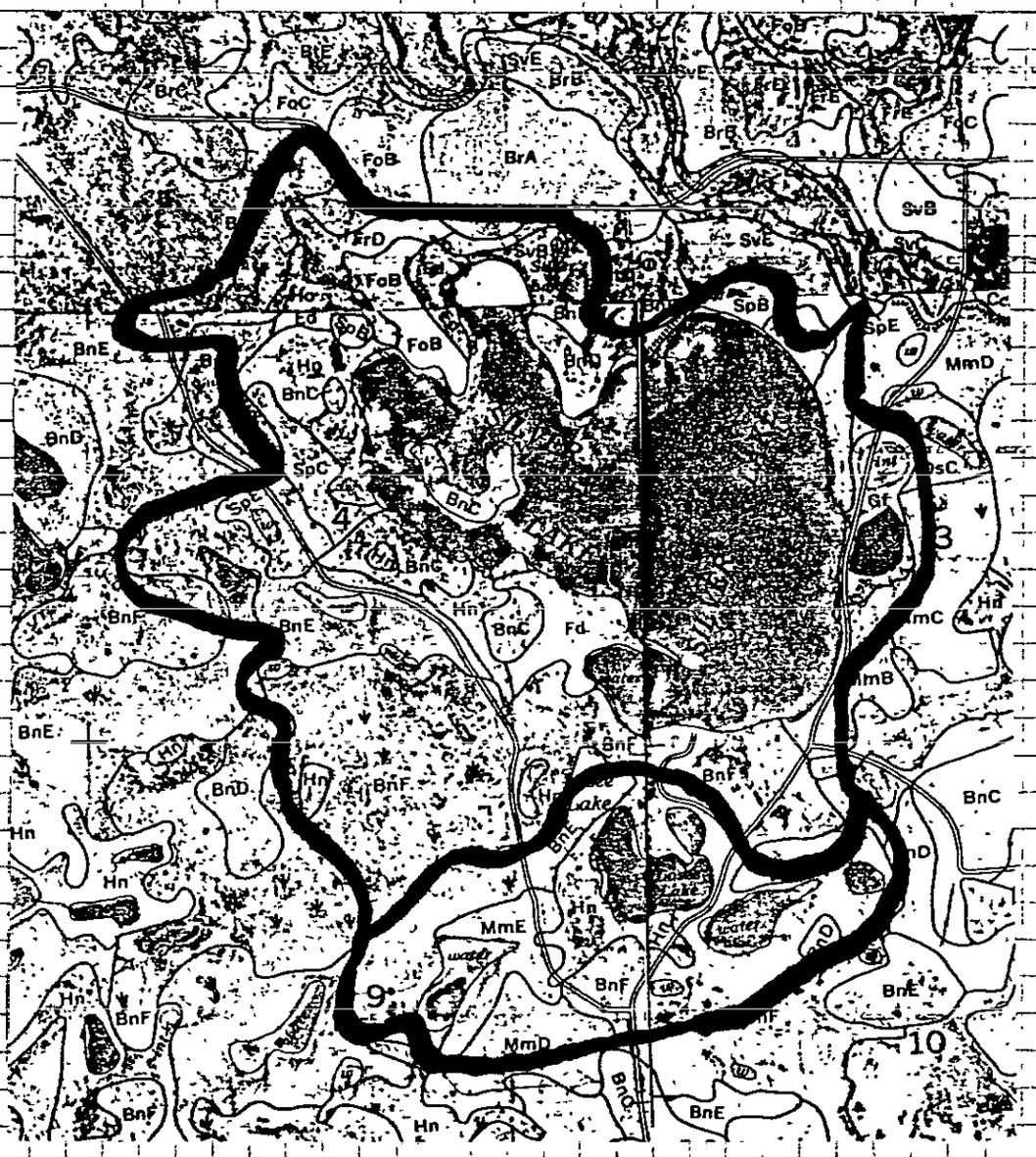
U.S.G.S. QUAD "PICKNEY" PHOTO REV. 1975

SHEET FLOW :----------

WATERWAY FLOW : ----------

STS Consultants Ltd. FIGURE SHEET	PROJECT: DEXTER F.I.S.			FIGURE NO: 2
	TITLE: SILVER LAKE AND LOSEE LAKE WATERSHEDS.			JOB NO.: 1652E
	DATE: 8/84	DRAWN BY: T.M.R.	APPROVED BY: W.J.W.	SCALE: 1" = 2000'

3.2 DEVELOPMENT OF RUNOFF CURVE NUMBERS (CONT)



SILVER LAKE:

WOODS (FAIR): 60%
IMPERVIOUS SURFACES: 32%
RESIDENTIAL (1/8 ACRE): 6%
PAVED LOTS: 1%
ROADS: 1%

LOSEE LAKE:

WOODS (FAIR): 86%
IMP. SURFACES: 9%
RES. (1/8 ACRE): 5%

STS Consultants Ltd. FIGURE SHEET	PROJECT: DEXTER F.I.S.			FIGURE NO.: 3
	TITLE: SILVER AND LOSEE LAKES LAND USE MAP.			JOB NO.: 1053E
	DATE: 8/84	DRAWN BY: TMR	APPROVED BY: W.L.	SCALE:

3.3: DEVELOPMENT OF RUNOFF CURVE NUMBER (CONT)

Cover	Practice	Condition or Rotation	% Per Practice	Curve Numbers Moisture Condition II: 70% A Soils	70% B Soils	3% C Soils	7% D Soils	% Ave	Product
Fallow	Straight Row	--		77	86	91	94		
Row Crops	Straight Row	Poor		72	81	88	91		
	Straight Row	Good		67	78	85	89		
	**Contoured	Poor		70	79	84	88		
	**Contoured	Good		65	75	82	86		
	*C and T	Poor		66	74	80	82		
	*C and T	Good		62	71	78	81		
Small Grain	Straight Row	Poor		65	76	84	88		
	Straight Row	Good		63	75	83	87		
	**Contoured	Poor		63	74	82	85		
	**Contoured	Good		61	73	81	84		
	*C and T	Poor		61	72	79	82		
	*C and T	Good		59	70	78	81		
Legumes or Rotation Meadow	Straight Row	Poor		66	77	85	89		
	Straight Row	Good		58	72	81	85		
	**Contoured	Poor		64	75	83	85		
	**Contoured	Good		55	69	78	83		
	*C and T	Poor		63	73	80	83		
	*C and T	Good		51	67	76	80		
Pasture		Poor		68	79	86	89		
		Fair		49	69	79	84		
		Good		39	61	74	80		
Meadow (Permanent)		Good		30	58	71	78		
Woods (Farm)		Poor		45	66	77	83		
		Fair	60%	36	60	73	79	53.3	22138.0
		Good		25	55	70	77		
Farmsteads		—		59	74	82	86		
Impervious Surfaces		—	32%	100	100	100	100	100	22144.0
Water Surfaces (lakes, ponds)		—		100	100	100	100		
Commercial and business areas (85% impervious)				89	92	94	95		
Industrial districts (72% impervious)				81	88	91	93		
Residential: Average % Imperv. Average lot size									
1/8 acre or less 65			6%	77	85	90	92	76.3	3168.0
1/5 "				74	83	88	91		
1/4 acre 38				61	75	83	87		
1/3 acre 30				57	72	81	86		
1/2 acre 25				54	70	80	85		
1 acre 20				51	68	79	84		
Paved parking lots, roofs, driveways, etc.			1%	98	98	98	98	98	678.0
Streets and roads: paved with curbs and storm sewers			1%	98	98	98	98	98	678.0
gravel				76	85	89	91		
dirt				72	82	87	89		
Open Spaces, lawns, etc. Grass cover on 75%		good		39	61	74	80		
Grass cover on 50% to 75%		fair		49	69	79	84		

Total Acres 692 A 491.2 Product Total = 48806.3

Weighted Runoff Curve No. $\frac{\text{Product Total}}{\text{Total Acres}} = \frac{48806}{692} = 70.5$

$RF_{100} = 4.75$

STS Consultants Ltd. FIGURE SHEET	PROJECT: DEXTER F.I.S.		FIGURE NO. 4
	TITLE: HYDROLOGY, SILVER LAKE		JOB NO. 1053E
	DATE: 3-30-84	DRAWN BY: B.S.	APPROVED BY: J.T.P.
			SCALE

STS CONSULTANTS, LTD.
HYDRAULICS & HYDROLOGY DIVISION
CALCULATION SHEET

PROJECT: DEXTER E.I.S. JOB NO.: 1053E PAGE 6 OF 23

SUBJECT: SILVER LAKE HYDROLOGY

ORIGINATOR: B.B.S. DATE: 7/24 CHECKED BY: _____ DATE: _____

4.0 TIME OF CONCENTRATION:

SEE MAP, PG. 3 FOR THE TIME OF CONCENTRATION (T_c) PATHWAY. THE LONGEST PATH CONSISTS OF 2 REACHES: 1. SHEET FLOW, AND 2. WATERWAY FLOW.

SHEET FLOW VELOCITY: $V = 0.48(S)^{0.5}$

WATERWAY FLOW VELOCITY: $V = 1.2(S)^{0.5}$

REF: MICHONEAU, R. SORRELL, "SCS UD-21 METHOD" OCTOBER, 1981.

4.1 REACH 1 (SHEET FLOW):

LENGTH = 1800 FT.

ΔELEV = 1000 - 890 = 110 FT.

$\therefore$ SLOPE = $\left(\frac{110}{1800}\right) = 0.0611$ (6.1%)

$\therefore$ VELOCITY = $0.48(6.1)^{1/2} = 1.2$ FPS

AND $T_c = \frac{1800}{(1.2/6)(60\text{SEC/MIN})(60\text{MIN/HR})} = 0.42$ HRS

4.2 REACH 2 (WATERWAY (SWAMP) FLOW):

LENGTH = 900 FT.

ΔELEV. = 890 - 875 = 15 FT.

$\therefore$ SLOPE = $\left(\frac{15}{900}\right) = 0.0167$ (1.7%)

$\therefore$ VELOCITY = $1.2(1.7)^{1/2} = 1.6$ FPS

AND $T_c = \frac{900}{(1.6/3)(60\text{SEC/MIN})(60\text{MIN/HR})} = 0.16$ HRS.

TIME OF CONCENTRATION (CONT):

TOTAL TIME OF CONCENTRATION

T_c = 0.68 HRS.

5.0 STAGE-AREA, STAGE-VOLUME RELATIONSHIP FOR SILVER LAKE

FROM 1" = 400' AERIAL TOPOGRAPHIC MAP OF SILVER LAKE AND LOSEE LAKE, ABRAMS AERIAL SURVEY, LANSING, MI.

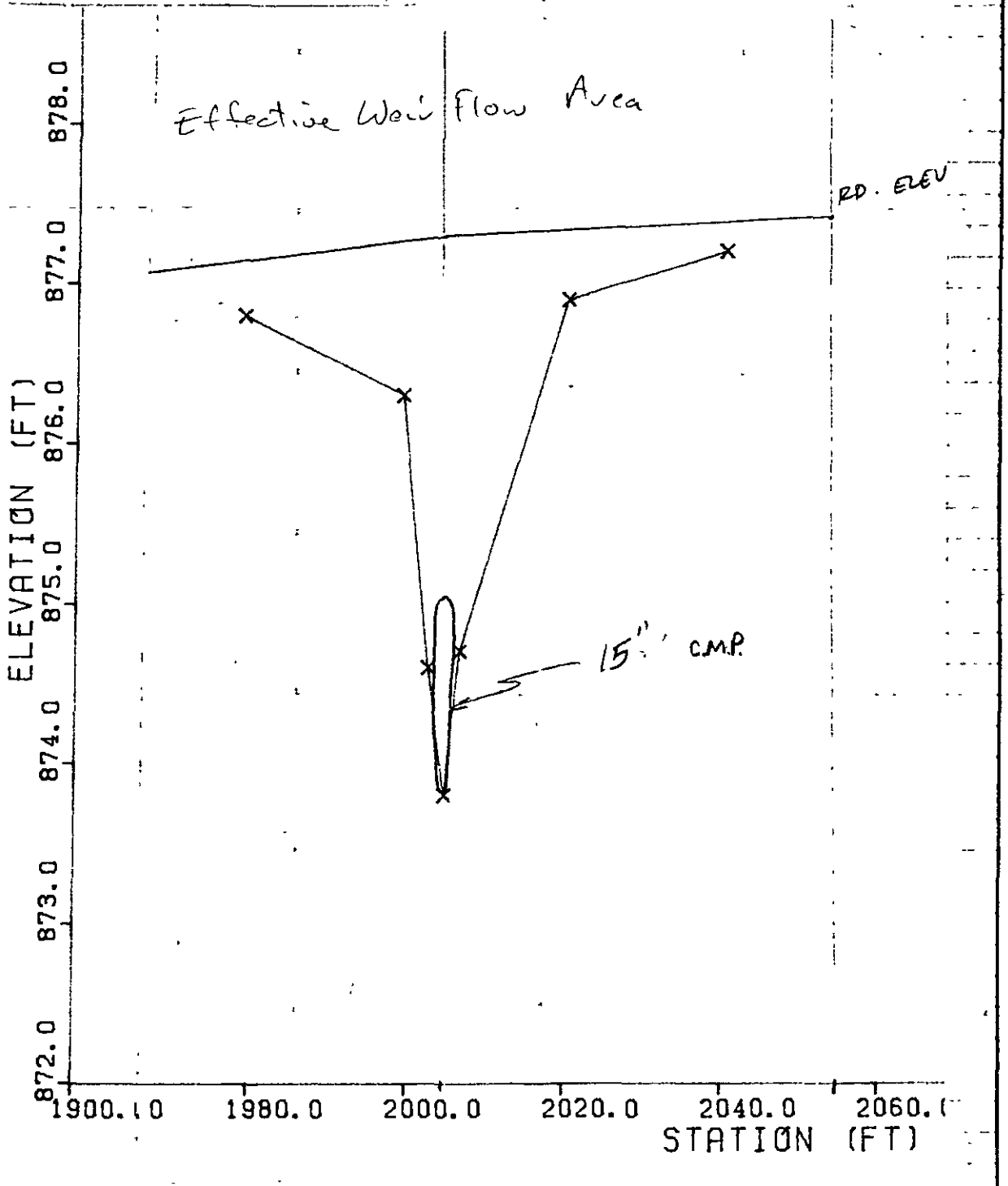
NORMAL LAKE ELEVATION = 875.0 FT.
SEE PG. OF REPORT FOR DOCUMENTATION.

EQUATION FOR VOLUME CALCULATION:

$$\Delta V_{1\to 2} = \frac{A_1 - A_2}{2} \Delta H_{1\to 2}$$

DEPTH, FT.	ELEV. FT	AREA ACRES	ΔVOL ACRE-FT	VOL. ACRE-FT.
0	875.0	234.1		0
			120.3	
0.5	875.5	245.5		120.3
			125.2	
1.0	876.0	256.2		245.5

6.0 SILVER LAKE OUTLET STRUCTURE



STS Consultants Ltd. FIGURE SHEET	PROJECT: DEXTER F.I.S.			FIGURE NO.: 5
	TITLE: SILVER LAKE HYDRAULICS			JOB NO.: 1053F
	DATE: 8/84	DRAWN BY: TMR	APPROVED BY: W.J.W. 11.5/85	SCALE:

STS Consultants Ltd.
CALCULATION SHEET

PROJECT: DEXTER E.I.S. JOB NO.: 1053-E PAGE: 9 OF: 23

SUBJECT: SILVER LAKE HYDRAULICS DIVISION: H/H

ORIGINATOR: TMR DATE: 12/84 CHECKED BY: DJU DATE: 1/15/85

6.1 SILVER LAKE OUTLET STRUCTURE (X-SECTION 15).

TAILWATER CONDITION (115" C.M.P.)

DOWNSTREAM CHANNEL BEST APPROXIMATED BY:

BOTTOM WIDTH = 5 FT.

SLOPE = 0.002

SIDE SLOPES: 3 HORZ. TO 1 VERT.

MANNING'S NO. = 0.03 (NATURAL STREAM, SHORT GRASS (FROM PHOTO SURVEY, 1983-84., REF.: CHOW, OPEN-CHANNEL HYDRAULICS, MCGRAW-HILL, 1959, PG. 112)

USE MANNING'S EQ. $Q = \frac{1.49 A R^{2/3} S^{1/2}}{n}$ TO DETERMINE THE STAGE/DISCHARGE RELATIONSHIP FOR THE CHANNEL.

(REF. CHOW, OPEN-CHANNEL HYDRAULICS, MCGRAW-HILL, 1959).

DEPTH (FT.)	AREA (FT^2)	WP, (FT)	$R = A/WP$	S	Q, (cfs)
.1	.53	5.63	0.094	0.002	0.24
.2	1.12	6.26	0.179	"	0.79
.3	1.77	6.90	0.257	"	1.59
.4	2.48	7.53	0.329	"	2.63
.5	3.25	8.16	0.398	"	3.91
.8	5.92	10.06	0.588	"	9.23

STS Consultants Ltd.
FIGURE SHEET

PROJECT: DEXTER F.I.S. — SILVER LAKE OUTLET STRUCTURE

DESIGNER: TTR

DATE: 12-20-84

HYDROLOGIC AND CHANNEL INFORMATION

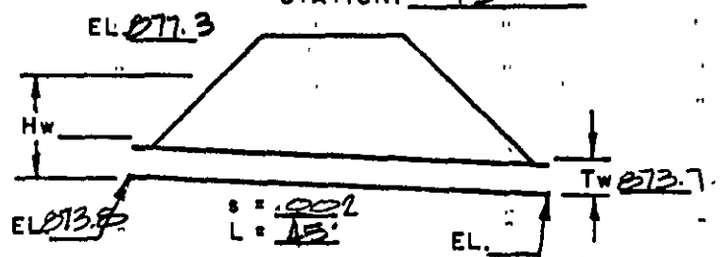
Q_1 = _____ TAILWATER ELEVATION = _____

Q_2 = _____ TAILWATER ELEVATION = _____

(Q_1 = DESIGN DISCHARGE, SAY Q_{25}
Q_2 = CHECK DISCHARGE, SAY Q_{50} OR Q_{100})

SKETCH

STATION: 15



MEAN STREAM VELOCITY = _____

MAX. STREAM VELOCITY = _____

$\frac{L}{100s}$ = _____

CULVERT DESCRIPTION (ENTRANCE TYPE)	Q	SIZE	HEADWATER COMPUTATION												CONTROLLING Hw	OUTLET VELOCITY	COST	COMMENTS
			INLET CONT.		OUTLET CONTROL HW = H + h_o - Ls								CHART					
			$\frac{Hw}{D}$	Hw	K_e	H	d_c	$\frac{d_c+D}{2}$	Tw	h_o	Ls	Hw	No.	Hw				
1	1	15"	0.4	.5'	.9	.1	.4	.8	.2'	.8	.1	.8		.8'				
"	2	"	.65	.8'	"	.2	.7	1.0	.3	1.0	"	1.1		1.1'				
"	3	"	.83	1.0'	"	.4	.75	1.0	.4	1.0	"	1.3		1.3				
"	4	"	1.0	1.2'	"	.75	.8	1.0	.5	1.0	"	1.6		1.6'				
"	5	"	1.17	1.5'	"	1.2	.9	1.1	.6	1.1	"	2.2		2.2'				
"	10	"	2.3	2.9'	"	5.0	1.25	1.2	.8	1.2	"	6.1		6.1'				

SUMMARY & RECOMENDATIONS: B.F.R. #5 #11 #16

→ OUTLET CONTROL IN ALL CASES

TITLE: SILVER LAKE HYDRAULICS

DATE: 12-20-84

DRAWN BY: TTR

APPROVED BY: [illegible] 1/15/85

SCALE: 1

JOB NO.: 1053-F

10/23

STS Consultants Ltd.
CALCULATION SHEET

PROJECT: DEXTER FIS JOB NO.: 1053-F PAGE: 11 OF: 23

SUBJECT: SILVER LAKE HYDRAULICS DIVISION: H/H

ORIGINATOR: THR DATE: 12/20/84 CHECKED BY: WJL DATE: 1/15/85

6.1 (CONT)

FROM PG 11, STAGE-DISCHARGE RELATIONSHIP IS:

STAGE (ft)	DISCHARGE (CFS)	
874.6	1	
874.9	2	
875.1	3	
875.4	4	
876.0	5	
879.9	10	(WEIR FLOW)

* WEIR FLOW OCCURS ABOVE 877.3'.

STS Consultants Ltd.
CALCULATION SHEET

PROJECT: DEXTER F.I.S. JOB NO: 1053-F PAGE: 12 OF: 23

SUBJECT: SILVER LAKE HYDRAULICS DIVISION: H/H

ORIGINATOR: TMR/BBS DATE: 12/84 CHECKED BY: [illegible] DATE: 1/15/85

6.2 STAGE - STORAGE RELATIONSHIP FOR SILVER LAKE:

REF: 1" = 400' TOPOGRAPHIC MAP OF SILVER LAKE, ABRAMS AERIAL SURVEY CO.

AREA PLANIMETERED OFF MAP USING A TAMAYA PLANIX PLANIMETER.

VOLUME BETWEEN ELEVATIONS 1 AND 2 CALCULATED AS FOLLOWS:

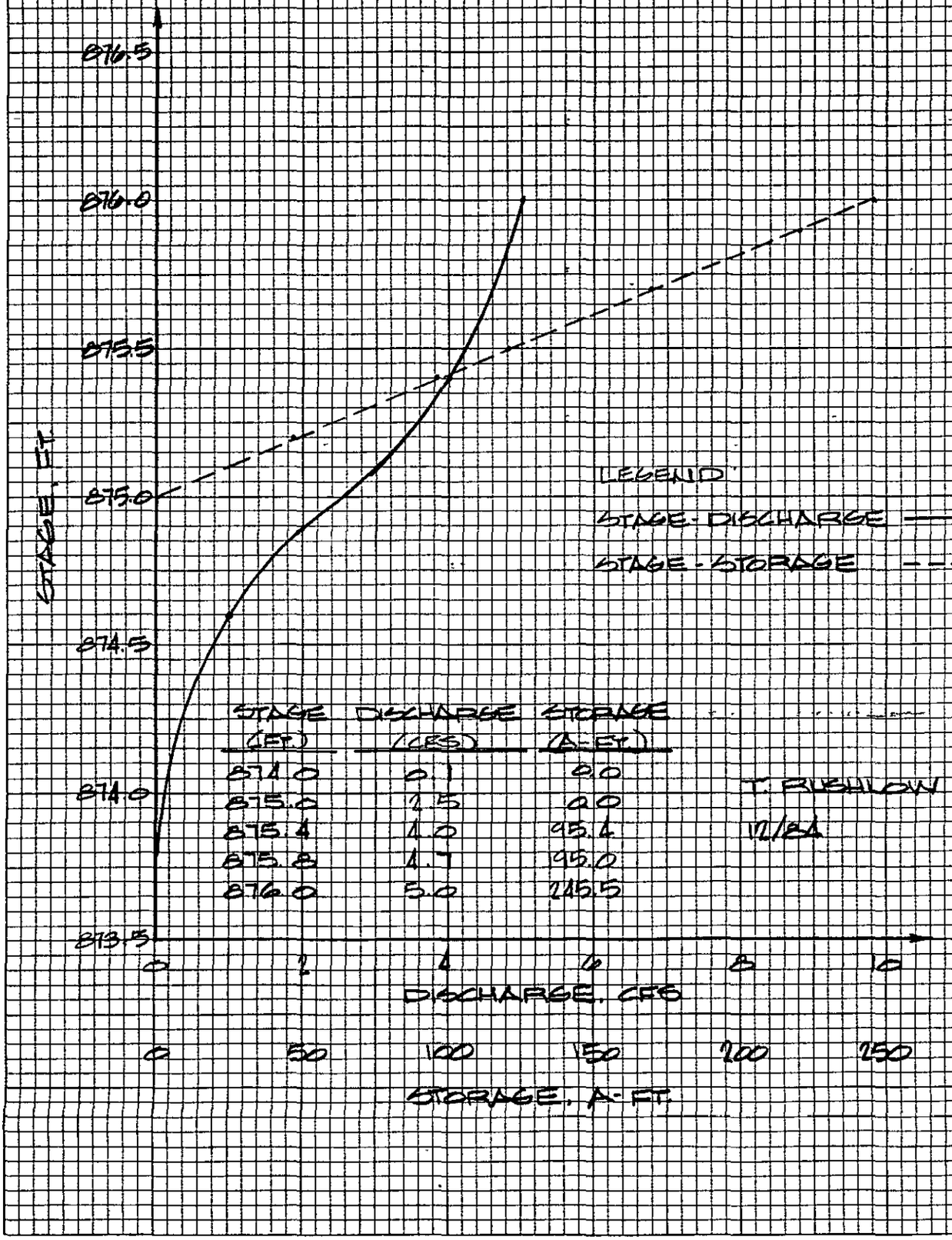
$$V_{1-2} = \frac{A_1 + A_2}{2} \Delta h_{1-2}$$

STAGE, (FT)	Δh, (FT)	AREA, (ACRE)	ΔVOL, (A-FT)	VOL, (A-FT)
*875.0		234.0		0
	0.2		47.2	
875.2		238.5		47.2
	0.2		48.2	
875.4		243.0		95.4
	0.1		24.9	
875.5		245.5		120.3
	0.2		49.3	
875.7		249.5		169.6
	0.2		50.4	
875.9		254.0		220.0
	0.1		25.5	
876.0		256.2		245.5

* ESTABLISHED LEGAL LAKE LEVEL

FIGURE 6: STAGE - DISCHARGE - STORAGE RELATIONSHIP FOR SILVER LAKE

#1063-F DEXTER FIS



STAGE (FT.)	DISCHARGE (CFS)	STORAGE (A-FT.)
874.0	0.1	0.0
875.0	2.5	90
875.4	4.0	95.4
875.8	4.7	95.0
876.0	5.0	245.5

T. BUSHLOW 11/84

NO. 340-10 DIETZGEN GRAPH PAPER 10 X 10 PER INCH MADE IN U.S.A.

7.0 DEVELOPMENT OF RUNOFF CURVE NUMBER (CONT). (SEE PAGES 2-4). [LOSEE LAKE]

Cover	Practice	Condition or Rotation	% Per Practice	Curve Numbers Moisture Condition II: A_2 Soils	B_2 Soils	C Soils	D Soils	% Imp.	Product
Fallow	Straight Row	--		77	86	91	94		
Row Crops	Straight Row	Poor		72	81	88	91		
	Straight Row	Good		67	78	85	89		
	**Contoured	Poor		70	79	84	88		
	**Contoured	Good		65	75	82	86		
	*C and T	Poor		66	74	80	82		
	*C and T	Good		62	71	78	81		
Small Grain	Straight Row	Poor		65	76	84	88		
	Straight Row	Good		63	75	83	87		
	**Contoured	Poor		63	74	82	85		
	**Contoured	Good		61	73	81	84		
	*C and T	Poor		61	72	79	82		
	*C and T	Good		59	70	78	81		
Legumes or Rotation Meadow	Straight Row	Poor		66	77	85	89		
	Straight Row	Good		58	72	81	85		
	**Contoured	Poor		64	75	83	85		
	**Contoured	Good		55	69	78	83		
	*C and T	Poor		63	73	80	83		
	*C and T	Good		51	67	76	80		
Pasture		Poor		68	79	86	89		
		Fair		49	69	79	84		
		Good		39	61	74	80		
Meadow (Permanent)		Good		30	58	71	78		
Woods (Farm)		Poor		45	66	77	83		
		Fair	20%	36	60	73	79	85%	7693.5
		Good		25	55	70	77		
Farmsteads		--		59	74	82	86		
Impervious Surfaces		--	9%	100	100	100	100	100	1458.6
Water Surfaces (lakes, ponds)		--		100	100	100	100		
Commercial and business areas (85% impervious)				89	92	94	95		
Industrial districts (72% impervious)				81	88	91	93		
Residential: Average % Impery.									
Average lot size: 1/8 acre or less (65)			5%	77	85	90	92	38%	675.8
1/4 acre (38)				61	75	83	87		
1/3 acre (30)				57	72	81	86		
1/2 acre (25)				54	70	80	85		
1 acre (20)				51	68	79	84		
Paved parking lots, roofs, driveways, etc.				98	98	98	98		
Streets and roads: paved with curbs and storm sewers				98	98	98	98		
gravel				76	85	89	91		
dirt				72	82	87	89		
Open Spaces, Lawns, etc.: Grass cover on 75%		good		39	61	74	80		
Grass cover on 50% to 75%		fair		49	69	79	84		

Total Acres = 162A Product Total = 9888.2

Weighted Runoff Curve No. = Product Total / Total Acres = 9888.8/162 = 61

STS Consultants Ltd.
FIGURE SHEET

PROJECT	FIGURE NO.
DEXTER F.I.S	7
TITLE	JOB NO.
HYDROLOGY, LOSEE LAKE	1053E
DATE: 4/3/84	DRAWN BY: BBS.
APPROVED BY: J.T.P.	SCALE: —

STS Consultants Ltd.
CALCULATION SHEET

PROJECT: DEXTER F.I.S. JOB NO.: 1053E PAGE: 15 OF: 23

SUBJECT: LOSEE LAKE HYDROLOGY DIVISION: H/H

ORIGINATOR: BBS DATE: 4/3/84 CHECKED BY: HP DATE: 16/3/84

8.0: TIME OF CONCENTRATION

SEE MAP, PG. 3 FOR THE TIME OF CONCENTRATION (T_c) PATHWAY. THE LONGEST PATH CONSISTS OF 4 REACHES: 1. (2) SHEET FLOW, 2. WATERWAY FLOW, 3. SMALL TRIBUTARY FLOW.

SHEET FLOW VELOCITY: $V = 0.48(S)^{1/2}$

WATERWAY FLOW VELOCITY: $V = 1.2(S)^{1/2}$

SMALL TRIBUTARY FLOW VELOCITY: $V = 2.1(S)^{1/2}$

REF.: MICH. DNR, R. SORRELL, "SCS UD-21 METHOD", OCTOBER, 1981.

8.1: REACH 1 AND 3 (SHEET FLOW)

LENGTH (1) = 200 FT.

ΔELEV = 950 - 910 = 40 FT.

$\therefore$ SLOPE = $\left(\frac{40}{200}\right) = 0.20$ (20%)

LENGTH (3) = 1000 FT.

ΔELEV. = 900 - 879 = 21 FT.

$\therefore$ SLOPE = $\left(\frac{21}{1000}\right) = 0.021$ (2.1%)

VELOCITY$_1$ = $0.48(20)^{1/2} = 2.1$ FPS

VELOCITY$_3$ = $0.48(2.1)^{1/2} = 0.7$ FPS

$\therefore T_c = \left(\frac{200}{2.1} + \frac{1000}{0.7}\right)\left(\frac{HR}{3600s}\right) = 0.42$ HRS.

STS Consultants Ltd.
CALCULATION SHEET

PROJECT: DEXTER FIS JOB NO.: 1053E PAGE: 16 OF: 23

SUBJECT: LOSEE LAKE HYDROLOGY DIVISION: H/H

ORIGINATOR: BBS DATE: 4/3/04 CHECKED BY: JTP DATE: 10/3/04

TIME OF CONCENTRATION (CONT.):

8.2: REACH 2 (WATERWAY (SWAMP) FLOW):

LENGTH = 850 FT.

Δ ELEV. = 910 - 900 = 10 FT.

$\therefore$ SLOPE $= \frac{10}{850} = 0.012$ (1.2%)

VELOCITY $= 1.2(1.2)^{1/2} = 1.3$ FPS

$T_c = \frac{850}{1.3}\left(\frac{1\ HR}{3600S}\right) = 0.18$ HRS.

8.3: REACH 4 (SMALL TRIBUTARY FLOW):

LENGTH = 700 FT.

Δ ELEV. = 879 - 875 = 4 FT.

$\therefore$ SLOPE $= \frac{4}{700} = 0.0057$ (.57%)

VELOCITY $= 2.1(.57)^{1/2} = 1.6$ FPS

$T_c = \frac{700}{1.6}\left(\frac{1\ HR}{3600S}\right) = 0.12$ HRS.

TOTAL TIME OF CONCENTRATION:

$T_c = 0.42 + 0.18 + 0.12 = 0.72$ HRS.

STS Consultants Ltd.
CALCULATION SHEET

PROJECT: DEXTER E.I.S. JOB NO.: 1053E PAGE: 17 OF: 23

SUBJECT: LOSEE LAKE HYDROLOGY DIVISION: H/H

ORIGINATOR: BBS. DATE: 1/3/84 CHECKED BY: D.L. DATE: 1/15/85

9.0 : STAGE-AREA, STAGE-VOLUME RELATIONSHIP FOR LOSEE LAKE

FROM 1" = 400' AERIAL TOPOGRAPHIC MAP OF LOSEE LAKE, ABRAMS AERIAL SURVEY, LANSING, MI.

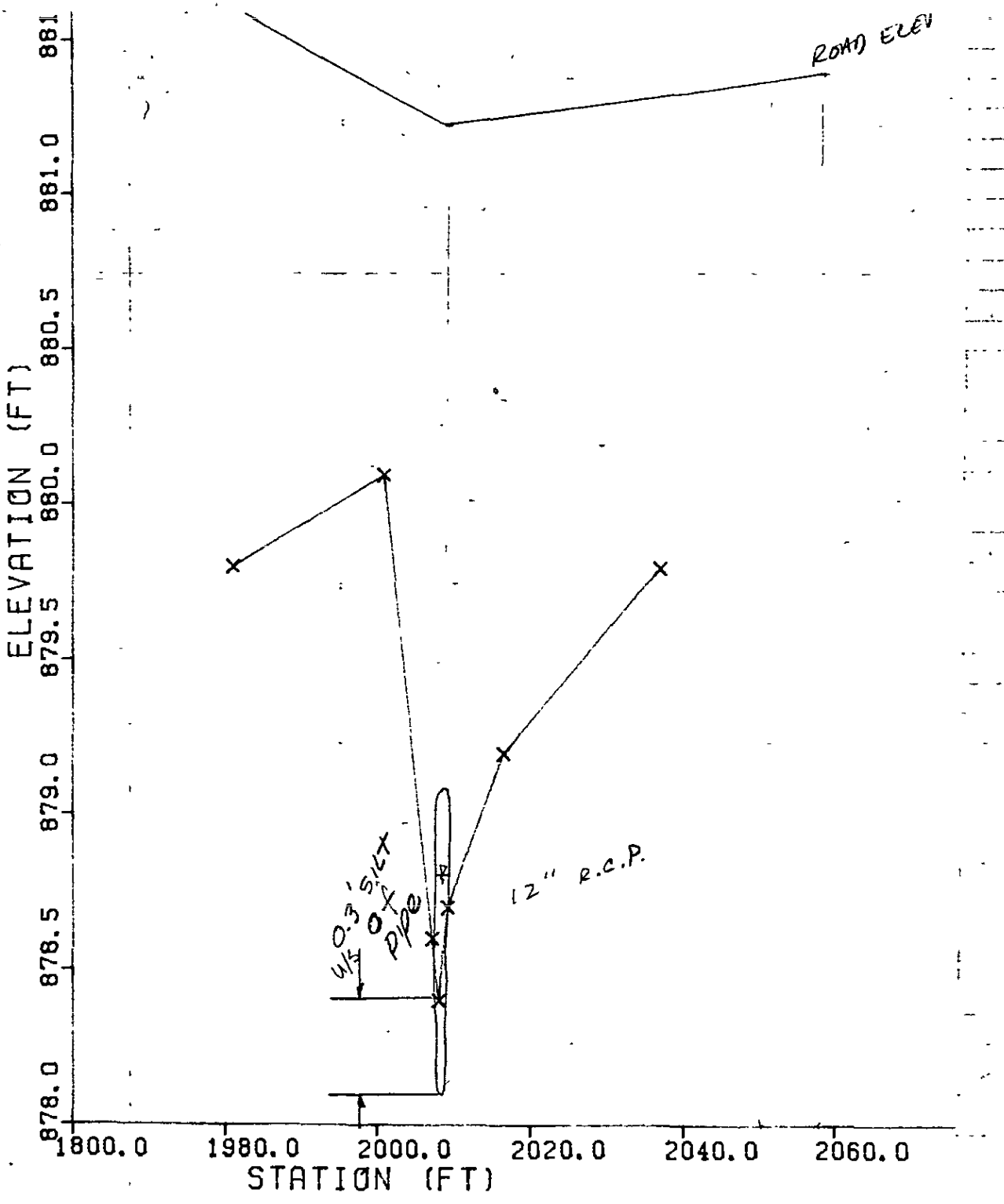
NORMAL LAKE ELEVATION = 879.0 FT.
SEE PG. OF REPORT FOR DOCUMENTATION.

EQUATION FOR VOLUME CALCULATION:

$$\Delta V_{1\to 2} = \frac{A_2 - A_1}{2} \Delta H_{1\to 2}$$

DEPTH FT.	ELEV. FT.	AREA ACRES	ΔVOL ACRE·FT.	VOL. ACRE·FT
0	879	12.82		—
			1.66	
0.125	879.125	13.75		1.7
			1.77	
0.25	879.25	14.53		3.5
			1.88	
0.375	879.375	15.47		5.4
			1.99	
0.50	879.50	16.37		7.4
			2.12	
0.625	879.625	17.50		9.5
			2.28	
0.75	879.75	18.94		11.8
			2.47	
0.875	879.875	20.68		14.2
			2.73	
1.0	880.0	22.98		17.0

10.0 LOSEE LAKE OUTLET STRUCTURE



STS Consultants Ltd. FIGURE SHEET	PROJECT: DEXTER F.I.S.			FIGURE NO.: 8
	TITLE: LOSEE LAKE HYDRAULICS			JOB NO.: 1053F
	DATE: 8/84	DRAWN BY: TAR	APPROVED BY: W.L.	SCALE:

STS Consultants Ltd.
CALCULATION SHEET

PROJECT: DEXTER FIS. JOB NO: 1053E PAGE: 19 OF: 23

SUBJECT: LOSEE LAKE HYDRAULICS DIVISION: H/H

ORIGINATOR: TOB DATE: 7/17/84 CHECKED BY: BSS DATE: 8/6/84

10.1 : LOSEE LAKE OUTLET STRUCTURE ELEVATION-DISCHARGE RELATIONSHIP. (X-SECTION 16)

10.2 : SLOPE BETWEEN LOSEE AND SILVER LAKE

LENGTH = 700 FT.

ΔELEV. = 879 - 875 = 4 FT.

$\therefore$ SLOPE = $\frac{4}{700}$ = 0.0057 (.57%).

REF. U.S.G.S. PICKNEY, MICH. QUADRANGLE, 1965.

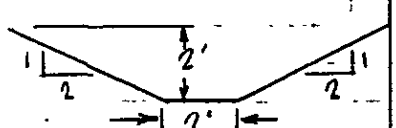
10.3 : TAILWATER CONDITION :

CHANNEL DIMENSIONS :

BOTTOM WIDTH = 2 FT.

SIDE SLOPES = 2 HORZ TO 1 VERT.

DEPTH = 2 FT.



MANNING'S NO. = 0.03 (GRASSED CHANNEL)
Based on Photo survey of March 1984"
(REF. CHOW, OPEN CHANNEL HYDRAULICS, McGRAW-HILL, 1959, PG. 113).

STS Consultants Ltd.
FIGURE SHEET

PROJECT: DEXTER F.I.S. DESIGNER: TMR

DATE: 1-18-85

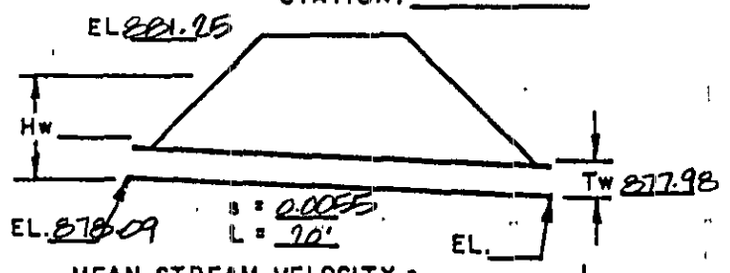
HYDROLOGIC AND CHANNEL INFORMATION

Q_1 = _____ TAILWATER ELEVATION = _____
Q_2 = _____ TAILWATER ELEVATION = _____

(Q_1 = DESIGN DISCHARGE, SAY Q_{25}
Q_2 = CHECK DISCHARGE, SAY Q_{50} OR Q_{100})

SKETCH

STATION: _____



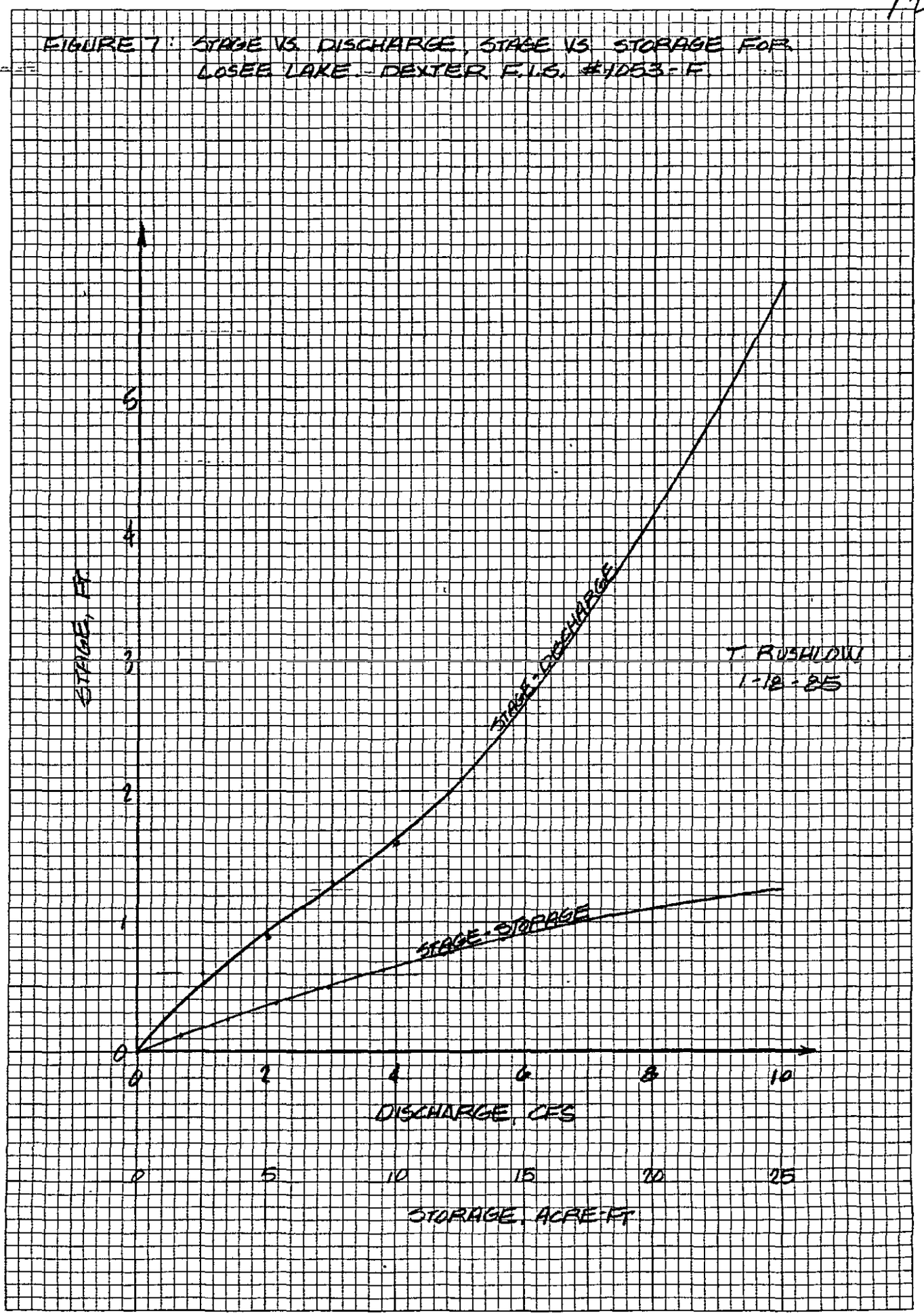
MEAN STREAM VELOCITY = _____
MAX. STREAM VELOCITY = _____
$\frac{L}{100s}$ = _____

CULVERT DESCRIPTION (ENTRANCE TYPE)	Q	SIZE	HEADWATER COMPUTATION												CONTROLLING Hw	OUTLET VELOCITY	COST	COMMENTS
			INLET CONT.		OUTLET CONTROL HW = H + h_o - Ls								CHART					
			$\frac{Hw}{D}$	Hw	K_e	H'	d_c	$\frac{d_c+D}{2}$	Tw	h_o	Ls	Hw	No.	Hw				
CONCRETE PIPE	1	12"	.59	.6	.2	0	.4	0.7	0.37	0.7	0.1	0.6			0.6			
SOCKET END, K_e=.2	2	"	.87	.9	"	.20	.6	0.8	0.43	0.8	"	0.9			0.9			
(3)	3	"	1.15	1.2	"	.45	.8	0.9	0.53	0.9	"	1.3			1.3			
	4	"	1.40	1.5	"	.80	.85	0.93	0.00	0.93	"	1.6			1.6			
	5	"	1.90	1.9	"	1.20	.9	0.95	0.70	0.95	"	2.1			2.1			
	10	"	5.80	5.8	"	5.0	1.0	1.0	0.95	1.0	"	5.9			5.9			

SUMMARY & RECOMENDATIONS:
INLET CONTROL: BUREAU OF PUBLIC ROADS, DESIGN CHARTS, CHART 2 : TW : BUREAU OF PUBLIC ROADS, DESIGN CHARTS.
CRITICAL DEPTH: " " " " CHART 16.
LI: " " " " CHART 9

TITLE: LOSEE LAKE HYDRAULICS
DATE
DRAWN BY
APPROVED BY
SCALE
JOB NO. 1653F

FIGURE 7: STAGE VS. DISCHARGE, STAGE VS. STORAGE FOR LOSEE LAKE - DEXTER, F.I.S. #4053-F



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NO. 340-10 DIETZGEN GRAPH PAPER 10 X 10 PER INCH

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CALCULATION SHEET

PROJECT: DEXTER F.I.S. JOB NO.: 1053E PAGE: 22 OF: 23

SUBJECT: LOSEE LAKE HYDRAULICS DIVISION: H/H

ORIGINATOR: TMR DATE: 1/85 CHECKED BY: _____ DATE: _____

1.0 SUMMARY OF STAGE-STORAGE-DISCHARGE RELATIONSHIP FOR LOSEE LAKE.

FROM FIGURE 7, PG 21.

STAGE, (FT)	DISCHARGE, (CFS)	STORAGE, (ACRE-FT)
879.0	0	0
879.3	0.5	4.0
879.5	1.0	7.0
879.8	1.7	12.5
880.0	2.2	17.0
880.4	3.4	35.0

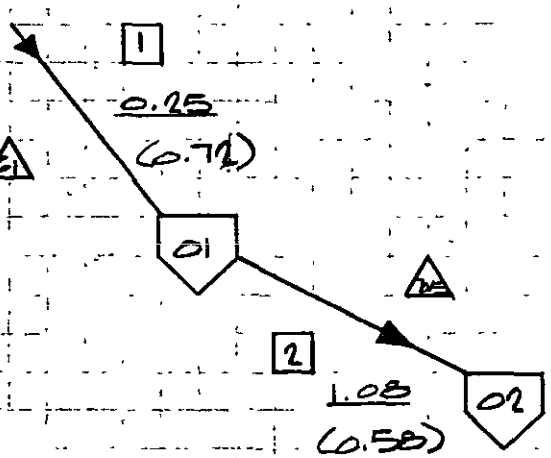
STS Consultants Ltd.
CALCULATION SHEET

PROJECT: DEXTER E.I.S JOB NO.: 1053E PAGE 23 OF: 23

SUBJECT: SILVER/LOSEE LAKE HYDROLOGY DIVISION: H/H

ORIGINATOR: BBS DATE: 8/84 CHECKED BY: W/W DATE: 1/15/85

10.0 FLOWCHART FOR TR-20 ANALYSIS



LEGEND:

(N) = TIME OF CONCENTRATION, t_c

N = DRAINAGE AREA.

[N] = SUB-AREA

△ N = RUNOFF CURVE NUMBER

—— = REACH LENGTH

⬠ N = STRUCTURE #.

APPENDIX C

DEXTER TOWNSHIP FLOOD INSURANCE STUDY
NORTH LAKE COMPUTATIONS

APPENDIX C

sts

CALCULATION COVER SHEET

PROJECT DEXTER F.I.S. JOB NO 1053 DIVISION H/H

SUBJECT NORTH LAKE HYDROLOGY AND HYDRAULICS FILE NO 1053 CALC NO

ORIGINATOR THR DATE 8/84

CHECKER [signature] DATE 1/15/85 NO. OF SHEETS

RECORD OF ISSUES

NO.	DESCRIPTION	BY	DATE	CHKD	DATE	APPRD.		
△								
△								
△								
△								
△								
△								

PRELIMINARY CALC. ☐

SUPERSEDED CALC ☐ FINAL CALC. ☒

BRIEF SUMMARY OF CALCULATIONS INCLUDING SCOPE AND RESULTS

TR-20 MODEL PARAMETER COMPUTATIONS

DESCRIPTION	PG.
1.0 : OBJECTIVE	1
2.0 : SUMMARY OF HYDROLOGIC PARAMETERS	1
3.0 : RUNOFF CURVE NUMBER DEVELOPMENT	2-5
WATERSHED MAP	3
3.1 : SOIL TYPE MAP	4
3.2 : LAND USE MAP	5
3.3 : RUNOFF CURVE NUMBER CALCULATION	6
4.0 : TIME OF CONCENTRATION	6
4.1 : REACH 1 (SHEET FLOW)	6
4.2 : REACH 2 (SWAMP W/O CHANNEL)	7
5.0 : STAGE/STORAGE RELATIONSHIP	8-14
6.0 : NORTH LAKE OUTLET STRUCTURE "A".	9-11
6.1 : TAILWATER CONDITION	11-12
6.2 : HEADWATER CONDITION	12
6.3 : OUTLET CONTROL	13
6.4 : SUMMARY GRAPH	14
6.5 : SUMMARY	

CALCULATION COVER SHEET

PROJECT DEXTER TWP. F.I.S. JOB NO. 1053 E/F DIVISION H/H

SUBJECT NORTH LAKE HYDROLOGY AND HYDRAULICS FILE NO. 1053

CALC. NO

ORIGINATOR TMR DATE 8/84

CHECKER MJL DATE 1/15/85 NO. OF SHEETS

RECORD OF ISSUES

NO.	DESCRIPTION	BY	DATE	CHKD	DATE	APPRD		
△								
△								
△								
△								
△								
△								

PRELIMINARY CALC ☐

SUPERSEDED CALC ☐ FINAL CALC. ☒

BRIEF SUMMARY OF CALCULATIONS INCLUDING SCOPE AND RESULTS

TR-20 MODEL PARAMETER COMPUTATIONS (CONT.)

DESCRIPTION	PG.
7.0 NORTH LAKE OUTLET STRUCTURE "B"	15-19
7.1 CULVERT "B" INLET CONTROL	16
7.2 CULVERT "B" OUTLET CONTROL	17
7.3 HYDRAULIC SUMMARY	18
8.0 TR-20 MODEL DEVELOPMENT	20
9.0 SUMMARY OF PEAK DISCHARGES	21

STS Consultants Ltd.
CALCULATION SHEET

PROJECT: Dexter FIS JOB NO.: 1053E PAGE: 1 OF: 21

SUBJECT: North Lake Hydrology DIVISION: H/H

ORIGINATOR: IMR DATE: 8/24/84 CHECKED BY: WJW. DATE: 10/84

1.0 Objective

Develop 10-, 50-, 100- and 500-year Peak Discharges And Elevations for North Lake, Located in the Northwest Portion of Dexter Township. Lake Outlet is an 18" Culvert which is uncontrolled.

Use The SCS TR-20 Computer Program To Simulate Hydrologic Conditions in the North Lake Watershed.

2.0 Summary of Hydrologic Parameters*

Drainage Area = 1078 Acres = 1.68 mi^2

Runoff Curve Number = 84.5

Time of Concentration = 3.2 Hours

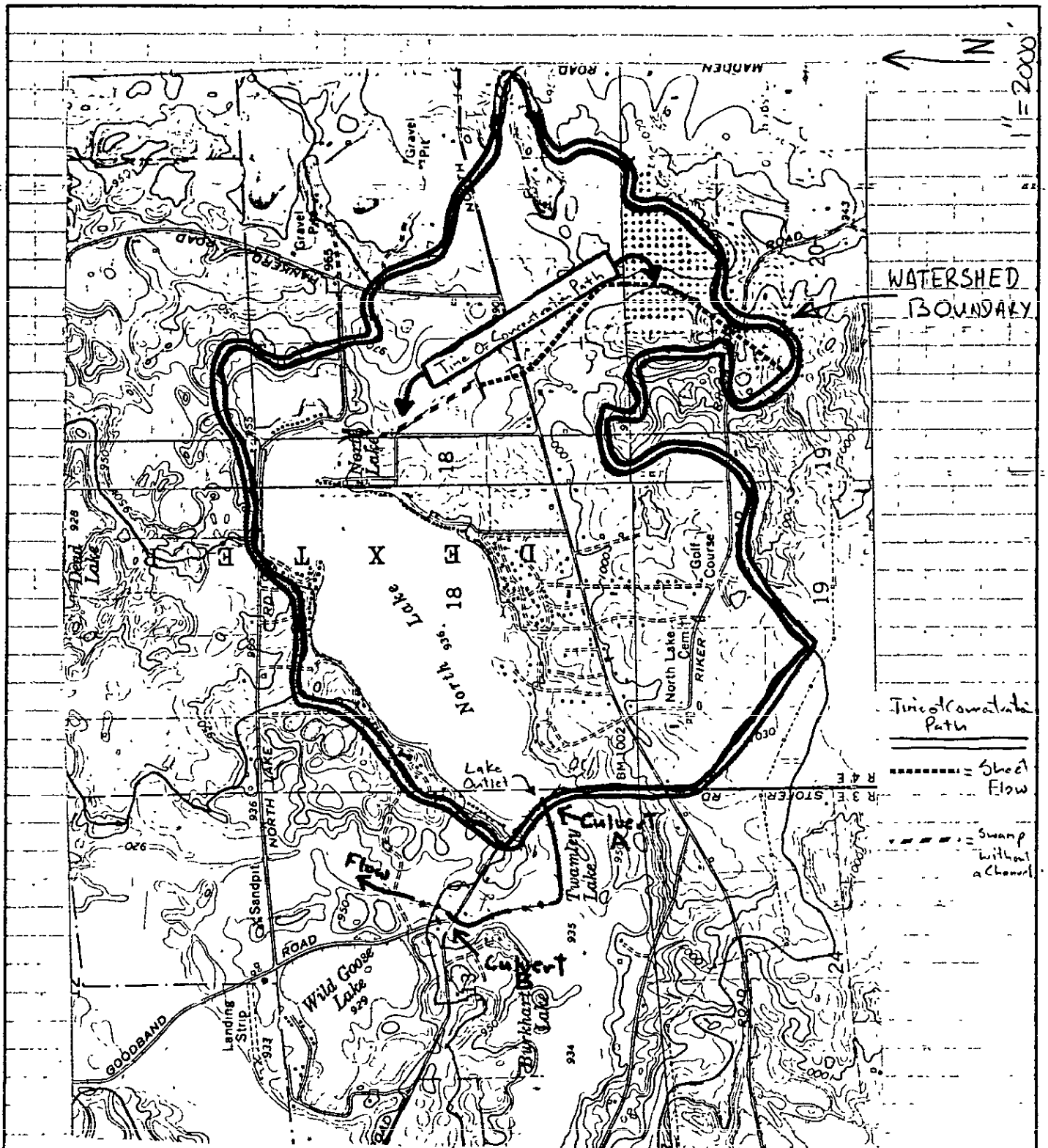
**STARTING ELEVATION (NORTH LK.) = 938.0

*Subdivision of the watershed for flood routing purposes was not necessary.

See Map on Page 2 for Watershed Boundaries.

** NO LEGAL LAKE LEVEL USED W/S FROM STS SURVEY AND INTERVIEWED ~~Red~~ Residents to Determine How Much Flucation occures.

3.0 RUNOFF CURVE NUMBER DEVELOPMENT.

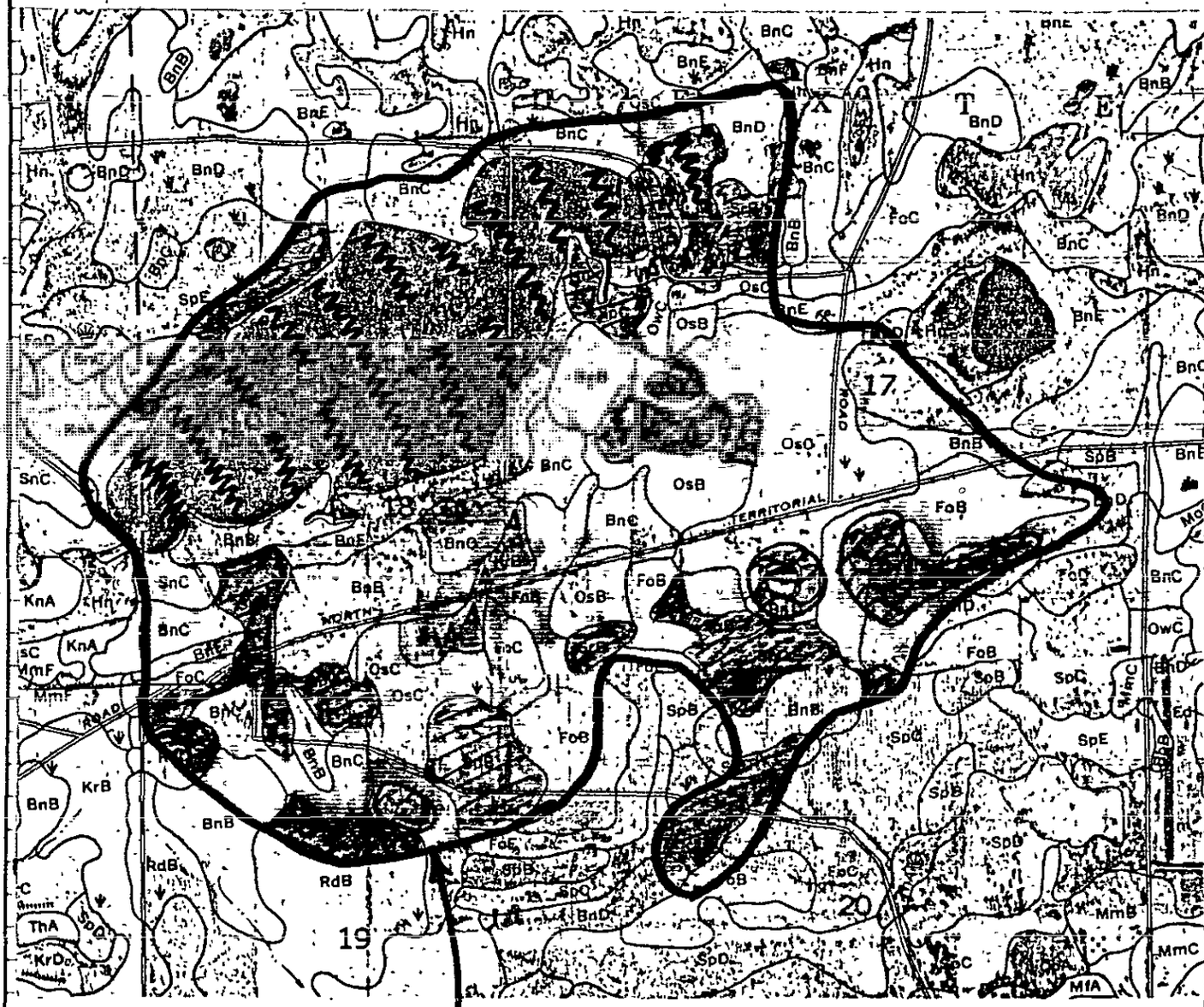


USGS QUAD:
"GREGORY"
Photorev. 1975

STS Consultants Ltd. FIGURE SHEET	PROJECT: Dexter F.I.S.			FIGURE NO.: Pg. 2 of 21
	TITLE: North Lake Watershed			JOB NO.: 1053E
	DATE: 8/84	DRAWN BY: W.J.W	APPROVED BY:	SCALE: 1" = 2000'

3.1 RUNOFF CURVE NUMBER DEVELOPMENT (CONT-)

DRAINAGE AREA = 1078 ACRES



WATER SHED BOUNDARY

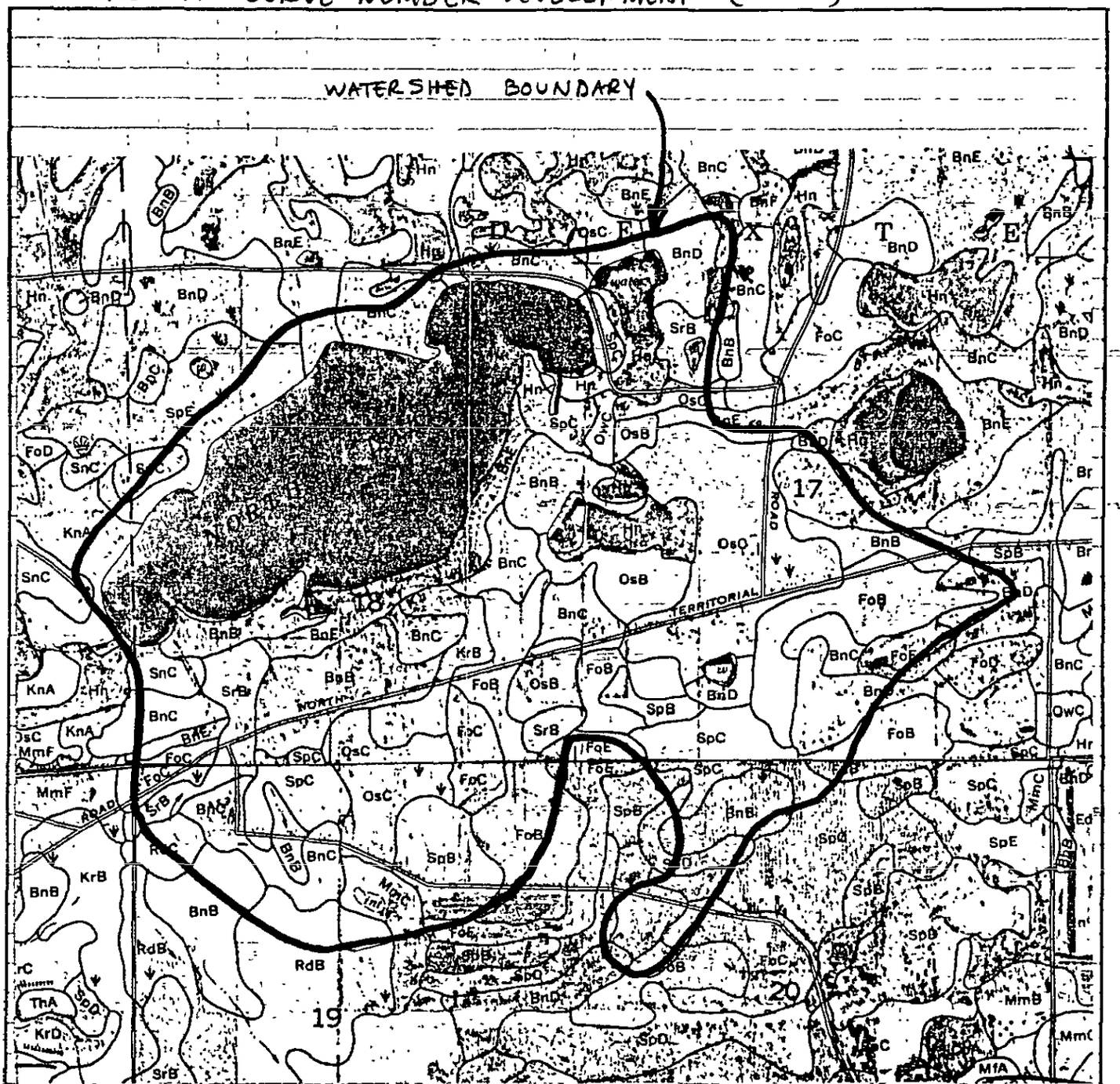
C/D

LEGEND	SOIL TYPE	SYMBOL	SOIL TYPE	SYMBOL
	A		D	
	B		DEPRESSION	
	C		WATER	

FROM : SCS SOIL SURVEY : WASHTENAW CTY, 1977

	PROJECT			FIGURE NO.
STS Consultants Ltd. FIGURE SHEET	DEXTER F.I.S.			2
	TITLE			JOB NO.
	SOIL TYPE MAP			1053.
	DATE	DRAWN BY	APPROVED BY	SCALE
	8/84	WJW		Pg 3 OF 21

3.2 RUNOFF CURVE NUMBER DEVELOPMENT (CONT.)



STRAIGHT ROW CROPS 60%
(GOOD)
IMPERVIOUS SURFACES : 32%
RESIDENTIAL : 5%
STREETS : 3%

STS Consultants Ltd. FIGURE SHEET	PROJECT: DEXTER F.I.S.		FIGURE NO.: 3
	TITLE: LAND USE MAP		JOB NO.: 1053
	DATE: 8/84	DRAWN BY: JTP	APPROVED BY:	SCALE: Pg 4 of 21

3.3 Runoff Curve Number Development (cont'd)

Cover	Practice	Condition or Rotation	% Per Practice	Curve Numbers Moisture Condition II A Soils	B Soils	C Soils	D Soils	Land Use	Product
Fallow	Straight Row	--		77	86	91	94		
Row Crops	Straight Row	Poor		72	81	88	91		
	Straight Row	Good	60	67	78	85	89		40.1
	**Contoured	Poor		70	79	84	88		
	**Contoured	Good		65	75	82	86		
	*C and T	Poor		66	74	80	82		
	*C and T	Good		62	71	78	81		
Small Grain	Straight Row	Poor		65	76	84	88		
	Straight Row	Good		63	75	83	87		
	**Contoured	Poor		63	74	82	85		
	**Contoured	Good		61	73	81	84		
	*C and T	Poor		61	72	79	82		
	*C and T	Good		59	70	78	81		
Legumes or Rotation Meadow	Straight Row	Poor		66	77	85	89		
	Straight Row	Good		58	72	81	85		
	**Contoured	Poor		64	75	83	85		
	**Contoured	Good		55	69	78	83		
	*C and T	Poor		63	73	80	83		
	*C and T	Good		51	67	76	80		
Pasture		Poor		68	79	86	89		
		Fair		49	69	79	84		
		Good		39	61	74	80		
Meadow (Permanent)		Good		30	58	71	78		
Woods (Farm)		Poor		45	66	77	83		
		Fair		36	60	73	79		
		Good		25	55	70	77		
Farmsteads		--		59	74	82	86		
Impervious Surfaces		--	32	100	100	100	100		32
Water Surfaces (lakes, ponds)		--		100	100	100	100		
Commercial and business areas (85% impervious)				89	92	94	95		
Industrial districts (72% impervious)				81	88	91	93		
Residential: Average % Impervious									
Average lot size									
1/8 acre or less 65				77	85	90	92		
1/5 " 38				72	82	87	89		
1/4 acre 30			5	61	75	83	87		
1/3 acre 25				57	72	81	86		3.5
1/2 acre 20				54	70	80	85		
1 acre 12				51	68	79	84		
Paved parking lots, roofs, driveways, etc.				98	98	98	98		
Streets and roads:									
paved with curbs and storm sewers			3	98	98	98	98		2.9
gravel				76	85	89	91		
dirt				72	82	87	89		
Open Spaces, lawns, etc.		good		39	61	74	80		
Grass cover on 75%		fair		49	69	79	84		
Grass cover on 50% to 75%									

Total Acres _____ Product Total = 84.5

Weighted Runoff Curve No. $\frac{\text{Product Total}}{\text{Total Acres}}$ = _____

STS Consultants Ltd.
FIGURE SHEET

PROJECT: FEMA, FIS., DEXTER		FIGURE NO.
TITLE: - HYDROLOGY — NORTH LAKE		JOB NO. 1653E
DATE: 7/20/84	DRAWN BY: TMR	APPROVED BY: B.B.S. Aug. 84
		SCALE: Pg 5 of 21

STS Consultants Ltd.
CALCULATION SHEET

PROJECT: Dexter FIS JOB NO.: 1053E PAGE: 6 OF: 21

SUBJECT: North Lake Hydrology DIVISION: H/H

ORIGINATOR: TMR DATE: 7/84 CHECKED BY: WJW DATE: 10/84

4.0 Time Of Concentration

See Map on Page 2 For Time of Concentration (Tc) Pathway. The longest Tc Consists of 2 Reaches: 1) Sheet Flow; and 2) Flow Through a Swamp without a Channel.

Ref: Mich DNR, R. Sowell, "SCS UD-21 Method" October, 1981

Sheet Flow Velocity = $0.48\,(S)^{0.5}$

Swamp w/o Channel Velocity = $1.2\,(S)^{0.5}$

4.1 Reach 1 (Sheet Flow)

Length = 5000'

Δ Elev. = 1000 - 950 = 50'

$\therefore$ Slope = $\left(\frac{50}{5000}\right)100 = 1.0\%$

$\therefore$ Vel. = $0.48\,(1.0)^{0.5} = 0.48$ ft/sec

and $T_c = \frac{5000'}{.48\text{ ft/sec} \cdot 60\text{ sec/min} \cdot 60\text{ min/hr}} = \underline{2.89\text{ hrs.}}$

4.2 Reach 2 (Swamp w/o Channel)

Length = 2100'

Δ Elev. = 950 - 936 = 14'

$\therefore$ Slope = $\left(\frac{14}{2100}\right)100 = 0.7\%$

$\therefore$ Vel = $1.2\,(0.7)^{0.5} = 1.0$ ft/sec

and $T_c = \frac{2100'}{1\text{ ft/sec} \cdot 3600\text{ sec/hr}} = \underline{0.58\text{ hrs}}$

TOTAL TIME OF CONCENTRATION = 3.47 hrs

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PROJECT: DEXTER E.I.S JOB NO.: 1053E PAGE: 7 OF: 21

SUBJECT: NORTH LAKE HYDROLOGY DIVISION: H/H

ORIGINATOR: THB DATE: 7/84 CHECKED BY: BRS DATE: 8/84

5.0 STAGE/STORAGE RELATIONSHIP FOR NORTH LAKE.

FROM 1"=400' AERIAL TOPOGRAPHIC MAP OF NORTH LAKE SUPPLIED BY ABRAMS AERIAL SURVEY, LANSING, MI.

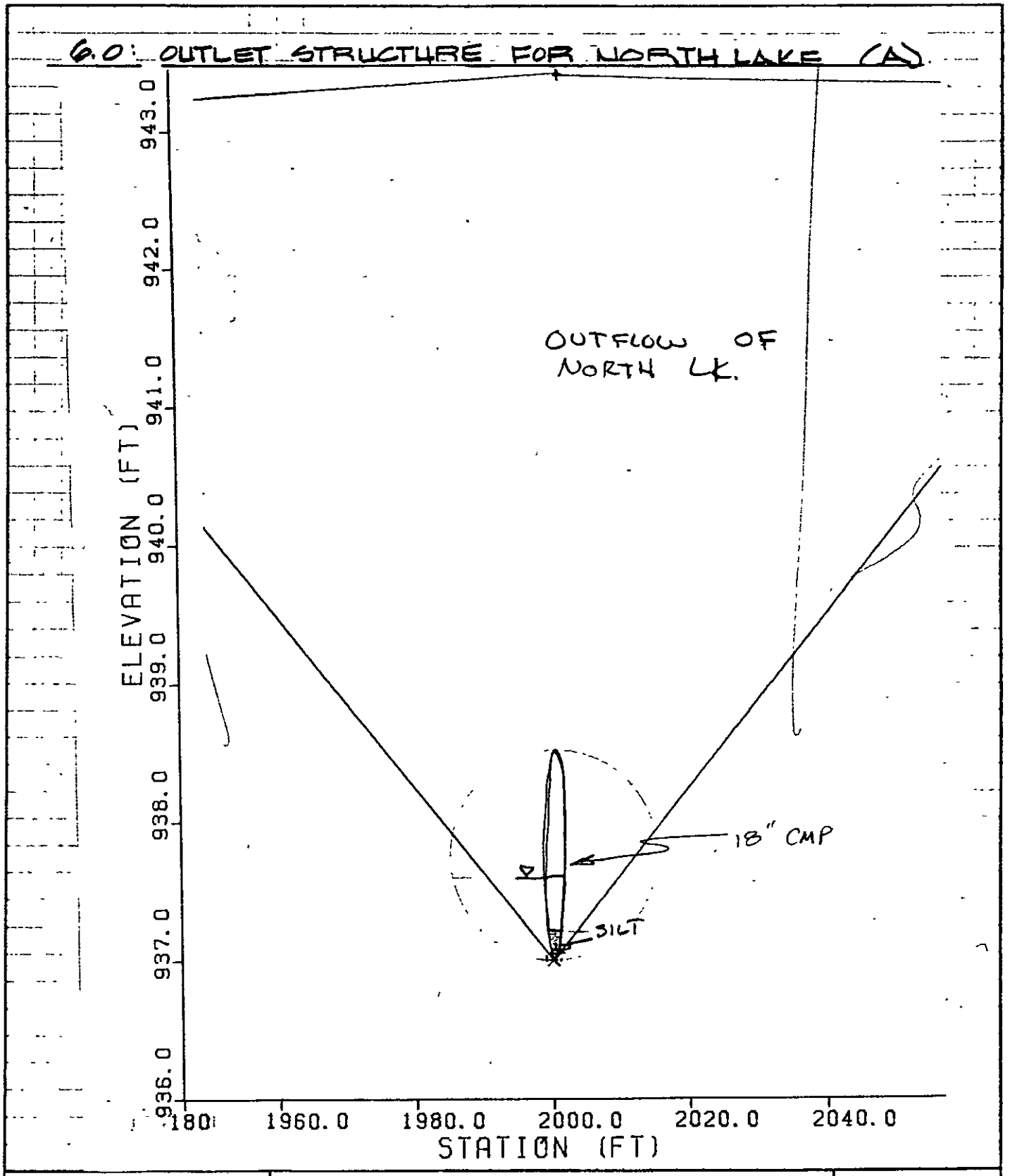
NORMAL LAKE ELEVATION WAS TAKEN TO BE 938.0 FT. — BASED UPON THE SURVEY BY STS CONSULTANTS AND CONVERSATIONS WITH RESIDENTS IN THE AREA. NO LEGAL LAKE ELEV. HAS BEEN SET FOR NORTH LAKE.

EQUATION FOR STORAGE CALCULATION:

$$\Delta S = \frac{A_2 - A_1}{2} \Delta H_{1 \to 2}$$

DEPTH, FT.	STAGE, FT.	AREA, ACRE	ΔS, ACRE FT	STORAGE, ACRE-FT.
0	937.0	192.5		0
			96.25	
0.5	937.5	192.5		96
			104.50	
1.0	938.0	225.0		201
			116.75	
1.5	938.5	242.0		318
			123.62	
2.0	939.0	252.5		441
			128.38	
2.5	939.5	261.0		570
			132.12	
3.0	940.0	267.5		702
			273.75	
4.0	941.0	280.0		975
			283.75	
5.0	942.0	287.5		1259
			293.25	
6.0	944.0	299.0		1552
			301.50	
7.0	946.0	304.0		1854

6.0: OUTLET STRUCTURE FOR NORTH LAKE (A)



STS Consultants Ltd. FIGURE SHEET	PROJECT: DEXTER F.I.S.			FIGURE NO.: 4
	TITLE: NORTH LAKE HYDRAULICS			JOB NO.: 1053 F
	DATE: 8/84	DRAWN BY: TMR	APPROVED BY: WJL.	SCALE: 8/21.

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PROJECT: DEXTER E.I.S. JOB NO: 1053E PAGE: 9 OF: 21

SUBJECT: NORTH LAKE HYDRAULICS DIVISION: H/H

ORIGINATOR: THR DATE: 7/84 CHECKED BY: BEG DATE: 8/84

6.0 NORTH LAKE OUTLET - CONTROL STRUCTURE

6.1 CULVERT A (HADLEY RD.) HYDRAULICS.

SEE NEXT PAGE FOR CULVERT PROFILE.

TAILWATER CONDITION: (THRU 18" CMP)

DOWNSTREAM CHANNEL BEST APPROXIMATED BY:

BOTTOM WIDTH = 3 FT.

SLOPE = .00067

SIDE SLOPES: 2 HORZ. - 1 VERT.

MANNING'S NO. = 0.04 (FROM PHOTO SURVEY & LAND SURVEY OF 1983-84)

(REF., CHOW, OPEN CHANNEL HYDRAULICS, McGRAW-HILL, 1959, PG. 113)

Q, CFS (ASSUMED)	SLOPE	Downstream Channel DEPTH, Y_N, FT.	Pipe DEPTH, Y_c, FT.	$\frac{Y_c+D}{2}$*	TW, FT.
1	0.00067	0.55	0.47	0.99	0.99
2	"	0.75	0.69	1.10	1.10
3	"	0.90	0.85	1.18	1.18
4	"	1.02	1.0	1.25	1.25
5	"	1.12	1.1	1.30	1.30
10	"	1.70	1.5	1.50	1.70
15	"	2.00	1.5	1.50	2.00
20	"	2.30	1.5	1.50	2.30

* USE TAILWATER ELEVATION = $\frac{Y_c+D}{2}$ WHEN $> Y_N$.

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PROJECT: DEXTER F.I.S. JOB NO.: 1053 PAGE: 10 OF: 21

SUBJECT: NORTH LAKE HYDROLOGY DIVISION: H/H

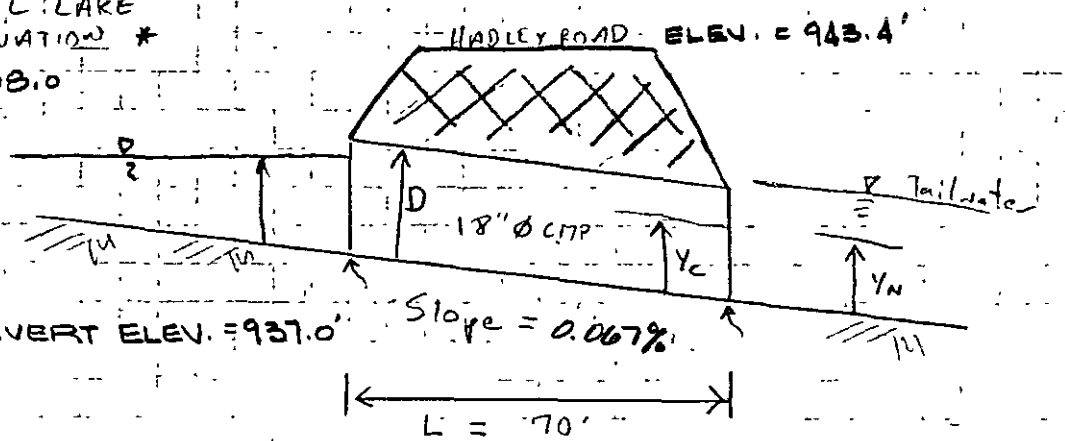
ORIGINATOR: T.R DATE: 7/84 CHECKED BY: WJW DATE: 10/84

Section 6 (cont'd) Hadley Road Culvert

(CULVERT A on Map - Pg 2)

CULVERT PROFILE

NORMAL LAKE ELEVATION * = 938.0



n = .023

* NORMAL LAKE ELEVATION FROM STS SITE SURVEY, 1983

= 938.0

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PROJECT: DEXTER F.I.S. JOB NO: 1053E PAGE 11 OF: 21

SUBJECT: NORTH LAKE HYDRAULICS DIVISION: H/H

ORIGINATOR: TMB DATE: 7/84 CHECKED BY: BBS DATE: 8/84

U/W. 1/15/85

TAILWATER CONDITION (CONT.):

REFERENCES FOR PREVIOUS PAGE CALCS:

BUREAU OF PUBLIC ROADS (BPR) #3, OPEN CHANNEL CHARTS, CHART 16.

FOR CRITICAL DEPTH CALCS, Y_c, USE BPR CHART #37.

6.2 HEADWATER CONDITION:

CULVERT DIMENSIONS:

LENGTH = 70'
DIA. = 1.5'
$n = 0.023$ (C.M.P.)

REF. CHOW, OPEN CHANNEL HYDRAULICS, MCGRAW-HILL, 1959, PG.)

REFERENCE FOR THE FOLLOWING CALCULATIONS, BUREAU OF PUBLIC ROADS (BPR). CHARTS 5 & 9, JAN 1963.

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PROJECT: F.I.S DEXTER JOB NO: 1053E PAGE: 12 OF: 21
NORTH LAKE HYDROLOGY
SUBJECT: CULVERT ANALYSIS, X-SECT. 20 DIVISION: H & H
ORIGINATOR: TJR DATE: 8/20/84 CHECKED BY: BBS DATE: Aug 84
W/W 10/24

6.2: (cont'd)

(ASSUMING INLET CONTROL)

DIA IN	DISCHARGE, CFS	HW/D	HW, FT.
18	1	0.35	0.53
"	2	0.52	0.78
"	3	0.67	1.00
"	4	0.79	1.19
"	5	0.92	1.38
"	10	1.75	2.63

6.3: Outlet Control

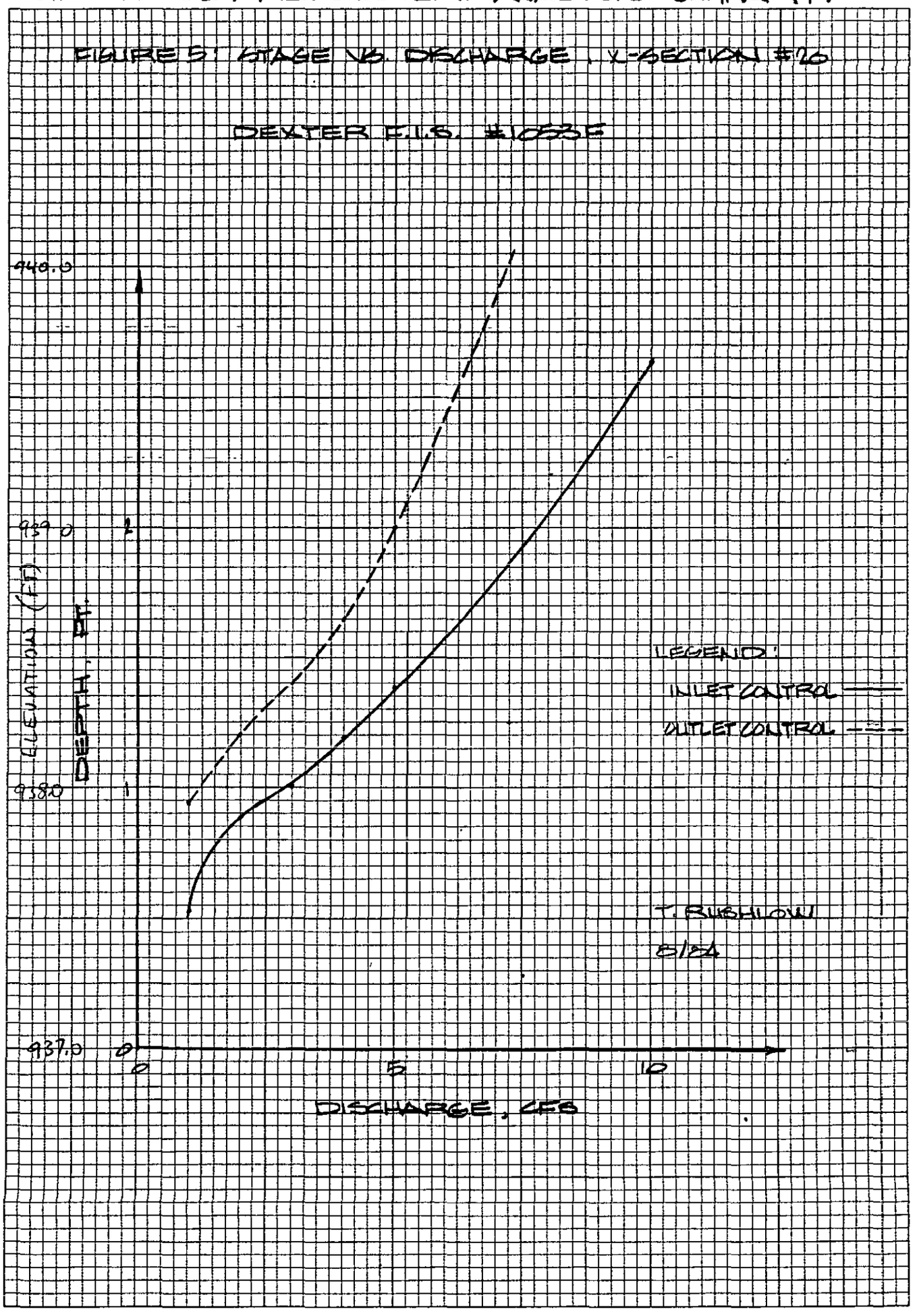
FOR OUTLET CONTROL, SEE CHART #11, $K_e = .9$
SOLVE: $HW = TW + H - S_o(L)$ FROM BPR. CHARTS

DIA, IN	DISCHARGE, CFS	H, FT	LS_o, FT.	TW, FT.	HW, FT.
18	1	0	.05	0.99	0.94
"	2	.15	.05	1.10	1.20
"	3	.27	.05	1.18	1.40
"	4	.45	.05	1.25	1.65
"	5	.75	.05	1.30	2.00
"	10	3.0	.05	1.70	4.65
"	15	6.7	.05	2.00	8.65

6.4.: HADLEY RD. CULVERT ANALYSIS SUMMARY.

FIGURE 5: STAGE VS. DISCHARGE, X-SECTION #26

DEXTER F.I.S. #1053F



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SUBJECT: NORTH LAKE HYDRAULICS DIVISION: H/H

ORIGINATOR: TTR DATE: 8/84 CHECKED BY: RBS DATE: 8/84

W/W: 1/15/85

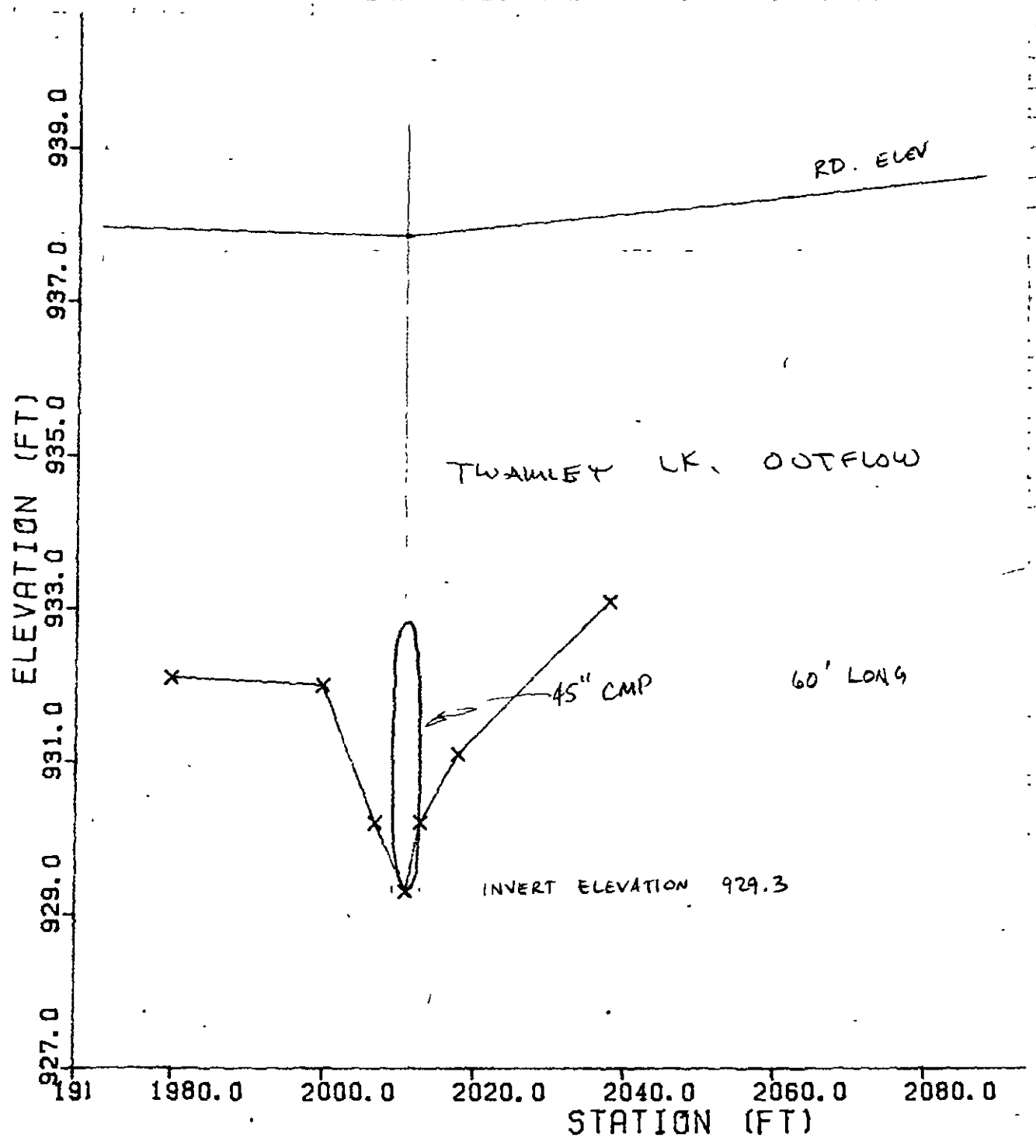
6.5 HADLEY ROAD CONTROL STRUCTURE

SUMMARY:

FROM THE STAGE/STORAGE CALCULATIONS (SEC. 4.0) AND STAGE/DISCHARGE RELATIONSHIP, FIGURE 5, PG. 13.:

STAGE, FT	DISCHARGE, CFS	STORAGE, ACRE·FT
937	0	0
938	2.5	201
939	5.0	441
940	7.2	702
941	9.0	975

7.0 NORTH LAKE OUTLET STRUCTURE "B" (See Pg 2 For Location)



STS Consultants Ltd. FIGURE SHEET	PROJECT: DEXTER F.I.S.			FIGURE NO.: 6
	TITLE: NORTH LAKE HYDRAULICS			JOB NO.: 1053F
	DATE: 2/84	DRAWN BY: TMR	APPROVED BY: [illegible]	SCALE: 1"=/21

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PROJECT: DEXTER F.I.S. JOB NO.: 1053F PAGE: 16 OF: 21

SUBJECT: NORTH LAKE HYDRAULICS DIVISION: H/H

ORIGINATOR: TMB DATE: 8/84 CHECKED BY: WJU. DATE: 1/15/85

J.J. HADLEY RD. (CULVERT B - SEE MAP PG. 2)
HYDRAULICS

PURPOSE: TO MAKE SURE D/S CULVERT WILL NOT CREATE BACKWATER WHICH COULD IMPACT NORTH LAKE OUTLET - CULVERT A.

D/S OUTLET

CHANNEL Hydraulics: (THRU 45" C.M.P.)

CHANNEL BEST APPROXIMATED BY:

BOTTOM WIDTH = 3.0 FT.

SIDE SLOPES = 3 HORIZ. - 1 VERT.

SLOPE = $\frac{935 - 930}{1600} = 0.0031$ FROM U.S.G.S. QUAD MAP OF GREGORY, MICHIGAN. 7.5 MIN. Series

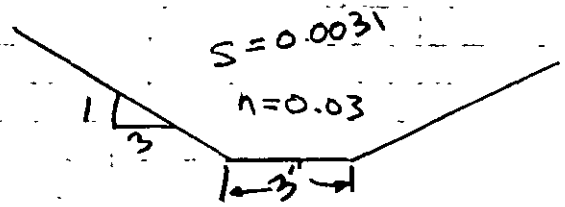
MANNINGS NUMBER: 0.03 (n)

REF.: BPR #3 OPEN CHANNEL CHARTS

USE MANNINGS EQ.

$$Q = \frac{1.49 A R^{2/3} S^{1/2}}{n}$$

FROM CHOW, OPEN CHANNEL HYDRAULICS, 1959



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CALCULATION SHEET

PROJECT: DEXTER TWP. F.I.S JOB NO.: 1053E PAGE: 17 OF: 21

SUBJECT: NORTH LAKE HYDRAULICS DIVISION: H/H

ORIGINATOR: TMR DATE: 8/84 CHECKED BY: [illegible] DATE: 1/15/85

7.1 HADLEY ROAD (CULVERT B) HYDRAULICS (CONT.)

D/s channel:

D/S OUTLET CHANNEL - WATER SURFACE ELEV.

DEPTH d, FT.	A, FT^2	W.P, FT.	R FT.	Q, cfs	FT.
0.2	0.72	4.26	0.169	0.6	929.5
0.4	1.68	5.53	0.304	2.1	929.7
0.6	2.88	6.79	0.424	4.5	929.9
0.8	4.32	8.06	0.536	7.9	930.1
1.0	6.00	9.32	0.644	12.4	930.3
1.2	7.92	10.59	0.748	18.0	930.5
1.5	11.25	12.49	0.901	29.0	930.8
2.0	18.00	15.65	1.150	54.6	931.3
2.5	26.25	18.81	1.396	90.7	931.8
3.0	36.00	21.97	1.639	138.4	932.3

7.2 INLET CONTROL:

REF: CHARTS PREPARED BY BUREAU OF PUBLIC ROADS, JANUARY 1963.

USE CHART 5, ENTRANCE TYPE 3, PIPE DIAMETER = 45"

Q cfs	Hw/D	HW, FT.	WATER SURFACE ELEV. FT.
10	0.28	1.05	930.35
15	0.36	1.35	930.65
20	0.45	1.70	931.00
30	0.6	2.25	931 55
40	0.75	2.80	932.10
50	0.90	3 40	932.70

7.3 OUTLET CONTROL CALCULATIONS

USING THE BPR CHARTS #1 FOR HEADWATER ON A PIPE FOR A KNOWN FLOW AND TAILWATER, WILL DETERMINE THE HEAD WATER FOR OUTLET CONTROL AND COMPARE WITH INLET CONTROL HEADWATER. THE LARGER OF THE TWO WILL CONTROL.

Refer to Pg. 10/21 OF these calculations FOR Schematic OF CULVERT AND EXPLANATION OF Variables used.

$$Hw = H + h_o - S_o L$$

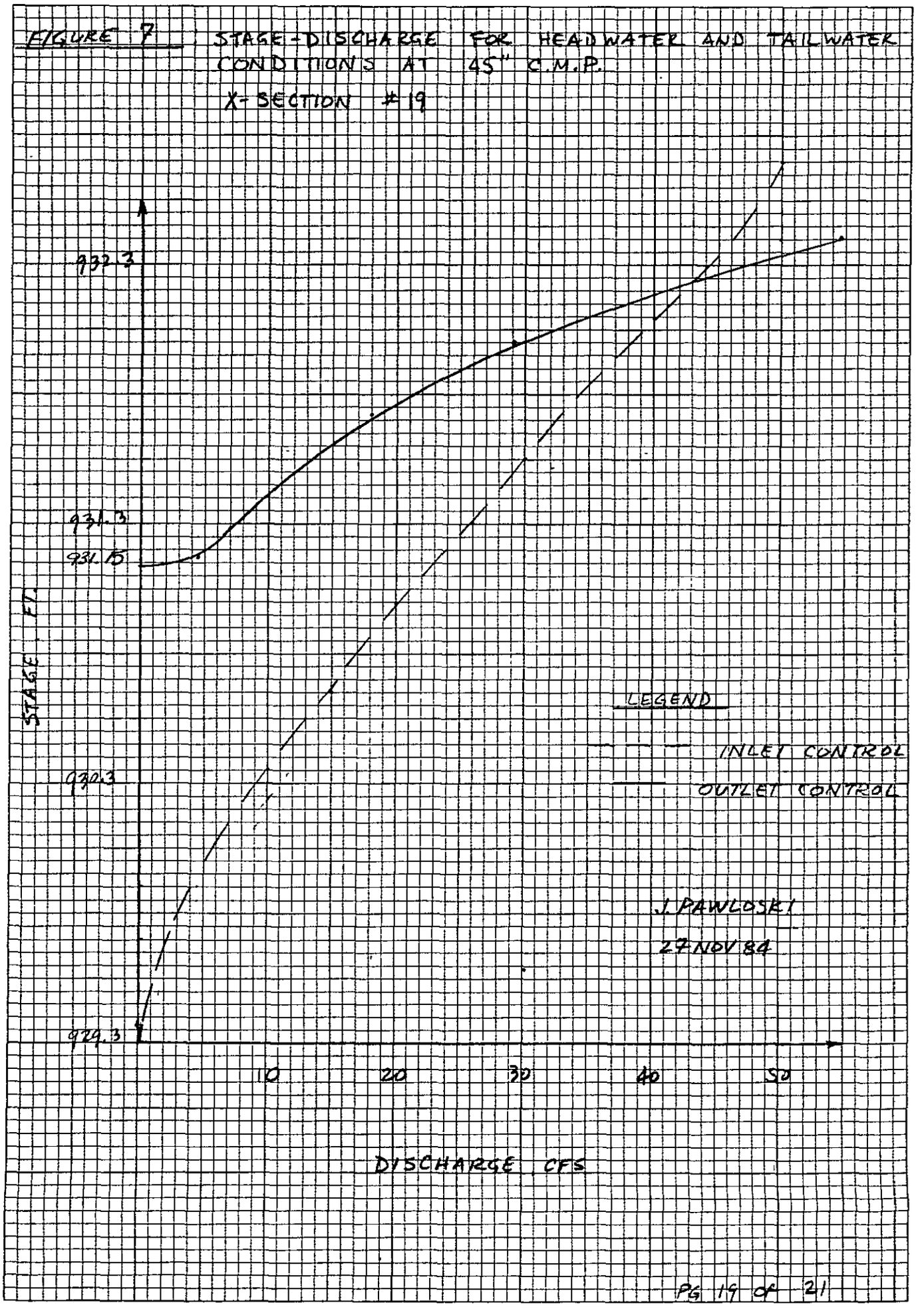
Q cfs ft^3/s	Slope ft/ft	Depth Downstream channel (ft)	CRITICAL DEPTH, PIPE (FT)	$\left(\frac{Y_c + D}{2}\right)^*$ (ft)	H (ft.)	HW (ft)	HW ELEV. (ft)
2.1	—	0.4	—	1.88	—	1.88	931.18
4.5	—	0.6	—	1.88	—	1.88	931.18
7.9	—	0.8	—	1.88	—	1.88	931.18
12.4	—	1.0	0.5	2.13	—	2.13	931.43
18.0	—	1.2	1.1	2.43	—	2.43	931.73
29.0	—	1.5	1.6	2.68	—	2.68	931.98
54.6	—	2.0	2.25	3.00	1.10	3.10	932.40
90.7	—	2.5	2.80	3.28	3.2	6.48	935.78
138.4	—	3.0	3.60	3.68	7.5	11.18	940.48

7.4 HADLEY RD. CULVERT "B" HYDRAULIC CONTROL CONCLUSIONS

BASED ON COMPARISON OF STAGE/DISCHARGE RELATIONSHIP AT CULVERT "A" (FIG. 5 pg 13) AND STAGE/DISCHARGE RELATIONSHIP AT CULVERT "B" (FIG 7, pg 19), IT IS OBSERVED THAT THE OUTLET CONTROL AT CULVERT "B" WILL NOT ADVERSELY IMPACT THE OUTFLOW FROM CULVERT "A".

FIGURE 7 STAGE-DISCHARGE FOR HEADWATER AND TAILWATER CONDITIONS AT 45" C.M.P.

X-SECTION #19



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CALCULATION SHEET

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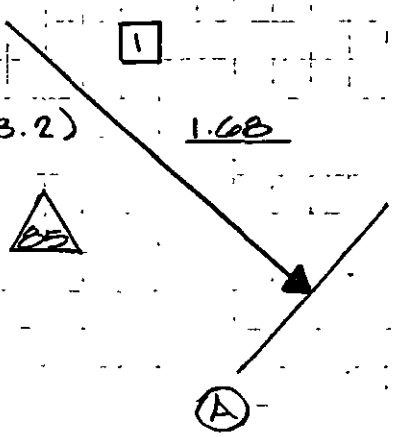
SUBJECT: NORTH LAKE HYDOLOGY DIVISION: H/H

ORIGINATOR: TAR DATE: 7/84 CHECKED BY: DJC DATE: 1/15/85

8.0 TR-20 MODEL DEVELOPMENT



LEGEND:

(N) = TIME OF CONCENTRATION, t_c, HR

N = DRAINAGE AREA, mi^2

[N] = SUB-AREA

△N = RUNOFF CURVE NUMBER

(N) = CROSS-SECTION NUMBER

N = REACH LENGTH

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SUBJECT: NORTH LAKE HYDROLOGY DIVISION: H/H

ORIGINATOR: THR DATE: 7/94 CHECKED BY: BSS DATE: 8/94

9.0 SUMMARY OF PEAK DISCHARGES

STORM, YR	Q_p CFS	ELEV, FT.
10	4.4	938.8
50	5.1	939.0
100	5.3	939.2
500	5.9	939.4

APPENDIX D

DEXTER TOWNSHIP FLOOD INSURANCE STUDY
HALFMOON LAKE COMPUTATIONS

APPENDIX D

sts

CALCULATION COVER SHEET

PROJECT DEXTER F.I.S. JOB NO 1053 DIVISION H/H

SUBJECT HALFMOON LAKE HYDROLOGY FILE NO.

CALC NO

ORIGINATOR TMR/BBS DATE 8/84

CHECKER [illegible] DATE 1/15/85 NO. OF SHEETS

RECORD OF ISSUES

NO	DESCRIPTION	BY	DATE	CHKD	DATE	APPRD.		
△								
△								
△								
△								
△								
△								

PRELIMINARY CALC ☐

SUPERSEDED CALC ☐ FINAL CALC. ☒

BRIEF SUMMARY OF CALCULATIONS INCLUDING SCOPE AND RESULTS

PEAK DISCHARGE AND LAKE CONTROL COMPUTATIONS

DESCRIPTION	PG.
1.0 : OBJECTIVE	1
2.0 : PEAK DISCHARGE ANALYSIS	1
2.1 : PORTAGE RIVER GAGE DATA	1
2.2 : X-SECTION & GAGE LOCATION MAP	2
2.3 : TRANSFER OF GAGE FLOWS	3
3.0 : HALFMOON LAKE CONTROL AT HELL DAM.	4
3.1 : OBJECTIVE	4
3.2 : COMPUTATION STEPS	4
3.3 : HELL DAM. X-SECTION	5
3.4 : DISCHARGE COEFFICIENT FOR WEIR EQ.	6

CALCULATION COVER SHEET

PROJECT DEXTER F.I.S. JOB NO. 1053 DIVISION H/H

SUBJECT HALFMOON LAKE HYDROLOGY FILE NO

CALC NO.

ORIGINATOR TMR/BBS DATE 8/94

CHECKER DJU DATE 1/15/95 NO OF SHEETS

RECORD OF ISSUES

NO	DESCRIPTION	BY	DATE	CHKD	DATE	APPRD		
1								
2								
3								
4								
5								
6								

PRELIMINARY CALC ☐

SUPERSEDED CALC ☐ FINAL CALC ☒

BRIEF SUMMARY OF CALCULATIONS INCLUDING SCOPE AND RESULTS

PEAK DISCHARGE AND LAKE CONTROL COMPUTATIONS: (CONT.)

DESCRIPTION PG.

3.0: HALFMOON LAKE CONTROL AT HELL DAM (CONT.):

3.5: MAX. DISCHARGE OVER HELL DAM 7

3.6: CONCLUSION 8

4.0 OUTLET STRUCTURE FROM HALFMOON LAKE. 9

4.1: ROUGHNESS COEFFICIENT FOR OUTLET STRUCTURE. 10

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PROJECT: DEXTER F.I.S. JOB NO.: 1053E PAGE: 1 OF: 10

SUBJECT: HALFMOON LAKE HYDROLOGY DIVISION: H/H

ORIGINATOR: TMR DATE: 8/84 CHECKED BY: WJW DATE: 1/15/85

1.0 OBJECTIVE

DEVELOP 10-, 50-, 100-, AND 500-YR PEAK DISCHARGES AND ELEVATIONS FOR HALFMOON LAKE, LOCATED AT THE NORTHWEST CORNER OF DEXTER TOWNSHIP AND THE NORTHEAST CORNER OF LYNDON TOWNSHIP.

2.0 PEAK DISCHARGE ANALYSIS

THE PEAK DISCHARGES ARE FOUND BY TRANSFERING PORTAGE RIVER GAGE FLOWS TO HALFMOON LAKE OUTLET AT GLENBROOK ROAD. THE FORMULA USED IS:

$$Q_d = Q_g (A_d/A_g)^{0.947}$$

REF.: MAGNITUDE AND FREQUENCY OF FLOOD FLOWS IN THE U.S. PART IV - ST. LAWRENCE RIVER BASIN, USGS WATER SUPPLY PAPER NO. 1677.

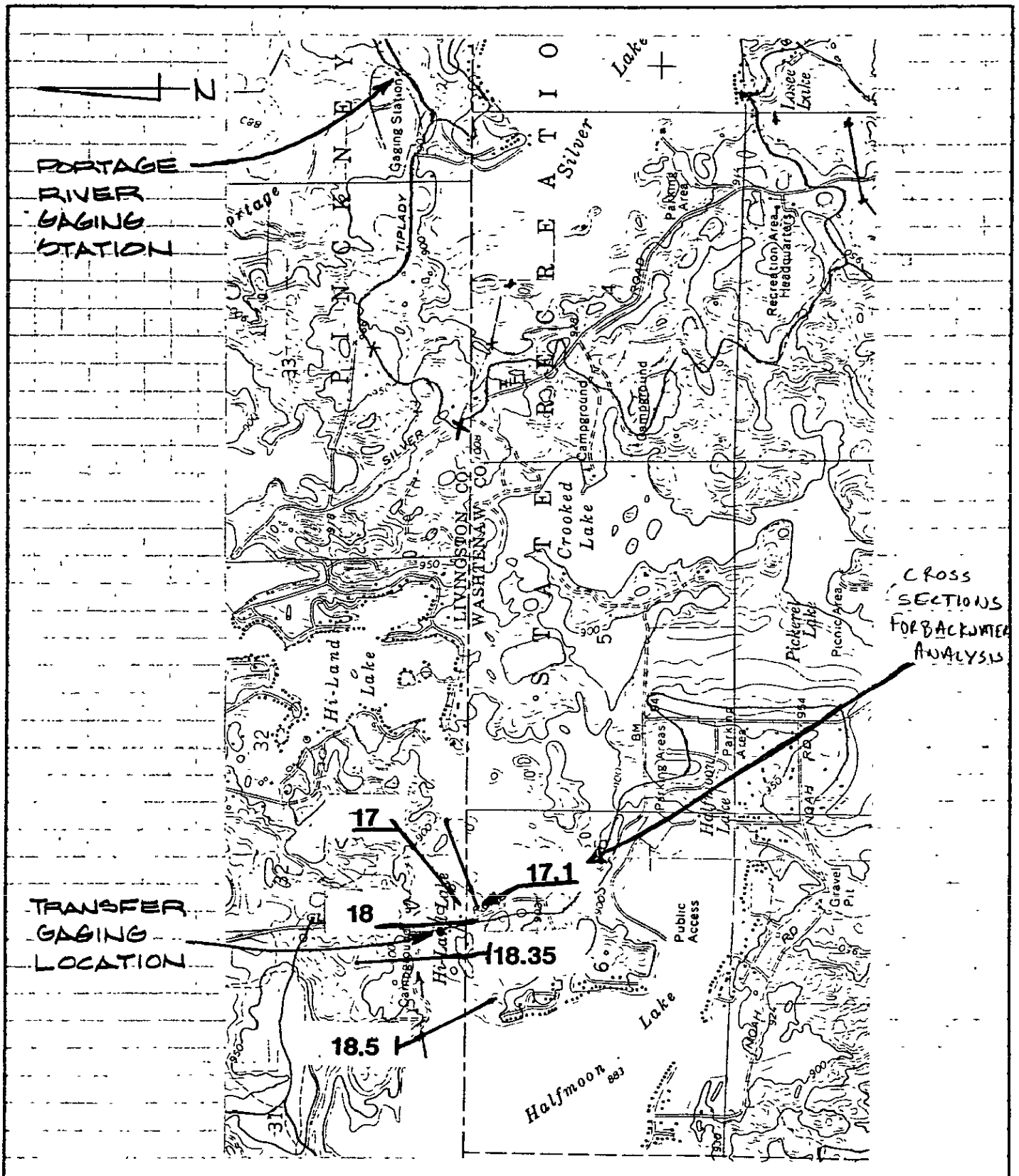
TRANSFER COEFFICIENT, 0.947, PROVIDED BY MICH. DNR.

2.1 GAGE DATA (PORTAGE RIVER)

FLOOD FLOWS FOR PORTAGE RIVER NEAR PICKNEY, MICH., GAGE # 04172500.

10-YR	310 CFS
50-YR	450 CFS
100-YR	500 CFS
500-YR	650 CFS

2.2 : X-SECTION & GAGE LOCATION MAP



STS Consultants Ltd. FIGURE SHEET	PROJECT: DEXTER F.I.S.			FIGURE NO.: 1
	TITLE: HALFMOON LAKE HYDROLOGY			JOB NO.: 1053E
	DATE: 8/84	DRAWN BY: THR	APPROVED BY: W.W.	SCALE: 1" = 2000'

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CALCULATION SHEET

PROJECT: DEXTER F.I.S. JOB NO.: 1053E PAGE: 3 OF: 10

SUBJECT: HALFMOON LAKE HYDROLOGY DIVISION: H/H

ORIGINATOR: THR DATE: 8/84 CHECKED BY: [illegible] DATE: 1/15/85

2.3 TRANSFER OF GAGE FLOWS.

$$Q_d = Q_g (A_d/A_g)^{0.947}$$

WHERE: Q_d = FLOW AT DESIGN POINT, CFS

Q_g = FLOW AT GAGE, CFS

A_d = DRAINAGE BASIN AREA AT DESIGN POINT, MI^2

A_g = DRAINAGE BASIN AREA AT GAGE, MI^2.

0.947 = TRANSFER COEFFICIENT (FROM U.S.G.S.)

FREQUENCY, YR	Q_g, CFS	A_g, MI^2	A_d, MI^2	Q_d, CFS
10	310	79.1	72.06	280
50	450	"	"	410
100	500	"	"	460
500	650	"	"	600

* A_d IS FOUND BY SUBTRACTING THE DRAINAGE AREA BETWEEN THE TRANSFER LOCATION AND THE GAGE LOCATION FROM THE TOTAL DRAINAGE AREA FOR THE GAGE.

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PROJECT: DEXTER F.I.S. JOB NO.: 1053E PAGE 4 OF: 10

SUBJECT: HALFMOON LAKE HYDROLOGY DIVISION: H/H

ORIGINATOR: BBS DATE: 8/24 CHECKED BY: [illegible] DATE: 1/15/95

3.0 DETERMINATION OF THE EFFECT OF HELL DAM (LOCATED AT HELL, MICHIGAN ON HIGHLAND LAKE) ON THE LAKE LEVEL OF HALFMOON LAKE.

3.1 OBJECTIVE:

TO DETERMINE IF THE HELL DAM ACTS AS A CONTROL ON HALFMOON LAKE. HALFMOON LAKE IS HYDRAULICALLY CONNECTED TO HIGHLAND LAKE WHICH OUTLETS AT THE HELL DAM.

3.2 COMPUTATION STEPS

THE FOLLOWING SEQUENCE OF COMPUTATION STEPS WERE PERFORMED IN THE DETERMINATION OF THE DISCHARGE WHICH OCCURS AT LEGAL LAKE LEVEL OVER THE HELL DAM.

a). DETERMINE TYPE OF WEIR APPROXIMATES DAM.

a). DETERMINE THE DISCHARGE COEFFICIENT FOR THE DAM.

b). FIND THE MAXIMUM DISCHARGE USING THE WEIR EQUATION.

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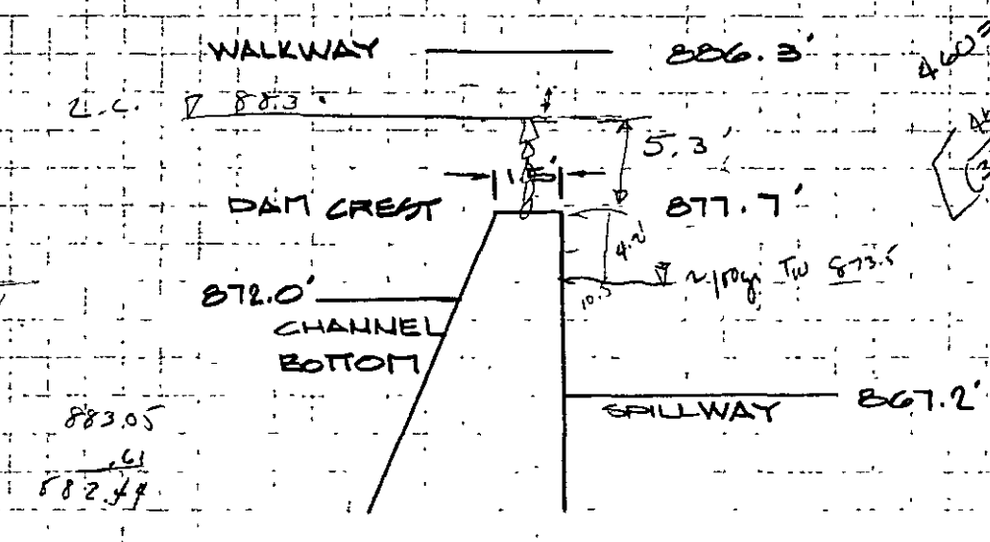
PROJECT: DEXTER F.I.S. JOB NO.: 1053E PAGE: 5 OF: 10

SUBJECT: HALEMOON LAKE HYDROLOGY DIVISION: H/H

ORIGINATOR: BBS DATE: 8/84 CHECKED BY: W.W DATE: 1/16/85

3.3 : HELL DAM X-SECTION



HELL DAM CROSS SECTION

REF.: HELL DAM CROSS SECTION DRAWING PROVIDED BY AYRES, LEWIS, NORRIS, & MAY, INC., ANN ARBOR, MI. 1/82 (AS BUILT).

DAM CAN BE APPROXIMATED BY A BROAD CRESTED WEIR.

* LENGTH OF DAM = 24 FT.

Lake Level Control is By Flashboards on Top of The Spillway.

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CALCULATION SHEET

PROJECT: DEXTER E.I.S. JOB NO.: 1053E PAGE: 6 OF: 10

SUBJECT: HALFMOON LAKE HYDROLOGY DIVISION: H/H

ORIGINATOR: BBS DATE: 8/04 CHECKED BY: WH DATE: 1/15/85

3.4 : DISCHARGE COEFFICIENT FOR THE WEIR EQUATION :

ASSUME DAM ACTS AS A BROAD CRESTED WEIR.

TABLE OF DISCHARGE COEFFICIENTS

REF. : BRATER, E. AND KING, H., HANDBOOK OF HYDRAULICS, McGRAW-HILL, 1963 PG. 5-40.

Table 5-3. Values of C in the Formula $Q = CLH^{3/2}$ for Broad-crested Weirs

Measured head in feet, H	Breadth of crest of weir in feet										
	0.50	0.75	1.00	1.50	2.00	2.50	3.00	4.00	5.00	10.00	15.00
0.2	2.80	2.75	2.69	2.62	2.54	2.48	2.44	2.38	2.34	2.49	2.68
0.4	2.92	2.80	2.72	2.64	2.61	2.60	2.58	2.54	2.50	2.56	2.70
0.6	3.08	2.89	2.75	2.64	2.61	2.60	2.68	2.69	2.70	2.70	2.70
0.8	3.30	3.04	2.85	2.68	2.60	2.60	2.67	2.68	2.68	2.69	2.64
1.0	3.32	3.14	2.98	2.75	2.66	2.64	2.65	2.67	2.68	2.68	2.63
1.2	3.32	3.20	3.08	2.86	2.70	2.65	2.64	2.67	2.66	2.69	2.64
1.4	3.32	3.26	3.20	2.92	2.77	2.68	2.64	2.65	2.65	2.67	2 64
1.6	3.32	3.29	3.28	3.07	2.89	2.75	2.68	2.66	2.65	2.64	2.63
1.8	3.32	3.32	3.31	3.07	2.88	2.74	2.68	2.66	2.65	2.64	2 63
2.0	3.32	3.31	3.30	3.03	2.85	2.76	2.72	2.68	2.65	2.64	2.63
2.5	3.32	3.32	3.31	3.28	3.07	2.89	2.81	2.72	2.67	2.64	2.63
3.0	3.32	3.32	3.32	3.32	3.20	3.05	2.92	2.73	2.66	2.64	2.63
3.5	3.32	3.32	3.32	3.32	3.32	3.19	2.97	2.76	2.68	2.64	2.63
4.0	3.32	3.32	3.32	3.32	3.32	3.32	3.07	2.79	2.70	2.64	2.63
4.5	3.32	3.32	3.32	3.32	3.32	3.32	3.32	2.88	2.74	2.64	2 63
5.0	3.32	3.32	3.32	3.32	3 32	3.32	3.32	3 07	2.79	2.64	2.63
5.5	3.32	3.32	3.32	3.32	3 32	3.32	3.32	3.32	2 88	2.64	2.63

USE $C = 3.32$ SINCE $H = 5.3'$ (SEE SEC. 3.5)

STS Consultants Ltd.
CALCULATION SHEET

PROJECT: DEXTER E.I.S. JOB NO: 1053E PAGE: 7 OF: 10

SUBJECT: HALFMOON LAKE HYDROLOGY DIVISION: H/H

ORIGINATOR: BPS DATE: 6/84 CHECKED BY: [illegible] DATE: 1/15/85

3.5 : MAXIMUM DISCHARGE OVER HELL DAM AT LEGAL LAKE LEVEL

SUMMER LEGAL LAKE LEVEL FOR HI-LAND LAKE = 883.0' .

* NOTE: HALFMOON LAKE IS HYDRAULICALLY CONNECTED TO HI-LAND LAKE.

REF. : HELL DAM X-SECTION DRAWING PROVIDED BY AYRES, LEWIS, NORRIS, & MAY, INC., ANN ARBOR, MI. JAN., 1982 (AS BUILT).

FOR A BROAD CRESTED WEIR, THE DISCHARGE IS GIVEN BY :

$$Q = CH^{3/2}L$$

WHERE : C = DISCHARGE COEFFICIENT

H = HEIGHT OF WATER ABOVE DAM CREST, FT.

L = LENGTH OF DAM, FT. (24 FT.)

REF. : BRATER, E. AND KING, H., HANDBOOK OF HYDRAULICS, MCGRAW-HILL, 1963., PG. 5-23.

AT LEGAL LAKE LEVEL, $H = 883.0 - 877.7$

$= 5.3'$

$\therefore Q = 3.32(5.3)^{3/2}\,24 = 972$ CFS.

STS Consultants Ltd.
CALCULATION SHEET

PROJECT: DEXTER E.I.S. JOB NO.: 1053E PAGE: 8 OF: 10

SUBJECT: HALFMOON LAKE HYDROLOGY DIVISION: H/H

ORIGINATOR: BBS DATE: 8/84 CHECKED BY: D.W DATE: 1/15/85

3.6 CONCLUSION

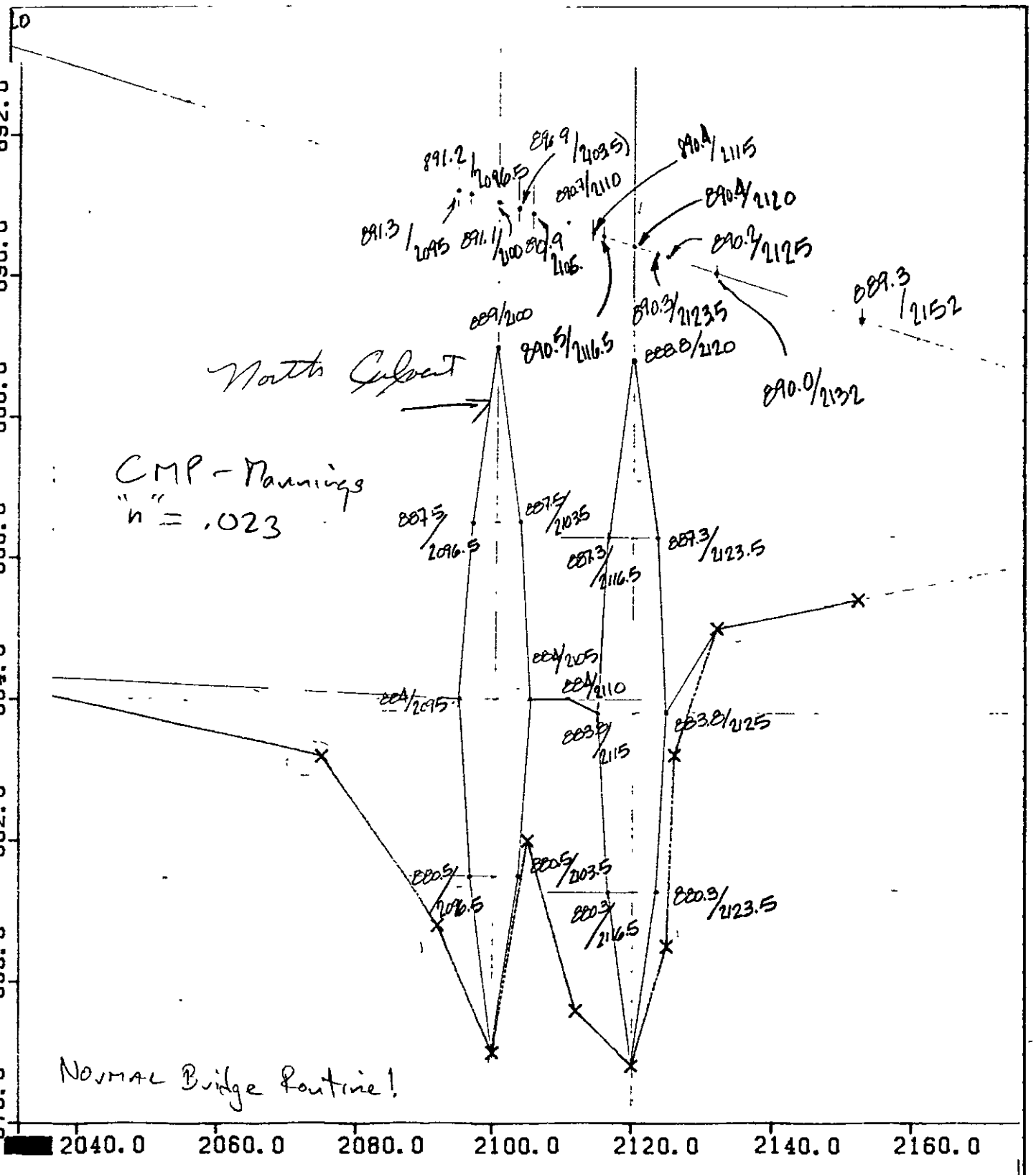
at HELL DAM

THE PEAK DISCHARGE FOR THE 500-YR FLOOD IS ESTIMATED TO BE 600 CFS. THE MAXIMUM DISCHARGE OVER THE HELL DAM AT LEGAL LAKE LEVEL WAS DETERMINED TO BE 972 CFS WHICH IS GREATER THAN THE 500 YEAR DISCHARGE.

THUS, THE LEGAL LAKE LEVEL OF HIGHLAND LAKE IS NOT EXPECTED TO BE EXCEEDED.

USE THE HIGHLAND LAKE LEGAL LEVEL OF 883.0 AS THE STARTING WATER SURFACE FOR HYDRAULIC CALCULATIONS AT HALFMOON LAKE.

4.0 : OUTLET STRUCTURE FROM HALFMOON LAKE



STS Consultants Ltd. FIGURE SHEET	PROJECT: DEXTER TWP. F.I.S.			FIGURE NO.
	TITLE: HALFMOON LAKE HYDRAULICS			JOB NO.: 1053
	DATE: 8/84	DRAWN BY: TMR	APPROVED BY: D.W. 1/15/85	SCALE

STS Consultants Ltd.
CALCULATION SHEET

PROJECT: DEXTER F.I.S. JOB NO.: 1053E PAGE: 10 OF: 10

SUBJECT: HALFMOON LAKE HYDRAULICS DIVISION: H/H

ORIGINATOR: TJR DATE: 2/84 CHECKED BY: [illegible] DATE: 1/16/85

4.1 ROUGHNESS COEFFICIENTS FOR THE HALFMOON LAKE OUTLET STRUCTURE.

THE ROUGHNESS COEFFICIENT USED IN THE HEC-II COMPUTER MODEL OF THE TRIBUTARY BETWEEN HALFMOON LAKE AND HI-LAND LAKE FOR THE 10 FT. DIA. ARCH CULVERTS WAS 0.023. THIS WAS ESTIMATED FROM A FIELD INSPECTION OF THE STRUCTURE.

REF: CHOW, V.T., OPEN CHANNEL HYDRAULICS, McGRAW-HILL, NEW YORK, 1959.

APPENDIX E

DEXTER TOWNSHIP FLOOD INSURANCE STUDY
FLOOD BOUNDARY AND FLOODWAY MAPS

APPENDIX F

DEXTER TOWNSHIP FLOOD INSURANCE STUDY
TR-20 AND HEC-2 COMPUTER OUTPUT

Client

FEDERAL EMERGENCY MANAGEMENT AGENCY
REGION V
300 SOUTH WACKER DRIVE
24th FLOOR
CHICAGO, IL 60606

Project

DEXTER TOWNSHIP FLOOD INSURANCE STUDY
HYDROLOGIC AND HYDRAULIC ANALYSIS REPORT OF PORTAGE LAKE AND THE HURON RIVER

STS JOB NO. 1053F

JUNE 21, 1984

STS Consultants Ltd.
3340 Ranger Road
Lansing, MI 48906

RECEIVED
JUN 26 1984
WATER MANAGEMENT

STS Consultants Ltd.
3340 Ranger Road
Lansing, Michigan 48906
(517) 321-4964

About normal Level
8

June 21, 1984

Mr. Steve Miller
Michigan Department of Natural Resources
Water Management Division
P.O. Box 30028
Lansing, Michigan 48909

RE: Dexter Township Flood Insurance Study
Hydrologic and Hydraulic Analysis of Huron River

Dear Mr. Miller:

Enclosed is the hydrologic and hydraulic analysis report for Portage Lake and the Huron River in Dexter Township. Dexter is located in the northwest corner of Washtenaw County, Michigan. This report is in partial fulfillment of the Dexter Township Flood Insurance Study (FIS) which is being developed by STS Consultants, Ltd. under contract with the Federal Emergency Management Agency (FEMA).

The objective of this report is to summarize the technical analyses which were performed to develop flood plain elevations and limits for Portage Lake and the Huron River. Floods which were investigated include the 10-, 50-, 100- and 500-year frequency events.

Your review of this report is requested. As you may be aware, the results of this report will impact the Hamburg Township FIS which is currently under appeal. Upon receipt of approval of this report from your office, STS will forward the report to FEMA so that the appeals process in Hamburg may proceed. If you anticipate an extensive review period, please let us know so we may make appropriate adjustments in our schedule. In the meantime, if you have any questions regarding the report, please feel free to call at (517) 321-4964.

Sincerely,

STS CONSULTANTS, LTD

Bernard B. Sheff, E.I.T.
Assistant Project Engineer

William J. Weaver, P.E.
Project Manager

Enclosure

cc: Norb Schwartz, Federal Emergency Management Agency w/enclosure

STS Job No. 1053F

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Appendix E - Hand Calculations Through Flook Dam

Appendix F - Survey Data for Bridges

Appendix G - HEC-2 Computer Printout (under separate cover)

1.0 INTRODUCTION

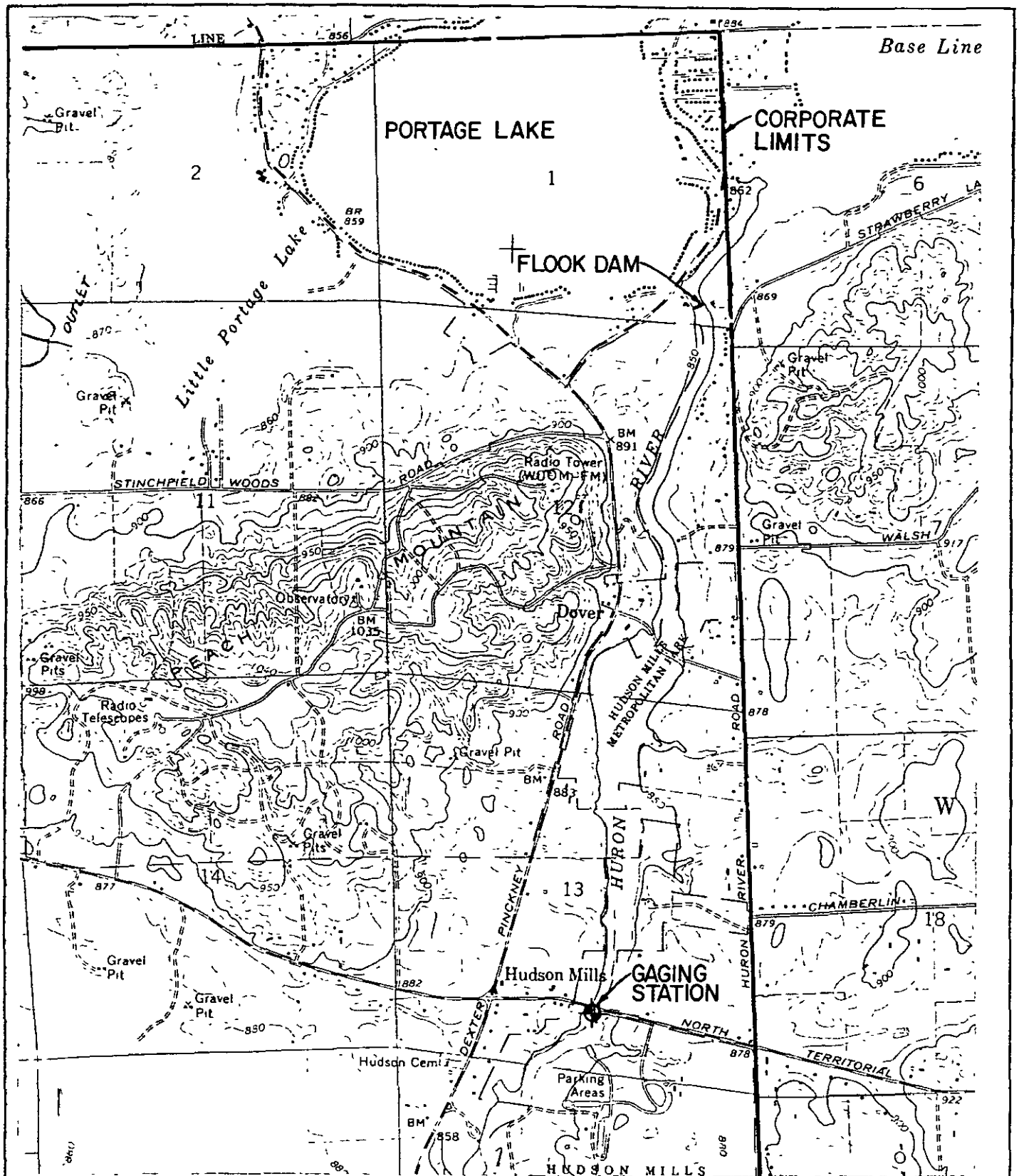
This hydrologic and hydraulic analysis report has been developed as part of the Dexter Township Flood Insurance Study (FIS) which STS Consultants, Ltd. is performing under contract with the Federal Emergency Management Agency (FEMA). The objective of this study is to develop flood plain limits and elevations for the Huron River and Portage Lake, define floodway areas which are sensitive to development, and estimate the relative risk of flooding. The purpose of this report is to summarize the technical analyses which were performed in the development of flood flows, elevations and delineations.

The scope of this study includes the analysis of the 10-, 50-, 100-, and 500-year frequency flood events for the following:

a. Huron River beginning at North Territorial Road and ending at Flook Dam, a total distance of approximately 2 miles.

b. Portage Lake.

A vicinity map showing the areas being studied is presented in Figure 1. The watershed above North Territorial Road is 522 square miles which includes parts of Washtenaw, Livingston and Oakland counties. The section of river being studied is bordered on part of its length by the Huron Mills Metropolitan Park. Land use is both recreational and residential. The soil classification in the watershed is mostly glacial till with many small lakes and ponds.



STS Consultants Ltd. FIGURE SHEET	PROJECT: DEXTER FLOOD INSURANCE STUDY			FIGURE NO: 1
	TITLE: HURON RIVER SITE LOCATION			JOB NO.: 1053–F
	DATE: 6–19–84	DRAWN BY: CJD	APPROVED BY: WJW	SCALE: 1''=2000'

2.0 HYDROLOGIC ANALYSIS

Hydrologic analyses for the Huron River and Portage Lake were based upon a statistical analysis of stream flow records at a gage on the Huron River. This gage (USGS No. 04173000, Reference 1) is located at the downstream side of the North Territorial Road bridge which is approximately two miles downstream from Portage Lake, and 4 miles upstream from the City of Dexter. This is also the location of the downstream detailed study limit for the Dexter FIS. The drainage area at this point is 522 square miles.

A Log-Pierson Type III analysis was performed with the historic stream flow records by the U.S. Geological Survey to develop 10-, 50-, 100-, and 500-year flow rates. The U.S. Geological Survey established the elevation-discharge relationships for the gage site. Documentation for this gage data is presented in Appendix D. The period of record at this gage was from March 1946 to September 1976 or a total of 30 years. The average discharge has been 352 cfs over the period of record and the maximum discharge has been 3120 cfs which occurred on April 9, 1947.

Table 1 presents a summary of discharges at the gage site. These flood discharges are consistent with values which were utilized in the Hamburg FIS for starting conditions at the Huron River.

TABLE 1

DEXTER TOWNSHIP FLOOD INSURANCE STUDY

HYDROLOGIC ANALYSIS SUMMARY

Recurrence Interval (Year)	Discharge (cfs)	Water Surface Elevation (Ft)
10	2130	843.5
50	3015	844.8
100	3410	845.4
500	4360	846.7

The drainage area of the Huron River at the Portage Lake control structure (Flook Dam) is 519 square miles. Therefore, the incremental contributory area between the dam and the North Territorial Road bridge is only three square miles. Flood flows developed at the gage site will be utilized for the hydraulic analysis of the entire reach of the Huron River under study including the Portage Lake outlet structure.

3.0 HYDRAULIC ANALYSIS

3.1 General

Hydraulic analyses of the Huron River and Portage Lake were performed to develop 10-, 50-, 100-, and 500-year flood elevations and delineations. In addition, a floodway was developed to identify areas of the flood plain which are sensitive to development. Finally, flood hazard analyses were performed to determine relative degree of risk at different locations along the river and lake systems which are under study. The portion of the Huron River being studied by detailed methods begins approximately 100 feet downstream of North Territorial Road and ends at Flook Dam as illustrated on Figure 1. Flook Dam is the control structure for Portage Lake, Little Portage Lake, and Baseline Lake.

3.2 Methodology

3.2.1 General

For the Huron River, the Army Corps of Engineers HEC-2 computer model (Reference 2) was utilized to simulate the 10-, 50-, 100-, and 500-year floods and to estimate water surface elevations for the areas being studied by detailed methods. This program calculates water surface profiles for steady gradually varied flow in

natural or manmade channels based upon the solution of the one-dimensional energy equation. Energy losses due to friction are evaluated using Manning's equation. The program has the capability to assess the impacts of various obstructions to flow including bridges, culverts, and weirs. The computational procedure utilized by the program is generally known as the standard step method. Parameters which were input to the HEC-2 computer model included stream, bridge, and dam cross section dimensions and elevations, roughness coefficients associated with stream bed and overbank areas, expansion and contraction loss coefficients, and the distance between cross sections and structures.

For Portage Lake, calculations were performed to establish lake levels during flood events. This included both, hand calculations using weir equations, and backwater analysis with the HEC-2 computer model.

3.2.2 Huron River

Starting conditions for the backwater analysis of the Huron River were established based upon elevations at the stream gage located downstream of North Territorial Road. Details for this gage are presented in Section 2.0 of this report.

Stream and bridge cross section data were obtained as follows:

1. A land survey was performed in January, 1984 by STS to obtain below water channel elevations and detailed dimensions and elevations of all river crossings.

2. An aerial survey was performed in May, 1983 to obtain elevations in overbank areas (Reference 3). Results of both surveys were spliced to form composite river valley cross sections. Plots of each cross section are presented in Appendix C. Table 2 presents a cross reference between cross section designations for the HEC-2 model, the land survey, and mapping in the FIS. Cross section locations are illustrated on Plate 1.

Distances between cross sections and structures for both the channel and overbank areas were obtained from the work map which was generated from the aerial survey. The Flook Dam as-built construction plans (Reference 4) were utilized to develop cross section 10. The elevation datum listed on these plans was adjusted -0.3 feet to calibrate the elevations with U.S.G.S. datum in accordance with a benchmark loop performed by STS survey crew. Both the North Territorial Road and Bell Road bridges were modeled with the HEC-2 Normal Bridge Routine.

TABLE 2

DEXTER TOWNSHIP FLOOD INSURANCE STUDY

CROSS SECTION - CROSS REFERENCE TABLE

HEC-2 Designation	Survey Cross Section	Map Designation
1.0	1.0	A
2.1	-	B
2.4	2.0	C
2.5	-	D
3.0	3.0	E
4.0	4.0	F
5.0	5.0	G
6.1	-	H
6.2	-	I
6.36	6.0	J
6.4	-	K
7.0	7.0	L
8.0	8.0	M
9.0	9.0	N
10.0	-	O
10.5	-	P

Manning's roughness coefficients (Reference 5) utilized in the computer model were as follows: 0.035 for the stream channel, ranged from 0.04 to 0.1 in the stream overbank areas. Contraction and expansion coefficients (Reference 1) were established as .1 and .3 for smooth transitions and .3 and .5 for abrupt transitions, respectively.

3.2.3 Flook Dam

The Flook Dam operates under a low head and controls the levels of Portage, Baseline and Little Portage Lakes. The legally established lake level (Reference 6) for this dam is 851.54. Control of the lake level is currently a manual operation by a dam operator who lives nearby. There is an alarm at the dam which notifies the operator of high water. The outlet structure consists of a set of tainter gates which are utilized during the warm weather months. In the winter months, wood flash boards are utilized to control the lake level. Portage Lake has a total water surface area of 644 acres and a maximum depth of 85 feet. The maximum stage of record for this lake is 855.4; however, this level occurred in 1947 which was prior to the removal of the original dam and replacement with the Flook Dam in 1967.

Following is the operational procedure for the dam which was developed based upon a conversation with the dam operator, Mr. Bob Burns, and the operation and maintenance manual for the dam (Reference 5):

The Washtenaw County Drain Commissioner's office has an agreement with Mr. Robert Burns of 8930 Riverview Road to operate and maintain the Portage Lake Dam on a daily basis. Mr. Burns' residence is located near the dam which allows for efficient implementation of operational policies. There is a published document which Mr. Burns follows closely for the operation and maintenance of the dam. This document is on file with the Washtenaw County Drain Commissioner and is entitled: "Portage/Base Lake Dam Operation and Maintenance Procedures," dated August 9, 1977. Following is a summary of the operational procedure for the dam:

a. The major objective of the operational procedures for the Portage Lake Dam is to maintain the legally established lake level of 851.54. However, during major flood events, the level of Portage Lake could exceed the legal lake level. This would be due to a

lag in time between the inception of the flood and the implementation of the operational procedures which would result in a greater outlet capacity and lower lake levels. If the operational procedures are followed properly, it is estimated that the legal lake level should not be exceeded by more than 0.5 feet due to the procedural time lag.

b. Portage Lake should not exceed an elevation of 852.0 until such a time when the maximum capacity of the outlet structure below this elevation is exceeded. The maximum capacity of the dam occurs with all the gates in the fully open position and all stop logs removed. Backwater effects from the Huron River, which may create a tailwater restriction on the capacity of the dam, should be taken into consideration.

c. Mr. Burns indicated that he removes stop logs or raises the gates to maintain the legal lake level. If required during a major flood, he would conceivably remove all stop logs or raise all gates to their maximum level to establish a minimum dam crest elevation of 846.2.

During major flood events, the Flook Dam weir becomes submerged from the downstream side; therefore, tailwater conditions have a major impact upon the hydraulics of this structure. In fact, during the 10-, 50-, 100-, and 500-year flood events, it is estimated that the elevations upstream of the dam would be entirely controlled by the elevation of the Huron River. Hydraulic computations which were performed to identify this phenomena were as follows:

a. Traditional weir flow computations were performed for the dam. The coefficient for the weir flow equation varied with head and degree of tailwater submergence.

b. A backwater analysis was performed for the structure with the HEC-2 computer model. The normal bridge routine was utilized.

To develop the cross section data needed for the computations above, the Flook Dam as-built construction plans (Reference 3) were utilized. The elevation datum listed on these plans was adjusted -0.3 feet to calibrate the plan elevations with a benchmark loop performed by the STS survey crew. Furthermore, the lock for boats is currently not operable and was not considered an effect in flow area.

The weir flow computations assumed that all stop logs were removed in accordance with the operational procedure. The weir was best approximated by a broad crested weir (Reference 7). Tailwater submergence computations were also performed (Reference 8) to incorporate the impacts of backwater from the Huron River. Computation sheets for this calculation are presented in Appendix E.

A comparison of the results of these two methodologies indicates that the backwater analysis, which accounts for friction, expansion and contraction losses, would cause a higher flood level upstream than the weir flow calculation. Therefore, the results of the backwater analyses were utilized to establish flood levels for Portage Lake. HEC-2 computer input and output data for this computation are included in Appendix G.

3.2.4 Floodway Development

The floodway for the Dexter Township FIS was developed using the HEC-2 model. Stream encroachment method number four was utilized for this analysis. This modeling option utilizes the equal conveyance reduction method to compute the floodway limits. As required by the Michigan Department of Natural Resources, an allowable rise in flood stage of 0.1 feet after encroachment was utilized.

Plate 1, presented in Appendix A, illustrates the resultant floodway limits for the Huron River.

3.3 Hydraulic Analysis Results

Results of the hydraulic analysis include an estimation of 10-, 50-, 100- and 500-year flood elevations for the Huron River and Portage Lake. In addition, the limits of the 100- and 500-year flood plain were assessed. Finally, floodway limits were established to estimate the area of the 100-year flood plain which should be reserved as open space to maintain existing flood surveying capacities of the river without adversely impacting flood elevations. Table No. 3 presents a summary of 10-, 50-, 100- and 500-year flood elevations at selected locations along the detailed study reach. Flood profiles which illustrate estimated flood elevations at all locations along the study reach are presented in Appendix B. Plate No. 1 which illustrates the limits of the floodway, and 100- and 500-year flood plains is presented in Appendix A.

TABLE 3

DEXTER TOWNSHIP FLOOD INSURANCE STUDY

HYDROLOGIC/HYDRAULIC ANALYSIS SUMMARY

Cross Section Designation	Location	Flood Elevation (ft) 10-Year	50-Year	100-Year	500-Year
DISCHARGE (cfs)		2130	3015	3140 3410	4360
A	100' D/S North Territorial Rd.	843.5	844.8	845.4	846.7
B	D/S Face North Territorial Rd. Bridge	843.5	844.8	845.4	846.6
C	U/S Face North Territorial Rd. Bridge	843.6	844.8	845.4	846.7
E	1510' U/S of North Territorial Rd.	844.3	845.6	846.2	847.5
G	4505.0' U/S of North Territorial Rd.	845.4	846.6	847.1	848.3
J	U/S Face Bell Rd. Bridge	847.0	848.0	848.4	849.3
L	1500' U/S of Bell Rd.	848.8	850.1	850.6	851.5
O	D/S Face of Flook Dam	850.4	851.8	852.3	853.3
P	Portage Lake at Flook Dam	*851.5 →852.3	852.0	852.5	853.6

*Legal Lake Level

STS Consultants, Ltd.

4.0 SUMMARY

Hydrologic and hydraulic studies were performed to develop flood flows, elevations and delineations for the Huron River and Portage Lake for the Dexter Township FIS. The area of detailed study, shown on Figure 1, begins at North Territorial Road and ends in Portage Lake above Flook Dam. This study was undertaken in four sections which follow:

A. Data Reconnaissance and Field Survey.

B. Evaluation of Hydrologic Conditions.

C. Computer Aided Hydraulic Analyses

D. Presentation of Results.

An overview of these points is presented in the succeeding paragraphs.

A land survey was performed by STS survey crews. This survey determined underwater topography and bridge configurations. An aerial survey was performed by Abrams Aerial Survey Corporation of Lansing, Michigan. U.S. Geological Survey maps of the area of interest were also secured. Using this data, detailed river valley cross sections were derived for use in the analysis.

The hydrologic analysis entailed the determination of flow rates. A stream flow gage at North Territorial Road (No. 04173000) was evaluated and proved to provide valuable information to the study. The 27 years of record at the gage were statistically analyzed to estimate flow rates with return intervals of 10-, 50-, 100- and 500-years. Since the incremental area between the gage and Portage Lake was small compared to the total watershed area, no area adjustment was made and the flows determined at the gage site were applied to the entire study reach.

The hydraulic study was performed using HEC-2, a computer model used to estimate water surface profiles. Using the cross section data, a geometric model of the river was developed. A discharge rating curve at the stream gage was used for starting water surface elevations in the simulation of flood conditions. The bridges were modeled using the normal bridge routines in the HEC-2 program. River channel and overbank characteristics were estimated and the starting conditions were applied. Traditional weir calculations were used through the Flook Dam to estimate the elevation in Portage Lake during the flood events of interest. The HEC-2 model was also used at the dam to take into account the effects of friction, contraction and expansion losses.

Table 3 presents a hydrologic/hydraulic analysis summary including estimated flows and elevations at selected locations for the 10-, 50-, 100- and 500-year flood events.

The flood plain delineation map was developed using the results of the backwater analyses, as illustrated on Plate 1. This map, presented in Appendix A, shows the estimated boundaries of the 100- and 500-year floods, and the floodway. The floodway was determined using the Method 4 encroachment option of the HEC-2 model. At locations where the 500-year and 100-year boundaries coincide, only the 100-year boundary is shown. Furthermore, only the floodway line is shown when the delineation coincides with those of the 100- and 500-year boundaries. Water surface profiles which illustrate the estimated elevations of the 10-, 50-, 100- and 500-year flood events for the Huron River are presented in Appendix B. Documentation for the USGS stream gage at North Territorial Road is presented in Appendix D. Plots of cross sections which were used for the backwater analysis are enclosed in Appendix C. Bridge and dam survey notes are presented in Appendix F. Hydraulic calculations for Flook Dam are enclosed in Appendix E. Finally, all HEC-2 computer outputs for encroachment analyses, multiple flood profile development and the backwater analysis for Flook Dam are presented in Appendix G under separate cover.

REFERENCES

1. U.S. Department of the Interior, Geological Survey, Water Resources Data for Michigan, Water Year 1976, Gage No. 04173000.

2. U.S. Army Corps of Engineers, Hydrologic Engineering Center, Computer Program 723-X6-L202A, HEC-2 Water Surface Profiles; Davis, California, September 1982.

3. Abrams Aerial Survey Corporation, Aerial Topographic Map of Portage Lake, 2' Contour Interval, Scale 1:4800, Photography May 1983.

4. Washtenaw and Livingston County Drain Commissioners, Plans of Portage and Baseline Lakes Level Control, Prepared by Ayres, Lewis, Norris & May, As-built January 1967.

5. Chow, Ven Te, Open - Channel Hydraulics, McGraw-Hill, New York, 1959.

6. Washtenaw County Drain Commissioners, Operating Procedure for Portage Lake Dam, Obtained from Drain Commissioner's Office on September 1983, August 1977.

7. Bratey E. F., King, H.W., Handbook of Hydraulics, McGraw-Hill, New York, 1976.

8. U.S. Department of the Interior, Bureau of Reclamation, Design of Small Dams, U.S. Government Printing Office, Washington, 1977.

9. U.S. Geological Survey, 7.5 Minute Series Topographic Maps; Scale 1:24000, Contour Interval 10 feet: Pinckney Quadrangle, Michigan, (Photorevised) 1975.

APPENDIX A

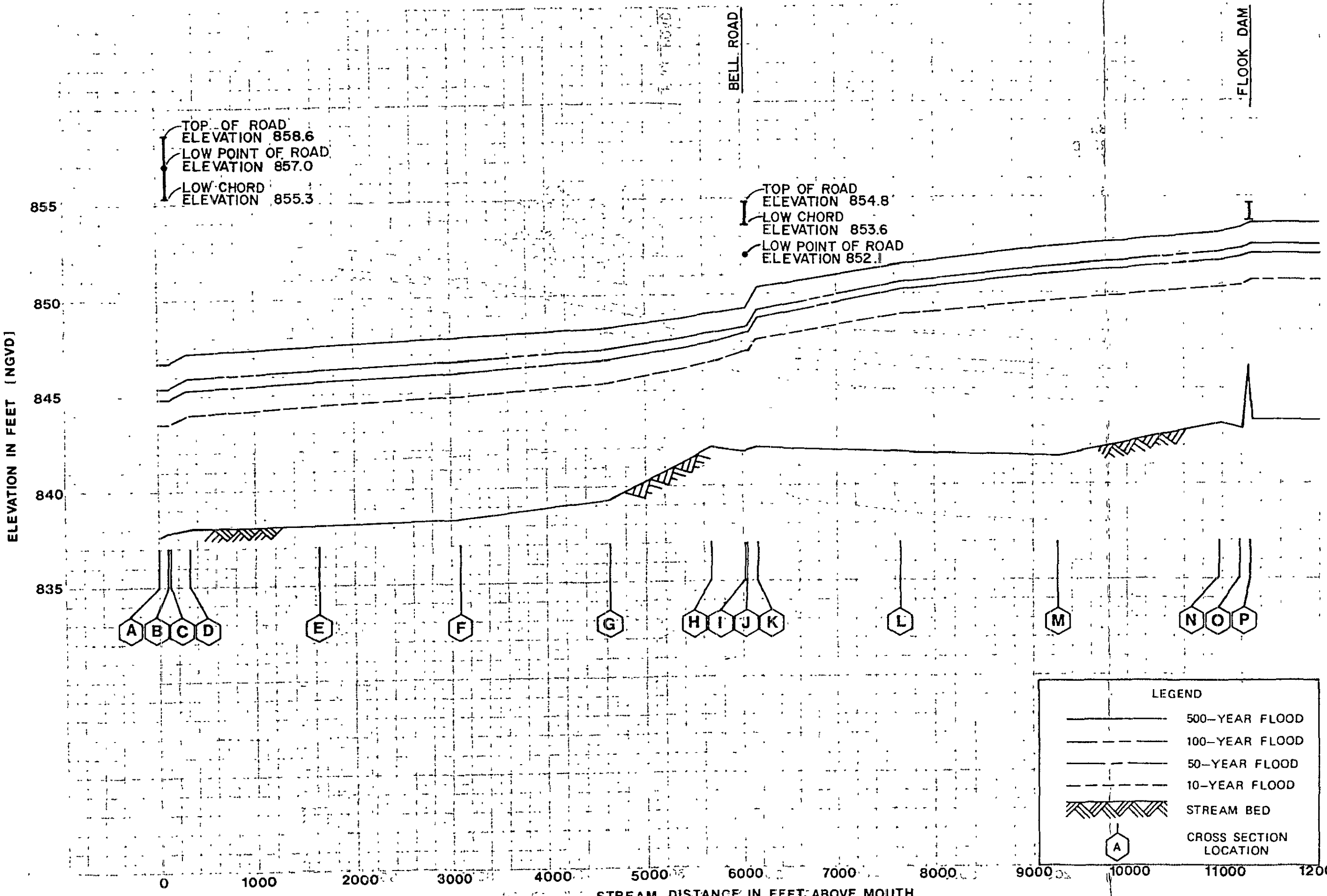
HURON RIVER FLOOD PLAIN MAP

DEXTER TOWNSHIP FLOOD INSURANCE STUDY

APPENDIX B

WATER SURFACE PROFILES

DEXTER TOWNSHIP FLOOD INSURANCE STUDY



HURON RIVER

FLOOD PROFILES

FEDERAL EMERGENCY MANAGEMENT AGENCY
Federal Insurance Administration

TOWNSHIP OF DEXTER, MI.
WASHTENAW, CO.

BTS Consultants Ltd.

PLATE 2

APPENDIX C

CROSS SECTION PLOTS

DEXTER TOWNSHIP FLOOD INSURANCE STUDY

APPENDIX D

STREAM GAGE DOCUMENTATION

DEXTER TOWNSHIP FLOOD INSURANCE STUDY

APPENDIX D

OUTLINE

		Page
A.	Water Discharge Record	1
B.	Annual Peak Flow Frequency Analysis	2
C.	Rating Curve	6

04173000 HURON RIVER NEAR DEXTER, MI

LOCATION.--Lat 42°23'10", long 83°54'40", in SW sec.13, T.1 S., R.4 E., Washtenaw County, Hydrologic Unit 04090005, on right bank 20 ft (6 m) downstream from bridge on North Territorial Road, 0.5 mi (0.8 km) east of Hudson Mills, 2.0 mi (3.2 km) downstream from Portage Lake Outlet and 4.0 mi (6.4 km) north of Dexter.

DRAINAGE AREA.--522 mi^2 (1,352 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August to December 1904 (gage heights only), March 1946 to September 1972, Water years 1973-75 (annual maximum only), October 1975 to September 1976. Published as "at Dover" 1904.

REVISED RECORDS.--WSP 2112: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 837.11 ft (255.151 m) above mean sea level (levels by Michigan Department of Natural Resources). August to December 1904, nonrecording gage at site 1.0 mi (1.6 km) upstream at different datum. Mar. 5, 1946, to July 30, 1953, nonrecording gage at present site and datum. October 1, 1972, to September 30, 1975, crest-stage gage at same site and datum.

REMARKS.--Water-discharge record fair. No gage-height record Dec. 10 to Jan. 21, Feb. 15 to Mar. 21. Occasional regulation by lake level control operations above station.

AVERAGE DISCHARGE.--27 years, (water years 1947-72, 1976) 352 ft^3/s (9.969 m^3/s), 9.16 in/yr (233 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,120 ft^3/s (88.4 m^3/s) Apr. 9, 1947, gage height, 8.17 ft (2.490 m), from graph based on gage readings; minimum, 33 ft^3/s (0.93 m^3/s) Apr. 12, 1972, gage height, 2.05 ft (0.625 m).

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 2,500 ft^3/s (70.8 m^3/s) Mar. 5; minimum, 47 ft^3/s (1.33 m^3/s) Oct. 8, gage height, 2.33 ft (0.710 m); minimum daily, 98 ft^3/s (2.78 m^3/s) Sept. 4-8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	480	241	506	490	340	1300	859	882	511	512	138	109
2	326	234	500	490	340	1600	891	939	529	373	136	106
3	321	251	555	490	330	2200	796	811	374	474	132	100
4	338	281	633	450	330	2300	786	732	325	410	129	98
5	262	368	645	400	330	2500	712	816	381	415	126	98
6	342	455	621	400	330	2300	817	965	421	407	125	98
7	455	386	591	400	330	2200	821	710	228	332	121	98
8	189	382	567	360	330	2000	588	1130	230	321	117	98
9	195	373	567	391	347	1900	699	1260	315	278	115	105
10	186	435	560	386	410	1800	676	1200	270	307	117	118
11	368	470	560	380	475	1600	769	1010	233	328	116	115
12	351	460	560	380	425	1500	447	1110	215	256	118	113
13	269	400	560	380	430	1400	451	1130	228	218	136	114
14	301	511	700	380	440	1300	716	935	218	228	163	115
15	301	455	800	380	700	1200	564	1010	188	181	166	119
16	237	405	780	380	1200	1100	573	790	263	171	168	126
17	203	386	760	380	1600	1100	527	906	186	156	169	130
18	360	382	740	370	1700	1100	619	918	167	157	170	131
19	203	378	720	370	1900	1100	565	799	401	159	167	130
20	115	382	700	370	1600	1000	518	748	182	161	163	134
21	186	396	680	360	1900	1000	596	660	174	171	157	132
22	342	435	640	360	2300	997	492	731	262	165	153	130
23	248	430	580	350	2100	992	491	679	270	165	159	130
24	192	386	500	351	1900	984	829	610	428	163	154	125
25	506	364	530	338	1800	937	751	560	332	156	152	124
26	347	347	560	334	1700	907	802	515	293	149	150	207
27	223	373	540	330	1600	946	870	515	335	147	153	210
28	277	391	520	330	1500	945	861	440	323	197	151	107
29	355	460	470	347	1400	945	872	469	312	264	145	129
30	342	522	490	340	---	945	909	480	534	122	123	144
31	273	---	490	340	---	814	---	478	---	136	112	---
TOTAL	9093	11739	18625	11807	30087	42912	20867	24938	9128	7679	4401	3693
MEAN	293	391	601	381	1037	1384	696	804	304	248	142	123
MAX	506	522	800	490	2300	2500	909	1260	534	512	170	210
MIN	115	234	470	330	330	814	447	440	167	122	112	98
CFSM	.56	.75	1.15	.73	1.99	2.65	1.33	1.54	.58	.48	.27	.24
IN.	.65	.84	1.33	.84	2.14	3.06	1.49	1.78	.65	.55	.31	.26

WTR YR 1976 TOTAL 194969 MEAN 533 MAX 2500 MIN 98 CFSM 1.02 IN 13.89

STATION 04173000 HURON RIVER NEAR DEXTER, MICH

AGENCY: USGS
STATE: 26
COUNTY: 161
DISTRICT: 26

STATION LOCATOR
LAT. LONG.
422310 0835440

WATER YEAR	DATE	PEAK DISCHARGE (CFS)	DISCHARGE CODES	GAGE HEIGHT (FT)	GAGE HT CODES	HIGHEST SINCE	MA HE
1946	03/12/46	1140.00		5.14			
1947	04/09/47	3120.00		8.17			
1948	03/24/48	1750.00		6.44			
1949	02/20/49	1450.00		5.89			
1950	04/08/50	2340.00		7.25			
1951	02/25/51	1550.00	2 = discharge is an estimate				
1952	04/17/52	1070.00		5.40			
1953	03/24/53	530.00		4.36			
1954	03/31/54	924.00		5.05			
1955	03/06/55	894.00		4.91	2 = gage height not maximum for the year		
1956	05/17/56	2330.00		6.98			
1957	07/18/57	880.00		4.97			
1958	12/28/57	704.00		4.64			
1959	04/09/59	1130.00		5.32			
1960	04/04/60	1110.00		5.29			
1961	05/01/61	950.00		5.04			
1962	03/17/62	1110.00		5.13			
1963	03/30/63	738.00		4.50			
1964	05/02/64	420.00	2 = "				
1965	04/12/65	835.00		4.67			
1966	04/12/66	645.00		4.15			
1967	04/03/67	1020.00		4.78			
1968	07/01/68	2100.00		6.45			
1969	02/03/69	1380.00		5.36			
1970	11/22/69	951.00		4.66			
1971	11/21/70	1190.00		5.04			
1972	05/14/72	1030.00		4.79			
1973	01/04/73	1520.00		5.52			
1974	03/09/74	2390.00		6.76			
1975	04/27/75	1450.00		5.41			
1976	03/05/76	2500.00	1 = discharge is a maximum daily average.				
1977	04/28/77	1220.00		4.99			
1978	03/23/78	1460.00		5.43			
1979	04/15/79	891.00		4.56			

Gage datum = 837.11 (NGVD)

PGM [redacted] VER [redacted] (REV 11/5/81)

ANNUAL PEAK FLOW FREQUENCY ANALYSIS
FOLLOWING WRC GUIDELINES BULL. 17-B.

TEST RET.COMP.UPDATE BASCHAR FILE
RUN-DATE 12/30/82 AT 1525 SEQ 1.0049

STATION - 04173000 /USGS HURON RIVER NEAR DEXTER, MICH. . 1946-1979 04173000 /USGS

********* NOTICE -- PRELIMINARY MACHINE COMPUTATIONS. *********
********* USER RESPONSIBLE FOR ASSESSMENT AND INTERPRETATION. *********

INPUT DATA LISTING

WATER YEAR	DISCHARGE	CODES
1946	1140.0	
1947	3120.0	
1948	1750.0	
1949	1450.0	
1950	2340.0	
1951	1550.0	
1952	1070.0	
1953	530.0	
1954	924.0	
1955	894.0	
1956	2330.0	
1957	880.0	
1958	704.0	
1959	1130.0	
1960	1110.0	
1961	950.0	
1962	1110.0	
1963	738.0	
1964	420.0	
1965	835.0	
1966	645.0	
1967	1020.0	
1968	2100.0	
1969	1380.0	
1970	951.0	
1971	1190.0	
1972	1030.0	
1973	1520.0	
1974	2390.0	
1975	1450.0	
1976	2500.0	
1977	1220.0	
1978	1460.0	
1979	891.0	

EMPIRICAL FREQUENCY CURVES -- WEIBULL PLOTTING POSITIONS

WATER YEAR	RANKED DISCHARGE	SYSTEMATIC RECORD	W R C ESTIMATE
1947	3120.0	0.0286	0.0286
1976	2500.0	0.0571	0.0571
1974	2390.0	0.0857	0.0857
1950	2340.0	0.1143	0.1143
1956	2330.0	0.1429	0.1429
1968	2100.0	0.1714	0.1714
1948	1750.0	0.2000	0.2000
1951	1550.0	0.2286	0.2286
1973	1520.0	0.2571	0.2571
1978	1460.0	0.2857	0.2857
1949	1450.0	0.3143	0.3143
1975	1450.0	0.3429	0.3429
1969	1380.0	0.3714	0.3714
1977	1220.0	0.4000	0.4000
1971	1190.0	0.4286	0.4286
1946	1140.0	0.4571	0.4571
1959	1130.0	0.4857	0.4857
1960	1110.0	0.5143	0.5143
1962	1110.0	0.5429	0.5429
1952	1070.0	0.5714	0.5714
1972	1030.0	0.6000	0.6000
1967	1020.0	0.6286	0.6286
1970	951.0	0.6571	0.6571
1961	950.0	0.6857	0.6857
1954	924.0	0.7143	0.7143
1955	894.0	0.7429	0.7429
1979	891.0	0.7714	0.7714
1957	880.0	0.8000	0.8000
1965	835.0	0.8286	0.8286
1963	738.0	0.8571	0.8571
1958	704.0	0.8857	0.8857
1966	645.0	0.9143	0.9143
1953	530.0	0.9429	0.9429
1964	420.0	0.9714	0.9714

APPENDIX C
DEXTER TOWNSHIP
(F.I.S.)

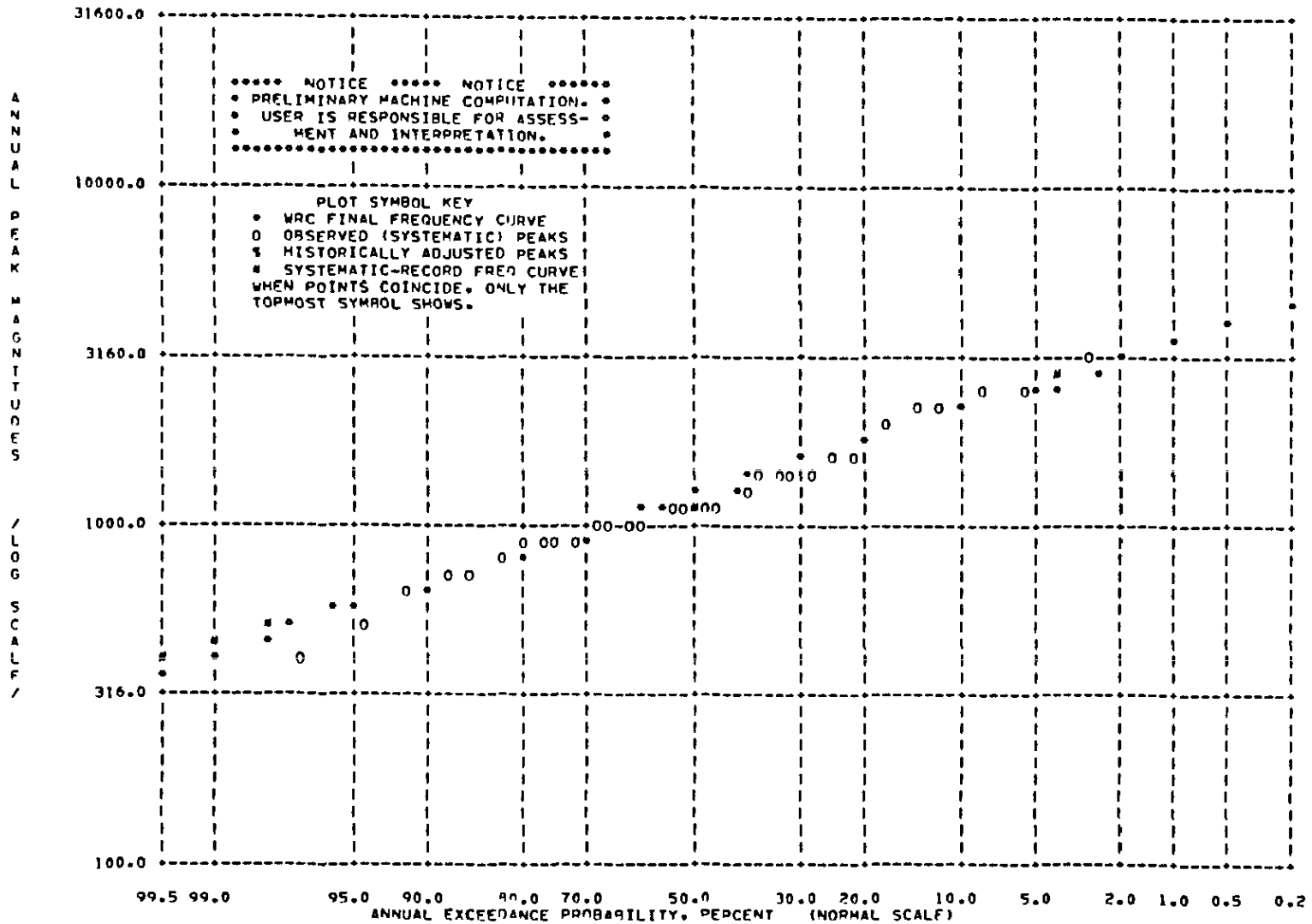
3/7

PGM J407 VER 3.7
(REV 11/5/81)

U. S. GEOLOGICAL SURVEY
ANNUAL PEAK FLOW FREQUENCY ANALYSIS
FOLLOWING WRC GUIDELINES BULL. 17-B.

TEST RFT.COMP.UPDATE BASCHAR FILE
RUN-DATE 12/30/82 AT 1525 SEQ 1.0049

STATION - 04173000 /USGS HURON RIVER NEAR DEXTER, MICH. - 1946-1979 04173000 /USGS



APPENDIX C 4/7
DEXTER TOWNSHIP
(F.I.S.)

[redacted] PG [redacted] VE [redacted]
(REV 11/5/81) [redacted]. GEOLOGICAL [redacted]
ANNUAL PEAK FLOW FREQUENCY ANALYSIS
FOLLOWING WRC GUIDELINES BULL. 17-B.
TEST RET.COMP.UPDATE BASCHAR FILE
RUN-DATE 12/30/82 AT 1525 SFO 1.0049

OPTIONS IN EFFECT -- PLOT BCPU LGPT NODB PPOS NORS NOEX CLIM

STATION - 04173000 /USGS HURON RIVER NEAR DEXTER, MICH. . 1946-1979 04173000 /USGS

INPUT DATA SUMMARY

-- YEARS OF RECORD -- SYSTEMATIC	HISTORIC	HISTORIC PEAKS	GENERALIZED SKEW	STD. ERROR OF GENERAL. SKEW	SKEW OPTION	GAGE BASE DISCHARGE	USER-SET OUTLIER CRITERIA HIGH OUTLIER	LOW OUTLIER
34	0	0	-0.170	0.450	WRC WEIGHTED	0.0	--	--

********* NOTICE -- PRELIMINARY MACHINE COMPUTATIONS. *********
********* USER RESPONSIBLE FOR ASSESSMENT AND INTERPRETATION. *********

WCF134I-NO SYSTEMATIC PEAKS WERE BELOW GAGE BASE. 0.0
WCF195I-NO LOW OUTLIERS WERE DETECTED BELOW CRITERION. 360.7
WCF163I-NO HIGH OUTLIERS OR HISTORIC PEAKS EXCEEDED HBASE. 3914.3

ANNUAL FREQUENCY CURVE PARAMETERS -- LOG-PEARSON TYPE III

	FLOOD BASE DISCHARGE	FLOOD BASE EXCEEDANCE PROBABILITY	LOGARITHMIC MEAN	LOGARITHMIC STANDARD DEVIATION	LOGARITHMIC SKEW
SYSTEMATIC RECORD	0.0	1.0000	3.0749	0.1979	0.095
W R C ESTIMATE	0.0	1.0000	3.0749	0.1979	-0.020

ANNUAL FREQUENCY CURVE ORDINATES -- DISCHARGES AT SELECTED EXCEEDANCE PROBABILITIES

ANNUAL EXCEEDANCE PROBABILITY	W R C ESTIMATE	SYSTEMATIC RECORD	*EXPECTED PROBABILITY* ESTIMATE	95-PCT CONFIDENCE LIMITS FOR W R C ESTIMATES LOWER	UPPER
0.9950	364.2	382.6	--	261.1	459.1
0.9900	408.8	424.9	--	300.9	507.0
0.9500	560.0	568.5	--	441.3	666.4
0.9000	662.0	665.8	--	539.1	773.1
0.8000	810.1	808.1	--	683.0	929.8
0.5000	1190.0	1179.7	--	1043.7	1357.1
0.2000	1744.5	1739.8	--	1519.7	2069.2
0.1000	2128.7	2140.2	--	1822.9	2612.8
0.0400	2630.4	2677.7	--	2199.0	3367.5
0.0200	3014.6	3100.0	--	2476.5	3973.7
0.0100	3407.1	3540.5	--	2752.8	4614.7
0.0050	3810.3	4002.2	--	3030.2	5293.3
0.0020	4362.2	4648.9	--	3401.4	6252.5

APPENDIX C
DEXTER TOWNSHIP
(F.I.S.)
5/5

9-910
(Nov 1957)

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY (WATER RESOURCES DIVISION)

File No. { Washington 4-1730
Field

Rating table for Huron River near Dexter, Mich
, from Oct. 1, 1965, to , 19, from , 19, to , 19

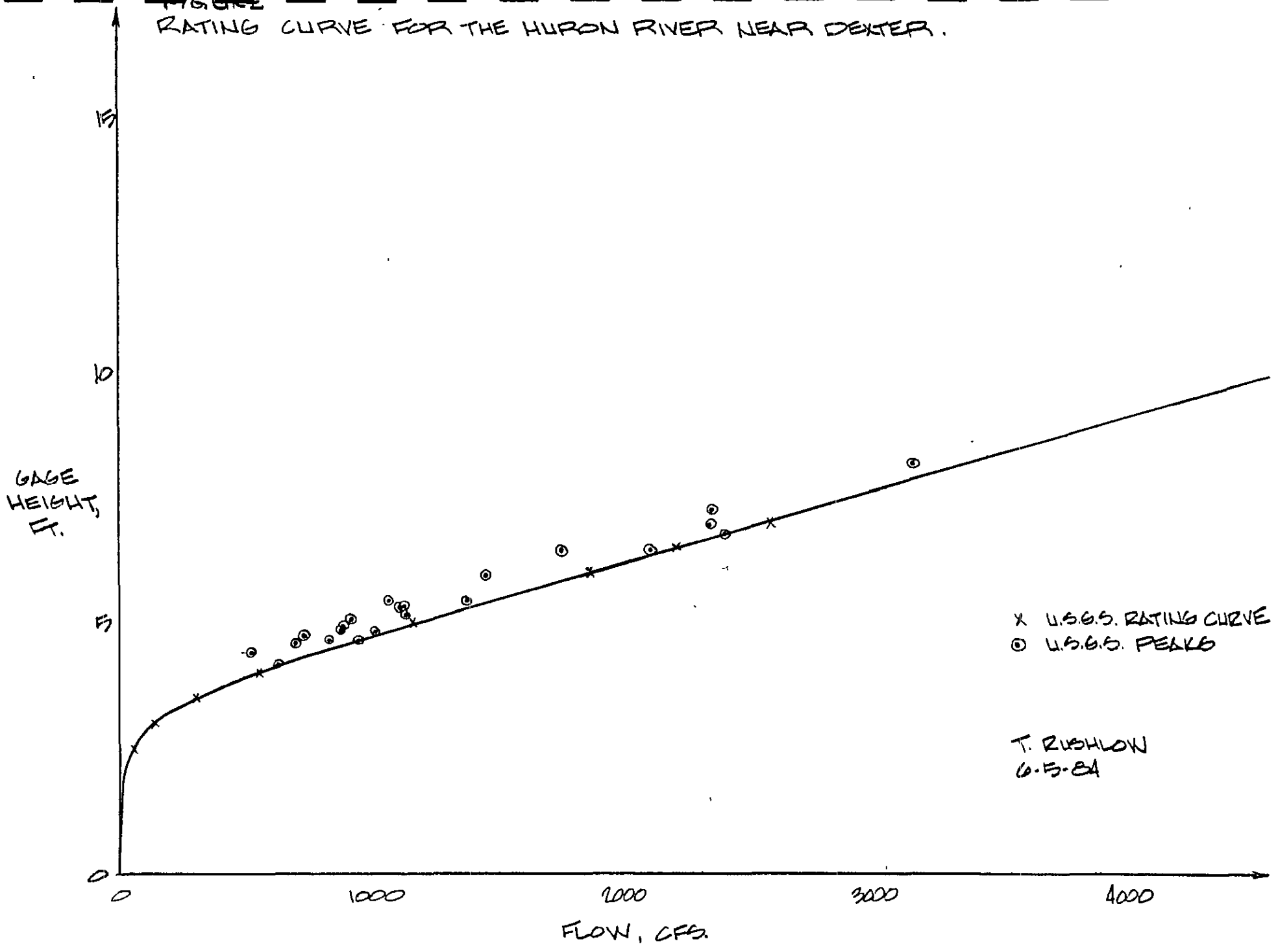
Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference	Gage height	Discharge	Difference
Feet	Cfs	Cfs	Feet	Cfs	Cfs	Feet	Cfs	Cfs	Feet	Cfs	Cfs	Feet	Cfs	Cfs	Feet	Cfs	Cfs	Feet	Cfs	Cfs
2.00			4.00	555	60	6.00	1860	70	.00			.00			.00			.00		
.10			.10	615		.10	1930		.10			.10			.10			.10		
.20	38	5	.20	675		.20	2000		.20			.20			.20			.20		
.30	43	6	.30	735		.30	2070		.30			.30			.30			.30		
.40	49	8	.40	795		.40	2140		.40			.40			.40			.40		
.50	57	12	.50	855		.50	2210		.50			.50			.50			.50		
.60	69	16	.60	915	60	.60	2280		.60			.60			.60			.60		
.70	85	19	.70	975	60	.70	2350		.70			.70			.70			.70		
.80	104	22	.80	1035	65	.80	2420		.80			.80			.80			.80		
.90	126	24	.90	1100		.90	2490		.90			.90			.90			.90		
3.00	150	25	5.00	1165	65	7.00	2560		.00			.00			.00			.00		
.10	175	28	.10	1230	70	.10			.10			.10			.10			.10		
.20	203	34	.20	1300		.20			.20			.20			.20			.20		
.30	237	36	.30	1370		.30			.30			.30			.30			.30		
.40	273	40	.40	1440		.40			.40			.40			.40			.40		
.50	313	42	.50	1510		.50			.50			.50			.50			.50		
.60	355	45	.60	1580		.60			.60			.60			.60			.60		
.70	400	50	.70	1650		.70			.70			.70			.70			.70		
.80	450	50	.80	1720		.80			.80			.80			.80			.80		
.90	500	55	.90	1790	70	.90			.90			.90			.90			.90		

This table is applicable for open-channel conditions. It is based on 20 discharge measurements made during 1966 (Nos. 242-252)
1967 (Nos. 253-261) and is fairly well defined between ..... cfs and ..... cfs. Comp by MDH date 8-29-67
Ckd by dl date 9-1-67
Submitted 6-14-72
Table No. 12

FAVEUDIN C
DENVER (FLS)

FIGURE

RATING CURVE FOR THE HURON RIVER NEAR DEXTER.



APPENDIX C
DEXTER TWP. (FIS)

7/7

APPENDIX E

HAND CALCULATIONS THROUGH FLOOK DAM

DEXTER TOWNSHIP FLOOD INSURANCE STUDY

sts

CALCULATION COVER SHEET

PROJECT DEXTER TWP. (F.I.S.) JOB NO 1053F DIVISION H&H

SUBJECT WIER CALCULATION THRU FROOK FILE NO 1053F
DAM TO DETERMINE ELEVATIONS TO Pkg. LK. CALC NO

ORIGINATOR B. SHEFF DATE

CHECKER DATE 22 MAR 84 NO OF SHEETS 3

RECORD OF ISSUES

NO	DESCRIPTION	BY	DATE	CHKD	DATE	APPRD		
1	SUBMERGE WIER CALCS							

PRELIMINARY CALC ☐

SUPERSEDED CALC ☐ FINAL CALC ☐

BRIEF SUMMARY OF CALCULATIONS INCLUDING SCOPE AND RESULTS

PG. 1

TAIL WATER RATING CURVE AND SELECTION OF WIER TYPE

PG. 2

DETERMINATION OF HEAD ABOVE WEIR ASSUMING NO SUBMERGENCE

PG. 3

CALCS. SHOW THAT NO SUBMERGENCE COEFF. CAN BE DETERMINED AND LOSSES THRU STRUCTURE MUST BE EVALUATED.

BBS 8251

STS CONSULTANTS, LTD.
HYDRAULICS & HYDROLOGY DIVISION
CALCULATION SHEET

STS Consultants Ltd

PROJECT: DEXTER TWP. (FIS.) JOB NO: 1053f PAGE 1 OF 3

SUBJECT: FLOOK DAM

ORIGINATOR B.B.S. DATE 22 MAY 87 CHECKED BY: DATE:

TAIL WATER RATING CURVE

D/S OF PORTAGE LK. DAM

Q (ft³/s)	STAGE (ft)
2130.0	850.33
3020.0	851.74
3410.0	852.23
4860.0	853.27

ASSUME WIER IS BEST APPROX. BY A BROAD CRESTED WIER

$Q = CLH^{3/2}$

FROM BRATER & KING (HANDBOOK OF HYDRAULICS)

5-40 HANDBOOK OF HYDRAULICS

Table 5-3. Values of C in the Formula $Q = CLH^{3/2}$ for Broad-crested Weirs

Measured head in feet, H	Breadth of crest of weir in feet										
	0.50	0.75	1.00	1.50	2.00	2.50	3.00	4.00	5.00	10.00	15.00
0.2	2.80	2.75	2.69	2.62	2.54	2.48	2.44	2.38	2.34	2.49	2.68
0.4	2.92	2.80	2.72	2.64	2.61	2.60	2.58	2.54	2.50	2.56	2.70
0.6	3.08	2.89	2.75	2.64	2.61	2.60	2.68	2.69	2.70	2.70	2.70
0.8	3.30	3.04	2.85	2.68	2.60	2.60	2.67	2.68	2.68	2.69	2.64
1.0	3.32	3.14	2.98	2.75	2.66	2.64	2.65	2.67	2.68	2.68	2.63
1.2	3.32	3.20	3.08	2.86	2.70	2.65	2.64	2.67	2.66	2.69	2.64
1.4	3.32	3.26	3.20	2.92	2.77	2.68	2.64	2.65	2.65	2.67	2.64
1.6	3.32	3.29	3.28	3.07	2.89	2.75	2.68	2.66	2.65	2.64	2.63
1.8	3.32	3.32	3.31	3.07	2.88	2.74	2.68	2.66	2.65	2.64	2.63
2.0	3.32	3.31	3.30	3.03	2.85	2.76	2.72	2.68	2.65	2.64	2.63
2.5	3.32	3.32	3.31	3.28	3.07	2.89	2.81	2.72	2.67	2.64	2.63
3.0	3.32	3.32	3.32	3.32	3.20	3.05	2.92	2.73	2.66	2.64	2.63
3.5	3.32	3.32	3.32	3.32	3.32	3.19	2.97	2.76	2.68	2.64	2.63
4.0	3.32	3.32	3.32	3.32	3.32	3.32	3.07	2.79	2.70	2.64	2.63
4.5	3.32	3.32	3.32	3.32	3.32	3.32	3.32	2.88	2.74	2.64	2.63
5.0	3.32	3.32	3.32	3.32	3.32	3.32	3.32	3.07	2.79	2.64	2.63
5.5	3.32	3.32	3.32	3.32	3.32	3.32	3.32	3.32	2.88	2.64	2.63

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HYDRAULICS & HYDROLOGY DIVISION
CALCULATION SHEET

STS Consultants Ltd.

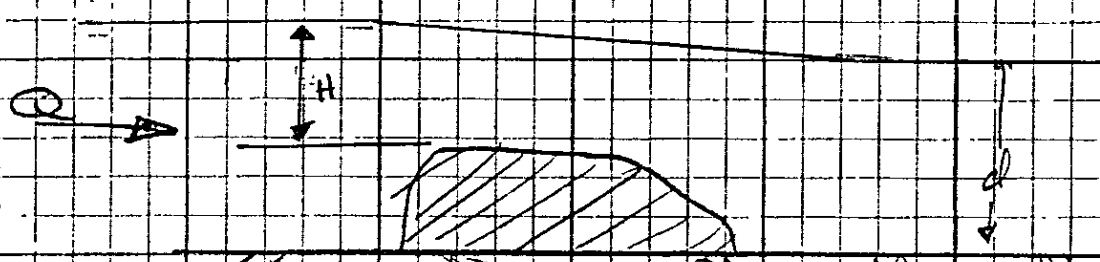
PROJECT: DEXTER (TWP) (F.I.S.) JOB NO: 1053F PAGE 2 OF 3

SUBJECT: FLOOD DAM

ORIGINATOR: R.B.S. DATE: 22 MAR 84 CHECKED BY: _____ DATE: _____

Q = 2130.0 STAGE 850.33

D/A ≈ 10 ft. FROM WIER CREST



∴ Hd given by HEC-2 MODEL

Q/5 FOR EACH WIER

Q (cfs)	depth d/A (ft.)	L (ft)	$CH^{3/2}$	C	H (ft)	$V^2/2g$
426	8.13	20	21.3	2.70	4.0	0.44
604	9.5	20	30.2	2.70	5.00	0.57
682	10.0	20	34.1	2.70	5.4	0.62
872	11.1	20	43.6	2.70	6.40	0.72

$Q = H^{3/2}LC \quad q = \frac{Q}{L} = H^{3/2}C \quad \therefore V = \frac{H^{3/2}}{H}C$

ASSUMED VALUE OF C as 2.70

THIS PROBABLY CONSERVATIVE ; A VARIATION OF C = 3.0 CAUSES A DROP IN W/S OF 0.30 ft

STS CONSULTANTS, LTD.
HYDRAULICS & HYDROLOGY DIVISION
CALCULATION SHEET

STS Consultants Ltd.

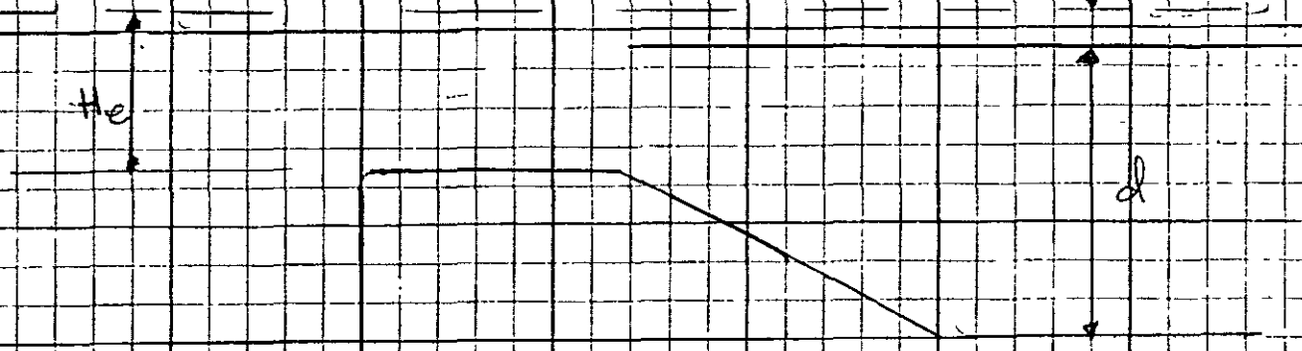
PROJECT: DEXTER TWP. (F.I.S.) JOB NO.: 1053F PAGE 3 OF 3

SUBJECT: FLOOK DAM

ORIGINATOR: B.B.S. DATE: 22 MAY 84 CHECKED BY: _____ DATE: _____

SUBMERGENCE CHECK

FLOOD	Q	DAM TAIL WATER	NON CORRECTED HEADWATER		
10 yr	2130	850.3	850.2	+	0.1
50 yr	3020	851.7	851.2	+	0.5
100 yr	3410	852.2	851.6	+	0.6
500 yr	4360	853.3	852.6	+	0.7



H	$V^2/2g$	EGL STAGE	D/S Wo. S.	He	hd	
4.0	0.44	850.6	850.3	4.44	0.3	
5.0	0.57	851.8	851.7	5.57	0.1	
5.4	0.62	852.2	852.2	6.02	0.0	0
6.4	0.72	853.2	853.3	7.12	-0.1	-

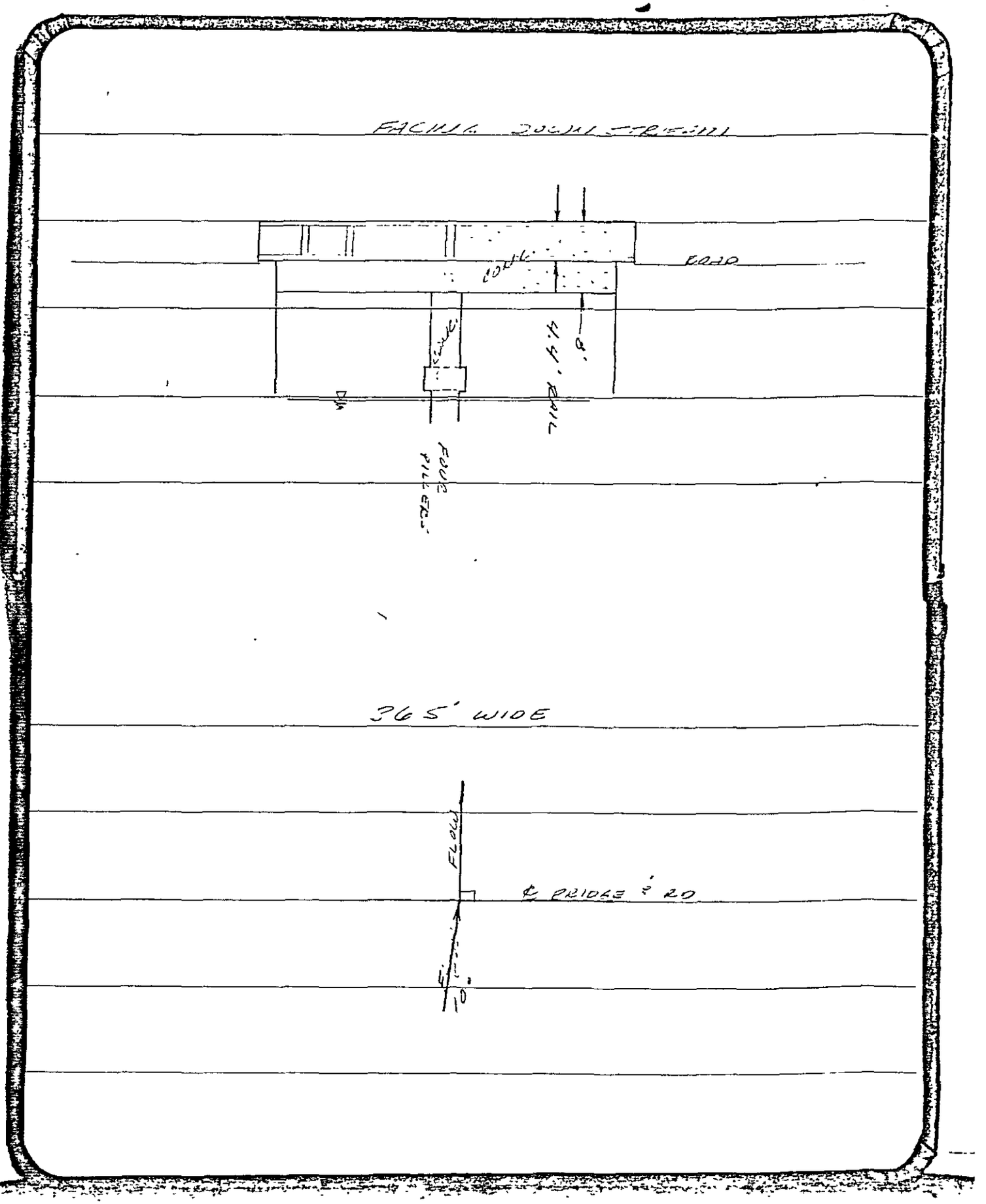
NO VALUE OF SUBMERGED DISCHARGE COEFF. CAN BE DETERMINED WITH THESE VALUES. (SUBMERGED DISCHARGE TABLE FROM DESIGN OF SMALL DAMS)

APPENDIX F

SURVEY DATA FOR BRIDGES

DEXTER TOWNSHIP FLOOD INSURANCE STUDY

N. TERRITORIAL RD. BRIDGE



THIS RUN EXECUTED 19-JUN-84 07:49:06

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAR  1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
*****************************************************

C
T1        DEXTER FLOOD STUDY APRIL 1984
T2        JOB #1053F HURONE.HEC ENCROCHMENT RUN
T3      HURON RIVER 100 YR. NAT.

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC    HVINS     Q        WSEL     FQ

      0.        4.       0.       0.  0.000000     0.00      0.0       0.   845.400    0.000

J2  NPROF     IPLOT    PRFVS    XSECV    XSECH    FN        ALLDC     IBW      CHNIM    ITRACE

    1.000     0.000   -1.000    0.000    0.000    0.000     0.000     0.000    0.000    0.000

J3  VARIABLE CODES FOR SUMMARY PRINTOUT

    150.000   200.000    0.000    0.000    0.000    0.000     0.000     0.000    0.000    0.000

QT      5.000   2130.000   3020.000   3410.000   4360.000   3410.000      0.000      0.000      0.000      0.000
NC      0.060      0.100      0.035      0.300      0.500      0.000      0.000      0.000      0.000      0.000
ET      0.000      0.000      0.000      0.000      0.000      1.400      0.000      0.000      0.000      0.000
        100 FT. D/S FROM N.TERRITORIAL RD. BRIDGE - LOCATION OF STREAM GAGE
X1      1.000     21.000   2000.000   2157.300      0.000      0.000      0.000      0.000      0.000      0.000
X3     10.000      0.000      0.000      0.000      0.000      0.000      0.000    857.000    859.600      0.000
GR    856.000   1810.000    850.000   1845.000    848.000   1865.000    846.000   1895.000    844.000   1920.000
GR    842.400   2000.000    839.100   200807.000    838.700   2016.200    837.900   2028.800    837.700   2040.500
GR    838.100   2055.500    837.600   2079.700    837.600   2095.200    838.300   2109.900    839.000   2123.800
GR    840.100   2149.200    841.400   2157.300    842.000   2175.000    844.000   2230.000    850.000   2300.000
GR    860.000   2370.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

ET      0.000      0.000      0.000      0.000      0.000      1.410      0.000      0.000      0.000      0.000
        D/S FACE N.TERRITORIAL RD. BRIDGE
X1      2.100     22.000   2002.400   2108.100     99.000     99.000     99.000      0.000      0.000      0.000
X3     10.000      0.000      0.000      0.000      0.000      0.000      0.000    857.000    859.600      0.000
GR    859.000   1600.000    857.000   1800.000    856.000   1855.000    854.600   1885.000    850.000   1985.000
GR    840.300   1997.000    839.800   2002.400    839.800   2002.500    839.300   2015.000    839.300   2030.000
GR    839.300   2045.000    839.400   2052.900    839.400   2053.000    839.100   2058.000    839.100   2058.100
GR    837.800   2070.000    837.800   2085.000    838.800   2100.000    839.200   2108.000    839.300   2108.100
GR    840.300   2113.000    850.000   2125.000    860.000   2220.000    861.000   2276.000      0.000      0.000

NC      0.000      0.000      0.030      0.000      0.000      0.000      0.000      0.000      0.000      0.000
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641G

	INSIDE N.TERRITORIAL RD. BS			1.000	0.000	0.000	0.000			
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	857.000	859.600	0.000
BT	24.000	1600.000	860.000	859.000	1800.000	858.000	857.000	1855.000	857.000	856.000
BT	1885.000	857.500	854.600	1985.000	858.500	850.000	1997.000	858.500	840.300	2002.400
BT	858.600	839.800	2002.500	858.600	855.300	2015.000	858.600	855.300	2030.000	858.900
BT	855.300	2045.000	859.000	855.300	2052.900	859.100	855.300	2053.000	859.100	839.400
BT	2058.000	859.100	839.100	2058.100	859.100	855.300	2070.000	859.200	855.300	2085.000
BT	859.300	855.300	2100.000	859.500	855.300	2108.000	859.500	855.300	2108.100	859.600
BT	839.300	2113.000	859.600	840.300	2125.000	859.800	850.000	2220.000	860.500	860.000
BT	2276.000	861.000	861.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	INSIDE N.TERRITORIAL RD. BRIDGE U/S SIDE									
X1	2.300	0.000	0.000	0.000	18.000	18.000	18.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	857.000	859.600	0.000
	U/S FACE N.TERRITORIAL RD.BRIDGE SURVEY SECTION #2									
X1	2.400	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	857.000	859.600	0.000
NC	0.100	0.100	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	0.000	1.400	0.000	0.000	0.000	0.000
	XXXXXXXXXXXXXXXXXXXXXXXXXXX									
X1	2.500	26.000	525.000	700.000	200.000	220.000	200.000	0.000	0.000	0.000
GR	860.000	130.000	858.000	180.000	856.000	260.000	854.000	350.000	852.000	400.000
GR	850.000	410.000	848.000	440.000	846.000	460.000	844.000	480.000	840.200	525.000
GR	838.500	550.000	838.500	565.000	838.900	610.000	838.800	650.000	838.000	675.000
GR	838.800	690.000	840.200	700.000	844.000	770.000	846.000	780.000	848.000	800.000
GR	850.000	820.000	852.000	840.000	854.000	860.000	856.000	870.000	858.000	890.000
GR	860.000	900.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.100	0.100	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
	1510.0 FT. U/S FROM N.TERRITORIAL RD. BRIDGE SURVEY SEC. #3									
X1	3.000	20.000	2000.000	2192.700	1400.000	1280.000	1310.000	0.000	0.000	0.000
GR	858.000	1810.000	856.000	1860.000	850.000	1930.000	846.000	1960.000	844.000	1990.000
GR	841.900	2000.000	840.200	2003.500	838.500	2024.700	838.800	2038.100	838.800	2059.300
GR	839.000	2076.600	838.900	2104.600	838.600	2128.900	838.100	2142.700	838.900	2163.000
GR	840.500	2169.300	844.700	2192.700	844.000	2315.000	850.000	2400.000	860.000	2450.000
NC	0.000	0.100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	2980.0 FT. U/S FROM N.TERRITORIAL RD. BRIDGE SURVEY SEC. #4									
X1	4.000	18.000	2000.000	2159.600	1580.000	1385.000	1470.000	0.000	0.000	0.000
GR	858.000	1675.000	854.000	1740.000	846.000	1815.000	844.000	1905.000	841.700	2000.000
GR	840.700	2002.600	838.400	2021.700	838.700	2044.000	838.600	2061.600	838.800	2117.100
GR	839.500	2139.300	840.800	2150.600	843.000	2159.600	844.000	2205.000	846.000	2285.000
GR	848.000	2480.000	850.000	2550.000	860.000	2675.000	0.000	0.000	0.000	0.000
NC	0.060	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

841.7

	4505.0 FT. U/S FROM N.TE	25.000	1535.000	0.000	0.000	0.000				
GR	858.000	710.000	854.000	1210.000	848.000	1280.000	848.000	1510.000	850.000	1580.000
GR	850.000	1690.000	842.400	2000.000	841.600	2002.700	840.400	2019.500	840.700	2036.200
GR	839.300	2051.600	839.300	2069.000	839.500	2088.100	841.700	2103.600	843.100	2107.500
GR	850.000	2150.000	860.000	2170.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.100	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX									
X1	6.100	21.000	1930.000	2100.000	680.000	1150.000	1030.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	852.100	854.800	0.000
GR	858.000	680.000	856.000	940.000	854.000	1175.000	852.000	1200.000	850.000	1520.000
GR	852.000	1540.000	854.000	1560.000	854.000	1590.000	852.000	1620.000	850.000	1660.000
GR	848.000	1700.000	846.000	1920.000	845.500	1930.000	842.000	2010.000	842.000	2075.000
GR	845.500	2100.000	845.500	2180.000	846.000	2190.000	850.000	2200.000	860.000	2250.000
GR	870.000	2295.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	0.000	1.410	0.000	0.000	0.000	0.000
	D/S FACE BELL RD. BRIDGE									
X1	6.200	20.000	2004.000	2102.000	400.000	350.000	350.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	852.100	854.800	0.000
GR	854.000	1550.000	851.300	1750.000	851.100	1853.000	852.800	1952.000	846.400	1980.000
GR	844.000	2003.900	844.000	2004.000	843.200	2020.000	842.400	2036.000	841.800	2053.000
GR	842.200	2070.000	842.600	2085.000	844.600	2102.000	844.600	2102.100	847.100	2105.000
GR	854.000	2154.000	854.900	2175.000	855.800	2215.000	856.900	2253.000	861.000	2343.000
NC	0.000	0.000	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	INSIDE BELL RD. BRIDGE									
X1	6.300	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	852.100	854.800	0.000
BT	20.000	1550.000	855.000	854.000	1750.000	852.300	851.300	1853.000	852.100	851.100
BT	1952.000	853.800	852.800	1980.000	854.500	846.400	2003.900	855.100	844.000	2004.000
BT	855.100	854.000	2020.000	855.000	853.900	2036.000	854.900	853.800	2053.000	854.900
BT	853.800	2070.000	854.900	853.800	2085.000	854.800	853.700	2102.000	854.800	853.700
BT	2102.100	854.800	844.600	2105.000	854.800	847.100	2154.000	855.000	854.000	2175.000
BT	855.500	854.500	2215.000	856.800	855.800	2253.000	857.900	856.900	2343.000	862.000
BT	861.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	INSIDE BELL RD. BRIDGE									
X1	6.350	0.000	0.000	0.000	18.000	18.000	18.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	852.100	854.800	0.000
NC	0.000	0.000	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	U/S FACE BELL RD. BRIDGE SURVEY SEC. #6									
X1	6.360	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	852.100	854.800	0.000
NH	5.000	0.050	430.000	0.035	875.000	0.100	1050.000	0.035	1120.000	0.100
NH	1410.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	0.000	1.400	0.000	0.000	0.000	0.000

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        XXXXXXXXXXXXXXXXXXXXXXXXXX.000
GR    860.000    310.000    858.000    340.000    856.000    430.000    854.000    570.000    852.000    610.000
GR    850.000    670.000    848.000    865.000    846.000    875.000    842.000    895.000    842.000    935.000
GR    846.000    970.000    848.000   1025.000    848.000   1040.000    846.000   1050.000    843.000   1065.000
GR    843.000   1100.000    846.000   1120.000    850.000   1130.000    856.000   1160.000    858.000   1230.000
GR    860.000   1250.000    870.000   1410.000      0.000      0.000      0.000      0.000      0.000      0.000

NC      0.060      0.100      0.035      0.100      0.300      0.000      0.000      0.000      0.000      0.000
        1615.0 FT. U/S FROM BELL RD. BRIDGE SURVEY SEC. #7
X1      7.000     17.000   2000.000   2126.800   1720.000   1250.000   1500.000      0.000      0.000      0.000
GR    860.000   1655.000    858.000   1690.000    856.000   1820.000    854.000   1910.000    851.000   1980.000
GR    851.000   2000.000    845.200   2013.200    843.000   2025.100    842.300   2047.700    842.000   2069.000
GR    841.700   2097.000    842.500   2108.200    844.800   2117.000    849.500   2126.800    850.000   2150.000
GR    854.000   2410.000    860.000   2500.000      0.000      0.000      0.000      0.000      0.000      0.000

        3225.0 FT. U/S FROM BELL RD. BRIDGE SURVEY SEC. #8
X1      8.000     16.000   2000.000   2132.600   1444.000   1620.000   1610.000      0.000      0.000      0.000
GR    860.000   1830.000    854.000   1850.000    852.000   1900.000    850.000   1995.000    849.700   2000.000
GR    846.200   2010.800    844.000   2019.000    842.100   2032.400    841.500   2049.700    842.700   2067.700
GR    842.000   2090.800    843.300   2111.000    846.100   2121.900    850.800   2132.600    854.000   2400.000
GR    860.000   2475.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

NC      0.040      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
        D/S 220 FT. FROM DAM BELOW PORTAGE LK. SURVEY SEC. #9
X1      9.000     20.000   2000.000   2132.300   1800.000   1565.000   1715.000      0.000      0.000      0.000
GR    860.000   1760.000    854.000   1800.000    850.000   1990.000    849.800   2000.000    846.900   2004.500
GR    846.100   2005.900    843.200   2031.000    843.400   2044.800    843.300   2061.000    843.600   2072.600
GR    843.600   2096.200    844.800   2114.300    846.700   2124.800    847.900   2129.200    853.500   2132.300
GR    856.000   2170.000    856.000   2310.000    858.000   2350.000    858.000   2440.000    860.000   2560.000

NC      0.050      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
        D/S FACE DAM BELOW PORTAGE LK.
X1     10.000     16.000   1815.000   2071.000    290.000    270.000    220.000      0.000      0.000      0.000
GR    856.000   1500.000    856.000   1608.000    855.000   1624.000    854.000   1634.000    852.000   1815.000
GR    842.900   1900.000    842.900   1968.000    842.900   1972.000    842.900   2000.000    842.900   2053.000
GR    852.000   2071.000    854.000   2080.000    856.000   2120.000    858.000   2160.000    860.000   2300.000
GR    860.000   2400.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
EJ      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
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641G

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

#PROF 1

CCHV= 0.300 CEHV= 0.500

#SECNO 1.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 857.00 ELREA= 859.60

100 FT. D/S FROM N.TERRITORIAL RD. BRIDGE - LOCATION OF STREAM GAGE

1997 Q=3120 stage = 845.28

1.00	7.80	845.40	0.00	845.40	845.56	0.16	0.00	0.00	842.40
3410.	0.	3410.	0.	0.	1076.	0.	0.	0.	841.40
0.00	0.00	3.17	0.00	0.060	0.035	0.100	0.000	837.60	2000.00
0.000432	0.	0.	0.	0	0	0	0.00	157.30	2157.30

#SECNO 2.100

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 857.00 ELREA= 859.60

D/S FACE N.TERRITORIAL RD. BRIDGE

2.10	7.55	845.35	0.00	0.00	845.73	0.38	0.07	0.11	839.80
3410.	0.	3410.	0.	0.	686.	0.	2.	0.	839.30
0.01	0.00	4.97	0.00	0.060	0.035	0.100	0.000	837.80	2002.40
0.001133	99.	99.	99.	2	0	0	0.00	105.70	2108.10

#SECNO 2.200

3370 NORMAL BRIDGE,NRD= 24 MIN ELTRD= 857.00 MAX ELLC= 861.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 857.00 ELREA= 859.60

INSIDE N.TERRITORIAL RD. BRIDGE D/S SIDE

2.20	7.53	845.33	0.00	0.00	845.76	0.42	0.00	0.02	839.80
3410.	0.	3410.	0.	0.	655.	0.	2.	0.	839.30
0.01	0.00	5.21	0.00	0.060	0.030	0.100	0.000	837.80	2002.40
0.001211	1.	1.	1.	1	0	0	-58.07	105.70	2108.10

#SECNO 2.300

3370 NORMAL BRIDGE,NRD= 24 MIN ELTRD= 857.00 MAX ELLC= 861.00

SECNO	DEPTH	CWSEL	STIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST			

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 857.00 ELREA= 859.60

INSIDE N.TERRITORIAL RD. BRIDGE U/S SIDE

2.30	7.56	845.36	0.00	0.00	845.78	0.42	0.02	0.00	839.80			
3410.	0.	3410.	0.	0.	656.	0.	2.	0.	839.30			
0.01	0.00	5.20	0.00	0.060	0.030	0.100	0.000	837.80	2002.40			
0.001205	18.	18.	18.	0	0	0	-58.19	105.70	2108.10			

*SECNO 2.400

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 857.00 ELREA= 859.60

U/S FACE N.TERRITORIAL RD.BRIDGE SURVEY SECTION 02

2.40	7.62	845.42	0.00	0.00	845.79	0.38	0.00	0.01	839.80			
3410.	0.	3410.	0.	0.	693.	0.	2.	0.	839.30			
0.01	0.00	4.92	0.00	0.060	0.030	0.100	0.000	837.80	2002.40			
0.000805	1.	1.	1.	2	0	0	0.00	105.70	2108.10			

*SECNO 2.500

XXXXXXXXXXXXXXXXXXXXXXXXXXXX

2.50	7.87	845.87	0.00	0.00	845.96	0.09	0.09	0.08	840.20			
3410.	103.	3151.	156.	187.	1239.	273.	8.	1.	840.20			
0.03	0.55	2.54	0.57	0.100	0.035	0.100	0.000	838.00	461.31			
0.000264	200.	200.	220.	2	0	0	0.00	318.04	779.35			

CCHV= 0.100 CEHV= 0.300

*SECNO 3.000

1510.0 FT. U/S FROM N.TERRITORIAL RD. BRIDGE SURVEY SEC. #3

3.00	8.12	846.22	0.00	0.00	846.31	0.09	0.35	0.00	841.90			
3410.	27.	3290.	92.	69.	1324.	263.	58.	12.	844.70			
0.18	0.39	2.48	0.35	0.100	0.035	0.100	0.000	838.10	1958.39			
0.000264	1400.	1310.	1280.	2	0	0	0.00	388.00	2346.38			

*SECNO 4.000

2980.0 FT. U/S FROM N.TERRITORIAL RD. BRIDGE SURVEY SEC. #4

4.00	8.20	846.60	0.00	0.00	846.69	0.09	0.38	0.00	841.70			
3410.	250.	3045.	114.	503.	1188.	287.	120.	28.	843.00			
0.36	0.50	2.56	0.40	0.100	0.035	0.100	0.000	838.40	1809.32			
0.000252	1580.	1470.	1385.	0	0	0	0.00	534.74	2344.06			

641G

SECNO	DEPTH	CWSEL	CRI% VLOB	VCH	%	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST	

*SECNO 5.000
4505.0 FT. U/S FROM N.TERRITORIAL RD. BRIDGE SURVEY SEC. #5

5.00	7.80	847.10	0.00	0.00	847.30	0.20	0.58	0.03	842.40
3410.	504.	2877.	29.	450.	737.	49.	174.	41.	843.10
0.48	1.12	3.91	0.60	0.060	0.035	0.100	0.000	839.30	1808.38
0.000655	1310.	1535.	1425.	2	0	0	0.00	323.75	2132.12

CCHV= 0.300 CEHV= 0.500
*SECNO 6.100
3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 852.10 ELREA= 854.80

XXXXXXXXXXXXXXXXXXXXXXXXXXXX

6.10	5.93	847.93	0.00	0.00	848.19	0.27	0.86	0.03	845.50
3410.	0.	3410.	0.	0.	823.	0.	196.	46.	845.50
0.54	0.00	4.14	0.00	0.100	0.035	0.100	0.000	842.00	1930.00
0.001164	680.	1030.	1150.	2	0	0	0.00	170.00	2100.00

*SECNO 6.200
3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 852.10 ELREA= 854.80

D/S FACE BELL RD. BRIDGE

6.20	6.50	848.30	0.00	0.00	848.91	0.61	0.55	0.17	844.00
3410.	0.	3410.	0.	0.	544.	0.	202.	48.	844.60
0.56	0.00	6.27	0.00	0.100	0.035	0.100	0.000	841.80	2004.00
0.002219	400.	350.	350.	2	0	0	0.00	98.00	2102.00

*SECNO 6.300
3370 NORMAL BRIDGE,NRD= 20 MIN ELTRD= 852.10 MAX ELLC= 861.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 852.10 ELREA= 854.80

INSIDE BELL RD. BRIDGE

6.30	6.50	848.30	0.00	0.00	848.91	0.61	0.00	0.00	844.00
3410.	0.	3410.	0.	0.	544.	0.	202.	48.	844.60
0.56	0.00	6.26	0.00	0.100	0.030	0.100	0.000	841.80	2004.00
0.001629	1.	1.	1.	0	0	0	-0.08	98.00	2102.00

SECNO	DEPTH	CWSEL	CRWS	VLOB	VCH	W	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC		ICONT	CORAR	TOPWID	ENDST		

*SECNO 6.350

3370 NORMAL BRIDGE,NRD= 20 MIN ELTRD= 852.10 MAX ELLC= 861.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 852.10 ELREA= 854.80

INSIDE BELL RD. BRIDGE

6.35	6.54	848.34	0.00	0.00	848.94	0.60	0.03	0.00	844.00
3410.	0.	3410.	0.	0.	548.	0.	202.	48.	844.60
0.56	0.00	6.22	0.00	0.100	0.030	0.100	0.000	841.80	2004.00
0.001595	18.	18.	18.	0	0	0	-0.08	98.00	2102.00

*SECNO 6.360

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 852.10 ELREA= 854.80

U/S FACE BELL RD. BRIDGE SURVEY SEC. #6

6.36	6.55	848.35	0.00	0.00	848.95	0.60	0.00	0.00	844.00
3410.	0.	3410.	0.	0.	548.	0.	202.	48.	844.60
0.56	0.00	6.22	0.00	0.100	0.035	0.100	0.000	841.80	2004.00
0.002163	1.	1.	1.	0	0	0	0.00	98.00	2102.00

1490 NH CARD USED

*SECNO 6.400

XXXXXXXXXXXXXXXXXXXXXXXXXXX

6.40	7.19	849.19	0.00	0.00	849.32	0.13	0.23	0.14	846.00
3410.	151.	3249.	10.	91.	1114.	13.	204.	48.	846.00
0.57	1.66	2.91	0.80	0.035	0.035	0.100	0.000	842.00	748.81
0.001733	240.	115.	60.	2	0	0	0.00	379.17	1127.98

CCHV= 0.100 CEHV= 0.300

*SECNO 7.000

1615.0 FT. U/S FROM BELL RD. BRIDGE SURVEY SEC. #7

7.00	8.85	850.55	0.00	0.00	850.77	0.22	1.42	0.03	851.00
3410.	0.	3403.	7.	0.	899.	28.	242.	58.	849.50
0.68	0.00	3.79	0.26	0.060	0.035	0.100	0.000	841.70	2001.03
0.000595	1720.	1500.	1250.	3	0	0	0.00	184.44	2185.47

641G

SECNO	DEPTH	CWSEL	%	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST			

*SECNO 8.000
3225.0 FT. U/S FROM BELL RD. BRIDGE SURVEY SEC. #8

8.00	9.89	851.39	0.00	0.00	851.56	0.17	0.79	0.01	849.70
3410.	23.	3385.	2.	53.	1023.	14.	279.	66.	850.80
0.82	0.43	3.31	0.13	0.060	0.035	0.100	0.000	841.50	1929.18
0.000408	1444.	1610.	1620.	2	0	0	0.00	252.36	2181.54

*SECNO 9.000
D/S 220 FT. FROM DAM BELOW PORTAGE LK. SURVEY SEC. #9

9.00	8.90	852.10	0.00	0.00	852.26	0.16	0.70	0.00	849.80
3410.	109.	3301.	0.	127.	1011.	0.	323.	76.	853.50
0.97	0.86	3.26	0.00	0.040	0.035	0.100	0.000	843.20	1890.34
0.000406	1800.	1715.	1565.	2	0	0	0.00	241.19	2131.52

*SECNO 10.000
D/S FACE DAM BELOW PORTAGE LK.

10.00	9.37	852.27	0.00	0.00	852.31	0.05	0.04	0.01	852.00
3410.	0.	3410.	0.	3.	1929.	0.	331.	77.	852.00
1.00	0.08	1.77	0.04	0.050	0.035	0.100	0.000	842.90	1790.94
0.000119	290.	220.	270.	2	0	0	0.00	281.25	2072.20

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                    ※ HEC2 RELEASE DAT※NOV 76 UPDATED MAR  1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
*****************************************************

T1
T2
T3      ENCROCHMENT RUN

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      0.        6.        0.        0.   0.000000     0.00      0.0       0.    845.500    0.000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

    15.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
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   SECNO     DEPTH     CWSEL  X  VOL       TWA    LX XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

*PROF 2

CCHV=   0.300 CEHV=   0.500
*SECNO 1.000
 2800 NAT Q1=    1640.85  WSEL=     845.40  ENC Q1=    1681.00  WSEL=     845.50  RATIO= -0.0245
 NAT Q1=    1681.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=     845.50

3470 ENCROACHMENT STATIONS=     2000.0     2157.3  TYPE=      4  TARGET=        0.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=       857.00 ELREA=       859.60

          100 FT. D/S FROM N.TERRITORIAL RD. BRIDGE - LOCATION OF STREAM GAGE
      1.00      7.90    845.50      0.00    845.40    845.65      0.15      0.00      0.00    842.40
    3410.         0.    3410.         0.         0.    1092.         0.         0.         0.    841.40
      0.00      0.00      3.12      0.00     0.060     0.035     0.100     0.000    837.60   2000.00
  0.000426        0.        0.        0.         0         0         0      0.00    157.30   2157.30


*SECNO 2.100
 2800 NAT Q1=    1013.27  WSEL=     845.35  ENC Q1=    1039.38  WSEL=     845.45  RATIO= -0.0258
 NAT Q1=    1039.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=     845.45

3470 ENCROACHMENT STATIONS=     2002.4     2108.1  TYPE=      4  TARGET=        0.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=       857.00 ELREA=       859.60

          D/S FACE N.TERRITORIAL RD. BRIDGE
      2.10      7.66    845.46      0.00    845.35    845.83      0.37      0.07      0.11    839.80
    3410.         0.    3410.         0.         0.     697.         0.         2.         0.    839.30
      0.01      0.00      4.89      0.00     0.060     0.035     0.100     0.000    837.80   2002.40
  0.001158        99.       99.       99.         2         0         0      0.00    105.70   2108.10


*SECNO 2.200
      3700.    BRIDGE STENCL=    2002.40     STENCR=    2108.10
 2800 NAT Q1=     979.71  WSEL=     845.33  ENC Q1=    1032.05  WSEL=     845.43  RATIO= -0.0534
 NAT Q1=    1032.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=     845.43

3370 NORMAL BRIDGE,NRD= 24 MIN ELTRD=  857.00 MAX ELLC=  861.00

3470 ENCROACHMENT STATIONS=     2002.4     2108.1  TYPE=      4  TARGET=        0.000
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   SECNO    DEPTH    CWSEL    CS    VOL      TWA  S  VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN     SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID    ENDST

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      857.00 ELREA=      859.60

        INSIDE N.TERRITORIAL RD. BRIDGE D/S SIDE
     2.20     7.64   845.44     0.00   845.33   845.85     0.41     0.00     0.02   839.80
    3410.       0.    3410.       0.       0.     665.       0.       2.       0.   839.30
     0.01     0.00     5.13     0.00    0.060    0.030    0.100    0.000   837.80  2002.40
 0.001160       1.       1.       1.        1        0        0   -31.35   105.70  2108.10

*SECNO 2.300
 2800 NAT Q1=    982.35  WSEL=    845.36  ENC Q1=   1037.82  WSEL=    845.46  RATIO= -0.0565
 NAT Q1=   1038.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=    845.46

3370 NORMAL BRIDGE,NRD= 24 MIN ELTRD=  857.00 MAX ELLC=  861.00

3470 ENCROACHMENT STATIONS=    2002.4    2108.1  TYPE=     4  TARGET=      0.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      857.00 ELREA=      859.60

        INSIDE N.TERRITORIAL RD. BRIDGE U/S SIDE
     2.30     7.66   845.46     0.00   845.36   845.87     0.41     0.02     0.00   839.80
    3410.       0.    3410.       0.       0.     666.       0.       2.       0.   839.30
     0.01     0.00     5.12     0.00    0.060    0.030    0.100    0.000   837.80  2002.40
 0.001154      18.      18.      18.        0        0        0   -31.40   105.70  2108.10

*SECNO 2.400
 2800 NAT Q1=   1201.67  WSEL=    845.42  ENC Q1=   1232.34  WSEL=    845.52  RATIO= -0.0255
 NAT Q1=   1232.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=    845.52

3470 ENCROACHMENT STATIONS=    2002.4    2108.1  TYPE=     4  TARGET=      0.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      857.00 ELREA=      859.60

        U/S FACE N.TERRITORIAL RD.BRIDGE SURVEY SECTION #2
     2.40     7.72   845.52     0.00   845.42   845.88     0.36     0.00     0.01   839.80
    3410.       0.    3410.       0.       0.     704.       0.       2.       0.   839.30
     0.01     0.00     4.84     0.00    0.060    0.030    0.100    0.000   837.80  2002.40
 0.000826       1.       1.       1.        2        0        0     0.00   105.70  2108.10
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    SECNO     DEPTH     CWSEL     SE      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

*SECNO 2.500
 2800 NAT Q1=    2098.65  WSEL=     845.87  ENC Q1=    2098.65  WSEL=     845.97  RATIO=  0.0000
 NAT Q1=    2152.  RATIOS LOB,CH,ROB=  0.0309  0.9224  0.0467  WSEL=     845.97

3470 ENCROACHMENT STATIONS=     503.5     740.5  TYPE=     4  TARGET=       0.025
        XXXXXXXXXXXXXXXXXXXXXXXXXXXXX
      2.50      7.95    845.95      0.00    845.87    846.05      0.10      0.09      0.08    840.20
    3410.       64.    3225.       120.      104.     1254.      189.       8.        1.      840.20
      0.03      0.62      2.57      0.64    0.100     0.035    0.100     0.000    838.00    503.53
 0.000266      200.      200.      220.        2         0        0      0.00    237.02    740.55


CCHV=   0.100 CEHV=   0.300
*SECNO 3.000
 2800 NAT Q1=    2098.86  WSEL=     846.22  ENC Q1=    2098.86  WSEL=     846.32  RATIO=  0.0000
 NAT Q1=    2155.  RATIOS LOB,CH,ROB=  0.0084  0.9627  0.0289  WSEL=     846.32

3470 ENCROACHMENT STATIONS=    2000.0    2255.2  TYPE=     4  TARGET=       0.026
        1510.0 FT. U/S FROM N.TERRITORIAL RD. BRIDGE SURVEY SEC. #3
      3.00      8.20    846.30      0.00    846.22    846.40      0.10      0.35      0.00    841.90
    3410.         0.    3371.       39.       0.     1341.      111.       53.       9.      844.70
      0.18      0.00      2.51      0.35    0.100     0.035    0.100     0.000    838.10   2000.00
 0.000274     1400.     1310.     1280.        1         0        0      0.00    255.20   2255.20


*SECNO 4.000
 2800 NAT Q1=    2147.38  WSEL=     846.60  ENC Q1=    2147.38  WSEL=     846.70  RATIO=  0.0000
 NAT Q1=    2200.  RATIOS LOB,CH,ROB=  0.0753  0.8896  0.0351  WSEL=     846.70

3470 ENCROACHMENT STATIONS=    1895.9    2211.1  TYPE=     4  TARGET=       0.024
        2980.0 FT. U/S FROM N.TERRITORIAL RD. BRIDGE SURVEY SEC. #4
      4.00      8.29    846.69      0.00    846.60    846.79      0.10      0.39      0.00    841.70
    3410.       220.    3110.       80.       388.     1201.      161.       107.      18.      843.00
      0.35      0.57      2.59      0.50    0.100     0.035    0.100     0.000    838.40   1895.88
 0.000254     1580.     1470.     1385.        0         0        0      0.00    315.23   2211.11


*SECNO 5.000
 2800 NAT Q1=    1332.44  WSEL=     847.10  ENC Q1=    1332.44  WSEL=     847.20  RATIO=  0.0000
 NAT Q1=    1372.  RATIOS LOB,CH,ROB=  0.1518  0.8392  0.0090  WSEL=     847.20

3470 ENCROACHMENT STATIONS=    1918.7    2107.5  TYPE=     4  TARGET=       0.029
        4505.0 FT. U/S FROM N.TERRITORIAL RD. BRIDGE SURVEY SEC. #5
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SECNO	DEPTH	CWSEL	CRWALOB	ACH	X	LEFT/RIGHT			
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
5.00	7.91	847.21	0.00	847.10	847.42	0.21	0.59	0.03	842.40
3410.	477.	2933.	0.	310.	748.	0.	154.	27.	843.10
0.46	1.54	3.92	0.00	0.060	0.035	0.100	0.000	839.30	1918.71
0.000680	1310.	1535.	1425.	2	0	0	0.00	188.79	2107.50

CCHV= 0.300 CEHV= 0.500
*SECNO 6.100
2800 NAT Q1= 999.44 WSEL= 847.93 ENC Q1= 1034.48 WSEL= 848.03 RATIO= -0.0351
NAT Q1= 1034. RATIOS LOB,CH,ROB= 0.0000 1.0000 0.0000 WSEL= 848.03

3470 ENCROACHMENT STATIONS= 1930.0 2100.0 TYPE= 4 TARGET= 0.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 852.10 ELREA= 854.80

XXXXXXXXXXXXXXXXXXXXXXXXXXXX

6.10	6.04	848.04	0.00	847.93	848.29	0.25	0.85	0.02	845.50
3410.	0.	3410.	0.	0.	844.	0.	178.	30.	845.50
0.53	0.00	4.04	0.00	0.100	0.035	0.100	0.000	842.00	1930.00
0.001092	680.	1030.	1150.	0	0	0	0.00	170.00	2100.00

*SECNO 6.200
2800 NAT Q1= 723.89 WSEL= 848.30 ENC Q1= 745.73 WSEL= 848.40 RATIO= -0.0302
NAT Q1= 746. RATIOS LOB,CH,ROB= 0.0000 1.0000 0.0000 WSEL= 848.40

3470 ENCROACHMENT STATIONS= 2004.0 2102.0 TYPE= 4 TARGET= 0.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 852.10 ELREA= 854.80

D/S FACE BELL RD. BRIDGE

6.20	6.60	848.40	0.00	848.30	848.99	0.59	0.53	0.17	844.00
3410.	0.	3410.	0.	0.	554.	0.	181.	32.	844.60
0.55	0.00	6.16	0.00	0.100	0.035	0.100	0.000	841.80	2004.00
0.002205	400.	350.	350.	2	0	0	0.00	98.00	2102.00

*SECNO 6.300
3700. BRIDGE STENCL= 2004.00 STENCR= 2102.00
2800 NAT Q1= 844.96 WSEL= 848.30 ENC Q1= 870.63 WSEL= 848.40 RATIO= -0.0304
NAT Q1= 871. RATIOS LOB,CH,ROB= 0.0000 1.0000 0.0000 WSEL= 848.40

```
   SECNO     DEPTH     CWSEL     ⌧IGHT
   TIME      ⌧    VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST

3370 NORMAL BRIDGE,NRD= 20 MIN ELTRD=  852.10 MAX ELLC=  861.00

3470 ENCROACHMENT STATIONS=    2004.0    2102.0  TYPE=     4  TARGET=       0.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      852.10 ELREA=      854.80

        INSIDE BELL RD. BRIDGE
     6.30      6.60   848.40      0.00   848.30   848.99      0.59      0.00      0.00   844.00
    3410.        0.    3410.        0.       0.     554.        0.     181.       32.    844.60
     0.55      0.00     6.16      0.00    0.100    0.030     0.100    0.000    841.80  2004.00
 0.001619        1.       1.        1.        0        0         0     0.00     98.00  2102.00

*SECNO 6.350
 2800 NAT Q1=    853.92  WSEL=    848.34  ENC Q1=    880.64  WSEL=    848.44  RATIO= -0.0313
 NAT Q1=    881.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=    848.44

3370 NORMAL BRIDGE,NRD= 20 MIN ELTRD=  852.10 MAX ELLC=  861.00

3470 ENCROACHMENT STATIONS=    2004.0    2102.0  TYPE=     4  TARGET=       0.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      852.10 ELREA=      854.80

        INSIDE BELL RD. BRIDGE
     6.35      6.64   848.44      0.00   848.34   849.02      0.58      0.03      0.00   844.00
    3410.        0.    3410.        0.       0.     557.        0.     181.       32.    844.60
     0.55      0.00     6.13      0.00    0.100    0.030     0.100    0.000    841.80  2004.00
 0.001593       18.      18.       18.        0        0         0     0.00     98.00  2102.00

*SECNO 6.360
 2800 NAT Q1=    733.22  WSEL=    848.35  ENC Q1=    755.61  WSEL=    848.45  RATIO= -0.0305
 NAT Q1=    756.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=    848.45

3470 ENCROACHMENT STATIONS=    2004.0    2102.0  TYPE=     4  TARGET=       0.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      852.10 ELREA=      854.80

        U/S FACE BELL RD. BRIDGE SURVEY SEC. #6
     6.36      6.64   848.44      0.00   848.35   849.02      0.58      0.00      0.00   844.00
    3410.        0.    3410.        0.       0.     558.        0.     181.       32.    844.60
     0.55      0.00     6.12      0.00    0.100    0.035     0.100    0.000    841.80  2004.00
 0.002155        1.       1.        1.        0        0         0     0.00     98.00  2102.00
```

SECNO	DEPTH	CWSEL	CRIWS %B	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA		
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST		

1490 NH CARD USED
*SECNO 6.400
2800 NAT Q1= 819.15 WSEL= 849.19 ENC Q1= 819.15 WSEL= 849.29 RATIO= 0.0000
NAT Q1= 851. RATIOS LOB,CH,ROB= 0.0497 0.9472 0.0031 WSEL= 849.29

3470 ENCROACHMENT STATIONS= 867.1 1120.0 TYPE= 4 TARGET= 0.037
XXXXXXXXXXXXXXXXXXXXXXXXXXXXX

6.40	7.25	849.25	0.00	849.19	849.39	0.14	0.23	0.13	846.00
3410.	56.	3354.	0.	19.	1129.	0.	184.	32.	846.00
0.56	2.89	2.97	0.00	0.035	0.035	0.100	0.000	842.00	867.10
0.001844	240.	115.	60.	2	0	0	0.00	252.90	1120.00

CCHV= 0.100 CEHV= 0.300
*SECNO 7.000
2800 NAT Q1= 1398.03 WSEL= 850.55 ENC Q1= 1425.80 WSEL= 850.65 RATIO= -0.0199
NAT Q1= 1430. RATIOS LOB,CH,ROB= 0.0000 0.9973 0.0027 WSEL= 850.65

3470 ENCROACHMENT STATIONS= 2000.0 2126.8 TYPE= 4 TARGET= 0.003
1615.0 FT. U/S FROM BELL RD. BRIDGE SURVEY SEC. 07

7.00	8.93	850.63	0.00	850.55	850.85	0.22	1.44	0.02	851.00
3410.	0.	3410.	0.	0.	908.	0.	219.	39.	849.50
0.67	0.00	3.75	0.00	0.060	0.035	0.100	0.000	841.70	2000.85
0.000584	1720.	1500.	1250.	2	0	0	0.00	125.95	2126.80

*SECNO 8.000
2800 NAT Q1= 1687.33 WSEL= 851.39 ENC Q1= 1713.07 WSEL= 851.49 RATIO= -0.0153
NAT Q1= 1728. RATIOS LOB,CH,ROB= 0.0078 0.9913 -0.0008 WSEL= 851.49

3470 ENCROACHMENT STATIONS= 2000.0 2132.6 TYPE= 4 TARGET= 0.009
3225.0 FT. U/S FROM BELL RD. BRIDGE SURVEY SEC. 08

8.00	9.96	851.46	0.00	851.39	851.63	0.17	0.78	0.00	849.70
3410.	0.	3410.	0.	0.	1033.	0.	255.	43.	850.80
0.81	0.00	3.30	0.00	0.060	0.035	0.100	0.000	841.50	2000.00
0.000410	1444.	1610.	1620.	2	0	0	0.00	132.60	2132.60

*SECNO 9.000
2800 NAT Q1= 1692.85 WSEL= 852.10 ENC Q1= 1692.85 WSEL= 852.20 RATIO= 0.0000
NAT Q1= 1734. RATIOS LOB,CH,ROB= 0.0348 0.9652 0.0000 WSEL= 852.20

3470 ENCROACHMENT STATIONS= 1986.5 2132.3 TYPE= 4 TARGET= 0.024

```
        D/S 220 FT. FROM DAM BEL%   36.    3374.   %    49.    853.50
      0.95     1.20     3.31     0.00    0.040    0.035    0.100    0.000   843.20  1986.52
  0.000411    1800.    1715.    1565.        2        0        0     0.00   145.04  2131.56

 %SECNO 10.000
  2800 NAT Q1=   3126.70  WSEL=    852.27  ENC Q1=   3195.88  WSEL=    852.37  RATIO= -0.0221
  NAT Q1=   3196.  RATIOS LOB,CH,ROB=  0.0002  0.9998  0.0000  WSEL=    852.37

 3470 ENCROACHMENT STATIONS=    1815.0    2071.0  TYPE=     4  TARGET=       0.000
        D/S FACE DAM BELOW PORTAGE LK.
     10.00     9.45   852.35     0.00   852.27   852.39     0.05     0.04     0.01   852.00
     3410.       0.   3410.       0.       0.   1949.       0.      304.      50.   852.00
      0.99     0.00     1.75     0.00    0.050    0.035    0.100    0.000   842.90  1815.00
  0.000115      290.     220.     270.        2        0        0     0.00   256.00  2071.00
```

THIS RUN EXECUTED 19-JUN-84 07:49:20

****
HEC2 RELEASE DATED NOV 76 UPDATED MAR 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

HURON RIVER 100 YR. NAT.

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
1.000	0.00	0.00	0.00	837.60	3410.00	845.40	0.00	845.56	4.32	3.17	1076.44	1640.85
1.000	0.00	0.00	0.00	837.60	3410.00	845.50	0.00	845.65	4.26	3.12	1092.17	1652.58
2.100	99.00	0.00	0.00	837.80	3410.00	845.35	0.00	845.73	11.33	4.97	686.38	1013.27
2.100	99.00	0.00	0.00	837.80	3410.00	845.46	0.00	845.83	11.58	4.89	697.36	1001.94
2.200	1.00	857.00	861.00	837.80	3410.00	845.33	0.00	845.76	12.11	5.21	654.59	979.71
2.200	1.00	857.00	861.00	837.80	3410.00	845.44	0.00	845.85	11.60	5.13	665.17	1001.34
2.300	18.00	857.00	861.00	837.80	3410.00	845.36	0.00	845.78	12.05	5.20	655.74	982.35
2.300	18.00	857.00	861.00	837.80	3410.00	845.46	0.00	845.87	11.54	5.12	666.25	1003.81
2.400	1.00	0.00	0.00	837.80	3410.00	845.42	0.00	845.79	8.05	4.92	693.16	1201.67
2.400	1.00	0.00	0.00	837.80	3410.00	845.52	0.00	845.88	8.26	4.84	703.83	1186.61
2.500	200.00	0.00	0.00	838.00	3410.00	845.87	0.00	845.96	2.64	2.54	1698.98	2098.65
2.500	200.00	0.00	0.00	838.00	3410.00	845.95	0.00	846.05	2.66	2.57	1546.16	2089.77
3.000	1310.00	0.00	0.00	838.10	3410.00	846.22	0.00	846.31	2.64	2.48	1656.54	2098.86
3.000	1310.00	0.00	0.00	838.10	3410.00	846.30	0.00	846.40	2.74	2.51	1451.77	2059.90
4.000	1470.00	0.00	0.00	838.40	3410.00	846.60	0.00	846.69	2.52	2.56	1978.43	2147.38
4.000	1470.00	0.00	0.00	838.40	3410.00	846.69	0.00	846.79	2.54	2.59	1749.14	2140.25
5.000	1535.00	0.00	0.00	839.30	3410.00	847.10	0.00	847.30	6.55	3.91	1235.94	1332.44
5.000	1535.00	0.00	0.00	839.30	3410.00	847.21	0.00	847.42	6.80	3.92	1057.76	1307.97
6.100	1030.00	0.00	0.00	842.00	3410.00	847.93	0.00	848.19	11.64	4.14	823.34	999.44
6.100	1030.00	0.00	0.00	842.00	3410.00	848.04	0.00	848.29	10.92	4.04	844.25	1031.85
6.200	350.00	0.00	0.00	841.80	3410.00	848.30	0.00	848.91	22.19	6.27	544.28	723.89
6.200	350.00	0.00	0.00	841.80	3410.00	848.40	0.00	848.99	22.05	6.16	553.63	726.12

SECNO	XLCH	ELTRD	REL	CRIWS	EG	10K*S	VCH	AREA	.01K			
6.300	1.00	852.10	861.00	841.80	3410.00	848.30	0.00	848.91	16.29	6.26	544.44	844.96
6.300	1.00	852.10	861.00	841.80	3410.00	848.40	0.00	848.99	16.19	6.16	553.79	847.53
6.350	18.00	852.10	861.00	841.80	3410.00	848.34	0.00	848.94	15.95	6.22	547.90	853.92
6.350	18.00	852.10	861.00	841.80	3410.00	848.44	0.00	849.02	15.93	6.13	556.58	854.50
6.360	1.00	0.00	0.00	841.80	3410.00	848.35	0.00	848.95	21.63	6.22	548.48	733.22
6.360	1.00	0.00	0.00	841.80	3410.00	848.44	0.00	849.02	21.55	6.12	557.59	734.59
6.400	115.00	0.00	0.00	842.00	3410.00	849.19	0.00	849.32	17.33	2.91	1218.34	819.15
6.400	115.00	0.00	0.00	842.00	3410.00	849.25	0.00	849.39	18.44	2.97	1148.39	794.19
7.000	1500.00	0.00	0.00	841.70	3410.00	850.55	0.00	850.77	5.95	3.79	926.66	1398.03
7.000	1500.00	0.00	0.00	841.70	3410.00	850.63	0.00	850.85	5.84	3.75	908.43	1411.14
8.000	1610.00	0.00	0.00	841.50	3410.00	851.39	0.00	851.56	4.08	3.31	1090.39	1687.33
8.000	1610.00	0.00	0.00	841.50	3410.00	851.46	0.00	851.63	4.10	3.30	1033.14	1683.27
9.000	1715.00	0.00	0.00	843.20	3410.00	852.10	0.00	852.26	4.06	3.26	1137.80	1692.85
9.000	1715.00	0.00	0.00	843.20	3410.00	852.17	0.00	852.34	4.11	3.31	1050.79	1681.65
10.000	220.00	0.00	0.00	842.90	3410.00	852.27	0.00	852.31	1.19	1.77	1932.35	3126.70
10.000	220.00	0.00	0.00	842.90	3410.00	852.35	0.00	852.39	1.15	1.75	1949.46	3176.25

MURON RIVER 100 YR. NAT.

SUMM FWSP	DIFWSX	X	3410.00	845.40	0.00	0.00	0.00	157.30	0.00
1.000	3410.00	845.50	0.10	0.00	0.10	157.30	0.00		
2.100	3410.00	845.35	0.00	-0.05	0.00	105.70	99.00		
2.100	3410.00	845.46	0.10	-0.04	0.10	105.70	99.00		
2.200	3410.00	845.33	0.00	-0.02	0.00	105.70	1.00		
2.200	3410.00	845.44	0.10	-0.02	0.10	105.70	1.00		
2.300	3410.00	845.36	0.00	0.02	0.00	105.70	18.00		
2.300	3410.00	845.46	0.10	0.02	0.10	105.70	18.00		
2.400	3410.00	845.42	0.00	0.06	0.00	105.70	1.00		
2.400	3410.00	845.52	0.10	0.06	0.10	105.70	1.00		
2.500	3410.00	845.87	0.00	0.45	0.00	318.04	200.00		
2.500	3410.00	845.95	0.08	0.43	0.08	237.02	200.00		
3.000	3410.00	846.22	0.00	0.35	0.00	388.00	1310.00		
3.000	3410.00	846.30	0.09	0.35	0.09	255.20	1310.00		
4.000	3410.00	846.60	0.00	0.38	0.00	534.74	1470.00		
4.000	3410.00	846.69	0.10	0.39	0.10	315.23	1470.00		
5.000	3410.00	847.10	0.00	0.50	0.00	323.75	1535.00		
5.000	3410.00	847.21	0.11	0.51	0.11	188.79	1535.00		
6.100	3410.00	847.93	0.00	0.83	0.00	170.00	1030.00		
6.100	3410.00	848.04	0.11	0.83	0.11	170.00	1030.00		
6.200	3410.00	848.30	0.00	0.38	0.00	98.00	350.00		
6.200	3410.00	848.40	0.10	0.36	0.10	98.00	350.00		
6.300	3410.00	848.30	0.00	0.00	0.00	98.00	1.00		
6.300	3410.00	848.40	0.10	0.00	0.10	98.00	1.00		
6.350	3410.00	848.34	0.00	0.04	0.00	98.00	18.00		
6.350	3410.00	848.44	0.09	0.04	0.09	98.00	18.00		
6.360	3410.00	848.35	0.00	0.00	0.00	98.00	1.00		
6.360	3410.00	848.44	0.09	0.00	0.09	98.00	1.00		
6.400	3410.00	849.19	0.00	0.84	0.00	379.17	115.00		
6.400	3410.00	849.25	0.06	0.81	0.06	252.90	115.00		
7.000	3410.00	850.55	0.00	1.36	0.00	184.44	1500.00		
7.000	3410.00	850.63	0.08	1.38	0.08	125.95	1500.00		

641G

19-JUN-84 07:49:05 PAGE 21

SECNO	Q	CWSEL	DI%	0.85	0.00	252.36	1610.00
8.000	3410.00	851.46	0.07	0.84	0.07	132.60	1610.00
9.000	3410.00	852.10	0.00	0.71	0.00	241.19	1715.00
9.000	3410.00	852.17	0.07	0.71	0.07	145.04	1715.00
10.000	3410.00	852.27	0.00	0.17	0.00	281.25	220.00
10.000	3410.00	852.35	0.08	0.18	0.08	256.00	220.00

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%SUMMARY-90-5 ERRORS AND SPECIAL NOTES PAGE 23

FLOODWAY DATA FOR 100 YR. NAT.
PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
1.000	157.	1092.	3.1	845.5	845.4	0.1
2.100	106.	697.	4.9	845.5	845.4	0.1
2.200	106.	665.	5.1	845.4	845.3	0.1
2.300	106.	666.	5.1	845.5	845.4	0.1
2.400	106.	704.	4.8	845.5	845.4	0.1
2.500	237.	1546.	2.2	846.0	845.9	0.1
3.000	255.	1452.	2.3	846.3	846.2	0.1
4.000	315.	1749.	1.9	846.7	846.6	0.1
5.000	189.	1058.	3.2	847.2	847.1	0.1
6.100	170.	844.	4.0	848.0	847.9	0.1
6.200	98.	554.	6.2	848.4	848.3	0.1
6.300	98.	554.	6.2	848.4	848.3	0.1
6.350	98.	557.	6.1	848.4	848.3	0.1
6.360	98.	558.	6.1	848.4	848.3	0.1
6.400	253.	1148.	3.0	849.3	849.2	0.1
7.000	126.	908.	3.8	850.6	850.5	0.1
8.000	133.	1033.	3.3	851.5	851.4	0.1
9.000	145.	1051.	3.2	852.2	852.1	0.1
10.000	256.	1949.	1.7	852.4	852.3	0.1

19-JUN-84 07:49:23 PAGE 1

*****
HEC2 RELEASE DATED NOV 76 UPDATED MAR 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

$ $
$ @ENGLIB:HEC2
%DCL-W-IVVERB, unrecognized command
\$\ W:=="WRITE SYS$OUTPUT"

```
FORTRAN STOP

Enter Data File Name <RETURN to EXIT>: R
$ SET TERM/WIDTH=132
$ COPY HEC2OUT.LIS TT:

*****************************************************                                  ***************************************
*  WATER SURFACE PROFILES                           *                                  *  U.S. ARMY CORPS OF ENGINEERS       *
*  VERSION OF NOVEMBER 1976                         *                                  *  THE HYDROLOGIC ENGINEERING CENTER  *
*  UPDATED MARCH 1982                               *                                  *  609 SECOND STREET, SUITE D         *
*                                                   *                                  *  DAVIS, CALIFORNIA 95616            *
*  RUN DATE 19-JUN-84 TIME 07:27:02                 *                                  *  (916) 440-2105 (FTS) 448-2105      *
*****************************************************                                  ***************************************

                                                  X     X  XXXXXXX   XXXXX              XXXXX
                                                  X     X  X        X     X            X     X
                                                  X     X  X        X                        X
                                                  XXXXXXX  XXXX     X          XXXXX    XXXXX
                                                  X     X  X        X                  X
                                                  X     X  X        X     X            X
                                                  X     X  XXXXXXX   XXXXX              XXXXXXX
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THIS RUN EXECUTED 19-JUN-84 07:27:02

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAR  1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
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C
T1        DEXTER FLOOD STUDY APRIL 1984
T2        JOB #1053F HURONM.HEC MULTIPLE PROFILE RUN
T3      HURON RIVER 10 YR.

J1  ICHECK    INQ      NINV     IDIR      STRT      METRIC    HVINS     Q        WSEL      FQ

      0.        2.        0.        0.  0.000000      0.00       0.0        0.   843.500     0.000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

    1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

J3  VARIABLE CODES FOR SUMMARY PRINTOUT

    150.000   201.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000


QT      5.000   2130.000   3020.000   3410.000   4360.000      0.000      0.000      0.000      0.000      0.000
NC      0.060      0.100      0.035      0.300      0.500      0.000      0.000      0.000      0.000      0.000
        100 FT. D/S FROM N.TERRITORIAL RD. BRIDGE - LOCATION OF STREAM GAGE
X1      1.000     21.000   2000.000   2157.300      0.000      0.000      0.000      0.000      0.000      0.000
X3     10.000      0.000      0.000      0.000      0.000      0.000      0.000    857.000    859.600      0.000
GR    856.000   1810.000    850.000   1845.000    848.000   1865.000    846.000   1895.000    844.000   1920.000
GR    842.400   2000.000    839.100   2007.000    838.700   2016.200    837.900   2028.800    837.700   2040.500
GR    838.100   2055.500    837.600   2079.700    837.600   2095.200    838.300   2109.900    839.000   2123.800
GR    840.100   2149.200    841.400   2157.300    842.000   2175.000    844.000   2230.000    850.000   2300.000
GR    860.000   2370.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

        D/S FACE N.TERRITORIAL RD. BRIDGE
X1      2.100     22.000   2002.400   2108.100     99.000     99.000     99.000      0.000      0.000      0.000
X3     10.000      0.000      0.000      0.000      0.000      0.000      0.000    857.000    859.600      0.000
GR    859.000   1600.000    857.000   1800.000    856.000   1855.000    854.600   1885.000    850.000   1985.000
GR    840.300   1997.000    839.800   2002.400    839.800   2002.500    839.300   2015.000    839.300   2030.000
GR    839.300   2045.000    839.400   2052.900    839.400   2053.000    839.100   2058.000    839.100   2058.100
GR    837.800   2070.000    837.800   2085.000    838.800   2100.000    839.200   2108.000    839.300   2108.100
GR    840.300   2113.000    850.000   2125.000    860.000   2220.000    861.000   2276.000      0.000      0.000

NC      0.000      0.000      0.030      0.000      0.000      0.000      0.000      0.000      0.000      0.000
        INSIDE N.TERRITORIAL RD. BRIDGE D/S SIDE
X1      2.200      0.000      0.000      0.000      1.000      1.000      1.000      0.000      0.000      0.000
X3     10.000      0.000      0.000      0.000      0.000      0.000      0.000    857.000    859.600      0.000
BT     24.000   1600.000    860.000    859.000   1800.000    858.000    857.000   1855.000    857.000    856.000
BT   1885.000    857.500    854.600   1985.000    858.500    850.000   1997.000    858.500    840.300   2002.400
BT    858.600    839.800   2002.500    858.600    855.300   2015.000    858.600    855.300   2030.000    858.900
BT    855.300   2045.000    859.000    855.300   2052.900    859.100    855.300   2053.000    859.100    839.400
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BT   2058.000   859.100   839.100   859.300   855.300  2100.000   859.500   855.300  2108.000   859.500   855.300
     2108.100   859.600
BT    839.300  2113.000   859.600   840.300  2125.000   859.800   850.000  2220.000   860.500   860.000
BT   2276.000   861.000   861.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

     INSIDE N.TERRITORIAL RD. BRIDGE U/S SIDE
X1      2.300     0.000     0.000     0.000    18.000    18.000    18.000     0.000     0.000     0.000
X2      0.000     0.000     0.000     0.000     0.000     0.000     1.000     0.000     0.000     0.000
X3     10.000     0.000     0.000     0.000     0.000     0.000     0.000   857.000   859.600     0.000

     U/S FACE N.TERRITORIAL RD.BRIDGE SURVEY SECTION #2
X1      2.400     0.000     0.000     0.000     1.000     1.000     1.000     0.000     0.000     0.000
X3     10.000     0.000     0.000     0.000     0.000     0.000     0.000   857.000   859.600     0.000

NC      0.100     0.100     0.035     0.000     0.000     0.000     0.000     0.000     0.000     0.000
     XXXXXXXXXXXXXXXXXXXXXXXXXXXX
X1      2.500    26.000   525.000   700.000   200.000   220.000   200.000     0.000     0.000     0.000
GR    860.000   130.000   858.000   180.000   856.000   260.000   854.000   350.000   852.000   400.000
GR    850.000   410.000   848.000   440.000   846.000   460.000   844.000   480.000   840.200   525.000
GR    838.500   550.000   838.500   565.000   838.900   610.000   838.800   650.000   838.000   675.000
GR    838.800   690.000   840.200   700.000   844.000   770.000   846.000   780.000   848.000   800.000
GR    850.000   820.000   852.000   840.000   854.000   860.000   856.000   870.000   858.000   890.000
GR    860.000   900.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC      0.100     0.100     0.000     0.100     0.300     0.000     0.000     0.000     0.000     0.000
     1510.0 FT. U/S FROM N.TERRITORIAL RD. BRIDGE SURVEY SEC. #3
X1      3.000    20.000  2000.000  2192.700  1400.000  1280.000  1310.000     0.000     0.000     0.000
GR    858.000  1810.000   856.000  1860.000   850.000  1930.000   846.000  1960.000   844.000  1990.000
GR    841.900  2000.000   840.200  2003.500   838.500  2024.700   838.800  2038.100   838.800  2059.300
GR    839.000  2076.600   838.900  2104.600   838.600  2128.900   838.100  2142.700   838.900  2163.000
GR    840.500  2169.300   844.700  2192.700   844.000  2315.000   850.000  2400.000   860.000  2450.000

NC      0.000     0.100     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
     2980.0 FT. U/S FROM N.TERRITORIAL RD. BRIDGE SURVEY SEC. #4
X1      4.000    18.000  2000.000  2159.600  1580.000  1385.000  1470.000     0.000     0.000     0.000
GR    858.000  1675.000   854.000  1740.000   846.000  1815.000   844.000  1905.000   841.700  2000.000
GR    840.700  2002.600   838.400  2021.700   838.700  2044.000   838.600  2061.600   838.800  2117.100
GR    839.500  2139.300   840.800  2150.600   843.000  2159.600   844.000  2205.000   846.000  2285.000
GR    848.000  2480.000   850.000  2550.000   860.000  2675.000     0.000     0.000     0.000     0.000

NC      0.060     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
     4505.0 FT. U/S FROM N.TERRITORIAL RD. BRIDGE SURVEY SEC. #5
X1      5.000    17.000  2000.000  2107.500  1310.000  1425.000  1535.000     0.000     0.000     0.000
GR    858.000   710.000   854.000  1210.000   848.000  1280.000   848.000  1510.000   850.000  1580.000
GR    850.000  1690.000   842.400  2000.000   841.600  2002.700   840.400  2019.500   840.700  2036.200
GR    839.300  2051.600   839.300  2069.000   839.500  2088.100   841.700  2103.600   843.100  2107.500
GR    850.000  2150.000   860.000  2170.000     0.000     0.000     0.000     0.000     0.000     0.000

NC      0.100     0.000     0.000     0.300     0.500     0.000     0.000     0.000     0.000     0.000
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        XXXXXXXXXXXXXXXXXXXXXXXX      0.000
X3    X0        0.000       0.000       0.000     852.100     854.800       0.000
GR    858.000    680.000    856.000     940.000     854.000    1175.000     852.000    1200.000     850.000    1520.000
GR    852.000   1540.000    854.000    1560.000     854.000    1590.000     852.000    1620.000     850.000    1660.000
GR    848.000   1700.000    846.000    1920.000     845.500    1930.000     842.000    2010.000     842.000    2075.000
GR    845.500   2100.000    845.500    2180.000     846.000    2190.000     850.000    2200.000     860.000    2250.000
GR    870.000   2295.000      0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000

        D/S FACE BELL RD. BRIDGE
X1      6.200     20.000   2004.000    2102.000     400.000     350.000     350.000       0.000       0.000       0.000
X3     10.000      0.000      0.000       0.000       0.000       0.000       0.000     852.100     854.800       0.000
GR    854.000   1550.000    851.300    1750.000     851.100    1853.000     852.800    1952.000     846.400    1980.000
GR    844.000   2003.900    844.000    2004.000     843.200    2020.000     842.400    2036.000     841.800    2053.000
GR    842.200   2070.000    842.600    2085.000     844.600    2102.000     844.600    2102.100     847.100    2105.000
GR    854.000   2154.000    854.900    2175.000     855.800    2215.000     856.900    2253.000     861.000    2343.000

NC      0.000      0.000      0.030       0.000       0.000       0.000       0.000       0.000       0.000       0.000
        INSIDE BELL RD. BRIDGE
X1      6.300      0.000      0.000       0.000       1.000       1.000       1.000       0.000       0.000       0.000
X3     10.000      0.000      0.000       0.000       0.000       0.000       0.000     852.100     854.800       0.000
BT     20.000   1550.000    855.000     854.000    1750.000     852.300     851.300    1853.000     852.100     851.100
BT   1952.000    853.800    852.800    1980.000     854.500     846.400    2003.900     855.100     844.000    2004.000
BT    855.100    854.000   2020.000     855.000     853.900    2036.000     854.900     853.800    2053.000     854.900
BT    853.800   2070.000    854.900     853.800    2085.000     854.800     853.700    2102.000     854.800     853.700
BT   2102.100    854.800    844.600    2105.000     854.800     847.100    2154.000     855.000     854.000    2175.000
BT    855.500    854.500   2215.000     856.800     855.800    2253.000     857.900     856.900    2343.000     862.000
BT    861.000      0.000      0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000

        INSIDE BELL RD. BRIDGE
X1      6.350      0.000      0.000       0.000      18.000      18.000      18.000       0.000       0.000       0.000
X2      0.000      0.000      0.000       0.000       0.000       0.000       1.000       0.000       0.000       0.000
X3     10.000      0.000      0.000       0.000       0.000       0.000       0.000     852.100     854.800       0.000

NC      0.000      0.000      0.035       0.000       0.000       0.000       0.000       0.000       0.000       0.000
        U/S FACE BELL RD. BRIDGE SURVEY SEC. #6
X1      6.360      0.000      0.000       0.000       1.000       1.000       1.000       0.000       0.000       0.000
X3     10.000      0.000      0.000       0.000       0.000       0.000       0.000     852.100     854.800       0.000

NH      5.000      0.050    430.000       0.035     875.000       0.100    1050.000       0.035    1120.000       0.100
NH   1410.000      0.000      0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000
        XXXXXXXXXXXXXXXXXXXXXXXXXXXXX
X1      6.400     22.000    875.000    1120.000     240.000      60.000     115.000       0.000       0.000       0.000
GR    860.000    310.000    858.000     340.000     856.000     430.000     854.000     570.000     852.000     610.000
GR    850.000    670.000    848.000     865.000     846.000     875.000     842.000     895.000     842.000     935.000
GR    846.000    970.000    848.000    1025.000     848.000    1040.000     846.000    1050.000     843.000    1065.000
GR    843.000   1100.000    846.000    1120.000     850.000    1130.000     856.000    1160.000     858.000    1230.000
GR    860.000   1250.000    870.000    1410.000       0.000       0.000       0.000       0.000       0.000       0.000
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NC      0.060     0.100     %
X%   1250.000  1500.000     0.000     0.000     0.000
GR     860.000  1655.000   858.000  1690.000   856.000  1820.000   854.000  1910.000   851.000  1980.000
GR     851.000  2000.000   845.200  2013.200   843.000  2025.100   842.300  2047.700   842.000  2069.000
GR     841.700  2097.000   842.500  2108.200   844.800  2117.000   849.500  2126.800   850.000  2150.000
GR     854.000  2410.000   860.000  2500.000     0.000     0.000     0.000     0.000     0.000     0.000
       3225.0 FT. U/S FROM BELL RD. BRIDGE SURVEY SEC. #8
X1       8.000    16.000  2000.000  2132.600  1444.000  1620.000  1610.000     0.000     0.000     0.000
GR     860.000  1830.000   854.000  1850.000   852.000  1900.000   850.000  1995.000   849.700  2000.000
GR     846.200  2010.800   844.000  2019.000   842.100  2032.400   841.500  2049.700   842.700  2067.700
GR     842.000  2090.800   843.300  2111.000   846.100  2121.900   850.800  2132.600   854.000  2400.000
GR     860.000  2475.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC      0.040     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
       D/S 220 FT. FROM DAM BELOW PORTAGE LK. SURVEY SEC. #9
X1       9.000    20.000  2000.000  2132.300  1800.000  1565.000  1715.000     0.000     0.000     0.000
GR     860.000  1760.000   854.000  1800.000   850.000  1990.000   849.800  2000.000   846.900  2004.500
GR     846.100  2005.900   843.200  2031.000   843.400  2044.800   843.300  2061.000   843.600  2072.600
GR     843.600  2096.200   844.800  2114.300   846.700  2124.800   847.900  2129.200   853.500  2132.300
GR     856.000  2170.000   856.000  2310.000   858.000  2350.000   858.000  2440.000   860.000  2560.000

NC      0.050     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
       D/S FACE DAM BELOW PORTAGE LK.
X1      10.000    16.000  1815.000  2071.000   290.000   270.000   220.000     0.000     0.000     0.000
GR     856.000  1500.000   856.000  1608.000   855.000  1624.000   854.000  1634.000   852.000  1815.000
GR     842.900  1900.000   842.900  1968.000   842.900  1972.000   842.900  2000.000   842.900  2053.000
GR     852.000  2071.000   854.000  2080.000   856.000  2120.000   858.000  2160.000   860.000  2300.000
GR     860.000  2400.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
EJ       0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
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  HEC2 RELEXDATED NOV 76 UPDATED MAR  1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
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T1
T2
T3       100 YR. FLOOD

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      0.        4.        0.        0.  0.000000      0.00       0.0       0.   845.400     0.000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

     3.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
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SECNO   DEPTH   CWSEL   %T/RIGHT
TIME  %LOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN     SSTA
SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID    ENDST

*PROF 3

CCHV=   0.300 CEHV=   0.500
*SECNO 1.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      857.00 ELREA=      859.60

        100 FT. D/S FROM N.TERRITORIAL RD. BRIDGE - LOCATION OF STREAM GAGE
     1.00     7.80   845.40     0.00   845.40   845.56     0.16     0.00     0.00   842.40
    3410.       0.    3410.       0.       0.    1076.       0.       0.       0.   841.40
     0.00     0.00     3.17     0.00    0.060    0.035    0.100    0.000   837.60  2000.00
 0.000432       0.       0.       0.        0        0        0     0.00   157.30  2157.30

*SECNO 2.100

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      857.00 ELREA=      859.60

        D/S FACE N.TERRITORIAL RD. BRIDGE
     2.10     7.55   845.35     0.00     0.00   845.73     0.38     0.07     0.11   839.80
    3410.       0.    3410.       0.       0.     686.       0.       2.       0.   839.30
     0.01     0.00     4.97     0.00    0.060    0.035    0.100    0.000   837.80  2002.40
 0.001133      99.      99.      99.        2        0        0     0.00   105.70  2108.10

*SECNO 2.200

3370 NORMAL BRIDGE,NRD= 24 MIN ELTRD=  857.00 MAX ELLC=  861.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      857.00 ELREA=      859.60

        INSIDE N.TERRITORIAL RD. BRIDGE D/S SIDE
     2.20     7.53   845.33     0.00     0.00   845.76     0.42     0.00     0.02   839.80
    3410.       0.    3410.       0.       0.     655.       0.       2.       0.   839.30
     0.01     0.00     5.21     0.00    0.060    0.030    0.100    0.000   837.80  2002.40
 0.001211       1.       1.       1.        1        0        0   -58.07   105.70  2108.10

*SECNO 2.300

3370 NORMAL BRIDGE,NRD= 24 MIN ELTRD=  857.00 MAX ELLC=  861.00
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SECNO	DEPTH	CWSEL	% TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST			

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 857.00 ELREA= 859.60

INSIDE N.TERRITORIAL RD. BRIDGE U/S SIDE

2.30	7.56	845.36	0.00	0.00	845.78	0.42	0.02	0.00	839.80	
3410.	0.	3410.	0.	0.	656.	0.	2.	0.	839.30	
0.01	0.00	5.20	0.00	0.060	0.030	0.100	0.000	837.80	2002.40	
0.001205	18.	18.	18.	0	0	0	-58.19	105.70	2108.10	

*SECNO 2.400

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 857.00 ELREA= 859.60

U/S FACE N.TERRITORIAL RD.BRIDGE SURVEY SECTION #2

2.40	7.62	845.42	0.00	0.00	845.79	0.38	0.00	0.01	839.80	
3410.	0.	3410.	0.	0.	693.	0.	2.	0.	839.30	
0.01	0.00	4.92	0.00	0.060	0.030	0.100	0.000	837.80	2002.40	
0.000805	1.	1.	1.	2	0	0	0.00	105.70	2108.10	

*SECNO 2.500

XXXXXXXXXXXXXXXXXXXXXXXXXXXXX

2.50	7.87	845.87	0.00	0.00	845.96	0.09	0.09	0.08	840.20	
3410.	103.	3151.	156.	187.	1239.	273.	8.	1.	840.20	
0.03	0.55	2.54	0.57	0.100	0.035	0.100	0.000	838.00	461.31	
0.000264	200.	200.	220.	2	0	0	0.00	318.04	779.35	

CCHV= 0.100 CEHV= 0.300

*SECNO 3.000

1510.0 FT. U/S FROM N.TERRITORIAL RD. BRIDGE SURVEY SEC. #3

3.00	8.12	846.22	0.00	0.00	846.31	0.09	0.35	0.00	841.90	
3410.	27.	3290.	92.	69.	1324.	263.	58.	12.	844.70	
0.18	0.39	2.48	0.35	0.100	0.035	0.100	0.000	838.10	1958.39	
0.000264	1400.	1310.	1280.	2	0	0	0.00	388.00	2346.38	

*SECNO 4.000

2980.0 FT. U/S FROM N.TERRITORIAL RD. BRIDGE SURVEY SEC. #4

4.00	8.20	846.60	0.00	0.00	846.69	0.09	0.38	0.00	841.70	
3410.	250.	3045.	114.	503.	1188.	287.	120.	28.	843.00	
0.36	0.50	2.56	0.40	0.100	0.035	0.100	0.000	838.40	1809.32	
0.000252	1580.	1470.	1385.	0	0	0	0.00	534.74	2344.06	

```
     SECNO     DEPTH     CWSEL     CRIT/RIGHT
     TIME  %B      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

*SECNO 5.000
          4505.0 FT. U/S FROM N.TERRITORIAL RD. BRIDGE SURVEY SEC. #5
       5.00      7.80    847.10      0.00      0.00    847.30      0.20      0.58      0.03    842.40
     3410.       504.     2877.       29.       450.     737.       49.       174.       41.     843.10
       0.48      1.12      3.91      0.60     0.060     0.035     0.100     0.000    839.30   1808.38
  0.000655     1310.     1535.     1425.         2         0         0      0.00    323.75   2132.12

CCHV=    0.300 CEHV=    0.500
*SECNO 6.100

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      852.10 ELREA=      854.80

          XXXXXXXXXXXXXXXXXXXXXXXXXXXX
       6.10      5.93    847.93      0.00      0.00    848.19      0.27      0.86      0.03    845.50
     3410.         0.     3410.         0.        0.     823.         0.      196.       46.     845.50
       0.54      0.00      4.14      0.00     0.100     0.035     0.100     0.000    842.00   1930.00
  0.001164      680.     1030.     1150.         2         0         0      0.00    170.00   2100.00

*SECNO 6.200

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      852.10 ELREA=      854.80

          D/S FACE BELL RD. BRIDGE
       6.20      6.50    848.30      0.00      0.00    848.91      0.61      0.55      0.17    844.00
     3410.         0.     3410.         0.        0.     544.         0.      202.       48.     844.60
       0.56      0.00      6.27      0.00     0.100     0.035     0.100     0.000    841.80   2004.00
  0.002219      400.      350.      350.         2         0         0      0.00     98.00   2102.00

*SECNO 6.300

3370 NORMAL BRIDGE,NRD= 20 MIN ELTRD=  852.10 MAX ELLC=  861.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      852.10 ELREA=      854.80

          INSIDE BELL RD. BRIDGE
       6.30      6.50    848.30      0.00      0.00    848.91      0.61      0.00      0.00    844.00
     3410.         0.     3410.         0.        0.     544.         0.      202.       48.     844.60
       0.56      0.00      6.26      0.00     0.100     0.030     0.100     0.000    841.80   2004.00
  0.001629         1.        1.        1.         0         0         0     -0.08     98.00   2102.00
```

SECNO	DEPTH	CWSEL	CRW	VLOB	VCH	W	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC		ICONT	CORAR	TOPWID	ENDST

*SECNO 6.350

3370 NORMAL BRIDGE,NRD= 20 MIN ELTRD= 852.10 MAX ELLC= 861.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 852.10 ELREA= 854.80

INSIDE BELL RD. BRIDGE

6.35	6.54	848.34	0.00	0.00	848.94	0.60	0.03	0.00	844.00
3410.	0.	3410.	0.	0.	548.	0.	202.	48.	844.60
0.56	0.00	6.22	0.00	0.100	0.030	0.100	0.000	841.80	2004.00
0.001595	18.	18.	18.	0	0	0	-0.08	98.00	2102.00

*SECNO 6.360

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 852.10 ELREA= 854.80

U/S FACE BELL RD. BRIDGE SURVEY SEC. #6

6.36	6.55	848.35	0.00	0.00	848.95	0.60	0.00	0.00	844.00
3410.	0.	3410.	0.	0.	548.	0.	202.	48.	844.60
0.56	0.00	6.22	0.00	0.100	0.035	0.100	0.000	841.80	2004.00
0.002163	1.	1.	1.	0	0	0	0.00	98.00	2102.00

1490 NH CARD USED

*SECNO 6.400

XXXXXXXXXXXXXXXXXXXXXXXXXXX

6.40	7.19	849.19	0.00	0.00	849.32	0.13	0.23	0.14	846.00
3410.	151.	3249.	10.	91.	1114.	13.	204.	48.	846.00
0.57	1.66	2.91	0.80	0.035	0.035	0.100	0.000	842.00	748.81
0.001733	240.	115.	60.	2	0	0	0.00	379.17	1127.98

CCHV= 0.100 CEHV= 0.300

*SECNO 7.000

1615.0 FT. U/S FROM BELL RD. BRIDGE SURVEY SEC. #7

7.00	8.85	850.55	0.00	0.00	850.77	0.22	1.42	0.03	851.00
3410.	0.	3403.	7.	0.	899.	28.	242.	58.	849.50
0.68	0.00	3.79	0.26	0.060	0.035	0.100	0.000	841.70	2001.03
0.000595	1720.	1500.	1250.	3	0	0	0.00	184.44	2185.47

SECNO	DEPTH	CWSEL	X	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST			
*SECNO 8.000												
3225.0 FT. U/S FROM BELL RD. BRIDGE SURVEY SEC. #8												
	8.00	9.89	851.39	0.00	0.00	851.56	0.17	0.79	0.01	849.70		
	3410.	23.	3385.	2.	53.	1023.	14.	279.	66.	850.80		
	0.82	0.43	3.31	0.13	0.060	0.035	0.100	0.000	841.50	1929.18		
0.000408	1444.	1610.	1620.	2	0	0	0.00	252.36	2181.54			
*SECNO 9.000												
D/S 220 FT. FROM DAM BELOW PORTAGE LK. SURVEY SEC. #9												
	9.00	8.90	852.10	0.00	0.00	852.26	0.16	0.70	0.00	849.80		
	3410.	109.	3301.	0.	127.	1011.	0.	323.	76.	853.50		
	0.97	0.86	3.26	0.00	0.040	0.035	0.100	0.000	843.20	1890.34		
0.000406	1800.	1715.	1565.	2	0	0	0.00	241.19	2131.52			
*SECNO 10.000												
D/S FACE DAM BELOW PORTAGE LK.												
	10.00	9.37	852.27	0.00	0.00	852.31	0.05	0.04	0.01	852.00		
	3410.	0.	3410.	0.	3.	1929.	0.	331.	77.	852.00		
	1.00	0.08	1.77	0.04	0.050	0.035	0.100	0.000	842.90	1790.94		
0.000119	290.	220.	270.	2	0	0	0.00	281.25	2072.20			

* HEC2 RELEASE DATED NOV-76 UPDATED MAR 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55

HEC2 RELEASE DATED NOV 76 UPDATED MAR 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

HURON RIVER 10 YR.

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
1.000	0.00	0.00	0.00	837.60	2130.00	843.50	0.00	843.62	4.98	2.74	777.56	954.21
1.000	0.00	0.00	0.00	837.60	3020.00	844.80	0.00	844.95	4.60	3.08	982.05	1408.14
1.000	0.00	0.00	0.00	837.60	3410.00	845.40	0.00	845.56	4.32	3.17	1076.44	1640.85
1.000	0.00	0.00	0.00	837.60	4360.00	846.70	0.00	846.88	3.95	3.40	1280.93	2192.63

2.100	[illegible]	0.0	0.0	837.80	130.0	8[illegible]	.0[illegible]	8[illegible]	13.[illegible]	.35	48[illegible]	576.58
2.100	99.00	0.00	0.00	837.80	3020.00	844.76	0.00	845.13	12.20	4.84	624.00	864.47
2.100	99.00	0.00	0.00	837.80	3410.00	845.35	0.00	845.73	11.33	4.97	686.38	1013.27
2.100	99.00	0.00	0.00	837.80	4360.00	846.63	0.00	847.07	10.17	5.31	821.57	1367.29
2.200	1.00	857.00	861.00	837.80	2130.00	843.47	0.00	843.80	13.38	4.56	467.39	582.25
2.200	1.00	857.00	861.00	837.80	3020.00	844.74	0.00	845.14	12.71	5.07	595.30	847.04
2.200	1.00	857.00	861.00	837.80	3410.00	845.33	0.00	845.76	12.11	5.21	654.59	979.71
2.200	1.00	857.00	861.00	837.80	4360.00	846.61	0.00	847.09	11.55	5.58	781.83	1282.75
2.300	18.00	857.00	861.00	837.80	2130.00	843.50	0.00	843.82	13.23	4.54	469.12	585.62
2.300	18.00	857.00	861.00	837.80	3020.00	844.77	0.00	845.17	12.62	5.06	596.64	849.98
2.300	18.00	857.00	861.00	837.80	3410.00	845.36	0.00	845.78	12.05	5.20	655.74	982.35
2.300	18.00	857.00	861.00	837.80	4360.00	846.63	0.00	847.11	11.47	5.56	783.79	1287.60
2.400	1.00	0.00	0.00	837.80	2130.00	843.55	0.00	843.83	9.62	4.30	495.56	686.89
2.400	1.00	0.00	0.00	837.80	3020.00	844.83	0.00	845.18	8.65	4.79	630.74	1026.78
2.400	1.00	0.00	0.00	837.80	3410.00	845.42	0.00	845.79	8.05	4.92	693.16	1201.67
2.400	1.00	0.00	0.00	837.80	4360.00	846.70	0.00	847.13	7.25	5.26	828.88	1618.88
2.500	200.00	0.00	0.00	838.00	2130.00	843.92	0.00	844.00	3.25	2.28	1108.46	1182.17
2.500	200.00	0.00	0.00	838.00	3020.00	845.26	0.00	845.35	2.85	2.49	1509.05	1788.26
2.500	200.00	0.00	0.00	838.00	3410.00	845.87	0.00	845.96	2.64	2.54	1698.98	2098.65
2.500	200.00	0.00	0.00	838.00	4360.00	847.20	0.00	847.30	2.32	2.67	2140.29	2861.78
3.000	1310.00	0.00	0.00	838.10	2130.00	844.34	0.00	844.42	3.13	2.20	989.69	1203.96
3.000	1310.00	0.00	0.00	838.10	3020.00	845.64	0.00	845.73	2.85	2.43	1436.12	1789.44
3.000	1310.00	0.00	0.00	838.10	3410.00	846.22	0.00	846.31	2.64	2.48	1656.54	2098.86
3.000	1310.00	0.00	0.00	838.10	4360.00	847.51	0.00	847.61	2.29	2.60	2176.35	2881.79

SECNO	XLCH	ELTRD	E[illegible]0.00	0.00	0.00	838.40	2130.00	844.78	0.00	844.86	2.88	2.27
1165.19	1255.64											
4.000	1470.00	0.00	0.00	838.40	3020.00	846.04	0.00	846.13	2.68	2.51	1698.17	1843.17
4.000	1470.00	0.00	0.00	838.40	3410.00	846.60	0.00	846.69	2.52	2.56	1978.43	2147.38
4.000	1470.00	0.00	0.00	838.40	4360.00	847.84	0.00	847.94	2.21	2.66	2725.89	2935.70
5.000	1535.00	0.00	0.00	839.30	2130.00	845.39	0.00	845.57	7.87	3.54	751.88	759.11
5.000	1535.00	0.00	0.00	839.30	3020.00	846.59	0.00	846.79	7.01	3.84	1076.48	1140.47
5.000	1535.00	0.00	0.00	839.30	3410.00	847.10	0.00	847.30	6.55	3.91	1235.94	1332.44
5.000	1535.00	0.00	0.00	839.30	4360.00	848.27	0.00	848.47	5.57	4.00	1709.77	1847.06
6.100	1030.00	0.00	0.00	842.00	2130.00	846.46	0.00	846.67	15.21	3.72	572.99	546.22
6.100	1030.00	0.00	0.00	842.00	3020.00	847.49	0.00	847.74	12.54	4.03	748.51	852.69
6.100	1030.00	0.00	0.00	842.00	3410.00	847.93	0.00	848.19	11.64	4.14	823.34	999.44
6.100	1030.00	0.00	0.00	842.00	4360.00	848.95	0.00	849.25	10.04	4.37	997.42	1375.93
6.200	350.00	0.00	0.00	841.80	2130.00	846.99	0.00	847.39	21.33	5.13	415.29	461.19
6.200	350.00	0.00	0.00	841.80	3020.00	847.91	0.00	848.46	22.24	5.97	505.70	640.40
6.200	350.00	0.00	0.00	841.80	3410.00	848.30	0.00	848.91	22.19	6.27	544.28	723.89

6.200	350.00	.00	.	841.80	3360.00	849.23	.	849.[illegible]	21.[illegible]	[illegible]	635.70	73[illegible]
6.300	1.00	852.10	861.00	841.80	2130.00	846.99	0.00	847.40	15.65	5.13	415.47	538.45
6.300	1.00	852.10	861.00	841.80	3020.00	847.91	0.00	848.46	16.32	5.97	505.87	747.55
6.300	1.00	852.10	861.00	841.80	3410.00	848.30	0.00	848.91	16.29	6.26	544.44	844.96
6.300	1.00	852.10	861.00	841.80	4360.00	849.23	0.00	849.96	15.92	6.86	635.27	1092.74
6.350	18.00	852.10	861.00	841.80	2130.00	847.02	0.00	847.43	15.24	5.09	418.78	545.61
6.350	18.00	852.10	861.00	841.80	3020.00	847.95	0.00	848.50	15.95	5.93	509.34	756.12
6.350	18.00	852.10	861.00	841.80	3410.00	848.34	0.00	848.94	15.95	6.22	547.90	853.92
6.350	18.00	852.10	861.00	841.80	4360.00	849.27	0.00	849.99	15.65	6.83	638.56	1102.18
6.360	1.00	0.00	0.00	841.80	2130.00	847.03	0.00	847.43	20.67	5.08	419.22	468.48
6.360	1.00	0.00	0.00	841.80	3020.00	847.95	0.00	848.50	21.63	5.92	509.89	649.28
6.360	1.00	0.00	0.00	841.80	3410.00	848.35	0.00	848.95	21.63	6.22	548.48	733.22
6.360	1.00	0.00	0.00	841.80	4360.00	849.27	0.00	849.99	21.23	6.82	639.15	946.17
6.400	115.00	0.00	0.00	842.00	2130.00	847.57	0.00	847.70	13.82	2.92	736.04	572.90
6.400	115.00	0.00	0.00	842.00	3020.00	848.73	0.00	848.86	19.69	2.93	1054.98	680.63
6.400	115.00	0.00	0.00	842.00	3410.00	849.19	0.00	849.32	17.33	2.91	1218.34	819.15
6.400	115.00	0.00	0.00	842.00	4360.00	850.26	0.00	850.37	12.27	2.76	1681.90	1244.75
7.000	1500.00	0.00	0.00	841.70	2130.00	848.79	0.00	848.95	5.48	3.12	682.31	910.25
7.000	1500.00	0.00	0.00	841.70	3020.00	850.13	0.00	850.32	5.66	3.57	855.25	1269.38
7.000	1500.00	0.00	0.00	841.70	3410.00	850.55	0.00	850.77	5.95	3.79	926.66	1398.03
7.000	1500.00	0.00	0.00	841.70	4360.00	851.46	0.00	851.74	6.47	4.25	1134.12	1714.58
8.000	1610.00	0.00	0.00	841.50	2130.00	849.56	0.00	849.68	3.81	2.72	782.48	1091.06
8.000	1610.00	0.00	0.00	841.50	3020.00	850.93	0.00	851.08	3.97	3.13	987.95	1515.87
8.000	1610.00	0.00	0.00	841.50	3410.00	851.39	0.00	851.56	4.08	3.31	1090.39	1687.33
8.000	1610.00	0.00	0.00	841.50	4360.00	852.38	0.00	852.58	4.28	3.67	1402.61	2107.27

SECNO	XLCH	ELTRD	NO	2130.00	850.24	0.00	850.36	4.13	2.77	772.68	1047.53	
9.000	1715.00	0.00	0.00	843.20	3020.00	851.62	0.00	851.77	4.02	3.12	1028.29	1506.59
9.000	1715.00	0.00	0.00	843.20	3410.00	852.10	0.00	852.26	4.06	3.26	1137.80	1692.85
9.000	1715.00	0.00	0.00	843.20	4360.00	853.12	0.00	853.30	4.12	3.55	1409.00	2148.20
10.000	220.00	0.00	0.00	842.90	2130.00	850.38	0.00	850.41	1.06	1.46	1460.29	2067.60
10.000	220.00	0.00	0.00	842.90	3020.00	851.78	0.00	851.82	1.15	1.67	1804.91	2817.07
10.000	220.00	0.00	0.00	842.90	3410.00	852.27	0.00	852.31	1.19	1.77	1932.35	3126.70
10.000	220.00	0.00	0.00	842.90	4360.00	853.30	0.00	853.36	1.25	1.98	2274.61	3892.57

641G

HURON RIVER 10 YR.

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
1.000	2130.00	843.50	0.00	0.00	0.00	157.30	0.00
1.000	3020.00	844.80	1.30	0.00	0.00	157.30	0.00
1.000	3410.00	845.40	0.60	0.00	0.00	157.30	0.00
1.000	4360.00	846.70	1.30	0.00	0.00	157.30	0.00
2.100	2130.00	843.49	0.00	-0.01	0.00	105.70	99.00
2.100	3020.00	844.76	1.27	-0.04	0.00	105.70	99.00
2.100	3410.00	845.35	0.59	-0.05	0.00	105.70	99.00
2.100	4360.00	846.63	1.28	-0.07	0.00	105.70	99.00
2.200	2130.00	843.47	0.00	-0.01	0.00	105.70	1.00
2.200	3020.00	844.74	1.27	-0.02	0.00	105.70	1.00
2.200	3410.00	845.33	0.59	-0.02	0.00	105.70	1.00
2.200	4360.00	846.61	1.28	-0.02	0.00	105.70	1.00
2.300	2130.00	843.50	0.00	0.03	0.00	105.70	18.00
2.300	3020.00	844.77	1.27	0.03	0.00	105.70	18.00
2.300	3410.00	845.36	0.59	0.02	0.00	105.70	18.00
2.300	4360.00	846.63	1.28	0.02	0.00	105.70	18.00
2.400	2130.00	843.55	0.00	0.04	0.00	105.70	1.00
2.400	3020.00	844.83	1.28	0.06	0.00	105.70	1.00
2.400	3410.00	845.42	0.59	0.06	0.00	105.70	1.00
2.400	4360.00	846.70	1.28	0.07	0.00	105.70	1.00
2.500	2130.00	843.92	0.00	0.38	0.00	287.67	200.00
2.500	3020.00	845.26	1.34	0.44	0.00	308.95	200.00
2.500	3410.00	845.87	0.61	0.45	0.00	318.04	200.00
2.500	4360.00	847.20	1.33	0.50	0.00	344.07	200.00
3.000	2130.00	844.34	0.00	0.42	0.00	270.49	1310.00
3.000	3020.00	845.64	1.29	0.37	0.00	372.73	1310.00
3.000	3410.00	846.22	0.58	0.35	0.00	388.00	1310.00
3.000	4360.00	847.51	1.29	0.31	0.00	416.01	1310.00
4.000	2130.00	844.78	0.00	0.44	0.00	366.58	1470.00
4.000	3020.00	846.04	1.26	0.41	0.00	475.43	1470.00
4.000	3410.00	846.60	0.55	0.38	0.00	534.74	1470.00
4.000	4360.00	847.84	1.25	0.34	0.00	667.62	1470.00
5.000	2130.00	845.39	0.00	0.61	0.00	243.64	1535.00
5.000	3020.00	846.59	1.19	0.54	0.00	299.73	1535.00
5.000	3410.00	847.10	0.51	0.50	0.00	323.75	1535.00
5.000	4360.00	848.27	1.17	0.42	0.00	621.12	1535.00

SECNO	Q	CWSEL	B0.00	1.07	0.00	170.00	1030.00
6.100	3020.00	847.49	1.03	0.90	0.00	170.00	1030.00
6.100	3410.00	847.93	0.44	0.83	0.00	170.00	1030.00
6.100	4360.00	848.95	1.02	0.68	0.00	170.00	1030.00
6.200	2130.00	846.99	0.00	0.53	0.00	98.00	350.00
6.200	3020.00	847.91	0.92	0.42	0.00	98.00	350.00
6.200	3410.00	848.30	0.39	0.38	0.00	98.00	350.00
6.200	4360.00	849.23	0.93	0.28	0.00	98.00	350.00
6.300	2130.00	846.99	0.00	0.00	0.00	98.00	1.00
6.300	3020.00	847.91	0.92	0.00	0.00	98.00	1.00
6.300	3410.00	848.30	0.39	0.00	0.00	98.00	1.00
6.300	4360.00	849.23	0.93	0.00	0.00	98.00	1.00
6.350	2130.00	847.02	0.00	0.04	0.00	98.00	18.00
6.350	3020.00	847.95	0.93	0.04	0.00	98.00	18.00
6.350	3410.00	848.34	0.39	0.04	0.00	98.00	18.00
6.350	4360.00	849.27	0.93	0.04	0.00	98.00	18.00
6.360	2130.00	847.03	0.00	0.00	0.00	98.00	1.00
6.360	3020.00	847.95	0.93	0.00	0.00	98.00	1.00
6.360	3410.00	848.35	0.39	0.00	0.00	98.00	1.00
6.360	4360.00	849.27	0.93	0.00	0.00	98.00	1.00
6.400	2130.00	847.57	0.00	0.54	0.00	227.83	115.00
6.400	3020.00	848.73	1.16	0.78	0.00	333.31	115.00
6.400	3410.00	849.19	0.46	0.84	0.00	379.17	115.00
6.400	4360.00	850.26	1.07	0.99	0.00	469.37	115.00
7.000	2130.00	848.79	0.00	1.22	0.00	120.31	1500.00
7.000	3020.00	850.13	1.33	1.39	0.00	156.23	1500.00
7.000	3410.00	850.55	0.42	1.36	0.00	184.44	1500.00
7.000	4360.00	851.46	0.91	1.20	0.00	275.40	1500.00
8.000	2130.00	849.56	0.00	0.77	0.00	129.34	1610.00
8.000	3020.00	850.93	1.37	0.81	0.00	191.91	1610.00
8.000	3410.00	851.39	0.46	0.85	0.00	252.36	1610.00
8.000	4360.00	852.38	0.99	0.92	0.00	373.59	1610.00
9.000	2130.00	850.24	0.00	0.68	0.00	151.92	1715.00
9.000	3020.00	851.62	1.38	0.69	0.00	218.28	1715.00
9.000	3410.00	852.10	0.48	0.71	0.00	241.19	1715.00
9.000	4360.00	853.12	1.02	0.74	0.00	290.23	1715.00
10.000	2130.00	850.38	0.00	0.14	0.00	237.63	220.00
10.000	3020.00	851.78	1.40	0.16	0.00	253.51	220.00
10.000	3410.00	852.27	0.49	0.17	0.00	281.25	220.00
10.000	4360.00	853.30	1.04	0.18	0.00	379.65	220.00

SUMMARY OF ERRORS AND SPECIAL% PAGE 34

FLOOD INSURANCE ZONE DATA FOR HURON RIVER 10 YR.

FLOOD HAZARD FACTOR FOR ENTIRE REACH USING SECTIONS

SECTION NUMBER	CUMULATIVE DISTANCE	ELEVATION DIFFERENCE BETWEEN BASE FLOOD AND 10	2	0.2
1.000	0.	-1.90	-0.60	1.30
2.100	99.	-1.86	-0.59	1.28
2.200	100.	-1.86	-0.59	1.28
2.300	118.	-1.86	-0.59	1.28
2.400	119.	-1.87	-0.59	1.28
2.500	319.	-1.95	-0.61	1.33
3.000	1629.	-1.87	-0.58	1.29
4.000	3099.	-1.81	-0.55	1.25
5.000	4634.	-1.71	-0.51	1.17
6.100	5664.	-1.47	-0.44	1.02
6.200	6014.	-1.32	-0.39	0.93
6.300	6015.	-1.32	-0.39	0.93
6.350	6033.	-1.32	-0.39	0.93
6.360	6034.	-1.32	-0.39	0.93
6.400	6149.	-1.62	-0.46	1.07
7.000	7649.	-1.75	-0.42	0.91
8.000	9259.	-1.83	-0.46	0.99
9.000	10974.	-1.86	-0.48	1.02
10.000	11194.	-1.89	-0.49	1.04
WEIGHTED AVG FOR REACH		-1.77	-0.50	1.11

FHF FOR THE REACH = 020 WITH 100.0 PERCENT OF THE REACH WITHIN 0.5 FEET
ZONE FOR THE REACH = A 4

```
$ @ENGLIB:HEC2

        HEC2 PACKAGE

Enter Data File Name <RETURN to EXIT>: HUROND.HEC
OUTPUT to <LPA0:, TT: or FILE>: TT
SAVE PUNCHED DATA<Y or N>? N

  W o r k i n g . . .

**************************************************************************************
*  WATER SURFACE PROFILES    **                                  *  U.S. ARMY CORPS OF ENGINEERS      *
*  VERSION OF NOVEMBER 1976                          *                                  *  THE HYDROLOGIC ENGINEERING CENTER  *
*  UPDATED MARCH 1982                                *                                  *  609 SECOND STREET, SUITE D         *
*                                                    *                                  *  DAVIS, CALIFORNIA 95616            *
*  RUN DATE 19-JUN-84 TIME 08:24:51                  *                                  *  (916) 440-2105 (FTS) 448-2105      *
**************************************************************************************

                                        X     X  XXXXXXX   XXXXX              XXXXX
                                        X     X  X        X     X            X     X
                                        X     X  X        X                        X
                                        XXXXXXX  XXXX     X          XXXXX    XXXXX
                                        X     X  X        X                  X
                                        X     X  X        X     X            X
                                        X     X  XXXXXXX   XXXXX             XXXXXXX

19-JUN-84  08:25:09                                                                                    PAGE    1

                                                                                THIS RUN EXECUTED 19-JUN-84  08:25:11
*************************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAR  1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -- 50,51,52,53,54,55
*************************************************************
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641G

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T1      DEXTER FLOOD STUDY JUNE 1984          BACKWATER THROUGH PORTAGE DAM!!!
T2      JOB #91053F HUROND.HEC                TAILWATER SUBMERGENCE OF DAM
T3      HURON RIVER 10YR. FLOW                IS THE ASSUMED CONTROL.......
```

-.3' below datum on dam
846.5 on plans = 846.2 USGS

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	2.	0.	0.	0.000000	0.00	0.0	0.	850.380	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	1.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

J3	VARIABLE CODES FOR SUMMARY PRINTOUT									
	150.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

QT	5.000	2130.000	3020.000	3410.000	4360.000	3410.000	0.000	0.000	0.000	0.000
NC	0.050	0.100	0.035	0.300	0.500	0.000	0.000	0.000	0.000	0.000
X1	10.000	16.000	1815.000	2071.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	865.000	1500.000	856.000	1608.000	855.000	1624.000	854.000	1634.000	852.000	1815.000
GR	842.900	1900.000	842.900	1968.000	842.900	1972.000	842.900	2000.000	842.900	2053.000
GR	852.000	2071.000	854.000	2080.000	856.000	2120.000	858.000	2160.000	860.000	2300.000
GR	860.000	2400.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.012	0.012	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	10.100	10.000	2100.100	2204.100	50.000	50.000	50.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	854.700	854.700	0.000
GR	854.700	1936.000	852.400	2046.000	851.700	2100.000	841.200	2100.100	841.200	2118.000
GR	842.200	2118.100	842.200	2151.000	842.500	2204.000	851.700	2204.100	854.700	2256.000
X1	10.200	20.000	100.000	204.100	7.000	7.000	7.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	853.700	854.700	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	854.700	854.700	0.000
GR	854.700	100.000	846.200	100.100	846.200	118.000	851.700	118.100	851.700	119.500
GR	846.200	119.600	846.200	139.600	851.700	139.700	851.700	141.100	846.200	141.200
GR	846.200	161.200	851.700	161.300	851.700	162.700	846.200	162.800	846.200	182.800
GR	851.700	182.900	851.700	184.300	846.200	184.400	846.200	204.000	854.700	204.100
X1	10.300	0.000	0.000	0.000	6.000	6.000	6.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	853.700	854.700	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	854.700	854.700	0.000

X1	10.400	4.000	100.00	0.000	0.000	0.000	854.700	854.700	0.000	
GR	854.700	100.000	844.200	100.100	844.200	204.000	854.700	204.100	0.000	0.000
NC	0.050	0.040	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	10.500	7.000	2000.000	2130.000	30.000	30.000	30.000	0.000	0.000	0.000
GR	854.500	1720.000	854.000	1910.000	852.000	2000.000	844.200	2002.000	844.200	2128.000
GR	852.000	2130.000	854.000	2160.000	856.000	2190.000	858.000	2230.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

%84 08:27:34

****
HEC2 RELEASE DATED NOV 76 UPDATED MAR 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION -- 50,51,52,53,54,55
****

T1
T2
T3 100 YR. FLOOD

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	4.	0.	0.	0.000000	0.00	0.0	0.	852.270	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	3.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CUSEL	XE	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST			

*PROF 3

CCHV= 0.300 CEHV= 0.500

*SECNO 10.000

10.00	9.37	852.27	0.00	852.27	852.32	0.05	0.00	0.00	852.00
3410.	0.	3410.	0.	3.	1930.	0.	0.	0.	852.00
0.00	0.09	1.77	0.04	0.050	0.035	0.100	0.000	842.90	1790.56
0.000119	0.	0.	0.	0	0	0	0.00	281.65	2072.22

*SECNO 10.100

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 854.70 ELREA= 854.70

10.10	11.02	852.22	0.00	0.00	852.38	0.16	0.00	0.06	841.20
3410.	0.	3410.	0.	0.	1051.	0.	2.	0.	851.70
0.00	0.00	3.24	0.00	0.012	0.012	0.012	0.000	841.20	2100.10
0.000035	50.	50.	50.	2	0	0	0.00	104.00	2204.10

*SECNO 10.200

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 854.70 MAX ELLC= 853.70

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 854.70 ELREA= 854.70

10.20	5.82	852.02	0.00	0.00	852.57	0.55	0.00	0.19	854.70
3410.	0.	3410.	0.	0.	572.	0.	2.	0.	854.70
0.00	0.00	5.96	0.00	0.012	0.012	0.012	0.000	846.20	100.03
0.000419	7.	7.	7.	2	0	0	0.00	104.04	204.07

*SECNO 10.300

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 854.70 MAX ELLC= 853.70

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 854.70 ELREA= 854.70

10.30	5.82	852.02	0.00	0.00	852.57	0.55	0.00	0.00	854.70

3410.	0.	3410.	0.	0.	572.	0.	2.	0.	854.70
0.00	0.00	5.96	0.00	0.012	0.012	0.012	0.000	846.20	100.03
0.000418	6.	6.	6.	0	0	0	0.00	104.04	204.07

641G

SECNO	DEPTH	CWSEL	CRIW	LEFT/RIGHT					
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 10.400

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 854.70 ELREA= 854.70

10.40	8.22	852.42	0.00	0.00	852.67	0.25	0.00	0.09	854.70
3410.	0.	3410.	0.	0.	855.	0.	2.	0.	854.70
0.01	0.00	3.99	0.00	0.012	0.012	0.012	0.000	844.20	100.02
0.000076	3.	3.	3.	2	0	0	0.00	104.06	204.08

*SECNO 10.500

10.50	8.34	852.54	0.00	0.00	852.70	0.16	0.00	0.03	852.00
3410.	2.	3408.	1.	7.	1069.	2.	3.	0.	852.00
0.01	0.24	3.19	0.30	0.050	0.035	0.040	0.000	844.20	1975.66
0.000383	30.	30.	30.	2	0	0	0.00	162.46	2138.11

* DATED NOV 76 UPDATED MAR 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

HURON RIVER 10YR. FLOW

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
10.000	0.00	0.00	0.00	842.90	2130.00	850.38	0.00	850.41	1.06	1.46	1461.08	2069.24
10.000	0.00	0.00	0.00	842.90	3020.00	851.78	0.00	851.82	1.15	1.67	1804.91	2817.06
10.000	0.00	0.00	0.00	842.90	3410.00	852.27	0.00	852.32	1.19	1.77	1933.53	3129.61
10.000	0.00	0.00	0.00	842.90	4360.00	853.30	0.00	853.36	1.26	1.98	2274.01	3891.32
10.100	50.00	0.00	0.00	841.20	2130.00	850.35	0.00	850.45	0.27	2.48	857.22	4106.95
10.100	50.00	0.00	0.00	841.20	3020.00	851.73	0.00	851.88	0.33	3.02	1001.04	5276.34
10.100	50.00	0.00	0.00	841.20	3410.00	852.22	0.00	852.38	0.35	3.24	1051.12	5723.62

10.1	5 .00	.00	.0	841.20	436 .00	853.2	.00	853.	0.2	3.7	1155.92	2705.98
10.200	7.00	854.70	853.70	846.20	2130.00	850.17	0.00	850.63	4.91	5.49	388.03	961.16
10.200	7.00	854.70	853.70	846.20	3020.00	851.55	0.00	852.06	4.13	5.77	523.78	1486.66
10.200	7.00	854.70	853.70	846.20	3410.00	852.02	0.00	852.57	4.19	5.96	572.38	1666.66
10.200	7.00	854.70	853.70	846.20	4360.00	853.01	0.00	853.66	4.01	6.46	675.22	2177.03
10.300	6.00	854.70	853.70	846.20	2130.00	850.17	0.00	850.64	4.91	5.49	388.11	961.45
10.300	6.00	854.70	853.70	846.20	3020.00	851.55	0.00	852.07	4.13	5.76	523.87	1486.84
10.300	6.00	854.70	853.70	846.20	3410.00	852.02	0.00	852.58	4.18	5.96	572.47	1667.07
10.300	6.00	854.70	853.70	846.20	4360.00	853.01	0.00	853.66	4.01	6.46	675.30	2177.47
10.400	3.00	0.00	0.00	844.20	2130.00	850.57	0.00	850.73	0.67	3.22	662.21	2609.89
10.400	3.00	0.00	0.00	844.20	3020.00	851.94	0.00	852.16	0.72	3.75	804.52	3554.81
10.400	3.00	0.00	0.00	844.20	3410.00	852.42	0.00	852.67	0.76	3.99	854.88	3912.27
10.400	3.00	0.00	0.00	844.20	4360.00	853.44	0.00	853.76	0.86	4.54	960.98	4701.57
10.500	30.00	0.00	0.00	844.20	2130.00	850.65	0.00	850.75	3.48	2.59	822.81	1141.53
10.500	30.00	0.00	0.00	844.20	3020.00	852.04	0.00	852.18	3.70	3.01	1003.97	1569.40
10.500	30.00	0.00	0.00	844.20	3410.00	852.54	0.00	852.70	3.83	3.19	1077.50	1743.02
10.500	30.00	0.00	0.00	844.20	4360.00	853.60	0.00	853.80	4.10	3.58	1284.15	2154.35

641G

HURON RIVER 10YR. FLOW

SUMM%0.00	0.00	%.66	0.00				
10.000	3020.00	851.78	1.40	0.00	0.00	253.51	0.00
10.000	3410.00	852.27	0.49	0.00	0.00	281.65	0.00
10.000	4360.00	853.30	1.03	0.00	0.00	379.50	0.00
10.100	2130.00	850.35	0.00	-0.03	0.00	103.99	50.00
10.100	3020.00	851.73	1.38	-0.05	0.00	104.00	50.00
10.100	3410.00	852.22	0.48	-0.05	0.00	104.00	50.00
10.100	4360.00	853.22	1.01	-0.08	0.00	104.00	50.00
10.200	2130.00	850.17	0.00	-0.19	0.00	98.17	7.00
10.200	3020.00	851.55	1.38	-0.19	0.00	98.40	7.00
10.200	3410.00	852.02	0.48	-0.19	0.00	104.04	7.00
10.200	4360.00	853.01	0.99	-0.21	0.00	104.06	7.00
10.300	2130.00	850.17	0.00	0.00	0.00	98.17	6.00
10.300	3020.00	851.55	1.38	0.00	0.00	98.40	6.00
10.300	3410.00	852.02	0.48	0.00	0.00	104.04	6.00
10.300	4360.00	853.01	0.99	0.00	0.00	104.06	6.00

10.	2130.	850.57	0.0	0.40	0.00	1 .02	3.00
10.400	3020.00	851.94	1.37	0.39	0.00	104.05	3.00
10.400	3410.00	852.42	0.48	0.40	0.00	104.06	3.00
10.400	4360.00	853.44	1.02	0.43	0.00	104.08	3.00
10.500	2130.00	850.65	0.00	0.08	0.00	129.31	30.00
10.500	3020.00	852.04	1.40	0.11	0.00	132.55	30.00
10.500	3410.00	852.54	0.50	0.12	0.00	162.46	30.00
10.500	4360.00	853.60	1.06	0.16	0.00	226.25	30.00

SUMMARY OF ERRORS AND SPECIAL NOTES

NONE

19-JUN-84 08:30:24 PAGE 1

THIS RUN EXECUTED 19-JUN-84 08:30:30

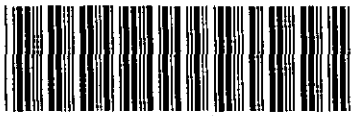
```
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAR  1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************

FORTRAN STOP

Enter Data File Name <RETURN to EXIT>:
$ @PORTOFF

$ @ENGLIB:HEC2

          HEC2 PACKAGE
```



1) COUNTY: WASHTENAW

2) STUDY NAME: DEXTER TWP

3) WATERCOURSE: LITTLE PORTAGE, SILVER LK, NORTH LK
LOGSS & HALFMOON LKS

4) DOCUMENT TYPE: REPORT



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                                                                                THIS RUN EXECUTED 24-JAN-85  10:46:37
*************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55
*************************************************

C
T1      DEXTER FLOOD STUDY JULY 1984    LITTLE PORTAGE LAKE BRIDGE [BBS]
T2      JOB #1053E LILPORT.HEC    [SHEFF]
T3      MULTIPLE PROFILE RUN

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      0.        2.        0.        0.  0.000000      0.00       0.0       0.   851.500     0.000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

     1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

J3  VARIABLE CODES FOR SUMMARY PRINTOUT

    150.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

QT      4.000   325.000   475.000   525.000   690.000     0.000     0.000     0.000     0.000     0.000
NC      0.100     0.100     0.030     0.100     0.300     0.000     0.000     0.000     0.000     0.000
        30.0 FEET D/S FROM THE DEXTER-PINCKNEY BRIDGE @PORTAGE LK.
X1     13.000    15.000  2000.000  2050.000     0.000     0.000     0.000     0.000     0.000     0.000
GR    858.000  1995.000   856.000  1997.000   854.000  1998.000   850.100  2000.000   850.000  2003.000
GR    849.800  2010.000   848.800  2016.000   848.600  2020.000   847.900  2025.000   847.900  2030.000
GR    849.400  2040.000   850.500  2050.000   854.000  2052.000   856.000  2054.000   858.000  2056.000

NC      0.000     0.000     0.026     0.300     0.500     0.000     0.000     0.000     0.000     0.000
        X- SEC. 13.1 D/S FACE OF DEXTER-PINCKNEY RD. BRIDGE
X1     13.100    11.000  2002.000  2048.000    30.000    30.000    30.000     0.000     0.000     0.000
GR    856.200  2002.000   850.100  2002.100   850.000  2003.000   849.800  2010.000   848.800  2016.000
GR    848.600  2020.000   847.900  2025.000   847.900  2030.000   849.400  2040.000   850.500  2048.000
GR    856.200  2048.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

        X-SEC. 13.2 1 FT. INSIDE OF THE DEXTER-PINCKNEY RD. BRIDGE
X1     13.200     0.000     0.000     0.000     1.000     1.000     1.000     0.000     0.000     0.000
X2      0.000     0.000     0.000   855.700   860.000     0.000     0.000     0.000     0.000     0.000

        X-SEC. 13.3 1 FT. INSIDE OF THE DEXTER-PINCKNEY RD. BRIDGE
X1     13.300     0.000     0.000     0.000    29.000    29.000    29.000     0.000     0.000     0.000
X2      0.000     0.000     0.000   855.700   860.000     0.000     0.000     0.000     0.000     0.000
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          X-SEC. 13.4 U/S FACE OF THE DEXTER-PINCKNEY RD. BRIDGE
X1      13.400      0.000      0.000      0.000     -1.000      1.000      1.000      0.000      0.000      0.000

NC       0.100      0.100      0.030      0.100      0.300      0.000      0.000      0.000      0.000      0.000
          X-SEC. 13.5 U/S OF DEXTER-PINCKNEY RD. @ LITTLE PORTAGE LAKE
X1      13.500     15.000   2000.000   2050.000     30.000     30.000     30.000      0.000      0.000      0.000
GR     858.000   1994.000    856.000   1996.000    854.000   1998.000    850.100   2000.000    850.000   2003.000
GR     849.300   2010.000    848.800   2016.000    848.600   2020.000    847.900   2025.000    847.900   2030.000
GR     849.400   2040.000    850.500   2050.000    854.000   2052.000    856.000   2054.000    858.000   2056.000
EJ       0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
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THIS RUN EXECUTED 24-JAN-85 10:48:56

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*************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -- 01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55
*************************************************

T1
T2       100 YEAR FLOW
T3 LITTLE PORTAGE LAKE-DEXTER TWP. F.I.S.

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC    HVINS     Q       WSEL     FQ

      0.        4.       0.       0.  0.000000     0.00      0.0       0.   851.500    0.000

J2  NPROF     IPLOT    PRFVS    XSECV    XSECH     FN       ALLDC     IBW      CHNIM    ITRACE

    3.000     0.000   -1.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 3

CCHV= 0.100 CEHV= 0.300

*SECNO 13.000

30.0 FEET D/S FROM THE DEXTER-PINCKNEY BRIDGE @PORTAGE LK.

13.00	3.60	851.50	0.00	851.50	851.81	0.31	0.00	0.00	850.10
525.	0.	525.	0.	1.	118.	0.	0.	0.	850.50
0.00	0.35	4.44	0.30	0.100	0.030	0.100	0.000	847.90	1999.28
0.002572	0.	0.	0.	0	0	0	0.00	51.29	2050.57

CCHV= 0.300 CEHV= 0.500

*SECNO 13.100

X- SEC. 13.1 D/S FACE OF DEXTER-PINCKNEY RD. BRIDGE

13.10	3.66	851.56	0.00	0.00	851.88	0.32	0.07	0.01	856.20
525.	0.	525.	0.	0.	115.	0.	0.	0.	856.20
0.00	0.00	4.56	0.00	0.000	0.026	0.000	0.000	847.90	2002.08
0.002019	30.	30.	30.	1	0	0	0.00	45.92	2048.00

*SECNO 13.200

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 860.00 MAX ELLC= 855.70

X-SEC. 13.2 1 FT. INSIDE OF THE DEXTER-PINCKNEY RD. BRIDGE

13.20	3.66	851.56	0.00	0.00	851.89	0.32	0.00	0.00	856.20
525.	0.	525.	0.	0.	115.	0.	0.	0.	856.20
0.00	0.00	4.57	0.00	0.000	0.026	0.000	0.000	847.90	2002.08
0.002036	1.	1.	1.	0	0	0	0.00	45.92	2048.00

*SECNO 13.300

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 860.00 MAX ELLC= 855.70

X-SEC. 13.3 1 FT. INSIDE OF THE DEXTER-PINCKNEY RD. BRIDGE

13.30	3.74	851.64	0.00	0.00	851.95	0.30	0.06	0.01	856.20
525.	0.	525.	0.	0.	119.	0.	0.	0.	856.20
0.00	0.00	4.42	0.00	0.000	0.026	0.000	0.000	847.90	2002.07
0.001839	29.	29.	29.	2	0	0	0.00	45.93	2048.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 13.400
X-SEC. 13.4 U/S FACE OF THE DEXTER-PINCKNEY RD. BRIDGE

13.40	3.75	851.65	0.00	0.00	851.95	0.30	0.00	0.00	856.20
525.	0.	525.	0.	0.	119.	0.	0.	0.	856.20
0.00	0.00	4.42	0.00	0.000	0.026	0.000	0.000	847.90	2002.07
0.001835	1.	1.	1.	0	0	0	0.00	45.93	2048.00

CCHV= 0.100 CEHV= 0.300

*SECNO 13.500
X-SEC. 13.5 U/S OF DEXTER-PINCKNEY RD. @ LITTLE PORTAGE LAKE

13.50	3.87	851.77	0.00	0.00	852.01	0.23	0.05	0.01	850.10
525.	0.	525.	0.	1.	135.	0.	0.	0.	850.50
0.01	0.32	3.88	0.28	0.100	0.030	0.100	0.000	847.90	1999.14
0.001642	30.	30.	30.	2	0	0	0.00	51.59	2050.73

THIS RUN EXECUTED 24-JAN-85 10:50:51

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55
**************************************************
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMRER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

MULTIPLE PROFILE RUN

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
13.000	0.00	0.00	0.00	847.90	325.00	851.50	0.00	851.62	9.86	2.75	118.99	103.52
13.000	0.00	0.00	0.00	847.90	475.00	851.50	0.00	851.75	21.05	4.02	118.99	103.52
13.000	0.00	0.00	0.00	847.90	525.00	851.50	0.00	851.81	25.72	4.44	118.99	103.52
13.000	0.00	0.00	0.00	847.90	690.00	851.50	0.00	852.03	44.43	5.83	118.99	103.52
13.100	30.00	0.00	0.00	847.90	325.00	851.52	0.00	851.65	8.14	2.87	113.43	113.92
13.100	30.00	0.00	0.00	847.90	475.00	851.55	0.00	851.81	16.80	4.14	114.64	115.87
13.100	30.00	0.00	0.00	847.90	525.00	851.56	0.00	851.88	20.19	4.56	115.23	116.84
13.100	30.00	0.00	0.00	847.90	690.00	851.61	0.00	852.15	33.15	5.89	117.08	119.85
13.200	1.00	860.00	855.70	847.90	325.00	851.52	0.00	851.65	8.21	2.87	113.11	113.41
13.200	1.00	860.00	855.70	847.90	475.00	851.55	0.00	851.82	16.93	4.15	114.37	115.44
13.200	1.00	860.00	855.70	847.90	525.00	851.56	0.00	851.89	20.36	4.57	114.93	116.35
13.200	1.00	860.00	855.70	847.90	690.00	851.61	0.00	852.15	32.99	5.88	117.26	120.14
13.300	29.00	860.00	855.70	847.90	325.00	851.55	0.00	851.67	7.97	2.85	114.18	115.13
13.300	29.00	860.00	855.70	847.90	475.00	851.61	0.00	851.87	15.81	4.07	116.84	119.46
13.300	29.00	860.00	855.70	847.90	525.00	851.64	0.00	851.95	18.39	4.42	118.65	122.42
13.300	29.00	860.00	855.70	847.90	690.00	851.79	0.00	852.26	26.70	5.51	125.30	133.55
13.400	1.00	0.00	0.00	847.90	325.00	851.55	0.00	851.68	7.93	2.84	114.34	115.40
13.400	1.00	0.00	0.00	847.90	475.00	851.62	0.00	851.87	15.64	4.05	117.25	120.12
13.400	1.00	0.00	0.00	847.90	525.00	851.65	0.00	851.95	18.35	4.42	118.74	122.56
13.400	1.00	0.00	0.00	847.90	690.00	851.79	0.00	852.26	26.63	5.50	125.39	133.70
13.500	30.00	0.00	0.00	847.90	325.00	851.60	0.00	851.70	7.87	2.57	127.32	115.82
13.500	30.00	0.00	0.00	847.90	475.00	851.72	0.00	851.92	14.36	3.58	133.62	125.33
13.500	30.00	0.00	0.00	847.90	525.00	851.77	0.00	852.01	16.42	3.88	136.37	129.57
13.500	30.00	0.00	0.00	847.90	690.00	852.00	0.00	852.35	21.62	4.70	148.22	148.40

MULTIPLE PROFILE RUN

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
13.000	325.00	851.50	0.00	0.00	0.00	51.29	0.00
13.000	475.00	851.50	0.00	0.00	0.00	51.29	0.00
13.000	525.00	851.50	0.00	0.00	0.00	51.29	0.00
13.000	690.00	851.50	0.00	0.00	0.00	51.29	0.00
13.100	325.00	851.52	0.00	0.02	0.00	45.92	30.00
13.100	475.00	851.55	0.03	0.05	0.00	45.92	30.00
13.100	525.00	851.56	0.01	0.06	0.00	45.92	30.00
13.100	690.00	851.61	0.05	0.11	0.00	45.92	30.00
13.200	325.00	851.52	0.00	0.00	0.00	45.92	1.00
13.200	475.00	851.55	0.03	0.00	0.00	45.92	1.00
13.200	525.00	851.56	0.01	0.00	0.00	45.92	1.00
13.200	690.00	851.61	0.05	0.01	0.00	45.92	1.00
13.300	325.00	851.55	0.00	0.03	0.00	45.92	29.00
13.300	475.00	851.61	0.06	0.06	0.00	45.92	29.00
13.300	525.00	851.64	0.03	0.08	0.00	45.93	29.00
13.300	690.00	851.79	0.14	0.17	0.00	45.93	29.00
13.400	325.00	851.55	0.00	0.00	0.00	45.92	1.00
13.400	475.00	851.62	0.07	0.00	0.00	45.92	1.00
13.400	525.00	851.65	0.03	0.00	0.00	45.93	1.00
13.400	690.00	851.79	0.15	0.00	0.00	45.93	1.00
13.500	325.00	851.60	0.00	0.05	0.00	51.40	30.00
13.500	475.00	851.72	0.12	0.11	0.00	51.53	30.00
13.500	525.00	851.77	0.05	0.13	0.00	51.59	30.00
13.500	690.00	852.00	0.23	0.21	0.00	51.84	30.00

SUMMARY OF ERRORS AND SPECIAL NOTES

SILVER LAKE HYDROLOGY---TR-20 MODEL 7/84

TR-20 HYDROLOGY

EXECUTIVE CONTROL CARD OPERATION LIST

LISTING OF DATA IN CORE

0 SILVER LAKE HYDROLOGY---TR-20 MODEL

1 CTABLE VELOCITY INCREMENT 0.2000

8	0.0000	0.0800	0.1800	0.2500	0.3200
8	0.3700	0.4100	0.4500	0.4900	0.5100
8	0.5400	0.5700	0.5900	0.6100	0.6300
8	0.6500	0.6600	0.6700	0.6900	0.7000
8	0.7100	0.7200	0.7300	0.7400	0.7500
8	0.7600	0.7700	0.7700	0.7800	0.7900
8	0.7900	0.8000	0.8100	0.8100	0.8200
8	0.8200	0.8300	0.8300	0.8400	0.8400
8	0.8400	0.8500	0.8500	0.8600	0.8600
8	0.8600	0.8600	0.8700	0.8700	0.8700
8	0.8800	0.8800	0.8800	0.8900	0.8900
8	0.8900	0.8900	0.8900	0.8900	0.9000
8	0.9000	0.9000	0.9000	0.9000	0.9100
8	0.9100	0.9100	0.9100	0.9100	0.9100
8	0.9200	0.9200	0.9200	0.9200	0.9200
8	0.9200	0.9200	0.9200	0.9300	0.9300

9 ENDTBL

STRUCT NO.

3 STRUCT 1

	ELEVATION FT	DISCHARGE CFS	STORAGE AC-FT
8	879.0000	0.0000	0.0000
8	879.3000	0.5000	4.0000
8	879.5000	1.0000	7.0000
8	879.8000	1.7000	12.5000
8	880.0000	2.2000	17.0000
8	880.4000	3.4000	35.0000

9 ENDTBL

STRUCT NO.

3 STRUCT 2

	ELEVATION FT	DISCHARGE CFS	STORAGE AC FT
8	875.0000	2.5000	0.0000
8	875.4000	4.0000	95.4000
8	875.8000	4.7000	195.0000
8	876.0000	5.0000	245.5000

9 ENDTBL

```
                    LAG/TC RATIO
4 DIMHYD                 0.6000

8              0.0000    0.0150    0.0750    0.1600    0.2800
8              0.4300    0.6000    0.7700    0.8900    0.9700
8              1.0000    0.9800    0.9200    0.8400    0.7500
8              0.6600    0.5650    0.4900    0.4200    0.3650
8              0.3200    0.2790    0.2400    0.2100    0.1800
8              0.1550    0.1300    0.1130    0.0980    0.0860
8              0.0750    0.0650    0.0560    0.0470    0.0410
8              0.0350    0.0300    0.0260    0.0220    0.0190
8              0.0170    0.0150    0.0130    0.0110    0.0090
8              0.0070    0.0050    0.0030    0.0020    0.0010
8              0.0000    0.0000    0.0000    0.0000    0.0000
9 ENDTBL

  COMPUTED PEAK K FACTOR =  448.72


                  TIME INCREMENT, HR
5 RAINFL 1               0.5000

8              0.0000    0.0080    0.0170    0.0260    0.0350
8              0.0450    0.0550    0.0650    0.0760    0.0870
8              0.0990    0.1220    0.1250    0.1400    0.1560
8              0.1740    0.1940    0.2190    0.2540    0.3030
8              0.5150    0.5830    0.6240    0.6540    0.6820
8              0.7050    0.7270    0.7480    0.7670    0.7840
8              0.8000    0.8160    0.8300    0.8440    0.8570
8              0.8700    0.8820    0.8930    0.9050    0.9160
8              0.9260    0.9360    0.9460    0.9550    0.9650
8              0.9740    0.9830    0.9920    1.0000    1.0000
9 ENDTBL


                  TIME INCREMENT, HR
5 RAINFL 2               0.0200

8              0.0000    0.0100    0.0200    0.0200    0.0300
8              0.0400    0.0500    0.0600    0.0700    0.0800
8              0.1000    0.1100    0.1300    0.1400    0.1700
8              0.1900    0.2200    0.2700    0.3500    0.4400
8              0.5200    0.6000    0.6300    0.6600    0.6800
8              0.7000    0.7200    0.7400    0.7600    0.7700
8              0.7900    0.8000    0.8200    0.8300    0.8400
8              0.8500    0.8700    0.8800    0.8900    0.9000
8              0.9100    0.9200    0.9300    0.9400    0.9500
8              0.9567    0.9633    0.9700    0.9800    0.9900
8              1.0000    1.0000    1.0000    1.0000    1.0000
9 ENDTBL
```

STANDARD CONTROL INSTRUCTIONS

```
 6 RUNOFF 1      1      6        0.2500      61.0000      0.72001 1 0 1 0 1
 6 RESVOR 2      1 6    7      879.0000                         1 1 1 1 0 1
 6 RUNOFF 1      1      6        1.0800      70.5000      0.58001 1 0 0 0 1
 6 ADDHYD 4      1 7 6 5                                       1 1 1 0 0 1
 6 RESVOR 2      2 5    7      875.0000                         1 1 1 1 0 1
   ENDATA


END OF LISTING
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EXECUTIVE CONTROL CARD OPERATION INCREM, MAIN TIME INCREMENT= 0.20 PASS= 1
EXECUTIVE CONTROL CARD OPERATION COMPUT, FROM XSECTN/STRUCT 0/ 1 TO XSECTN/STRUCT 1/ 0
STARTING TIME= 0.00 RAIN DEPTH= 4.85 RAIN DURATION= 1.00 RAIN TABLE NO.= 1 SOIL CONDITION= 2
ALTERNATE NO.= 0 STORM NO.= 0

SUBROUTINE RUNOFF STRUCTURE 1

TIME		HYDROGRAPH, T7ERO= 0.00			DELTA T= 0.20			DRAINAGE AREA= 0.25			
0.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	1.00	6.43
10.00	DISCHG	22.43	42.29	48.26	43.38	38.00	32.35	28.09	24.67	21.90	20.24
12.00	DISCHG	19.18	18.52	17.63	16.69	16.11	15.74	15.54	15.37	15.22	15.01
14.00	DISCHG	14.62	14.28	13.82	13.37	13.03	12.71	12.52	12.46	12.45	12.28
16.00	DISCHG	11.85	11.52	11.36	11.30	11.19	10.97	10.81	10.74	10.72	10.63
18.00	DISCHG	10.41	10.19	9.91	9.64	9.61	9.81	9.96	9.88	9.70	9.48
20.00	DISCHG	9.17	8.95	8.84	8.79	8.78	8.79	8.76	8.57	8.33	8.31
22.00	DISCHG	8.52	8.68	8.58	8.38	8.26	8.21	8.19	8.19	8.19	8.08
24.00	DISCHG	7.81	7.22	5.31	3.01	1.57	0.81	0.41	0.20	0.09	0.04
26.00	DISCHG	0.01	0.00								

SUBROUTINE RESVOR STRUCTURE 1

TIME		HYDROGRAPH, T7ERO= 0.00			DELTA T= 0.20			DRAINAGE AREA= 0.25			
0.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	ELEV	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00
2.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.00	ELEV	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00
4.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4.00	ELEV	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00
6.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6.00	ELEV	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00
8.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
8.00	ELEV	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.01
10.00	DISCHG	0.04	0.11	0.20	0.29	0.38	0.45	0.51	0.58	0.65	0.70
10.00	ELEV	879.02	879.06	879.12	879.18	879.23	879.27	879.31	879.33	879.36	879.38
12.00	DISCHG	0.75	0.80	0.85	0.90	0.94	0.98	1.02	1.05	1.08	1.11
12.00	ELEV	879.40	879.42	879.44	879.46	879.48	879.49	879.51	879.52	879.53	879.55
14.00	DISCHG	1.13	1.16	1.19	1.22	1.24	1.27	1.29	1.31	1.34	1.36
14.00	ELEV	879.56	879.57	879.58	879.59	879.60	879.61	879.62	879.63	879.64	879.65
16.00	DISCHG	1.38	1.40	1.42	1.45	1.47	1.49	1.51	1.53	1.54	1.56
16.00	ELEV	879.66	879.67	879.68	879.69	879.70	879.71	879.72	879.73	879.73	879.74
18.00	DISCHG	1.58	1.60	1.62	1.64	1.65	1.67	1.69	1.70	1.72	1.73
18.00	ELEV	879.75	879.76	879.77	879.77	879.78	879.79	879.79	879.80	879.81	879.81
20.00	DISCHG	1.75	1.76	1.77	1.79	1.80	1.81	1.82	1.84	1.85	1.86
20.00	ELEV	879.82	879.82	879.83	879.83	879.84	879.84	879.85	879.85	879.86	879.86
22.00	DISCHG	1.87	1.89	1.90	1.91	1.92	1.93	1.95	1.96	1.97	1.98
22.00	ELEV	879.87	879.87	879.88	879.88	879.89	879.89	879.90	879.90	879.91	879.91
24.00	DISCHG	1.99	2.00	2.01	2.01	2.01	2.01	2.01	2.01	2.00	2.00
24.00	ELEV	879.92	879.92	879.92	879.92	879.93	879.92	879.92	879.92	879.92	879.92
26.00	DISCHG	1.99	1.99	1.99	1.98	1.98	1.98	1.97	1.97	1.97	1.96
26.00	ELEV	879.92	879.92	879.92	879.91	879.91	879.91	879.91	879.91	879.91	879.90
28.00	DISCHG	1.96	1.96	1.95	1.95	1.94	1.94	1.94	1.93	1.93	1.93
28.00	ELEV	879.90	879.90	879.90	879.90	879.90	879.90	879.89	879.89	879.89	879.89
30.00	DISCHG	1.92	1.92	1.92	1.91	1.91	1.91	1.90	1.90	1.89	1.89

32.00	DISCHG	1.89	1.88	1.88	1.88	1.87	1.87	1.87	1.86	1.86	1.86
32.00	ELEV	879.88	879.87	879.87	879.87	879.87	879.87	879.87	879.87	879.86	879.86
34.00	DISCHG	1.85	1.85	1.85	1.84	1.84	1.84	1.83	1.83	1.83	1.82
34.00	ELEV	879.86	879.86	879.86	879.86	879.86	879.85	879.85	879.85	879.85	879.85
36.00	DISCHG	1.82	1.82	1.81	1.81	1.81	1.80	1.80	1.80	1.79	1.79
36.00	ELEV	879.85	879.85	879.85	879.84	879.84	879.84	879.84	879.84	879.84	879.84
38.00	DISCHG	1.79	1.78	1.78	1.78	1.77	1.77	1.77	1.76	1.76	1.76
38.00	ELEV	879.83	879.83	879.83	879.83	879.83	879.83	879.83	879.83	879.82	879.82
40.00	DISCHG	1.75	1.75	1.75	1.74	1.74	1.74	1.74	1.73	1.73	1.73
40.00	ELEV	879.82	879.82	879.82	879.82	879.82	879.82	879.81	879.81	879.81	879.81
42.00	DISCHG	1.72	1.72	1.72	1.71	1.71	1.71	1.70	1.70	1.70	1.69
42.00	ELEV	879.81	879.81	879.81	879.81	879.80	879.80	879.80	879.80	879.80	879.80
44.00	DISCHG	1.69	1.69	1.68	1.68	1.68	1.67	1.67	1.66	1.66	1.66
44.00	ELEV	879.80	879.79	879.79	879.79	879.79	879.79	879.79	879.78	879.78	879.78
46.00	DISCHG	1.65	1.65	1.65	1.64	1.64	1.64	1.63	1.63	1.63	1.62
46.00	ELEV	879.78	879.78	879.78	879.78	879.77	879.77	879.77	879.77	879.77	879.77
48.00	DISCHG	1.62	1.62	1.61	1.61	1.61	1.60	1.60	1.60	1.59	1.59
48.00	ELEV	879.77	879.76	879.76	879.76	879.76	879.76	879.76	879.76	879.75	879.75
50.00	DISCHG	1.59	1.58	1.58	1.58	1.57	1.57	1.57	1.56	1.56	1.56
50.00	ELEV	879.75	879.75	879.75	879.75	879.75	879.74	879.74	879.74	879.74	879.74
52.00	DISCHG	1.55	1.55	1.55	1.54	1.54	1.54	1.53	1.53	1.53	1.52
52.00	ELEV	879.74	879.74	879.73	879.73	879.73	879.73	879.73	879.73	879.73	879.72
54.00	DISCHG	1.52	1.52	1.51	1.51	1.51	1.51	1.50	1.50	1.50	1.49
54.00	ELEV	879.72	879.72	879.72	879.72	879.72	879.72	879.72	879.71	879.71	879.71
56.00	DISCHG	1.49	1.49	1.48	1.48	1.48	1.47	1.47	1.47	1.46	1.46
56.00	ELEV	879.71	879.71	879.71	879.71	879.70	879.70	879.70	879.70	879.70	879.70
58.00	DISCHG	1.46	1.46	1.45	1.45	1.45	1.44	1.44	1.44	1.43	1.43
58.00	ELEV	879.70	879.70	879.69	879.69	879.69	879.69	879.69	879.69	879.69	879.68

SUBROUTINE RUNOFF STRUCTURE 1

TIME		HYDROGRAPH, TZERO= 0.00			DELTA T= 0.20			DRAINAGE AREA= 1.08			
0.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.40
8.00	DISCHG	1.66	3.72	6.77	10.36	15.74	23.02	31.48	44.88	63.26	156.16
10.00	DISCHG	333.99	451.31	391.16	308.63	250.63	200.64	171.99	146.46	129.84	121.46
12.00	DISCHG	116.60	112.94	105.46	99.74	96.56	94.44	93.32	91.83	90.79	88.66
14.00	DISCHG	85.68	83.46	79.89	77.24	75.17	73.24	72.38	72.16	72.10	70.16
16.00	DISCHG	67.01	65.35	64.72	64.50	63.46	61.86	61.07	60.82	60.73	59.72
18.00	DISCHG	58.10	56.83	54.83	53.44	53.94	55.52	56.06	54.86	53.66	52.06
20.00	DISCHG	50.11	49.10	48.68	48.55	48.55	48.60	48.24	46.56	45.26	45.82
22.00	DISCHG	47.42	47.94	46.65	45.44	44.91	44.71	44.66	44.67	44.64	43.52
24.00	DISCHG	41.72	37.11	22.25	10.13	4.47	1.91	0.77	0.28	0.05	0.00

SUBROUTINE ADDHYD STRUCTURE 1

TIME		HYDROGRAPH, TZERO= 0.00			DELTA T= 0.20			DRAINAGE AREA= 1.33			
0.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	ELEV	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00
2.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.00	ELEV	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00
4.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4.00	ELEV	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00
6.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.40
6.00	ELEV	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.01	879.24
8.00	DISCHG	1.66	3.72	6.77	10.36	15.74	23.02	31.48	44.88	63.26	156.16
8.00	ELEV	879.78	880.51	881.52	882.72	884.51	886.94	889.76	894.23	900.36	931.32
10.00	DISCHG	334.02	451.42	391.36	308.92	251.01	201.09	172.50	147.04	130.48	122.17
10.00	ELEV	990.61	1029.75	1009.73	982.25	962.94	946.30	936.77	928.28	922.76	919.99
12.00	DISCHG	117.35	113.74	106.31	100.64	97.49	95.42	94.33	92.88	91.87	89.76
12.00	ELEV	918.39	917.18	914.71	912.81	911.77	911.07	910.71	910.23	909.89	909.19

14.00	DISCHG	68.81	67.62	67.05	76.73	76.47	74.37	73.68	72.61	72.49	72.13
14.00	ELEV	908.21	907.48	906.29	905.42	904.74	904.10	903.82	903.76	903.75	903.11
16.00	DISCHG	68.39	66.76	66.15	65.94	64.92	63.35	62.57	62.34	62.28	61.28
16.00	ELEV	902.06	901.52	901.32	901.25	900.91	900.38	900.13	900.05	900.03	899.70
18.00	DISCHG	59.68	58.44	56.45	55.08	55.60	57.19	57.74	56.56	55.38	53.79
18.00	ELEV	899.16	898.75	898.08	897.63	897.80	898.33	898.52	898.12	897.73	897.20
20.00	DISCHG	51.86	50.86	50.45	50.34	50.35	50.41	50.06	48.40	47.11	47.68
20.00	ELEV	896.55	896.22	896.09	896.05	896.05	896.07	895.95	895.40	894.97	895.16
22.00	DISCHG	49.30	49.83	48.55	47.35	46.83	46.65	46.61	46.63	46.61	45.50
22.00	ELEV	895.70	895.88	895.45	895.05	894.88	894.82	894.80	894.81	894.80	894.43
24.00	DISCHG	43.71	39.11	24.26	12.14	6.48	3.92	2.78	2.28	2.06	2.00
24.00	ELEV	893.84	892.30	887.35	883.31	881.43	880.57	880.19	880.03	879.94	879.92
26.00	DISCHG	1.99	1.99	1.99	1.98	1.98	1.98	1.97	1.97	1.97	1.96
26.00	ELEV	879.92	879.92	879.92	879.91	879.91	879.91	879.91	879.91	879.91	879.90
28.00	DISCHG	1.96	1.96	1.95	1.95	1.94	1.94	1.94	1.93	1.93	1.93
28.00	ELEV	879.90	879.90	879.90	879.90	879.90	879.90	879.89	879.89	879.89	879.89
30.00	DISCHG	1.92	1.92	1.92	1.91	1.91	1.91	1.90	1.90	1.89	1.89
30.00	ELEV	879.89	879.89	879.89	879.88	879.88	879.88	879.88	879.88	879.88	879.88
32.00	DISCHG	1.89	1.88	1.88	1.88	1.87	1.87	1.87	1.86	1.86	1.86
32.00	ELEV	879.88	879.87	879.87	879.87	879.87	879.87	879.87	879.87	879.86	879.86
34.00	DISCHG	1.85	1.85	1.85	1.84	1.84	1.84	1.83	1.83	1.83	1.82
34.00	ELEV	879.86	879.86	879.86	879.86	879.86	879.85	879.85	879.85	879.85	879.85
36.00	DISCHG	1.82	1.82	1.81	1.81	1.81	1.80	1.80	1.80	1.79	1.79
36.00	ELEV	879.85	879.85	879.85	879.84	879.84	879.84	879.84	879.84	879.84	879.84
38.00	DISCHG	1.79	1.78	1.78	1.78	1.77	1.77	1.77	1.76	1.76	1.76
38.00	ELEV	879.83	879.83	879.83	879.83	879.83	879.83	879.83	879.83	879.82	879.82
40.00	DISCHG	1.75	1.75	1.75	1.74	1.74	1.74	1.74	1.73	1.73	1.73
40.00	ELEV	879.82	879.82	879.82	879.82	879.82	879.82	879.81	879.81	879.81	879.81
42.00	DISCHG	1.72	1.72	1.72	1.71	1.71	1.71	1.70	1.70	1.70	1.69
42.00	ELEV	879.81	879.81	879.81	879.81	879.80	879.80	879.80	879.80	879.80	879.80
44.00	DISCHG	1.69	1.69	1.68	1.68	1.68	1.67	1.67	1.66	1.66	1.66
44.00	ELEV	879.80	879.79	879.79	879.79	879.79	879.79	879.79	879.78	879.78	879.78
46.00	DISCHG	1.65	1.65	1.65	1.64	1.64	1.64	1.63	1.63	1.63	1.62
46.00	ELEV	879.78	879.78	879.78	879.78	879.77	879.77	879.77	879.77	879.77	879.77
48.00	DISCHG	1.62	1.62	1.61	1.61	1.61	1.60	1.60	1.60	1.59	1.59
48.00	ELEV	879.77	879.76	879.76	879.76	879.76	879.76	879.76	879.76	879.75	879.75
50.00	DISCHG	1.59	1.58	1.58	1.58	1.57	1.57	1.57	1.56	1.56	1.56
50.00	ELEV	879.75	879.75	879.75	879.75	879.75	879.74	879.74	879.74	879.74	879.74
52.00	DISCHG	1.55	1.55	1.55	1.54	1.54	1.54	1.53	1.53	1.53	1.52
52.00	ELEV	879.74	879.74	879.73	879.73	879.73	879.73	879.73	879.73	879.73	879.72
54.00	DISCHG	1.52	1.52	1.51	1.51	1.51	1.51	1.50	1.50	1.50	1.49
54.00	ELEV	879.72	879.72	879.72	879.72	879.72	879.72	879.72	879.71	879.71	879.71
56.00	DISCHG	1.49	1.49	1.48	1.48	1.48	1.47	1.47	1.47	1.46	1.46
56.00	ELEV	879.71	879.71	879.71	879.71	879.70	879.70	879.70	879.70	879.70	879.70
58.00	DISCHG	1.46	1.46	1.45	1.45	1.45	1.44	1.44	1.44	1.43	1.43
58.00	ELEV	879.70	879.70	879.69	879.69	879.69	879.69	879.69	879.69	879.69	879.68

SUBROUTINE RESVOR STRUCTURE 2

TIME HYDROGRAPH, TZERO= 0.00 DELTA T= 0.20 DRAINAGE AREA= 1.33

0.00	DISCHG	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
0.00	ELEV	875.00	875.00	875.00	875.00	875.00	875.00	875.00	875.00	875.00	875.00
2.00	DISCHG	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
2.00	ELEV	875.00	875.00	875.00	875.00	875.00	875.00	875.00	875.00	875.00	875.00
4.00	DISCHG	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
4.00	ELEV	875.00	875.00	875.00	875.00	875.00	875.00	875.00	875.00	875.00	875.00
6.00	DISCHG	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
6.00	ELEV	875.00	875.00	875.00	875.00	875.00	875.00	875.00	875.00	875.00	875.00
8.00	DISCHG	2.50	2.50	2.50	2.50	2.50	2.51	2.51	2.52	2.54	2.56
8.00	ELEV	875.00	875.00	875.00	875.00	875.00	875.00	875.00	875.01	875.01	875.02
10.00	DISCHG	2.63	2.73	2.84	2.93	3.00	3.06	3.11	3.15	3.18	3.21
10.00	ELEV	875.03	875.06	875.09	875.11	875.13	875.15	875.16	875.17	875.18	875.19
12.00	DISCHG	3.24	3.27	3.30	3.33	3.35	3.38	3.40	3.42	3.45	3.47
12.00	ELEV	875.20	875.21	875.21	875.22	875.23	875.23	875.24	875.25	875.25	875.26
14.00	DISCHG	3.49	3.51	3.53	3.55	3.57	3.59	3.61	3.63	3.65	3.66

16.00	DISCHG	3.68	3.70	3.71	3.73	3.75	3.76	3.78	3.79	3.81	3.82
16.00	ELEV	875.31	875.32	875.32	875.33	875.33	875.34	875.34	875.34	875.35	875.35
18.00	DISCHG	3.84	3.85	3.87	3.88	3.89	3.91	3.92	3.93	3.95	3.96
18.00	ELEV	875.36	875.36	875.36	875.37	875.37	875.37	875.38	875.38	875.39	875.39
20.00	DISCHG	3.97	3.99	4.00	4.00	4.01	4.02	4.02	4.03	4.03	4.04
20.00	ELEV	875.39	875.40	875.40	875.40	875.41	875.41	875.41	875.41	875.42	875.42
22.00	DISCHG	4.04	4.05	4.05	4.06	4.06	4.07	4.07	4.08	4.08	4.09
22.00	ELEV	875.42	875.43	875.43	875.43	875.44	875.44	875.44	875.44	875.45	875.45
24.00	DISCHG	4.09	4.10	4.10	4.10	4.10	4.10	4.10	4.10	4.10	4.10
24.00	ELEV	875.45	875.45	875.46	875.46	875.46	875.46	875.46	875.46	875.46	875.46
26.00	DISCHG	4.10	4.10	4.10	4.10	4.10	4.10	4.10	4.10	4.10	4.10
26.00	ELEV	875.46	875.46	875.46	875.46	875.46	875.46	875.46	875.46	875.46	875.46
28.00	DISCHG	4.10	4.10	4.10	4.10	4.10	4.10	4.10	4.10	4.10	4.10
28.00	ELEV	875.46	875.46	875.46	875.46	875.46	875.45	875.45	875.45	875.45	875.45
30.00	DISCHG	4.09	4.09	4.09	4.09	4.09	4.09	4.09	4.09	4.09	4.09
30.00	ELEV	875.45	875.45	875.45	875.45	875.45	875.45	875.45	875.45	875.45	875.45
32.00	DISCHG	4.09	4.09	4.09	4.09	4.09	4.09	4.09	4.09	4.09	4.09
32.00	ELEV	875.45	875.45	875.45	875.45	875.45	875.45	875.45	875.45	875.45	875.45
34.00	DISCHG	4.09	4.09	4.09	4.09	4.09	4.09	4.09	4.09	4.09	4.09
34.00	ELEV	875.45	875.45	875.45	875.45	875.45	875.45	875.45	875.45	875.45	875.45
36.00	DISCHG	4.09	4.09	4.09	4.09	4.09	4.09	4.09	4.09	4.09	4.08
36.00	ELEV	875.45	875.45	875.45	875.45	875.45	875.45	875.45	875.45	875.45	875.45
38.00	DISCHG	4.08	4.08	4.08	4.08	4.08	4.08	4.08	4.08	4.08	4.08
38.00	ELEV	875.45	875.45	875.45	875.45	875.45	875.45	875.45	875.45	875.45	875.45
40.00	DISCHG	4.08	4.08	4.08	4.08	4.08	4.08	4.08	4.08	4.08	4.08
40.00	ELEV	875.45	875.45	875.45	875.45	875.45	875.45	875.45	875.45	875.45	875.45
42.00	DISCHG	4.08	4.08	4.08	4.08	4.08	4.08	4.08	4.08	4.08	4.08
42.00	ELEV	875.45	875.45	875.44	875.44	875.44	875.44	875.44	875.44	875.44	875.44
44.00	DISCHG	4.08	4.08	4.08	4.08	4.08	4.07	4.07	4.07	4.07	4.07
44.00	ELEV	875.44	875.44	875.44	875.44	875.44	875.44	875.44	875.44	875.44	875.44
46.00	DISCHG	4.07	4.07	4.07	4.07	4.07	4.07	4.07	4.07	4.07	4.07
46.00	ELEV	875.44	875.44	875.44	875.44	875.44	875.44	875.44	875.44	875.44	875.44
48.00	DISCHG	4.07	4.07	4.07	4.07	4.07	4.07	4.07	4.07	4.07	4.07
48.00	ELEV	875.44	875.44	875.44	875.44	875.44	875.44	875.44	875.44	875.44	875.44
50.00	DISCHG	4.07	4.07	4.07	4.07	4.07	4.07	4.07	4.07	4.07	4.07
50.00	ELEV	875.44	875.44	875.44	875.44	875.44	875.44	875.44	875.44	875.44	875.44
52.00	DISCHG	4.06	4.06	4.06	4.06	4.06	4.06	4.06	4.06	4.06	4.06
52.00	ELEV	875.44	875.44	875.44	875.44	875.44	875.44	875.44	875.44	875.44	875.44
54.00	DISCHG	4.06	4.06	4.06	4.06	4.06	4.06	4.06	4.06	4.06	4.06
54.00	ELEV	875.44	875.44	875.44	875.43	875.43	875.43	875.43	875.43	875.43	875.43
56.00	DISCHG	4.06	4.06	4.06	4.06	4.06	4.06	4.06	4.06	4.06	4.06
56.00	ELEV	875.43	875.43	875.43	875.43	875.43	875.43	875.43	875.43	875.43	875.43
58.00	DISCHG	4.06	4.06	4.06	4.06	4.05	4.05	4.05	4.05	4.05	4.05
58.00	ELEV	875.43	875.43	875.43	875.43	875.43	875.43	875.43	875.43	875.43	875.43

ENDCMP

PASS= 2

EXECUTIVE CONTROL CARD OPERATION COMPUT, FROM XSECTN/STRUCT 0/ 1 TO XSECTN/STRUCT 1/ 0
STARTING TIME= 0.00 RAIN DEPTH= 3.60 RAIN DURATION= 1.00 RAIN TABLE NO.= 1 SOIL CONDITION= 2
ALTERNATE NO.= 0 STORM NO.= 0

SUBROUTINE RUNOFF STRUCTURE 1

TIME		HYDROGRAPH, TZERO= 0.00				DELTA T= 0.20			DRAINAGE AREA= 0.25		
0.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.22
10.00	DISCHG	3.11	10.36	15.00	15.41	14.82	13.44	12.25	11.15	10.18	9.63
12.00	DISCHG	9.30	9.10	8.75	8.36	8.13	8.01	7.96	7.92	7.89	7.82
14.00	DISCHG	7.66	7.52	7.31	7.10	6.95	6.80	6.72	6.71	6.73	6.66
16.00	DISCHG	6.45	6.28	6.22	6.20	6.15	6.05	5.97	5.95	5.95	5.91
18.00	DISCHG	5.80	5.69	5.54	5.40	5.39	5.51	5.61	5.58	5.48	5.37
20.00	DISCHG	5.20	5.08	5.03	5.01	5.01	5.02	5.01	4.90	4.77	4.77
22.00	DISCHG	4.89	4.99	4.94	4.83	4.77	4.74	4.74	4.74	4.75	4.69
24.00	DISCHG	4.54	4.20	3.09	1.75	0.91	0.47	0.24	0.12	0.05	0.02
26.00	DISCHG	0.01	0.00								

SUBROUTINE RESVOR STRUCTURE 1

TIME		HYDROGRAPH, TZERO= 0.00				DELTA T= 0.20			DRAINAGE AREA= 0.25		
0.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	ELEV	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00
2.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.00	ELEV	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00
4.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4.00	ELEV	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00
6.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6.00	ELEV	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00
8.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8.00	ELEV	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00
10.00	DISCHG	0.00	0.02	0.04	0.07	0.11	0.13	0.16	0.19	0.21	0.23
10.00	ELEV	879.00	879.01	879.03	879.04	879.06	879.08	879.10	879.11	879.12	879.14
12.00	DISCHG	0.25	0.26	0.28	0.30	0.32	0.33	0.35	0.36	0.38	0.39
12.00	ELEV	879.15	879.16	879.17	879.18	879.19	879.20	879.21	879.22	879.23	879.24
14.00	DISCHG	0.41	0.42	0.44	0.45	0.47	0.48	0.49	0.51	0.52	0.54
14.00	ELEV	879.25	879.25	879.26	879.27	879.28	879.29	879.30	879.30	879.31	879.32
16.00	DISCHG	0.56	0.57	0.59	0.60	0.62	0.63	0.65	0.66	0.68	0.69
16.00	ELEV	879.32	879.33	879.34	879.34	879.35	879.35	879.36	879.37	879.37	879.38
18.00	DISCHG	0.71	0.72	0.73	0.75	0.76	0.77	0.79	0.80	0.81	0.83
18.00	ELEV	879.38	879.39	879.39	879.40	879.40	879.41	879.41	879.42	879.43	879.43
20.00	DISCHG	0.84	0.85	0.86	0.87	0.88	0.90	0.91	0.92	0.93	0.94
20.00	ELEV	879.44	879.44	879.44	879.45	879.45	879.46	879.46	879.47	879.47	879.48
22.00	DISCHG	0.95	0.96	0.97	0.98	0.99	1.00	1.01	1.02	1.03	1.03
22.00	ELEV	879.48	879.48	879.49	879.49	879.50	879.50	879.50	879.51	879.51	879.51
24.00	DISCHG	1.04	1.05	1.05	1.06	1.06	1.06	1.06	1.05	1.05	1.05
24.00	ELEV	879.52	879.52	879.52	879.52	879.52	879.52	879.52	879.52	879.52	879.52
26.00	DISCHG	1.05	1.04	1.04	1.04	1.04	1.04	1.03	1.03	1.03	1.03
26.00	ELEV	879.52	879.52	879.52	879.52	879.52	879.52	879.51	879.51	879.51	879.51
28.00	DISCHG	1.03	1.02	1.02	1.02	1.02	1.01	1.01	1.01	1.01	1.01
28.00	ELEV	879.51	879.51	879.51	879.51	879.51	879.51	879.51	879.50	879.50	879.50
30.00	DISCHG	1.00	1.00	1.00	1.00	0.99	0.99	0.99	0.99	0.98	0.98
30.00	ELEV	879.50	879.50	879.50	879.50	879.50	879.50	879.50	879.49	879.49	879.49

32.00	DISCHG										
32.00	ELEV	879.49	879.49	879.49	879.49	879.49	879.49	879.48	879.48	879.48	879.48
34.00	DISCHG	0.95	0.95	0.95	0.94	0.94	0.94	0.94	0.93	0.93	0.93
34.00	ELEV	879.48	879.48	879.48	879.48	879.48	879.48	879.47	879.47	879.47	879.47
36.00	DISCHG	0.93	0.92	0.92	0.92	0.92	0.91	0.91	0.91	0.91	0.90
36.00	ELEV	879.47	879.47	879.47	879.47	879.47	879.47	879.46	879.46	879.46	879.46
38.00	DISCHG	0.90	0.90	0.90	0.89	0.89	0.89	0.89	0.88	0.88	0.88
38.00	ELEV	879.46	879.46	879.46	879.46	879.46	879.46	879.45	879.45	879.45	879.45
40.00	DISCHG	0.88	0.87	0.87	0.87	0.87	0.86	0.86	0.86	0.86	0.85
40.00	ELEV	879.45	879.45	879.45	879.45	879.45	879.45	879.44	879.44	879.44	879.44
42.00	DISCHG	0.85	0.85	0.85	0.84	0.84	0.84	0.84	0.84	0.83	0.83
42.00	ELEV	879.44	879.44	879.44	879.44	879.44	879.44	879.44	879.43	879.43	879.43
44.00	DISCHG	0.83	0.83	0.82	0.82	0.82	0.82	0.82	0.81	0.81	0.81
44.00	ELEV	879.43	879.43	879.43	879.43	879.43	879.43	879.43	879.43	879.42	879.42
46.00	DISCHG	0.81	0.80	0.80	0.80	0.80	0.80	0.79	0.79	0.79	0.79
46.00	ELEV	879.42	879.42	879.42	879.42	879.42	879.42	879.42	879.42	879.42	879.41
48.00	DISCHG	0.78	0.78	0.78	0.78	0.78	0.77	0.77	0.77	0.77	0.77
48.00	ELEV	879.41	879.41	879.41	879.41	879.41	879.41	879.41	879.41	879.41	879.41
50.00	DISCHG	0.76	0.76	0.76	0.76	0.75	0.75	0.75	0.75	0.75	0.74
50.00	ELEV	879.41	879.40	879.40	879.40	879.40	879.40	879.40	879.40	879.40	879.40
52.00	DISCHG	0.74	0.74	0.74	0.74	0.73	0.73	0.73	0.73	0.73	0.72
52.00	ELEV	879.40	879.40	879.40	879.39	879.39	879.39	879.39	879.39	879.39	879.39
54.00	DISCHG	0.72	0.72	0.72	0.72	0.71	0.71	0.71	0.71	0.71	0.70
54.00	ELEV	879.39	879.39	879.39	879.39	879.39	879.38	879.38	879.38	879.38	879.38
56.00	DISCHG	0.70	0.70	0.70	0.70	0.69	0.69	0.69	0.69	0.69	0.69
56.00	ELEV	879.38	879.38	879.38	879.38	879.38	879.38	879.38	879.38	879.37	879.37
58.00	DISCHG	0.68	0.68	0.68	0.68	0.68	0.67	0.67	0.67	0.67	0.67
58.00	ELEV	879.37	879.37	879.37	879.37	879.37	879.37	879.37	879.37	879.37	879.37

SUBROUTINE RUNOFF STRUCTURE 1

TIME HYDROGRAPH, TZERO= 0.00 DELTA T= 0.20 DRAINAGE AREA= 1.08

0.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8.00	DISCHG	0.00	0.00	0.00	0.00	0.01	0.50	2.72	7.64	15.82	56.36
10.00	DISCHG	145.21	217.63	198.29	162.41	135.71	110.90	96.67	83.36	74.62	70.31
12.00	DISCHG	67.88	66.09	61.98	58.85	57.19	56.13	55.64	54.92	54.46	53.33
14.00	DISCHG	51.67	50.45	48.40	46.90	45.74	44.66	44.21	44.16	44.20	43.08
16.00	DISCHG	41.21	40.26	39.93	39.85	39.26	38.32	37.88	37.77	37.77	37.18
18.00	DISCHG	36.21	35.47	34.25	33.42	33.77	34.79	35.16	34.45	33.72	32.75
20.00	DISCHG	31.55	30.94	30.70	30.64	30.67	30.73	30.52	29.48	28.68	29.05
22.00	DISCHG	30.09	30.44	29.65	28.90	28.58	28.47	28.46	28.48	28.48	27.78
24.00	DISCHG	26.65	23.71	14.22	6.48	2.86	1.22	0.49	0.18	0.03	0.00

SUBROUTINE ADDHYD STRUCTURE 1

TIME HYDROGRAPH, TZERO= 0.00 DELTA T= 0.20 DRAINAGE AREA= 1.33

0.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	ELEV	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00
2.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.00	ELEV	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00
4.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4.00	ELEV	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00
6.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6.00	ELEV	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00
8.00	DISCHG	0.00	0.00	0.00	0.00	0.01	0.50	2.72	7.64	15.82	56.36
8.00	ELEV	879.00	879.00	879.00	879.00	879.01	879.30	880.17	881.81	884.54	898.05
10.00	DISCHG	145.21	217.65	198.33	162.48	135.82	111.04	96.83	83.55	74.82	70.53
10.00	ELEV	927.67	951.82	945.38	933.43	924.54	916.28	911.55	907.12	904.21	902.78
12.00	DISCHG	68.13	66.35	62.26	59.15	57.30	56.46	55.99	55.29	54.84	53.72
12.00	ELEV	901.98	901.39	900.02	898.99	898.44	898.09	897.93	897.70	897.55	897.18
14.00	DISCHG	52.08	50.88	48.84	47.35	46.21	45.13	44.70	44.67	44.73	43.62

14.00	ELEV	8.5.43	8.8.23	8.5.58	8 5.05	8.4.87	8.4.31	8.4.17	8.4.15	8.4.15	8.3.81
16.00	DISCHG	41.77	40.83	40.52	40.45	39.88	38.96	38.53	38.44	38.45	37.87
16.00	ELEV	893.19	892.88	892.77	892.75	892.56	892.25	892.11	892.08	892.08	891.89
18.00	DISCHG	36.92	36.19	34.99	34.16	34.53	35.56	35.95	35.25	34.54	33.57
18.00	ELEV	891.57	891.33	890.93	890.66	890.78	891.12	891.25	891.02	890.78	890.46
20.00	DISCHG	32.39	31.79	31.56	31.52	31.55	31.62	31.43	30.40	29.61	29.99
20.00	ELEV	890.06	889.86	889.79	889.77	889.78	889.81	889.74	889.40	889.14	889.27
22.00	DISCHG	31.04	31.41	30.62	29.88	29.57	29.47	29.47	29.50	29.51	28.82
22.00	ELEV	889.62	889.74	889.47	889.23	889.12	889.09	889.09	889.10	889.10	888.87
24.00	DISCHG	27.69	24.76	15.28	7.53	3.91	2.28	1.55	1.23	1.09	1.05
24.00	ELEV	888.50	887.52	884.36	881.78	880.57	880.03	879.73	879.60	879.54	879.52
26.00	DISCHG	1.05	1.04	1.04	1.04	1.04	1.04	1.03	1.03	1.03	1.03
26.00	ELEV	879.52	879.52	879.52	879.52	879.52	879.52	879.51	879.51	879.51	879.51
28.00	DISCHG	1.03	1.02	1.02	1.02	1.02	1.01	1.01	1.01	1.01	1.01
28.00	ELEV	879.51	879.51	879.51	879.51	879.51	879.51	879.51	879.50	879.50	879.50
30.00	DISCHG	1.00	1.00	1.00	1.00	0.99	0.99	0.99	0.99	0.98	0.98
30.00	ELEV	879.50	879.50	879.50	879.50	879.50	879.50	879.50	879.49	879.49	879.49
32.00	DISCHG	0.98	0.98	0.97	0.97	0.97	0.96	0.96	0.96	0.96	0.95
32.00	ELEV	879.49	879.49	879.49	879.49	879.49	879.49	879.48	879.48	879.48	879.48
34.00	DISCHG	0.95	0.95	0.95	0.94	0.94	0.94	0.94	0.93	0.93	0.93
34.00	ELEV	879.48	879.48	879.48	879.48	879.48	879.48	879.47	879.47	879.47	879.47
36.00	DISCHG	0.93	0.92	0.92	0.92	0.92	0.91	0.91	0.91	0.91	0.90
36.00	ELEV	879.47	879.47	879.47	879.47	879.47	879.47	879.46	879.46	879.46	879.46
38.00	DISCHG	0.90	0.90	0.90	0.89	0.89	0.89	0.89	0.88	0.88	0.88
38.00	ELEV	879.46	879.46	879.46	879.46	879.46	879.46	879.45	879.45	879.45	879.45
40.00	DISCHG	0.88	0.87	0.87	0.87	0.87	0.86	0.86	0.86	0.86	0.85
40.00	ELEV	879.45	879.45	879.45	879.45	879.45	879.45	879.44	879.44	879.44	879.44
42.00	DISCHG	0.85	0.85	0.85	0.84	0.84	0.84	0.84	0.84	0.83	0.83
42.00	ELEV	879.44	879.44	879.44	879.44	879.44	879.44	879.44	879.43	879.43	879.43
44.00	DISCHG	0.83	0.83	0.82	0.82	0.82	0.82	0.82	0.81	0.81	0.81
44.00	ELEV	879.43	879.43	879.43	879.43	879.43	879.43	879.43	879.43	879.42	879.42
46.00	DISCHG	0.81	0.80	0.80	0.80	0.80	0.80	0.79	0.79	0.79	0.79
46.00	ELEV	879.42	879.42	879.42	879.42	879.42	879.42	879.42	879.42	879.42	879.41
48.00	DISCHG	0.78	0.78	0.78	0.78	0.78	0.77	0.77	0.77	0.77	0.77
48.00	ELEV	879.41	879.41	879.41	879.41	879.41	879.41	879.41	879.41	879.41	879.41
50.00	DISCHG	0.76	0.76	0.76	0.76	0.75	0.75	0.75	0.75	0.75	0.74
50.00	ELEV	879.41	879.40	879.40	879.40	879.40	879.40	879.40	879.40	879.40	879.40
52.00	DISCHG	0.74	0.74	0.74	0.74	0.73	0.73	0.73	0.73	0.73	0.72
52.00	ELEV	879.40	879.40	879.40	879.39	879.39	879.39	879.39	879.39	879.39	879.39
54.00	DISCHG	0.72	0.72	0.72	0.72	0.71	0.71	0.71	0.71	0.71	0.70
54.00	ELEV	879.39	879.39	879.39	879.39	879.39	879.38	879.38	879.38	879.38	879.38
56.00	DISCHG	0.70	0.70	0.70	0.70	0.69	0.69	0.69	0.69	0.69	0.69
56.00	ELEV	879.38	879.38	879.38	879.38	879.38	879.38	879.38	879.38	879.37	879.37
58.00	DISCHG	0.68	0.68	0.68	0.68	0.68	0.67	0.67	0.67	0.67	0.67
58.00	ELEV	879.37	879.37	879.37	879.37	879.37	879.37	879.37	879.37	879.37	879.37

SUBROUTINE RESVOR STRUCTURE 2

TIME		HYDROGRAPH, TZERO= 0.00				DELTA T= 0.20			DRAINAGE AREA= 1.33		
0.00	DISCHG	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
0.00	ELEV	875.00	875.00	875.00	875.00	875.00	875.00	875.00	875.00	875.00	875.00
2.00	DISCHG	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
2.00	ELEV	875.00	875.00	875.00	875.00	875.00	875.00	875.00	875.00	875.00	875.00
4.00	DISCHG	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
4.00	ELEV	875.00	875.00	875.00	875.00	875.00	875.00	875.00	875.00	875.00	875.00
6.00	DISCHG	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
6.00	ELEV	875.00	875.00	875.00	875.00	875.00	875.00	875.00	875.00	875.00	875.00
8.00	DISCHG	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.51
8.00	ELEV	875.00	875.00	875.00	875.00	875.00	875.00	875.00	875.00	875.00	875.00
10.00	DISCHG	2.54	2.58	2.64	2.68	2.72	2.75	2.78	2.80	2.82	2.84
10.00	ELEV	875.01	875.02	875.04	875.05	875.06	875.07	875.07	875.08	875.09	875.09
12.00	DISCHG	2.86	2.87	2.89	2.90	2.92	2.93	2.95	2.96	2.97	2.99
12.00	ELEV	875.09	875.10	875.10	875.11	875.11	875.12	875.12	875.12	875.13	875.13
14.00	DISCHG	3.00	3.01	3.02	3.04	3.05	3.06	3.07	3.08	3.09	3.10
14.00	ELEV	875.13	875.14	875.14	875.14	875.15	875.15	875.15	875.15	875.16	875.16

16.00	ELEV	875.16	875.17	875.17	875.17	875.17	875.18	875.18	875.18	875.18	875.19
18.00	DISCHG	3.21	3.21	3.22	3.23	3.24	3.25	3.26	3.26	3.27	3.28
18.00	ELEV	875.19	875.19	875.19	875.19	875.20	875.20	875.20	875.20	875.21	875.21
20.00	DISCHG	3.29	3.30	3.30	3.31	3.32	3.32	3.33	3.34	3.35	3.35
20.00	ELEV	875.21	875.21	875.21	875.22	875.22	875.22	875.22	875.22	875.23	875.23
22.00	DISCHG	3.36	3.37	3.37	3.38	3.39	3.40	3.40	3.41	3.42	3.42
22.00	ELEV	875.23	875.23	875.23	875.24	875.24	875.24	875.24	875.24	875.24	875.25
24.00	DISCHG	3.43	3.43	3.44	3.44	3.44	3.44	3.44	3.44	3.44	3.44
24.00	ELEV	875.25	875.25	875.25	875.25	875.25	875.25	875.25	875.25	875.25	875.25
26.00	DISCHG	3.44	3.44	3.44	3.44	3.44	3.44	3.44	3.43	3.43	3.43
26.00	ELEV	875.25	875.25	875.25	875.25	875.25	875.25	875.25	875.25	875.25	875.25
28.00	DISCHG	3.43	3.43	3.43	3.43	3.43	3.43	3.43	3.43	3.43	3.43
28.00	ELEV	875.25	875.25	875.25	875.25	875.25	875.25	875.25	875.25	875.25	875.25
30.00	DISCHG	3.43	3.43	3.43	3.42	3.42	3.42	3.42	3.42	3.42	3.42
30.00	ELEV	875.25	875.25	875.25	875.25	875.25	875.25	875.25	875.25	875.25	875.25
32.00	DISCHG	3.42	3.42	3.42	3.42	3.42	3.42	3.42	3.42	3.41	3.41
32.00	ELEV	875.25	875.25	875.24	875.24	875.24	875.24	875.24	875.24	875.24	875.24
34.00	DISCHG	3.41	3.41	3.41	3.41	3.41	3.41	3.41	3.41	3.41	3.41
34.00	ELEV	875.24	875.24	875.24	875.24	875.24	875.24	875.24	875.24	875.24	875.24
36.00	DISCHG	3.41	3.41	3.41	3.41	3.40	3.40	3.40	3.40	3.40	3.40
36.00	ELEV	875.24	875.24	875.24	875.24	875.24	875.24	875.24	875.24	875.24	875.24
38.00	DISCHG	3.40	3.40	3.40	3.40	3.40	3.40	3.40	3.40	3.40	3.39
38.00	ELEV	875.24	875.24	875.24	875.24	875.24	875.24	875.24	875.24	875.24	875.24
40.00	DISCHG	3.39	3.39	3.39	3.39	3.39	3.39	3.39	3.39	3.39	3.39
40.00	ELEV	875.24	875.24	875.24	875.24	875.24	875.24	875.24	875.24	875.24	875.24
42.00	DISCHG	3.39	3.39	3.39	3.39	3.38	3.38	3.38	3.38	3.38	3.38
42.00	ELEV	875.24	875.24	875.24	875.24	875.24	875.24	875.24	875.24	875.24	875.24
44.00	DISCHG	3.38	3.38	3.38	3.38	3.38	3.38	3.38	3.38	3.38	3.37
44.00	ELEV	875.23	875.23	875.23	875.23	875.23	875.23	875.23	875.23	875.23	875.23
46.00	DISCHG	3.37	3.37	3.37	3.37	3.37	3.37	3.37	3.37	3.37	3.37
46.00	ELEV	875.23	875.23	875.23	875.23	875.23	875.23	875.23	875.23	875.23	875.23
48.00	DISCHG	3.37	3.37	3.37	3.37	3.36	3.36	3.36	3.36	3.36	3.36
48.00	ELEV	875.23	875.23	875.23	875.23	875.23	875.23	875.23	875.23	875.23	875.23
50.00	DISCHG	3.36	3.36	3.36	3.36	3.36	3.36	3.36	3.36	3.36	3.35
50.00	ELEV	875.23	875.23	875.23	875.23	875.23	875.23	875.23	875.23	875.23	875.23
52.00	DISCHG	3.35	3.35	3.35	3.35	3.35	3.35	3.35	3.35	3.35	3.35
52.00	ELEV	875.23	875.23	875.23	875.23	875.23	875.23	875.23	875.23	875.23	875.23
54.00	DISCHG	3.35	3.35	3.35	3.35	3.34	3.34	3.34	3.34	3.34	3.34
54.00	ELEV	875.23	875.23	875.23	875.23	875.23	875.23	875.22	875.22	875.22	875.22
56.00	DISCHG	3.34	3.34	3.34	3.34	3.34	3.34	3.34	3.34	3.33	3.33
56.00	ELEV	875.22	875.22	875.22	875.22	875.22	875.22	875.22	875.22	875.22	875.22
58.00	DISCHG	3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33
58.00	ELEV	875.22	875.22	875.22	875.22	875.22	875.22	875.22	875.22	875.22	875.22

ENDCMP

PASS= 3

EXECUTIVE CONTROL CARD OPERATION COMPUT, FROM XSECTN/STRUCT 0/ 1 TO XSECTN/STRUCT 1/ 0
STARTING TIME= 0.00 RAIN DEPTH= 4.45 RAIN DURATION= 1.00 RAIN TABLE NO.= 1 SOIL CONDITION= 2
ALTERNATE NO.= 0 STORM NO.= 0

SUBROUTINE RUNOFF STRUCTURE 1

TIME		HYDROGRAPH, TZERO= 0.00					DELTA T= 0.20		DRAINAGE AREA= 0.25		
0.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17	3.19
10.00	DISCHG	14.56	30.48	36.36	33.54	29.94	25.83	22.67	20.06	17.92	16.65
12.00	DISCHG	15.84	15.35	14.64	13.89	13.43	13.14	13.00	12.87	12.77	12.60
14.00	DISCHG	12.29	12.02	11.65	11.27	11.00	10.74	10.59	10.54	10.55	10.41
16.00	DISCHG	10.05	9.78	9.65	9.61	9.52	9.34	9.20	9.15	9.14	9.07
18.00	DISCHG	8.88	8.70	8.47	8.24	8.21	8.39	8.52	8.46	8.31	8.12
20.00	DISCHG	7.86	7.67	7.58	7.54	7.54	7.55	7.52	7.36	7.16	7.14
22.00	DISCHG	7.32	7.46	7.38	7.21	7.11	7.07	7.05	7.06	7.06	6.96
24.00	DISCHG	6.73	6.22	4.58	2.59	1.35	0.70	0.35	0.17	0.08	0.03
26.00	DISCHG	0.01	0.00								

SUBROUTINE RESVOR STRUCTURE 1

TIME		HYDROGRAPH, TZERO= 0.00					DELTA T= 0.20		DRAINAGE AREA= 0.25		
0.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	ELEV	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00
2.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.00	ELEV	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00
4.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4.00	ELEV	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00
6.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6.00	ELEV	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00
8.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8.00	ELEV	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00
10.00	DISCHG	0.02	0.07	0.14	0.21	0.27	0.33	0.38	0.42	0.46	0.50
10.00	ELEV	879.01	879.04	879.08	879.13	879.16	879.20	879.23	879.25	879.28	879.30
12.00	DISCHG	0.54	0.58	0.62	0.66	0.69	0.73	0.76	0.80	0.83	0.86
12.00	ELEV	879.32	879.33	879.35	879.36	879.38	879.39	879.40	879.42	879.43	879.44
14.00	DISCHG	0.89	0.92	0.95	0.98	1.01	1.03	1.05	1.07	1.09	1.11
14.00	ELEV	879.46	879.47	879.48	879.49	879.50	879.51	879.52	879.53	879.54	879.55
16.00	DISCHG	1.13	1.15	1.16	1.18	1.20	1.22	1.23	1.25	1.27	1.28
16.00	ELEV	879.55	879.56	879.57	879.58	879.59	879.59	879.60	879.61	879.61	879.62
18.00	DISCHG	1.30	1.32	1.33	1.35	1.36	1.37	1.39	1.40	1.42	1.43
18.00	ELEV	879.63	879.64	879.64	879.65	879.65	879.66	879.67	879.67	879.68	879.69
20.00	DISCHG	1.45	1.46	1.47	1.49	1.50	1.51	1.52	1.54	1.55	1.56
20.00	ELEV	879.69	879.70	879.70	879.71	879.71	879.72	879.72	879.73	879.74	879.74
22.00	DISCHG	1.57	1.58	1.60	1.61	1.62	1.63	1.64	1.66	1.67	1.68
22.00	ELEV	879.75	879.75	879.76	879.76	879.77	879.77	879.78	879.78	879.79	879.79
24.00	DISCHG	1.69	1.70	1.71	1.71	1.71	1.71	1.71	1.70	1.70	1.70
24.00	ELEV	879.80	879.80	879.80	879.80	879.80	879.80	879.80	879.80	879.80	879.80
26.00	DISCHG	1.69	1.69	1.69	1.68	1.68	1.68	1.67	1.67	1.67	1.66
26.00	ELEV	879.80	879.80	879.79	879.79	879.79	879.79	879.79	879.79	879.79	879.78
28.00	DISCHG	1.66	1.65	1.65	1.65	1.64	1.64	1.64	1.63	1.63	1.63
28.00	ELEV	879.78	879.78	879.78	879.78	879.78	879.77	879.77	879.77	879.77	879.77
30.00	DISCHG	1.62	1.62	1.62	1.61	1.61	1.61	1.60	1.60	1.60	1.59
30.00	ELEV	879.77	879.77	879.76	879.76	879.76	879.76	879.76	879.76	879.76	879.75

32.00	DISCHG	1.56	1.55	1.55	1.55	1.54	1.54	1.54	1.53	1.53	1.53
32.00	ELEV	879.75	879.75	879.75	879.75	879.75	879.75	879.74	879.74	879.74	879.74
34.00	DISCHG	1.56	1.55	1.55	1.55	1.54	1.54	1.54	1.53	1.53	1.53
34.00	ELEV	879.74	879.74	879.74	879.73	879.73	879.73	879.73	879.73	879.73	879.73
36.00	DISCHG	1.52	1.52	1.52	1.52	1.51	1.51	1.51	1.50	1.50	1.50
36.00	ELEV	879.72	879.72	879.72	879.72	879.72	879.72	879.72	879.72	879.71	879.71
38.00	DISCHG	1.49	1.49	1.49	1.48	1.48	1.48	1.47	1.47	1.47	1.46
38.00	ELEV	879.71	879.71	879.71	879.71	879.71	879.70	879.70	879.70	879.70	879.70
40.00	DISCHG	1.46	1.46	1.46	1.45	1.45	1.45	1.44	1.44	1.44	1.43
40.00	ELEV	879.70	879.70	879.70	879.69	879.69	879.69	879.69	879.69	879.69	879.69
42.00	DISCHG	1.43	1.43	1.43	1.42	1.42	1.42	1.41	1.41	1.41	1.40
42.00	ELEV	879.68	879.68	879.68	879.68	879.68	879.68	879.68	879.68	879.67	879.67
44.00	DISCHG	1.40	1.40	1.40	1.39	1.39	1.39	1.38	1.38	1.38	1.38
44.00	ELEV	879.67	879.67	879.67	879.67	879.67	879.67	879.66	879.66	879.66	879.66
46.00	DISCHG	1.37	1.37	1.37	1.36	1.36	1.36	1.36	1.35	1.35	1.35
46.00	ELEV	879.66	879.66	879.66	879.66	879.65	879.65	879.65	879.65	879.65	879.65
48.00	DISCHG	1.34	1.34	1.34	1.34	1.33	1.33	1.33	1.32	1.32	1.32
48.00	ELEV	879.65	879.65	879.64	879.64	879.64	879.64	879.64	879.64	879.64	879.64
50.00	DISCHG	1.32	1.31	1.31	1.31	1.30	1.30	1.30	1.30	1.29	1.29
50.00	ELEV	879.64	879.63	879.63	879.63	879.63	879.63	879.63	879.63	879.63	879.62
52.00	DISCHG	1.29	1.29	1.28	1.28	1.28	1.27	1.27	1.27	1.27	1.26
52.00	ELEV	879.62	879.62	879.62	879.62	879.62	879.62	879.62	879.62	879.61	879.61
54.00	DISCHG	1.26	1.26	1.26	1.25	1.25	1.25	1.25	1.24	1.24	1.24
54.00	ELEV	879.61	879.61	879.61	879.61	879.61	879.61	879.61	879.60	879.60	879.60
56.00	DISCHG	1.24	1.23	1.23	1.23	1.23	1.22	1.22	1.22	1.21	1.21
56.00	ELEV	879.60	879.60	879.60	879.60	879.60	879.60	879.59	879.59	879.59	879.59
58.00	DISCHG	1.21	1.21	1.20	1.20	1.20	1.20	1.19	1.19	1.19	1.19
58.00	ELEV	879.59	879.59	879.59	879.59	879.59	879.58	879.58	879.58	879.58	879.58

SUBROUTINE RUNOFF STRUCTURE 1

TIME HYDROGRAPH, TZERO= 0.00 DELTA T= 0.20 DRAINAGE AREA= 1.08

0.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8.00	DISCHG	0.02	0.44	1.98	4.46	8.45	14.03	20.83	31.56	46.58	121.67
10.00	DISCHG	269.59	372.37	326.38	259.75	212.38	170.86	147.06	125.62	111.63	104.62
12.00	DISCHG	100.57	97.54	91.18	86.32	83.64	81.88	80.98	79.75	78.90	77.10
14.00	DISCHG	74.56	72.67	69.60	67.33	65.57	63.92	63.19	63.04	63.01	61.34
16.00	DISCHG	58.60	57.18	56.65	56.48	55.58	54.21	53.53	53.32	53.27	52.39
18.00	DISCHG	50.99	49.89	48.15	46.94	47.40	48.79	49.28	48.24	47.19	45.79
20.00	DISCHG	44.09	43.21	42.85	42.75	42.75	42.81	42.50	41.03	39.89	40.39
22.00	DISCHG	41.81	42.28	41.15	40.08	39.63	39.46	39.42	39.44	39.41	38.43
24.00	DISCHG	36.85	32.78	19.65	8.95	3.95	1.69	0.68	0.24	0.05	0.00

SUBROUTINE ADDHYD STRUCTURE 1

TIME HYDROGRAPH, TZERO= 0.00 DELTA T= 0.20 DRAINAGE AREA= 1.33

0.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	ELEV	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00
2.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.00	ELEV	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00
4.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4.00	ELEV	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00
6.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6.00	ELEV	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00
8.00	DISCHG	0.02	0.44	1.98	4.46	8.45	14.03	20.83	31.56	46.58	121.67
8.00	ELEV	879.01	879.26	879.91	880.75	882.09	883.94	886.21	889.79	894.80	919.83
10.00	DISCHG	269.61	372.44	326.51	259.96	212.65	171.19	147.44	126.04	112.09	105.12
10.00	ELEV	969.14	1003.42	988.11	965.93	950.15	936.33	928.42	921.28	916.63	914.31
12.00	DISCHG	101.11	98.12	91.80	86.98	84.34	82.61	81.74	80.54	79.73	77.96
12.00	ELEV	912.97	911.98	909.87	908.26	907.38	906.80	906.51	906.12	905.85	905.26
14.00	DISCHG	75.46	73.60	70.56	68.32	66.58	64.95	64.24	64.11	64.10	62.45

16.00	DISCHG	59.73	58.33	57.82	57.66	56.78	55.42	54.76	54.58	54.54	53.68
16.00	ELEV	899.18	898.71	898.54	898.49	898.20	897.74	897.52	897.46	897.45	897.16
18.00	DISCHG	52.29	51.21	49.48	48.28	48.76	50.16	50.67	49.64	48.61	47.23
18.00	ELEV	896.70	896.34	895.76	895.36	895.52	895.99	896.16	895.81	895.47	895.01
20.00	DISCHG	45.54	44.67	44.33	44.23	44.25	44.32	44.02	42.56	41.44	41.95
20.00	ELEV	894.45	894.16	894.04	894.01	894.02	894.04	893.94	893.46	893.08	893.25
22.00	DISCHG	43.39	43.86	42.74	41.69	41.25	41.09	41.06	41.09	41.08	40.11
22.00	ELEV	893.73	893.89	893.52	893.17	893.02	892.96	892.96	892.96	892.96	892.64
24.00	DISCHG	38.54	34.47	21.36	10.66	5.66	3.40	2.38	1.95	1.75	1.70
24.00	ELEV	892.11	890.76	886.39	882.82	881.15	880.40	880.06	879.90	879.82	879.80
26.00	DISCHG	1.69	1.69	1.69	1.68	1.68	1.68	1.67	1.67	1.67	1.66
26.00	ELEV	879.80	879.80	879.79	879.79	879.79	879.79	879.79	879.79	879.79	879.78
28.00	DISCHG	1.66	1.65	1.65	1.65	1.64	1.64	1.64	1.63	1.63	1.63
28.00	ELEV	879.78	879.78	879.78	879.78	879.78	879.77	879.77	879.77	879.77	879.77
30.00	DISCHG	1.62	1.62	1.62	1.61	1.61	1.61	1.60	1.60	1.60	1.59
30.00	ELEV	879.77	879.77	879.76	879.76	879.76	879.76	879.76	879.76	879.76	879.75
32.00	DISCHG	1.59	1.59	1.58	1.58	1.58	1.57	1.57	1.57	1.56	1.56
32.00	ELEV	879.75	879.75	879.75	879.75	879.75	879.75	879.74	879.74	879.74	879.74
34.00	DISCHG	1.56	1.55	1.55	1.55	1.54	1.54	1.54	1.53	1.53	1.53
34.00	ELEV	879.74	879.74	879.74	879.73	879.73	879.73	879.73	879.73	879.73	879.73
36.00	DISCHG	1.52	1.52	1.52	1.52	1.51	1.51	1.51	1.50	1.50	1.50
36.00	ELEV	879.72	879.72	879.72	879.72	879.72	879.72	879.72	879.72	879.71	879.71
38.00	DISCHG	1.49	1.49	1.49	1.48	1.48	1.48	1.47	1.47	1.47	1.46
38.00	ELEV	879.71	879.71	879.71	879.71	879.71	879.70	879.70	879.70	879.70	879.70
40.00	DISCHG	1.46	1.46	1.46	1.45	1.45	1.45	1.44	1.44	1.44	1.43
40.00	ELEV	879.70	879.70	879.70	879.69	879.69	879.69	879.69	879.69	879.69	879.69
42.00	DISCHG	1.43	1.43	1.43	1.42	1.42	1.42	1.41	1.41	1.41	1.40
42.00	ELEV	879.68	879.68	879.68	879.68	879.68	879.68	879.68	879.68	879.67	879.67
44.00	DISCHG	1.40	1.40	1.40	1.39	1.39	1.39	1.38	1.38	1.38	1.38
44.00	ELEV	879.67	879.67	879.67	879.67	879.67	879.67	879.66	879.66	879.66	879.66
46.00	DISCHG	1.37	1.37	1.37	1.36	1.36	1.36	1.36	1.35	1.35	1.35
46.00	ELEV	879.66	879.66	879.66	879.66	879.65	879.65	879.65	879.65	879.65	879.65
48.00	DISCHG	1.34	1.34	1.34	1.34	1.33	1.33	1.33	1.32	1.32	1.32
48.00	ELEV	879.65	879.65	879.64	879.64	879.64	879.64	879.64	879.64	879.64	879.64
50.00	DISCHG	1.32	1.31	1.31	1.31	1.30	1.30	1.30	1.30	1.29	1.29
50.00	ELEV	879.64	879.63	879.63	879.63	879.63	879.63	879.63	879.63	879.63	879.62
52.00	DISCHG	1.29	1.29	1.28	1.28	1.28	1.27	1.27	1.27	1.27	1.26
52.00	ELEV	879.62	879.62	879.62	879.62	879.62	879.62	879.62	879.62	879.61	879.61
54.00	DISCHG	1.26	1.26	1.26	1.25	1.25	1.25	1.25	1.24	1.24	1.24
54.00	ELEV	879.61	879.61	879.61	879.61	879.61	879.61	879.61	879.60	879.60	879.60
56.00	DISCHG	1.24	1.23	1.23	1.23	1.23	1.22	1.22	1.22	1.21	1.21
56.00	ELEV	879.60	879.60	879.60	879.60	879.60	879.60	879.59	879.59	879.59	879.59
58.00	DISCHG	1.21	1.21	1.20	1.20	1.20	1.20	1.19	1.19	1.19	1.19
58.00	ELEV	879.59	879.59	879.59	879.59	879.59	879.58	879.58	879.58	879.58	879.58

SUBROUTINE RESVOR STRUCTURE 2

TIME HYDROGRAPH, TZERO= 0.00 DELTA T= 0.20 DRAINAGE AREA= 1.33

0.00	DISCHG	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
0.00	ELEV	875.00	875.00	875.00	875.00	875.00	875.00	875.00	875.00	875.00	875.00
2.00	DISCHG	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
2.00	ELEV	875.00	875.00	875.00	875.00	875.00	875.00	875.00	875.00	875.00	875.00
4.00	DISCHG	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
4.00	ELEV	875.00	875.00	875.00	875.00	875.00	875.00	875.00	875.00	875.00	875.00
6.00	DISCHG	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
6.00	ELEV	875.00	875.00	875.00	875.00	875.00	875.00	875.00	875.00	875.00	875.00
8.00	DISCHG	2.50	2.50	2.50	2.50	2.50	2.50	2.51	2.51	2.52	2.54
8.00	ELEV	875.00	875.00	875.00	875.00	875.00	875.00	875.00	875.00	875.01	875.01
10.00	DISCHG	2.59	2.68	2.77	2.84	2.90	2.95	2.99	3.03	3.06	3.08
10.00	ELEV	875.02	875.05	875.07	875.09	875.11	875.12	875.13	875.14	875.15	875.16
12.00	DISCHG	3.11	3.14	3.16	3.18	3.20	3.22	3.24	3.26	3.28	3.30
12.00	ELEV	875.16	875.17	875.18	875.18	875.19	875.19	875.20	875.20	875.21	875.21
14.00	DISCHG	3.32	3.34	3.36	3.38	3.39	3.41	3.43	3.44	3.46	3.47
14.00	ELEV	875.22	875.22	875.23	875.23	875.24	875.24	875.25	875.25	875.26	875.26

16.00	ELEV	875.26	875.27	875.27	875.27	875.28	875.28	875.29	875.29	875.29	875.30
18.00	DISCHG	3.62	3.64	3.65	3.66	3.67	3.68	3.70	3.71	3.72	3.73
18.00	ELEV	875.30	875.30	875.31	875.31	875.31	875.32	875.32	875.32	875.33	875.33
20.00	DISCHG	3.74	3.75	3.76	3.77	3.78	3.79	3.81	3.82	3.83	3.84
20.00	ELEV	875.33	875.33	875.34	875.34	875.34	875.35	875.35	875.35	875.35	875.36
22.00	DISCHG	3.85	3.86	3.87	3.88	3.89	3.90	3.91	3.91	3.92	3.93
22.00	ELEV	875.36	875.36	875.36	875.37	875.37	875.37	875.37	875.38	875.38	875.38
24.00	DISCHG	3.94	3.95	3.96	3.96	3.96	3.96	3.96	3.96	3.96	3.96
24.00	ELEV	875.38	875.39	875.39	875.39	875.39	875.39	875.39	875.39	875.39	875.39
26.00	DISCHG	3.96	3.96	3.96	3.96	3.96	3.96	3.96	3.96	3.96	3.95
26.00	ELEV	875.39	875.39	875.39	875.39	875.39	875.39	875.39	875.39	875.39	875.39
28.00	DISCHG	3.95	3.95	3.95	3.95	3.95	3.95	3.95	3.95	3.95	3.95
28.00	ELEV	875.39	875.39	875.39	875.39	875.39	875.39	875.39	875.39	875.39	875.39
30.00	DISCHG	3.95	3.95	3.95	3.95	3.95	3.94	3.94	3.94	3.94	3.94
30.00	ELEV	875.39	875.39	875.39	875.39	875.39	875.39	875.39	875.39	875.38	875.38
32.00	DISCHG	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94
32.00	ELEV	875.38	875.38	875.38	875.38	875.38	875.38	875.38	875.38	875.38	875.38
34.00	DISCHG	3.94	3.94	3.93	3.93	3.93	3.93	3.93	3.93	3.93	3.93
34.00	ELEV	875.38	875.38	875.38	875.38	875.38	875.38	875.38	875.38	875.38	875.38
36.00	DISCHG	3.93	3.93	3.93	3.93	3.93	3.93	3.93	3.93	3.92	3.92
36.00	ELEV	875.38	875.38	875.38	875.38	875.38	875.38	875.38	875.38	875.38	875.38
38.00	DISCHG	3.92	3.92	3.92	3.92	3.92	3.92	3.92	3.92	3.92	3.92
38.00	ELEV	875.38	875.38	875.38	875.38	875.38	875.38	875.38	875.38	875.38	875.38
40.00	DISCHG	3.92	3.92	3.92	3.91	3.91	3.91	3.91	3.91	3.91	3.91
40.00	ELEV	875.38	875.38	875.38	875.38	875.38	875.38	875.38	875.38	875.38	875.38
42.00	DISCHG	3.91	3.91	3.91	3.91	3.91	3.91	3.91	3.91	3.91	3.90
42.00	ELEV	875.38	875.38	875.38	875.38	875.38	875.38	875.38	875.37	875.37	875.37
44.00	DISCHG	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90
44.00	ELEV	875.37	875.37	875.37	875.37	875.37	875.37	875.37	875.37	875.37	875.37
46.00	DISCHG	3.90	3.90	3.90	3.90	3.89	3.89	3.89	3.89	3.89	3.89
46.00	ELEV	875.37	875.37	875.37	875.37	875.37	875.37	875.37	875.37	875.37	875.37
48.00	DISCHG	3.89	3.89	3.89	3.89	3.89	3.89	3.89	3.89	3.89	3.88
48.00	ELEV	875.37	875.37	875.37	875.37	875.37	875.37	875.37	875.37	875.37	875.37
50.00	DISCHG	3.88	3.88	3.88	3.88	3.88	3.88	3.88	3.88	3.88	3.88
50.00	ELEV	875.37	875.37	875.37	875.37	875.37	875.37	875.37	875.37	875.37	875.37
52.00	DISCHG	3.88	3.88	3.88	3.88	3.87	3.87	3.87	3.87	3.87	3.87
52.00	ELEV	875.37	875.37	875.37	875.37	875.37	875.37	875.37	875.37	875.37	875.37
54.00	DISCHG	3.87	3.87	3.87	3.87	3.87	3.87	3.87	3.87	3.87	3.86
54.00	ELEV	875.37	875.37	875.37	875.37	875.36	875.36	875.36	875.36	875.36	875.36
56.00	DISCHG	3.86	3.86	3.86	3.86	3.86	3.86	3.86	3.86	3.86	3.86
56.00	ELEV	875.36	875.36	875.36	875.36	875.36	875.36	875.36	875.36	875.36	875.36
58.00	DISCHG	3.86	3.86	3.86	3.86	3.85	3.85	3.85	3.85	3.85	3.85
58.00	ELEV	875.36	875.36	875.36	875.36	875.36	875.36	875.36	875.36	875.36	875.36

ENDCMP

PASS= 4

EXECUTIVE CONTROL CARD OPERATION COMPUT, FROM XSECTN/STRUCT 0/ 1 TO XSECTN/STRUCT 1/ 0
STARTING TIME= 0.00 RAIN DEPTH= 5.70 RAIN DURATION= 1.00 RAIN TABLE NO.= 1 SOIL CONDITION= 2
ALTERNATE NO.= 0 STORM NO.= 0

SUBROUTINE RUNOFF STRUCTURE 1

TIME		HYDROGRAPH, TZERO= 0.00					DELTA T= 0.20		DRAINAGE AREA= 0.25		
0.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8.00	DISCHG	0.00	0.00	0.00	0.00	0.04	0.33	1.18	2.83	5.53	15.91
10.00	DISCHG	42.11	70.57	76.21	66.27	56.58	47.29	40.45	35.11	30.89	28.32
12.00	DISCHG	26.68	25.65	24.33	22.96	22.10	21.53	21.21	20.93	20.69	20.35
14.00	DISCHG	19.79	19.29	18.65	18.00	17.52	17.07	16.80	16.69	16.66	16.41
16.00	DISCHG	15.82	15.36	15.14	15.04	14.88	14.58	14.34	14.24	14.21	14.07
18.00	DISCHG	13.77	13.47	13.09	12.73	12.67	12.92	13.12	13.01	12.76	12.46
20.00	DISCHG	12.05	11.75	11.60	11.53	11.51	11.52	11.47	11.21	10.89	10.86
22.00	DISCHG	11.13	11.33	11.20	10.94	10.78	10.70	10.67	10.67	10.67	10.51
24.00	DISCHG	10.16	9.39	6.90	3.91	2.04	1.05	0.53	0.26	0.12	0.05
26.00	DISCHG	0.01	0.00								

SUBROUTINE RESVOR STRUCTURE 1

TIME		HYDROGRAPH, TZERO= 0.00					DELTA T= 0.20		DRAINAGE AREA= 0.25		
0.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	ELEV	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00
2.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.00	ELEV	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00
4.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4.00	ELEV	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00
6.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6.00	ELEV	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00
8.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.04
8.00	ELEV	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.01	879.02
10.00	DISCHG	0.10	0.21	0.36	0.51	0.68	0.82	0.94	1.03	1.10	1.16
10.00	ELEV	879.06	879.13	879.22	879.31	879.37	879.43	879.48	879.51	879.54	879.57
12.00	DISCHG	1.21	1.27	1.32	1.36	1.41	1.45	1.49	1.53	1.57	1.61
12.00	ELEV	879.59	879.61	879.64	879.66	879.67	879.69	879.71	879.73	879.75	879.76
14.00	DISCHG	1.65	1.69	1.72	1.75	1.78	1.81	1.84	1.87	1.89	1.92
14.00	ELEV	879.78	879.80	879.81	879.82	879.83	879.84	879.86	879.87	879.88	879.89
16.00	DISCHG	1.95	1.97	2.00	2.02	2.04	2.07	2.09	2.11	2.13	2.16
16.00	ELEV	879.90	879.91	879.92	879.93	879.94	879.95	879.96	879.97	879.97	879.98
18.00	DISCHG	2.18	2.20	2.21	2.22	2.24	2.25	2.26	2.27	2.28	2.29
18.00	ELEV	879.99	880.00	880.00	880.01	880.01	880.02	880.02	880.02	880.03	880.03
20.00	DISCHG	2.30	2.32	2.33	2.34	2.35	2.36	2.37	2.38	2.39	2.39
20.00	ELEV	880.03	880.04	880.04	880.05	880.05	880.05	880.06	880.06	880.06	880.06
22.00	DISCHG	2.40	2.41	2.42	2.43	2.44	2.45	2.46	2.47	2.48	2.49
22.00	ELEV	880.07	880.07	880.07	880.08	880.08	880.08	880.09	880.09	880.09	880.10
24.00	DISCHG	2.50	2.50	2.51	2.51	2.51	2.51	2.51	2.51	2.51	2.50
24.00	ELEV	880.10	880.10	880.10	880.10	880.10	880.10	880.10	880.10	880.10	880.10
26.00	DISCHG	2.50	2.50	2.50	2.49	2.49	2.49	2.48	2.48	2.48	2.48
26.00	ELEV	880.10	880.10	880.10	880.10	880.10	880.10	880.09	880.09	880.09	880.09
28.00	DISCHG	2.47	2.47	2.47	2.47	2.46	2.46	2.46	2.45	2.45	2.45
28.00	ELEV	880.09	880.09	880.09	880.09	880.09	880.09	880.09	880.08	880.08	880.08
30.00	DISCHG	2.45	2.44	2.44	2.44	2.44	2.43	2.43	2.43	2.43	2.42
30.00	ELEV	880.08	880.08	880.08	880.08	880.08	880.08	880.08	880.08	880.08	880.07

32.00	ELEV	880.07	880.07	880.07	880.07	880.07	880.07	880.07	880.07	880.07	880.07
34.00	DISCHG	2.39	2.39	2.39	2.39	2.38	2.38	2.38	2.37	2.37	2.37
34.00	ELEV	880.06	880.06	880.06	880.06	880.06	880.06	880.06	880.06	880.06	880.06
36.00	DISCHG	2.37	2.36	2.36	2.36	2.36	2.35	2.35	2.35	2.35	2.34
36.00	ELEV	880.06	880.05	880.05	880.05	880.05	880.05	880.05	880.05	880.05	880.05
38.00	DISCHG	2.34	2.34	2.34	2.33	2.33	2.33	2.33	2.32	2.32	2.32
38.00	ELEV	880.05	880.05	880.05	880.04	880.04	880.04	880.04	880.04	880.04	880.04
40.00	DISCHG	2.32	2.31	2.31	2.31	2.31	2.30	2.30	2.30	2.30	2.29
40.00	ELEV	880.04	880.04	880.04	880.04	880.04	880.03	880.03	880.03	880.03	880.03
42.00	DISCHG	2.29	2.29	2.28	2.28	2.28	2.28	2.27	2.27	2.27	2.27
42.00	ELEV	880.03	880.03	880.03	880.03	880.03	880.03	880.02	880.02	880.02	880.02
44.00	DISCHG	2.26	2.26	2.26	2.26	2.25	2.25	2.25	2.25	2.24	2.24
44.00	ELEV	880.02	880.02	880.02	880.02	880.02	880.02	880.02	880.02	880.02	880.01
46.00	DISCHG	2.24	2.24	2.24	2.23	2.23	2.23	2.23	2.22	2.22	2.22
46.00	ELEV	880.01	880.01	880.01	880.01	880.01	880.01	880.01	880.01	880.01	880.01
48.00	DISCHG	2.22	2.21	2.21	2.21	2.21	2.20	2.20	2.20	2.19	2.19
48.00	ELEV	880.01	880.00	880.00	880.00	880.00	880.00	880.00	880.00	880.00	880.00
50.00	DISCHG	2.19	2.18	2.18	2.17	2.17	2.17	2.16	2.16	2.15	2.15
50.00	ELEV	879.99	879.99	879.99	879.99	879.99	879.99	879.98	879.98	879.98	879.98
52.00	DISCHG	2.15	2.14	2.14	2.13	2.13	2.13	2.12	2.12	2.11	2.11
52.00	ELEV	879.98	879.98	879.98	879.97	879.97	879.97	879.97	879.97	879.97	879.96
54.00	DISCHG	2.11	2.10	2.10	2.10	2.09	2.09	2.08	2.08	2.08	2.07
54.00	ELEV	879.96	879.96	879.96	879.96	879.96	879.95	879.95	879.95	879.95	879.95
56.00	DISCHG	2.07	2.06	2.06	2.06	2.05	2.05	2.05	2.04	2.04	2.03
56.00	ELEV	879.95	879.95	879.94	879.94	879.94	879.94	879.94	879.94	879.94	879.93
58.00	DISCHG	2.03	2.03	2.02	2.02	2.02	2.01	2.01	2.00	2.00	2.00
58.00	ELEV	879.93	879.93	879.93	879.93	879.93	879.92	879.92	879.92	879.92	879.92

SUBROUTINE RUNOFF STRUCTURE 1

HYDROGRAPH, TZERO= 0.00 DELTA T= 0.20 DRAINAGE AREA= 1.08

TIME											
0.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.20	1.17	3.03	5.35	8.14
8.00	DISCHG	11.29	14.85	19.92	25.36	33.65	44.73	56.89	76.38	102.37	235.73
10.00	DISCHG	480.50	628.90	535.92	417.23	335.23	266.25	226.73	192.11	169.65	158.26
12.00	DISCHG	151.55	146.49	136.56	128.93	124.62	121.71	120.11	118.04	116.57	113.70
14.00	DISCHG	109.76	106.80	102.14	98.66	95.94	93.40	92.22	91.88	91.73	89.20
16.00	DISCHG	85.13	82.98	82.12	81.79	80.42	78.36	77.31	76.95	76.80	75.48
18.00	DISCHG	73.39	71.77	69.20	67.42	68.03	69.98	70.63	69.09	67.55	65.51
20.00	DISCHG	63.04	61.74	61.19	61.01	60.98	61.03	60.55	58.43	56.78	57.46
22.00	DISCHG	59.46	60.09	58.45	56.92	56.24	55.97	55.89	55.89	55.83	54.42
24.00	DISCHG	52.16	46.38	27.81	12.66	5.58	2.39	0.96	0.35	0.07	0.00

SUBROUTINE ADDHYD STRUCTURE 1

HYDROGRAPH, TZERO= 0.00 DELTA T= 0.20 DRAINAGE AREA= 1.33

TIME											
0.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	ELEV	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00
2.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.00	ELEV	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00
4.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4.00	ELEV	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00	879.00
6.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.20	1.17	3.03	5.35	8.14
6.00	ELEV	879.00	879.00	879.00	879.00	879.00	879.12	879.57	880.28	881.05	881.98
8.00	DISCHG	11.29	14.85	19.92	25.36	33.65	44.73	56.89	76.39	102.38	235.77
8.00	ELEV	883.03	884.22	885.91	887.72	890.49	894.18	898.23	904.73	913.40	957.86
10.00	DISCHG	480.60	629.11	536.29	417.74	335.91	267.07	227.67	193.14	170.75	159.41
10.00	ELEV	1039.48	1088.98	1058.04	1018.52	991.24	968.30	955.16	943.65	936.19	932.41
12.00	DISCHG	152.77	147.76	137.87	130.30	126.03	123.17	121.60	119.58	118.14	115.31
12.00	ELEV	930.19	928.52	925.23	922.70	921.28	920.32	919.80	919.13	918.65	917.71
14.00	DISCHG	111.41	108.49	103.86	100.41	97.72	95.21	94.06	93.75	93.62	91.12

16.00	DISCHG	87.08	84.95	84.12	83.81	82.46	80.42	79.40	79.06	78.94	77.64
16.00	ELEV	908.29	907.58	907.31	907.20	906.76	906.08	905.73	905.62	905.58	905.15
18.00	DISCHG	75.57	73.96	71.42	69.64	70.26	72.22	72.89	71.36	69.83	67.80
18.00	ELEV	904.46	903.92	903.07	902.48	902.69	903.34	903.56	903.06	902.55	901.87
20.00	DISCHG	65.34	64.05	63.52	63.34	63.33	63.39	62.92	60.80	59.17	59.86
20.00	ELEV	901.05	900.62	900.44	900.38	900.38	900.40	900.24	899.54	898.99	899.22
22.00	DISCHG	61.86	62.50	60.88	59.35	58.68	58.43	58.35	58.36	58.31	56.91
22.00	ELEV	899.89	900.10	899.56	899.05	898.83	898.74	898.72	898.72	898.71	898.24
24.00	DISCHG	54.65	48.88	30.32	15.18	8.10	4.90	3.47	2.85	2.57	2.50
24.00	ELEV	897.49	895.56	889.37	884.33	881.97	880.90	880.42	880.22	880.12	880.10
26.00	DISCHG	2.50	2.50	2.50	2.49	2.49	2.49	2.48	2.48	2.48	2.48
26.00	ELEV	880.10	880.10	880.10	880.10	880.10	880.10	880.09	880.09	880.09	880.09
28.00	DISCHG	2.47	2.47	2.47	2.47	2.46	2.46	2.46	2.45	2.45	2.45
28.00	ELEV	880.09	880.09	880.09	880.09	880.09	880.09	880.09	880.08	880.08	880.08
30.00	DISCHG	2.45	2.44	2.44	2.44	2.44	2.43	2.43	2.43	2.43	2.42
30.00	ELEV	880.08	880.08	880.08	880.08	880.08	880.08	880.08	880.08	880.08	880.07
32.00	DISCHG	2.42	2.42	2.41	2.41	2.41	2.41	2.40	2.40	2.40	2.40
32.00	ELEV	880.07	880.07	880.07	880.07	880.07	880.07	880.07	880.07	880.07	880.07
34.00	DISCHG	2.39	2.39	2.39	2.39	2.38	2.38	2.38	2.37	2.37	2.37
34.00	ELEV	880.06	880.06	880.06	880.06	880.06	880.06	880.06	880.06	880.06	880.06
36.00	DISCHG	2.37	2.36	2.36	2.36	2.36	2.35	2.35	2.35	2.35	2.34
36.00	ELEV	880.06	880.05	880.05	880.05	880.05	880.05	880.05	880.05	880.05	880.05
38.00	DISCHG	2.34	2.34	2.34	2.33	2.33	2.33	2.33	2.32	2.32	2.32
38.00	ELEV	880.05	880.05	880.05	880.04	880.04	880.04	880.04	880.04	880.04	880.04
40.00	DISCHG	2.32	2.31	2.31	2.31	2.31	2.30	2.30	2.30	2.30	2.29
40.00	ELEV	880.04	880.04	880.04	880.04	880.04	880.03	880.03	880.03	880.03	880.03
42.00	DISCHG	2.29	2.29	2.28	2.28	2.28	2.28	2.27	2.27	2.27	2.27
42.00	ELEV	880.03	880.03	880.03	880.03	880.03	880.03	880.02	880.02	880.02	880.02
44.00	DISCHG	2.26	2.26	2.26	2.26	2.25	2.25	2.25	2.25	2.24	2.24
44.00	ELEV	880.02	880.02	880.02	880.02	880.02	880.02	880.02	880.02	880.02	880.01
46.00	DISCHG	2.24	2.24	2.24	2.23	2.23	2.23	2.23	2.22	2.22	2.22
46.00	ELEV	880.01	880.01	880.01	880.01	880.01	880.01	880.01	880.01	880.01	880.01
48.00	DISCHG	2.22	2.21	2.21	2.21	2.21	2.20	2.20	2.20	2.19	2.19
48.00	ELEV	880.01	880.00	880.00	880.00	880.00	880.00	880.00	880.00	880.00	880.00
50.00	DISCHG	2.19	2.18	2.18	2.17	2.17	2.17	2.16	2.16	2.15	2.15
50.00	ELEV	879.99	879.99	879.99	879.99	879.99	879.99	879.98	879.98	879.98	879.98
52.00	DISCHG	2.15	2.14	2.14	2.13	2.13	2.13	2.12	2.12	2.11	2.11
52.00	ELEV	879.98	879.98	879.98	879.97	879.97	879.97	879.97	879.97	879.97	879.96
54.00	DISCHG	2.11	2.10	2.10	2.10	2.09	2.09	2.08	2.08	2.08	2.07
54.00	ELEV	879.96	879.96	879.96	879.96	879.96	879.95	879.95	879.95	879.95	879.95
56.00	DISCHG	2.07	2.06	2.06	2.06	2.05	2.05	2.05	2.04	2.04	2.03
56.00	ELEV	879.95	879.95	879.94	879.94	879.94	879.94	879.94	879.94	879.94	879.93
58.00	DISCHG	2.03	2.03	2.02	2.02	2.02	2.01	2.01	2.00	2.00	2.00
58.00	ELEV	879.93	879.93	879.93	879.93	879.93	879.92	879.92	879.92	879.92	879.92

SUBROUTINE RESVOR STRUCTURE 2

TIME		HYDROGRAPH, TZERO= 0.00			DELTA T= 0.20			DRAINAGE AREA= 1.33			
0.00	DISCHG	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
0.00	ELEV	875.00	875.00	875.00	875.00	875.00	875.00	875.00	875.00	875.00	875.00
2.00	DISCHG	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
2.00	ELEV	875.00	875.00	875.00	875.00	875.00	875.00	875.00	875.00	875.00	875.00
4.00	DISCHG	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
4.00	ELEV	875.00	875.00	875.00	875.00	875.00	875.00	875.00	875.00	875.00	875.00
6.00	DISCHG	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
6.00	ELEV	875.00	875.00	875.00	875.00	875.00	875.00	875.00	875.00	875.00	875.00
8.00	DISCHG	2.50	2.50	2.51	2.51	2.52	2.53	2.54	2.56	2.58	2.63
8.00	ELEV	875.00	875.00	875.00	875.00	875.01	875.01	875.01	875.02	875.02	875.03
10.00	DISCHG	2.72	2.86	3.01	3.14	3.23	3.31	3.37	3.43	3.47	3.52
10.00	ELEV	875.06	875.10	875.14	875.17	875.20	875.22	875.23	875.25	875.26	875.27
12.00	DISCHG	3.56	3.59	3.63	3.66	3.70	3.73	3.76	3.79	3.82	3.85
12.00	ELEV	875.28	875.29	875.30	875.31	875.32	875.33	875.34	875.34	875.35	875.36
14.00	DISCHG	3.88	3.90	3.93	3.96	3.98	4.00	4.01	4.02	4.03	4.04
14.00	ELEV	875.37	875.37	875.38	875.39	875.39	875.40	875.41	875.41	875.42	875.42

16.00	ELEV	875.43	875.44	875.44	875.45	875.45	875.46	875.46	875.47	875.47	875.48
18.00	DISCHG	4.14	4.15	4.16	4.17	4.17	4.18	4.19	4.20	4.21	4.21
18.00	ELEV	875.48	875.49	875.49	875.50	875.50	875.50	875.51	875.51	875.52	875.52
20.00	DISCHG	4.22	4.23	4.23	4.24	4.25	4.26	4.26	4.27	4.28	4.28
20.00	ELEV	875.53	875.53	875.53	875.54	875.54	875.55	875.55	875.55	875.56	875.56
22.00	DISCHG	4.29	4.29	4.30	4.31	4.31	4.32	4.33	4.33	4.34	4.35
22.00	ELEV	875.56	875.57	875.57	875.58	875.58	875.58	875.59	875.59	875.59	875.60
24.00	DISCHG	4.35	4.36	4.36	4.36	4.36	4.36	4.36	4.36	4.36	4.36
24.00	ELEV	875.60	875.60	875.61	875.61	875.61	875.61	875.61	875.61	875.61	875.61
26.00	DISCHG	4.36	4.36	4.36	4.36	4.36	4.36	4.36	4.36	4.36	4.36
26.00	ELEV	875.61	875.61	875.61	875.61	875.61	875.61	875.61	875.61	875.61	875.61
28.00	DISCHG	4.36	4.36	4.36	4.36	4.36	4.36	4.36	4.36	4.36	4.36
28.00	ELEV	875.61	875.61	875.61	875.61	875.61	875.61	875.61	875.61	875.61	875.61
30.00	DISCHG	4.36	4.36	4.36	4.36	4.36	4.36	4.36	4.36	4.36	4.36
30.00	ELEV	875.61	875.61	875.61	875.61	875.60	875.60	875.60	875.60	875.60	875.60
32.00	DISCHG	4.36	4.36	4.36	4.36	4.36	4.36	4.36	4.36	4.36	4.36
32.00	ELEV	875.60	875.60	875.60	875.60	875.60	875.60	875.60	875.60	875.60	875.60
34.00	DISCHG	4.35	4.35	4.35	4.35	4.35	4.35	4.35	4.35	4.35	4.35
34.00	ELEV	875.60	875.60	875.60	875.60	875.60	875.60	875.60	875.60	875.60	875.60
36.00	DISCHG	4.35	4.35	4.35	4.35	4.35	4.35	4.35	4.35	4.35	4.35
36.00	ELEV	875.60	875.60	875.60	875.60	875.60	875.60	875.60	875.60	875.60	875.60
38.00	DISCHG	4.35	4.35	4.35	4.35	4.35	4.35	4.35	4.35	4.35	4.35
38.00	ELEV	875.60	875.60	875.60	875.60	875.60	875.60	875.60	875.60	875.60	875.60
40.00	DISCHG	4.35	4.35	4.35	4.35	4.35	4.35	4.35	4.35	4.35	4.35
40.00	ELEV	875.60	875.60	875.60	875.60	875.60	875.60	875.60	875.60	875.60	875.60
42.00	DISCHG	4.35	4.35	4.35	4.34	4.34	4.34	4.34	4.34	4.34	4.34
42.00	ELEV	875.60	875.60	875.60	875.60	875.60	875.60	875.60	875.60	875.60	875.60
44.00	DISCHG	4.34	4.34	4.34	4.34	4.34	4.34	4.34	4.34	4.34	4.34
44.00	ELEV	875.60	875.60	875.60	875.60	875.60	875.60	875.60	875.60	875.60	875.59
46.00	DISCHG	4.34	4.34	4.34	4.34	4.34	4.34	4.34	4.34	4.34	4.34
46.00	ELEV	875.59	875.59	875.59	875.59	875.59	875.59	875.59	875.59	875.59	875.59
48.00	DISCHG	4.34	4.34	4.34	4.34	4.34	4.34	4.34	4.34	4.34	4.34
48.00	ELEV	875.59	875.59	875.59	875.59	875.59	875.59	875.59	875.59	875.59	875.59
50.00	DISCHG	4.34	4.34	4.34	4.34	4.33	4.33	4.33	4.33	4.33	4.33
50.00	ELEV	875.59	875.59	875.59	875.59	875.59	875.59	875.59	875.59	875.59	875.59
52.00	DISCHG	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33
52.00	ELEV	875.59	875.59	875.59	875.59	875.59	875.59	875.59	875.59	875.59	875.59
54.00	DISCHG	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33
54.00	ELEV	875.59	875.59	875.59	875.59	875.59	875.59	875.59	875.59	875.59	875.59
56.00	DISCHG	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33
56.00	ELEV	875.59	875.59	875.59	875.59	875.59	875.59	875.59	875.59	875.59	875.59
58.00	DISCHG	4.33	4.33	4.32	4.32	4.32	4.32	4.32	4.32	4.32	4.32
58.00	ELEV	875.59	875.59	875.59	875.59	875.59	875.59	875.59	875.58	875.58	875.58

SUMMARY TABLE 1

ALT	STORM	ID	DA SQ-MI.	RAIN TBLE	AMC	DELTA-T HRS.	TZERO HRS.	PRECIP IN.	PRECIP DURATION	PEAK-Q CFS	PEAK-TIME	PEAK-ELEV	RUNOFF IN.	CSM
		-1	0.25	1	2	0.20	0.00	4.85	24.50	48.26	10.41	0.00	1.28	193.04
		-1	0.25	1	2	0.20	0.00	4.85	24.50	2.01	0.00	0.00	0.50	8.05
		-1	1.08	1	2	0.20	0.00	4.85	24.50	453.52	10.23	0.00	1.97	419.93
		-1	1.33	1	2	0.20	0.00	4.85	24.50	453.64	10.23	1030.49	1.69	341.09
		-2	1.33	1	2	0.20	0.00	4.85	24.50	4.10	0.00	0.00	0.26	3.08
		-1	0.25	1	2	0.20	0.00	3.60	24.50	15.41	10.38	0.00	0.62	61.63
		-1	0.25	1	2	0.20	0.00	3.60	24.50	1.06	0.00	0.00	0.24	4.23
		-1	1.08	1	2	0.20	0.00	3.60	24.50	221.43	10.26	0.00	1.10	205.03
		-1	1.33	1	2	0.20	0.00	3.60	24.50	221.45	10.26	953.09	0.94	166.51
		-2	1.33	1	2	0.20	0.00	3.60	24.50	3.44	0.00	0.00	0.22	2.59
		-1	0.25	1	2	0.20	0.00	4.45	24.50	36.49	10.44	0.00	1.05	145.96
		-1	0.25	1	2	0.20	0.00	4.45	24.50	1.71	0.00	0.00	0.42	6.84
		-1	1.08	1	2	0.20	0.00	4.45	24.50	375.01	10.24	0.00	1.68	347.23
		-1	1.33	1	2	0.20	0.00	4.45	24.50	375.09	10.24	1004.30	1.44	282.02
		-2	1.33	1	2	0.20	0.00	4.45	24.50	3.96	0.00	0.00	0.25	2.98
		-1	0.25	1	2	0.20	0.00	5.70	24.50	76.34	10.37	0.00	1.81	305.38
		-1	0.25	1	2	0.20	0.00	5.70	24.50	2.51	0.00	0.00	0.67	10.06
		-1	1.08	1	2	0.20	0.00	5.70	24.50	630.37	10.22	0.00	2.62	583.67
		-1	1.33	1	2	0.20	0.00	5.70	24.50	630.59	10.22	1089.48	2.25	474.13
		-2	1.33	1	2	0.20	0.00	5.70	24.50	4.36	0.00	0.00	0.28	3.28

SUMMARY TABLE 3

	DISCHARGE, CFS									
	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10

ENDJOB CARD ENCOUNTERED. END OF JOB.

```
                LINE      ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10
                   1      ID    DEXTER TEP. FIS ---SILVER LAKE---
                   2      ID    BY JJG (MDNR) 2/85    DEXTER DATA A   10 DAY DIST.
*** FREE ***
                   3      IT      60       0       0      300
                   4      IO       1       2       0

                   5      KK    SUB1
                   6      KM    SILVER LAKE INFLOW
                   7      BA    1.09
                   8      LS       0    70.5
                   9      BF      -1    -.2   1.002
                  10      UD    6.02
                  11      PB    7.30
                  12      IN    1440       0       0
                  13      PC   0.000   0.030   0.308   0.318   0.325   0.360   0.388   0.395   0.400   0.970
                  14      PC    1.00

                  15      KK
                  16      KM    ROUTED OUTFLOW SILVER LAKE
                  17      RS       1    ELEV   875.0
                  18      SQ     2.5     4.0     4.7     5.0
                  19      SV     0.0    95.4   195.0   245.5
                  20      SE   875.0   875.4   875.8   876.0
                  21      ZZ
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*************************************                                  ***************************************
*                                   *                                  *                                     *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *                              *   U.S. ARMY CORPS OF ENGINEERS      *
*            FEBRUARY 1981            *                              *  THE HYDROLOGIC ENGINEERING CENTER  *
*          REVISED 30 OCT 81          *                              *          609 SECOND STREET          *
*                                   *                                  *       DAVIS, CALIFORNIA 95616       *
*  RUN DATE              TIME         *                              *  (916) 440-3285 OR (FTS) 448-3285   *
*                                   *                                  *                                     *
*************************************                                  ***************************************


                    DEXTER TWP. FIS ---SILVER LAKE---
                    BY JWG (MDNR) 2/85    DEXTER DATA A    10 DAY DIST.

  4 IO          OUTPUT CONTROL VARIABLES
                    IPRNT           1  PRINT CONTROL
                    IPLOT           2  PLOT CONTROL
                    QSCAL          0.  HYDROGRAPH PLOT SCALE

    IT          HYDROGRAPH TIME DATA
                     NMIN          60  MINUTES IN COMPUTATION INTERVAL
                    IDATE      1    0  STARTING DATE
                    ITIME        0000  STARTING TIME
                       NQ         300  NUMBER OF HYDROGRAPH ORDINATES
                   NDDATE     13    0  ENDING DATE
                   NDTIME        1100  ENDING TIME

                 COMPUTATION INTERVAL     1.00 HOURS
                     TOTAL TIME BASE  299.00 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      *     SUB1   *
            *            *
            **************
                      SILVER LAKE INFLOW

 12 IN          TIME DATA FOR INPUT TIME SERIES
                    JXMIN        1440  TIME INTERVAL IN MINUTES
                   JXDATE      1    0  STARTING DATE
                   JXTIME           0  STARTING TIME

              SUBBASIN RUNOFF DATA
```

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 7 BA          SUBBASIN CHARACTERISTICS
                   TAREA         1.08  SUBBASIN AREA

 9 BF          BASE FLOW CHARACTERISTICS
                   STRTQ         1.08  INITIAL FLOW
                   QRCSN        -0.20  BEGIN BASE FLOW RECESSION
                   RTIOR     1.00200   RECESSION CONSTANT

              PRECIPITATION DATA

11 PB              STORM         7.30  BASIN TOTAL PRECIPITATION

13 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  0.01  0.01  0.01  0.01  0.01  0.01
              0.01  0.01  0.01  0.01  0.01  0.01  0.01  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
```

	1	0300	4	0.01	0.01	0.00	1.	*	7	0900	154	0.00	0.00	0.00	4.
	1	0400	5	0.01	0.01	0.00	1.	*	7	1000	155	0.00	0.00	0.00	4.
	1	0500	6	0.01	0.01	0.00	1.	*	7	1100	156	0.00	0.00	0.00	4.
	1	0600	7	0.01	0.01	0.00	1.	*	7	1200	157	0.00	0.00	0.00	4.
	1	0700	8	0.01	0.01	0.00	1.	*	7	1300	158	0.00	0.00	0.00	4.
	1	0800	9	0.01	0.01	0.00	1.	*	7	1400	159	0.00	0.00	0.00	4.
1	1	0900	10	0.01	0.01	0.00	1.	*	7	1500	160	0.00	0.00	0.00	4.
2	1	1000	11	0.01	0.01	0.00	1.	*	7	1600	161	0.00	0.00	0.00	4.
3	1	1100	12	0.01	0.01	0.00	1.	*	7	1700	162	0.00	0.00	0.00	4.
4	1	1200	13	0.01	0.01	0.00	1.	*	7	1800	163	0.00	0.00	0.00	4.
5	1	1300	14	0.01	0.01	0.00	1.	*	7	1900	164	0.00	0.00	0.00	4.
6	1	1400	15	0.01	0.01	0.00	1.	*	7	2000	165	0.00	0.00	0.00	4.
7	1	1500	16	0.01	0.01	0.00	1.	*	7	2100	166	0.00	0.00	0.00	4.
8	1	1600	17	0.01	0.01	0.00	1.	*	7	2200	167	0.00	0.00	0.00	4.
9	1	1700	18	0.01	0.01	0.00	1.	*	7	2300	168	0.00	0.00	0.00	4.
10	1	1800	19	0.01	0.01	0.00	1.	*	8	0000	169	0.00	0.00	0.00	4.
11	1	1900	20	0.01	0.01	0.00	1.	*	8	0100	170	0.00	0.00	0.00	4.
12	1	2000	21	0.01	0.01	0.00	1.	*	8	0200	171	0.00	0.00	0.00	4.
13	1	2100	22	0.01	0.01	0.00	1.	*	8	0300	172	0.00	0.00	0.00	4.
14	1	2200	23	0.01	0.01	0.00	1.	*	8	0400	173	0.00	0.00	0.00	4.
15	1	2300	24	0.01	0.01	0.00	1.	*	8	0500	174	0.00	0.00	0.00	4.
16	2	0000	25	0.01	0.01	0.00	1.	*	8	0600	175	0.00	0.00	0.00	4.
17	2	0100	26	0.08	0.08	0.00	1.	*	8	0700	176	0.00	0.00	0.00	4.
18	2	0200	27	0.08	0.08	0.00	1.	*	8	0800	177	0.00	0.00	0.00	4.
19	2	0300	28	0.08	0.08	0.00	1.	*	8	0900	178	0.00	0.00	0.00	4.
20	2	0400	29	0.08	0.08	0.00	1.	*	8	1000	179	0.00	0.00	0.00	4.
21	2	0500	30	0.08	0.08	0.00	1.	*	8	1100	180	0.00	0.00	0.00	4.
22	2	0600	31	0.08	0.08	0.00	1.	*	8	1200	181	0.00	0.00	0.00	4.
23	2	0700	32	0.08	0.08	0.00	1.	*	8	1300	182	0.00	0.00	0.00	4.
24	2	0800	33	0.08	0.08	0.00	1.	*	8	1400	183	0.00	0.00	0.00	4.
25	2	0900	34	0.08	0.08	0.00	1.	*	8	1500	184	0.00	0.00	0.00	4.
26	2	1000	35	0.08	0.08	0.01	1.	*	8	1600	185	0.00	0.00	0.00	4.
27	2	1100	36	0.09	0.07	0.01	1.	*	8	1700	186	0.00	0.00	0.00	4.
28	2	1200	37	0.08	0.07	0.01	2.	*	8	1800	187	0.00	0.00	0.00	4.
29	2	1300	38	0.08	0.07	0.02	2.	*	8	1900	188	0.00	0.00	0.00	3.
30	2	1400	39	0.08	0.07	0.02	3.	*	8	2000	189	0.00	0.00	0.00	3.
31	2	1500	40	0.08	0.06	0.02	4.	*	8	2100	190	0.00	0.00	0.00	3.
32	2	1600	41	0.08	0.06	0.02	5.	*	8	2200	191	0.00	0.00	0.00	3.
33	2	1700	42	0.08	0.06	0.02	7.	*	8	2300	192	0.00	0.00	0.00	3.
34	2	1800	43	0.08	0.06	0.03	8.	*	9	0000	193	0.00	0.00	0.00	3.
35	2	1900	44	0.08	0.06	0.03	10.	*	9	0100	194	0.17	0.08	0.10	3.
36	2	2000	45	0.08	0.05	0.03	11.	*	9	0200	195	0.17	0.07	0.10	3.
37	2	2100	46	0.08	0.05	0.03	13.	*	9	0300	196	0.17	0.07	0.11	7.
38	2	2200	47	0.08	0.05	0.03	14.	*	9	0400	197	0.17	0.06	0.11	12.
39	2	2300	48	0.08	0.05	0.04	16.	*	9	0500	198	0.17	0.06	0.11	20.
40	3	0000	49	0.08	0.05	0.04	17.	*	9	0600	199	0.17	0.06	0.12	28.
41	3	0100	50	0.00	0.00	0.00	18.	*	9	0700	200	0.17	0.06	0.12	37.
42	3	0200	51	0.00	0.00	0.00	19.	*	9	0800	201	0.17	0.05	0.12	45.
43	3	0300	52	0.00	0.00	0.00	19.	*	9	0900	202	0.17	0.05	0.12	52.
44	3	0400	53	0.00	0.00	0.00	18.	*	9	1000	203	0.17	0.05	0.12	59.
45	3	0500	54	0.00	0.00	0.00	16.	*	9	1100	204	0.17	0.05	0.13	64.
46	3	0600	55	0.00	0.00	0.00	14.	*	9	1200	205	0.17	0.04	0.13	69.
47	3	0700	56	0.00	0.00	0.00	12.	*	9	1300	206	0.17	0.04	0.13	73.
48	3	0800	57	0.00	0.00	0.00	10.	*	9	1400	207	0.17	0.04	0.13	76.
49	3	0900	58	0.00	0.00	0.00	8.	*	9	1500	208	0.17	0.04	0.13	79.
50	3	1000	59	0.00	0.00	0.00	7.	*	9	1600	209	0.17	0.04	0.14	81.
51	3	1100	60	0.00	0.00	0.00	6.	*	9	1700	210	0.17	0.04	0.14	84.
52	3	1200	61	0.00	0.00	0.00	5.	*	9	1800	211	0.17	0.04	0.14	86.
53	3	1300	62	0.00	0.00	0.00	4.	*	9	1900	212	0.17	0.03	0.14	88.
54	3	1400	63	0.00	0.00	0.00	4.	*	9	2000	213	0.17	0.03	0.14	89.
55	3	1500	64	0.00	0.00	0.00	4.	*	9	2100	214	0.17	0.03	0.14	91.
56	3	1600	65	0.00	0.00	0.00	4.	*	9	2200	215	0.17	0.03	0.14	92.
57	3	1700	66	0.00	0.00	0.00	4.	*	9	2300	216	0.17	0.03	0.14	94.
	3	1800	67	0.00	0.00	0.00	4.	*	10	0000	217	0.17	0.03	0.14	95.
	3	1900	68	0.00	0.00	0.00	4.	*	10	0100	218	0.01	0.00	0.01	95.
	3	2000	69	0.00	0.00	0.00	4.	*	10	0200	219	0.01	0.00	0.01	94.

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3	2100	70	0.00	0.00	0.00	4.	*	10	0300	220	0.01	0.00	0.01	90.
3	2200	71	0.00	0.00	0.00	4.	*	10	0400	221	0.01	0.00	0.01	84.
3	2300	72	0.00	0.00	0.00	4.	*	10	0500	222	0.01	0.00	0.01	75.
4	0000	73	0.00	0.00	0.00	4.	*	10	0600	223	0.01	0.00	0.01	64.
4	0100	74	0.00	0.00	0.00	4.	*	10	0700	224	0.01	0.00	0.01	54.
4	0200	75	0.00	0.00	0.00	4.	*	10	0800	225	0.01	0.00	0.01	44.
4	0300	76	0.00	0.00	0.00	4.	*	10	0900	226	0.01	0.00	0.01	36.
4	0400	77	0.00	0.00	0.00	4.	*	10	1000	227	0.01	0.00	0.01	29.
4	0500	78	0.00	0.00	0.00	4.	*	10	1100	228	0.01	0.00	0.01	24.
4	0600	79	0.00	0.00	0.00	4.	*	10	1200	229	0.01	0.00	0.01	20.
4	0700	80	0.00	0.00	0.00	4.	*	10	1300	230	0.01	0.00	0.01	19.
4	0800	81	0.00	0.00	0.00	4.	*	10	1400	231	0.01	0.00	0.01	19.
4	0900	82	0.00	0.00	0.00	4.	*	10	1500	232	0.01	0.00	0.01	19.
4	1000	83	0.00	0.00	0.00	4.	*	10	1600	233	0.01	0.00	0.01	19.
4	1100	84	0.00	0.00	0.00	4.	*	10	1700	234	0.01	0.00	0.01	19.
4	1200	85	0.00	0.00	0.00	4.	*	10	1800	235	0.01	0.00	0.01	19.
4	1300	86	0.00	0.00	0.00	4.	*	10	1900	236	0.01	0.00	0.01	19.
4	1400	87	0.00	0.00	0.00	4.	*	10	2000	237	0.01	0.00	0.01	19.
4	1500	88	0.00	0.00	0.00	4.	*	10	2100	238	0.01	0.00	0.01	19.
4	1600	89	0.00	0.00	0.00	4.	*	10	2200	239	0.01	0.00	0.01	19.
4	1700	90	0.00	0.00	0.00	4.	*	10	2300	240	0.01	0.00	0.01	19.
4	1800	91	0.00	0.00	0.00	4.	*	11	0000	241	0.01	0.00	0.01	19.
4	1900	92	0.00	0.00	0.00	4.	*	11	0100	242	0.00	0.00	0.00	19.
4	2000	93	0.00	0.00	0.00	4.	*	11	0200	243	0.00	0.00	0.00	18.
4	2100	94	0.00	0.00	0.00	4.	*	11	0300	244	0.00	0.00	0.00	18.
4	2200	95	0.00	0.00	0.00	4.	*	11	0400	245	0.00	0.00	0.00	18.
4	2300	96	0.00	0.00	0.00	4.	*	11	0500	246	0.00	0.00	0.00	18.
5	0000	97	0.00	0.00	0.00	4.	*	11	0600	247	0.00	0.00	0.00	18.
5	0100	98	0.01	0.01	0.00	4.	*	11	0700	248	0.00	0.00	0.00	18.
5	0200	99	0.01	0.01	0.00	4.	*	11	0800	249	0.00	0.00	0.00	18.
5	0300	100	0.01	0.01	0.01	4.	*	11	0900	250	0.00	0.00	0.00	18.
5	0400	101	0.01	0.01	0.01	4.	*	11	1000	251	0.00	0.00	0.00	18.
5	0500	102	0.01	0.01	0.01	4.	*	11	1100	252	0.00	0.00	0.00	18.
5	0600	103	0.01	0.01	0.01	3.	*	11	1200	253	0.00	0.00	0.00	18.
5	0700	104	0.01	0.01	0.01	3.	*	11	1300	254	0.00	0.00	0.00	18.
5	0800	105	0.01	0.01	0.01	3.	*	11	1400	255	0.00	0.00	0.00	18.
5	0900	106	0.01	0.01	0.01	3.	*	11	1500	256	0.00	0.00	0.00	18.
5	1000	107	0.01	0.01	0.01	4.	*	11	1600	257	0.00	0.00	0.00	18.
5	1100	108	0.01	0.01	0.01	4.	*	11	1700	258	0.00	0.00	0.00	18.
5	1200	109	0.01	0.01	0.01	4.	*	11	1800	259	0.00	0.00	0.00	18.
5	1300	110	0.01	0.01	0.01	4.	*	11	1900	260	0.00	0.00	0.00	18.
5	1400	111	0.01	0.01	0.01	4.	*	11	2000	261	0.00	0.00	0.00	18.
5	1500	112	0.01	0.01	0.01	4.	*	11	2100	262	0.00	0.00	0.00	18.
5	1600	113	0.01	0.01	0.01	4.	*	11	2200	263	0.00	0.00	0.00	18.
5	1700	114	0.01	0.01	0.01	4.	*	11	2300	264	0.00	0.00	0.00	18.
5	1800	115	0.01	0.01	0.01	4.	*	12	0000	265	0.00	0.00	0.00	18.
5	1900	116	0.01	0.01	0.01	4.	*	12	0100	266	0.00	0.00	0.00	18.
5	2000	117	0.01	0.01	0.01	4.	*	12	0200	267	0.00	0.00	0.00	18.
5	2100	118	0.01	0.01	0.01	4.	*	12	0300	268	0.00	0.00	0.00	18.
5	2200	119	0.01	0.01	0.01	4.	*	12	0400	269	0.00	0.00	0.00	18.
5	2300	120	0.01	0.01	0.01	4.	*	12	0500	270	0.00	0.00	0.00	18.
6	0000	121	0.01	0.01	0.01	5.	*	12	0600	271	0.00	0.00	0.00	17.
6	0100	122	0.01	0.00	0.00	5.	*	12	0700	272	0.00	0.00	0.00	17.
6	0200	123	0.01	0.00	0.00	5.	*	12	0800	273	0.00	0.00	0.00	17.
6	0300	124	0.01	0.00	0.00	4.	*	12	0900	274	0.00	0.00	0.00	17.
6	0400	125	0.01	0.00	0.00	4.	*	12	1000	275	0.00	0.00	0.00	17.
6	0500	126	0.01	0.00	0.00	4.	*	12	1100	276	0.00	0.00	0.00	17.
6	0600	127	0.01	0.00	0.00	4.	*	12	1200	277	0.00	0.00	0.00	17.
6	0700	128	0.01	0.00	0.00	4.	*	12	1300	278	0.00	0.00	0.00	17.
6	0800	129	0.01	0.00	0.00	4.	*	12	1400	279	0.00	0.00	0.00	17.
6	0900	130	0.01	0.00	0.00	4.	*	12	1500	280	0.00	0.00	0.00	17.
6	1000	131	0.01	0.00	0.00	4.	*	12	1600	281	0.00	0.00	0.00	17.
6	1100	132	0.01	0.00	0.00	4.	*	12	1700	282	0.00	0.00	0.00	17.
6	1200	133	0.01	0.00	0.00	4.	*	12	1800	283	0.00	0.00	0.00	17.
6	1300	134	0.01	0.00	0.00	4.	*	12	1900	284	0.00	0.00	0.00	17.
6	1400	135	0.01	0.00	0.00	4.	*	12	2000	285	0.00	0.00	0.00	17.

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6	1500	136	0.01	0.00	0.00	4.	*	12	2100	286	0.00	0.00	0.00	17.
6	1600	137	0.01	0.00	0.00	4.	*	12	2200	287	0.00	0.00	0.00	17.
6	1700	138	0.01	0.00	0.00	4.	*	12	2300	288	0.00	0.00	0.00	17.
6	1800	139	0.01	0.00	0.00	4.	*	13	0000	289	0.00	0.00	0.00	17.
6	1900	140	0.01	0.00	0.00	4.	*	13	0100	290	0.00	0.00	0.00	17.
6	2000	141	0.01	0.00	0.00	4.	*	13	0200	291	0.00	0.00	0.00	17.
6	2100	142	0.01	0.00	0.00	4.	*	13	0300	292	0.00	0.00	0.00	17.
6	2200	143	0.01	0.00	0.00	4.	*	13	0400	293	0.00	0.00	0.00	17.
6	2300	144	0.01	0.00	0.00	4.	*	13	0500	294	0.00	0.00	0.00	17.
7	0000	145	0.01	0.00	0.00	4.	*	13	0600	295	0.00	0.00	0.00	17.
7	0100	146	0.00	0.00	0.00	4.	*	13	0700	296	0.00	0.00	0.00	17.
7	0200	147	0.00	0.00	0.00	4.	*	13	0800	297	0.00	0.00	0.00	17.
7	0300	148	0.00	0.00	0.00	4.	*	13	0900	298	0.00	0.00	0.00	17.
7	0400	149	0.00	0.00	0.00	4.	*	13	1000	299	0.00	0.00	0.00	17.
7	0500	150	0.00	0.00	0.00	4.	*	13	1100	300	0.00	0.00	0.00	17.

****

TOTAL RAINFALL = 7.30, TOTAL LOSS = 3.39, TOTAL EXCESS = 3.92

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	299.00-HR
95.	217.00	(CFS)	93.	78.	39.	14.
		(INCHES)	0.803	2.684	4.069	6.007
		(AC-FT)	46.	155.	234.	346.

CUMULATIVE AREA = 1.08 SQ MI

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15 KK

ROUTED OUTFLOW SILVER LAKE

HYDROGRAPH ROUTING DATA

17 RS STORAGE ROUTING

NSTPS	1	NUMBER OF SUBREACHES
ITYP	ELEV	TYPE OF INITIAL CONDITION
RSVRIC	875.00	INITIAL CONDITION
X	0.00	WORKING R AND D COEFFICIENT

19 SV	STORAGE	0.0	95.4	195.0	245.5
20 SE	ELEVATION	875.00	875.40	875.80	876.00
18 SQ	DISCHARGE	3.	4.	5.	5.

***

HYDROGRAPH AT STATION

DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE
1		0000	1	3.	0.0	875.0	5		0400	101	3.	19.4	875.1	9		0800	201	3.	36.0	875.2
1		0100	2	2.	-0.1	875.0	5		0500	102	3.	19.5	875.1	9		0900	202	3.	39.8	875.2
1		0200	3	2.	-0.1	875.0	5		0600	103	3.	19.6	875.1	9		1000	203	3.	44.1	875.2
1		0300	4	2.	-0.1	875.0	5		0700	104	3.	19.6	875.1	9		1100	204	3.	48.9	875.2
1		0400	5	2.	-0.1	875.0	5		0800	105	3.	19.7	875.1	9		1200	205	3.	54.1	875.2
1		0500	6	2.	-0.1	875.0	5		0900	106	3.	19.7	875.1	9		1300	206	3.	59.7	875.2
1		0600	7	2.	-0.1	875.0	5		1000	107	3.	19.8	875.1	9		1400	207	4.	65.5	875.3
1		0700	8	2.	-0.1	875.0	5		1100	108	3.	19.9	875.1	9		1500	208	4.	71.6	875.3
1		0800	9	2.	-0.1	875.0	5		1200	109	3.	20.0	875.1	9		1600	209	4.	77.9	875.3
1		0900	10	2.	-0.1	875.0	5		1300	110	3.	20.1	875.1	9		1700	210	4.	84.5	875.4
1		1000	11	2.	-0.1	875.0	5		1400	111	3.	20.2	875.1	9		1800	211	4.	91.1	875.4
1		1100	12	2.	-0.1	875.0	5		1500	112	3.	20.3	875.1	9		1900	212	4.	98.0	875.4
1		1200	13	2.	-0.1	875.0	5		1600	113	3.	20.4	875.1	9		2000	213	4.	105.0	875.4
1		1300	14	2.	-0.1	875.0	5		1700	114	3.	20.5	875.1	9		2100	214	4.	112.1	875.5
1		1400	15	2.	-0.1	875.0	5		1800	115	3.	20.6	875.1	9		2200	215	4.	119.3	875.5
1		1500	16	2.	-0.1	875.0	5		1900	116	3.	20.8	875.1	9		2300	216	4.	126.6	875.5
1		1600	17	2.	-0.1	875.0	5		2000	117	3.	20.9	875.1	10		0000	217	4.	134.0	875.6
1		1700	18	2.	-0.1	875.0	5		2100	118	3.	21.0	875.1	10		0100	218	4.	141.5	875.6
1		1800	19	2.	-0.1	875.0	5		2200	119	3.	21.2	875.1	10		0200	219	4.	149.0	875.6
1		1900	20	2.	-0.1	875.0	5		2300	120	3.	21.3	875.1	10		0300	220	4.	156.2	875.6
1		2000	21	2.	-0.1	875.0	6		0000	121	3.	21.4	875.1	10		0400	221	4.	163.0	875.7
1		2100	22	2.	-0.1	875.0	6		0100	122	3.	21.6	875.1	10		0500	222	5.	169.2	875.7
1		2200	23	2.	-0.1	875.0	6		0200	123	3.	21.7	875.1	10		0500	223	5.	174.6	875.7

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	1	2300	24	2.	-0.1	875.0 *	6	0300	124	3.	21.9	875.1 *	10	0700	224	5.	179.1	875.7
	2	0000	25	2.	-0.1	875.0 *	6	0400	125	3.	22.0	875.1 *	10	0800	225	5.	182.7	875.8
	2	0100	26	2.	-0.1	875.0 *	6	0500	126	3.	22.1	875.1 *	10	0900	226	5.	185.6	875.8
	2	0200	27	2.	-0.1	875.0 *	6	0600	127	3.	22.2	875.1 *	10	1000	227	5.	187.9	875.8
	2	0300	28	2.	-0.1	875.0 *	6	0700	128	3.	22.4	875.1 *	10	1100	228	5.	189.7	875.8
	2	0400	29	2.	-0.1	875.0 *	6	0800	129	3.	22.5	875.1 *	10	1200	229	5.	191.1	875.8
1	2	0500	30	2.	-0.1	875.0 *	6	0900	130	3.	22.6	875.1 *	10	1300	230	5.	192.3	875.8
2	2	0600	31	2.	-0.1	875.0 *	6	1000	131	3.	22.7	875.1 *	10	1400	231	5.	193.5	875.8
3	2	0700	32	2.	-0.1	875.0 *	6	1100	132	3.	22.8	875.1 *	10	1500	232	5.	194.7	875.8
4	2	0800	33	2.	-0.1	875.0 *	6	1200	133	3.	22.9	875.1 *	10	1600	233	5.	195.8	875.8
5	2	0900	34	2.	-0.1	875.0 *	6	1300	134	3.	23.0	875.1 *	10	1700	234	5.	197.0	875.8
6	2	1000	35	2.	-0.1	875.0 *	6	1400	135	3.	23.1	875.1 *	10	1800	235	5.	198.2	875.8
7	2	1100	36	2.	-0.1	875.0 *	6	1500	136	3.	23.1	875.1 *	10	1900	236	5.	199.3	875.8
8	2	1200	37	2.	-0.1	875.0 *	6	1600	137	3.	23.2	875.1 *	10	2000	237	5.	200.5	875.8
9	2	1300	38	2.	-0.1	875.0 *	6	1700	138	3.	23.3	875.1 *	10	2100	238	5.	201.7	875.8
10	2	1400	39	2.	-0.1	875.0 *	6	1800	139	3.	23.4	875.1 *	10	2200	239	5.	202.8	875.8
11	2	1500	40	3.	0.0	875.0 *	6	1900	140	3.	23.5	875.1 *	10	2300	240	5.	204.0	875.8
12	2	1600	41	3.	0.2	875.0 *	6	2000	141	3.	23.6	875.1 *	11	0000	241	5.	205.1	875.8
13	2	1700	42	3.	0.5	875.0 *	6	2100	142	3.	23.7	875.1 *	11	0100	242	5.	206.2	875.8
14	2	1800	43	3.	0.9	875.0 *	6	2200	143	3.	23.8	875.1 *	11	0200	243	5.	207.4	875.8
15	2	1900	44	3.	1.5	875.0 *	6	2300	144	3.	23.9	875.1 *	11	0300	244	5.	208.5	875.9
16	2	2000	45	3.	2.1	875.0 *	7	0000	145	3.	24.0	875.1 *	11	0400	245	5.	209.6	875.9
17	2	2100	46	3.	2.9	875.0 *	7	0100	146	3.	24.0	875.1 *	11	0500	246	5.	210.8	875.9
18	2	2200	47	3.	3.8	875.0 *	7	0200	147	3.	24.1	875.1 *	11	0600	247	5.	211.9	875.9
19	2	2300	48	3.	4.8	875.0 *	7	0300	148	3.	24.2	875.1 *	11	0700	248	5.	213.0	875.9
20	3	0000	49	3.	5.9	875.0 *	7	0400	149	3.	24.3	875.1 *	11	0800	249	5.	214.1	875.9
21	3	0100	50	3.	7.2	875.0 *	7	0500	150	3.	24.4	875.1 *	11	0900	250	5.	215.2	875.9
22	3	0200	51	3.	8.5	875.0 *	7	0600	151	3.	24.4	875.1 *	11	1000	251	5.	216.3	875.9
23	3	0300	52	3.	9.8	875.0 *	7	0700	152	3.	24.5	875.1 *	11	1100	252	5.	217.4	875.9
24	3	0400	53	3.	11.2	875.0 *	7	0800	153	3.	24.6	875.1 *	11	1200	253	5.	218.5	875.9
25	3	0500	54	3.	12.4	875.1 *	7	0900	154	3.	24.7	875.1 *	11	1300	254	5.	219.6	875.9
26	3	0600	55	3.	13.4	875.1 *	7	1000	155	3.	24.7	875.1 *	11	1400	255	5.	220.7	875.9
27	3	0700	56	3.	14.3	875.1 *	7	1100	156	3.	24.8	875.1 *	11	1500	256	5.	221.8	875.9
28	3	0800	57	3.	15.0	875.1 *	7	1200	157	3.	24.9	875.1 *	11	1600	257	5.	222.9	875.9
29	3	0900	58	3.	15.6	875.1 *	7	1300	158	3.	24.9	875.1 *	11	1700	258	5.	224.0	875.9
30	3	1000	59	3.	16.0	875.1 *	7	1400	159	3.	25.0	875.1 *	11	1800	259	5.	225.1	875.9
31	3	1100	60	3.	16.3	875.1 *	7	1500	160	3.	25.1	875.1 *	11	1900	260	5.	226.1	875.9
32	3	1200	61	3.	16.5	875.1 *	7	1600	161	3.	25.1	875.1 *	11	2000	261	5.	227.2	875.9
33	3	1300	62	3.	16.6	875.1 *	7	1700	162	3.	25.2	875.1 *	11	2100	262	5.	228.3	875.9
34	3	1400	63	3.	16.7	875.1 *	7	1800	163	3.	25.3	875.1 *	11	2200	263	5.	229.3	875.9
35	3	1500	64	3.	16.8	875.1 *	7	1900	164	3.	25.3	875.1 *	11	2300	264	5.	230.4	875.9
36	3	1600	65	3.	16.9	875.1 *	7	2000	165	3.	25.4	875.1 *	12	0000	265	5.	231.5	875.9
37	3	1700	66	3.	17.0	875.1 *	7	2100	166	3.	25.5	875.1 *	12	0100	266	5.	232.5	875.9
38	3	1800	67	3.	17.1	875.1 *	7	2200	167	3.	25.5	875.1 *	12	0200	267	5.	233.6	876.0
39	3	1900	68	3.	17.1	875.1 *	7	2300	168	3.	25.6	875.1 *	12	0300	268	5.	234.6	876.0
40	3	2000	69	3.	17.2	875.1 *	8	0000	169	3.	25.6	875.1 *	12	0400	269	5.	235.7	876.0
41	3	2100	70	3.	17.3	875.1 *	8	0100	170	3.	25.7	875.1 *	12	0500	270	5.	236.7	876.0
42	3	2200	71	3.	17.4	875.1 *	8	0200	171	3.	25.8	875.1 *	12	0600	271	5.	237.7	876.0
43	3	2300	72	3.	17.5	875.1 *	8	0300	172	3.	25.8	875.1 *	12	0700	272	5.	238.8	876.0
44	4	0000	73	3.	17.5	875.1 *	8	0400	173	3.	25.9	875.1 *	12	0800	273	5.	239.8	876.0
45	4	0100	74	3.	17.6	875.1 *	8	0500	174	3.	25.9	875.1 *	12	0900	274	5.	240.8	876.0
46	4	0200	75	3.	17.7	875.1 *	8	0600	175	3.	26.0	875.1 *	12	1000	275	5.	241.9	876.0
47	4	0300	76	3.	17.8	875.1 *	8	0700	176	3.	26.0	875.1 *	12	1100	276	5.	242.9	876.0
48	4	0400	77	3.	17.8	875.1 *	8	0800	177	3.	26.1	875.1 *	12	1200	277	5.	243.9	876.0
49	4	0500	78	3.	17.9	875.1 *	8	0900	178	3.	26.2	875.1 *	12	1300	278	5.	244.9	876.0
50	4	0600	79	3.	18.0	875.1 *	8	1000	179	3.	26.2	875.1 *	12	1400	279	5.	245.9	876.0
51	4	0700	80	3.	18.1	875.1 *	8	1100	180	3.	26.3	875.1 *	12	1500	280	5.	246.9	876.0
52	4	0800	81	3.	18.1	875.1 *	8	1200	181	3.	26.3	875.1 *	12	1600	281	5.	247.9	876.0
53	4	0900	82	3.	18.2	875.1 *	8	1300	182	3.	26.4	875.1 *	12	1700	282	5.	248.9	876.0
54	4	1000	83	3.	18.3	875.1 *	8	1400	183	3.	26.4	875.1 *	12	1800	283	5.	249.9	876.0
55	4	1100	84	3.	18.3	875.1 *	8	1500	184	3.	26.5	875.1 *	12	1900	284	5.	250.9	876.0
56	4	1200	85	3.	18.4	875.1 *	8	1600	185	3.	26.5	875.1 *	12	2000	285	5.	251.9	876.0
57	4	1300	86	3.	18.5	875.1 *	8	1700	186	3.	26.6	875.1 *	12	2100	286	5.	252.9	876.0
	4	1400	87	3.	18.6	875.1 *	8	1800	187	3.	26.6	875.1 *	12	2200	287	5.	253.9	876.0
	4	1500	88	3.	18.6	875.1 *	8	1900	188	3.	26.7	875.1 *	12	2300	288	5.	254.9	876.0
	4	1600	89	3.	18.7	875.1 *	8	2000	189	3.	26.7	875.1 *	13	0000	289	5.	255.8	876.0

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4	1700	90	3.	18.8	875.1	*	8	2100	190	3.	26.9	875.1	*	13	0100	290	5.	256.8	876.0
4	1800	91	3.	18.8	875.1	*	8	2200	191	3.	26.8	875.1	*	13	0200	291	5.	257.8	876.0
4	1900	92	3.	18.9	875.1	*	8	2300	192	3.	26.8	875.1	*	13	0300	292	5.	258.8	876.1
4	2000	93	3.	18.9	875.1	*	9	0000	193	3.	26.9	875.1	*	13	0400	293	5.	259.7	876.1
4	2100	94	3.	19.0	875.1	*	9	0100	194	3.	26.9	875.1	*	13	0500	294	5.	260.7	876.1
4	2200	95	3.	19.1	875.1	*	9	0200	195	3.	27.0	875.1	*	13	0600	295	5.	261.6	876.1
4	2300	96	3.	19.1	875.1	*	9	0300	196	3.	27.2	875.1	*	13	0700	296	5.	262.6	876.1
5	0000	97	3.	19.2	875.1	*	9	0400	197	3.	27.7	875.1	*	13	0800	297	5.	263.6	876.1
5	0100	98	3.	19.3	875.1	*	9	0500	198	3.	28.8	875.1	*	13	0900	298	5.	264.5	876.1
5	0200	99	3.	19.3	875.1	*	9	0600	199	3.	30.5	875.1	*	13	1000	299	5.	265.4	876.1
5	0300	100	3.	19.4	875.1	*	9	0700	200	3.	32.9	875.1	*	13	1100	300	5.	266.4	876.1
						*							*						

****

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	299.00-HR
5.	299.00	(CFS)	5.	5.	5.	3.
		(INCHES)	0.044	0.174	0.507	1.455
		(AC-FT)	3.	10.	29.	84.

PEAK STORAGE (AC-FT)	TIME (HR)	MAXIMUM AVERAGE STORAGE 6-HR	24-HR	72-HR	299.00-HR
266.	299.00	264.	255.	230.	77.

PEAK STAGE (FEET)	TIME (HR)	MAXIMUM AVERAGE STAGE 6-HR	24-HR	72-HR	299.00-HR
876.08	299.00	875.91	876.00	875.93	875.29

CUMULATIVE AREA = 1.08 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	SUB1	95.	217.00	93.	78.	39.	1.08		
ROUTED TO		5.	299.00	5.	5.	5.	1.08	876.08	299.00

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

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

   1          ID    DEXTER TWP. FIS ---SILVER LAKE---
   2          ID    BY JUG (MDNR) 2/85    DEXTER DATA A   10 DAY DIST.
*** FREE ***
   3          IT      60       0       0     300
   4          IO       1       2       0
   5          KK    SUB1
   6          KM    SILVER LAKE SRO
   7          BA    0.71
   8          LS       0    70.5
   9          BF      -1    -.2   1.002
  10          UD    6.02
  11          PB    7.30
  12          IN    1440       0       0
  13          PC   0.000   0.030   0.308   0.318   0.325   0.360   0.388   0.395   0.400   0.970
  14          PC    1.00

  15          KK    SUB2
  16          KM    SILVER LAKE-DIRECT PRECIP.
  17          BA    0.37
  18          BF      -1    -.2   1.002
  19          LS       0      98
  20          UD      6.
  21          PB    7.30

  22          KK
  23          KM    COMBINE SUB1 & 2
  24          HC       2

  25          KK
  26          KM    ROUTED OUTFLOW SILVER LAKE
  27          RS       1    ELEV   875.0
  28          SQ     2.5     4.0     4.7     5.0
  29          SV     0.0    95.4   195.0   245.5
  30          SQ   875.0   875.4   875.8   876.0
  31          ZZ
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*                                        *                                        *                                        *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)    *                                        *    U.S. ARMY CORPS OF ENGINEERS        *
*            FEBRUARY 1981               *                                        *  THE HYDROLOGIC ENGINEERING CENTER     *
*          REVISED 30 OCT 81             *                                        *          609 SECOND STREET             *
*                                        *                                        *        DAVIS, CALIFORNIA 95616         *
*  RUN DATE              TIME            *                                        *  (916) 440-3285 OR (FTS) 448-3285      *
*                                        *                                        *                                        *
*****************************************                                        ****************************************


                    DEXTER TWP. FIS ---SILVER LAKE---
                    BY JJG (MDNR) 2/85    DEXTER DATA A    10 DAY DIST.

  4 IO          OUTPUT CONTROL VARIABLES
                    IPRNT            1  PRINT CONTROL
                    IPLOT            2  PLOT CONTROL
                    QSCAL           0.  HYDROGRAPH PLOT SCALE

    IT          HYDROGRAPH TIME DATA
                     NMIN           60  MINUTES IN COMPUTATION INTERVAL
                    IDATE       1    0  STARTING DATE
                    ITIME         0000  STARTING TIME
                       NQ          300  NUMBER OF HYDROGRAPH ORDINATES
                   NDDATE      13    0  ENDING DATE
                   NDTIME         1100  ENDING TIME

                COMPUTATION INTERVAL     1.00 HOURS
                     TOTAL TIME BASE  299.00 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      *      SJB1  *
            *            *
            **************
                      SILVER LAKE SRO

 12 IN          TIME DATA FOR INPUT TIME SERIES
                    JXMIN         1440  TIME INTERVAL IN MINUTES
                   JXDATE       1    0  STARTING DATE
                   JXTIME            0  STARTING TIME

               SUBBASIN RUNOFF DATA

  7 BA          SUBBASIN CHARACTERISTICS
                    TAREA         0.71  SUBBASIN AREA

  9 BF          BASE FLOW CHARACTERISTICS
                    STRTQ         0.71  INITIAL FLOW
                    QRCSN        -0.20  BEGIN BASE FLOW RECESSIO
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RTIOR 1.00200 RECESSION CONSTANT

PRECIPITATION DATA

11 P3 STORM 7.30 BASIN TOTAL PRECIPITATION

13 PT 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	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	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	0.02	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	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

8 LS SCS LOSS RATE

STRTL	0.84	INITIAL ABSTRACTION
CRVNBR	70.50	CURVE NUMBER
RTIMP	0.00	PERCENT IMPERVIOUS AREA

10 UD SCS DIMENSIONLESS UNITGRAPH

TLAG	6.02	LAG

***

UNIT HYDROGRAPH
32 END-OF-PERIOD ORDINATES

4.	10.	21.	36.	47.	52.	52.	48.	42.	34.
25.	19.	15.	12.	9.	7.	6.	4.	3.	3.
2.	2.	1.	1.	1.	1.	0.	0.	0.	0.
0.	0.								

****

HYDROGRAPH AT STATION SUB1

****

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	1.	*	7		0600	151	0.00	0.00	0.00	2.
1		0100	2	0.01	0.01	0.00	1.	*	7		0700	152	0.00	0.00	0.00	2.
1		0200	3	0.01	0.01	0.00	1.	*	7		0800	153	0.00	0.00	0.00	2.
1		0300	4	0.01	0.01	0.00	1.	*	7		0900	154	0.00	0.00	0.00	2.
1		0400	5	0.01	0.01	0.00	1.	*	7		1000	155	0.00	0.00	0.00	2.
1		0500	6	0.01	0.01	0.00	1.	*	7		1100	156	0.00	0.00	0.00	2.
1		0600	7	0.01	0.01	0.00	1.	*	7		1200	157	0.00	0.00	0.00	2.
1		0700	8	0.01	0.01	0.00	1.	*	7		1300	158	0.00	0.00	0.00	2.
1		0800	9	0.01	0.01	0.00	1.	*	7		1400	159	0.00	0.00	0.00	2.

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1	0900	10	0.01	0.01	0.00	1.	*	7	1500	160	0.00	0.00	0.00	2.
1	1000	11	0.01	0.01	0.00	1.	*	7	1600	161	0.00	0.00	0.00	2.
1	1100	12	0.01	0.01	0.00	1.	*	7	1700	162	0.00	0.00	0.00	2.
1	1200	13	0.01	0.01	0.00	1.	*	7	1800	163	0.00	0.00	0.00	2.
1	1300	14	0.01	0.01	0.00	1.	*	7	1900	164	0.00	0.00	0.00	2.
1	1400	15	0.01	0.01	0.00	1.	*	7	2000	165	0.00	0.00	0.00	2.
1	1500	16	0.01	0.01	0.00	1.	*	7	2100	166	0.00	0.00	0.00	2.
1	1600	17	0.01	0.01	0.00	1.	*	7	2200	167	0.00	0.00	0.00	2.
1	1700	18	0.01	0.01	0.00	1.	*	7	2300	168	0.00	0.00	0.00	2.
1	1800	19	0.01	0.01	0.00	1.	*	8	0000	169	0.00	0.00	0.00	2.
1	1900	20	0.01	0.01	0.00	1.	*	8	0100	170	0.00	0.00	0.00	2.
1	2000	21	0.01	0.01	0.00	1.	*	8	0200	171	0.00	0.00	0.00	2.
1	2100	22	0.01	0.01	0.00	1.	*	8	0300	172	0.00	0.00	0.00	2.
1	2200	23	0.01	0.01	0.00	1.	*	8	0400	173	0.00	0.00	0.00	2.
1	2300	24	0.01	0.01	0.00	1.	*	8	0500	174	0.00	0.00	0.00	2.
2	0000	25	0.01	0.01	0.00	1.	*	8	0600	175	0.00	0.00	0.00	2.
2	0100	26	0.08	0.08	0.00	1.	*	8	0700	176	0.00	0.00	0.00	2.
2	0200	27	0.08	0.08	0.00	1.	*	8	0800	177	0.00	0.00	0.00	2.
2	0300	28	0.08	0.08	0.00	1.	*	8	0900	178	0.00	0.00	0.00	2.
2	0400	29	0.08	0.08	0.00	1.	*	8	1000	179	0.00	0.00	0.00	2.
2	0500	30	0.08	0.08	0.00	1.	*	8	1100	180	0.00	0.00	0.00	2.
2	0600	31	0.08	0.08	0.00	1.	*	8	1200	181	0.00	0.00	0.00	2.
2	0700	32	0.08	0.08	0.00	1.	*	8	1300	182	0.00	0.00	0.00	2.
2	0800	33	0.08	0.08	0.00	1.	*	8	1400	183	0.00	0.00	0.00	2.
2	0900	34	0.08	0.08	0.00	1.	*	8	1500	184	0.00	0.00	0.00	2.
2	1000	35	0.08	0.08	0.01	1.	*	8	1600	185	0.00	0.00	0.00	2.
2	1100	36	0.08	0.07	0.01	1.	*	8	1700	186	0.00	0.00	0.00	2.
2	1200	37	0.08	0.07	0.01	1.	*	8	1800	187	0.00	0.00	0.00	2.
2	1300	38	0.08	0.07	0.02	2.	*	8	1900	188	0.00	0.00	0.00	2.
2	1400	39	0.08	0.07	0.02	2.	*	8	2000	189	0.00	0.00	0.00	2.
2	1500	40	0.08	0.06	0.02	3.	*	8	2100	190	0.00	0.00	0.00	2.
2	1600	41	0.08	0.06	0.02	4.	*	8	2200	191	0.00	0.00	0.00	2.
2	1700	42	0.08	0.06	0.02	4.	*	8	2300	192	0.00	0.00	0.00	2.
2	1800	43	0.08	0.06	0.03	5.	*	9	0000	193	0.00	0.00	0.00	2.
2	1900	44	0.08	0.06	0.03	6.	*	9	0100	194	0.17	0.08	0.10	2.
2	2000	45	0.08	0.05	0.03	7.	*	9	0200	195	0.17	0.07	0.10	2.
2	2100	46	0.08	0.05	0.03	8.	*	9	0300	196	0.17	0.07	0.11	4.
2	2200	47	0.08	0.05	0.03	9.	*	9	0400	197	0.17	0.06	0.11	8.
2	2300	48	0.09	0.05	0.04	10.	*	9	0500	198	0.17	0.06	0.11	13.
3	0000	49	0.08	0.05	0.04	11.	*	9	0600	199	0.17	0.06	0.12	18.
3	0100	50	0.00	0.00	0.00	12.	*	9	0700	200	0.17	0.06	0.12	24.
3	0200	51	0.00	0.00	0.00	12.	*	9	0800	201	0.17	0.05	0.12	29.
3	0300	52	0.00	0.00	0.00	12.	*	9	0900	202	0.17	0.05	0.12	34.
3	0400	53	0.00	0.00	0.00	12.	*	9	1000	203	0.17	0.05	0.12	39.
3	0500	54	0.00	0.00	0.00	11.	*	9	1100	204	0.17	0.05	0.13	42.
3	0600	55	0.00	0.00	0.00	10.	*	9	1200	205	0.17	0.04	0.13	45.
3	0700	56	0.00	0.00	0.00	8.	*	9	1300	206	0.17	0.04	0.13	48.
3	0800	57	0.00	0.00	0.00	7.	*	9	1400	207	0.17	0.04	0.13	50.
3	0900	58	0.00	0.00	0.00	6.	*	9	1500	208	0.17	0.04	0.13	52.
3	1000	59	0.00	0.00	0.00	5.	*	9	1600	209	0.17	0.04	0.14	54.
3	1100	60	0.00	0.00	0.00	4.	*	9	1700	210	0.17	0.04	0.14	55.
3	1200	61	0.00	0.00	0.00	3.	*	9	1800	211	0.17	0.04	0.14	56.
3	1300	62	0.00	0.00	0.00	3.	*	9	1900	212	0.17	0.03	0.14	58.
3	1400	63	0.00	0.00	0.00	2.	*	9	2000	213	0.17	0.03	0.14	59.
3	1500	64	0.00	0.00	0.00	2.	*	9	2100	214	0.17	0.03	0.14	60.
3	1600	65	0.00	0.00	0.00	2.	*	9	2200	215	0.17	0.03	0.14	61.
3	1700	66	0.00	0.00	0.00	2.	*	9	2300	216	0.17	0.03	0.14	61.
3	1800	67	0.00	0.00	0.00	2.	*	10	0000	217	0.17	0.03	0.14	62.
3	1900	68	0.00	0.00	0.00	2.	*	10	0100	218	0.01	0.00	0.01	62.
3	2000	69	0.00	0.00	0.00	2.	*	10	0200	219	0.01	0.00	0.01	62.
3	2100	70	0.00	0.00	0.00	2.	*	10	0300	220	0.01	0.00	0.01	59.
3	2200	71	0.00	0.00	0.00	2.	*	10	0400	221	0.01	0.00	0.01	55.
3	2300	72	0.00	0.00	0.00	2.	*	10	0500	222	0.01	0.00	0.01	49.
4	0000	73	0.00	0.00	0.00	2.	*	10	0600	223	0.01	0.00	0.01	42.
4	0100	74	0.00	0.00	0.00	2.	*	10	0700	224	0.01	0.00	0.01	35.
4	0200	75	0.00	0.00	0.00	2.	*	10	0800	225	0.01	0.00	0.01	29.

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4	0300	76	0.00	0.00	0.00	2.	*	10	0900	226	0.01	0.00	0.01	23.
4	0400	77	0.00	0.00	0.00	2.	*	10	1000	227	0.01	0.00	0.01	19.
4	0500	78	0.00	0.00	0.00	2.	*	10	1100	228	0.01	0.00	0.01	16.
4	0600	79	0.00	0.00	0.00	2.	*	10	1200	229	0.01	0.00	0.01	13.
4	0700	80	0.00	0.00	0.00	2.	*	10	1300	230	0.01	0.00	0.01	12.
4	0800	81	0.00	0.00	0.00	2.	*	10	1400	231	0.01	0.00	0.01	12.
4	0900	82	0.00	0.00	0.00	2.	*	10	1500	232	0.01	0.00	0.01	12.
4	1000	83	0.00	0.00	0.00	2.	*	10	1600	233	0.01	0.00	0.01	12.
4	1100	84	0.00	0.00	0.00	2.	*	10	1700	234	0.01	0.00	0.01	12.
4	1200	85	0.00	0.00	0.00	2.	*	10	1800	235	0.01	0.00	0.01	12.
4	1300	86	0.00	0.00	0.00	2.	*	10	1900	236	0.01	0.00	0.01	12.
4	1400	87	0.00	0.00	0.00	2.	*	10	2000	237	0.01	0.00	0.01	12.
4	1500	88	0.00	0.00	0.00	2.	*	10	2100	238	0.01	0.00	0.01	12.
4	1600	89	0.00	0.00	0.00	2.	*	10	2200	239	0.01	0.00	0.01	12.
4	1700	90	0.00	0.00	0.00	2.	*	10	2300	240	0.01	0.00	0.01	12.
4	1800	91	0.00	0.00	0.00	2.	*	11	0000	241	0.01	0.00	0.01	12.
4	1900	92	0.00	0.00	0.00	2.	*	11	0100	242	0.00	0.00	0.00	12.
4	2000	93	0.00	0.00	0.00	2.	*	11	0200	243	0.00	0.00	0.00	12.
4	2100	94	0.00	0.00	0.00	2.	*	11	0300	244	0.00	0.00	0.00	12.
4	2200	95	0.00	0.00	0.00	2.	*	11	0400	245	0.00	0.00	0.00	12.
4	2300	96	0.00	0.00	0.00	2.	*	11	0500	246	0.00	0.00	0.00	12.
5	0000	97	0.00	0.00	0.00	2.	*	11	0600	247	0.00	0.00	0.00	12.
5	0100	98	0.01	0.01	0.00	2.	*	11	0700	248	0.00	0.00	0.00	12.
5	0200	99	0.01	0.01	0.00	2.	*	11	0800	249	0.00	0.00	0.00	12.
5	0300	100	0.01	0.01	0.01	2.	*	11	0900	250	0.00	0.00	0.00	12.
5	0400	101	0.01	0.01	0.01	2.	*	11	1000	251	0.00	0.00	0.00	12.
5	0500	102	0.01	0.01	0.01	2.	*	11	1100	252	0.00	0.00	0.00	12.
5	0600	103	0.01	0.01	0.01	2.	*	11	1200	253	0.00	0.00	0.00	12.
5	0700	104	0.01	0.01	0.01	2.	*	11	1300	254	0.00	0.00	0.00	12.
5	0800	105	0.01	0.01	0.01	2.	*	11	1400	255	0.00	0.00	0.00	12.
5	0900	106	0.01	0.01	0.01	2.	*	11	1500	256	0.00	0.00	0.00	12.
5	1000	107	0.01	0.01	0.01	2.	*	11	1600	257	0.00	0.00	0.00	12.
5	1100	108	0.01	0.01	0.01	3.	*	11	1700	258	0.00	0.00	0.00	12.
5	1200	109	0.01	0.01	0.01	3.	*	11	1800	259	0.00	0.00	0.00	12.
5	1300	110	0.01	0.01	0.01	3.	*	11	1900	260	0.00	0.00	0.00	12.
5	1400	111	0.01	0.01	0.01	3.	*	11	2000	261	0.00	0.00	0.00	12.
5	1500	112	0.01	0.01	0.01	3.	*	11	2100	262	0.00	0.00	0.00	12.
5	1600	113	0.01	0.01	0.01	3.	*	11	2200	263	0.00	0.00	0.00	12.
5	1700	114	0.01	0.01	0.01	3.	*	11	2300	264	0.00	0.00	0.00	12.
5	1800	115	0.01	0.01	0.01	3.	*	12	0000	265	0.00	0.00	0.00	12.
5	1900	116	0.01	0.01	0.01	3.	*	12	0100	266	0.00	0.00	0.00	12.
5	2000	117	0.01	0.01	0.01	3.	*	12	0200	267	0.00	0.00	0.00	12.
5	2100	118	0.01	0.01	0.01	3.	*	12	0300	268	0.00	0.00	0.00	12.
5	2200	119	0.01	0.01	0.01	3.	*	12	0400	269	0.00	0.00	0.00	12.
5	2300	120	0.01	0.01	0.01	3.	*	12	0500	270	0.00	0.00	0.00	12.
6	0000	121	0.01	0.01	0.01	3.	*	12	0600	271	0.00	0.00	0.00	11.
6	0100	122	0.01	0.00	0.00	3.	*	12	0700	272	0.00	0.00	0.00	11.
6	0200	123	0.01	0.00	0.00	3.	*	12	0800	273	0.00	0.00	0.00	11.
6	0300	124	0.01	0.00	0.00	3.	*	12	0900	274	0.00	0.00	0.00	11.
6	0400	125	0.01	0.00	0.00	3.	*	12	1000	275	0.00	0.00	0.00	11.
6	0500	126	0.01	0.00	0.00	3.	*	12	1100	276	0.00	0.00	0.00	11.
6	0600	127	0.01	0.00	0.00	3.	*	12	1200	277	0.00	0.00	0.00	11.
6	0700	128	0.01	0.00	0.00	3.	*	12	1300	278	0.00	0.00	0.00	11.
6	0800	129	0.01	0.00	0.00	3.	*	12	1400	279	0.00	0.00	0.00	11.
6	0900	130	0.01	0.00	0.00	3.	*	12	1500	280	0.00	0.00	0.00	11.
6	1000	131	0.01	0.00	0.00	3.	*	12	1600	281	0.00	0.00	0.00	11.
6	1100	132	0.01	0.00	0.00	3.	*	12	1700	282	0.00	0.00	0.00	11.
6	1200	133	0.01	0.00	0.00	3.	*	12	1800	283	0.00	0.00	0.00	11.
6	1300	134	0.01	0.00	0.00	3.	*	12	1900	284	0.00	0.00	0.00	11.
6	1400	135	0.01	0.00	0.00	3.	*	12	2000	285	0.00	0.00	0.00	11.
6	1500	136	0.01	0.00	0.00	3.	*	12	2100	286	0.00	0.00	0.00	11.
6	1600	137	0.01	0.00	0.00	3.	*	12	2200	287	0.00	0.00	0.00	11.
6	1700	138	0.01	0.00	0.00	3.	*	12	2300	288	0.00	0.00	0.00	11.
6	1800	139	0.01	0.00	0.00	3.	*	13	0000	289	0.00	0.00	0.00	11.
6	1900	140	0.01	0.00	0.00	3.	*	13	0100	290	0.00	0.00	0.00	11.
6	2000	141	0.01	0.00	0.00	3.	*	13	0200	291	0.00	0.00	0.00	11.

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6	2100	142	0.01	0.00	0.00	3.	*	13	0300	292	0.00	0.00	0.00	11.
6	2200	143	0.01	0.00	0.00	3.	*	13	0400	293	0.00	0.00	0.00	11.
6	2300	144	0.01	0.00	0.00	3.	*	13	0500	294	0.00	0.00	0.00	11.
7	0000	145	0.01	0.00	0.00	3.	*	13	0600	295	0.00	0.00	0.00	11.
7	0100	146	0.00	0.00	0.00	3.	*	13	0700	296	0.00	0.00	0.00	11.
7	0200	147	0.00	0.00	0.00	3.	*	13	0800	297	0.00	0.00	0.00	11.
7	0300	148	0.00	0.00	0.00	2.	*	13	0900	298	0.00	0.00	0.00	11.
7	0400	149	0.00	0.00	0.00	2.	*	13	1000	299	0.00	0.00	0.00	11.
7	0500	150	0.00	0.00	0.00	2.	*	13	1100	300	0.00	0.00	0.00	11.

****

TOTAL RAINFALL = 7.30, TOTAL LOSS = 3.38, TOTAL EXCESS = 3.92

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
(CFS)	(HR)		6-HR	24-HR	72-HR	299.00-HR
62.	217.00	(CFS)	61.	51.	26.	9.
		(INCHES)	0.803	2.684	4.069	6.007
		(AC-FT)	30.	102.	154.	227.

CUMULATIVE AREA = 0.71 SQ MI

STATION SUB1

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                ***************
                *             *
15 KK           *    SUB2     *
                *             *
                ***************
                          SILVER LAKE-DIRECT PRECIP.

                    SUBBASIN RUNOFF DATA

17 BA               SUBBASIN CHARACTERISTICS
                          TAREA         0.37  SUBBASIN AREA

18 BT               BASE FLOW CHARACTERISTICS
                          STRTQ         0.37  INITIAL FLOW
                          QRCSN        -0.20  BEGIN BASE FLOW RECESSION
                          RTIOR     1.00200   RECESSION CONSTANT

                    PRECIPITATION DATA

21 PB                     STORM         7.30  BASIN TOTAL PRECIPITATION

13 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  0.01  0.01  0.01  0.01  0.01  0.01
                    0.01  0.01  0.01  0.01  0.01  0.01  0.01  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  0.02  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  0.00  0.00  0.00  0.00
                    0.00  0.00  0.00  0.00  0.00  0.00  0.00  0.00  0.00  0.00

19 LS               SCS LOSS RATE
                          STRTL         0.04  INITIAL ABSTRACTION
                          CRVNBR       98.00  CURVE NUMBER
                          RTIMP         0.00  PERCENT IMPERVIOUS AREA

20 UD               SCS DIMENSIONLESS UNITGRAPH
                          TLAG          6.00  LAG

                                  ***

                                UNIT HYDROGRAPH
                              32 END-OF-PERIOD ORDINATES
    1.     2.     5.    11.    19.    25.    27.    27.    25.    22.    17.
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13. 10. 8. 6. 5. 4. 3. 2. 2. 1.
1. 1. 1. 1. 0. 0. 0. 0. 0. 0.
0. 0.

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HYDROGRAPH AT STATION SUB2

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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.	7		0600	151	0.00	0.00	0.00	3.
1		0100	2	0.01	0.01	0.00	0.	7		0700	152	0.00	0.00	0.00	3.
1		0200	3	0.01	0.01	0.00	0.	7		0800	153	0.00	0.00	0.00	3.
1		0300	4	0.01	0.01	0.00	0.	7		0900	154	0.00	0.00	0.00	3.
1		0400	5	0.01	0.01	0.00	0.	7		1000	155	0.00	0.00	0.00	3.
1		0500	6	0.01	0.01	0.00	0.	7		1100	156	0.00	0.00	0.00	3.
1		0600	7	0.01	0.01	0.00	0.	7		1200	157	0.00	0.00	0.00	3.
1		0700	8	0.01	0.01	0.00	0.	7		1300	158	0.00	0.00	0.00	3.
1		0800	9	0.01	0.01	0.00	0.	7		1400	159	0.00	0.00	0.00	3.
1		0900	10	0.01	0.01	0.00	0.	7		1500	160	0.00	0.00	0.00	3.
1		1000	11	0.01	0.01	0.00	0.	7		1600	161	0.00	0.00	0.00	3.
1		1100	12	0.01	0.01	0.00	1.	7		1700	162	0.00	0.00	0.00	3.
1		1200	13	0.01	0.01	0.00	1.	7		1800	163	0.00	0.00	0.00	3.
1		1300	14	0.01	0.00	0.00	1.	7		1900	164	0.00	0.00	0.00	3.
1		1400	15	0.01	0.00	0.00	1.	7		2000	165	0.00	0.00	0.00	3.
1		1500	16	0.01	0.00	0.00	1.	7		2100	166	0.00	0.00	0.00	3.
1		1600	17	0.01	0.00	0.01	1.	7		2200	167	0.00	0.00	0.00	3.
1		1700	18	0.01	0.00	0.01	1.	7		2300	168	0.00	0.00	0.00	3.
1		1800	19	0.01	0.00	0.01	1.	8		0000	169	0.00	0.00	0.00	3.
1		1900	20	0.01	0.00	0.01	1.	8		0100	170	0.00	0.00	0.00	3.
1		2000	21	0.01	0.00	0.01	1.	8		0200	171	0.00	0.00	0.00	3.
1		2100	22	0.01	0.00	0.01	1.	8		0300	172	0.00	0.00	0.00	3.
1		2200	23	0.01	0.00	0.01	1.	8		0400	173	0.00	0.00	0.00	3.
1		2300	24	0.01	0.00	0.01	1.	8		0500	174	0.00	0.00	0.00	3.
2		0000	25	0.01	0.00	0.01	2.	8		0600	175	0.00	0.00	0.00	3.
2		0100	26	0.08	0.02	0.06	2.	8		0700	176	0.00	0.00	0.00	3.
2		0200	27	0.08	0.01	0.07	2.	8		0800	177	0.00	0.00	0.00	3.
2		0300	28	0.08	0.01	0.07	3.	8		0900	178	0.00	0.00	0.00	3.
2		0400	29	0.08	0.01	0.08	4.	8		1000	179	0.00	0.00	0.00	3.
2		0500	30	0.08	0.01	0.08	6.	8		1100	180	0.00	0.00	0.00	3.
2		0600	31	0.08	0.00	0.08	8.	8		1200	181	0.00	0.00	0.00	3.
2		0700	32	0.08	0.00	0.08	10.	8		1300	182	0.00	0.00	0.00	3.
2		0800	33	0.08	0.00	0.08	11.	8		1400	183	0.00	0.00	0.00	3.
2		0900	34	0.08	0.00	0.08	13.	8		1500	184	0.00	0.00	0.00	3.
2		1000	35	0.08	0.00	0.08	14.	8		1600	185	0.00	0.00	0.00	3.
2		1100	36	0.08	0.00	0.08	16.	8		1700	186	0.00	0.00	0.00	3.
2		1200	37	0.08	0.00	0.08	16.	8		1800	187	0.00	0.00	0.00	3.
2		1300	38	0.08	0.00	0.08	17.	8		1900	188	0.00	0.00	0.00	3.
2		1400	39	0.08	0.00	0.08	18.	8		2000	189	0.00	0.00	0.00	3.
2		1500	40	0.08	0.00	0.08	18.	8		2100	190	0.00	0.00	0.00	3.
2		1600	41	0.08	0.00	0.08	19.	8		2200	191	0.00	0.00	0.00	3.
2		1700	42	0.08	0.00	0.08	19.	8		2300	192	0.00	0.00	0.00	3.
2		1800	43	0.08	0.00	0.08	19.	9		0000	193	0.00	0.00	0.00	3.
2		1900	44	0.08	0.00	0.08	19.	9		0100	194	0.17	0.00	0.17	3.
2		2000	45	0.08	0.00	0.08	20.	9		0200	195	0.17	0.00	0.17	3.
2		2100	46	0.08	0.00	0.08	20.	9		0300	196	0.17	0.00	0.17	4.
2		2200	47	0.08	0.00	0.08	20.	9		0400	197	0.17	0.00	0.17	7.
2		2300	48	0.08	0.00	0.08	20.	9		0500	198	0.17	0.00	0.17	11.
3		0000	49	0.08	0.00	0.08	20.	9		0600	199	0.17	0.00	0.17	16.
3		0100	50	0.00	0.00	0.00	20.	9		0700	200	0.17	0.00	0.17	21.
3		0200	51	0.00	0.00	0.00	20.	9		0800	201	0.17	0.00	0.17	25.
3		0300	52	0.00	0.00	0.00	19.	9		0900	202	0.17	0.00	0.17	29.
3		0400	53	0.00	0.00	0.00	17.	9		1000	203	0.17	0.00	0.17	32.
3		0500	54	0.00	0.00	0.00	15.	9		1100	204	0.17	0.00	0.17	34.

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3	0600	55	0.00	0.00	0.00	13.	*	9	1200	205	0.17	0.00	0.17	36.
3	0700	56	0.00	0.00	0.00	11.	*	9	1300	206	0.17	0.00	0.17	37.
3	0800	57	0.00	0.00	0.00	9.	*	9	1400	207	0.17	0.00	0.17	38.
3	0900	58	0.00	0.00	0.00	7.	*	9	1500	208	0.17	0.00	0.17	39.
3	1000	59	0.00	0.00	0.00	6.	*	9	1600	209	0.17	0.00	0.17	39.
3	1100	60	0.00	0.00	0.00	5.	*	9	1700	210	0.17	0.00	0.17	40.
3	1200	61	0.00	0.00	0.00	4.	*	9	1800	211	0.17	0.00	0.17	40.
3	1300	62	0.00	0.00	0.00	4.	*	9	1900	212	0.17	0.00	0.17	41.
3	1400	63	0.00	0.00	0.00	4.	*	9	2000	213	0.17	0.00	0.17	41.
3	1500	64	0.00	0.00	0.00	4.	*	9	2100	214	0.17	0.00	0.17	41.
3	1600	65	0.00	0.00	0.00	4.	*	9	2200	215	0.17	0.00	0.17	41.
3	1700	66	0.00	0.00	0.00	4.	*	9	2300	216	0.17	0.00	0.17	41.
3	1800	67	0.00	0.00	0.00	4.	*	10	0000	217	0.17	0.00	0.17	41.
3	1900	68	0.00	0.00	0.00	4.	*	10	0100	218	0.01	0.00	0.01	41.
3	2000	69	0.00	0.00	0.00	4.	*	10	0200	219	0.01	0.00	0.01	40.
3	2100	70	0.00	0.00	0.00	4.	*	10	0300	220	0.01	0.00	0.01	38.
3	2200	71	0.00	0.00	0.00	4.	*	10	0400	221	0.01	0.00	0.01	35.
3	2300	72	0.00	0.00	0.00	4.	*	10	0500	222	0.01	0.00	0.01	31.
4	0000	73	0.00	0.00	0.00	4.	*	10	0500	223	0.01	0.00	0.01	27.
4	0100	74	0.00	0.00	0.00	4.	*	10	0700	224	0.01	0.00	0.01	22.
4	0200	75	0.00	0.00	0.00	4.	*	10	0800	225	0.01	0.00	0.01	18.
4	0300	76	0.00	0.00	0.00	4.	*	10	0900	226	0.01	0.00	0.01	15.
4	0400	77	0.00	0.00	0.00	4.	*	10	1000	227	0.01	0.00	0.01	12.
4	0500	78	0.00	0.00	0.00	4.	*	10	1100	228	0.01	0.00	0.01	10.
4	0600	79	0.00	0.00	0.00	4.	*	10	1200	229	0.01	0.00	0.01	8.
4	0700	80	0.00	0.00	0.00	4.	*	10	1300	230	0.01	0.00	0.01	8.
4	0800	81	0.00	0.00	0.00	4.	*	10	1400	231	0.01	0.00	0.01	8.
4	0900	82	0.00	0.00	0.00	4.	*	10	1500	232	0.01	0.00	0.01	8.
4	1000	83	0.00	0.00	0.00	4.	*	10	1600	233	0.01	0.00	0.01	8.
4	1100	84	0.00	0.00	0.00	4.	*	10	1700	234	0.01	0.00	0.01	8.
4	1200	85	0.00	0.00	0.00	4.	*	10	1800	235	0.01	0.00	0.01	8.
4	1300	86	0.00	0.00	0.00	4.	*	10	1900	236	0.01	0.00	0.01	8.
4	1400	87	0.00	0.00	0.00	4.	*	10	2000	237	0.01	0.00	0.01	8.
4	1500	88	0.00	0.00	0.00	4.	*	10	2100	238	0.01	0.00	0.01	8.
4	1600	89	0.00	0.00	0.00	4.	*	10	2200	239	0.01	0.00	0.01	8.
4	1700	90	0.00	0.00	0.00	4.	*	10	2300	240	0.01	0.00	0.01	8.
4	1800	91	0.00	0.00	0.00	4.	*	11	0000	241	0.01	0.00	0.01	8.
4	1900	92	0.00	0.00	0.00	4.	*	11	0100	242	0.00	0.00	0.00	8.
4	2000	93	0.00	0.00	0.00	4.	*	11	0200	243	0.00	0.00	0.00	8.
4	2100	94	0.00	0.00	0.00	4.	*	11	0300	244	0.00	0.00	0.00	8.
4	2200	95	0.00	0.00	0.00	4.	*	11	0400	245	0.00	0.00	0.00	8.
4	2300	96	0.00	0.00	0.00	4.	*	11	0500	246	0.00	0.00	0.00	8.
5	0000	97	0.00	0.00	0.00	4.	*	11	0600	247	0.00	0.00	0.00	8.
5	0100	98	0.01	0.00	0.01	4.	*	11	0700	248	0.00	0.00	0.00	8.
5	0200	99	0.01	0.00	0.01	4.	*	11	0800	249	0.00	0.00	0.00	8.
5	0300	100	0.01	0.00	0.01	4.	*	11	0900	250	0.00	0.00	0.00	8.
5	0400	101	0.01	0.00	0.01	4.	*	11	1000	251	0.00	0.00	0.00	8.
5	0500	102	0.01	0.00	0.01	4.	*	11	1100	252	0.00	0.00	0.00	8.
5	0600	103	0.01	0.00	0.01	4.	*	11	1200	253	0.00	0.00	0.00	8.
5	0700	104	0.01	0.00	0.01	4.	*	11	1300	254	0.00	0.00	0.00	8.
5	0800	105	0.01	0.00	0.01	4.	*	11	1400	255	0.00	0.00	0.00	8.
5	0900	106	0.01	0.00	0.01	4.	*	11	1500	256	0.00	0.00	0.00	8.
5	1000	107	0.01	0.00	0.01	4.	*	11	1600	257	0.00	0.00	0.00	8.
5	1100	108	0.01	0.00	0.01	4.	*	11	1700	258	0.00	0.00	0.00	8.
5	1200	109	0.01	0.00	0.01	4.	*	11	1800	259	0.00	0.00	0.00	8.
5	1300	110	0.01	0.00	0.01	4.	*	11	1900	260	0.00	0.00	0.00	8.
5	1400	111	0.01	0.00	0.01	4.	*	11	2000	261	0.00	0.00	0.00	8.
5	1500	112	0.01	0.00	0.01	4.	*	11	2100	262	0.00	0.00	0.00	8.
5	1600	113	0.01	0.00	0.01	4.	*	11	2200	263	0.00	0.00	0.00	8.
5	1700	114	0.01	0.00	0.01	4.	*	11	2300	264	0.00	0.00	0.00	8.
5	1800	115	0.01	0.00	0.01	4.	*	12	0000	265	0.00	0.00	0.00	8.
5	1900	116	0.01	0.00	0.01	4.	*	12	0100	266	0.00	0.00	0.00	8.
5	2000	117	0.01	0.00	0.01	4.	*	12	0200	267	0.00	0.00	0.00	8.
5	2100	118	0.01	0.00	0.01	4.	*	12	0300	268	0.00	0.00	0.00	8.
5	2200	119	0.01	0.00	0.01	4.	*	12	0400	269	0.00	0.00	0.00	8.
5	2300	120	0.01	0.00	0.01	4.	*	12	0500	270	0.00	0.00	0.00	8.

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6	0000	121	0.01	0.00	0.01	4.	*	12	0600	271	0.00	0.00	0.00	8.
6	0100	122	0.01	0.00	0.01	4.	*	12	0700	272	0.00	0.00	0.00	8.
6	0200	123	0.01	0.00	0.01	4.	*	12	0800	273	0.00	0.00	0.00	8.
6	0300	124	0.01	0.00	0.01	4.	*	12	0900	274	0.00	0.00	0.00	8.
6	0400	125	0.01	0.00	0.01	4.	*	12	1000	275	0.00	0.00	0.00	8.
6	0500	126	0.01	0.00	0.01	4.	*	12	1100	276	0.00	0.00	0.00	8.
6	0600	127	0.01	0.00	0.01	4.	*	12	1200	277	0.00	0.00	0.00	8.
6	0700	128	0.01	0.00	0.01	4.	*	12	1300	278	0.00	0.00	0.00	7.
6	0800	129	0.01	0.00	0.01	4.	*	12	1400	279	0.00	0.00	0.00	7.
6	0900	130	0.01	0.00	0.01	3.	*	12	1500	280	0.00	0.00	0.00	7.
6	1000	131	0.01	0.00	0.01	3.	*	12	1600	281	0.00	0.00	0.00	7.
6	1100	132	0.01	0.00	0.01	3.	*	12	1700	282	0.00	0.00	0.00	7.
6	1200	133	0.01	0.00	0.01	3.	*	12	1800	283	0.00	0.00	0.00	7.
6	1300	134	0.01	0.00	0.01	3.	*	12	1900	284	0.00	0.00	0.00	7.
6	1400	135	0.01	0.00	0.01	3.	*	12	2000	285	0.00	0.00	0.00	7.
6	1500	136	0.01	0.00	0.01	3.	*	12	2100	286	0.00	0.00	0.00	7.
6	1600	137	0.01	0.00	0.01	3.	*	12	2200	287	0.00	0.00	0.00	7.
6	1700	138	0.01	0.00	0.01	3.	*	12	2300	288	0.00	0.00	0.00	7.
6	1800	139	0.01	0.00	0.01	3.	*	13	0000	289	0.00	0.00	0.00	7.
6	1900	140	0.01	0.00	0.01	3.	*	13	0100	290	0.00	0.00	0.00	7.
6	2000	141	0.01	0.00	0.01	3.	*	13	0200	291	0.00	0.00	0.00	7.
6	2100	142	0.01	0.00	0.01	3.	*	13	0300	292	0.00	0.00	0.00	7.
6	2200	143	0.01	0.00	0.01	3.	*	13	0400	293	0.00	0.00	0.00	7.
6	2300	144	0.01	0.00	0.01	3.	*	13	0500	294	0.00	0.00	0.00	7.
7	0000	145	0.01	0.00	0.01	3.	*	13	0600	295	0.00	0.00	0.00	7.
7	0100	146	0.00	0.00	0.00	3.	*	13	0700	296	0.00	0.00	0.00	7.
7	0200	147	0.00	0.00	0.00	3.	*	13	0800	297	0.00	0.00	0.00	7.
7	0300	148	0.00	0.00	0.00	3.	*	13	0900	298	0.00	0.00	0.00	7.
7	0400	149	0.00	0.00	0.00	3.	*	13	1000	299	0.00	0.00	0.00	7.
7	0500	150	0.00	0.00	0.00	3.	*	13	1100	300	0.00	0.00	0.00	7.

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TOTAL RAINFALL = 7.30, TOTAL LOSS = 0.24, TOTAL EXCESS = 7.06

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	299.00-HR
41.	216.00	(CFS)	41.	36.	18.	8.
		(INCHES)	1.032	3.637	5.433	10.492
		(AC-FT)	20.	72.	107.	207.

CUMULATIVE AREA = 0.37 SQ MI

STATION SUB2

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PINE TREE PRODUCTS - DIVISION OF ROTARY MULTIFORMS INC
FORM 1411 GD

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              *            *
22 KK         *            *
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COMBINE SUB1 & 2

24 HC HYDROGRAPH COMBINATION
ICOMP 2 NUMBER OF HYDROGRAPHS TO COMBINE

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HYDROGRAPH AT STATION
SUM OF 2 HYDROGRAPHS

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DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW	DA	MON	HRMN	ORD	FLOW
1		0000	1	1.	4		0300	76	6.	7		0600	151	6.	10		0900	226	38.
1		0100	2	1.	4		0400	77	6.	7		0700	152	6.	10		1000	227	31.
1		0200	3	1.	4		0500	78	6.	7		0800	153	6.	10		1100	228	25.
1		0300	4	1.	4		0600	79	6.	7		0900	154	6.	10		1200	229	21.
1		0400	5	1.	4		0700	80	6.	7		1000	155	6.	10		1300	230	21.
1		0500	6	1.	4		0800	81	6.	7		1100	156	6.	10		1400	231	21.
1		0600	7	1.	4		0900	82	6.	7		1200	157	6.	10		1500	232	21.
1		0700	8	1.	4		1000	83	6.	7		1300	158	6.	10		1600	233	21.
1		0800	9	1.	4		1100	84	6.	7		1400	159	6.	10		1700	234	21.
1		0900	10	1.	4		1200	85	6.	7		1500	160	6.	10		1800	235	21.
1		1000	11	1.	4		1300	86	6.	7		1600	161	6.	10		1900	236	20.
1		1100	12	1.	4		1400	87	6.	7		1700	162	6.	10		2000	237	20.
1		1200	13	1.	4		1500	88	6.	7		1800	163	6.	10		2100	238	20.
1		1300	14	1.	4		1600	89	6.	7		1900	164	6.	10		2200	239	20.
1		1400	15	1.	4		1700	90	6.	7		2000	165	6.	10		2300	240	20.
1		1500	16	2.	4		1800	91	6.	7		2100	166	6.	11		0000	241	20.
1		1600	17	2.	4		1900	92	6.	7		2200	167	6.	11		0100	242	20.
1		1700	18	2.	4		2000	93	6.	7		2300	168	6.	11		0200	243	20.
1		1800	19	2.	4		2100	94	6.	8		0000	169	6.	11		0300	244	20.
1		1900	20	2.	4		2200	95	6.	8		0100	170	6.	11		0400	245	20.
1		2000	21	2.	4		2300	96	6.	8		0200	171	6.	11		0500	246	20.
1		2100	22	2.	5		0000	97	6.	8		0300	172	6.	11		0600	247	20.
1		2200	23	2.	5		0100	98	6.	8		0400	173	6.	11		0700	248	20.
1		2300	24	2.	5		0200	99	6.	8		0500	174	6.	11		0800	249	20.
2		0000	25	2.	5		0300	100	6.	8		0600	175	6.	11		0900	250	20.
2		0100	26	2.	5		0400	101	6.	8		0700	176	6.	11		1000	251	20.
2		0200	27	3.	5		0500	102	6.	8		0800	177	6.	11		1100	252	20.
2		0300	28	3.	5		0600	103	6.	8		0900	178	6.	11		1200	253	20.
2		0400	29	5.	5		0700	104	6.	8		1000	179	6.	11		1300	254	20.
2		0500	30	6.	5		0800	105	6.	8		1100	180	6.	11		1400	255	20.
2		0600	31	8.	5		0900	106	6.	8		1200	181	5.	11		1500	256	20.
2		0700	32	10.	5		1000	107	6.	8		1300	182	5.	11		1600	257	20.
2		0800	33	12.	5		1100	108	6.	8		1400	183	5.	11		1700	258	20.
2		0900	34	14.	5		1200	109	6.	8		1500	184	5.	11		1800	259	20.
2		1000	35	15.	5		1300	110	6.	8		1600	185	5.	11		1900	260	20.
2		1100	36	16.	5		1400	111	6.	8		1700	186	5.	11		2000	261	19.
2		1200	37	18.	5		1500	112	6.	8		1800	187	5.	11		2100	262	19.
2		1300	38	19.	5		1600	113	6.	8		1900	188	5.	11		2200	263	19.
2		1400	39	20.	5		1700	114	6.	8		2000	189	5.	11		2300	264	19.

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	2	1500	40	21.	*	5	1800	115	6.	*	8	2100	190	5.	*	12	0000	265	19.
	2	1600	41	22.	*	5	1900	116	6.	*	8	2200	191	5.	*	12	0100	266	19.
	2	1700	42	23.	*	5	2000	117	6.	*	8	2300	192	5.	*	12	0200	267	19.
	2	1800	43	25.	*	5	2100	118	7.	*	9	0000	193	5.	*	12	0300	268	19.
	2	1900	44	26.	*	5	2200	119	7.	*	9	0100	194	5.	*	12	0400	269	19.
	2	2000	45	27.	*	5	2300	120	7.	*	9	0200	195	5.	*	12	0500	270	19.
1	2	2100	46	28.	*	6	0000	121	7.	*	9	0300	196	8.	*	12	0600	271	19.
2	2	2200	47	29.	*	6	0100	122	7.	*	9	0400	197	15.	*	12	0700	272	19.
3	2	2300	48	30.	*	6	0200	123	7.	*	9	0500	198	24.	*	12	0800	273	19.
4	3	0000	49	31.	*	6	0300	124	6.	*	9	0600	199	34.	*	12	0900	274	19.
5	3	0100	50	32.	*	6	0400	125	6.	*	9	0700	200	45.	*	12	1000	275	19.
6	3	0200	51	32.	*	6	0500	126	6.	*	9	0800	201	54.	*	12	1100	276	19.
7	3	0300	52	31.	*	6	0600	127	6.	*	9	0900	202	63.	*	12	1200	277	19.
8	3	0400	53	29.	*	6	0700	128	6.	*	9	1000	203	70.	*	12	1300	278	19.
9	3	0500	54	26.	*	6	0800	129	6.	*	9	1100	204	76.	*	12	1400	279	19.
10	3	0600	55	23.	*	6	0900	130	6.	*	9	1200	205	81.	*	12	1500	280	19.
11	3	0700	56	19.	*	6	1000	131	6.	*	9	1300	206	85.	*	12	1600	281	19.
12	3	0800	57	16.	*	6	1100	132	6.	*	9	1400	207	88.	*	12	1700	282	19.
13	3	0900	58	13.	*	6	1200	133	6.	*	9	1500	208	91.	*	12	1800	283	19.
14	3	1000	59	10.	*	6	1300	134	6.	*	9	1600	209	93.	*	12	1900	284	19.
15	3	1100	60	8.	*	6	1400	135	6.	*	9	1700	210	95.	*	12	2000	285	19.
16	3	1200	61	7.	*	6	1500	136	6.	*	9	1800	211	97.	*	12	2100	286	19.
17	3	1300	62	7.	*	6	1600	137	6.	*	9	1900	212	98.	*	12	2200	287	18.
18	3	1400	63	6.	*	6	1700	138	6.	*	9	2000	213	100.	*	12	2300	288	18.
19	3	1500	64	6.	*	6	1800	139	6.	*	9	2100	214	101.	*	13	0000	289	18.
20	3	1600	65	6.	*	6	1900	140	6.	*	9	2200	215	102.	*	13	0100	290	18.
21	3	1700	66	6.	*	6	2000	141	6.	*	9	2300	216	103.	*	13	0200	291	18.
22	3	1800	67	6.	*	6	2100	142	6.	*	10	0000	217	104.	*	13	0300	292	18.
23	3	1900	68	6.	*	6	2200	143	6.	*	10	0100	218	104.	*	13	0400	293	18.
24	3	2000	69	6.	*	6	2300	144	6.	*	10	0200	219	102.	*	13	0500	294	18.
25	3	2100	70	6.	*	7	0000	145	6.	*	10	0300	220	98.	*	13	0600	295	18.
26	3	2200	71	5.	*	7	0100	146	5.	*	10	0400	221	90.	*	13	0700	296	18.
27	3	2300	72	6.	*	7	0200	147	6.	*	10	0500	222	80.	*	13	0800	297	18.
28	4	0000	73	6.	*	7	0300	148	6.	*	10	0600	223	69.	*	13	0900	298	18.
29	4	0100	74	6.	*	7	0400	149	6.	*	10	0700	224	58.	*	13	1000	299	18.
30	4	0200	75	6.	*	7	0500	150	6.	*	10	0800	225	47.	*	13	1100	300	18.
31					*					*					*				

32 **********

	PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
34	(CFS)	(HR)		6-HR	24-HR	72-HR	299.00-HR
35	104.	216.00	(CFS)	102.	87.	44.	18.
36			(INCHES)	0.880	3.007	4.535	7.540
37			(AC-FT)	51.	173.	261.	434.

39

CUMULATIVE AREA = 1.08 SQ MI

POINTED IN U.S.A.
PINE TREE PRODUCTS DIVISION OF ROTARY MULTIFORMS INC
FORM 1411-OD

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25 KK

ROUTED OUTFLOW SILVER LAKE

HYDROGRAPH ROUTING DATA

27 RS STORAGE ROUTING

NSTPS	1	NUMBER OF SUBREACHES
ITYP	ELEV	TYPE OF INITIAL CONDITION
RSVRIC	875.00	INITIAL CONDITION
X	0.00	WORKING R AND D COEFFICIENT

29 SV	STORAGE	0.0	95.4	195.0	245.5
30 SE	ELEVATION	875.00	875.40	875.80	876.00
28 SQ	DISCHARGE	3.	4.	5.	5.

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HYDROGRAPH AT STATION

DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE
1		0000	1	3.	0.0	875.0	5		0400	101	3.	55.9	875.2	9		0800	201	4.	85.3	875.4
1		0100	2	2.	-0.1	875.0	5		0500	102	3.	56.1	875.2	9		0900	202	4.	89.8	875.4
1		0200	3	2.	-0.1	875.0	5		0600	103	3.	56.3	875.2	9		1000	203	4.	95.0	875.4
1		0300	4	2.	-0.1	875.0	5		0700	104	3.	56.5	875.2	9		1100	204	4.	100.7	875.4
1		0400	5	2.	-0.1	875.0	5		0800	105	3.	56.7	875.2	9		1200	205	4.	106.9	875.4
1		0500	6	2.	-0.1	875.0	5		0900	106	3.	56.9	875.2	9		1300	206	4.	113.4	875.5
1		0600	7	2.	-0.1	875.0	5		1000	107	3.	57.2	875.2	9		1400	207	4.	120.1	875.5
1		0700	8	2.	-0.1	875.0	5		1100	108	3.	57.4	875.2	9		1500	208	4.	127.2	875.5
1		0800	9	2.	-0.1	875.0	5		1200	109	3.	57.6	875.2	9		1600	209	4.	134.4	875.6
1		0900	10	2.	-0.1	875.0	5		1300	110	3.	57.9	875.2	9		1700	210	4.	141.8	875.6
1		1000	11	2.	-0.1	875.0	5		1400	111	3.	58.1	875.2	9		1800	211	4.	149.3	875.6
1		1100	12	2.	-0.1	875.0	5		1500	112	3.	58.3	875.2	9		1900	212	4.	157.0	875.6
1		1200	13	2.	-0.1	875.0	5		1600	113	3.	58.6	875.2	9		2000	213	4.	164.8	875.7
1		1300	14	2.	-0.1	875.0	5		1700	114	3.	58.8	875.2	9		2100	214	5.	172.7	875.7
1		1400	15	2.	-0.1	875.0	5		1800	115	3.	59.1	875.2	9		2200	215	5.	180.7	875.7
1		1500	16	2.	-0.1	875.0	5		1900	116	3.	59.3	875.2	9		2300	216	5.	188.8	875.8
1		1600	17	2.	-0.1	875.0	5		2000	117	3.	59.6	875.2	10		0000	217	5.	196.9	875.8
1		1700	18	2.	-0.1	875.0	5		2100	118	3.	59.8	875.3	10		0100	218	5.	205.1	875.8
1		1800	19	2.	-0.1	875.0	5		2200	119	3.	60.1	875.3	10		0200	219	5.	213.2	875.9
1		1900	20	2.	-0.1	875.0	5		2300	120	3.	60.4	875.3	10		0300	220	5.	221.1	875.9
1		2000	21	2.	-0.1	875.0	6		0000	121	3.	60.6	875.3	10		0400	221	5.	228.4	875.9
1		2100	22	2.	-0.1	875.0	6		0100	122	3.	60.9	875.3	10		0500	222	5.	235.1	876.0
1		2200	23	2.	-0.1	875.0	6		0200	123	3.	61.1	875.3	10		0600	223	5.	240.8	876.0
1		2300	24	2.	-0.1	875.0	6		0300	124	3.	61.4	875.3	10		0700	224	5.	245.7	876.0
2		0000	25	2.	-0.1	875.0	6		0400	125	3.	61.6	875.3	10		0800	225	5.	249.6	876.0
2		0100	26	2.	-0.1	875.0	6		0500	126	3.	61.9	875.3	10		0900	226	5.	252.7	876.0
2		0200	27	2.	-0.1	875.0	6		0600	127	3.	62.1	875.3	10		1000	227	5.	255.2	876.0
2		0300	28	2.	0.0	875.0	6		0700	128	3.	62.3	875.3	10		1100	228	5.	257.1	876.0
2		0400	29	3.	0.1	875.0	6		0800	129	3.	62.6	875.3	10		1200	229	5.	258.6	876.1

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	2	0500	30	3.	0.3	875.0 * 6	0900	130	3.	62.8	875.3 * 10	1300	230	5.	259.9	876.1
	2	0600	31	3.	0.7	875.0 * 6	1000	131	3.	63.0	875.3 * 10	1400	231	5.	261.2	876.1
	2	0700	32	3.	1.3	875.0 * 6	1100	132	3.	63.2	875.3 * 10	1500	232	5.	262.5	876.1
	2	0800	33	3.	2.0	875.0 * 6	1200	133	3.	63.4	875.3 * 10	1600	233	5.	263.7	876.1
	2	0900	34	3.	2.9	875.0 * 6	1300	134	4.	63.7	875.3 * 10	1700	234	5.	265.0	876.1
	2	1000	35	3.	3.8	875.0 * 6	1400	135	4.	63.9	875.3 * 10	1800	235	5.	266.3	876.1
1	2	1100	36	3.	4.9	875.0 * 6	1500	136	4.	64.1	875.3 * 10	1900	236	5.	267.6	876.1
2	2	1200	37	3.	6.1	875.0 * 6	1600	137	4.	64.3	875.3 * 10	2000	237	5.	268.8	876.1
3	2	1300	38	3.	7.4	875.0 * 6	1700	138	4.	64.5	875.3 * 10	2100	238	5.	270.1	876.1
4	2	1400	39	3.	8.8	875.0 * 6	1800	139	4.	64.7	875.3 * 10	2200	239	5.	271.4	876.1
5	2	1500	40	3.	10.3	875.0 * 6	1900	140	4.	64.9	875.3 * 10	2300	240	5.	272.6	876.1
6	2	1600	41	3.	11.8	875.0 * 6	2000	141	4.	65.1	875.3 * 11	0000	241	5.	273.9	876.1
7	2	1700	42	3.	13.5	875.1 * 6	2100	142	4.	65.3	875.3 * 11	0100	242	5.	275.1	876.1
8	2	1800	43	3.	15.3	875.1 * 6	2200	143	4.	65.5	875.3 * 11	0200	243	5.	276.4	876.1
9	2	1900	44	3.	17.1	875.1 * 6	2300	144	4.	65.7	875.3 * 11	0300	244	5.	277.6	876.1
10	2	2000	45	3.	19.1	875.1 * 7	0000	145	4.	65.9	875.3 * 11	0400	245	5.	278.8	876.1
11	2	2100	46	3.	21.1	875.1 * 7	0100	146	4.	66.1	875.3 * 11	0500	246	5.	280.1	876.1
12	2	2200	47	3.	23.3	875.1 * 7	0200	147	4.	66.3	875.3 * 11	0600	247	5.	281.3	876.1
13	2	2300	48	3.	25.5	875.1 * 7	0300	148	4.	66.5	875.3 * 11	0700	248	5.	282.5	876.1
14	3	0000	49	3.	27.8	875.1 * 7	0400	149	4.	66.7	875.3 * 11	0800	249	5.	283.7	876.2
15	3	0100	50	3.	30.2	875.1 * 7	0500	150	4.	66.9	875.3 * 11	0900	250	5.	284.9	876.2
16	3	0200	51	3.	32.6	875.1 * 7	0600	151	4.	67.1	875.3 * 11	1000	251	5.	286.2	876.2
17	3	0300	52	3.	34.9	875.1 * 7	0700	152	4.	67.3	875.3 * 11	1100	252	5.	287.4	876.2
18	3	0400	53	3.	37.2	875.2 * 7	0800	153	4.	67.5	875.3 * 11	1200	253	5.	288.6	876.2
19	3	0500	54	3.	39.2	875.2 * 7	0900	154	4.	67.7	875.3 * 11	1300	254	5.	289.8	876.2
20	3	0600	55	3.	40.9	875.2 * 7	1000	155	4.	67.9	875.3 * 11	1400	255	5.	291.0	876.2
21	3	0700	56	3.	42.4	875.2 * 7	1100	156	4.	68.0	875.3 * 11	1500	256	5.	292.2	876.2
22	3	0800	57	3.	43.6	875.2 * 7	1200	157	4.	68.2	875.3 * 11	1600	257	5.	293.3	876.2
23	3	0900	58	3.	44.5	875.2 * 7	1300	158	4.	68.4	875.3 * 11	1700	258	5.	294.5	876.2
24	3	1000	59	3.	45.1	875.2 * 7	1400	159	4.	68.6	875.3 * 11	1800	259	5.	295.7	876.2
25	3	1100	60	3.	45.7	875.2 * 7	1500	160	4.	68.8	875.3 * 11	1900	260	5.	296.9	876.2
26	3	1200	61	3.	45.0	875.2 * 7	1600	161	4.	68.9	875.3 * 11	2000	261	5.	298.1	876.2
27	3	1300	62	3.	46.4	875.2 * 7	1700	162	4.	69.1	875.3 * 11	2100	262	5.	299.2	876.2
28	3	1400	63	3.	46.6	875.2 * 7	1800	163	4.	69.3	875.3 * 11	2200	263	5.	300.4	876.2
29	3	1500	64	3.	46.9	875.2 * 7	1900	164	4.	69.5	875.3 * 11	2300	264	5.	301.6	876.2
30	3	1600	65	3.	47.2	875.2 * 7	2000	165	4.	69.6	875.3 * 12	0000	265	5.	302.7	876.2
31	3	1700	66	3.	47.4	875.2 * 7	2100	166	4.	69.8	875.3 * 12	0100	266	5.	303.9	876.2
32	3	1800	67	3.	47.7	875.2 * 7	2200	167	4.	70.0	875.3 * 12	0200	267	5.	305.0	876.2
33	3	1900	68	3.	48.0	875.2 * 7	2300	168	4.	70.1	875.3 * 12	0300	268	5.	306.2	876.2
34	3	2000	69	3.	48.2	875.2 * 8	0000	169	4.	70.3	875.3 * 12	0400	269	5.	307.3	876.2
35	3	2100	70	3.	48.5	875.2 * 8	0100	170	4.	70.5	875.3 * 12	0500	270	5.	308.4	876.2
36	3	2200	71	3.	48.7	875.2 * 8	0200	171	4.	70.6	875.3 * 12	0600	271	5.	309.6	876.3
37	3	2300	72	3.	49.0	875.2 * 8	0300	172	4.	70.8	875.3 * 12	0700	272	5.	310.7	876.3
38	4	0000	73	3.	49.3	875.2 * 8	0400	173	4.	71.0	875.3 * 12	0800	273	5.	311.8	876.3
39	4	0100	74	3.	49.5	875.2 * 8	0500	174	4.	71.1	875.3 * 12	0900	274	5.	313.0	876.3
40	4	0200	75	3.	49.8	875.2 * 8	0600	175	4.	71.3	875.3 * 12	1000	275	5.	314.1	876.3
41	4	0300	76	3.	50.0	875.2 * 8	0700	176	4.	71.4	875.3 * 12	1100	276	5.	315.2	876.3
42	4	0400	77	3.	50.3	875.2 * 8	0800	177	4.	71.6	875.3 * 12	1200	277	5.	316.3	876.3
43	4	0500	78	3.	50.5	875.2 * 8	0900	178	4.	71.8	875.3 * 12	1300	278	5.	317.4	876.3
44	4	0600	79	3.	50.8	875.2 * 8	1000	179	4.	71.9	875.3 * 12	1400	279	5.	318.5	876.3
45	4	0700	80	3.	51.0	875.2 * 8	1100	180	4.	72.1	875.3 * 12	1500	280	5.	319.6	876.3
46	4	0800	81	3.	51.2	875.2 * 8	1200	181	4.	72.2	875.3 * 12	1600	281	5.	320.7	876.3
47	4	0900	82	3.	51.5	875.2 * 8	1300	182	4.	72.4	875.3 * 12	1700	282	5.	321.8	876.3
48	4	1000	83	3.	51.7	875.2 * 8	1400	183	4.	72.5	875.3 * 12	1800	283	5.	322.9	876.3
49	4	1100	84	3.	52.0	875.2 * 8	1500	184	4.	72.7	875.3 * 12	1900	284	5.	324.0	876.3
50	4	1200	85	3.	52.2	875.2 * 8	1600	185	4.	72.8	875.3 * 12	2000	285	5.	325.1	876.3
51	4	1300	86	3.	52.5	875.2 * 8	1700	186	4.	73.0	875.3 * 12	2100	286	5.	326.2	876.3
52	4	1400	87	3.	52.7	875.2 * 8	1800	187	4.	73.1	875.3 * 12	2200	287	5.	327.2	876.3
53	4	1500	88	3.	52.9	875.2 * 8	1900	188	4.	73.3	875.3 * 12	2300	288	5.	328.3	876.3
54	4	1600	89	3.	53.2	875.2 * 8	2000	189	4.	73.4	875.3 * 13	0000	289	5.	329.4	876.3
55	4	1700	90	3.	53.4	875.2 * 8	2100	190	4.	73.6	875.3 * 13	0100	290	6.	330.5	876.3
56	4	1800	91	3.	53.6	875.2 * 8	2200	191	4.	73.7	875.3 * 13	0200	291	6.	331.5	876.3
57	4	1900	92	3.	53.9	875.2 * 8	2300	192	4.	73.8	875.3 * 13	0300	292	6.	332.6	876.3
	4	2000	93	3.	54.1	875.2 * 9	0000	193	4.	74.0	875.3 * 13	0400	293	6.	333.6	876.3
	4	2100	94	3.	54.3	875.2 * 9	0100	194	4.	74.1	875.3 * 13	0500	294	6.	334.7	876.4
	4	2200	95	3.	54.5	875.2 * 9	0200	195	4.	74.3	875.3 * 13	0600	295	6.	335.7	876.4

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4	2300	96	3.	54.8	875.2	*	9	0300	196	4.	74.5	875.3	*	13	0700	296	6.	336.8	876.4
5	0000	97	3.	55.0	875.2	*	9	0400	197	4.	75.2	875.3	*	13	0800	297	6.	337.8	876.4
5	0100	98	3.	55.2	875.2	*	9	0500	198	4.	76.5	875.3	*	13	0900	298	6.	338.9	876.4
5	0200	99	3.	55.4	875.2	*	9	0600	199	4.	78.6	875.3	*	13	1000	299	6.	339.9	876.4
5	0300	100	3.	55.6	875.2	*	9	0700	200	4.	81.5	875.3	*	13	1100	300	6.	340.9	876.4
						*							*						

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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
(CFS)	(HR)		6-HR	24-HR	72-HR	299.00-HR
6.	299.00	(CFS)	6.	5.	5.	4.
		(INCHES)	0.048	0.189	0.550	1.656
		(AC-FT)	3.	11.	32.	95.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
(AC-FT)	(HR)	6-HR	24-HR	72-HR	299.00-HR
341.	299.00	338.	328.	301.	120.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
(FEET)	(HR)	6-HR	24-HR	72-HR	299.00-HR
876.38	299.00	876.20	876.29	876.21	875.46

CUMULATIVE AREA = 1.08 SQ MI

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STATION

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	SUB1	62.	217.00	61.	51.	26.	0.71		
HYDROGRAPH AT	SUB2	41.	216.00	41.	36.	18.	0.37		
2 COMBINED AT		104.	216.00	102.	87.	44.	1.08		
ROUTED TO		6.	299.00	6.	5.	5.	1.08	876.38	299.00

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

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FORM 1411-QD

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

    1         ID    DEXTER TWP. FIS ---SILVER LAKE---
    2         ID    BY JUG (MDNR) 2/85    DEXTER DATA A    10 DAY DIST.
*** FROM ***
    3         IT      60       0       0      300
    4         IO       1       2       0
    5         KK    SUB1
    6         KM    SILVER LAKE SRO
    7         BA    0.71
    8         LS       0    53.0
    9         BF      -1    -.2   1.002
   10         UD    6.02
   11         PB    7.30
   12         IN    1440       0       0
   13         PC   0.000   0.030   0.308   0.318   0.325   0.360   0.388   0.395   0.400   0.970
   14         PC    1.00

   15         KK    SJ32
   16         KM    SILVER LAKE-DIRECT PRECIP.
   17         BA    0.37
   18         BF      -1    -.2   1.002
   19         LS       0      98
   20         UD      6.
   21         PB    7.30

   22         KK
   23         KM    COMBINE SUB1 & 2
   24         HC       2

   25         KK
   26         KM    ROUTED OUTFLOW SILVER LAKE
   27         RS       1    ELEV   875.0
   28         SQ     2.5     4.0     4.7     5.0
   29         SV     0.0    95.4   195.0   245.5
   30         SE   875.0   875.4   875.8   876.0
   31         ZZ
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FORM 1411 GD

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*                                        *                                        *                                        *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)    *                                        *   U.S. ARMY CORPS OF ENGINEERS         *
*            FEBRUARY 1981               *                                        *  THE HYDROLOGIC ENGINEERING CENTER     *
*          REVISED 30 OCT 81             *                                        *          609 SECOND STREET             *
*                                        *                                        *       DAVIS, CALIFORNIA 95616          *
*  RUN DATE              TIME            *                                        *  (916) 440-3285 OR (FTS) 448-3285      *
*                                        *                                        *                                        *
****************************************                                          ****************************************


                        DEXTER TWP. FIS ---SILVER LAKE---
                        BY JWG (MDNR) 2/85    DEXTER DATA A    10 DAY DIST.

  4 IO          OUTPUT CONTROL VARIABLES
                      IPRNT            1  PRINT CONTROL
                      IPLOT            2  PLOT CONTROL
                      QSCAL           0.  HYDROGRAPH PLOT SCALE

    IT          HYDROGRAPH TIME DATA
                       NMIN           60  MINUTES IN COMPUTATION INTERVAL
                      IDATE      1     0  STARTING DATE
                      ITIME         0000  STARTING TIME
                         NQ          300  NUMBER OF HYDROGRAPH ORDINATES
                     NDDATE     13     0  ENDING DATE
                     NDTIME         1100  ENDING TIME

                  COMPUTATION INTERVAL     1.00 HOURS
                       TOTAL TIME BASE  299.00 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      *      SUB1  *
            *            *
            **************
                        SILVER LAKE SRO

 12 IN          TIME DATA FOR INPUT TIME SERIES
                      JXMIN         1440  TIME INTERVAL IN MINUTES
                     JXDATE      1     0  STARTING DATE
                     JXTIME            0  STARTING TIME

               SUBBASIN RUNOFF DATA

  7 BA          SUBBASIN CHARACTERISTICS
                      TAREA         0.71  SUBBASIN AREA

  9 BF          BASE FLOW CHARACTERISTICS
                      STRTQ         0.71  INITIAL FLOW
                      QRCSN        -0.20  BEGIN BASE FLOW RECESSION
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PINE TREE PRODUCTS DIVISION OF ROTARY MULTIFORMS, INC PRINTED IN U.S.A. FORM 1411-GD

RTIOR 1.00200 RECESSION CONSTANT

PRECIPITATION DATA

11 PB STORM 7.30 BASIN TOTAL PRECIPITATION

13 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	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	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	0.02	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	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

8 LS SCS LOSS RATE

STRTL	1.77	INITIAL ABSTRACTION
CRVNBR	53.00	CURVE NUMBER
RTIMP	0.00	PERCENT IMPERVIOUS AREA

10 UD SCS DIMENSIONLESS UNITGRAPH

TLAG	6.02	LAG

***

UNIT HYDROGRAPH
32 END-OF-PERIOD ORDINATES

4.	10.	21.	36.	47.	52.	52.	48.	42.	34.
25.	19.	15.	12.	9.	7.	6.	4.	3.	3.
2.	2.	1.	1.	1.	1.	0.	0.	0.	0.
0.	0.								

****

HYDROGRAPH AT STATION SUB1

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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	1.	7		0600	151	0.00	0.00	0.00	1.
1		0100	2	0.01	0.01	0.00	1.	7		0700	152	0.00	0.00	0.00	1.
1		0200	3	0.01	0.01	0.00	1.	7		0800	153	0.00	0.00	0.00	1.
1		0300	4	0.01	0.01	0.00	1.	7		0900	154	0.00	0.00	0.00	1.
1		0400	5	0.01	0.01	0.00	1.	7		1000	155	0.00	0.00	0.00	1.
1		0500	6	0.01	0.01	0.00	1.	7		1100	156	0.00	0.00	0.00	1.
1		0600	7	0.01	0.01	0.00	1.	7		1200	157	0.00	0.00	0.00	1.
1		0700	8	0.01	0.01	0.00	1.	7		1300	158	0.00	0.00	0.00	1.
1		0800	9	0.01	0.01	0.00	1.	7		1400	159	0.00	0.00	0.00	1.

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	1	0900	10	0.01	0.01	0.00	1.	*	7	1500	160	0.00	0.00	0.00	1.
	1	1000	11	0.01	0.01	0.00	1.	*	7	1600	161	0.00	0.00	0.00	1.
	1	1100	12	0.01	0.01	0.00	1.	*	7	1700	162	0.00	0.00	0.00	1.
	1	1200	13	0.01	0.01	0.00	1.	*	7	1800	163	0.00	0.00	0.00	1.
	1	1300	14	0.01	0.01	0.00	1.	*	7	1900	164	0.00	0.00	0.00	1.
	1	1400	15	0.01	0.01	0.00	1.	*	7	2000	165	0.00	0.00	0.00	1.
1	1	1500	16	0.01	0.01	0.00	1.	*	7	2100	166	0.00	0.00	0.00	1.
2	1	1600	17	0.01	0.01	0.00	1.	*	7	2200	167	0.00	0.00	0.00	1.
3	1	1700	18	0.01	0.01	0.00	1.	*	7	2300	168	0.00	0.00	0.00	1.
4	1	1800	19	0.01	0.01	0.00	1.	*	8	0000	169	0.00	0.00	0.00	1.
5	1	1900	20	0.01	0.01	0.00	1.	*	8	0100	170	0.00	0.00	0.00	1.
6	1	2000	21	0.01	0.01	0.00	1.	*	8	0200	171	0.00	0.00	0.00	1.
7	1	2100	22	0.01	0.01	0.00	1.	*	8	0300	172	0.00	0.00	0.00	1.
8	1	2200	23	0.01	0.01	0.00	1.	*	8	0400	173	0.00	0.00	0.00	1.
9	1	2300	24	0.01	0.01	0.00	1.	*	8	0500	174	0.00	0.00	0.00	1.
10	2	0000	25	0.01	0.01	0.00	1.	*	8	0600	175	0.00	0.00	0.00	1.
11	2	0100	26	0.08	0.08	0.00	1.	*	8	0700	176	0.00	0.00	0.00	1.
12	2	0200	27	0.08	0.08	0.00	1.	*	8	0800	177	0.00	0.00	0.00	1.
13	2	0300	28	0.08	0.08	0.00	1.	*	8	0900	178	0.00	0.00	0.00	1.
14	2	0400	29	0.08	0.08	0.00	1.	*	8	1000	179	0.00	0.00	0.00	1.
15	2	0500	30	0.08	0.08	0.00	1.	*	8	1100	180	0.00	0.00	0.00	1.
16	2	0600	31	0.08	0.08	0.00	1.	*	8	1200	181	0.00	0.00	0.00	1.
17	2	0700	32	0.08	0.08	0.00	1.	*	8	1300	182	0.00	0.00	0.00	1.
18	2	0800	33	0.08	0.08	0.00	1.	*	8	1400	183	0.00	0.00	0.00	1.
19	2	0900	34	0.08	0.08	0.00	1.	*	8	1500	184	0.00	0.00	0.00	1.
20	2	1000	35	0.08	0.08	0.00	1.	*	8	1600	185	0.00	0.00	0.00	1.
21	2	1100	36	0.08	0.08	0.00	1.	*	8	1700	186	0.00	0.00	0.00	1.
22	2	1200	37	0.08	0.08	0.00	1.	*	8	1800	187	0.00	0.00	0.00	1.
23	2	1300	38	0.08	0.08	0.00	1.	*	8	1900	188	0.00	0.00	0.00	1.
24	2	1400	39	0.08	0.08	0.00	1.	*	8	2000	189	0.00	0.00	0.00	1.
25	2	1500	40	0.08	0.08	0.00	1.	*	8	2100	190	0.00	0.00	0.00	1.
26	2	1600	41	0.08	0.08	0.00	1.	*	8	2200	191	0.00	0.00	0.00	1.
27	2	1700	42	0.08	0.08	0.00	1.	*	8	2300	192	0.00	0.00	0.00	1.
28	2	1800	43	0.08	0.08	0.00	1.	*	9	0000	193	0.00	0.00	0.00	1.
29	2	1900	44	0.08	0.08	0.00	1.	*	9	0100	194	0.17	0.13	0.04	1.
30	2	2000	45	0.08	0.08	0.00	1.	*	9	0200	195	0.17	0.13	0.04	1.
31	2	2100	46	0.08	0.08	0.00	1.	*	9	0300	196	0.17	0.12	0.05	2.
32	2	2200	47	0.08	0.08	0.00	1.	*	9	0400	197	0.17	0.12	0.05	4.
33	2	2300	48	0.08	0.08	0.01	1.	*	9	0500	198	0.17	0.12	0.06	6.
34	3	0000	49	0.08	0.08	0.01	1.	*	9	0600	199	0.17	0.11	0.06	8.
35	3	0100	50	0.00	0.00	0.00	1.	*	9	0700	200	0.17	0.11	0.06	11.
36	3	0200	51	0.00	0.00	0.00	2.	*	9	0800	201	0.17	0.11	0.07	14.
37	3	0300	52	0.00	0.00	0.00	2.	*	9	0900	202	0.17	0.10	0.07	17.
38	3	0400	53	0.00	0.00	0.00	2.	*	9	1000	203	0.17	0.10	0.07	19.
39	3	0500	54	0.00	0.00	0.00	2.	*	9	1100	204	0.17	0.10	0.08	22.
40	3	0600	55	0.00	0.00	0.00	2.	*	9	1200	205	0.17	0.09	0.08	24.
41	3	0700	56	0.00	0.00	0.00	2.	*	9	1300	206	0.17	0.09	0.08	26.
42	3	0800	57	0.00	0.00	0.00	1.	*	9	1400	207	0.17	0.09	0.08	27.
43	3	0900	58	0.00	0.00	0.00	1.	*	9	1500	208	0.17	0.09	0.09	29.
44	3	1000	59	0.00	0.00	0.00	1.	*	9	1600	209	0.17	0.08	0.09	31.
45	3	1100	60	0.00	0.00	0.00	1.	*	9	1700	210	0.17	0.08	0.09	32.
46	3	1200	61	0.00	0.00	0.00	1.	*	9	1800	211	0.17	0.08	0.09	34.
47	3	1300	62	0.00	0.00	0.00	1.	*	9	1900	212	0.17	0.08	0.10	35.
48	3	1400	63	0.00	0.00	0.00	1.	*	9	2000	213	0.17	0.08	0.10	37.
49	3	1500	64	0.00	0.00	0.00	1.	*	9	2100	214	0.17	0.07	0.10	38.
50	3	1600	65	0.00	0.00	0.00	1.	*	9	2200	215	0.17	0.07	0.10	39.
51	3	1700	66	0.00	0.00	0.00	1.	*	9	2300	216	0.17	0.07	0.10	40.
52	3	1800	67	0.00	0.00	0.00	1.	*	10	0000	217	0.17	0.07	0.10	41.
53	3	1900	68	0.00	0.00	0.00	1.	*	10	0100	218	0.01	0.00	0.01	42.
54	3	2000	69	0.00	0.00	0.00	1.	*	10	0200	219	0.01	0.00	0.01	42.
55	3	2100	70	0.00	0.00	0.00	1.	*	10	0300	220	0.01	0.00	0.01	41.
56	3	2200	71	0.00	0.00	0.00	1.	*	10	0400	221	0.01	0.00	0.01	38.
57	3	2300	72	0.00	0.00	0.00	1.	*	10	0500	222	0.01	0.00	0.01	34.
	4	0000	73	0.00	0.00	0.00	1.	*	10	0600	223	0.01	0.00	0.01	29.
	4	0100	74	0.00	0.00	0.00	1.	*	10	0700	224	0.01	0.00	0.01	25.
	4	0200	75	0.00	0.00	0.00	1.	*	10	0800	225	0.01	0.00	0.01	20.

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4	0300	76	0.00	0.00	0.00	1.	*	10	0900	226	0.01	0.00	0.01	16.
4	0400	77	0.00	0.00	0.00	1.	*	10	1000	227	0.01	0.00	0.01	13.
4	0500	78	0.00	0.00	0.00	1.	*	10	1100	228	0.01	0.00	0.01	11.
4	0600	79	0.00	0.00	0.00	1.	*	10	1200	229	0.01	0.00	0.01	9.
4	0700	80	0.00	0.00	0.00	1.	*	10	1300	230	0.01	0.00	0.01	8.
4	0800	81	0.00	0.00	0.00	1.	*	10	1400	231	0.01	0.00	0.01	8.
4	0900	82	0.00	0.00	0.00	1.	*	10	1500	232	0.01	0.00	0.01	8.
4	1000	83	0.00	0.00	0.00	1.	*	10	1600	233	0.01	0.00	0.01	8.
4	1100	84	0.00	0.00	0.00	1.	*	10	1700	234	0.01	0.00	0.01	8.
4	1200	85	0.00	0.00	0.00	1.	*	10	1800	235	0.01	0.00	0.01	8.
4	1300	86	0.00	0.00	0.00	1.	*	10	1900	236	0.01	0.00	0.01	8.
4	1400	87	0.00	0.00	0.00	1.	*	10	2000	237	0.01	0.00	0.01	8.
4	1500	88	0.00	0.00	0.00	1.	*	10	2100	238	0.01	0.00	0.01	8.
4	1600	89	0.00	0.00	0.00	1.	*	10	2200	239	0.01	0.00	0.01	8.
4	1700	90	0.00	0.00	0.00	1.	*	10	2300	240	0.01	0.00	0.01	8.
4	1800	91	0.00	0.00	0.00	1.	*	11	0000	241	0.01	0.00	0.01	8.
4	1900	92	0.00	0.00	0.00	1.	*	11	0100	242	0.00	0.00	0.00	8.
4	2000	93	0.00	0.00	0.00	1.	*	11	0200	243	0.00	0.00	0.00	8.
4	2100	94	0.00	0.00	0.00	1.	*	11	0300	244	0.00	0.00	0.00	8.
4	2200	95	0.00	0.00	0.00	1.	*	11	0400	245	0.00	0.00	0.00	8.
4	2300	96	0.00	0.00	0.00	1.	*	11	0500	246	0.00	0.00	0.00	8.
5	0000	97	0.00	0.00	0.00	1.	*	11	0600	247	0.00	0.00	0.00	8.
5	0100	98	0.01	0.01	0.00	1.	*	11	0700	248	0.00	0.00	0.00	8.
5	0200	99	0.01	0.01	0.00	1.	*	11	0800	249	0.00	0.00	0.00	8.
5	0300	100	0.01	0.01	0.00	1.	*	11	0900	250	0.00	0.00	0.00	8.
5	0400	101	0.01	0.01	0.00	1.	*	11	1000	251	0.00	0.00	0.00	8.
5	0500	102	0.01	0.01	0.00	1.	*	11	1100	252	0.00	0.00	0.00	8.
5	0600	103	0.01	0.01	0.00	1.	*	11	1200	253	0.00	0.00	0.00	8.
5	0700	104	0.01	0.01	0.00	1.	*	11	1300	254	0.00	0.00	0.00	8.
5	0800	105	0.01	0.01	0.00	1.	*	11	1400	255	0.00	0.00	0.00	8.
5	0900	106	0.01	0.01	0.00	1.	*	11	1500	256	0.00	0.00	0.00	8.
5	1000	107	0.01	0.01	0.00	1.	*	11	1600	257	0.00	0.00	0.00	8.
5	1100	108	0.01	0.01	0.00	1.	*	11	1700	258	0.00	0.00	0.00	8.
5	1200	109	0.01	0.01	0.00	1.	*	11	1800	259	0.00	0.00	0.00	8.
5	1300	110	0.01	0.01	0.00	1.	*	11	1900	260	0.00	0.00	0.00	8.
5	1400	111	0.01	0.01	0.00	1.	*	11	2000	261	0.00	0.00	0.00	8.
5	1500	112	0.01	0.01	0.00	1.	*	11	2100	262	0.00	0.00	0.00	8.
5	1600	113	0.01	0.01	0.00	1.	*	11	2200	263	0.00	0.00	0.00	8.
5	1700	114	0.01	0.01	0.00	1.	*	11	2300	264	0.00	0.00	0.00	8.
5	1800	115	0.01	0.01	0.00	1.	*	12	0000	265	0.00	0.00	0.00	8.
5	1900	116	0.01	0.01	0.00	1.	*	12	0100	266	0.00	0.00	0.00	8.
5	2000	117	0.01	0.01	0.00	1.	*	12	0200	267	0.00	0.00	0.00	8.
5	2100	118	0.01	0.01	0.00	1.	*	12	0300	268	0.00	0.00	0.00	8.
5	2200	119	0.01	0.01	0.00	1.	*	12	0400	269	0.00	0.00	0.00	8.
5	2300	120	0.01	0.01	0.00	1.	*	12	0500	270	0.00	0.00	0.00	8.
6	0000	121	0.01	0.01	0.00	1.	*	12	0600	271	0.00	0.00	0.00	8.
6	0100	122	0.01	0.01	0.00	1.	*	12	0700	272	0.00	0.00	0.00	8.
6	0200	123	0.01	0.01	0.00	1.	*	12	0800	273	0.00	0.00	0.00	8.
6	0300	124	0.01	0.01	0.00	1.	*	12	0900	274	0.00	0.00	0.00	8.
6	0400	125	0.01	0.01	0.00	1.	*	12	1000	275	0.00	0.00	0.00	8.
6	0500	126	0.01	0.01	0.00	1.	*	12	1100	276	0.00	0.00	0.00	8.
6	0600	127	0.01	0.01	0.00	1.	*	12	1200	277	0.00	0.00	0.00	8.
6	0700	128	0.01	0.01	0.00	1.	*	12	1300	278	0.00	0.00	0.00	8.
6	0800	129	0.01	0.01	0.00	1.	*	12	1400	279	0.00	0.00	0.00	8.
6	0900	130	0.01	0.01	0.00	1.	*	12	1500	280	0.00	0.00	0.00	8.
6	1000	131	0.01	0.01	0.00	1.	*	12	1600	281	0.00	0.00	0.00	8.
6	1100	132	0.01	0.01	0.00	1.	*	12	1700	282	0.00	0.00	0.00	8.
6	1200	133	0.01	0.01	0.00	1.	*	12	1800	283	0.00	0.00	0.00	8.
6	1300	134	0.01	0.01	0.00	1.	*	12	1900	284	0.00	0.00	0.00	8.
6	1400	135	0.01	0.01	0.00	1.	*	12	2000	285	0.00	0.00	0.00	8.
6	1500	136	0.01	0.01	0.00	1.	*	12	2100	286	0.00	0.00	0.00	7.
6	1600	137	0.01	0.01	0.00	1.	*	12	2200	287	0.00	0.00	0.00	7.
6	1700	138	0.01	0.01	0.00	1.	*	12	2300	288	0.00	0.00	0.00	7.
6	1800	139	0.01	0.01	0.00	1.	*	13	0000	289	0.00	0.00	0.00	7.
6	1900	140	0.01	0.01	0.00	1.	*	13	0100	290	0.00	0.00	0.00	7.
6	2000	141	0.01	0.01	0.00	1.	*	13	0200	291	0.00	0.00	0.00	7.

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6	2100	142	0.01	0.01	0.00	1.	*	13	0300	292	0.00	0.00	0.00	7.
6	2200	143	0.01	0.01	0.00	1.	*	13	0400	293	0.00	0.00	0.00	7.
6	2300	144	0.01	0.01	0.00	1.	*	13	0500	294	0.00	0.00	0.00	7.
7	0000	145	0.01	0.01	0.00	1.	*	13	0600	295	0.00	0.00	0.00	7.
7	0100	146	0.00	0.00	0.00	1.	*	13	0700	296	0.00	0.00	0.00	7.
7	0200	147	0.00	0.00	0.00	1.	*	13	0800	297	0.00	0.00	0.00	7.
7	0300	148	0.00	0.00	0.00	1.	*	13	0900	298	0.00	0.00	0.00	7.
7	0400	149	0.00	0.00	0.00	1.	*	13	1000	299	0.00	0.00	0.00	7.
7	0500	150	0.00	0.00	0.00	1.	*	13	1100	300	0.00	0.00	0.00	7.

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TOTAL RAINFALL = 7.30, TOTAL LOSS = 5.18, TOTAL EXCESS = 2.12

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
(CFS)	(HR)		5-HR	24-HR	72-HR	299.00-HR
42.	217.00	(CFS)	41.	32.	16.	5.
		(INCHES)	0.533	1.661	2.564	3.455
		(AC-FT)	20.	63.	97.	131.

CUMULATIVE AREA = 0.71 SQ MI

STATION SUB1

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FORM 1411-GD

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               ***************
               *             *
15 KK          *    SUB2     *
               *             *
               ***************
                        SILVER LAKE-DIRECT PRECIP.

                   SUBBASIN RUNOFF DATA

17 BA              SUBBASIN CHARACTERISTICS
                        TAREA         0.37  SUBBASIN AREA

18 BF              BASE FLOW CHARACTERISTICS
                        STRTQ         0.37  INITIAL FLOW
                        QRCSN        -0.20  BEGIN BASE FLOW RECESSION
                        RTIOR     1.00200   RECESSION CONSTANT

                   PRECIPITATION DATA

21 PD                   STORM         7.30  BASIN TOTAL PRECIPITATION

13 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    0.01    0.01    0.01    0.01    0.01    0.01
                    0.01    0.01    0.01    0.01    0.01    0.01    0.01    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    0.02    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    0.00    0.00    0.00    0.00
                    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00

19 LS              SCS LOSS RATE
                        STRTL         0.04  INITIAL ABSTRACTION
                        CRVNBR       98.00  CURVE NUMBER
                        RTIMP         0.00  PERCENT IMPERVIOUS AREA

20 UD              SCS DIMENSIONLESS UNITGRAPH
                        TLAG          6.00  LAG

                                     ***
                                UNIT HYDROGRAPH
                            32 END-OF-PERIOD ORDINATES
      2.      5.     11.     19.     25.     27.     27.     25.     22.     17.
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13. 10. 8. 6. 5. 4. 3. 2. 2. 1.
1. 1. 1. 1. 0. 0. 0. 0. 0. 0.
0. 0.

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HYDROGRAPH AT STATION SUB2

****

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		0600	151	0.00	0.00	0.00	3.
1		0100	2	0.01	0.01	0.00	0.	*	1		0700	152	0.00	0.00	0.00	3.
1		0200	3	0.01	0.01	0.00	0.	*	1		0800	153	0.00	0.00	0.00	3.
1		0300	4	0.01	0.01	0.00	0.	*	1		0900	154	0.00	0.00	0.00	3.
1		0400	5	0.01	0.01	0.00	0.	*	1		1000	155	0.00	0.00	0.00	3.
1		0500	6	0.01	0.01	0.00	0.	*	1		1100	156	0.00	0.00	0.00	3.
1		0600	7	0.01	0.01	0.00	0.	*	1		1200	157	0.00	0.00	0.00	3.
1		0700	8	0.01	0.01	0.00	0.	*	1		1300	158	0.00	0.00	0.00	3.
1		0800	9	0.01	0.01	0.00	0.	*	1		1400	159	0.00	0.00	0.00	3.
1		0900	10	0.01	0.01	0.00	0.	*	1		1500	160	0.00	0.00	0.00	3.
1		1000	11	0.01	0.01	0.00	0.	*	1		1600	161	0.00	0.00	0.00	3.
1		1100	12	0.01	0.01	0.00	1.	*	1		1700	162	0.00	0.00	0.00	3.
1		1200	13	0.01	0.01	0.00	1.	*	1		1800	163	0.00	0.00	0.00	3.
1		1300	14	0.01	0.00	0.00	1.	*	1		1900	164	0.00	0.00	0.00	3.
1		1400	15	0.01	0.00	0.00	1.	*	1		2000	165	0.00	0.00	0.00	3.
1		1500	16	0.01	0.00	0.00	1.	*	1		2100	166	0.00	0.00	0.00	3.
1		1600	17	0.01	0.00	0.01	1.	*	1		2200	167	0.00	0.00	0.00	3.
1		1700	18	0.01	0.00	0.01	1.	*	1		2300	168	0.00	0.00	0.00	3.
1		1800	19	0.01	0.00	0.01	1.	*	2		0000	169	0.00	0.00	0.00	3.
1		1900	20	0.01	0.00	0.01	1.	*	2		0100	170	0.00	0.00	0.00	3.
1		2000	21	0.01	0.00	0.01	1.	*	2		0200	171	0.00	0.00	0.00	3.
1		2100	22	0.01	0.00	0.01	1.	*	2		0300	172	0.00	0.00	0.00	3.
1		2200	23	0.01	0.00	0.01	1.	*	2		0400	173	0.00	0.00	0.00	3.
1		2300	24	0.01	0.00	0.01	1.	*	2		0500	174	0.00	0.00	0.00	3.
2		0000	25	0.01	0.00	0.01	2.	*	2		0600	175	0.00	0.00	0.00	3.
2		0100	26	0.08	0.02	0.06	2.	*	2		0700	176	0.00	0.00	0.00	3.
2		0200	27	0.08	0.01	0.07	2.	*	2		0800	177	0.00	0.00	0.00	3.
2		0300	28	0.08	0.01	0.07	3.	*	2		0900	178	0.00	0.00	0.00	3.
2		0400	29	0.08	0.01	0.08	4.	*	2		1000	179	0.00	0.00	0.00	3.
2		0500	30	0.08	0.01	0.08	6.	*	2		1100	180	0.00	0.00	0.00	3.
2		0600	31	0.08	0.00	0.08	8.	*	2		1200	181	0.00	0.00	0.00	3.
2		0700	32	0.08	0.00	0.08	10.	*	2		1300	182	0.00	0.00	0.00	3.
2		0800	33	0.08	0.00	0.08	11.	*	2		1400	183	0.00	0.00	0.00	3.
2		0900	34	0.08	0.00	0.08	13.	*	2		1500	184	0.00	0.00	0.00	3.
2		1000	35	0.08	0.00	0.08	14.	*	2		1600	185	0.00	0.00	0.00	3.
2		1100	36	0.08	0.00	0.08	16.	*	2		1700	186	0.00	0.00	0.00	3.
2		1200	37	0.08	0.00	0.08	16.	*	2		1800	187	0.00	0.00	0.00	3.
2		1300	38	0.08	0.00	0.08	17.	*	2		1900	188	0.00	0.00	0.00	3.
2		1400	39	0.08	0.00	0.08	18.	*	2		2000	189	0.00	0.00	0.00	3.
2		1500	40	0.08	0.00	0.08	18.	*	2		2100	190	0.00	0.00	0.00	3.
2		1600	41	0.08	0.00	0.08	19.	*	2		2200	191	0.00	0.00	0.00	3.
2		1700	42	0.08	0.00	0.08	19.	*	2		2300	192	0.00	0.00	0.00	3.
2		1800	43	0.08	0.00	0.08	19.	*	9		0000	193	0.00	0.00	0.00	3.
2		1900	44	0.08	0.00	0.08	19.	*	9		0100	194	0.17	0.00	0.17	3.
2		2000	45	0.08	0.00	0.09	20.	*	9		0200	195	0.17	0.00	0.17	3.
2		2100	46	0.08	0.00	0.08	20.	*	9		0300	196	0.17	0.00	0.17	4.
2		2200	47	0.08	0.00	0.08	20.	*	9		0400	197	0.17	0.00	0.17	7.
2		2300	48	0.08	0.00	0.08	20.	*	9		0500	198	0.17	0.00	0.17	11.
3		0000	49	0.08	0.00	0.08	20.	*	9		0600	199	0.17	0.00	0.17	16.
3		0100	50	0.00	0.00	0.00	20.	*	9		0700	200	0.17	0.00	0.17	21.
3		0200	51	0.00	0.00	0.00	20.	*	9		0800	201	0.17	0.00	0.17	25.
3		0300	52	0.00	0.00	0.00	19.	*	9		0900	202	0.17	0.00	0.17	29.
3		0400	53	0.00	0.00	0.00	17.	*	9		1000	203	0.17	0.00	0.17	32.
3		0500	54	0.00	0.00	0.00	15.	*	9		1100	204	0.17	0.00	0.17	34.

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FORM 1411 GU

3	0600	55	0.00	0.00	0.00	13.	*	9	1200	205	0.17	0.00	0.17	36.
3	0700	56	0.00	0.00	0.00	11.	*	9	1300	206	0.17	0.00	0.17	37.
3	0800	57	0.00	0.00	0.00	9.	*	9	1400	207	0.17	0.00	0.17	38.
3	0900	58	0.00	0.00	0.00	7.	*	9	1500	208	0.17	0.00	0.17	39.
3	1000	59	0.00	0.00	0.00	6.	*	9	1600	209	0.17	0.00	0.17	39.
3	1100	60	0.00	0.00	0.00	5.	*	9	1700	210	0.17	0.00	0.17	40.
3	1200	61	0.00	0.00	0.00	4.	*	9	1800	211	0.17	0.00	0.17	40.
3	1300	62	0.00	0.00	0.00	4.	*	9	1900	212	0.17	0.00	0.17	41.
3	1400	63	0.00	0.00	0.00	4.	*	9	2000	213	0.17	0.00	0.17	41.
3	1500	64	0.00	0.00	0.00	4.	*	9	2100	214	0.17	0.00	0.17	41.
3	1600	65	0.00	0.00	0.00	4.	*	9	2200	215	0.17	0.00	0.17	41.
3	1700	66	0.00	0.00	0.00	4.	*	9	2300	216	0.17	0.00	0.17	41.
3	1800	67	0.00	0.00	0.00	4.	*	10	0000	217	0.17	0.00	0.17	41.
3	1900	68	0.00	0.00	0.00	4.	*	10	0100	218	0.01	0.00	0.01	41.
3	2000	69	0.00	0.00	0.00	4.	*	10	0200	219	0.01	0.00	0.01	40.
3	2100	70	0.00	0.00	0.00	4.	*	10	0300	220	0.01	0.00	0.01	38.
3	2200	71	0.00	0.00	0.00	4.	*	10	0400	221	0.01	0.00	0.01	35.
3	2300	72	0.00	0.00	0.00	4.	*	10	0500	222	0.01	0.00	0.01	31.
4	0000	73	0.00	0.00	0.00	4.	*	10	0600	223	0.01	0.00	0.01	27.
4	0100	74	0.00	0.00	0.00	4.	*	10	0700	224	0.01	0.00	0.01	22.
4	0200	75	0.00	0.00	0.00	4.	*	10	0800	225	0.01	0.00	0.01	18.
4	0300	76	0.00	0.00	0.00	4.	*	10	0900	226	0.01	0.00	0.01	15.
4	0400	77	0.00	0.00	0.00	4.	*	10	1000	227	0.01	0.00	0.01	12.
4	0500	78	0.00	0.00	0.00	4.	*	10	1100	228	0.01	0.00	0.01	10.
4	0600	79	0.00	0.00	0.00	4.	*	10	1200	229	0.01	0.00	0.01	8.
4	0700	80	0.00	0.00	0.00	4.	*	10	1300	230	0.01	0.00	0.01	8.
4	0800	81	0.00	0.00	0.00	4.	*	10	1400	231	0.01	0.00	0.01	8.
4	0900	82	0.00	0.00	0.00	4.	*	10	1500	232	0.01	0.00	0.01	8.
4	1000	83	0.00	0.00	0.00	4.	*	10	1600	233	0.01	0.00	0.01	8.
4	1100	84	0.00	0.00	0.00	4.	*	10	1700	234	0.01	0.00	0.01	8.
4	1200	85	0.00	0.00	0.00	4.	*	10	1800	235	0.01	0.00	0.01	8.
4	1300	86	0.00	0.00	0.00	4.	*	10	1900	236	0.01	0.00	0.01	8.
4	1400	87	0.00	0.00	0.00	4.	*	10	2000	237	0.01	0.00	0.01	8.
4	1500	88	0.00	0.00	0.00	4.	*	10	2100	238	0.01	0.00	0.01	8.
4	1600	89	0.00	0.00	0.00	4.	*	10	2200	239	0.01	0.00	0.01	8.
4	1700	90	0.00	0.00	0.00	4.	*	10	2300	240	0.01	0.00	0.01	8.
4	1800	91	0.00	0.00	0.00	4.	*	11	0000	241	0.01	0.00	0.01	8.
4	1900	92	0.00	0.00	0.00	4.	*	11	0100	242	0.00	0.00	0.00	8.
4	2000	93	0.00	0.00	0.00	4.	*	11	0200	243	0.00	0.00	0.00	8.
4	2100	94	0.00	0.00	0.00	4.	*	11	0300	244	0.00	0.00	0.00	8.
4	2200	95	0.00	0.00	0.00	4.	*	11	0400	245	0.00	0.00	0.00	8.
4	2300	96	0.00	0.00	0.00	4.	*	11	0500	246	0.00	0.00	0.00	8.
5	0000	97	0.00	0.00	0.00	4.	*	11	0600	247	0.00	0.00	0.00	8.
5	0100	98	0.01	0.00	0.01	4.	*	11	0700	248	0.00	0.00	0.00	8.
5	0200	99	0.01	0.00	0.01	4.	*	11	0800	249	0.00	0.00	0.00	8.
5	0300	100	0.01	0.00	0.01	4.	*	11	0900	250	0.00	0.00	0.00	8.
5	0400	101	0.01	0.00	0.01	4.	*	11	1000	251	0.00	0.00	0.00	8.
5	0500	102	0.01	0.00	0.01	4.	*	11	1100	252	0.00	0.00	0.00	8.
5	0600	103	0.01	0.00	0.01	4.	*	11	1200	253	0.00	0.00	0.00	8.
5	0700	104	0.01	0.00	0.01	4.	*	11	1300	254	0.00	0.00	0.00	8.
5	0800	105	0.01	0.00	0.01	4.	*	11	1400	255	0.00	0.00	0.00	8.
5	0900	106	0.01	0.00	0.01	4.	*	11	1500	256	0.00	0.00	0.00	8.
5	1000	107	0.01	0.00	0.01	4.	*	11	1600	257	0.00	0.00	0.00	8.
5	1100	108	0.01	0.00	0.01	4.	*	11	1700	258	0.00	0.00	0.00	8.
5	1200	109	0.01	0.00	0.01	4.	*	11	1800	259	0.00	0.00	0.00	8.
5	1300	110	0.01	0.00	0.01	4.	*	11	1900	260	0.00	0.00	0.00	8.
5	1400	111	0.01	0.00	0.01	4.	*	11	2000	261	0.00	0.00	0.00	8.
5	1500	112	0.01	0.00	0.01	4.	*	11	2100	262	0.00	0.00	0.00	8.
5	1600	113	0.01	0.00	0.01	4.	*	11	2200	263	0.00	0.00	0.00	8.
5	1700	114	0.01	0.00	0.01	4.	*	11	2300	264	0.00	0.00	0.00	8.
5	1800	115	0.01	0.00	0.01	4.	*	12	0000	265	0.00	0.00	0.00	8.
5	1900	116	0.01	0.00	0.01	4.	*	12	0100	266	0.00	0.00	0.00	8.
5	2000	117	0.01	0.00	0.01	4.	*	12	0200	267	0.00	0.00	0.00	8.
5	2100	118	0.01	0.00	0.01	4.	*	12	0300	268	0.00	0.00	0.00	8.
5	2200	119	0.01	0.00	0.01	4.	*	12	0400	269	0.00	0.00	0.00	8.
5	2300	120	0.01	0.00	0.01	4.	*	12	0500	270	0.00	0.00	0.00	8.

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6	0000	121	0.01	0.00	0.01	4.	*	12	0600	271	0.00	0.00	0.00	8.
6	0100	122	0.01	0.00	0.01	4.	*	12	0700	272	0.00	0.00	0.00	8.
6	0200	123	0.01	0.00	0.01	4.	*	12	0800	273	0.00	0.00	0.00	8.
6	0300	124	0.01	0.00	0.01	4.	*	12	0900	274	0.00	0.00	0.00	8.
6	0400	125	0.01	0.00	0.01	4.	*	12	1000	275	0.00	0.00	0.00	8.
6	0500	126	0.01	0.00	0.01	4.	*	12	1100	276	0.00	0.00	0.00	8.
6	0600	127	0.01	0.00	0.01	4.	*	12	1200	277	0.00	0.00	0.00	8.
6	0700	128	0.01	0.00	0.01	4.	*	12	1300	278	0.00	0.00	0.00	7.
6	0800	129	0.01	0.00	0.01	4.	*	12	1400	279	0.00	0.00	0.00	7.
6	0900	130	0.01	0.00	0.01	3.	*	12	1500	280	0.00	0.00	0.00	7.
6	1000	131	0.01	0.00	0.01	3.	*	12	1600	281	0.00	0.00	0.00	7.
6	1100	132	0.01	0.00	0.01	3.	*	12	1700	282	0.00	0.00	0.00	7.
6	1200	133	0.01	0.00	0.01	3.	*	12	1800	283	0.00	0.00	0.00	7.
6	1300	134	0.01	0.00	0.01	3.	*	12	1900	284	0.00	0.00	0.00	7.
6	1400	135	0.01	0.00	0.01	3.	*	12	2000	285	0.00	0.00	0.00	7.
6	1500	136	0.01	0.00	0.01	3.	*	12	2100	286	0.00	0.00	0.00	7.
6	1600	137	0.01	0.00	0.01	3.	*	12	2200	287	0.00	0.00	0.00	7.
6	1700	138	0.01	0.00	0.01	3.	*	12	2300	288	0.00	0.00	0.00	7.
6	1800	139	0.01	0.00	0.01	3.	*	13	0000	289	0.00	0.00	0.00	7.
6	1900	140	0.01	0.00	0.01	3.	*	13	0100	290	0.00	0.00	0.00	7.
6	2000	141	0.01	0.00	0.01	3.	*	13	0200	291	0.00	0.00	0.00	7.
6	2100	142	0.01	0.00	0.01	3.	*	13	0300	292	0.00	0.00	0.00	7.
6	2200	143	0.01	0.00	0.01	3.	*	13	0400	293	0.00	0.00	0.00	7.
6	2300	144	0.01	0.00	0.01	3.	*	13	0500	294	0.00	0.00	0.00	7.
7	0000	145	0.01	0.00	0.01	3.	*	13	0600	295	0.00	0.00	0.00	7.
7	0100	146	0.00	0.00	0.00	3.	*	13	0700	296	0.00	0.00	0.00	7.
7	0200	147	0.00	0.00	0.00	3.	*	13	0800	297	0.00	0.00	0.00	7.
7	0300	148	0.00	0.00	0.00	3.	*	13	0900	298	0.00	0.00	0.00	7.
7	0400	149	0.00	0.00	0.00	3.	*	13	1000	299	0.00	0.00	0.00	7.
7	0500	150	0.00	0.00	0.00	3.	*	13	1100	300	0.00	0.00	0.00	7.

****

TOTAL RAINFALL = 7.30, TOTAL LOSS = 0.24, TOTAL EXCESS = 7.06

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	299.00-HR
41.	216.00	(CFS)	41.	36.	18.	8.
		(INCHES)	1.032	3.637	5.433	10.482
		(AC-FT)	20.	72.	107.	207.

CUMULATIVE AREA = 0.37 SQ MI

STATIO: SUB2

PRINTED IN U.S.A.
PINE TREE PRODUCTS - DIVISION OF ROTARY MULTIFORMS, INC
FORM 1411 GR

*** ***

22 KK

COMBINE SUB1 & 2

24 HC HYDROGRAPH COMBINATION

ICOMP 2 NUMBER OF HYDROGRAPHS TO COMBINE

***

HYDROGRAPH AT STATION
SUM OF 2 HYDROGRAPHS

DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW
1		0000	1	1.	*	4		0300	76	5.	*	7		0600	151	4.	*	10		0900	226	31.
1		0100	2	1.	*	4		0400	77	5.	*	7		0700	152	4.	*	10		1000	227	25.
1		0200	3	1.	*	4		0500	78	5.	*	7		0800	153	4.	*	10		1100	228	21.
1		0300	4	1.	*	4		0600	79	5.	*	7		0900	154	4.	*	10		1200	229	18.
1		0400	5	1.	*	4		0700	80	5.	*	7		1000	155	4.	*	10		1300	230	17.
1		0500	6	1.	*	4		0800	81	5.	*	7		1100	156	4.	*	10		1400	231	17.
1		0600	7	1.	*	4		0900	82	5.	*	7		1200	157	4.	*	10		1500	232	17.
1		0700	8	1.	*	4		1000	83	5.	*	7		1300	158	4.	*	10		1600	233	17.
1		0800	9	1.	*	4		1100	84	5.	*	7		1400	159	4.	*	10		1700	234	17.
1		0900	10	1.	*	4		1200	85	5.	*	7		1500	160	4.	*	10		1800	235	16.
1		1000	11	1.	*	4		1300	86	5.	*	7		1600	161	4.	*	10		1900	236	16.
1		1100	12	1.	*	4		1400	87	5.	*	7		1700	162	4.	*	10		2000	237	16.
1		1200	13	1.	*	4		1500	88	5.	*	7		1800	163	4.	*	10		2100	238	16.
1		1300	14	1.	*	4		1600	89	5.	*	7		1900	164	4.	*	10		2200	239	16.
1		1400	15	1.	*	4		1700	90	4.	*	7		2000	165	4.	*	10		2300	240	16.
1		1500	16	2.	*	4		1800	91	4.	*	7		2100	166	4.	*	11		0000	241	16.
1		1600	17	2.	*	4		1900	92	4.	*	7		2200	167	4.	*	11		0100	242	16.
1		1700	18	2.	*	4		2000	93	4.	*	7		2300	168	4.	*	11		0200	243	16.
1		1800	19	2.	*	4		2100	94	4.	*	8		0000	169	4.	*	11		0300	244	16.
1		1900	20	2.	*	4		2200	95	4.	*	8		0100	170	4.	*	11		0400	245	16.
1		2000	21	2.	*	4		2300	96	4.	*	8		0200	171	4.	*	11		0500	246	16.
1		2100	22	2.	*	5		0000	97	4.	*	8		0300	172	4.	*	11		0600	247	16.
1		2200	23	2.	*	5		0100	98	4.	*	8		0400	173	4.	*	11		0700	248	16.
1		2300	24	2.	*	5		0200	99	4.	*	8		0500	174	4.	*	11		0800	249	16.
2		0000	25	2.	*	5		0300	100	4.	*	8		0600	175	4.	*	11		0900	250	16.
2		0100	26	2.	*	5		0400	101	4.	*	8		0700	176	4.	*	11		1000	251	16.
2		0200	27	3.	*	5		0500	102	5.	*	8		0800	177	4.	*	11		1100	252	16.
2		0300	28	3.	*	5		0600	103	5.	*	8		0900	178	4.	*	11		1200	253	16.
2		0400	29	5.	*	5		0700	104	5.	*	8		1000	179	4.	*	11		1300	254	16.
2		0500	30	6.	*	5		0800	105	5.	*	8		1100	180	4.	*	11		1400	255	16.
2		0600	31	8.	*	5		0900	106	5.	*	8		1200	181	4.	*	11		1500	256	16.
2		0700	32	10.	*	5		1000	107	5.	*	8		1300	182	4.	*	11		1600	257	16.
2		0800	33	12.	*	5		1100	108	5.	*	8		1400	183	4.	*	11		1700	258	16.
2		0900	34	14.	*	5		1200	109	5.	*	8		1500	184	4.	*	11		1800	259	16.
2		1000	35	15.	*	5		1300	110	5.	*	8		1600	185	4.	*	11		1900	260	16.
2		1100	36	16.	*	5		1400	111	5.	*	8		1700	186	4.	*	11		2000	261	16.
2		1200	37	17.	*	5		1500	112	5.	*	8		1800	187	4.	*	11		2100	262	16.
2		1300	38	18.	*	5		1600	113	5.	*	8		1900	188	4.	*	11		2200	263	16.
2		1400	39	18.	*	5		1700	114	5.	*	8		2000	189	4.	*	11		2300	264	16.

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	2	1500	40	19.	*	5	1800	115	5.	*	8	2100	190	4.	*	12	0000	265	16.
	2	1600	41	19.	*	5	1900	116	5.	*	8	2200	191	4.	*	12	0100	266	15.
	2	1700	42	20.	*	5	2000	117	5.	*	8	2300	192	4.	*	12	0200	267	15.
	2	1800	43	20.	*	5	2100	118	5.	*	9	0000	193	4.	*	12	0300	268	15.
	2	1900	44	20.	*	5	2200	119	5.	*	9	0100	194	4.	*	12	0400	269	15.
	2	2000	45	20.	*	5	2300	120	5.	*	9	0200	195	4.	*	12	0500	270	15.
1	2	2100	46	20.	*	6	0000	121	5.	*	9	0300	196	6.	*	12	0600	271	15.
2	2	2200	47	21.	*	6	0100	122	5.	*	9	0400	197	11.	*	12	0700	272	15.
3	2	2300	48	21.	*	6	0200	123	5.	*	9	0500	198	17.	*	12	0800	273	15.
4	3	0000	49	21.	*	6	0300	124	5.	*	9	0600	199	24.	*	12	0900	274	15.
5	3	0100	50	21.	*	6	0400	125	5.	*	9	0700	200	32.	*	12	1000	275	15.
6	3	0200	51	21.	*	6	0500	126	5.	*	9	0800	201	39.	*	12	1100	276	15.
7	3	0300	52	20.	*	6	0600	127	5.	*	9	0900	202	45.	*	12	1200	277	15.
8	3	0400	53	19.	*	6	0700	128	5.	*	9	1000	203	51.	*	12	1300	278	15.
9	3	0500	54	17.	*	6	0800	129	5.	*	9	1100	204	55.	*	12	1400	279	15.
10	3	0600	55	15.	*	6	0900	130	5.	*	9	1200	205	59.	*	12	1500	280	15.
11	3	0700	56	13.	*	6	1000	131	5.	*	9	1300	206	62.	*	12	1600	281	15.
12	3	0800	57	10.	*	6	1100	132	5.	*	9	1400	207	65.	*	12	1700	282	15.
13	3	0900	58	8.	*	6	1200	133	5.	*	9	1500	208	68.	*	12	1800	283	15.
14	3	1000	59	7.	*	6	1300	134	5.	*	9	1600	209	70.	*	12	1900	284	15.
15	3	1100	60	6.	*	6	1400	135	5.	*	9	1700	210	72.	*	12	2000	285	15.
16	3	1200	61	5.	*	6	1500	136	5.	*	9	1800	211	74.	*	12	2100	286	15.
17	3	1300	62	5.	*	6	1600	137	5.	*	9	1900	212	76.	*	12	2200	287	15.
18	3	1400	63	5.	*	6	1700	138	5.	*	9	2000	213	77.	*	12	2300	288	15.
19	3	1500	64	5.	*	6	1800	139	5.	*	9	2100	214	79.	*	13	0000	289	15.
20	3	1600	65	5.	*	6	1900	140	5.	*	9	2200	215	80.	*	13	0100	290	15.
21	3	1700	66	5.	*	6	2000	141	5.	*	9	2300	216	81.	*	13	0200	291	15.
22	3	1800	67	5.	*	6	2100	142	5.	*	10	0000	217	83.	*	13	0300	292	15.
23	3	1900	68	5.	*	6	2200	143	5.	*	10	0100	218	83.	*	13	0400	293	15.
24	3	2000	69	5.	*	6	2300	144	5.	*	10	0200	219	82.	*	13	0500	294	15.
25	3	2100	70	5.	*	7	0000	145	5.	*	10	0300	220	79.	*	13	0600	295	15.
26	3	2200	71	5.	*	7	0100	146	5.	*	10	0400	221	73.	*	13	0700	296	15.
27	3	2300	72	5.	*	7	0200	147	5.	*	10	0500	222	65.	*	13	0800	297	15.
28	4	0000	73	5.	*	7	0300	148	5.	*	10	0600	223	56.	*	13	0900	298	15.
29	4	0100	74	5.	*	7	0400	149	5.	*	10	0700	224	47.	*	13	1000	299	14.
30	4	0200	75	5.	*	7	0500	150	5.	*	10	0800	225	39.	*	13	1100	300	14.
31					*					*					*				

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PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	299.00-HR
83.	217.00	(CFS)	81.	68.	34.	14.
		(INCHES)	0.701	2.330	3.544	5.862
		(AC-FT)	40.	134.	204.	338.

CUMULATIVE AREA = 1.03 SQ MI

STATION

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                ************
                *          *
25 XX           *          *
                *          *
                ************
                          ROUTED OUTFLOW SILVER LAKE

                     HYDROGRAPH ROUTING DATA

27 RS              STORAGE ROUTING
                        NSTPS          1  NUMBER OF SUBREACHES
                         ITYP       ELEV  TYPE OF INITIAL CONDITION
                       RSVRIC     875.00  INITIAL CONDITION
                            X       0.00  WORKING R AND D COEFFICIENT

29 SV                 STORAGE        0.0       95.4      195.0      245.5

30 SE                 ELEVATION   875.00    875.40    875.80    876.00

28 SQ                 DISCHARGE      3.        4.        5.        5.
                                                                    ***
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PINE TREE PRODUCTS DIVISION OF RO

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HYDROGRAPH AT STATION

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DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	*	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	*	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE
1		0000	1	3.	0.0	875.0	*	5		0400	101	3.	39.1	875.2	*	9		0800	201	3.	55.7	875.2
1		0100	2	2.	-0.1	875.0	*	5		0500	102	3.	39.3	875.2	*	9		0900	202	3.	58.9	875.2
1		0200	3	2.	-0.1	875.0	*	5		0600	103	3.	39.4	875.2	*	9		1000	203	3.	62.6	875.3
1		0300	4	2.	-0.1	875.0	*	5		0700	104	3.	39.5	875.2	*	9		1100	204	4.	66.7	875.3
1		0400	5	2.	-0.1	875.0	*	5		0800	105	3.	39.6	875.2	*	9		1200	205	4.	71.1	875.3
1		0500	6	2.	-0.1	875.0	*	5		0900	106	3.	39.8	875.2	*	9		1300	206	4.	75.8	875.3
1		0600	7	2.	-0.1	875.0	*	5		1000	107	3.	39.9	875.2	*	9		1400	207	4.	80.8	875.3
1		0700	8	2.	-0.1	875.0	*	5		1100	108	3.	40.0	875.2	*	9		1500	208	4.	86.0	875.4
1		0800	9	2.	-0.1	875.0	*	5		1200	109	3.	40.2	875.2	*	9		1600	209	4.	91.4	875.4
1		0900	10	2.	-0.1	875.0	*	5		1300	110	3.	40.3	875.2	*	9		1700	210	4.	97.0	875.4
1		1000	11	2.	-0.1	875.0	*	5		1400	111	3.	40.4	875.2	*	9		1800	211	4.	102.7	875.4
1		1100	12	2.	-0.1	875.0	*	5		1500	112	3.	40.6	875.2	*	9		1900	212	4.	108.5	875.5
1		1200	13	2.	-0.1	875.0	*	5		1600	113	3.	40.7	875.2	*	9		2000	213	4.	114.5	875.5
1		1300	14	2.	-0.1	875.0	*	5		1700	114	3.	40.9	875.2	*	9		2100	214	4.	120.6	875.5
1		1400	15	2.	-0.1	875.0	*	5		1800	115	3.	41.0	875.2	*	9		2200	215	4.	126.8	875.5
1		1500	16	2.	-0.1	875.0	*	5		1900	116	3.	41.1	875.2	*	9		2300	216	4.	133.2	875.6
1		1600	17	2.	-0.1	875.0	*	5		2000	117	3.	41.3	875.2	*	10		0000	217	4.	139.6	875.6
1		1700	18	2.	-0.1	875.0	*	5		2100	118	3.	41.4	875.2	*	10		0100	218	4.	146.1	875.6
1		1800	19	2.	-0.1	875.0	*	5		2200	119	3.	41.6	875.2	*	10		0200	219	4.	152.5	875.6
1		1900	20	2.	-0.1	875.0	*	5		2300	120	3.	41.7	875.2	*	10		0300	220	4.	158.8	875.7
1		2000	21	2.	-0.1	875.0	*	6		0000	121	3.	41.8	875.2	*	10		0400	221	4.	164.8	875.7
1		2100	22	2.	-0.1	875.0	*	6		0100	122	3.	42.0	875.2	*	10		0500	222	5.	170.1	875.7
1		2200	23	2.	-0.1	875.0	*	6		0200	123	3.	42.1	875.2	*	10		0600	223	5.	174.8	875.7
1		2300	24	2.	-0.1	875.0	*	6		0300	124	3.	42.3	875.2	*	10		0700	224	5.	178.7	875.7
2		0000	25	2.	-0.1	875.0	*	6		0400	125	3.	42.4	875.2	*	10		0800	225	5.	181.8	875.7
2		0100	26	2.	-0.1	875.0	*	6		0500	126	3.	42.5	875.2	*	10		0900	226	5.	184.4	875.8
2		0200	27	2.	-0.1	875.0	*	6		0600	127	3.	42.7	875.2	*	10		1000	227	5.	186.3	875.8
2		0300	28	2.	0.0	875.0	*	6		0700	128	3.	42.8	875.2	*	10		1100	228	5.	187.8	875.8
2		0400	29	3.	0.1	875.0	*	6		0800	129	3.	42.9	875.2	*	10		1200	229	5.	189.0	875.8

	2	0500	39	3.	0.3	875.0	*	6	0900	130	3.	43.1	875.2	*	10	1300	230	5.	190.1	875.8
	2	0600	31	3.	0.7	875.0	*	6	1000	131	3.	43.2	875.2	*	10	1400	231	5.	191.1	875.8
	2	0700	32	3.	1.3	875.0	*	6	1100	132	3.	43.3	875.2	*	10	1500	232	5.	192.0	875.8
	2	0800	33	3.	2.0	875.0	*	6	1200	133	3.	43.5	875.2	*	10	1600	233	5.	193.0	875.8
	2	0900	34	3.	2.9	875.0	*	6	1300	134	3.	43.6	875.2	*	10	1700	234	5.	194.0	875.8
	2	1000	35	3.	3.8	875.0	*	6	1400	135	3.	43.7	875.2	*	10	1800	235	5.	195.0	875.8
1	2	1100	36	3.	4.9	875.0	*	6	1500	136	3.	43.8	875.2	*	10	1900	236	5.	195.9	875.8
2	2	1200	37	3.	5.1	875.0	*	6	1600	137	3.	44.0	875.2	*	10	2000	237	5.	196.9	875.8
3	2	1300	38	3.	7.3	875.0	*	6	1700	138	3.	44.1	875.2	*	10	2100	238	5.	197.9	875.8
4	2	1400	39	3.	8.6	875.0	*	6	1800	139	3.	44.2	875.2	*	10	2200	239	5.	198.8	875.8
5	2	1500	40	3.	9.9	875.0	*	6	1900	140	3.	44.3	875.2	*	10	2300	240	5.	199.8	875.8
6	2	1600	41	3.	11.3	875.0	*	6	2000	141	3.	44.5	875.2	*	11	0000	241	5.	200.7	875.8
7	2	1700	42	3.	12.7	875.1	*	6	2100	142	3.	44.6	875.2	*	11	0100	242	5.	201.7	875.8
8	2	1800	43	3.	14.1	875.1	*	6	2200	143	3.	44.7	875.2	*	11	0200	243	5.	202.6	875.8
9	2	1900	44	3.	15.5	875.1	*	6	2300	144	3.	44.8	875.2	*	11	0300	244	5.	203.6	875.8
10	2	2000	45	3.	17.0	875.1	*	7	0000	145	3.	44.9	875.2	*	11	0400	245	5.	204.5	875.8
11	2	2100	46	3.	18.4	875.1	*	7	0100	146	3.	45.1	875.2	*	11	0500	246	5.	205.5	875.8
12	2	2200	47	3.	19.9	875.1	*	7	0200	147	3.	45.2	875.2	*	11	0600	247	5.	206.4	875.8
13	2	2300	48	3.	21.4	875.1	*	7	0300	148	3.	45.3	875.2	*	11	0700	248	5.	207.3	875.8
14	3	0000	49	3.	22.9	875.1	*	7	0400	149	3.	45.4	875.2	*	11	0800	249	5.	208.3	875.9
15	3	0100	50	3.	24.4	875.1	*	7	0500	150	3.	45.5	875.2	*	11	0900	250	5.	209.2	875.9
16	3	0200	51	3.	25.9	875.1	*	7	0600	151	3.	45.6	875.2	*	11	1000	251	5.	210.1	875.9
17	3	0300	52	3.	27.4	875.1	*	7	0700	152	3.	45.7	875.2	*	11	1100	252	5.	211.0	875.9
18	3	0400	53	3.	28.8	875.1	*	7	0800	153	3.	45.8	875.2	*	11	1200	253	5.	212.0	875.9
19	3	0500	54	3.	30.0	875.1	*	7	0900	154	3.	45.9	875.2	*	11	1300	254	5.	212.9	875.9
20	3	0600	55	3.	31.1	875.1	*	7	1000	155	3.	46.0	875.2	*	11	1400	255	5.	213.8	875.9
21	3	0700	56	3.	32.0	875.1	*	7	1100	156	3.	46.1	875.2	*	11	1500	256	5.	214.7	875.9
22	3	0800	57	3.	32.7	875.1	*	7	1200	157	3.	46.1	875.2	*	11	1600	257	5.	215.6	875.9
23	3	0900	58	3.	33.2	875.1	*	7	1300	158	3.	46.2	875.2	*	11	1700	258	5.	216.5	875.9
24	3	1000	59	3.	33.6	875.1	*	7	1400	159	3.	46.3	875.2	*	11	1800	259	5.	217.4	875.9
25	3	1100	60	3.	33.9	875.1	*	7	1500	160	3.	46.3	875.2	*	11	1900	260	5.	218.3	875.9
26	3	1200	61	3.	34.0	875.1	*	7	1600	161	3.	46.4	875.2	*	11	2000	261	5.	219.2	875.9
27	3	1300	62	3.	34.2	875.1	*	7	1700	162	3.	46.5	875.2	*	11	2100	262	5.	220.1	875.9
28	3	1400	63	3.	34.4	875.1	*	7	1800	163	3.	46.5	875.2	*	11	2200	263	5.	221.0	875.9
29	3	1500	64	3.	34.5	875.1	*	7	1900	164	3.	46.6	875.2	*	11	2300	264	5.	221.9	875.9
30	3	1600	65	3.	34.7	875.1	*	7	2000	165	3.	46.7	875.2	*	12	0000	265	5.	222.7	875.9
31	3	1700	66	3.	34.8	875.1	*	7	2100	166	3.	46.7	875.2	*	12	0100	266	5.	223.6	875.9
32	3	1800	67	3.	35.0	875.1	*	7	2200	167	3.	46.8	875.2	*	12	0200	267	5.	224.5	875.9
33	3	1900	68	3.	35.1	875.1	*	7	2300	168	3.	46.9	875.2	*	12	0300	268	5.	225.4	875.9
34	3	2000	69	3.	35.2	875.1	*	8	0000	169	3.	46.9	875.2	*	12	0400	269	5.	226.2	875.9
35	3	2100	70	3.	35.4	875.1	*	8	0100	170	3.	47.0	875.2	*	12	0500	270	5.	227.1	875.9
36	3	2200	71	3.	35.5	875.1	*	8	0200	171	3.	47.0	875.2	*	12	0600	271	5.	228.0	875.9
37	3	2300	72	3.	35.7	875.1	*	8	0300	172	3.	47.1	875.2	*	12	0700	272	5.	228.8	875.9
38	4	0000	73	3.	35.8	875.1	*	8	0400	173	3.	47.1	875.2	*	12	0800	273	5.	229.7	875.9
39	4	0100	74	3.	35.9	875.2	*	8	0500	174	3.	47.2	875.2	*	12	0900	274	5.	230.5	875.9
40	4	0200	75	3.	36.1	875.2	*	8	0600	175	3.	47.2	875.2	*	12	1000	275	5.	231.4	875.9
41	4	0300	76	3.	36.2	875.2	*	8	0700	176	3.	47.3	875.2	*	12	1100	276	5.	232.2	875.9
42	4	0400	77	3.	36.3	875.2	*	8	0800	177	3.	47.3	875.2	*	12	1200	277	5.	233.1	876.0
43	4	0500	78	3.	36.5	875.2	*	8	0900	179	3.	47.4	875.2	*	12	1300	278	5.	233.9	876.0
44	4	0600	79	3.	36.6	875.2	*	8	1000	179	3.	47.4	875.2	*	12	1400	279	5.	234.8	876.0
45	4	0700	80	3.	36.7	875.2	*	8	1100	180	3.	47.5	875.2	*	12	1500	280	5.	235.6	876.0
46	4	0800	81	3.	36.8	875.2	*	8	1200	181	3.	47.5	875.2	*	12	1600	281	5.	236.4	876.0
47	4	0900	82	3.	37.0	875.2	*	8	1300	182	3.	47.6	875.2	*	12	1700	282	5.	237.3	876.0
48	4	1000	83	3.	37.1	875.2	*	8	1400	183	3.	47.6	875.2	*	12	1800	283	5.	238.1	876.0
49	4	1100	84	3.	37.2	875.2	*	8	1500	184	3.	47.7	875.2	*	12	1900	284	5.	238.9	876.0
50	4	1200	85	3.	37.3	875.2	*	8	1600	185	3.	47.7	875.2	*	12	2000	285	5.	239.7	876.0
51	4	1300	86	3.	37.4	875.2	*	8	1700	186	3.	47.8	875.2	*	12	2100	286	5.	240.6	876.0
52	4	1400	87	3.	37.6	875.2	*	8	1800	187	3.	47.8	875.2	*	12	2200	287	5.	241.4	876.0
53	4	1500	88	3.	37.7	875.2	*	8	1900	188	3.	47.8	875.2	*	12	2300	288	5.	242.2	876.0
54	4	1600	89	3.	37.8	875.2	*	8	2000	189	3.	47.9	875.2	*	13	0000	289	5.	243.0	876.0
55	4	1700	90	3.	37.9	875.2	*	8	2100	190	3.	47.9	875.2	*	13	0100	290	5.	243.8	876.0
56	4	1800	91	3.	38.0	875.2	*	8	2200	191	3.	48.0	875.2	*	13	0200	291	5.	244.6	876.0
57	4	1900	92	3.	38.1	875.2	*	8	2300	192	3.	48.0	875.2	*	13	0300	292	5.	245.4	876.0
	4	2000	93	3.	38.3	875.2	*	9	0000	193	3.	48.0	875.2	*	13	0400	293	5.	246.2	876.0
	4	2100	94	3.	38.4	875.2	*	9	0100	194	3.	48.1	875.2	*	13	0500	294	5.	247.0	876.0
	4	2200	95	3.	38.5	875.2	*	9	0200	195	3.	48.2	875.2	*	13	0600	295	5.	247.8	876.0

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4	2300	96	3.	38.6	875.2	*	9	0300	196	3.	48.3	875.2	*	13	0700	296	5.	248.6	876.0
5	0000	97	3.	38.7	875.2	*	9	0400	197	3.	48.7	875.2	*	13	0800	297	5.	249.4	876.0
5	0100	98	3.	38.8	875.2	*	9	0500	198	3.	49.6	875.2	*	13	0900	298	5.	250.2	876.0
5	0200	99	3.	38.9	875.2	*	9	0600	199	3.	51.0	875.2	*	13	1000	299	5.	251.0	876.0
5	0300	100	3.	39.0	875.2	*	9	0700	200	3.	53.1	875.2	*	13	1100	300	5.	251.7	876.0

****

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
(CFS)	(HR)		6-HR	24-HR	72-HR	299.00-HR
5.	299.00	(CFS)	5.	5.	5.	4.
		(INCHES)	0.043	0.171	0.502	1.526
		(AC-FT)	2.	10.	29.	88.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
(AC-FT)	(HR)	6-HR	24-HR	72-HR	299.00-HR
252.	299.00	249.	242.	221.	86.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
(FEET)	(HR)	6-HR	24-HR	72-HR	299.00-HR
876.02	299.00	875.85	875.95	875.89	875.33

CUMULATIVE AREA = 1.08 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	SUB1	42.	217.00	41.	32.	16.	0.71		
HYDROGRAPH AT	SUB2	41.	216.00	41.	36.	18.	0.37		
2 COMBINED AT		83.	217.00	81.	68.	34.	1.08		
ROUTED TO		5.	299.00	5.	5.	5.	1.08	876.02	299.00

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

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LINE      ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10
    1     ID    DEXTER TWP. FIS ---SILVER LAKE---
    2     ID    BY JWG (MDNR) 2/85    DEXTER DATA A   10 DAY DIST.
*** FREE ***
    3     IT      60       0       0     300
    4     IO       1       2       0
    5     KK    SUB1
    6     KM    SILVER LAKE INFLOW
    7     BA    1.08
    8     LS       0      52
    9     BF      -1    -.2   1.002
   10     UB    6.02
   11     PB    7.30
   12     IN    1440       0       0
   13     PC   0.000   0.030   0.308   0.318   0.325   0.360   0.388   0.395   0.400   0.970
   14     PC    1.00
   15     KK
   16     KM    ROUTED OUTFLOW SILVER LAKE
   17     RS       1    ELEV   875.0
   18     SQ     2.5     4.0     4.7     5.0
   19     SV     0.0    95.4   195.0   245.5
   20     SE   875.0   875.4   875.8   876.0
   21     ZZ
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FORM 1411 GD

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**************************************
*                                    *
*   FLOOD HYDROGRAPH PACKAGE (HEC-1) *
*         FEBRUARY 1981              *
*       REVISED 30 OCT 81            *
*                                    *
*  RUN DATE          TIME            *
*                                    *
**************************************
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**************************************
*                                    *
*    U.S. ARMY CORPS OF ENGINEERS    *
*  THE HYDROLOGIC ENGINEERING CENTER *
*        609 SECOND STREET           *
*      DAVIS, CALIFORNIA 95616       *
*  (916) 440-3285 OR (FTS) 448-3285  *
*                                    *
**************************************
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```
DEXTER TWP. FIS ---SILVER LAKE---
BY JWG (HDWR) 2/85    DEXTER DATA A    10 DAY DIST.

 4 IO          OUTPUT CONTROL VARIABLES
                 IPRNT        1  PRINT CONTROL
                 IPLOT        2  PLOT CONTROL
                 QSCAL       0.  HYDROGRAPH PLOT SCALE

 IT          HYDROGRAPH TIME DATA
                 NMIN        60  MINUTES IN COMPUTATION INTERVAL
                 IDATE    1   0  STARTING DATE
                 ITIME     0000  STARTING TIME
                    NQ      300  NUMBER OF HYDROGRAPH ORDINATES
                 NDDATE   13   0  ENDING DATE
                 NDTIME    1100  ENDING TIME

               COMPUTATION INTERVAL     1.00 HOURS
               TOTAL TIME BASE   299.00 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       *     SUB1   *
            *            *
            **************
                        SILVER LAKE INFLOW

12 IN          TIME DATA FOR INPUT TIME SERIES
                 JXMIN       1440  TIME INTERVAL IN MINUTES
                 JXDATE     1   0  STARTING DATE
                 JXTIME         0  STARTING TIME

               SUBBASIN RUNOFF DATA
```

```
 7 BA          SUBBASIN CHARACTERISTICS
                 TAREA         1.08  SUBBASIN AREA

 9 BF          BASE FLOW CHARACTERISTICS
                 STRTQ         1.08  INITIAL FLOW
                 QRCSN        -0.20  BEGIN BASE FLOW RECESSION
                 RTIOF     1.00200   RECESSION CONSTANT

               PRECIPITATION DATA

11 PB            STORM         7.30  BASIN TOTAL PRECIPITATION

13 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  0.01  0.01  0.01  0.01  0.01  0.01
                0.01  0.01  0.01  0.01  0.01  0.01  0.01  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
```

	1	0300	4	0.01	0.01	0.00	1.	*	7	0900	154	0.00	0.00	0.00	1.
	1	0400	5	0.01	0.01	0.00	1.	*	7	1000	155	0.00	0.00	0.00	1.
	1	0500	6	0.01	0.01	0.00	1.	*	7	1100	156	0.00	0.00	0.00	1.
	1	0600	7	0.01	0.01	0.00	1.	*	7	1200	157	0.00	0.00	0.00	1.
	1	0700	8	0.01	0.01	0.00	1.	*	7	1300	158	0.00	0.00	0.00	1.
	1	0800	9	0.01	0.01	0.00	1.	*	7	1400	159	0.00	0.00	0.00	1.
1	1	0900	10	0.01	0.01	0.00	1.	*	7	1500	160	0.00	0.00	0.00	1.
2	1	1000	11	0.01	0.01	0.00	1.	*	7	1600	161	0.00	0.00	0.00	1.
3	1	1100	12	0.01	0.01	0.00	1.	*	7	1700	162	0.00	0.00	0.00	1.
4	1	1200	13	0.01	0.01	0.00	1.	*	7	1800	163	0.00	0.00	0.00	1.
5	1	1300	14	0.01	0.01	0.00	1.	*	7	1900	164	0.00	0.00	0.00	1.
6	1	1400	15	0.01	0.01	0.00	1.	*	7	2000	165	0.00	0.00	0.00	1.
7	1	1500	16	0.01	0.01	0.00	1.	*	7	2100	166	0.00	0.00	0.00	1.
8	1	1600	17	0.01	0.01	0.00	1.	*	7	2200	167	0.00	0.00	0.00	1.
9	1	1700	18	0.01	0.01	0.00	1.	*	7	2300	168	0.00	0.00	0.00	1.
10	1	1800	19	0.01	0.01	0.00	1.	*	8	0000	169	0.00	0.00	0.00	1.
11	1	1900	20	0.01	0.01	0.00	1.	*	8	0100	170	0.00	0.00	0.00	1.
12	1	2000	21	0.01	0.01	0.00	1.	*	8	0200	171	0.00	0.00	0.00	1.
13	1	2100	22	0.01	0.01	0.00	1.	*	8	0300	172	0.00	0.00	0.00	1.
14	1	2200	23	0.01	0.01	0.00	1.	*	8	0400	173	0.00	0.00	0.00	1.
15	1	2300	24	0.01	0.01	0.00	1.	*	8	0500	174	0.00	0.00	0.00	1.
16	2	0000	25	0.01	0.01	0.00	1.	*	8	0600	175	0.00	0.00	0.00	1.
17	2	0100	26	0.08	0.08	0.00	1.	*	8	0700	176	0.00	0.00	0.00	1.
18	2	0200	27	0.08	0.08	0.00	1.	*	8	0800	177	0.00	0.00	0.00	1.
19	2	0300	28	0.08	0.08	0.00	1.	*	8	0900	178	0.00	0.00	0.00	1.
20	2	0400	29	0.08	0.08	0.00	1.	*	8	1000	179	0.00	0.00	0.00	1.
21	2	0500	30	0.08	0.08	0.00	1.	*	8	1100	180	0.00	0.00	0.00	1.
22	2	0600	31	0.08	0.08	0.00	1.	*	8	1200	181	0.00	0.00	0.00	1.
23	2	0700	32	0.08	0.08	0.00	1.	*	8	1300	182	0.00	0.00	0.00	1.
24	2	0800	33	0.08	0.08	0.00	1.	*	8	1400	183	0.00	0.00	0.00	1.
25	2	0900	34	0.08	0.08	0.00	1.	*	8	1500	184	0.00	0.00	0.00	1.
26	2	1000	35	0.08	0.08	0.00	1.	*	8	1600	185	0.00	0.00	0.00	1.
27	2	1100	36	0.08	0.08	0.00	1.	*	8	1700	186	0.00	0.00	0.00	1.
28	2	1200	37	0.08	0.08	0.00	1.	*	8	1800	187	0.00	0.00	0.00	1.
29	2	1300	38	0.08	0.08	0.00	1.	*	8	1900	188	0.00	0.00	0.00	1.
30	2	1400	39	0.08	0.08	0.00	1.	*	8	2000	189	0.00	0.00	0.00	1.
31	2	1500	40	0.08	0.08	0.00	1.	*	8	2100	190	0.00	0.00	0.00	1.
32	2	1600	41	0.08	0.08	0.00	1.	*	8	2200	191	0.00	0.00	0.00	1.
33	2	1700	42	0.08	0.08	0.00	1.	*	8	2300	192	0.00	0.00	0.00	1.
34	2	1800	43	0.08	0.08	0.00	1.	*	9	0000	193	0.00	0.00	0.00	1.
35	2	1900	44	0.08	0.08	0.00	1.	*	9	0100	194	0.17	0.14	0.04	1.
36	2	2000	45	0.08	0.08	0.00	1.	*	9	0200	195	0.17	0.13	0.04	2.
37	2	2100	46	0.08	0.08	0.00	1.	*	9	0300	196	0.17	0.13	0.05	3.
38	2	2200	47	0.08	0.08	0.00	1.	*	9	0400	197	0.17	0.12	0.05	5.
39	2	2300	48	0.08	0.08	0.00	1.	*	9	0500	198	0.17	0.12	0.05	8.
40	3	0000	49	0.08	0.08	0.01	1.	*	9	0600	199	0.17	0.12	0.06	12.
41	3	0100	50	0.00	0.00	0.00	2.	*	9	0700	200	0.17	0.11	0.06	16.
42	3	0200	51	0.00	0.00	0.00	2.	*	9	0800	201	0.17	0.11	0.06	20.
43	3	0300	52	0.00	0.00	0.00	2.	*	9	0900	202	0.17	0.11	0.07	24.
44	3	0400	53	0.00	0.00	0.00	2.	*	9	1000	203	0.17	0.10	0.07	28.
45	3	0500	54	0.00	0.00	0.00	2.	*	9	1100	204	0.17	0.10	0.07	31.
46	3	0600	55	0.00	0.00	0.00	2.	*	9	1200	205	0.17	0.10	0.08	34.
47	3	0700	56	0.00	0.00	0.00	2.	*	9	1300	206	0.17	0.09	0.08	37.
48	3	0800	57	0.00	0.00	0.00	2.	*	9	1400	207	0.17	0.09	0.08	40.
49	3	0900	58	0.00	0.00	0.00	2.	*	9	1500	208	0.17	0.09	0.08	42.
50	3	1000	59	0.00	0.00	0.00	2.	*	9	1600	209	0.17	0.09	0.09	45.
51	3	1100	60	0.00	0.00	0.00	1.	*	9	1700	210	0.17	0.09	0.09	47.
52	3	1200	61	0.00	0.00	0.00	1.	*	9	1800	211	0.17	0.08	0.09	49.
53	3	1300	62	0.00	0.00	0.00	1.	*	9	1900	212	0.17	0.08	0.09	51.
54	3	1400	63	0.00	0.00	0.00	1.	*	9	2000	213	0.17	0.08	0.09	53.
55	3	1500	64	0.00	0.00	0.00	1.	*	9	2100	214	0.17	0.08	0.10	55.
56	3	1600	65	0.00	0.00	0.00	1.	*	9	2200	215	0.17	0.08	0.10	57.
57	3	1700	66	0.00	0.00	0.00	1.	*	9	2300	216	0.17	0.07	0.10	59.
	3	1800	67	0.00	0.00	0.00	1.	*	10	0000	217	0.17	0.07	0.10	61.
	3	1900	68	0.00	0.00	0.00	1.	*	10	0100	218	0.01	0.00	0.01	62.
	3	2000	69	0.00	0.00	0.00	1.	*	10	0200	219	0.01	0.00	0.01	62.

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3	2100	70	0.00	0.00	0.00	1.	*	10	0300	220	0.01	0.00	0.01	60.
3	2200	71	0.00	0.00	0.00	1.	*	10	0400	221	0.01	0.00	0.01	56.
3	2300	72	0.00	0.00	0.00	1.	*	10	0500	222	0.01	0.00	0.01	50.
4	0000	73	0.00	0.00	0.00	1.	*	10	0600	223	0.01	0.00	0.01	43.
4	0100	74	0.00	0.00	0.00	1.	*	10	0700	224	0.01	0.00	0.01	36.
4	0200	75	0.00	0.00	0.00	1.	*	10	0800	225	0.01	0.00	0.01	30.
4	0300	76	0.00	0.00	0.00	1.	*	10	0900	226	0.01	0.00	0.01	24.
4	0400	77	0.00	0.00	0.00	1.	*	10	1000	227	0.01	0.00	0.01	20.
4	0500	78	0.00	0.00	0.00	1.	*	10	1100	228	0.01	0.00	0.01	16.
4	0600	79	0.00	0.00	0.00	1.	*	10	1200	229	0.01	0.00	0.01	14.
4	0700	80	0.00	0.00	0.00	1.	*	10	1300	230	0.01	0.00	0.01	12.
4	0800	81	0.00	0.00	0.00	1.	*	10	1400	231	0.01	0.00	0.01	12.
4	0300	82	0.00	0.00	0.00	1.	*	10	1500	232	0.01	0.00	0.01	12.
4	1000	83	0.00	0.00	0.00	1.	*	10	1600	233	0.01	0.00	0.01	12.
4	1100	84	0.00	0.00	0.00	1.	*	10	1700	234	0.01	0.00	0.01	12.
4	1200	85	0.00	0.00	0.00	1.	*	10	1800	235	0.01	0.00	0.01	12.
4	1300	86	0.00	0.00	0.00	1.	*	10	1900	236	0.01	0.00	0.01	12.
4	1400	87	0.00	0.00	0.00	1.	*	10	2000	237	0.01	0.00	0.01	12.
4	1500	88	0.00	0.00	0.00	1.	*	10	2100	238	0.01	0.00	0.01	12.
4	1600	89	0.00	0.00	0.00	1.	*	10	2200	239	0.01	0.00	0.01	12.
4	1700	90	0.00	0.00	0.00	1.	*	10	2300	240	0.01	0.00	0.01	12.
4	1800	91	0.00	0.00	0.00	1.	*	11	0000	241	0.01	0.00	0.01	12.
4	1900	92	0.00	0.00	0.00	1.	*	11	0100	242	0.00	0.00	0.00	12.
4	2000	93	0.00	0.00	0.00	1.	*	11	0200	243	0.00	0.00	0.00	12.
4	2100	94	0.00	0.00	0.00	1.	*	11	0300	244	0.00	0.00	0.00	12.
4	2200	95	0.00	0.00	0.00	1.	*	11	0400	245	0.00	0.00	0.00	12.
4	2300	96	0.00	0.00	0.00	1.	*	11	0500	246	0.00	0.00	0.00	12.
5	0000	97	0.00	0.00	0.00	1.	*	11	0600	247	0.00	0.00	0.00	12.
5	0100	98	0.01	0.01	0.00	1.	*	11	0700	248	0.00	0.00	0.00	12.
5	0200	99	0.01	0.01	0.00	1.	*	11	0800	249	0.00	0.00	0.00	12.
5	0300	100	0.01	0.01	0.00	1.	*	11	0900	250	0.00	0.00	0.00	12.
5	0400	101	0.01	0.01	0.00	1.	*	11	1000	251	0.00	0.00	0.00	12.
5	0500	102	0.01	0.01	0.00	1.	*	11	1100	252	0.00	0.00	0.00	12.
5	0600	103	0.01	0.01	0.00	1.	*	11	1200	253	0.00	0.00	0.00	12.
5	0700	104	0.01	0.01	0.00	1.	*	11	1300	254	0.00	0.00	0.00	12.
5	0800	105	0.01	0.01	0.00	1.	*	11	1400	255	0.00	0.00	0.00	12.
5	0900	106	0.01	0.01	0.00	1.	*	11	1500	256	0.00	0.00	0.00	12.
5	1000	107	0.01	0.01	0.00	2.	*	11	1600	257	0.00	0.00	0.00	12.
5	1100	108	0.01	0.01	0.00	2.	*	11	1700	258	0.00	0.00	0.00	12.
5	1200	109	0.01	0.01	0.00	2.	*	11	1800	259	0.00	0.00	0.00	12.
5	1300	110	0.01	0.01	0.00	2.	*	11	1900	260	0.00	0.00	0.00	12.
5	1400	111	0.01	0.01	0.00	2.	*	11	2000	261	0.00	0.00	0.00	12.
5	1500	112	0.01	0.01	0.00	2.	*	11	2100	262	0.00	0.00	0.00	12.
5	1600	113	0.01	0.01	0.00	2.	*	11	2200	263	0.00	0.00	0.00	12.
5	1700	114	0.01	0.01	0.00	2.	*	11	2300	264	0.00	0.00	0.00	12.
5	1800	115	0.01	0.01	0.00	2.	*	12	0000	265	0.00	0.00	0.00	12.
5	1900	116	0.01	0.01	0.00	2.	*	12	0100	266	0.00	0.00	0.00	11.
5	2000	117	0.01	0.01	0.00	2.	*	12	0200	267	0.00	0.00	0.00	11.
5	2100	118	0.01	0.01	0.00	2.	*	12	0300	268	0.00	0.00	0.00	11.
5	2200	119	0.01	0.01	0.00	2.	*	12	0400	269	0.00	0.00	0.00	11.
5	2300	120	0.01	0.01	0.00	2.	*	12	0500	270	0.00	0.00	0.00	11.
6	0000	121	0.01	0.01	0.00	2.	*	12	0600	271	0.00	0.00	0.00	11.
6	0100	122	0.01	0.01	0.00	2.	*	12	0700	272	0.00	0.00	0.00	11.
6	0200	123	0.01	0.01	0.00	2.	*	12	0800	273	0.00	0.00	0.00	11.
6	0300	124	0.01	0.01	0.00	2.	*	12	0900	274	0.00	0.00	0.00	11.
6	0400	125	0.01	0.01	0.00	2.	*	12	1000	275	0.00	0.00	0.00	11.
6	0500	126	0.01	0.01	0.00	2.	*	12	1100	276	0.00	0.00	0.00	11.
6	0600	127	0.01	0.01	0.00	2.	*	12	1200	277	0.00	0.00	0.00	11.
6	0700	128	0.01	0.01	0.00	2.	*	12	1300	278	0.00	0.00	0.00	11.
6	0800	129	0.01	0.01	0.00	2.	*	12	1400	279	0.00	0.00	0.00	11.
6	0900	130	0.01	0.01	0.00	2.	*	12	1500	280	0.00	0.00	0.00	11.
6	1000	131	0.01	0.01	0.00	2.	*	12	1600	281	0.00	0.00	0.00	11.
6	1100	132	0.01	0.01	0.00	2.	*	12	1700	282	0.00	0.00	0.00	11.
6	1200	133	0.01	0.01	0.00	2.	*	12	1800	283	0.00	0.00	0.00	11.
6	1300	134	0.01	0.01	0.00	2.	*	12	1900	284	0.00	0.00	0.00	11.
6	1400	135	0.01	0.01	0.00	2.	*	12	2000	285	0.00	0.00	0.00	11.

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6	1500	136	0.01	0.01	0.00	2.	*	12	2100	286	0.00	0.00	0.00	11.
6	1600	137	0.01	0.01	0.00	2.	*	12	2200	287	0.00	0.00	0.00	11.
6	1700	138	0.01	0.01	0.00	2.	*	12	2300	288	0.00	0.00	0.00	11.
6	1800	139	0.01	0.01	0.00	2.	*	13	0000	289	0.00	0.00	0.00	11.
6	1900	140	0.01	0.01	0.00	2.	*	13	0100	290	0.00	0.00	0.00	11.
6	2000	141	0.01	0.01	0.00	2.	*	13	0200	291	0.00	0.00	0.00	11.
6	2100	142	0.01	0.01	0.00	2.	*	13	0300	292	0.00	0.00	0.00	11.
6	2200	143	0.01	0.01	0.00	2.	*	13	0400	293	0.00	0.00	0.00	11.
6	2300	144	0.01	0.01	0.00	2.	*	13	0500	294	0.00	0.00	0.00	11.
7	0000	145	0.01	0.01	0.00	2.	*	13	0600	295	0.00	0.00	0.00	11.
7	0100	146	0.00	0.00	0.00	2.	*	13	0700	296	0.00	0.00	0.00	11.
7	0200	147	0.00	0.00	0.00	2.	*	13	0800	297	0.00	0.00	0.00	11.
7	0300	148	0.00	0.00	0.00	2.	*	13	0900	298	0.00	0.00	0.00	11.
7	0400	149	0.00	0.00	0.00	2.	*	13	1000	299	0.00	0.00	0.00	11.
7	0500	150	0.00	0.00	0.00	2.	*	13	1100	300	0.00	0.00	0.00	11.
							*							

****

TOTAL RAINFALL = 7.30, TOTAL LOSS = 5.27, TOTAL EXCESS = 2.03

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	299.00-HR
62.	217.00	(CFS)	50.	46.	24.	8.
		(INCHES)	0.516	1.598	2.471	3.324
		(AC-FT)	30.	92.	142.	191.

CUMULATIVE AREA = 1.08 SQ MI

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15 KK

ROUTED OUTFLOW SILVER LAKE

HYDROGRAPH ROUTING DATA

17 RS STORAGE ROUTING

NSTPS	1	NUMBER OF SUBREACHES
ITYP	ELEV	TYPE OF INITIAL CONDITION
RSVRIC	875.00	INITIAL CONDITION
X	0.00	WORKING R AND D COEFFICIENT

19	SV	STORAGE	0.0	95.4	195.0	245.5
20	SE	ELEVATION	875.00	875.40	875.80	876.00
18	SQ	DISCHARGE	3.	4.	5.	5.

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HYDROGRAPH AT STATION

DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE
1		0000	1	3.	0.0	875.0	5		0400	101	2.	-0.1	875.0	9		0800	201	3.	3.2	875.0
1		0100	2	2.	-0.1	875.0	5		0500	102	2.	-0.1	875.0	9		0900	202	3.	4.8	875.0
1		0200	3	2.	-0.1	875.0	5		0600	103	2.	-0.1	875.0	9		1000	203	3.	6.7	875.0
1		0300	4	2.	-0.1	875.0	5		0700	104	2.	-0.1	875.0	9		1100	204	3.	8.9	875.0
1		0400	5	2.	-0.1	875.0	5		0800	105	2.	-0.1	875.0	9		1200	205	3.	11.4	875.0
1		0500	6	2.	-0.1	875.0	5		0900	106	2.	-0.1	875.0	9		1300	206	3.	14.1	875.1
1		0600	7	2.	-0.1	875.0	5		1000	107	2.	-0.1	875.0	9		1400	207	3.	17.0	875.1
1		0700	8	2.	-0.1	875.0	5		1100	108	2.	-0.1	875.0	9		1500	208	3.	20.2	875.1
1		0800	9	2.	-0.1	875.0	5		1200	109	2.	-0.1	875.0	9		1600	209	3.	23.6	875.1
1		0900	10	2.	-0.1	875.0	5		1300	110	2.	-0.1	875.0	9		1700	210	3.	27.1	875.1
1		1000	11	2.	-0.1	875.0	5		1400	111	2.	-0.1	875.0	9		1800	211	3.	30.9	875.1
1		1100	12	2.	-0.1	875.0	5		1500	112	2.	-0.1	875.0	9		1900	212	3.	34.8	875.1
1		1200	13	2.	-0.1	875.0	5		1600	113	2.	-0.1	875.0	9		2000	213	3.	38.9	875.2
1		1300	14	2.	-0.1	875.0	5		1700	114	2.	-0.1	875.0	9		2100	214	3.	43.1	875.2
1		1400	15	2.	-0.1	875.0	5		1800	115	2.	-0.1	875.0	9		2200	215	3.	47.5	875.2
1		1500	16	2.	-0.1	875.0	5		1900	116	2.	-0.1	875.0	9		2300	216	3.	52.0	875.2
1		1600	17	2.	-0.1	875.0	5		2000	117	2.	-0.1	875.0	10		0000	217	3.	56.7	875.2
1		1700	18	2.	-0.1	875.0	5		2100	118	2.	-0.1	875.0	10		0100	218	3.	61.5	875.3
1		1800	19	2.	-0.1	875.0	5		2200	119	2.	-0.1	875.0	10		0200	219	4.	66.3	875.3
1		1900	20	2.	-0.1	875.0	5		2300	120	2.	-0.1	875.0	10		0300	220	4.	71.0	875.3
1		2000	21	2.	-0.1	875.0	6		0000	121	2.	-0.1	875.0	10		0400	221	4.	75.5	875.3
1		2100	22	2.	-0.1	875.0	6		0100	122	2.	-0.1	875.0	10		0500	222	4.	79.6	875.3
1		2200	23	2.	-0.1	875.0	6		0200	123	2.	-0.1	875.0	10		0600	223	4.	83.2	875.3

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	1	2300	24	2.	-0.1	875.0 * 6	0300	124	2.	-0.1	875.0 * 10	0700	224	4.	86.1	875.4
	2	0000	25	2.	-0.1	875.0 * 6	0400	125	2.	-0.1	875.0 * 10	0800	225	4.	88.6	875.4
	2	0100	26	2.	-0.1	875.0 * 6	0500	126	2.	-0.1	875.0 * 10	0900	226	4.	90.5	875.4
	2	0200	27	2.	-0.1	875.0 * 6	0600	127	2.	-0.1	875.0 * 10	1000	227	4.	92.0	875.4
	2	0300	28	2.	-0.1	875.0 * 6	0700	128	2.	-0.1	875.0 * 10	1100	228	4.	93.2	875.4
	2	0400	29	2.	-0.1	875.0 * 6	0800	129	2.	-0.1	875.0 * 10	1200	229	4.	94.1	875.4
1	2	0500	30	2.	-0.1	875.0 * 6	0900	130	2.	-0.1	875.0 * 10	1300	230	4.	94.8	875.4
2	2	0600	31	2.	-0.1	875.0 * 6	1000	131	2.	-0.1	875.0 * 10	1400	231	4.	95.5	875.4
3	2	0700	32	2.	-0.1	875.0 * 6	1100	132	2.	-0.1	875.0 * 10	1500	232	4.	96.2	875.4
4	2	0800	33	2.	-0.1	875.0 * 6	1200	133	2.	-0.1	875.0 * 10	1600	233	4.	96.9	875.4
5	2	0900	34	2.	-0.1	875.0 * 6	1300	134	2.	-0.1	875.0 * 10	1700	234	4.	97.6	875.4
6	2	1000	35	2.	-0.1	875.0 * 6	1400	135	2.	-0.1	875.0 * 10	1800	235	4.	98.2	875.4
7	2	1100	36	2.	-0.1	875.0 * 6	1500	136	2.	-0.1	875.0 * 10	1900	236	4.	98.9	875.4
8	2	1200	37	2.	-0.1	875.0 * 6	1600	137	2.	-0.1	875.0 * 10	2000	237	4.	99.6	875.4
9	2	1300	38	2.	-0.1	875.0 * 6	1700	138	2.	-0.1	875.0 * 10	2100	238	4.	100.3	875.4
10	2	1400	39	2.	-0.1	875.0 * 6	1800	139	2.	-0.1	875.0 * 10	2200	239	4.	100.9	875.4
11	2	1500	40	2.	-0.1	875.0 * 6	1900	140	2.	-0.1	875.0 * 10	2300	240	4.	101.6	875.4
12	2	1600	41	2.	-0.1	875.0 * 6	2000	141	2.	-0.1	875.0 * 11	0000	241	4.	102.3	875.4
13	2	1700	42	2.	-0.1	875.0 * 6	2100	142	2.	-0.1	875.0 * 11	0100	242	4.	102.9	875.4
14	2	1800	43	2.	-0.1	875.0 * 6	2200	143	2.	-0.1	875.0 * 11	0200	243	4.	103.6	875.4
15	2	1900	44	2.	-0.1	875.0 * 6	2300	144	2.	-0.1	875.0 * 11	0300	244	4.	104.3	875.4
16	2	2000	45	2.	-0.1	875.0 * 7	0000	145	2.	-0.1	875.0 * 11	0400	245	4.	104.9	875.4
17	2	2100	46	2.	-0.1	875.0 * 7	0100	146	2.	-0.1	875.0 * 11	0500	246	4.	105.6	875.4
18	2	2200	47	2.	-0.1	875.0 * 7	0200	147	2.	-0.1	875.0 * 11	0600	247	4.	106.2	875.4
19	2	2300	48	2.	-0.1	875.0 * 7	0300	148	2.	-0.1	875.0 * 11	0700	248	4.	106.9	875.4
20	3	0000	49	2.	-0.1	875.0 * 7	0400	149	2.	-0.1	875.0 * 11	0800	249	4.	107.5	875.4
21	3	0100	50	2.	-0.1	875.0 * 7	0500	150	2.	-0.1	875.0 * 11	0900	250	4.	108.2	875.5
22	3	0200	51	2.	-0.1	875.0 * 7	0600	151	2.	-0.1	875.0 * 11	1000	251	4.	108.8	875.5
23	3	0300	52	2.	-0.1	875.0 * 7	0700	152	2.	-0.1	875.0 * 11	1100	252	4.	109.4	875.5
24	3	0400	53	2.	-0.1	875.0 * 7	0800	153	2.	-0.1	875.0 * 11	1200	253	4.	110.1	875.5
25	3	0500	54	2.	-0.1	875.0 * 7	0900	154	2.	-0.1	875.0 * 11	1300	254	4.	110.7	875.5
26	3	0600	55	2.	-0.1	875.0 * 7	1000	155	2.	-0.1	875.0 * 11	1400	255	4.	111.3	875.5
27	3	0700	56	2.	-0.1	875.0 * 7	1100	156	2.	-0.1	875.0 * 11	1500	256	4.	112.0	875.5
28	3	0800	57	2.	-0.1	875.0 * 7	1200	157	2.	-0.1	875.0 * 11	1600	257	4.	112.6	875.5
29	3	0900	58	2.	-0.1	875.0 * 7	1300	158	2.	-0.1	875.0 * 11	1700	258	4.	113.2	875.5
30	3	1000	59	2.	-0.1	875.0 * 7	1400	159	2.	-0.1	875.0 * 11	1800	259	4.	113.8	875.5
31	3	1100	60	2.	-0.1	875.0 * 7	1500	160	2.	-0.1	875.0 * 11	1900	260	4.	114.5	875.5
32	3	1200	61	2.	-0.1	875.0 * 7	1600	161	2.	-0.1	875.0 * 11	2000	261	4.	115.1	875.5
33	3	1300	62	2.	-0.1	875.0 * 7	1700	162	2.	-0.1	875.0 * 11	2100	262	4.	115.7	875.5
34	3	1400	63	2.	-0.1	875.0 * 7	1800	163	2.	-0.1	875.0 * 11	2200	263	4.	116.3	875.5
35	3	1500	64	2.	-0.1	875.0 * 7	1900	164	2.	-0.1	875.0 * 11	2300	264	4.	116.9	875.5
36	3	1600	65	2.	-0.1	875.0 * 7	2000	165	2.	-0.1	875.0 * 12	0000	265	4.	117.5	875.5
37	3	1700	66	2.	-0.1	875.0 * 7	2100	166	2.	-0.1	875.0 * 12	0100	266	4.	118.1	875.5
38	3	1800	67	2.	-0.1	875.0 * 7	2200	167	2.	-0.1	875.0 * 12	0200	267	4.	118.7	875.5
39	3	1900	68	2.	-0.1	875.0 * 7	2300	168	2.	-0.1	875.0 * 12	0300	268	4.	119.3	875.5
40	3	2000	69	2.	-0.1	875.0 * 8	0000	169	2.	-0.1	875.0 * 12	0400	269	4.	119.9	875.5
41	3	2100	70	2.	-0.1	875.0 * 8	0100	170	2.	-0.1	875.0 * 12	0500	270	4.	120.5	875.5
42	3	2200	71	2.	-0.1	875.0 * 8	0200	171	2.	-0.1	875.0 * 12	0600	271	4.	121.1	875.5
43	3	2300	72	2.	-0.1	875.0 * 8	0300	172	2.	-0.1	875.0 * 12	0700	272	4.	121.7	875.5
44	4	0000	73	2.	-0.1	875.0 * 8	0400	173	2.	-0.1	875.0 * 12	0800	273	4.	122.3	875.5
45	4	0100	74	2.	-0.1	875.0 * 8	0500	174	2.	-0.1	875.0 * 12	0900	274	4.	122.9	875.5
46	4	0200	75	2.	-0.1	875.0 * 8	0600	175	2.	-0.1	875.0 * 12	1000	275	4.	123.5	875.5
47	4	0300	76	2.	-0.1	875.0 * 8	0700	176	2.	-0.1	875.0 * 12	1100	276	4.	124.1	875.5
48	4	0400	77	2.	-0.1	875.0 * 8	0800	177	2.	-0.1	875.0 * 12	1200	277	4.	124.7	875.5
49	4	0500	78	2.	-0.1	875.0 * 8	0900	178	2.	-0.1	875.0 * 12	1300	278	4.	125.2	875.5
50	4	0600	79	2.	-0.1	875.0 * 8	1000	179	2.	-0.1	875.0 * 12	1400	279	4.	125.8	875.5
51	4	0700	80	2.	-0.1	875.0 * 8	1100	180	2.	-0.1	875.0 * 12	1500	280	4.	126.4	875.5
52	4	0800	81	2.	-0.1	875.0 * 8	1200	181	2.	-0.1	875.0 * 12	1600	281	4.	127.0	875.5
53	4	0900	82	2.	-0.1	875.0 * 8	1300	182	2.	-0.1	875.0 * 12	1700	282	4.	127.5	875.5
54	4	1000	83	2.	-0.1	875.0 * 8	1400	183	2.	-0.1	875.0 * 12	1800	283	4.	128.1	875.5
55	4	1100	84	2.	-0.1	875.0 * 8	1500	184	2.	-0.1	875.0 * 12	1900	284	4.	128.7	875.5
56	4	1200	85	2.	-0.1	875.0 * 8	1600	185	2.	-0.1	875.0 * 12	2000	285	4.	129.2	875.5
57	4	1300	86	2.	-0.1	875.0 * 8	1700	186	2.	-0.1	875.0 * 12	2100	286	4.	129.8	875.5
	4	1400	87	2.	-0.1	875.0 * 8	1800	187	2.	-0.1	875.0 * 12	2200	287	4.	130.4	875.5
	4	1500	88	2.	-0.1	875.0 * 8	1900	188	2.	-0.1	875.0 * 12	2300	288	4.	130.9	875.5
	4	1600	89	2.	-0.1	875.0 * 8	2000	189	2.	-0.1	875.0 * 13	0000	289	4.	131.5	875.5

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4	1700	90	2.	-0.1	875.0	*	8	2100	190	2.	-0.1	875.0	*	13	0100	290	4.	132.0	875.5
4	1800	91	2.	-0.1	875.0	*	8	2200	191	2.	-0.1	875.0	*	13	0200	291	4.	132.6	875.5
4	1900	92	2.	-0.1	875.0	*	8	2300	192	2.	-0.1	875.0	*	13	0300	292	4.	133.1	875.6
4	2000	93	2.	-0.1	875.0	*	9	0000	193	2.	-0.1	875.0	*	13	0400	293	4.	133.7	875.6
4	2100	94	2.	-0.1	875.0	*	9	0100	194	2.	-0.1	875.0	*	13	0500	294	4.	134.2	875.6
4	2200	95	2.	-0.1	875.0	*	9	0200	195	2.	-0.1	875.0	*	13	0600	295	4.	134.8	875.6
4	2300	96	2.	-0.1	875.0	*	9	0300	196	2.	-0.1	875.0	*	13	0700	296	4.	135.3	875.6
5	0000	97	2.	-0.1	875.0	*	9	0400	197	3.	0.0	875.0	*	13	0800	297	4.	135.9	875.6
5	0100	98	2.	-0.1	875.0	*	9	0500	198	3.	0.4	875.0	*	13	0900	298	4.	136.4	875.6
5	0200	99	2.	-0.1	875.0	*	9	0600	199	3.	1.0	875.0	*	13	1000	299	4.	136.9	875.6
5	0300	100	2.	-0.1	875.0	*	9	0700	200	3.	1.9	875.0	*	13	1100	300	4.	137.5	875.6
						*							*						

****

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
(CFS)	(HR)		6-HR	24-HR	72-HR	299.00-HR
4.	299.00	(CFS)	4.	4.	4.	3.
		(INCHES)	0.037	0.146	0.428	1.271
		(AC-FT)	2.	8.	25.	73.

PEAK STORAGE	TIME		MAXIMUM AVERAGE STORAGE			
(AC-FT)	(HR)		6-HR	24-HR	72-HR	299.00-HR
137.	299.00		136.	131.	116.	32.

PEAK STAGE	TIME		MAXIMUM AVERAGE STAGE			
(FEET)	(HR)		6-HR	24-HR	72-HR	299.00-HR
875.57	299.00		875.50	875.53	875.48	875.12

CUMULATIVE AREA = 1.08 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	SUB1	62.	217.00	60.	46.	24.	1.08		
POUTED TO		4.	299.00	4.	4.	4.	1.08	875.57	299.00

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

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

   1          ID    DEXTER TWP. FIS ---SILVER LAKE---
   2          ID    BY JWG (MDNR) 2/85    DEXTER DATA A    10 DAY DIST.
*** FREE ***
   3          IT      60       0       0      300
   4          IO       1       2       0

   5          KK    SUB1
   6          KM   SILVER LAKE SRO
   7          BA    0.71
   8          LS       0    53.0
   9          BF      -1     -.2   1.002
  10          UD    6.02
  11          PB    7.30
  12          IN    1440       0       0
  13          PC   0.000   0.030   0.308   0.318   0.325   0.360   0.388   0.395   0.400   0.970
  14          PC    1.00

  15          KK    SUB2
  16          KM   SILVER LAKE-DIRECT PRECIP.
  17          BA    0.37
  18          BF      -1     -.2   1.002
  19          LS       0      98
  20          UD      6.
  21          PB    7.30

  22          KK
  23          KM   COMBINE SUB1 & 2
  24          IC       2

  25          KK
  26          KM   ROUTED OUTFLOW SILVER LAKE
  27          RS       1    ELEV   875.0
  28          SQ     2.5     4.0     4.7     5.0
  29          SV     0.0    95.4   195.0   245.5
  30          SE   875.0   875.4   875.8   876.0
  31          ZZ
```

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

```
*                                                  *                                                  *
*    FLOOD HYDROGRAPH PACKAGE  (HEC-1)             *                                                  *
*          FEBRUARY 1981                           *                                                  *
*          REVISED 30 OCT 81                       *                                                  *
*                                                  *                                                  *
*  RUN DATE                  TIME                  *                                                  *
*                                                  *                                                  *
****************************************          ****************************************
```

```
                                DEKTEH TWP. FIS ---SILVER LAKE---
                                BY JNG (MDNR) 2/85    DEKTER DATA A    10 DAY DIST.
```

```
    4 IO          OUTPUT CONTROL VARIABLES
                        IPRNT          1  PRINT CONTROL
                        IPLOT          2  PLOT CONTROL
                        QSCAL          0. HYDROGRAPH PLOT SCALE

     IT           HYDROGRAPH TIME DATA
                        NMIN          60  MINUTES IN COMPUTATION INTERVAL
                       IDATE    1     0  STARTING DATE
                       ITIME        0000  STARTING TIME
                          NQ         300  NUMBER OF HYDROGRAPH ORDINATES
                       NDDATE   13     0  ENDING DATE
                       NDTIME        1100  ENDING TIME

                  COMPUTATION INTERVAL     1.00 HOURS
                      TOTAL TIME BASE  299.00 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        *    SUB1     *
                *             *
                ***************
                          SILVER LAKE SRO

   12 IN          TIME DATA FOR INPUT TIME SERIES
                      JXMIN        1440  TIME INTERVAL IN MINUTES
                     JXDATE    1     0  STARTING DATE
                     JXTIME          0  STARTING TIME

               SUBBASIN RUNOFF DATA

    7 BA          SUBBASIN CHARACTERISTICS
                      TAREA        0.71  SUBBASIN AREA

    9 BF          BASE FLOW CHARACTERISTICS
                      STRTQ        0.71  INITIAL FLOW
                      QRCSN       -0.20  BEGIN BASE FLOW RECESSION
```

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RTIOR 1.00200 RECESSION CONSTANT

PRECIPITATION DATA

11 PB STORM 7.30 BASIN TOTAL PRECIPITATION

13 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	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	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	0.02	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	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

8 LS SCS LOSS RATE

STRTL 1.77 INITIAL ABSTRACTION

CRVNBR 53.00 CURVE NUMBER

RTIMP 0.00 PERCENT IMPERVIOUS AREA

10 UD SCS DIMENSIONLESS UNITGRAPH

CLAG 6.02 LAG

***

UNIT HYDROGRAPH
32 END-OF-PERIOD ORDINATES

4.	10.	21.	36.	47.	52.	52.	48.	42.	34.
25.	19.	15.	12.	9.	7.	6.	4.	3.	3.
2.	2.	1.	1.	1.	1.	0.	0.	0.	0.
0.	0.								

****

HYDROGRAPH AT STATION SUB1

****

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	1.	*	7		0600	151	0.00	0.00	0.00	1.
1		0100	2	0.01	0.01	0.00	1.	*	7		0700	152	0.00	0.00	0.00	1.
1		0200	3	0.01	0.01	0.00	1.	*	7		0800	153	0.00	0.00	0.00	1.
1		0300	4	0.01	0.01	0.00	1.	*	7		0900	154	0.00	0.00	0.00	1.
1		0400	5	0.01	0.01	0.00	1.	*	7		1000	155	0.00	0.00	0.00	1.
1		0500	6	0.01	0.01	0.00	1.	*	7		1100	156	0.00	0.00	0.00	1.
1		0600	7	0.01	0.01	0.00	1.	*	7		1200	157	0.00	0.00	0.00	1.
1		0700	8	0.01	0.01	0.00	1.	*	7		1300	158	0.00	0.00	0.00	1.
1		0800	9	0.01	0.01	0.00	1.	*	7		1400	159	0.00	0.00	0.00	1.

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1	0900	10	0.01	0.01	0.00	1.	*	7	1500	160	0.00	0.00	0.00	1.	
1	1000	11	0.01	0.01	0.00	1.	*	7	1600	161	0.00	0.00	0.00	1.	
1	1100	12	0.01	0.01	0.00	1.	*	7	1700	162	0.00	0.00	0.00	1.	
1	1200	13	0.01	0.01	0.00	1.	*	7	1800	163	0.00	0.00	0.00	1.	
1	1300	14	0.01	0.01	0.00	1.	*	7	1900	164	0.00	0.00	0.00	1.	
1	1400	15	0.01	0.01	0.00	1.	*	7	2000	165	0.00	0.00	0.00	1.	
1	1500	16	0.01	0.01	0.00	1.	*	7	2100	166	0.00	0.00	0.00	1.	
1	1600	17	0.01	0.01	0.00	1.	*	7	2200	167	0.00	0.00	0.00	1.	
1	1700	18	0.01	0.01	0.00	1.	*	7	2300	168	0.00	0.00	0.00	1.	
1	1800	19	0.01	0.01	0.00	1.	*	8	0000	169	0.00	0.00	0.00	1.	
1	1900	20	0.01	0.01	0.00	1.	*	8	0100	170	0.00	0.00	0.00	1.	
1	2000	21	0.01	0.01	0.00	1.	*	8	0200	171	0.00	0.00	0.00	1.	
1	2100	22	0.01	0.01	0.00	1.	*	8	0300	172	0.00	0.00	0.00	1.	
1	2200	23	0.01	0.01	0.00	1.	*	8	0400	173	0.00	0.00	0.00	1.	
1	2300	24	0.01	0.01	0.00	1.	*	8	0500	174	0.00	0.00	0.00	1.	
2	0000	25	0.01	0.01	0.00	1.	*	8	0600	175	0.00	0.00	0.00	1.	
2	0100	26	0.08	0.08	0.00	1.	*	8	0700	176	0.00	0.00	0.00	1.	
2	0200	27	0.08	0.08	0.00	1.	*	8	0800	177	0.00	0.00	0.00	1.	
2	0300	29	0.08	0.09	0.00	1.	*	8	0900	178	0.00	0.00	0.00	1.	
2	0400	29	0.08	0.08	0.00	1.	*	8	1000	179	0.00	0.00	0.00	1.	
2	0500	30	0.08	0.09	0.00	1.	*	8	1100	180	0.00	0.00	0.00	1.	
2	0600	31	0.08	0.08	0.00	1.	*	8	1200	181	0.00	0.00	0.00	1.	
2	0700	32	0.08	0.08	0.00	1.	*	8	1300	182	0.00	0.00	0.00	1.	
2	0800	33	0.08	0.08	0.00	1.	*	8	1400	183	0.00	0.00	0.00	1.	
2	0900	34	0.08	0.09	0.00	1.	*	8	1500	184	0.00	0.00	0.00	1.	
2	1000	35	0.08	0.08	0.00	1.	*	8	1600	185	0.00	0.00	0.00	1.	
2	1100	36	0.08	0.08	0.00	1.	*	8	1700	186	0.00	0.00	0.00	1.	
2	1200	37	0.08	0.08	0.00	1.	*	8	1800	187	0.00	0.00	0.00	1.	
2	1300	38	0.08	0.08	0.00	1.	*	8	1900	188	0.00	0.00	0.00	1.	
2	1400	39	0.08	0.08	0.00	1.	*	8	2000	189	0.00	0.00	0.00	1.	
2	1500	40	0.08	0.09	0.00	1.	*	8	2100	190	0.00	0.00	0.00	1.	
2	1600	41	0.08	0.08	0.00	1.	*	8	2200	191	0.00	0.00	0.00	1.	
2	1700	42	0.08	0.08	0.00	1.	*	8	2300	192	0.00	0.00	0.00	1.	
2	1800	43	0.08	0.08	0.00	1.	*	9	0000	193	0.00	0.00	0.00	1.	
2	1900	44	0.08	0.08	0.00	1.	*	9	0100	194	0.17	0.13	0.04	1.	
2	2000	45	0.08	0.08	0.00	1.	*	9	0200	195	0.17	0.13	0.04	1.	
2	2100	46	0.08	0.09	0.00	1.	*	9	0300	196	0.17	0.12	0.05	2.	
2	2200	47	0.08	0.08	0.00	1.	*	9	0400	197	0.17	0.12	0.05	4.	
2	2300	48	0.08	0.08	0.01	1.	*	9	0500	198	0.17	0.12	0.06	6.	
3	0000	49	0.08	0.08	0.01	1.	*	9	0600	199	0.17	0.11	0.06	8.	
3	0100	50	0.00	0.00	0.00	1.	*	9	0700	200	0.17	0.11	0.06	11.	
3	0200	51	0.00	0.00	0.00	2.	*	9	0800	201	0.17	0.11	0.07	14.	
3	0300	52	0.00	0.00	0.00	2.	*	9	0900	202	0.17	0.10	0.07	17.	
3	0400	53	0.00	0.00	0.00	2.	*	9	1000	203	0.17	0.10	0.07	19.	
3	0500	54	0.00	0.00	0.00	2.	*	9	1100	204	0.17	0.10	0.08	22.	
3	0600	55	0.00	0.00	0.00	2.	*	9	1200	205	0.17	0.09	0.08	24.	
3	0700	56	0.00	0.00	0.00	2.	*	9	1300	206	0.17	0.09	0.08	26.	
3	0800	57	0.00	0.00	0.00	1.	*	9	1400	207	0.17	0.09	0.08	27.	
3	0900	58	0.00	0.00	0.00	1.	*	9	1500	208	0.17	0.09	0.09	29.	
3	1000	59	0.00	0.00	0.00	1.	*	9	1600	209	0.17	0.08	0.09	31.	
3	1100	60	0.00	0.00	0.00	1.	*	9	1700	210	0.17	0.08	0.09	32.	
3	1200	61	0.00	0.00	0.00	1.	*	9	1800	211	0.17	0.08	0.09	34.	
3	1300	62	0.00	0.00	0.00	1.	*	9	1900	212	0.17	0.08	0.10	35.	
3	1400	63	0.00	0.00	0.00	1.	*	9	2000	213	0.17	0.08	0.10	37.	
3	1500	64	0.00	0.00	0.00	1.	*	9	2100	214	0.17	0.07	0.10	38.	
3	1600	65	0.00	0.00	0.00	1.	*	9	2200	215	0.17	0.07	0.10	39.	
3	1700	66	0.00	0.00	0.00	1.	*	9	2300	216	0.17	0.07	0.10	40.	
3	1800	67	0.00	0.00	0.00	1.	*	10	0000	217	0.17	0.07	0.10	41.	
3	1900	68	0.00	0.00	0.00	1.	*	10	0100	218	0.01	0.00	0.01	42.	
3	2000	69	0.00	0.00	0.00	1.	*	10	0200	219	0.01	0.00	0.01	42.	
3	2100	70	0.00	0.00	0.00	1.	*	10	0300	220	0.01	0.00	0.01	41.	
3	2200	71	0.00	0.00	0.00	1.	*	10	0400	221	0.01	0.00	0.01	38.	
3	2300	72	0.00	0.00	0.00	1.	*	10	0500	222	0.01	0.00	0.01	34.	
4	0000	73	0.00	0.00	0.00	1.	*	10	0600	223	0.01	0.00	0.01	29.	
4	0100	74	0.00	0.00	0.00	1.	*	10	0700	224	0.01	0.00	0.01	25.	
4	0200	75	0.00	0.00	0.00	1.	*	10	0800	225	0.01	0.00	0.01	20.	

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FORM 1411 GD

4	0300	76	0.00	0.00	0.00	1.	*	10	0900	226	0.01	0.00	0.01	16.
4	0400	77	0.00	0.00	0.00	1.	*	10	1000	227	0.01	0.00	0.01	13.
4	0500	78	0.00	0.00	0.00	1.	*	10	1100	228	0.01	0.00	0.01	11.
4	0600	79	0.00	0.00	0.00	1.	*	10	1200	229	0.01	0.00	0.01	9.
4	0700	80	0.00	0.00	0.00	1.	*	10	1300	230	0.01	0.00	0.01	8.
4	0800	81	0.00	0.00	0.00	1.	*	10	1400	231	0.01	0.00	0.01	8.
4	0900	82	0.00	0.00	0.00	1.	*	10	1500	232	0.01	0.00	0.01	8.
4	1000	83	0.00	0.00	0.00	1.	*	10	1600	233	0.01	0.00	0.01	8.
4	1100	84	0.00	0.00	0.00	1.	*	10	1700	234	0.01	0.00	0.01	8.
4	1200	85	0.00	0.00	0.00	1.	*	10	1800	235	0.01	0.00	0.01	8.
4	1300	86	0.00	0.00	0.00	1.	*	10	1900	236	0.01	0.00	0.01	8.
4	1400	87	0.00	0.00	0.00	1.	*	10	2000	237	0.01	0.00	0.01	8.
4	1500	88	0.00	0.00	0.00	1.	*	10	2100	238	0.01	0.00	0.01	8.
4	1600	89	0.00	0.00	0.00	1.	*	10	2200	239	0.01	0.00	0.01	8.
4	1700	90	0.00	0.00	0.00	1.	*	10	2300	240	0.01	0.00	0.01	8.
4	1800	91	0.00	0.00	0.00	1.	*	11	0000	241	0.01	0.00	0.01	8.
4	1900	92	0.00	0.00	0.00	1.	*	11	0100	242	0.00	0.00	0.00	8.
4	2000	93	0.00	0.00	0.00	1.	*	11	0200	243	0.00	0.00	0.00	8.
4	2100	94	0.00	0.00	0.00	1.	*	11	0300	244	0.00	0.00	0.00	8.
4	2200	95	0.00	0.00	0.00	1.	*	11	0400	245	0.00	0.00	0.00	8.
4	2300	96	0.00	0.00	0.00	1.	*	11	0500	246	0.00	0.00	0.00	8.
5	0000	97	0.00	0.00	0.00	1.	*	11	0600	247	0.00	0.00	0.00	8.
5	0100	98	0.01	0.01	0.00	1.	*	11	0700	248	0.00	0.00	0.00	8.
5	0200	99	0.01	0.01	0.00	1.	*	11	0800	249	0.00	0.00	0.00	8.
5	0300	100	0.01	0.01	0.00	1.	*	11	0900	250	0.00	0.00	0.00	8.
5	0400	101	0.01	0.01	0.00	1.	*	11	1000	251	0.00	0.00	0.00	8.
5	0500	102	0.01	0.01	0.00	1.	*	11	1100	252	0.00	0.00	0.00	8.
5	0600	103	0.01	0.01	0.00	1.	*	11	1200	253	0.00	0.00	0.00	8.
5	0700	104	0.01	0.01	0.00	1.	*	11	1300	254	0.00	0.00	0.00	8.
5	0800	105	0.01	0.01	0.00	1.	*	11	1400	255	0.00	0.00	0.00	8.
5	0900	106	0.01	0.01	0.00	1.	*	11	1500	256	0.00	0.00	0.00	8.
5	1000	107	0.01	0.01	0.00	1.	*	11	1600	257	0.00	0.00	0.00	8.
5	1100	108	0.01	0.01	0.00	1.	*	11	1700	258	0.00	0.00	0.00	8.
5	1200	109	0.01	0.01	0.00	1.	*	11	1800	259	0.00	0.00	0.00	8.
5	1300	110	0.01	0.01	0.00	1.	*	11	1900	260	0.00	0.00	0.00	8.
5	1400	111	0.01	0.01	0.00	1.	*	11	2000	261	0.00	0.00	0.00	8.
5	1500	112	0.01	0.01	0.00	1.	*	11	2100	262	0.00	0.00	0.00	8.
5	1600	113	0.01	0.01	0.00	1.	*	11	2200	263	0.00	0.00	0.00	8.
5	1700	114	0.01	0.01	0.00	1.	*	11	2300	264	0.00	0.00	0.00	8.
5	1800	115	0.01	0.01	0.00	1.	*	12	0000	265	0.00	0.00	0.00	8.
5	1900	116	0.01	0.01	0.00	1.	*	12	0100	266	0.00	0.00	0.00	8.
5	2000	117	0.01	0.01	0.00	1.	*	12	0200	267	0.00	0.00	0.00	8.
5	2100	118	0.01	0.01	0.00	1.	*	12	0300	268	0.00	0.00	0.00	8.
5	2200	119	0.01	0.01	0.00	1.	*	12	0400	269	0.00	0.00	0.00	8.
5	2300	120	0.01	0.01	0.00	1.	*	12	0500	270	0.00	0.00	0.00	8.
6	0000	121	0.01	0.01	0.00	1.	*	12	0600	271	0.00	0.00	0.00	8.
6	0100	122	0.01	0.01	0.00	1.	*	12	0700	272	0.00	0.00	0.00	8.
6	0200	123	0.01	0.01	0.00	1.	*	12	0800	273	0.00	0.00	0.00	8.
6	0300	124	0.01	0.01	0.00	1.	*	12	0900	274	0.00	0.00	0.00	8.
6	0400	125	0.01	0.01	0.00	1.	*	12	1000	275	0.00	0.00	0.00	8.
6	0500	126	0.01	0.01	0.00	1.	*	12	1100	276	0.00	0.00	0.00	8.
6	0600	127	0.01	0.01	0.00	1.	*	12	1200	277	0.00	0.00	0.00	8.
6	0700	128	0.01	0.01	0.00	1.	*	12	1300	278	0.00	0.00	0.00	8.
6	0800	129	0.01	0.01	0.00	1.	*	12	1400	279	0.00	0.00	0.00	8.
6	0900	130	0.01	0.01	0.00	1.	*	12	1500	280	0.00	0.00	0.00	8.
6	1000	131	0.01	0.01	0.00	1.	*	12	1600	281	0.00	0.00	0.00	8.
6	1100	132	0.01	0.01	0.00	1.	*	12	1700	282	0.00	0.00	0.00	8.
6	1200	133	0.01	0.01	0.00	1.	*	12	1800	283	0.00	0.00	0.00	8.
6	1300	134	0.01	0.01	0.00	1.	*	12	1900	284	0.00	0.00	0.00	8.
6	1400	135	0.01	0.01	0.00	1.	*	12	2000	285	0.00	0.00	0.00	8.
6	1500	136	0.01	0.01	0.00	1.	*	12	2100	286	0.00	0.00	0.00	7.
6	1600	137	0.01	0.01	0.00	1.	*	12	2200	287	0.00	0.00	0.00	7.
6	1700	138	0.01	0.01	0.00	1.	*	12	2300	288	0.00	0.00	0.00	7.
6	1800	139	0.01	0.01	0.00	1.	*	13	0000	289	0.00	0.00	0.00	7.
6	1900	140	0.01	0.01	0.00	1.	*	13	0100	290	0.00	0.00	0.00	7.
6	2000	141	0.01	0.01	0.00	1.	*	13	0200	291	0.00	0.00	0.00	7.

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6	2100	142	0.01	0.01	0.00	1.	*	13	0300	292	0.00	0.00	0.00	7.
6	2200	143	0.01	0.01	0.00	1.	*	13	0400	293	0.00	0.00	0.00	7.
6	2300	144	0.01	0.01	0.00	1.	*	13	0500	294	0.00	0.00	0.00	7.
7	0000	145	0.01	0.01	0.00	1.	*	13	0600	295	0.00	0.00	0.00	7.
7	0100	146	0.00	0.00	0.00	1.	*	13	0700	296	0.00	0.00	0.00	7.
7	0200	147	0.00	0.00	0.00	1.	*	13	0800	297	0.00	0.00	0.00	7.
7	0300	148	0.00	0.00	0.00	1.	*	13	0900	298	0.00	0.00	0.00	7.
7	0400	149	0.00	0.00	0.00	1.	*	13	1000	299	0.00	0.00	0.00	7.
7	0500	150	0.00	0.00	0.00	1.	*	13	1100	300	0.00	0.00	0.00	7.

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*            *
15 KK   *  SUB2  *
*            *
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SILVER LAKE-DIRECT PRECIP.

SUBBASIN RUNOFF DATA

17 BA SUBBASIN CHARACTERISTICS

TAREA	0.37	SUBBASIN AREA

18 BF BASE FLOW CHARACTERISTICS

STRTQ	0.37	INITIAL FLOW
QRCSN	-0.20	BEGIN BASE FLOW RECESSION
RTIOR	1.00200	RECESSION CONSTANT

PRECIPITATION DATA

STORM	7.30	BASIN TOTAL PRECIPITATION

13 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	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	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

13.	10.	8.	6.	5.	4.	3.	2.	2.	1.	
1.	1.	1.	1.	0.	0.	0.	0.	0.	0.	
0.	0.									

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HYDROGRAPH AT STATION SUB2

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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.	*	7		0600	151	0.00	0.00	0.00	3.
1		0100	2	0.01	0.01	0.00	0.	*	7		0700	152	0.00	0.00	0.00	3.
1		0200	3	0.01	0.01	0.00	0.	*	7		0800	153	0.00	0.00	0.00	3.
1		0300	4	0.01	0.01	0.00	0.	*	7		0900	154	0.00	0.00	0.00	3.
1		0400	5	0.01	0.01	0.00	0.	*	7		1000	155	0.00	0.00	0.00	3.
1		0500	6	0.01	0.01	0.00	0.	*	7		1100	156	0.00	0.00	0.00	3.
1		0600	7	0.01	0.01	0.00	0.	*	7		1200	157	0.00	0.00	0.00	3.
1		0700	8	0.01	0.01	0.00	0.	*	7		1300	158	0.00	0.00	0.00	3.
1		0800	9	0.01	0.01	0.00	0.	*	7		1400	159	0.00	0.00	0.00	3.
1		0900	10	0.01	0.01	0.00	0.	*	7		1500	160	0.00	0.00	0.00	3.
1		1000	11	0.01	0.01	0.00	0.	*	7		1600	161	0.00	0.00	0.00	3.
1		1100	12	0.01	0.01	0.00	1.	*	7		1700	162	0.00	0.00	0.00	3.
1		1200	13	0.01	0.01	0.00	1.	*	7		1800	163	0.00	0.00	0.00	3.
1		1300	14	0.01	0.00	0.00	1.	*	7		1900	164	0.00	0.00	0.00	3.
1		1400	15	0.01	0.00	0.00	1.	*	7		2000	165	0.00	0.00	0.00	3.
1		1500	16	0.01	0.00	0.00	1.	*	7		2100	166	0.00	0.00	0.00	3.
1		1600	17	0.01	0.00	0.01	1.	*	7		2200	167	0.00	0.00	0.00	3.
1		1700	18	0.01	0.00	0.01	1.	*	7		2300	168	0.00	0.00	0.00	3.
1		1800	19	0.01	0.00	0.01	1.	*	8		0000	169	0.00	0.00	0.00	3.
1		1900	20	0.01	0.00	0.01	1.	*	8		0100	170	0.00	0.00	0.00	3.
1		2000	21	0.01	0.00	0.01	1.	*	8		0200	171	0.00	0.00	0.00	3.
1		2100	22	0.01	0.00	0.01	1.	*	8		0300	172	0.00	0.00	0.00	3.
1		2200	23	0.01	0.00	0.01	1.	*	8		0400	173	0.00	0.00	0.00	3.
1		2300	24	0.01	0.00	0.01	1.	*	8		0500	174	0.00	0.00	0.00	3.
2		0000	25	0.01	0.00	0.01	2.	*	8		0600	175	0.00	0.00	0.00	3.
2		0100	26	0.08	0.02	0.06	2.	*	8		0700	176	0.00	0.00	0.00	3.
2		0200	27	0.08	0.01	0.07	2.	*	8		0800	177	0.00	0.00	0.00	3.
2		0300	28	0.08	0.01	0.07	3.	*	8		0900	178	0.00	0.00	0.00	3.
2		0400	29	0.09	0.01	0.08	4.	*	8		1000	179	0.00	0.00	0.00	3.
2		0500	30	0.08	0.01	0.08	6.	*	8		1100	180	0.00	0.00	0.00	3.
2		0600	31	0.08	0.00	0.08	8.	*	8		1200	181	0.00	0.00	0.00	3.
2		0700	32	0.09	0.00	0.08	10.	*	8		1300	182	0.00	0.00	0.00	3.
2		0800	33	0.09	0.00	0.08	11.	*	8		1400	183	0.00	0.00	0.00	3.
2		0900	34	0.08	0.00	0.08	13.	*	8		1500	184	0.00	0.00	0.00	3.
2		1000	35	0.08	0.00	0.08	14.	*	8		1600	185	0.00	0.00	0.00	3.
2		1100	36	0.08	0.00	0.08	16.	*	8		1700	186	0.00	0.00	0.00	3.
2		1200	37	0.08	0.00	0.08	16.	*	8		1800	187	0.00	0.00	0.00	3.
2		1300	38	0.08	0.00	0.08	17.	*	8		1900	188	0.00	0.00	0.00	3.
2		1400	39	0.08	0.00	0.08	18.	*	8		2000	189	0.00	0.00	0.00	3.
2		1500	40	0.08	0.00	0.08	18.	*	8		2100	190	0.00	0.00	0.00	3.
2		1600	41	0.08	0.00	0.08	19.	*	8		2200	191	0.00	0.00	0.00	3.
2		1700	42	0.08	0.00	0.08	19.	*	8		2300	192	0.00	0.00	0.00	3.
2		1800	43	0.08	0.00	0.08	19.	*	9		0000	193	0.00	0.00	0.00	3.
2		1900	44	0.08	0.00	0.08	19.	*	9		0100	194	0.17	0.00	0.17	3.
2		2000	45	0.08	0.00	0.08	20.	*	9		0200	195	0.17	0.00	0.17	3.
2		2100	46	0.08	0.00	0.08	20.	*	9		0300	196	0.17	0.00	0.17	4.
2		2200	47	0.08	0.00	0.08	20.	*	9		0400	197	0.17	0.00	0.17	7.
2		2300	48	0.08	0.00	0.08	20.	*	9		0500	198	0.17	0.00	0.17	11.
3		0000	49	0.08	0.00	0.08	20.	*	9		0600	199	0.17	0.00	0.17	16.
3		0100	50	0.00	0.00	0.00	20.	*	9		0700	200	0.17	0.00	0.17	21.
3		0200	51	0.00	0.00	0.00	20.	*	9		0800	201	0.17	0.00	0.17	25.
3		0300	52	0.00	0.00	0.00	19.	*	9		0900	202	0.17	0.00	0.17	29.
3		0400	53	0.00	0.00	0.00	17.	*	9		1000	203	0.17	0.00	0.17	32.
3		0500	54	0.00	0.00	0.00	15.	*	9		1100	204	0.17	0.00	0.17	34.

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	3	0600	55	0.00	0.00	0.00	13.	*	9	1200	205	0.17	0.00	0.17	36.
	3	0700	56	0.00	0.00	0.00	11.	*	9	1300	206	0.17	0.00	0.17	37.
	3	0800	57	0.00	0.00	0.00	9.	*	9	1400	207	0.17	0.00	0.17	38.
	3	0900	58	0.00	0.00	0.00	7.	*	9	1500	208	0.17	0.00	0.17	39.
	3	1000	59	0.00	0.00	0.00	6.	*	9	1600	209	0.17	0.00	0.17	39.
	3	1100	60	0.00	0.00	0.00	5.	*	9	1700	210	0.17	0.00	0.17	40.
1	3	1200	61	0.00	0.00	0.00	4.	*	9	1800	211	0.17	0.00	0.17	40.
2	3	1300	62	0.00	0.00	0.00	4.	*	9	1900	212	0.17	0.00	0.17	41.
3	3	1400	63	0.00	0.00	0.00	4.	*	9	2000	213	0.17	0.00	0.17	41.
4	3	1500	64	0.00	0.00	0.00	4.	*	9	2100	214	0.17	0.00	0.17	41.
5	3	1600	65	0.00	0.00	0.00	4.	*	9	2200	215	0.17	0.00	0.17	41.
6	3	1700	66	0.00	0.00	0.00	4.	*	9	2300	216	0.17	0.00	0.17	41.
7	3	1800	67	0.00	0.00	0.00	4.	*	10	0000	217	0.17	0.00	0.17	41.
8	3	1900	68	0.00	0.00	0.00	4.	*	10	0100	218	0.01	0.00	0.01	41.
9	3	2000	69	0.00	0.00	0.00	4.	*	10	0200	219	0.01	0.00	0.01	40.
10	3	2100	70	0.00	0.00	0.00	4.	*	10	0300	220	0.01	0.00	0.01	38.
11	3	2200	71	0.00	0.00	0.00	4.	*	10	0400	221	0.01	0.00	0.01	35.
12	3	2300	72	0.00	0.00	0.00	4.	*	10	0500	222	0.01	0.00	0.01	31.
13	4	0000	73	0.00	0.00	0.00	4.	*	10	0600	223	0.01	0.00	0.01	27.
14	4	0100	74	0.00	0.00	0.00	4.	*	10	0700	224	0.01	0.00	0.01	22.
15	4	0200	75	0.00	0.00	0.00	4.	*	10	0800	225	0.01	0.00	0.01	18.
16	4	0300	76	0.00	0.00	0.00	4.	*	10	0900	226	0.01	0.00	0.01	15.
17	4	0400	77	0.00	0.00	0.00	4.	*	10	1000	227	0.01	0.00	0.01	12.
18	4	0500	78	0.00	0.00	0.00	4.	*	10	1100	228	0.01	0.00	0.01	10.
19	4	0600	79	0.00	0.00	0.00	4.	*	10	1200	229	0.01	0.00	0.01	8.
20	4	0700	80	0.00	0.00	0.00	4.	*	10	1300	230	0.01	0.00	0.01	8.
21	4	0800	81	0.00	0.00	0.00	4.	*	10	1400	231	0.01	0.00	0.01	8.
22	4	0900	82	0.00	0.00	0.00	4.	*	10	1500	232	0.01	0.00	0.01	8.
23	4	1000	83	0.00	0.00	0.00	4.	*	10	1600	233	0.01	0.00	0.01	8.
24	4	1100	84	0.00	0.00	0.00	4.	*	10	1700	234	0.01	0.00	0.01	8.
25	4	1200	85	0.00	0.00	0.00	4.	*	10	1800	235	0.01	0.00	0.01	8.
26	4	1300	86	0.00	0.00	0.00	4.	*	10	1900	236	0.01	0.00	0.01	8.
27	4	1400	87	0.00	0.00	0.00	4.	*	10	2000	237	0.01	0.00	0.01	8.
28	4	1500	88	0.00	0.00	0.00	4.	*	10	2100	238	0.01	0.00	0.01	8.
29	4	1600	89	0.00	0.00	0.00	4.	*	10	2200	239	0.01	0.00	0.01	8.
30	4	1700	90	0.00	0.00	0.00	4.	*	10	2300	240	0.01	0.00	0.01	8.
31	4	1800	91	0.00	0.00	0.00	4.	*	11	0000	241	0.01	0.00	0.01	8.
32	4	1900	92	0.00	0.00	0.00	4.	*	11	0100	242	0.00	0.00	0.00	8.
33	4	2000	93	0.00	0.00	0.00	4.	*	11	0200	243	0.00	0.00	0.00	8.
34	4	2100	94	0.00	0.00	0.00	4.	*	11	0300	244	0.00	0.00	0.00	8.
35	4	2200	95	0.00	0.00	0.00	4.	*	11	0400	245	0.00	0.00	0.00	8.
36	4	2300	96	0.00	0.00	0.00	4.	*	11	0500	246	0.00	0.00	0.00	8.
37	5	0000	97	0.00	0.00	0.00	4.	*	11	0600	247	0.00	0.00	0.00	8.
38	5	0100	98	0.01	0.00	0.01	4.	*	11	0700	248	0.00	0.00	0.00	8.
39	5	0200	99	0.01	0.00	0.01	4.	*	11	0800	249	0.00	0.00	0.00	8.
40	5	0300	100	0.01	0.00	0.01	4.	*	11	0900	250	0.00	0.00	0.00	8.
41	5	0400	101	0.01	0.00	0.01	4.	*	11	1000	251	0.00	0.00	0.00	8.
42	5	0500	102	0.01	0.00	0.01	4.	*	11	1100	252	0.00	0.00	0.00	8.
43	5	0600	103	0.01	0.00	0.01	4.	*	11	1200	253	0.00	0.00	0.00	8.
44	5	0700	104	0.01	0.00	0.01	4.	*	11	1300	254	0.00	0.00	0.00	8.
45	5	0800	105	0.01	0.00	0.01	4.	*	11	1400	255	0.00	0.00	0.00	8.
46	5	0900	106	0.01	0.00	0.01	4.	*	11	1500	256	0.00	0.00	0.00	8.
47	5	1000	107	0.01	0.00	0.01	4.	*	11	1600	257	0.00	0.00	0.00	8.
48	5	1100	108	0.01	0.00	0.01	4.	*	11	1700	258	0.00	0.00	0.00	8.
49	5	1200	109	0.01	0.00	0.01	4.	*	11	1800	259	0.00	0.00	0.00	8.
50	5	1300	110	0.01	0.00	0.01	4.	*	11	1900	260	0.00	0.00	0.00	8.
51	5	1400	111	0.01	0.00	0.01	4.	*	11	2000	261	0.00	0.00	0.00	8.
52	5	1500	112	0.01	0.00	0.01	4.	*	11	2100	262	0.00	0.00	0.00	8.
53	5	1600	113	0.01	0.00	0.01	4.	*	11	2200	263	0.00	0.00	0.00	8.
54	5	1700	114	0.01	0.00	0.01	4.	*	11	2300	264	0.00	0.00	0.00	8.
55	5	1800	115	0.01	0.00	0.01	4.	*	12	0000	265	0.00	0.00	0.00	8.
56	5	1900	116	0.01	0.00	0.01	4.	*	12	0100	266	0.00	0.00	0.00	8.
57	5	2000	117	0.01	0.00	0.01	4.	*	12	0200	267	0.00	0.00	0.00	8.
	5	2100	118	0.01	0.00	0.01	4.	*	12	0300	268	0.00	0.00	0.00	8.
	5	2200	119	0.01	0.00	0.01	4.	*	12	0400	269	0.00	0.00	0.00	8.
	5	2300	120	0.01	0.00	0.01	4.	*	12	0500	270	0.00	0.00	0.00	8.

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FORM 1411 BD

6	0000	121	0.01	0.00	0.01	4.	*	12	0600	271	0.00	0.00	0.00	8.
6	0100	122	0.01	0.00	0.01	4.	*	12	0700	272	0.00	0.00	0.00	8.
6	0200	123	0.01	0.00	0.01	4.	*	12	0800	273	0.00	0.00	0.00	8.
6	0300	124	0.01	0.00	0.01	4.	*	12	0900	274	0.00	0.00	0.00	8.
6	0400	125	0.01	0.00	0.01	4.	*	12	1000	275	0.00	0.00	0.00	8.
6	0500	126	0.01	0.00	0.01	4.	*	12	1100	276	0.00	0.00	0.00	8.
6	0600	127	0.01	0.00	0.01	4.	*	12	1200	277	0.00	0.00	0.00	8.
6	0700	128	0.01	0.00	0.01	4.	*	12	1300	278	0.00	0.00	0.00	7.
6	0800	129	0.01	0.00	0.01	4.	*	12	1400	279	0.00	0.00	0.00	7.
6	0900	130	0.01	0.00	0.01	3.	*	12	1500	280	0.00	0.00	0.00	7.
6	1000	131	0.01	0.00	0.01	3.	*	12	1600	281	0.00	0.00	0.00	7.
6	1100	132	0.01	0.00	0.01	3.	*	12	1700	282	0.00	0.00	0.00	7.
6	1200	133	0.01	0.00	0.01	3.	*	12	1800	283	0.00	0.00	0.00	7.
6	1300	134	0.01	0.00	0.01	3.	*	12	1900	284	0.00	0.00	0.00	7.
6	1400	135	0.01	0.00	0.01	3.	*	12	2000	285	0.00	0.00	0.00	7.
6	1500	136	0.01	0.00	0.01	3.	*	12	2100	286	0.00	0.00	0.00	7.
6	1600	137	0.01	0.00	0.01	3.	*	12	2200	287	0.00	0.00	0.00	7.
6	1700	138	0.01	0.00	0.01	3.	*	12	2300	288	0.00	0.00	0.00	7.
6	1800	139	0.01	0.00	0.01	3.	*	13	0000	289	0.00	0.00	0.00	7.
6	1900	140	0.01	0.00	0.01	3.	*	13	0100	290	0.00	0.00	0.00	7.
6	2000	141	0.01	0.00	0.01	3.	*	13	0200	291	0.00	0.00	0.00	7.
6	2100	142	0.01	0.00	0.01	3.	*	13	0300	292	0.00	0.00	0.00	7.
6	2200	143	0.01	0.00	0.01	3.	*	13	0400	293	0.00	0.00	0.00	7.
6	2300	144	0.01	0.00	0.01	3.	*	13	0500	294	0.00	0.00	0.00	7.
7	0000	145	0.01	0.00	0.01	3.	*	13	0600	295	0.00	0.00	0.00	7.
7	0100	146	0.00	0.00	0.00	3.	*	13	0700	296	0.00	0.00	0.00	7.
7	0200	147	0.00	0.00	0.00	3.	*	13	0800	297	0.00	0.00	0.00	7.
7	0300	148	0.00	0.00	0.00	3.	*	13	0900	298	0.00	0.00	0.00	7.
7	0400	149	0.00	0.00	0.00	3.	*	13	1000	299	0.00	0.00	0.00	7.
7	0500	150	0.00	0.00	0.00	3.	*	13	1100	300	0.00	0.00	0.00	7.

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TOTAL RAINFALL = 7.30, TOTAL LOSS = 0.24, TOTAL EXCESS = 7.06

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
(CFS)	(HR)		6-HR	24-HR	72-HR	299.00-HR
41.	216.00	(CFS)	41.	36.	18.	8.
		(INCHES)	1.032	3.637	5.433	10.482
		(AC-FT)	20.	72.	107.	207.

CUMULATIVE AREA = 0.37 SQ MI

STATION SUB2

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PINE TREE PRODUCTS - DIVISION OF ROTARY MULTIFORMS, INC.
FORM 1411 GB

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* *
22 KK * *
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COMBINE SUB1 & 2

24 HC HYDROGRAPH COMBINATION
ICOMP 2 NUMBER OF HYDROGRAPHS TO COMBINE

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HYDROGRAPH AT STATION
SUM OF 2 HYDROGRAPHS

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DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW	*	DA	MON	HRMN	ORD	FLOW
1		0000	1	1.	*	4		0300	76	5.	*	7		0600	151	4.	*	10		0900	226	31.
1		0100	2	1.	*	4		0400	77	5.	*	7		0700	152	4.	*	10		1000	227	25.
1		0200	3	1.	*	4		0500	78	5.	*	7		0800	153	4.	*	10		1100	228	21.
1		0300	4	1.	*	4		0600	79	5.	*	7		0900	154	4.	*	10		1200	229	18.
1		0400	5	1.	*	4		0700	80	5.	*	7		1000	155	4.	*	10		1300	230	17.
1		0500	6	1.	*	4		0800	81	5.	*	7		1100	156	4.	*	10		1400	231	17.
1		0600	7	1.	*	4		0900	82	5.	*	7		1200	157	4.	*	10		1500	232	17.
1		0700	8	1.	*	4		1000	83	5.	*	7		1300	158	4.	*	10		1600	233	17.
1		0800	9	1.	*	4		1100	84	5.	*	7		1400	159	4.	*	10		1700	234	17.
1		0900	10	1.	*	4		1200	85	5.	*	7		1500	160	4.	*	10		1800	235	16.
1		1000	11	1.	*	4		1300	86	5.	*	7		1600	161	4.	*	10		1900	236	16.
1		1100	12	1.	*	4		1400	87	5.	*	7		1700	162	4.	*	10		2000	237	16.
1		1200	13	1.	*	4		1500	88	5.	*	7		1800	163	4.	*	10		2100	238	16.
1		1300	14	1.	*	4		1600	89	5.	*	7		1900	164	4.	*	10		2200	239	16.
1		1400	15	1.	*	4		1700	90	4.	*	7		2000	165	4.	*	10		2300	240	16.
1		1500	16	2.	*	4		1800	91	4.	*	7		2100	166	4.	*	11		0000	241	16.
1		1600	17	2.	*	4		1900	92	4.	*	7		2200	167	4.	*	11		0100	242	16.
1		1700	18	2.	*	4		2000	93	4.	*	7		2300	168	4.	*	11		0200	243	16.
1		1800	19	2.	*	4		2100	94	4.	*	8		0000	169	4.	*	11		0300	244	16.
1		1900	20	2.	*	4		2200	95	4.	*	8		0100	170	4.	*	11		0400	245	16.
1		2000	21	2.	*	4		2300	96	4.	*	8		0200	171	4.	*	11		0500	246	16.
1		2100	22	2.	*	5		0000	97	4.	*	8		0300	172	4.	*	11		0600	247	16.
1		2200	23	2.	*	5		0100	98	4.	*	8		0400	173	4.	*	11		0700	248	16.
1		2300	24	2.	*	5		0200	99	4.	*	8		0500	174	4.	*	11		0800	249	16.
2		0000	25	2.	*	5		0300	100	4.	*	8		0600	175	4.	*	11		0900	250	16.
2		0100	26	2.	*	5		0400	101	4.	*	8		0700	176	4.	*	11		1000	251	16.
2		0200	27	3.	*	5		0500	102	5.	*	8		0800	177	4.	*	11		1100	252	16.
2		0300	28	3.	*	5		0600	103	5.	*	8		0900	178	4.	*	11		1200	253	16.
2		0400	29	5.	*	5		0700	104	5.	*	8		1000	179	4.	*	11		1300	254	16.
2		0500	30	6.	*	5		0800	105	5.	*	8		1100	180	4.	*	11		1400	255	16.
2		0600	31	8.	*	5		0900	106	5.	*	8		1200	181	4.	*	11		1500	256	16.
2		0700	32	10.	*	5		1000	107	5.	*	8		1300	182	4.	*	11		1600	257	16.
2		0800	33	12.	*	5		1100	108	5.	*	8		1400	183	4.	*	11		1700	258	16.
2		0900	34	14.	*	5		1200	109	5.	*	8		1500	184	4.	*	11		1800	259	16.
2		1000	35	15.	*	5		1300	110	5.	*	8		1600	185	4.	*	11		1900	260	16.
2		1100	36	16.	*	5		1400	111	5.	*	8		1700	186	4.	*	11		2000	261	16.
2		1200	37	17.	*	5		1500	112	5.	*	8		1800	187	4.	*	11		2100	262	16.
2		1300	38	18.	*	5		1600	113	5.	*	8		1900	188	4.	*	11		2200	263	16.
2		1400	39	19.	*	5		1700	114	5.	*	8		2000	189	4.	*	11		2300	264	16.

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FORM 1411-QD

	2	1500	40	19.	*	5	1800	115	5.	*	8	2100	190	4.	*	12	0000	265	16.
	2	1600	41	19.	*	5	1900	116	5.	*	8	2200	191	4.	*	12	0100	266	15.
	2	1700	42	20.	*	5	2000	117	5.	*	8	2300	192	4.	*	12	0200	267	15.
	2	1800	43	20.	*	5	2100	118	5.	*	9	0000	193	4.	*	12	0300	268	15.
	2	1900	44	20.	*	5	2200	119	5.	*	9	0100	194	4.	*	12	0400	269	15.
	2	2000	45	20.	*	5	2300	120	5.	*	9	0200	195	4.	*	12	0500	270	15.
1	2	2100	46	20.	*	5	0000	121	5.	*	9	0300	196	6.	*	12	0600	271	15.
2	2	2200	47	21.	*	6	0100	122	5.	*	9	0400	197	11.	*	12	0700	272	15.
3	2	2300	48	21.	*	5	0200	123	5.	*	9	0500	198	17.	*	12	0800	273	15.
4	3	0000	49	21.	*	6	0300	124	5.	*	9	0600	199	24.	*	12	0900	274	15.
5	3	0100	50	21.	*	6	0400	125	5.	*	9	0700	200	32.	*	12	1000	275	15.
6	3	0200	51	21.	*	6	0500	126	5.	*	9	0800	201	39.	*	12	1100	276	15.
7	3	0300	52	20.	*	6	0600	127	5.	*	9	0900	202	45.	*	12	1200	277	15.
8	3	0400	53	19.	*	6	0700	128	5.	*	9	1000	203	51.	*	12	1300	278	15.
9	3	0500	54	17.	*	5	0800	129	5.	*	9	1100	204	55.	*	12	1400	279	15.
10	3	0600	55	15.	*	6	0900	130	5.	*	9	1200	205	59.	*	12	1500	280	15.
11	3	0700	56	13.	*	6	1000	131	5.	*	9	1300	206	62.	*	12	1600	281	15.
12	3	0800	57	10.	*	6	1100	132	5.	*	9	1400	207	65.	*	12	1700	282	15.
13	3	0900	58	8.	*	6	1200	133	5.	*	9	1500	208	68.	*	12	1800	283	15.
14	3	1000	59	7.	*	6	1300	134	5.	*	9	1600	209	70.	*	12	1900	284	15.
15	3	1100	60	6.	*	6	1400	135	5.	*	9	1700	210	72.	*	12	2000	285	15.
16	3	1200	61	5.	*	6	1500	136	5.	*	9	1800	211	74.	*	12	2100	286	15.
17	3	1300	62	5.	*	6	1600	137	5.	*	9	1900	212	76.	*	12	2200	287	15.
18	3	1400	63	5.	*	6	1700	138	5.	*	9	2000	213	77.	*	12	2300	288	15.
19	3	1500	64	5.	*	6	1800	139	5.	*	9	2100	214	79.	*	13	0000	289	15.
20	3	1600	65	5.	*	6	1900	140	5.	*	9	2200	215	80.	*	13	0100	290	15.
21	3	1700	66	5.	*	6	2000	141	5.	*	9	2300	216	81.	*	13	0200	291	15.
22	3	1800	67	5.	*	6	2100	142	5.	*	10	0000	217	83.	*	13	0300	292	15.
23	3	1900	68	5.	*	6	2200	143	5.	*	10	0100	218	83.	*	13	0400	293	15.
24	3	2000	69	5.	*	6	2300	144	5.	*	10	0200	219	82.	*	13	0500	294	15.
25	3	2100	70	5.	*	7	0000	145	5.	*	10	0300	220	79.	*	13	0600	295	15.
26	3	2200	71	5.	*	7	0100	146	5.	*	10	0400	221	73.	*	13	0700	296	15.
27	3	2300	72	5.	*	7	0200	147	5.	*	10	0500	222	65.	*	13	0800	297	15.
28	4	0000	73	5.	*	7	0300	148	5.	*	10	0600	223	56.	*	13	0900	298	15.
29	4	0100	74	5.	*	7	0400	149	5.	*	10	0700	224	47.	*	13	1000	299	14.
30	4	0200	75	5.	*	7	0500	150	5.	*	10	0800	225	39.	*	13	1100	300	14.
31					*					*					*				

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PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	299.00-HR
83.	217.00	(CFS)	81.	68.	34.	14.
		(INCHES)	0.701	2.330	3.544	5.862
		(AC-FT)	40.	134.	204.	338.

CUMULATIVE AREA = 1.08 SQ MI

STATION

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FORM 1411 GD

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25 KK

ROUTED OUTFLOW SILVER LAKE

HYDROGRAPH ROUTING DATA

27 RS STORAGE ROUTING

NSTPS 1 NUMBER OF SUBREACHES

ITYP ELEV TYPE OF INITIAL CONDITION

RSVIC 875.00 INITIAL CONDITION

X 0.00 WORKING R AND D COEFFICIENT

29 SV	STORAGE	0.0	95.4	195.0	245.5
30 SE	ELEVATION	875.00	875.40	875.80	876.00
29 SQ	DISCHARGE	3.	4.	5.	5.

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HYDROGRAPH AT STATION

DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	*	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	*	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE
1		0000	1	3.	0.0	875.0	*	5		0400	101	3.	39.1	875.2	*	9		0800	201	3.	55.7	875.2
1		0100	2	2.	-0.1	875.0	*	5		0500	102	3.	39.3	875.2	*	9		0900	202	3.	58.9	875.2
1		0200	3	2.	-0.1	875.0	*	5		0600	103	3.	39.4	875.2	*	9		1000	203	3.	62.6	875.3
1		0300	4	2.	-0.1	875.0	*	5		0700	104	3.	39.5	875.2	*	9		1100	204	4.	66.7	875.3
1		0400	5	2.	-0.1	875.0	*	5		0800	105	3.	39.6	875.2	*	9		1200	205	4.	71.1	875.3
1		0500	6	2.	-0.1	875.0	*	5		0900	106	3.	39.8	875.2	*	9		1300	206	4.	75.8	875.3
1		0600	7	2.	-0.1	875.0	*	5		1000	107	3.	39.9	875.2	*	9		1400	207	4.	80.8	875.3
1		0700	8	2.	-0.1	875.0	*	5		1100	108	3.	40.0	875.2	*	9		1500	208	4.	86.0	875.4
1		0800	9	2.	-0.1	875.0	*	5		1200	109	3.	40.2	875.2	*	9		1600	209	4.	91.4	875.4
1		0900	10	2.	-0.1	875.0	*	5		1300	110	3.	40.3	875.2	*	9		1700	210	4.	97.0	875.4
1		1000	11	2.	-0.1	875.0	*	5		1400	111	3.	40.4	875.2	*	9		1800	211	4.	102.7	875.4
1		1100	12	2.	-0.1	875.0	*	5		1500	112	3.	40.6	875.2	*	9		1900	212	4.	108.5	875.5
1		1200	13	2.	-0.1	875.0	*	5		1600	113	3.	40.7	875.2	*	9		2000	213	4.	114.5	875.5
1		1300	14	2.	-0.1	875.0	*	5		1700	114	3.	40.9	875.2	*	9		2100	214	4.	120.6	875.5
1		1400	15	2.	-0.1	875.0	*	5		1800	115	3.	41.0	875.2	*	9		2200	215	4.	126.8	875.5
1		1500	16	2.	-0.1	875.0	*	5		1900	116	3.	41.1	875.2	*	9		2300	216	4.	133.2	875.6
1		1600	17	2.	-0.1	875.0	*	5		2000	117	3.	41.3	875.2	*	10		0000	217	4.	139.6	875.6
1		1700	18	2.	-0.1	875.0	*	5		2100	118	3.	41.4	875.2	*	10		0100	218	4.	146.1	875.6
1		1800	19	2.	-0.1	875.0	*	5		2200	119	3.	41.6	875.2	*	10		0200	219	4.	152.5	875.6
1		1900	20	2.	-0.1	875.0	*	5		2300	120	3.	41.7	875.2	*	10		0300	220	4.	158.8	875.7
1		2000	21	2.	-0.1	875.0	*	6		0000	121	3.	41.8	875.2	*	10		0400	221	4.	164.8	875.7
1		2100	22	2.	-0.1	875.0	*	6		0100	122	3.	42.0	875.2	*	10		0500	222	5.	170.1	875.7
1		2200	23	2.	-0.1	875.0	*	6		0200	123	3.	42.1	875.2	*	10		0600	223	5.	174.8	875.7
1		2300	24	2.	-0.1	875.0	*	6		0300	124	3.	42.3	875.2	*	10		0700	224	5.	178.7	875.7
2		0000	25	2.	-0.1	875.0	*	6		0400	125	3.	42.4	875.2	*	10		0800	225	5.	181.8	875.7
2		0100	26	2.	-0.1	875.0	*	6		0500	126	3.	42.5	875.2	*	10		0900	226	5.	184.4	875.8
2		0200	27	2.	-0.1	875.0	*	6		0600	127	3.	42.7	875.2	*	10		1000	227	5.	186.3	875.8
2		0300	28	2.	0.0	875.0	*	6		0700	128	3.	42.8	875.2	*	10		1100	228	5.	187.8	875.8
2		0400	29	3.	0.1	875.0	*	6		0800	129	3.	42.9	875.2	*	10		1200	229	5.	189.0	875.8

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	2	0500	30	3.	0.3	875.0	*	6	0900	130	3.	43.1	875.2	* 10	1300	230	5.	190.1	875.8
	2	0600	31	3.	0.7	875.0	*	6	1000	131	3.	43.2	875.2	* 10	1400	231	5.	191.1	875.8
	2	0700	32	3.	1.3	875.0	*	6	1100	132	3.	43.3	875.2	* 10	1500	232	5.	192.0	875.8
	2	0800	33	3.	2.0	875.0	*	6	1200	133	3.	43.5	875.2	* 10	1600	233	5.	193.0	875.8
	2	0900	34	3.	2.9	875.0	*	6	1300	134	3.	43.6	875.2	* 10	1700	234	5.	194.0	875.8
	2	1000	35	3.	3.8	875.0	*	6	1400	135	3.	43.7	875.2	* 10	1800	235	5.	195.0	875.8
1	2	1100	36	3.	4.9	875.0	*	6	1500	136	3.	43.8	875.2	* 10	1900	236	5.	195.9	875.8
2	2	1200	37	3.	6.1	875.0	*	6	1600	137	3.	44.0	875.2	* 10	2000	237	5.	196.9	875.8
3	2	1300	38	3.	7.3	875.0	*	6	1700	138	3.	44.1	875.2	* 10	2100	238	5.	197.9	875.8
4	2	1400	39	3.	8.6	875.0	*	6	1800	139	3.	44.2	875.2	* 10	2200	239	5.	198.8	875.8

2	1500	40	3.	9.9	875.0 * 6	1900	140	3.	44.3	875.2 * 10	2300	240	5.	199.8	875.8
2	1600	41	3.	11.3	875.0 * 6	2000	141	3.	44.5	875.2 * 11	0000	241	5.	200.7	875.8
2	1700	42	3.	12.7	875.1 * 6	2100	142	3.	44.6	875.2 * 11	0100	242	5.	201.7	875.8
2	1800	43	3.	14.1	875.1 * 6	2200	143	3.	44.7	875.2 * 11	0200	243	5.	202.6	875.8
2	1900	44	3.	15.5	875.1 * 6	2300	144	3.	44.8	875.2 * 11	0300	244	5.	203.6	875.8
2	2000	45	3.	17.0	875.1 * 7	0000	145	3.	44.9	875.2 * 11	0400	245	5.	204.5	875.8
2	2100	46	3.	18.4	875.1 * 7	0100	146	3.	45.1	875.2 * 11	0500	246	5.	205.5	875.8
2	2200	47	3.	19.9	875.1 * 7	0200	147	3.	45.2	875.2 * 11	0600	247	5.	206.4	875.8
2	2300	48	3.	21.4	875.1 * 7	0300	148	3.	45.3	875.2 * 11	0700	248	5.	207.3	875.8
3	0000	49	3.	22.9	875.1 * 7	0400	149	3.	45.4	875.2 * 11	0800	249	5.	208.3	875.9
3	0100	50	3.	24.4	875.1 * 7	0500	150	3.	45.5	875.2 * 11	0900	250	5.	209.2	875.9
3	0200	51	3.	25.9	875.1 * 7	0600	151	3.	45.6	875.2 * 11	1000	251	5.	210.1	875.9
3	0300	52	3.	27.4	875.1 * 7	0700	152	3.	45.7	875.2 * 11	1100	252	5.	211.0	875.9
3	0400	53	3.	28.8	875.1 * 7	0800	153	3.	45.8	875.2 * 11	1200	253	5.	212.0	875.9
3	0500	54	3.	30.0	875.1 * 7	0900	154	3.	45.9	875.2 * 11	1300	254	5.	212.9	875.9
3	0600	55	3.	31.1	875.1 * 7	1000	155	3.	46.0	875.2 * 11	1400	255	5.	213.8	875.9
3	0700	56	3.	32.0	875.1 * 7	1100	156	3.	46.1	875.2 * 11	1500	256	5.	214.7	875.9
3	0800	57	3.	32.7	875.1 * 7	1200	157	3.	46.1	875.2 * 11	1600	257	5.	215.6	875.9
3	0900	58	3.	33.2	875.1 * 7	1300	158	3.	46.2	875.2 * 11	1700	258	5.	216.5	875.9
3	1000	59	3.	33.6	875.1 * 7	1400	159	3.	46.3	875.2 * 11	1800	259	5.	217.4	875.9
3	1100	60	3.	33.9	875.1 * 7	1500	160	3.	46.3	875.2 * 11	1900	260	5.	218.3	875.9
3	1200	61	3.	34.0	875.1 * 7	1600	161	3.	46.4	875.2 * 11	2000	261	5.	219.2	875.9
3	1300	62	3.	34.2	875.1 * 7	1700	162	3.	46.5	875.2 * 11	2100	262	5.	220.1	875.9
3	1400	63	3.	34.4	875.1 * 7	1800	163	3.	46.5	875.2 * 11	2200	263	5.	221.0	875.9
3	1500	64	3.	34.5	875.1 * 7	1900	164	3.	46.6	875.2 * 11	2300	264	5.	221.9	875.9
3	1600	65	3.	34.7	875.1 * 7	2000	165	3.	46.7	875.2 * 12	0000	265	5.	222.7	875.9
3	1700	66	3.	34.8	875.1 * 7	2100	166	3.	46.7	875.2 * 12	0100	266	5.	223.6	875.9
3	1800	67	3.	35.0	875.1 * 7	2200	167	3.	46.8	875.2 * 12	0200	267	5.	224.5	875.9
3	1900	68	3.	35.1	875.1 * 7	2300	168	3.	46.9	875.2 * 12	0300	268	5.	225.4	875.9
3	2000	69	3.	35.2	875.1 * 8	0000	169	3.	46.9	875.2 * 12	0400	269	5.	226.2	875.9
3	2100	70	3.	35.4	875.1 * 8	0100	170	3.	47.0	875.2 * 12	0500	270	5.	227.1	875.9
3	2200	71	3.	35.5	875.1 * 8	0200	171	3.	47.0	875.2 * 12	0600	271	5.	228.0	875.9
3	2300	72	3.	35.7	875.1 * 8	0300	172	3.	47.1	875.2 * 12	0700	272	5.	228.8	875.9
4	0000	73	3.	35.8	875.1 * 8	0400	173	3.	47.1	875.2 * 12	0800	273	5.	229.7	875.9
4	0100	74	3.	35.9	875.2 * 8	0500	174	3.	47.2	875.2 * 12	0900	274	5.	230.5	875.9
4	0200	75	3.	36.1	875.2 * 8	0600	175	3.	47.2	875.2 * 12	1000	275	5.	231.4	875.9
4	0300	76	3.	36.2	875.2 * 8	0700	176	3.	47.3	875.2 * 12	1100	276	5.	232.2	875.9
4	0400	77	3.	36.3	875.2 * 8	0800	177	3.	47.3	875.2 * 12	1200	277	5.	233.1	876.0
4	0500	78	3.	36.5	875.2 * 8	0900	178	3.	47.4	875.2 * 12	1300	278	5.	233.9	876.0
4	0600	79	3.	36.6	875.2 * 8	1000	179	3.	47.4	875.2 * 12	1400	279	5.	234.8	876.0
4	0700	80	3.	36.7	875.2 * 8	1100	180	3.	47.5	875.2 * 12	1500	280	5.	235.6	876.0
4	0800	81	3.	36.8	875.2 * 8	1200	181	3.	47.5	875.2 * 12	1600	281	5.	236.4	876.0
4	0900	82	3.	37.0	875.2 * 8	1300	182	3.	47.6	875.2 * 12	1700	282	5.	237.3	876.0
4	1000	83	3.	37.1	875.2 * 8	1400	183	3.	47.6	875.2 * 12	1800	283	5.	238.1	876.0
4	1100	84	3.	37.2	875.2 * 8	1500	184	3.	47.7	875.2 * 12	1900	284	5.	238.9	876.0
4	1200	85	3.	37.3	875.2 * 8	1600	185	3.	47.7	875.2 * 12	2000	285	5.	239.7	876.0
4	1300	86	3.	37.4	875.2 * 8	1700	186	3.	47.8	875.2 * 12	2100	286	5.	240.6	876.0
4	1400	87	3.	37.6	875.2 * 8	1800	187	3.	47.8	875.2 * 12	2200	287	5.	241.4	876.0
4	1500	88	3.	37.7	875.2 * 8	1900	188	3.	47.8	875.2 * 12	2300	288	5.	242.2	876.0
4	1600	89	3.	37.8	875.2 * 8	2000	189	3.	47.9	875.2 * 13	0000	289	5.	243.0	876.0
4	1700	90	3.	37.9	875.2 * 8	2100	190	3.	47.9	875.2 * 13	0100	290	5.	243.8	876.0
4	1800	91	3.	38.0	875.2 * 9	2200	191	3.	48.0	875.2 * 13	0200	291	5.	244.6	876.0
4	1900	92	3.	38.1	875.2 * 9	2300	192	3.	48.0	875.2 * 13	0300	292	5.	245.4	876.0
4	2000	93	3.	38.3	875.2 * 9	0000	193	3.	48.0	875.2 * 13	0400	293	5.	246.2	876.0
4	2100	94	3.	38.4	875.2 * 9	0100	194	3.	48.1	875.2 * 13	0500	294	5.	247.0	876.0
4	2200	95	3.	38.5	875.2 * 9	0200	195	3.	48.2	875.2 * 13	0600	295	5.	247.8	876.0
4	2300	96	3.	38.6	875.2 * 9	0300	196	3.	48.3	875.2 * 13	0700	296	5.	248.6	876.0
5	0000	97	3.	38.7	875.2 * 9	0400	197	3.	48.7	875.2 * 13	0800	297	5.	249.4	876.0
5	0100	98	3.	38.8	875.2 * 9	0500	198	3.	49.6	875.2 * 13	0900	298	5.	250.2	876.0
5	0200	99	3.	38.9	875.2 * 9	0600	199	3.	51.0	875.2 * 13	1000	299	5.	251.0	876.0
5	0300	100	3.	39.0	875.2 * 9	0700	200	3.	53.1	875.2 * 13	1100	300	5.	251.7	876.0

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PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	299.00-HR
5.	299.00	(CFS)	5.	5.	5.	4.
		(INCHES)	0.043	0.171	0.502	1.526
		(AC-FT)	2.	10.	29.	88.

PEAK STORAGE (AC-FT)	TIME (HR)	MAXIMUM AVERAGE STORAGE 6-HR	24-HR	72-HR	299.00-HR
252.	299.00	249.	242.	221.	86.

PEAK STAGE (FEET)	TIME (HR)	MAXIMUM AVERAGE STAGE 6-HR	24-HR	72-HR	299.00-HR
876.02	299.00	875.85	875.95	875.89	875.33

CUMULATIVE AREA = 1.08 SQ MI

STATION

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FORM 1411 GD

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	SUB1	42.	217.00	41.	32.	16.	0.71		
HYDROGRAPH AT	SUB2	41.	216.00	41.	36.	18.	0.37		
2 COMBINED AT		83.	217.00	81.	68.	34.	1.08		
ROUTED TO		5.	299.00	5.	5.	5.	1.08	876.02	299.00

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

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FORM 1411-GD

TR-20 HYDROLOGY

NORTH LAKE

EXECUTIVE CONTROL CARD OPERATION LIST

```
LISTING OF DATA IN CORE


     0 NORTH LAKE HYDROLOGY---TR-20 MODEL (NRTHLK1.RUN)

                          VELOCITY INCREMENT
     1 CTABLE                      0.2000

     8                  0.0000    0.0800    0.1800    0.2500    0.3200
     8                  0.3700    0.4100    0.4500    0.4900    0.5100
     8                  0.5400    0.5700    0.5900    0.6100    0.6300
     8                  0.6500    0.6600    0.6700    0.6900    0.7000
     8                  0.7100    0.7200    0.7300    0.7400    0.7500
     8                  0.7600    0.7700    0.7700    0.7800    0.7900
     8                  0.7900    0.8000    0.8100    0.8100    0.8200
     8                  0.8200    0.8300    0.8300    0.8400    0.8400
     8                  0.8400    0.8500    0.8500    0.8600    0.8600
     8                  0.8600    0.8600    0.8700    0.8700    0.8700
     8                  0.8800    0.8800    0.8800    0.8900    0.8900
     8                  0.8900    0.8900    0.8900    0.8900    0.9000
     8                  0.9000    0.9000    0.9000    0.9000    0.9100
     8                  0.9100    0.9100    0.9100    0.9100    0.9100
     8                  0.9200    0.9200    0.9200    0.9200    0.9200
     8                  0.9200    0.9200    0.9200    0.9300    0.9300
     9 ENDTBL


               STRUCT NO.
     3 STRUCT       1

                          ELEVATION    DISCHARGE      STORAGE
                              FT           CFS          AC FT
     8                    937.0000      0.0000       0.0000
     8                    938.0000      2.5000     201.0000
     8                    939.0000      5.0000     441.0000
     8                    940.0000      7.2000     702.0000
     8                    942.0000      9.0000     974.9999
     9 ENDTBL


                          LAG/TC RATIO
     4 UIMHYD                     0.6000

     8                  0.0000    0.0150    0.0750    0.1600    0.2800
     8                  0.4300    0.6000    0.7700    0.8900    0.9700
     8                  1.0000    0.9800    0.9200    0.8400    0.7500
     8                  0.6600    0.5650    0.4900    0.4200    0.3650
     8                  0.3200    0.2790    0.2400    0.2100    0.1800
     8                  0.1550    0.1300    0.1130    0.0980    0.0860
     8                  0.0750    0.0650    0.0560    0.0470    0.0410
     8                  0.0350    0.0300    0.0260    0.0220    0.0190
     8                  0.0170    0.0150    0.0130    0.0110    0.0090
     8                  0.0070    0.0050    0.0030    0.0020    0.0010
     8                  0.0000    0.0000    0.0000    0.0000    0.0000
     9 ENDTBL
```

COMPUTED PEAK K FACTOR = 448.72

```
                    TIME INCREMENT, HR
5 RAINFL 1                  0.5000

8              0.0000      0.0080      0.0170      0.0260      0.0350
8              0.0450      0.0550      0.0650      0.0760      0.0870
8              0.0990      0.1220      0.1250      0.1400      0.1560
8              0.1740      0.1940      0.2190      0.2540      0.3030
8              0.5150      0.5830      0.6240      0.6540      0.6820
8              0.7050      0.7270      0.7480      0.7670      0.7840
8              0.8000      0.8160      0.8300      0.8440      0.8570
8              0.8700      0.8820      0.8930      0.9050      0.9160
8              0.9260      0.9360      0.9460      0.9550      0.9650
8              0.9740      0.9830      0.9920      1.0000      1.0000
9 ENDTBL


                    TIME INCREMENT, HR
5 RAINFL 2                  0.0200

8              0.0000      0.0100      0.0200      0.0200      0.0300
8              0.0400      0.0500      0.0600      0.0700      0.0800
8              0.1000      0.1100      0.1300      0.1400      0.1700
8              0.1900      0.2200      0.2700      0.3500      0.4400
8              0.5200      0.6000      0.6300      0.6600      0.6800
8              0.7000      0.7200      0.7400      0.7600      0.7700
8              0.7900      0.8000      0.8200      0.8300      0.8400
8              0.8500      0.8700      0.8800      0.8900      0.9000
8                          1.0000      1.0000      1.0000      1.0000      1.0000
9 ENDTBL
```

STANDARD CONTROL INSTRUCTIONS

```
  6 RUNOFF 1      1     5       1.6800      85.0000      3.47001 1 1 1 0 1
  6 RESVOR 2      1 5   7     938.0000                         1 1 1 1 0 1
    ENDATA

END OF LISTING
```

PASS= 1

EXECUTIVE CONTROL CARD OPERATION INCREM, MAIN TIME INCREMENT= 0.20
EXECUTIVE CONTROL CARD OPERATION COMPUT, FROM XSECTN/STRUCT 0/ 1 TO XSECTN/STRUCT 0/ 1

STARTING TIME= 0.00 RAIN DEPTH= 3.60 RAIN DURATION= 1.00 RAIN TABLE NO.= 1 SOIL CONDITION= 2
ALTERNATE NO.= 0 STORM NO.= 0

SUBROUTINE RUNOFF STRUCTURE 1

HYDROGRAPH, TZERO= 0.00 DELTA T= 0.20 DRAINAGE AREA= 1.68

TIME											
0.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	ELEV	937.00	937.00	937.00	937.00	937.00	937.00	937.00	937.00	937.00	937.00
2.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.00	ELEV	937.00	937.00	937.00	937.00	937.00	937.00	937.00	937.00	937.00	937.00
4.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.03	0.09	0.20
4.00	ELEV	937.00	937.00	937.00	937.00	937.00	937.00	937.00	937.01	937.04	937.08
6.00	DISCHG	0.36	0.59	0.90	1.31	1.82	2.44	3.20	4.14	5.25	6.59
6.00	ELEV	937.14	937.23	937.36	937.52	937.73	937.98	938.28	938.65	939.12	939.72
8.00	DISCHG	8.15	9.96	12.03	14.38	17.09	20.22	23.91	28.29	33.86	42.21
8.00	ELEV	941.06	943.07	945.36	947.98	950.98	954.47	958.56	963.44	969.63	978.90
10.00	DISCHG	54.95	72.82	95.84	124.02	156.67	191.98	226.91	258.36	283.98	302.41
10.00	ELEV	993.05	1012.91	1038.49	1069.80	1106.08	1145.31	1184.13	1219.07	1247.53	1268.01
12.00	DISCHG	312.98	316.28	313.72	306.73	296.57	284.36	271.19	258.13	245.68	234.09
12.00	ELEV	1279.75	1283.42	1280.58	1272.81	1261.53	1247.96	1233.32	1218.82	1204.97	1192.10
14.00	DISCHG	223.48	213.56	204.26	195.56	187.37	179.57	172.18	165.30	159.03	153.24
14.00	ELEV	1180.31	1169.29	1158.95	1149.29	1140.19	1131.52	1123.31	1115.67	1108.70	1102.26
16.00	DISCHG	147.84	142.78	138.02	133.51	129.25	125.25	121.52	118.05	114.80	111.77
16.00	ELEV	1096.26	1090.65	1085.35	1080.34	1075.61	1071.17	1067.02	1063.16	1059.56	1056.18
18.00	DISCHG	108.92	106.27	103.79	101.42	99.14	96.95	94.83	92.79	90.83	88.98
18.00	ELEV	1053.02	1050.08	1047.33	1044.69	1042.16	1039.72	1037.37	1035.10	1032.92	1030.87
20.00	DISCHG	87.25	85.64	84.11	82.66	81.30	79.98	78.71	77.47	76.27	75.12
20.00	ELEV	1028.95	1027.15	1025.45	1023.84	1022.33	1020.87	1019.45	1018.08	1016.75	1015.47
22.00	DISCHG	74.03	73.01	72.04	71.13	70.29	69.52	68.79	68.11	67.45	66.82
22.00	ELEV	1014.26	1013.12	1012.04	1011.03	1010.10	1009.24	1008.44	1007.67	1006.95	1006.24
24.00	DISCHG	66.17	65.45	64.54	63.36	61.79	59.70	57.05	53.83	50.13	46.09
24.00	ELEV	1005.52	1004.72	1003.71	1002.40	1000.65	998.33	995.38	991.81	987.70	983.21
26.00	DISCHG	41.86	37.59	33.45	29.55	25.96	22.74	19.88	17.36	15.16	13.24
26.00	ELEV	978.51	973.77	969.17	964.83	960.85	957.27	954.08	951.29	948.84	946.71
28.00	DISCHG	11.56	10.08	8.77	7.62	6.63	5.75	4.99	4.33	3.75	3.26
28.00	ELEV	944.84	943.20	941.75	940.47	939.74	939.34	939.00	938.73	938.50	938.30
30.00	DISCHG	2.82	2.44	2.10	1.80	1.54	1.32	1.13	0.96	0.81	0.69
30.00	ELEV	938.13	937.97	937.84	937.72	937.62	937.53	937.45	937.38	937.33	937.27
32.00	DISCHG	0.58	0.48	0.40	0.32	0.26	0.20	0.15	0.11	0.07	0.05
32.00	ELEV	937.23	937.19	937.16	937.13	937.10	937.08	937.06	937.04	937.03	937.02
34.00	DISCHG	0.03	0.01	0.01	0.00						
34.00	ELEV	937.01	937.01	937.00	937.00						

12.00	DISCHG	2.86	2.91	2.96	3.02	3.07	3.12	3.17	3.21	3.26	
12.00	ELEV	938.14	938.16	938.19	938.21	938.23	938.25	938.27	938.28	938.30	938.32
14.00	DISCHG	3.33	3.37	3.41	3.44	3.47	3.50	3.53	3.56	3.59	3.61
14.00	ELEV	938.33	938.35	938.36	938.38	938.39	938.40	938.41	938.42	938.44	938.45
16.00	DISCHG	3.64	3.66	3.69	3.71	3.73	3.75	3.77	3.79	3.81	3.83
16.00	ELEV	938.46	938.47	938.47	938.48	938.49	938.50	938.51	938.52	938.53	938.53
18.00	DISCHG	3.85	3.87	3.89	3.90	3.92	3.94	3.95	3.97	3.98	4.00
18.00	ELEV	938.54	938.55	938.55	938.56	938.57	938.57	938.58	938.59	938.59	938.60
20.00	DISCHG	4.01	4.03	4.04	4.05	4.07	4.08	4.09	4.11	4.12	4.13
20.00	ELEV	938.60	938.61	938.62	938.62	938.63	938.63	938.64	938.64	938.65	938.65
22.00	DISCHG	4.14	4.15	4.17	4.18	4.19	4.20	4.21	4.22	4.23	4.24
22.00	ELEV	938.66	938.66	938.67	938.67	938.68	938.68	938.68	938.69	938.69	938.70
24.00	DISCHG	4.25	4.27	4.28	4.29	4.30	4.31	4.32	4.32	4.33	4.34
24.00	ELEV	938.70	938.71	938.71	938.71	938.72	938.72	938.73	938.73	938.73	938.74
26.00	DISCHG	4.35	4.35	4.36	4.36	4.37	4.37	4.37	4.38	4.38	4.38
26.00	ELEV	938.74	938.74	938.74	938.75	938.75	938.75	938.75	938.75	938.75	938.75
28.00	DISCHG	4.38	4.38	4.38	4.38	4.38	4.38	4.38	4.38	4.38	4.38
28.00	ELEV	938.75	938.75	938.75	938.75	938.75	938.75	938.75	938.75	938.75	938.75
30.00	DISCHG	4.38	4.38	4.38	4.38	4.38	4.38	4.38	4.38	4.38	4.38
30.00	ELEV	938.75	938.75	938.75	938.75	938.75	938.75	938.75	938.75	938.75	938.75
32.00	DISCHG	4.38	4.38	4.38	4.38	4.38	4.38	4.37	4.37	4.37	4.37
32.00	ELEV	938.75	938.75	938.75	938.75	938.75	938.75	938.75	938.75	938.75	938.75
34.00	DISCHG	4.37	4.37	4.37	4.37	4.37	4.37	4.37	4.37	4.37	4.37
34.00	ELEV	938.75	938.75	938.75	938.75	938.75	938.75	938.75	938.75	938.75	938.75
36.00	DISCHG	4.36	4.36	4.36	4.36	4.36	4.36	4.36	4.36	4.36	4.36
36.00	ELEV	938.75	938.75	938.75	938.74	938.74	938.74	938.74	938.74	938.74	938.74
38.00	DISCHG	4.36	4.36	4.36	4.35	4.35	4.35	4.35	4.35	4.35	4.35
38.00	ELEV	938.74	938.74	938.74	938.74	938.74	938.74	938.74	938.74	938.74	938.74
40.00	DISCHG	4.35	4.35	4.35	4.35	4.35	4.35	4.34	4.34	4.34	4.34
40.00	ELEV	938.74	938.74	938.74	938.74	938.74	938.74	938.74	938.74	938.74	938.74
42.00	DISCHG	4.34	4.34	4.34	4.34	4.34	4.34	4.34	4.34	4.34	4.34
42.00	ELEV	938.74	938.74	938.74	938.74	938.74	938.74	938.73	938.73	938.73	938.73
44.00	DISCHG	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33
44.00	ELEV	938.73	938.73	938.73	938.73	938.73	938.73	938.73	938.73	938.73	938.73
46.00	DISCHG	4.33	4.33	4.33	4.32	4.32	4.32	4.32	4.32	4.32	4.32
46.00	ELEV	938.73	938.73	938.73	938.73	938.73	938.73	938.73	938.73	938.73	938.73
48.00	DISCHG	4.32	4.32	4.32	4.32	4.32	4.32	4.31	4.31	4.31	4.31
48.00	ELEV	938.73	938.73	938.73	938.73	938.73	938.73	938.73	938.73	938.73	938.73
50.00	DISCHG	4.31	4.31	4.31	4.31	4.31	4.31	4.31	4.31	4.31	4.31
50.00	ELEV	938.72	938.72	938.72	938.72	938.72	938.72	938.72	938.72	938.72	938.72
52.00	DISCHG	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30
52.00	ELEV	938.72	938.72	938.72	938.72	938.72	938.72	938.72	938.72	938.72	938.72
54.00	DISCHG	4.30	4.30	4.30	4.29	4.29	4.29	4.29	4.29	4.29	4.29
54.00	ELEV	938.72	938.72	938.72	938.72	938.72	938.72	938.72	938.72	938.72	938.72
56.00	DISCHG	4.29	4.29	4.29	4.29	4.29	4.29	4.29	4.28	4.28	4.28
56.00	ELEV	938.72	938.72	938.72	938.72	938.71	938.71	938.71	938.71	938.71	938.71
58.00	DISCHG	4.28	4.28	4.28	4.28	4.28	4.28	4.28	4.28	4.28	4.28
58.00	ELEV	938.71	938.71	938.71	938.71	938.71	938.71	938.71	938.71	938.71	938.71

ENDCMP

SUBROUTINE RESVOR STRUCTURE 1

HYDROGRAPH, TZERO= 0.00 DELTA T= 0.20 DRAINAGE AREA= 1.68

TIME											
0.00	DISCHG	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
0.00	ELEV	938.00	938.00	938.00	938.00	938.00	938.00	938.00	938.00	938.00	938.00
2.00	DISCHG	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
2.00	ELEV	938.00	938.00	938.00	938.00	938.00	938.00	938.00	938.00	938.00	938.00
4.00	DISCHG	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
4.00	ELEV	938.00	938.00	938.00	938.00	938.00	938.00	938.00	938.00	938.00	938.00
6.00	DISCHG	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
6.00	ELEV	938.00	938.00	938.00	938.00	938.00	938.00	938.00	938.00	938.00	938.00
8.00	DISCHG	2.50	2.50	2.50	2.50	2.51	2.51	2.51	2.52	2.52	2.53
8.00	ELEV	938.00	938.00	938.00	938.00	938.00	938.00	938.00	938.01	938.01	938.01
10.00	DISCHG	2.53	2.55	2.56	2.58	2.60	2.63	2.67	2.71	2.75	2.80
10.00	ELEV	938.01	938.02	938.02	938.03	938.04	938.05	938.07	938.08	938.10	938.12

PASS= 2

EXECUTIVE CONTROL CARD OPERATION COMPUT, FROM XSECTN/STRUCT 0/ 1 TO XSECTN/STRUCT 0/ 1
STARTING TIME= 0.00 RAIN DEPTH= 4.45 RAIN DURATION= 1.00 RAIN TABLE NO.= 1 SOIL CONDITION= 2
ALTERNATE NO.= 0 STORM NO.= 0

SUBROUTINE RUNOFF STRUCTURE 1

HYDROGRAPH, TZERO= 0.00 DELTA T= 0.20 DRAINAGE AREA= 1.68

TIME											
0.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	ELEV	937.00	937.00	937.00	937.00	937.00	937.00	937.00	937.00	937.00	937.00
2.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.00	ELEV	937.00	937.00	937.00	937.00	937.00	937.00	937.00	937.00	937.00	937.00
4.00	DISCHG	0.00	0.00	0.00	0.01	0.05	0.12	0.26	0.52	0.97	1.59
4.00	ELEV	937.00	937.00	937.00	937.01	937.02	937.05	937.10	937.21	937.39	937.64
6.00	DISCHG	2.40	3.38	4.53	5.83	7.24	8.73	10.36	12.18	14.20	16.49
6.00	ELEV	937.96	938.35	938.81	939.38	940.04	941.70	943.52	945.53	947.78	950.32
8.00	DISCHG	19.09	22.01	25.29	28.96	33.11	37.86	43.38	49.87	58.03	70.06
8.00	ELEV	953.21	956.46	960.10	964.18	968.79	974.07	980.20	987.41	996.47	1009.84
10.00	DISCHG	88.13	113.21	145.25	184.18	229.00	277.11	324.32	366.36	400.07	423.68
10.00	ELEV	1029.93	1057.79	1093.39	1136.64	1186.44	1239.90	1292.35	1339.07	1376.52	1402.76
12.00	DISCHG	436.39	439.13	433.91	422.75	407.39	389.39	370.25	351.43	333.58	317.04
12.00	ELEV	1416.88	1419.92	1414.12	1401.72	1384.66	1364.66	1343.39	1322.48	1302.64	1284.26
14.00	DISCHG	301.92	287.83	274.64	262.34	250.80	239.83	229.48	219.89	211.17	203.13
14.00	ELEV	1267.46	1251.81	1237.16	1223.49	1210.66	1198.48	1186.98	1176.33	1166.63	1157.70
16.00	DISCHG	195.66	188.67	182.10	175.89	170.04	164.56	159.46	154.72	150.31	146.17
16.00	ELEV	1149.39	1141.64	1134.33	1127.44	1120.93	1114.85	1109.18	1103.91	1099.01	1094.42
18.00	DISCHG	142.31	138.72	135.37	132.17	129.09	126.12	123.27	120.52	117.89	115.41
18.00	ELEV	1090.12	1086.14	1082.41	1078.85	1075.43	1072.14	1068.97	1065.92	1062.99	1060.23
20.00	DISCHG	113.10	110.93	108.89	106.97	105.16	103.42	101.73	100.10	98.52	97.00
20.00	ELEV	1057.66	1055.26	1052.99	1050.85	1048.84	1046.91	1045.04	1043.22	1041.46	1039.78
22.00	DISCHG	95.57	94.21	92.93	91.73	90.62	89.60	88.65	87.74	86.87	86.03
22.00	ELEV	1038.18	1036.68	1035.26	1033.92	1032.69	1031.56	1030.49	1029.49	1028.53	1027.59
24.00	DISCHG	85.18	84.22	83.05	81.50	79.47	76.77	73.35	69.20	64.44	59.25
24.00	ELEV	1026.64	1025.58	1024.27	1022.56	1020.30	1017.30	1013.50	1008.89	1003.60	997.83
26.00	DISCHG	53.80	48.32	42.99	37.97	33.37	29.23	25.54	22.31	19.48	17.01
26.00	ELEV	991.78	985.68	979.76	974.19	969.07	964.48	960.38	956.79	953.65	950.90
28.00	DISCHG	14.85	12.95	11.27	9.80	8.51	7.39	6.41	5.56	4.82	4.19
28.00	ELEV	948.50	946.39	944.53	942.89	941.46	940.21	939.64	939.25	938.93	938.67
30.00	DISCHG	3.62	3.13	2.70	2.32	1.98	1.70	1.45	1.23	1.04	0.88
30.00	ELEV	938.45	938.25	938.08	937.93	937.79	937.68	937.58	937.49	937.42	937.35
32.00	DISCHG	0.74	0.62	0.51	0.41	0.33	0.26	0.19	0.14	0.10	0.06
32.00	ELEV	937.30	937.25	937.20	937.17	937.13	937.10	937.08	937.06	937.04	937.02
34.00	DISCHG	0.04	0.02	0.01	0.00						
34.00	ELEV	937.01	937.01	937.00	937.00						

SUBROUTINE RESVOR STRUCTURE 1

TIME		HYDROGRAPH, TZERO= 0.00					DELTA T= 0.20			DRAINAGE AREA= 1.68	
0.00	DISCHG	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
0.00	ELEV	938.00	938.00	938.00	938.00	938.00	938.00	938.00	938.00	938.00	938.00
2.00	DISCHG	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
2.00	ELEV	938.00	938.00	938.00	938.00	938.00	938.00	938.00	938.00	938.00	938.00
4.00	DISCHG	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
4.00	ELEV	938.00	938.00	938.00	938.00	938.00	938.00	938.00	938.00	938.00	938.00
6.00	DISCHG	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.51
6.00	ELEV	938.00	938.00	938.00	938.00	938.00	938.00	938.00	938.00	938.00	938.00
8.00	DISCHG	2.51	2.51	2.52	2.52	2.53	2.53	2.54	2.54	2.55	2.56
8.00	ELEV	938.00	938.00	938.01	938.01	938.01	938.01	938.01	938.02	938.02	938.03
10.00	DISCHG	2.58	2.59	2.62	2.64	2.68	2.72	2.77	2.83	2.90	2.97
10.00	ELEV	938.03	938.04	938.05	938.06	938.07	938.09	938.11	938.13	938.16	938.19
12.00	DISCHG	3.04	3.12	3.19	3.26	3.34	3.40	3.47	3.53	3.59	3.64
12.00	ELEV	938.22	938.25	938.28	938.31	938.33	938.36	938.39	938.41	938.44	938.46
14.00	DISCHG	3.70	3.75	3.79	3.84	3.88	3.92	3.96	4.00	4.04	4.07
14.00	ELEV	938.48	938.50	938.52	938.54	938.55	938.57	938.59	938.60	938.62	938.63
16.00	DISCHG	4.11	4.14	4.17	4.20	4.23	4.26	4.29	4.31	4.34	4.36
16.00	ELEV	938.64	938.66	938.67	938.68	938.69	938.70	938.71	938.72	938.73	938.74
18.00	DISCHG	4.39	4.41	4.43	4.45	4.48	4.50	4.52	4.54	4.56	4.58
18.00	ELEV	938.75	938.76	938.77	938.78	938.79	938.80	938.81	938.82	938.82	938.83
20.00	DISCHG	4.60	4.62	4.63	4.65	4.67	4.69	4.70	4.72	4.74	4.75
20.00	ELEV	938.84	938.85	938.85	938.86	938.87	938.87	938.88	938.89	938.89	938.90
22.00	DISCHG	4.77	4.78	4.80	4.81	4.83	4.84	4.86	4.87	4.89	4.90
22.00	ELEV	938.91	938.91	938.92	938.93	938.93	938.94	938.94	938.95	938.95	938.96
24.00	DISCHG	4.91	4.93	4.94	4.95	4.97	4.98	4.99	5.00	5.01	5.02
24.00	ELEV	938.97	938.97	938.98	938.98	938.99	938.99	939.00	939.00	939.01	939.01
26.00	DISCHG	5.03	5.03	5.04	5.04	5.05	5.05	5.05	5.06	5.06	5.06
26.00	ELEV	939.01	939.01	939.02	939.02	939.02	939.02	939.02	939.03	939.03	939.03
28.00	DISCHG	5.06	5.06	5.06	5.07	5.07	5.07	5.07	5.07	5.07	5.07
28.00	ELEV	939.03	939.03	939.03	939.03	939.03	939.03	939.03	939.03	939.03	939.03
30.00	DISCHG	5.07	5.07	5.07	5.07	5.07	5.06	5.06	5.06	5.06	5.06
30.00	ELEV	939.03	939.03	939.03	939.03	939.03	939.03	939.03	939.03	939.03	939.03
32.00	DISCHG	5.06	5.06	5.06	5.06	5.06	5.06	5.06	5.06	5.06	5.06
32.00	ELEV	939.03	939.03	939.03	939.03	939.03	939.03	939.03	939.03	939.03	939.03
34.00	DISCHG	5.06	5.05	5.05	5.05	5.05	5.05	5.05	5.05	5.05	5.05
34.00	ELEV	939.03	939.02	939.02	939.02	939.02	939.02	939.02	939.02	939.02	939.02
36.00	DISCHG	5.05	5.05	5.05	5.05	5.05	5.04	5.04	5.04	5.04	5.04
36.00	ELEV	939.02	939.02	939.02	939.02	939.02	939.02	939.02	939.02	939.02	939.02
38.00	DISCHG	5.04	5.04	5.04	5.04	5.04	5.04	5.04	5.04	5.04	5.04
38.00	ELEV	939.02	939.02	939.02	939.02	939.02	939.02	939.02	939.02	939.02	939.02
40.00	DISCHG	5.03	5.03	5.03	5.03	5.03	5.03	5.03	5.03	5.03	5.03
40.00	ELEV	939.02	939.02	939.02	939.01	939.01	939.01	939.01	939.01	939.01	939.01
42.00	DISCHG	5.03	5.03	5.03	5.03	5.02	5.02	5.02	5.02	5.02	5.02
42.00	ELEV	939.01	939.01	939.01	939.01	939.01	939.01	939.01	939.01	939.01	939.01
44.00	DISCHG	5.02	5.02	5.02	5.02	5.02	5.02	5.02	5.02	5.01	5.01
44.00	ELEV	939.01	939.01	939.01	939.01	939.01	939.01	939.01	939.01	939.01	939.01
46.00	DISCHG	5.01	5.01	5.01	5.01	5.01	5.01	5.01	5.01	5.01	5.01
46.00	ELEV	939.01	939.01	939.01	939.01	939.00	939.00	939.00	939.00	939.00	939.00
48.00	DISCHG	5.01	5.01	5.01	5.00	5.00	5.00	5.00	5.00	5.00	5.00
48.00	ELEV	939.00	939.00	939.00	939.00	939.00	939.00	939.00	939.00	939.00	939.00
50.00	DISCHG	5.00	5.00	5.00	5.00	5.00	5.00	4.99	4.99	4.99	4.99
50.00	ELEV	939.00	939.00	939.00	939.00	939.00	939.00	939.00	939.00	939.00	939.00
52.00	DISCHG	4.99	4.99	4.99	4.99	4.99	4.99	4.99	4.98	4.98	4.98
52.00	ELEV	939.00	939.00	939.00	939.00	938.99	938.99	938.99	938.99	938.99	938.99
54.00	DISCHG	4.98	4.98	4.98	4.98	4.98	4.98	4.98	4.98	4.98	4.97
54.00	ELEV	938.99	938.99	938.99	938.99	938.99	938.99	938.99	938.99	938.99	938.99
56.00	DISCHG	4.97	4.97	4.97	4.97	4.97	4.97	4.97	4.97	4.97	4.97
56.00	ELEV	938.99	938.99	938.99	938.99	938.99	938.99	938.99	938.99	938.99	938.99
58.00	DISCHG	4.96	4.96	4.96	4.96	4.96	4.96	4.96	4.96	4.96	4.96
58.00	ELEV	938.99	938.99	938.99	938.98	938.98	938.98	938.98	938.98	938.98	938.98

ENDCMP

PASS= 3

EXECUTIVE CONTROL CARD OPERATION COMPUT, FROM XSECTN/STRUCT 0/ 1 TO XSECTN/STRUCT 0/ 1
STARTING TIME= 0.00 RAIN DEPTH= 4.85 RAIN DURATION= 1.00 RAIN TABLE NO.= 1 SOIL CONDITION= 2
ALTERNATE NO.= 0 STORM NO.= 0

SUBROUTINE RUNOFF STRUCTURE 1

HYDROGRAPH, TZERO= 0.00 DELTA T= 0.20 DRAINAGE AREA= 1.68

TIME											
0.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	ELEV	937.00	937.00	937.00	937.00	937.00	937.00	937.00	937.00	937.00	937.00
2.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.00	ELEV	937.00	937.00	937.00	937.00	937.00	937.00	937.00	937.00	937.00	937.00
4.00	DISCHG	0.00	0.01	0.03	0.08	0.19	0.37	0.68	1.19	1.95	2.96
4.00	ELEV	937.00	937.00	937.01	937.03	937.07	937.15	937.27	937.47	937.78	938.18
6.00	DISCHG	4.20	5.64	7.28	9.05	10.90	12.81	14.84	17.05	19.48	22.19
6.00	ELEV	938.68	939.29	940.08	942.05	944.11	946.23	948.49	950.95	953.64	956.66
8.00	DISCHG	25.26	28.71	32.56	36.84	41.68	47.20	53.59	61.10	70.49	84.29
8.00	ELEV	960.07	963.90	968.17	972.93	978.31	984.45	991.55	999.89	1010.32	1025.65
10.00	DISCHG	104.92	133.44	169.79	213.84	264.45	318.64	371.64	418.66	456.14	482.13
10.00	ELEV	1048.58	1080.27	1120.66	1169.60	1225.83	1286.04	1344.93	1397.18	1438.83	1467.70
12.00	DISCHG	495.76	498.13	491.55	478.31	460.40	439.57	417.53	395.92	375.45	356.51
12.00	ELEV	1482.85	1485.47	1478.17	1463.46	1443.56	1420.42	1395.92	1371.91	1349.17	1328.13
14.00	DISCHG	339.22	323.11	308.05	294.02	280.85	268.36	256.60	245.71	235.80	226.69
14.00	ELEV	1308.91	1291.01	1274.28	1258.68	1244.06	1230.18	1217.11	1205.01	1194.01	1183.88
16.00	DISCHG	218.23	210.32	202.88	195.87	189.25	183.07	177.32	171.98	167.00	162.35
16.00	ELEV	1174.47	1165.69	1157.42	1149.63	1142.28	1135.42	1129.02	1123.08	1117.56	1112.39
18.00	DISCHG	158.00	153.97	150.20	146.60	143.15	139.82	136.62	133.54	130.59	127.81
18.00	ELEV	1107.56	1103.08	1098.89	1094.89	1091.05	1087.36	1083.80	1080.38	1077.10	1074.01
20.00	DISCHG	125.22	122.80	120.51	118.36	116.34	114.40	112.52	110.70	108.94	107.25
20.00	ELEV	1071.13	1068.44	1065.90	1063.51	1061.27	1059.11	1057.02	1055.00	1053.05	1051.17
22.00	DISCHG	105.65	104.14	102.72	101.38	100.15	99.01	97.94	96.93	95.97	95.03
22.00	ELEV	1049.39	1047.72	1046.13	1044.65	1043.28	1042.01	1040.83	1039.70	1038.63	1037.59
24.00	DISCHG	94.08	93.02	91.71	90.00	87.75	84.77	80.98	76.40	71.14	65.41
24.00	ELEV	1036.53	1035.36	1033.90	1032.00	1029.50	1026.18	1021.98	1016.89	1011.05	1004.67
26.00	DISCHG	59.40	53.34	47.46	41.92	36.83	32.26	28.20	24.62	21.51	18.78
26.00	ELEV	998.00	991.26	984.73	978.58	972.92	967.85	963.33	959.36	955.90	952.87
28.00	DISCHG	16.39	14.30	12.45	10.81	9.40	8.16	7.08	6.14	5.33	4.62
28.00	ELEV	950.22	947.89	945.83	944.02	942.44	941.06	939.94	939.52	939.15	938.85
30.00	DISCHG	4.00	3.46	2.98	2.56	2.19	1.87	1.60	1.36	1.15	0.97
30.00	ELEV	938.60	938.38	938.19	938.02	937.88	937.75	937.64	937.54	937.46	937.39
32.00	DISCHG	0.82	0.68	0.56	0.46	0.36	0.28	0.21	0.15	0.10	0.07
32.00	ELEV	937.33	937.27	937.22	937.18	937.15	937.11	937.09	937.06	937.04	937.03
34.00	DISCHG	0.04	0.02	0.01	0.00						
34.00	ELEV	937.02	937.01	937.00	937.00						

SUBROUTINE RESVOR STRUCTURE 1

TIME		HYDROGRAPH, TZERO= 0.00					DELTA T= 0.20		DRAINAGE AREA= 1.68		
0.00	DISCHG	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
0.00	ELEV	938.00	938.00	938.00	938.00	938.00	938.00	938.00	938.00	938.00	938.00
2.00	DISCHG	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
2.00	ELEV	938.00	938.00	938.00	938.00	938.00	938.00	938.00	938.00	938.00	938.00
4.00	DISCHG	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
4.00	ELEV	938.00	938.00	938.00	938.00	938.00	938.00	938.00	938.00	938.00	938.00
6.00	DISCHG	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.51	2.51	2.51
6.00	ELEV	938.00	938.00	938.00	938.00	938.00	938.00	938.00	938.00	938.00	938.01
8.00	DISCHG	2.52	2.52	2.53	2.53	2.54	2.54	2.55	2.56	2.57	2.59
8.00	ELEV	938.01	938.01	938.01	938.01	938.01	938.02	938.02	938.02	938.03	938.03
10.00	DISCHG	2.60	2.62	2.65	2.68	2.72	2.77	2.83	2.90	2.97	3.05
10.00	ELEV	938.04	938.05	938.06	938.07	938.09	938.11	938.13	938.16	938.19	938.22
12.00	DISCHG	3.14	3.22	3.31	3.39	3.47	3.55	3.62	3.69	3.75	3.82
12.00	ELEV	938.25	938.29	938.32	938.36	938.39	938.42	938.45	938.48	938.50	938.53
14.00	DISCHG	3.88	3.93	3.99	4.04	4.08	4.13	4.18	4.22	4.26	4.30
14.00	ELEV	938.55	938.57	938.59	938.61	938.63	938.65	938.67	938.69	938.70	938.72
16.00	DISCHG	4.34	4.37	4.41	4.44	4.47	4.50	4.53	4.56	4.59	4.62
16.00	ELEV	938.73	938.75	938.76	938.78	938.79	938.80	938.81	938.83	938.84	938.85
18.00	DISCHG	4.65	4.67	4.70	4.72	4.75	4.77	4.79	4.82	4.84	4.86
18.00	ELEV	938.86	938.87	938.88	938.89	938.90	938.91	938.92	938.93	938.93	938.94
20.00	DISCHG	4.88	4.90	4.92	4.94	4.96	4.98	5.00	5.01	5.03	5.04
20.00	ELEV	938.95	938.96	938.97	938.98	938.98	938.99	939.00	939.01	939.01	939.02
22.00	DISCHG	5.06	5.07	5.08	5.10	5.11	5.12	5.14	5.15	5.16	5.17
22.00	ELEV	939.03	939.03	939.04	939.04	939.05	939.06	939.06	939.07	939.07	939.08
24.00	DISCHG	5.19	5.20	5.21	5.22	5.23	5.25	5.26	5.27	5.28	5.29
24.00	ELEV	939.08	939.09	939.10	939.10	939.11	939.11	939.12	939.12	939.13	939.13
26.00	DISCHG	5.29	5.30	5.31	5.31	5.32	5.32	5.32	5.33	5.33	5.33
26.00	ELEV	939.13	939.14	939.14	939.14	939.14	939.15	939.15	939.15	939.15	939.15
28.00	DISCHG	5.33	5.34	5.34	5.34	5.34	5.34	5.34	5.34	5.34	5.34
28.00	ELEV	939.15	939.15	939.15	939.15	939.15	939.15	939.15	939.15	939.15	939.15
30.00	DISCHG	5.34	5.34	5.34	5.34	5.34	5.34	5.34	5.34	5.34	5.33
30.00	ELEV	939.15	939.15	939.15	939.15	939.15	939.15	939.15	939.15	939.15	939.15
32.00	DISCHG	5.33	5.33	5.33	5.33	5.33	5.33	5.33	5.33	5.33	5.33
32.00	ELEV	939.15	939.15	939.15	939.15	939.15	939.15	939.15	939.15	939.15	939.15
34.00	DISCHG	5.33	5.33	5.33	5.33	5.32	5.32	5.32	5.32	5.32	5.32
34.00	ELEV	939.15	939.15	939.15	939.15	939.15	939.15	939.15	939.15	939.15	939.15
36.00	DISCHG	5.32	5.32	5.32	5.32	5.32	5.32	5.32	5.31	5.31	5.31
36.00	ELEV	939.15	939.15	939.14	939.14	939.14	939.14	939.14	939.14	939.14	939.14
38.00	DISCHG	5.31	5.31	5.31	5.31	5.31	5.31	5.31	5.31	5.31	5.31
38.00	ELEV	939.14	939.14	939.14	939.14	939.14	939.14	939.14	939.14	939.14	939.14
40.00	DISCHG	5.31	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.30
40.00	ELEV	939.14	939.14	939.14	939.14	939.14	939.14	939.14	939.14	939.14	939.14
42.00	DISCHG	5.30	5.30	5.30	5.30	5.29	5.29	5.29	5.29	5.29	5.29
42.00	ELEV	939.14	939.13	939.13	939.13	939.13	939.13	939.13	939.13	939.13	939.13
44.00	DISCHG	5.29	5.29	5.29	5.29	5.29	5.29	5.29	5.29	5.28	5.28
44.00	ELEV	939.13	939.13	939.13	939.13	939.13	939.13	939.13	939.13	939.13	939.13
46.00	DISCHG	5.28	5.28	5.28	5.28	5.28	5.28	5.28	5.28	5.28	5.28
46.00	ELEV	939.13	939.13	939.13	939.13	939.13	939.13	939.13	939.13	939.13	939.13
48.00	DISCHG	5.28	5.27	5.27	5.27	5.27	5.27	5.27	5.27	5.27	5.27
48.00	ELEV	939.13	939.12	939.12	939.12	939.12	939.12	939.12	939.12	939.12	939.12
50.00	DISCHG	5.27	5.27	5.27	5.27	5.27	5.26	5.26	5.26	5.26	5.26
50.00	ELEV	939.12	939.12	939.12	939.12	939.12	939.12	939.12	939.12	939.12	939.12
52.00	DISCHG	5.26	5.26	5.26	5.26	5.26	5.26	5.26	5.26	5.26	5.25
52.00	ELEV	939.12	939.12	939.12	939.12	939.12	939.12	939.12	939.12	939.12	939.12
54.00	DISCHG	5.25	5.25	5.25	5.25	5.25	5.25	5.25	5.25	5.25	5.25
54.00	ELEV	939.12	939.11	939.11	939.11	939.11	939.11	939.11	939.11	939.11	939.11
56.00	DISCHG	5.25	5.25	5.24	5.24	5.24	5.24	5.24	5.24	5.24	5.24
56.00	ELEV	939.11	939.11	939.11	939.11	939.11	939.11	939.11	939.11	939.11	939.11
58.00	DISCHG	5.24	5.24	5.24	5.24	5.24	5.24	5.23	5.23	5.23	5.23
58.00	ELEV	939.11	939.11	939.11	939.11	939.11	939.11	939.11	939.11	939.11	939.11

PASS= 4

EXECUTIVE CONTROL CARD OPERATION COMPUT, FROM XSECTN/STRUCT 0/ 1 TO XSECTN/STRUCT 0/ 1
STARTING TIME= 0.00 RAIN DEPTH= 5.70 RAIN DURATION= 1.00 RAIN TABLE NO.= 1 SOIL CONDITION= 2
ALTERNATE NO.= 0 STORM NO.= 0

SUBROUTINE RUNOFF STRUCTURE 1

HYDROGRAPH, TZERO= 0.00 DELTA T= 0.20 DRAINAGE AREA= 1.68

TIME											
0.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	ELEV	937.00	937.00	937.00	937.00	937.00	937.00	937.00	937.00	937.00	937.00
2.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
2.00	ELEV	937.00	937.00	937.00	937.00	937.00	937.00	937.00	937.00	937.00	937.01
4.00	DISCHG	0.07	0.16	0.35	0.64	1.09	1.73	2.62	3.85	5.48	7.47
4.00	ELEV	937.03	937.07	937.14	937.26	937.44	937.69	938.05	938.54	939.22	940.30
6.00	DISCHG	9.74	12.24	14.93	17.73	20.51	23.29	26.13	29.15	32.39	36.00
6.00	ELEV	942.82	945.60	948.59	951.70	954.79	957.87	961.03	964.39	967.99	972.00
8.00	DISCHG	40.05	44.59	49.64	55.24	61.54	68.72	76.98	86.65	98.70	116.30
8.00	ELEV	976.50	981.55	987.16	993.38	1000.38	1008.35	1017.54	1028.28	1041.67	1061.22
10.00	DISCHG	142.43	178.33	223.89	278.89	341.83	408.94	474.25	531.80	577.21	608.12
10.00	ELEV	1090.25	1130.15	1180.77	1241.88	1311.81	1386.38	1458.95	1522.89	1573.35	1607.69
12.00	DISCHG	623.57	624.99	615.36	597.55	574.07	547.09	518.76	491.09	464.98	440.87
12.00	ELEV	1624.85	1626.43	1615.73	1595.95	1569.85	1539.88	1508.39	1477.66	1448.64	1421.85
14.00	DISCHG	418.87	398.40	379.30	361.53	344.89	329.13	314.31	300.62	288.20	276.78
14.00	ELEV	1397.41	1374.67	1353.45	1333.70	1315.21	1297.70	1281.23	1266.03	1252.22	1239.54
16.00	DISCHG	266.19	256.30	247.02	238.27	230.03	222.34	215.20	208.56	202.40	196.64
16.00	ELEV	1227.76	1216.78	1206.46	1196.74	1187.59	1179.05	1171.11	1163.74	1156.89	1150.49
18.00	DISCHG	191.26	186.28	181.62	177.18	172.92	168.82	164.88	161.09	157.46	154.04
18.00	ELEV	1144.51	1138.98	1133.80	1128.87	1124.13	1119.58	1115.20	1110.99	1106.96	1103.15
20.00	DISCHG	150.86	147.89	145.09	142.47	140.00	137.64	135.35	133.14	130.99	128.94
20.00	ELEV	1099.62	1096.33	1093.22	1090.30	1087.56	1084.93	1082.39	1079.93	1077.55	1075.26
22.00	DISCHG	126.99	125.16	123.42	121.80	120.30	118.91	117.61	116.38	115.21	114.07
22.00	ELEV	1073.10	1071.06	1069.14	1067.33	1065.66	1064.13	1062.68	1061.31	1060.01	1058.74
24.00	DISCHG	112.91	111.62	110.04	107.98	105.27	101.67	97.13	91.63	85.32	78.43
24.00	ELEV	1057.45	1056.03	1054.27	1051.97	1048.96	1044.97	1039.92	1033.81	1026.80	1019.15
26.00	DISCHG	71.23	63.96	56.90	50.26	44.16	38.69	33.81	29.53	25.79	22.52
26.00	ELEV	1011.14	1003.06	995.23	987.85	981.07	974.99	969.57	964.81	960.65	957.02
28.00	DISCHG	19.66	17.14	14.92	12.97	11.27	9.78	8.48	7.36	6.38	5.54
28.00	ELEV	953.84	951.05	948.58	946.41	944.52	942.87	941.43	940.17	939.63	939.24
30.00	DISCHG	4.80	4.14	3.57	3.06	2.63	2.25	1.92	1.63	1.38	1.17
30.00	ELEV	938.92	938.66	938.43	938.23	938.05	937.90	937.77	937.65	937.55	937.47
32.00	DISCHG	0.98	0.81	0.67	0.55	0.44	0.34	0.26	0.18	0.13	0.08
32.00	ELEV	937.39	937.33	937.27	937.22	937.17	937.14	937.10	937.07	937.05	937.03
34.00	DISCHG	0.05	0.02	0.01	0.00						
34.00	ELEV	937.02	937.01	937.00	937.00						

12.00	ELEV	938.34	938.38	938.42	938.45	938.51	938.57	938.58	938.51	938.62	938.66
14.00	DISCHG	4.27	4.34	4.40	4.47	4.53	4.58	4.64	4.69	4.74	4.79
14.00	ELEV	938.71	938.74	938.76	938.79	938.81	938.83	938.86	938.88	938.90	938.92
16.00	DISCHG	4.83	4.88	4.92	4.96	5.00	5.03	5.06	5.09	5.12	5.15
16.00	ELEV	938.93	938.95	938.97	938.98	939.00	939.01	939.03	939.04	939.05	939.07
18.00	DISCHG	5.17	5.20	5.22	5.25	5.27	5.29	5.32	5.34	5.36	5.38
18.00	ELEV	939.08	939.09	939.10	939.11	939.12	939.13	939.14	939.15	939.16	939.17
20.00	DISCHG	5.40	5.42	5.44	5.46	5.48	5.50	5.52	5.53	5.55	5.57
20.00	ELEV	939.18	939.19	939.20	939.21	939.22	939.23	939.23	939.24	939.25	939.26
22.00	DISCHG	5.59	5.60	5.62	5.64	5.65	5.67	5.68	5.70	5.71	5.73
22.00	ELEV	939.27	939.27	939.28	939.29	939.30	939.30	939.31	939.32	939.32	939.33
24.00	DISCHG	5.74	5.76	5.77	5.79	5.80	5.82	5.83	5.84	5.85	5.86
24.00	ELEV	939.34	939.34	939.35	939.36	939.36	939.37	939.38	939.38	939.39	939.39
26.00	DISCHG	5.87	5.88	5.89	5.90	5.90	5.91	5.91	5.91	5.92	5.92
26.00	ELEV	939.40	939.40	939.40	939.41	939.41	939.41	939.41	939.42	939.42	939.42
28.00	DISCHG	5.92	5.92	5.92	5.93	5.93	5.93	5.93	5.93	5.93	5.93
28.00	ELEV	939.42	939.42	939.42	939.42	939.42	939.42	939.42	939.42	939.42	939.42
30.00	DISCHG	5.93	5.93	5.93	5.93	5.93	5.93	5.93	5.93	5.92	5.92
30.00	ELEV	939.42	939.42	939.42	939.42	939.42	939.42	939.42	939.42	939.42	939.42
32.00	DISCHG	5.92	5.92	5.92	5.92	5.92	5.92	5.92	5.92	5.92	5.92
32.00	ELEV	939.42	939.42	939.42	939.42	939.42	939.42	939.42	939.42	939.42	939.42
34.00	DISCHG	5.92	5.91	5.91	5.91	5.91	5.91	5.91	5.91	5.91	5.91
34.00	ELEV	939.42	939.42	939.42	939.41	939.41	939.41	939.41	939.41	939.41	939.41
36.00	DISCHG	5.91	5.91	5.91	5.90	5.90	5.90	5.90	5.90	5.90	5.90
36.00	ELEV	939.41	939.41	939.41	939.41	939.41	939.41	939.41	939.41	939.41	939.41
38.00	DISCHG	5.90	5.90	5.90	5.90	5.90	5.89	5.89	5.89	5.89	5.89
38.00	ELEV	939.41	939.41	939.41	939.41	939.41	939.41	939.41	939.41	939.41	939.41
40.00	DISCHG	5.89	5.89	5.89	5.89	5.89	5.89	5.89	5.88	5.88	5.88
40.00	ELEV	939.40	939.40	939.40	939.40	939.40	939.40	939.40	939.40	939.40	939.40
42.00	DISCHG	5.88	5.88	5.88	5.88	5.88	5.88	5.88	5.88	5.88	5.88
42.00	ELEV	939.40	939.40	939.40	939.40	939.40	939.40	939.40	939.40	939.40	939.40
44.00	DISCHG	5.87	5.87	5.87	5.87	5.87	5.87	5.87	5.87	5.87	5.87
44.00	ELEV	939.40	939.40	939.40	939.40	939.40	939.40	939.40	939.39	939.39	939.39
46.00	DISCHG	5.87	5.87	5.86	5.86	5.86	5.86	5.86	5.86	5.86	5.86
46.00	ELEV	939.39	939.39	939.39	939.39	939.39	939.39	939.39	939.39	939.39	939.39
48.00	DISCHG	5.86	5.86	5.86	5.86	5.85	5.85	5.85	5.85	5.85	5.85
48.00	ELEV	939.39	939.39	939.39	939.39	939.39	939.39	939.39	939.39	939.39	939.39
50.00	DISCHG	5.85	5.85	5.85	5.85	5.85	5.85	5.84	5.84	5.84	5.84
50.00	ELEV	939.39	939.39	939.39	939.39	939.38	939.38	939.38	939.38	939.38	939.38
52.00	DISCHG	5.84	5.84	5.84	5.84	5.84	5.84	5.84	5.84	5.84	5.83
52.00	ELEV	939.38	939.38	939.38	939.38	939.38	939.38	939.38	939.38	939.38	939.38
54.00	DISCHG	5.83	5.83	5.83	5.83	5.83	5.83	5.83	5.83	5.83	5.83
54.00	ELEV	939.38	939.38	939.38	939.38	939.38	939.38	939.38	939.38	939.38	939.38
56.00	DISCHG	5.83	5.82	5.82	5.82	5.82	5.82	5.82	5.82	5.82	5.82
56.00	ELEV	939.38	939.37	939.37	939.37	939.37	939.37	939.37	939.37	939.37	939.37
58.00	DISCHG	5.82	5.82	5.82	5.81	5.81	5.81	5.81	5.81	5.81	5.81
58.00	ELEV	939.37	939.37	939.37	939.37	939.37	939.37	939.37	939.37	939.37	939.37

ENDCMP

SUBROUTINE RESVOR STRUCTURE 1

TIME		HYDROGRAPH, TZERO= 0.00				DELTA T= 0.20		DRAINAGE AREA= 1.68			
0.00	DISCHG	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
0.00	ELEV	938.00	938.00	938.00	938.00	938.00	938.00	938.00	938.00	938.00	938.00
2.00	DISCHG	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
2.00	ELEV	938.00	938.00	938.00	938.00	938.00	938.00	938.00	938.00	938.00	938.00
4.00	DISCHG	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
4.00	ELEV	938.00	938.00	938.00	938.00	938.00	938.00	938.00	938.00	938.00	938.00
6.00	DISCHG	2.50	2.50	2.50	2.51	2.51	2.51	2.52	2.52	2.52	2.53
6.00	ELEV	938.00	938.00	938.00	938.00	938.00	938.00	938.01	938.01	938.01	938.01
8.00	DISCHG	2.54	2.54	2.55	2.56	2.57	2.58	2.59	2.61	2.62	2.64
8.00	ELEV	938.01	938.02	938.02	938.02	938.03	938.03	938.04	938.04	938.05	938.06
10.00	DISCHG	2.66	2.69	2.72	2.76	2.82	2.88	2.96	3.04	3.14	3.24
10.00	ELEV	938.06	938.08	938.09	938.11	938.13	938.15	938.18	938.22	938.26	938.30
12.00	DISCHG	3.35	3.45	3.56	3.66	3.76	3.86	3.95	4.04	4.12	4.19

SUMMARY TABLE 1

ALT	STORM	ID	DA SQ-MI.	RAIN TBLE	AMC	DELTA-T HRS.	TZERO HRS.	PRECIP IN.	PRECIP DURATION	PEAK-Q CFS	PEAK-TIME	PEAK-ELEV	RUNOFF IN.	CSM
		-1	1.68	1	2	0.20	0.00	3.60	24.50	316.20	12.21	0.00	2.10	188.21
		-1	1.68	1	2	0.20	0.00	3.60	24.50	4.38	0.00	0.00	0.21	2.61
		-1	1.68	1	2	0.20	0.00	4.45	24.50	439.10	12.17	0.00	2.86	261.37
		-1	1.68	1	2	0.20	0.00	4.45	24.50	5.07	0.00	0.00	0.24	3.02
		-1	1.68	1	2	0.20	0.00	4.85	24.50	498.23	12.15	0.00	3.23	296.57
		-1	1.68	1	2	0.20	0.00	4.85	24.50	5.34	0.00	0.00	0.25	3.18
		-1	1.68	1	2	0.20	0.00	5.70	24.50	625.57	12.13	0.00	4.02	372.36
		-1	1.68	1	2	0.20	0.00	5.70	24.50	5.93	0.00	0.00	0.28	3.53

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      LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10
        1           ID    DEXTER TWP. FIS ---NORTH  LAKE---
        2           ID    BY JWG (MDNR) 3/85    DEXTER DATA A   10 DAY DIST.
*** FREE ***
        3           IT      60       0       0     300
        4           IO       1       2       0

        5           KK    SUB1
        6           KM   NORTH LAKE INFLOW
        7           BA    1.68
        8           LS       0    76.8
        9           BF      -1     -.2   1.002
       10           UD    6.02
       11           PB    7.30
       12           IN    1440       0       0
       13           PC   0.000   0.030   0.308   0.318   0.325   0.360   0.388   0.395   0.400   0.970
       14           PC    1.00

       15           KK
       16           KM   ROUTED OUTFLOW NORTH  LAKE
       17           RS       1    ELEV   937.0
       18           SQ       0     2.5     5.0     7.2     9.0
       19           SV       0     201     441     702     975
       20           SE     937     938     939     940     941
       21           ZZ
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*****************************************
*                                       *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
*             FEBRUARY 1981             *
*           REVISED 30 OCT 81           *
*                                       *
*  RUN DATE              TIME           *
*                                       *
*****************************************
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*****************************************
*                                       *
*    U.S. ARMY CORPS OF ENGINEERS       *
*  THE HYDROLOGIC ENGINEERING CENTER    *
*          609 SECOND STREET            *
*       DAVIS, CALIFORNIA 95616         *
*  (916) 440-3285 OR (FTS) 448-3285     *
*                                       *
*****************************************
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DEXTER TWP. FIS ---NORTH LAKE---
BY JWG (MDNR) 3/85 DEXTER DATA A 10 DAY DIST.

4 IO OUTPUT CONTROL VARIABLES

IPRNT	1	PRINT CONTROL
IPLOT	2	PLOT CONTROL
QSCAL	0.	HYDROGRAPH PLOT SCALE

IT HYDROGRAPH TIME DATA

NMIN	60	MINUTES IN COMPUTATION INTERVAL
IDATE	1 0	STARTING DATE
ITIME	0000	STARTING TIME
NQ	300	NUMBER OF HYDROGRAPH ORDINATES
NDDATE	13 0	ENDING DATE
NDTIME	1100	ENDING TIME

COMPUTATION INTERVAL 1.00 HOURS
TOTAL TIME BASE 299.00 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

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***************
*             *
*      SUB1   *
*             *
***************
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5 KK

NORTH LAKE INFLOW

12 IN TIME DATA FOR INPUT TIME SERIES

JXMIN	1440	TIME INTERVAL IN MINUTES
JXDATE	1 0	STARTING DATE
JXTIME	0	STARTING TIME

SUBBASIN RUNOFF DATA

7 BA SUBBASIN CHARACTERISTICS

TAREA	1.68	SUBBASIN AREA

9 BF BASE FLOW CHARACTERISTICS

STRTQ	1.68	INITIAL FLOW
QRCSN	-0.20	BEGIN BASE FLOW RECESSION
RTIOR	1.00200	RECESSION CONSTANT

PRECIPITATION DATA

13 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	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	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	0.02	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	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

8 LS SCS LOSS RATE

STRTL	0.60	INITIAL ABSTRACTION
CRVNBR	76.80	CURVE NUMBER
RTIMP	0.00	PERCENT IMPERVIOUS AREA

10 UD SCS DIMENSIONLESS UNITGRAPH

TLAG	6.02	LAG

***

UNIT HYDROGRAPH
32 END-OF-PERIOD ORDINATES

8.	25.	51.	85.	111.	123.	124.	113.	99.	80.
59.	46.	35.	28.	22.	17.	13.	10.	8.	6.
5.	4.	3.	2.	2.	1.	1.	1.	1.	0.
0.	0.								

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HYDROGRAPH AT STATION SUB1

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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	2.	7		0600	151	0.00	0.00	0.00	8.
1		0100	2	0.01	0.01	0.00	2.	7		0700	152	0.00	0.00	0.00	8.
1		0200	3	0.01	0.01	0.00	2.	7		0800	153	0.00	0.00	0.00	8.
1		0300	4	0.01	0.01	0.00	2.	7		0900	154	0.00	0.00	0.00	8.
1		0400	5	0.01	0.01	0.00	2.	7		1000	155	0.00	0.00	0.00	8.
1		0500	6	0.01	0.01	0.00	2.	7		1100	156	0.00	0.00	0.00	8.
1		0600	7	0.01	0.01	0.00	2.	7		1200	157	0.00	0.00	0.00	8.
1		0700	8	0.01	0.01	0.00	2.	7		1300	158	0.00	0.00	0.00	8.
1		0800	9	0.01	0.01	0.00	2.	7		1400	159	0.00	0.00	0.00	8.
1		0900	10	0.01	0.01	0.00	2.	7		1500	160	0.00	0.00	0.00	8.
1		1000	11	0.01	0.01	0.00	2.	7		1600	161	0.00	0.00	0.00	8.
1		1100	12	0.01	0.01	0.00	2.	7		1700	162	0.00	0.00	0.00	8.
1		1200	13	0.01	0.01	0.00	2.	7		1800	163	0.00	0.00	0.00	8.
1		1300	14	0.01	0.01	0.00	2.	7		1900	164	0.00	0.00	0.00	8.
1		1400	15	0.01	0.01	0.00	2.	7		2000	165	0.00	0.00	0.00	8.
1		1500	16	0.01	0.01	0.00	2.	7		2100	166	0.00	0.00	0.00	8.
1		1600	17	0.01	0.01	0.00	2.	7		2200	167	0.00	0.00	0.00	8.
1		1700	18	0.01	0.01	0.00	2.	7		2300	168	0.00	0.00	0.00	8.

1	1800	19	0.01	0.01	0.00	2.	*	8	0000	169	0.00	0.00	0.00	8.
1	1900	20	0.01	0.01	0.00	2.	*	8	0100	170	0.00	0.00	0.00	8.
1	2000	21	0.01	0.01	0.00	2.	*	8	0200	171	0.00	0.00	0.00	8.
1	2100	22	0.01	0.01	0.00	2.	*	8	0300	172	0.00	0.00	0.00	8.
1	2200	23	0.01	0.01	0.00	2.	*	8	0400	173	0.00	0.00	0.00	8.
1	2300	24	0.01	0.01	0.00	2.	*	8	0500	174	0.00	0.00	0.00	8.
2	0000	25	0.01	0.01	0.00	2.	*	8	0600	175	0.00	0.00	0.00	8.
2	0100	26	0.08	0.08	0.00	2.	*	8	0700	176	0.00	0.00	0.00	8.
2	0200	27	0.08	0.08	0.00	2.	*	8	0800	177	0.00	0.00	0.00	8.
2	0300	28	0.08	0.08	0.00	2.	*	8	0900	178	0.00	0.00	0.00	8.
2	0400	29	0.08	0.08	0.00	2.	*	8	1000	179	0.00	0.00	0.00	8.
2	0500	30	0.08	0.08	0.00	2.	*	8	1100	180	0.00	0.00	0.00	8.
2	0600	31	0.08	0.08	0.00	2.	*	8	1200	181	0.00	0.00	0.00	8.
2	0700	32	0.08	0.08	0.01	2.	*	8	1300	182	0.00	0.00	0.00	8.
2	0800	33	0.08	0.07	0.01	2.	*	8	1400	183	0.00	0.00	0.00	8.
2	0900	34	0.08	0.07	0.02	3.	*	8	1500	184	0.00	0.00	0.00	7.
2	1000	35	0.08	0.07	0.02	4.	*	8	1600	185	0.00	0.00	0.00	7.
2	1100	36	0.08	0.06	0.02	6.	*	8	1700	186	0.00	0.00	0.00	7.
2	1200	37	0.08	0.06	0.03	8.	*	8	1800	187	0.00	0.00	0.00	7.
2	1300	38	0.08	0.06	0.03	10.	*	8	1900	188	0.00	0.00	0.00	7.
2	1400	39	0.08	0.05	0.03	13.	*	8	2000	189	0.00	0.00	0.00	7.
2	1500	40	0.08	0.05	0.03	16.	*	8	2100	190	0.00	0.00	0.00	7.
2	1600	41	0.08	0.05	0.04	19.	*	8	2200	191	0.00	0.00	0.00	7.
2	1700	42	0.08	0.05	0.04	21.	*	8	2300	192	0.00	0.00	0.00	7.
2	1800	43	0.08	0.05	0.04	24.	*	9	0000	193	0.00	0.00	0.00	7.
2	1900	44	0.08	0.04	0.04	27.	*	9	0100	194	0.17	0.05	0.12	7.
2	2000	45	0.08	0.04	0.04	30.	*	9	0200	195	0.17	0.05	0.12	7.
2	2100	46	0.08	0.04	0.04	32.	*	9	0300	196	0.17	0.05	0.13	12.
2	2200	47	0.08	0.04	0.05	35.	*	9	0400	197	0.17	0.04	0.13	23.
2	2300	48	0.08	0.04	0.05	37.	*	9	0500	198	0.17	0.04	0.13	36.
3	0000	49	0.08	0.04	0.05	40.	*	9	0600	199	0.17	0.04	0.13	52.
3	0100	50	0.00	0.00	0.00	41.	*	9	0700	200	0.17	0.04	0.14	68.
3	0200	51	0.00	0.00	0.00	42.	*	9	0800	201	0.17	0.04	0.14	83.
3	0300	52	0.00	0.00	0.00	42.	*	9	0900	202	0.17	0.03	0.14	96.
3	0400	53	0.00	0.00	0.00	39.	*	9	1000	203	0.17	0.03	0.14	107.
3	0500	54	0.00	0.00	0.00	36.	*	9	1100	204	0.17	0.03	0.14	116.
3	0600	55	0.00	0.00	0.00	31.	*	9	1200	205	0.17	0.03	0.14	124.
3	0700	56	0.00	0.00	0.00	26.	*	9	1300	206	0.17	0.03	0.15	130.
3	0800	57	0.00	0.00	0.00	22.	*	9	1400	207	0.17	0.03	0.15	135.
3	0900	58	0.00	0.00	0.00	18.	*	9	1500	208	0.17	0.03	0.15	140.
3	1000	59	0.00	0.00	0.00	14.	*	9	1600	209	0.17	0.02	0.15	144.
3	1100	60	0.00	0.00	0.00	12.	*	9	1700	210	0.17	0.02	0.15	147.
3	1200	61	0.00	0.00	0.00	10.	*	9	1800	211	0.17	0.02	0.15	150.
3	1300	62	0.00	0.00	0.00	9.	*	9	1900	212	0.17	0.02	0.15	152.
3	1400	63	0.00	0.00	0.00	8.	*	9	2000	213	0.17	0.02	0.15	155.
3	1500	64	0.00	0.00	0.00	8.	*	9	2100	214	0.17	0.02	0.15	157.
3	1600	65	0.00	0.00	0.00	8.	*	9	2200	215	0.17	0.02	0.15	158.
3	1700	66	0.00	0.00	0.00	8.	*	9	2300	216	0.17	0.02	0.15	160.
3	1800	67	0.00	0.00	0.00	8.	*	10	0000	217	0.17	0.02	0.16	161.
3	1900	68	0.00	0.00	0.00	8.	*	10	0100	218	0.01	0.00	0.01	162.
3	2000	69	0.00	0.00	0.00	8.	*	10	0200	219	0.01	0.00	0.01	159.
3	2100	70	0.00	0.00	0.00	8.	*	10	0300	220	0.01	0.00	0.01	153.
3	2200	71	0.00	0.00	0.00	8.	*	10	0400	221	0.01	0.00	0.01	141.
3	2300	72	0.00	0.00	0.00	8.	*	10	0500	222	0.01	0.00	0.01	126.
4	0000	73	0.00	0.00	0.00	8.	*	10	0600	223	0.01	0.00	0.01	108.
4	0100	74	0.00	0.00	0.00	8.	*	10	0700	224	0.01	0.00	0.01	90.
4	0200	75	0.00	0.00	0.00	8.	*	10	0800	225	0.01	0.00	0.01	74.
4	0300	76	0.00	0.00	0.00	8.	*	10	0900	226	0.01	0.00	0.01	60.
4	0400	77	0.00	0.00	0.00	8.	*	10	1000	227	0.01	0.00	0.01	48.
4	0500	78	0.00	0.00	0.00	8.	*	10	1100	228	0.01	0.00	0.01	40.
4	0600	79	0.00	0.00	0.00	8.	*	10	1200	229	0.01	0.00	0.01	33.
4	0700	80	0.00	0.00	0.00	8.	*	10	1300	230	0.01	0.00	0.01	32.
4	0800	81	0.00	0.00	0.00	8.	*	10	1400	231	0.01	0.00	0.01	32.
4	0900	82	0.00	0.00	0.00	8.	*	10	1500	232	0.01	0.00	0.01	32.
4	1000	83	0.00	0.00	0.00	8.	*	10	1600	233	0.01	0.00	0.01	32.
4	1100	84	0.00	0.00	0.00	8.	*	10	1700	234	0.01	0.00	0.01	32.

4	1200	85	0.00	0.00	0.00	8.	*	10	1800	235	0.01	0.00	0.01	32.
4	1300	86	0.00	0.00	0.00	8.	*	10	1900	236	0.01	0.00	0.01	32.
4	1400	87	0.00	0.00	0.00	8.	*	10	2000	237	0.01	0.00	0.01	32.
4	1500	88	0.00	0.00	0.00	8.	*	10	2100	238	0.01	0.00	0.01	32.
4	1600	89	0.00	0.00	0.00	8.	*	10	2200	239	0.01	0.00	0.01	32.
4	1700	90	0.00	0.00	0.00	8.	*	10	2300	240	0.01	0.00	0.01	32.
4	1800	91	0.00	0.00	0.00	8.	*	11	0000	241	0.01	0.00	0.01	32.
4	1900	92	0.00	0.00	0.00	8.	*	11	0100	242	0.00	0.00	0.00	31.
4	2000	93	0.00	0.00	0.00	8.	*	11	0200	243	0.00	0.00	0.00	31.
4	2100	94	0.00	0.00	0.00	8.	*	11	0300	244	0.00	0.00	0.00	31.
4	2200	95	0.00	0.00	0.00	8.	*	11	0400	245	0.00	0.00	0.00	31.
4	2300	96	0.00	0.00	0.00	8.	*	11	0500	246	0.00	0.00	0.00	31.
5	0000	97	0.00	0.00	0.00	8.	*	11	0600	247	0.00	0.00	0.00	31.
5	0100	98	0.01	0.00	0.01	8.	*	11	0700	248	0.00	0.00	0.00	31.
5	0200	99	0.01	0.00	0.01	8.	*	11	0800	249	0.00	0.00	0.00	31.
5	0300	100	0.01	0.00	0.01	8.	*	11	0900	250	0.00	0.00	0.00	31.
5	0400	101	0.01	0.00	0.01	8.	*	11	1000	251	0.00	0.00	0.00	31.
5	0500	102	0.01	0.00	0.01	8.	*	11	1100	252	0.00	0.00	0.00	31.
5	0600	103	0.01	0.00	0.01	8.	*	11	1200	253	0.00	0.00	0.00	31.
5	0700	104	0.01	0.00	0.01	8.	*	11	1300	254	0.00	0.00	0.00	31.
5	0800	105	0.01	0.00	0.01	8.	*	11	1400	255	0.00	0.00	0.00	31.
5	0900	106	0.01	0.00	0.01	8.	*	11	1500	256	0.00	0.00	0.00	31.
5	1000	107	0.01	0.00	0.01	8.	*	11	1600	257	0.00	0.00	0.00	31.
5	1100	108	0.01	0.00	0.01	8.	*	11	1700	258	0.00	0.00	0.00	31.
5	1200	109	0.01	0.00	0.01	8.	*	11	1800	259	0.00	0.00	0.00	30.
5	1300	110	0.01	0.00	0.01	8.	*	11	1900	260	0.00	0.00	0.00	30.
5	1400	111	0.01	0.00	0.01	8.	*	11	2000	261	0.00	0.00	0.00	30.
5	1500	112	0.01	0.00	0.01	8.	*	11	2100	262	0.00	0.00	0.00	30.
5	1600	113	0.01	0.00	0.01	8.	*	11	2200	263	0.00	0.00	0.00	30.
5	1700	114	0.01	0.00	0.01	8.	*	11	2300	264	0.00	0.00	0.00	30.
5	1800	115	0.01	0.00	0.01	8.	*	12	0000	265	0.00	0.00	0.00	30.
5	1900	116	0.01	0.00	0.01	8.	*	12	0100	266	0.00	0.00	0.00	30.
5	2000	117	0.01	0.00	0.01	8.	*	12	0200	267	0.00	0.00	0.00	30.
5	2100	118	0.01	0.00	0.01	8.	*	12	0300	268	0.00	0.00	0.00	30.
5	2200	119	0.01	0.00	0.01	8.	*	12	0400	269	0.00	0.00	0.00	30.
5	2300	120	0.01	0.00	0.01	9.	*	12	0500	270	0.00	0.00	0.00	30.
6	0000	121	0.01	0.00	0.01	9.	*	12	0600	271	0.00	0.00	0.00	30.
6	0100	122	0.01	0.00	0.01	9.	*	12	0700	272	0.00	0.00	0.00	30.
6	0200	123	0.01	0.00	0.01	9.	*	12	0800	273	0.00	0.00	0.00	30.
6	0300	124	0.01	0.00	0.01	9.	*	12	0900	274	0.00	0.00	0.00	30.
6	0400	125	0.01	0.00	0.01	8.	*	12	1000	275	0.00	0.00	0.00	29.
6	0500	126	0.01	0.00	0.01	8.	*	12	1100	276	0.00	0.00	0.00	29.
6	0600	127	0.01	0.00	0.01	8.	*	12	1200	277	0.00	0.00	0.00	29.
6	0700	128	0.01	0.00	0.01	8.	*	12	1300	278	0.00	0.00	0.00	29.
6	0800	129	0.01	0.00	0.01	8.	*	12	1400	279	0.00	0.00	0.00	29.
6	0900	130	0.01	0.00	0.01	8.	*	12	1500	280	0.00	0.00	0.00	29.
6	1000	131	0.01	0.00	0.01	8.	*	12	1600	281	0.00	0.00	0.00	29.
6	1100	132	0.01	0.00	0.01	8.	*	12	1700	282	0.00	0.00	0.00	29.
6	1200	133	0.01	0.00	0.01	8.	*	12	1800	283	0.00	0.00	0.00	29.
6	1300	134	0.01	0.00	0.01	8.	*	12	1900	284	0.00	0.00	0.00	29.
6	1400	135	0.01	0.00	0.01	8.	*	12	2000	285	0.00	0.00	0.00	29.
6	1500	136	0.01	0.00	0.01	8.	*	12	2100	286	0.00	0.00	0.00	29.
6	1600	137	0.01	0.00	0.01	8.	*	12	2200	287	0.00	0.00	0.00	29.
6	1700	138	0.01	0.00	0.01	8.	*	12	2300	288	0.00	0.00	0.00	29.
6	1800	139	0.01	0.00	0.01	8.	*	13	0000	289	0.00	0.00	0.00	29.
6	1900	140	0.01	0.00	0.01	8.	*	13	0100	290	0.00	0.00	0.00	29.
6	2000	141	0.01	0.00	0.01	8.	*	13	0200	291	0.00	0.00	0.00	29.
6	2100	142	0.01	0.00	0.01	8.	*	13	0300	292	0.00	0.00	0.00	29.
6	2200	143	0.01	0.00	0.01	8.	*	13	0400	293	0.00	0.00	0.00	28.
6	2300	144	0.01	0.00	0.01	8.	*	13	0500	294	0.00	0.00	0.00	28.
7	0000	145	0.01	0.00	0.01	8.	*	13	0600	295	0.00	0.00	0.00	28.
7	0100	146	0.00	0.00	0.00	8.	*	13	0700	296	0.00	0.00	0.00	28.
7	0200	147	0.00	0.00	0.00	8.	*	13	0800	297	0.00	0.00	0.00	28.
7	0300	148	0.00	0.00	0.00	8.	*	13	0900	298	0.00	0.00	0.00	28.
7	0400	149	0.00	0.00	0.00	8.	*	13	1000	299	0.00	0.00	0.00	28.
7	0500	150	0.00	0.00	0.00	8.	*	13	1100	300	0.00	0.00	0.00	28.
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TOTAL RAINFALL = 7.30, TOTAL LOSS = 2.69, TOTAL EXCESS = 4.61

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	299.00-HR
162.	217.00	(CFS)	159.	135.	68.	25.
		(INCHES)	0.881	2.997	4.522	7.013
		(AC-FT)	79.	269.	405.	628.

CUMULATIVE AREA = 1.68 SQ MI

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          *            *
 15 KK    *            *
          *            *
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                    ROUTED OUTFLOW NORTH  LAKE

             HYDROGRAPH ROUTING DATA

 17 RS          STORAGE ROUTING
                     NSTPS           1  NUMBER OF SUBREACHES
                      ITYP        ELEV  TYPE OF INITIAL CONDITION
                    RSVRIC      937.00  INITIAL CONDITION
                         X        0.00 WORKING R AND D COEFFICIENT

 19 SV            STORAGE         0.0     201.0     441.0     702.0     975.0

 20 SE          ELEVATION      937.00    938.00    939.00    940.00    941.00

 18 SQ          DISCHARGE          0.        3.        5.        7.        9.

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HYDROGRAPH AT STATION

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	937.0	5		0400	101	1.	81.5	937.4	9		0800	201	2.	151.3	937.8
1		0100	2	0.	0.1	937.0	5		0500	102	1.	82.1	937.4	9		0900	202	2.	158.5	937.8
1		0200	3	0.	0.3	937.0	5		0600	103	1.	82.6	937.4	9		1000	203	2.	166.8	937.8
1		0300	4	0.	0.4	937.0	5		0700	104	1.	83.2	937.4	9		1100	204	2.	175.8	937.9
1		0400	5	0.	0.6	937.0	5		0800	105	1.	83.7	937.4	9		1200	205	2.	185.6	937.9
1		0500	6	0.	0.7	937.0	5		0900	106	1.	84.3	937.4	9		1300	206	2.	195.8	938.0
1		0600	7	0.	0.8	937.0	5		1000	107	1.	84.8	937.4	9		1400	207	3.	206.6	938.0
1		0700	8	0.	1.0	937.0	5		1100	108	1.	85.4	937.4	9		1500	208	3.	217.8	938.1
1		0800	9	0.	1.1	937.0	5		1200	109	1.	85.9	937.4	9		1600	209	3.	229.2	938.1
1		0900	10	0.	1.2	937.0	5		1300	110	1.	86.5	937.4	9		1700	210	3.	241.0	938.2
1		1000	11	0.	1.4	937.0	5		1400	111	1.	87.0	937.4	9		1800	211	3.	253.0	938.2
1		1100	12	0.	1.5	937.0	5		1500	112	1.	87.6	937.4	9		1900	212	3.	265.3	938.3
1		1200	13	0.	1.6	937.0	5		1600	113	1.	88.2	937.4	9		2000	213	3.	277.7	938.3
1		1300	14	0.	1.8	937.0	5		1700	114	1.	88.8	937.4	9		2100	214	3.	290.3	938.4
1		1400	15	0.	1.9	937.0	5		1800	115	1.	89.4	937.4	9		2200	215	4.	303.0	938.4
1		1500	16	0.	2.0	937.0	5		1900	116	1.	90.0	937.4	9		2300	216	4.	315.9	938.5
1		1600	17	0.	2.2	937.0	5		2000	117	1.	90.6	937.5	10		0000	217	4.	328.8	938.5
1		1700	18	0.	2.3	937.0	5		2100	118	1.	91.2	937.5	10		0100	218	4.	341.9	938.6
1		1800	19	0.	2.4	937.0	5		2200	119	1.	91.8	937.5	10		0200	219	4.	354.8	938.6
1		1900	20	0.	2.6	937.0	5		2300	120	1.	92.4	937.5	10		0300	220	4.	367.3	938.7
1		2000	21	0.	2.7	937.0	6		0000	121	1.	93.0	937.5	10		0400	221	4.	379.1	938.7
1		2100	22	0.	2.8	937.0	6		0100	122	1.	93.6	937.5	10		0500	222	4.	389.8	938.8
1		2200	23	0.	3.0	937.0	6		0200	123	1.	94.2	937.5	10		0600	223	5.	399.0	938.8
1		2300	24	0.	3.1	937.0	6		0300	124	1.	94.8	937.5	10		0700	224	5.	406.9	938.9
2		0000	25	0.	3.2	937.0	6		0400	125	1.	95.4	937.5	10		0800	225	5.	413.3	938.9
2		0100	26	0.	3.3	937.0	6		0500	126	1.	96.0	937.5	10		0900	226	5.	418.4	938.9
2		0200	27	0.	3.5	937.0	6		0600	127	1.	96.6	937.5	10		1000	227	5.	422.5	938.9
2		0300	28	0.	3.6	937.0	6		0700	128	1.	97.2	937.5	10		1100	228	5.	425.7	938.9
2		0400	29	0.	3.7	937.0	6		0800	129	1.	97.8	937.5	10		1200	229	5.	428.3	938.9
2		0500	30	0.	3.9	937.0	6		0900	130	1.	98.4	937.5	10		1300	230	5.	430.6	939.0
2		0600	31	0.	4.0	937.0	6		1000	131	1.	99.0	937.5	10		1400	231	5.	432.9	939.0
2		0700	32	0.	4.1	937.0	6		1100	132	1.	99.6	937.5	10		1500	232	5.	435.2	939.0
2		0800	33	0.	4.3	937.0	6		1200	133	1.	100.2	937.5	10		1600	233	5.	437.4	939.0
2		0900	34	0.	4.5	937.0	6		1300	134	1.	100.7	937.5	10		1700	234	5.	439.6	939.0
2		1000	35	0.	4.8	937.0	6		1400	135	1.	101.3	937.5	10		1800	235	5.	441.9	939.0
2		1100	36	0.	5.2	937.0	6		1500	136	1.	101.9	937.5	10		1900	236	5.	444.1	939.0
2		1200	37	0.	5.7	937.0	6		1600	137	1.	102.5	937.5	10		2000	237	5.	446.3	939.0
2		1300	38	0.	6.4	937.0	6		1700	138	1.	103.0	937.5	10		2100	238	5.	448.5	939.0
2		1400	39	0.	7.4	937.0	6		1800	139	1.	103.6	937.5	10		2200	239	5.	450.7	939.0
2		1500	40	0.	8.5	937.0	6		1900	140	1.	104.2	937.5	10		2300	240	5.	452.9	939.0
2		1600	41	0.	9.9	937.0	6		2000	141	1.	104.8	937.5	11		0000	241	5.	455.1	939.1
2		1700	42	0.	11.6	937.1	6		2100	142	1.	105.3	937.5	11		0100	242	5.	457.3	939.1
2		1800	43	0.	13.4	937.1	6		2200	143	1.	105.9	937.5	11		0200	243	5.	459.4	939.1
2		1900	44	0.	15.5	937.1	6		2300	144	1.	106.5	937.5	11		0300	244	5.	461.6	939.1
2		2000	45	0.	17.9	937.1	7		0000	145	1.	107.0	937.5	11		0400	245	5.	463.8	939.1

2	2100	46	0.	20.4	937.1	*	7	0100	146	1.	107.6	937.5	*	11	0500	246	5.	465.9	939.1
2	2200	47	0.	23.2	937.1	*	7	0200	147	1.	108.1	937.5	*	11	0600	247	5.	468.1	939.1
2	2300	48	0.	26.2	937.1	*	7	0300	148	1.	108.7	937.5	*	11	0700	248	5.	470.2	939.1
3	0000	49	0.	29.3	937.1	*	7	0400	149	1.	109.2	937.5	*	11	0800	249	5.	472.4	939.1
3	0100	50	0.	32.6	937.2	*	7	0500	150	1.	109.8	937.5	*	11	0900	250	5.	474.5	939.1
3	0200	51	0.	36.0	937.2	*	7	0600	151	1.	110.3	937.5	*	11	1000	251	5.	476.6	939.1
3	0300	52	0.	39.5	937.2	*	7	0700	152	1.	110.9	937.6	*	11	1100	252	5.	478.7	939.1
3	0400	53	1.	42.8	937.2	*	7	0800	153	1.	111.4	937.6	*	11	1200	253	5.	480.8	939.2
3	0500	54	1.	45.8	937.2	*	7	0900	154	1.	112.0	937.6	*	11	1300	254	5.	482.9	939.2
3	0600	55	1.	48.5	937.2	*	7	1000	155	1.	112.5	937.6	*	11	1400	255	5.	485.0	939.2
3	0700	56	1.	50.8	937.3	*	7	1100	156	1.	113.1	937.6	*	11	1500	256	5.	487.1	939.2
3	0800	57	1.	52.7	937.3	*	7	1200	157	1.	113.6	937.6	*	11	1600	257	5.	489.2	939.2
3	0900	58	1.	54.3	937.3	*	7	1300	158	1.	114.1	937.6	*	11	1700	258	5.	491.3	939.2
3	1000	59	1.	55.6	937.3	*	7	1400	159	1.	114.7	937.6	*	11	1800	259	5.	493.3	939.2
3	1100	60	1.	56.6	937.3	*	7	1500	160	1.	115.2	937.6	*	11	1900	260	5.	495.4	939.2
3	1200	61	1.	57.4	937.3	*	7	1600	161	1.	115.7	937.6	*	11	2000	261	5.	497.5	939.2
3	1300	62	1.	58.1	937.3	*	7	1700	162	1.	116.3	937.6	*	11	2100	262	5.	499.5	939.2
3	1400	63	1.	58.8	937.3	*	7	1800	163	1.	116.8	937.6	*	11	2200	263	6.	501.6	939.2
3	1500	64	1.	59.4	937.3	*	7	1900	164	1.	117.3	937.6	*	11	2300	264	6.	503.6	939.2
3	1600	65	1.	60.0	937.3	*	7	2000	165	1.	117.8	937.6	*	12	0000	265	6.	505.6	939.2
3	1700	66	1.	60.7	937.3	*	7	2100	166	1.	118.3	937.6	*	12	0100	266	6.	507.6	939.3
3	1800	67	1.	61.3	937.3	*	7	2200	167	1.	118.9	937.6	*	12	0200	267	6.	509.7	939.3
3	1900	68	1.	61.9	937.3	*	7	2300	168	1.	119.4	937.6	*	12	0300	268	6.	511.7	939.3
3	2000	69	1.	62.6	937.3	*	8	0000	169	1.	119.9	937.6	*	12	0400	269	6.	513.7	939.3
3	2100	70	1.	63.2	937.3	*	8	0100	170	1.	120.4	937.6	*	12	0500	270	6.	515.7	939.3
3	2200	71	1.	63.8	937.3	*	8	0200	171	2.	120.9	937.6	*	12	0600	271	6.	517.7	939.3
3	2300	72	1.	64.4	937.3	*	8	0300	172	2.	121.4	937.6	*	12	0700	272	6.	519.7	939.3
4	0000	73	1.	65.0	937.3	*	8	0400	173	2.	121.9	937.6	*	12	0800	273	6.	521.6	939.3
4	0100	74	1.	65.7	937.3	*	8	0500	174	2.	122.5	937.6	*	12	0900	274	6.	523.6	939.3
4	0200	75	1.	66.3	937.3	*	8	0600	175	2.	123.0	937.6	*	12	1000	275	6.	525.6	939.3
4	0300	76	1.	66.9	937.3	*	8	0700	176	2.	123.5	937.6	*	12	1100	276	6.	527.5	939.3
4	0400	77	1.	67.5	937.3	*	8	0800	177	2.	124.0	937.6	*	12	1200	277	6.	529.5	939.3
4	0500	78	1.	68.1	937.3	*	8	0900	178	2.	124.5	937.6	*	12	1300	278	6.	531.4	939.3
4	0600	79	1.	68.7	937.3	*	8	1000	179	2.	125.0	937.6	*	12	1400	279	6.	533.4	939.4
4	0700	80	1.	69.3	937.3	*	8	1100	180	2.	125.5	937.6	*	12	1500	280	6.	535.3	939.4
4	0800	81	1.	69.9	937.3	*	8	1200	181	2.	126.0	937.6	*	12	1600	281	6.	537.3	939.4
4	0900	82	1.	70.5	937.4	*	8	1300	182	2.	126.4	937.6	*	12	1700	282	6.	539.2	939.4
4	1000	83	1.	71.1	937.4	*	8	1400	183	2.	126.9	937.6	*	12	1800	283	6.	541.1	939.4
4	1100	84	1.	71.7	937.4	*	8	1500	184	2.	127.4	937.6	*	12	1900	284	6.	543.0	939.4
4	1200	85	1.	72.3	937.4	*	8	1600	185	2.	127.9	937.6	*	12	2000	285	6.	544.9	939.4
4	1300	86	1.	72.9	937.4	*	8	1700	186	2.	128.4	937.6	*	12	2100	286	6.	546.8	939.4
4	1400	87	1.	73.5	937.4	*	8	1800	187	2.	128.9	937.6	*	12	2200	287	6.	548.7	939.4
4	1500	88	1.	74.0	937.4	*	8	1900	188	2.	129.4	937.6	*	12	2300	288	6.	550.6	939.4
4	1600	89	1.	74.6	937.4	*	8	2000	189	2.	129.8	937.6	*	13	0000	289	6.	552.5	939.4
4	1700	90	1.	75.2	937.4	*	8	2100	190	2.	130.3	937.6	*	13	0100	290	6.	554.4	939.4
4	1800	91	1.	75.8	937.4	*	8	2200	191	2.	130.8	937.7	*	13	0200	291	6.	556.2	939.4
4	1900	92	1.	76.4	937.4	*	8	2300	192	2.	131.3	937.7	*	13	0300	292	6.	558.1	939.4
4	2000	93	1.	77.0	937.4	*	9	0000	193	2.	131.8	937.7	*	13	0400	293	6.	559.9	939.5
4	2100	94	1.	77.5	937.4	*	9	0100	194	2.	132.2	937.7	*	13	0500	294	6.	561.8	939.5
4	2200	95	1.	78.1	937.4	*	9	0200	195	2.	132.7	937.7	*	13	0600	295	6.	563.6	939.5
4	2300	96	1.	78.7	937.4	*	9	0300	196	2.	133.4	937.7	*	13	0700	296	6.	565.5	939.5
5	0000	97	1.	79.2	937.4	*	9	0400	197	2.	134.7	937.7	*	13	0800	297	6.	567.3	939.5
5	0100	98	1.	79.8	937.4	*	9	0500	198	2.	137.0	937.7	*	13	0900	298	6.	569.1	939.5
5	0200	99	1.	80.4	937.4	*	9	0600	199	2.	140.5	937.7	*	13	1000	299	6.	571.0	939.5
5	0300	100	1.	80.9	937.4	*	9	0700	200	2.	145.3	937.7	*	13	1100	300	6.	572.8	939.5

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PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	299.00-HR
6.	299.00	(CFS)	6.	6.	6.	2.
		(INCHES)	0.034	0.131	0.366	0.620
		(AC-FT)	3.	12.	33.	56.

PEAK STORAGE (AC-FT)	TIME (HR)	MAXIMUM AVERAGE STORAGE 6-HR	24-HR	72-HR	299.00-HR
573.	299.00	567.	550.	502.	197.

PEAK STAGE (FEET)	TIME (HR)	MAXIMUM AVERAGE STAGE 6-HR	24-HR	72-HR	299.00-HR
939.50	299.00	939.30	939.37	939.04	937.88

CUMULATIVE AREA = 1.68 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 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
HYDROGRAPH AT	SUB1	162.	217.00	159.	135.	68.	1.68		
ROUTED TO		6.	299.00	6.	6.	6.	1.68	939.50	299.00

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

THIS RUN EXECUTED 24-JAN-85 09:07:30

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  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55
**************************************************

C
T1        DEXTER FLOOD STUDY AUGUST 1984 HMOON.HEC  [SHEFF]
T2        JOB #1053F HMOON.HEC BACKWATER BETWEEN HALFMOON & HI-LAND LAKE
T3        HALFMOON LAKE      10-YR DISCHARGE.
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J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	2.	0.	0.	0.000000	0.00	0.0	0.	883.000	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	1.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

J3 VARIABLE CODES FOR SUMMARY PRINTOUT

	150.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
QT	4.000	280.000	410.000	460.000	600.000	0.000	0.000	0.000	0.000	0.000
NC	0.100	0.100	0.030	0.100	0.300	0.000	0.000	0.000	0.000	0.000
	X-SECTION 17.1 AT HI-LAND LAKE. 1050 FT. D/S OF GLENBROOK RD.									
X1	17.100	17.000	1942.000	2134.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	895.800	1933.000	895.000	1942.000	888.700	1968.000	885.600	2000.000	882.600	2005.000
GR	882.100	2010.000	880.600	2018.000	879.400	2025.000	878.100	2032.000	877.800	2040.000
GR	878.800	2048.000	882.100	2059.000	882.200	2095.000	883.200	2111.000	883.900	2119.000
GR	892.200	2134.000	893.200	2166.000	0.000	0.000	0.000	0.000	0.000	0.000
	X-SECTION 17 600 FT. U/S OF HI-LAND LAKE.									
X1	17.000	0.000	0.000	0.000	600.000	600.000	600.000	0.000	0.000	0.000
	X-SECTION 17.6 950 FT. U/S OF HI-LAND LAKE.									
X1	17.600	12.000	2000.000	2132.000	350.000	350.000	350.000	0.000	0.000	0.000
GR	889.600	1980.000	887.600	2000.000	884.400	2020.000	883.200	2075.000	880.800	2092.000
GR	879.300	2100.000	878.700	2120.000	880.500	2125.000	883.200	2126.000	885.000	2132.000
GR	885.400	2152.000	886.900	2227.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
	X-SECTION 18 1050 FT. U/S OF HI-LAND LAKE @ GLENBROOK RD.									
X1	18.000	18.000	2095.000	2125.000	100.000	100.000	100.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	891.300	886.900	0.000
GR	898.500	1891.000	889.600	1980.000	887.600	2000.000	884.400	2020.000	884.000	2095.000
GR	880.500	2096.500	879.000	2100.000	880.500	2103.500	884.000	2105.000	884.000	2110.000
GR	883.800	2115.000	880.300	2116.500	878.800	2120.000	880.300	2123.500	883.800	2125.000
GR	885.000	2132.000	885.400	2152.000	886.900	2227.000	0.000	0.000	0.000	0.000

14112 G.B.

NC	0.000	0.000	0.023	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	X-SECTION 18.1 1 FT. INSIDE D/S END OF CULVERT @ GLENBROOK RD.									
X1	18.100	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	891.300	886.900	0.000
BT	18.000	1891.000	898.500	800.000	1980.000	895.300	800.000	2000.000	894.600	800.000
BT	2020.000	893.900	884.400	2095.000	891.300	884.000	2096.500	891.200	887.500	2100.000
BT	891.100	889.000	2103.500	890.900	887.500	2105.000	890.800	884.000	2110.000	890.700
BT	884.000	2115.000	890.500	883.800	2116.500	890.400	887.300	2120.000	890.400	888.800
BT	2123.500	890.300	887.300	2125.000	890.200	883.800	2132.000	890.000	800.000	2152.000
BT	889.300	800.000	2227.000	886.900	800.000	0.000	0.000	0.000	0.000	0.000
	X-SECTION 18.2 1 FT. INSIDE U/S END OF CULVERT @ GLENBROOK RD.									
X1	18.200	0.000	0.000	0.000	52.000	52.000	52.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	891.300	886.900	0.000
NC	0.000	0.000	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	X-SECTION 18.3 U/S END OF CULVERT @ GLENBROOK RD.									
X1	18.300	12.000	2000.000	2132.000	2.000	2.000	2.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	2093.000	0.000	2125.000	0.000	891.300	886.900	0.000
GR	889.600	1980.000	887.600	2000.000	884.400	2020.000	883.200	2075.000	880.800	2092.000
GR	879.300	2100.000	879.100	2120.000	880.500	2125.000	833.200	2126.000	885.000	2132.000
GR	885.400	2152.000	886.900	2227.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
X1	18.350	12.000	2000.000	2132.000	40.000	40.000	40.000	0.000	0.000	0.000
GR	889.600	1980.000	887.600	2000.000	884.400	2020.000	883.200	2075.000	880.800	2092.000
GR	879.300	2100.000	879.100	2120.000	880.500	2125.000	883.200	2126.000	885.000	2132.000
GR	885.400	2152.000	886.900	2227.000	0.000	0.000	0.000	0.000	0.000	0.000
	X-SECTION 18.4 1150 FT. D/S OF HALFMOON LAKE.									
X1	18.400	0.000	0.000	0.000	1110.000	1110.000	1110.000	0.000	0.000	0.000
	X-SECTION 18.5 AT HALFMOON LAKE.									
X1	18.500	0.000	0.000	0.000	1150.000	1150.000	1150.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

14112 G.B.

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                                                                THIS RUN EXECUTED 24-JAN-85  09:10:58

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  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55
**************************************************

T1      DEXTER TWP. F.I.S. AUGUST 1984 STS #1053E
T2      100 YEAR FLOOD EVENT FOR HALFMOON LAKE BACKWATER ANALYSIS
T3      HALFMOON LAKE

J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ

        0.       4.         0.         0.  0.000000       0.00       0.0        0.   883.000     0.000

J2  NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE

      3.000      0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
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14112 G.B.

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 3

CCHV= 0.100 CEHV= 0.300

*SECNO 17.100

X-SECTION 17.1 AT HI-LAND LAKE. 1050 FT. D/S OF GLENBROOK RD.

17.10	5.20	883.00	0.00	883.00	883.08	0.08	0.00	0.00	895.00
460.	0.	460.	0.	0.	209.	0.	0.	0.	892.20
0.00	0.00	2.20	0.00	0.000	0.030	0.000	0.000	877.80	2004.33
0.000783	0.	0.	0.	0	0	0	0.00	103.47	2107.80

*SECNO 17.000

X-SECTION 17 600 FT. U/S OF HI-LAND LAKE.

17.00	5.58	883.38	0.00	0.00	883.43	0.05	0.36	0.00	895.00
460.	0.	460.	0.	0.	250.	0.	3.	1.	892.20
0.09	0.00	1.84	0.00	0.000	0.030	0.000	0.000	877.80	2003.70
0.000467	600.	600.	600.	2	0	0	0.00	109.37	2113.07

*SECNO 17.600

X-SECTION 17.6 950 FT. U/S OF HI-LAND LAKE.

17.60	4.86	883.56	0.00	0.00	883.68	0.11	0.22	0.02	887.60
460.	0.	460.	0.	0.	171.	0.	5.	2.	885.00
0.13	0.00	2.70	0.00	0.000	0.030	0.000	0.000	878.70	2058.38
0.000926	350.	350.	350.	2	0	0	0.00	68.83	2127.21

CCHV= 0.300 CEHV= 0.500

*SECNO 18.000

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 891.30 ELREA= 886.90

X-SECTION 18 1050 FT. U/S OF HI-LAND LAKE @ GLENBROOK RD.

18.00	4.57	883.37	0.00	0.00	884.29	0.92	0.21	0.40	884.00
460.	0.	460.	0.	0.	60.	0.	5.	2.	883.80
0.13	0.00	7.70	0.00	0.000	0.030	0.000	0.000	878.80	2095.27
0.008873	100.	100.	100.	2	0	0	0.00	19.10	2124.82

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	RANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 18.100

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 18 MIN ELTRD= 886.90 MAX ELLC= 889.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 891.30 ELREA= 886.90

X-SECTION 18.1 1 FT. INSIDE D/S END OF CULVERT @ GLENBROOK RD.

18.10	4.58	883.38	0.00	0.00	884.30	0.92	0.01	0.00	884.00
460.	0.	460.	0.	0.	60.	0.	5.	2.	883.80
0.13	0.00	7.70	0.00	0.000	0.023	0.000	0.000	878.80	2095.27
0.005213	1.	1.	1.	0	0	0	0.00	19.10	2124.82

*SECNO 18.200

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 18 MIN ELTRD= 886.90 MAX ELLC= 889.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 891.30 ELREA= 886.90

X-SECTION 18.2 1 FT. INSIDE U/S END OF CULVERT @ GLENBROOK RD.

18.20	5.14	883.94	0.00	0.00	884.59	0.66	0.21	0.08	884.00
460.	0.	460.	0.	0.	71.	0.	5.	2.	883.80
0.13	0.00	6.50	0.00	0.000	0.023	0.000	0.000	878.80	2095.03
0.003310	52.	52.	52.	2	0	0	-0.31	23.46	2125.00

*SECNO 18.300

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 2093.0 2125.0 TYPE= 1 TARGET= 32.000

X-SECTION 18.3 U/S END OF CULVERT @ GLENBROOK RD.

18.30	5.53	884.63	0.00	0.00	884.75	0.12	0.00	0.16100000.00	
460.	0.	460.	0.	0.	166.	0.	5.	2.	100000.00
0.13	0.00	2.77	0.00	0.000	0.030	0.000	0.000	879.10	2093.00
0.000479	2.	2.	2.	2	0	0	0.00	32.00	2125.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
CCHV= 0.100 CEHV= 0.300									
*SECNO 18.350									
18.35	5.63	884.73	0.00	0.00	884.78	0.04	0.02	0.01	887.60
460.	0.	460.	0.	0.	278.	0.	5.	2.	885.00
0.14	0.00	1.66	0.00	0.000	0.030	0.000	0.000	879.10	2017.91
0.000348	40.	40.	40.	2	0	0	0.00	113.21	2131.12
*SECNO 18.400									
X-SECTION 18.4 1150 FT. D/S OF HALFMOON LAKE.									
18.40	5.96	885.06	0.00	0.00	885.09	0.03	0.32	0.00	887.60
460.	0.	460.	0.	0.	315.	0.	13.	5.	885.00
0.35	0.00	1.46	0.00	0.000	0.030	0.100	0.000	879.10	2015.88
0.000236	1110.	1110.	1110.	2	0	0	0.00	119.13	2135.00
*SECNO 18.500									
X-SECTION 18.5 AT HALFMOON LAKE.									
18.50	6.20	885.30	0.00	0.00	885.33	0.03	0.24	0.00	887.60
460.	0.	460.	0.	0.	344.	2.	22.	9.	885.00
0.59	0.00	1.34	0.06	0.000	0.030	0.100	0.000	879.10	2014.36
0.000180	1150.	1150.	1150.	2	0	0	0.00	132.76	2147.12

THIS RUN EXECUTED 24-JAN-85 09:13:32

****
HEC2 RELEASE DATED NOV 76 UPDATED MAY 1984
ERROR CORR - 01,02,03,04,05,06
MODIFICATION - 50,51,52,53,54,55
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

HALFMOON LAKE 10-

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
17.100	0.00	0.00	0.00	877.80	280.00	883.00	0.00	883.03	2.90	1.34	209.10	164.43
17.100	0.00	0.00	0.00	877.80	410.00	883.00	0.00	883.06	6.22	1.96	209.10	164.43
17.100	0.00	0.00	0.00	877.80	460.00	883.00	0.00	883.08	7.83	2.20	209.10	164.43
17.100	0.00	0.00	0.00	877.80	600.00	883.00	0.00	883.13	13.31	2.87	209.10	164.43
17.000	600.00	0.00	0.00	877.80	280.00	883.16	0.00	883.18	2.31	1.24	226.54	184.42
17.000	600.00	0.00	0.00	877.80	410.00	883.31	0.00	883.36	4.05	1.69	242.46	203.82
17.000	600.00	0.00	0.00	877.80	460.00	883.38	0.00	883.43	4.67	1.84	249.73	212.96
17.000	600.00	0.00	0.00	877.80	600.00	883.58	0.00	883.66	6.18	2.21	271.79	241.35
17.600	350.00	0.00	0.00	878.70	280.00	883.24	0.00	883.29	3.69	1.85	151.28	145.85
17.600	350.00	0.00	0.00	878.70	410.00	883.47	0.00	883.56	7.62	2.49	164.34	148.51
17.600	350.00	0.00	0.00	878.70	460.00	883.56	0.00	883.68	9.26	2.70	170.68	151.15
17.600	350.00	0.00	0.00	878.70	600.00	883.84	0.00	883.99	13.55	3.13	191.39	162.97
18.000	100.00	0.00	0.00	878.80	280.00	883.16	0.00	883.55	39.88	5.04	55.60	44.34
18.000	100.00	0.00	0.00	878.80	410.00	883.31	0.00	884.07	74.39	7.00	58.55	47.53
18.000	100.00	0.00	0.00	878.80	460.00	883.37	0.00	884.29	88.73	7.70	59.74	48.83
18.000	100.00	0.00	0.00	878.80	600.00	883.50	0.00	884.95	136.74	9.68	61.98	51.31
18.100	1.00	886.90	889.00	878.80	280.00	883.16	0.00	883.55	23.40	5.03	55.64	57.88
18.100	1.00	886.90	889.00	878.80	410.00	883.32	0.00	884.08	43.66	7.00	58.58	62.05
18.100	1.00	886.90	889.00	878.80	460.00	883.38	0.00	884.30	52.13	7.70	59.75	63.71
18.100	1.00	886.90	889.00	878.80	600.00	883.98	0.00	885.07	54.74	8.38	71.56	81.09
18.200	52.00	886.90	889.00	878.80	280.00	883.33	0.00	883.68	20.19	4.76	58.77	62.31
18.200	52.00	886.90	889.00	878.80	410.00	883.73	0.00	884.32	30.83	6.15	66.70	73.85
18.200	52.00	886.90	889.00	878.80	460.00	883.94	0.00	884.59	33.10	6.50	70.80	79.96
18.200	52.00	886.90	889.00	878.80	600.00	884.58	0.00	885.39	36.86	7.21	83.26	98.83
18.300	2.00	0.00	0.00	879.10	280.00	883.70	0.00	883.76	3.25	2.06	135.70	155.41
18.300	2.00	0.00	0.00	879.10	410.00	884.36	0.00	884.46	4.48	2.61	156.93	193.60
18.300	2.00	0.00	0.00	879.10	460.00	884.63	0.00	884.75	4.79	2.77	165.77	210.19
18.300	2.00	0.00	0.00	879.10	600.00	885.43	0.00	885.59	5.31	3.13	191.49	260.44

14112 G.J.

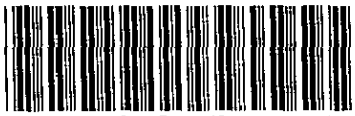
SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
18.350	40.00	0.00	0.00	879.10	280.00	883.74	0.00	883.78	3.42	1.56	179.09	151.45
18.350	40.00	0.00	0.00	879.10	410.00	884.44	0.00	884.49	4.09	1.68	244.60	202.83
18.350	40.00	0.00	0.00	879.10	460.00	884.73	0.00	884.78	3.48	1.66	277.91	246.68
18.350	40.00	0.00	0.00	879.10	600.00	885.57	0.00	885.61	2.32	1.60	383.70	394.03
18.400	1110.00	0.00	0.00	879.10	280.00	884.09	0.00	884.11	2.65	1.34	208.51	171.89
18.400	1110.00	0.00	0.00	879.10	410.00	884.81	0.00	884.84	2.52	1.43	286.27	258.10
18.400	1110.00	0.00	0.00	879.10	460.00	885.06	0.00	885.09	2.36	1.46	315.32	299.22
18.400	1110.00	0.00	0.00	879.10	600.00	885.81	0.00	885.84	1.84	1.48	419.93	441.75
18.500	1150.00	0.00	0.00	879.10	280.00	884.36	0.00	884.38	2.07	1.18	236.64	194.40
18.500	1150.00	0.00	0.00	879.10	410.00	885.06	0.00	885.09	1.87	1.30	315.70	299.77
18.500	1150.00	0.00	0.00	879.10	460.00	885.30	0.00	885.33	1.80	1.34	345.85	342.53
18.500	1150.00	0.00	0.00	879.10	600.00	886.00	0.00	886.03	1.54	1.40	452.89	484.18

HALFMOON LAKE 10-

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
17.100	280.00	883.00	0.00	0.00	0.00	103.47	0.00
17.100	410.00	883.00	0.00	0.00	0.00	103.47	0.00
17.100	460.00	883.00	0.00	0.00	0.00	103.47	0.00
17.100	600.00	883.00	0.00	0.00	0.00	103.47	0.00
17.000	280.00	883.16	0.00	0.16	0.00	106.40	600.00
17.000	410.00	883.31	0.16	0.31	0.00	108.50	600.00
17.000	460.00	883.38	0.07	0.38	0.00	109.37	600.00
17.000	600.00	883.58	0.20	0.58	0.00	111.98	600.00
17.600	280.00	883.24	0.00	0.08	0.00	53.20	350.00
17.600	410.00	883.47	0.23	0.15	0.00	64.14	350.00
17.600	460.00	883.56	0.10	0.18	0.00	68.83	350.00
17.600	600.00	883.84	0.27	0.25	0.00	82.31	350.00
18.000	280.00	883.16	0.00	-0.08	0.00	18.72	100.00
18.000	410.00	883.31	0.15	-0.16	0.00	18.99	100.00
18.000	460.00	883.37	0.06	-0.19	0.00	19.10	100.00
18.000	600.00	883.50	0.13	-0.34	0.00	19.30	100.00
18.100	280.00	883.16	0.00	0.00	0.00	18.73	1.00
18.100	410.00	883.32	0.16	0.01	0.00	19.00	1.00
18.100	460.00	883.38	0.06	0.01	0.00	19.10	1.00
18.100	600.00	883.98	0.60	0.48	0.00	24.45	1.00
18.200	280.00	883.33	0.00	0.17	0.00	19.01	52.00
18.200	410.00	883.73	0.41	0.42	0.00	19.71	52.00
18.200	460.00	883.94	0.20	0.56	0.00	23.46	52.00
18.200	600.00	884.58	0.65	0.60	0.00	30.00	52.00
18.300	280.00	883.70	0.00	0.37	0.00	32.00	2.00
18.300	410.00	884.36	0.66	0.63	0.00	32.00	2.00
18.300	460.00	884.63	0.28	0.70	0.00	32.00	2.00
18.300	600.00	885.43	0.80	0.85	0.00	32.00	2.00
18.350	280.00	883.74	0.00	0.04	0.00	77.82	40.00
18.350	410.00	884.44	0.70	0.09	0.00	110.35	40.00
18.350	460.00	884.73	0.29	0.10	0.00	113.21	40.00
18.350	600.00	885.57	0.84	0.14	0.00	147.93	40.00
18.400	280.00	884.09	0.00	0.34	0.00	94.60	1110.00
18.400	410.00	884.81	0.72	0.36	0.00	113.91	1110.00
18.400	460.00	885.06	0.25	0.33	0.00	119.13	1110.00
18.400	600.00	885.81	0.75	0.23	0.00	161.12	1110.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
18.500	280.00	884.36	0.00	0.28	0.00	108.24	1150.00
18.500	410.00	885.06	0.70	0.25	0.00	119.30	1150.00
18.500	460.00	885.30	0.24	0.24	0.00	132.76	1150.00
18.500	600.00	886.00	0.70	0.20	0.00	172.24	1150.00



1) COUNTY: WASHTENAW

2) STUDY NAME: PITTSFIELD TWP

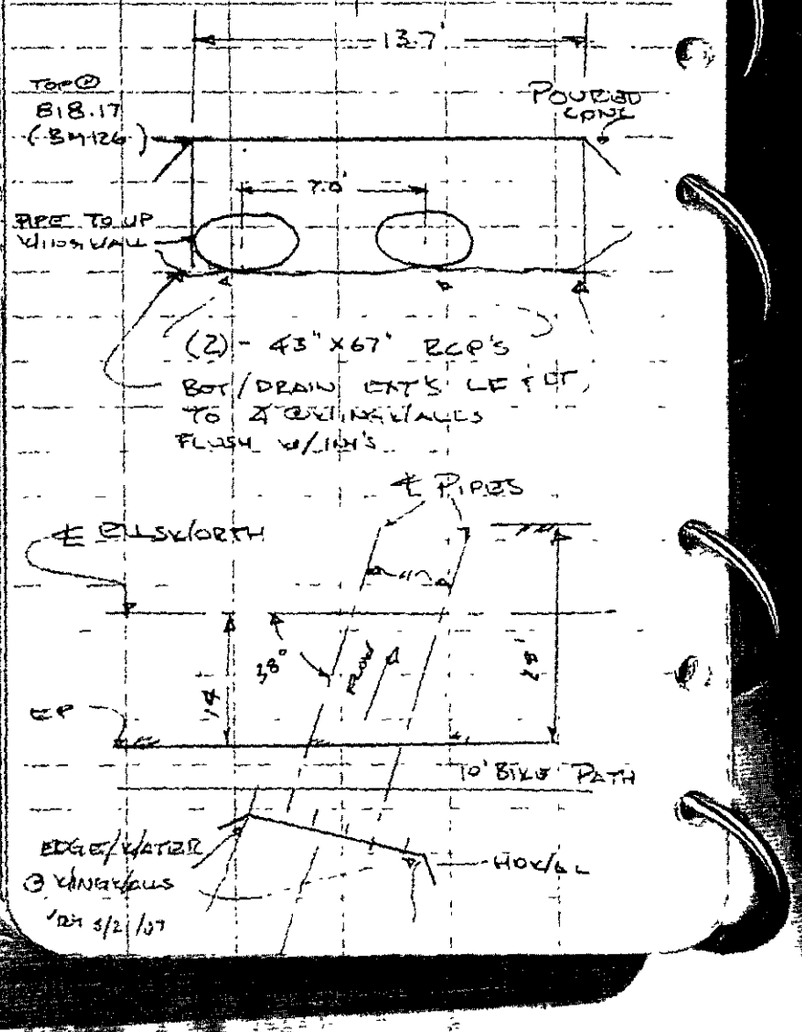
3) WATERCOURSE: PITTSFIELD-ANN ARBOR DR.

4) DOCUMENT TYPE: REPORT



PITTS FIELD DR ②
ELLSWORTH
SECT. ②

Ellsworth Rd. overlaid PAAD
x-sec 20800 on HEAC-2 mun.

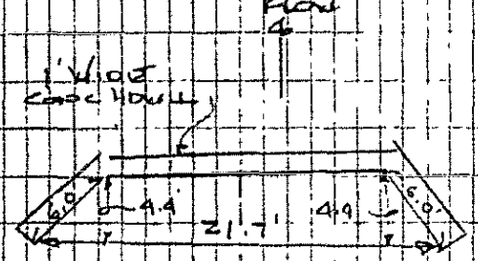


MC
JS
JR

4/8/87

24/

NOTES ELLSWORTH RD IN
GOOD COND. (ASPH)
DR'GE STRUCTURE GOOD COND



STA + HI -

BM 126 (L.HWL) 818.17

HI + 2.83 = $\boxed{821.00}$

R. HDWALL	2.83 818.17 818.17
L INV	7.96 [illegible]
R INV	7.88 [illegible]
TOP/L WING	4.85 [illegible]
TOP/R WING	4.64 [illegible]

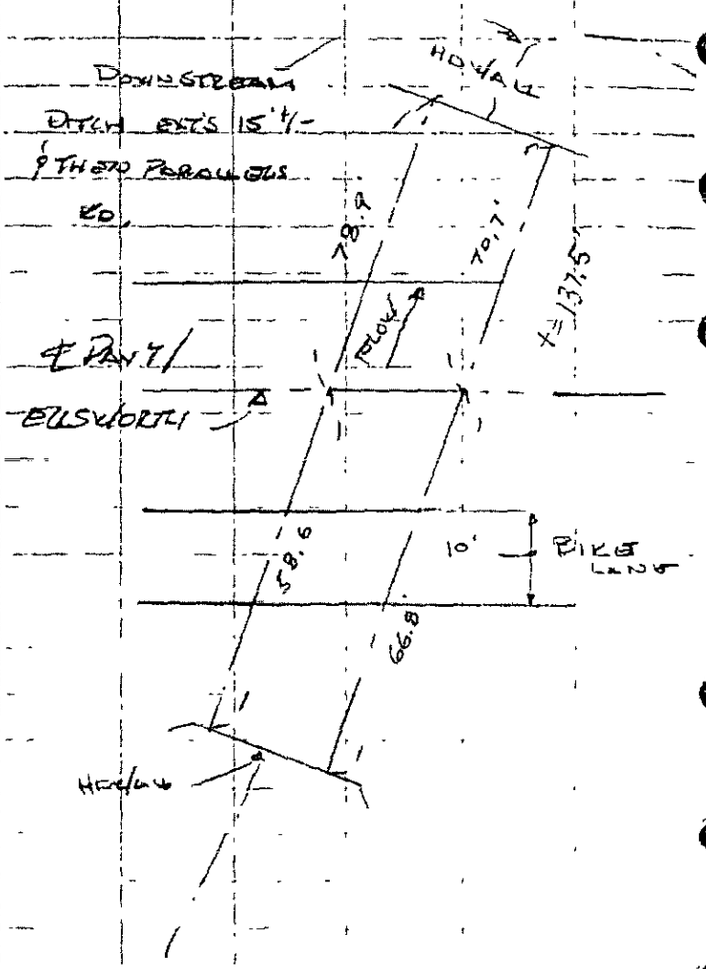
[illegible]

CC 1

DIETZGEN NO. 385 3

PITTS FIELD DR

SECT # 2 @ ELLSWORTH



JPH 3/2/77

PITTS. DR SECT #2 @ ELLSWORTH

CTA	+	HL	−	ELEV
@ @ ℄ (L.) CULV'T				
✓ BM 126			5.95	818.17 →

25' Bot side

STEADY GRADE FOR 300 +/- TO RR INCLINE

℄ PAV'T 250 LT 3.48

℄ PAV'T

225 LT	200 LT	175 LT	150 LT	125 LT
3.57	3.70	3.84	3.90	4.05
820.55'	820.42'	820.28'	[illegible]	[illegible]

℄ PAV'T (℄ L. PIPE) ℄ PAV'T

100 LT	75 LT	50 LT	25 LT	0'
4.17	4.27	4.41	4.57	4.71
819.75'	819.85'	819.71'	819.55'	819.41'

BM 126 5.95 $\boxed{824.12}$ ✓ 818.17

RH 5/21/87 [illegible]

MC 1/9/87 820251 26/
JS
JR

PITTSFIELD DR #2 - SECTION
℄ ELLSWORTH

→ REF. PAGE 22

℄ PAV'T	℄ PAV'T		STEEP / GRADE
250' LT	275' LT		
3.60	3.40		
820.52'	820.72'		

℄ PAV'T				℄ PAV'T
125' RT	150' RT	175' RT	200' RT	225' RT
4.50	4.32	4.15	3.94	3.80
819.62'	819.80'	819.97'	[illegible]	820.32'

(℄ RT. PIPE)

℄ PAV'T	℄ PAV'T			℄ PAV'T
10.5' RT	25' RT	50' RT	75' RT	100' RT
4.76	4.76	4.81	4.74	4.62
819.26'	819.36'	[illegible]	[illegible]	[illegible]

□ - CUT IN CONC HOWALL - SEE PG 22

DIETZGEN NO. 388-3

WASHTENAW AVE. BRIDGE

1a. Pick a flow — 100-year discharge and do calculations (2-4) for both sides seperately.

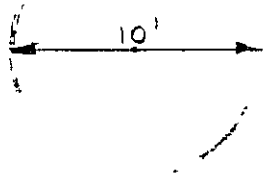
100-year discharge = 1870 cfs

Assume equal distribution on both sides, therefore flow on left side = 930 cfs, and on right side assume 940 cfs

1b For each pipe use the actual pipe area, $v^2/2g$, n, L, $R^{4/3}$ to calculate headloss.

$$H_L = \Sigma KOR \times \frac{V^2}{2g}$$

$$\Sigma KOR = \frac{20.1\ n^2 L}{R^{4/3}}$$



$$\frac{H_L 2g}{V^2} = \Sigma KOR$$

2a. Add up headlosses for all pipes on one side.
2b. Do both sides.

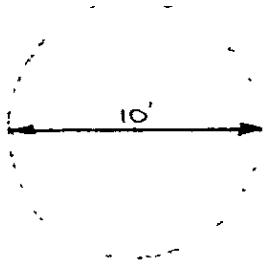
3. Compare total headloss on both sides.
If not equal, redistribute flow, repeat 1 & 2.
If they are equal go to 4.

4. Pick a pipe size with 100-year discharge. This

given a $V^2/2g$. Using $(H_L)_{Total}$, $XKOR = \frac{(H_L)_T \times 2g}{V^2}$

5. Final XKOR = XKOR from 4 + 1 + Ke (Ke = .7)

Calculation of left side:



$$A = \pi \frac{d^2}{4} = 78.54 \text{ sq ft.}$$

$$V = \frac{Q}{A} = \frac{930}{78.54} = 11.84$$

$L = 588$ ft

$n = .013$

$R = \frac{d}{4} = \frac{10}{4} = 2.5$

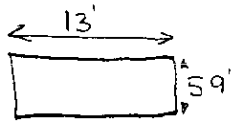
$$XKOR = \frac{29.1\,(.013)^2\,(588)}{(2.5)^{4/3}} = \frac{2.99}{3.38} = .86$$

$$H_L = XKOR \times \frac{V^2}{2g} = (.86) \times \frac{(11.84)^2}{64.4} = 1.87$$

$H_T = 1.87$

Calculation of right side:

a)



$Q = 940$ cfs

$A = 13.0 \times 5.9 = 76.7$

$V = \frac{Q}{A} = \frac{940}{76.7} = 12.26$

$\frac{V^2}{2g} = 2.33$

$n = .013$

$L = 116'$

$R = \frac{13 \times 5.9}{26 + 11.8} = \frac{76.7}{37.8} = 2.03$

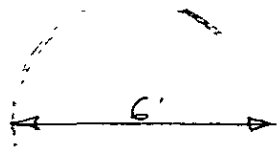
$$XKOR = \frac{29.1 \times (.013)^2 \times 116}{(2.03)^{4/3}} = \frac{.57}{2.56} = .22$$

$$H_L = (.22) \times \frac{(12.26)^2}{64.4} = .51$$

b. $Q = \frac{940}{2} = 470$ cfs (divided by 2 because there are two pipes on right side)

$A = 3.14159 \times 9 = 28.27$

$V = \frac{470}{28.27} = 16.63$



$\frac{V^2}{2g} = 4.29$

$n = .013$

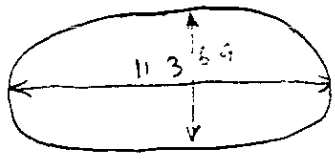
$L = 150'$

$R = \frac{6}{4} = 1.5$

$$XKOR = \frac{29.1 \times (.013)^2 \times (150)}{(1.5)^{4/3}} = \frac{.74}{1.715} = .43$$

$$H_L = (.43)(4.29) = 1.84$$

c.



$Q = 470$ cfs

$A = 66.5$

$V = \frac{470}{66.5} = 7.06$

$\frac{V^2}{2g} = .77$

$n = .013$

$h_f = 322'$

$WP = 2\pi\sqrt{\frac{a^2+b^2}{2}} = 29.41$

$R = 2.26$

$$XKOR = \frac{29.1 \times (.013)^2 \times (322)}{(2.26)^{4/3}} = \frac{1.58}{2.96} = .53$$

$$H_L = (.53)(.77) = .41$$

H_T for right side = .51 + 1.84 + .41 = 2.76

left side H_T = 1.87 right side = 2.76

II. Redistribution of flow

left side = 1030

$V = \frac{1030}{78.54} = 13.11$

$\frac{V^2}{2g} = 2.67$

XKOR = .86

$H_L = XKOR \times \frac{V^2}{2g} = (.86)(2.67)$

$H_L = 2.30$

right side = $\frac{840}{2} = 420$

a) $V = \frac{840}{76.7} = 10.95$ $\frac{V^2}{2g} = 1.86$

$H_L = (.22)(1.86) = .41$

b) $V = \frac{420}{28.27} = 14.85$ $\frac{V^2}{2g} = 3.42$

$H_L = (.43)(3.42) = 1.47$

c) $V = \frac{420}{66.5} = 6.32$ $\frac{V^2}{2g} = .62$

$H_L = (.53)(.62) = .34$

$H_T = .41 + 1.47 + .33 = 2.21$

Q = 1010

$V = \frac{1010}{78.54} = 12.86$

$\frac{V^2}{2g} = 2.57$

XKOR = .86

$H_T = 2.57 \times (.86) = 2.21$

Q = 860

a) $V = \frac{860}{76.7} = 11.20$ $\frac{V^2}{2g} = 1.95$

$H_L = (.22)(1.95) = .42$

b) $V = \frac{430}{28.27} = 15.2$ $\frac{V^2}{2g} = 3.58$

$H_L = (.43)(3.58) = 1.54$

c) $V = \frac{430}{66.5} = 6.46$ $\frac{V^2}{2g} = .65$ $H_L = (.53)(.65) = .3$

$H_T = 2.30$

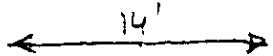
4. $A = 78.54 + 76.70 = 155.24$ sq. ft

area of 10' pipe + area of box

$A = \pi r^2$

$r^2 = \frac{A}{\pi} = \frac{155.24}{3.14159} = 49.41$

$r = 7.03$ $\quad d \cong 14'$ $\quad A = 154.0$



$$V = \frac{1870}{154.0} = 12.14$$

$$\frac{V^2}{2g} = 2.29$$

$$XKOR = \frac{H_L \times 2g}{V^2} = \frac{2.25 \times 64.4}{147.4} = .98$$

5. Final $XKOR = .98 + 1 + K_e = .98 + 1.0 + .70 = 2.68$

U.S. 23 / Washtenaw Ave. over PAAD

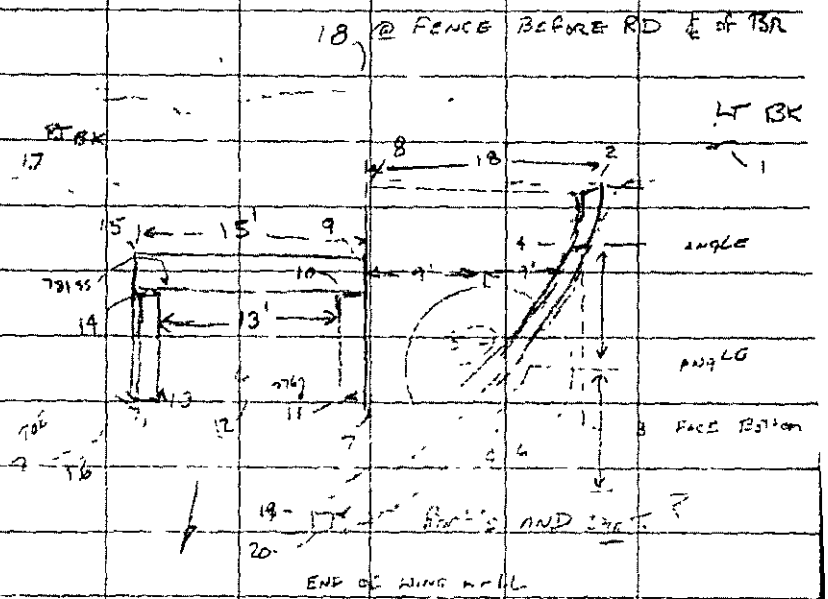
X-sec. 6800 on HEC-2 run

⊗ 6 - US-23 / WASHTENAW AVE BRIDGE BETWEEN ARBEE'S RESTAURANT & GOODRICH TIRES

TCS	@ #6 D/S END BRIDGE UNDER WASHTENAW AVE (US-23)			
TBM WASHENAW				795.412 ✓
	192	707.33 ✓		
BRIDGE @ 6	DESC	DIST	ROD	ELEV
1	Top of LT BK	0' LT	3.8	703.5 ✓
2	Top of Conc HEADWALL & WING WALL	17 RT	10.05	787.28 ✓
3	Bottom Face of HEAD & WING WALL INTO WALL	18.5 RT	19.7	777.6 ✓
4	@ ANGLE ON WING WALL ℄	17.6 RT	10.6	787.18 ✓
5	@ TOE of BK on WING WALL	21' RT	20.8	776.5 ✓
6	℄ of CULVERT Bottom	26 RT	2.4	775.9 ✓
7	@ Bottom FACE OF HEAD WALL & Box CUL WING WALL	34' RT	20.0	777.3 ✓
8	Top of CUL HEAD WALL	39' RT	10.18	787.25 ✓
9	Top of Box LT CUL. HEAD WALL	39.7 RT	12.95	784.88 ✓
10	Top of WING WALL Box CUL	39.7 RT	15.80	781.53 ✓
11	FACE of WING WALL Bottom @ LT OPENING	45.3 RT	20.9	776.4 ✓
12	℄ of Box CULVERT	42 RT	21.1	776.0 ✓
13	FACE of WING WALL Bottom @ RT OPENING	38' RT	21.0	776.3 ✓
14	Top of RT WING WALL Box CUL	49' RT	15.8	781.5 ✓
15	Top of RT HEADWALL Box CUL	49.5' RT	12.62	784.71 ✓
16	TOE of RT BK ?	49' RT	20.8	776.5 ✓
		OVER		✓ RC

1-21-87 7CS

PAGE 2D & 8L



DIS FACE LOOKING U/S

GUEST @ TOE ON BOTH SIDES

DAIN COMMISSION HAS A TABLE ON

TOP OF WALL MAYBE ABLE TO GET DESC.

THERE ARE 5 EXTRA SHOTS IN NEXT

PAGE 5CS

DESC DIST ROD

DIST TOE OF ~~GUEST~~ 31

8 cs

H.I. 797.33

Ø 6

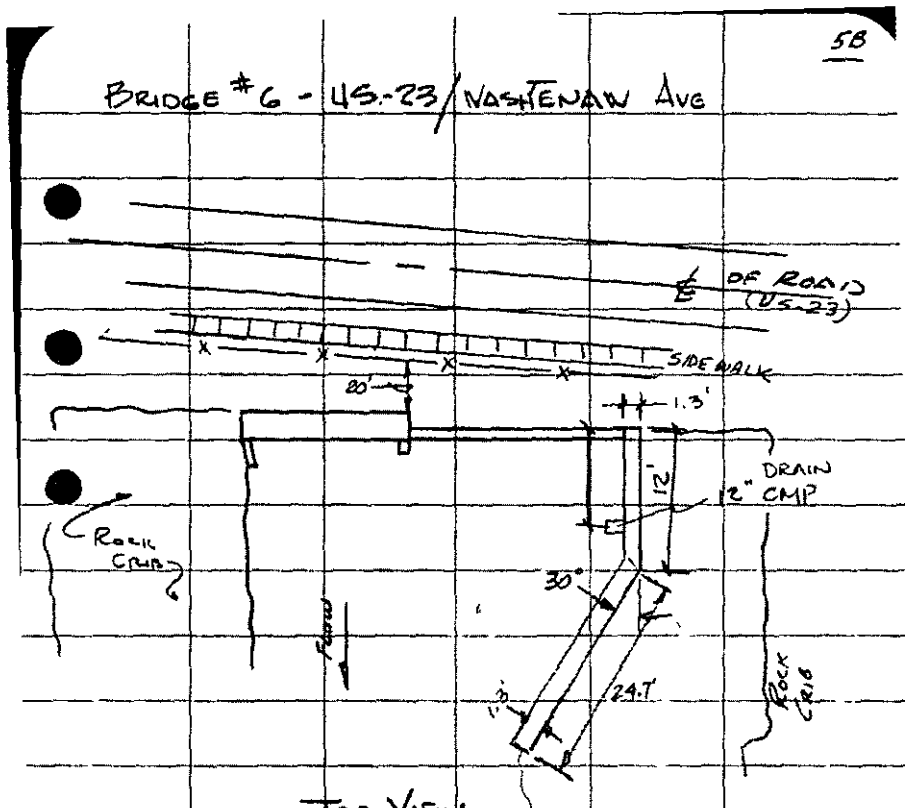
	DESC	Dist	RoD	Elev	
17	Top of RT BK	6.6' RT	4.8	792.5	
18	℄ of BR @ Fence Line	Top of Slope 20' RT	4.3	793.0	
19	Top END of wing wall LT BK	21' RT	18.89	778.44	
20	END of wing wall + TOE LT BK	22' RT	21.3	776.0	
21	EDGE of Parking Lot	74' RT	5.35	791.98	
22	EDGE of ENTRANCE	11' LT	3.74	793.59	
	Top wing wall	7' U/S LT SIDE	10.12	787.21	
	Top Cmp	7' U/S LT SIDE	12.21	785.12	
	Bottom Cmp	7' U/S LT SIDE	13.22	784.11	
	W/S		2.05	776.8	

SEE PAGE 5B FOR ADDITIONAL BRIDGE & ROAD INFO.

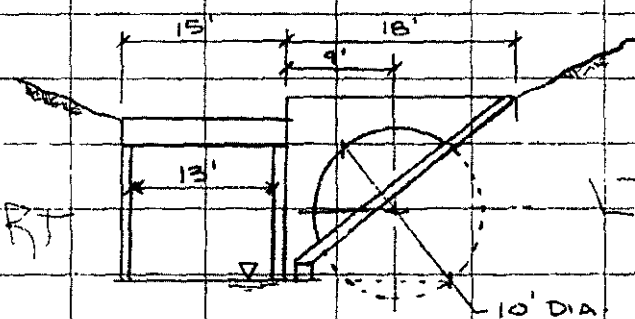
JB

SB					
TBM WASHENAW				795.41	
	3 36	798.77			
	DESC	Dist	RoD	ELEV	
TOP ℄ ON RD	L/S ℄ OF Conc Cyl Lt	0	13 50 / 6.18	785.27 / 792.59	
	Top EDGE of US 23	25' Lt	6.37	792.40	
		50 Lt	6 54	792.23	
		75 Lt	6 39	792.38	
		100 Lt	6.24	792.53	
		125 Lt	5.91	792.86	
		150' Lt	5.59	793.18	
		175 Lt	5.29	793.48	
		200 Lt	5 01	793.76	
		225' Lt	4 72	794.05	
RD EDGE	L/S ℄ of Bo[illegible] LT	16' R	16 88 / 5.23	781.89 / 793.04	
		5' R	5.12	793 65	
		[illegible] R	4 37	794.40	
		[illegible] R	3 12	795.65	
		[illegible] R	1 87	796.90	
		150 R	0 [illegible]8	798.19	

BRIDGE #6 - US-23/WASHTENAW AVE



Top View



D/S FACE LOOKING U/S

HURON Parkway over PAAD

X-sec. 3029 - 3200 on HEC-2 run

d/s face u/s face

HURON PARKWAY

ROAD @ ~~Z~~ 1 @ [illegible]

Approx 0.5 mile N. of

WASHTENAW AVE. / US-23

2 Cs

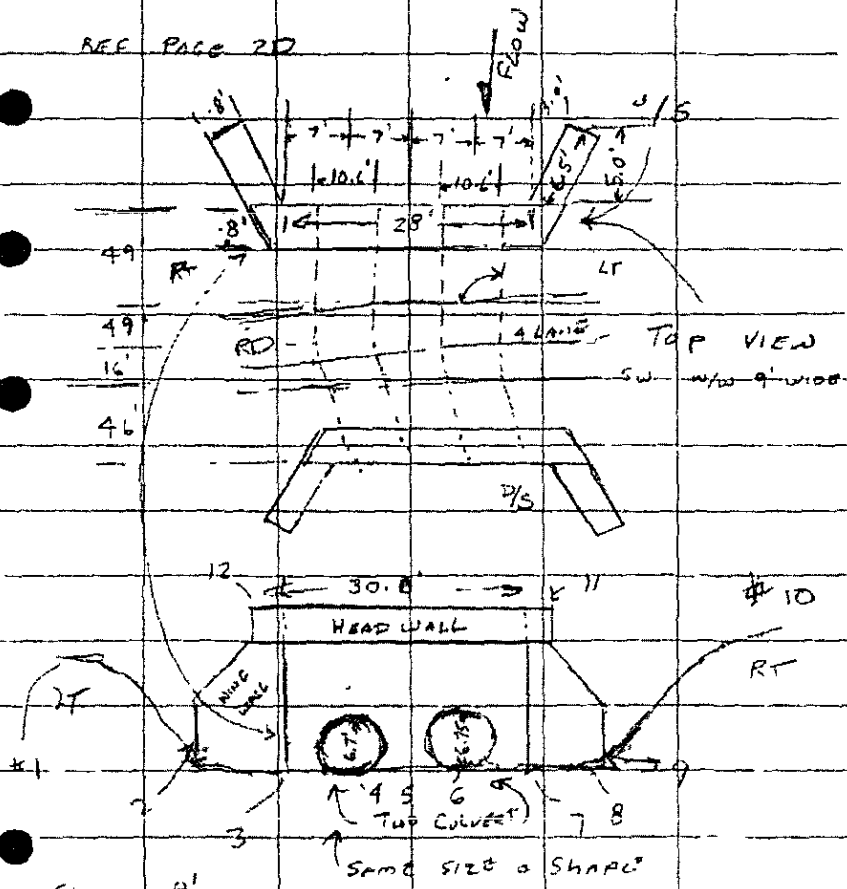
APPROX 0.5 MILE N. OF WASHTENAW AVE (US-23)

TBM 1				773.1~~85~~
	6.74	779.84		
	DESC	DIST	RoD	EL
BR OFF ~~2~~ 1	Top of IT BK	0' LT	5.5	774.3
2	EDGE OF WING W	11' RT	12.9	766.9
3	TOE IT BK @ FACE	14' RT	12.2	767.6
4	℄ of [illegible]	21' RT	15.9	763.9
5	FR [illegible] WALL [illegible]	28' RT	15.9	763.9
6	℄ of [illegible]	37' RT	15.9	763.9
7	[illegible] WALL	43' RT	15.9	763.9
8	[illegible]	45' RT	15.1	764.7
9	[illegible]	1[illegible]' RT	14.4	765.4
10	TOP OF PT BK	57' RT	10.[illegible]	769.8
	TOE OF [illegible]	13' [illegible]	9.6	770.2
11	TOP OF PT HEAD WALL	43' RT	6.77	773.07
12	TOP [illegible] WALL	14' RT	6.74	773.10
	W/[illegible]		.57	764.4

1-15-88

2 CS

REF PAGE 2D



SLOP UP 4'

FLOW

TOTAL ACROSS BR

169'

ALL MEASUREMENT SAME

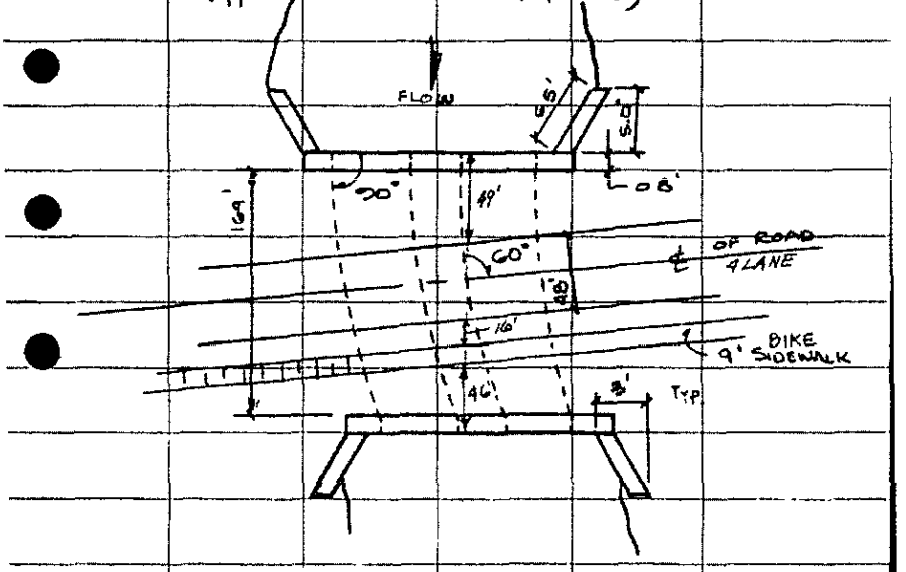
W/S 764.4 ?

SEE PAGE "1B" FOR ADDITIONAL BRIDGE DATE

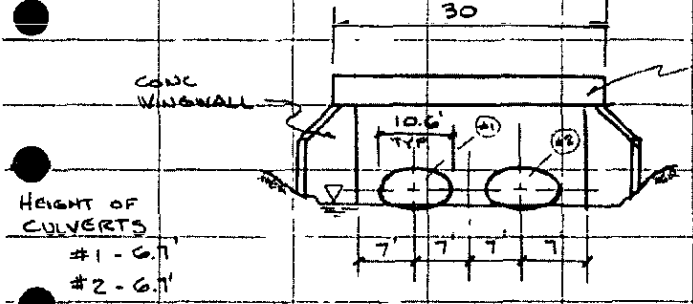
1B

TBM 1				773.1[illegible]	Rcp. Pg. 10 L
	6.74	779.84			
	DESC	Dist	RoD	ELEV	
	1st Culvert	0	9.20	770.64	
Top ℄ on RD	LT L/S	0	5.86	773.98	
	℄ of LT Culvert on RD	25' LT	5.77	774.07	
	NW Edge of Harvey RD	50' LT	5.44	774.40	
	"	75' LT	4.82	775.02	
	"	100 LT	4.14	775.70	
	"	125' L	2.37	776.47	
	"	150 L	2.60	777.24	
	"	175' [illegible]	[illegible]	778.02	
	"	[illegible]	[illegible]	778.83	
	"	[illegible] LT	[illegible]	779.78	
	2nd Culvert RT L/S	14' RT	9.15	770.69	
	RD ℄ Cul	14 [illegible]	[illegible]	774.87	
	[illegible] NW R[illegible]	[illegible]	[illegible]	775.23	
	"	[illegible]	[illegible]	775.99	
	"	100 [illegible]	3.14	776.70	
	"	[illegible]	[illegible]	777.36	
	"	[illegible]	[illegible]	777.95	

BRIDGE #1 - HURON PARKWAY DRIVE
(APPROX. 0.5 MI N. OF HWY - 23)



TOP VIEW



HEIGHT OF CULVERTS
#1 - 6.7'
#2 - 6.7'

U/S FACE LOOKING D/S

NW EDGE OF ROAD	175 RT	1.26	778.58
"	200 RT	0.46	779.38

Huron Parkway Drive over PAAD

X-sec. 5330 - 5470 on HEC-2 run

(X) 4 - PARK HURON DRIVE

BRIDGE, APPROX. 0.2 MILE

N of WASHTENAW AVE. /

US - 23

4CS

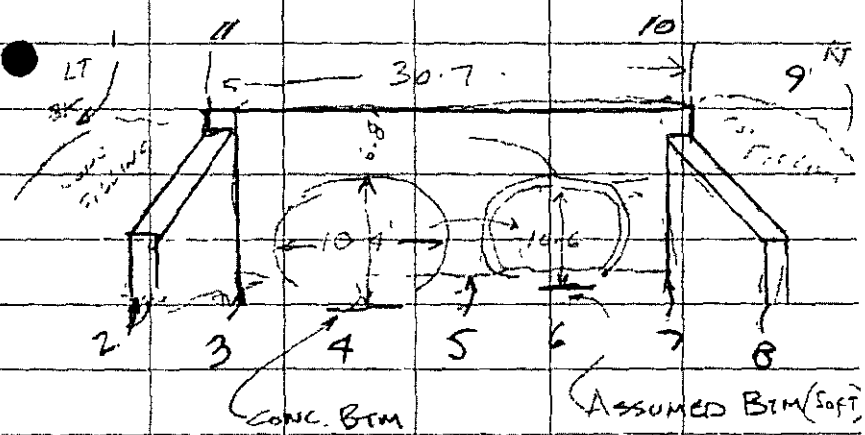
⊗#4- HURON PKY. DRIVE

(APPROX. 0.2 mi No. OF Hwy-23)

TBM #4				781.40	
	8.37	789.77 ✓			
BRIDGE ⊗ 4	DESC	Dist	RoD	ELEV	
1	Top of LT BK	0' LT	8.8	781.0	
2	@ END OF WING WALL	10' RT	15.5	774.3	
3	TOE of LT BK @ FACE	15' RT	15.4	774.4	
4	℄ of LT CULVERT	22' RT	17.3	772.5	
5	℄ of RT. [illegible]	28' RT	17.3	772.5	
6	℄ of RT [illegible]	37 RT	17.5	772.3	
7	FACE OF WALL @ BEG WING WALL	44 RT	17.5	772.3	
8	END OF WING WALL & TOE RT BK	49' RT	16.1	773.7	
9	TOP of LT BK	60' RT	8.0	781.8	
10	TOP of RT HEAD WALL		8.36	781.41	
11	TOP of LT HEAD WALL	—	8.39	781.38	
	LT SIDE W/S		15.7	774.1	
	LT SIDE W/S		15.7	774.1	
	(CK 8.35				
		781.42			

1-15-88 4 CS

PAGE 2D & 10L



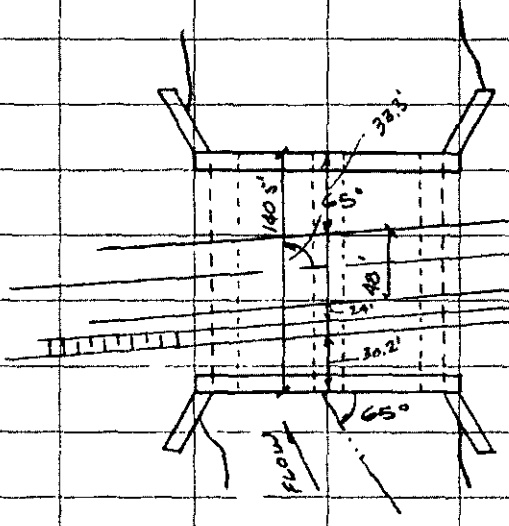
U/S

GE 5 2.0 784.6

3B

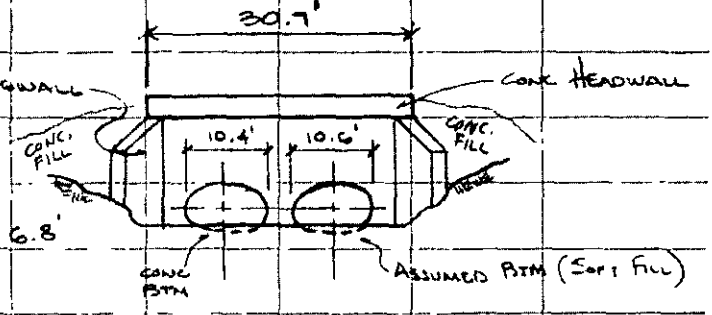
TBM # 4				781.403	RCF P6. 10 L
	8.36	789.76			
	DESC	Dist	RoD	ELEV	
	L/S LT CULVERT ℄	0' LT	10.48	779.28	
	℄ of LT CUL. EDGE of RD	0' LT	6.25	783.51	
	RD NE EDGE of RD	25' LT	6.86	782.90	
	"	50' LT	6.77	782.99	
	"	75' LT	6.43	783.33	
	"	100' LT	5.86	783.90	
	"	125' LT	5.39	784.37	
	"	150' LT	4.75	785.01	
	"	175' LT	4.14	785.62	
	"	200' LT	3.40	786.28	
	L/S RT CULVERT ℄	14' RT	10.75	779.01	
	℄ of RT CULVERT EDGE of RD	14' RT	6.22	783.54	
	EDGE of RD	50' RT	5.31	784.45	
	"	75' RT	4.32	785.44	
	"	100' RT	2.99	786.77	
	"	125' RT	1.76	788.00	
	"	150' RT	0.54	789.19	
Group 1 2' [illegible] 50'				[illegible]	

BRIDGE #4 - HURON PARKWAY DRIVE
(APPROX. 0.2 MI. N. OF HWY-23)



NOTE: MEASUREMENTS TAKEN 90° ⊥ TO HEADWALL

TOP VIEW



U/S FACE LOOKING D/S

5B_A

2/23/88

Culvert behind Denny's Rest. over PAAD

x-sec. 7388 on HEC-2 run

⊗ 6A

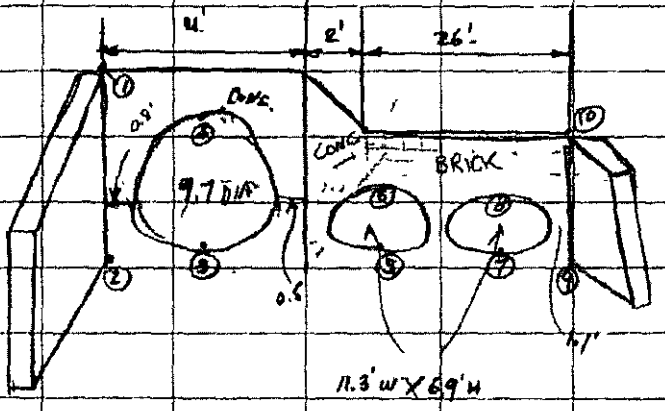
Culvert behind Denny's Rest.

U/S END OF BRIDGE UNDER SHOPPING CENTER & WASHTENAW AVE (US-23)

TBM WASHTENAW				795.41	Pg 8L
	5.99	801.40			
TBM 6A			6.77	794.63	
		RETURN			
TBM 6A				794.63	
	6.76	801.39			
TBM WASH			5.98	795.41	

TBM 6A				794.63	PG 58D
	1.22	795.85			
1.	TOP HEADWALL		5.17	790.68	
2	BTM HEADWALL		17.01	778.84	
3.	BTM CONC. PIPE		16.80	779.05	
4	4/5		7.1 (9.7)	788.8	
5	BTM CONC. PIPE		17.38	778.47	
6	4/5		10.5 (6.9)	785.4	
7	BTM CONC PIPE		17.19	778.66	
8	4/5		10.3 (6.9)	785.6	
9	BTM HEADWALL		16.56	778.20	
10	TOP HEADWALL		8.21	787.64	
11	GE AT PK LOT 15' 4/5 OF FACE OF HEADWALL		2.0	793	
	CK SHOT		1.22	794.63	

BDc



U/S FACE LOOKING D/S

Foot bridge over PAAD

X-Sec. 9392-9400 on HEC-2 run

(X) 1 - FOOT BRIDGE IN SCHEFFLER PARK

9 CS (X) 7 WALK BRIDGE D/S OF PLATT ROAD IN SCHEFFLER PARK.

TBM EDGEWOOD				799.~~279~~ 8 ✓
	515	HI 804.43 ✓		
BRIDGE # 7	DESC	Dist	RoD	ELEV
1	Top of Lt Bk	0	10 9	795.1
2	Top of Wood Abut	10' RT	9.49	794.94
3	Bottom of Wood Abut @ Gr	10.3' RT	17.6	786 8
4	Toe of Lt Bk $	18 RT	20.4	784.0 ✓
5	In water Rod Shot	25' RT	21.4	783.0
6	In water Rod Shot	30' RT	21.4	783.0
7	Toe of Rt Bk $	36' RT	20 3	784.1
8	Bottom of Abut @ Gr	36' 46.9 RT	14 ~~16~~.9	789.5
9	Top of Abut	47.2 RT	9 40	795.03
10	Top of Rt Bk	55' RT	9.4	795 0
11	GE	75 RT	9 0	795.4
12	Ex. C & GE S/W	100 RT	7.9	796.5
13	GE	25 LT	11 2	793.2
14	GE	50 LT	12.0	792.4
15	CE	75 LT	12.1	792.3

V.B

1-21-85 * 9 cs

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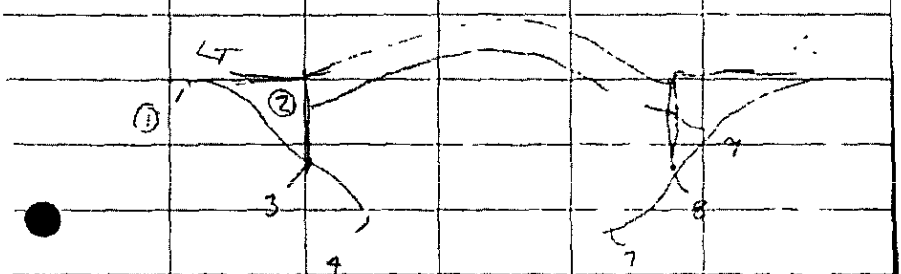
W/S 20.2 784.2

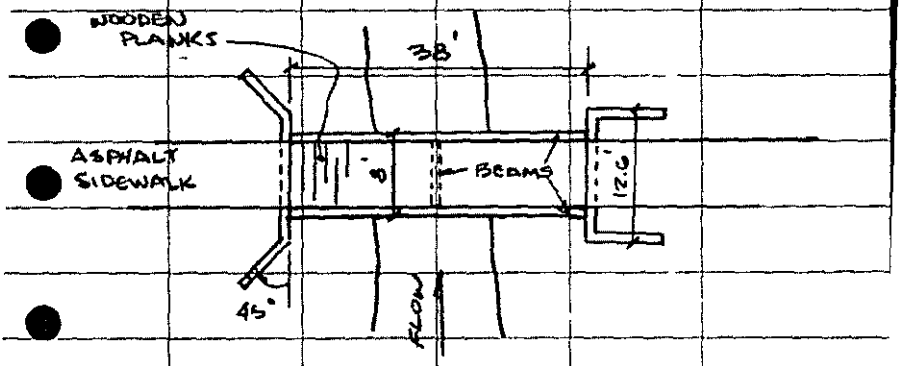
WATER RAD 35' R 20.2



7B					
TBM EDGEWOOD				799.279	PG 6L
	5.15	HI 804.43			
ROAD & BRIDGE	DESC	DIST	ROD	ELEV	
	L/S @ LT ABUT	0 L	11.48	792.95	
	L/S ℄ of ARCH	19 RT	10.52	793.91	
	L/S @ RT ABUT	38 RT	11.45	792.98	
	TOP ℄ OF RT EDGE of BR	38' RT	9.32	795.11	
	SIDE WALK ℄	50' RT	9.89	794.54	
	RT EDGE SW	100 RT	9.93	794.50	
		125' R	7.08	797.35	
6.0'		150' R	5.82	798.61	
	TOP ℄ @ ARCH	19' RT	8.48	795.95	
	LT EDGE ℄ of BR	0 L'	9.36	795.07	
		25 L	10.86	793.57	
		50 L	12.06	792.37	
		75 L	12.17	792.26	
		100 L	12.20	792.23	
		25 L	12.06	792.37	
		150' L	12.12	792.31	
		175' L	11.91	792.94	

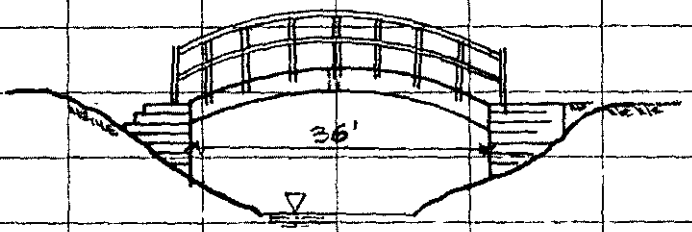
BRIDGE #7 - FOOT BRIDGE IN SCHEFFLER PARK

D/S FROM PLATT ROAD BRIDGE



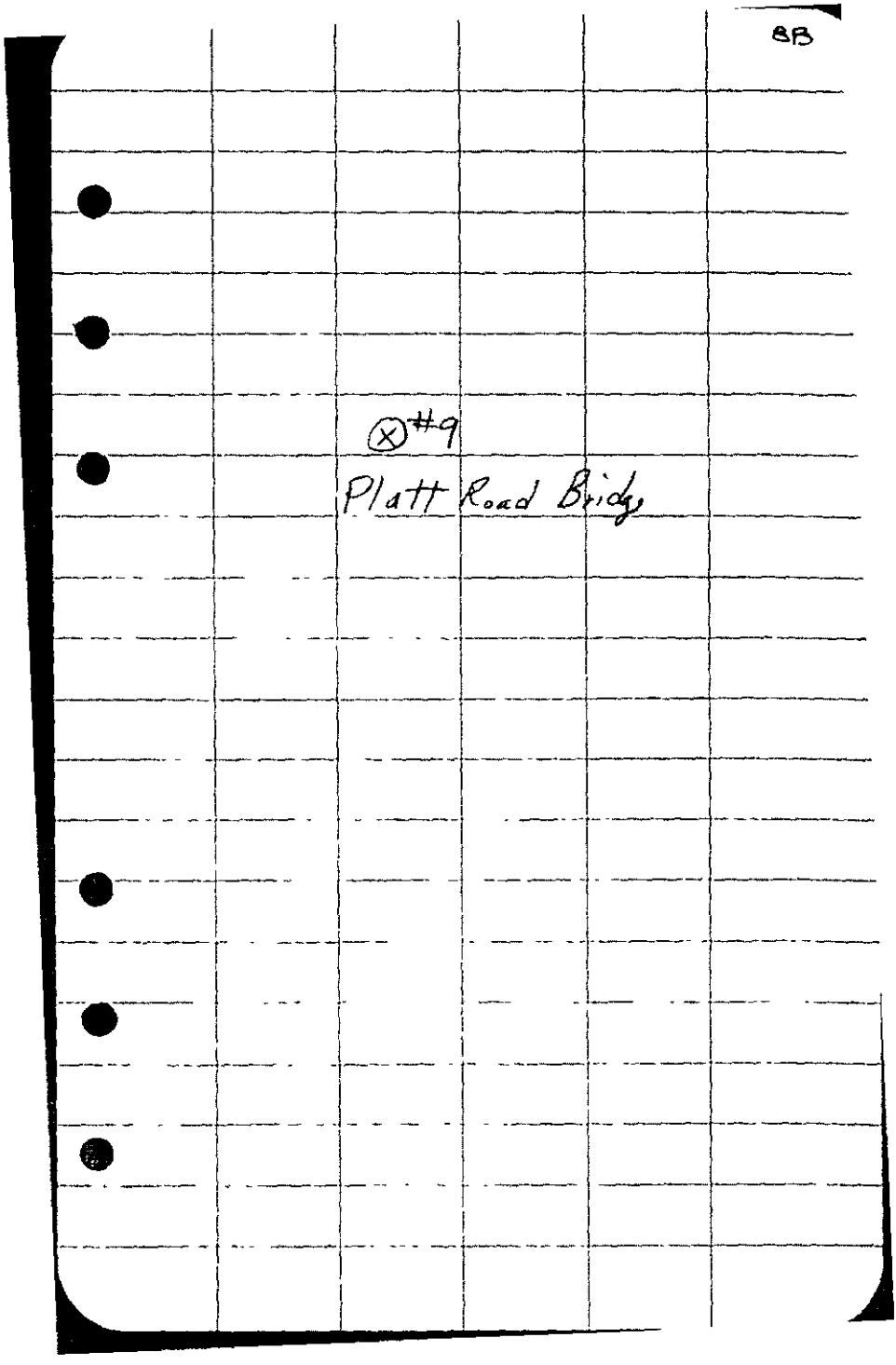
WOOD PLANKS FOR WALKWAY OF BRIDGE

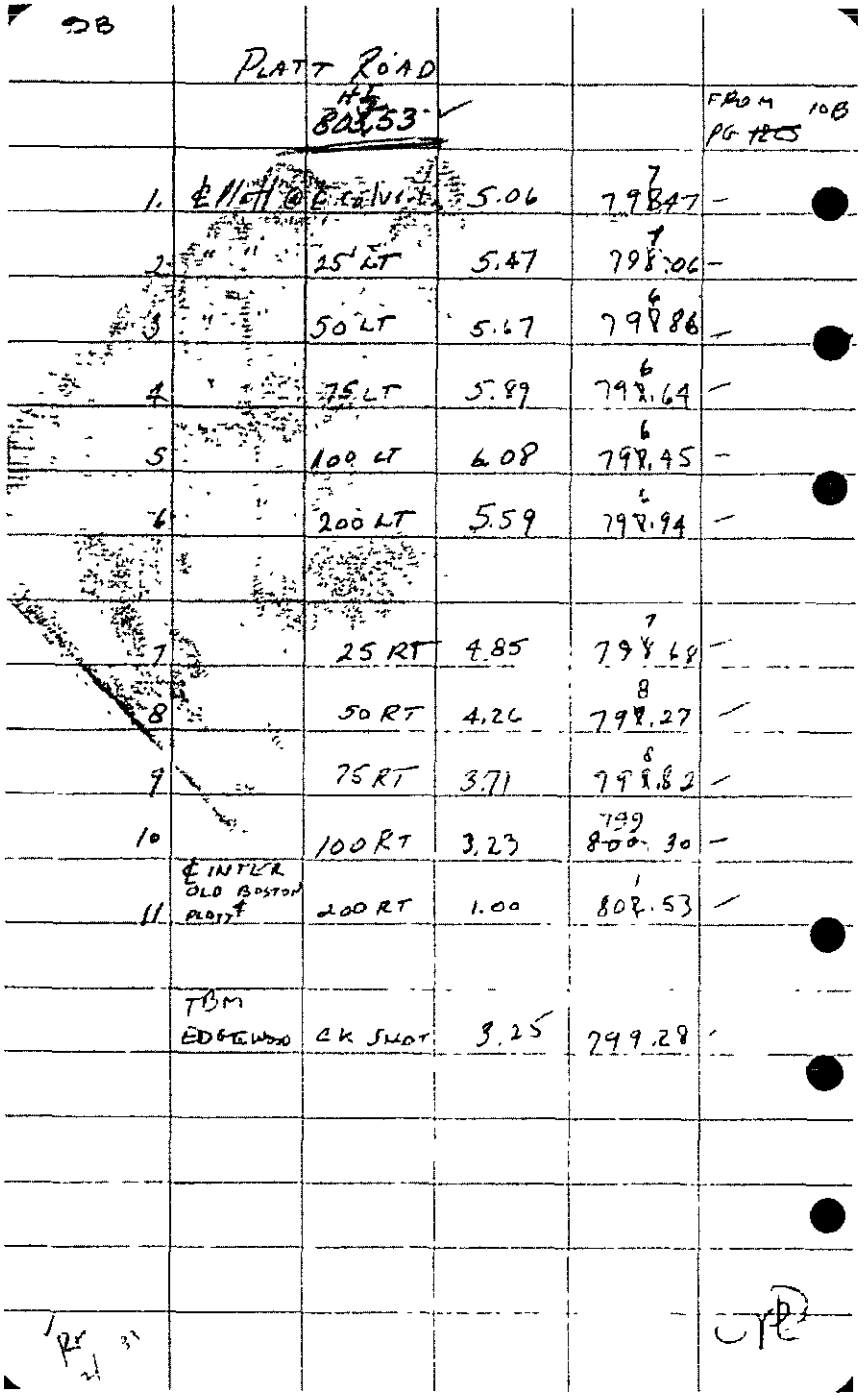
Top View



U/S FACE LOOKING D/S

Platt Road over PAAD
x-sec. 9550-9701 on HEC-2 run



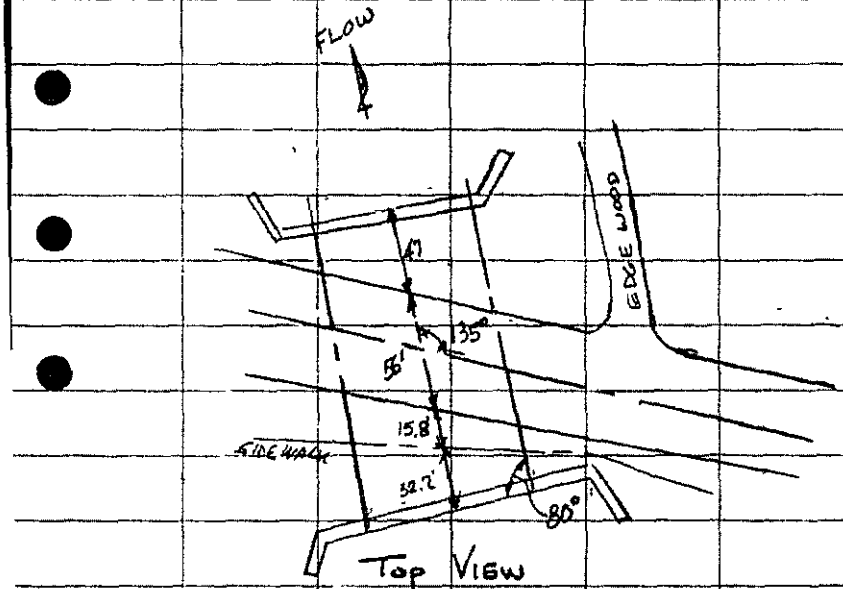


9B

PLATT ROAD

		HL 802.53			FROM 10B PG 125
1.	℄ Platt @ ℄ culvert		5.06	798.47	
2	" "	25' LT	5.47	798.06	
3	" "	50 LT	5.67	798.86	
4	" "	75 LT	5.89	798.64	
5	" "	100 LT	6.08	798.45	
6	" "	200 LT	5.59	798.94	
7		25 RT	4.85	798.68	
8		50 RT	4.26	798.27	
9		75 RT	3.71	798.82	
10		100 RT	3.23	799.30	
11	℄ INTER OLD BOSTON PLATT ℄	200 RT	1.00	802.53	
	TBM EDGEWOOD	CK SHOT	3.25	799.28	

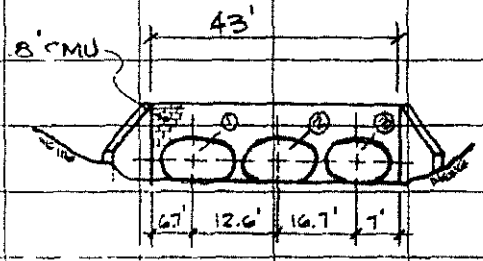
BRIDGE #9 - FLATT ROAD



Top View

CONC. CULVERTS

	HEIGHT	WIDTH
①	6.7'	10.5'
②	7.6'	12.0'
③	6.7'	10.5'



U/S FACE LOOKING D/S

LOB		HI			
TBM Edgewood	3.25	802.53		799.28	PG. 2D PG. 6L
1.	-		16.7	785.8	-
2.			16.8	785.7	-
3			10.10	792.43	-
4			16.9	785.6	-
5			9.21	793.32	-
6			16.9	785.6	-
7			10.13	792.40	-
8			16.4	786.1	-

SEE SKETCH

0 END of BRIDGE

29.3' TO EDGE SIDE WALK

5.8' WIDE SW

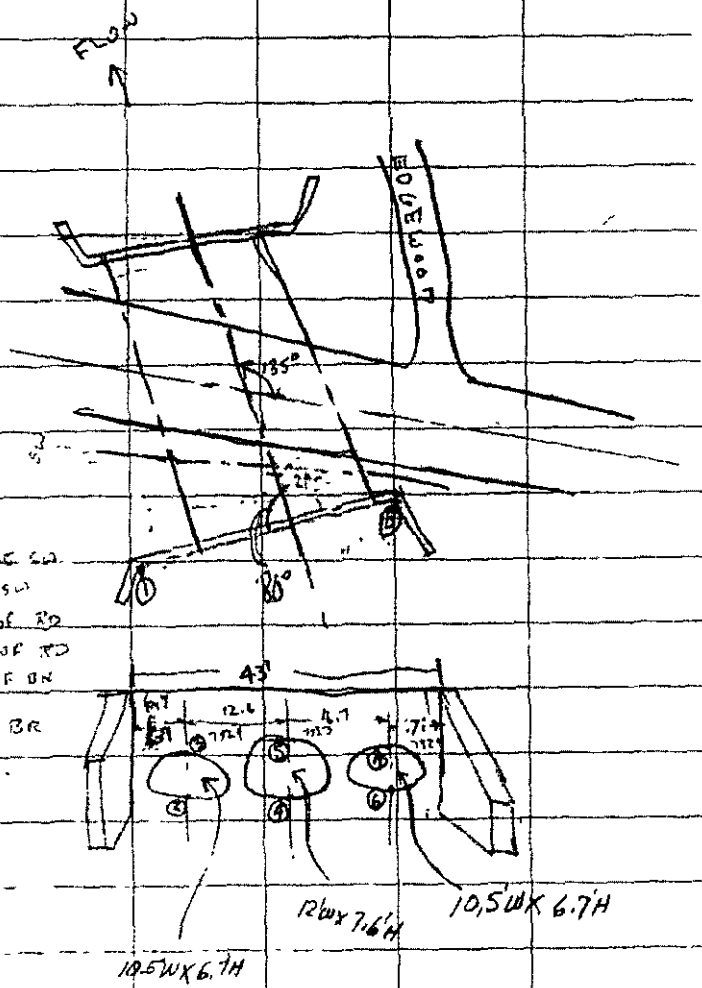
12.9' EDGE of RD

56' WIDE IS RD

47.0 MORE TO END of BR.

TOTAL LENGHT of BRIDGE 151' SKEW ∡ 80°

(Y) 9 1-22-88 10B



29.3' TO EDGE SW
58 WIDE SW
12.9' EDGE of RD
56.0' EDGE OF RD
47.0 END OF BR

Total Length of BR
15[illegible]

W/S	16.3	787.2
TOP HEADWALL	7.03	796.5

Packard Road over PAAD

X-sec. 12100-12262 on HEC-2 run

⊗11 - Road Section @ Packard Road

13B

	Packard Road ⊗ 11				
WCBC 3		H.I. 807.93		801.490	
1	℄ Packard	on ℄ of 3 Culvert @ Culvert	4.95	802.98	
2		25' LT	5.17	802.26	
		50' LT	5.99	801.94	
		75' LT	6.18	801.75	
		100' LT	6.03	801.90	
		200' LT	5.62	802.31	
		300' LT	4.66	803.27	
		25' R	4.62	803.31	
		50' R	3.99	803.94	
		75' R	3.29	804.64	
		100' R	2.55	805.38	
		125' R	1.61	806.32	
		150' R	0.11	807.82	
		Sloping up			
	WCBC 3	Ck Shot			

15B

WCBC 3

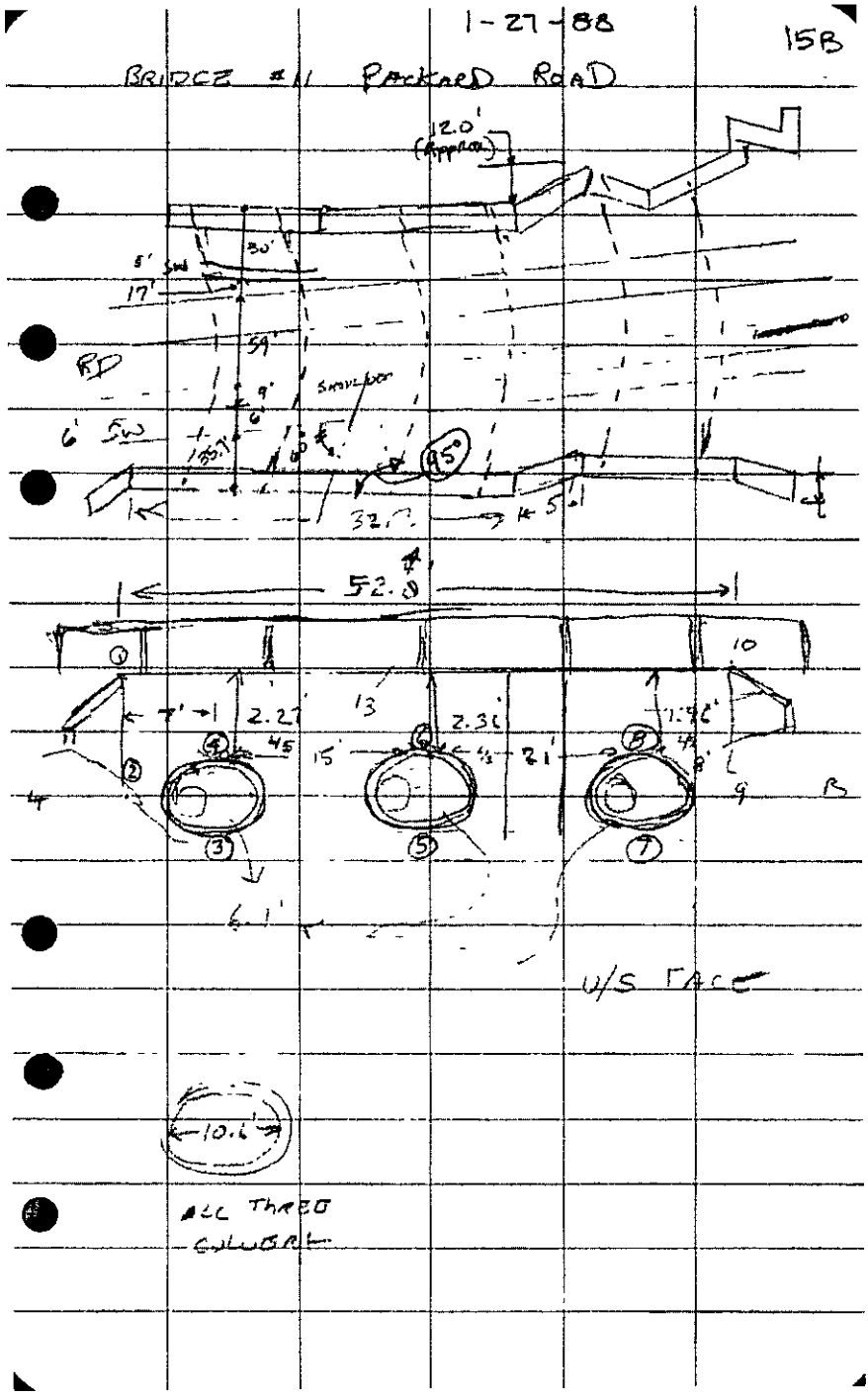
Ref. Pt 2D

		@ 11			
				801.49	
	6.44	807.93			
1	Top LT HEADWALL	0	7.23	800.70	
2	Bottom FACE LT	8' R	14.9	793.0	
3	℄ OF SWL.	8' R			
4	L/S	~~8~~			
5	℄ OF R.O. WL	23' R			
6	L/S	23' R		798 35	
7	℄ of RT Col	44' R			
8	L/S	44' R		798.58	
9	Bottom FACE RT	51.7 R	14 8	793.1	
10	T of RT HEADWALL	52.4	7 39	800.54	
	W/S	15.9	→	792 0	
11	TOE @ S/L	3' R	15.8	792.1	
12	TOE @ S/L	50 R	15.8	792.1	
13	LT OF HEADWALL	36.2' R	7.22	800.71	

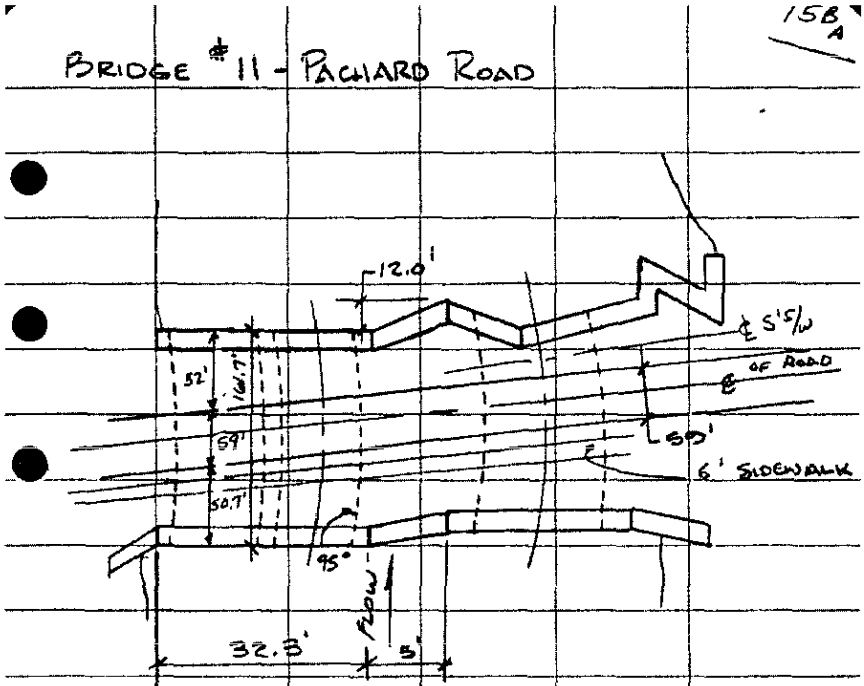
1-27-88

15B

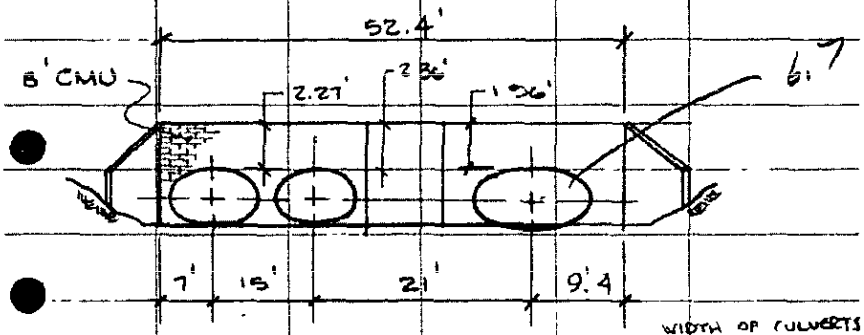
BRIDGE #11 PACKARD ROAD



BRIDGE #11 - PACHARD ROAD



Top View



WIDTH OF CULVERTS
10.6' (TYP.)

U/S FACE LOOKING D/S

Dam at gate of Retention Pond #1

X-sec. 14100 on HEC-2 run

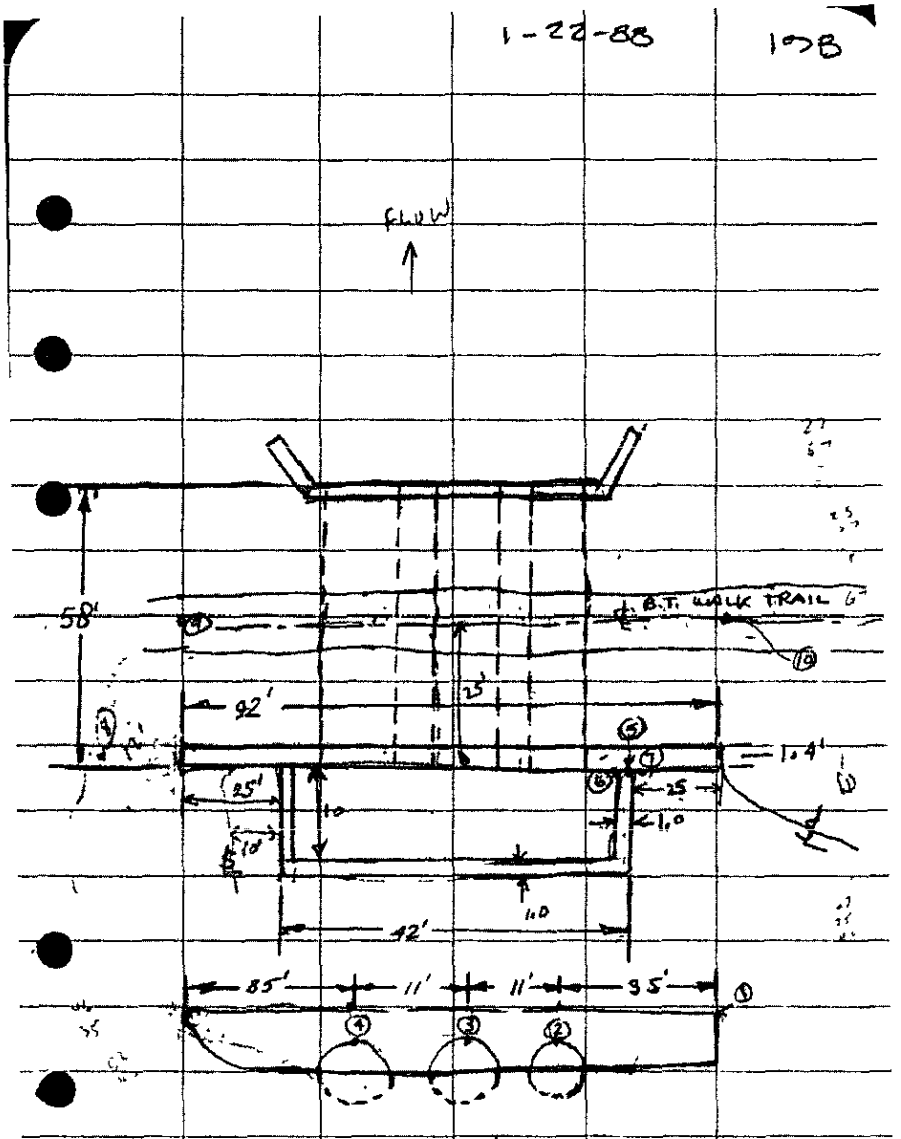
⊗13 - DAM @ GATE OF POND (APPROX. 2000' U/S OF PACKARD ROAD

108

		HI			
TBM-13	8.88	814.22 ✓		805.34	REF RE. SL
1	AT END TOP HEADWALL		8.88	814 22 ✓	
2	4/S RT. PIPE		11.26 10.84	803.38 ✓	
3	4/S CENTER PIPE		11:25 10.89	803 33 ✓	
4	4/S LT. PIPE		11:18 11.00	803 22 ✓	
5	TOP OF WEIR		13.08	801 14 ✓	
6	IN SIDE OF PIT		18.1	796.1 ✓	
7	OUTSIDE PIT		17.7	796.5 ✓	
8	℄ WALK WAY BT 12' LT OF LEFT END OF		8.18	806.04 ✓	
9	℄ WALK WAY (ST) 1/4 OF LT. EDGE OF HEADWALL		5.55	808.67 ✓	
10	℄ WALK WAY (ST) 1/4 OF RT EDGE OF HEADWALL		5.30	808 92 ✓	
11	25' RT OF RT END		8.4	805 8 ✓	
12	50' RT OF RT END		7.5	806.7	
	TBM-13	CHISLED	8.87	805.35 ✓	

V12

1-22-88 10B

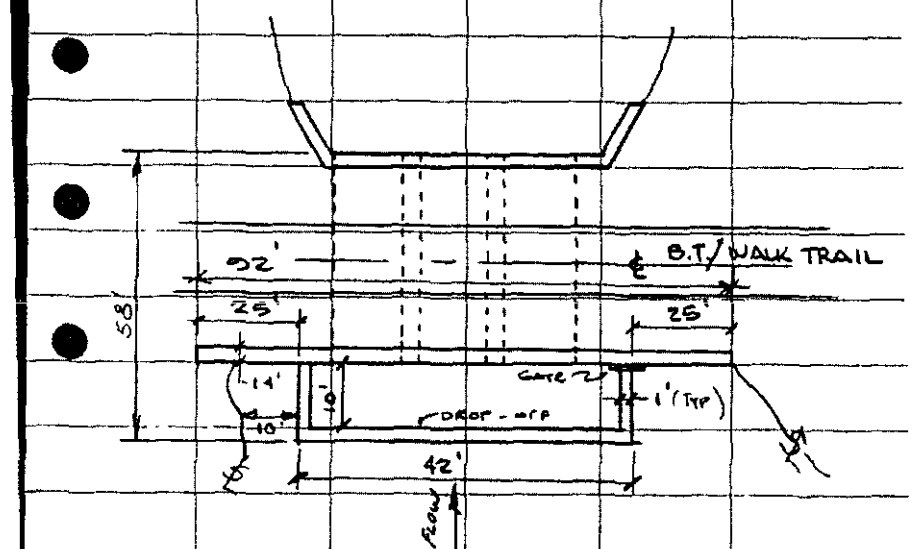


NOTE: W/S 0.1 HIGHER THAN WEIR (5)

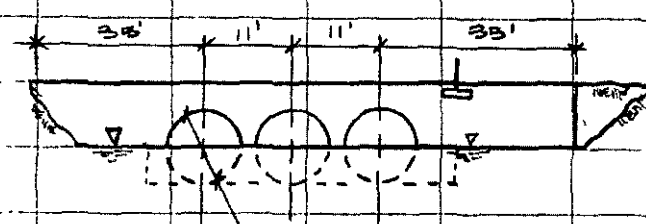
8U1.2

19B_A

DAM - #13 (@ GATE OF POND)



TOP VIEW



(3) - 7.5' DIA CONC. PIPES (TYP.)

U/S FACE LOOKING D/S

Birch Hollow Road over PAAD

X-sec. 16500 - 16572 on HEC-2 run

⊗ 19

BIRCH HOLLOW ROAD

BRIDGE (Approx. 600' u/s

of I->4)

21B

		@ 14 ROAD		
TBM 14		HI 820.51		814.01
	℄ of Road ℄ of Culvert	0	5.18	815.33
	℄ Road	50 RT	4.72	815.79
	"	100' RT	4.04	816.47
	"	150 RT	3.41	817.10
	"	200 RT	2.77	817.74
		50 LT	5.50	815.01
		100 LT	5.22	815.29
		150 LT	4.11	816.40
		200 LT	2.49	818.02

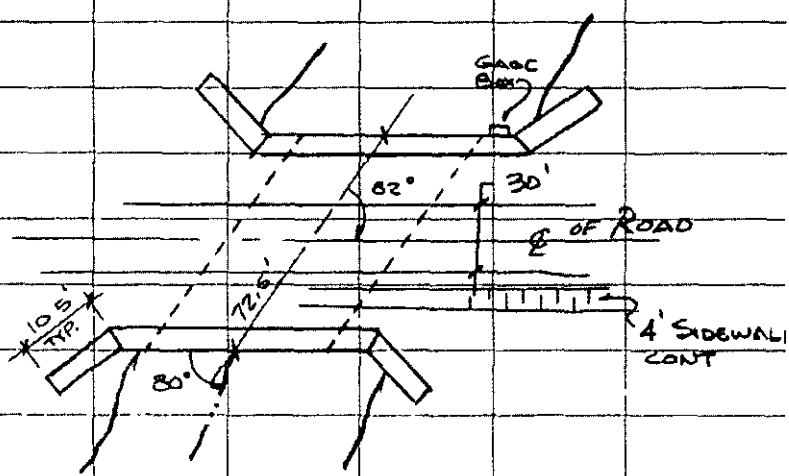
2.3B

TBM 14		H.I.		814.01	Pg 4L
	6.50	820.51 ✓			
1	Top	0	6.50	814.01	✓
2	Btm Face Windowwall		15.7	804.8	✓
3	℄	6.5 R	15.78	804.73	✓
4	℄		7.58	812.93	✓
5	Btm Face Windowwall		15.8	804.7	✓
6	℄	9' R	6.43	814.08	✓
7	w/s		15.3	805.2	✓
2A	At [illegible] pt.		13.9	806.6	✓

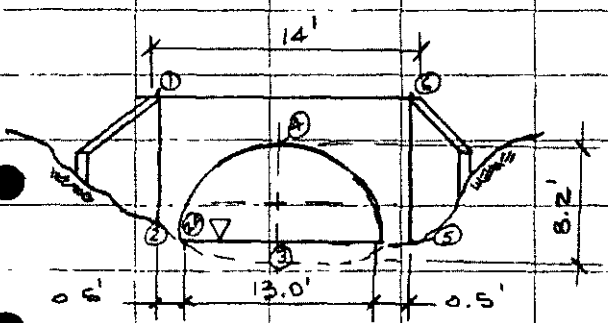
RH 4/13

1-27-88

Bridge #14 - Birch Hollow Road



Top View



U/S Face Looking D/S

Private bridge behind apt. complex over PAAD
x-sec. 16872 - 16880 on HEC-2 run

⊗15

PRIVATE BRIDGE BEHIND
APT. COMPLEX (APPROX 300'
U/S OF ⊗14)

25B

@ 15 OVER BRIDGE

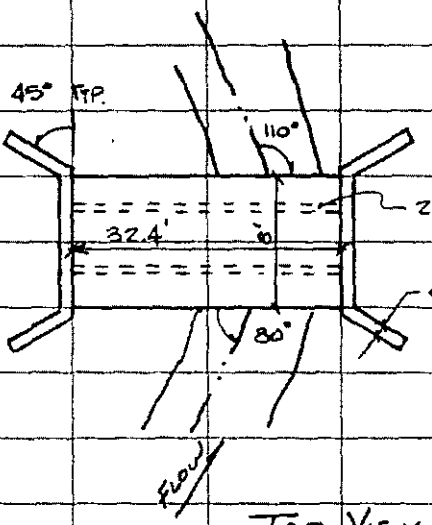
TBM 14		HI 820.27		814.01
	GE @ LT DECK EDGE	0	5.9	814.4
	TOE SLOPE	20' LT	7.3	813.0
	ON SLOPE	45 LT	5.8	814 5
	ON SLOPE @ E	70 LT	3.8	816.5
	GRADUAL	SLOPE	+.5 in	150 feet (815.0)
	GE @ RT DECK EDGE	32 RT	5.7	814 6
	TOE SLOPE	63 RT	8.5	811 8
	GE	100 RT	8.8	811.5
	GE	200 RT	4.7	815.6

27B

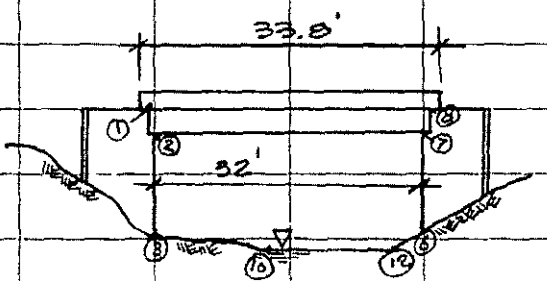
TBM # 19

				814.01	
	6.26	820.27			
1	Top EDGE WING WALL #BRICK=	DECK	5.51	814.76	
2	W/S @ LT ABUT		7.38	812.89	
3	Bottom LT FACE of BEAM		13.0	807.3	
4					
5					
6	BTM FACE OF RT ABUT		13.5	806.8	
7	W/S RT. SIDE		7.33	812.94	
8	BR. OGE DECK		5.52	814.75	
9	GL 5' RT of ABUT		13.3	806.0	
10	18' RT ℄ / W/S		15.0	805.3	
11	22' RT ℄ DITCH (H_2O)		15.6	804.7	
12	26 RT RT. ℄ / W/S		15.0	805.3	
13	36 RT TOP BKPS		13.4	806.9	
14					

BRIDGE #15 - PRIVATE ROAD



TOP VIEW



U/S FACE LOOKING D/S

Private bridge behind apt. complex over PAAD

X-sec. 16952-16960 on HEC-2 run

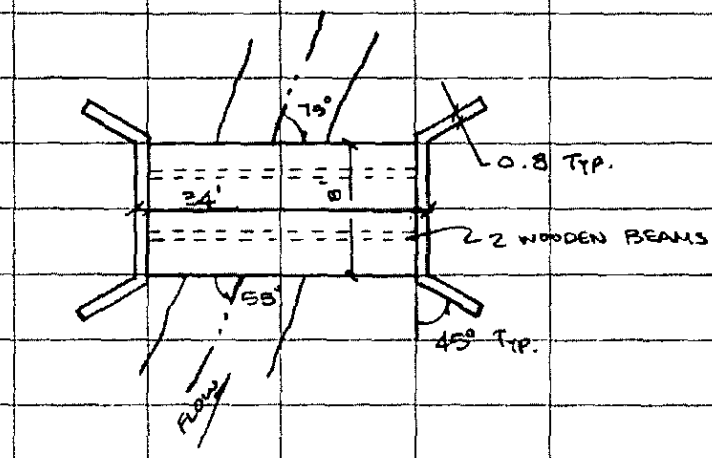
(X) 15A

PRIVATE BRIDGE BEHIND APT. COMPLEX (APPROX 380' U/S OF (X) 14 OR 80' U/S OF (X) 15).

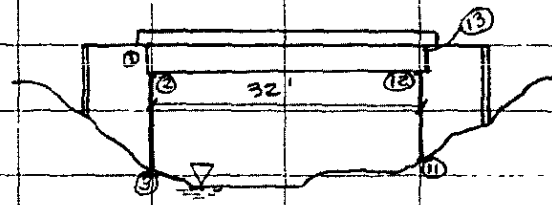
29B				
		@ 15A Road		
TBM 14		HI 820.27		814.01
	GE@LT Edge Bridge Deck	0	5.6	814.7
	GE	21 LT	7.9	812.4
	GE@℄	53 LT	6.6	813.7
	GE	75 LT	4.7	813.6
	GE	100 LT	2.3	818.0
	GE	125 LT	1.3	818.0
	GE@RT Edge of Deck	32 RT	5.9	814.4
	GE TDE	60 RT	8.5	811.8
	GE	110 RT	8.5	811.8
	GE	160 RT	7.5	812.8
			6.4	813.9

318		#		
		HI		
TBM 14		820.27		814.01
1.	BRIDGE DECK		5.48	814.79
2	4/S @ LT ABUT		7.29	812.98
3	Grade LT ABUT		13.2	807.1
4	℄ & W/S	8 RT	14.7	805.6
5		8 RT	13.4	806.9
6				
7	℄ DITCH IN RT	14 RT	15.5	804.8
8	℄ & W/S	20 RT	14.7	805.6
9	@ ℄ IN WATER	20 RT	14.9	805.4
10	TOP BK	20 RT	13.5	806.8
11	GE @ RT ABUT	32 RT	13.5	806.8
12	4/S @ RT. ABUT	—	7.35	812.92
13	BRIDGE DECK	—	5.58	814.69

BRIDGE # 15A - PRIVATE ROAD



Top View



U/S FACE LOOKING D/S

34B

I-94 over PAAD

X-Sec. 17155-17286 on HEC-2 run

X17

I-94 BRIDGE

35.B

@ 17 BRIDGE U/S I-94 EB

TBM-I-94 ~~TBM Light~~		H.I. 822.68		BIC. 68 ~~819.749~~
	℄ of Box Br	0	3 39	819.27
		50 L	3 52	819.16
		100 L	3.57	819 09
		150 L	3 76	818.90
		200 L	3 65	819.01
		50 R	3 33	819 33
		100 R	3.25	819.41
		150 R	3.10	819.56
		200 R	2.67	820.02

37B					
TBM Light				816.68 ~~819.749~~	
	5.98	822.66 ~~825.73~~			
1	Top of HEADWALL	0	5.98	816.68 ~~819.75~~	
2	Top of LEDGE @ [illegible]	1.5	14.62	808.04 ~~811.11~~	
3	[illegible] LEDGE	3.0	16.1	806.6 ~~809.6~~	
	[illegible]	5.0	16.0	806.7 ~~809.7~~	
	℄ of [illegible]	11.0	16.2	806.5 ~~809.5~~	
	[illegible]	18.5	16.2	806.5 ~~809.5~~	
	FACE OF [illegible]	19.6	14.70	807.96 ~~811.03~~	
	Top of [illegible]	21.0	5.99	816.67 ~~819.74~~	
	W/S		15.6	807.1 ~~810.1~~	
	35' U/S FROM BRIDGE ROCK				
	DROP [illegible]				
		35'	15.7	807.0 ~~810.0~~	
	D/S	30'	15.4	807.3 ~~810.3~~	
		25'	7.1	815.6 ~~818.6~~	
				[illegible] 5.98 816.68 ~~819.75~~	

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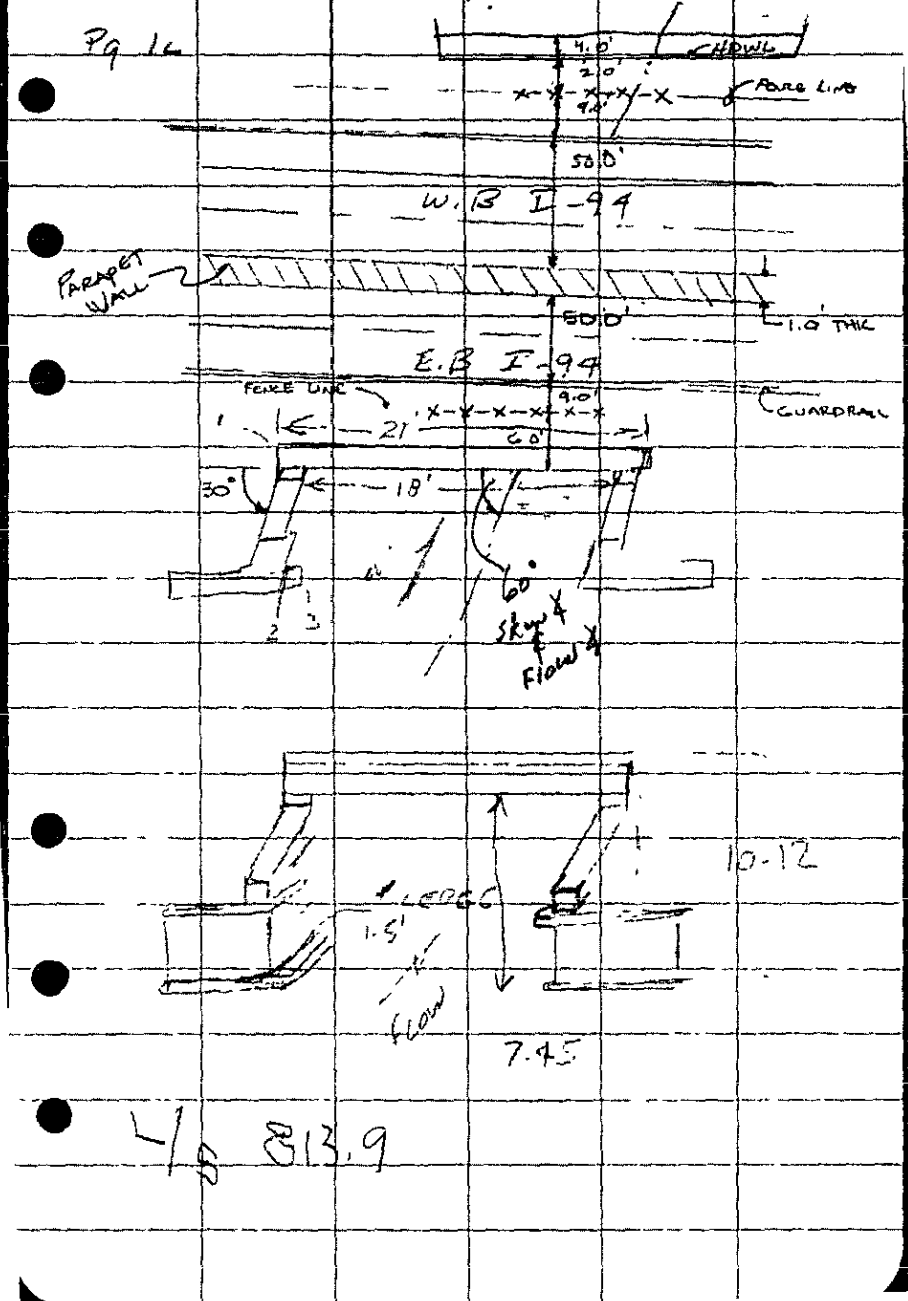
37B

@ 17 BRIDGE U/S I-94-EB

Pg 16



L/S 813.9

38B

Bridge at dead end road over PAAD
x-sec. 17736-17769 on HEC-2 run

⊗18
SERVICE ROAD BRIDGE
(DEAD ENDS @ I-94)

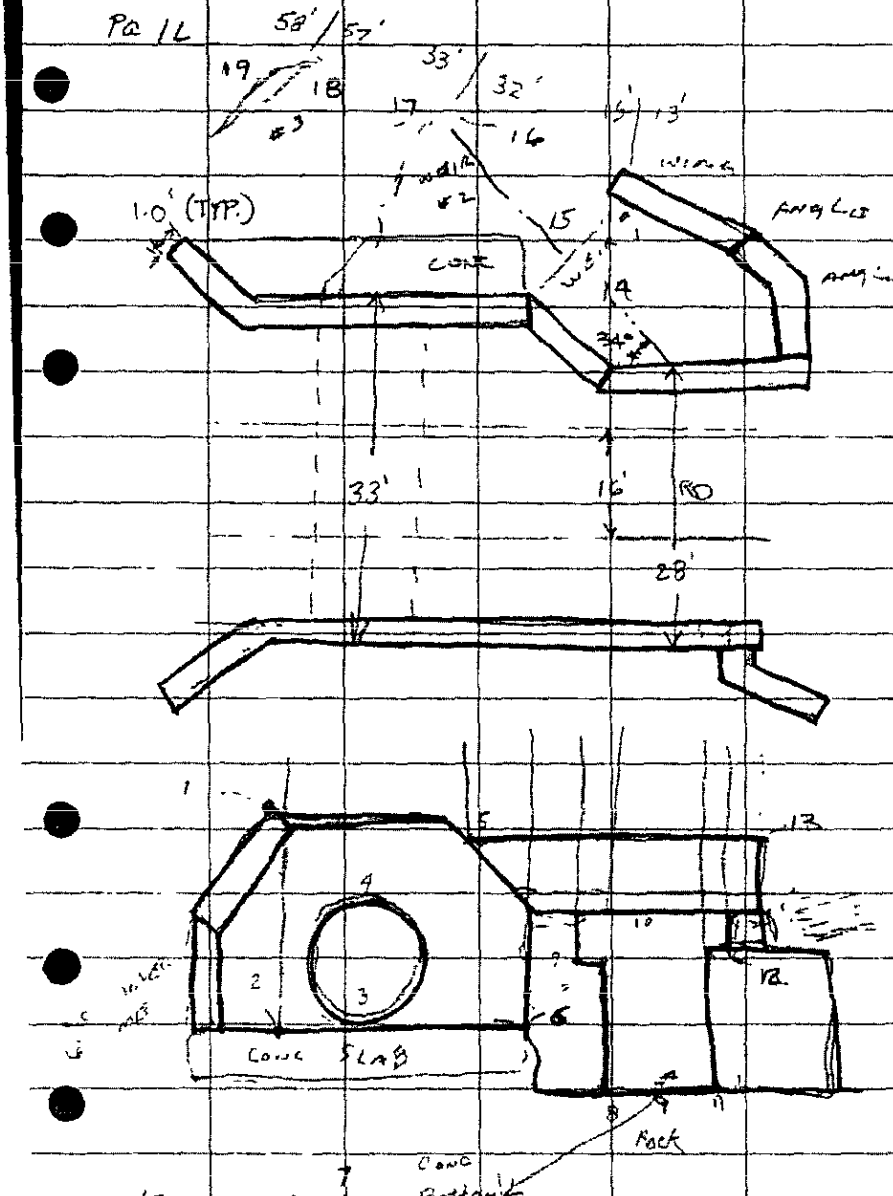
305					
	@ 18 ROAD				
TBM Light		HI 821.65 ✓		819.75	
	℄ ROAD OVER ℄ CULVERT	0	4.40	817.25	✓
	℄ RD	25 LT	4.94	816.71	✓
	"	50 LT	5.52	816.13	✓
	"	100 LT	5.64	816.01	✓
	℄ RD	150 LT	5.41	816.24	✓
	℄ RD	25 RT	5.19	816.46	✓
	"	50 RT	5.38	816.27	✓
	"	75 RT	4.91	816.74	✓
	"	100 RT	4.02	817.63	✓
	"	150 ~~125~~ RT	3.27	818.38	✓
	℄ RD	200 RT	1.57	820.08	✓
TBM LIGHT	CK SHOT		1.89	819.76	✓

41B

		HI			
TBM Light	1.90	821.65		819.7~~49~~ 5	
1	Top of HEAD WALL CUL	0	3.42	818.23	
2	Bottom face on conc slab	.8' R	10.64	811.01	
3	℄ of (BTTY) Culvert	5' R	11.12	810.53	
4	L/S	5' R	5.14	816.51	
5	@ Angle Box + Round Culvert	10' R	4.03	817.62	
6	Bottom of Joint of Culvert	19 R	11.12	810.53	
7	Top of LT ABUT Box Cul	15' R	7.64	814.01	
8	Bottom of Face LT ABUT	16.5' R	12.17	809.48	
9	℄ of Box Culvert	20.5' R	12.15	809.50	
10	L/S	20.5'	5.98 ~~12.10~~	815.67	
11	Toe Face of Rt Abut	23.5' R	12.10	809.55	
12	Top of Rt Abut	25' R	7.59 ~~12.10~~	814.06	
13	Top of Headwall	27' R	4.06	817.59	
14	#1 Weir Top	Fasn Face of BR	12.2	809.~~4~~ 5	
15	#1 Bottom		13.1	808.~~5~~ 6	Distances from Pt ℄
16	#2 Weir Top		12.4/809.~~2~~ 3	Top LT BK 24' LT	5.3/816.~~3~~ 4
17	Bottom #2		13.2/808.~~4~~ 5	Top RT BK 17' RT	5.2/816.~~4~~ 3
18	#3 Weir Top		13.0/808.~~4~~ 7	Top LT BK 24' LT	5.8/8158
19	#3 Bottom		14.7/807.~~4~~ 5	Top RT BK 20' RT	4.7/~~[illegible]~~ 7 3

1-26-88 41B

BRIDGE @ 18 SERVICE ROAD BRIDG @ DEAD END



W/S 12.0 809.6

1 Rtn 2/1/88

Stone School Road over PAAD

X-sec. 17869 - 17942 on HEC-2 run

⊗19

STONE SCHOOL ROAD

BRIDGE

42B:

	ROAD	@ 19 HI	STONE SCHOOL RD	BRIDGE
TBM Light		828.47		819.795
	℄ ROAD OVER ℄ CULVERT	0	4.45	824.02
	℄ ROAD	25 LT	2.88	825.59
	℄ ROAD	50 LT	1.12	827.35
	℄ RD	65 LT	0.12	828.35
	RISE	± 6' TO	I-94	OVERPASS
	℄ RD	35 RT	5.60	822.87
	"	50 RT	6.86	821.61
	"	75 RT	8.16	820.31
	"	100 RT	8.88	819.59
	"	125 RT	9.19	819.28
	"	150 RT	9.35	819.12
	℄ RD	200 RT	9.43	819.04
	TBM LIGHT	IN SHOT	8.73	819.74

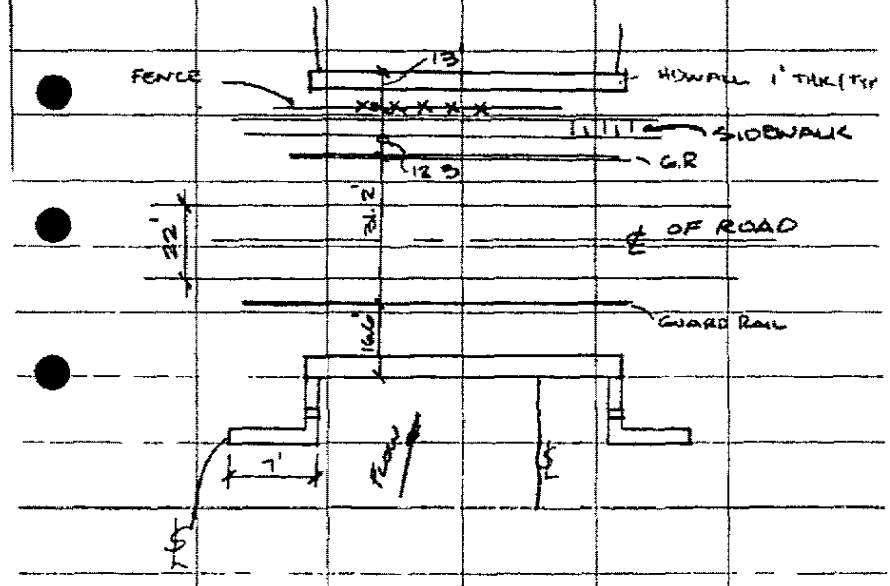
45B

		HI		
TBM Light	8.72	828.47 ✓		819.75 ✓
1	FACE OF LT ABUT	0	19.6	808.9
2	TOP OF HEADWALL	0	10.91	817.56
3	W/S	0	18.7	809.8
4	LEDGE OF WINGWALL	0	1395	814.52
5	INVERT	4.5	19.6	808.9
6	TOP OF ℄ BANK	9 RT	18.3	810.2
7	GE OF FACE OF RT ABUT	14' RT	17.8	810.7
8	W/S		15.40	813.07

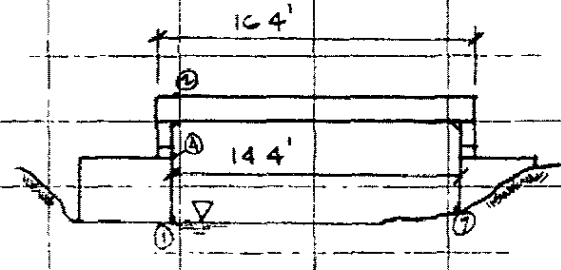
1-26-88

458

BRIDGE #19 - STONE SCHOOL ROAD



Top View



U/S FACE LOOKING D/S

Pleasand Run Rd. over PAAD

X-Sec. 18320 - 18373 on HEC-2 run.

(X) 20

PHEASANT RUN (NORTH DRIVE INTO APT COMPLEX) BRIDGE

47B

		@ 20	Road	Pleasant	Run
TBM Light		HI 823.81		819.74 5	
1	℄RD over ℄Pipe	0	5.42	818.39	
	℄RD	25 LT	5.08	818.73	
	℄RD	50 LT	5.23	818.58	
	℄RD	75 ~~100~~ LT	5.30	818.51	
	℄RD	100 LT	5.18	818.63	
	℄RD	25 RT	5.71	818.10	
	"	50 RT	5.84	817.97	
	"	75 RT	5.78	818.03	
	"	100 RT	5.75	818.06	
	"	125 RT	5.47	818.34	
	℄Rd	150 RT	5.17	818.64	
RL					

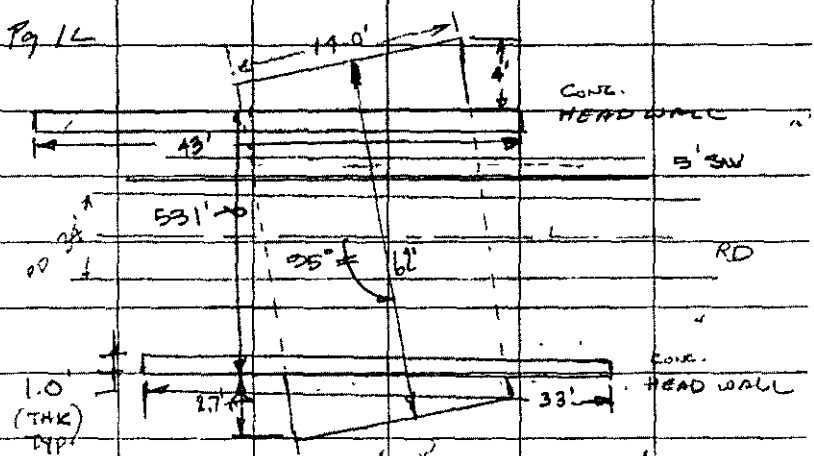
40-B

BM Light	4.06	~~#1~~ 823.81		819.749
1	TOP WINGWALL		5.56	818.25
2	TOP WINGWALL @ RT		5.88	817.93
3	W/S		8.56	815.25
4	BTM PIPE		16.0	807.8
5	TOP WINGWALL @ LT		6.00	817.81
6	W/S		13.7	810.1
7	TOP LT BK	15' LT of ℄ OF PIPE	6.4	817.4
8	TOP RT BK	23' rt of ℄ PIPE	6.2	811.6

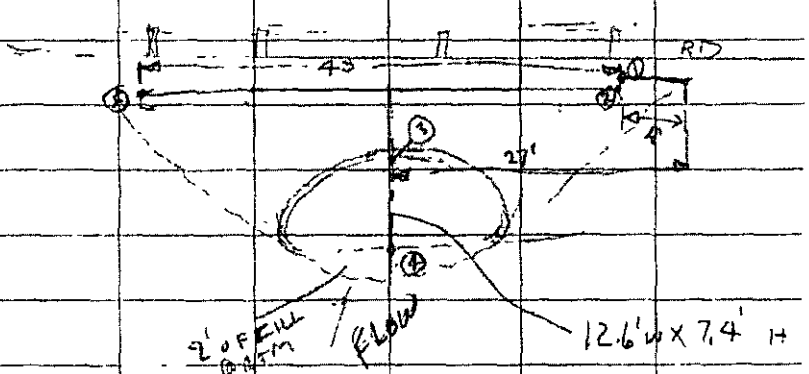
2-1-11

BRIDGE # 20 PLEASANT RUN RD

Pg 1L



Top View



U/S FACE LOOKING D/S

S/L ON RT & LT @ W/S @ EDGE OF PIPE

Partridge Path Road over PAAD

x-sec. 19210 - 19262 on HEC-2 run

(X) 22

PARTRIDGE PATH (SOUTH DRIVE INTO APT COMPLEX)

BRIDGE

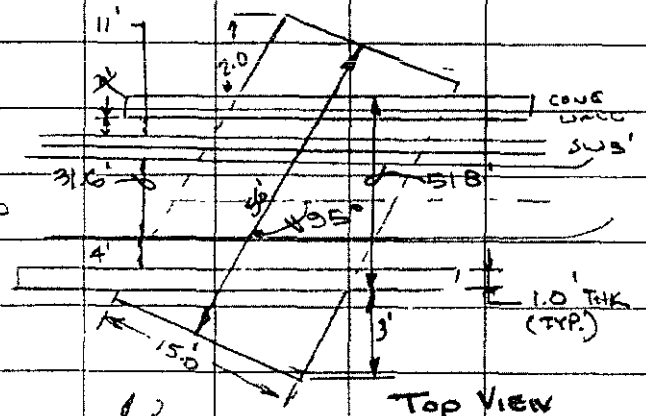
53.B

	ROAD	PARTRIDGE PATH		@ 22
TBM RUN		HI 823.62		818.959
	℄ OF PIPE & ℄ RD	0	5.48	818.74
	℄ RD	25 LT	6.06	819.56
		50 LT	6.88	816.74
		75 LT	6.70	816.92
		100 LT	6.20	817.42
		125 LT	6.29	817.33
	℄ RD	150 LT	6.97	816.65
	℄ RD	25 RT	6.01	817.61
	"	50 RT	6.81	816.81
	"	75 RT	6.74	816.88
	"	100 RT	6.51	817.11
	"	125 RT	6.52	817.10
	℄ RD	150 RT	6.79	816.83
TBM RUN	CHK SHOT		4.66	818.96 ✓

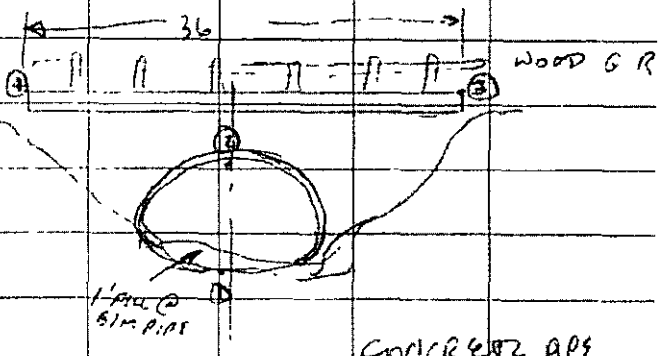
55B				
		HE		
TBM RUN	4.66	823.62		818.956
1	BTM OF PIPE		14.2	809.4
2	L/S		6.8	816.8
3	TOP RT END OF HEADING	15 RT	4.18	819.44
4	TOP LT END OF HEADING	21 LT	4.20	819.42
5	TOP OF LT BK	21 LT	5.7	819.4
6	TOP OF RT BK	15 RT	6.3	817.3

BRIDGE # 22 PARTRIDGE PATH

Pg 1C



Top View



U/S FACE LOOKING D/S

CONCRETE APS

12.6'W X 7.4' H

W/S 13.0 810.6

56B

Dam at gate of Retention Pond #2 over PAAD

x-sec. 19550 on HEC-2 run

(X) 23

DAM @ GATE OF POND

(APPROX. 300' U/S FROM

(X) 22)

STB	ON Top @ 23			
TBM RUN				818.956
	4 24	823.20		
	℄ of Bdk Dam @ pond	0	5.58	817.62
	GE	25' RT	6.2	817.0
	GE	50' RT	5.6	817.6
	GE	75' RT	5.7	817.5
	GE	100' RT	7.4	815.8
	GE	125' RT	7.7	815.5
	GE	150' RT	7.2	816.0
	GE	175' RT	5.3	817.9
		[illegible] 25'		
	GE	25' LT	5.9	817.3
	GE	50' LT	5.8	817.4
	GE	75' LT	6.2	817.0
	GE	100' LT	7.4	815.8
	GE	150' LT	5.2	818.0
	GE	175' LT	5.0	818.2
		VAPT. 10		

59B

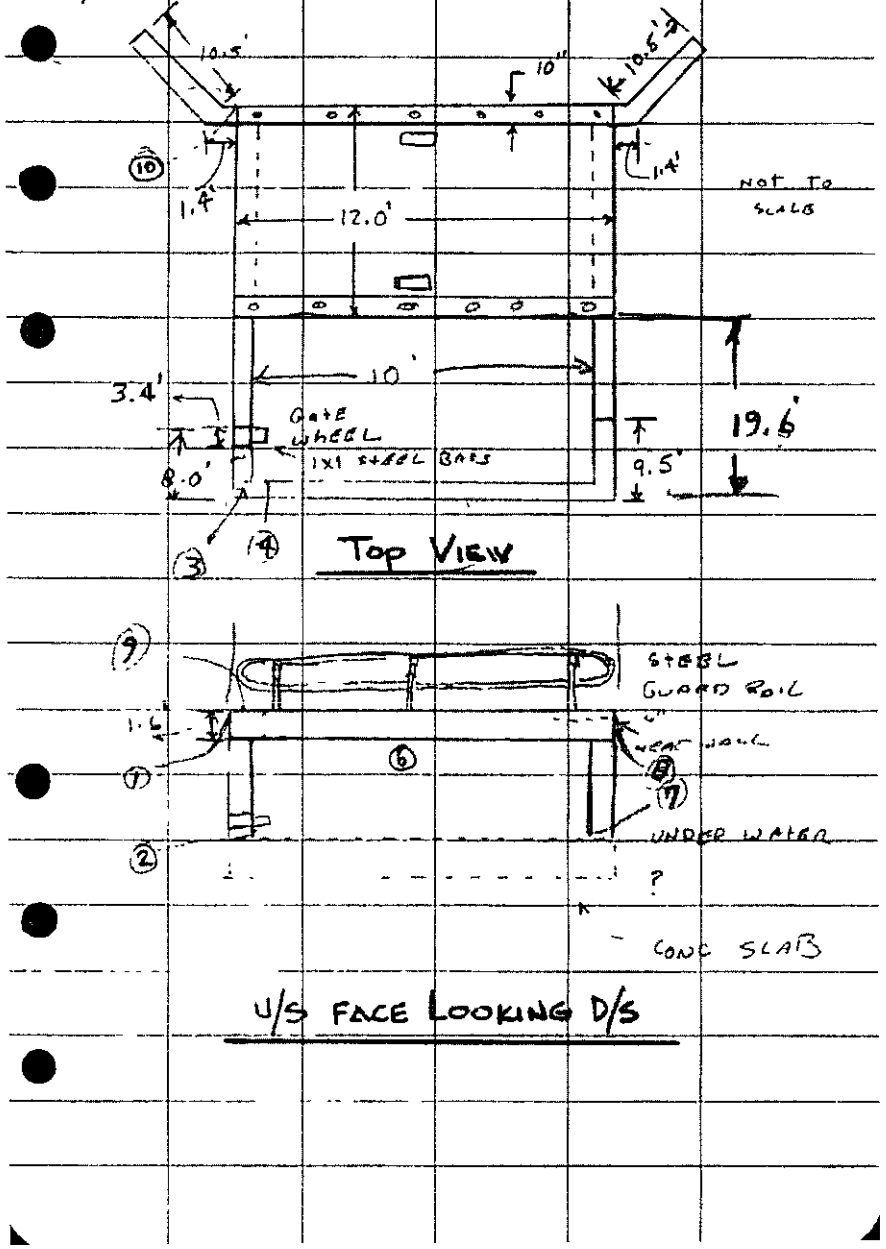
Ø 23

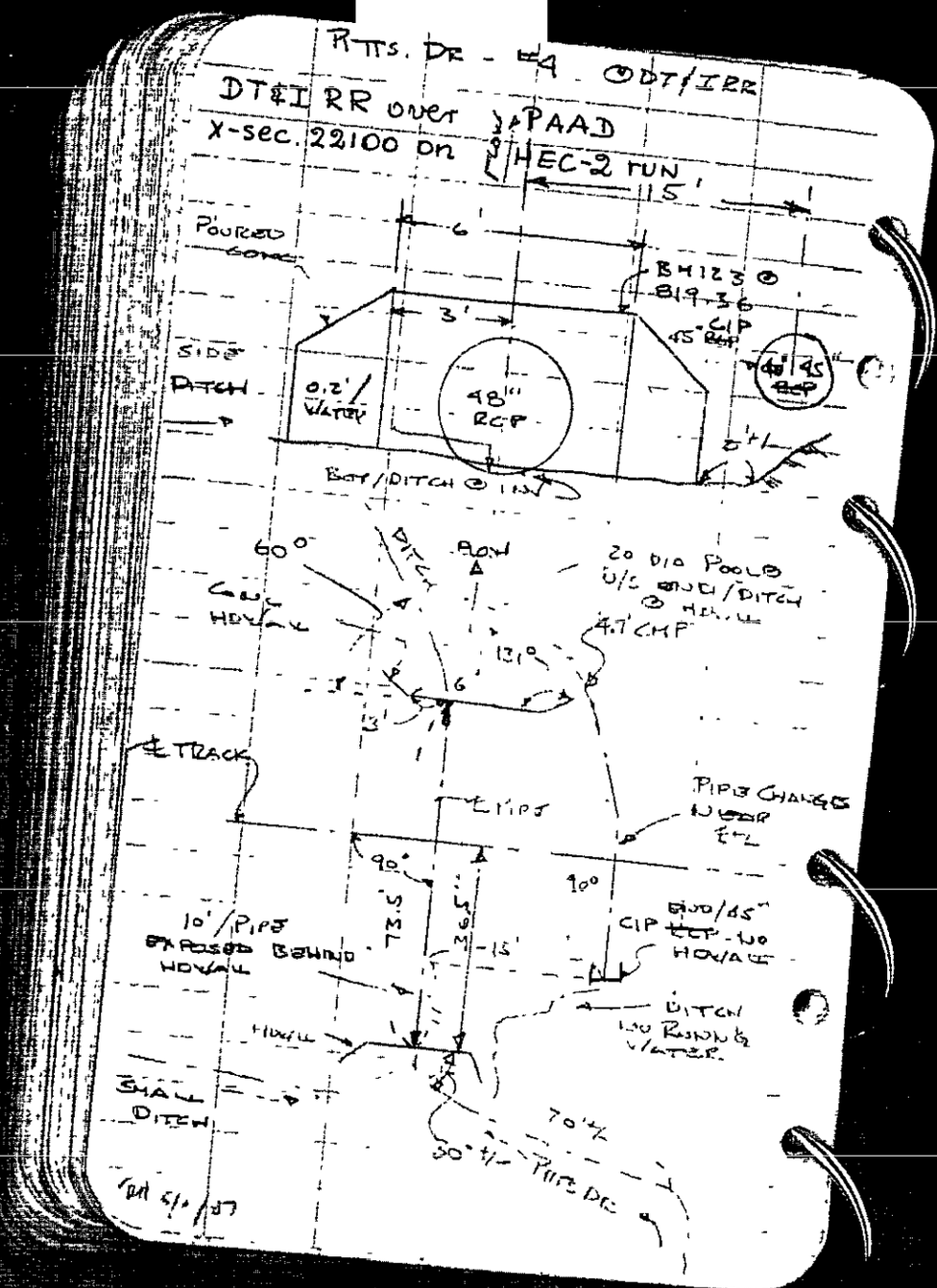
TBM RUN				818.956
	4.24	823.20		
1	Top of Base	0	5.75	817 45
2	Bottom Face Lt Wall	1 R	13.79	809.41
3	Lt Top of Cone Wall	0	11 84	811 36
4	Bottom Cone Wall	1' R	13.82	809 38
5	℄ of Bore	6' R	1382	809.38
6	4/S	6' R	6.51	816 59
7	Bottom Face Rt Wall	11' R	13.82	809.38
8	Top of Base	12' R	5.80	817.40
9	Top of Lt Head Wall	0	50	818 2
10	D/S Rt Lt Wall		5.74	817 46
11	Bottom Lt Wall Face		1376	809 44
	W/S U/S		11.8	811 4
	W/S D/S		12.3	810 9
	Out Side of Circle Bore		13.8	809.4

505B

BRIDGE #23 DAM @ GATE APPROX 300' U/S @ 22

RQ 16 OVER PITTSFIELD DRAIN @ POND



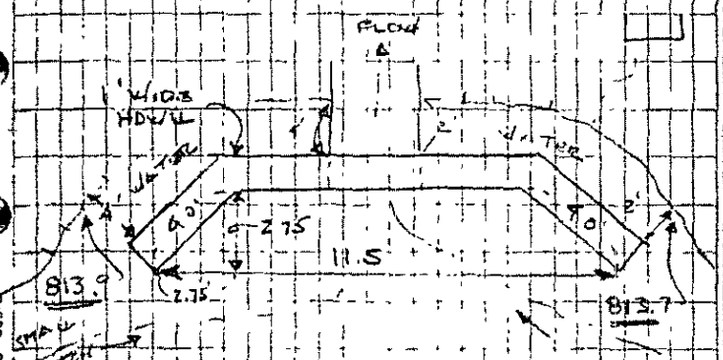


PTTS. DR - #4 @DT/IRR
DT&I RR over PAAD
X-sec. 22100 on HEC-2 run
15'
6'
3'
POURED CONC
BM123 @ 819.36
CIP 45 RCP
SIDE DITCH
0.2'/ WATER
48" RCP
BOT/DITCH @ INV
60°
DITCH
FLOW
20 DIA POOLS U/S END/DITCH @ HDWALL
CONC HDWALL
4.7' CMP
131°
6'
℄ TRACK
℄ PIPE
PIPE CHANGES NEAR ℄
90°
90°
10'/PIPE EXPOSED BEHIND HDWALL
CIP END/45" RCP - NO HDWALL
15'
DITCH NO RUNNING WATER
HDWALL
SMALL DITCH
70'±
30'±
PIPE DR

MC
JS
JR

4/9/87 870231 28/

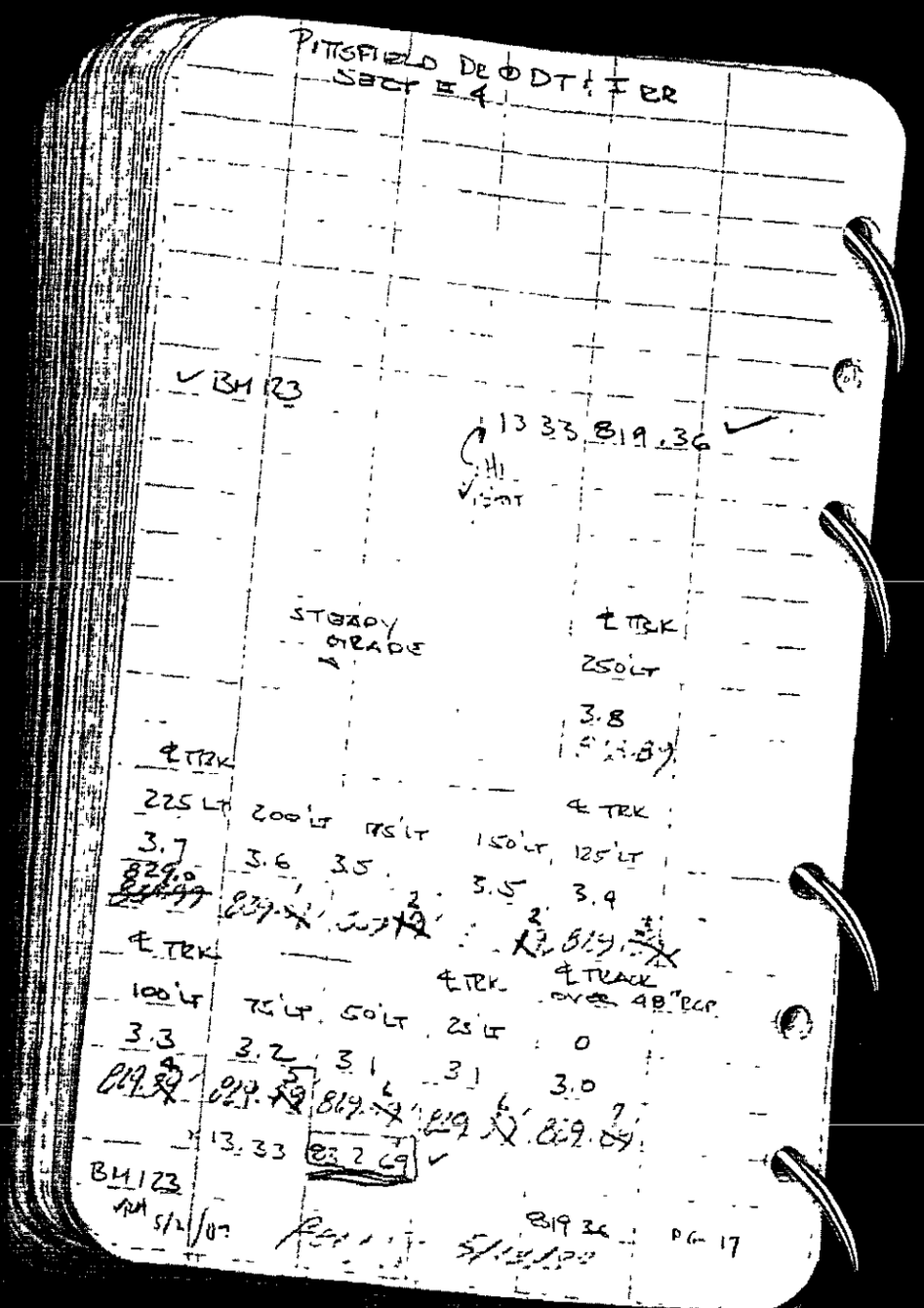
PITTSFIELD DR ODT&I RR
SECT # 4



STA	+ HI	-	ELEV
BM 123			819.36
2.88	822.24		
INV 48" RCP		8.40	813.84
INV 45" CIP		8.44	813.[illegible]
TOP (L) HDWL		2.90	[illegible]
TOP (R) HDWL		2.90	819.34
T/(L) WINGWALL		5.30	[illegible] 14
TOP (R) WINGWALL		5.26	916 98

REDUCED [illegible]

DIETZGEN NO 335-3



PITTSFIELD DEPOT & FER
SECT # 4

✓ BM 123

13 33 819.36 ✓

STEADY GRADE

℄ TRK
250' LT
3.8
[illegible]

℄ TRK
225 LT 200' LT 175' LT 150' LT 125' LT
3.7 3.6 3.5 3.5 3.4
829.0 [illegible] 829.[illegible] [illegible] 819.[illegible]

℄ TRK
100' LT 75' LT 50' LT 25' LT
3.3 3.2 3.1 3.1 3.0
819.[illegible] 819.[illegible] 819.[illegible] 819.[illegible] 819.[illegible]

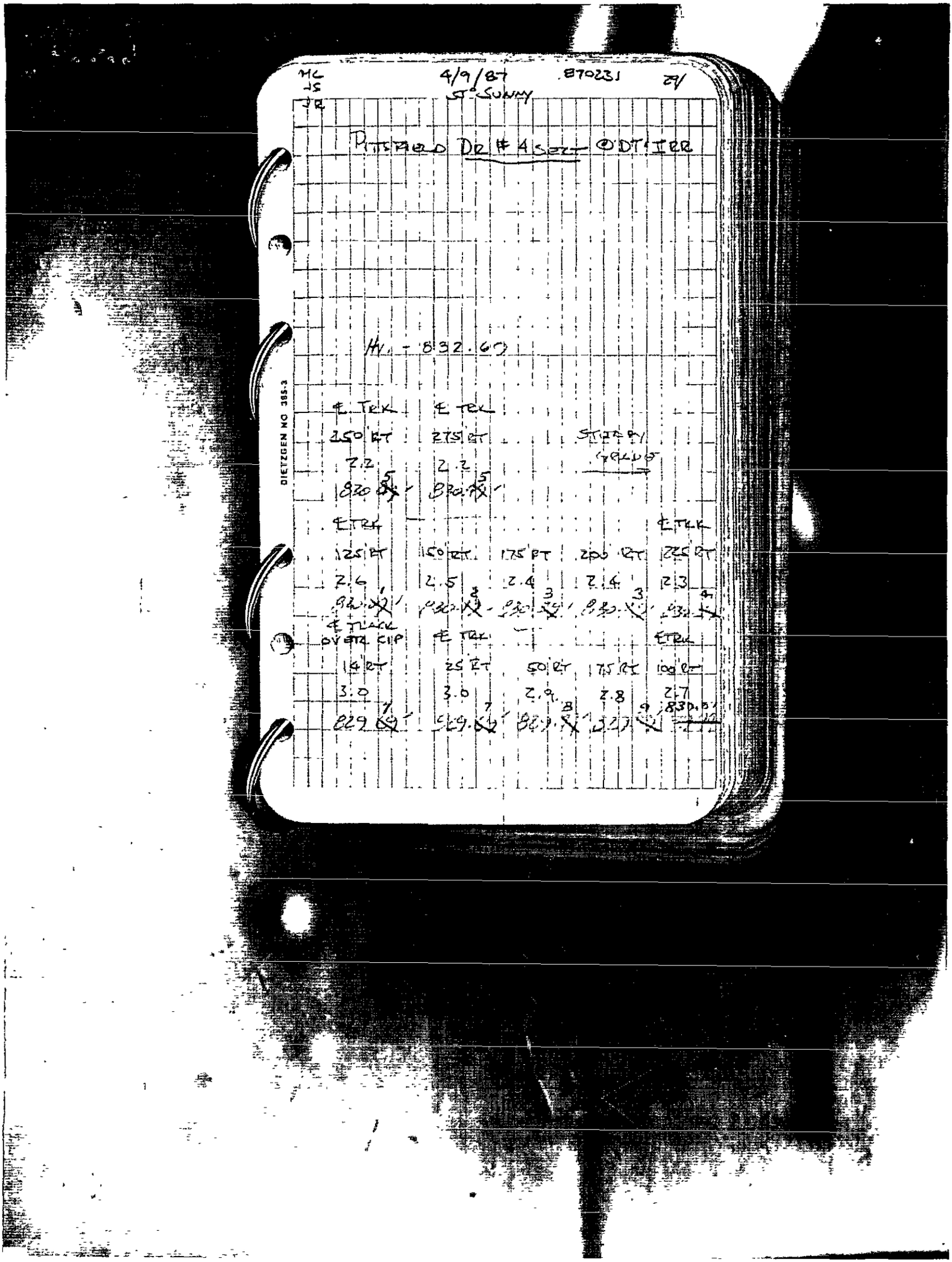
℄ TRK
℄ TRACK OVER 48" RCP
0

13.33 $\boxed{83\ 2\ 69}$ ✓

BM 123
[illegible] 5/21/07

819 36

PG 17



MC
JS
JR

4/9/87 .870231 29/

5° SUNNY

PITSFIELD DR # 4 SECT @ DT IRR

HV - 832.69

℄ TRK	℄ TRK			
250 RT	275 RT		STEADY GRADE	
2.2	2.2			
830.5	830.5			
℄ TRK				℄ TRK
125 RT	150 RT	175 RT	200 RT	225 RT
2.6	2.5	2.4	2.4	2.3
830.1	830.2	830.3	830.3	830.4
℄ TRACK OVER CIP	℄ TRK			℄ TRK
14 RT	25 RT	50 RT	75 RT	100 RT
3.0	3.0	2.9	2.8	2.7
829.7	829.7	829.8	829.9	830.0

DIETZGEN NO 385-3

Pittsfield - Ann Arbor Drain
Encroached Run.

```
EEEEEE   EEEEEE        K   K     OOOO    BBBBB    Y    Y   L        IIIII    N    N    SSSS    K   K
E        E             K  K     O    O   B    B    Y  Y    L          I      NN   N   S        K  K
E        E             K K      O    O   BBBBB      YY     L          I      N N  N    SSSS    K K
EEEE     EEEE          KKK      O    O   B    B     Y      L          I      N  N N        S   KKK
E        E             K  K     O    O   B    B     Y      L          I      N   NN   S    S   K  K
EEEEEE   EEEEEE        K   K     OOOO    BBBBB     Y      LLLLLL   IIIII    N    N    SSSS    K   K
```

USACOE DETROIT H800 VOS 5.1.1 PRINTER: 6

EE KOBYLINSK 15 JUL 88 8:51:45

TERMINAL: 106

```
**********************************************************
*  WATER SURFACE PROFILES                                *
*  VERSION OF NOVEMBER 1976                              *
*  UPDATED MAY 1984                                      *
*                                                        *
*  RUN DATE  15 JUL 88 TIME     8:22:35                  *
**********************************************************
```

```
**************************************
*  U.S. ARMY CORPS OF ENGINEERS      *
*  THE HYDROLOGIC ENGINEERING CENTER *
*  609 SECOND STREET, SUITE D        *
*  DAVIS, CALIFORNIA 95616           *
*  (916) 440-2105 (FTS) 448-2105     *
**************************************
```

```
X     X  XXXXXXX   XXXXX              XXXXX
X     X  X        X     X            X     X
X     X  X        X                        X
XXXXXXX  XXXX     X          XXXXX    XXXXX
X     X  X        X                   X
X     X  X        X     X             X
X     X  XXXXXXX   XXXXX              XXXXXXX
```

THIS RUN EXECUTED 15 JUL 88 8:22:38

```
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
**************************************************

C
T1         TOWNSHIP OF PITTSFIELD FIS RESTUDY
T2         PITTSFIELD - ANN ARBOR DRAIN
T3        100-YEAR FLOOD
```

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	2.	0.	0.	0.000000	0.00	0.0	0.	770 860	0.000
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	1.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
J3	VARIABLE CODES FOR SUMMARY PRINTOUT									
	110.000	150.000	200.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

GT	2 000	1870.000	1870.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.065	0.065	0.040	0.300	0.500	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	1.400	0 000	0.000	0.000	0.000	0.000	0.000	0.000
X1	2929.000	18.000	46.000	80.000	0.000	0.000	0.000	0.000	-1.400	0.000
GR	775.700	0.000	776.400	12.000	770.200	37.000	770.400	46.000	766.000	58.000
GR	764.000	61.000	763.500	66.000	764.600	71.000	765.800	75.000	771.100	80.000
GR	771.000	96.000	770.500	121.000	770.500	146.000	770.100	171.000	771.400	196.000
GR	772.800	221.000	771.900	246.000	773.100	264.000	0.000	0.000	0.000	0.000
X1	2959.000	0 000	0.000	0.000	30.000	30.000	30.000	0.000	0.120	0.000
NC	0.000	0.000	0.000	0.500	1.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	0.000	28.000	221.000	0.000	0.000	0.000	0.000	0.000
X1	2974.000	0.000	0.000	0.000	15.000	15.000	15.000	0.000	0.060	0.000
ET	0.000	4.100	0.000	30.000	210.000	0.000	0.000	0.000	0.000	0.000
X1	2989.000	0 000	0.000	0.000	15.000	15.000	15.000	0.000	0.060	0.000
NC	0.000	0.000	0.013	0.500	1.000	0 000	0.000	0.000	0.000	0.000
	D/S FACE OF HURON PARKWAY DRIVE									
X1	3029.000	36.000	217.000	247.000	40.000	40.000	40.000	0.000	0.000	0.000
GR	779.800	0.000	778.800	25.000	778.000	50.000	777.200	75.000	776.500	100.000
GR	775.500	125.000	775.000	150.000	770.300	175.000	770.000	217.000	767.250	219.700
GR	766.200	220.000	765.000	221.000	764.400	222.000	764.100	223.000	763.900	225.000
GR	764.100	227.000	764.400	228.000	765.000	229.000	766.200	230.000	767.250	230.300
GR	767.350	233.700	766.300	234.000	765.100	235.000	764.500	236.000	764.200	237.000
GR	764.000	239.000	764.200	241.000	764.500	242.000	765.100	243.000	766.300	244.000
GR	767.350	244.300	770.500	247.000	770.500	300.000	771.000	325.000	772.000	350.000

GR	778.000	375.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	1.570	2.900	0.000	25.000	3.000	112.000	0.000	763.900	763.900
	U/S FACE OF HURON PARKWAY DRIVE									
X1	3200.000	0.000	0.000	0.000	171.000	171.000	171.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	770.700	774.000	0.000	0.000	0.000	0.000	0.000
BT	36.000	0.000	779.800	0.000	25.000	778.800	0.000	50.000	778.000	0.000
BT	75.000	777 200	0.000	100.000	776.500	0.000	125.000	775.500	0.000	150.000
BT	775.000	0.000	175.000	774.400	0.000	217.000	774.000	0.000	219.700	774.000
BT	767.250	220.000	774.000	768.600	221.000	774.000	769 700	222.000	774.000	770.200
BT	223.000	774.000	770.400	225.000	774.100	770.600	227.000	774.200	770.400	228.000
BT	774.200	770.200	229.000	774.300	769.700	230.000	774.400	768.600	230.300	774.400
BT	767.250	233.700	774.500	767.350	234.000	774.500	768.700	235.000	774.600	769.800
BT	236.000	774 700	770.300	237.000	774 700	770.500	239.000	774.800	770.700	241.000
BT	774.900	770.500	242.000	774.900	770.300	243.000	774.900	769.800	244.000	774.900
BT	768 700	244.300	774.900	767.350	247.000	775.000	0.000	300.000	776.000	0.000
BT	325.000	776.700	0.000	350.000	777.400	0.000	375.000	778.000	0.000	0.000
NC	0.000	0.000	0.035	0.100	0.300	0.000	0.000	0.000	0.000	0.000
	CROSS SECTION A									
X1	3300.000	18.000	46.000	80.000	100.000	100.000	100.000	0.000	0.000	0.000
GR	775.700	0.000	776.400	12.000	770.200	37 000	770.400	46.000	766.000	58.000
GR	764.000	61.000	763.500	66.000	764.600	71.000	765.800	75.000	771.100	80.000
GR	771.000	96.000	770.500	121.000	770.500	146.000	770.100	171.000	771.400	196.000
GR	772.800	221.000	771.900	246.000	773.100	264.000	0.000	0.000	0.000	0.000
X1	3800.000	0.000	0.000	0.000	500.000	500.000	500.000	0.000	1.800	0.000
X1	4300.000	0.000	0.000	0.000	500.000	500.000	500.000	0.000	1.800	0.000
X1	4800.000	0.000	0.000	0.000	500.000	500.000	500.000	0.000	1.900	0.000
NC	0.000	0.000	0.000	0.500	1.000	0.000	0.000	0.000	0.000	0.000
X1	5100.000	0.000	0.000	0.000	300.000	300.000	300.000	0.000	1.100	0.000
NC	0.060	0.060	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	0.000	160.000	276.000	0.000	0.000	0.000	0.000	0.000
	CROSS SECTION B									
X1	5280 000	23.000	200.000	236.000	180.000	180.000	180.000	0.000	0.000	0.000
GR	783.600	0.000	782.000	25.000	780.800	50.000	779.700	75.000	777.100	100.000
GR	777.300	125.000	777.600	150.000	779.000	175.000	777.200	200.000	771.300	204.000
GR	772.400	210.000	771.700	215.000	770.800	220.000	771.200	225.000	771.400	230.000
GR	771.300	231.000	778.000	236.000	778.700	250.000	778.600	275.000	777.700	300.000
GR	777.600	325.000	777.500	350.000	780.800	375.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	0.000	140.000	280.000	0.000	0.000	0.000	0.000	0.000
X1	5310.000	0.000	0.000	0.000	30.000	30.000	30.000	0.000	0.800	0.000
ET	0 000	4.100	0.000	120.000	280.000	0.000	0.000	0.000	0.000	0.000
X1	5320.000	0.000	0.000	0.000	10.000	10.000	10.000	0.000	0.400	0 000

ET	0.000	4.100	0.000	120.000	280.000	0.000	0.000	0.000	0.000	0.000
X1	5325.000	0.000	0 000	0.000	5.000	5 000	5.000	0.000	0.100	0.000
NC	0.000	0.000	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	D/S FACE OF HURON PARKWAY DRIVE									
X1	5330.000	36.000	192.000	223.000	5.000	5.000	5.000	0.000	0.000	0.000
GR	786.300	0.000	785 600	25.000	785.000	50.000	784.400	75.000	783.900	100.000
GR	779.000	125.000	779.000	150.000	783.500	192.000	775.900	194.800	774.700	195.000
GR	773.300	196.000	772.900	197.000	772.600	198.000	772 500	200.000	772.600	202.000
GR	772.900	203.000	773.300	204.000	774.700	205.000	775.900	205.200	775.600	208.700
GR	774.400	209.000	773.000	210.000	772.600	211.000	772.300	212.000	772.200	214.000
GR	772.300	216.000	772.600	217.000	773.000	218.000	774.400	219.000	775.600	219.300
GR	783.500	223.000	779.000	275.000	779.000	300.000	788.000	325.000	789.200	350.000
GR	790.400	400.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	1 570	2.900	0.000	25.000	3.500	112.000	0.000	772.200	772.200
	U/S FACE OF HURON PARKWAY DRIVE									
X1	5470.000	0.000	0.000	0.000	140.000	140.000	140.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	779.300	783.000	0.000	0.000	0.000	0.000	0.000
BT	36.000	0.000	786.300	0.000	25.000	785.600	0.000	50.000	785.000	0.000
BT	75.000	784.400	0 000	100.000	783.900	0.000	125.000	783.300	0.000	150.000
BT	783.000	0.000	192.000	783.500	0.000	194.800	783.500	775.900	195.000	783 500
BT	777.200	196.000	783.500	778.400	197.000	783.500	778.800	198.000	783.500	779.200
BT	200 000	783.500	779.300	202.000	783.500	779.200	203.000	783.500	778 800	204.000
BT	783.500	778.400	205.000	783.500	777.200	205.200	783.500	775.900	208.700	783.500
BT	775.600	209.000	783.500	776.900	210.000	783.500	778.100	211.000	783.500	778.500
BT	212.000	783.500	778 900	214.000	783.500	779.000	216.000	783.500	778.900	217.000
BT	783.500	778 500	218.000	783.500	778.100	219.000	783.500	776.900	219.300	783.500
BT	775.600	223.000	783.500	0.000	275.000	785.400	0.000	300.000	786.800	0.000
BT	325.000	788.000	0.000	350.000	789.200	0.000	400.000	790.400	0.000	0.000
NC	0.000	0.000	0.035	0.100	0.300	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	6.100	70.000	300.000	79.000	300.000	0.000	0.000	0.000
X1	5520.000	23.000	200.000	236.000	50.000	50.000	50.000	0.000	0.000	0.000
GR	783.600	0.000	782.000	25.000	780.800	50.000	779.700	75.000	777.100	100.000
GR	777.300	125.000	777.600	150.000	779.000	175.000	777 200	200.000	771.300	204.000
GR	772.400	210.000	771.700	215.000	770.800	220.000	771.200	225.000	771.400	230.000
GR	771.300	231.000	778.000	236.000	778.700	250.000	778.600	275.000	777.700	300.000
GR	777.600	325.000	777.500	350.000	780 800	375.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	4.100	133.000	229.000	0.000	0.000	0.000	0.000	0.000
	CROSS SECTION C									
X1	6300.000	21.000	125.000	194.000	780.000	780.000	780.000	0.000	0.000	0.000
GR	790.500	0 000	789.700	25.000	789.400	50.000	788.400	75.000	787.500	100.000
GR	787.600	125.000	776.200	151.000	775.600	155.000	775.700	160.000	775.900	165.000
GR	776 000	170.000	775.900	175.000	776.000	178.000	781.300	194.000	782.000	200.000
GR	783.800	225.000	785.500	250.000	786.100	258.000	792.200	270.000	792.400	285.000
GR	794.400	360.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

NC	0 040	0.040	0 028	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	6.100	116.000	204.000	125.000	194.000	0.000	0.000	0.000
X1	6750.000	0.000	0 000	0.000	450.000	450.000	450.000	0.000	0.000	0.000
NC	0.000	0.000	0.013	0.500	1.000	0.000	0.000	0.000	0.000	0.000
	D/S FACE OF US-23 / WASHTENAW AVE.									
X1	6800.000	26.000	200.000	275.000	50.000	50.000	50.000	0.000	0.000	0.000
GR	794.100	0.000	793.800	25.000	793.500	50.000	793.200	75.000	792.900	100.000
GR	792.500	125.000	792.400	150.000	792.200	175.000	792.400	200.000	780.300	220.000
GR	777.400	221.000	776.300	222.000	775.700	223.000	775.300	225.000	775.700	227.000
GR	776.300	228.000	777.400	229.000	780.300	230.000	776.000	234.500	776.000	247.500
GR	776.000	247.510	793.600	275.000	794.400	300.000	795.600	325.000	796.900	350.000
GR	798.200	375.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	2.680	3.000	0.000	21.000	0.000	154.000	0.000	778.500	775.300
	U/S FACE OF CULVERT BEHIND DENNY'S RESTAURANT									
X1	7388.000	34.000	0.000	75.000	588.000	588.000	588.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	786.800	792.600	0.000	0.000	0.000	0.000	0.000
BT	34.000	0.000	793.900	0.000	20.200	793.900	784.000	21.000	793.900	786.500
BT	22.000	793.900	787.700	23.000	793.900	788.300	25.000	793.900	788.800	27.000
BT	793.900	788 300	28.000	793.900	787.700	29.000	793.900	786.500	29.900	793.900
BT	784.000	32.500	793.900	781.950	33.000	793.900	783.800	34.000	793.900	784.700
BT	35.000	793.900	785.200	36.000	793.900	785.300	38.150	793.900	785.400	40.000
BT	793.900	785.300	41.000	793.900	785.200	42.000	793.900	784.700	43 000	793.900
BT	783.800	43.800	793.900	781.950	46.000	793.900	782.150	47.000	793.900	784.000
BT	48.000	793.900	784.900	49.000	793.900	785.400	50.000	793.900	785.500	51.650
BT	793.900	785.600	53.000	793.900	785.500	54.000	793.900	785.400	55.000	793.900
BT	784.900	56.000	793.900	784.000	57.300	793.900	782.150	75.000	793.900	0.000
BT	100.000	793.900	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	793.900	0.000	784.000	20.200	781.000	21.000	780.000	22.000	779.400	23.000
GR	779.100	25.000	779.400	27.000	780.000	28.000	781.000	29.000	784.000	29.900
GR	781.950	32.500	779.600	33.000	779.000	34.000	778.700	35.000	778.600	36.000
GR	778.500	38.150	778.600	40.000	778.700	41.000	779.000	42.000	779.600	43.000
GR	781.950	43.800	782.150	46.000	779.800	47.000	779.200	48.000	778.900	49.000
GR	778.800	50.000	778.700	51.650	778.800	53.000	778.900	54.000	779.200	55.000
GR	779.800	56.000	782.150	57.300	793.900	75.000	793.900	100.000	0.000	0.000
NC	0.000	0.000	0.028	0.100	0.300	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	6.100	78.000	241.000	102.000	241.000	0.000	0.000	0.000
X1	7438 000	21.000	125.000	194.000	50.000	50.000	50.000	0.000	0.000	0.000
GR	790.500	0.000	789.700	25.000	789.400	50.000	788.400	75.000	787.500	100.000
GR	787.600	125.000	776.200	151.000	775.600	155.000	775.700	160.000	775.900	165.000
GR	776.000	170.000	775.900	175.000	776.000	178.000	781.300	194.000	782.000	200.000
GR	783.800	225.000	785.500	250.000	786.100	258.000	792.200	270.000	792.400	285.000
GR	794.400	360.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.060	0.060	0.035	0.500	1.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	1.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9342.000	13.000	66.000	170.000	1953.000	1953.000	1953.000	0.000	0.000	0.000
GR	796 200	0.000	793.800	16.000	794.000	41.000	794.500	66.000	784.000	106.000
GR	783.500	111.000	783.900	116.000	784.100	121.000	783.800	126.000	783.900	129.000
GR	798.700	170.000	799.500	195.000	799.600	221.000	0.000	0.000	0.000	0.000

NC	0.000	0.000	0.000	0.500	1.000	0.000	0.000	0.000	0.000	0.000
	D/S FACE OF FOOT BRIDGE									
X1	9392.000	18.000	175.000	230.000	50.000	50.000	50.000	0.000	0.000	0.000
GR	792.900	0.000	792.300	25.000	792.400	50.000	792.200	75.000	792.300	100.000
GR	792.400	125.000	793.600	150.000	795.100	175.000	786.800	185.000	784.000	193.000
GR	783.000	200.000	783.000	205.000	784.100	211.000	789.500	222.000	789.500	222.100
GR	795.000	230 000	795.400	250.000	796.500	275.000	0.000	0.000	0.000	0.000
SB	0.000	1.530	2.800	0.000	37.000	0.000	403.000	0.000	783.000	783.000
	U/S FACE OF FOOT BRIDGE									
X1	9400.000	0.000	0.000	0.000	8.000	8.000	8.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	793.900	795.100	0 000	0.000	0.000	0.000	0.000
BT	19.000	0.000	729.900	0.000	25.000	792.300	0.000	50.000	792.400	0.000
BT	75.000	792.200	0.000	100.000	792.300	0.000	125.000	792.400	0.000	150.000
BT	793.600	0.000	175.000	795.100	0.000	185.000	795.100	786.800	185.000	795.100
BT	793.000	193.000	795.600	793.900	200.000	795.900	793.900	205.000	796.000	793.900
BT	211.000	795.900	793.700	222.000	795.100	793.000	222.100	795.100	789.500	230.000
BT	795.000	0.000	250.000	795.400	0.000	275.000	796.500	0.000	0.000	0.000
NC	0.060	0.060	0.035	0.100	0.300	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	4.100	80.000	145.000	0.000	0.000	0.000	0.000	0.000
	CROSS SECTION D									
X1	9450.000	13.000	66.000	170.000	50.000	50.000	50.000	0.000	0.000	0.000
GR	796.200	0.000	793.800	16.000	794.000	41.000	794.500	66.000	784.000	106.000
GR	783.500	111.000	783.900	116.000	784.100	121.000	783.800	126.000	783.900	129.000
GR	798.700	170.000	799.500	195.000	799.600	221.000	0.000	0.000	0.000	0.000

NC	0.000	0.000	0.013	0.500	1.000	0.000	0.000	0.000	0.000	0.000
	D/S FACE OF PLATT ROAD									
X1	9550.000	44.000	178.000	225.000	100.000	100.000	100.000	0.000	0.000	0.000
GR	796.900	0 000	796.500	100.000	796.600	125.000	796.900	150.000	797.100	175.000
GR	797.500	178.000	789.000	180.000	786.500	181.000	786.000	182.000	785.800	183.000
GR	785.700	184.000	785.700	185.250	785.800	187.000	786.000	188.000	786.400	189.000
GR	787.200	190.000	789.000	190.500	789.400	191.800	787.000	193.000	786.300	194.000
GR	785 800	195.000	785.600	196.000	785.600	197.800	785.700	200.000	785.900	201.000
GR	786.300	202.000	787.100	203.000	789 400	203.800	788.900	209.200	786.900	210.000
GR	786.200	211.000	785.900	212.000	785.700	213.000	785.600	214.450	785.900	216.000
GR	786.000	217.000	786.200	218.000	786.900	219.000	788.900	219.700	797.700	225.000
GR	798.300	250.000	798.800	275.000	799.300	300.000	801.500	400.000	0.000	0.000
SB	0.000	1.580	2.900	0.000	40.000	0.000	196.000	0.000	785.600	785.600
	U/S FACE OF PLATT ROAD									
X1	9701.000	0.000	0.000	0.000	151.000	151.000	151.000	0 000	0.000	0.000
X2	0.000	0.000	1.000	793.300	796.500	0.000	0.000	0.000	0.000	0.000
BT	44.000	0.000	796.900	0.000	100.000	796.500	0.000	125.000	796.600	0.000
BT	150.000	796.900	0.000	175.000	797.100	0.000	178.000	797.500	0.000	180.000
BT	797.500	789.000	181.000	797.500	791.500	182.000	797.500	792.000	183.000	797.500
BT	792.200	184.000	797.500	792.300	185.250	797.500	792.400	187.000	797.500	792.300
BT	188.000	797.500	792.100	189.000	797.500	791.700	190.000	797.500	790.800	190.500
BT	797.500	789.000	191.800	797.500	789.400	193.000	797.500	792.300	194.000	797.500
BT	792.700	195.000	797.500	792.900	196.000	797.500	793.000	197.800	797.500	793.300
BT	200.000	797.500	793.000	201.000	797.500	792.800	202.000	797.500	792.400	203.000
BT	797.500	791.700	203.800	797.500	789.400	209.200	797.500	788.900	210.000	797.500

BT	790.800	211.000	797.500	791.500	212.000	797.500	792.000	213.000	797.500	792.300
BT	214.450	797.500	792.300	216.000	797.500	792.200	217.000	797.500	792.000	218.000
BT	797.500	791.500	219.000	797.500	790.800	219.700	797 500	788.900	225.000	797.700
BT	0.000	250.000	798.300	0.000	275.000	798.800	0.000	300.000	799.300	0.000
BT	400.000	801.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.035	0.500	1.000	0.000	0.000	0.000	0.000	0.000
QT	2.000	1500.000	1500.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9801.000	13.000	66.000	170.000	100.000	100.000	100.000	0.000	0.000	0.000
GR	796.200	0.000	793.800	16.000	794.000	41.000	794.500	66.000	784.000	106.000
GR	783.500	111.000	783.900	116.000	784.100	121.000	783.800	126.000	783.900	129.000
GR	798.700	170 000	799.500	195.000	799.600	221.000	0.000	0.000	0.000	0.000
	CROSS SECTION E									
X1	11200.000	9 000	0.000	62.000	1399.000	1399.000	1399.000	0.000	0.000	0.000
GR	797.400	0.000	788.800	16.000	787.700	20.000	787.600	25.000	787.400	30.000
GR	787.500	35.000	787 400	39.000	788.700	43.000	799.300	62.000	0.000	0.000
ET	0.000	0 000	4.100	225.000	284.000	0.000	0.000	0.000	0.000	0.000
X1	12000.000	17.000	225.000	284.000	800.000	800.000	800.000	0.000	0.000	0.000
GR	802.100	0.000	801.700	100.000	801.000	125.000	800.700	150.000	800.100	175.000
GR	799.800	196.000	795.300	216.000	794.400	225.000	791.900	231.000	790.700	235.000
GR	790.800	240.000	790.700	245.000	790.900	250.000	791.900	255.000	799.700	284.000
GR	800.300	325.000	800.500	375.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.013	0.500	1.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	1.400	0 000	0.000	0.000	0.000	0.000	0.000	0.000
	D/S FACE OF PACKARD ROAD									
X1	12100.000	51.000	274.000	326.000	100.000	100.000	100.000	0.000	0.000	0.000
GR	803.300	0.000	802.300	100.000	801.900	200.000	801.800	225.000	801.900	250.000
GR	802.300	274.000	795.000	275.700	793.500	276.000	792.500	277.000	792.200	278.000
GR	792.000	279.000	791.800	280.000	791.700	281.000	791.800	282.000	792.000	283.000
GR	792.200	284.000	792.500	285.000	793.600	286.000	795.000	286.300	795.000	290.700
GR	793.500	291.000	792.500	292.000	792.200	293.000	792.000	294.000	791.800	295.000
GR	791.700	296.000	791.800	297.000	792.000	298.000	792.200	299.000	792.500	300.000
GR	793.600	301.000	795.000	301.300	795.200	311.700	793.700	312.000	792.700	313.000
GR	792.400	314.000	792.200	315.000	792.000	316.000	791.900	317.000	792.000	318.000
GR	792.200	319.000	792.400	320.000	792.700	321.000	793.800	322.000	795.200	322.300
GR	803.300	326.000	803.900	351.000	804.600	376.000	805.400	401.000	806.300	426.000
GR	807.800	451.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	1.570	2.900	0.000	47.000	15 000	180.000	0.000	791.700	791.700
	U/S FACE OF PACKARD ROAD									
X1	12262.000	0.000	0.000	0.000	162.000	162.000	162.000	0.000	0.000	0.000
X2	0.000	0.000	1 000	791.700	801.800	0.000	0.000	0.000	0.000	0.000
BT	50.000	0.000	803.300	0.000	100.000	802.300	0.000	200.000	801.900	0.000
BT	225.000	801.800	0.000	250.000	801.900	0.000	274.000	802.300	0.000	275.700
BT	803.000	795.000	276.000	803.000	796.500	277.000	803.000	797.700	278.000	803.000
BT	798.100	279.000	803.000	798.200	280.000	803.000	798.300	281.000	803.000	798.400
BT	282.000	803.000	798.300	283.000	803.000	798.200	284.000	803.000	798.100	285.000
BT	803.000	797.700	286.000	803.000	796 500	286.300	803.000	795.000	290.700	803.000
BT	795.000	291.000	803.000	796.500	292.000	803.000	797.700	293.000	803.000	798.100
BT	294.000	803.000	798 200	295.000	803.000	798.300	296.000	803.000	798.400	297.000
BT	803.000	798.300	298.000	803.000	798.200	299.000	803.000	798.100	300.000	803.000

BT	797.700	301.000	803.000	796.500	301.300	803.000	795.000	311.700	803.000	795.200
BT	312.000	803.000	796.700	313.000	803.000	797.900	314.000	803.000	798.300	315.000
BT	803.000	798.400	316.000	803.000	798.500	317.000	803.000	798.600	318.000	803.000
BT	798.400	320.000	803.000	798.300	321.000	803.000	797.900	322.000	803.000	796.700
BT	322.300	803.000	795.200	326.000	803.300	0.000	351.000	803.900	0.000	376.000
BT	804.600	0.000	401.000	805.400	0.000	426.000	806.300	0.000	451.000	807.800
BT	0.000	0 000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.035	0.100	0.300	0.000	0.000	0.000	0.000	0.000
	CROSS SECTION F									
X1	12362.000	17.000	225 000	284.000	100.000	100.000	100.000	0.000	0.000	0.000
GR	802.100	0.000	801.700	100.000	801.000	125.000	800.700	150.000	800.100	175.000
GR	799.800	196.000	795.300	216.000	794.400	225.000	791.900	231.000	790.700	235.000
GR	790.800	240.000	790.700	245.000	790.900	250.000	791.900	255.000	799.700	284.000
GR	800.300	325.000	800.500	375.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	12862.000	0.000	0.000	0.000	500.000	500.000	500.000	0.000	1.000	0.000
X1	13362.000	0.000	0.000	0.000	500.000	500.000	500.000	0.000	1.000	0.000
NC	0.050	0.050	0.045	0.500	1.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	6.100	24.000	94.000	24.000	94.000	0.000	0.000	0.000
	SECTION FROM RETENTION BASIN PLANS									
X1	14050.000	20.000	15 000	104.000	688.000	688.000	688.000	0.000	0.000	0.000
GR	804.000	0.000	803.000	8.000	802.000	15.000	801.000	19.000	800.000	23.000
GR	799.000	27.000	798.000	31.000	797.000	36.000	796.000	39.000	795.000	42.000
GR	794.000	44.000	794.000	63.000	795.000	66.000	796.000	69.000	797.000	78.000
GR	798.000	86.000	799.000	94.000	800.000	96 000	801.000	100.000	802.000	104.000
ET	0.000	4.100	6.100	33.000	84.000	33.000	84.000	0.000	0.000	0.000
X1	14085.000	0.000	0.000	0.000	35.000	35.000	35.000	0.000	1.200	0.000
NC	0.000	0.000	0.013	0.500	1.000	0.000	0.000	0.000	0.000	0.000
X1	14099.000	29.000	0.000	92.000	14.000	14.000	14.000	0.000	0.000	0.000
GR	808.700	0.000	799.500	31.250	797.200	32.000	796.300	33.000	795.800	34.000
GR	795.700	35.000	795.800	36.000	796.300	37.000	797.200	38.000	799.500	38.750
GR	799.700	42.250	797.300	43.000	796.400	44.000	796.000	45.000	795.800	46.000
GR	796.000	47.000	796.400	48.000	797.500	49.000	799.700	49.750	799.800	53.250
GR	797.500	54.000	796.600	55.000	796.100	56.000	795.900	57.000	796.100	58.000
GR	796.500	59.000	797.500	60.000	799.800	60.750	808.900	92.000	0.000	0.000
	D/S FACE OF DAM AT GATE OF RETENTION POND #1									
X1	14100.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	29.000	0.000	808.700	0.000	31.250	808.700	799.500	32.000	808.700	801.700
BT	33.000	808.700	802.700	34.000	808.700	803.100	35.000	808.700	803.200	36.000
BT	808.700	803.100	37.000	808.700	802.700	38.000	808.700	801.700	38.750	808.700
BT	799.500	42.250	808.800	799.700	43.000	808.800	801.900	44.000	808.800	802.700
BT	45.000	808.800	803.200	46.000	808.800	803.300	47.000	808.800	803.200	48.000
BT	808.800	802.700	49.000	808.800	801.600	49.750	808.800	799.700	53.250	808.800
BT	799.800	54.000	808.800	801.800	55.000	808.800	802.700	56.000	808.800	803.300
BT	57.000	808.800	803.400	58.000	808.800	803.300	59.000	808.800	802.700	60.000
BT	808.900	801.800	60.750	808.900	799.800	92.000	808.900	0.000	0.000	0.000

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X1   14158.000     39.000      0.000     92.000     58.000     58.000     58.000      0.000      0.000      0.000
BT      31.000      0.000    808.700      0.000     31.240    808.700    795.700     31.250    808.700    799.500
BT      32.000    808.700    801.700     33.000    808.700    802.700     34.000    808.700    803.100     35.000
BT     808.700    803.200     36.000    808.700    803.100     37.000    808.700    802.700     38.000    808.700
BT     801.700     38.750    808.700    799.500     42.250    808.700    799.700     43.000    808.800    801.900
BT      44.000    808.800    802.700     45.000    808.800    803.200     46.000    808.800    803.300     47.000
BT     808.800    803.200     48.000    808.800    802.700     49.000    808.800    801.600     49.750    808.800
BT     799.700     53.250    808.800    799.800     54.000    808.800    801.800     55.000    808.800    802.700
BT      56.000    808.800    803.300     57.000    808.800    803.400     58.000    808.800    803.300     59.000
BT     808.800    802.700     60.000    808.900    801.800     60.740    808.900    799.800     60.750    808.900
BT     795.900     92.000    808.900      0.000      0.000      0.000      0.000      0.000      0.000      0.000
GR     808.700      0.000    796.100     25.000    801.100     25.000    801.100     26.000    796.100     26.000
GR     795.700     31.240    799.500     31.250    797.200     32.000    796.300     33.000    795.800     34.000
GR     795.700     35.000    795.800     36.000    796.300     37.000    797.200     38.000    799.500     38.750
GR     799.700     42.250    797.300     43.000    796.400     44.000    796.000     45.000    795.800     46.000
GR     796.000     47.000    796.400     48.000    797.500     49.000    799.700     49.750    799.800     53.250
GR     797.500     54.000    796.500     55.000    796.100     56.000    795.900     57.000    796.100     58.000
GR     796.500     59.000    797.500     60.000    799.800     60.740    795.900     60.750    796.100     66.000
GR     801.100     66.000    801.100     67.000    796.100     67.000    808.900     92.000      0.000      0.000

ET       0.000      4.100      6.100     10.000     81.000     10.000     81.000      0.000      0.000      0.000
X1   14159.000      0.000      0.000      0.000      1.000      1.000      1.000      0.000      0.000      0.000

ET       0.000      4.100      6.100     11.000    101.000     11.000    101.000      0.000      0.000      0.000
X1   14169.000      6.000      0.000    112.000     10.000     10.000     10.000      0.000      0.000      0.000
GR     808.700      0.000    796.100     25.000    801.100     25.100    801.100     87.000    796.100     87.100
GR     808.900    112.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
          D/S END OF RETENTION BASIN NO. 1
X1   14179.000     18.000      0.000     90.000     10.000     10.000     10.000      0.000      0.000      0.000
GR     807.000      0.000    806.000      4.000    805.000     10.000    804.000     14.000    803.000     19.000
GR     802.000     24.000    801.000     30.000    800.000     36.000    799.000     38.000    799.000     58.000
GR     800.000     62.000    801.000     64.000    802.000     66.000    803.000     70.000    804.000     73.000
GR     805.000     76.000    806.000     82.000    807.000     90.000      0.000      0.000      0.000      0.000

NC       0.050      0.050      0.028      0.100      0.300      0.000      0.000      0.000      0.000      0.000
          U/S END OF RETENTION BASIN NO. 1
X1   14900.000      0.000      0.000      0.000    721.000    721.000    721.000      0.000      0.000      0.000

          CROSS SECTION G
X1   14950.000      9.000    376.000    494.000     50.000     50.000     50.000      0.000      0.000      0.000
GR     809.800    376.000    807.200    386.000    803.800    400.000    800.000    417.000    800.000    442.000
GR     804.200    453.000    807.000    472.000    808.700    482.000    810.600    494.000      0.000      0.000

GT       2.000    490.000    490.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
          CROSS SECTION H
X1   15750.000     10.000    554.000    642.000    800.000    800.000    800.000      0.000      0.000      0.000
GR     808.200    554.000    804.800    566.000    800.800    582.000    800.800    600.000    802.600    606.000
GR     805.200    616.000    806.500    624.000    809.200    630.000    812.000    638.000    813.000    642.000
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NC	0.000	0.000	0.000	0.500	1.000	0.000	0.000	0.000	0.000	0.000
X1	16450.000	12.000	100.000	163.000	700.000	700.000	700.000	0.000	-1.300	0.000
GR	817.900	0.000	815.300	25.000	813.200	50.000	812.400	75.000	811.000	100.000
GR	806.000	128.000	805.700	135.000	806.300	146.000	811.300	163.000	811.900	175.000
GR	812.300	200 000	813.300	225.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0 000	0.000	0.500	1.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	6.100	117.000	148.000	117.000	148.000	0.000	0.000	0.000
X1	16480.000	0.000	0.000	0.000	30.000	30.000	30.000	0.000	0.200	0.000
ET	0.000	4.100	6.100	120.000	146.000	120.000	146.000	0.000	0.000	0.000
X1	16490.000	0.000	0.000	0.000	10.000	10.000	10.000	0.000	0.000	0.000
X1	16499 000	19.000	175.000	225.000	9.000	9.000	9.000	0.000	0.000	0.000
GR	818.000	0.000	816.400	50.000	815.300	100.000	815.000	150 000	815.200	175.000
GR	806.600	193.500	805.600	194.000	805.100	195.000	804.800	197.000	804.700	200.000
GR	804.800	203.000	805.100	205.000	805.600	206.000	806.600	206.500	815.500	225.000
GR	815.800	250.000	816.500	300.000	817.100	350.000	817.700	400.000	0.000	0.000
NC	0.000	0 000	0.000	0.500	1.000	0.000	0.000	0.000	0.000	0.000
	D/S FACE OF BIRCH HOLLOW ROAD									
X1	16500.000	0 000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	19.000	0 000	818.000	0.000	50.000	816.400	0.000	100.000	815.300	0.000
BT	150.000	815.000	0.000	175.000	815.200	0.000	193.500	815.300	806.600	194.000
BT	815.300	808.800	195.000	815.300	810.300	197.000	815.300	812.100	200.000	815.300
BT	812 900	203.000	815.300	812.100	205.000	815.300	810.300	206.000	815.300	808.800
BT	206.500	815.300	806.600	225.000	815.500	0.000	250.000	815.800	0.000	300.000
BT	816.500	0.000	350.000	817.100	0.000	400.000	817.700	0.000	0.000	0.000
	U/S FACE OF BIRCH HOLLOW ROAD									
X1	16572.000	0.000	0.000	0 000	72.000	72.000	72.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
NC	0.000	0.000	0.035	0.500	1.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	4 100	6.100	184.000	216.000	184.000	216.000	0.000	0.000	0.000
X1	16573.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	-1.000	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
X1	16621.000	12.000	100 000	163.000	49.000	49.000	49.000	0.000	0.000	0.000
GR	817.900	0.000	815.300	25.000	813.200	50.000	812.400	75.000	811.000	100.000
GR	806.000	128.000	805.700	135.000	806.300	146.000	811.300	163.000	811.900	175.000
GR	812.300	200 000	813.300	225.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	16822.000	0.000	0.000	0.000	201.000	201.000	201.000	0.000	0.000	0.000
NC	0.000	0.000	0.028	0.300	0 500	0.000	0 000	0.000	0.000	0.000
ET	0.000	0.000	4.100	70.000	102.000	0.000	0.000	0.000	0.000	0.000
	D/S FACE OF PRIVATE BRIDGE BEHIND APT COMPLEX									
X1	16872.000	14.000	70.000	102.000	50.000	50.000	50.000	0.000	0.000	0.000
GR	816.500	0.000	814.500	25.000	813.000	50.000	807.300	70.000	807.300	70.100
GR	807 000	75.000	805.300	88.000	804.700	92.000	805.300	96.000	806.800	102.000
GR	806.800	102.100	811.800	133.000	811.500	170.000	815.600	270.000	0.000	0.000

SB	0.000	1.550	2.800	0.000	32.000	0.000	195.000	0.000	806.800	806.800
ET	0.000	0.000	1.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	U/S FACE OF PRIVATE BRIDGE BEHIND APT. COMPLEX									
X1	16880.000	0.000	0.000	0.000	8 000	8.000	8.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	812.900	814.800	0.000	0.000	0.000	0.000	0.000
BT	10.000	0.000	816.500	0.000	25 000	814.500	0.000	50.000	813.000	0.000
BT	70.000	814 800	807.300	70.100	814.800	812.900	102.000	814.800	812.900	102.100
BT	814.800	806.800	133.000	811.800	0.000	170.000	811.500	0.000	270.000	815.600
BT	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	4 100	0.000	74.000	189.000	0.000	0.000	0.000	0.000	0.000
X1	16916.000	12.000	100.000	163.000	36.000	36.000	36.000	0.000	-1.000	0.000
GR	817 900	0 000	815.300	25.000	813.200	50.000	812.400	75.000	811.000	100.000
GR	806.000	128.000	805.700	135.000	806.300	146.000	811.300	163.000	811.900	175.000
GR	812.300	200.000	813.300	225.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	6.100	93.000	200.000	125.000	157.000	0.000	0.000	0.000
	D/S FACE OF PRIVATE BRIDGE BEHIND APT. COMPLEX									
X1	16952.000	15.000	125.000	157.000	36.000	36.000	36.000	0.000	0.000	0.000
GR	819.000	0 000	818.000	25.000	815.600	50.000	813.700	72.000	812.400	104.000
GR	807.100	125.000	807.100	125.100	806.900	133.000	804.800	139.000	805.600	145.000
GR	806.800	157 000	806.800	157.100	811.800	185.000	811.800	235.000	812.800	285.000
SB	0.000	1.550	2.800	0.000	32.000	0.000	196.000	0.000	806.800	806.800
ET	0 000	4.100	1 400	83.000	199 000	0.000	0.000	0.000	0.000	0.000
	U/S FACE OF PRIVATE BRIDGE BEHIND APT COMPLEX									
X1	16960.000	0.000	0.000	0.000	8.000	8.000	8.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	813.000	814.700	0.000	0.000	0.000	0.000	0.000
BT	12.000	0.000	819.000	0.000	25.000	818.000	0.000	50.000	815.600	0.000
BT	72.000	813.700	0 000	104.000	812.400	0.000	125.000	814.800	807.100	125.100
BT	814.800	813.000	157.000	814.700	812.900	157.100	814.700	806.800	185.000	811.800
BT	0.000	235.000	811.800	0.000	285.000	812.800	0.000	0.000	0.000	0.000
NC	0.000	0 000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	0.000	84.000	180 000	0.000	0.000	0.000	0.000	0.000
	CROSS SECTION I									
X1	17000.000	12 000	100.000	163.000	40.000	40.000	40.000	0.000	0.000	0.000
GR	817.900	0.000	815.300	25.000	813.200	50.000	812.400	75.000	811.000	100.000
GR	806.000	128.000	805.700	135.000	806.300	146.000	811.300	163.000	811.900	175.000
GR	812.300	200.000	813.300	225.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.060	0.060	0.045	0.300	0.500	0.000	0.000	0.000	0.000	0.000
	D/S FACE OF I-94									
X1	17155.000	15.000	190.000	250.000	155.000	155.000	155.000	0.000	0.000	0.000
GR	819.000	0.000	819.000	50.000	819.100	100.000	819.200	150.000	819.300	190.000
GR	812.500	200.000	812.500	200.100	806.600	203.000	806.500	211.000	806.500	219.000
GR	812.500	219.100	819.300	250.000	819.400	300.000	819.600	350.000	820.000	400.000

SB	0.000	1.700	3.200	0.000	16.000	0.000	123.000	0.000	806.500	806.500
	U/S FACE OF I-94									
X1	17286.000	0.000	0.000	0.000	131.000	131.000	131.000	0.000	0.000	0.000
X2	0.000	0 000	1.000	813.900	819.000	0.000	0.000	0.000	0.000	0.000
BT	13.000	0.000	819.000	0.000	50.000	819.000	0.000	100.000	819.100	0.000
BT	150.000	819 200	0.000	190.000	819.300	0.000	200.000	819.300	812.500	200.100
BT	819.300	813.900	219.000	819.300	813.500	219.100	819.300	812.500	250.000	819.300
BT	0.000	300.000	819.400	0.000	350.000	819.600	0.000	400.000	820.000	0.000
NC	0.000	0.000	0 000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
X1	17436.000	12.000	100.000	163.000	150.000	150.000	150.000	0.000	0.000	0.000
GR	818.900	0 000	816.300	25.000	814.200	50.000	813.400	75.000	813.000	100.000
GR	808.000	128.000	807.500	135 000	808.300	146.000	812.300	163.000	812.900	175.000
GR	814.300	200.000	816.300	225.000	0 000	0.000	0.000	0.000	0.000	0.000
X1	17650.000	0.000	0.000	0.000	214.000	214.000	214.000	0.000	1.400	0.000
NC	0.000	0.000	0.000	0.500	1.000	0.000	0.000	0.000	0.000	0.000
X1	17680.000	0.000	0.000	0.000	30.000	30.000	30.000	0.000	0.200	0.000
X1	17700.000	0.000	0.000	0.000	20.000	20.000	20.000	0.000	0.200	0.000
ET	0.000	4.100	0.000	76.000	180.000	0.000	0.000	0.000	0.000	0.000
X1	17735.000	29.000	150.000	180 000	35.000	35.000	35.000	0.000	0.000	0.000
GR	816.200	0.000	816.000	50.000	816.100	100.000	816.700	125.000	817.300	150.000
GR	813.500	152.000	811.300	153.000	810.700	154.000	810.500	155.000	810.700	156.000
GR	811.300	157.000	813.500	158.000	809.500	161 000	809.500	164.990	814.000	165.000
GR	814.000	165.100	814.000	166.500	809.500	166.500	809.600	173.500	814.100	173.500
GR	814.100	174.990	814.100	175.000	809.600	175.100	816.100	180.000	816.300	200.000
GR	816.700	225.000	817.600	250.000	818.400	300.000	820.100	350.000	0.000	0.000
NC	0.000	0.000	0.013	0.500	1.000	0.000	0.000	0.000	0.000	0.000
	D/S FACE OF BRIDGE AT DEAD END ROAD									
X1	17736.000	0 000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	27.000	0.000	816.200	0.000	50.000	816.000	0.000	100.000	816.100	0.000
BT	125 000	816 700	0 000	150.000	817.300	0.000	152.000	817.300	813.500	153.000
BT	817.300	815.700	154.000	817.400	816.300	155.000	817.400	816.500	156.000	817.400
BT	816.300	157.000	817.400	815.700	158.000	817.500	813.500	161.000	817.500	809.500
BT	164.990	817 500	809.500	165.000	817.500	814.000	165.100	817.500	815.700	166.500
BT	817.600	815.700	173.500	817.600	815.700	174.990	817.600	815.700	175.000	817.600
BT	814.100	175.100	817.600	809.600	180.000	816.100	0.000	200.000	816.300	0.000
BT	225.000	816.700	0.000	250.000	817.600	0.000	300.000	818.400	0.000	350.000
BT	820.100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	U/S FACE OF BRIDGE AT DEAD END ROAD									
X1	17769.000	0.000	0.000	0.000	33.000	33.000	33.000	0.000	0.000	0.000
X2	0 000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000

NC	0.000	0.000	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	0.000	150.000	180.000	0.000	0.000	0.000	0.000	0.000
X1	17770.000	0.000	0.000	0.000	1.000	1.000	1 000	0.000	0.000	0.000
ET	0.000	4.100	6.100	116.000	147.000	116.000	147.000	0.000	0.000	0.000
X1	17819.000	12.000	100.000	163 000	49.000	49.000	49.000	0.000	0.000	0.000
GR	818.900	0.000	816.300	25.000	814.200	50.000	813.400	75.000	813.000	100.000
GR	810.000	128.000	809.600	135 000	810.300	146.000	813.300	163.000	813.900	175.000
GR	816.300	200.000	817.300	225.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.070	0.070	0.045	0.300	0.500	0.000	0.000	0.000	0.000	0.000
	D/S FACE OF STONE SCHOOL ROAD									
X1	17869.000	16.000	65.000	81.000	50.000	50.000	50 000	0.000	0.000	0.000
GR	828.400	0.000	827.400	15.000	825.600	40.000	824.000	65.000	808.900	66.000
GR	808.900	66.100	810.700	79 900	810.700	80.000	822.800	81.000	822.900	90.000
GR	821.600	115.000	820.300	140.000	819.600	165.000	819.300	190.000	819.100	215.000
GR	819.000	265.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	1.500	2.600	0.000	14.000	0.000	58.000	0.000	808.900	808.900
	U/S FACE OF STONE SCHOOL ROAD									
X1	17942.000	0.000	0.000	0.000	73.000	73.000	73.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	813.100	824.000	0.000	0.000	0.000	0.000	0.000
BT	16.000	0.000	828.400	0.000	15.000	827.400	0.000	40.000	825.600	0.000
BT	65.000	824 000	0.000	66.000	824.000	808 900	66.100	824.000	813.100	79.900
BT	824 000	813.100	80.000	824.000	810.700	81.000	822.800	0.000	90.000	822.900
BT	0.000	115.000	821.600	0.000	140.000	820.300	0.000	165.000	819.600	0.000
BT	190 000	819.300	0.000	215.000	819.100	0.000	265.000	819.000	0.000	0.000

NC	0.070	0.070	0.045	0.100	0.300	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	6 100	67.000	182.000	90.000	180.000	0.000	0.000	0.000
X1	17992.000	12.000	100.000	163.000	50.000	50.000	50.000	0.000	0.000	0.000
GR	818.900	0.000	816.300	25.000	814.200	50.000	813.400	75.000	813.000	100.000
GR	810.000	128.000	809.600	135.000	810.300	146.000	813.300	163.000	813.900	175.000
GR	816.300	200.000	817.300	225.000	0 000	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	1.400	52.000	117.000	0.000	0.000	0.000	0.000	0.000
X1	18270.000	11.000	67.000	101.000	278.000	278.000	278.000	0.000	0.000	0.000
GR	820.200	0.000	820.400	8.000	817.200	67.000	809.900	81.000	809.700	86.000
GR	810.200	91.000	815.700	101.000	815.800	117.000	816.600	142.000	817.100	160.000
GR	816.800	180.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	4 100	0.000	69.000	139.000	0.000	0.000	0.000	0.000	0.000
X1	18319.000	23 000	85.000	123.000	49.000	49.000	49.000	0.000	0.000	0.000
GR	818.600	0.000	818.500	25.000	818.600	50.000	818.700	75.000	817.400	85.000
GR	811 500	93.700	809.800	94.000	808.500	95.000	808.000	96.000	807.900	97.000
GR	807.800	100.000	807.900	103.000	808.000	104.000	808.500	105.000	809.800	106.000
GR	811 500	106.300	817.600	123.000	818.100	125.000	818.000	150.000	818.000	175.000
GR	818.100	200.000	818.300	225.000	818.600	250.000	0.000	0.000	0.000	0.000

NC	0.000	0.000	0.013	0.500	1.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	0.000	69.000	139.000	0.000	0.000	0.000	0.000	0.000
	D/S FACE OF PLEASANT RUN									
X1	18320.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	23.000	0.000	818.600	0.000	25.000	818.500	0.000	50.000	818.600	0.000
BT	75.000	818.700	0.000	85.000	818.400	817.400	93.700	818.400	811.500	94.000
BT	818.400	812.100	95.000	818.400	813.500	96.000	818.400	814.300	97.000	818.400
BT	814.700	100.000	818.400	815.200	103.000	818.400	814.700	104.000	818.400	814.300
BT	105.000	818.400	813.500	106.000	818.400	812.100	106.300	818.400	811.500	123.000
BT	818.400	817.600	125.000	818.100	0.000	150.000	818.000	0.000	175.000	818.000
BT	0.000	200.000	818.100	0.000	225.000	818.300	0.000	250.000	818.600	0.000
ET	0.000	4.100	0.000	83.000	126.000	0.000	0.000	0.000	0.000	0.000
	U/S FACE OF PLEASANT RUN									
X1	18373.000	0.000	0.000	0.000	53.000	53.000	53.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
NC	0.000	0.000	0.045	0.100	0.300	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	0.000	87.000	130.000	0.000	0.000	0.000	0.000	0.000
X1	18374.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
ET	0.000	0.000	4.100	67.000	110.000	0.000	0.000	0.000	0.000	0.000
X1	18422.000	11.000	67.000	101.000	49.000	49.000	49.000	0.000	0.000	0.000
GR	820.200	0.000	820.400	8.000	817.200	67.000	809.900	81.000	809.700	86.000
GR	810.200	91.000	815.700	101.000	815.800	117.000	816.600	142.000	817.100	160.000
GR	816.800	180.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	1.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	CROSS SECTION J									
X1	18800.000	0.000	0.000	0.000	378.000	378.000	378.000	0.000	0.000	0.000
ET	0.000	0.000	1.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	19160.000	0.000	0.000	0.000	360.000	360.000	360.000	0.000	0.000	0.000
ET	0.000	4.100	6.100	10.000	210.000	25.000	210.000	0.000	0.000	0.000
X1	19209.000	27.000	129.000	165.000	49.000	49.000	49.000	0.000	0.000	0.000
GR	816.600	0.000	817.300	25.000	817.400	50.000	816.900	75.000	816.700	100.000
GR	819.600	125.000	819.400	129.000	813.100	143.700	811.800	144.000	810.500	145.000
GR	809.800	146.000	809.600	147.000	809.500	148.000	809.400	150.000	809.500	152.000
GR	809.600	153.000	809.800	154.000	810.500	155.000	811.800	156.000	813.100	156.300
GR	817.300	165.000	817.600	175.000	816.800	200.000	816.900	225.000	817.100	250.000
GR	817.100	275.000	816.800	300.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.040	0.040	0.013	0.300	0.500	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	6.100	10.000	210.000	25.000	210.000	0.000	0.000	0.000
	D/S FACE OF PARTRIDGE PATH ROAD									
X1	19210.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	27.000	0.000	816.600	0.000	25.000	817.300	0.000	50.000	817.400	0.000
BT	75.000	816.900	0.000	100.000	816.700	0.000	125.000	819.600	0.000	129.000
BT	819.400	0.000	143.700	819.000	813.100	144.000	819.000	814.700	145.000	818.900
BT	815.800	146.000	818.900	816.300	147.000	818.800	816.600	148.000	818.800	816.700
BT	150.000	818.700	816.800	152.000	818.600	816.700	153.000	818.600	816.600	154.000
BT	818.500	816.300	155.000	818.500	815.800	156.000	818.500	814.700	156.300	818.400

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BT     813.100     165.000     817.300       0.000     175 000     817.600       0.000     200.000     816.800       0.000
BT     225.000     816.900       0.000     250.000     817.100       0.000     275.000     817.100       0.000     300.000
BT     816 800       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000

ET       0.000       4.100       6.100      30.000     203.000      78.000     203.000       0.000       0.000       0.000
           U/S FACE  OF PARTRIDGE PATH ROAD
X1   19262.000       0.000       0.000       0.000      52.000      52.000      52.000       0.000       0.000       0.000

NC       0.000       0 000       0 035       0.100       0.300       0.000       0.000       0.000       0.000       0.000
ET       0.000       4.100       6.100      30.000     203 000      68.000     203.000       0.000       0.000       0.000
X1   19263.000       0.000       0.000       0.000       1.000       1.000       1.000       0.000       0.000       0.000

ET       0.000       0.000       1.400       0.000       0.000       0.000       0.000       0.000       0.000       0.000
X1   19312.000      11.000      67.000     101.000      49.000      49.000      49 000       0.000       0.000       0.000
GR     820.200       0 000     820.400       8.000     817.200      67.000     809.900      81.000     809.700      86.000
GR     810.200      91 000     815.700     101.000     815.800     117.000     816.600     142.000     817.100     160.000
GR     816.800     180.000       0.000       0 000       0.000       0.000       0.000       0.000       0.000       0.000

X1   19500.000       0 000       0.000       0.000     188 000     188.000     188.000       0.000       0.000       0.000

ET       0 000       4.100       6.100       0.000     215.000      41.000     215.000       0.000       0.000       0.000
X1   19549.000      19.000     175.000     187.000      49.000      49.000      49.000       0.000       0.000       0.000
GR     818.200       0.000     818.000      25.000     815.800      75.000     817.000     100.000     817.400     125.000
GR     817.300     150.000     817.600     175.000     809.400     176.000     809.400     176.100     809.400     185.900
GR     809.400     186.000     817.400     187.000     817.000     200.000     817.600     225.000     817.500     250.000
GR     815.800     275.000     815.500     300.000     816.000     325.000     817.900     350.000       0.000       0.000

QT       2.000     140.000     140.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000
NC       0 000       0.000       0.013       0.300       0.500       0.000       0.000       0.000       0.000       0.000
ET       0.000       4 100       6.100       0.000     215.000      41.000     215.000       0.000       0.000       0.000
           D/S FACE OF DAM AT GATE OF RETENTION POND #2
X1   19550.000       0.000       0.000       0.000       1.000       1.000       1.000       0.000       0.000       0.000
BT      19.000       0.000     818 200       0.000      25.000     818.000       0.000      75.000     815.800       0.000
BT     100.000     817.000       0.000     125.000     817.400       0.000     150.000     817.300       0.000     175.000
BT     817.600       0.000     176.000     817.600     809.400     176.100     817.600     816.600     185.900     817.600
BT     816.600     186.000     817.600     809.400     187.000     817.400       0.000     200.000     817.000       0.000
BT     225.000     817.600       0.000     250.000     817.500       0.000     275.000     815.800       0.000     300.000
BT     815.500       0.000     325.000     816.000       0.000     350.000     817.900       0.000       0.000       0.000

ET       0.000       4.100       6.100       0.000     209.000      34.000     209.000       0.000       0.000       0.000
           U/S FACE OF DAM AT GAGE OF RETENTION POND #2
X1   19562.000       0.000       0.000       0.000      12.000      12.000      12.000       0.000       0.000       0.000
X2       0.000       0.000       0.000       0.000       0.000       0.000       1.000       0.000       0.000       0.000

NC       0.000       0.000       0.035       0.100       0.300       0 000       0.000       0.000       0.000       0.000
ET       0.000       4.100       6.100       0.000     209.000      41.000     209.000       0.000       0.000       0.000
X1   19563.000      17.000     175.000     187.000       1.000       1.000       1.000       0.000       0.000       0.000
GR     818.200       0.000     818.000      25.000     815.800      75.000     817.000     100.000     817.400     125.000
GR     817.300     150.000     811.400     175.000     809.400     176 000     809.400     186.000     811.400     187.000
GR     817.000     200.000     817.600     225.000     817.500     250.000     815.800     275.000     815.500     300.000
GR     816.000     325.000     817.900     350.000       0.000       0.000       0.000       0.000       0.000       0.000
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ET	0.000	4.100	6.100	0.000	200.000	72.000	200.000	0.000	0.000	0.000
X1	19581.000	15.000	175.000	187.000	18.000	18.000	18.000	0.000	0.000	0.000
GR	818.200	0.000	818.000	25.000	815.800	75.000	817.000	100.000	817.400	125.000
GR	817.300	150.000	811.400	175.000	811.400	187.000	817.000	200.000	817.600	225.000
GR	817.500	250.000	815.800	275.000	815.500	300.000	816 000	325.000	817.900	350.000
ET	0.000	0.000	1.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	19900.000	10.000	14.000	20.000	319.000	319.000	319 000	0.000	0.000	0.000
GR	815.000	0.000	814.000	4.000	813.000	11.000	812.000	14.000	810.000	15.000
GR	810.000	19.000	812.000	20.000	813.000	26.000	814.600	32.000	815.000	40.000
NC	0.035	0.035	0.045	0.100	0.300	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	0.000	21.000	115.000	0.000	0.000	0.000	0.000	0.000
	CROSS SECTION K									
X1	20650.000	20.000	36.000	101 000	750.000	750.000	750.000	0.000	0.000	0.000
GR	818.700	0.000	817.900	11 000	818 300	36.000	812.700	52.000	812.700	61.000
GR	812.500	70.000	816.900	86.000	818.400	101.000	816.300	112.000	818.300	122.000
GR	818.700	136.000	819.300	161.000	820.700	186.000	821.600	211.000	822.300	236.000
GR	822.800	261.000	822.800	286.000	822.600	311.000	822.600	336.000	822.500	361.000
X1	20799 000	34.000	245.000	265.000	149.000	149.000	149.000	0.000	0.000	0.000
GR	820.600	0.000	820.600	25.000	820.400	50.000	820.300	75.000	820.200	100.000
GR	820.100	125.000	820.000	150.000	819.900	175.000	819.700	200.000	819.600	225.000
GR	819.400	245.000	814.800	247 200	813 800	247.400	813.300	248.000	813.100	249.000
GR	813.000	250.000	813.100	251.000	813.300	252.000	813.800	252.600	814.800	252.800
GR	814.900	254.200	813.900	254.400	813.400	255.000	813.200	256.000	813.100	257.000
GR	813.200	258.000	813.400	259.000	813.900	259.600	814.900	259.800	819.400	265.000
GR	819.400	275.000	819.300	300.000	819.400	325.000	819.500	350.000	0.000	0.000
NC	0.035	0.035	0.013	0.300	0.500	0.000	0.000	0.000	0.000	0.000
	D/S FACE OF ELLSWORTH									
X1	20800.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	34.000	0.000	820 600	0.000	25.000	820.600	0.000	50.000	820.400	0.000
BT	75.000	820.300	0.000	100.000	820.200	0.000	125.000	820.100	0.000	150.000
BT	820.000	0.000	175 000	819 900	0.000	200.000	819.700	0.000	225.000	819.600
BT	0.000	245.000	819.400	0.000	247.200	819.400	814.800	247.400	819.400	815.800
BT	248.000	819.400	816.300	249.000	819.400	816.500	250.000	819.400	816.600	251.000
BT	819.400	816.500	252.000	819.400	816.300	252.600	819.400	815.800	252.800	819.400
BT	814.800	254.200	819.400	814.900	254.400	819.400	815.900	255.000	819.400	816.400
BT	256.000	819.400	816.600	257.000	819.400	816.700	258.000	819.400	816.600	259.000
BT	819.400	816.400	259.600	819.400	815.900	259.800	819.400	814.900	265.000	819.400
BT	0.000	275.000	819.400	0.000	300.000	819.300	0.000	325.000	819.400	0.000
BT	350.000	819.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	U/S FACE OF ELLSWORTH									
X1	20937.000	0.000	0.000	0.000	137.000	137.000	137.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000

NC	0.000	0.000	0.045	0.100	0 300	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	0.000	245.000	265.000	0.000	0.000	0.000	0 000	0.000
X1	20938.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X1	21087 000	20.000	36.000	101.000	149.000	149.000	149.000	0.000	0.000	0.000
GR	818.700	0.000	817.900	11.000	818.300	36.000	812.700	52.000	812.700	61.000
GR	812.500	70.000	816.900	86.000	818.400	101.000	816.300	112.000	818.300	122.000
GR	818.700	136.000	819 300	161.000	820.700	186.000	821.600	211.000	822.300	236.000
GR	822.800	261.000	822.800	286.000	822.600	311.000	822.600	336.000	822.500	361.000
ET	0.000	4.100	6.100	230.000	307.000	239.000	307.000	0.000	0.000	0.000
	CROSS SECTION L									
X1	21970.000	28.000	250.000	293.000	883.000	883.000	883.000	0.000	0.000	0.000
GR	816.500	0.000	816.600	25.000	816.400	50.000	816.600	75.000	816.500	100.000
GR	816.600	125.000	816.600	150.000	816.400	175.000	816.700	200.000	817.000	225.000
GR	817.200	250.000	813.900	260.000	813.200	267.000	813.100	270.000	812.600	275.000
GR	813.900	278.000	817.000	293.000	817.000	300.000	816.800	325.000	816.600	350.000
GR	816.500	375.000	816.100	400.000	815.800	425.000	815.900	450.000	815.900	475.000
GR	816.000	500.000	816.100	525.000	815.900	550.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.013	0.300	0.500	0.000	0.000	0.000	0.000	0.000
	D/S FACE OF DT&I RR									
X1	22100.000	42.000	235.000	275.000	130.000	130.000	130.000	0.000	0.000	0.000
GR	828.900	0.000	829.000	25.000	829.100	50.000	829.200	75.000	829.200	100.000
GR	829 300	125.000	829.400	150.000	829 500	175.000	829.600	200.000	829.600	225.000
GR	829.600	235.000	815.800	248.000	814.500	248.500	814.100	249.000	813.900	249.500
GR	813.800	250 000	813.900	250.500	814.100	251.000	814.500	251.500	815.800	252.000
GR	815.700	263.100	815.200	263.200	814.600	263.500	814.100	264.000	813.900	264.500
GR	813.800	265.000	813.900	265.500	814.100	266.000	814.600	266.500	815.200	266.800
GR	815.700	266.900	829.700	275.000	829.800	300.000	829.900	325.000	830.000	350.000
GR	830.100	375.000	830.200	400.000	830.300	425 000	830.300	450.000	830.400	475.000
GR	830.500	500.000	830.500	525.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	2.660	2.900	0.000	8.000	0.000	23.600	0.000	813.800	813.800
	U/S FACE OF DT&I RR									
X1	22174.000	0.000	0.000	0.000	74.000	74.000	74.000	0.000	0.000	0.000
X2	0.000	0 000	1.000	817.800	829 200	0.000	0.000	0.000	0.000	0.000
BT	42.000	0.000	828.900	0.000	25 000	829.000	0.000	50.000	829.100	0.000
BT	75.000	829 200	0.000	100.000	829.200	0.000	125.000	829.300	0.000	150.000
BT	829.400	0.000	175.000	829.500	0.000	200.000	829.600	0.000	225.000	829.600
BT	0.000	235.000	829.600	0.000	248.000	829.700	815.800	248.500	829.700	817.100
BT	249.000	829.700	817.500	249.500	829.700	817.700	250.000	829.700	817.800	250.500
BT	829.700	817.700	251.000	829.700	817.500	251.500	829.700	817.100	252.000	829.700
BT	815.800	263.100	829.700	815.700	263.200	829.700	816 300	263.500	829.700	816.900
BT	264.000	829.700	817.300	264 500	829.700	817.500	265.000	829.700	817.600	265.500
BT	829.700	817.500	266.000	829.700	817.300	266.500	829.700	816.900	266.800	829.700
BT	816.300	266.900	829.700	815.700	275.000	829.700	0.000	300.000	829.800	0.000
BT	325 000	829.900	0.000	350.000	830.000	0.000	375.000	830.100	0.000	400.000
BT	830.200	0.000	425.000	830.300	0.000	450 000	830.300	0.000	475.000	830.400
BT	0.000	500.000	830.500	0.000	525.000	830.500	0.000	0.000	0.000	0.000

NC	0.000	0.000	0.045	0.100	0.300	0.000	0.000	0.000	0.000	0.000
QT	2.000	80.000	80.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	6.100	210 000	329.000	214.000	329 000	0.000	0.000	0.000
X1	22225.000	28.000	250.000	293.000	51.000	51.000	51.000	0 000	0.000	0.000
GR	816.500	0.000	816.600	25.000	816.400	50.000	816.600	75.000	816.500	100.000
GR	816.600	125.000	816.600	150.000	816.400	175.000	816.700	200.000	817.000	225.000
GR	817.200	250.000	813.900	260.000	813.200	267.000	813.100	270.000	812.600	275.000
GR	813 900	278.000	817.000	293.000	817.000	300.000	816.800	325.000	816.600	350.000
GR	816.500	375.000	816 100	400.000	815.800	425.000	815.900	450.000	815.900	475.000
GR	816.000	500.000	816.100	525.000	815.900	550.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	1.400	0.000	0 000	0.000	0.000	0.000	0.000	0.000
	CROSS SECTION M									
X1	24800.000	27.000	250.000	270.000	2575.000	2575.000	2575.000	0.000	0.000	0.000
GR	820.100	0.000	820.100	25.000	820.200	50.000	820.200	75.000	821.100	100.000
GR	820.100	125.000	819.800	150.000	819.600	175.000	819.800	200.000	819.500	225.000
GR	818.600	250.000	817.600	255.000	817.300	260.000	817.500	265.000	818.500	270.000
GR	819.200	300.000	819.400	325.000	819.600	350.000	820.800	375.000	820.700	400.000
GR	821.400	425.000	821.000	440.000	820.600	450.000	819.900	475.000	822.800	490.000
GR	822.600	500.000	824.300	525.000	0.000	0.000	0.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= 0.300 CEHV= 0.500
*SECNO 2929.000

3265 DIVIDED FLOW

2929.00	8.76	770.86	0.00	770.86	771.48	0.62	0.00	0.00	769.00
1870.	52.	1433.	384.	26.	201.	197.	0.	0.	769.70
0.00	1.99	7.12	1.95	0.065	0.040	0.065	0.000	762.10	28.69
0.003972	0.	0.	0.	0	0	0	0.00	198.06	251.40

*SECNO 2959.000

3265 DIVIDED FLOW

2959.00	8.76	770.98	0.00	0.00	771.60	0.62	0.12	0.00	769.12
1870.	52.	1434.	384.	26.	201.	197.	0.	0.	769.82
0.00	1.99	7.12	1.95	0.065	0.040	0.065	0.000	762.22	28.70
0.003975	30.	30.	30.	0	0	0	0.00	198.01	251.39

CCHV= 0.500 CEHV= 1.000
*SECNO 2974.000

3470 ENCROACHMENT STATIONS= 28.0 221.0 TYPE= 1 TARGET= 193.000

2974.00	8.76	771.04	0.00	0.00	771.66	0.62	0.06	0.00	769.18
1870.	52.	1435.	383.	26.	201.	194.	0.	0.	769.88
0.00	1.99	7.13	1.97	0.065	0.040	0.065	0.000	762.28	28.70
0.003982	15.	15.	15.	0	0	0	0.00	182.63	211.33

*SECNO 2989.000

3470 ENCROACHMENT STATIONS= 30.0 210.0 TYPE= 1 TARGET= 180.000

2989.00	8.76	771.10	0.00	0.00	771.72	0.62	0.06	0.00	769.24
1870	53.	1434.	383.	26.	201.	194.	1.	0.	769.94
0.00	2.03	7.12	1.97	0.065	0.040	0.065	0.000	762.34	30.00
0.003980	15.	15.	15.	0	0	0	0.00	180.00	210.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= 0.500 CEHV= 1.000
*SECNO 3029.000

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
D/S FACE OF HURON PARKWAY DRIVE

3029.00	7.30	771.20	771.20	0.00	772.99	1.80	0.09	1.18	770.00
1870.	39.	1801.	30.	46.	164.	49.	1.	0.	770.50
0.00	0.85	10.96	0.62	0.065	0.013	0.065	0.000	763.90	170.23
0.001346	40.	40.	40.	2	15	0	0.00	159.67	329.90

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS 768.17 ,NOT 771.20 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.57	2.90	0.00	25.00	3.00	112.00	0.00	763.90	763.90

*SECNO 3200.000

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
777.99	773.23	0.00	375	1497.	112.	150.	770.70	774.00

U/S FACE OF HURON PARKWAY DRIVE

3200.00	11.40	775.30	0.00	0.00	775.55	0.25	2.56	0.00	770.00
1870.	192.	1356.	323.	285.	287	485.	3.	1.	770.50
0.02	0.67	4 72	0.66	0.065	0.013	0 065	0.000	763.90	135.16
0.000118	171.	171	171.	2	0	4	0.00	228.57	363.74

CCHV= 0.100 CEHV= 0.300
*SECNO 3300.000
3280 CROSS SECTION 3300.00 EXTENDED 2 40 FEET

CROSS SECTION A

3300.00	12.00	775.50	0.00	0.00	775.58	0.08	0.02	0.02	770.40
1870.	99.	939.	832.	104.	312.	782.	6.	2.	771.10
0.03	0.95	3.01	1.06	0.065	0.035	0.065	0.000	763.50	15.61
0.000304	100.	100.	100.	2	0	0	0.00	248.39	264.00

*SECNO 3800.000
3280 CROSS SECTION 3800.00 EXTENDED 0.76 FEET

3800.00	10.36	775.66	0.00	0.00	775.86	0.20	0.24	0.04	772.20
1870.	77.	1144.	648.	59.	256.	480.	18.	5.	772.90
0.07	1.31	4.47	1.35	0.065	0.035	0.065	0.000	765.30	22.24
0.000874	500.	500.	500.	2	0	0	0.00	241.76	264.00

*SECNO 4300.000

3265 DIVIDED FLOW

4300.00	9.02	776.12	0.00	0.00	776.66	0.54	0.70	0.10	774.00
1870.	53.	1416.	401.	31.	210.	237.	25.	7.	774.70
0.10	1.72	6.74	1.69	0.065	0.035	0.065	0.000	767.10	27.65
0.002572	500.	500.	500.	2	0	0	0.00	214.81	255.28

*SECNO 4800.000

3265 DIVIDED FLOW

4800.00	8.51	777.51	0.00	0.00	778.33	0.82	1.59	0.08	775.90
1870.	41.	1537.	292.	22.	193.	163.	30	9.	776.60
0.12	1.85	7.96	1.80	0.065	0.035	0.065	0.000	769.00	29.69
0.004026	500.	500.	500.	3	0	0	0.00	182.13	247.70

CCHV= 0.500 CEHV= 1.000
*SECNO 5100.000

3265 DIVIDED FLOW

5100.00	8.70	778.80	0.00	0.00	779.50	0.70	1.11	0.06	777.00
1870.	46.	1491.	334.	25.	199.	189.	32.	11.	777.70
0.13	1.81	7.48	1.77	0.065	0.035	0.065	0.000	770.10	28.93
0.003401	300.	300.	300.	3	0	0	0.00	194.22	250.51

*SECNO 5280.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	GLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 160.0 276.0 TYPE= 1 TARGET= 116.000

CROSS SECTION B

5280.00	8.52	779.32	0.00	0.00	780.04	0.73	0.52	0.02	777.20
1870.	54.	1783.	33.	42.	255.	31.	34.	11.	778 00
0.14	1.30	7.00	1.06	0.060	0.035	0.060	0.000	770.80	160.00
0 002510	180.	180.	180.	3	0	0	0.00	116.00	276.00

*SECNO 5310.000

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 140.0 280.0 TYPE= 1 TARGET= 140.000

5310.00	7.81	779.41	0.00	0.00	780.37	0.96	0.09	0.24	778.00
1870.	41.	1826.	3.	34.	229.	4.	34.	11.	778.80
0.14	1.22	7.97	0.64	0.060	0.035	0.060	0.000	771.60	140.00
0.003753	30.	30.	30.	0	0	0	0.00	102 67	280.00

*SECNO 5320.000

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 120.0 280.0 TYPE= 1 TARGET= 160.000

5320.00	7.45	779.45	0.00	0.00	780.53	1.08	0.04	0.12	778.40
1870.	46.	1823.	0	36.	216.	1.	34.	11.	779.20
0.14	1 29	8.44	0.41	0.060	0.035	0.060	0.000	772.00	120.00
0.004558	10.	10.	10.	0	0	0	0.00	96.76	240.83

*SECNO 5325.000

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 120.0 280.0 TYPE= 1 TARGET= 160.000

5325.00	7 37	779.47	0.00	0.00	780.59	1.12	0.02	0.04	778.50
1870.	40.	1830.	0.	32.	214.	0.	34.	11	779.30
0.14	1.26	8.57	0.33	0.060	0.035	0.060	0.000	772.10	120.00
0.004770	5.	5.	5.	0	0	0	0.00	93.18	239.45

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 5330.000

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

D/S FACE OF HURON PARKWAY DRIVE

5330.00	7.29	779.49	779.37	0.00	781.64	2.15	0.01	1.04	783.50
1870.	9.	1852.	9.	14.	157.	14.	34.	11.	783.50
0.14	0.62	11.83	0.62	0.060	0.013	0.060	0.000	772.20	122.46
0.001731	5.	5.	5.	0	8	0	0.00	91.99	301.38

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS 776.38 ,NOT 779.49 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.57	2.90	0.00	25.00	3.50	112.00	0.00	772.20	772.20

*SECNO 5470.000

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
786.28	781.97	0.00	309.	1562.	112.	153.	779.30	783.00

U/S FACE OF HURON PARKWAY DRIVE

5470.00	11.74	783.94	0.00	0.00	784.23	0.29	2.59	0.00	783.50
1870.	225.	1419.	225.	299.	288.	298.	36.	12.	783.50
0.15	0.75	4.93	0.76	0.060	0.013	0.060	0.000	772.20	97.79
0.000174	140.	140.	140.	2	0	4	0.00	215.95	313.73

CCHV= 0.100 CEHV= 0.300
*SECNO 5520.000
3280 CROSS SECTION 5520.00 EXTENDED 3.43 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 70.0 300.0 TYPE= 1 TARGET= 230.000

5520.00	13.43	784.23	0.00	0 00	784.26	0.04	0.01	0.03	777.20
1870	701	879.	290.	814.	432.	374.	37.	12.	778.00
0.16	0.86	2.04	0.78	0.060	0.035	0.060	0.000	770.80	70.00
0.000105	50.	50.	50.	2	0	0	0.00	230.00	300.00

*SECNO 6300.000
CROSS SECTION C

6300.00	8.61	784.21	0.00	0.00	784.54	0.33	0.19	0.09	787.60
1870.	0.	1814.	56.	0.	388.	49.	56.	15.	781.30
0.21	0.00	4.68	1 13	0.000	0.035	0.060	0.000	775.60	132.72
0.001095	780.	780.	780	2	0	0	0.00	98.36	231.08

*SECNO 6750.000

3470 ENCROACHMENT STATIONS= 116.0 204.0 TYPE= 1 TARGET= 88.000

6750.00	9.00	784.60	0.00	0.00	784.90	0.30	0.35	0.00	787.60
1870.	0.	1825.	45.	0.	412.	28.	60.	16.	781.30
0.24	0 00	4.43	1.63	0.000	0.028	0.040	0.000	775 60	131.84
0.000593	450.	450	450.	2	0	0	0.00	72.16	204.00

CCHV= 0.500 CEHV= 1.000
*SECNO 6800.000
D/S FACE OF US-23 / WASHTENAW AVE.

6800.00	9.32	784.62	0.00	0.00	785.24	0.62	0.02	0.32	792.40
1870.	0.	1870.	0.	0.	296.	0.	61.	16.	793.60
0.24	0.00	6.31	0.00	0.000	0.013	0.000	0.000	775.30	212.84
0.000356	50.	50.	50.	1	0	0	0.00	48.16	261.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.68	3 00	0.00	21.00	0.00	154.00	0.00	778.50	775.30

*SECNO 7388.000
PRESSURE FLOW

SECND	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
790.76	788.31	0.00	0.	1870.	154.	174.	786.80	792.60

U/S FACE OF CULVERT BEHIND DENNY'S RESTAURANT

7388.00	12.04	790.54	0 00	0.00	790.76	0.22	5.52	0.00	793.90
1870.	0.	1870.	0.	0.	491.	0.	66.	17.	793.90
0.28	0.00	3.80	0.00	0 000	0.013	0.000	0.000	778.50	6.86
0.000100	588.	588.	588.	2	0	0	0.00	63.07	69.93

CCHV= 0.100 CEHV= 0.300
*SECND 7438.000

3470 ENCROACHMENT STATIONS= 78.0 241.0 TYPE= 1 TARGET= 163.000

7438.00	15.14	790.74	0.00	0.00	790.78	0.04	0.00	0.02	787.60
1870.	72.	1478.	320.	142.	825.	353.	67.	17.	781.30
0.29	0.50	1.79	0.91	0 040	0.028	0.040	0.000	775.60	78.00
0.000044	50.	50.	50.	2	0	0	0.00	163.00	241.00

CCHV= 0.500 CEHV= 1.000
*SECND 9342.000

9342.00	7.51	791.01	0.00	0.00	791.51	0.50	0.27	0.46	794 50
1870.	0.	1870	0.	0.	328.	0.	104.	22.	798.70
0.39	0 00	5 70	0.00	0.000	0.035	0 000	0.000	783.50	79.30
0.002365	1953.	1953.	1953.	2	0	0	0.00	69.39	148.69

CCHV= 0 500 CEHV= 1.000
*SECND 9392.000

D/S FACE OF FOOT BRIDGE

9392.00	8.15	791.15	0.00	0.00	792.04	0.89	0.14	0.38	795.10
1870.	0	1870.	0.	0.	247.	0.	104.	22.	795.00
0.39	0.00	7.56	0.00	0.000	0.035	0.000	0.000	783.00	179.75
0.003629	50.	50.	50.	2	0	0	0.00	44.72	224.47

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1 53	2.80	0.00	37.00	0.00	403.00	0.00	783.00	783.00

*SECNO 9400.000

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS= 0.000 EGLWC= 792.040 ELLC= 793.900 PCWSE= 791.153 ELTRD= 795.100

3370 NORMAL BRIDGE,NRD= 19 MIN ELTRD= 795 10 MAX ELLC= 793.90

U/S FACE OF FOOT BRIDGE

9400.00	8.18	791.18	0.00	0.00	792.17	0.98	0.03	0.10	795.10
1870.	0.	1870.	0	0.	235.	0.	105.	22.	795.00
0.39	0.00	7.95	0.00	0.000	0.035	0.000	0.000	783.00	179.72
0.003878	8.	8.	8.	2	0	0	-13.65	44.80	224.52

CCHV= 0.100 CEHV= 0.300
*SECNO 9450.000

3301 HV CHANGED MORE THAN HVINS

CROSS SECTION D

9450.00	8.50	792.00	0 00	0.00	792.34	0.34	0.11	0.06	794.50
1870.	0.	1870.	0.	0.	401.	0.	105.	22.	798.70
0.39	0.00	4.66	0.00	0.000	0.035	0.000	0.000	783.50	75.49
0.001372	50.	50.	50.	2	0	0	0.00	75.97	151.46

CCHV= 0.500 CEHV= 1.000
*SECNO 9550.000

3301 HV CHANGED MORE THAN HVINS

D/S FACE OF PLATT ROAD

9550.00	6.52	792.12	0.00	0.00	793.28	1.16	0.12	0.82	797.50
1870.	0.	1870.	0.	0.	216.	0.	106.	23.	797.70
0.39	0.00	8.65	0.00	0 000	0.013	0.000	0.000	785.60	179 27
0.000980	100	100.	100.	2	0	0	0.00	42.37	221.64

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.58	2.90	0.00	40.00	0.00	196.00	0.00	785.60	785.60

*SECNO 9701.000

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS= 0.000 EGLWC= 793.277 ELLC= 793.300 PCWSE= 792.115 ELTRD= 796.500

3370 NORMAL BRIDGE,NRD= 44 MIN ELTRD= 796.50 MAX ELLC= 793.30

U/S FACE OF PLATT ROAD

9701.00	6.74	792.34	0.00	0.00	793.98	1.64	0.23	0.48	797.50
1870.	0.	1870.	0.	0.	182.	0.	106.	23.	797.70
0.40	0.00	10.27	0.00	0.000	0.013	0.000	0.000	785.60	179.22
0.002543	151.	151.	151.	2	0	0	-43.42	42.55	221.77

CCHV= 0.500 CEHV= 1.000

*SECNO 9801.000

3301 HV CHANGED MORE THAN HVINS

9801.00	11.23	794.73	0.00	0.00	794.82	0.09	0.07	0.78	794.50
1500.	11.	1489.	0.	36.	632.	0.	107.	23.	798.70
0.41	0.30	2.36	0.00	0.060	0.035	0.000	0.000	783.50	9.78
0.000250	100.	100.	100.	3	0	0	0.00	149.23	159.01

*SECNO 11200.000

CROSS SECTION E

11200.00	8.05	795.45	0.00	0.00	795.87	0.41	0.72	0.33	797.40
1500	0.	1500.	0.	0.	291.	0.	123.	26.	799.30
0.49	0.00	5.15	0.00	0.000	0.035	0.000	0.000	787.40	3.63
0.001606	1399.	1399.	1399.	2	0	0	0.00	51.47	55.10

*SECNO 12000.000

12000.00	6.50	797.20	0.00	0.00	797.81	0.61	1.74	0.20	794.40
1500.	62.	1438.	0.	29	225.	0.	128.	27.	799.70
0.52	2.13	6.38	0.00	0.060	0.035	0.000	0.000	790.70	207.57
0.003124	800.	800.	800.	3	0	0	0.00	67.12	274.69

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= 0.500 CEHV= 1.000
*SECNO 12100.000
D/S FACE OF PACKARD ROAD

12100.00	5.66	797.36	0.00	0.00	798.30	0.94	0.16	0.33	802.30
1500.	0.	1500.	0.	0.	193.	0.	128.	27.	803.30
0.53	0.00	7.77	0.00	0.000	0.013	0.000	0.000	791.70	275.15
0.001009	100.	100.	100.	2	0	0	0.00	48.14	323.29

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS 793.72 ,NOT 797.36 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB	XK	XKOR	CDFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.57	2.90	0.00	47.00	15.00	180.00	0.00	791.70	791.70

*SECNO 12262.000
PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
799.05	798.72	0.00	0.	1500.	180.	0.	791.70	801.80

U/S FACE OF PACKARD ROAD

12262.00	6.79	798.49	0.00	0.00	799.05	0.57	0.76	0.00	802.30
1500.	0	1500.	0.	0.	248.	0.	129.	27.	803.30
0.53	0.00	6.04	0.00	0.000	0.013	0.000	0.000	791.70	274.89
0.000460	162.	162.	162.	2	0	0	0.00	48.92	323.81

CCHV= 0.100 CEHV= 0.300
*SECNO 12362.000
CROSS SECTION F

12362.00	8.16	798.86	0.00	0.00	799.15	0.29	0.07	0.03	794.40
1500.	110.	1390.	0.	64.	314.	0.	130.	28.	799.70
0.54	1.71	4.43	0.00	0.060	0.035	0.000	0.000	790.70	200.15
0.001137	100.	100.	100.	2	0	0	0.00	80.75	280.90

*SECNO 12862.000

12862.00	7.76	799.46	0.00	0.00	799.80	0.34	0.63	0.02	795.40
1500.	99.	1401.	0.	55.	291.	0.	134.	29.	800.70
0.57	1.81	4.81	0.00	0.060	0.035	0.000	0.000	791.70	201.94
0.001425	500.	500.	500.	2	0	0	0.00	77.45	279.40

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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

*SECNO 13362 000
 13362.00      7.50    800.20      0.00      0.00    800.58      0.38      0.77      0.01    796.40
    1500.        92.     1408.        0.       49.      277.        0.       138.       29.     801.70
     0.60      1.88      5.08      0.00     0.060     0.035     0.000     0.000    792.70    203.11
 0.001658       500.       500.       500.         2         0         0      0.00     75.32    278.43


CCHV=    0.500 CEHV=    1.000
*SECNO 14050.000

3470 ENCROACHMENT STATIONS=       24.0       94.0  TYPE=       1  TARGET=       70.000
          SECTION FROM RETENTION BASIN PLANS
 14050.00      7.57    801.57      0.00      0.00    801.82      0.25      1.18      0.06100000.00
    1500.        0.     1500        0.        0.      373.        0.       143.       31.  100000.00
     0.65      0.00      4.02      0.00     0.000     0.045     0.000     0.000    794.00     24.00
 0.001772       688.       688.       688.         2         0         0      0.00     70.00     94.00


*SECNO 14085.000

3470 ENCROACHMENT STATIONS=       33.0       84.0  TYPE=       1  TARGET=       51.000
 14085.00      6.46    801 66      0.00      0.00    802.19      0.52      0.09      0.27100000.00
    1500.        0.     1500.        0.        0.      258.        0.       143.       31.  100000.00
     0.65      0.00      5.81      0.00     0.000     0.045     0.000     0.000    795.20     33.00
 0.004200        35.        35.        35.         2         0         0      0.00     51.00     84.00


CCHV=    0.500 CEHV=    1.000
*SECNO 14099.000

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
 14099.00      6.11    801.81    801.81      0.00    803.48      1.67      0.04      1.15    808.70
    1500.        0.     1500.        0.        0.      144.        0.       144.       31.     808.90
     0.65      0.00     10.38      0.00     0.000     0.013     0.000     0.000    795.70     23.41
 0.002434        14.        14.        14.         0        11         0      0.00     44.24     67.65


*SECNO 14100.000
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

4575 CRITICAL DEPTH ASSUMED BELOW ELLC OF 803.400 EGLC= 805.579 EGC= 810.459 WSEL= 809.314

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE, NRD= 29 MIN ELTRD= 808.70 MAX ELLC= 803.40

D/S FACE OF DAM AT GATE OF RETENTION POND #1

14100.00	6.11	801.81	801.74	0.00	804.77	2.96	0.00	1.29	808.70
1500.	0.	1500.	0.	0.	109.	0.	144.	31.	808.90
0.65	0.00	13 81	0.00	0.000	0.013	0.000	0.000	795.70	23.40
0.005090	1	1.	1.	0	25	0	-35.96	44.25	67.66

*SECNO 14158.000

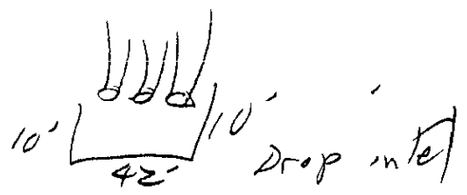
4575 CRITICAL DEPTH ASSUMED BELOW ELLC OF 803.400 EGLC= 805.577 EGC= 810 456 WSEL= 809.311

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE, NRD= 31 MIN ELTRD= 808.70 MAX ELLC= 803.40

3685 20 TRIALS ATTEMPTED WSEL, CWSEL

14158.00	7.58	803.28	801.73	0.00	805.47	2.18	0.30	0.39	808.70
1500.	0.	1500.	0.	0.	127.	0.	144.	31.	808.90
0.65	0.00	11.85	0.00	0.000	0.013	0.000	0.000	795.70	10.75
0.005363	58.	58.	58.	28	25	0	-228.52	70.28	81.03



*SECNO 14159.000

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 10.0 81.0 TYPE= 1 TARGET= 71.000

14159.00	10.70	806.40	0.00	0.00	806.50	0.11	0.00	1.04	100000.00
1500.	0.	1500.	0.	0.	576.	0.	144.	31.	100000.00
0.65	0.00	2.60	0.00	0.000	0.013	0.000	0.000	795.70	10.00
0.000065	1.	1.	1.	3	0	0	0.00	71.00	81.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 14169.000

3470 ENCROACHMENT STATIONS= 11.0 101.0 TYPE= 1 TARGET= 90.000

14169.00	10.30	806.40	0.00	0.00	806.53	0.13	0.00	0.02	100000.00
1500.	0.	1500.	0.	0.	518.	0.	144.	31.	100000.00
0.65	0.00	2.90	0.00	0.000	0.013	0.000	0.000	796.10	11.00
0.000081	10.	10.	10.	2	0	0	0.00	90.00	101.00

*SECNO 14179.000
D/S END OF RETENTION BASIN NO. 1

14179.00	7.40	806.40	0.00	0.00	806.67	0.27	0.00	0.14	807.00
1500.	0.	1500.	0.	0.	359.	0.	144.	31.	807.00
0.65	0.00	4.18	0.00	0.000	0.013	0.000	0.000	799.00	2.40
0.000195	10.	10.	10.	0	0	0	0.00	82.80	85.20

CCHV= 0.100 CEHV= 0.300
*SECNO 14900.000
U/S END OF RETENTION BASIN NO. 1

14900.00	7.69	806.69	0.00	0.00	806.92	0.24	0.25	0.00	807.00
1500.	0.	1500.	0.	0	383.	0.	150.	32	807.00
0.70	0.00	3.91	0.00	0.000	0.028	0.000	0.000	799.00	1.26
0.000767	721.	721.	721.	2	0	0	0.00	86.23	87.49

*SECNO 14950.000
CROSS SECTION G

14950.00	6.68	806.68	0.00	0.00	806.99	0.31	0.05	0.02	809.80
1500.	0.	1500.	0.	0.	337.	0.	151.	32.	810.60
0.70	0.00	4.45	0.00	0.000	0.028	0.000	0.000	800.00	388.13
0.001096	50.	50.	50.	2	0	0	0.00	81.70	469.84

*SECNO 15750.000
CROSS SECTION H

15750.00	6.62	807.42	0.00	0.00	807.46	0.04	0.45	0.03	808.20
490.	0.	490.	0.	0.	289.	0.	156.	34.	813.00
0.84	0.00	1.70	0.00	0.000	0.028	0.000	0.000	800.80	556.73
0.000158	800.	800.	800.	0	0	0	0.00	69.33	626.06

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   SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
   Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA    LEFT/RIGHT
   TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN       SSTA
   SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID      ENDST

CCHV=    0.500 CEHV=    1.000
*SECNO 16450.000
 16450.00       3.32     807.72       0.00       0.00     808.15       0.43       0.30       0.38     809.70
     490.          0.       490.         0.         0.       94.         0.        159.         35.      810.00
    0.87       0.00       5.24       0.00      0.000      0.028      0.000      0.000     804.40     111.09
 0.003657        700.       700.       700.          2          0          0       0.00      44.16     155.25

CCHV=    0.500 CEHV=    1 000
*SECNO 16480.000

3470 ENCROACHMENT STATIONS=       117.0       148.0  TYPE=       1  TARGET=        31 000
 16480.00       3.24     807.84       0.00       0.00     808.42       0.58       0.12     0.15100000.00
     490.          0.       490.         0.         0.       80.         0.        159.         35.  100000.00
    0.87       0.00       6.11       0.00      0.000      0.028      0.000      0.000     804.60     117.00
 0.004280         30         30.        30.          2          0          0       0.00      31.00     148.00

*SECNO 16490.000

3470 ENCROACHMENT STATIONS=       120.0       146.0  TYPE=       1  TARGET=        26.000
 16490.00       3.28     807.88       0.00       0.00     808.59       0.70       0.05     0.12100000.00
     490.          0.       490.         0.         0.       73          0.        159.         35.  100000.00
    0.87       0.00       6.73       0.00      0.000      0.028      0 000      0.000     804.60     120.00
 0.005022         10.        10.        10.          0          0          0       0 00      26.00     146.00

*SECNO 16499.000

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
 16499.00       3.85     808.55     808.55       0.00     809.82       1.27       0.06       0.57     815.20
     490.          0        490.         0.         0.       54.         0.        159.         35.      815.50
    0.87       0.00       9.05       0.00      0.000      0.028      0.000      0.000     804.70     189.30
 0.009650          9.         9.         9.          2          8          0       0.00      21.25     210.56

CCHV=    0.500 CEHV=    1.000
*SECNO 16500.000
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE, NRD= 19 MIN ELTRD= 815.00 MAX ELLC= 812.90

D/S FACE OF BIRCH HOLLOW ROAD

16500.00	3.86	808.56	808.51	0.00	810.38	1.82	0.01	0.54	815.20
490.	0.	490.	0.	0.	45.	0.	159.	35.	815.50
0.87	0.00	10.81	0.00	0.000	0.028	0.000	0.000	804.70	189.28
0.012606	1.	1.	1.	0	12	0	-9.01	21.29	210.58

*SECNO 16572.000

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE, NRD= 19 MIN ELTRD= 815.00 MAX ELLC= 812.90

U/S FACE OF BIRCH HOLLOW ROAD

16572.00	5.87	810.57	0.00	0.00	811.39	0.82	0.52	0.50	815.20
490.	0.	490.	0.	0.	67.	0.	160.	35.	815.50
0.88	0.00	7.28	0.00	0.000	0.028	0.000	0.000	804.70	184.97
0.004616	72.	72.	72.	4	0	0	-38.22	29.77	214.74

CCHV= 0.500 CEHV= 1.000
*SECNO 16573.000

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 184.0 216.0 TYPE= 1 TARGET= 32.000

16573.00	7.91	811.61	0.00	0.00	811.74	0.13	0.00	0.35	100000.00
490	0.	490.	0.	0.	170.	0.	160.	35.	100000.00
0.88	0.00	2.88	0.00	0.000	0.035	0.000	0.000	803.70	184.00
0.000634	1.	1.	1.	3	0	0	0.00	32.00	216.00

CCHV= 0.100 CEHV= 0.300
*SECNO 16621.000

16621.00	6.01	811.71	0.00	0.00	811.77	0.06	0.02	0.01	811.00
490.	1.	488.	0.	4.	243.	2.	160.	35.	811.30
0.88	0.29	2.01	0.20	0.050	0.035	0.050	0.000	805.70	87.39
0.000380	49.	49.	49	2	0	0	0.00	83.73	171.12

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	GLOB	GCH	GROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 16822.000

16822.00	6.08	811.78	0.00	0.00	811.84	0.06	0.07	0.00	811.00
490.	2.	488.	1.	5.	248.	2.	161	35.	811.30
0.91	0.30	1.97	0.22	0.050	0.035	0.050	0.000	805.70	86.02
0.000355	201.	201.	201.	2	0	0	0.00	86.63	172.65

CCHV= 0.300 CEHV= 0.500

*SECNO 16872.000

D/S FACE OF PRIVATE BRIDGE BEHIND APT. COMPLEX

16872.00	7.09	811.79	0.00	0.00	811.86	0.06	0.01	0.00	807.30
490.	23.	411.	56.	36.	186.	84.	161.	35.	806.80
0.92	0.65	2.21	0.66	0.050	0.028	0.050	0.000	804.70	54.21
0.000170	50.	50.	50.	0	0	0	0.00	123 14	177.34

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.55	2.80	0.00	32.00	0.00	195.00	0.00	806.80	806.80

*SECNO 16880.000

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS= 811.944 EGLWC= 813.912 ELLC= 812 900 PCWSE= 811.792 ELTRD= 814.800

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 10 MIN ELTRD= 814.80 MAX ELLC= 812.90

U/S FACE OF PRIVATE BRIDGE BEHIND APT COMPLEX

16880.00	7.07	811.77	0.00	0.00	811.88	0.11	0.00	0.02	807.30
490.	0.	489.	1.	0.	185.	6.	161.	35.	806.80
0.92	0 00	2.65	0.13	0.000	0.028	0.050	0.000	804.70	54.31
0.000292	8.	8.	8.	3	0	0	-111.84	118.66	176.63

*SECNO 16916.000

3470 ENCROACHMENT STATIONS= 74.0 189.0 TYPE= 1 TARGET= 115.000

16916.00	7.18	811.88	0.00	0.00	811.91	0.03	0.01	0.02	810.00
490.	9.	472.	8	30.	317.	27	162.	35.	810.30
0.93	0.32	1.49	0.30	0.050	0.028	0.050	0.000	804.70	74.00
0.000094	36.	36.	36.	2	0	0	0.00	115.00	189.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 16952.000

3470 ENCROACHMENT STATIONS= 93.0 200.0 TYPE= 1 TARGET= 107.000
D/S FACE OF PRIVATE BRIDGE BEHIND APT. COMPLEX

16952.00	7.06	811.86	0.00	0.00	811.93	0.06	0.00	0.02	807.10
490.	31.	406.	53.	45.	183.	73.	162.	35.	806.80
0.93	0.69	2.22	0.72	0.050	0.028	0.050	0.000	804.80	106.09
0.000174	36.	36.	36.	1	0	0	0.00	93.91	200.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.55	2.80	0.00	32.00	0.00	196.00	0.00	806.80	806.80

*SECNO 16960.000

6070, LOW FLOW BY NORMAL BRIDGE

EGPRS= 812.015 EGLWC= 813.889 ELLC= 813.000 PCWSE= 811.865 ELTRD= 814.700

3370 NORMAL BRIDGE, NRD= 12 MIN ELTRD= 814.70 MAX ELLC= 813.00

3470 ENCROACHMENT STATIONS= 83.0 199.0 TYPE= 1 TARGET= 116.000
U/S FACE OF PRIVATE BRIDGE BEHIND APT COMPLEX

16960.00	7 04	811 84	0.00	0.00	811.95	0.11	0.00	0.02	807.10
490.	0	490	0.	0.	182.	1.	162.	35.	806.80
0.93	0.00	2.69	0.07	0.000	0.028	0.050	0.000	804.80	106.20
0.000309	8.	8.	8.	2	0	0	-115.95	92.80	199.00

CCHV= 0.100 CEHV= 0.300
*SECNO 17000.000

3470 ENCROACHMENT STATIONS= 84.0 180.0 TYPE= 1 TARGET= 96.000
CROSS SECTION I

17000.00	6.21	811.91	0.00	0.00	811.97	0.06	0.01	0.01	811.00
490.	2.	487.	1.	7.	256.	4.	162.	36.	811.30
0.94	0.25	1.90	0.20	0.050	0.028	0.050	0.000	805.70	84.00
0.000203	40.	40.	40.	2	0	0	0.00	91.90	175.90

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	GLOB	GCH	GROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= 0.300 CEHV= 0.500
*SECNO 17155.000
D/S FACE OF I-94

17155.00	5.31	811.81	0.00	0.00	812.25	0.45	0.09	0.20	819.30
490	0.	490.	0.	0.	91.	0.	163.	36.	819.30
0.95	0.00	5.36	0.00	0.000	0.045	0.000	0.000	806.50	200.44
0.005210	155.	155.	155.	2	0	0	0.00	18.65	219.09

813.14 old FES

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.70	3.20	0.00	16.00	0.00	123.00	0.00	806.50	806.50

96 old FES

*SECNO 17286.000

6070, LOW FLOW BY NORMAL BRIDGE

EGPRS= 0.000 EGLWC= 812.253 ELLC= 813.900 PCWSE= 811.807 ELTRD= 819.000

3370 NORMAL BRIDGE, NRD= 13 MIN ELTRD= 819.00 MAX ELLC= 813.90

U/S FACE OF I-94

17286.00	6.01	812.51	0 00	0.00	812.85	0.34	0.56	0 03	819.30
490.	0.	490.	0.	0.	105.	0.	163.	36.	819.30
0 96	0.00	4 68	0.00	0.000	0.045	0.000	0.000	806.50	199.98
0.003581	131.	131.	131.	2	0	0	0.00	19.16	219.15

CCHV= 0.300 CEHV= 0.500
*SECNO 17436.000

17436.00	5.59	813.09	0.00	0.00	813.17	0.08	0.25	0.08	813.00
490.	0.	487.	3.	0.	215.	6.	164.	36.	812.30
0.97	0.10	2 27	0.46	0.060	0.045	0.060	0.000	807.50	94.29
0.000942	150	150.	150.	2	0	0	0.00	84.13	178.42

*SECNO 17650.000

17650.00	4.47	813.37	0.00	0.00	813.54	0.17	0.33	0.05	814 40
490.	0.	490.	0.	0.	147.	0.	164.	36.	813.70
0.99	0.00	3 33	0.00	0.000	0.045	0.000	0.000	808.90	105.77
0.002852	214.	214.	214.	2	0	0	0.00	55.83	161.60

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= 0.500 CEHV= 1.000
*SECNO 17680.000

17680.00	4.36	813.46	0.00	0.00	813.65	0.19	0.09	0.02	814.60
490.	0.	490	0.	0.	141.	0.	165.	36.	813.90
0.99	0.00	3.47	0.00	0.000	0.045	0.000	0.000	809.10	106.38
0.003197	30.	30.	30.	2	0	0	0.00	54.75	161.13

*SECNO 17700.000

17700.00	4.23	813.53	0.00	0.00	813.74	0.21	0.07	0.02	814.80
490.	0.	490.	0.	0.	133.	0.	165.	36.	814.10
1.00	0.00	3.67	0.00	0.000	0.045	0.000	0.000	809.30	107.16
0.003711	20.	20.	20.	0	0	0	0.00	53.38	160.54

*SECNO 17735.000

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 76.0 180.0 TYPE= 1 TARGET= 104.000

17735.00	4.29	813.79	0.00	0.00	814.45	0.66	0.26	0.45	817.30
490.	0.	490.	0.	0.	75.	0.	165.	36.	100000.00
1 00	0.00	6.52	0.00	0.000	0.045	0.000	0.000	809.50	151.85
0 021220	35.	35.	35.	2	0	0	0.00	23.40	178.26

CCHV= 0.500 CEHV= 1 000
*SECNO 17736.000

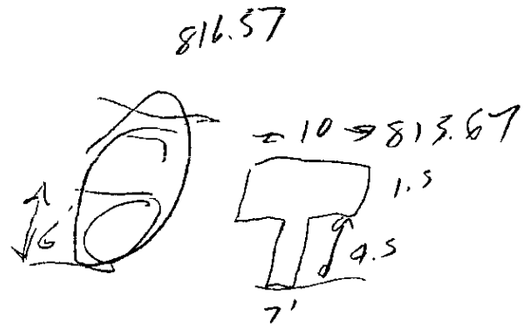
3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE. NRD= 27 MIN ELTRD= 816.00 MAX ELLC= 816 50

D/S FACE OF BRIDGE AT DEAD END ROAD

17736.00	4.30	813.80	813.79	0.00	815.68	1.88	0.01	1.22	817.30
490.	0.	490.	0.	0	45.	0.	165.	36.	816.10
1.00	0.00	11.01	0.00	0.000	0.013	0.000	0.000	809.50	151.84
0.005398	1.	1.	1.	0	16	0	-30.99	23.42	178.27



SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 17769.000

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE, NRD= 27 MIN ELTRD= 816.00 MAX ELLC= 816.50

U/S FACE OF BRIDGE AT DEAD END ROAD

17769.00	6.07	815.57	0.00	0.00	816.33	0.76	0.09	0.56	817.30
490.	0.	490.	0.	0.	70.	0.	165.	36.	816.10
1.00	0.00	7.00	0.00	0.000	0.013	0.000	0.000	809.50	150.92
0.001710	33.	33	33.	10	0	0	-53.28	28.68	179.59

*SECNO 17770.000
3280 CROSS SECTION 17770.00 EXTENDED 0.26 FEET

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 150.0 180.0 TYPE= 1 TARGET= 30.000

17770.00	6.96	816.46	0.00	0.00	816.63	0.17	0.00	0.30	817 30
490.	0.	490.	0.	0.	150.	0.	165.	36.	100000.00
1.00	0.00	3.27	0.00	0.000	0.035	0.000	0.000	809.50	150.44
0.001684	1.	1	1.	3	0	0	0.00	29.56	180.00

*SECNO 17819.000

3470 ENCROACHMENT STATIONS= 116.0 147.0 TYPE= 1 TARGET= 31.000

17819.00	7.01	816.61	0.00	0.00	816.70	0.09	0.04	0.04	100000.00
490.	0.	490.	0.	0.	199.	0.	165.	36.	100000.00
1.00	0.00	2.47	0.00	0.000	0.035	0.000	0.000	809.60	116.00
0.000432	49.	49.	49.	2	0	0	0.00	31.00	147.00

CCHV= 0.300 CEHV= 0.500
*SECNO 17869.000
D/S FACE OF STONE SCHOOL ROAD

17869.00	7.61	816.51	0.00	0.00	816.90	0.39	0.05	0.15	824.00
490.	0.	490.	0.	0.	97.	0.	165.	36.	822.80
1.01	0.00	5.04	0.00	0.000	0 045	0.000	0.000	808.90	65.50
0.004336	50.	50.	50.	2	0	0	0.00	14.98	80.48

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	GLOB	GCH	GROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.50	2.60	0.00	14.00	0.00	58.00	0.00	808.90	808.90

*SECNO 17942.000
PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
818.17	816.90	0.00	0.	490.	58.	59.	813.10	824.00

U/S FACE OF STONE SCHOOL ROAD

17942.00	9.01	817.91	0.00	0.00	818.17	0.27	1.27	0.00	824.00
490.	0.	490.	0.	0.	118.	0.	165.	36.	822.80
1.01	0.00	4.14	0.00	0.000	0.045	0.000	0.000	808.90	65.40
0.002566	73.	73.	73.	2	0	0	0.00	15.19	80.60

CCHV= 0.100 CEHV= 0.300
*SECNO 17992.000
3280 CROSS SECTION 17992.00 EXTENDED 0.90 FEET

3470 ENCROACHMENT STATIONS= 67.0 182.0 TYPE= 1 TARGET= 115.000

17992.00	8.60	818.20	0.00	0.00	818.21	0.01	0.01	0.03	813.00
490.	68.	391.	31.	162.	446.	83.	166.	37.	813.30
1.03	0.42	0.88	0.38	0.070	0.045	0.070	0.000	809.60	67.00
0.000052	50.	50.	50.	2	0	0	0.00	115.00	182.00

*SECNO 18270.000
3280 CROSS SECTION 18270.00 EXTENDED 1.38 FEET

3470 ENCROACHMENT STATIONS= 52.0 117.0 TYPE= 1 TARGET= 65.000

18270.00	8.48	818.18	0.00	0.00	818.26	0.08	0.03	0.02	817.20
490.	3.	457.	31.	9.	200	39.	169.	37.	815.70
1.06	0.33	2.28	0.79	0.070	0.045	0.070	0.000	809.70	52.00
0.000505	278.	278.	278.	2	0	0	0.00	65.00	117.00

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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

*SECNO 18319 000

3470 ENCROACHMENT STATIONS=       69. 0      139. 0  TYPE=      1  TARGET=       70. 000
 18319. 00     10. 41    818. 21     0. 00     0. 00    818. 29     0. 08     0. 03     0. 00    817. 40
     490.         1.       489.       0.        2.       219.        3.       169.       37.      817. 60
     1. 07     0. 27     2. 23     0. 16     0. 070    0. 045    0. 070    0. 000    807. 80     78. 83
 0. 000560      49.       49        49.         1         0         0       0. 00     60. 17    139. 00


CCHV=    0. 500 CEHV=    1. 000
*SECNO 18320. 000

3301 HV CHANGED MORE THAN HVINS


3370 NORMAL BRIDGE, NRD= 23 MIN ELTRD=  818. 00 MAX ELLC=  817. 60


3470 ENCROACHMENT STATIONS=       69. 0      139. 0  TYPE=      1  TARGET=       70. 000
          D/S FACE OF PLEASANT RUN
 18320. 00     10. 41    818. 21    811 83     0. 00    818. 87     0. 66     0. 00     0. 58    817. 40
     490.         0.       490.       0.        0         75.         2.       169.       37.      817. 60
     1. 07     0. 00     6. 53     0. 18     0 000     0. 013    0. 070    0. 000    807. 80     78. 78
 0. 001073        1.        1.        1.         0         15          0   -147. 23     60. 22    139. 00


*SECNO 18373. 000

3370 NORMAL BRIDGE, NRD= 23 MIN ELTRD=  818. 00 MAX ELLC=  817. 60


3470 ENCROACHMENT STATIONS=       83. 0      126. 0  TYPE=      1  TARGET=       43 000
          U/S FACE OF PLEASANT RUN
 18373. 00     10 47     818. 27     0. 00     0. 00    818. 93     0. 66     0. 06     0. 00    817. 40
     490.         0.       490.       0.        0.       75.         0.       169.       37.      817. 60
     1. 07     0. 00     6. 53     0. 12     0. 000    0. 013    0. 070    0. 000    807. 80     83. 00
 0. 001074       53        53.       53.         1         0         0   -148. 14     43. 00    126. 00


CCHV=    0. 100 CEHV=    0. 300
*SECNO 18374. 000
3280 CROSS SECTION  18374. 00 EXTENDED       0. 33 FEET
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 87.0 130.0 TYPE= 1 TARGET= 43.000

18374.00	11.13	818.93	0.00	0.00	818.99	0.06	0.00	0.06100000.00	
490.	0.	488.	2.	0.	242.	6.	169.	37.	817.60
1.07	0.00	2.02	0.37	0.000	0.045	0.070	0.000	807.80	87.00
0.000404	1.	1.	1.	2	0	0	0.00	43.00	130.00

*SECNO 18422.000
3280 CROSS SECTION 18422.00 EXTENDED 2.17 FEET

18422.00	9.27	818.97	0.00	0.00	819.01	0.03	0.01	0.00	817.20
490.	8.	366.	116.	29.	227.	199.	170.	37.	815.70
1.08	0.29	1.61	0.58	0.070	0.045	0.070	0.000	809.70	34.39
0.000214	49.	49.	49.	1	0	0	0.00	145.61	180.00

*SECNO 18800.000
3280 CROSS SECTION 18800.00 EXTENDED 2.26 FEET

CROSS SECTION J

18800.00	9.36	819 06	0.00	0.00	819.08	0.03	0.08	0.00	817.20
490.	9.	363.	118.	32.	230.	206.	174.	39.	815.70
1.16	0.29	1.58	0.57	0.070	0.045	0.070	0.000	809.70	32.80
0.000201	378.	378.	378.	2	0	0	0.00	147.20	180.00

*SECNO 19160.000
3280 CROSS SECTION 19160.00 EXTENDED 2.33 FEET

19160.00	9.43	819.13	0.00	0.00	819.16	0.03	0.07	0.00	817.20
490.	10.	360.	121.	34.	232.	212.	177.	40.	815.70
1.24	0.29	1.55	0.57	0.070	0.045	0.070	0.000	809.70	31.42
0.000191	360.	360.	360.	0	0	0	0.00	148.58	180.00

*SECNO 19209.000

3265 DIVIDED FLOW

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3280 CROSS SECTION 19209.00 EXTENDED 2.34 FEET

3470 ENCROACHMENT STATIONS= 10.0 210.0 TYPE= 1 TARGET= 200.000

19209.00	9.74	819.14	0.00	0.00	819.17	0.03	0.01	0.00	819.40
490.	123.	316	51.	209.	192.	88.	178.	40.	817.30
1.25	0.59	1.65	0.58	0.070	0.045	0.070	0.000	809.40	10.00
0.000324	49.	49.	49.	0	0	0	0.00	191.39	210.00

CCHV= 0.300 CEHV= 0.500
*SECNO 19210.000

3265 DIVIDED FLOW

3280 CROSS SECTION 19210.00 EXTENDED 2.34 FEET

3370 NORMAL BRIDGE, NRD= 27 MIN ELTRD= 816.60 MAX ELLC= 816 80

3470 ENCROACHMENT STATIONS= 10.0 210.0 TYPE= 1 TARGET= 200.000
D/S FACE OF PARTRIDGE PATH ROAD

19210 00	9 73	819 13	0.00	0.00	819.18	0.05	0.00	0.01	819.40
490.	185	228.	77.	209.	95.	89.	178.	40.	817.30
1.25	0.88	2.41	0.87	0.040	0.013	0.040	0.000	809.40	10.00
0.000238	1.	1	1.	0	0	0	-96.79	191.41	210.00

*SECNO 19262.000

3265 DIVIDED FLOW

3280 CROSS SECTION 19262.00 EXTENDED 2.34 FEET

3470 ENCROACHMENT STATIONS= 30.0 203.0 TYPE= 1 TARGET= 173.000
U/S FACE OF PARTRIDGE PATH ROAD

19262.00	9.73	819.13	0.00	0.00	819.19	0.06	0 00	0.00	819.40
490.	64.	400	26.	169.	192	72.	178.	40.	817.30
1.26	0 38	2.09	0.36	0.040	0.013	0.040	0.000	809.40	30.00
0.000043	52	52.	52.	1	0	0	0 00	164.39	203.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	GLOB	GCH	GROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= 0.100 CEHV= 0.300
*SECNO 19263.000

3265 DIVIDED FLOW

3280 CROSS SECTION 19263.00 EXTENDED 2.36 FEET

3470 ENCROACHMENT STATIONS= 30.0 203.0 TYPE= 1 TARGET= 173.000

19263.00	9.76	819.16	0.00	0.00	819.19	0.03	0.00	0.00	819.40
490.	132.	304.	55.	171.	192.	73.	178	40.	817.30
1.26	0.77	1.58	0.75	0.040	0.035	0.040	0.000	809.40	30.00
0.000179	1.	1.	1.	2	0	0	0.00	164.66	203.00

*SECNO 19312.000
3280 CROSS SECTION 19312.00 EXTENDED 2.37 FEET

19312.00	9.47	819.17	0.00	0.00	819.20	0.02	0.01	0.00	817.20
490.	13.	326.	151.	36.	234.	215.	179.	40.	815.70
1.27	0.35	1.40	0.70	0.040	0.035	0.040	0.000	809.70	30.74
0.000093	49.	49.	49.	0	0	0	0.00	149.26	180.00

*SECNO 19500.000
3280 CROSS SECTION 19500.00 EXTENDED 2.40 FEET

19500.00	9 49	819.19	0.00	0.00	819.21	0.02	0.02	0.00	817.20
490.	13.	325.	152.	37.	235.	217.	181.	41.	815.70
1.32	0.35	1.38	0.70	0 040	0.035	0.040	0.000	809.70	30.16
0.000091	188.	188.	188.	0	0	0	0.00	149.84	180.00

*SECNO 19549.000
3280 CROSS SECTION 19549.00 EXTENDED 1.00 FEET

19549.00	9.80	819.20	0.00	0.00	819.22	0.02	0.01	0.00	817.60
490.	302.	169.	19	352.	109.	26.	182.	41.	817.40
1.33	0.86	1.54	0.75	0 040	0 035	0.040	0.000	809.40	0.00
0.000197	49.	49.	49.	0	0	0	0.00	200.00	200.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= 0.300 CEHV= 0.500
*SECNO 19550.000
3280 CROSS SECTION 19550.00 EXTENDED 1.02 FEET

3370 NORMAL BRIDGE, NRD= 19 MIN ELTRD= 815.50 MAX ELLC= 816.60

3470 ENCROACHMENT STATIONS= 0.0 215.0 TYPE= 1 TARGET= 215.000

D/S FACE OF DAM AT GATE OF RETENTION POND #2

19550.00	9.82	819.22	0.00	0.00	819.22	0.00	0.00	0.01	817.60
140	77.	58.	5.	356.	91.	26.	182.	41.	817.40
1.33	0.22	0.63	0.19	0.040	0.013	0.040	0.000	809.40	0.00
0.000012	1.	1.	1.	2	0	0	-18.92	200.00	200.00

*SECNO 19562.000
3280 CROSS SECTION 19562.00 EXTENDED 1.02 FEET

3370 NORMAL BRIDGE, NRD= 19 MIN ELTRD= 815.50 MAX ELLC= 816.60

U/S FACE OF DAM AT GAGE OF RETENTION POND #2

19562.00	9.82	819.22	0.00	0.00	819.22	0.00	0.00	0.00	817.60
140.	77.	58.	5.	356.	91.	26.	182	41.	817.40
1.34	0.22	0.63	0.19	0.040	0.013	0.040	0.000	809.40	0.00
0.000012	12.	12.	12.	0	0	0	-18.92	200.00	200.00

CCHV= 0.100 CEHV= 0.300
*SECNO 19563.000
3280 CROSS SECTION 19563.00 EXTENDED 1.02 FEET

19563.00	9.82	819.22	0.00	0.00	819.22	0.00	0.00	0.00	811.40
140.	78.	47.	15.	434.	116.	65.	182.	41.	811.40
1.34	0.18	0.41	0.23	0.040	0.035	0.040	0.000	809.40	0.00
0.000006	1.	1.	1.	0	0	0	0.00	200.00	200.00

*SECNO 19581.000
3280 CROSS SECTION 19581.00 EXTENDED 1.02 FEET

19581.00	7.82	819.22	0.00	0.00	819.23	0.00	0.00	0.00	811.40
140	94.	46.	0.	434.	94.	0.	182.	41.	811.40
1.36	0.22	0.49	0.31	0.040	0.035	0.040	0.000	811.40	0.00
0.000008	18.	18	18.	0	0	0	0.00	187.00	187.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 19900.000
3280 CROSS SECTION 19900.00 EXTENDED 4.23 FEET

19900.00	9.23	819.23	0.00	0.00	819.23	0.01	0.00	0.00	812.00
140.	43.	39.	58.	79.	53.	108.	185.	42.	812.00
1.51	0.54	0.73	0.54	0.040	0.035	0.040	0.000	810.00	0.00
0.000025	319.	319.	319.	0	0	0	0.00	40.00	40.00

CCHV= 0.100 CEHV= 0.300
*SECNO 20650.000

3470 ENCROACHMENT STATIONS= 21.0 115.0 TYPE= 1 TARGET= 94.000
CROSS SECTION K

20650.00	6.75	819.25	0.00	0.00	819.25	0.00	0.02	0.00	818.30
140.	4.	127.	10.	16.	275.	29.	190.	43.	818.40
1.97	0.23	0.46	0.33	0.035	0.045	0.035	0.000	812.50	21.00
0.000029	750.	750.	750.	1	0	0	0.00	94.00	115.00

*SECNO 20799.000

20799.00	6.23	819.23	0.00	0.00	819.27	0.04	0.01	0.01	819.40
140.	0.	140.	0.	0.	88.	0.	190.	44	819.40
2.00	0.00	1.60	0.00	0.000	0.045	0.000	0.000	813.00	245.08
0.000515	149.	149.	149.	1	0	0	0.00	19.74	264.82

CCHV= 0.300 CEHV= 0.500
*SECNO 20800.000

3370 NORMAL BRIDGE, NRD= 34 MIN ELTRD= 819.30 MAX ELLC= 816.70

D/S FACE OF ELLSWORTH

20800.00	6.12	819.12	0.00	0.00	819.39	0.27	0.00	0.12	819.40
140.	0.	140.	0.	0.	34.	0.	190.	44.	819.40
2.00	0.00	4.17	0.00	0.000	0 013	0.000	0.000	813.00	245.13
0.001173	1.	1.	1.	2	0	0	-51.75	19.54	264.68

*SECNO 20937.000

3370 NORMAL BRIDGE, NRD= 34 MIN ELTRD= 819.30 MAX ELLC= 816 70

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          U/S FACE OF ELLSWORTH
 20937.00      6.28    819.28      0.00      0.00    819.55      0.27      0.16      0.00    819.40
     140.        0.       140.        0.        0.       34        0.       190.       44.     819.40
     2.01     0 00      4.17      0.00     0.000     0.013     0.000     0.000    813.00    245.06
 0.001173      137.      137.      137.         2         0         0    -54.91     19.80    264.86

CCHV=    0.100 CEHV=    0.300
*SECND 20938.000
3280 CROSS SECTION   20938.00 EXTENDED       0.04 FEET

3470 ENCROACHMENT STATIONS=       245.0       265.0  TYPE=       1  TARGET=        20.000
 20938.00      6.54    819.54      0.00      0.00    819.57      0.03      0.00      0.02    819.40
     140.        0.       140.        0.        0.       94.        0.       190.       44  100000.00
     2.01     0 00      1.49      0.00     0.000     0.045     0.000     0.000    813.00    245.00
 0.000428        1.        1.        1.         2         0         0      0.00     20.00    265.00

*SECND 21087.000
3280 CROSS SECTION   21087.00 EXTENDED       0.88 FEET

 21087.00      7 08    819.58      0.00      0.00    819.58      0.00      0.01      0.00    818.30
     140.       11.       110.       19.       51.      297.       78.      191.       44.     818.40
     2.13     0.22      0.37      0.24     0.035     0.045     0.035     0.000    812.50      0.00
 0.000017      149.      149.      149.         2         0         0      0.00    166.05    166.05

*SECND 21970.000
3280 CROSS SECTION   21970.00 EXTENDED       3.70 FEET

3470 ENCROACHMENT STATIONS=       230.0       307.0  TYPE=       1  TARGET=        77.000
          CROSS SECTION L
 21970.00      7.00    819.60      0.00      0.00    819.60      0.00      0.02      0.00    817.20
     140.       18.       108.       14.       50.      217.       37.      199.       46.     817.00
     2.66     0.37      0.50      0.38     0.035     0.045     0.035     0.000    812.60    230.00
 0.000027       883       883.      883.         2         0         0      0.00     77.00    307.00

CCHV=    0.300 CEHV=    0.500
*SECND 22100.000
          D/S FACE OF DT&I RR
 22100.00      5.79    819.59      0.00      0.00    819.62      0.03      0.00      0.02    829.60
     140.        0.       140.        0.        0.       95.        0.       199        47.     829.70
     2 68     0.00      1.47      0.00     0.000     0.013     0.000     0.000    813.80    244.42
 0.000040      130.      130.      130.         1         0         0      0.00     24.73    269.15
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.66	2.90	0.00	8.00	0.00	23.60	0.00	813.80	813.80

*SECNO 22174.000
PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
821.04	819.62	0.00	0	140.	24.	32.	817.80	829.20

U/S FACE OF DT&I RR

22174.00	7.23	821.03	0.00	0.00	821.04	0.02	1.42	0.00	829.60
140.	0.	140.	0.	0.	132.	0.	200.	47.	829.70
2 70	0.00	1.06	0.00	0.000	0.013	0.000	0.000	813 80	243.07
0.000015	74.	74.	74.	1	0	0	0.00	26.92	269.99

CCHV= 0.100 CEHV= 0.300
*SECNO 22225.000
3280 CROSS SECTION 22225.00 EXTENDED 5.14 FEET

3470 ENCROACHMENT STATIONS= 210.0 329.0 TYPE= 1 TARGET= 119.000

22225.00	8 44	821.04	0.00	0.00	821.04	0.00	0.00	0.00	817.20
80.	20.	40.	20.	160.	279.	149.	200.	47.	817.00
2.80	0.13	0.14	0.13	0.035	0.045	0.035	0.000	812.60	210.00
0.000002	51.	51.	51.	1	0	0	0.00	119.00	329.00

*SECNO 24800.000

3265 DIVIDED FLOW

3280 CROSS SECTION 24800.00 EXTENDED 0.96 FEET

CROSS SECTION M

24800.00	3 75	821.05	0.00	0.00	821.05	0.00	0.01	0.00	818.60
80.	36.	13.	31.	271.	66.	207.	233.	64.	818.50
7.58	0.13	0.20	0.15	0.035	0.045	0.035	0.000	817.30	0.00
0.000007	2575	2575.	2575.	1	0	0	0.00	453.92	481.00

THIS RUN EXECUTED 15 JUL 88 8:23:12

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
**************************************************

T1         TOWNSHIP OF PITTSFIELD FIS RESTUDY
T2         PITTSFIELD-ANN ARBOR DRAIN
T3        100-YEAR FLOOD ENCROCHED RUN

J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ

       0.         3.         0.         0.   0.000000       0.00       0.0         0.    770.960      0.000

J2  NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE

     15.000     0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
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   SECND     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         GLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

*PROF 2

CCHV=   0.300 CEHV=   0.500
*SECNO 2929.000
 2800 NAT Q1=    296.73  WSEL=    770.86  ENC Q1=    296.73  WSEL=    770.96  RATIO=  0.0000
 NAT Q1=    311.   RATIOS LOB, CH, ROB=  0.0292  0.7529  0.2179  WSEL=    770.96

3470 ENCROACHMENT STATIONS=      42.2      182.1  TYPE=     4  TARGET=       0.045
  2929.00     8.86   770.96     0.00   770.86   771.61     0.65     0.00     0.00   769.00
    1870.       13.    1474.     382.       8.     205.     181.       0.       0.   769.70
     0.00     1.72     7.20     2.11    0.065    0.040    0.065    0.000   762.10    42.19
 0.003974       0.       0.       0.        0        0        0     0.00   139.91   182.10


*SECNO 2959.000
 2800 NAT Q1=    296.61  WSEL=    770.98  ENC Q1=    296.61  WSEL=    771.08  RATIO=  0.0000
 NAT Q1=    311.   RATIOS LOB, CH, ROB=  0.0292  0.7530  0.2177  WSEL=    771.08

3470 ENCROACHMENT STATIONS=      42.2      182.1  TYPE=     4  TARGET=       0.045
  2959.00     8.86   771.08     0.00   770.98   771.73     0.65     0.12     0.00   769.12
    1870.       13.    1476.     381.       8.     205.     180.       0.       0.   769.82
     0.00     1.72     7.21     2.11    0.065    0.040    0.065    0.000   762.22    42.18
 0.003993       30.      30.      30.        0        0        0     0.00   139.93   182.11


CCHV=   0.500 CEHV=   1.000
*SECNO 2974.000
 2800 NAT Q1=    296.33  WSEL=    771.04  ENC Q1=    296.33  WSEL=    771.14  RATIO=  0.0000
 NAT Q1=    310.   RATIOS LOB, CH, ROB=  0.0292  0.7531  0.2177  WSEL=    771.14

3470 ENCROACHMENT STATIONS=      42.4      181.9  TYPE=     4  TARGET=       0.046
  2974.00     8.86   771.14     0.00   771.04   771.79     0.65     0.06     0.00   769.18
    1870.       12.    1477.     381.       7.     205.     180.       0.       0.   769.88
     0.00     1.70     7.22     2.11    0.065    0.040    0.065    0.000   762.28    42.37
 0.003996       15.      15.      15.        0        0        0     0.00   139.51   181.88


*SECNO 2989.000
 2800 NAT Q1=    296.43  WSEL=    771.10  ENC Q1=    296.43  WSEL=    771.20  RATIO=  0.0000
 NAT Q1=    311.   RATIOS LOB, CH, ROB=  0.0292  0.7530  0.2178  WSEL=    771.20

3470 ENCROACHMENT STATIONS=      42.3      181.9  TYPE=     4  TARGET=       0.045
  2989.00     8.86   771.20     0.00   771.10   771.85     0.65     0.06     0.00   769.24
    1870.       12.    1476.     381.       7.     205.     180.       1.       0.   769.94
     0.00     1.70     7.22     2.11    0.065    0.040    0.065    0.000   762.34    42.35
 0.003995       15.      15.      15.        0        0        0     0.00   139.56   181.90
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   SECND     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


CCHV=    0.500 CEHV=    1.000
*SECND 3029.000
 2800 NAT Q1=     509.73  WSEL=     771.20  ENC Q1=     509.73  WSEL=     771.30  RATIO=  0.0000
 NAT Q1=     529.   RATIOS LOB,CH,ROB=  0 0235  0.9568  0.0197  WSEL=     771.30

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=      208.1      252.8  TYPE=      4  TARGET=        0.036
          D/S FACE OF HURON PARKWAY DRIVE
  3029.00      7.38    771.28      0.00    771.20    773.18      1.90      0.09      1.25    770.00
    1870.        10      1857.       3.        11.       167         5.        1.        0.     770.50
     0.00      0.90     11.10      0.66     0.065     0.013     0.065     0.000    763.90    208.12
 0.001349       40.       40.       40.         1         0         0      0.00     44.64    252.76


SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS     768.17 ,NOT     771.28 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB  XK          XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
     0.00       1.57       2.90       0.00      25.00       3.00      112.00      0.00      763.90     763.90

*SECND 3200.000
 2800 NAT Q1=    1718.61  WSEL=     775.30  ENC Q1=    1718.61  WSEL=     775.40  RATIO=  0.0000
 NAT Q1=    1758.   RATIOS LOB,CH,ROB=  0.1040  0.7210  0.1750  WSEL=     775.40
 WATER EL=CHANGE FROM NATURAL PROFILES BRIDGE

3470 ENCROACHMENT STATIONS=      170.4      346.2  TYPE=      4  TARGET=        0 023
          U/S FACE OF HURON PARKWAY DRIVE
  3200.00     11.48    775.38      0.00    775.30    775.65      0.26      0.05      0.82    770.00
    1870.       175.     1381.      314.      241.      290.      459.         3.        1.     770.50
     0.02      0 73      4.76      0.68     0 065     0.013     0 065     0.000    763.90    170.44
 0 000119       171.      171.      171.         0         0         4      0.00    175.73    346.17


CCHV=    0.100 CEHV=    0.300
*SECND 3300.000
 2800 NAT Q1=    1072.06  WSEL=     775.50  ENC Q1=    1072.06  WSEL=     775.60  RATIO=  0.0000
 NAT Q1=    1102.   RATIOS LOB,CH,ROB=  0.0533  0.4973  0.4494  WSEL=     775.60
3280 CROSS SECTION    3300.00 EXTENDED       2.50 FEET


3470 ENCROACHMENT STATIONS=       32 8      252.7  TYPE=      4  TARGET=        0.028
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          CROSS SECTION A
  3300.00     12.10    775.60      0.00    775.50    775.68      0.08      0.02      0.02    770.40
    1870.        72.       959.       839.        68.       315.       767.         6.         1.    771.10
     0.03      1.06      3.04      1.09     0.065     0.035     0.065     0.000    763.50     32.84
 0.000306       100.      100.       100.         2         0         0      0.00    219.83    252.67

*SECND 3800.000
 2800 NAT Q1=     632.72  WSEL=     775.66  ENC Q1=     632.72  WSEL=     775.76  RATIO=   0.0000
 NAT Q1=     656.   RATIOS LOB,CH,ROB=   0.0421   0 6034   0.3545  WSEL=     775.76
3280 CROSS SECTION    3800.00 EXTENDED       0.85 FEET

3470 ENCROACHMENT STATIONS=       36.2       240.7  TYPE=       4  TARGET=         0.036
  3800.00     10.45    775.75      0.00    775.66    775.96      0.21      0.24      0.04    772.20
    1870.        54.      1166.       650.        36.       259.       460.        16         4.    772.90
     0.07      1.51      4.50      1.41     0 065     0.035     0.065     0.000    765.30     36.18
 0.000870       500.      500.       500.         2         0         0      0.00    204.50    240.68

*SECND 4300.000
 2800 NAT Q1=     368.73  WSEL=     776.12  ENC Q1=     368 73  WSEL=     776.22  RATIO=   0.0000
 NAT Q1=     385.   RATIOS LOB,CH,ROB=   0.0295   0 7452   0.2253  WSEL=     776.22

3470 ENCROACHMENT STATIONS=       41.1       187.0  TYPE=       4  TARGET=         0.041
  4300.00      9.09    776 19      0.00    776.12    776.77      0.58      0.70      0.11    774.00
    1870.        17.      1456       397.        11.       213.       214.        23.         6.    774.70
     0.10      1.55      6.84      1.85     0.065     0.035     0.065     0.000    767.10     41.05
 0.002605       500.      500.       500.         2         0         0      0.00    145.93    186.98

*SECND 4800.000
 2800 NAT Q1=     294.72  WSEL=     777.51  ENC Q1=     294.72  WSEL=     777.61  RATIO=   0.0000
 NAT Q1=     309.   RATIOS LOB,CH,ROB=   0.0232   0.8084   0.1684  WSEL=     777.61

3470 ENCROACHMENT STATIONS=       45 3       176.6  TYPE=       4  TARGET=         0.045
  4800.00      8.60    777.60      0.00    777.51    778.47      0.87      1.61      0.09    775.90
    1870.         1.      1587       282.         1.       196.       146.        28.         7.    776.60
     0.11      0.89      8.10      1.93     0.065     0.035     0.065     0.000    769.00     45.34
 0.004088       500.      500.       500.         2         0         0      0.00    131.24    176.58

CCHV=    0.500 CEHV=    1.000
*SECND 5100.000
 2800 NAT Q1=     320.64  WSEL=     778.80  ENC Q1=     320.64  WSEL=     778.90  RATIO=   0.0000
 NAT Q1=     335.   RATIOS LOB,CH,ROB=   0.0256   0.7850   0.1894  WSEL=     778.90

3470 ENCROACHMENT STATIONS=       42.9       180.6  TYPE=       4  TARGET=         0.042
  5100.00      8.83    778.93      0 00    778.80    779.65      0.72      1.10      0.08    777.00
    1870.         9.      1527.       334.         6.       204.       175         30.         8.    777.70
     0.13      1 48      7.50      1.91     0.065     0.035     0.065     0.000    770.10     42.89
 0.003323       300.      300.       300.         3         0         0      0.00    137.70    180.59
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


*SECNO 5280.000
 2800 NAT Q1=     373.22  WSEL=     779 32  ENC Q1=     373.22  WSEL=     779.42  RATIO=  0.0000
 NAT Q1=     485.   RATIOS LOB,CH,ROB=  0.1378  0.7508  0.1114  WSEL=     779.42

3470 ENCROACHMENT STATIONS=      181.8      236.0  TYPE=      4  TARGET=        0.230
          CROSS SECTION B
  5280.00      8.65    779.45      0.00    779.32    780.20      0.75      0.52      0.02    777.20
    1870.       48.      1822.       0.       29.       260.       0.        32.       9.      778.00
     0.14      1.66      7.02      0.00     0.060     0.035     0.000     0.000    770.80    181.84
 0.002578      180.      180.      180.         2         0         0      0.00     54.16    236.00


*SECNO 5310.000
 2800 NAT Q1=     305.23  WSEL=     779.41  ENC Q1=     306.15  WSEL=     779.51  RATIO= -0.0030
 NAT Q1=     354.   RATIOS LOB,CH,ROB=  0.0824  0.8646  0.0530  WSEL=     779.51

3470 ENCROACHMENT STATIONS=      200 0      236.0  TYPE=      4  TARGET=        0.135
  5310.00      7.95    779.55      0.00    779 41    780.54      0.99      0.09      0.25    778.00
    1870.        0.      1870        0.        0.       234        0.        32.       9.      778.80
     0.14      0.00      7.99      0.00     0 000     0.035     0.000     0.000    771.60    200.00
 0 003938       30.       30.       30         1         0         0      0.00     36.00    236.00


*SECNO 5320.000
 2800 NAT Q1=     276.97  WSEL=     779.45  ENC Q1=     278.38  WSEL=     779.55  RATIO= -0.0051
 NAT Q1=     304.   RATIOS LOB,CH,ROB=  0.0547  0.9160  0.0292  WSEL=     779.55

3470 ENCROACHMENT STATIONS=      200.0      236.0  TYPE=      4  TARGET=        0.084
  5320.00      7.59    779.59      0.00    779.45    780.70      1.11      0.04      0.12    778.40
    1870.        0.      1870.       0.        0.       221.       0.        32.       9.      779.20
     0.14      0.00      8.45      0 00     0.000     0.035     0.000     0.000    772.00    200.00
 0.004649       10.       10.       10.         0         0         0      0.00     36.00    236.00


*SECNO 5325 000
 2800 NAT Q1=     270.75  WSEL=     779.47  ENC Q1=     272.58  WSEL=     779.57  RATIO= -0.0068
 NAT Q1=     294.   RATIOS LOB,CH,ROB=  0.0490  0.9262  0.0248  WSEL=     779.57

3470 ENCROACHMENT STATIONS=      200.0      236.0  TYPE=      4  TARGET=        0.074
  5325.00      7.51    779.61      0.00    779.47    780 75      1.14      0.02      0.03    778.50
    1870.        0.      1870.       0.        0.       219.       0.        32.       9.      779.30
     0.14      0.00      8.56      0.00     0.000     0.035     0.000     0.000    772.10    200.00
 0.004819        5.        5.        5.         0         0         0      0.00     36.00    236.00
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	DLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARDB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 5330.000
2800 NAT Q1= 449.41 WSEL= 779.49 ENC Q1= 455.59 WSEL= 779.59 RATIO= -0.0138
NAT Q1= 461. RATIOS LOB,CH,ROB= 0.0061 0.9877 0.0061 WSEL= 779.59

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 192.0 223.0 TYPE= 4 TARGET= 0.012
D/S FACE OF HURON PARKWAY DRIVE

5330.00	7.43	779.63	0.00	779.49	781.74	2.11	0.01	0.98	783.50
1870	0.	1870.	0.	0.	160.	0.	32.	9.	783.50
0.14	0 00	11.67	0.00	0.000	0.013	0.000	0.000	772.20	193.43
0.001650	5.	5.	5.	0	0	0	0 00	27.76	221.19

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS 776.38 ,NOT 779.63 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.57	2.90	0.00	25.00	3.50	112.00	0.00	772.20	772.20

*SECNO 5470.000
2800 NAT Q1= 1417.77 WSEL= 783.94 ENC Q1= 1417.77 WSEL= 784.04 RATIO= 0.0000
NAT Q1= 1453. RATIOS LOB,CH,ROB= 0.1233 0.7538 0.1229 WSEL= 784.04
WATER EL=CHANGE FROM NATURAL PROFILES BRIDGE

3470 ENCROACHMENT STATIONS= 120.1 302.2 TYPE= 4 TARGET= 0.024
U/S FACE OF HURON PARKWAY DRIVE

5470.00	11.88	784.08	0.00	783.94	784.37	0.29	0.05	0.91	783.50
1870.	211.	1438.	221.	268.	292.	284.	34.	9.	783.50
0.15	0.79	4 93	0.78	0.060	0.013	0.060	0.000	772.20	120.11
0 000170	140.	140.	140.	0	0	4	0.00	182.05	302.16

CCHV= 0.100 CEHV= 0.300
*SECNO 5520.000
3280 CROSS SECTION 5520.00 EXTENDED 3.57 FEET

3470 ENCROACHMENT STATIONS= 79.0 300 0 TYPE= 1 TARGET= 221.000

5520.00	13.57	784.37	0 00	784.23	784.41	0.04	0.01	0 03	777.20
1870.	683.	889.	299.	790.	437.	383.	35.	9.	778.00
0.16	0.86	2.04	0.78	0.060	0.035	0.060	0.000	770.80	79.00
0.000104	50.	50.	50.	2	0	0	0.00	221.00	300.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 6300.000

3470 ENCROACHMENT STATIONS=			133.0	229.0	TYPE=	1	TARGET=	96.000	
CROSS SECTION C									
6300.00	8.76	784.36	0.00	784.21	784.67	0.31	0.19	0.08	100000.00
1870.	0.	1808.	62.	0.	397.	54.	53.	12.	781.30
0.21	0.00	4.56	1.14	0.000	0.035	0.060	0.000	775.60	133.00
0.001007	780.	780.	780.	2	0	0	0.00	96.00	229.00

*SECNO 6750.000

3470 ENCROACHMENT STATIONS=			125.0	194.0	TYPE=	1	TARGET=	69.000	
6750.00	9.12	784.72	0.00	784.60	785.03	0.31	0.35	0.00	787.60
1870.	0.	1870.	0.	0.	419.	0.	58.	13.	100000.00
0.23	0.00	4.46	0.00	0.000	0.028	0.000	0.000	775.60	131.57
0.000633	450.	450.	450.	2	0	0	0.00	62.42	194.00

CCHV= 0.500 CEHV= 1.000

*SECNO 6800.000

D/S FACE OF US-23 / WASHTENAW AVE.									
6800.00	9.44	784.74	0.00	784.62	785.34	0.60	0.02	0.29	792.40
1870.	0.	1870.	0.	0.	302.	0.	58.	13.	793.60
0.24	0.00	6.20	0.00	0.000	0.013	0.000	0.000	775.30	212.64
0.000338	50.	50.	50.	1	0	0	0.00	48.53	261.18

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.68	3.00	0.00	21.00	0.00	154.00	0.00	778.50	775.30

*SECNO 7388.000

PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
790.88	788.41	0.00	0.	1870.	154.	174.	786.80	792.60

U/S FACE OF CULVERT BEHIND DENNY'S RESTAURANT									
7388.00	12.16	790.66	0.00	790.54	790.88	0.22	5.54	0.00	793.90
1870.	0.	1870.	0.	0.	499.	0.	64.	14.	793.90
0.28	0.00	3.75	0.00	0.000	0.013	0.000	0.000	778.50	6.61
0.000096	588.	588.	588.	2	0	0	0.00	63.51	70.12

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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


CCHV=   0.100 CEHV=   0.300
*SECNO 7438.000

3470 ENCROACHMENT STATIONS=      102 0      241.0  TYPE=      1  TARGET=      139.000
  7438.00     15.25    790.85      0.00    790.74    790.90      0.04      0.00      0 02    787.60
    1870.       38.      1503.      328.      76.      833.      358.       65.       14.     781.30
     0.29      0.50      1.80      0.92     0.040     0.028     0.040     0.000    775.60    102.00
 0.000044       50.       50.       50.         2         0         0      0.00    139.00    241.00


CCHV=   0.500 CEHV=   1.000
*SECNO 9342.000
 2800 NAT Q1=     384.56  WSEL=     791.01  ENC Q1=     395.74  WSEL=     791.11  RATIO= -0.0291
 NAT Q1=     396.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=     791.11

3470 ENCROACHMENT STATIONS=       66 0      170.0  TYPE=      4  TARGET=        0.000
  9342.00      7.62    791.12      0.00    791.01    791.60      0.48      0.27      0.44    794.50
    1870.        0.      1870.       0.        0.      336.        0.      101.       18.     798.70
     0.39      0.00       5 56     0 00     0.000     0.035     0.000     0.000    783.50     78.87
 0.002216     1953.      1953.     1953.         2         0         0      0.00     70.14    149.01


CCHV=   0.500 CEHV=   1.000
*SECNO 9392.000
 2800 NAT Q1=     310.42  WSEL=     791.15  ENC Q1=     318.42  WSEL=     791.25  RATIO= -0.0257
 NAT Q1=     318.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=     791.25

3470 ENCROACHMENT STATIONS=      175.0      230.0  TYPE=      4  TARGET=        0.000
           D/S FACE OF FOOT BRIDGE
  9392.00      8.26    791.26      0.00    791 15    792.11      0.85      0.14      0.37    795.10
    1870.        0.      1870.       0.        0.      252.        0.      101.       18.     795.00
     0.39      0 00       7.41     0.00     0.000     0.035     0.000     0.000    783.00    179.62
 0.003433        50        50.       50.         0         0         0      0.00     45.01    224.63


SPECIAL BRIDGE

SB   XK          XKOR        CDFQ        RDLEN       BWC         BWP         BAREA       SS          ELCHU       ELCHD
      0.00        1.53        2.80        0.00       37.00        0.00      403.00        0.00      783.00      783.00

*SECNO 9400.000
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SECND	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

6070, LOW FLOW BY NORMAL BRIDGE

EGPRS= 0.000 EGLWC= 792.130 ELLC= 793.900 PCWSE= 791.257 ELTRD= 795.100
2800 NAT Q1= 300.28 WSEL= 791.18 ENC Q1= 307.30 WSEL= 791.28 RATIO= -0.0234
NAT Q1= 307. RATIOS LOB,CH,ROB= 0.0000 1.0000 0.0000 WSEL= 791.28
WATER EL=CHANGE FROM NATURAL PROFILES BRIDGE

3470 ENCROACHMENT STATIONS= 175.0 230.0 TYPE= 4 TARGET= 0.000
U/S FACE OF FOOT BRIDGE

9400.00	8.29	791.29	0.00	791.18	792.13	0.85	0.03	0.00	795.10
1870.	0	1870.	0.	0.	253.	0.	101.	18.	795.00
0.39	0.00	7.38	0.00	0.000	0.035	0.000	0.000	783.00	179.59
0.003390	8.	8.	8.	0	0	0	0.00	45.07	224.67

CCHV= 0.100 CEHV= 0.300
*SECNO 9450.000

3470 ENCROACHMENT STATIONS= 80.0 145.0 TYPE= 1 TARGET= 65.000
CROSS SECTION D

9450.00	8.42	791.92	0.00	792.00	792.28	0.37	0.10	0.05	100000.00
1870	0.	1870.	0.	0	385.	0.	102.	19.	100000.00
0.39	0.00	4.86	0.00	0.000	0.035	0.000	0.000	783.50	80.00
0.001356	50.	50.	50.	2	0	0	0.00	65.00	145.00

CCHV= 0.500 CEHV= 1.000
*SECNO 9550.000

3301 HV CHANGED MORE THAN HVINS

D/S FACE OF PLATT ROAD

9550.00	6.43	792.03	0.00	792.12	793.23	1.20	0.12	0.83	797 50
1870	0.	1870.	0.	0.	213.	0.	102.	19.	797.70
0.39	0.00	8.79	0.00	0 000	0.013	0.000	0.000	785.60	179.29
0.001030	100.	100.	100.	2	0	0	0.00	42.30	221.59

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.58	2.90	0.00	40.00	0.00	196.00	0.00	785.60	785.60

*SECNO 9701.000

6070, LOW FLOW BY NORMAL BRIDGE

EGPRS= 0.000 EGLWC= 793.234 ELLC= 793.300 PCWSE= 792.034 ELTRD= 796.500

3370 NORMAL BRIDGE, NRD= 44 MIN ELTRD= 796 50 MAX ELLC= 793.30

U/S FACE OF PLATT ROAD

9701.00	6.66	792.26	0.00	792.34	793.92	1.66	0.23	0.46	797.50
1870.	0.	1870	0.	0.	181.	0.	103.	19.	797.70
0.40	0.00	10.32	0.00	0.000	0 013	0.000	0.000	785.60	179.23
0.002402	151.	151	151.	2	0	0	-41.14	42.49	221.72

CCHV= 0.500 CEHV= 1.000

*SECNO 9801.000

3301 HV CHANGED MORE THAN HVINS

9801.00	11 18	794.68	0.00	794.73	794.77	0.09	0.07	0.78	794.50
1500.	10.	1490.	0.	33.	627.	0.	104.	19.	798.70
0.41	0.29	2.38	0.00	0.060	0.035	0.000	0.000	783.50	10.14
0.000257	100.	100.	100.	3	0	0	0.00	148.71	158.86

*SECNO 11200.000

CROSS SECTION E

11200.00	8.02	795.42	0.00	795.45	795.83	0.42	0.74	0.33	797.40
1500.	0.	1500.	0.	0.	289.	0.	119.	22.	799.30
0.48	0 00	5.19	0.00	0.000	0.035	0.000	0.000	787.40	3.70
0.001635	1399.	1399.	1399.	2	0	0	0.00	51 34	55.03

*SECNO 12000.000

3470 ENCROACHMENT STATIONS= 225.0 284.0 TYPE= 1 TARGET= 59.000

12000.00	6.56	797.26	0.00	797.20	797.93	0.67	1.85	0.25	794.40
1500.	0	1500.	0.	0.	229.	0.	124.	23.	100000.00
0 52	0.00	6.56	0.00	0.000	0.035	0.000	0.000	790.70	225.00
0.003504	800.	800.	800.	3	0	0	0.00	49.94	274.94

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= 0 500 CEHV= 1.000
*SECNO 12100.000
2800 NAT Q1= 472.30 WSEL= 797.36 ENC Q1= 490.98 WSEL= 797.46 RATIO= -0.0396
NAT Q1= 491. RATIOS LOB,CH,ROB= 0.0000 1.0000 0.0000 WSEL= 797.46

3470 ENCROACHMENT STATIONS= 274.0 326.0 TYPE= 4 TARGET= 0.000
D/S FACE OF PACKARD ROAD

12100.00	5.73	797.43	0.00	797.36	798.33	0.91	0.17	0.24	802.30
1500.	0	1500.	0.	0.	196.	0.	124	23.	803.30
0.52	0.00	7.64	0.00	0.000	0.013	0.000	0.000	791.70	275.13
0.000957	100.	100.	100.	2	0	0	0.00	48.18	323.32

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS 793.72 ,NOT 797.43 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0 00	1.57	2.90	0.00	47.00	15 00	180.00	0.00	791.70	791.70

*SECNO 12262.000
PRESS FLOW BECAUSE EGLWC OF 799.13 EXCEEDS 1.5 DEPTH
2800 NAT Q1= 699.53 WSEL= 798.49 ENC Q1= 719.02 WSEL= 798.59 RATIO= -0.0279
NAT Q1= 719. RATIOS LOB,CH,ROB= 0.0000 1.0000 0.0000 WSEL= 798.59
WATER EL=CHANGE FROM NATURAL PROFILES BRIDGE

3470 ENCROACHMENT STATIONS= 274.0 326.0 TYPE= 4 TARGET= 0.000
U/S FACE OF PACKARD ROAD

12262.00	6.85	798.55	0.00	798.49	799.11	0.55	0.10	0.18	802.30
1500.	0.	1500.	0.	0.	251.	0.	125.	23.	803.30
0.53	0.00	5.97	0.00	0 000	0.013	0.000	0.000	791.70	274.87
0.000444	162.	162.	162.	0	0	0	0.00	48.96	323.83

CCHV= 0.100 CEHV= 0.300
*SECNO 12362.000
2800 NAT Q1= 444.82 WSEL= 798.86 ENC Q1= 444.82 WSEL= 798.96 RATIO= 0.0000
NAT Q1= 457. RATIOS LOB,CH,ROB= 0.0752 0.9248 0.0000 WSEL= 798.96

3470 ENCROACHMENT STATIONS= 214.6 284.0 TYPE= 4 TARGET= 0.026
CROSS SECTION F

12362.00	8.20	798.90	0.00	798.86	799.20	0.30	0.07	0.03	794.40
1500.	82.	1418.	0.	41.	316.	0.	126.	24.	799.70
0.54	1.99	4.49	0.00	0.060	0.035	0.000	0.000	790.70	214.58
0.001161	100.	100	100.	2	0	0	0.00	66.46	281.04

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 12862.000
2800 NAT Q1= 397.42 WSEL= 799.46 ENC Q1= 397.42 WSEL= 799.56 RATIO= 0.0000
NAT Q1= 409. RATIOS LOB,CH,ROB= 0.0679 0.9321 0.0000 WSEL= 799.56

3470 ENCROACHMENT STATIONS= 215.9 284.0 TYPE= 4 TARGET= 0.028

12862.00	7.81	799.51	0.00	799.46	799.86	0.35	0.64	0.02	795.40
1500.	74.	1426.	0.	33.	294.	0.	130	24.	800.70
0.57	2.20	4.84	0.00	0.060	0.035	0.000	0.000	791.70	215.89
0.001433	500.	500.	500.	1	0	0	0.00	63.72	279.61

*SECNO 13362.000
2800 NAT Q1= 368.40 WSEL= 800.20 ENC Q1= 368.40 WSEL= 800.30 RATIO= 0.0000
NAT Q1= 379. RATIOS LOB,CH,ROB= 0.0630 0.9370 0.0000 WSEL= 800.30

3470 ENCROACHMENT STATIONS= 216.8 284.0 TYPE= 4 TARGET= 0.029

13362.00	7.55	800.25	0.00	800.20	800.65	0.40	0.78	0.02	796.40
1500.	53.	1447.	0.	28.	280.	0.	133.	25.	801.70
0.59	1.88	5.16	0.00	0.060	0.035	0.000	0.000	792.70	216.83
0.001695	500.	500.	500.	0	0	0	0.00	61.82	278.64

CCHV= 0.500 CEHV= 1.000
*SECNO 14050.000

3470 ENCROACHMENT STATIONS= 24.0 94.0 TYPE= 1 TARGET= 70.000
SECTION FROM RETENTION BASIN PLANS

14050.00	7.65	801.65	0.00	801.57	801.90	0.24	1.16	0.08	100000.00
1500.	0.	1500.	0.	0.	379.	0.	139.	26.	100000.00
0.64	0.00	3.96	0.00	0.000	0.045	0.000	0.000	794.00	24.00
0.001691	688.	688.	688.	2	0	0	0.00	70.00	94.00

*SECNO 14085.000

3470 ENCROACHMENT STATIONS= 33.0 84.0 TYPE= 1 TARGET= 51.000

14085.00	6.54	801.74	0.00	801.66	802.25	0.51	0.09	0.27	100000.00
1500	0.	1500.	0.	0.	262.	0.	139.	26.	100000.00
0.64	0.00	5.73	0.00	0.000	0.045	0.000	0.000	795.20	33.00
0.004010	35.	35.	35.	2	0	0	0.00	51.00	84.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= 0.500 CEHV= 1.000
*SECNO 14099.000

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

14099.00	6.11	801.81	801.81	801.81	803.48	1.68	0.04	1.17	808.70
1500.	0.	1500.	0.	0.	144.	0.	139.	26.	808.90
0.64	0.00	10.39	0.00	0.000	0.013	0.000	0.000	795.70	23.41
0.002436	14.	14.	14.	0	11	0	0.00	44.23	67.64

*SECNO 14100.000

4575 CRITICAL DEPTH ASSUMED BELOW ELLC OF 803.400 EGLC= 805.579 EGC= 810.459 WSEL= 809.314

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE, NRD= 29 MIN ELTRD= 808.70 MAX ELLC= 803.40

D/S FACE OF DAM AT GATE OF RETENTION POND #1

14100.00	6.11	801.81	801.74	801.81	804.77	2.96	0.00	1.29	808.70
1500.	0.	1500.	0.	0.	109.	0.	139.	26.	808.90
0.64	0.00	13.81	0.00	0.000	0.013	0.000	0.000	795.70	23.40
0.005091	1	1.	1.	0	25	0	-35.93	44.25	67.65

*SECNO 14158.000

4575 CRITICAL DEPTH ASSUMED BELOW ELLC OF 803.400 EGLC= 805.577 EGC= 810.456 WSEL= 809.311

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE, NRD= 31 MIN ELTRD= 808.70 MAX ELLC= 803.40

3685 20 TRIALS ATTEMPTED WSEL, CWSEL

14158.00	7.58	803.28	801.73	803.28	805.47	2.18	0.30	0.39	808.70
1500.	0.	1500.	0.	0.	127.	0.	139.	26.	808.90
0.64	0.00	11.85	0.00	0.000	0.013	0.000	0.000	795.70	10.75
0.005364	58.	58.	58.	28	25	0	-228.57	70.29	81.03

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 14159.000

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 10.0 81.0 TYPE= 1 TARGET= 71.000

14159.00	10.70	806.40	0.00	806.40	806.50	0.11	0.00	1.04	100000.00
1500.	0.	1500.	0.	0.	576.	0.	139.	26.	100000.00
0.64	0.00	2.60	0.00	0.000	0.013	0.000	0.000	795.70	10.00
0.000065	1.	1.	1.	3	0	0	0.00	71.00	81.00

*SECNO 14169.000

3470 ENCROACHMENT STATIONS= 11.0 101.0 TYPE= 1 TARGET= 90.000

14169.00	10.30	806.40	0.00	806.40	806.53	0.13	0.00	0.02	100000.00
1500	0.	1500.	0.	0.	518.	0.	139.	26.	100000.00
0.65	0.00	2.90	0.00	0.000	0.013	0.000	0.000	796.10	11.00
0.000081	10.	10	10.	2	0	0	0.00	90.00	101.00

*SECNO 14179.000

D/S END OF RETENTION BASIN NO. 1

14179.00	7 40	806.40	0.00	806.40	806.67	0.27	0.00	0.14	807.00
1500.	0.	1500.	0.	0.	359.	0.	140.	26.	807.00
0.65	0.00	4.18	0.00	0.000	0.013	0.000	0.000	799.00	2.40
0.000195	10.	10.	10.	0	0	0	0.00	82.81	85.21

CCHV= 0.100 CEHV= 0.300

*SECNO 14900.000

U/S END OF RETENTION BASIN NO. 1

14900.00	7.69	806.69	0.00	806.69	806.92	0 24	0.25	0.00	807.00
1500.	0.	1500.	0.	0.	383.	0	146.	28.	807.00
0.70	0.00	3.91	0.00	0 000	0.028	0.000	0.000	799.00	1.25
0.000767	721.	721.	721.	2	0	0	0.00	86.24	87.49

*SECNO 14950.000

CROSS SECTION G

14950.00	6.68	806.68	0.00	806.68	806.99	0 31	0.05	0.02	809.80
1500.	0.	1500.	0.	0.	337.	0.	146.	28.	810.60
0.70	0.00	4.45	0.00	0.000	0.028	0.000	0.000	800.00	388.13
0.001096	50.	50.	50.	2	0	0	0.00	81.71	469.84

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
*SECNO 15750.000									
CROSS SECTION H									
15750.00	6.62	807.42	0.00	807.42	807.46	0.04	0.45	0.03	808.20
490.	0.	490.	0.	0.	289.	0.	152.	29.	813.00
0.83	0.00	1.70	0.00	0.000	0.028	0.000	0.000	800.80	556.73
0.000158	800.	800.	800.	0	0	0	0.00	69.33	626.06
CCHV= 0.500 CEHV= 1.000									
*SECNO 16450.000									
16450.00	3.32	807.72	0.00	807.72	808.15	0.43	0.30	0.38	809.70
490.	0.	490.	0.	0.	94.	0.	155.	30.	810.00
0.87	0.00	5.24	0.00	0.000	0.028	0.000	0.000	804.40	111.09
0.003656	700.	700.	700.	2	0	0	0.00	44.16	155.25
CCHV= 0.500 CEHV= 1.000									
*SECNO 16480.000									
3470 ENCROACHMENT STATIONS=		117.0	148.0	TYPE=	1	TARGET=		31.000	
16480.00	3.24	807.84	0.00	807.84	808.42	0.58	0.12	0.15	100000.00
490	0	490.	0.	0.	80.	0.	155.	30.	100000.00
0.87	0.00	6.11	0.00	0.000	0.028	0.000	0.000	804.60	117.00
0.004279	30.	30.	30.	2	0	0	0.00	31.00	148.00
*SECNO 16490.000									
3470 ENCROACHMENT STATIONS=		120.0	146.0	TYPE=	1	TARGET=		26.000	
16490.00	3.29	807.89	0.00	807.88	808.59	0.70	0.05	0.12	100000.00
490.	0.	490.	0.	0.	73.	0.	155.	30.	100000.00
0.87	0.00	6.73	0.00	0.000	0.028	0.000	0.000	804.60	120.00
0.005021	10.	10.	10	0	0	0	0.00	26.00	146.00
*SECNO 16499.000									
3301 HV CHANGED MORE THAN HVINS									
7185 MINIMUM SPECIFIC ENERGY									
3720 CRITICAL DEPTH ASSUMED									
16499.00	3.85	808.55	808.55	808.55	809.82	1.27	0.06	0.57	815.20
490.	0.	490.	0.	0.	54.	0.	155.	30.	815.50
0.87	0.00	9.05	0.00	0.000	0.028	0.000	0.000	804.70	189.30
0.009650	9.	9.	9.	2	8	0	0.00	21.25	210.56

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	GLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= 0.500 CEHV= 1.000
*SECNO 16500.000

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE, NRD= 19 MIN ELTRD= 815.00 MAX ELLC= 812.90

D/S FACE OF BIRCH HOLLOW ROAD

16500.00	3.86	808.56	808.51	808.56	810.38	1.82	0.01	0.54	815.20
490.	0.	490.	0.	0.	45.	0.	155.	30.	815.50
0.87	0.00	10.81	0.00	0.000	0.028	0.000	0.000	804.70	189.28
0.012606	1.	1.	1.	0	12	0	-9 01	21.29	210.58

*SECNO 16572.000

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE, NRD= 19 MIN ELTRD= 815.00 MAX ELLC= 812.90

U/S FACE OF BIRCH HOLLOW ROAD

16572.00	5.87	810.57	0.00	810.57	811.39	0.82	0.52	0.50	815.20
490.	0.	490.	0.	0.	67.	0.	155.	30.	815.50
0.87	0.00	7.28	0.00	0.000	0.028	0.000	0.000	804.70	184.97
0.004616	72.	72.	72.	4	0	0	-38.22	29.77	214.74

CCHV= 0.500 CEHV= 1.000
*SECNO 16573.000

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 184.0 216.0 TYPE= 1 TARGET= 32.000

16573.00	7.91	811.61	0.00	811.61	811.74	0.13	0.00	0.35100000.00	
490.	0.	490.	0.	0.	170.	0.	155.	30.	100000.00
0.87	0.00	2.88	0.00	0.000	0.035	0.000	0.000	803.70	184.00
0.000634	1.	1.	1.	3	0	0	0.00	32.00	216.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= 0.100 CEHV= 0.300
*SECNO 16621.000

16621.00	6.01	811.71	0.00	811.71	811.77	0.06	0.02	0.01	811.00
490.	1.	488.	0.	4.	243.	2.	155.	30.	811.30
0.88	0.29	2.01	0.20	0.050	0.035	0.050	0.000	805.70	87.39
0.000380	49.	49.	49.	2	0	0	0.00	83.73	171.12

*SECNO 16822.000

16822.00	6.08	811.78	0.00	811.78	811.84	0.06	0.07	0.00	811.00
490.	2.	488.	1.	5.	248.	2.	157.	31.	811.30
0.91	0.30	1.97	0.22	0 050	0.035	0.050	0.000	805.70	86.02
0.000355	201.	201.	201.	2	0	0	0.00	86.63	172.65

CCHV= 0.300 CEHV= 0.500
*SECNO 16872.000

3470 ENCROACHMENT STATIONS= 70.0 102.0 TYPE= 1 TARGET= 32.000
D/S FACE OF PRIVATE BRIDGE BEHIND APT. COMPLEX

16872.00	7 08	811.78	0.00	811.79	811.88	0.11	0.02	0.02	807.30
490.	0.	490.	0.	0.	185.	0.	157.	31.	100000.00
0.91	0.00	2.65	0.00	0 000	0.028	0.000	0.000	804.70	70.00
0.000344	50.	50.	50.	2	0	0	0.00	32.00	102.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.55	2.80	0.00	32.00	0.00	195.00	0.00	806.80	806.80

*SECNO 16880.000

6070, LOW FLOW BY NORMAL BRIDGE

EGPRS= 0.000 EGLWC= 811.934 ELLC= 812.900 PCWSE= 811.776 ELTRD= 814.800
2800 NAT Q1= 286.95 WSEL= 811.77 ENC Q1= 294.28 WSEL= 811.87 RATIO= -0.0256
NAT Q1= 295. RATIOS LOB, CH, ROB= 0.0000 0.9964 0.0036 WSEL= 811.87
WATER EL=CHANGE FROM NATURAL PROFILES BRIDGE

3470 ENCROACHMENT STATIONS= 70.0 102.0 TYPE= 4 TARGET= 0.004
U/S FACE OF PRIVATE BRIDGE BEHIND APT. COMPLEX

16880.00	7 06	811.76	0.00	811.77	811.87	0.11	0.00	0.00	807.30
490.	0.	490.	0.	0.	184.	0.	157.	31.	806.80
0.91	0.00	2.66	0.00	0 000	0.028	0.000	0.000	804.70	70.00
0.000348	8.	8.	8.	0	0	0	0.00	32.00	102.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 16916.000
2800 NAT Q1= 505.23 WSEL= 811.88 ENC Q1= 505.23 WSEL= 811.98 RATIO= 0.0000
NAT Q1= 528. RATIOS LOB,CH,ROB= 0.0224 0.9533 0.0243 WSEL= 811.98

3470 ENCROACHMENT STATIONS= 99.4 165.8 TYPE= 4 TARGET= 0.043

16916.00	7.16	811.86	0.00	811.88	811.89	0.04	0.01	0.02	810.00
490.	0.	489.	1.	1.	315.	4.	157.	31.	810.30
0.92	0.18	1.55	0.30	0.050	0.028	0 050	0.000	804.70	99.38
0.000102	36.	36.	36.	2	0	0	0.00	66.41	165.79

*SECNO 16952.000

3470 ENCROACHMENT STATIONS= 125.0 157.0 TYPE= 1 TARGET= 32.000
D/S FACE OF PRIVATE BRIDGE BEHIND APT. COMPLEX

16952.00	7.02	811.82	0.00	811.86	811.94	0.11	0.01	0 04	807.10
490.	0.	490.	0.	0.	182.	0.	157.	31.	100000.00
0.92	0.00	2 70	0.00	0.000	0.028	0.000	0.000	804.80	125.00
0.000369	36.	36.	36.	2	0	0	0.00	32.00	157.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.55	2.80	0.00	32.00	0.00	196.00	0.00	806.80	806.80

*SECNO 16960.000

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS= 0.000 EGLWC= 812.004 ELLC= 813.000 PCWSE= 811.824 ELTRD= 814.700
2800 NAT Q1= 278.60 WSEL= 811.84 ENC Q1= 286.12 WSEL= 811.94 RATIO= -0.0270
NAT Q1= 287. RATIOS LOB,CH,ROB= 0.0000 0.9979 0.0021 WSEL= 811.94
WATER EL=CHANGE FROM NATURAL PROFILES BRIDGE

3470 ENCROACHMENT STATIONS= 125.0 157.0 TYPE= 4 TARGET= 0.002
U/S FACE OF PRIVATE BRIDGE BEHIND APT COMPLEX

16960.00	7 00	811.80	0.00	811.84	811.92	0.11	0.00	0.00	807.10
490.	0.	490.	0.	0.	181.	0.	157.	31.	806.80
0.93	0.00	2.71	0.00	0.000	0.028	0.000	0.000	804.80	125.00
0.000373	8.	8.	8.	0	0	0	0.00	32.00	157.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= 0.100 CEHV= 0.300
*SECNO 17000.000
2800 NAT Q1= 343.69 WSEL= 811.91 ENC Q1= 355.97 WSEL= 812.01 RATIO= -0.0357
NAT Q1= 359. RATIOS LOB,CH,ROB= 0.0048 0.9928 0.0023 WSEL= 812.01

3470 ENCROACHMENT STATIONS= 100.0 163.0 TYPE= 4 TARGET= 0.007
CROSS SECTION I

17000.00	6.18	811.88	0.00	811.91	811.93	0.06	0.01	0.01	811.00
490	0.	490.	0.	0.	254.	0.	157.	31.	811.30
0.93	0.00	1.93	0.00	0.000	0.028	0.000	0.000	805.70	100.00
0.000219	40.	40.	40.	2	0	0	0.00	63.00	163.00

CCHV= 0.300 CEHV= 0.500
*SECNO 17155.000
2800 NAT Q1= 67.89 WSEL= 811.81 ENC Q1= 69.85 WSEL= 811.91 RATIO= -0.0288
NAT Q1= 70. RATIOS LOB,CH,ROB= 0.0000 1.0000 0.0000 WSEL= 811.91

3470 ENCROACHMENT STATIONS= 190.0 250.0 TYPE= 4 TARGET= 0.000
D/S FACE OF I-94

17155.00	5.27	811.77	0.00	811.81	812.22	0.45	0.09	0.20	819.30
490.	0.	490.	0.	0.	91.	0.	158.	31.	819.30
0.94	0.00	5.40	0.00	0.000	0.045	0.000	0.000	806.50	200.46
0.005310	155.	155.	155.	2	0	0	0.00	18.63	219.09

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.70	3.20	0.00	16.00	0.00	123.00	0.00	806.50	806.50

*SECNO 17286.000

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS= 0.000 EGLWC= 812.934 ELLC= 813.900 PCWSE= 811.772 ELTRD= 819.000
2800 NAT Q1= 81.88 WSEL= 812.51 ENC Q1= 83.89 WSEL= 812.61 RATIO= -0.0246
NAT Q1= 84. RATIOS LOB,CH,ROB= 0.0000 1.0000 0.0000 WSEL= 812.61
WATER EL=CHANGE FROM NATURAL PROFILES BRIDGE

3470 ENCROACHMENT STATIONS= 190.0 250.0 TYPE= 4 TARGET= 0.000
U/S FACE OF I-94

17286.00	5.97	812.47	0.00	812.51	812.82	0.35	0.57	0.03	819.30
490.	0.	490.	0.	0.	104.	0.	158.	31.	819.30
0.95	0.00	4.72	0.00	0.000	0.045	0.000	0.000	806.50	200.11
0.003639	131.	131.	131.	0	0	0	0.00	18.98	219.10

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	GLOB	QCH	GROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= 0.300 CEHV= 0.500
*SECNO 17436.000
2800 NAT Q1= 159.66 WSEL= 813.09 ENC Q1= 166.58 WSEL= 813.19 RATIO= -0.0433
NAT Q1= 168. RATIOS LOB,CH,ROB= 0.0004 0.9920 0.0077 WSEL= 813.19

3470 ENCROACHMENT STATIONS= 100.0 163.0 TYPE= 4 TARGET= 0.008

17436.00	5.57	813.07	0.00	813.09	813.15	0.08	0.26	0.08	813.00
490.	0.	490.	0.	0.	213.	0.	159.	31.	812.30
0.97	0.00	2.30	0.00	0.000	0.045	0.000	0.000	807.50	100.00
0.000991	150.	150.	150.	2	0	0	0.00	63.00	163.00

*SECNO 17650.000
2800 NAT Q1= 91.75 WSEL= 813.37 ENC Q1= 96.53 WSEL= 813.47 RATIO= -0.0521
NAT Q1= 97. RATIOS LOB,CH,ROB= 0.0000 1.0000 0.0000 WSEL= 813.47

3470 ENCROACHMENT STATIONS= 100.0 163.0 TYPE= 4 TARGET= 0.000

17650.00	4.46	813.36	0.00	813.37	813.53	0.17	0.34	0.05	814.40
490.	0.	490.	0.	0.	147.	0.	160.	31.	813.70
0.98	0.00	3.34	0.00	0.000	0.045	0.000	0.000	808.90	105.82
0.002882	214.	214.	214.	2	0	0	0.00	55.73	161.56

CCHV= 0.500 CEHV= 1.000
*SECNO 17680.000
2800 NAT Q1= 86.66 WSEL= 813.46 ENC Q1= 91.29 WSEL= 813.56 RATIO= -0.0535
NAT Q1= 91. RATIOS LOB,CH,ROB= 0.0000 1.0000 0.0000 WSEL= 813.56

3470 ENCROACHMENT STATIONS= 100.0 163.0 TYPE= 4 TARGET= 0.000

17680.00	4.35	813.45	0.00	813.46	813.64	0.19	0.09	0.02	814.60
490.	0.	490.	0.	0.	140.	0.	160.	32.	813.90
0.99	0.00	3.49	0.00	0.000	0.045	0.000	0.000	809.10	106.46
0.003245	30.	30.	30.	0	0	0	0.00	54.62	161.07

*SECNO 17700.000
2800 NAT Q1= 80.43 WSEL= 813.53 ENC Q1= 85.24 WSEL= 813.63 RATIO= -0.0598
NAT Q1= 85. RATIOS LOB,CH,ROB= 0.0000 1.0000 0.0000 WSEL= 813.63

3470 ENCROACHMENT STATIONS= 100.0 163.0 TYPE= 4 TARGET= 0.000

17700.00	4.22	813.52	0.00	813.53	813.73	0.21	0.07	0.02	814.80
490.	0.	490.	0.	0.	133.	0.	160.	32.	814.10
0.99	0.00	3.68	0.00	0.000	0.045	0.000	0.000	809.30	107.18
0.003727	20.	20.	20.	0	0	0	0.00	53.34	160.52

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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

*SECNO 17735.000
 2800 NAT Q1=      33.64  WSEL=     813.79  ENC Q1=      35.09  WSEL=     813.89  RATIO= -0.0433
 NAT Q1=      35.   RATIOS LOB,CH,ROB=  0.0000   1.0000   0.0000  WSEL=     813.89

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=      150.0      180.0  TYPE=      4  TARGET=        0.000
 17735.00      4.28    813.78      0.00    813.79    814.44      0.66      0.26      0.45    817.30
     490.        0.       490        0.        0.       75.        0.       160.       32.     816.10
     0.99      0.00      6.53      0.00     0.000     0.045     0.000     0.000    809.50    151.85
 0.021346       35.       35.       35.         2         0         0      0.00     23.39    178.25


CCHV=    0.500 CEHV=    1.000
*SECNO 17736.000
 2800 NAT Q1=      66.69  WSEL=     813.80  ENC Q1=      69.01  WSEL=     813.90  RATIO= -0.0348
 NAT Q1=      69.   RATIOS LOB,CH,ROB=  0.0000   1.0000   0.0000  WSEL=     813.90

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS


3370 NORMAL BRIDGE,NRD= 27 MIN ELTRD=  816.00 MAX ELLC=  816.50

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      150.0      180.0  TYPE=      4  TARGET=        0.000
          D/S FACE OF BRIDGE AT DEAD END ROAD
 17736.00      4.29    813.79    813.79    813.80    815 68      1.89      0.01      1.23    817.30
     490.        0.       490.       0.        0.       44.        0.       160.       32.     816.10
     0.99      0.00     11 02      0.00     0.000     0.013     0.000     0.000    809.50    151.84
 0.005420        1.        1.        1.         0        16         0    -30.93     23.41    178.26


*SECNO 17769.000
 2800 NAT Q1=     118.49  WSEL=     815.57  ENC Q1=     122.11  WSEL=     815.67  RATIO= -0.0305
 NAT Q1=     122.   RATIOS LOB,CH,ROB=  0.0000   1.0000   0.0000  WSEL=     815.67
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN        SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID       ENDST


3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE, NRD= 27 MIN ELTRD=  816.00 MAX ELLC=  816.50


3470 ENCROACHMENT STATIONS=      150.0      180.0  TYPE=      4  TARGET=        0.000
          U/S FACE OF BRIDGE AT DEAD END ROAD
 17769.00      6.09    815.59      0.00    815.57    816.34      0.75      0.09      0.57    817.30
    490.         0.      490.        0.         0.      70.         0.       160.       32.     816.10
     0.99      0.00      6.95      0.00     0.000     0.013     0.000     0.000    809.50    150.90
 0.001677        33.       33.       33.         7         0         0    -53.80     28.72    179.62


*SECND 17770.000
 2800 NAT Q1=     119.42  WSEL=     816.46  ENC Q1=     123.76  WSEL=     816.56  RATIO= -0.0363
 NAT Q1=     133.   RATIOS LOB, CH, ROB=  0.0598  0.9323  0.0080  WSEL=     816.56
3280 CROSS SECTION  17770.00 EXTENDED       0.27 FEET


3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=      150.0      180.0  TYPE=      4  TARGET=        0.068
 17770.00      6.97    816.47      0.00    816.46    816.64      0.17      0.00      0.29    817.30
    490.         0.      490.        0.         0.     150.         0.       160.       32.     816.10
     0.99      0.00      3.27      0.00     0.000     0.035     0.000     0.000    809.50    150.44
 0.001677         1.        1.        1.         3         0         0      0.00     29.56    180.00


*SECND 17819.000

3470 ENCROACHMENT STATIONS=      116.0      147.0  TYPE=      1  TARGET=       31.000
 17819.00      7.01    816.61      0.00    816.61    816.71      0.09      0.04      0.04100000.00
    490.         0.      490.        0.         0.     199.         0.       160.       32.  100000.00
     1.00      0.00      2.46      0.00     0.000     0.035     0.000     0.000    809.60    116.00
 0.000431        49.       49.       49.         2         0         0      0.00     31.00    147.00


CCHV=    0.300 CEHV=    0.500
*SECND 17869.000
          D/S FACE OF STONE SCHOOL ROAD
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
17869.00	7.62	816.52	0.00	816.51	816.91	0.39	0.05	0.15	824.00
490.	0.	490.	0.	0.	97.	0.	160.	32.	822.80
1.00	0.00	5.03	0.00	0.000	0.045	0 000	0.000	808.90	65.50
0.004326	50.	50.	50.	2	0	0	0.00	14.98	80.48

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.50	2.60	0.00	14 00	0.00	58.00	0.00	808.90	808.90

*SECNO 17942.000
PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
818.18	816.91	0.00	0.	490.	58.	59.	813.10	824.00

U/S FACE OF STONE SCHOOL ROAD

17942.00	9.01	817.91	0.00	817.91	818.18	0.27	1.27	0.00	824.00
490	0.	490.	0.	0.	118.	0.	161.	32.	822.80
1.00	0.00	4.14	0.00	0.000	0.045	0 000	0.000	808.90	65.40
0.002561	73.	73.	73.	2	0	0	0.00	15.19	80.60

CCHV= 0.100 CEHV= 0.300
*SECND 17992.000
3280 CROSS SECTION 17992.00 EXTENDED 0.90 FEET

3470 ENCROACHMENT STATIONS= 90.0 180.0 TYPE= 1 TARGET= 90.000

17992.00	8.60	818.20	0.00	818.20	818.21	0.01	0.01	0.03	813.00
490.	20.	438.	32.	51.	446.	75.	161.	32.	813.30
1.02	0.39	0.98	0.43	0.070	0.045	0.070	0.000	809.60	90.00
0.000066	50.	50.	50.	2	0	0	0.00	90.00	180.00

*SECND 18270.000
2800 NAT Q1= 217.96 WSEL= 818.18 ENC Q1= 217.96 WSEL= 818.28 RATIO= 0.0000
NAT Q1= 258 RATIOS LOB, CH, ROB= 0.0059 0.8099 0.1842 WSEL= 818.28
3280 CROSS SECTION 18270.00 EXTENDED 1 39 FEET

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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


3470 ENCROACHMENT STATIONS=      67.0      111.6  TYPE=     4  TARGET=       0.155
 18270.00      8.49    818.19      0.00    818.18    818.27      0.08      0.04      0.02    817.20
      490.        0.      469.       21.       0.       201.       26.       164.       32.    815.70
     1.05       0 00      2.34      0.79     0.000     0.045     0.070     0.000    809.70     67.00
 0.000551       278.       278       278.        2         0         0      0.00     44.56    111.56


*SECNO 18319.000
 2800 NAT Q1=     206.99  WSEL=     818.21  ENC Q1=     212.89  WSEL=     818.31  RATIO= -0 0285
 NAT Q1=     215.   RATIOS LOB,CH,ROB=   0.0018   0.9884   0.0097  WSEL=     818.31

3470 ENCROACHMENT STATIONS=      85.0      123.0  TYPE=     4  TARGET=       0.012
 18319.00     10.42    818.22      0.00    818.21    818.30      0.08      0.03      0.00    817.40
      490        0.      490.        0.        0.       219.        0.       164.       32.    817.60
     1.06       0.00      2.23      0.00     0.000     0.045     0.000     0.000    807.80     85.00
 0.000582        49.       49.       49.         0         0         0      0.00     38.00    123.00


CCHV=    0.500 CEHV=    1.000
*SECNO 18320.000
 2800 NAT Q1=     149.60  WSEL=     818.21  ENC Q1=     149.60  WSEL=     818.31  RATIO=   0.0000
 NAT Q1=     151.   RATIOS LOB,CH,ROB=   0.0000   0.9868   0.0132  WSEL=     818.31

3301 HV CHANGED MORE THAN HVINS


3370 NORMAL BRIDGE,NRD= 23 MIN ELTRD=   818.00 MAX ELLC=   817.60


3470 ENCROACHMENT STATIONS=      85.0      131.0  TYPE=     4  TARGET=       0.013
           D/S FACE OF PLEASANT RUN
 18320.00     10.42    818.22      0.00    818.21    818.89      0 66      0.00      0.58    817.40
      490.        0.      490.        0.        0.        75.       1.       164.       32.    817.60
     1.06       0.00      6.53      0.17     0.000     0.013     0.070     0 000    807.80     85.00
 0.001074         1.         1         1.         0         0         0   -145.36     45.98    130.98


*SECNO 18373.000
 2800 NAT Q1=     149.50  WSEL=     818.27  ENC Q1=     149.50  WSEL=     818.37  RATIO=   0.0000
 NAT Q1=     152.   RATIOS LOB,CH,ROB=   0.0000   0.9814   0.0186  WSEL=     818.37
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


3370 NORMAL BRIDGE, NRD= 23 MIN ELTRD=  818.00 MAX ELLC=  817.60


3470 ENCROACHMENT STATIONS=      85.0      123.1  TYPE=     4  TARGET=       0.018
          U/S FACE OF PLEASANT RUN
 18373.00     10.48    818.28     0.00    818.27    818.94     0.66      0.06      0.00    817.40
    490.         0.      490.       0.       0.        75.       0.       164.       32.     817.60
     1.06      0.00      6.53      0.00     0.000     0.013     0.000     0.000   807.80     85.00
 0.001074       53.       53.       53.        0         0         0   -146.86    38.11    123.11


CCHV=   0.100 CEHV=   0.300
*SECNO 18374.000
 2800 NAT Q1=     243.75  WSEL=     818.93  ENC Q1=     258.12  WSEL=     819.03  RATIO= -0.0590
 NAT Q1=     286.   RATIOS LOB,CH,ROB=  0.0214  0.9010  0.0776  WSEL=     819.03
3280 CROSS SECTION  18374.00 EXTENDED       0.35 FEET


3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=      85.0      123.0  TYPE=     4  TARGET=       0.099
 18374.00     11.14    818.94     0.00    818.93    819.01     0.06      0.00      0.06    817.40
    490.         0.      490.       0.       0.       247.       0.       164.       32.     817.60
     1.06      0.00      1.98      0.00     0.000     0.045     0.000     0.000   807.80     85.00
 0.000408        1.        1.        1.        2         0         0      0.00    38.00    123.00


*SECNO 18422.000
3280 CROSS SECTION  18422.00 EXTENDED       2.17 FEET


3470 ENCROACHMENT STATIONS=      67.0      110.0  TYPE=     1  TARGET=      43.000
 18422.00      9.26    818.96     0.00    818.97    819.03     0.06      0.02      0.00    817.20
    490.         0.      469.      21.       0.       227.      29.       164.       32.     815.70
     1.07      0.00      2.06      0.73     0.000     0.045     0.070     0.000   809.70     67.00
 0.000373       49.       49.       49.        1         0         0      0.00    43.00    110.00


*SECNO 18800.000
 2800 NAT Q1=     345.32  WSEL=     819.06  ENC Q1=     345.32  WSEL=     819.16  RATIO=  0.0000
 NAT Q1=     358.   RATIOS LOB,CH,ROB=  0.0206  0.7320  0.2475  WSEL=     819.16
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

3280 CROSS SECTION  18800.00 EXTENDED      2.30 FEET


3470 ENCROACHMENT STATIONS=      65.0      172.5  TYPE=     4  TARGET=       0.035
          CROSS SECTION J
 18800.00      9.40    819.10      0.00    819.06    819.13      0.03      0.10      0.00    817.20
     490.         1.      374.       115.       4.       231.      193.      167.       33.    815.70
     1.14      0.30      1.61      0.60     0.070     0.045     0.070     0.000    809.70     64.99
 0.000209       378.      378.      378.         2         0         0      0.00    107.54    172.53


*SECNO 19160.000
 2800 NAT Q1=     354.65  WSEL=     819.13  ENC Q1=     354.65  WSEL=     819.23  RATIO=  0.0000
 NAT Q1=     367.   RATIOS LOB,CH,ROB=  0.0221  0.7262  0.2517  WSEL=     819.23
3280 CROSS SECTION  19160.00 EXTENDED      2.37 FEET


3470 ENCROACHMENT STATIONS=      63.6      173.0  TYPE=     4  TARGET=       0.034
 19160.00      9.47    819.17      0.00    819.13    819.21      0.03      0.07      0.00    817.20
     490.         2.      370.       118.       6.       234.      199.      171.       34.    815.70
     1.22      0.34      1.58      0.59     0.070     0.045     0.070     0.000    809.70     63.62
 0.000198       360.      360.      360.         0         0         0      0.00    109.40    173.03


*SECNO 19209.000

3265 DIVIDED FLOW

3280 CROSS SECTION  19209.00 EXTENDED      2.38 FEET


3470 ENCROACHMENT STATIONS=      25.0      210.0  TYPE=     1  TARGET=     185 000
 19209.00      9.79    819.19      0.00    819.14    819.22      0.03      0.01      0.00    819.40
     490.       110.      325.       54.      183.      193.       91.      171.       34.    817.30
     1.23      0.60      1.68      0.60     0.070     0.045     0.070     0.000    809.40     25.00
 0.000335        49.       49.       49.         0         0         0      0.00    176.92    210.00


CCHV=    0.300 CEHV=    0.500
*SECNO 19210.000

3265 DIVIDED FLOW
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3280 CROSS SECTION 19210.00 EXTENDED 2.38 FEET

3370 NORMAL BRIDGE, NRD= 27 MIN ELTRD= 816.60 MAX ELLC= 816.80

3470 ENCROACHMENT STATIONS= 25.0 210.0 TYPE= 1 TARGET= 185.000

D/S FACE OF PARTRIDGE PATH ROAD

19210.00	9.78	819.18	0.00	819.13	819.23	0.05	0.00	0.01	819.40
490.	169.	238.	83.	183.	96.	90.	171.	34.	817.30
1.23	0.93	2.48	0.92	0.040	0 013	0.040	0.000	809.40	25.00
0.000257	1.	1.	1.	1	0	0	-97.14	176.88	210 00

*SECNO 19262.000

3265 DIVIDED FLOW

3280 CROSS SECTION 19262.00 EXTENDED 2.38 FEET

3470 ENCROACHMENT STATIONS= 78.0 203.0 TYPE= 1 TARGET= 125.000

U/S FACE OF PARTRIDGE PATH ROAD

19262.00	9.77	819.17	0.00	819.13	819.24	0.07	0 00	0.01	819 40
490.	31.	430.	29.	79.	193.	74.	172.	34.	817.30
1.24	0.39	2.23	0.39	0.040	0.013	0.040	0.000	809.40	78.00
0 000049	52.	52.	52.	1	0	0	0.00	116.89	203.00

CCHV= 0.100 CEHV= 0.300
*SECNO 19263.000

3265 DIVIDED FLOW

3280 CROSS SECTION 19263.00 EXTENDED 2.41 FEET

3470 ENCROACHMENT STATIONS= 68.0 203.0 TYPE= 1 TARGET= 135.000

19263.00	9.81	819.21	0 00	819.16	819.24	0.04	0.00	0.00	819.40
490.	89.	339.	63.	103.	194	75.	172.	34.	817.30
1.24	0 86	1.75	0.83	0.040	0.035	0.040	0.000	809.40	68.00
0.000217	1.	1.	1.	2	0	0	0.00	127.18	203.00

```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN        SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID       ENDST

*SECNO 19312.000
 2800 NAT Q1=     506.83  WSEL=     819.17  ENC Q1=     506.83  WSEL=     819.27  RATIO=  0.0000
 NAT Q1=     527   RATIOS LOB,CH,ROB=  0.0285  0 6568  0.3147  WSEL=     819.27
3280 CROSS SECTION  19312.00 EXTENDED       2.42 FEET


3470 ENCROACHMENT STATIONS=       62.3      173.6  TYPE=      4  TARGET=        0.039
 19312.00      9.53    819.23      0.00    819.17    819.25      0.02      0.01      0.00    817.20
     490.         4.      337.      149.         9.      236.      204.      172.        34.    815.70
     1.25      0.45      1.43      0.73     0.040     0.035     0.040     0.000    809 70     62.34
 0.000097       49.       49.       49.         1         0         0      0.00    111.24    173.58


*SECNO 19500.000
 2800 NAT Q1=     512.94  WSEL=     819.19  ENC Q1=     512.94  WSEL=     819.29  RATIO=  0.0000
 NAT Q1=     531.   RATIOS LOB,CH,ROB=  0.0290  0.6552  0.3158  WSEL=     819.29
3280 CROSS SECTION  19500.00 EXTENDED       2.45 FEET


3470 ENCROACHMENT STATIONS=       60.6      174.5  TYPE=      4  TARGET=        0.034
 19500.00      9.55    819.25      0.00    819.19    819.27      0 02      0.02      0.00    817.20
     490.         6.      334.      150.        12.      236.      208.      174.        35.    815.70
     1.29      0.47      1.41      0.72     0.040     0.035     0.040     0.000    809.70     60.62
 0 000094       188.      188.      188.         0         0         0      0.00    113.88    174.50


*SECNO 19549.000
3280 CROSS SECTION  19549.00 EXTENDED       1.35 FEET


3470 ENCROACHMENT STATIONS=       41.0      215.0  TYPE=      1  TARGET=      174.000
 19549.00      9.86    819.26      0.00    819.20    819.28      0.02      0.01      0.00    817.60
     490.      276.      168.       46.      307.      110.       58.      175.        35.    817.40
     1 30      0.90      1.52      0.80     0.040     0.035     0.040     0.000    809.40     41.00
 0.000191       49.       49.       49.         0         0         0      0.00    174.00    215.00


CCHV=    0.300 CEHV=    0.500
*SECNO 19550.000
3280 CROSS SECTION  19550.00 EXTENDED       1.38 FEET
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3370 NORMAL BRIDGE, NRD= 19 MIN ELTRD= 815.50 MAX ELLC= 816.60

3470 ENCROACHMENT STATIONS= 41.0 215.0 TYPE= 1 TARGET= 174.000
D/S FACE OF DAM AT GATE OF RETENTION POND #2

19550.00	9.88	819.28	0.00	819.22	819.28	0.00	0.00	0.01	817.60
140.	71.	57.	12.	311.	92.	59.	175.	35.	817.40
1.30	0.23	0.63	0.20	0.040	0.013	0.040	0.000	809.40	41.00
0.000012	1.	1.	1.	2	0	0	-18.92	174.00	215.00

*SECNO 19562.000
3280 CROSS SECTION 19562.00 EXTENDED 1.38 FEET

3370 NORMAL BRIDGE, NRD= 19 MIN ELTRD= 815.50 MAX ELLC= 816.60

3470 ENCROACHMENT STATIONS= 34.0 209.0 TYPE= 1 TARGET= 175.000
U/S FACE OF DAM AT GAGE OF RETENTION POND #2

19562.00	9.88	819.28	0.00	819.22	819.28	0.00	0.00	0.00	817.60
140.	73.	57.	9.	324.	92.	47	175.	35.	817.40
1.31	0.23	0.63	0.20	0.040	0.013	0.040	0.000	809.40	34.00
0.000012	12.	12.	12.	0	0	0	-18.92	175.00	209.00

CCHV= 0.100 CEHV= 0.300
*SECNO 19563.000
3280 CROSS SECTION 19563.00 EXTENDED 1.38 FEET

3470 ENCROACHMENT STATIONS= 41.0 209.0 TYPE= 1 TARGET= 168.000

19563.00	9.88	819.28	0.00	819.22	819.28	0.00	0.00	0.00	811.40
140.	74.	47.	19.	388.	117.	86.	175.	35.	811.40
1.31	0.19	0.41	0.22	0.040	0 035	0.040	0.000	809.40	41.00
0.000006	1.	1.	1.	0	0	0	0.00	168.00	209.00

*SECNO 19581.000
3280 CROSS SECTION 19581.00 EXTENDED 1.38 FEET

```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


3470 ENCROACHMENT STATIONS=       72.0      200.0  TYPE=      1  TARGET=      128.000
 19581.00      7.88    819.28      0.00    819.22    819.28      0.00      0.00      0.00    811.40
      140.       74.       47.       18.       306.       95.       66.      175.       35.     811.40
     1.33      0.24      0.50      0 28     0.040     0.035     0.040     0.000    811.40     72.00
 0.000009       18.       18.       18.         0         0         0      0.00    128.00    200.00


*SECNO 19900.000
 2800 NAT Q1=     278.63  WSEL=     819 23  ENC Q1=     278.63  WSEL=     819.33  RATIO=   0.0000
 NAT Q1=     286.   RATIOS LOB,CH,ROB=  0.3065  0.2755  0.4180  WSEL=     819.33
3280 CROSS SECTION  19900.00 EXTENDED       4.29 FEET


3470 ENCROACHMENT STATIONS=        0.9       39.2  TYPE=      4  TARGET=        0.025
 19900.00      9.28    819.28      0.00    819.23    819.29      0.01      0.00      0.00    812.00
      140.       42.       40.       58.       76.       54.      106.      178.       36.     812.00
     1.48      0.55      0.74      0.55     0.040     0.035     0.040     0.000    810.00      0.85
 0.000026       319.      319.      319.         0         0         0      0.00     38.36     39.21


CCHV=   0.100 CEHV=   0.300
*SECNO 20650.000
 2800 NAT Q1=     258.30  WSEL=     819.25  ENC Q1=     258.30  WSEL=     819.35  RATIO=   0.0000
 NAT Q1=     299.   RATIOS LOB,CH,ROB=  0.0677  0.8158  0 1166  WSEL=     819.35
3280 CROSS SECTION  20650.00 EXTENDED       0.60 FEET


3470 ENCROACHMENT STATIONS=       35.9      113.0  TYPE=      4  TARGET=        0.135
          CROSS SECTION K
 20650.00      6.81    819.31      0.00    819.25    819.31      0.00      0.02      0.00    818.30
      140.         0.      132.        8.         0.      279.       24.      182.       37.     818.40
     1 92      0.00      0.47      0.34     0.035     0.045     0.035     0.000    812.50     35.95
 0.000030       750.      750.      750.         0         0         0      0.00     77.05    112.99


*SECNO 20799.000
 2800 NAT Q1=      61.69  WSEL=     819 23  ENC Q1=      63.46  WSEL=     819.33  RATIO= -0.0286
 NAT Q1=      63.   RATIOS LOB,CH,ROB=  0.0000  0.9999  0.0001  WSEL=     819.33

3470 ENCROACHMENT STATIONS=       245.0      265.0  TYPE=      4  TARGET=        0.000
 20799.00      6.29    819.29      0.00    819.23    819.33      0.04      0.01      0.01    819.40
      140.         0.      140.        0.         0.       89.         0.      183.       37.     819.40
     1.95      0 00      1 58      0.00     0.000     0.045     0.000     0.000    813.00    245.05
 0.000499       149.      149.      149.         2         0         0      0.00     19.83    264.88
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= 0.300 CEHV= 0.500
*SECNO 20800.000

3370 NORMAL BRIDGE, NRD= 34 MIN ELTRD= 819.30 MAX ELLC= 816.70

D/S FACE OF ELLSWORTH

20800.00	6.18	819.18	0.00	819.12	819.45	0.27	0.00	0.12	819.40
140.	0.	140.	0.	0.	34.	0.	183.	37.	819.40
1.95	0.00	4.17	0.00	0.000	0.013	0.000	0.000	813.00	245.11
0.001173	1.	1.	1.	2	0	0	-52.83	19.63	264.74

*SECNO 20937.000
2800 NAT Q1= 40.87 WSEL= 819.28 ENC Q1= 40.87 WSEL= 819.38 RATIO= 0.0000
NAT Q1= 41. RATIOS LOB, CH, ROB= 0.0000 0.9980 0.0020 WSEL= 819.38

3370 NORMAL BRIDGE, NRD= 34 MIN ELTRD= 819.30 MAX ELLC= 816.70

3470 ENCROACHMENT STATIONS= 245.0 265.0 TYPE= 4 TARGET= 0.002

U/S FACE OF ELLSWORTH

20937.00	6.34	819.34	0.00	819.28	819.61	0.27	0.16	0.00	819.40
140.	0.	140.	0.	0.	34	0.	183.	37.	819.40
1.96	0.00	4.17	0.00	0.000	0.013	0.000	0.000	813.00	245.03
0.001173	137.	137.	137.	0	0	0	-56.08	19.90	264.93

CCHV= 0.100 CEHV= 0.300
*SECNO 20938.000
2800 NAT Q1= 67.67 WSEL= 819.54 ENC Q1= 70.54 WSEL= 819.64 RATIO= -0.0425
NAT Q1= 75. RATIOS LOB, CH, ROB= 0.0044 0.9455 0.0502 WSEL= 819.64
3280 CROSS SECTION 20938.00 EXTENDED 0.10 FEET

3470 ENCROACHMENT STATIONS= 245.0 265.0 TYPE= 4 TARGET= 0.055

20938.00	6.60	819.60	0.00	819.54	819.63	0.03	0.00	0.02	819.40
140.	0.	140.	0	0.	95.	0	183.	37.	819.40
1.96	0.00	1.48	0.00	0.000	0.045	0.000	0.000	813.00	245.00
0.000412	1.	1.	1.	2	0	0	0.00	20.00	265.00

*SECNO 21087.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	GLOB	GCH	GROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

2800 NAT Q1= 338.54 WSEL= 819.58 ENC Q1= 338.54 WSEL= 819.68 RATIO= 0.0000
NAT Q1= 357. RATIOS LOB,CH,ROB= 0.0852 0.7734 0.1414 WSEL= 819.68
3280 CROSS SECTION 21087.00 EXTENDED 0.94 FEET

3470 ENCROACHMENT STATIONS= 11.4 130.1 TYPE= 4 TARGET= 0.051

21087.00	7.14	819.64	0.00	819.58	819.64	0.00	0.01	0.00	818.30
140.	9.	115	17.	38.	301	58.	184.	37.	818.40
2.07	0.23	0.38	0.29	0.035	0.045	0.035	0.000	812.50	11.39
0.000018	149.	149.	149.	1	0	0	0.00	118.75	130.13

*SECNO 21970.000
3280 CROSS SECTION 21970.00 EXTENDED 3.76 FEET

3470 ENCROACHMENT STATIONS= 239.0 307.0 TYPE= 1 TARGET= 68.000
CROSS SECTION L

21970.00	7.06	819.66	0.00	819.60	819.66	0.00	0.02	0.00	817.20
140.	10.	115.	15.	28.	220.	37.	191.	39.	817.00
2.57	0.37	0.52	0.40	0.035	0.045	0.035	0.000	812.60	239.00
0.000029	883.	883.	883.	2	0	0	0.00	68.00	307.00

CCHV= 0.300 CEHV= 0.500
*SECNO 22100.000
D/S FACE OF DT&I RR

22100.00	5.85	819.65	0.00	819.59	819.68	0.03	0.00	0.01	829.60
140.	0.	140.	0.	0.	97.	0.	191.	39.	829.70
2.59	0.00	1.45	0.00	0.000	0.013	0.000	0.000	813.80	244.37
0.000038	130.	130.	130.	1	0	0	0.00	24.82	269.19

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.66	2.90	0.00	8.00	0.00	23.60	0.00	813.80	813.80

*SECNO 22174.000
PRESSURE FLOW

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
821.10	819.68	0.00	0.	140.	24.	32.	817.80	829.20

U/S FACE OF DT&I RR

22174.00	7.29	821.09	0.00	821.03	821.10	0.02	1.42	0.00	829.60
140.	0.	140.	0.	0.	134.	0.	192.	39.	829.70
2.61	0.00	1.04	0.00	0.000	0.013	0.000	0.000	813.80	243.01
0.000015	74.	74.	74.	1	0	0	0.00	27.01	270.02

CCHV= 0.100 CEHV= 0.300
*SECNO 22225.000
3280 CROSS SECTION 22225.00 EXTENDED 5.20 FEET

3470 ENCROACHMENT STATIONS= 214.0 329.0 TYPE= 1 TARGET= 115.000

22225.00	B 51	821.11	0.00	821.04	821.11	0.00	0.00	0.00	817.20
80	19.	41	20.	146.	282.	151.	192.	39.	817.00
2.71	0.13	0.15	0.13	0.035	0.045	0.035	0.000	812.60	214.00
0.000002	51.	51.	51.	1	0	0	0.00	115.00	329.00

*SECNO 24800.000
2800 NAT Q1= 297.91 WSEL= 821.05 ENC Q1= 297.91 WSEL= 821.15 RATIO= 0.0000
NAT Q1= 330. RATIOS LOB,CH,ROB= 0.4557 0.1538 0.3905 WSEL= 821.15
3280 CROSS SECTION 24800.00 EXTENDED 1.02 FEET

3470 ENCROACHMENT STATIONS= 35.3 362.9 TYPE= 4 TARGET= 0.098

CROSS SECTION M

24800.00	3.81	821.11	0.00	821.05	821.11	0.00	0.01	0.00	818.60
80.	36.	14.	30.	249.	68.	169.	223.	52.	818.50
6.98	0.14	0.21	0.18	0.035	0.045	0.035	0.000	817.30	35.35
0.000008	2575.	2575.	2575.	0	0	0	0.00	327.55	362.90

THIS RUN EXECUTED 15 JUL 88 8:25:09

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

100-YEAR FLOOD

SUMMARY PRINTOUT TABLE 110

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	2929.000	770.86	0.00	771.48	198.06	52.12	1433.45	384.42	0.00	0.00	46.00	80.00	0.00
	2929.000	770.96	0.10	771.61	139.91	13.12	1474.43	382.45	0.04	42.19	46.00	80 00	182.10
	2959.000	770.98	0.00	771.60	198.01	52.10	1433.68	384.22	0.00	0.00	46.00	80.00	0.00
	2959.000	771.08	0.10	771.73	139.93	13.14	1475.59	381.27	0.04	42.18	46.00	80.00	182.11
	2974.000	771.04	0.00	771.66	182.63	52.12	1434.79	383.09	193.00	28.00	46.00	80.00	221.00
	2974.000	771.14	0.10	771.79	139.51	12.34	1476.61	381.04	0.05	42.37	46.00	80.00	181.88
	2989.000	771.10	0.00	771.72	180.00	52.63	1434.25	383.12	180.00	30.00	46.00	80.00	210.00
	2989.000	771.20	0.10	771.85	139.56	12.43	1476.48	381.09	0.05	42.35	46.00	80.00	181.91
*	3029.000	771.20	0.00	772.99	159.67	39 00	1801.15	29.84	0.00	0.00	217.00	247.00	0.00
	3029.000	771.28	0 09	773.18	44.64	10.07	1856.90	3.02	0.04	208.12	217.00	247.00	252.76
*	3200.000	775.30	0.00	775.55	228.57	191.58	1355.79	322 63	0.00	0.00	217.00	247.00	0.00
*	3200.000	775.38	0.09	775.65	175.73	174.93	1381.37	313.70	0.02	170.44	217.00	247.00	346.17
	3300.000	775.50	0.00	775 58	248.39	98.59	939.10	832.31	0.00	0.00	46.00	80.00	0.00
	3300.000	775.60	0.10	775.68	219 83	72.40	958.90	838.70	0.03	32 84	46.00	80.00	252.67
	3800.000	775.66	0.00	775.86	241.76	77.23	1144.46	648.31	0.00	0.00	46.00	80.00	0.00
	3800.000	775.75	0.09	775.96	204.50	54.19	1166.23	649.59	0.04	36.18	46.00	80.00	240.68
	4300.000	776.12	0.00	776.66	214.81	52.99	1415.83	401.18	0.00	0.00	46.00	80.00	0.00
	4300.000	776.19	0.08	776.77	145.93	17.33	1456.03	396.64	0.04	41.05	46.00	80.00	186.99
	4800.000	777.51	0.00	778.33	182.13	40.87	1536.66	292.48	0.00	0.00	46.00	80.00	0.00
	4800.000	777.60	0.08	778.47	131.24	1.00	1587.37	281.63	0.04	45.34	46.00	80.00	176.58
	5100 000	778.80	0.00	779.50	194.22	45.54	1490.82	333.64	0.00	0.00	46.00	80.00	0.00
	5100.000	778.93	0.13	779.65	137.70	9.05	1526.76	334.19	0.04	42.89	46.00	80 00	180.59

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	5280.000	779.32	0.00	780.04	116.00	53.97	1783.00	33 03	116.00	160.00	200.00	236.00	276.00
	5280.000	779.45	0.13	780.20	54.16	48.17	1821.83	0.00	0.23	181.84	200.00	236.00	236.00
	5310.000	779.41	0.00	780.37	102.67	40.97	1826.35	2.69	140.00	140.00	200.00	236.00	280.00
	5310.000	779.55	0.14	780.54	36.00	0.00	1870.00	0.00	0.14	200.00	200.00	236.00	236.00
	5320.000	779.45	0.00	780.53	96.76	46.29	1823.47	0.24	160.00	120.00	200.00	236.00	280.00
	5320.000	779.59	0.14	780.70	36.00	0.00	1870.00	0.00	0.08	200.00	200.00	236.00	236.00
	5325.000	779.47	0.00	780.59	93.18	40.30	1829.60	0.10	160.00	120.00	200.00	236.00	280.00
	5325.000	779.61	0.14	780.75	36.00	0.00	1870.00	0.00	0.07	200.00	200.00	236.00	236.00
	5330.000	779.49	0.00	781.64	91.99	8.79	1852.42	8.79	0.00	0.00	192.00	223.00	0.00
	5330.000	779.63	0.14	781.74	27.76	0.00	1870.00	0.00	0.01	192.00	192.00	223.00	223.00
*	5470.000	783.94	0.00	784.23	215.95	225.50	1419.44	225.06	0.00	0.00	192.00	223.00	0.00
*	5470.000	784.08	0.14	784.37	182.05	211.15	1438.28	220.57	0.02	120.11	192.00	223.00	302.16
	5520.000	784.23	0.00	784.26	230.00	701.39	878.75	289.86	230.00	70.00	200.00	236.00	300.00
	5520.000	784.37	0.14	784.41	221.00	682.73	888.52	298.76	221.00	79.00	200.00	236.00	300.00
	6300.000	784.21	0.00	784.54	98.36	0.00	1813.89	56.11	0.00	0.00	125.00	194.00	0.00
	6300.000	784.36	0.15	784 67	96.00	0.00	1807.63	62.37	96.00	133.00	125.00	194.00	229.00
	6750.000	784.60	0.00	784.90	72.16	0.00	1825.24	44.76	88.00	116.00	125.00	194.00	204.00
	6750.000	784.72	0.12	785.03	62.42	0.00	1870.00	0.00	69.00	125.00	125.00	194.00	194.00
	6800.000	784.62	0.00	785.24	48.16	0.00	1870.00	0.00	0.00	0.00	200.00	275.00	0.00
	6800.000	784.74	0.12	785.34	48.53	0.00	1870.00	0.00	0.00	0.00	200.00	275.00	0.00
	7388.000	790.54	0.00	790.76	63.07	0.00	1870.00	0.00	0.00	0.00	0.00	75.00	0.00
	7388 000	790.66	0.12	790.88	63.51	0.00	1870.00	0.00	0.00	0.00	0.00	75.00	0.00
	7438.000	790.74	0.00	790.78	163.00	71.72	1477.96	320.32	163.00	78.00	125.00	194.00	241.00
	7438.000	790.85	0.11	790.90	139.00	38.07	1503.45	328.48	139.00	102.00	125.00	194.00	241.00
	9342.000	791.01	0.00	791.51	69.39	0.00	1870.00	0.00	0.00	0.00	66.00	170.00	0.00
	9342.000	791.12	0.11	791.60	70.14	0.00	1870.00	0.00	0.00	66.00	66.00	170.00	170.00
	9392.000	791.15	0.00	792.04	44.72	0.00	1870.00	0 00	0.00	0.00	175.00	230.00	0.00
	9392.000	791.26	0.10	792.11	45.01	0.00	1870.00	0.00	0.00	175.00	175.00	230.00	230.00
	9400.000	791.18	0.00	792.17	44.80	0.00	1870.00	0.00	0.00	0.00	175.00	230.00	0.00
	9400.000	791.29	0.10	792.13	45.07	0.00	1870.00	0.00	0.00	175.00	175.00	230.00	230.00
	9450.000	792 00	0.00	792.34	75.97	0.00	1870.00	0.00	0.00	0.00	66.00	170.00	0.00
	9450.000	791.92	-0.08	792.28	65.00	0.00	1870.00	0.00	65.00	80.00	66.00	170.00	145.00
	9550.000	792.12	0.00	793.28	42.37	0.00	1870.00	0.00	0.00	0.00	178.00	225.00	0.00
	9550.000	792.03	-0.08	793.23	42.30	0.00	1870.00	0.00	0.00	0.00	178.00	225.00	0.00

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	9701.000	792.34	0.00	793.98	42.55	0.00	1870.00	0.00	0.00	0.00	178.00	225.00	0.00
	9701 000	792.26	-0.08	793.92	42.49	0.00	1870.00	0.00	0.00	0.00	178.00	225.00	0.00
	9801.000	794.73	0.00	794.82	149.23	10.82	1489.18	0.00	0.00	0.00	66.00	170.00	0.00
	9801.000	794.68	-0.05	794.77	148.71	9.54	1490.46	0.00	0.00	0.00	66.00	170.00	0.00
	11200.000	795.45	0.00	795.87	51.47	0.00	1500.00	0.00	0.00	0.00	0.00	62.00	0.00
	11200.000	795.42	-0.04	795.83	51.34	0.00	1500.00	0.00	0.00	0.00	0.00	62.00	0.00
	12000.000	797.20	0.00	797.81	67 12	61.98	1438.02	0.00	0.00	0.00	225.00	284.00	0.00
	12000.000	797.26	0.07	797.93	49.94	0.00	1500.00	0.00	59.00	225.00	225.00	284.00	284.00
	12100 000	797.36	0.00	798.30	48.14	0.00	1500.00	0.00	0.00	0.00	274.00	326.00	0.00
	12100.000	797.43	0.07	798.33	48.18	0.00	1500.00	0.00	0.00	274.00	274.00	326.00	326.00
*	12262 000	798.49	0.00	799.05	48.92	0.00	1500.00	0.00	0.00	0.00	274.00	326.00	0.00
*	12262 000	798.55	0.07	799.11	48.96	0.00	1500.00	0.00	0.00	274.00	274.00	326.00	326.00
	12362.000	798.86	0.00	799.15	80.75	110.20	1389.80	0.00	0.00	0.00	225.00	284.00	0.00
	12362.000	798.90	0.04	799.20	66.46	82.25	1417.75	0.00	0.03	214.58	225.00	284.00	284.00
	12862 000	799 46	0.00	799.80	77.45	99.05	1400.95	0.00	0.00	0.00	225.00	284.00	0.00
	12862.000	799.51	0.05	799 86	63.72	73.50	1426.50	0.00	0.03	215.89	225.00	284.00	284.00
	13362 000	800.20	0.00	800.58	75.32	91.65	1408.35	0.00	0.00	0.00	225.00	284.00	0.00
	13362.000	800.25	0.05	800 65	61.82	53.06	1446.94	0.00	0.03	216.83	225.00	284.00	284.00
	14050.000	801.57	0.00	801.82	70.00	0.00	1500.00	0.00	70.00	24.00	15.00	104.00	94.00
	14050.000	801 65	0.08	801.90	70.00	0.00	1500.00	0.00	70.00	24.00	15.00	104.00	94.00
	14085.000	801.66	0.00	802.19	51.00	0.00	1500.00	0.00	51.00	33.00	15.00	104.00	84.00
	14085.000	801.74	0.08	802.25	51.00	0.00	1500.00	0.00	51.00	33.00	15.00	104.00	84.00
*	14099.000	801.81	0.00	803.48	44.24	0.00	1500 00	0 00	0.00	0.00	0.00	92.00	0.00
*	14099.000	801.81	0.00	803.48	44.23	0.00	1500.00	0.00	0.00	0.00	0.00	92.00	0.00
	14100.000	801.81	0.00	804.77	44.25	0.00	1500.00	0.00	0.00	0.00	0.00	92.00	0.00
	14100.000	801.81	0.00	804.77	44.25	0.00	1500.00	0.00	0.00	0.00	0.00	92.00	0.00
*	14158.000	803.28	0.00	805.47	70.28	0.00	1500 00	0.00	0.00	0.00	0.00	92.00	0.00
*	14158.000	803.28	0.00	805.47	70.29	0.00	1500.00	0.00	0.00	0.00	0.00	92.00	0.00
	14159.000	806.40	0.00	806.50	71.00	0.00	1500 00	0.00	71.00	10.00	0.00	92.00	81.00
	14159.000	806.40	0.00	806.50	71.00	0.00	1500.00	0.00	71.00	10.00	0.00	92.00	81.00
	14169.000	806.40	0.00	806.53	90.00	0.00	1500.00	0.00	90.00	11.00	0.00	112.00	101.00
	14169.000	806.40	0.00	806.53	90.00	0.00	1500.00	0.00	90.00	11.00	0.00	112.00	101.00
	14179.000	806.40	0.00	806.67	82.80	0.00	1500.00	0.00	0.00	0.00	0.00	90.00	0.00
	14179.000	806.40	0.00	806.67	82.81	0.00	1500.00	0.00	0.00	0.00	0.00	90.00	0.00

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	14900.000	806.69	0.00	806.92	86.23	0.00	1500.00	0.00	0.00	0.00	0.00	90.00	0.00
	14900.000	806.69	0.00	806 92	86.24	0.00	1500.00	0.00	0.00	0.00	0.00	90.00	0.00
	14950.000	806.68	0.00	806.99	81.70	0.00	1500.00	0.00	0.00	0.00	376.00	494.00	0.00
	14950.000	806.68	0.00	806.99	81 71	0.00	1500.00	0.00	0.00	0.00	376.00	494.00	0.00
	15750.000	807.42	0.00	807.46	69.33	0.00	490.00	0.00	0.00	0.00	554.00	642.00	0.00
	15750.000	807.42	0.00	807.46	69.33	0.00	490.00	0.00	0.00	0.00	554.00	642.00	0.00
	16450.000	807.72	0.00	808.15	44.16	0.00	490.00	0.00	0.00	0.00	100.00	163.00	0.00
	16450.000	807.72	0.00	808.15	44.16	0.00	490.00	0.00	0.00	0.00	100.00	163.00	0.00
	16480.000	807.84	0.00	808.42	31.00	0.00	490.00	0.00	31.00	117.00	100.00	163.00	148.00
	16480.000	807.84	0.00	808.42	31.00	0.00	490.00	0.00	31.00	117.00	100.00	163.00	148.00
	16490.000	807.88	0.00	808.59	26.00	0.00	490.00	0.00	26.00	120.00	100.00	163.00	146.00
	16490.000	807.89	0.00	808.59	26.00	0.00	490.00	0.00	26.00	120.00	100.00	163.00	146.00
*	16499.000	808.55	0.00	809.82	21.25	0.00	490.00	0.00	0.00	0.00	175.00	225.00	0.00
*	16499.000	808.55	0.00	809.82	21.25	0.00	490.00	0.00	0.00	0.00	175.00	225.00	0.00
	16500.000	808 56	0.00	810.38	21.29	0.00	490.00	0.00	0.00	0.00	175.00	225.00	0.00
	16500 000	808.56	0.00	810.38	21.29	0.00	490.00	0.00	0.00	0.00	175.00	225.00	0.00
	16572.000	810.57	0.00	811.39	29.77	0.00	490.00	0.00	0.00	0.00	175.00	225.00	0.00
	16572.000	810.57	0.00	811.39	29.77	0.00	490.00	0.00	0.00	0.00	175.00	225.00	0.00
	16573.000	811.61	0.00	811.74	32.00	0.00	490.00	0.00	32.00	184.00	175.00	225.00	216.00
	16573.000	811.61	0.00	811.74	32.00	0.00	490.00	0.00	32.00	184.00	175.00	225.00	216.00
	16621.000	811.71	0.00	811.77	83.73	1.29	488.38	0.33	0.00	0.00	100.00	163.00	0.00
	16621.000	811.71	0.00	811.77	83.73	1.29	488.38	0.33	0.00	0.00	100.00	163.00	0.00
	16822.000	811.78	0.00	811.84	86.63	1.64	487.86	0.51	0.00	0.00	100.00	163.00	0.00
	16822.000	811.78	0.00	811 84	86.63	1.64	487.86	0.51	0.00	0.00	100.00	163.00	0.00
	16872.000	811.79	0.00	811.86	123.14	23.03	411.00	55.97	0.00	0.00	70.00	102.00	0.00
	16872.000	811.78	-0.02	811.88	32.00	0.00	490.00	0.00	32.00	70.00	70.00	102.00	102.00
	16880.000	811.77	0.00	811.88	118.66	0.00	489.25	0.75	0.00	0.00	70.00	102.00	0.00
	16880.000	811.76	-0.02	811.87	32.00	0.00	490.00	0.00	0.00	70.00	70.00	102.00	102.00
	16916.000	811.88	0.00	811.91	115.00	9.49	472.27	8.24	115.00	74.00	100.00	163.00	189.00
	16916.000	811.86	-0.02	811.89	66.41	0.21	488.56	1.23	0.04	99.38	100.00	163.00	165.79
	16952.000	811.86	0.00	811.93	93.91	30.93	406.16	52.91	107.00	93.00	125.00	157.00	200.00
	16952.000	811.82	-0.04	811.94	32.00	0.00	490.00	0.00	32.00	125.00	125.00	157.00	157.00
	16960.000	811.84	0.00	811.95	92.80	0.00	489.94	0.06	116.00	83.00	125.00	157.00	199.00
	16960.000	811.80	-0.04	811.92	32.00	0.00	490.00	0.00	0.00	125.00	125.00	157.00	157.00

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	17000.000	811.91	0.00	811.97	91.90	1.90	487.36	0.74	96.00	84.00	100.00	163.00	180.00
	17000.000	811.88	-0.04	811.93	63.00	0.00	490.00	0.00	0.01	100.00	100.00	163.00	163.00
	17155.000	811.81	0.00	812.25	18.65	0.00	490.00	0.00	0.00	0.00	190.00	250.00	0.00
	17155.000	811.77	-0.04	812.22	18.63	0.00	490.00	0.00	0.00	190.00	190.00	250.00	250.00
	17286.000	812.51	0.00	812.85	19.16	0.00	490.00	0.00	0.00	0.00	190.00	250.00	0.00
	17286.000	812.47	-0.04	812.82	18.98	0.00	490.00	0.00	0.00	190.00	190.00	250.00	250.00
	17436.000	813.09	0 00	813.17	84.13	0.03	487.13	2.84	0.00	0.00	100.00	163.00	0.00
	17436.000	813.07	-0.02	813.15	63.00	0.00	490.00	0.00	0.01	100.00	100.00	163.00	163.00
	17650.000	813.37	0.00	813.54	55.83	0 00	490.00	0.00	0.00	0.00	100.00	163.00	0.00
	17650.000	813.36	-0.01	813.53	55.73	0.00	490.00	0.00	0.00	100.00	100.00	163.00	163.00
	17680.000	813.46	0.00	813 65	54.75	0.00	490.00	0.00	0.00	0.00	100.00	163.00	0.00
	17680.000	813.45	-0.01	813.64	54.62	0.00	490.00	0.00	0.00	100.00	100.00	163.00	163.00
	17700.000	813.53	0.00	813.74	53.38	0.00	490.00	0.00	0.00	0.00	100.00	163.00	0.00
	17700.000	813.52	-0.01	813.73	53.34	0.00	490.00	0.00	0.00	100.00	100.00	163.00	163.00
	17735.000	813.79	0.00	814.45	23 40	0.00	490.00	0.00	104.00	76.00	150.00	180.00	180.00
	17735.000	813.78	-0.01	814.44	23.39	0.00	490.00	0.00	0.00	150.00	150.00	180.00	180.00
	17736.000	813.80	0.00	815.68	23.42	0.00	490.00	0.00	0.00	0.00	150.00	180.00	0.00
*	17736.000	813.79	0.00	815.68	23.41	0.00	490.00	0.00	0.00	150.00	150.00	180.00	180.00
	17769.000	815.57	0.00	816.33	28.68	0.00	490.00	0.00	0.00	0.00	150.00	180.00	0.00
	17769.000	815.59	0.02	816.34	28.72	0.00	490.00	0.00	0.00	150.00	150.00	180.00	180.00
	17770.000	816.46	0.00	816.63	29.56	0.00	490.00	0.00	30.00	150.00	150.00	180.00	180.00
	17770.000	816.47	0.01	816.64	29.56	0.00	490.00	0.00	0.07	150.00	150.00	180.00	180.00
	17819.000	816.61	0.00	816.70	31 00	0.00	490.00	0.00	31.00	116.00	100.00	163.00	147.00
	17819.000	816.61	0.01	816.71	31.00	0.00	490.00	0.00	31.00	116.00	100.00	163.00	147.00
	17869.000	816.51	0.00	816.90	14.98	0.00	490.00	0.00	0.00	0.00	65.00	81.00	0.00
	17869.000	816.52	0.01	816.91	14.98	0.00	490.00	0.00	0.00	0.00	65.00	81.00	0.00
	17942.000	817.91	0.00	818.17	15.19	0.00	490.00	0.00	0.00	0.00	65.00	81.00	0.00
	17942 000	817.91	0.01	818.18	15.19	0.00	490.00	0.00	0.00	0.00	65.00	81.00	0.00
	17992.000	818.20	0.00	818.21	115.00	67.94	390.61	31.45	115.00	67.00	100.00	163.00	182.00
	17992.000	818.20	0.00	818.21	90.00	19.93	437.77	32.31	90.00	90.00	100.00	163.00	180.00
	18270.000	818.18	0.00	818.26	65.00	2.84	456.52	30.64	65.00	52.00	67.00	101.00	117.00
	18270 000	818.19	0.01	818.27	44.56	0.00	469.47	20.53	0.15	67.00	67.00	101 00	111.56
	18319 000	818.21	0.00	818.29	60.17	0.67	488.92	0.41	70.00	69.00	85.00	123.00	139.00
	18319.000	818.22	0.02	818.30	38.00	0.00	490.00	0.00	0.01	85.00	85.00	123.00	123.00

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
18320.000	818.21	0.00	818.87	60.22	0.00	489.65	0.35	70.00	69.00	85.00	123.00	139.00
18320.000	818.22	0.02	818.89	45.98	0.00	489.85	0.15	0.01	85.00	85.00	123.00	130.98
18373.000	818.27	0.00	818.93	43.00	0.00	489.97	0.03	43.00	83.00	85.00	123.00	126.00
18373.000	818.28	0.02	818.94	38.11	0.00	490.00	0.00	0.02	85.00	85.00	123.00	123.11
18374.000	818.93	0.00	818.99	43.00	0.00	487.62	2.38	43.00	87.00	85.00	123.00	130.00
18374.000	818.94	0.02	819.01	38.00	0.00	490.00	0.00	0.10	85.00	85.00	123 00	123.00
18422.000	818.97	0.00	819.01	145.61	8.25	366.21	115.54	0.00	0.00	67.00	101.00	0.00
18422.000	818 96	-0.01	819.03	43.00	0.00	468.62	21.38	43.00	67.00	67.00	101.00	110.00
18800.000	819.06	0.00	819 08	147.20	9.08	362.67	118.25	0.00	0.00	67.00	101.00	0.00
18800 000	819.10	0.04	819.13	107.54	1.12	373.64	115.24	0.03	64.99	67.00	101.00	172.53
19160.000	819.13	0.00	819.16	148.58	9.82	359.66	120.52	0.00	0.00	67.00	101.00	0.00
19160.000	819.17	0.05	819.21	109.40	2.17	370.26	117 57	0.03	63.62	67.00	101.00	173.03
19209.000	819.14	0.00	819.17	191.39	122.74	315.89	51.36	200.00	10.00	129.00	165.00	210.00
19209.000	819.19	0.05	819.22	176.92	110.39	325.29	54.32	185.00	25.00	129.00	165.00	210.00
19210.000	819.13	0.00	819.18	191.41	184.59	228.17	77.24	200.00	10.00	129.00	165.00	210.00
19210.000	819.18	0.05	819.23	176.88	168.99	237.85	83.16	185.00	25.00	129.00	165.00	210.00
19262.000	819.13	0.00	819 19	164.39	63.54	400.16	26.30	173.00	30.00	129.00	165.00	203.00
19262.000	819.17	0.04	819.24	116.89	30.86	430 09	29.05	125.00	78.00	129.00	165.00	203.00
19263.000	819.16	0.00	819 19	164.66	131.64	303.81	54.55	173.00	30.00	129.00	165.00	203.00
19263.000	819.21	0.05	819.24	127.18	88.66	338.81	62.53	135.00	68.00	129.00	165.00	203.00
19312.000	819.17	0.00	819.20	149.26	12.65	326.48	150.86	0.00	0.00	67.00	101.00	0.00
19312.000	819.23	0.06	819.25	111.24	3.99	336.96	149.05	0.04	62.34	67.00	101.00	173.58
19500.000	819.19	0.00	819.21	149.84	13.04	325.07	151.88	0.00	0.00	67.00	101.00	0.00
19500.000	819.25	0.06	819.27	113.88	5.59	334.12	150.29	0.03	60.62	67.00	101.00	174.50
19549.000	819.20	0.00	819.22	200.00	301.82	168.85	19.33	215.00	0.00	175.00	187.00	215.00
19549.000	819.26	0 06	819.28	174.00	276.10	167.83	46.07	174.00	41.00	175.00	187.00	215.00
19550.000	819.22	0.00	819.22	200.00	77.48	57.56	4.96	215.00	0.00	175.00	187.00	215.00
19550.000	819.28	0.06	819.28	174.00	70.80	57.36	11.84	174.00	41.00	175.00	187 00	215.00
19562.000	819.22	0.00	819.22	200.00	77.50	57.54	4.96	209.00	0.00	175.00	187.00	209.00
19562.000	819.28	0.06	819.28	175.00	73.26	57 36	9.38	175.00	34.00	175.00	187.00	209.00
19563.000	819.22	0.00	819.22	200.00	77.84	47.46	14.70	209.00	0.00	175.00	187.00	209.00
19563.000	819.28	0.06	819.28	168.00	73.65	47.47	18.89	168.00	41.00	175.00	187.00	209.00
19581.000	819.22	0.00	819.23	187.00	94.22	45.78	0 00	200.00	0.00	175.00	187.00	200.00
19581.000	819.28	0.06	819.28	128.00	74.17	47.36	18.47	128.00	72.00	175.00	187.00	200.00

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
19900.000	819.23	0.00	819.23	40.00	42.83	38.82	58.36	0.00	0.00	14.00	20.00	0.00
19900.000	819.28	0.06	819.29	38.36	42.23	39.56	58.21	0.02	0.85	14.00	20.00	39.21
20650.000	819.25	0.00	819.25	94.00	3.63	126.77	9.60	94.00	21.00	36.00	101.00	115.00
20650.000	819.31	0.06	819.31	77.05	0.00	131.70	8.30	0.14	35.95	36.00	101.00	112.99
20799.000	819.23	0.00	819.27	19.74	0.00	140.00	0.00	0.00	0.00	245.00	265.00	0.00
20799.000	819.29	0.06	819.33	19.83	0.00	140.00	0.00	0.00	245.00	245.00	265.00	265.00
20800.000	819.12	0.00	819.39	19.54	0.00	140.00	0.00	0.00	0.00	245.00	265.00	0.00
20800.000	819.18	0.06	819.45	19.63	0.00	140.00	0.00	0.00	0.00	245.00	265 00	0.00
20937 000	819.28	0.00	819.55	19.80	0.00	140.00	0.00	0.00	0.00	245.00	265.00	0.00
20937.000	819.34	0.06	819.61	19.90	0.00	140.00	0.00	0.00	245.00	245.00	265.00	265.00
20938.000	819.54	0.00	819.57	20.00	0.00	140.00	0.00	20.00	245 00	245.00	265.00	265.00
20938.000	819.60	0.06	819.63	20.00	0.00	140.00	0.00	0.05	245.00	245.00	265.00	265.00
21087.000	819.58	0.00	819.58	166.05	11.24	110.00	18.76	0.00	0.00	36.00	101.00	0.00
21087.000	819.64	0.06	819.64	118.75	8.60	114.52	16.88	0.05	11.39	36.00	101.00	130.13
21970.000	819.60	0.00	819.60	77.00	18.49	107.70	13.82	77.00	230.00	250.00	293.00	307.00
21970.000	819.66	0.06	819.66	68.00	10.19	114.84	14.97	68.00	239.00	250.00	293.00	307.00
22100.000	819.59	0.00	819.62	24.73	0.00	140.00	0.00	0.00	0.00	235.00	275.00	0.00
22100.000	819.65	0.06	819.68	24.82	0.00	140.00	0.00	0.00	0.00	235.00	275.00	0.00
22174.000	821.03	0.00	821.04	26.92	0.00	140.00	0.00	0.00	0.00	235.00	275.00	0.00
22174.000	821.09	0.06	821.10	27.01	0.00	140.00	0.00	0.00	0.00	235.00	275.00	0.00
22225.000	821.04	0.00	821.04	119.00	20.46	39.88	19.66	119.00	210.00	250.00	293.00	329.00
22225.000	821.11	0.06	821.11	115.00	18.83	40.86	20.32	115.00	214.00	250.00	293.00	329.00
24800.000	821.05	0.00	821.05	453.92	35.78	13.03	31.20	0.00	0.00	250.00	270.00	0.00
24800.000	821.11	0.06	821.11	327.55	35.71	13.89	30.40	0.10	35.35	250.00	270.00	362.90

100-YEAR FLOOD

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	2929.000	0.00	0.00	0.00	762.10	1870.00	770.86	0.00	771.48	39.72	7.12	424 82	296.73
	2929.000	0.00	0.00	0.00	762.10	1870.00	770.96	0.00	771.61	39.74	7.20	393.52	296.65
	2959.000	30.00	0.00	0.00	762.22	1870.00	770.98	0.00	771.60	39.75	7.12	424 65	296.61
	2959.000	30 00	0.00	0 00	762.22	1870.00	771.08	0.00	771.73	39.93	7.21	392.70	295.92
	2974 000	15.00	0.00	0.00	762.28	1870.00	771.04	0.00	771.66	39.82	7.13	421.79	296.33
	2974.000	15.00	0.00	0.00	762.28	1870.00	771.14	0.00	771.79	39.96	7.22	392.11	295.82
	2989.000	15.00	0.00	0.00	762 34	1870.00	771.10	0.00	771.72	39.80	7.12	421.48	296.43
	2989.000	15.00	0.00	0.00	762.34	1870.00	771.20	0.00	771.85	39.95	7.22	392.19	295.84
*	3029.000	40.00	0.00	0.00	763.90	1870.00	771.20	771.20	772.99	13.46	10.96	258.94	509.73
	3029.000	40.00	0.00	0.00	763.90	1870.00	771.28	0.00	773.18	13.49	11.10	183.05	509.21
*	3200.000	171.00	774.00	770.70	763.90	1870.00	775.30	0.00	775.55	1.18	4.72	1057.36	1718.61
*	3200.000	171.00	999999.00	0.00	763.90	1870.00	775.38	0.00	775.65	1.19	4.76	989.68	1712.64
	3300.000	100.00	0.00	0.00	763.50	1870.00	775.50	0.00	775.58	3.04	3.01	1197.59	1072.06
	3300.000	100.00	0.00	0.00	763.50	1870.00	775.60	0.00	775.68	3.06	3.04	1150.28	1068.24
	3800.000	500 00	0.00	0.00	765.30	1870.00	775.66	0.00	775.86	8.74	4.47	794.51	632.72
	3800.000	500 00	0.00	0.00	765.30	1870.00	775.75	0.00	775.96	8.70	4.50	755.26	633.90
	4300.000	500.00	0.00	0.00	767.10	1870.00	776.12	0.00	776.66	25.72	6.74	478.29	368.73
	4300.000	500.00	0.00	0.00	767.10	1870.00	776.19	0.00	776.77	26.05	6.84	438.42	366.37
	4800.000	500.00	0.00	0.00	769.00	1870.00	777.51	0.00	778.33	40.26	7.96	377.98	294.72
	4800.000	500.00	0.00	0.00	769.00	1870.00	777.60	0.00	778.47	40.88	8.10	342.80	292.46
	5100.000	300.00	0.00	0.00	770.10	1870.00	778.80	0.00	779.50	34.01	7.48	413.17	320.64
	5100.000	300.00	0.00	0.00	770.10	1870.00	778.93	0.00	779.65	33.23	7.50	384.93	324.41
	5280.000	180.00	0.00	0.00	770.80	1870.00	779.32	0.00	780.04	25.10	7.00	327.66	373.22
	5280.000	180.00	0.00	0.00	770.80	1870.00	779.45	0.00	780.20	25.78	7.02	288.61	368.29
	5310.000	30.00	0.00	0.00	771.60	1870.00	779.41	0.00	780.37	37.53	7.97	266.89	305.23
	5310.000	30.00	0.00	0.00	771.60	1870.00	779.55	0 00	780.54	39.38	7.99	233.94	297.98
	5320.000	10.00	0.00	0.00	772.00	1870.00	779.45	0.00	780.53	45.58	8.44	252.40	276.97
	5320.000	10.00	0.00	0.00	772.00	1870.00	779.59	0.00	780.70	46.49	8.45	221.18	274.27
	5325.000	5 00	0.00	0.00	772.10	1870.00	779.47	0.00	780.59	47 70	8.57	245.82	270.75
	5325 000	5.00	0.00	0.00	772.10	1870.00	779.61	0.00	780.75	48.19	8.56	218.51	269.38
	5330 000	5.00	0.00	0.00	772.20	1870.00	779.49	779.37	781.64	17.31	11.83	185.09	449.41
	5330.000	5.00	0.00	0.00	772.20	1870.00	779.63	0.00	781.74	16.50	11.67	160.24	460.35

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
*	5470.000	140.00	783.00	779.30	772.20	1870.00	783.94	0.00	784.23	1.74	4.93	884.57	1417.77
*	5470.000	140.00	999999.00	0.00	772.20	1870.00	784.08	0.00	784.37	1.70	4.93	844.77	1433.69
	5520.000	50.00	0.00	0.00	770.80	1870.00	784.23	0.00	784.26	1.05	2.04	1619.52	1821.23
	5520.000	50.00	0.00	0.00	770.80	1870.00	784.37	0.00	784.41	1.04	2.04	1609.62	1836.64
	6300.000	780 00	0.00	0.00	775.60	1870.00	784.21	0.00	784.54	10.95	4.68	437.31	565.06
	6300.000	780.00	0.00	0.00	775 60	1870.00	784.36	0.00	784.67	10.07	4.56	451.29	589.25
	6750.000	450.00	0.00	0.00	775.60	1870.00	784.60	0.00	784.90	5.93	4.43	439.36	768.03
	6750.000	450.00	0.00	0.00	775.60	1870.00	784.72	0.00	785.03	6.33	4.46	418.97	743.44
	6800.000	50.00	0.00	0.00	775.30	1870.00	784.62	0.00	785.24	3.56	6.31	296.22	991.27
	6800.000	50.00	0.00	0.00	775.30	1870.00	784.74	0.00	785.34	3.38	6.20	301.81	1017.62
	7388.000	588.00	792.60	786.80	778.50	1870.00	790.54	0.00	790.76	1.00	3.80	491.47	1869.34
	7388.000	588.00	792.60	786.80	778.50	1870.00	790 66	0.00	790.88	0.96	3.75	499.26	1911.10
	7438.000	50.00	0.00	0.00	775.60	1870.00	790.74	0.00	790.78	0.44	1.79	1320.38	2808.76
	7438.000	50.00	0.00	0.00	775.60	1870.00	790.85	0.00	790.90	0.44	1.80	1267.16	2805.15
	9342.000	1953.00	0.00	0.00	783.50	1870.00	791.01	0.00	791.51	23.65	5.70	328.21	384.56
	9342.000	1953.00	0.00	0.00	783.50	1870.00	791.12	0.00	791.60	22.16	5.56	336.09	397.21
	9392.000	50.00	0.00	0.00	783.00	1870.00	791.15	0.00	792.04	36.29	7.56	247.42	310.42
	9392.000	50 00	0.00	0.00	783.00	1870.00	791.26	0.00	792.11	34.33	7.41	252.33	319.16
	9400.000	8.00	795.10	793.90	783.00	1870.00	791.18	0.00	792.17	38.78	7.95	235.12	300.28
	9400.000	8.00	999999.00	0.00	783.00	1870.00	791.29	0.00	792.13	33.90	7.38	253.44	321.15
	9450.000	50.00	0.00	0.00	783.50	1870.00	792.00	0.00	792.34	13.72	4.66	400.86	504.82
	9450.000	50.00	0.00	0.00	783.50	1870.00	791.92	0.00	792.28	13.56	4.86	384.91	507.78
	9550.000	100.00	0.00	0.00	785.60	1870.00	792.12	0.00	793.28	9.80	8.65	216.17	597.36
	9550.000	100.00	0.00	0.00	785.60	1870.00	792.03	0.00	793.23	10.30	8.79	212.71	582.73
	9701.000	151.00	796.50	793.30	785.60	1870.00	792.34	0.00	793.98	25.43	10.27	182.12	370.82
	9701.000	151 00	796.50	793.30	785.60	1870.00	792.26	0.00	793.92	24.02	10.32	181.11	381.55
	9801.000	100.00	0.00	0.00	783.50	1500.00	794.73	0.00	794.82	2.50	2.36	668.00	947.83
	9801 000	100.00	0.00	0.00	783.50	1500.00	794.68	0.00	794.77	2.57	2.38	659.84	935.39
	11200 000	1399.00	0.00	0 00	787.40	1500.00	795.45	0.00	795.87	16.06	5.15	291.15	374.29
	11200.000	1399.00	0.00	0.00	787.40	1500.00	795.42	0.00	795.83	16.35	5.19	289.26	370.93
	12000.000	800.00	0.00	0.00	790.70	1500.00	797.20	0.00	797.81	31.24	6.38	254.58	268.36
	12000 000	800.00	0.00	0.00	790.70	1500.00	797.26	0.00	797.93	35.04	6.56	228.77	253.40
	12100.000	100.00	0.00	0.00	791.70	1500.00	797.36	0.00	798.30	10.09	7.77	193.13	472.30
	12100.000	100.00	0.00	0.00	791.70	1500.00	797.43	0.00	798.33	9.57	7.64	196.38	484.89

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
*	12262.000	162.00	801.80	791.70	791.70	1500.00	798.49	0.00	799.05	4.60	6.04	248.24	699.53
*	12262.000	162.00	999999.00	0.00	791.70	1500.00	798.55	0.00	799.11	4.44	5.97	251.08	712.02
	12362.000	100.00	0.00	0.00	790.70	1500.00	798.86	0.00	799.15	11.37	4.43	378.06	444.82
	12362.000	100.00	0.00	0.00	790.70	1500.00	798.90	0.00	799.20	11.61	4.49	357.09	440.16
	12862.000	500.00	0.00	0.00	791.70	1500.00	799.46	0.00	799.80	14.25	4.81	346.07	397.42
	12862.000	500.00	0.00	0.00	791.70	1500.00	799.51	0.00	799.86	14.33	4.84	327.83	396.25
	13362.000	500.00	0.00	0.00	792.70	1500.00	800.20	0.00	800.58	16.58	5.08	326.10	368.40
	13362.000	500.00	0.00	0.00	792.70	1500.00	800.25	0.00	800.65	16.95	5.16	308.57	364.34
	14050.000	688.00	0.00	0.00	794.00	1500.00	801.57	0.00	801.82	17.72	4.02	372.90	356.30
	14050.000	688.00	0.00	0.00	794.00	1500.00	801.65	0.00	801.90	16.91	3.96	378.53	364.79
	14085.000	35.00	0.00	0.00	795.20	1500.00	801.66	0.00	802.19	42.00	5.81	257.99	231.44
	14085.000	35.00	0.00	0.00	795.20	1500.00	801.74	0.00	802.25	40.10	5.73	261.89	236.88
*	14099.000	14.00	0.00	0.00	795.70	1500.00	801.81	801.81	803.48	24.34	10.38	144.47	304.04
*	14099.000	14.00	0.00	0.00	795.70	1500.00	801.81	801.81	803.48	24.36	10.39	144.42	303.89
	14100.000	1.00	808.70	803.40	795.70	1500.00	801.81	801.74	804.77	50.90	13.81	108.62	210.26
	14100.000	1.00	808.70	803.40	795.70	1500.00	801.81	801.74	804.77	50.91	13.81	108.60	210.22
*	14158.000	58.00	808.70	803.40	795.70	1500.00	803.28	801.73	805.47	53.63	11.85	126.56	204.82
*	14158.000	58.00	808.70	803.40	795.70	1500.00	803.28	801.73	805.47	53.64	11.85	126.56	204.80
	14159.000	1.00	0.00	0.00	795.70	1500.00	806.40	0.00	806.50	0.65	2.60	575.95	1861.97
	14159.000	1.00	0.00	0.00	795.70	1500.00	806.40	0.00	806.50	0.65	2.60	576.00	1862.19
	14169.000	10.00	0.00	0.00	796.10	1500.00	806.40	0.00	806.53	0.81	2.90	517.88	1666.98
	14169.000	10.00	0.00	0.00	796.10	1500.00	806.40	0.00	806.53	0.81	2.90	517.94	1667.26
	14179.000	10.00	0.00	0.00	799.00	1500.00	806.40	0.00	806.67	1.95	4.18	359.17	1074.74
	14179.000	10.00	0.00	0.00	799.00	1500.00	806.40	0.00	806.67	1.95	4.18	359.22	1074.93
	14900.000	721.00	0.00	0.00	799.00	1500.00	806.69	0.00	806.92	7.67	3.91	383.33	541.45
	14900.000	721.00	0.00	0.00	799.00	1500.00	806.69	0.00	806.92	7.67	3.91	383.37	541.52
	14950.000	50.00	0.00	0.00	800.00	1500.00	806.68	0.00	806.99	10.96	4.45	336.71	453.02
	14950.000	50.00	0.00	0.00	800.00	1500.00	806.68	0.00	806.99	10.96	4.45	336.75	453.09
	15750.000	800.00	0.00	0.00	800.80	490.00	807.42	0.00	807.46	1.58	1.70	288.70	390.02
	15750.000	800.00	0.00	0.00	800.80	490.00	807.42	0.00	807.46	1.58	1.70	288.72	390.06
	16450.000	700.00	0.00	0.00	804.40	490.00	807.72	0.00	808.15	36.57	5.24	93.53	81.03
	16450.000	700.00	0.00	0.00	804.40	490.00	807.72	0.00	808.15	36.56	5.24	93.54	81.04
	16480.000	30.00	0.00	0.00	804.60	490.00	807.84	0.00	808.42	42.80	6.11	80.15	74.90
	16480.000	30.00	0.00	0.00	804.60	490.00	807.84	0.00	808.42	42.79	6.11	80.16	74.91

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	16490.000	10.00	0.00	0.00	804.60	490.00	807.88	0.00	808.59	50.22	6.73	72.77	69.14
	16490.000	10.00	0.00	0.00	804.60	490.00	807.89	0.00	808.59	50.21	6.73	72.77	69.15
*	16499.000	9.00	0.00	0 00	804.70	490.00	808.55	808.55	809.82	96.50	9.05	54.12	49.88
*	16499 000	9.00	0.00	0.00	804.70	490.00	808.55	808.55	809.82	96.50	9.05	54.12	49.88
	16500.000	1.00	815.00	812.90	804.70	490.00	808.56	808.51	810.38	126.06	10.81	45.32	43.64
	16500.000	1.00	815.00	812.90	804.70	490.00	808.56	808.51	810.38	126.06	10.81	45.32	43.64
	16572 000	72.00	815.00	812.90	804.70	490.00	810.57	0.00	811.39	46.16	7.28	67.27	72.12
	16572.000	72.00	815.00	812.90	804 70	490.00	810.57	0.00	811.39	46.16	7.28	67.27	72.12
	16573.000	1.00	0.00	0.00	803.70	490.00	811.61	0.00	811.74	6.34	2.88	170.31	194.63
	16573 000	1.00	0.00	0.00	803.70	490.00	811 61	0.00	811.74	6.34	2.88	170.31	194.63
	16621.000	49.00	0.00	0.00	805.70	490.00	811.71	0.00	811.77	3.80	2.01	249.03	251.33
	16621.000	49.00	0.00	0.00	805.70	490.00	811.71	0.00	811.77	3.80	2.01	249.03	251.33
	16822.000	201.00	0.00	0.00	805.70	490.00	811.78	0.00	811.84	3.55	1.97	255.56	259.99
	16822.000	201.00	0.00	0.00	805.70	490.00	811.78	0.00	811.84	3.55	1.97	255.56	260.00
	16872.000	50.00	0.00	0.00	804.70	490.00	811.79	0.00	811.86	1.70	2.21	305.64	376.09
	16872.000	50.00	0.00	0.00	804.70	490.00	811.78	0 00	811.88	3.44	2.65	184.80	264.01
	16880.000	8.00	814.80	812.90	804.70	490.00	811.77	0.00	811.88	2.92	2.65	190.25	286.95
	16880.000	8.00	999999.00	0.00	804.70	490.00	811.76	0.00	811.87	3.48	2.66	184.16	262.65
	16916.000	36.00	0.00	0.00	804.70	490.00	811.88	0.00	811.91	0.94	1.49	373.87	505.23
	16916.000	36.00	0.00	0.00	804.70	490.00	811.86	0.00	811.89	1.02	1.55	320.67	485.21
	16952.000	36.00	0.00	0.00	804.80	490.00	811.86	0.00	811.93	1.74	2.22	301.81	371.91
	16952.000	36.00	0.00	0.00	804.80	490.00	811.82	0.00	811.94	3.69	2.70	181.67	255.07
	16960.000	8.00	814.70	813.00	804.80	490.00	811.84	0.00	811.95	3.09	2.69	183.02	278.60
	16960.000	8.00	999999.00	0.00	804.80	490.00	811.80	0.00	811.92	3.73	2.71	180.98	253.61
	17000 000	40.00	0.00	0.00	805.70	490.00	811.91	0.00	811.97	2.03	1.90	267.30	343.69
	17000.000	40 00	0.00	0.00	805 70	490.00	811.88	0.00	811.93	2.19	1.93	253.58	331.36
	17155.000	155.00	0.00	0.00	806.50	490.00	811.81	0.00	812.25	52.10	5.36	91.42	67.89
	17155.000	155.00	0.00	0.00	806.50	490.00	811.77	0.00	812.22	53.10	5.40	90.81	67.24
	17286.000	131.00	819.00	813.90	806.50	490.00	812.51	0.00	812.85	35.81	4.68	104.65	81.88
	17286.000	131.00	999999.00	0.00	806.50	490.00	812.47	0.00	812.82	36.39	4.72	103.88	81.23
	17436.000	150.00	0.00	0.00	807.50	490.00	813.09	0.00	813.17	9.42	2.27	220.99	159.66
	17436.000	150.00	0.00	0.00	807.50	490 00	813.07	0.00	813.15	9.91	2.30	213.13	155.67
	17650.000	214.00	0.00	0.00	808.90	490 00	813.37	0.00	813.54	28.52	3.33	147.09	91.75
	17650.000	214.00	0.00	0.00	808.90	490.00	813.36	0.00	813.53	28.82	3.34	146.52	91.27

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	17680.000	30.00	0.00	0.00	809.10	490.00	813.46	0.00	813.65	31.97	3.47	141.02	86.66
	17680.000	30.00	0.00	0.00	809.10	490.00	813.45	0.00	813.64	32.45	3.49	140.25	86.02
	17700.000	20 00	0.00	0.00	809.30	490.00	813.53	0.00	813.74	37.11	3.67	133.48	80.43
	17700.000	20 00	0.00	0.00	809.30	490.00	813.52	0.00	813.73	37.27	3.68	133.28	80.26
	17735.000	35.00	0.00	0.00	809.50	490.00	813.79	0.00	814.45	212.20	6.52	75.21	33.64
	17735.000	35.00	0.00	0.00	809.50	490.00	813.78	0.00	814.44	213.46	6.53	75.05	33.54
	17736.000	1.00	816.00	816.50	809.50	490.00	813.80	813.79	815.68	53.98	11.01	44.51	66.69
*	17736 000	1.00	816.00	816.50	809.50	490.00	813.79	813.79	815.68	54.20	11.02	44 44	66.56
	17769.000	33.00	816.00	816.50	809.50	490.00	815.57	0.00	816 33	17.10	7.00	69.96	118.49
	17769.000	33.00	816.00	816.50	809.50	490.00	815.59	0.00	816.34	16.77	6.95	70.46	119.65
	17770.000	1.00	0.00	0.00	809.50	490.00	816.46	0.00	816 63	16.84	3.27	149.62	119.42
	17770.000	1.00	0.00	0.00	809.50	490.00	816.47	0.00	816.64	16.77	3.27	149.80	119.64
	17819.000	49.00	0.00	0.00	809.60	490.00	816.61	0.00	816.70	4.32	2.47	198.74	235.70
	17819.000	49.00	0.00	0.00	809.60	490.00	816.61	0.00	816.71	4.31	2.46	198.91	235.99
	17869.000	50.00	0.00	0.00	808.90	490.00	816.51	0.00	816.90	43.36	5.04	97.25	74.41
	17869.000	50.00	0.00	0.00	808.90	490.00	816.52	0.00	816.91	43.26	5.03	97.33	74.50
	17942.000	73.00	824.00	813.10	808.90	490.00	817.91	0.00	818.17	25.66	4.14	118.32	96.73
	17942.000	73.00	824.00	813.10	808.90	490.00	817.91	0.00	818.18	25.61	4.14	118.41	96.83
	17992.000	50.00	0.00	0.00	809.60	490.00	818.20	0.00	818.21	0.52	0.88	690.77	677.12
	17992.000	50.00	0.00	0.00	809.60	490.00	818.20	0.00	818.21	0.66	0.98	572.55	604.65
	18270.000	278.00	0.00	0.00	809.70	490.00	818.18	0.00	818.26	5.05	2.28	247.87	217.96
	18270.000	278.00	0.00	0.00	809.70	490.00	818.19	0.00	818.27	5.51	2.34	226.52	208.74
	18319.000	49.00	0.00	0.00	807.80	490.00	818.21	0.00	818.29	5.60	2.23	223.80	206.99
	18319.000	49.00	0.00	0.00	807.80	490.00	818.22	0.00	818.30	5.82	2.23	219.38	203.18
	18320.000	1.00	818.00	817.60	807.80	490.00	818.21	811.83	818.87	10.73	6.53	76.94	149.60
	18320.000	1.00	818.00	817.60	807.80	490.00	818.22	0.00	818.89	10.74	6.53	75.86	149.54
	18373.000	53.00	818.00	817.60	807.80	490.00	818.27	0.00	818.93	10.74	6.53	75.23	149.50
	18373.000	53.00	818.00	817.60	807.80	490.00	818.28	0.00	818.94	10.74	6.53	74.99	149.49
	18374.000	1.00	0.00	0.00	807.80	490.00	818.93	0.00	818.99	4.04	2.02	248.29	243.75
	18374.000	1.00	0.00	0.00	807.80	490.00	818.94	0.00	819.01	4.08	1.98	247.05	242.65
	18422.000	49.00	0.00	0.00	809.70	490.00	818.97	0.00	819.01	2.14	1.61	455.04	334.72
	18422.000	49.00	0.00	0.00	809.70	490.00	818.96	0.00	819.03	3.73	2.06	256.26	253.77
	18800.000	378.00	0.00	0.00	809.70	490.00	819.06	0 00	819.08	2.01	1.58	467.70	345.32
	18800.000	378.00	0.00	0.00	809.70	490.00	819.10	0.00	819.13	2.09	1.61	427.97	338.88

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
19160.000	360.00	0.00	0.00	809.70	490.00	819.13	0.00	819.16	1.91	1.55	478.76	354.65
19160.000	360.00	0.00	0.00	809.70	490.00	819.17	0.00	819.21	1.98	1.58	439.08	347.83
19209.000	49.00	0.00	0.00	809.40	490.00	819.14	0.00	819.17	3.24	1.65	489.01	272.24
19209.000	49.00	0.00	0.00	809.40	490.00	819.19	0.00	819.22	3.35	1.68	466.78	267.78
19210.000	1.00	816.60	816.80	809.40	490.00	819.13	0.00	819.18	2.38	2.41	392.64	317.39
19210.000	1.00	816.60	816.80	809.40	490.00	819.18	0.00	819.23	2.57	2.48	369.12	305.37
19262.000	52.00	0.00	0.00	809.40	490.00	819.13	0.00	819.19	0.43	2.09	433.06	744.00
19262.000	52.00	0.00	0.00	809.40	490.00	819.17	0.00	819.24	0.49	2.23	346.42	700.67
19263.000	1.00	0.00	0.00	809.40	490.00	819.16	0.00	819.19	1.79	1.58	437.04	366.34
19263.000	1 00	0.00	0.00	809.40	490.00	819.21	0.00	819.24	2.17	1.75	372.09	332 65
19312.000	49.00	0.00	0.00	809.70	490.00	819.17	0.00	819.20	0.93	1.40	484.25	506.83
19312.000	49 00	0.00	0.00	809.70	490.00	819.23	0.00	819.25	0.97	1.43	448.46	497.71
19500.000	188.00	0.00	0.00	809.70	490.00	819.19	0.00	819.21	0.91	1.38	488.98	512.94
19500.000	188.00	0.00	0.00	809.70	490.00	819 25	0.00	819.27	0.94	1.41	456.22	504.76
19549.000	49.00	0.00	0.00	809 40	490.00	819.20	0.00	819.22	1.97	1.54	487.03	348.68
19549 000	49.00	0.00	0.00	809.40	490.00	819.26	0.00	819.28	1.91	1.52	474.99	354.43
19550.000	1.00	815.50	816 60	809.40	140.00	819.22	0.00	819.22	0.12	0.63	473.38	396.26
19550.000	1.00	815.50	816.60	809.40	140.00	819.28	0.00	819.28	0.12	0.63	460.94	402.76
19562.000	12.00	815.50	816.60	809.40	140.00	819.22	0.00	819.22	0.12	0.63	473.63	396.53
19562.000	12.00	815.50	816.60	809.40	140.00	819.28	0.00	819.28	0.12	0.63	462.01	402.85
19563.000	1.00	0.00	0.00	809.40	140.00	819.22	0.00	819.22	0.06	0.41	614.94	580.78
19563.000	1.00	0.00	0.00	809.40	140.00	819.28	0.00	819.28	0.06	0.41	590.54	586.51
19581.000	18.00	0.00	0.00	811.40	140.00	819.22	0 00	819.23	0.08	0.49	528.05	480.44
19581.000	18.00	0.00	0.00	811.40	140.00	819.28	0.00	819.28	0.09	0.50	466.60	470.22
19900.000	319.00	0.00	0.00	810.00	140.00	819.23	0.00	819.23	0.25	0.73	240.83	278.63
19900.000	319.00	0.00	0.00	810.00	140.00	819.28	0.00	819 29	0.26	0.74	236 12	276.53
20650.000	750.00	0.00	0.00	812.50	140.00	819.25	0.00	819.25	0.29	0.46	319.83	258.30
20650.000	750.00	0.00	0.00	812.50	140.00	819.31	0.00	819.31	0.30	0.47	303.33	254.35
20799.000	149 00	0 00	0.00	813.00	140.00	819.23	0.00	819.27	5.15	1.60	87.77	61.69
20799.000	149.00	0.00	0.00	813.00	140.00	819.29	0.00	819.33	4.99	1.58	88.78	62.67
20800.000	1.00	819.30	816 70	813.00	140.00	819.12	0.00	819.39	11.73	4.17	33.60	40.87
20800.000	1.00	819.30	816.70	813.00	140.00	819.18	0.00	819.45	11.73	4.17	33.60	40 87
20937 000	137.00	819.30	816.70	813.00	140.00	819.28	0.00	819.55	11.73	4.17	33.60	40.87
20937.000	137.00	819.30	816.70	813.00	140 00	819.34	0.00	819.61	11.73	4.17	33 60	40 87

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
20938.000	1.00	0.00	0.00	813.00	140.00	819.54	0.00	819.57	4.28	1.49	93.68	67.67
20938.000	1.00	0.00	0.00	813.00	140.00	819.60	0.00	819.63	4.12	1.48	94.89	68.93
21087.000	149.00	0.00	0.00	812.50	140.00	819.58	0.00	819.58	0.17	0.37	426.23	338.54
21087.000	149.00	0.00	0.00	812.50	140.00	819.64	0.00	819.64	0.18	0.38	396.95	331.63
21970.000	883.00	0.00	0.00	812.60	140.00	819.60	0.00	819.60	0.27	0.50	303.47	269.72
21970.000	883.00	0.00	0.00	812.60	140.00	819.66	0.00	819.66	0.29	0.52	284.85	258.01
22100.000	130.00	0.00	0.00	813.80	140.00	819.59	0.00	819.62	0.40	1.47	95.20	221.18
22100.000	130.00	0.00	0.00	813.80	140.00	819.65	0.00	819.68	0.38	1.45	96.70	226.34
22174.000	74.00	829.20	817.80	813.80	140.00	821.03	0.00	821.04	0.15	1.06	132.33	357.07
22174.000	74 00	829.20	817.80	813.80	140.00	821.09	0.00	821.10	0.15	1.04	133.99	363.51
22225.000	51.00	0.00	0.00	812.60	80.00	821.04	0.00	821.04	0.02	0.14	587.93	631.43
22225.000	51.00	0.00	0.00	812.60	80.00	821.11	0.00	821.11	0.02	0.15	578.21	626.13
24800.000	2575.00	0.00	0.00	817.30	80.00	821.05	0.00	821.05	0.07	0.20	544.73	297.91
24800.000	2575.00	0.00	0.00	817.30	80.00	821.11	0.00	821.11	0.08	0.21	486.28	287.33

100-YEAR FLOOD

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	2929.000	1870.00	770.86	0.00	0.00	0.00	198.06	0 00
	2929.000	1870.00	770.96	0.10	0.00	0.10	139.91	0.00
	2959.000	1870.00	770.98	0.00	0.12	0.00	198.01	30.00
	2959.000	1870.00	771.08	0.10	0.12	0.10	139.93	30.00
	2974.000	1870.00	771.04	0.00	0.06	0 00	182.63	15.00
	2974.000	1870.00	771.14	0.10	0.06	0.10	139.51	15.00
	2989.000	1870.00	771.10	0 00	0.06	0.00	180.00	15.00
	2989.000	1870.00	771.20	0.10	0.06	0.10	139.56	15.00
*	3029.000	1870.00	771.20	0.00	0.10	0.00	159.67	40.00
	3029.000	1870.00	771.28	0.09	0.09	0.09	44.64	40.00
*	3200.000	1870.00	775.30	0.00	4.10	0.00	228.57	171.00
*	3200.000	1870.00	775.38	0.09	4.10	0.09	175.73	171.00
	3300.000	1870 00	775.50	0.00	0.21	0.00	248.39	100.00
	3300.000	1870 00	775.60	0.10	0.22	0.10	219.83	100.00
	3800.000	1870.00	775.66	0.00	0.16	0.00	241 76	500.00
	3800.000	1870.00	775.75	0.09	0.15	0.09	204.50	500.00
	4300.000	1870.00	776.12	0.00	0.46	0.00	214.81	500.00
	4300 000	1870.00	776.19	0.08	0.44	0.08	145.93	500.00
	4800.000	1870.00	777.51	0.00	1.40	0.00	182.13	500.00
	4800.000	1870.00	777.60	0.08	1.40	0.08	131.24	500.00
	5100.000	1870.00	778.80	0.00	1.28	0 00	194.22	300.00
	5100.000	1870.00	778.93	0.13	1.33	0.13	137.70	300.00
	5280.000	1870.00	779.32	0.00	0.52	0.00	116.00	180 00
	5280.000	1870.00	779.45	0.13	0.52	0.13	54.16	180.00
	5310.000	1870.00	779.41	0.00	0 09	0.00	102.67	30.00
	5310.000	1870 00	779.55	0.14	0.09	0.14	36.00	30.00
	5320.000	1870.00	779.45	0.00	0.04	0.00	96.76	10 00
	5320.000	1870.00	779.59	0.14	0.04	0.14	36.00	10.00
	5325.000	1870 00	779.47	0.00	0.02	0.00	93.18	5.00
	5325.000	1870.00	779.61	0 14	0.02	0.14	36.00	5.00
	5330.000	1870.00	779.49	0.00	0.01	0.00	91.99	5.00
	5330.000	1870.00	779 63	0.14	0.01	0.14	27.76	5.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	5470.000	1870.00	783.94	0.00	4.45	0.00	215.95	140.00
*	5470.000	1870.00	784.08	0.14	4.45	0.14	182.05	140.00
	5520 000	1870.00	784.23	0.00	0.28	0.00	230.00	50.00
	5520 000	1870.00	784.37	0.14	0.29	0.14	221.00	50.00
	6300.000	1870.00	784.21	0.00	-0.01	0.00	98.36	780.00
	6300 000	1870.00	784.36	0.15	-0.01	0.15	96.00	780.00
	6750.000	1870.00	784.60	0.00	0.39	0.00	72.16	450.00
	6750.000	1870.00	784.72	0 12	0.36	0.12	62.42	450.00
	6800 000	1870.00	784.62	0.00	0 02	0.00	48.16	50.00
	6800.000	1870.00	784.74	0.12	0.02	0.12	48.53	50.00
	7388.000	1870.00	790.54	0.00	5.91	0.00	63.07	588.00
	7388 000	1870.00	790.66	0.12	5.92	0.12	63 51	588.00
	7438.000	1870.00	790.74	0.00	0.20	0.00	163.00	50.00
	7438.000	1870 00	790.85	0.11	0.20	0.11	139.00	50.00
	9342.000	1870.00	791.01	0.00	0.27	0.00	69.39	1953.00
	9342 000	1870.00	791.12	0.11	0.27	0.11	70.14	1953.00
	9392.000	1870 00	791.15	0.00	0.14	0.00	44.72	50.00
	9392.000	1870.00	791.26	0.10	0.14	0.10	45.01	50.00
	9400.000	1870.00	791.18	0.00	0 03	0.00	44.80	8.00
	9400.000	1870.00	791.29	0.10	0.03	0.10	45.07	8 00
	9450.000	1870.00	792.00	0.00	0.82	0.00	75 97	50.00
	9450 000	1870.00	791.92	-0.08	0.63	-0.08	65.00	50 00
	9550.000	1870.00	792.12	0.00	0.12	0.00	42.37	100.00
	9550.000	1870.00	792.03	-0.08	0.12	-0.08	42.30	100.00
	9701.000	1870.00	792.34	0.00	0.23	0.00	42.55	151.00
	9701.000	1870.00	792.26	-0.08	0.23	-0.08	42.49	151.00
	9801 000	1500.00	794.73	0.00	2.39	0.00	149.23	100.00
	9801.000	1500 00	794.68	-0.05	2.42	-0.05	148.71	100.00
	11200.000	1500.00	795.45	0.00	0 72	0.00	51.47	1399.00
	11200.000	1500.00	795.42	-0.04	0.74	-0.04	51.34	1399.00
	12000.000	1500.00	797 20	0.00	1.74	0.00	67.12	800.00
	12000.000	1500.00	797.26	0.07	1.85	0.07	49.94	800.00
	12100.000	1500.00	797.36	0.00	0.16	0.00	48.14	100.00
	12100.000	1500.00	797.43	0.07	0.17	0.07	48.18	100.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	12262.000	1500.00	798.49	0.00	1.13	0.00	48.92	162.00
*	12262.000	1500.00	798.55	0.07	1.13	0.07	48.96	162.00
	12362.000	1500.00	798.86	0.00	0.38	0.00	80.75	100.00
	12362.000	1500.00	798.90	0.04	0.35	0.04	66.46	100.00
	12862.000	1500.00	799.46	0.00	0.60	0.00	77.45	500.00
	12862.000	1500.00	799.51	0.05	0.61	0.05	63.72	500.00
	13362.000	1500.00	800.20	0.00	0.74	0.00	75.32	500.00
	13362.000	1500.00	800.25	0.05	0.74	0.05	61.82	500.00
	14050.000	1500.00	801.57	0.00	1.37	0.00	70.00	688.00
	14050.000	1500.00	801.65	0.08	1.40	0.08	70.00	688.00
	14085.000	1500.00	801.66	0 00	0.09	0.00	51.00	35.00
	14085.000	1500.00	801.74	0.08	0.09	0.08	51.00	35.00
*	14099.000	1500.00	801.81	0.00	0.14	0.00	44.24	14.00
*	14099.000	1500.00	801.81	0.00	0.07	0.00	44.23	14.00
	14100.000	1500.00	801.81	0.00	0.00	0.00	44.25	1.00
	14100.000	1500.00	801.81	0.00	0.00	0.00	44.25	1.00
*	14158.000	1500.00	803.28	0.00	1.47	0.00	70.28	58.00
*	14158 000	1500 00	803 28	0.00	1.47	0.00	70.29	58.00
	14159.000	1500.00	806.40	0.00	3.11	0.00	71.00	1.00
	14159.000	1500.00	806.40	0.00	3.11	0.00	71.00	1.00
	14169.000	1500.00	806.40	0.00	0.00	0.00	90.00	10.00
	14169.000	1500.00	806.40	0.00	0.00	0.00	90.00	10.00
	14179.000	1500.00	806.40	0.00	0.00	0.00	82.80	10.00
	14179.000	1500.00	806.40	0.00	0.00	0.00	82.81	10.00
	14900.000	1500.00	806.69	0.00	0.28	0.00	86.23	721.00
	14900.000	1500.00	806.69	0.00	0.28	0.00	86.24	721.00
	14950.000	1500.00	806.68	0.00	0.00	0.00	81.70	50.00
	14950 000	1500.00	806.68	0.00	0.00	0.00	81.71	50.00
	15750.000	490.00	807.42	0.00	0.74	0.00	69.33	800.00
	15750.000	490.00	807.42	0.00	0.74	0.00	69.33	800.00
	16450.000	490.00	807.72	0.00	0.30	0.00	44.16	700.00
	16450.000	490.00	807.72	0.00	0.30	0.00	44.16	700.00
	16480.000	490.00	807.84	0.00	0.12	0.00	31.00	30.00
	16480.000	490.00	807.84	0.00	0.12	0.00	31.00	30 00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	16490.000	490.00	807.88	0.00	0.05	0.00	26.00	10.00
	16490.000	490.00	807.89	0.00	0.05	0.00	26.00	10.00
*	16499.000	490.00	808.55	0.00	0.67	0.00	21.25	9.00
*	16499.000	490.00	808.55	0.00	0.67	0.00	21.25	9.00
	16500 000	490.00	808.56	0.00	0.01	0.00	21.29	1.00
	16500.000	490.00	808.56	0.00	0.01	0.00	21.29	1.00
	16572.000	490.00	810.57	0.00	2.00	0.00	29.77	72.00
	16572.000	490.00	810.57	0.00	2.00	0 00	29.77	72.00
	16573.000	490.00	811.61	0.00	1.04	0.00	32.00	1.00
	16573.000	490.00	811.61	0.00	1.04	0.00	32 00	1.00
	16621.000	490.00	811.71	0.00	0.10	0.00	83.73	49.00
	16621.000	490.00	811.71	0.00	0.10	0.00	83.73	49.00
	16822.000	490.00	811.78	0.00	0.08	0.00	86.63	201.00
	16822.000	490.00	811.78	0.00	0.08	0.00	86.63	201.00
	16872.000	490.00	811.79	0.00	0.01	0.00	123.14	50.00
	16872.000	490.00	811.78	-0 02	-0.01	-0.02	32.00	50.00
	16880.000	490.00	811.77	0.00	-0.02	0.00	118.66	8.00
	16880.000	490.00	811.76	-0.02	-0.02	-0.02	32.00	8.00
	16916.000	490.00	811.88	0.00	0.10	0.00	115 00	36.00
	16916.000	490.00	811.86	-0.02	0.10	-0.02	66.41	36.00
	16952.000	490.00	811.86	0.00	-0.01	0.00	93.91	36.00
	16952.000	490.00	811.82	-0.04	-0.03	-0.04	32.00	36.00
	16960.000	490.00	811.84	0.00	-0.02	0.00	92.80	8.00
	16960.000	490.00	811.80	-0.04	-0.02	-0.04	32.00	8.00
	17000.000	490.00	811.91	0.00	0.07	0.00	91.90	40.00
	17000.000	490.00	811.88	-0.04	0.07	-0.04	63.00	40.00
	17155.000	490.00	811 81	0.00	-0.11	0.00	18.65	155.00
	17155.000	490.00	811.77	-0.04	-0.10	-0.04	18.63	155.00
	17286.000	490.00	812.51	0.00	0.70	0.00	19.16	131.00
	17286.000	490.00	812.47	-0.04	0.70	-0.04	18.98	131.00
	17436.000	490.00	813.09	0.00	0.59	0.00	84.13	150.00
	17436.000	490.00	813.07	-0.02	0.60	-0.02	63 00	150.00
	17650.000	490.00	813.37	0.00	0.28	0.00	55.83	214.00
	17650.000	490.00	813.36	-0.01	0.29	-0.01	55.73	214.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	17680.000	490.00	813.46	0.00	0.09	0.00	54.75	30.00
	17680 000	490.00	813.45	-0.01	0.09	-0.01	54.62	30.00
	17700 000	490.00	813.53	0.00	0.07	0.00	53.38	20.00
	17700.000	490.00	813.52	-0.01	0.07	-0.01	53.34	20.00
	17735.000	490.00	813.79	0.00	0.26	0.00	23.40	35.00
	17735.000	490.00	813.78	-0.01	0.26	-0.01	23.39	35.00
	17736.000	490.00	813.80	0.00	0.01	0.00	23.42	1.00
*	17736.000	490.00	813.79	0.00	0.01	0.00	23.41	1.00
	17769.000	490.00	815.57	0.00	1.77	0.00	28.68	33.00
	17769.000	490.00	815.59	0.02	1 80	0.02	28.72	33.00
	17770.000	490.00	816.46	0.00	0.89	0 00	29.56	1.00
	17770 000	490.00	816.47	0.01	0.88	0.01	29.56	1.00
	17819.000	490.00	816 61	0 00	0.15	0.00	31.00	49.00
	17819.000	490.00	816.61	0.01	0.15	0.01	31.00	49.00
	17869.000	490.00	816.51	0.00	-0.10	0.00	14.98	50.00
	17869 000	490.00	816.52	0.01	-0.10	0.01	14.98	50.00
	17942.000	490.00	817.91	0.00	1.40	0.00	15.19	73.00
	17942.000	490.00	817.91	0.01	1.40	0.01	15.19	73.00
	17992.000	490.00	818.20	0 00	0.29	0.00	115 00	50.00
	17992.000	490.00	818.20	0 00	0.29	0.00	90.00	50.00
	18270.000	490.00	818 18	0.00	-0.01	0.00	65.00	278.00
	18270.000	490.00	818.19	0.01	-0.01	0.01	44.56	278.00
	18319.000	490 00	818.21	0.00	0.02	0.00	60.17	49.00
	18319.000	490.00	818.22	0.02	0.03	0.02	38.00	49.00
	18320.000	490.00	818.21	0.00	0.00	0.00	60.22	1.00
	18320.000	490.00	818.22	0 02	0.00	0.02	45.98	1.00
	18373.000	490 00	818.27	0.00	0.06	0.00	43.00	53 00
	18373.000	490.00	818.28	0.02	0.06	0.02	38 11	53.00
	18374.000	490.00	818.93	0.00	0.66	0.00	43.00	1.00
	18374.000	490 00	818.94	0.02	0 66	0.02	38.00	1.00
	18422 000	490.00	818.97	0.00	0.05	0.00	145.61	49.00
	18422.000	490.00	818.96	-0.01	0.02	-0.01	43.00	49.00
	18800.000	490.00	819 06	0.00	0.08	0.00	147.20	378.00
	18800 000	490.00	819.10	0.04	0.14	0.04	107.54	378.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
19160.000	490.00	819.13	0.00	0.07	0.00	148.58	360.00
19160.000	490.00	819.17	0.05	0.07	0.05	109.40	360.00
19209.000	490.00	819.14	0.00	0.01	0.00	191.39	49.00
19209.000	490.00	819.19	0.05	0.01	0.05	176.92	49.00
19210.000	490.00	819.13	0.00	-0.01	0.00	191.41	1.00
19210.000	490.00	819.18	0.05	-0.01	0.05	176.88	1.00
19262.000	490.00	819.13	0.00	0.00	0.00	164.39	52.00
19262.000	490.00	819.17	0.04	0.00	0.04	116.89	52.00
19263.000	490.00	819.16	0.00	0.03	0.00	164.66	1.00
19263.000	490.00	819.21	0.05	0.03	0.05	127.18	1.00
19312.000	490.00	819.17	0.00	0.01	0.00	149.26	49.00
19312.000	490.00	819.23	0.06	0.02	0.06	111.24	49.00
19500.000	490.00	819.19	0.00	0.02	0.00	149.84	188.00
19500.000	490.00	819.25	0.06	0.02	0.06	113.88	188.00
19549.000	490.00	819.20	0.00	0.01	0.00	200.00	49.00
19549.000	490.00	819.26	0.06	0.01	0.06	174.00	49.00
19550.000	140.00	819.22	0.00	0.02	0.00	200.00	1.00
19550.000	140.00	819.28	0.06	0.02	0.06	174.00	1.00
19562.000	140.00	819.22	0.00	0.00	0.00	200.00	12.00
19562.000	140.00	819.28	0.06	0.00	0.06	175.00	12.00
19563.000	140.00	819.22	0.00	0.00	0.00	200.00	1.00
19563.000	140.00	819.28	0.06	0.00	0.06	168.00	1.00
19581.000	140.00	819.22	0.00	0.00	0.00	187.00	18.00
19581.000	140.00	819.28	0.06	0.00	0.06	128.00	18.00
19900.000	140.00	819.23	0.00	0.00	0.00	40.00	319.00
19900.000	140.00	819.28	0.06	0.00	0.06	38.36	319.00
20650.000	140.00	819.25	0.00	0.02	0.00	94.00	750.00
20650.000	140.00	819.31	0.06	0.02	0.06	77.05	750.00
20799.000	140.00	819.23	0.00	-0.01	0.00	19.74	149.00
20799.000	140.00	819.29	0.06	-0.01	0.06	19.83	149.00
20800.000	140.00	819.12	0.00	-0.11	0.00	19.54	1.00
20800.000	140.00	819.18	0.06	-0.11	0.06	19.63	1.00
20937.000	140.00	819.28	0.00	0.16	0.00	19.80	137.00
20937.000	140.00	819.34	0.06	0.16	0.06	19.90	137.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
20938.000	140.00	819.54	0.00	0.26	0.00	20.00	1.00
20938.000	140.00	819.60	0.06	0.26	0.06	20.00	1.00
21087.000	140.00	819.58	0.00	0 04	0.00	166.05	149.00
21087.000	140.00	819.64	0.06	0.04	0.06	118.75	149.00
21970.000	140.00	819.60	0.00	0.02	0.00	77.00	883.00
21970.000	140.00	819.66	0.06	0.02	0.06	68.00	883.00
22100.000	140.00	819.59	0.00	-0.01	0 00	24.73	130.00
22100.000	140.00	819.65	0.06	-0.01	0.06	24.82	130.00
22174 000	140.00	821.03	0.00	1.44	0.00	26.92	74.00
22174.000	140.00	821 09	0 06	1.44	0.06	27.01	74.00
22225.000	80.00	821.04	0.00	0.02	0.00	119.00	51.00
22225.000	80.00	821.11	0.06	0.02	0.06	115.00	51.00
24800.000	80.00	821.05	0.00	0.01	0.00	453.92	2575.00
24800.000	80.00	821.11	0.06	0.01	0.06	327.55	2575.00

SUMMARY OF ERRORS AND SPECIAL NOTES

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CAUTION  SECNO=  3029.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=  3029.000  PROFILE= 1  MINIMUM SPECIFIC ENERGY

CAUTION  SECNO=  3200.000  PROFILE= 1  HYDRAULIC JUMP D.S.
CAUTION  SECNO=  3200.000  PROFILE= 2  HYDRAULIC JUMP D.S.

CAUTION  SECNO=  5470.000  PROFILE= 1  HYDRAULIC JUMP D.S.
CAUTION  SECNO=  5470.000  PROFILE= 2  HYDRAULIC JUMP D.S.

CAUTION  SECNO= 12262.000  PROFILE= 1  HYDRAULIC JUMP D.S.
CAUTION  SECNO= 12262.000  PROFILE= 2  HYDRAULIC JUMP D.S.

CAUTION  SECNO= 14099.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO= 14099.000  PROFILE= 1  MINIMUM SPECIFIC ENERGY
CAUTION  SECNO= 14099.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO= 14099.000  PROFILE= 2  MINIMUM SPECIFIC ENERGY

CAUTION  SECNO= 14158.000  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO= 14158.000  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO= 16499.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO= 16499.000  PROFILE= 1  MINIMUM SPECIFIC ENERGY
CAUTION  SECNO= 16499.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO= 16499.000  PROFILE= 2  MINIMUM SPECIFIC ENERGY

CAUTION  SECNO= 17736.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO= 17736.000  PROFILE= 2  MINIMUM SPECIFIC ENERGY
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FLOODWAY DATA, 100-YEAR FLOOD
PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
2929.000	140.	394.	4.8	771.0	770.9	0.1
2959 000	140.	393.	4.8	771.1	771.0	0.1
2974.000	140	392.	4.8	771.1	771.0	0.1
2989 000	140.	392.	4.8	771.2	771.1	0.1
3029.000	45.	183.	10.2	771.3	771.2	0.1
3200.000	176.	990.	1.9	775.4	775.3	0.1
3300.000	220.	1150.	1.6	775.6	775 5	0.1
3800.000	205.	755.	2.5	775.8	775.7	0.1
4300.000	146.	438.	4.3	776.2	776.1	0.1
4800.000	131.	343.	5.5	777.6	777.5	0 1
5100.000	138.	385.	4.9	778.9	778.8	0.1
5280.000	54.	289.	6.5	779.4	779.3	0.1
5310.000	36.	234.	8.0	779.5	779.4	0.1
5320.000	36.	221.	8.5	779.6	779.5	0.1
5325.000	36.	219.	8.6	779.6	779.5	0.1
5330.000	28.	160.	11.7	779.6	779.5	0.1
5470.000	182.	845.	2.2	784.0	783.9	0.1
5520.000	221.	1610.	1.2	784.3	784.2	0.1
6300.000	96.	451.	4.1	784.3	784.2	0.1
6750.000	62.	419.	4.5	784.7	784.6	0.1
6800.000	49.	302.	6.2	784.7	784.6	0.1
7388.000	64.	499.	3.7	790.6	790.5	0.1
7438.000	139.	1267.	1.5	790.8	790.7	0.1
9342.000	70.	336.	5.6	791.1	791.0	0.1
9392.000	45.	252.	7.4	791.3	791.2	0.1
9400.000	45	253.	7.4	791.3	791.2	0.1
9450.000	65.	385.	4.9	792.0	792.0	0.0
9550.000	42.	213.	8.8	792.1	792.1	0.0
9701.000	42	181.	10.3	792.3	792.3	0.0
9801.000	149.	660.	2.3	794.7	794.7	0.0
11200.000	51.	289.	5.2	795.5	795.5	0.0
12000.000	50	229.	6.6	797.3	797.2	0.1
12100.000	48.	196.	7.6	797.5	797.4	0.1
12262.000	49.	251.	6.0	798 6	798.5	0.1
12362.000	66.	357.	4.2	798.9	798 9	0.0
12862.000	64.	328.	4.6	799.5	799.5	0.0
13362.000	62.	309.	4.9	800 3	800 2	0.1
14050.000	70.	379.	4.0	801.7	801.6	0.1
14085.000	51.	262.	5.7	801.8	801.7	0.1
14099.000	44.	144.	10.4	801.8	801.8	0 0
14100 000	44.	109.	13.8	801.8	801.8	0.0
14158.000	70.	127.	11.9	803.3	803 3	0.0

FLOODWAY DATA. 100-YEAR FLOOD
PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
14159.000	71.	576.	2.6	806.4	806.4	0.0
14169 000	90.	518.	2.9	806.4	806.4	0.0
14179.000	83.	359.	4.2	806.4	806.4	0.0
14900.000	86.	383.	3.9	806.7	806.7	0.0
14950.000	82.	337.	4.5	806.7	806.7	0.0
15750.000	69.	289.	1.7	807.4	807.4	0.0
16450.000	44.	94.	5.2	807.7	807.7	0.0
16480.000	31.	80.	6.1	807.8	807.8	0.0
16490.000	26.	73	6.7	807.9	807.9	0.0
16499.000	21.	54.	9.1	808.6	808.6	0 0
16500.000	21.	45.	10 8	808 6	808.6	0.0
16572.000	30.	67.	7.3	810.6	810.6	0.0
16573.000	32.	170	2.9	811.6	811.6	0.0
16621.000	84.	249.	2.0	811.7	811.7	0.0
16822.000	87.	256.	1 9	811.8	811.8	0.0
16872.000	32.	185.	2.7	811.8	811.8	0.0
16880.000	32.	184.	2.7	811.8	811.8	0 0
16916.000	66.	321.	1.5	811.9	811 9	0.0
16952.000	32.	182.	2.7	811.9	811.9	0.0
16960.000	32.	181.	2 7	811.8	811.8	0.0
17000.000	63.	254.	1.9	811 9	811.9	0.0
17155.000	19.	91.	5.4	811.8	811 8	0.0
17286 000	19.	104.	4.7	812.5	812.5	0.0
17436.000	63.	213.	2.3	813.1	813.1	0.0
17650.000	56.	147.	3.3	813 4	813.4	0.0
17680.000	55.	140.	3.5	813.5	813.5	0.0
17700.000	53.	133.	3.7	813 5	813.5	0.0
17735.000	26.	75.	6.5	813 8	813.8	0.0
17736.000	26.	44.	11.0	813 8	813.8	0 0
17769.000	29	70.	7.0	815.6	815 6	0.0
17770.000	30.	150.	3.3	816.5	816.5	0.0
17819.000	31.	199.	2.5	816 6	816.6	0.0
17869.000	15	97.	5.0	816.5	816.5	0.0
17942.000	15.	118	4.1	817.9	817.9	0.0
17992.000	90.	573	0.9	818.2	818.2	0.0
18270.000	45.	227.	2.2	818.2	818.2	0.0
18319.000	38.	219.	2.2	818.2	818.2	0.0
18320.000	46.	76.	6.5	818.2	818 2	0.0
18373.000	38.	75.	6.5	818.3	818.3	0.0
18374.000	38.	247	2.0	818.9	818.9	0.0
18422.000	43.	256.	1.9	819.0	819.0	0.0
18800.000	108.	428.	1 1	819.1	819.1	0.0

FLOODWAY DATA, 100-YEAR FLOOD
PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
19160.000	109.	439	1.1	819.1	819.1	0.0
19209.000	185.	467.	1.0	819.1	819.1	0.0
19210.000	185.	369	1.3	819.1	819.1	0.0
19262.000	125.	346.	1.4	819.1	819.1	0.0
19263.000	135.	372.	1.3	819.2	819.2	0.0
19312.000	111.	448.	1.1	819.3	819.2	0.1
19500.000	114.	456.	1.1	819.3	819.2	0.1
19549.000	174.	475.	1.0	819 3	819.2	0.1
19550.000	174.	461.	0.3	819.3	819.2	0.1
19562.000	175.	462.	0.3	819.3	819.2	0.1
19563.000	168.	591.	0.2	819.3	819.2	0.1
19581.000	128.	467.	0.3	819.3	819.2	0 1
19900 000	38.	236.	0.6	819.3	819.2	0.1
20650.000	77.	303.	0.5	819.3	819.2	0.1
20799 000	20.	89.	1.6	819.3	819.2	0.1
20800.000	20.	34.	4.2	819.2	819.1	0.1
20937.000	20.	34.	4.2	819.4	819.3	0.1
20938.000	20.	95.	1.5	819.6	819.5	0.1
21087 000	119.	397	0.4	819.7	819.6	0.1
21970.000	68.	285	0.5	819 7	819.6	0.1
22100.000	25.	97.	1.4	819.7	819 6	0.1
22174 000	27	134.	1.0	821 1	821.0	0 1
22225.000	115.	578.	0.1	821.1	821.0	0.1
24800.000	328.	486.	0 2	821.2	821.1	0.1

Pittsfield - Ann Arbor Drain
INPUT = HANNA2
Natural Run

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EEEEEE   EEEEEE        K   K   OOOO   BBBBB   Y    Y   L       IIIII   N    N   SSSS   K   K
E        E             K  K   O    O  B    B   Y  Y    L         I     NN   N  S       K  K
E        E             K K    O    O  BBBBB     YY     L         I     N N  N   SSSS   K K
EEEE     EEEE          KKK    O    O  B    B    Y      L         I     N  N N       S  KKK
E        E             K  K   O    O  B    B    Y      L         I     N   NN  S    S  K  K
EEEEEE   EEEEEE        K   K   OOOO   BBBBB   Y       LLLLLL  IIIII   N    N   SSSS   K   K
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USACOE DETROIT H800 VOS 5.1.1 PRINTER: 6

EE KOBYLINSK 14 JUL 88 13:22:00

TERMINAL.104

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**************************************************
*  WATER SURFACE PROFILES                        *
*  VERSION OF NOVEMBER 1976                      *
*  UPDATED MAY 1984                              *
*                                                *
*  RUN DATE  14 JUL 88 TIME     9:59:57          *
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************************************
*  U.S. ARMY CORPS OF ENGINEERS    *
*  THE HYDROLOGIC ENGINEERING CENTER *
*  609 SECOND STREET, SUITE D      *
*  DAVIS, CALIFORNIA 95616         *
*  (916) 440-2105 (FTS) 448-2105   *
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X      X  XXXXXXX   XXXXX              XXXXX
X      X  X         X     X           X     X
X      X  X         X                       X
XXXXXXX   XXXX      X          XXXXX    XXXXX
X      X  X         X                  X
X      X  X         X     X            X
X      X  XXXXXXX   XXXXX              XXXXXXX
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THIS RUN EXECUTED 14 JUL 88 9:59:58

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
**************************************************

C
T1        TOWNSHIP OF PITTSFIELD FIS RESTUDY
T2        PITTSFIELD - ANN ARBOR DRAIN
T3        10-YEAR FLOOD

J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ

       0         2.         0.         0.   0.004000       0.00       0.0        0.    771.000      0.000

J2  NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE

     1.000      0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

J3  VARIABLE CODES FOR SUMMARY PRINTOUT

    150.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000


QT      4.000   1130.000   1600.000   1870.000   2400.000      0.000      0.000      0.000      0.000      0.000
NC      0.065      0.065      0.040      0.300      0.500      0.000      0 000      0.000      0.000      0.000
X1   2929.000     18.000     46.000     80.000      0.000      0 000      0.000      0.000     -1.400      0.000
GR    775.700      0 000    776.400     12.000    770.200     37.000    770.400     46 000    766.000     58.000
GR    764.000     61.000    763.500     66.000    764.600     71.000    765.800     75.000    771.100     80.000
GR    771.000     96.000    770.500    121.000    770.500    146.000    770.100    171.000    771.400    196 000
GR    772.800    221 000    771.900    246.000    773.100    264.000      0.000      0.000      0.000      0.000

X1   2959.000      0.000      0.000      0.000     30.000     30.000     30.000      0.000      0.120      0.000

NC      0.000      0.000      0.000      0.500      1 000      0.000      0.000      0.000      0.000      0.000
X1   2974.000      0 000      0 000      0 000     15.000     15.000     15.000      0.000      0.060      0.000
X3      0.000      0.000      0.000     28.000      0.000    221.000      0.000      0.000      0.000      0.000

X1   2989.000      0.000      0.000      0.000     15 000     15.000     15.000      0.000      0.060      0.000
X3      0.000      0.000      0.000     30.000      0.000    210.000      0.000      0.000      0.000      0.000

NC      0.000      0.000      0.013      0.500      1.000      0.000      0.000      0.000      0.000      0.000
          D/S FACE OF HURON PARKWAY DRIVE
X1   3029.000     36.000    217 000    247.000     40.000     40 000     40.000      0.000      0.000      0.000
GR    779.800      0 000    778.800     25.000    778.000     50.000    777.200     75.000    776.500    100.000
GR    775.500    125.000    775.000    150.000    770.300    175.000    770 000    217.000    767.250    219.700
GR    766.200    220 000    765.000    221.000    764.400    222.000    764.100    223.000    763 900    225.000
GR    764.100    227.000    764.400    228.000    765.000    229.000    766.200    230.000    767.250    230.300
GR    767.350    233.700    766 300    234 000    765.100    235.000    764.500    236.000    764.200    237.000
GR    764.000    239.000    764.200    241 000    764.500    242.000    765.100    243.000    766.300    244.000
GR    767 350    244.300    770.500    247 000    770 500    300.000    771.000    325.000    772.000    350.000
GR    778.000    375 000      0.000      0.000      0 000      0.000      0.000      0.000      0.000      0.000
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SB	0.000	1.570	2.900	0.000	25.000	3.000	112.000	0.000	763.900	763.900
	U/S FACE OF HURON PARKWAY DRIVE									
X1	3200.000	0.000	0.000	0.000	171.000	171.000	171.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	770.700	774.000	0.000	0.000	0.000	0.000	0.000
BT	36.000	0.000	779.800	0.000	25.000	778 800	0 000	50.000	778.000	0.000
BT	75.000	777.200	0.000	100.000	776.500	0.000	125.000	775.500	0.000	150.000
BT	775.000	0.000	175.000	774.400	0.000	217.000	774.000	0.000	219 700	774.000
BT	767.250	220.000	774.000	768.600	221.000	774.000	769.700	222.000	774.000	770.200
BT	223.000	774.000	770.400	225.000	774.100	770.600	227.000	774.200	770.400	228.000
BT	774.200	770.200	229.000	774.300	769.700	230.000	774.400	768.600	230 300	774.400
BT	767.250	233.700	774.500	767.350	234.000	774.500	768.700	235.000	774 600	769.800
BT	236.000	774.700	770.300	237.000	774.700	770.500	239.000	774.800	770.700	241.000
BT	774.900	770.500	242.000	774 900	770.300	243.000	774.900	769.800	244.000	774.900
BT	768.700	244.300	774.900	767.350	247.000	775.000	0.000	300.000	776.000	0.000
BT	325.000	776.700	0.000	350.000	777.400	0.000	375.000	778.000	0.000	0.000
NC	0.000	0.000	0 035	0.100	0.300	0.000	0.000	0.000	0.000	0.000
	CROSS SECTION A									
X1	3300.000	18.000	46.000	80.000	100.000	100.000	100.000	0.000	0.000	0.000
GR	775.700	0.000	776 400	12.000	770.200	37.000	770 400	46.000	766.000	58.000
GR	764.000	61.000	763.500	66.000	764.600	71.000	765.800	75.000	771.100	80.000
GR	771.000	96.000	770.500	121 000	770.500	146.000	770.100	171.000	771 400	196 000
GR	772.800	221.000	771.900	246.000	773.100	264.000	0.000	0.000	0.000	0.000
X1	3800.000	0.000	0 000	0.000	500.000	500 000	500.000	0.000	1.800	0.000
X1	4300.000	0.000	0.000	0.000	500.000	500.000	500.000	0.000	1.800	0.000
X1	4800.000	0.000	0.000	0.000	500 000	500.000	500.000	0.000	1.900	0.000
NC	0.000	0.000	0.000	0.500	1.000	0.000	0.000	0.000	0.000	0.000
X1	5100.000	0 000	0.000	0.000	300.000	300.000	300.000	0.000	1 100	0.000
NC	0.060	0 060	0.000	0.000	0.000	0.000	0.000	0.000	0 000	0.000
	CROSS SECTION B									
X1	5280.000	23.000	200.000	236.000	180.000	180.000	180.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	160.000	0.000	276.000	0.000	0.000	0.000	0.000
GR	783.600	0.000	782.000	25.000	780.800	50.000	779.700	75.000	777 100	100.000
GR	777.300	125.000	777.600	150.000	779.000	175 000	777.200	200.000	771.300	204.000
GR	772.400	210.000	771.700	215 000	770 800	220.000	771.200	225.000	771 400	230.000
GR	771.300	231.000	778.000	236.000	778 700	250.000	778.600	275.000	777.700	300.000
GR	777.600	325.000	777.500	350.000	780.800	375.000	0.000	0.000	0 000	0.000
X1	5310.000	0.000	0.000	0.000	30.000	30.000	30.000	0.000	0 800	0.000
X3	0.000	0.000	0.000	140.000	0.000	280.000	0.000	0.000	0.000	0.000
X1	5320.000	0.000	0.000	0.000	10.000	10.000	10.000	0.000	0.400	0.000
X3	0.000	0.000	0.000	120.000	0.000	280 000	0.000	0.000	0.000	0.000

X1	5325.000	0.000	0 000	0.000	5.000	5.000	5.000	0.000	0.100	0.000
X3	0.000	0.000	0.000	120.000	0.000	280.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	D/S FACE OF HURON PARKWAY DRIVE									
X1	5330.000	36.000	192 000	223.000	5.000	5.000	5.000	0.000	0.000	0.000
GR	786.300	0.000	785.600	25.000	785.000	50.000	784.400	75.000	783.900	100.000
GR	779.000	125.000	779 000	150.000	783 500	192.000	775.900	194.800	774.700	195.000
GR	773.300	196.000	772.900	197.000	772.600	198.000	772.500	200.000	772.600	202.000
GR	772.900	203.000	773.300	204.000	774.700	205.000	775.900	205.200	775.600	208.700
GR	774.400	209.000	773.000	210.000	772.600	211.000	772.300	212.000	772.200	214.000
GR	772.300	216.000	772.600	217.000	773.000	218.000	774.400	219 000	775.600	219.300
GR	783.500	223.000	779.000	275.000	779.000	300.000	788.000	325.000	789.200	350.000
GR	790 400	400.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	1.570	2.900	0.000	25.000	3 500	112.000	0.000	772.200	772.200
	U/S FACE OF HURON PARKWAY DRIVE									
X1	5470.000	0.000	0.000	0.000	140.000	140.000	140.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	779.300	783 000	0.000	0.000	0.000	0.000	0.000
BT	36.000	0.000	786.300	0.000	25.000	785 600	0 000	50.000	785.000	0.000
BT	75.000	784.400	0.000	100.000	783.900	0 000	125.000	783.300	0.000	150.000
BT	783.000	0.000	192.000	783.500	0 000	194.800	783.500	775.900	195.000	783.500
BT	777.200	196.000	783.500	778.400	197.000	783.500	778.800	198.000	783.500	779.200
BT	200.000	783 500	779.300	202.000	783.500	779.200	203.000	783.500	778.800	204.000
BT	783.500	778.400	205.000	783.500	777.200	205.200	783.500	775.900	208.700	783.500
BT	775.600	209.000	783.500	776.900	210.000	783.500	778.100	211 000	783.500	778.500
BT	212.000	783 500	778.900	214 000	783.500	779.000	216.000	783 500	778.900	217.000
BT	783 500	778 500	218.000	783.500	778.100	219.000	783.500	776.900	219.300	783.500
BT	775.600	223.000	783.500	0.000	275.000	785.400	0.000	300.000	786.800	0.000
BT	325.000	788.000	0.000	350.000	789 200	0.000	400.000	790 400	0.000	0.000
NC	0.000	0.000	0 035	0.100	0.300	0.000	0.000	0.000	0.000	0.000
X1	5520.000	23.000	200.000	236.000	50.000	50.000	50.000	0.000	0.000	0.000
X3	0.000	0.000	0 000	70.000	0.000	300.000	0.000	0.000	0.000	0.000
GR	783.600	0 000	782.000	25 000	780.800	50.000	779.700	75.000	777.100	100.000
GR	777.300	125.000	777.600	150.000	779.000	175.000	777.200	200.000	771.300	204.000
GR	772.400	210.000	771.700	215.000	770.800	220.000	771.200	225.000	771.400	230.000
GR	771.300	231.000	778.000	236.000	778.700	250.000	778.600	275 000	777.700	300.000
GR	777.600	325.000	777.500	350.000	780.800	375.000	0.000	0.000	0 000	0.000
	CROSS SECTION C									
X1	6300.000	21.000	125 000	194.000	780.000	780.000	780.000	0.000	0.000	0.000
GR	790.500	0.000	789 700	25.000	789.400	50.000	788.400	75.000	787.500	100.000
GR	787.600	125.000	776.200	151.000	775.600	155 000	775.700	160.000	775.900	165.000
GR	776.000	170 000	775.900	175.000	776 000	178.000	781.300	194 000	782.000	200.000
GR	783.800	225.000	785.500	250.000	786.100	258.000	792.200	270 000	792.400	285.000
GR	794.400	360.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

NC	0.040	0.040	0.028	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	6750.000	0.000	0.000	0.000	450.000	450.000	450.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	116.000	0.000	204.000	0 000	0.000	0.000	0.000
NC	0.000	0.000	0.013	0.500	1.000	0 000	0.000	0.000	0 000	0 000
	D/S FACE OF US-23 / WASHTENAW AVE.									
X1	6800.000	26.000	200.000	275.000	50.000	50.000	50.000	0.000	0.000	0.000
GR	794.100	0.000	793.800	25.000	793.500	50.000	793.200	75.000	792.900	100.000
GR	792.500	125.000	792 400	150.000	792.200	175.000	792.400	200.000	780.300	220.000
GR	777.400	221.000	776.300	222 000	775.700	223.000	775.300	225.000	775.700	227.000
GR	776.300	228.000	777.400	229.000	780.300	230.000	776.000	234 500	776.000	247.500
GR	776.000	247.510	793.600	275.000	794.400	300.000	795.600	325.000	796.900	350.000
GR	798.200	375.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	2.680	3.000	0.000	21 000	0.000	154.000	0.000	778.500	775.300
	U/S FACE OF CULVERT BEHIND DENNY'S RESTAURANT									
X1	7388.000	34.000	0.000	75.000	588.000	588.000	588.000	0.000	0.000	0.000
X2	0.000	0 000	1.000	786.800	792.600	0.000	0.000	0.000	0.000	0.000
BT	34.000	0.000	793.900	0.000	20 200	793 900	784.000	21.000	793.900	786.500
BT	22.000	793.900	787.700	23.000	793.900	788.300	25.000	793.900	788.800	27.000
BT	793.900	788.300	28.000	793.900	787.700	29.000	793.900	786.500	29.900	793.900
BT	784.000	32.500	793.900	781.950	33.000	793.900	783.800	34.000	793.900	784.700
BT	35 000	793.900	785.200	36.000	793.900	785.300	38 150	793.900	785.400	40.000
BT	793.900	785.300	41.000	793.900	785.200	42.000	793 900	784.700	43.000	793.900
BT	783.800	43.800	793.900	781.950	46.000	793.900	782.150	47.000	793.900	784.000
BT	48.000	793.900	784.900	49 000	793 900	785.400	50.000	793.900	785.500	51.650
BT	793.900	785 600	53.000	793.900	785.500	54.000	793.900	785.400	55.000	793.900
BT	784.900	56.000	793.900	784.000	57.300	793.900	782.150	75.000	793.900	0.000
BT	100.000	793.900	0.000	0.000	0.000	0.000	0.000	0.000	0 000	0.000
GR	793 900	0.000	784.000	20.200	781.000	21.000	780.000	22.000	779.400	23.000
GR	779.100	25.000	779.400	27 000	780.000	28.000	781.000	29.000	784.000	29.900
GR	781.950	32.500	779.600	33.000	779.000	34.000	778.700	35.000	778.600	36.000
GR	778.500	38.150	778.600	40.000	778.700	41.000	779 000	42.000	779 600	43.000
GR	781.950	43.800	782.150	46.000	779.800	47.000	779.200	48.000	778.900	49.000
GR	778.800	50 000	778.700	51.650	778.800	53.000	778.900	54.000	779.200	55.000
GR	779.800	56.000	782.150	57 300	793.900	75.000	793.900	100.000	0.000	0.000
NC	0.000	0.000	0 028	0 100	0.300	0.000	0.000	0.000	0.000	0.000
X1	7438.000	21.000	125.000	194.000	50 000	50.000	50.000	0.000	0.000	0.000
X3	0.000	0 000	0.000	78.000	0.000	241.000	0.000	0.000	0.000	0 000
GR	790.500	0.000	789.700	25.000	789.400	50.000	788.400	75.000	787.500	100.000
GR	787.600	125.000	776.200	151.000	775.600	155.000	775.700	160.000	775.900	165 000
GR	776.000	170.000	775.900	175.000	776.000	178 000	781.300	194 000	782.000	200.000
GR	783.800	225.000	785.500	250.000	786.100	258.000	792.200	270.000	792.400	285.000
GR	794.400	360.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.060	0.060	0.035	0 500	1.000	0.000	0.000	0.000	0.000	0.000
X1	9342.000	13.000	66.000	170.000	1953.000	1953.000	1953.000	0.000	0.000	0.000
GR	796.200	0.000	793.800	16.000	794.000	41.000	794.500	66.000	784.000	106.000
GR	783.500	111.000	783.900	116.000	784.100	121.000	783.800	126.000	783 900	129.000
GR	798.700	170.000	799.500	195 000	799.600	221.000	0.000	0.000	0.000	0.000

NC	0.000	0 000	0.000	0.500	1.000	0.000	0.000	0.000	0.000	0.000
	D/S FACE OF FOOT BRIDGE									
X1	9392.000	18.000	175.000	230.000	50.000	50.000	50.000	0.000	0.000	0.000
GR	792.900	0.000	792.300	25.000	792.400	50.000	792.200	75.000	792.300	100.000
GR	792.400	125.000	793.600	150.000	795.100	175.000	786.800	185.000	784.000	193.000
GR	783.000	200.000	783.000	205 000	784.100	211.000	789.500	222.000	789.500	222.100
GR	795.000	230.000	795.400	250 000	796.500	275.000	0.000	0.000	0.000	0.000
SB	0.000	1.530	2.800	0.000	37 000	0.000	403.000	0.000	783.000	783.000
	U/S FACE OF FOOT BRIDGE									
X1	9400.000	0 000	0.000	0.000	8.000	8 000	8.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	793.900	795.100	0.000	0.000	0.000	0 000	0.000
BT	19 000	0.000	729.900	0.000	25.000	792.300	0.000	50.000	792.400	0.000
BT	75.000	792.200	0.000	100.000	792.300	0.000	125.000	792.400	0.000	150.000
BT	793.600	0.000	175.000	795.100	0.000	185.000	795.100	786.800	185.000	795.100
BT	793.000	193.000	795.600	793.900	200.000	795.900	793.900	205.000	796.000	793.900
BT	211.000	795.900	793.700	222.000	795.100	793.000	222.100	795.100	789.500	230.000
BT	795.000	0 000	250.000	795.400	0.000	275 000	796.500	0.000	0.000	0.000
NC	0.060	0.060	0.035	0.100	0.300	0.000	0.000	0.000	0.000	0.000
	CROSS SECTION D									
X1	9450 000	13.000	66.000	170.000	50.000	50.000	50.000	0.000	0.000	0.000
GR	796.200	0.000	793.800	16.000	794.000	41.000	794.500	66.000	784.000	106.000
GR	783 500	111.000	783.900	116.000	784.100	121.000	783.800	126.000	783.900	129.000
GR	798.700	170.000	799.500	195.000	799.600	221.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.013	0 500	1.000	0.000	0.000	0.000	0.000	0.000
	D/S FACE OF PLATT ROAD									
X1	9550.000	44.000	178 000	225 000	100.000	100.000	100.000	0.000	0.000	0.000
GR	796.900	0.000	796 500	100 000	796.600	125.000	796.900	150.000	797.100	175.000
GR	797.500	178.000	789 000	180.000	786.500	181.000	786.000	182.000	785.800	183.000
GR	785.700	184.000	785.700	185.250	785.800	187 000	786.000	188.000	786.400	189 000
GR	787.200	190 000	789.000	190.500	789.400	191.800	787.000	193.000	786.300	194.000
GR	785.800	195.000	785.600	196.000	785.600	197.800	785 700	200.000	785.900	201.000
GR	786.300	202.000	787.100	203.000	789.400	203.800	788.900	209.200	786.900	210.000
GR	786.200	211.000	785.900	212.000	785.700	213 000	785 600	214.450	785.900	216.000
GR	786.000	217.000	786 200	218.000	786.900	219.000	788.900	219.700	797.700	225.000
GR	798 300	250.000	798.800	275.000	799.300	300.000	801.500	400.000	0.000	0.000
SB	0.000	1 580	2.900	0.000	40.000	0.000	196 000	0.000	785.600	785.600
	U/S FACE OF PLATT ROAD									
X1	9701 000	0.000	0.000	0.000	151.000	151.000	151.000	0.000	0.000	0 000
X2	0.000	0 000	1.000	793 300	796.500	0.000	0.000	0.000	0.000	0.000
BT	44.000	0.000	796.900	0.000	100.000	796.500	0.000	125.000	796.600	0.000
BT	150 000	796.900	0.000	175.000	797.100	0.000	178.000	797.500	0.000	180.000
BT	797.500	789 000	181.000	797.500	791.500	182.000	797.500	792.000	183.000	797.500
BT	792.200	184.000	797 500	792 300	185.250	797.500	792.400	187.000	797.500	792.300
BT	188.000	797 500	792.100	189.000	797.500	791.700	190 000	797.500	790.800	190.500
BT	797.500	789 000	191.800	797.500	789.400	193.000	797.500	792.300	194.000	797.500
BT	792.700	195.000	797.500	792.900	196.000	797.500	793.000	197.800	797.500	793.300
BT	200.000	797.500	793.000	201.000	797.500	792.800	202.000	797.500	792.400	203.000
BT	797.500	791.700	203 800	797.500	789.400	209.200	797.500	788.900	210.000	797.500
BT	790.800	211.000	797.500	791.500	212.000	797.500	792.000	213.000	797.500	792.300

BT	214.450	797.500	792.300	216 000	797.500	792.200	217.000	797.500	792.000	218.000
BT	797.500	791.500	219.000	797.500	790.800	219.700	797.500	788.900	225.000	797.700
BT	0.000	250.000	798.300	0.000	275.000	798.800	0.000	300.000	799.300	0.000
BT	400.000	801.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0 035	0.500	1.000	0.000	0.000	0.000	0.000	0.000
QT	4.000	910.000	1300.000	1500.000	1920 000	0.000	0.000	0.000	0.000	0.000
X1	9801.000	13.000	66.000	170.000	100.000	100.000	100.000	0.000	0.000	0.000
GR	796.200	0.000	793 800	16 000	794.000	41.000	794.500	66.000	784.000	106.000
GR	783 500	111 000	783.900	116.000	784.100	121.000	783.800	126.000	783.900	129.000
GR	798.700	170.000	799.500	195.000	799.600	221.000	0.000	0.000	0.000	0.000
	CROSS SECTION E									
X1	11200.000	9.000	0.000	62.000	1399.000	1399.000	1399.000	0.000	0.000	0.000
GR	797.400	0.000	788.800	16.000	787.700	20.000	787 600	25.000	787 400	30.000
GR	787.500	35.000	787.400	39.000	788.700	43.000	799.300	62.000	0.000	0.000
X1	12000 000	17.000	225.000	284.000	800.000	800.000	800.000	0.000	0.000	0.000
GR	802.100	0.000	801.700	100.000	801.000	125.000	800.700	150.000	800.100	175.000
GR	799 800	196.000	795.300	216.000	794.400	225.000	791.900	231.000	790.700	235.000
GR	790.800	240.000	790.700	245.000	790.900	250 000	791.900	255.000	799.700	284.000
GR	800 300	325.000	800.500	375.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0 013	0.500	1.000	0.000	0.000	0 000	0.000	0.000
	D/S FACE OF PACKARD ROAD									
X1	12100.000	51 000	274.000	326 000	100.000	100.000	100.000	0.000	0.000	0.000
GR	803.300	0.000	802 300	100.000	801.900	200.000	801.800	225 000	801.900	250.000
GR	802.300	274.000	795.000	275.700	793.500	276.000	792.500	277.000	792.200	278.000
GR	792.000	279 000	791 800	280.000	791.700	281.000	791.800	282.000	792.000	283.000
GR	792.200	284 000	792.500	285.000	793.600	286.000	795.000	286.300	795.000	290.700
GR	793.500	291.000	792.500	292.000	792.200	293.000	792.000	294.000	791.800	295.000
GR	791 700	296.000	791.800	297.000	792.000	298.000	792.200	299.000	792.500	300.000
GR	793.600	301 000	795.000	301.300	795.200	311.700	793.700	312.000	792.700	313.000
GR	792 400	314.000	792.200	315.000	792.000	316.000	791.900	317.000	792.000	318.000
GR	792.200	319.000	792.400	320.000	792.700	321 000	793.800	322.000	795.200	322.300
GR	803 300	326.000	803.900	351.000	804 600	376 000	805.400	401.000	806.300	426.000
GR	807.800	451.000	0.000	0 000	0.000	0.000	0.000	0.000	0 000	0.000
SB	0 000	1.570	2.900	0 000	47.000	15.000	180.000	0.000	791 700	791.700
	U/S FACE OF PACKARD ROAD									
X1	12262.000	0.000	0.000	0 000	162.000	162 000	162.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	791.700	801.800	0.000	0.000	0.000	0 000	0.000
BT	50.000	0.000	803.300	0.000	100.000	802.300	0.000	200.000	801.900	0.000
BT	225.000	801.800	0.000	250.000	801.900	0.000	274.000	802.300	0.000	275.700
BT	803.000	795.000	276.000	803.000	796.500	277.000	803.000	797.700	278.000	803.000
BT	798.100	279.000	803.000	798.200	280.000	803.000	798.300	281.000	803.000	798.400
BT	282 000	803 000	798.300	283.000	803.000	798.200	284 000	803.000	798.100	285.000
BT	803.000	797.700	286.000	803.000	796.500	286.300	803.000	795.000	290.700	803.000
BT	795.000	291.000	803.000	796.500	292.000	803.000	797.700	293.000	803.000	798.100
BT	294.000	803.000	798.200	295.000	803.000	798.300	296.000	803.000	798.400	297.000
BT	803 000	798.300	298.000	803.000	798.200	299.000	803.000	798.100	300.000	803.000
BT	797.700	301.000	803.000	796.500	301.300	803.000	795.000	311.700	803.000	795.200
BT	312.000	803 000	796.700	313 000	803.000	797 900	314.000	803.000	798 300	315.000
BT	803.000	798.400	316.000	803.000	798 500	317.000	803.000	798.600	318.000	803.000

BT	798.400	320 000	803.000	798.300	321.000	803.000	797.900	322.000	803.000	796.700
BT	322 300	803.000	795.200	326.000	803.300	0.000	351.000	803.900	0.000	376.000
BT	804.600	0 000	401.000	805.400	0.000	426.000	806.300	0.000	451 000	807.800
BT	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.035	0.100	0.300	0.000	0.000	0.000	0.000	0.000
	CROSS SECTION F									
X1	12362.000	17.000	225.000	284.000	100.000	100.000	100.000	0.000	0.000	0 000
GR	802.100	0 000	801.700	100.000	801.000	125.000	800.700	150.000	800.100	175.000
GR	799.800	196.000	795.300	216.000	794.400	225.000	791 900	231 000	790.700	235.000
GR	790.800	240.000	790.700	245 000	790.900	250.000	791.900	255.000	799.700	284.000
GR	800.300	325.000	800.500	375 000	0.000	0.000	0 000	0.000	0.000	0.000
X1	12862.000	0.000	0 000	0.000	500.000	500.000	500.000	0.000	1.000	0.000
X1	13362.000	0 000	0.000	0.000	500.000	500.000	500.000	0 000	1.000	0.000
NC	0.050	0.050	0.045	0.500	1.000	0.000	0.000	0.000	0.000	0.000
	SECTION FROM RETENTION BASIN PLANS									
X1	14050.000	20.000	15 000	104.000	688.000	688.000	688.000	0.000	0.000	0.000
X3	0.000	0.000	0 000	24.000	0.000	94.000	0.000	0.000	0.000	0.000
GR	804.000	0.000	803.000	8.000	802.000	15.000	801.000	19.000	800.000	23.000
GR	799.000	27 000	798.000	31.000	797.000	36.000	796.000	39.000	795.000	42.000
GR	794 000	44.000	794.000	63.000	795.000	66.000	796.000	69.000	797.000	78.000
GR	798.000	86.000	799.000	94.000	800.000	96.000	801.000	100.000	802.000	104.000
X1	14085 000	0.000	0.000	0.000	35.000	35.000	35.000	0.000	1.200	0.000
X3	0.000	0.000	0.000	33.000	0.000	84.000	0 000	0 000	0.000	0.000
NC	0.000	0.000	0.013	0.500	1.000	0.000	0.000	0.000	0.000	0.000
X1	14099 000	29.000	0 000	92.000	14.000	14.000	14.000	0.000	0.000	0.000
GR	808.700	0.000	799.500	31.250	797.200	32.000	796.300	33.000	795.800	34.000
GR	795.700	35.000	795.800	36.000	796.300	37.000	797 200	38.000	799.500	38.750
GR	799.700	42.250	797.300	43 000	796.400	44 000	796.000	45.000	795.800	46.000
GR	796.000	47.000	796.400	48.000	797.500	49 000	799.700	49.750	799.800	53 250
GR	797.500	54.000	796.600	55.000	796.100	56.000	795.900	57 000	796.100	58.000
GR	796.500	59.000	797.500	60.000	799.800	60.750	808.900	92.000	0.000	0.000
	D/S FACE OF DAM AT GATE OF RETENTION POND #1									
X1	14100.000	0.000	0.000	0.000	1.000	1.000	1.000	0 000	0.000	0.000
BT	29.000	0.000	808.700	0.000	31.250	808.700	799.500	32 000	808.700	801.700
BT	33.000	808.700	802.700	34.000	808.700	803.100	35.000	808.700	803.200	36.000
BT	808.700	803.100	37.000	808.700	802.700	38.000	808.700	801 700	38.750	808.700
BT	799.500	42.250	808.800	799.700	43.000	808.800	801.900	44.000	808.800	802.700
BT	45.000	808.800	803.200	46.000	808.800	803.300	47.000	808.800	803.200	48.000
BT	808.800	802.700	49.000	808.800	801.600	49.750	808.800	799.700	53.250	808.800
BT	799 800	54.000	808.800	801.800	55.000	808 800	802.700	56.000	808.800	803.300
BT	57.000	808.800	803.400	58.000	808.800	803.300	59.000	808.800	802.700	60.000
BT	808.900	801 800	60.750	808.900	799.800	92.000	808.900	0.000	0.000	0.000

X1	14158.000	39.000	0.000	92.000	58.000	58.000	58.000	0.000	0.000	0.000
BT	31 000	0.000	808 700	0.000	31.240	808.700	795.700	31.250	808.700	799.500
BT	32.000	808 700	801.700	33.000	808.700	802.700	34.000	808.700	803.100	35.000
BT	808.700	803.200	36.000	808.700	803.100	37.000	808.700	802.700	38.000	808.700
BT	801.700	38.750	808.700	799.500	42.250	808.700	799.700	43 000	808.800	801 900
BT	44.000	808.800	802.700	45.000	808.800	803.200	46.000	808.800	803.300	47.000
BT	808.800	803.200	48.000	808.800	802.700	49.000	808.800	801.600	49.750	808.800
BT	799.700	53.250	808.800	799.800	54.000	808.800	801.800	55.000	808 800	802.700
BT	56.000	808 800	803.300	57.000	808.800	803.400	58.000	808.800	803.300	59.000
BT	808.800	802.700	60.000	808.900	801 800	60.740	808.900	799.800	60.750	808.900
BT	795.900	92.000	808.900	0.000	0 000	0.000	0.000	0.000	0.000	0.000
GR	808.700	0.000	796.100	25.000	801.100	25.000	801.100	26.000	796.100	26.000
GR	795.700	31.240	799.500	31.250	797.200	32.000	796.300	33.000	795.800	34.000
GR	795.700	35.000	795.800	36.000	796.300	37.000	797.200	38.000	799.500	38.750
GR	799.700	42.250	797.300	43.000	796.400	44.000	796.000	45.000	795.800	46.000
GR	796.000	47.000	796.400	48.000	797.500	49.000	799.700	49.750	799.800	53.250
GR	797.500	54.000	796.500	55.000	796.100	56.000	795.900	57.000	796.100	58.000
GR	796.500	59.000	797.500	60.000	799 800	60 740	795.900	60.750	796.100	66.000
GR	801.100	66.000	801.100	67.000	796.100	67.000	808.900	92.000	0.000	0 000
X1	14159.000	0.000	0.000	0 000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0 000	10.000	0.000	81.000	0.000	0.000	0.000	0.000
X1	14169.000	6.000	0.000	112.000	10 000	10 000	10.000	0.000	0.000	0.000
X3	0.000	0.000	0 000	11.000	0.000	101.000	0.000	0.000	0.000	0.000
GR	808.700	0.000	796.100	25.000	801.100	25.100	801.100	87.000	796.100	87.100
GR	808.900	112.000	0.000	0.000	0.000	0.000	0 000	0.000	0.000	0.000
	D/S END OF RETENTION BASIN NO. 1									
X1	14179.000	18.000	0.000	90.000	10.000	10 000	10.000	0.000	0.000	0.000
GR	807.000	0.000	806.000	4.000	805 000	10.000	804.000	14.000	803.000	19.000
GR	802.000	24.000	801.000	30.000	800.000	36.000	799.000	38.000	799.000	58.000
GR	800.000	62.000	801.000	64.000	802 000	66.000	803.000	70.000	804.000	73.000
GR	805 000	76.000	806.000	82.000	807 000	90.000	0.000	0.000	0.000	0.000
NC	0.050	0.050	0.028	0.100	0.300	0 000	0.000	0.000	0 000	0.000
	U/S END OF RETENTION BASIN NO. 1									
X1	14900.000	0.000	0.000	0.000	721.000	721.000	721.000	0.000	0.000	0.000
	CROSS SECTION G									
X1	14950.000	9.000	376.000	494.000	50.000	50.000	50.000	0.000	0.000	0 000
GR	809.800	376.000	807.200	386.000	803.800	400.000	800.000	417.000	800.000	442.000
GR	804.200	453.000	807.000	472.000	808.700	482.000	810.600	494.000	0.000	0.000
QT	4.000	260.000	410.000	490.000	640.000	0 000	0.000	0 000	0.000	0.000
	CROSS SECTION H									
X1	15750.000	10.000	554.000	642.000	800.000	800.000	800 000	0.000	0.000	0.000
GR	808.200	554.000	804.800	566.000	800.800	592.000	800.800	600.000	802.600	606.000
GR	805.200	616.000	806.500	624.000	809.200	630.000	812.000	638.000	813.000	642.000

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NC      0.000      0.000      0.000      0.500      1.000      0.000      0.000      0.000      0.000      0.000
X1  16450.000     12.000    100.000    163.000    700.000    700.000    700.000      0.000     -1.300      0.000
GR    817.900      0 000    815.300     25 000    813.200     50.000    812.400     75.000    811.000    100.000
GR    806.000    128.000    805.700    135.000    806.300    146.000    811.300    163.000    811.900    175.000
GR    812.300    200.000    813.300    225.000      0.000      0.000      0.000      0.000      0 000      0.000

NC      0.000      0.000      0.000      0.500      1.000      0.000      0.000      0.000      0.000      0.000
X1  16480.000      0.000      0.000      0.000     30.000     30.000     30.000      0.000      0.200      0.000
X3      0.000      0 000      0.000    117.000      0.000    148.000      0.000      0 000      0.000      0.000

X1  16490.000      0.000      0.000      0.000     10.000     10.000     10.000      0.000      0.000      0.000
X3      0.000      0.000      0.000    120.000      0.000    146.000      0.000      0.000      0.000      0.000

X1  16499.000     19.000    175.000    225.000      9.000      9.000      9 000      0.000      0.000      0.000
GR    818 000      0.000    816.400     50.000    815.300    100.000    815.000    150.000    815.200    175.000
GR    806.600    193.500    805.600    194.000    805.100    195.000    804.800    197.000    804 700    200.000
GR    804 800    203.000    805.100    205 000    805.600    206.000    806.600    206.500    815.500    225.000
GR    815 800    250.000    816.500    300 000    817.100    350.000    817 700    400.000      0.000      0.000

NC      0.000      0.000      0.000      0.500      1.000      0.000      0.000      0.000      0.000      0.000
          D/S FACE OF BIRCH HOLLOW ROAD
X1  16500 000      0.000      0.000      0.000      1.000      1.000      1.000      0.000      0.000      0.000
BT     19.000      0.000    818.000      0 000     50.000    816.400      0.000    100.000    815.300      0.000
BT    150.000    815.000      0.000    175.000    815.200      0 000    193.500    815.300    806.600    194.000
BT    815.300    808 800    195.000    815.300    810.300    197.000    815.300    812.100    200.000    815.300
BT    812.900    203.000    815.300    812.100    205.000    815.300    810.300    206.000    815.300    808.800
BT    206.500    815.300    806.600    225.000    815.500      0.000    250.000    815.800      0.000    300.000
BT    816.500      0 000    350.000    817.100      0.000    400.000    817.700      0.000      0.000      0.000

          U/S FACE OF BIRCH HOLLOW ROAD
X1  16572.000      0.000      0.000      0.000     72.000     72.000     72.000      0.000      0.000      0 000
X2      0.000      0.000      0.000      0.000      0.000      0 000      1.000      0.000      0.000      0 000

NC      0.000      0.000      0.035      0.500      1.000      0.000      0.000      0.000      0.000      0.000
X1  16573.000      0.000      0.000      0.000      1.000      1.000      1.000      0.000     -1.000      0.000
X3      0.000      0.000      0.000    184.000      0.000    216.000      0.000      0.000      0.000      0.000

NC      0.000      0 000      0 000      0.100      0.300      0.000      0 000      0.000      0.000      0.000
X1  16621.000     12.000    100.000    163.000     49.000     49.000     49.000      0.000      0.000      0.000
GR    817.900      0.000    815.300     25.000    813.200     50.000    812.400     75.000    811.000    100.000
GR    806.000    128.000    805.700    135.000    806.300    146.000    811.300    163.000    811.900    175.000
GR    812.300    200.000    813.300    225.000      0.000      0.000      0.000      0.000      0.000      0.000

X1  16822.000      0.000      0.000      0.000    201 000    201.000    201.000      0.000      0.000      0.000

NC      0.000      0.000      0.028      0.300      0.500      0.000      0.000      0.000      0.000      0.000
          D/S FACE OF PRIVATE BRIDGE BEHIND APT  COMPLEX
X1  16872.000     14.000     70.000    102.000     50.000     50.000     50.000      0.000      0.000      0.000
GR    816.500      0 000    814.500     25.000    813.000     50.000    807.300     70 000    807.300     70.100
GR    807 000     75.000    805 300     88.000    804.700     92.000    805.300     96.000    806.800    102.000
GR    806 800    102.100    811.800    133.000    811 500    170.000    815.600    270.000      0.000      0.000
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SB	0.000	1 550	2.800	0.000	32.000	0.000	195.000	0.000	806.800	806.800
	U/S FACE OF PRIVATE BRIDGE BEHIND APT. COMPLEX									
X1	16880.000	0 000	0.000	0.000	8.000	8.000	8.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	812.900	814.800	0.000	0.000	0.000	0.000	0.000
BT	10.000	0.000	816.500	0.000	25.000	814.500	0.000	50.000	813.000	0.000
BT	70.000	814.800	807.300	70.100	814.800	812.900	102.000	814.800	812.900	102.100
BT	814.800	806.800	133.000	811.800	0.000	170.000	811.500	0.000	270.000	815.600
BT	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	16916.000	12.000	100.000	163.000	36.000	36.000	36.000	0.000	-1.000	0.000
X3	0.000	0.000	0.000	74.000	0.000	189.000	0.000	0 000	0.000	0.000
GR	817.900	0.000	815.300	25.000	813.200	50.000	812.400	75.000	811.000	100.000
GR	806.000	128.000	805.700	135.000	806.300	146.000	811.300	163.000	811.900	175 000
GR	812.300	200.000	813.300	225.000	0.000	0.000	0.000	0.000	0.000	0.000
	D/S FACE OF PRIVATE BRIDGE BEHIND APT. COMPLEX									
X1	16952.000	15.000	125.000	157.000	36.000	36.000	36.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	93.000	0.000	200.000	0.000	0.000	0.000	0.000
GR	819.000	0.000	818.000	25.000	815 600	50.000	813.700	72.000	812.400	104.000
GR	807.100	125.000	807.100	125.100	806.900	133.000	804.800	139.000	805.600	145.000
GR	806.800	157.000	806.800	157.100	811.800	185.000	811.800	235.000	812.800	285.000
SB	0 000	1.550	2.800	0.000	32.000	0.000	196.000	0.000	806.800	806.800
	U/S FACE OF PRIVATE BRIDGE BEHIND APT COMPLEX									
X1	16960.000	0.000	0.000	0.000	8.000	8.000	8.000	0.000	0.000	0.000
X2	0.000	0 000	1.000	813.000	814.700	0.000	0.000	0.000	0.000	0.000
X3	0 000	0.000	0.000	83 000	0.000	199.000	0.000	0 000	0.000	0.000
BT	12.000	0 000	819 000	0 000	25.000	818.000	0.000	50.000	815.600	0.000
BT	72.000	813 700	0.000	104.000	812.400	0.000	125.000	814.800	807.100	125.100
BT	814.800	813.000	157.000	814.700	812 900	157.100	814.700	806.800	185.000	811.800
BT	0.000	235.000	811.800	0.000	285.000	812.800	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0 000
	CROSS SECTION I									
X1	17000.000	12.000	100.000	163.000	40.000	40.000	40.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	84 000	0.000	180.000	0.000	0.000	0.000	0.000
GR	817.900	0.000	815.300	25.000	813 200	50.000	812.400	75 000	811.000	100.000
GR	806.000	128.000	805.700	135.000	806.300	146.000	811.300	163.000	811.900	175.000
GR	812.300	200.000	813 300	225.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.060	0.060	0.045	0.300	0.500	0.000	0 000	0.000	0.000	0.000
	D/S FACE OF I-94									
X1	17155.000	15.000	190 000	250.000	155.000	155.000	155.000	0.000	0.000	0.000
GR	819.000	0.000	819.000	50.000	819.100	100.000	819.200	150.000	819.300	190.000
GR	812.500	200.000	812.500	200.100	806.600	203.000	806.500	211.000	806.500	219.000
GR	812.500	219 100	819.300	250.000	819.400	300.000	819.600	350.000	820.000	400.000
SB	0.000	1 700	3 200	0.000	16 000	0.000	123.000	0.000	806.500	806.500

U/S FACE OF I-94

X1	17286.000	0.000	0.000	0.000	131.000	131.000	131.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	813.900	819.000	0.000	0.000	0.000	0.000	0.000
BT	13.000	0.000	819.000	0.000	50 000	819.000	0 000	100.000	819.100	0.000
BT	150.000	819 200	0.000	190.000	819.300	0.000	200.000	819.300	812.500	200.100
BT	819.300	813.900	219.000	819.300	813.500	219.100	819.300	812.500	250.000	819.300
BT	0.000	300.000	819.400	0.000	350.000	819.600	0.000	400 000	820.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
X1	17436.000	12.000	100.000	163.000	150.000	150.000	150.000	0.000	0.000	0.000
GR	818.900	0.000	816.300	25.000	814.200	50.000	813.400	75.000	813.000	100.000
GR	808.000	128.000	807.500	135.000	808 300	146.000	812.300	163.000	812.900	175.000
GR	814.300	200.000	816.300	225.000	0.000	0 000	0.000	0.000	0.000	0.000
X1	17650.000	0.000	0.000	0 000	214.000	214.000	214.000	0.000	1.400	0.000
NC	0.000	0.000	0 000	0.500	1.000	0.000	0 000	0.000	0.000	0.000
X1	17680.000	0.000	0.000	0.000	30.000	30.000	30 000	0.000	0.200	0.000
X1	17700.000	0.000	0.000	0.000	20.000	20.000	20.000	0.000	0.200	0.000
X1	17735.000	29.000	150.000	180.000	35.000	35.000	35.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	76.000	0.000	180.000	0.000	0.000	0.000	0.000
GR	816.200	0.000	816.000	50.000	816.100	100.000	816.700	125.000	817.300	150.000
GR	813.500	152.000	811.300	153.000	810.700	154 000	810.500	155.000	810.700	156.000
GR	811.300	157.000	813.500	158.000	809.500	161.000	809.500	164.990	814.000	165.000
GR	814.000	165.100	814.000	166.500	809 500	166.500	809.600	173.500	814.100	173.500
GR	814.100	174 990	814 100	175 000	809.600	175 100	816.100	180.000	816.300	200.000
GR	816.700	225.000	817 600	250.000	818.400	300 000	820.100	350 000	0 000	0.000
NC	0.000	0 000	0.013	0.500	1.000	0.000	0.000	0.000	0.000	0 000

D/S FACE OF BRIDGE AT DEAD END ROAD

X1	17736.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	27 000	0.000	816 200	0.000	50 000	816.000	0.000	100.000	816.100	0.000
BT	125.000	816.700	0.000	150.000	817 300	0.000	152.000	817.300	813.500	153.000
BT	817.300	815 700	154.000	817.400	816.300	155.000	817.400	816.500	156.000	817.400
BT	816 300	157.000	817.400	815.700	158.000	817.500	813.500	161.000	817.500	809.500
BT	164.990	817.500	809.500	165 000	817.500	814.000	165.100	817 500	815.700	166.500
BT	817.600	815.700	173.500	817.600	815.700	174.990	817.600	815.700	175.000	817.600
BT	814.100	175.100	817.600	809.600	180.000	816.100	0.000	200.000	816.300	0.000
BT	225.000	816.700	0.000	250.000	817.600	0.000	300.000	818.400	0 000	350.000
BT	820.100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

U/S FACE OF BRIDGE AT DEAD END ROAD

X1	17769 000	0.000	0.000	0.000	33.000	33.000	33.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0 000	0.000	1 000	0.000	0.000	0.000
NC	0.000	0.000	0.035	0.000	0 000	0.000	0.000	0 000	0.000	0.000
X1	17770.000	0.000	0 000	0.000	1.000	1.000	1.000	0.000	0.000	0 000
X3	0.000	0.000	0.000	150.000	0.000	180.000	0.000	0.000	0.000	0.000

X1	17819.000	12.000	100.000	163 000	49.000	49.000	49.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	116.000	0.000	147.000	0.000	0.000	0.000	0.000
GR	818.900	0.000	816.300	25.000	814.200	50.000	813 400	75.000	813.000	100.000
GR	810.000	128.000	809.600	135.000	810.300	146.000	813.300	163.000	813.900	175.000
GR	816.300	200.000	817.300	225 000	0.000	0.000	0.000	0.000	0 000	0.000
NC	0.070	0.070	0.045	0.300	0.500	0.000	0 000	0.000	0.000	0.000
	D/S FACE OF STONE SCHOOL ROAD									
X1	17869.000	16.000	65.000	81.000	50.000	50.000	50.000	0.000	0.000	0.000
GR	828.400	0.000	827.400	15.000	825.600	40.000	824.000	65.000	808.900	66.000
GR	808 900	66 100	810.700	79.900	810 700	80.000	822.800	81.000	822.900	90.000
GR	821.600	115.000	820.300	140.000	819.600	165.000	819.300	190.000	819.100	215.000
GR	819.000	265.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	1.500	2.600	0.000	14.000	0.000	58.000	0.000	808.900	808.900
	U/S FACE OF STONE SCHOOL ROAD									
X1	17942.000	0.000	0.000	0.000	73.000	73.000	73.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	813.100	824.000	0.000	0.000	0.000	0.000	0.000
BT	16 000	0 000	828.400	0.000	15 000	827.400	0.000	40.000	825.600	0.000
BT	65.000	824.000	0.000	66.000	824.000	808.900	66.100	824 000	813.100	79 900
BT	824 000	813.100	80.000	824.000	810.700	81.000	822.800	0.000	90.000	822.900
BT	0.000	115 000	821.600	0.000	140 000	820.300	0.000	165.000	819.600	0.000
BT	190.000	819.300	0.000	215.000	819.100	0.000	265.000	819.000	0.000	0.000
NC	0.070	0.070	0.045	0.100	0.300	0.000	0.000	0.000	0.000	0.000
X1	17992.000	12 000	100.000	163.000	50.000	50.000	50.000	0 000	0.000	0.000
X3	0.000	0 000	0.000	67.000	0.000	162.000	0.000	0.000	0.000	0.000
GR	818.900	0.000	816.300	25.000	814.200	50.000	813.400	75.000	813.000	100.000
GR	810.000	128.000	809.600	135.000	810 300	146.000	813.300	163.000	813.900	175.000
GR	816 300	200.000	817 300	225.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	18270.000	11.000	67.000	101.000	278 000	278.000	278.000	0 000	0.000	0.000
X3	0.000	0 000	0.000	52.000	0.000	117.000	0.000	0.000	0.000	0.000
GR	820.200	0.000	820 400	8.000	817.200	67.000	809.900	81.000	809.700	86.000
GR	810.200	91.000	815.700	101.000	815.800	117 000	816.600	142.000	817.100	160.000
GR	816.800	180.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	18319.000	23.000	85.000	123.000	49.000	49.000	49.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	69.000	0.000	139.000	0.000	0.000	0.000	0.000
GR	818.600	0.000	818.500	25.000	818.600	50.000	818.700	75.000	817.400	85.000
GR	811.500	93.700	809.800	94.000	808.500	95.000	808.000	96.000	807.900	97.000
GR	807.800	100.000	807.900	103.000	808 000	104.000	808.500	105 000	809.800	106.000
GR	811.500	106.300	817.600	123.000	818.100	125.000	818 000	150.000	818 000	175.000
GR	818.100	200.000	818.300	225.000	818.600	250.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0 013	0.500	1.000	0.000	0.000	0.000	0 000	0.000
	D/S FACE OF PLEASANT RUN									
X1	18320 000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	69.000	0.000	139.000	0.000	0.000	0.000	0.000
BT	23 000	0.000	818 600	0 000	25.000	818.500	0.000	50.000	818.600	0.000
BT	75.000	818.700	0 000	85.000	818.400	817.400	93.700	818.400	811.500	94.000
BT	818 400	812.100	95.000	818.400	813.500	96.000	818.400	814.300	97.000	818.400
BT	814.700	100.000	818 400	815.200	103.000	818 400	814.700	104.000	818.400	814.300

BT	105.000	818 400	813 500	106.000	818.400	812.100	106.300	818.400	811.500	123.000
BT	818.400	817.600	125.000	818.100	0.000	150.000	818.000	0.000	175.000	818.000
BT	0.000	200.000	818.100	0.000	225.000	818.300	0.000	250 000	818.600	0.000
	U/S FACE OF PLEASANT RUN									
X1	18373.000	0 000	0.000	0.000	53 000	53.000	53.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	83.000	0.000	126.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.045	0.100	0.300	0.000	0.000	0.000	0.000	0.000
X1	18374.000	0 000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	87.000	0.000	130.000	0.000	0 000	0.000	0.000
X1	18422.000	11.000	67.000	101.000	49.000	49.000	49.000	0.000	0.000	0.000
GR	820.200	0.000	820.400	8.000	817.200	67.000	809.900	81.000	809.700	86.000
GR	810.200	91.000	815.700	101.000	815.800	117.000	816.600	142.000	817.100	160.000
GR	816.800	180.000	0.000	0.000	0.000	0.000	0.000	0 000	0.000	0.000
	CROSS SECTION J									
X1	18800.000	0.000	0 000	0.000	378.000	378.000	378.000	0.000	0.000	0.000
X1	19160.000	0.000	0.000	0.000	360 000	360.000	360.000	0.000	0 000	0.000
X1	19209.000	27.000	129.000	165.000	49.000	49.000	49.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	10.000	0.000	210.000	0.000	0 000	0.000	0.000
GR	816.600	0 000	817.300	25.000	817 400	50.000	816.900	75.000	816.700	100.000
GR	819.600	125.000	819 400	129.000	813.100	143.700	811.800	144.000	810.500	145.000
GR	809.800	146.000	809.600	147.000	809 500	148.000	809 400	150.000	809.500	152.000
GR	809.600	153.000	809.800	154.000	810.500	155.000	811.800	156.000	813.100	156.300
GR	817.300	165.000	817.600	175 000	816 800	200.000	816.900	225.000	817 100	250.000
GR	817.100	275.000	816.800	300.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.040	0.040	0.013	0.300	0.500	0.000	0.000	0.000	0.000	0.000
	D/S FACE OF PARTRIDGE PATH ROAD									
X1	19210 000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	10.000	0 000	210 000	0.000	0.000	0 000	0.000
BT	27 000	0.000	816.600	0.000	25.000	817.300	0.000	50.000	817.400	0 000
BT	75.000	816.900	0.000	100.000	816.700	0.000	125.000	819.600	0.000	129.000
BT	819.400	0 000	143 700	819.000	813.100	144.000	819.000	814 700	145.000	818 900
BT	815.800	146.000	818 900	816.300	147.000	818.800	816.600	148.000	818.800	816.700
BT	150.000	818.700	816.800	152.000	818.600	816.700	153.000	818.600	816.600	154.000
BT	818.500	816.300	155.000	818.500	815 800	156.000	818.500	814.700	156.300	818.400
BT	813.100	165.000	817 300	0.000	175.000	817.600	0.000	200.000	816.800	0.000
BT	225.000	816.900	0.000	250.000	817 100	0.000	275.000	817.100	0.000	300.000
BT	816.800	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0 000
	U/S FACE OF PARTRIDGE PATH ROAD									
X1	19262.000	0 000	0.000	0.000	52.000	52.000	52.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	30.000	0.000	203.000	0.000	0.000	0.000	0.000

NC	0.000	0 000	0.035	0.100	0.300	0 000	0.000	0.000	0.000	0.000
X1	19263.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	30 000	0.000	203 000	0.000	0.000	0.000	0.000
X1	19312.000	11.000	67.000	101.000	49.000	49.000	49.000	0.000	0.000	0.000
GR	820.200	0 000	820.400	8.000	817.200	67.000	809 900	81.000	809.700	86.000
GR	810.200	91.000	815.700	101.000	815.800	117.000	816.600	142.000	817.100	160.000
GR	816.800	180.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	19500.000	0.000	0.000	0.000	188.000	188.000	188.000	0.000	0.000	0.000
X1	19549.000	19 000	175.000	187.000	49.000	49.000	49.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	215 000	0.000	0.000	0.000	0 000
GR	818.200	0.000	818.000	25.000	815.800	75.000	817 000	100.000	817.400	125.000
GR	817.300	150 000	817.600	175.000	809.400	176.000	809.400	176.100	809.400	185.900
GR	809.400	186.000	817 400	187.000	817.000	200.000	817 600	225.000	817.500	250.000
GR	815.800	275.000	815.500	300.000	816.000	325.000	817.900	350.000	0 000	0.000
QT	4.000	70.000	120.000	140.000	190.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.013	0 300	0.500	0.000	0.000	0.000	0.000	0.000
	D/S FACE OF DAM AT GATE OF RETENTION POND #2									
X1	19550.000	0.000	0 000	0.000	1.000	1.000	1.000	0.000	0.000	0 000
X3	0.000	0.000	0.000	0.000	0.000	215.000	0.000	0.000	0.000	0.000
BT	19.000	0.000	818.200	0.000	25.000	818 000	0.000	75.000	815.800	0.000
BT	100.000	817.000	0.000	125 000	817.400	0.000	150.000	817.300	0.000	175.000
BT	817.600	0.000	176.000	817.600	809.400	176.100	817.600	816.600	185 900	817.600
BT	816.600	186.000	817.600	809.400	187.000	817.400	0.000	200.000	817.000	0.000
BT	225.000	817.600	0.000	250.000	817 500	0.000	275.000	815.800	0.000	300.000
BT	815.500	0.000	325.000	816 000	0.000	350.000	817.900	0.000	0.000	0.000
	U/S FACE OF DAM AT GAGE OF RETENTION POND #2									
X1	19562.000	0.000	0 000	0.000	12.000	12.000	12.000	0.000	0.000	0.000
X2	0.000	0.000	0 000	0.000	0.000	0.000	1.000	0.000	0.000	0 000
X3	0.000	0.000	0 000	0.000	0.000	209 000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.035	0.100	0 300	0 000	0.000	0 000	0.000	0.000
X1	19563.000	17.000	175.000	187.000	1.000	1.000	1.000	0 000	0 000	0.000
X3	0.000	0.000	0 000	0.000	0.000	209 000	0.000	0 000	0.000	0.000
GR	818.200	0.000	818.000	25.000	815 800	75.000	817.000	100.000	817.400	125.000
GR	817.300	150.000	811.400	175.000	809.400	176.000	809.400	186.000	811.400	187.000
GR	817.000	200.000	817.600	225.000	817.500	250.000	815.800	275.000	815.500	300.000
GR	816.000	325.000	817 900	350.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	19581.000	15.000	175.000	187.000	18.000	18.000	18.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	200.000	0.000	0 000	0.000	0.000
GR	818.200	0 000	818.000	25.000	815.800	75 000	817 000	100.000	817.400	125.000
GR	817.300	150.000	811.400	175.000	811.400	187.000	817.000	200.000	817.600	225.000
GR	817.500	250.000	815.800	275.000	815.500	300.000	816.000	325.000	817.900	350.000

X1	19900.000	10.000	14.000	20.000	319.000	319.000	319.000	0.000	0.000	0.000
GR	815.000	0.000	814.000	4.000	813.000	11.000	812.000	14.000	810.000	15.000
GR	810.000	19.000	812.000	20.000	813.000	26.000	814.600	32.000	815.000	40.000
NC	0.035	0.035	0.045	0.100	0 300	0.000	0.000	0.000	0.000	0.000
	CROSS SECTION K									
X1	20650.000	20.000	36.000	101.000	750.000	750 000	750.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	21.000	0.000	115.000	0.000	0.000	0.000	0.000
GR	818.700	0.000	817.900	11.000	818.300	36.000	812.700	52.000	812.700	61.000
GR	812.500	70.000	816.900	86.000	818.400	101 000	816.300	112.000	818.300	122.000
GR	818 700	136 000	819.300	161.000	820.700	186.000	821.600	211.000	822.300	236.000
GR	822.800	261.000	822.800	286.000	822.600	311.000	822.600	336.000	822.500	361.000
X1	20799.000	34 000	245.000	265.000	149.000	149.000	149.000	0.000	0.000	0 000
GR	820.600	0.000	820.600	25.000	820.400	50.000	820.300	75.000	820.200	100.000
GR	820.100	125 000	820 000	150.000	819.900	175.000	819.700	200.000	819.600	225.000
GR	819.400	245.000	814.800	247.200	813.800	247.400	813.300	248.000	813.100	249.000
GR	813 000	250.000	813.100	251 000	813.300	252.000	813.800	252.600	814.800	252.800
GR	814.900	254.200	813.900	254.400	813 400	255.000	813.200	256.000	813.100	257.000
GR	813.200	258.000	813 400	259.000	813.900	259.600	814.900	259.800	819.400	265.000
GR	819.400	275.000	819.300	300.000	819.400	325.000	819.500	350.000	0.000	0.000
NC	0.035	0 035	0.013	0.300	0.500	0.000	0 000	0.000	0 000	0.000
	D/S FACE OF ELLSWORTH									
X1	20800.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	34.000	0.000	820.600	0.000	25.000	820.600	0.000	50.000	820.400	0.000
BT	75.000	820.300	0.000	100.000	820.200	0.000	125.000	820.100	0.000	150.000
BT	820 000	0.000	175.000	819.900	0.000	200.000	819.700	0.000	225.000	819.600
BT	0.000	245.000	819 400	0.000	247 200	819.400	814.800	247.400	819.400	815.800
BT	248.000	819.400	816.300	249.000	819.400	816.500	250.000	819.400	816.600	251.000
BT	819.400	816 500	252.000	819.400	816.300	252.600	819 400	815.800	252 800	819.400
BT	814.800	254.200	819.400	814.900	254.400	819.400	815.900	255 000	819.400	816 400
BT	256 000	819.400	816.600	257.000	819 400	816.700	258.000	819.400	816.600	259.000
BT	819.400	816.400	259.600	819.400	815.900	259 800	819.400	814.900	265.000	819.400
BT	0.000	275.000	819.400	0.000	300.000	819 300	0 000	325.000	819 400	0.000
BT	350.000	819.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	U/S FACE OF ELLSWORTH									
X1	20937.000	0.000	0.000	0.000	137.000	137.000	137.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0 000
NC	0.000	0.000	0.045	0.100	0 300	0.000	0.000	0.000	0.000	0.000
X1	20938.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	245.000	0.000	265 000	0.000	0.000	0.000	0.000
X1	21087.000	20.000	36 000	101.000	149.000	149.000	149.000	0.000	0.000	0.000
GR	818.700	0.000	817.900	11.000	818.300	36.000	812.700	52.000	812.700	61.000
GR	812 500	70 000	816.900	86.000	818.400	101.000	816.300	112.000	818.300	122.000
GR	818.700	136.000	819.300	161.000	820.700	186.000	821.600	211 000	822.300	236.000
GR	822.800	261.000	822.800	286.000	822.600	311.000	822.600	336.000	822.500	361.000

CROSS SECTION L

X1	21970.000	28.000	250.000	293.000	883.000	883.000	883.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	230 000	0.000	307.000	0.000	0.000	0.000	0.000
GR	816.500	0.000	816.600	25.000	816.400	50.000	816 600	75.000	816.500	100.000
GR	816.600	125.000	816.600	150.000	816.400	175.000	816.700	200.000	817.000	225.000
GR	817.200	250.000	813.900	260.000	813.200	267.000	813.100	270.000	812.600	275.000
GR	813.900	278.000	817 000	293.000	817.000	300.000	816.800	325.000	816 600	350.000
GR	816.500	375.000	816 100	400.000	815.800	425.000	815.900	450.000	815.900	475.000
GR	816.000	500.000	816.100	525.000	815.900	550.000	0.000	0.000	0.000	0.000
NC	0 000	0.000	0.013	0.300	0.500	0.000	0.000	0.000	0.000	0.000

D/S FACE OF DT&I RR

X1	22100.000	42.000	235.000	275.000	130.000	130.000	130 000	0.000	0.000	0.000
GR	828.900	0.000	829.000	25 000	829.100	50.000	829.200	75.000	829.200	100.000
GR	829.300	125.000	829.400	150.000	829.500	175.000	829.600	200.000	829.600	225.000
GR	829.600	235.000	815.800	248.000	814.500	248.500	814.100	249.000	813.900	249.500
GR	813.800	250.000	813.900	250.500	814.100	251.000	814.500	251.500	815.800	252.000
GR	815.700	263.100	815.200	263.200	814.600	263.500	814.100	264.000	813.900	264.500
GR	813.800	265.000	813.900	265.500	814.100	266.000	814.600	266.500	815.200	266.800
GR	815.700	266.900	829.700	275.000	829.800	300.000	829.900	325.000	830.000	350.000
GR	830.100	375.000	830.200	400.000	830.300	425.000	830.300	450.000	830.400	475 000
GR	830.500	500.000	830.500	525.000	0 000	0.000	0.000	0.000	0.000	0.000
SB	0.000	2.660	2.900	0.000	8.000	0 000	23.600	0.000	813.800	813.800

U/S FACE OF DT&I RR

X1	22174.000	0.000	0.000	0.000	74.000	74.000	74.000	0.000	0.000	0.000
X2	0.000	0.000	1 000	817.800	829.200	0.000	0.000	0.000	0.000	0.000
BT	42.000	0 000	828.900	0.000	25.000	829.000	0.000	50.000	829.100	0.000
BT	75.000	829.200	0.000	100.000	829.200	0.000	125 000	829.300	0.000	150.000
BT	829.400	0 000	175.000	829.500	0.000	200.000	829.600	0.000	225.000	829.600
BT	0.000	235.000	829.600	0 000	248.000	829.700	815 800	248.500	829.700	817.100
BT	249 000	829 700	817.500	249.500	829.700	817.700	250.000	829.700	817.800	250.500
BT	829.700	817.700	251.000	829.700	817.500	251.500	829.700	817.100	252.000	829.700
BT	815.800	263.100	829.700	815.700	263.200	829.700	816.300	263.500	829.700	816.900
BT	264 000	829.700	817.300	264.500	829.700	817.500	265 000	829.700	817.600	265.500
BT	829.700	817.500	266.000	829.700	817.300	266.500	829.700	816.900	266.800	829.700
BT	816.300	266.900	829.700	815.700	275.000	829.700	0.000	300.000	829.800	0.000
BT	325 000	829.900	0.000	350.000	830.000	0.000	375.000	830.100	0.000	400.000
BT	830.200	0.000	425.000	830.300	0.000	450.000	830.300	0.000	475.000	830.400
BT	0.000	500.000	830.500	0 000	525.000	830.500	0.000	0 000	0 000	0.000
NC	0 000	0 000	0.045	0.100	0.300	0.000	0.000	0.000	0.000	0.000
QT	4.000	40.000	60 000	80.000	110.000	0.000	0.000	0.000	0.000	0.000
X1	22225 000	28.000	250.000	293.000	51.000	51.000	51.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	210.000	0.000	329.000	0.000	0.000	0.000	0.000
GR	816.500	0.000	816.600	25.000	816.400	50.000	816.600	75.000	816.500	100 000
GR	816.600	125.000	816.600	150.000	816.400	175.000	816.700	200.000	817.000	225.000
GR	817.200	250 000	813.900	260.000	813.200	267.000	813.100	270.000	812.600	275.000
GR	813.900	278 000	817.000	293.000	817.000	300.000	816.800	325.000	816.600	350.000
GR	816.500	375.000	816.100	400.000	815.800	425.000	815.900	450.000	815.900	475.000
GR	816 000	500.000	816.100	525.000	815.900	550.000	0.000	0.000	0.000	0.000

CROSS SECTION M

X1	24800.000	27.000	250.000	270.000	2575.000	2575.000	2575.000	0.000	0.000	0.000
GR	820.100	0 000	820.100	25.000	820.200	50.000	820.200	75.000	821.100	100.000
GR	820.100	125.000	819.800	150.000	819.600	175.000	819.800	200.000	819.500	225 000
GR	818.600	250.000	817.600	255.000	817.300	260.000	817.500	265.000	818.500	270.000
GR	819.200	300.000	819.400	325.000	819 600	350.000	820.800	375.000	820 700	400.000
GR	821.400	425.000	821.000	440.000	820.600	450.000	819.900	475.000	822.800	490.000
GR	822.600	500.000	824.300	525.000	0 000	0.000	0.000	0.000	0.000	0 000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

THIS RUN EXECUTED 14 JUL 88 10:00:46

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  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
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T1        TOWNSHIP OF PITTSFIELD FIS RESTUDY
T2        PITTSFIELD-ANN ARBOR DRAIN
T3        100-YEAR FLOOD

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      0.        4         0         0.   0.004000     0.00       0 0        0.    772.500    0.000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

     3.000     0.000    -1.000     0 000     0.000     0.000     0.000     0 000     0.000     0.000
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 3

CCHV= 0.300 CEHV= 0.500
*SECNO 2929.000

3265 DIVIDED FLOW

2929.00	8 76	770.86	0.00	772.50	771.48	0.62	0.00	0.00	769.00
1870.	52	1434.	384.	26.	201.	197.	0.	0.	769.70
0.00	1.99	7.12	1.95	0.065	0.040	0.065	0.000	762.10	28.70
0.003979	0.	0.	0.	0	0	4	0.00	197.93	251.37

*SECNO 2959 000

3265 DIVIDED FLOW

2959.00	8 76	770.98	0.00	0.00	771.60	0.62	0.12	0.00	769.12
1870	52.	1434.	384	26	201.	197.	0.	0.	769 82
0.00	1 99	7.12	1.95	0.065	0.040	0.065	0.000	762.22	28.70
0.003981	30	30.	30	0	0	0	0.00	197.89	251.36

CCHV= 0.500 CEHV= 1.000
*SECNO 2974.000

3470 ENCROACHMENT STATIONS= 28.0 221.0 TYPE= 1 TARGET= 193.000

2974.00	8 76	771.04	0.00	0 00	771.66	0.62	0.06	0.00	769.18
1870.	52.	1435	383.	26.	201	194.	0.	0.	769.88
0.00	1 99	7.13	1.97	0.065	0.040	0.065	0.000	762.28	28.71
0.003988	15	15.	15	0	0	0	0.00	182.60	211.30

*SECNO 2989.000

3470 ENCROACHMENT STATIONS= 30.0 210.0 TYPE= 1 TARGET= 180.000

2989.00	8.76	771.10	0.00	0.00	771.72	0.62	0.06	0.00	769.24
1870.	53.	1435.	383	26.	201.	194.	1	0.	769.94
0.00	2.03	7 13	1.97	0 065	0.040	0.065	0.000	762 34	30 00
0.003985	15.	15.	15.	0	0	0	0 00	180 00	210.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XN_	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= 0.500 CEHV= 1.000
*SECNO 3029.000

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

D/S FACE OF HURON PARKWAY DRIVE

3029.00	7.30	771.20	771.20	0.00	772.99	1.80	0.09	1.18	770.00
1870.	39.	1801.	30.	46.	164.	49.	1.	0.	770.50
0.00	0.85	10.96	0.62	0.065	0.013	0.065	0.000	763.90	170.23
0.001346	40.	40.	40.	2	15	0	0.00	159.67	329.90

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS 768.17 ,NOT 771.20 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.57	2.90	0.00	25.00	3.00	112.00	0.00	763.90	763.90

*SECNO 3200.000

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
777.99	773.23	0.00	375	1497.	112.	150.	770.70	774.00

U/S FACE OF HURON PARKWAY DRIVE

3200.00	11.40	775.30	0.00	0.00	775.55	0.25	2.56	0.00	770.00
1870.	192	1356.	323.	285.	287.	485.	3.	1.	770.50
0.02	0.67	4.72	0.66	0.065	0.013	0.065	0.000	763.90	135.16
0.000118	171	171.	171	2	0	4	0.00	228.57	363.74

CCHV= 0.100 CEHV= 0.300
*SECNO 3300.000
3280 CROSS SECTION 3300.00 EXTENDED 2.40 FEET

CROSS SECTION A

3300.00	12.00	775.50	0.00	0.00	775.58	0.08	0.02	0.02	770.40
1870.	99.	939.	832	104.	312.	782.	6.	2.	771.10
0.03	0 95	3.01	1.06	0.065	0.035	0.065	0.000	763.50	15.61
0.000304	100.	100.	100	2	0	0	0.00	248.39	264.00

*SECNO 3800 000
3280 CROSS SECTION 3800.00 EXTENDED 0.76 FEET

3800.00	10 36	775.66	0.00	0.00	775.86	0.20	0.24	0.04	772.20
1870.	77.	1144	648.	59.	256.	480.	18.	5.	772.90
0.07	1 31	4.47	1.35	0.065	0.035	0.065	0.000	765.30	22.24
0.000874	500	500	500	2	0	0	0.00	241.76	264.00

*SECNO 4300.000

3265 DIVIDED FLOW

4300 00	9.02	776.12	0.00	0.00	776.66	0.54	0.70	0.10	774.00
1870.	53.	1416	401.	31.	210	237.	25.	7.	774.70
0.10	1.72	6.74	1.69	0.065	0.035	0.065	0.000	767.10	27.65
0.002572	500.	500.	500.	2	0	0	0.00	214.81	255.28

*SECNO 4800.000

3265 DIVIDED FLOW

4800 00	8.51	777 51	0.00	0 00	778.33	0 82	1.59	0.08	775.90
1870	41	1537.	292.	22.	193.	163	30.	9.	776.60
0.12	1.85	7 96	1.80	0.065	0.035	0 065	0.000	769.00	29.69
0.004026	500.	500.	500.	3	0	0	0.00	182.13	247.70

CCHV= 0.500 CEHV= 1.000
*SECNO 5100.000

3265 DIVIDED FLOW

5100.00	8 70	778.80	0.00	0.00	779.50	0.70	1 11	0.06	777.00
1870.	46.	1491.	334.	25.	199.	189.	32.	11.	777.70
0.13	1.81	7.48	1.77	0.065	0 035	0.065	0.000	770.10	28.93
0.003401	300.	300.	300.	3	0	0	0.00	194.22	250.51

*SECNO 5280.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 160.0 276.0 TYPE= 1 TARGET= 116.000

CROSS SECTION B

5280.00	8.52	779.32	0.00	0.00	780.04	0.73	0 52	0.02	777.20
1870.	54.	1783.	33.	42.	255.	31	34.	11.	778.00
0.14	1.30	7.00	1.06	0.060	0.035	0.060	0.000	770.80	160.00
0.002510	180.	180.	180.	3	0	0	0.00	116.00	276.00

*SECNO 5310.000

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 140.0 280.0 TYPE= 1 TARGET= 140.000

5310.00	7.81	779.41	0.00	0.00	780.37	0.96	0.09	0.24	778.00
1870.	41	1826.	3.	34.	229.	4.	34.	11.	778.80
0.14	1.22	7.97	0.64	0.060	0.035	0.060	0.000	771.60	140.00
0.003753	30.	30	30.	0	0	0	0.00	102 67	280.00

*SECNO 5320.000

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 120.0 280.0 TYPE= 1 TARGET= 160.000

5320.00	7.45	779.45	0.00	0.00	780.53	1.08	0.04	0.12	778.40
1870.	46.	1823.	0.	36.	216.	1.	34	11.	779.20
0.14	1.29	8.44	0.41	0.060	0.035	0.060	0.000	772.00	120.00
0 004558	10.	10	10.	0	0	0	0.00	96.76	240.83

*SECNO 5325.000

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 120 0 280.0 TYPE= 1 TARGET= 160.000

5325.00	7 37	779 47	0.00	0.00	780.59	1.12	0.02	0.04	778.50
1870.	40.	1830.	0.	32	214	0.	34	11.	779.30
0.14	1.26	8 57	0.33	0.060	0.035	0.060	0.000	772.10	120 00
0.004770	5.	5.	5.	0	0	0	0.00	93.18	239.45

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLESS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 5330.000

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

D/S FACE OF HURON PARKWAY DRIVE

5330.00	7.29	779.49	779.37	0.00	781.64	2.15	0.01	1.04	783.50
1870.	9.	1852.	9.	14.	157.	14.	34.	11.	783.50
0.14	0.62	11.83	0.62	0.060	0.013	0.060	0.000	772.20	122.46
0.001731	5.	5.	5.	0	8	0	0.00	91.99	301.38

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS 776.38 ,NOT 779.49 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.57	2.90	0.00	25.00	3.50	112.00	0.00	772.20	772.20

*SECNO 5470.000

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
786.28	781.97	0.00	309.	1562.	112.	153.	779.30	783.00

U/S FACE OF HURON PARKWAY DRIVE

5470.00	11.74	783.94	0.00	0.00	784.23	0.29	2.59	0.00	783.50
1870.	225.	1419.	225.	299.	288.	298.	36.	12.	783.50
0.15	0.75	4.93	0.76	0.060	0.013	0.060	0.000	772.20	97.79
0.000174	140.	140.	140.	2	0	4	0.00	215.95	313.73

CCHV= 0.100 CEHV= 0.300
*SECNO 5520.000
3280 CROSS SECTION 5520.00 EXTENDED 3.43 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
3470 ENCROACHMENT STATIONS=			70.0	300 0	TYPE=	1	TARGET=	230.000	
5520.00	13.43	784.23	0.00	0.00	784.26	0.04	0.01	0.03	777.20
1870.	701.	979.	290.	814.	432.	374.	37.	12.	778.00
0.16	0.86	2.04	0.78	0.060	0.035	0.060	0.000	776.80	70.00
0.000105	50.	50.	50.	2	0	0	0.00	230.00	300.00
*SECNO 6300.000									
CROSS SECTION C									
6300.00	8 61	784.21	0.00	0 00	784.54	0.33	0.19	0.09	787.60
1870.	0.	1814.	56.	0.	388.	49.	56.	15.	781.30
0.21	0.00	4 68	1.13	0.000	0.035	0.060	0.000	775.60	132.72
0.001095	780	780.	780.	2	0	0	0.00	98.36	231.08
*SECNO 6750.000									
3470 ENCROACHMENT STATIONS=			116.0	204.0	TYPE=	1	TARGET=	88.000	
6750.00	9 00	784.60	0 00	0.00	784.90	0.30	0.35	0.00	787.60
1870.	0.	1825.	45.	0.	412.	28.	60.	16.	781.30
0.24	0.00	4 43	1 63	0.000	0.028	0.040	0.000	775.60	131 84
0.000593	450.	450	450.	2	0	0	0.00	72.16	204.00
CCHV= 0.500 CEHV= 1 000									
*SECNO 6800.000									
D/S FACE OF US-23 / WASHTENAW AVE.									
6800.00	9.32	784.62	0.00	0 00	785.24	0.62	0.02	0 32	792.40
1870.	0.	1870.	0.	0.	296.	0	61.	16.	793.60
0.24	0.00	6.31	0.00	0 000	0.013	0.000	0.000	775.30	212.84
0 000356	50.	50	50.	1	0	0	0.00	48.16	261.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.68	3.00	0.00	21.00	0.00	154.00	0.00	778.50	775.30

*SECNO 7388.000
PRESSURE FLOW

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
790.76	788.31	0 00	0.	1870.	154.	174.	786.80	792.60

U/S FACE OF CULVERT BEHIND DENNY'S RESTAURANT

7388.00	12.04	790.54	0 00	0.00	790.76	0.22	5.52	0.00	793.90
1870	0.	1870.	0.	0.	491.	0.	66.	17.	793.90
0 28	0 00	3 80	0.00	0.000	0.013	0.000	0.000	778 50	6.86
0.000100	588.	588	588	2	0	0	0.00	63.07	69.93

CCHV= 0.100 CEHV= 0.300
*SECNO 7438.000

3470 ENCROACHMENT STATIONS= 78.0 241 0 TYPE= 1 TARGET= 163.000

7438.00	15.14	790 74	0.00	0.00	790.78	0.04	0.00	0.02	787.60
1870.	72.	1478.	320.	142.	825.	353.	67.	17.	781.30
0.29	0 50	1 79	0.91	0.040	0.028	0.040	0.000	775 60	78.00
0.000044	50.	50.	50.	2	0	0	0.00	163.00	241.00

CCHV= 0 500 CEHV= 1 000
*SECNO 9342.000

9342 00	7.51	791 01	0.00	0.00	791.51	0 50	0.27	0.46	794.50
1870.	0.	1870.	0.	0.	328.	0.	104.	22.	798.70
0.39	0 00	5.70	0.00	0.000	0.035	0.000	0.000	783.50	79.30
0.002365	1953.	1953.	1953.	2	0	0	0.00	69.39	148.69

CCHV= 0.500 CEHV= 1.000
*SECNO 9392.000

D/S FACE OF FOOT BRIDGE

9392.00	8.15	791.15	0.00	0.00	792.04	0 89	0.14	0 38	795.10
1870.	0.	1870.	0.	0.	247.	0.	104.	22.	795.00
0.39	0 00	7.56	0.00	0.000	0.035	0 000	0.000	783.00	179.75
0 003629	50.	50.	50.	2	0	0	0.00	44.72	224.47

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	GLOB	GCH	GROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.53	2.80	0.00	37 00	0.00	403.00	0.00	783.00	783.00

*SECNO 9400.000

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS= 0.000 EGLWC= 792.040 ELLC= 793.900 PCWSE= 791.153 ELTRD= 795.100

3370 NORMAL BRIDGE,NRD= 19 MIN ELTRD= 795 10 MAX ELLC= 793.90

U/S FACE OF FOOT BRIDGE

9400.00	8 18	791.18	0.00	0.00	792.17	0.98	0.03	0.10	795.10
1870.	0.	1870.	0.	0.	235.	0.	105.	22.	795.00
0.39	0 00	7.95	0.00	0.000	0.035	0.000	0.000	783.00	179.72
0 003878	8.	8.	8.	2	0	0	-13.65	44.80	224.52

CCHV= 0.100 CEHV= 0.300
*SECNO 9450.000

3301 HV CHANGED MORE THAN HVINS

CROSS SECTION D

9450.00	8.50	792.00	0.00	0.00	792.34	0.34	0.11	0.06	794.50
1870	0.	1870.	0.	0.	401	0.	105	22.	798 70
0.39	0.00	4 66	0.00	0.000	0.035	0.000	0.000	783.50	75.49
0.001372	50.	50.	50.	2	0	0	0.00	75.97	151.46

CCHV= 0.500 CEHV= 1.000
*SECNO 9550.000

3301 HV CHANGED MORE THAN HVINS

D/S FACE OF PLATT ROAD

9550.00	6.52	792.12	0.00	0.00	793.28	1.16	0.12	0.82	797.50
1870.	0.	1870.	0.	0.	216.	0.	106.	23.	797.70
0.39	0 00	8.65	0.00	0.000	0.013	0 000	0.000	785.60	179.27
0.000980	100.	100.	100.	2	0	0	0.00	42.37	221.64

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

SPECIAL BRIDGE

SB	XK	XKOR	CDFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.58	2.90	0.00	40.00	0.00	196.00	0.00	785 60	785.60

*SECNO 9701.000

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS= 0.000 EGLWC= 793.277 ELLC= 793.300 PCWSE= 792 115 ELTRD= 796.500

3370 NORMAL BRIDGE,NRD= 44 MIN ELTRD= 796.50 MAX ELLC= 793 30

U/S FACE OF PLATT ROAD

9701.00	6 74	792 34	0.00	0.00	793 98	1.64	0.23	0.48	797.50
1870.	0.	1870.	0.	0.	182.	0.	106.	23.	797.70
0.40	0.00	10 27	0.00	0.000	0.013	0.000	0.000	785.60	179.22
0.002543	151.	151.	151.	2	0	0	-43.42	42.55	221.77

CCHV= 0.500 CEHV= 1.000
*SECNO 9801.000

3301 HV CHANGED MORE THAN HVINS

9801.00	11.23	794 73	0.00	0.00	794.82	0.09	0.07	0.78	794.50
1500	11.	1489.	0.	36.	632.	0.	107.	23.	798.70
0.41	0 30	2.36	0.00	0.060	0.035	0.000	0.000	783.50	9.78
0.000250	100	100.	100.	3	0	0	0.00	149.23	159.01

*SECNO 11200.000
CROSS SECTION E

11200.00	8.05	795.45	0.00	0.00	795.87	0 41	0.72	0.33	797.40
1500	0.	1500.	0.	0.	291.	0.	123.	26.	799.30
0.49	0.00	5.15	0.00	0.000	0.035	0.000	0.000	787.40	3.63
0 001606	1399	1399	1399.	2	0	0	0 00	51.47	55.10

*SECNO 12000.000

12000.00	6.50	797.20	0.00	0.00	797.81	0.61	1.74	0.20	794.40
1500.	62.	1438.	0.	29.	225.	0.	128.	27.	799.70
0.52	2.13	6.38	0.00	0.060	0 035	0.000	0 000	790.70	207.57
0 003124	600.	800.	800.	3	0	0	0.00	67.12	274.69

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= 0.500 CEHV= 1.000
*SECNO 12100.000
D/S FACE OF PACKARD ROAD

12100.00	5.66	797.36	0.00	0.00	798.30	0.94	0.16	0.33	802.30
1500.	0.	1500	0	0.	193	0	128.	27.	803.30
0.53	0.00	7.77	0.00	0.000	0.013	0.000	0.000	791.70	275.15
0.001009	100.	100.	100.	2	0	0	0.00	48.14	323.29

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS 793.72 ,NOT 797.36 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.57	2.90	0.00	47.00	15.00	180.00	0.00	791.70	791.70

*SECNO 12262.000
PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
799.05	798.72	0.00	0.	1500.	180.	0.	791.70	801 80

U/S FACE OF PACKARD ROAD

12262.00	6.79	798.49	0.00	0.00	799.05	0.57	0.76	0.00	802.30
1500.	0.	1500.	0.	0.	248.	0.	129	27.	803.30
0.53	0.00	6.04	0.00	0.000	0.013	0.000	0.000	791 70	274.89
0.000460	162.	162.	162.	2	0	0	0.00	48.92	323.81

CCHV= 0.100 CEHV= 0.300
*SECNO 12362.000
CROSS SECTION F

12362.00	8.16	798.86	0.00	0.00	799.15	0 29	0.07	0.03	794.40
1500	110.	1390.	0.	64.	314.	0.	130.	28.	799 70
0.54	1.71	4.43	0.00	0 060	0.035	0.000	0.000	790.70	200.15
0.001137	100	100.	100.	2	0	0	0.00	80.75	280.90

*SECNO 12862.000

12862.00	7.76	799.46	0.00	0.00	799.80	0 34	0.63	0.02	795.40
1500.	99.	1401.	0.	55.	291.	0	134.	29.	800.70
0 57	1.81	4.81	0.00	0.060	0.035	0.000	0.000	791.70	201.94
0.001425	500	500.	500.	2	0	0	0 00	77.45	279.40

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
*SECNO 13362.000									
13362.00	7.50	800.20	0.00	0.00	800.58	0.38	0.77	0.01	796.40
1500	92	1408.	0.	49.	277.	0.	138.	29.	801.70
0.60	1 88	5 08	0.00	0.060	0.035	0.000	0.000	792.70	203.11
0 001658	500.	500.	500.	2	0	0	0.00	75.32	278.43
CCHV= 0 500 CEHV= 1.000									
*SECNO 14050 000									
3470 ENCROACHMENT STATIONS=		24.0	94.0	TYPE=	1	TARGET=		70.000	
SECTION FROM RETENTION BASIN PLANS									
14050.00	7.57	801 57	0.00	0.00	801.82	0.25	1.18	0.06	100000.00
1500.	0.	1500.	0.	0.	373.	0.	143.	31.	100000.00
0.65	0 00	4.02	0.00	0.000	0.045	0.000	0.000	794.00	24.00
0 001772	688.	688	688.	2	0	0	0.00	70.00	94.00
*SECNO 14085 000									
3470 ENCROACHMENT STATIONS=		33.0	84.0	TYPE=	1	TARGET=		51 000	
14085.00	6.46	801.66	0.00	0.00	802.19	0.52	0.09	0.27	100000.00
1500	0	1500.	0.	0.	258.	0.	143	31.	100000.00
0.65	0.00	5 81	0.00	0.000	0.045	0 000	0 000	795.20	33.00
0 004200	35.	35.	35.	2	0	0	0.00	51.00	84.00
CCHV= 0.500 CEHV= 1.000									
*SECNO 14099.000									
3301 HV CHANGED MORE THAN HVINS									
7185 MINIMUM SPECIFIC ENERGY									
3720 CRITICAL DEPTH ASSUMED									
14099.00	6.11	801 81	801 81	0.00	803.48	1.67	0.04	1.15	808.70
1500	0.	1500.	0.	0.	144.	0.	144	31.	808.90
0.65	0.00	10.38	0.00	0.000	0.013	0.000	0 000	795.70	23.41
0.002434	14.	14.	14.	0	11	0	0.00	44.24	67.65
*SECNO 14100.000									

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

4575 CRITICAL DEPTH ASSUMED BELOW ELLC OF 803.400 EGLC= 805.579 EGC= 810 459 WSEL= 809.314

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE, NRD= 29 MIN ELTRD= 808.70 MAX ELLC= 803.40

D/S FACE OF DAM AT GATE OF RETENTION POND #1

14100 00	6.11	801.81	801.74	0.00	804.77	2.96	0.00	1.29	808.70
1500.	0.	1500	0.	0.	109.	0.	144.	31.	808.90
0.65	0 00	13.81	0.00	0.000	0.013	0.000	0.000	795.70	23.40
0.005090	1	1	1.	0	25	0	-35.96	44.25	67.66

*SECNO 14158.000

4575 CRITICAL DEPTH ASSUMED BELOW ELLC OF 803.400 EGLC= 805.577 EGC= 810.456 WSEL= 809.311

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE, NRD= 31 MIN ELTRD= 808.70 MAX ELLC= 803.40

3685 20 TRIALS ATTEMPTED WSEL, CWSEL

14158.00	7.58	803.28	801.73	0 00	805.47	2.18	0.30	0.39	808.70
1500.	0.	1500	0.	0.	127.	0.	144	31.	808.90
0.65	0.00	11 85	0 00	0.000	0.013	0.000	0 000	795.70	10.75
0.005363	58.	58.	58.	28	25	0	-228.52	70 28	81.03

*SECND 14159.000

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 10.0 81.0 TYPE= 1 TARGET= 71.000

14159.00	10.70	806.40	0.00	0.00	806.50	0.11	0.00	1.04100000.00	
1500.	0.	1500.	0.	0	576.	0	144.	31.	100000.00
0 65	0.00	2.60	0.00	0.000	0.013	0.000	0.000	795.70	10.00
0.000065	1.	1.	1.	3	0	0	0.00	71.00	81.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 14169.000

3470 ENCROACHMENT STATIONS= 11.0 101.0 TYPE= 1 TARGET= 90.000

14169.00	10.30	806.40	0.00	0.00	806.53	0.13	0.00	0.02	100000.00
1500.	0.	1500.	0.	0.	518.	0.	144.	31.	100000.00
0.65	0.00	2.90	0.00	0.000	0 013	0.000	0.000	796.10	11.00
0.000081	10.	10.	10.	2	0	0	0.00	90.00	101.00

*SECNO 14179.000
D/S END OF RETENTION BASIN NO. 1

14179.00	7.40	806.40	0.00	0.00	806.67	0.27	0.00	0.14	807.00
1500	0.	1500	0.	0.	359.	0.	144.	31.	807.00
0 65	0.00	4.18	0.00	0.000	0 013	0.000	0.000	799.00	2.40
0.000195	10.	10.	10.	0	0	0	0.00	82.80	85 20

CCHV= 0.100 CEHV= 0.300
*SECNO 14900.000
U/S END OF RETENTION BASIN NO. 1

14900.00	7.69	806.69	0.00	0 00	806.92	0.24	0.25	0.00	807.00
1500	0.	1500.	0.	0	383.	0.	150.	32.	807.00
0.70	0.00	3.91	0 00	0.000	0.028	0.000	0.000	799.00	1 26
0 000767	721.	721.	721.	2	0	0	0.00	86 23	87.49

*SECNO 14950.000
CROSS SECTION G

14950.00	5 68	806.68	0.00	0.00	806.99	0 31	0.05	0 02	809.80
1500	0.	1500.	0.	0.	337.	0.	151.	32.	810.60
0.70	0.00	4.45	0.00	0.000	0.028	0.000	0.000	800.00	388.13
0.001096	50.	50.	50.	2	0	0	0.00	81.70	469.84

*SECNO 15750 000
CROSS SECTION H

15750.00	6.62	807.42	0.00	0.00	807.46	0.04	0.45	0.03	808.20
490.	0.	490.	0.	0.	289.	0.	156.	34.	813.00
0.84	0.00	1 70	0.00	0.000	0.028	0.000	0.000	800.80	556.73
0.000158	800.	800	800.	0	0	0	0.00	69.33	626 06

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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

CCHV=    0.500 CEHV=    1.000
*SECNO 16450.000
 16450.00      3.32    807.72      0.00      0.00    808.15      0.43      0.30      0.38    809.70
     490.        0.       490        0.        0.       94.        0.       159.       35.     810.00
    0.87       0.00      5.24      0.00     0.000     0.028     0.000     0.000    804.40    111.09
 0.003657       700.      700.      700.         2         0         0      0.00     44.16    155.25

CCHV=    0.500 CEHV=    1.000
*SECNO 16480.000

3470 ENCROACHMENT STATIONS=      117.0      148.0  TYPE=      1  TARGET=       31.000
 16480.00      3.24    807.84      0.00      0.00    808.42      0.58      0.12      0.15100000.00
     490          0.       490.        0.        0.       80         0.       159.       35.  100000.00
    0.87       0.00      6.11      0.00     0.000     0.028     0.000     0.000    804.60    117.00
 0.004280        30.       30.       30.         2         0         0      0.00     31.00    148.00

*SECNO 16490.000

3470 ENCROACHMENT STATIONS=      120.0      146.0  TYPE=      1  TARGET=       26.000
 16490.00      3.28    807.88      0.00      0.00    808.59      0.70      0.05      0.12100000.00
     490.        0.       490.        0.        0.       73.        0.       159       35.  100000.00
    0.87       0.00      6.73      0.00     0.000     0.028     0.000     0.000    804.60    120.00
 0.005022        10.       10.       10.         0         0         0      0.00     26.00    146.00

*SECNO 16499.000

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
 16499.00      3.85    808.55    808.55      0.00    809.82      1.27      0.06      0.57    815.20
     490          0.       490.        0.        0.       54.        0.       159.       35.     815.50
    0.87       0.00      9.05      0.00     0.000     0.028     0.000     0.000    804.70    189.30
 0.009650           9         9.        9.         2         8         0      0.00     21.25    210.56

CCHV=    0.500 CEHV=    1.000
*SECNO 16500.000
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE, NRD= 19 MIN ELTRD= 815.00 MAX ELLC= 812.90

D/S FACE OF BIRCH HOLLOW ROAD

16500.00	3 86	808.56	808.51	0.00	810.38	1.82	0.01	0.54	815.20
490.	0.	490.	0.	0.	45.	0.	159.	35.	815.50
0.87	0.00	10.81	0.00	0.000	0.028	0.000	0.000	804.70	189.28
0.012606	1.	1.	1.	0	12	0	-9.01	21.29	210.58

*SECNO 16572.000

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE, NRD= 19 MIN ELTRD= 815.00 MAX ELLC= 812.90

U/S FACE OF BIRCH HOLLOW ROAD

16572.00	5 87	810 57	0.00	0.00	811.39	0.82	0.52	0.50	815.20
490.	0.	490	0.	0.	67.	0	160.	35.	815.50
0 88	0.00	7.28	0 00	0.000	0.028	0.000	0.000	804 70	184.97
0.004616	72.	72.	72.	4	0	0	-38.22	29.77	214.74

CCHV= 0 500 CEHV= 1.000
*SECNO 16573.000

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 184.0 216 0 TYPE= 1 TARGET= 32.000

16573.00	7.91	811 61	0.00	0.00	811.74	0 13	0.00	0.35100000.00	
490.	0.	490.	0	0.	170.	0.	160.	35.	100000.00
0.88	0.00	2.88	0.00	0.000	0.035	0.000	0.000	803.70	184.00
0.000634	1.	1.	1.	3	0	0	0.00	32.00	216 00

CCHV= 0 100 CEHV= 0.300
*SECNO 16621.000

16621.00	6 01	811.71	0.00	0.00	811.77	0.06	0.02	0.01	811.00
490.	1.	488.	0.	4.	243.	2.	160.	35.	811.30
0.88	0 29	2.01	0.20	0.050	0.035	0.050	0.000	805.70	87.39
0.000380	49	49.	49.	2	0	0	0.00	83.73	171 12

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 16822.000

16822.00	6.08	811.78	0.00	0.00	811.64	0.06	0.07	0.00	811.00
490	2.	488.	1.	5.	248.	2.	161.	35.	811.30
0.91	0.30	1.97	0.22	0.050	0.035	0.050	0.000	805.70	86.02
0.000355	201.	201.	201.	2	0	0	0.00	86.63	172.65

CCHV= 0.300 CEHV= 0.500

*SECNO 16872.000

D/S FACE OF PRIVATE BRIDGE BEHIND APT. COMPLEX

16872.00	7.09	811.79	0.00	0.00	811.86	0.06	0.01	0.00	807.30
490.	23.	411.	56.	36.	186.	84.	161.	35.	806.80
0.92	0.65	2.21	0.66	0.050	0.028	0.050	0.000	804.70	54.21
0.000170	50.	50.	50.	0	0	0	0.00	123.14	177.34

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.55	2.80	0.00	32.00	0.00	195.00	0.00	806.80	806.80

*SECNO 16880.000

6070.LOW FLOW BY NORMAL BRIDGE

EGPRS= 811.944 EGLWC= 813.912 ELLC= 812.900 PCWSE= 811.792 ELTRD= 814.800

3265 DIVIDED FLOW

3370 NORMAL BRIDGE.NRD= 10 MIN ELTRD= 814 80 MAX ELLC= 812.90

U/S FACE OF PRIVATE BRIDGE BEHIND APT. COMPLEX

16880.00	7.07	811.77	0.00	0 00	811.88	0 11	0.00	0.02	807.30
490.	0.	489.	1.	0.	185.	6.	161.	35.	806.80
0 92	0 00	2.65	0.13	0 000	0.028	0.050	0.000	804.70	54.31
0.000292	8.	8.	8.	3	0	0	-111.84	118.66	176 63

*SECNO 16916.000

3470 ENCROACHMENT STATIONS= 74 0 189.0 TYPE= 1 TARGET= 115.000

16916.00	7.18	811.88	0.00	0.00	811.91	0.03	0.01	0.02	810.00
490.	9.	472.	8.	30.	317	27.	162.	35.	810 30
0.93	0.32	1.49	0.30	0.050	0.028	0.050	0.000	804.70	74.00
0.000094	36.	36.	36.	2	0	0	0.00	115.00	189.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 16952.000

3470 ENCROACHMENT STATIONS= 93.0 200.0 TYPE= 1 TARGET= 107.000

D/S FACE OF PRIVATE BRIDGE BEHIND APT. COMPLEX

16952.00	7.06	811.86	0.00	0.00	811.93	0.06	0.00	0.02	807.10
490.	31.	406.	53.	45.	183.	73	162	35.	806.80
0.93	0.69	2.22	0.72	0.050	0.028	0.050	0.000	804.80	106.09
0.000174	36.	36	36.	1	0	0	0.00	93.91	200.00

SPECIAL BRIDGE

SB	XK	XKOR	CDFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1 55	2.80	0.00	32.00	0.00	196.00	0.00	806.80	806.80

*SECNO 16960.000

6070.LOW FLOW BY NORMAL BRIDGE

EGPRS= 812.015 EGLWC= 813 889 ELLC= 813.000 PCWSE= 811.865 ELTRD= 814.700

3370 NORMAL BRIDGE,NRD= 12 MIN ELTRD= 814.70 MAX ELLC= 813.00

3470 ENCROACHMENT STATIONS= 83.0 199.0 TYPE= 1 TARGET= 116.000

U/S FACE OF PRIVATE BRIDGE BEHIND APT. COMPLEX

16960 00	7.04	811.84	0.00	0.00	811.95	0.11	0 00	0 02	807.10
490	0.	490.	0.	0.	182.	1.	162.	35.	806.80
0.93	0.00	2.69	0.07	0.000	0.028	0.050	0.000	804.80	106.20
0 000309	8.	8.	8.	2	0	0	-115.95	92.80	199.00

CCHV= 0.100 CEHV= 0 300

*SECNO 17000.000

3470 ENCROACHMENT STATIONS= 84.0 180.0 TYPE= 1 TARGET= 96.000

CROSS SECTION I

17000.00	6.21	811.91	0.00	0 00	811.97	0.06	0.01	0.01	811.00
490.	2	487	1.	7.	256.	4.	162.	36.	811.30
0.94	0 25	1.90	0.20	0.050	0 028	0.050	0.000	805.70	84.00
0 000203	40.	40.	40	2	0	0	0.00	91.90	175.90

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= 0.300 CEHV= 0.500
*SECNO 17155.000
D/S FACE OF I-94

17155.00	5.31	811.81	0.00	0.00	812.25	0.45	0.09	0.20	819.30
490.	0.	490.	0.	0	91.	0.	163.	36.	819.30
0.95	0.00	5.36	0.00	0.000	0.045	0.000	0.000	806.50	200.44
0.005210	155.	155.	155.	2	0	0	0.00	18.65	219.09

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.70	3.20	0.00	16.00	0.00	123.00	0.00	806.50	806.50

*SECNO 17286.000

6070, LOW FLOW BY NORMAL BRIDGE

EGPRS= 0.000 EGLWC= 812.253 ELLC= 813.900 PCWSE= 811.807 ELTRD= 819.000

3370 NORMAL BRIDGE, NRD= 13 MIN ELTRD= 819.00 MAX ELLC= 813.90
U/S FACE OF I-94

17286.00	6.01	812.51	0.00	0.00	812.85	0.34	0.56	0.03	819.30
490.	0.	490.	0.	0.	105.	0	163.	36.	819.30
0.96	0.00	4.68	0.00	0.000	0.045	0.000	0.000	806.50	199.98
0.003581	131.	131.	131.	2	0	0	0.00	19.16	219.15

CCHV= 0.300 CEHV= 0.500
*SECNO 17436.000

17436.00	5.59	813.09	0.00	0.00	813.17	0.08	0.25	0.08	813.00
490.	0.	487.	3	0.	215.	6.	164.	36.	812.30
0.97	0.10	2.27	0.46	0.060	0.045	0.060	0.000	807.50	94.29
0.000942	150.	150.	150	2	0	0	0.00	84.13	178.42

*SECNO 17650.000

17650.00	4.47	813.37	0.00	0.00	813.54	0.17	0.33	0.05	814.40
490.	0.	490	0.	0.	147.	0.	164.	36.	813.70
0.99	0.00	3.33	0.00	0.000	0.045	0.000	0.000	808.90	105.77
0.002852	214.	214.	214.	2	0	0	0.00	55.83	161.60

```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

CCHV=   0.500 CEHV=   1.000
*SECNO 17680.000
 17680.00      4.36    813.46      0.00      0.00    813.65      0.19      0.09      0.02    814.60
    490.         0.       490        0.        0.       141        0.       165.       36.     813.90
    0.99      0.00      3.47      0.00     0.000     0 045     0.000     0 000    809.10    106.38
 0.003197       30.       30.       30.         2         0         0      0.00     54.75    161.13

*SECNO 17700.000
 17700.00      4.23    813.53      0.00      0 00    813.74      0.21      0.07      0.02    814 80
    490.         0.       490.       0.        0.       133.       0.       165.       36.     814.10
    1.00      0.00      3.67      0.00     0.000     0.045     0.000     0.000    809.30    107.16
 0.003711       20.       20.       20.         0         0         0      0.00     53.38    160.54

*SECNO 17735.000

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=      76.0      180.0  TYPE=      1  TARGET=      104.000
 17735.00      4.29    813.79      0.00      0.00    814.45      0.66      0 26      0.45    817.30
    490.         0.       490        0.        0.       75.       0.       165.       36.  100000.00
    1.00      0.00      6.52      0.00     0.000     0.045     0.000     0.000    809.50    151.85
 0.021220       35.       35.       35.         2         0         0      0 00     23.40    178.26

CCHV=   0.500 CEHV=   1 000
*SECNO 17736.000

3265 DIVIDED FLOW


3301 HV CHANGED MORE THAN HVINS


3370 NORMAL BRIDGE, NRD= 27 MIN ELTRD=  816.00 MAX ELLC=  816.50

          D/S FACE OF BRIDGE AT DEAD END ROAD
 17736.00      4.30    813.80    813 79      0.00    815.68      1.88      0 01      1.22    817.30
    490.         0.       490.       0.        0       45.       0.       165.       36.     816.10
    1.00      0.00     11 01      0.00     0.000     0.013     0.000     0.000    809.50    151.84
 0.005398       1.        1.        1.         0        16         0    -30.99     23.42    178.27
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	GLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 17769.000

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE, NRD= 27 MIN ELTRD= 816.00 MAX ELLC= 816.50

U/S FACE OF BRIDGE AT DEAD END ROAD

17769.00	6.07	815.57	0.00	0.00	816 33	0.76	0.09	0.56	817.30
490.	0.	490.	0.	0.	70.	0.	165.	36.	816.10
1 00	0.00	7 00	0.00	0 000	0.013	0.000	0.000	809.50	150.92
0.001710	33.	33.	33.	10	0	0	-53.28	28.68	179.59

*SECNO 17770.000
3280 CROSS SECTION 17770.00 EXTENDED 0.26 FEET

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 150.0 180.0 TYPE= 1 TARGET= 30.000

17770.00	6.96	816.46	0.00	0.00	816.63	0.17	0.00	0.30	817.30
490.	0	490.	0.	0.	150.	0.	165.	36.	100000.00
1.00	0 00	3 27	0.00	0.000	0 035	0.000	0.000	809.50	150.44
0.001684	1.	1.	1.	3	0	0	0.00	29.56	180.00

*SECNO 17819.000

3470 ENCROACHMENT STATIONS= 116.0 147.0 TYPE= 1 TARGET= 31.000

17819.00	7.01	816.61	0.00	0.00	816 70	0.09	0 04	0.04	100000.00
490.	0.	490.	0.	0.	199.	0.	165	36.	100000.00
1.00	0.00	2 47	0.00	0.000	0.035	0.000	0.000	809.60	116.00
0.000432	49.	49.	49.	2	0	0	0.00	31.00	147.00

CCHV= 0 300 CEHV= 0.500
*SECNO 17869 000
D/S FACE OF STONE SCHOOL ROAD

17869.00	7.61	816.51	0.00	0 00	816.90	0.39	0.05	0.15	824.00
490.	0.	490.	0.	0.	97	0.	165.	36.	822.80
1.01	0.00	5.04	0.00	0.000	0.045	0 000	0.000	808.90	65.50
0.004336	50.	50	50.	2	0	0	0.00	14.98	80.48

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.50	2.60	0.00	14.00	0.00	58.00	0.00	808.90	808.90

*SECNO 17942.000
PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
818.17	816.90	0.00	0	490	58.	59.	813.10	824.00

U/S FACE OF STONE SCHOOL ROAD

17942.00	9.01	817.91	0.00	0.00	818.17	0.27	1.27	0.00	824.00
490.	0.	490	0	0.	118.	0.	165.	36.	822.80
1.01	0.00	4.14	0.00	0.000	0.045	0.000	0.000	808.90	65.40
0.002566	73.	73.	73.	2	0	0	0.00	15.19	80.60

CCHV= 0.100 CEHV= 0.300

*SECNO 17992.000
3280 CROSS SECTION 17992.00 EXTENDED 0.90 FEET

3470 ENCROACHMENT STATIONS= 67.0 182.0 TYPE= 1 TARGET= 115.000

17992.00	8.60	818.20	0.00	0.00	818.21	0.01	0.01	0.03	813.00
490	68.	391	31	162.	446.	83.	166.	37.	813.30
1.03	0.42	0.88	0.38	0.070	0.045	0.070	0.000	809.60	67.00
0.000052	50.	50.	50.	2	0	0	0.00	115.00	182.00

*SECNO 18270.000
3280 CROSS SECTION 18270.00 EXTENDED 1.38 FEET

3470 ENCROACHMENT STATIONS= 52.0 117.0 TYPE= 1 TARGET= 65.000

18270.00	8.48	818.18	0.00	0.00	818.26	0.08	0.03	0.02	817.20
490.	3.	457.	31.	9.	200.	39	169.	37.	815.70
1.06	0.33	2.28	0.79	0.070	0.045	0.070	0.000	809.70	52.00
0.000505	278.	278.	278.	2	0	0	0.00	65.00	117.00

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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

*SECNO 18319.000

3470 ENCROACHMENT STATIONS=      69.0      139.0  TYPE=      1  TARGET=      70.000
 18319.00     10.41    818.21      0.00      0.00    818.29      0.08      0.03      0.00    817.40
    490.         1.      489.        0.        2.      219.        3.       169.       37.     817.60
    1.07      0.27      2.23      0.16     0.070     0.045     0.070     0.000    807.80     78.83
 0.000560       49.       49        49.         1         0         0      0.00     60.17    139.00

CCHV=   0.500 CEHV=   1.000
*SECNO 18320.000

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE, NRD= 23 MIN ELTRD=  818.00 MAX ELLC=  817.60

3470 ENCROACHMENT STATIONS=      69.0      139.0  TYPE=      1  TARGET=      70.000
          D/S FACE OF PLEASANT RUN
 18320.00     10.41    818.21    811.83      0.00    818.87      0.66      0.00      0.58    817.40
    490.         0.      490.        0.        0.      75.        2.       169.       37.     817.60
    1.07      0.00      6.53      0.18     0.000     0.013     0.070     0.000    807.80     78.78
 0.001073        1.        1.        1.         0        15         0   -147.23     60.22    139.00

*SECNO 18373.000

3370 NORMAL BRIDGE, NRD= 23 MIN ELTRD=  818.00 MAX ELLC=  817.60

3470 ENCROACHMENT STATIONS=      83.0      126.0  TYPE=      1  TARGET=      43.000
          U/S FACE OF PLEASANT RUN
 18373.00     10.47    818.27      0.00      0.00    818.93      0.66      0.06      0.00    817.40
    490.         0.      490.        0.        0.      75.        0.       169.       37.     817.60
    1.07      0.00      6.53      0.12     0.000     0.013     0.070     0.000    807.80     83.00
 0.001074       53.       53.       53.         1         0         0   -148.14     43.00    126.00

CCHV=   0.100 CEHV=   0.300
*SECNO 18374.000
3280 CROSS SECTION  18374.00 EXTENDED      0.33 FEET
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 87 0 130.0 TYPE= 1 TARGET= 43.000

18374.00	11.13	818.93	0.00	0.00	818.99	0.06	0.00	0.06100000.00
490.	0.	488.	2.	0.	242.	6.	169.	37. 817.60
1.07	0.00	2.02	0.37	0.000	0.045	0 070	0.000	807.80 87.00
0.000404	1.	1.	1.	2	0	0	0.00	43.00 130.00

*SECNO 18422.000
3280 CROSS SECTION 18422.00 EXTENDED 2.17 FEET

18422 00	9.27	818.97	0.00	0.00	819.01	0.03	0.01	0.00	817.20
490.	8.	366.	116.	29.	227.	199.	170.	37.	815.70
1.08	0.29	1.61	0.58	0.070	0.045	0.070	0.000	809.70	34.39
0.000214	49.	49	49.	1	0	0	0.00	145.61	180.00

*SECNO 18800.000
3280 CROSS SECTION 18800.00 EXTENDED 2.26 FEET

CROSS SECTION J

18800.00	9.36	819 06	0.00	0 00	819.08	0.03	0.08	0 00	817 20
490.	9.	363.	118.	32.	230.	206.	174.	39.	815.70
1.16	0.29	1.58	0.57	0.070	0.045	0.070	0.000	809 70	32.80
0.000201	378.	378.	378.	2	0	0	0.00	147.20	180 00

*SECNO 19160 000
3280 CROSS SECTION 19160.00 EXTENDED 2.33 FEET

19160.00	9.43	819.13	0.00	0.00	819 16	0.03	0.07	0 00	817.20
490.	10.	360.	121.	34.	232.	212.	177.	40.	815.70
1.24	0.29	1.55	0.57	0.070	0.045	0.070	0.000	809 70	31.42
0.000191	360.	360.	360.	0	0	0	0.00	148.58	180.00

*SECNO 19209.000

3265 DIVIDED FLOW

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3280 CROSS SECTION 19209.00 EXTENDED 2.34 FEET

3470 ENCROACHMENT STATIONS= 10.0 210.0 TYPE= 1 TARGET= 200.000

19209.00	9.74	819.14	0.00	0.00	819.17	0.03	0.01	0.00	819.40
490.	123.	316.	51	209.	192.	88.	178.	40.	817.30
1.25	0 59	1.65	0.58	0.070	0.045	0.070	0.000	809.40	10.00
0.000324	49.	49.	49.	0	0	0	0.00	191.39	210.00

CCHV= 0.300 CEHV= 0.500
*SECNO 19210.000

3265 DIVIDED FLOW

3280 CROSS SECTION 19210.00 EXTENDED 2.34 FEET

3370 NORMAL BRIDGE, NRD= 27 MIN ELTRD= 816 60 MAX ELLC= 816.80

3470 ENCROACHMENT STATIONS= 10.0 210.0 TYPE= 1 TARGET= 200.000
D/S FACE OF PARTRIDGE PATH ROAD

19210.00	9.73	819.13	0.00	0.00	819.18	0.05	0.00	0.01	819.40
490	185.	228.	77	209.	95.	89.	178.	40.	817.30
1.25	0.88	2.41	0.87	0.040	0 013	0.040	0.000	809.40	10.00
0.000238	1.	1	1.	0	0	0	-96.79	191.41	210.00

*SECNO 19262.000

3265 DIVIDED FLOW

3280 CROSS SECTION 19262.00 EXTENDED 2.34 FEET

3470 ENCROACHMENT STATIONS= 30 0 203.0 TYPE= 1 TARGET= 173.000
U/S FACE OF PARTRIDGE PATH ROAD

19262 00	9.73	819.13	0.00	0.00	819.19	0.06	0.00	0.00	819.40
490.	64.	400	26.	169.	192.	72.	178.	40.	817.30
1.26	0.38	2.09	0.36	0.040	0.013	0.040	0.000	809.40	30.00
0.000043	52.	52.	52.	1	0	0	0.00	164.39	203.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= 0.100 CEHV= 0.300
*SECNO 19263.000

3265 DIVIDED FLOW

3280 CROSS SECTION 19263.00 EXTENDED 2.36 FEET

3470 ENCROACHMENT STATIONS= 30.0 203.0 TYPE= 1 TARGET= 173.000

19263.00	9.76	819.16	0.00	0.00	819.19	0.03	0.00	0.00	819.40
490	102.	304.	55.	171	192.	73	178.	40.	817.30
1.26	0.77	1.58	0.75	0.040	0.035	0.040	0.000	809.40	30.00
0.000179	1.	1.	1.	2	0	0	0.00	164.66	203.00

*SECNO 19312.000
3280 CROSS SECTION 19312.00 EXTENDED 2.37 FEET

19312.00	9.47	819.17	0.00	0.00	819.20	0.02	0.01	0.00	817.20
490.	13.	326.	151.	36.	234.	215.	179.	40.	815.70
1.27	0.35	1.40	0.70	0.040	0.035	0.040	0.000	809.70	30.74
0.000093	49.	49	49.	0	0	0	0.00	149.26	180.00

*SECNO 19500.000
3280 CROSS SECTION 19500.00 EXTENDED 2.40 FEET

19500.00	9.49	819.19	0.00	0.00	819.21	0.02	0.02	0.00	817.20
490.	13.	325.	152.	37.	235.	217.	181.	41.	815.70
1.32	0.35	1.38	0.70	0.040	0.035	0.040	0.000	809.70	30.16
0.000091	188.	188.	188.	0	0	0	0.00	149.84	180.00

*SECNO 19549.000
3280 CROSS SECTION 19549.00 EXTENDED 1.30 FEET

3470 ENCROACHMENT STATIONS= 0.0 215.0 TYPE= 1 TARGET= 214.999

19549.00	9.80	819.20	0.00	0.00	819.22	0.02	0.01	0.00	817.60
490.	287.	161.	43	352.	109.	56.	182.	41.	817.40
1.33	0.82	1.47	0.76	0.040	0.035	0.040	0.000	809.40	0.00
0.000178	49.	49.	49.	0	0	0	0.00	215.00	215.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= 0.300 CEHV= 0.500
*SECNO 19550.000
3280 CROSS SECTION 19550.00 EXTENDED 1.31 FEET

3370 NORMAL BRIDGE, NRD= 19 MIN ELTRD= 815.50 MAX ELLC= 816.60

3470 ENCROACHMENT STATIONS= 0.0 215.0 TYPE= 1 TARGET= 214.999
D/S FACE OF DAM AT GATE OF RETENTION POND #2

19550.00	9.82	819.22	0.00	0.00	819.22	0.00	0.00	0.00	817.60
140.	74.	55.	11.	354.	91.	57.	182.	41.	817.40
1.33	0.21	0.61	0.19	0.040	0.013	0.040	0.000	809.40	0.00
0.000012	1.	1.	1.	1	0	0	-18.92	215.00	215.00

*SECNO 19562.000
3280 CROSS SECTION 19562.00 EXTENDED 1.32 FEET

3370 NORMAL BRIDGE, NRD= 19 MIN ELTRD= 815.50 MAX ELLC= 816.60

3470 ENCROACHMENT STATIONS= 0.0 209.0 TYPE= 1 TARGET= 208 999
U/S FACE OF DAM AT GAGE OF RETENTION POND #2

19562.00	9.82	819.22	0.00	0.00	819.22	0.00	0.00	0.00	817.60
140.	75.	56.	9.	356.	91.	45.	182.	41.	817.40
1.34	0 21	0.62	0.20	0.040	0.013	0.040	0.000	809.40	0.00
0.000012	12.	12.	12.	0	0	0	-18.92	209.00	209.00

CCHV= 0.100 CEHV= 0.300
*SECNO 19563.000
3280 CROSS SECTION 19563.00 EXTENDED 1.32 FEET

3470 ENCROACHMENT STATIONS= 0.0 209.0 TYPE= 1 TARGET= 208.999

19563.00	9 82	819.22	0.00	0.00	819.22	0.00	0 00	0.00	811.40
140.	76	46.	18.	434.	116.	84.	182.	41.	811.40
1.34	0.17	0.40	0.22	0 040	0.035	0.040	0.000	809.40	0.00
0.000005	1.	1.	1.	0	0	0	0.00	209.00	209.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 19581.000
3280 CROSS SECTION 19581.00 EXTENDED 1.32 FEET

3470 ENCROACHMENT STATIONS= 0.0 200.0 TYPE= 1 TARGET= 199.999

19581.00	7.82	819.22	0.00	0.00	819.22	0.00	0.00	0.00	811.40
140.	84.	41.	16.	434.	94.	65.	182.	41.	811.40
1.36	0.19	0.43	0.24	0.040	0.035	0.040	0.000	811.40	0.00
0.000007	18.	18.	18.	0	0	0	0.00	200.00	200.00

*SECNO 19900.000
3280 CROSS SECTION 19900.00 EXTENDED 4.23 FEET

19900.00	9.22	819.22	0.00	0.00	819.23	0.01	0.00	0.00	812.00
140.	43.	39.	58.	79.	53.	108.	185.	42.	812.00
1.51	0.54	0.73	0.54	0.040	0.035	0.040	0.000	810.00	0.00
0.000025	319	319.	319.	0	0	0	0.00	40.00	40.00

CCHV= 0.100 CEHV= 0.300
*SECNO 20650.000

3470 ENCROACHMENT STATIONS= 21.0 115.0 TYPE= 1 TARGET= 94.000
CROSS SECTION K

20650.00	6.75	819.25	0.00	0.00	819.25	0.00	0.02	0.00	818.30
140.	4.	127.	10.	16.	275.	29.	190.	44.	818.40
1.98	0.23	0.46	0.33	0.035	0.045	0.035	0.000	812.50	21.00
0.000029	750.	750.	750.	1	0	0	0.00	94.00	115.00

*SECNO 20799.000

20799.00	6.23	819.23	0.00	0.00	819.27	0.04	0.01	0.01	819.40
140.	0.	140.	0.	0.	88.	0.	191.	44.	819.40
2.00	0.00	1.60	0.00	0.000	0.045	0.000	0.000	813.00	245.08
0.000515	149.	149.	149.	1	0	0	0.00	19.74	264.82

CCHV= 0.300 CEHV= 0.500
*SECNO 20800.000

3370 NORMAL BRIDGE, NRD= 34 MIN ELTRD= 819.30 MAX ELLC= 816.70

```
          D/S FACE OF ELLSWORTH
 20800.00      6.12    819.12      0.00      0.00    819.39      0.27      0.00      0.12    819.40
     140         0.       140.       0.        0.       34.       0.       191.       44.     819.40
    2.00       0.00      4.17      0.00     0.000     0.013     0.000     0.000    813.00    245.13
0.001173         1         1.        1.        2         0         0    -51.73     19.54    264.67

*SECNO 20937.000

3370 NORMAL BRIDGE,NRD= 34 MIN ELTRD=  819.30 MAX ELLC=  816.70

          U/S FACE OF ELLSWORTH
 20937.00      6.28    819.28      0.00      0.00    819.55      0.27      0.16      0.00    819.40
     140.        0.       140.       0.        0.       34.       0.       191.       44.     819.40
    2.01       0.00      4.17      0.00     0.000     0.013     0.000     0.000    813.00    245.06
0.001173        137       137.      137.        2         0         0    -54.89     19.80    264.86

CCHV=    0.100 CEHV=    0.300
*SECNO 20938.000
3280 CROSS SECTION  20938.00 EXTENDED       0.04 FEET

3470 ENCROACHMENT STATIONS=       245.0       265.0  TYPE=       1  TARGET=        20.000
 20938.00      6.54    819.54      0.00      0.00    819.57      0.03      0.00      0.02    819.40
     140.        0.       140.       0.        0.       94.       0.       191.       44.  100000.00
    2.01       0.00      1.49      0.00     0.000     0.045     0.000     0.000    813.00    245.00
0.000428         1.        1.        1.        2         0         0      0.00      20.00    265.00

*SECNO 21087.000
3280 CROSS SECTION  21087.00 EXTENDED       0.88 FEET

 21087.00      7.08    819.58      0.00      0.00    819.58      0.00      0.01      0.00    818.30
     140.       11.       110.      19.       51.      297.      78.       192.       44.     818.40
    2.13       0.22      0.37      0.24     0.035     0.045     0.035     0.000    812.50      0.00
0.000017        149.      149.      149.        2         0         0      0.00     166.03    166.03

*SECNO 21970.000
3280 CROSS SECTION  21970.00 EXTENDED       3.70 FEET

3470 ENCROACHMENT STATIONS=       230.0       307.0  TYPE=       1  TARGET=        77.000
          CROSS SECTION L
 21970.00      7.00    819.60      0.00      0.00    819.60      0.00      0.02      0.00    817.20
     140.       18.       108       14.       50.      217.      37.       199.       47.     817.00
    2.66       0.37      0.50      0.38     0.035     0.045     0.035     0.000    812.60    230.00
0.000027        883.      883.      883.        2         0         0      0.00      77.00    307.00
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= 0.300 CEHV= 0.500
*SECND 22100.000

	D/S FACE OF DT&I RR								
22100.00	5.79	819.59	0.00	0.00	819.62	0.03	0.00	0.02	829.60
140	0.	140.	0.	0.	95	0.	200	47.	829.70
2.68	0.00	1 47	0.00	0.000	0.013	0.000	0.000	813.80	244.42
0.000040	130.	130.	130.	1	0	0	0.00	24.73	269.15

SPECIAL BRIDGE

SB XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
0.00	2.66	2.90	0 00	8.00	0.00	23.60	0 00	813.80	813.80

*SECND 22174.000
PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
821.04	819.62	0 00	0.	140.	24.	32.	817.80	829.20

	U/S FACE OF DT&I RR								
22174 00	7 22	821.02	0.00	0.00	821.04	0 02	1.42	0.00	829.60
140	0.	140.	0.	0.	132.	0.	200.	47.	829.70
2.70	0.00	1.06	0.00	0.000	0.013	0.000	0.000	813.80	243 07
0 000015	74	74.	74.	1	0	0	0.00	26.92	269.99

CCHV= 0 100 CEHV= 0.300
*SECND 22225.000
3280 CROSS SECTION 22225.00 EXTENDED 5.13 FEET

3470 ENCROACHMENT STATIONS=		210.0	329.0	TYPE=	1	TARGET=	119.000		
22225.00	8.44	821.04	0.00	0 00	821.04	0.00	0.00	0.00	817.20
80.	20.	40.	20	160.	279.	149.	200.	47.	817.00
2.81	0.13	0.14	0.13	0.035	0.045	0.035	0 000	812.60	210.00
0.000002	51.	51.	51.	1	0	0	0.00	119.00	329.00

*SECND 24800.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3265 DIVIDED FLOW

3280 CROSS SECTION 24800.00 EXTENDED 0.96 FEET

CROSS SECTION M									
24800.00	3.75	821.05	0.00	0.00	821.05	0.00	0.01	0.00	818.60
80.	36.	13.	31.	271.	66.	207.	234.	64.	818.50
7.58	0.13	0.20	0.15	0.035	0.045	0.035	0.000	817.30	0.00
0.000007	2575.	2575	2575.	1	0	0	0.00	453.76	480.99

THIS RUN EXECUTED 14 JUL 88 10:01:44

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

10-YEAR FLOOD

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	2929.000	0.00	0.00	0.00	762.10	1130.00	769.81	0.00	770.38	40.30	6.30	242.27	178.00
	2929.000	0.00	0.00	0.00	762.10	1600.00	770.53	0.00	771.13	39.49	6.83	363.68	254.61
	2929.000	0.00	0.00	0.00	762.10	1870.00	770.86	0.00	771.48	39.79	7.12	424.42	296.46
	2929.000	0.00	0.00	0.00	762.10	2400.00	771.42	0.00	772.06	39.78	7.56	544.79	380.54
	2959.000	30.00	0.00	0.00	762.22	1130.00	769.93	0.00	770.50	40.27	6.29	242.41	178.08
	2959.000	30.00	0.00	0.00	762.22	1600.00	770.65	0.00	771.25	39.55	6.84	363.41	254.42
	2959.000	30.00	0.00	0.00	762.22	1870.00	770.98	0.00	771.60	39.81	7.12	424.30	296.37
	2959.000	30.00	0.00	0.00	762.22	2400.00	771.53	0.00	772.18	39.80	7.56	544.63	380.43
	2974.000	15.00	0.00	0.00	762.28	1130.00	769.99	0.00	770.56	40.23	6.29	242.56	178.16
	2974.000	15.00	0.00	0.00	762.28	1600.00	770.71	0.00	771.31	39.59	6.84	363.21	254.30
	2974.000	15.00	0.00	0.00	762.28	1870.00	771.04	0.00	771.66	39.88	7.13	421.49	296.11
	2974.000	15.00	0.00	0.00	762.28	2400.00	771.59	0.00	772.25	40.30	7.61	526.35	378.07
	2989.000	15.00	0.00	0.00	762.34	1130.00	770.05	0.00	770.62	40.19	6.29	242.73	178.25
	2989.000	15.00	0.00	0.00	762.34	1600.00	770.77	0.00	771.37	39.61	6.84	363.10	254.23
	2989.000	15.00	0.00	0.00	762.34	1870.00	771.10	0.00	771.72	39.85	7.13	421.20	296.21
	2989.000	15.00	0.00	0.00	762.34	2400.00	771.66	0.00	772.31	40.33	7.61	521.63	377.93
	3029.000	40.00	0.00	0.00	763.90	1130.00	770.13	0.00	771.26	10.72	8.54	133.49	345.20
	3029.000	40.00	0.00	0.00	763.90	1600.00	770.85	770.15	772.44	12.72	10.20	206.33	448.70
*	3029.000	40.00	0.00	0.00	763.90	1870.00	771.20	771.20	772.99	13.46	10.96	258.94	509.73
*	3029.000	40.00	0.00	0.00	763.90	2400.00	772.03	772.03	773.89	12.21	11.48	403.29	686.96
	3200.000	171.00	774.00	770.70	763.90	1130.00	772.24	0.00	772.61	2.34	5.14	443.04	738.70
*	3200.000	171.00	774.00	770.70	763.90	1600.00	774.74	0.00	774.97	1.13	4.42	938.07	1508.27
*	3200.000	171.00	774.00	770.70	763.90	1870.00	775.30	0.00	775.55	1.18	4.72	1057.36	1718.61
*	3200.000	171.00	774.00	770.70	763.90	2400.00	775.96	0.00	776.28	1.45	5.46	1217.45	1992.29
	3300.000	100.00	0.00	0.00	763.50	1130.00	772.46	0.00	772.67	9.88	4.15	465.80	359.48
	3300.000	100.00	0.00	0.00	763.50	1600.00	774.93	0.00	775.01	3.13	2.92	1055.05	904.95
	3300.000	100.00	0.00	0.00	763.50	1870.00	775.50	0.00	775.58	3.04	3.01	1197.59	1072.06
	3300.000	100.00	0.00	0.00	763.50	2400.00	776.23	0.00	776.33	3.40	3.35	1381.96	1302.46

	SECND	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	3800.000	500.00	0.00	0.00	765.30	1130.00	773.01	0.00	773.59	31.41	6.35	242.54	201.63
	3800.000	500.00	0.00	0.00	765.30	1600.00	775.08	0.00	775.31	9.93	4.52	656.10	507.69
	3800.000	500.00	0.00	0.00	765.30	1870.00	775.66	0.00	775 86	8.74	4.47	794.51	632.72
	3800.000	500.00	0.00	0.00	765.30	2400.00	776.41	0.00	776.62	8.60	4.73	976.55	818.22
	4300 000	500.00	0 00	0.00	767.10	1130.00	774.64	0.00	775.31	36.61	6.71	217.03	186.75
	4300.000	500.00	0.00	0 00	767.10	1600.00	775.62	0.00	776.21	29.32	6.80	379.04	295 50
	4300.000	500 00	0.00	0 00	767.10	1870.00	776.12	0.00	776 66	25.72	6.74	478.29	368.73
	4300.000	500.00	0 00	0.00	767.10	2400.00	776.86	0.00	777.37	22.75	6.83	650.78	503.18
	4800.000	500.00	0.00	0.00	769.00	1130.00	776.50	0.00	777 19	38.33	6.83	209.73	162.52
	4800.000	500.00	0.00	0.00	769 00	1600.00	777.18	0.00	777.97	40.06	7.63	320.33	252.81
	4800.000	500 00	0.00	0.00	769.00	1870.00	777.51	0.00	778.33	40.26	7.96	377.98	294.72
	4800.000	500.00	0.00	0.00	769.00	2400.00	778.10	0.00	778.94	39.65	8.43	495.03	381.15
	5100 000	300.00	0.00	0.00	770.10	1130.00	777.67	0.00	778.32	36.04	6.67	219.65	188.23
	5100.000	300.00	0.00	0.00	770.10	1600.00	778.45	0.00	779.13	34.23	7.20	349.14	273.47
	5100.000	300 00	0.00	0.00	770.10	1870.00	778.80	0.00	779.50	34.01	7.48	413.17	320.64
	5100 000	300.00	0.00	0.00	770.10	2400.00	779.36	0.00	780.10	34.40	7.99	532.74	409.22
	5280.000	180.00	0.00	0.00	770.80	1130.00	778.48	0.00	778.86	15 15	4.99	238.98	290.33
	5280.000	180.00	0.00	0.00	770.80	1600.00	779.05	0.00	779.66	21.68	6.34	296.37	343.59
	5280.000	180.00	0 00	0.00	770 80	1870.00	779.32	0.00	780.04	25.10	7.00	327.66	373.22
	5280.000	180.00	0.00	0.00	770.80	2400.00	779.92	0.00	780.82	28.82	7.91	397.52	447.07
	5310.000	30.00	0.00	0.00	771 60	1130.00	778.53	0.00	779.04	23.20	5.71	201 76	234.62
	5310 000	30.00	0.00	0.00	771.60	1600.00	779.13	0.00	779.92	32.43	7.19	242.24	280.97
	5310 000	30.00	0.00	0 00	771.60	1870.00	779.41	0.00	780.37	37.53	7.97	266.89	305.23
	5310.000	30.00	0.00	0.00	771.60	2400.00	780.03	0.00	781.19	41.81	8.94	348.81	371.17
	5320.000	10.00	0.00	0.00	772.00	1130.00	778.56	0.00	779.14	29.05	6.14	184.75	209.65
	5320.000	10.00	0 00	0.00	772.00	1600.00	779 17	0.00	780 07	40.15	7.68	226.96	252.49
	5320.000	10.00	0.00	0.00	772.00	1870.00	779.45	0.00	780.53	45.58	8.44	252.40	276.97
	5320.000	10.00	0.00	0.00	772.00	2400.00	780.07	778 92	781.36	49.64	9.41	330.03	340.64
	5325.000	5 00	0.00	0.00	772.10	1130.00	778.57	0.00	779.18	30.51	6.23	181.32	204.58
	5325 000	5.00	0.00	0.00	772.10	1600.00	779.19	0.00	780.12	42.01	7.80	221.00	246 86
	5325.000	5.00	0.00	0.00	772.10	1870.00	779.47	0.00	780.59	47.70	8.57	245.82	270.75
	5325.000	5 00	0.00	0.00	772.10	2400.00	780.10	778.98	781.44	52.13	9.58	318.88	332 40
	5330.000	5.00	0.00	0.00	772.20	1130.00	778.58	0.00	779.72	10.70	8.57	131.79	345 42
	5330.000	5.00	0.00	0.00	772.20	1600.00	779.20	778.42	780 99	15.00	10.74	159.59	413 18
	5330.000	5.00	0.00	0.00	772.20	1870.00	779.49	779.37	781 64	17.31	11.83	185.09	449.41
*	5330.000	5.00	0.00	0.00	772 20	2400.00	780.57	780.57	782.73	15.57	12.14	300.59	608.28
	5470 000	140.00	783.00	779.30	772.20	1130.00	780.59	0.00	781.06	3.40	5.69	303.85	612.70
*	5470.000	140.00	783.00	779.30	772.20	1600.00	783.42	0.00	783.69	1.65	4.64	773.92	1244.23
*	5470.000	140.00	783.00	779.30	772.20	1870 00	783.94	0.00	784.23	1.74	4.93	884.57	1417.77
*	5470.000	140.00	783.00	779.30	772.20	2400.00	784.64	0 00	785.00	2.04	5.61	1048.13	1679.25

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	5520.000	50.00	0.00	0.00	770.80	1130.00	781.06	0.00	781.12	1.95	2.26	892.40	809.43
	5520.000	50.00	0.00	0.00	770.80	1600.00	783.68	0.00	783.72	0.97	1.90	1494.26	1621.03
	5520.000	50.00	0.00	0.00	770.80	1870.00	784.23	0.00	784.26	1.05	2.04	1619.52	1821.23
	5520.000	50.00	0.00	0.00	770.80	2400.00	784.99	0.00	785.04	1.28	2.34	1794.92	2118.20
	6300.000	780.00	0.00	0.00	775.60	1130.00	781.17	0.00	781.61	26.67	5.33	211.92	218.83
	6300.000	780.00	0.00	0.00	775.60	1600.00	783.68	0.00	783.97	10.69	4.42	386.90	489.31
	6300.000	780.00	0.00	0.00	775.60	1870.00	784.21	0.00	784.54	10.95	4.68	437.31	565.06
	6300.000	780.00	0.00	0.00	775.60	2400.00	784.97	0.00	785.37	12.34	5.25	516.09	683.24
	6750.000	450.00	0.00	0.00	775.60	1130.00	781.99	0.00	782.29	9.43	4.38	259.53	368.02
	6750.000	450.00	0.00	0.00	775.60	1600.00	784.06	0.00	784.32	5.66	4.15	400.30	672.78
	6750.000	450.00	0.00	0.00	775.60	1870.00	784.60	0.00	784.90	5.93	4.43	439.36	768.03
	6750.000	450.00	0.00	0.00	775.60	2400.00	785.40	0.00	785.78	6.85	5.04	497.45	917.14
	6800.000	50.00	0.00	0.00	775.30	1130.00	782.03	0.00	782.63	5.20	6.22	181.65	495.51
	6800.000	50.00	0.00	0.00	775.30	1600.00	784.08	0.00	784.62	3.37	5.92	270.35	871.71
	6800.000	50.00	0.00	0.00	775.30	1870.00	784.62	0.00	785.24	3.56	6.31	296.22	991.27
	6800.000	50.00	0.00	0.00	775.30	2400.00	785.42	0.00	786.22	4.15	7.16	335.22	1178.81
*	7388.000	588.00	792.60	786.80	778.50	1130.00	782.79	782.79	784.55	28.60	10.65	106.14	211.29
	7388.000	588.00	792.60	786.80	778.50	1600.00	788.26	0.00	788.57	1.81	4.48	357.03	1190.32
	7388.000	588.00	792.60	786.80	778.50	1870.00	790.54	0.00	790.76	1.00	3.80	491.47	1869.34
	7388.000	588.00	792.60	786.80	778.50	2400.00	794.30	0.00	794.46	0.49	3.18	764.00	3428.50
	7438.000	50.00	0.00	0.00	775.60	1130.00	784.64	0.00	784.74	2.03	2.60	480.37	793.43
	7438.000	50.00	0.00	0.00	775.60	1600.00	788.55	0.00	788.60	0.73	2.01	962.69	1874.65
	7438.000	50.00	0.00	0.00	775.60	1870.00	790.74	0.00	790.78	0.44	1.79	1320.38	2808.76
	7438.000	50.00	0.00	0.00	775.60	2400.00	794.44	0.00	794.47	0.25	1.62	1923.70	4777.17
*	9342.000	1953.00	0.00	0.00	783.50	1130.00	787.41	787.41	788.76	135.63	9.32	121.24	97.03
	9342.000	1953.00	0.00	0.00	783.50	1600.00	789.01	0.00	789.98	64.89	7.89	202.75	198.62
	9342.000	1953.00	0.00	0.00	783.50	1870.00	791.01	0.00	791.51	23.65	5.70	328.21	384.56
	9342.000	1953.00	0.00	0.00	783.50	2400.00	794.58	0.00	794.81	6.90	3.86	645.43	913.60
	9392.000	50.00	0.00	0.00	783.00	1130.00	788.00	0.00	789.37	102.77	9.39	120.38	111.47
	9392.000	50.00	0.00	0.00	783.00	1600.00	789.36	0.00	790.71	75.36	9.33	171.50	184.30
	9392.000	50.00	0.00	0.00	783.00	1870.00	791.15	0.00	792.04	36.29	7.56	247.42	310.42
	9392.000	50.00	0.00	0.00	783.00	2400.00	794.62	0.00	794.92	9.44	4.75	749.01	781.14
	9400.000	8.00	795.10	793.90	783.00	1130.00	788.63	0.00	789.62	63.13	7.99	141.38	142.22
	9400.000	8.00	795.10	793.90	783.00	1600.00	789.42	0.00	790.80	74.92	9.42	169.78	184.86
	9400.000	8.00	795.10	793.90	783.00	1870.00	791.18	0.00	792.17	38.78	7.95	235.12	300.28
	9400.000	8.00	795.10	793.90	783.00	2400.00	794.62	0.00	794.92	9.43	4.75	749.25	781.37
	9450.000	50.00	0.00	0.00	783.50	1130.00	789.49	0.00	789.86	22.67	4.90	230.71	237.33
	9450.000	50.00	0.00	0.00	783.50	1600.00	790.64	0.00	791.08	21.47	5.27	303.33	345.33
	9450.000	50.00	0.00	0.00	783.50	1870.00	792.00	0.00	792.34	13.72	4.66	400.86	504.82
	9450.000	50.00	0.00	0.00	783.50	2400.00	794.74	0.00	794.96	6.38	3.76	669.53	950.19

	SECND	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	9550.000	100.00	0.00	0.00	785.60	1130.00	789.72	789.70	791.17	24.28	9.65	117.13	229.31
	9550.000	100.00	0.00	0.00	785.60	1600.00	790.84	0.00	792.34	17.32	9.84	162.66	384.49
	9550.000	100.00	0.00	0.00	785.60	1870.00	792.12	0.00	793.28	9.80	8.65	216.17	597.36
	9550.000	100.00	0.00	0.00	785.60	2400.00	794.80	0.00	795.60	4.36	7.21	332.74	1148.80
	9701.000	151.00	796.50	793.30	785.60	1130.00	790.68	0.00	791.66	13.32	7.96	142.02	309.64
	9701.000	151.00	796.50	793.30	785.60	1600.00	791.13	0.00	792.79	21.78	10.34	154.76	342.86
	9701.000	151.00	796.50	793.30	785.60	1870.00	792.34	0.00	793.98	25.43	10.27	182.12	370.82
	9701.000	151.00	796.50	793.30	785.60	2400.00	797.02	0.00	797.49	1.97	5.51	484.99	1708.32
	9801.000	100.00	0.00	0.00	783.50	910.00	792.10	0.00	792.18	3.09	2.23	408.59	518.08
	9801.000	100.00	0.00	0.00	783.50	1300.00	793.55	0.00	793.64	3.18	2.47	525.74	729.00
	9801.000	100.00	0.00	0.00	783.50	1500.00	794.73	0.00	794.82	2.50	2.36	668.00	947.83
	9801.000	100.00	0.00	0.00	783.50	1920.00	797.65	0.00	797.71	1.18	1.95	1137.31	1771.26
	11200.000	1399.00	0.00	0.00	787.40	910.00	793.03	0.00	793.44	23.60	5.13	177.32	187.30
	11200.000	1399.00	0.00	0.00	787.40	1300.00	794.46	0.00	794.91	20.17	5.37	241.92	289.47
	11200.000	1399.00	0.00	0.00	787.40	1500.00	795.45	0.00	795.87	16.06	5.15	291.15	374.29
	11200.000	1399.00	0.00	0.00	787.40	1920.00	798.01	0.00	798.31	8.66	4.42	434.24	652.47
	12000.000	800.00	0.00	0.00	790.70	910.00	795.51	0.00	796.09	42.64	6.13	153.22	139.37
	12000.000	800.00	0.00	0.00	790.70	1300.00	796.58	0.00	797.21	36.34	6.46	214.77	215.66
	12000.000	800.00	0.00	0.00	790.70	1500.00	797.20	0.00	797.81	31.24	6.38	254.58	268.36
	12000.000	800.00	0.00	0.00	790.70	1920.00	798.96	0.00	799.42	17.69	5.57	385.82	456.48
	12100.000	100.00	0.00	0.00	791.70	910.00	795.78	0.00	796.70	17.89	7.72	117.81	215.12
	12100.000	100.00	0.00	0.00	791.70	1300.00	796.78	0.00	797.74	12.41	7.87	165.21	369.02
	12100.000	100.00	0.00	0.00	791.70	1500.00	797.36	0.00	798.30	10.09	7.77	193.13	472.30
	12100.000	100.00	0.00	0.00	791.70	1920.00	799.05	0.00	799.81	5.44	6.97	275.66	822.90
*	12262.000	162.00	801.80	791.70	791.70	910.00	795.78	0.00	796.70	17.72	7.70	118.17	216.16
*	12262.000	162.00	801.80	791.70	791.70	1300.00	797.34	0.00	798.05	7.69	6.76	192.20	468.73
*	12262.000	162.00	801.80	791.70	791.70	1500.00	798.49	0.00	799.05	4.60	6.04	248.24	699.53
	12262.000	162.00	801.80	791.70	791.70	1920.00	801.45	0.00	801.81	1.80	4.85	395.73	1429.95
	12362.000	100.00	0.00	0.00	790.70	910.00	796.64	0.00	796.94	17.02	4.45	218.55	220.57
	12362.000	100.00	0.00	0.00	790.70	1300.00	797.86	0.00	798.19	15.22	4.73	301.45	333.20
	12362.000	100.00	0.00	0.00	790.70	1500.00	798.86	0.00	799.15	11.37	4.43	378.06	444.82
	12362.000	100.00	0.00	0.00	790.70	1920.00	801.72	0.00	801.86	3.74	3.26	865.17	993.06
	12862.000	500.00	0.00	0.00	791.70	910.00	797.52	0.00	797.84	18.77	4.60	210.43	210.06
	12862.000	500.00	0.00	0.00	791.70	1300.00	798.65	0.00	799.02	17.43	4.97	285.89	311.37
	12862.000	500.00	0.00	0.00	791.70	1500.00	799.46	0.00	799.80	14.25	4.81	346.07	397.42
	12862.000	500.00	0.00	0.00	791.70	1920.00	801.91	0.00	802.12	6.03	3.86	652.61	781.71
	13362.000	500.00	0.00	0.00	792.70	910.00	798.47	0.00	798.80	19.38	4.66	207.81	206.70
	13362.000	500.00	0.00	0.00	792.70	1300.00	799.54	0.00	799.93	18.72	5.10	278.07	300.50
	13362.000	500.00	0.00	0.00	792.70	1500.00	800.20	0.00	800.58	16.58	5.08	326.10	368.40
	13362.000	500.00	0.00	0.00	792.70	1920.00	802.23	0.00	802.50	8.97	4.41	509.99	641.14

	SECND	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	14050.000	688.00	0.00	0.00	794.00	910.00	800 02	0.00	800.20	19.45	3.44	264.22	206 32
	14050.000	688.00	0.00	0.00	794.00	1300.00	801.05	0.00	801.28	18.45	3.87	336.27	302.69
	14050.000	688.00	0.00	0.00	794.00	1500.00	801.57	0.00	801.82	17.72	4.02	372.90	356.30
	14050.000	688.00	0.00	0.00	794.00	1920.00	803 01	0.00	803.27	13.74	4.05	473.77	517.96
	14085.000	35 00	0.00	0.00	795.20	910.00	800.12	0.00	800.52	48.24	5 07	179.39	131.02
	14085.000	35.00	0.00	0.00	795.20	1300.00	801.14	0.00	801.63	44.17	5.61	231.53	195.60
	14085 000	35 00	0.00	0.00	795.20	1500.00	801.66	0.00	802.19	42.00	5.81	257.99	231.44
	14085.000	35 00	0.00	0.00	795.20	1920.00	803.08	0.00	803 61	32.17	5.81	330.40	338 51
*	14099.000	14.00	0.00	0.00	795 70	910.00	800.63	800 63	801.99	27.29	9.37	97.16	174.21
*	14099 000	14.00	0.00	0.00	795.70	1300.00	801.47	801.47	803.03	24 58	10.00	129.97	262.19
*	14099.000	14 00	0.00	0.00	795.70	1500.00	801.81	801.81	803 48	24.34	10.38	144.47	304.04
	14099.000	14.00	0.00	0.00	795.70	1920.00	803.11	0.00	804.43	14.41	9.22	208.13	505.83
	14100.000	1 00	808 70	803.40	795.70	910.00	800.64	800.38	802.37	32.41	10.56	86.14	159.84
	14100 000	1.00	808.70	803.40	795.70	1300.00	801.48	801.32	803.97	43.52	12.68	102.51	197.06
	14100.000	1 00	808.70	803.40	795.70	1500.00	801.81	801.74	804.77	50.90	13.81	108.62	210.26
	14100.000	1.00	808.70	803.40	795.70	1920.00	803.12	802.37	806 74	70 97	15 27	125.73	227.90
	14158.000	58.00	808 70	803.40	795.70	910.00	801.70	800.38	802.83	23.66	8.53	106.71	187.07
*	14158.000	58.00	808.70	803.40	795.70	1300.00	802.89	801.31	804.60	37.35	10.49	123.95	212.72
*	14158.000	58.00	808 70	803.40	795 70	1500.00	803.28	801.73	805.47	53.63	11.85	126.56	204.82
	14158.000	58.00	808.70	803.40	795.70	1920.00	803.66	802.36	807.23	91.31	15.15	126.69	200.93
	14159 000	1.00	0.00	0.00	795.70	910.00	803.24	0.00	803.34	1.14	2.59	351 86	851.49
	14159.000	1 00	0.00	0.00	795 70	1300.00	805.30	0.00	805.40	0 77	2.61	497.70	1477.72
	14159.000	1.00	0.00	0.00	795.70	1500.00	806.40	0.00	806.50	0.65	2 60	575.95	1861.97
	14159.000	1.00	0.00	0 00	795.70	1920.00	808.86	0.00	808.96	0 46	2.56	750.50	2818.78
	14169 000	10.00	0.00	0.00	796.10	910.00	803 24	0 00	803.48	3.89	3.89	234.08	461 65
	14169.000	10.00	0.00	0 00	796 10	1300.00	805.30	0.00	805.45	1.20	3.10	419.47	1189.09
	14169.000	10.00	0.00	0.00	796.10	1500.00	806.40	0.00	806.53	0 81	2.90	517.88	1666.98
	14169.000	10.00	0.00	0.00	796.10	1920.00	808.86	0.00	808.96	0.43	2.60	739.36	2930 37
	14179.000	10.00	0.00	0.00	799.00	910.00	803.25	0.00	803.82	7 23	6.06	150.14	338 41
	14179.000	10.00	0.00	0.00	799.00	1300.00	805 30	0.00	805.65	2.83	4 72	275 19	773.38
	14179 000	10 00	0.00	0.00	799 00	1500.00	806.40	0.00	806.67	1.95	4.18	359.17	1074.74
	14179 000	10.00	0.00	0.00	799.00	1920.00	808.86	0.00	809.03	0.77	3.32	578.46	2192.12
	14900 000	721.00	0.00	0.00	799.00	910.00	804.25	0.00	804 54	13.79	4.39	207.17	245.06
	14900.000	721.00	0.00	0.00	799.00	1300.00	805.72	0.00	806.00	10.12	4.25	305.77	408 55
	14900.000	721 00	0.00	0 00	799.00	1500.00	806.69	0.00	806.92	7.67	3.91	383.33	541.45
	14900.000	721.00	0.00	0.00	799.00	1920.00	808.97	0.00	809.13	3.38	3 26	588.16	1044.81
	14950.000	50.00	0.00	0.00	800.00	910.00	804.23	0.00	804 68	23.66	5.38	169.13	187.08
	14950.000	50.00	0 00	0.00	800.00	1300.00	805.71	0.00	806 09	15 68	4.95	262.65	328.29
	14950.000	50.00	0.00	0.00	800 00	1500.00	806.68	0.00	806.99	10.96	4.45	336.71	453.02
	14950.000	50.00	0.00	0 00	800.00	1920.00	808.97	0.00	809.16	4 84	3.48	550.99	873.12

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	15750.000	800 00	0 00	0.00	800.80	260.00	805.48	0.00	805.51	1.99	1.56	166 41	184.13
	15750.000	800.00	0.00	0.00	800.80	410.00	806.68	0.00	806.73	1.91	1.72	238.49	296.47
	15750.000	800 00	0.00	0.00	800.80	490.00	807.42	0.00	807.46	1 58	1.70	288.70	390.02
	15750 000	800.00	0.00	0.00	800.80	640 00	809.35	0.00	809.39	0.83	1.49	430.57	702.63
*	16450.000	700 00	0.00	0.00	804.40	260.00	806.31	806.31	806.96	108.97	6.47	40.17	24.91
	16450.000	700.00	0.00	0.00	804.40	410.00	807.07	0.00	807.66	65.16	6.14	66.72	50.79
	16450.000	700.00	0.00	0.00	804.40	490.00	807.72	0.00	808.15	36.57	5.24	93.53	81.03
	16450.000	700.00	0.00	0.00	804.40	640.00	809.49	0.00	809.68	9.57	3.44	185.89	206.92
	16480 000	30.00	0.00	0.00	804.60	260.00	806.88	0.00	807.30	52.52	5.16	50.36	35 88
	16480.000	30 00	0.00	0.00	804.60	410.00	807.27	0.00	807.94	65.93	6 57	62.41	50.49
	16480.000	30.00	0.00	0.00	804.60	490 00	807.84	0.00	808.42	42 80	6.11	80.15	74.90
	16480.000	30.00	0.00	0.00	804.60	640.00	809.53	0.00	809.89	15.49	4.83	132.51	162.63
	16490.000	10.00	0.00	0.00	804.60	260.00	806.94	0.00	807.39	51.07	5.39	48 25	36.38
	16490.000	10.00	0.00	0.00	804.60	410.00	807 33	0.00	808.09	69.04	7.00	58.57	49.34
	16490.000	10.00	0.00	0.00	804 60	490.00	807.88	0.00	808 59	50.22	6.73	72.77	69.14
	16490.000	10.00	0.00	0.00	804.60	640.00	809.55	0.00	810.02	20.81	5.52	115.98	140.31
*	16499.000	9.00	0.00	0.00	804.70	260.00	807.40	807.40	808.40	105.43	8.00	32.50	25.32
*	16499.000	9.00	0.00	0.00	804.70	410.00	808.19	808.19	809.39	100 49	8.79	46.62	40.90
*	16499.000	9.00	0.00	0.00	804.70	490.00	808.55	808.55	809.82	96.50	9.05	54.12	49.88
	16499.000	9.00	0 00	0.00	804.70	640.00	809.58	0.00	810.62	62.35	8.21	77.94	81.05
	16500.000	1.00	815.00	812 90	804.70	260.00	807.41	807.30	808.50	103.60	8.35	31.13	25.54
	16500.000	1.00	815.00	812.90	804.70	410.00	808.20	808.12	809.76	117.98	10.03	40.86	37.75
	16500.000	1.00	815.00	812.90	804.70	490.00	808.56	808 51	810.38	126.06	10.81	45.32	43.64
	16500 000	1.00	815.00	812.90	804.70	640.00	809.58	809.16	811.53	116.47	11 20	57.15	59.30
	16572.000	72.00	815.00	812.90	804.70	260.00	808.71	0.00	809.18	31.92	5.52	47.09	46.02
	16572.000	72.00	815.00	812.90	804.70	410.00	809.96	0.00	810.65	40.27	6 70	61.20	64.61
	16572.000	72.00	815.00	812.90	804.70	490.00	810 57	0.00	811.39	46.16	7.28	67 27	72.12
	16572 000	72.00	815.00	812.90	804.70	640.00	811 39	809.16	812.54	64.73	8.62	74.24	79.55
	16573.000	1.00	0.00	0.00	803.70	260 00	809.25	0.00	809.36	9.07	2.69	96.60	86.31
	16573.000	1.00	0.00	0.00	803.70	410.00	810.82	0.00	810.94	7.18	2.83	145.00	153.06
	16573.000	1.00	0.00	0.00	803 70	490.00	811 61	0.00	811.74	6.34	2.88	170.31	194.63
	16573.000	1.00	0.00	0 00	803.70	640.00	812.91	0 00	813.05	5.70	3.02	211.76	267.95
	16621.000	49.00	0.00	0.00	805.70	260.00	809.32	0.00	809.42	11.01	2.42	107.37	78.35
	16621.000	49.00	0.00	0.00	805.70	410.00	810.91	0 00	810.98	5.54	2.12	192.99	174.16
	16621.000	49.00	0.00	0.00	805.70	490.00	811 71	0.00	811.77	3 80	2.01	249.03	251.33
	16621.000	49.00	0 00	0.00	805.70	640.00	813 02	0.00	813.07	2.16	1.84	411.67	435.29
	16822 000	201.00	0.00	0.00	805.70	260.00	809 54	0.00	809.61	8.65	2 22	117.26	88 40
	16822.000	201 00	0.00	0.00	805.70	410.00	811.02	0 00	811.09	4.99	2.05	200.36	183 54
	16822.000	201.00	0 00	0 00	805.70	490.00	811.78	0.00	811.84	3.55	1.97	255.56	259.99
	16822.000	201.00	0.00	0.00	805.70	640.00	813.07	0.00	813.12	2.09	1.82	418.90	442.98

SECND	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
16872.000	50.00	0.00	0.00	804 70	260.00	809.58	0.00	809.64	2.88	2.09	148.10	153 28
16872.000	50.00	0.00	0.00	804 70	410.00	811.03	0.00	811.10	2.03	2.21	241.81	287 71
16872 000	50.00	0.00	0.00	804.70	490.00	811.79	0 00	811.86	1.70	2.21	305.64	376.09
16872.000	50.00	0 00	0.00	804.70	640.00	813.07	0.00	813.13	1.19	2.12	485.57	585.80
16880.000	8.00	814.80	812.90	804.70	260.00	809.57	0.00	809.65	3.73	2.27	114.63	134.60
16880 000	8.00	814.80	812.90	804.70	410.00	811.02	0.00	811.12	3.17	2.55	160 74	230.20
16880 000	8 00	814.80	812 90	804.70	490.00	811.77	0.00	811.88	2.92	2.65	190.25	286.95
16880.000	8.00	814.80	812.90	804.70	640.00	813.05	0.00	813.15	5.22	2.61	310.23	280.21
16916.000	36.00	0.00	0.00	804.70	260.00	809 64	0.00	809.67	1.81	1.47	176.86	193.41
16916.000	36.00	0 00	0.00	804.70	410.00	811.11	0.00	811.15	1.21	1 51	287.05	373.40
16916 000	36.00	0.00	0.00	804.70	490.00	811.88	0.00	811.91	0.94	1 49	373.87	505.23
16916 000	36.00	0.00	0.00	804.70	640.00	813.14	0.00	813.17	0.69	1.48	519.43	771.59
16952.000	36.00	0 00	0.00	804.80	260.00	809.63	0 00	809.70	3.08	2.12	147.41	148.22
16952.000	36.00	0.00	0.00	804.80	410 00	811.10	0.00	811.17	2.09	2.21	242.97	283.44
16952.000	36.00	0.00	0.00	804 80	490.00	811.86	0.00	811.93	1.74	2.22	301.81	371.91
16952.000	36.00	0.00	0.00	804.80	640.00	813.13	0.00	813.19	1.30	2.19	427.55	561.16
16960.000	8 00	814.70	813.00	804.80	260.00	809.63	0.00	809 71	4.13	2.33	111.64	127.98
16960.000	8.00	814.70	813.00	804.80	410.00	811.08	0.00	811.19	3.41	2 60	157.84	221.92
16960.000	8.00	814.70	813.00	804 80	490.00	811.84	0.00	811.95	3.09	2.69	183.02	278.60
16960 000	8.00	814.70	813.00	804.80	640.00	813.10	0.00	813.22	6.34	2.84	252.31	254.10
17000.000	40.00	0.00	0.00	805.70	260.00	809.66	0.00	809.73	4.79	2.10	123.66	118 84
17000.000	40.00	0.00	0 00	805.70	410.00	811.15	0 00	811.21	2.86	1.97	207.87	242.52
17000.000	40.00	0.00	0.00	805.70	490 00	811.91	0.00	811.97	2.03	1.90	267.30	343 69
17000.000	40.00	0.00	0.00	805.70	640.00	813.19	0.00	813 24	1.31	1.83	389.59	559.66
17155.000	155.00	0.00	0.00	806.50	260.00	809.70	0.00	810.07	70.23	4.89	53.18	31.02
17155.000	155.00	0.00	0.00	806.50	410.00	811.08	0 00	811.51	57 30	5.26	77.99	54.16
17155.000	155.00	0.00	0 00	806.50	490 00	811.81	0.00	812.25	52.10	5.36	91.42	67 89
17155.000	155.00	0.00	0.00	806.50	640.00	813.04	0.00	813 51	51.00	5.54	115.59	89.62
17286 000	131.00	819.00	813.90	806.50	260.00	810.51	0.00	810.74	34.81	3.85	67.59	44.07
17286.000	131 00	819.00	813 90	806.50	410.00	811.82	0.00	812.13	36.03	4.47	91.82	68.30
17286.000	131.00	819.00	813.90	806 50	490.00	812.51	0.00	812.85	35.81	4.68	104.65	81 88
17286.000	131.00	819.00	813.90	806.50	640.00	813.71	0.00	814.30	66.73	5 03	127.25	78.35
17436.000	150 00	0.00	0.00	807.50	260.00	811.08	0.00	811.19	22.05	2.56	101.45	55.37
17436.000	150.00	0.00	0.00	807.50	410.00	812.41	0.00	812.50	12.79	2 37	172.84	114.64
17436 000	150.00	0.00	0.00	807.50	490.00	813.09	0.00	813.17	9.42	2 27	220.99	159.66
17436.000	150.00	0.00	0.00	807.50	640.00	814.51	0.00	814.56	4.24	1.92	400.81	310.84
17650.000	214.00	0.00	0.00	808.90	260.00	811.76	0.00	811.98	60.76	3.71	70.08	33.36
17650 000	214 00	0.00	0.00	808.90	410.00	812.80	0.00	812 99	37.45	3.51	116.68	67.00
17650 000	214.00	0.00	0.00	808.90	490 00	813 37	0.00	813.54	28.52	3.33	147.09	91.75
17650 000	214.00	0.00	0.00	808.90	640.00	814.63	0.00	814.75	14.03	2.84	233.10	170.89

	SECND	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	17680.000	30.00	0.00	0.00	809.10	260.00	811.95	0.00	812.17	62.27	3.74	69.46	32.95
	17680.000	30.00	0.00	0.00	809.10	410.00	812.91	0.00	813.12	41.27	3.64	112.59	63.82
	17680.000	30.00	0.00	0.00	809.10	490.00	813.46	0.00	813.65	31.97	3.47	141.02	86.66
	17680.000	30.00	0.00	0.00	809.10	640.00	814.67	0.00	814.81	16.56	2.99	218.56	157.29
	17700.000	20.00	0.00	0.00	809.30	260.00	812.08	0.00	812.32	70.43	3.91	66.42	30.98
	17700.000	20.00	0.00	0.00	809.30	410.00	813.00	0.00	813.23	47.51	3.83	106.92	59.48
	17700.000	20.00	0.00	0.00	809.30	490.00	813.53	0.00	813.74	37.11	3.67	133.48	80.43
	17700.000	20.00	0.00	0.00	809.30	640.00	814.71	0.00	814.86	19.34	3.15	206.20	145.55
	17735.000	35.00	0.00	0.00	809.50	260.00	812.48	0.00	812.97	214.70	5.62	46.28	17.74
	17735.000	35.00	0.00	0.00	809.50	410.00	813.32	0.00	813.95	226.37	6.37	64.33	27.25
	17735.000	35.00	0.00	0.00	809.50	490.00	813.79	0.00	814.45	212.20	6.52	75.21	33.64
	17735.000	35.00	0.00	0.00	809.50	640.00	814.85	0.00	815.45	149.41	6.20	103.28	52.36
*	17736.000	1.00	816.00	816.50	809.50	260.00	812.59	812.59	813.82	45.16	8.91	29.19	38.69
*	17736.000	1.00	816.00	816.50	809.50	410.00	813.49	813.49	815.08	47.95	10.12	40.53	59.21
	17736.000	1.00	816.00	816.50	809.50	490.00	813.80	813.79	815.68	53.98	11.01	44.51	66.69
	17736.000	1.00	816.00	816.50	809.50	640.00	814.86	814.66	816.63	45.18	10.68	59.92	95.22
	17769.000	33.00	816.00	816.50	809.50	260.00	813.66	0.00	814.24	16.83	6.08	42.76	63.39
	17769.000	33.00	816.00	816.50	809.50	410.00	814.89	0.00	815.61	18.08	6.78	60.45	96.42
	17769.000	33.00	816.00	816.50	809.50	490.00	815.57	0.00	816.33	17.10	7.00	69.96	118.49
	17769.000	33.00	816.00	816.50	809.50	640.00	815.83	814.66	817.04	36.14	8.84	72.41	106.46
	17770.000	1.00	0.00	0.00	809.50	260.00	814.33	0.00	814.46	23.93	2.93	88.80	53.15
	17770.000	1.00	0.00	0.00	809.50	410.00	815.73	0.00	815.89	19.04	3.20	128.08	93.97
	17770.000	1.00	0.00	0.00	809.50	490.00	816.46	0.00	816.63	16.84	3.27	149.62	119.42
	17770.000	1.00	0.00	0.00	809.50	640.00	817.34	0.00	817.55	17.51	3.64	175.79	152.96
	17819.000	49.00	0.00	0.00	809.60	260.00	814.48	0.00	814.54	4.07	1.96	132.59	128.82
	17819.000	49.00	0.00	0.00	809.60	410.00	815.88	0.00	815.96	4.32	2.33	176.13	197.26
	17819.000	49.00	0.00	0.00	809.60	490.00	816.61	0.00	816.70	4.32	2.47	198.74	235.70
	17819.000	49.00	0.00	0.00	809.60	640.00	817.51	0.00	817.63	5.03	2.82	226.62	285.37
	17869.000	50.00	0.00	0.00	808.90	260.00	814.43	0.00	814.67	34.94	3.91	66.44	43.98
	17869.000	50.00	0.00	0.00	808.90	410.00	815.80	0.00	816.15	41.59	4.73	86.62	63.57
	17869.000	50.00	0.00	0.00	808.90	490.00	816.51	0.00	816.90	43.36	5.04	97.25	74.41
	17869.000	50.00	0.00	0.00	808.90	640.00	817.37	0.00	817.89	52.92	5.81	110.16	87.98
	17942.000	73.00	824.00	813.10	808.90	260.00	814.69	0.00	814.90	29.95	3.70	70.19	47.51
	17942.000	73.00	824.00	813.10	808.90	410.00	816.70	0.00	816.96	28.06	4.09	100.13	77.41
	17942.000	73.00	824.00	813.10	808.90	490.00	817.91	0.00	818.17	25.66	4.14	118.32	96.73
	17942.000	73.00	824.00	813.10	808.90	640.00	820.00	0.00	820.20	18.70	3.81	234.85	147.99
	17992.000	50.00	0.00	0.00	809.60	260.00	814.93	0.00	814.94	1.49	0.98	314.79	212.72
	17992.000	50.00	0.00	0.00	809.60	410.00	816.99	0.00	817.00	0.73	0.91	551.71	480.40
	17992.000	50.00	0.00	0.00	809.60	490.00	818.20	0.00	818.21	0.52	0.88	690.77	677.12
	17992.000	50.00	0.00	0.00	809.60	640.00	820.22	0.00	820.23	0.36	0.86	923.47	1063.67

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
18270.000	278.00	0.00	0.00	809.70	260.00	814.95	0.00	815.07	14.89	2.71	95.79	67.37
18270.000	278.00	0.00	0.00	809.70	410.00	816.98	0.00	817.07	8.05	2.49	178.97	144.46
18270.000	278.00	0.00	0.00	809.70	490.00	818.18	0.00	818.26	5.05	2.28	247.87	217.96
18270.000	278.00	0.00	0.00	809.70	640.00	820.21	0.00	820.27	2.82	2.07	379.35	381.27
18319.000	49.00	0.00	0.00	807.80	260.00	815.04	0.00	815.13	9.99	2.33	111.82	82.27
18319.000	49.00	0.00	0.00	807.80	410.00	817.02	0.00	817.11	7.79	2.35	174.58	146.90
18319.000	49.00	0.00	0.00	807.80	490.00	818.21	0.00	818.29	5.60	2.23	223.80	206.99
18319.000	49.00	0.00	0.00	807.80	640.00	820.22	0.00	820.28	3.13	2.04	360.75	361.54
18320.000	1.00	818.00	817.60	807.80	260.00	815.04	0.00	815.23	2.81	3.47	74.85	155.04
18320.000	1.00	818.00	817.60	807.80	410.00	817.02	0.00	817.49	7.52	5.47	74.99	149.49
18320.000	1.00	818.00	817.60	807.80	490.00	818.21	811.83	818.87	10.73	6.53	76.94	149.60
18320.000	1.00	818.00	817.60	807.80	640.00	820.22	0.00	820.47	5.10	4.16	204.03	283.42
18373.000	53.00	818.00	817.60	807.80	260.00	815.06	0.00	815.25	2.84	3.47	74.89	154.21
18373.000	53.00	818.00	817.60	807.80	410.00	817.06	0.00	817.53	7.52	5.47	74.99	149.49
18373.000	53.00	818.00	817.60	807.80	490.00	818.27	0.00	818.93	10.74	6.53	75.23	149.50
18373.000	53.00	818.00	817.60	807.80	640.00	820.25	0.00	820.54	5.61	4.38	154.72	270.24
18374.000	1.00	0.00	0.00	807.80	260.00	815.18	0.00	815.26	9.17	2.25	115.60	85.87
18374.000	1.00	0.00	0.00	807.80	410.00	817.50	0.00	817.57	6.02	2.15	190.48	167.06
18374.000	1.00	0.00	0.00	807.80	490.00	818.93	0.00	818.99	4.04	2.02	248.29	243.75
18374.000	1.00	0.00	0.00	807.80	640.00	820.50	0.00	820.57	3.50	2.11	315.81	342.18
18422.000	49.00	0.00	0.00	809.70	260.00	815.22	0.00	815.32	12.17	2.52	103.18	74.52
18422.000	49.00	0.00	0.00	809.70	410.00	817.54	0.00	817.60	4.75	2.04	264.64	188.09
18422.000	49.00	0.00	0.00	809.70	490.00	818.97	0.00	819.01	2.14	1.61	455.04	334.72
18422.000	49.00	0.00	0.00	809.70	640.00	820.58	0.00	820.58	1.29	1.44	711.55	563.56
18800.000	378.00	0.00	0.00	809.70	260.00	815.63	0.00	815.71	8.93	2.25	115.72	87.03
18800.000	378.00	0.00	0.00	809.70	410.00	817.71	0.00	817.76	4.06	1.93	286.60	203.52
18800.000	378.00	0.00	0.00	809.70	490.00	819.06	0.00	819.08	2.01	1.58	467.70	345.32
18800.000	378.00	0.00	0.00	809.70	640.00	820.61	0.00	820.63	1.25	1.43	720.30	571.98
19160.000	360.00	0.00	0.00	809.70	260.00	815.93	0.00	816.00	7.06	2.07	128.31	97.86
19160.000	360.00	0.00	0.00	809.70	410.00	817.85	0.00	817.90	3.57	1.85	305.23	216.97
19160.000	360.00	0.00	0.00	809.70	490.00	819.13	0.00	819.16	1.91	1.55	478.76	354.65
19160.000	360.00	0.00	0.00	809.70	640.00	820.65	0.00	820.67	1.22	1.41	728.54	579.97
19209.000	49.00	0.00	0.00	809.40	260.00	815.94	0.00	816.06	16.44	2.82	92.23	64.13
19209.000	49.00	0.00	0.00	809.40	410.00	817.86	0.00	817.94	8.57	2.39	254.62	140.03
19209.000	49.00	0.00	0.00	809.40	490.00	819.14	0.00	819.17	3.24	1.65	489.01	272.24
19209.000	49.00	0.00	0.00	809.40	640.00	820.66	0.00	820.68	1.53	1.33	790.70	517.39
19210.000	1.00	816.60	816.80	809.40	260.00	815.90	0.00	816.10	2.25	3.64	71.44	173.27
19210.000	1.00	816.60	816.80	809.40	410.00	817.77	0.00	818.03	5.44	4.43	170.66	175.78
19210.000	1.00	816.60	816.80	809.40	490.00	819.13	0.00	819.18	2.38	2.41	392.64	317.39
19210.000	1.00	816.60	816.80	809.40	640.00	820.66	0.00	820.68	0.77	1.67	693.96	727.37

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
19262.000	52.00	0.00	0.00	809.40	260.00	816.02	0.00	816.14	1.30	2.76	94.31	228.39
19262.000	52.00	0.00	0.00	809.40	410.00	818.00	0.00	818.09	0.76	2.49	252.89	471.21
19262.000	52.00	0.00	0.00	809.40	490.00	819.13	0.00	819.19	0.43	2.09	433.06	744.00
19262.000	52.00	0.00	0.00	809.40	640.00	820.65	0.00	820.69	0.25	1.86	694.18	1277.08
19263.000	1.00	0.00	0.00	809.40	260.00	816.02	0.00	816.14	9.39	2.76	94.31	84.83
19263.000	1.00	0.00	0.00	809.40	410.00	818.03	0.00	818.09	4.21	2.19	257.34	199.74
19263.000	1.00	0.00	0.00	809.40	490.00	819.16	0.00	819.19	1.79	1.58	437.04	366.34
19263.000	1.00	0.00	0.00	809.40	640.00	820.68	0.00	820.70	0.82	1.25	697.50	707.51
19312.000	49.00	0.00	0.00	809.70	260.00	816.11	0.00	816.17	3.67	1.97	138.40	135.74
19312.000	49.00	0.00	0.00	809.70	410.00	818.07	0.00	818.10	1.61	1.63	331.69	322.76
19312.000	49.00	0.00	0.00	809.70	490.00	819.17	0.00	819.20	0.93	1.40	484.25	506.83
19312.000	49.00	0.00	0.00	809.70	640.00	820.68	0.00	820.70	0.56	1.24	733.98	854.26
19500.000	188.00	0.00	0.00	809.70	260.00	816.18	0.00	816.24	3.47	1.93	142.51	139.67
19500.000	188.00	0.00	0.00	809.70	410.00	818.10	0.00	818.13	1.57	1.62	335.68	327.21
19500.000	188.00	0.00	0.00	809.70	490.00	819.19	0.00	819.21	0.91	1.38	488.98	512.94
19500.000	188.00	0.00	0.00	809.70	640.00	820.69	0.00	820.71	0.56	1.23	736.41	857.97
19549.000	49.00	0.00	0.00	809.40	260.00	816.12	0.00	816.31	15.63	3.56	74.94	65.77
19549.000	49.00	0.00	0.00	809.40	410.00	818.10	0.00	818.15	5.68	2.40	283.16	172.04
19549.000	49.00	0.00	0.00	809.40	490.00	819.20	0.00	819.22	1.78	1.47	517.25	366.77
19549.000	49.00	0.00	0.00	809.40	640.00	820.70	0.00	820.71	0.70	1.02	840.00	763.45
19550.000	1.00	815.50	816.60	809.40	70.00	816.35	0.00	816.37	0.19	1.01	75.49	160.36
19550.000	1.00	815.50	816.60	809.40	120.00	818.16	0.00	818.17	0.33	0.93	276.06	208.16
19550.000	1.00	815.50	816.60	809.40	140.00	819.22	0.00	819.22	0.12	0.61	501.83	412.38
19550.000	1.00	815.50	816.60	809.40	190.00	820.71	0.00	820.72	0.05	0.46	823.86	831.94
19562.000	12.00	815.50	816.60	809.40	70.00	816.35	0.00	816.37	0.19	1.01	75.81	160.69
19562.000	12.00	815.50	816.60	809.40	120.00	818.16	0.00	818.17	0.34	0.94	271.55	206.88
19562.000	12.00	815.50	816.60	809.40	140.00	819.22	0.00	819.22	0.12	0.62	492.57	408.18
19562.000	12.00	815.50	816.60	809.40	190.00	820.71	0.00	820.72	0.05	0.47	804.55	816.66
19563.000	1.00	0.00	0.00	809.40	70.00	816.37	0.00	816.37	0.18	0.57	168.96	163.81
19563.000	1.00	0.00	0.00	809.40	120.00	818.17	0.00	818.17	0.11	0.52	412.41	362.18
19563.000	1.00	0.00	0.00	809.40	140.00	819.22	0.00	819.22	0.05	0.40	633.88	597.08
19563.000	1.00	0.00	0.00	809.40	190.00	820.72	0.00	820.72	0.03	0.34	945.98	1043.92
19581.000	18.00	0.00	0.00	811.40	70.00	816.37	0.00	816.37	0.30	0.68	147.44	128.14
19581.000	18.00	0.00	0.00	811.40	120.00	818.17	0.00	818.17	0.14	0.57	382.40	318.76
19581.000	18.00	0.00	0.00	811.40	140.00	819.22	0.00	819.22	0.07	0.43	593.24	541.31
19581.000	18.00	0.00	0.00	811.40	190.00	820.72	0.00	820.72	0.04	0.37	891.66	966.37
19900.000	319.00	0.00	0.00	810.00	70.00	816.38	0.00	816.38	0.43	0.74	126.72	106.55
19900.000	319.00	0.00	0.00	810.00	120.00	818.17	0.00	818.18	0.33	0.77	198.69	207.81
19900.000	319.00	0.00	0.00	810.00	140.00	819.22	0.00	819.23	0.25	0.73	240.80	278.58
19900.000	319.00	0.00	0.00	810.00	190.00	820.71	0.00	820.72	0.24	0.78	300.46	391.52

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
20650.000	750.00	0.00	0.00	812.50	70.00	816.42	0.00	816.43	0.94	0.61	115.33	72.33
20650.000	750.00	0.00	0.00	812.50	120.00	818.21	0.00	818.21	0.59	0.56	222.31	155.66
20650 000	750.00	0.00	0.00	812.50	140.00	819.25	0.00	819.25	0.29	0.46	319.69	258.12
20650 000	750.00	0.00	0 00	812.50	190.00	820.73	0.00	820.74	0.17	0.43	459.07	455.52
20799 000	149 00	0.00	0.00	813.00	70.00	816.43	0.00	816.48	13.13	1.81	38.73	19.32
20799 000	149.00	0.00	0.00	813.00	120.00	818.20	0.00	818.25	7.67	1.76	68.17	43 33
20799 000	149.00	0 00	0 00	813.00	140.00	819.23	0.00	819.27	5.15	1.60	87.75	61 67
20799.000	149.00	0.00	0.00	813.00	190.00	820.74	0.00	820.74	0.77	0.74	390.29	216.21
20800.000	1.00	819.30	816.70	813.00	70.00	816.42	0.00	816.49	2.32	2.14	32.69	45.98
20800.000	1.00	819.30	816.70	813.00	120.00	818.12	0.00	818.32	8.62	3.57	33.60	40.87
20800.000	1.00	819 30	816.70	813.00	140.00	819.12	0.00	819.39	11.73	4 17	33.60	40 87
20800 000	1.00	819.30	816 70	813.00	190.00	820.73	0 00	820.74	0.96	1.26	333.00	194.23
20937.000	137 00	819.30	816.70	813.00	70.00	816.45	0.00	816.52	2.35	2.13	32.86	45.68
20937.000	137 00	819.30	816.70	813.00	120.00	818.24	0.00	818.44	8.62	3.57	33.60	40.87
20937.000	137.00	819.30	816.70	813.00	140.00	819.28	0.00	819.55	11.73	4.17	33 60	40.87
20937.000	137.00	819.30	816.70	813.00	190 00	820.75	0.00	820.76	0.94	1.25	336.05	196.33
20938.000	1 00	0.00	0.00	813.00	70.00	816.47	0.00	816.52	12.55	1.78	39.34	19.76
20938.000	1 00	0.00	0.00	813.00	120 00	818.41	0 00	818.46	6.59	1.67	71.95	46.74
20938.000	1.00	0.00	0.00	813.00	140.00	819.54	0.00	819.57	4.28	1.49	93.66	67.64
20938.000	1.00	0.00	0.00	813.00	190.00	820.73	0.00	820.77	4.13	1.62	117.41	93 53
21087.000	149.00	0.00	0.00	812 50	70.00	816.55	0.00	816.56	0.61	0.58	121.58	77.64
21087.000	149 00	0.00	0 00	812.50	120.00	818.47	0.00	818.48	0.44	0.49	261.30	180.97
21087 000	149 00	0.00	0.00	812.50	140 00	819.58	0.00	819.58	0.17	0 37	426.03	338.33
21087 000	149.00	0.00	0.00	812.50	190.00	820.77	0.00	820.78	0.10	0.34	635.74	590.59
21970.000	883.00	0.00	0.00	812.60	70.00	816.65	0.00	816 66	1.84	0.77	91.25	51.61
21970 000	883.00	0.00	0.00	812 60	120.00	818.51	0 00	818.52	0.54	0 59	219.88	164.04
21970 000	883 00	0.00	0.00	812.60	140.00	819.60	0.00	819.60	0.27	0.50	303.38	269.60
21970.000	883 00	0.00	0.00	812.60	190.00	820.78	0.00	820.79	0.22	0.51	394.68	408.71
22100.000	130.00	0.00	0.00	813.80	70.00	816.64	0.00	816.74	3.81	2 43	28.82	35.84
22100.000	130.00	0.00	0.00	813.80	120.00	818.50	0.00	818.55	0.76	1.73	69.27	137.99
22100.000	130 00	0.00	0.00	813 80	140.00	819.59	0.00	819.62	0.40	1.47	95.17	221.08
22100.000	130.00	0.00	0.00	813.80	190.00	820.77	0.00	820.81	0.33	1.51	125.53	330.89
22174.000	74.00	829.20	817.80	813.80	70.00	816.61	0.00	816.86	10.36	3 97	17.61	21.75
22174.000	74.00	829.20	817.80	813.80	120.00	819.54	0.00	819.57	0.31	1 28	93.93	216.85
22174.000	74 00	829.20	817.80	813.80	140.00	821.02	0.00	821.04	0.15	1.06	132.30	356.94
22174.000	74 00	829.20	817.80	813.80	190.00	823.44	0 00	823.45	0.09	0.94	201.57	649.60
22225 000	51.00	0.00	0.00	812.60	40.00	816.89	0.00	816.89	0.46	0.40	101.88	59.15
22225.000	51 00	0.00	0.00	812.60	60.00	819.57	0.00	819.57	0.03	0.16	413.83	358.32
22225 000	51.00	0.00	0 00	812.60	80.00	821.04	0.00	821.04	0.02	0.14	587.79	631.18
22225.000	51 00	0.00	0.00	812.60	110.00	823.45	0.00	823.45	0.01	0.13	874.47	1207.55

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
*	24800.000	2575.00	0.00	0.00	817.30	40.00	818.16	818.16	818.45	366.45	4.34	9.22	2.09
	24800.000	2575.00	0.00	0.00	817.30	60.00	819.59	0.00	819.60	3.64	0.94	82.66	31.43
	24800.000	2575.00	0.00	0.00	817.30	80.00	821.05	0.00	821.05	0.07	0.20	544.20	297.52
	24800.000	2575.00	0.00	0.00	817.30	110.00	823.45	0.00	823.45	0.00	0.07	1720.75	1676.34

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SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	2929.000	1130.00	769.81	0.00	0.00	-1.19	159.41	0.00
	2929.000	1600.00	770.53	0.72	0.00	-1.47	176.98	0.00
	2929.000	1870.00	770.86	0.32	0.00	-1.64	197.93	0.00
	2929.000	2400.00	771.42	0.56	0.00	-1.58	233.28	0.00
	2959.000	1130.00	769.93	0.00	0.12	0.00	159.43	30.00
	2959.000	1600.00	770.65	0.72	0.12	0.00	176.88	30.00
	2959.000	1870.00	770.98	0.33	0.12	0.00	197.89	30.00
	2959.000	2400.00	771.53	0.56	0.12	0.00	233.26	30.00
	2974.000	1130.00	769.99	0.00	0.06	0.00	159.45	15.00
	2974.000	1600.00	770.71	0.72	0.06	0.00	175.47	15.00
	2974.000	1870.00	771.04	0.33	0.06	0.00	182.60	15.00
	2974.000	2400.00	771.59	0.56	0.06	0.00	193.00	15.00
	2989.000	1130.00	770.05	0.00	0.06	0.00	159.47	15.00
	2989.000	1600.00	770.77	0.72	0.06	0.00	175.46	15.00
	2989.000	1870.00	771.10	0.33	0.06	0.00	180.00	15.00
	2989.000	2400.00	771.66	0.56	0.06	0.00	180.00	15.00
	3029.000	1130.00	770.13	0.00	0.07	0.00	47.55	40.00
	3029.000	1600.00	770.85	0.73	0.08	0.00	145.63	40.00
*	3029.000	1870.00	771.20	0.34	0.10	0.00	159.67	40.00
*	3029.000	2400.00	772.03	0.84	0.38	0.00	184.36	40.00
	3200.000	1130.00	772.24	0.00	2.12	0.00	186.40	171.00
*	3200.000	1600.00	774.74	2.50	3.89	0.00	210.08	171.00
*	3200.000	1870.00	775.30	0.55	4.10	0.00	228.57	171.00
*	3200.000	2400.00	775.96	0.66	3.92	0.00	252.91	171.00
	3300.000	1130.00	772.46	0.00	0.22	0.00	211.02	100.00
	3300.000	1600.00	774.93	2.47	0.18	0.00	246.07	100.00
	3300.000	1870.00	775.50	0.58	0.21	0.00	248.39	100.00
	3300.000	2400.00	776.23	0.73	0.28	0.00	260.46	100.00
	3800.000	1130.00	773.01	0.00	0.55	0.00	159.45	500.00
	3800.000	1600.00	775.08	2.08	0.16	0.00	239.44	500.00
	3800.000	1870.00	775.66	0.58	0.16	0.00	241.76	500.00
	3800.000	2400.00	776.41	0.75	0.18	0.00	244.78	500.00
	4300.000	1130.00	774.64	0.00	1.64	0.00	147.26	500.00
	4300.000	1600.00	775.62	0.97	0.53	0.00	182.50	500.00
	4300.000	1870.00	776.12	0.50	0.46	0.00	214.81	500.00
	4300.000	2400.00	776.86	0.74	0.45	0.00	239.35	500.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	4800.000	1130.00	776.50	0.00	1.85	0.00	138.20	500.00
	4800.000	1600.00	777.18	0.69	1.57	0.00	170.04	500.00
	4800 000	1870.00	777.51	0.33	1 40	0.00	182.13	500.00
	4800.000	2400.00	778.10	0.58	1.24	0.00	219.80	500.00
	5100.000	1130.00	777.67	0.00	1.17	0.00	150.51	300.00
	5100.000	1600.00	778.45	0 78	1.26	0.00	173.71	300 00
	5100.000	1870.00	778.80	0.35	1 28	0.00	194.22	300 00
	5100 000	2400.00	779.36	0.56	1.26	0.00	230.62	300.00
	5280.000	1130.00	778.48	0.00	0.81	0.00	68.94	180.00
	5280.000	1600.00	779.05	0.57	0.60	0.00	116.00	180 00
	5280.000	1870.00	779.32	0.27	0 52	0 00	116.00	180.00
	5280.000	2400.00	779.92	0.60	0.57	0.00	116.00	180.00
	5310.000	1130.00	778.53	0 00	0.06	0.00	55.57	30.00
	5310 000	1600.00	779.13	0 60	0.08	0.00	81.61	30.00
	5310.000	1870.00	779.41	0.28	0.09	0.00	102.67	30.00
	5310 000	2400.00	780.03	0.62	0.10	0.00	140.00	30.00
	5320.000	1130.00	778.56	0 00	0.03	0.00	46.94	10.00
	5320.000	1600.00	779 17	0.61	0.04	0.00	82.87	10.00
	5320.000	1870 00	779.45	0.29	0.04	0.00	96.76	10.00
	5320.000	2400.00	780.07	0.62	0.05	0.00	155.79	10.00
	5325.000	1130.00	778.57	0.00	0.01	0.00	37.90	5.00
	5325 000	1600.00	779.19	0.61	0.02	0.00	80.50	5.00
	5325.000	1870 00	779.47	0.29	0.02	0.00	93.18	5.00
	5325.000	2400.00	780 10	0.62	0.03	0.00	153.50	5.00
	5330.000	1130.00	778.58	0.00	0.01	0.00	26.89	5.00
	5330.000	1600.00	779.20	0.62	0 01	0.00	83.37	5.00
	5330.000	1870.00	779.49	0.29	0.01	0.00	91.99	5.00
*	5330.000	2400.00	780.57	1.08	0.47	0 00	123.69	5.00
	5470.000	1130.00	780.59	0 00	2.01	0.00	124.47	140.00
*	5470.000	1600.00	783.42	2.83	4 22	0.00	208.15	140.00
*	5470.000	1870.00	783.94	0.52	4 45	0.00	215.95	140.00
*	5470 000	2400.00	784.64	0.70	4.07	0.00	250.81	140.00
	5520 000	1130.00	781.06	0.00	0.48	0.00	230.00	50.00
	5520.000	1600.00	783.68	2.62	0.26	0.00	230.00	50.00
	5520.000	1870.00	784.23	0.54	0.28	0.00	230.00	50 00
	5520.000	2400.00	784.99	0.76	0.35	0.00	230.00	50.00
	6300 000	1130.00	781.17	0 00	0.10	0.00	53.94	780.00
	6300.000	1600.00	783.68	2.51	-0.01	0.00	89 33	780.00
	6300.000	1870.00	784.21	0.54	-0.01	0.00	98.36	780.00
	6300.000	2400.00	784.97	0.75	-0.02	0.00	111 14	780.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	6750.000	1130.00	781.99	0.00	0.83	0.00	62.17	450.00
	6750.000	1600.00	784.06	2.06	0.38	0.00	70.92	450.00
	6750.000	1870.00	784.60	0.55	0.39	0.00	72.16	450.00
	6750.000	2400.00	785.40	0 80	0.43	0.00	73.98	450.00
	6800 000	1130.00	782.03	0.00	0.03	0.00	39.79	50.00
	6800.000	1600.00	784.08	2.05	0.02	0.00	46.40	50.00
	6800.000	1870.00	784.62	0.55	0.02	0.00	48 16	50.00
	6800.000	2400.00	785.42	0.80	0.03	0.00	50.70	50.00
*	7388.000	1130.00	782.79	0.00	0 76	0.00	35 83	588.00
	7388 000	1600.00	788.26	5.47	4.18	0.00	54.99	588.00
	7388 000	1870.00	790.54	2.28	5.91	0.00	63.07	588.00
	7388.000	2400.00	794.30	3.77	8.88	0 00	100.00	588.00
	7438 000	1130.00	784.64	0.00	1.85	0.00	105.54	50.00
	7438.000	1600.00	788.55	3.91	0.29	0.00	163.00	50.00
	7438.000	1870.00	790 74	2.19	0.20	0.00	163 00	50.00
	7438.000	2400.00	794.44	3.70	0.14	0.00	163.00	50.00
*	9342.000	1130.00	787.41	0.00	2.78	0.00	45.73	1953.00
	9342 000	1600 00	789.01	1.60	0.47	0.00	56.25	1953.00
	9342.000	1870.00	791.01	2.00	0.27	0.00	69.39	1953.00
	9342.000	2400.00	794.58	3.57	0.14	0.00	147.80	1953.00
	9392.000	1130.00	788.00	0.00	0.59	0.00	35.39	50.00
	9392.000	1600.00	789.36	1.36	0.35	0.00	39.80	50.00
	9392.000	1870.00	791.15	1.79	0.14	0.00	44.72	50.00
	9392.000	2400.00	794.62	3.47	0.04	0.00	220.90	50.00
	9400.000	1130.00	788.63	0.00	0.63	0.00	37.44	8.00
	9400.000	1600 00	789.42	0.79	0.06	0.00	40.00	8.00
	9400.000	1870 00	791 18	1 76	0.03	0.00	44.80	8.00
	9400.000	2400.00	794.62	3 44	0.00	0 00	220.92	8.00
	9450.000	1130.00	789.49	0.00	0.86	0.00	59 43	50.00
	9450.000	1600.00	790.64	1.16	1.22	0.00	66.99	50.00
	9450.000	1870 00	792 00	1.36	0.82	0.00	75.97	50.00
	9450.000	2400.00	794.74	2.74	0.12	0.00	149 33	50 00
	9550.000	1130.00	789 72	0.00	0 23	0.00	40.36	100.00
	9550.000	1600.00	790 84	1.12	0.19	0 00	41.30	100 00
	9550.000	1870.00	792 12	1.28	0.12	0.00	42.37	100.00
	9550 000	2400.00	794.80	2.68	0.05	0.00	44.61	100.00
	9701.000	1130.00	790.68	0.00	0.96	0.00	41.17	151.00
	9701.000	1600 00	791.13	0.45	0.29	0.00	41.54	151.00
	9701.000	1870.00	792.34	1.21	0.23	0.00	42.55	151.00
	9701.000	2400.00	797 02	4.68	2.22	0.00	211.20	151.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	9801.000	910.00	792.10	0.00	1.42	0.00	76.64	100.00
	9801.000	1300.00	793.55	1.45	2.42	0.00	86.11	100.00
	9801.000	1500.00	794.73	1.18	2.39	0 00	149.23	100.00
	9801.000	1920.00	797.65	2 92	0.64	0 00	167.11	100.00
	11200.000	910.00	793.03	0.00	0.93	0.00	42.64	1399.00
	11200.000	1300.00	794.46	1.43	0.91	0.00	47.85	1399.00
	11200.000	1500.00	795.45	0.99	0.72	0.00	51.47	1399.00
	11200.000	1920.00	798.01	2.55	0.35	0 00	59 68	1399.00
	12000.000	910.00	795.51	0.00	2.48	0.00	53.39	800.00
	12000.000	1300.00	796.58	1 07	2.12	0.00	62.09	800.00
	12000.000	1500 00	797.20	0.62	1.74	0.00	67.12	800.00
	12000.000	1920.00	798 96	1.77	0.96	0 00	81.54	800.00
	12100.000	910 00	795.78	0.00	0.26	0.00	47.05	100.00
	12100.000	1300.00	796.78	1 00	0.20	0.00	47.74	100.00
	12100.000	1500.00	797.36	0.58	0 16	0.00	48 14	100 00
	12100.000	1920.00	799.05	1.69	0.09	0.00	49.31	100 00
*	12262.000	910.00	795.78	0.00	0.01	0.00	47.05	162 00
*	12262.000	1300.00	797.34	1.56	0.56	0.00	48.12	162.00
*	12262.000	1500.00	798.49	1.15	1.13	0.00	48.92	162 00
	12262 000	1920 00	801.45	2 96	2.39	0.00	50.96	162.00
	12362.000	910.00	796.64	0.00	0.86	0.00	62.59	100.00
	12362 000	1300.00	797.86	1.22	0.52	0.00	72.60	100.00
	12362.000	1500.00	798.86	1.00	0.38	0.00	80.75	100.00
	12362 000	1920.00	801.72	2.86	0.28	0.00	281.36	100.00
	12862 000	910.00	797.52	0.00	0.88	0.00	61 52	500.00
	12862.000	1300.00	798.65	1.13	0.79	0.00	70.83	500.00
	12862.000	1500.00	799.46	0.81	0.60	0.00	77.45	500.00
	12862 000	1920.00	801.91	2 45	0.19	0.00	242.64	500.00
	13362.000	910.00	798.47	0.00	0.95	0.00	61.17	500 00
	13362.000	1300.00	799.54	1.07	0.89	0.00	69.92	500.00
	13362.000	1500.00	800.20	0.66	0.74	0 00	75.32	500.00
	13362.000	1920.00	802.23	2.02	0.31	0.00	150.17	500.00
	14050.000	910.00	800.02	0.00	1.55	0.00	70.00	688.00
	14050.000	1300.00	801.05	1.03	1.51	0.00	70.00	688.00
	14050 000	1500.00	801.57	0.52	1.37	0.00	70.00	688.00
	14050.000	1920.00	803 01	1.44	0.79	0 00	70.00	688.00
	14085.000	910.00	800.12	0.00	0.10	0.00	51.00	35.00
	14085.000	1300 00	801.14	1.02	0.10	0.00	51.00	35.00
	14085 000	1500.00	801.66	0.52	0.09	0.00	51.00	35.00
	14085 000	1920.00	803.08	1.42	0 07	0.00	51.00	35 00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	14099.000	910.00	800.63	0.00	0.51	0.00	36.20	14.00
*	14099.000	1300.00	801.47	0.84	0 33	0.00	41.94	14.00
*	14099.000	1500.00	801.81	0.34	0 14	0.00	44.24	14.00
	14099.000	1920.00	803.11	1.30	0.03	0.00	53.17	14.00
	14100.000	910.00	800.64	0.00	0.00	0 00	36.22	1.00
	14100 000	1300.00	801.48	0.84	0.00	0.00	41.96	1.00
	14100 000	1500.00	801.81	0.34	0.00	0.00	44.25	1.00
	14100.000	1920.00	803 12	1.30	0.00	0.00	53.16	1.00
	14158.000	910.00	801.70	0.00	1 07	0.00	64.04	58 00
*	14158.000	1300.00	802.89	1.19	1 42	0.00	68.73	58.00
*	14158.000	1500.00	803.28	0.39	1 47	0.00	70.28	58 00
	14158.000	1920.00	803.66	0.38	0.55	0.00	71.79	58.00
	14159.000	910.00	803.24	0.00	1.54	0.00	70.10	1.00
	14159.000	1300.00	805.30	2.06	2.40	0.00	71.00	1.00
	14159.000	1500.00	806.40	1.10	3.11	0.00	71.00	1.00
	14159.000	1920.00	808.86	2.46	5 20	0.00	71.00	1.00
	14169.000	910.00	803.24	0.00	0.00	0.00	90.00	10.00
	14169.000	1300.00	805.30	2.06	0 00	0.00	90.00	10.00
	14169.000	1500 00	806.40	1.10	0.00	0.00	90.00	10.00
	14169.000	1920.00	808.86	2.46	0.00	0.00	90.00	10.00
	14179.000	910.00	803.25	0 00	0 01	0.00	52.95	10.00
	14179.000	1300.00	805.30	2.05	0.00	0.00	69 57	10.00
	14179.000	1500.00	806.40	1 10	0.00	0.00	82.80	10.00
	14179.000	1920.00	808.86	2.46	0 00	0.00	90.00	10.00
	14900.000	910.00	804.25	0.00	1.00	0.00	60.72	721.00
	14900 000	1300.00	805.72	1.47	0.42	0.00	74.66	721.00
	14900.000	1500.00	806.69	0.97	0.28	0.00	86.23	721.00
	14900.000	1920 00	608.97	2.28	0.11	0 00	90.00	721.00
	14950.000	910.00	804.23	0 00	-0.02	0.00	54.97	50.00
	14950.000	1300 00	805.71	1 48	-0.01	0.00	71.14	50 00
	14950 000	1500 00	806.68	0.97	0.00	0.00	81 70	50 00
	14950 000	1920.00	808.97	2.29	0.00	0.00	104.60	50.00
	15750.000	260.00	805.48	0 00	1.25	0.00	54.08	800.00
	15750.000	410.00	806.68	1.20	0.97	0.00	65.03	800.00
	15750.000	490.00	807.42	0.74	0.74	0.00	69.33	800.00
	15750 000	640 00	809.35	1.94	0.38	0.00	76.44	800.00
*	16450 000	260.00	806.31	0 00	0.83	0.00	31.46	700.00
	16450.000	410 00	807.07	0.76	0.39	0.00	38.31	700.00
	16450.000	490.00	807.72	0.65	0.30	0 00	44.16	700.00
	16450.000	640.00	809.49	1.77	0.14	0 00	60.11	700 00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	16480.000	260.00	806.88	0.00	0.57	0.00	31.00	30.00
	16480.000	410.00	807 27	0.38	0.20	0.00	31.00	30.00
	16480.000	490.00	807.84	0.57	0.12	0.00	31.00	30.00
	16480 000	640.00	809.53	1.69	0.04	0.00	31.00	30.00
	16490.000	260.00	806.94	0 00	0.05	0.00	26.00	10.00
	16490 000	410.00	807.33	0.40	0 07	0.00	26.00	10.00
	16490.000	490.00	807.88	0.55	0.05	0.00	26.00	10.00
	16490 000	640.00	809.55	1.66	0.02	0.00	26.00	10.00
*	16499 000	260.00	807.40	0.00	0.47	0.00	16.46	9.00
*	16499.000	410.00	808.19	0.78	0 85	0.00	19.71	9.00
*	16499.000	490 00	808 55	0.37	0.67	0.00	21.25	9.00
	16499.000	640.00	809.58	1 02	0.03	0.00	25.56	9.00
	16500.000	260.00	807.41	0.00	0.01	0.00	16.44	1.00
	16500.000	410.00	808.20	0.78	0.01	0.00	19.75	1.00
	16500.000	490 00	808 56	0.37	0.01	0.00	21.29	1.00
	16500 000	640.00	809.58	1.02	0.01	0.00	25.60	1.00
	16572.000	260.00	808 71	0 00	1.30	0.00	21.91	72.00
	16572.000	410.00	809.96	1.25	1.76	0.00	27.20	72.00
	16572 000	490.00	810.57	0.61	2.00	0.00	29.77	72.00
	16572.000	640 00	811.39	0.82	1.80	0.00	33 24	72.00
	16573.000	260.00	809.25	0.00	0.54	0 00	28.48	1.00
	16573 000	410.00	810.82	1.57	0.86	0.00	32.00	1.00
	16573.000	490.00	811.61	0.79	1 04	0.00	32.00	1.00
	16573.000	640.00	812.91	1.30	1.52	0.00	32.00	1.00
	16621.000	260.00	809.32	0 00	0.07	0.00	46.90	49.00
	16621.000	410.00	810.91	1.58	0 09	0.00	61.16	49.00
	16621.000	490.00	811.71	0.80	0.10	0 00	83.73	49.00
	16621.000	640.00	813.02	1.32	0.12	0.00	162.53	49.00
	16822 000	260.00	809.54	0.00	0.21	0.00	48.76	201.00
	16822.000	410.00	811.02	1 48	0.11	0 00	62.58	201.00
	16822.000	490.00	811.78	0.76	0.08	0.00	86 63	201.00
	16822.000	640.00	813.07	1.28	0.04	0.00	165.01	201 00
	16872.000	260.00	809.58	0.00	0.04	0.00	57.33	50.00
	16872.000	410.00	811.03	1.46	0.01	0.00	71.43	50.00
	16872.000	490.00	811.79	0.76	0 01	0.00	123.14	50.00
	16872 000	640.00	813.07	1.28	0 01	0.00	159.77	50.00
	16880.000	260.00	809.57	0.00	-0.01	0.00	57.25	8.00
	16880.000	410.00	811.02	1.45	-0.02	0.00	71.22	8.00
	16880.000	490.00	811.77	0.75	-0.02	0.00	118.66	8.00
	16880.000	640.00	813.05	1.28	-0.02	0.00	158.75	8 00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
16916.000	260.00	809.64	0.00	0.07	0.00	58.74	36.00
16916.000	410.00	811.11	1.47	0.09	0.00	108.08	36.00
16916.000	490.00	811.88	0.76	0.10	0.00	115.00	36.00
16916.000	640.00	813.14	1.27	0.09	0.00	115.00	36.00
16952.000	260.00	809.63	0.00	-0.01	0.00	58.02	36.00
16952.000	410.00	811.10	1.47	-0.01	0.00	72.04	36.00
16952.000	490.00	811.86	0.76	-0.01	0.00	93.91	36.00
16952.000	640.00	813.13	1.27	-0.01	0.00	107.00	36.00
16960.000	260.00	809.63	0.00	-0.01	0.00	57.92	8.00
16960.000	410.00	811.08	1.46	-0.02	0.00	71.71	8.00
16960.000	490.00	811.84	0.76	-0.02	0.00	92.80	8.00
16960.000	640.00	813.10	1.26	-0.03	0.00	112.28	8.00
17000.000	260.00	809.66	0.00	0.04	0.00	49.93	40.00
17000.000	410.00	811.15	1.49	0.06	0.00	65.08	40.00
17000.000	490.00	811.91	0.77	0.07	0.00	91.90	40.00
17000.000	640.00	813.19	1.28	0.09	0.00	96.00	40.00
17155.000	260.00	809.70	0.00	0.04	0.00	17.58	155.00
17155.000	410.00	811.08	1.38	-0.07	0.00	18.28	155.00
17155.000	490.00	811.81	0.73	-0.11	0.00	18.65	155.00
17155.000	640.00	813.04	1.23	-0.15	0.00	22.33	155.00
17286.000	260.00	810.51	0.00	0.81	0.00	17.99	131.00
17286.000	410.00	811.82	1.31	0.74	0.00	18.66	131.00
17286.000	490.00	812.51	0.68	0.70	0.00	19.16	131.00
17286.000	640.00	813.91	1.40	0.87	0.00	27.61	131.00
17436.000	260.00	811.08	0.00	0.58	0.00	47.10	150.00
17436.000	410.00	812.41	1.33	0.59	0.00	61.96	150.00
17436.000	490.00	813.09	0.68	0.59	0.00	84.13	150.00
17436.000	640.00	814.51	1.42	0.60	0.00	156.30	150.00
17650.000	260.00	811.76	0.00	0.68	0.00	40.01	214.00
17650.000	410.00	812.80	1.03	0.38	0.00	50.18	214.00
17650.000	490.00	813.37	0.57	0.28	0.00	55.83	214.00
17650.000	640.00	814.63	1.26	0.12	0.00	94.99	214.00
17680.000	260.00	811.95	0.00	0.18	0.00	39.85	30.00
17680.000	410.00	812.91	0.97	0.12	0.00	49.37	30.00
17680.000	490.00	813.46	0.55	0.09	0.00	54.75	30.00
17680.000	640.00	814.67	1.21	0.05	0.00	81.78	30.00
17700.000	260.00	812.08	0.00	0.13	0.00	39.09	20.00
17700.000	410.00	813.00	0.92	0.09	0.00	48.23	20.00
17700.000	490.00	813.53	0.53	0.07	0.00	53.38	20.00
17700.000	640.00	814.71	1.18	0.04	0.00	74.48	20.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	17735.000	260.00	812.48	0.00	0.40	0.00	20.54	35.00
	17735.000	410.00	813.32	0.84	0.31	0.00	22.58	35.00
	17735.000	490.00	813.79	0.47	0.26	0.00	23.40	35.00
	17735.000	640.00	814.85	1.07	0.15	0.00	27.77	35.00
*	17736.000	260.00	812.59	0.05	0.11	0.00	20.81	1.00
*	17736.000	410.00	813.49	0.90	0.17	0.00	23.00	1.00
	17736.000	490.00	813.80	0.31	0.01	0.00	23.42	1.00
	17736.000	640.00	814.86	1.06	0.01	0.00	27.78	1.00
	17769.000	260.00	813.66	0.00	1.07	0.00	23.24	33.00
	17769.000	410.00	814.89	1.23	1.40	0.00	27.83	33.00
	17769.000	490.00	815.57	0.68	1.77	0.00	28.68	33.00
	17769.000	640.00	815.83	0.26	0.97	0.00	29.02	33.00
	17770.000	260.00	814.33	0.00	0.66	0.00	27.10	1.00
	17770.000	410.00	815.73	1.40	0.83	0.00	28.89	1.00
	17770.000	490.00	816.46	0.74	0.89	0.00	29.56	1.00
	17770.000	640.00	817.34	0.88	1.51	0.00	30.00	1.00
	17819.000	260.00	814.48	0.00	0.15	0.00	31.00	49.00
	17819.000	410.00	815.88	1.40	0.15	0.00	31.00	49.00
	17819.000	490.00	816.61	0.73	0.15	0.00	31.00	49.00
	17819.000	640.00	817.51	0.90	0.16	0.00	31.00	49.00
	17869.000	260.00	814.43	0.00	-0.04	0.00	14.67	50.00
	17869.000	410.00	815.80	1.37	-0.08	0.00	14.88	50.00
	17869.000	490.00	816.51	0.71	-0.10	0.00	14.98	50.00
	17869.000	640.00	817.37	0.86	-0.14	0.00	15.11	50.00
	17942.000	260.00	814.69	0.00	0.25	0.00	14.71	73.00
	17942.000	410.00	816.70	2.01	0.90	0.00	15.01	73.00
	17942.000	490.00	817.91	1.20	1.40	0.00	15.19	73.00
	17942.000	640.00	820.00	2.10	2.63	0.00	129.87	73.00
	17992.000	260.00	814.93	0.00	0.24	0.00	115.00	50.00
	17992.000	410.00	816.99	2.06	0.29	0.00	115.00	50.00
	17992.000	490.00	818.20	1.21	0.29	0.00	115.00	50.00
	17992.000	640.00	820.22	2.02	0.22	0.00	115.00	50.00
	18270.000	260.00	814.95	0.00	0.03	0.00	28.33	278.00
	18270.000	410.00	816.98	2.03	-0.01	0.00	49.57	278.00
	18270.000	490.00	818.18	1.21	-0.01	0.00	65.00	278.00
	18270.000	640.00	820.21	2.02	-0.01	0.00	65.00	278.00
	18319.000	260.00	815.04	0.00	0.09	0.00	27.53	49.00
	18319.000	410.00	817.02	1.98	0.05	0.00	35.87	49.00
	18319.000	490.00	818.21	1.18	0.02	0.00	60.17	49.00
	18319.000	640.00	820.22	2.01	0.01	0.00	70.00	49.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFXWS	TOPWID	XLCH
18320.000	260.00	815.04	0.00	0.00	0.00	27.53	1.00
18320.000	410.00	817.02	1.98	0.00	0.00	35.87	1.00
18320.000	490.00	818.21	1.18	0.00	0.00	60.22	1.00
18320.000	640.00	820.22	2.01	0.00	0.00	70.00	1.00
18373.000	260.00	815.06	0.00	0.02	0.00	27.63	53.00
18373.000	410.00	817.06	2.00	0.04	0.00	36.04	53.00
18373.000	490.00	818.27	1.20	0.06	0.00	43.00	53.00
18373.000	640.00	820.25	1.98	0.03	0.00	43.00	53.00
18374.000	260.00	815.18	0.00	0.12	0.00	28.10	1.00
18374.000	410.00	817.50	2.32	0.43	0.00	35.72	1.00
18374.000	490.00	818.93	1.43	0.66	0.00	43.00	1.00
18374.000	640.00	820.50	1.57	0.25	0.00	43.00	1.00
18422.000	260.00	815.22	0.00	0.04	0.00	29.29	49.00
18422.000	410.00	817.54	2.32	0.04	0.00	119.08	49.00
18422.000	490.00	818.97	1.44	0.05	0.00	145.61	49.00
18422.000	640.00	820.56	1.58	0.06	0.00	180.00	49.00
18800.000	260.00	815.63	0.00	0.41	0.00	30.85	378.00
18800.000	410.00	817.71	2.08	0.17	0.00	122.44	378.00
18800.000	490.00	819.06	1.34	0.08	0.00	147.20	378.00
18800.000	640.00	820.61	1.55	0.05	0.00	180.00	378.00
19160.000	260.00	815.93	0.00	0.30	0.00	51.59	360.00
19160.000	410.00	817.85	1.93	0.14	0.00	125.21	360.00
19160.000	490.00	819.13	1.27	0.07	0.00	148.58	360.00
19160.000	640.00	820.65	1.52	0.05	0.00	180.00	360.00
19209.000	260.00	815.94	0.00	0.01	0.00	25.11	49.00
19209.000	410.00	817.86	1.92	0.00	0.00	177.47	49.00
19209.000	490.00	819.14	1.28	0.01	0.00	191.39	49.00
19209.000	640.00	820.66	1.52	0.01	0.00	200.00	49.00
19210.000	260.00	815.90	0.00	-0.04	0.00	24.93	1.00
19210.000	410.00	817.77	1.87	-0.09	0.00	176.40	1.00
19210.000	490.00	819.13	1.36	-0.01	0.00	191.41	1.00
19210.000	640.00	820.66	1.53	0.00	0.00	200.00	1.00
19262.000	260.00	816.02	0.00	0.12	0.00	25.47	52.00
19262.000	410.00	818.00	1.98	0.23	0.00	151.92	52.00
19262.000	490.00	819.13	1.13	0.00	0.00	164.39	52.00
19262.000	640.00	820.65	1.52	-0.01	0.00	173.00	52.00
19263.000	260.00	816.02	0.00	0.00	0.00	25.47	1.00
19263.000	410.00	818.03	2.01	0.03	0.00	152.24	1.00
19263.000	490.00	819.16	1.13	0.03	0.00	164.66	1.00
19263.000	640.00	820.68	1.52	0.03	0.00	173.00	1.00

SECND	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
19312.000	260.00	816.11	0.00	0.09	0.00	57.72	49.00
19312.000	410.00	818.07	1.96	0.04	0.00	129.05	49 00
19312.000	490 00	819 17	1 10	0.01	0.00	149.26	49.00
19312.000	640.00	820.68	1.51	0.00	0.00	180.00	49.00
19500.000	260.00	816 18	0.00	0.07	0.00	60.03	188.00
19500.000	410 00	818.10	1.92	0.03	0.00	129.62	188 00
19500.000	490.00	819.19	1.09	0.02	0.00	149.84	188.00
19500.000	640.00	820.69	1.50	0.01	0.00	180.00	188.00
19549.000	260 00	816.12	0.00	-0.07	0.00	25.48	49.00
19549.000	410.00	818.10	1.98	0.00	0.00	202.95	49.00
19549 000	490.00	819.20	1.10	0.01	0.00	215.00	49.00
19549.000	640.00	820.70	1.50	0.01	0.00	215.00	49.00
19550.000	70 00	816.35	0 00	0.23	0.00	35.77	1.00
19550.000	120.00	818.16	1 81	0.06	0.00	210 11	1 00
19550.000	140.00	819.22	1 06	0.02	0.00	215.00	1.00
19550.000	190.00	820.71	1.49	0.01	0.00	215.00	1.00
19562.000	70.00	816 35	0 00	0.00	0.00	36.19	12.00
19562.000	120.00	818.16	1.81	0.00	0.00	204.55	12.00
19562.000	140 00	819.22	1.06	0.00	0.00	209.00	12.00
19562.000	190 00	820.71	1.49	0.00	0.00	209.00	12.00
19563.000	70 00	816.37	0.00	0.01	0.00	68 88	1 00
19563.000	120 00	818.17	1.80	0.01	0.00	204.15	1.00
19563 000	140.00	819.22	1.05	0.00	0.00	209.00	1.00
19563 000	190 00	820.72	1 49	0.00	0.00	209.00	1 00
19581 000	70.00	816.37	0.00	0 00	0.00	69.22	18.00
19581.000	120 00	818.17	1.80	0.00	0.00	196.09	18.00
19581.000	140 00	819.22	1 05	0.00	0.00	200.00	18 00
19581.000	190.00	820.72	1.49	0.00	0.00	200.00	18 00
19900.000	70.00	816.38	0 00	0.01	0.00	40.00	319.00
19900.000	120.00	818.17	1.80	0.00	0.00	40.00	319.00
19900.000	140.00	819.22	1.05	0.00	0.00	40.00	319.00
19900.000	190 00	820.71	1 49	0.00	0.00	40.00	319.00
20650.000	70.00	816.42	0.00	0 05	0 00	43.99	750.00
20650.000	120.00	818.21	1.78	0.03	0.00	84.30	750 00
20650 000	140.00	819.25	1.04	0.02	0.00	94.00	750 00
20650 000	190.00	820.73	1.49	0 02	0.00	94.00	750 00
20799 000	70.00	816.43	0.00	0.00	0.00	15.15	149.00
20799 000	120.00	818.20	1.77	-0.01	0.00	18.05	149.00
20799.000	140.00	819.23	1 03	-0.01	0.00	19.74	149.00
20799.000	190.00	820.74	1.50	0.00	0 00	350.00	149.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	20800.000	70.00	816.42	0.00	-0.01	0.00	15.13	1.00
	20800.000	120.00	818.12	1.71	-0.07	0.00	17.92	1.00
	20800.000	140.00	819.12	0.99	-0.11	0.00	19.54	1.00
	20800.000	190.00	820.73	1.61	0.00	0.00	350.00	1.00
	20937.000	70.00	816.45	0.00	0.03	0.00	15.18	137.00
	20937.000	120.00	818.24	1.79	0.12	0.00	18.10	137.00
	20937.000	140.00	819.28	1.04	0.16	0.00	19.80	137.00
	20937.000	190.00	820.75	1.47	0.01	0.00	350.00	137.00
	20938.000	70.00	816.47	0.00	0.02	0.00	15.22	1.00
	20938.000	120.00	818.41	1.94	0.17	0.00	18.39	1.00
	20938.000	140.00	819.54	1.13	0.26	0.00	20.00	1.00
	20938.000	190.00	820.73	1.19	-0.02	0.00	20.00	1.00
	21087.000	70.00	816.55	0.00	0.08	0.00	46.31	149.00
	21087.000	120.00	818.47	1.92	0.06	0.00	124.94	149.00
	21087.000	140.00	819.58	1.11	0.04	0.00	166.03	149.00
	21087.000	190.00	820.77	1.19	0.05	0.00	187.91	149.00
	21970.000	70.00	816.65	0.00	0.10	0.00	39.66	883.00
	21970.000	120.00	818.51	1.86	0.04	0.00	77.00	883.00
	21970.000	140.00	819.60	1.08	0.02	0.00	77.00	883.00
	21970.000	190.00	820.78	1.19	0.01	0.00	77.00	883.00
	22100.000	70.00	816.64	0.00	-0.01	0.00	20.24	130.00
	22100.000	120.00	818.50	1.86	-0.01	0.00	23.08	130.00
	22100.000	140.00	819.59	1.09	-0.01	0.00	24.73	130.00
	22100.000	190.00	820.77	1.18	-0.01	0.00	26.53	130.00
	22174.000	70.00	816.61	0.00	-0.03	0.00	20.19	74.00
	22174.000	120.00	819.54	2.93	1.04	0.00	24.65	74.00
	22174.000	140.00	821.02	1.48	1.44	0.00	26.92	74.00
	22174.000	190.00	823.44	2.41	2.66	0.00	30.58	74.00
	22225.000	40.00	816.89	0.00	0.28	0.00	62.10	51.00
	22225.000	60.00	819.57	2.69	0.03	0.00	119.00	51.00
	22225.000	80.00	821.04	1.47	0.02	0.00	119.00	51.00
	22225.000	110.00	823.45	2.41	0.02	0.00	119.00	51.00
*	24800.000	40.00	818.16	0.00	1.27	0.00	16.10	2575.00
	24800.000	60.00	819.59	1.43	0.02	0.00	131.36	2575.00
	24800.000	80.00	821.05	1.46	0.01	0.00	453.76	2575.00
	24800.000	110.00	823.45	2.40	0.00	0.00	512.61	2575.00

SUMMARY OF ERRORS AND SPECIAL NOTES

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CAUTION  SECNO=   3029.000  PROFILE= 3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=   3029.000  PROFILE= 3  MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=   3029.000  PROFILE= 4  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=   3029.000  PROFILE= 4  MINIMUM SPECIFIC ENERGY

CAUTION  SECNO=   3200.000  PROFILE= 2  HYDRAULIC JUMP D.S.
CAUTION  SECNO=   3200.000  PROFILE= 3  HYDRAULIC JUMP D.S.
CAUTION  SECNO=   3200.000  PROFILE= 4  HYDRAULIC JUMP D.S.

CAUTION  SECNO=   5330.000  PROFILE= 4  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=   5330.000  PROFILE= 4  MINIMUM SPECIFIC ENERGY

CAUTION  SECNO=   5470.000  PROFILE= 2  HYDRAULIC JUMP D.S.
CAUTION  SECNO=   5470.000  PROFILE= 3  HYDRAULIC JUMP D.S.
CAUTION  SECNO=   5470.000  PROFILE= 4  HYDRAULIC JUMP D.S.

CAUTION  SECNO=   7388.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=   7388.000  PROFILE= 1  MINIMUM SPECIFIC ENERGY

CAUTION  SECNO=   9342.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=   9342.000  PROFILE= 1  MINIMUM SPECIFIC ENERGY

CAUTION  SECNO=  12262.000  PROFILE= 1  HYDRAULIC JUMP D.S.
CAUTION  SECNO=  12262.000  PROFILE= 2  HYDRAULIC JUMP D.S.
CAUTION  SECNO=  12262.000  PROFILE= 3  HYDRAULIC JUMP D.S.

CAUTION  SECNO=  14099.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=  14099.000  PROFILE= 1  MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=  14099.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=  14099.000  PROFILE= 2  MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=  14099.000  PROFILE= 3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=  14099.000  PROFILE= 3  MINIMUM SPECIFIC ENERGY

CAUTION  SECNO=  14158.000  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=  14158.000  PROFILE= 3  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=  16450.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=  16450.000  PROFILE= 1  MINIMUM SPECIFIC ENERGY

CAUTION  SECNO=  16499.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=  16499.000  PROFILE= 1  MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=  16499.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=  16499.000  PROFILE= 2  MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=  16499.000  PROFILE= 3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=  16499.000  PROFILE= 3  MINIMUM SPECIFIC ENERGY

CAUTION  SECNO=  17736.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
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 CAUTION  SECNO= 17736.000  PROFILE= 1  MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO= 17736.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO= 17736.000  PROFILE= 2  MINIMUM SPECIFIC ENERGY

 CAUTION  SECNO= 24900.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO= 24900.000  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO= 24800.000  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
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00BREAK00

1) COUNTY: WASHTENAW

2) STUDY NAME: PITTSFIELD TWP

3) WATERCOURSE: SWIFT RUN DRAIN
PITTSFIELD-ANN ARBOR DR.

4) DOCUMENT TYPE: PRINTOUTS

00BREAK00

FLOOD INSURANCE STUDY HYDRAULIC REPORT

PROJECT: HUD-FIA-H-4705 Pittsfield Township, FIS, Washtenaw Co., MI

CONSULTING FIRM: McNamee, Porter and Seeley/Smith, Hinchman and Grylls

WATERCOURSE: Swift Run Drain

STUDY LIMITS: Clark Rd. to approx. 200' upstream of Hogback Rd.

DATE OF AERIAL SURVEY: 11/78

DATE OF LAND SURVEY: 4/79

SOURCE OF FLOWS: Discharges were computed by MP&S/SH&G and approved by MDNR on 5/16/79

TOPOGRAPHIC INFORMATION: USGS 10 ft. topographic maps 1"=400'

METHOD OF ANALYSIS: HEC-2 water surface profile computer program

VARIABLES AND COEFFICIENTS:

Channel "n"	.05-.06
Overbank "n"	.08
n values thru bridges	*.025
Contraction Coefficients	.1
Expansion Coefficients	.3

*Channel roughness used for bridges d/s of Clark Rd. Bridge loss coefficients were chosen per References 1 and 2.

PHOTOGRAPHS: Enclosed for your review, please return.

CROSS-SECTIONS: See Table 1 for cross-section description. Cross-section plots enclosed.

REFERENCES:

1. "Hec-2 Water Surface Profiles", Users Manual, U.S. Army Corps of Engineers, Feb. 1972.
2. "Application of the Hec-2 Bridge Routines", U.S. Army Corps of Engineers, June 1974.
3. "Roughness Characteristics of Natural Channels", Barnes, Harry H. Jr., Geological Survey Water Supply Paper 1849.
4. "Floodway Determination using computer Program Hec-2", Bonner, Vernon R., U.S. Army Corps of Engineers Hec Training Document 5, May 1974.

HIGH WATER MARKS & CALIBRATION:

No high water data was found for Swift Run Drain.

Starting Conditions

Field information was obtained 3400 ft. downstream of the corporate limits of Pittsfield Township in order to establish a good starting elevation at the corporate limits. Convergence runs were made for Swift Run Drain using ±15% depth, 1800 ft. downstream of Clark Rd. No difference was obtained in the starting elevation.

REMARKS

Two tables of XKOR computations are included. The first shows values as they were used in the HEC-2 runs. The second shows revised values based on higher values of Ke. Computations are also included to show the expected water surface increases because of these changes.

The maximum computed water surface differential was 0.08 foot. Since this would not affect the flood insurance study, no changes were made to the HEC-2 runs nor to the profiles. A 100-year run with the revised Ke's is included.

100 yr. Delineation

We have not delineated the 100-year flood plain at this time, since this will be done by Abrams Aerial after your approval of the 100-year and 500-year flood elevations. Delineation by Abrams should be available 1-2 months after approval.

McNAMEE PORTER & SEELEY
CONSULTING ENGINEERS
ANN ARBOR MICHIGAN

JOB: HUD-FIA H-4705 SHEET NO 1/2
COMMUNITY: Pittsfield Twp FILE NO
WATERCOURSE: Swift Run Drain CHK BY DATE DATE

TABLE 1 - SECNO

Section Types	Description
1	Surveyed (See Remarks if Other Than MPS and/or Abrams)
2	Field Survey Section, partly modified for modelling
3	Synthetic - Repeat of nearby surveyed section with an invert adjustment (See Remarks)
4	Synthetic - Developed from topo, surveyed sections, or other information

SECTION NO.	SECTION TYPE	REMARKS
5.0	1	
5.9, 5.93	3	Repeats of 6.5
6.0, 6.1	4	Driveway bridge.
6.2	3	Repeat of 6.5
6.5	2	
6.9, 7.0	4	Shetland Dr bridge
7.1		
7.5	3	Repeat of 6.5
7.6, 7.7	3	Repeats of 9.2
7.8, 7.9	4	Footbridge
8.1, 8.2	3	Repeats of 9.2
8.3, 8.4	4	Footbridge
8.5	3	Repeat of 9.2
9.2	2	
9.03, 9.04	4	Footbridge
9.05, 9.06		

McNAMEE PORTER & SEELEY
CONSULTING ENGINEERS
ANN ARBOR MICHIGAN

JOB: HUD-FIA H-4705 SHEET NO 2/2
COMMUNITY: Pittsfield Twp. FILE NO
WATERCOURSE: Swift Run Drain
COMPUTED BY DATE CHK BY DATE

TABLE 1 - SECNO

Section Types — Description

1 Surveyed (See Remarks if Other Than MPS and/or Abrams)
2 Field Survey Section, partly modified for modelling
3 Synthetic - Repeat of nearby surveyed section with an invert adjustment (See Remarks)
4 Synthetic - Developed from topo, surveyed sections, or other information

HUD-FIA SYMBOL	SECTION NO.	SECTION TYPE	REMARKS
	9.00, 9.08 9.09, 9.11	4	Footbridge.
A	9.91	4	Clark Rd
	9.92	3	Repeat of 9.8 Clark Rd.
B	9.8	2	
	9.9	3	Repeat of 9.8
C	10.0	2	
	10.1, 10.2	3	Repeats of 10.0
	10.9	3	Repeat of 11.0
D	11.0	1	
	11.1	3	Repeat of 11.0
	11.9	4	Hogback Rd.
E	12.1	3	Repeat of 12.8. Hogback Rd.
F	12.8	1	
	12.9	3	Repeat of 12.8,

COMMUNITY: Pittsfield Twp.

WATERCOURSE: Swift Run Drain

TABLE 3 – XKOR CALCULATIONS

$XKOR = 1 + K_e + K_F \qquad K_F = \frac{29 n l^2}{R^{4/3}} \qquad R = \frac{A}{P}$

Cross Section Location	Ke	A	P	R	n	l	K_F	XKOR	REMARKS
Clark Rd.	.4			1.17	.025	60	.9	2.3	
Hogback Rd.	.2	58	38		.025	165	1.7	2.9	

COMMUNITY: Pittsfield Twp.

WATERCOURSE: Swift Run Drain

TABLE 3 – XKOR CALCULATIONS REVISED

$XKOR = 1 + K_e + K_F \qquad K_F = \frac{29 n l^2}{R^{4/3}} \qquad R = \frac{A}{P}$

Cross Section Location	Ke	A	P	R	n	l	K_F	XKOR	REMARKS
Swift 2	.9								
Clark Rd.	~~.4~~			1.17	.025	60	.9	2.8 ~~2.3~~	
Hogback Rd.	.9 ~~.2~~	58	38		.025	165	1.7	3.6 ~~2.9~~	

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
**************************************************


T1      HUD-FIA H-4705
T2      PITTSFIELD TOWNSHIP FIS
T3      SWIFT DRAIN-100 YEAR

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      -1.       4.        0.        0.  0.000000      0.00      0.0       0.   777.240    0.000

J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

     1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000    15.000

J3  VARIABLE CODES FOR SUMMARY PRINTOUT

     1.000    34.000     3.000     4.000    27.000    28.000     9.000     0.000     0.000     0.000

NC      .080      .080      .050      .100      .300     0.000     0.000     0.000     0.000     0.000
QT     8.000   810.000  1210.000  1430.000  1980.000  1430.000  1430.000  1430.000  1430.000     0.000
ET     0.000     0.000     0.000     0.000     0.000     1.400     5.400    10.400     0.000     0.000

X1     9.910    10.000    36.000    72.000     0.000     0.000     0.000     0.000     1.200     0.000
GR   782.000     0.000   779.300     6.000   777.000    14.000   774.400    24.000   772.500    36.000
GR   769.400    42.000   769.400    56.000   772.100    64.000   772.800    72.000   773.500   150.000
SB     0.000     2.300     3.000     0.000     6.000     0.000    17.000     0.000   770.300   770.600

X1     9.920    10.000   300.000   319.000    60.000    60.000    60.000     0.000     -.500     0.000
X2     0.000     0.000     1.000   774.200   776.400     0.000     0.000     0.000     0.000     0.000
PT     2.000   260.000   776.400     0.000   354.000   778.500     0.000     0.000     0.000     0.000
GR   775.500   260.000   775.400   277.000   774.300   300.000   772.400   305.000   770.800   306.000
GR   770.800   311.000   772.400   312.000   774.100   319.000   775.200   340.000   778.500   354.000

X1     9.800     0.000     0.000     0.000   100.000   100.000   100.000     0.000      .500     0.000

X1     9.900     0.000     0.000     0.000   200.000   200.000   200.000     0.000     1.200     0.000

X1    10.000     7.000   516.000   530.000   200.000   200.000   200.000     0.000     0.000     0.000
GR   777.300   430.000   777.200   516.000   775.600   518.000   773.900   520.000   773.900   523.000
GR   775.600   525.000   777.200   530.000   781.400   550.000     0.000     0.000     0.000     0.000

X1    10.100     0.000     0.000     0.000   200.000   200.000   200.000     0.000     1.400     0.000

X1    10.200     0.000     0.000     0.000   200.000   200.000   200.000     0.000     1.500     0.000
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SWIFT RUN FLOODWAY

X1	10.900	9.000	143.000	153.000	200.000	200.000	200.000	0.000	-1.600	0.000
GR	791.800	88.000	783.500	116.000	782.600	143.000	779.800	146.000	779.800	151.000
GR	781.800	153.000	782.700	185.000	783.600	212.000	792.100	247.000	0.000	0.000
X1	11.000	0.000	0.000	0.000	200.000	200.000	200.000	0.000	1.600	0.000
X1	11.100	0.000	0.000	0.000	200.000	200.000	200.000	0.000	1.500	0.000
X1	11.900	10.000	143.000	153.000	140.000	140.000	140.000	0.000	2.900	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	785.000	785.000	0.000
GR	791.700	30.000	785.000	73.000	783.500	116.000	782.600	143.000	779.800	146.000
GR	779.800	151.000	781.800	153.000	782.700	185.000	783.600	212.000	792.100	247.000
SB	0.000	2.900	3.000	250.000	10.000	0.000	58.000	0.000	783.100	782.800
X1	12.100	8.000	320.000	337.000	165.000	165.000	165.000	0.000	-.100	0.000
X2	0.000	0.000	1.000	790.800	795.400	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	795.400	795.400	0.000
GR	796.200	80.000	788.500	195.000	786.800	320.000	783.200	324.000	783.200	329.000
GR	785.600	337.000	787.600	367.000	798.000	400.000	0.000	0.000	0.000	0.000
X1	12.800	0.000	0.000	0.000	80.000	80.000	80.000	0.000	.100	0.000
X1	12.900	0.000	0.000	0.000	170.000	170.000	170.000	0.000	.600	0.000
FJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

*PROF 1

CCHV= .100 CEHV= .300
*SECNO 9.910
3280 CROSS SECTION 9.91 EXTENDED 2.54 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOPP	ITRIAL	IOC	ICONT	CORAR	TOPWID	ENDST
9.91	6.64	777.24	0.00	777.24	777.49	.25	0.00	0.00	773.70
1430.	62.	926.	442.	36.	195.	225.	0.	0.	774.00
0.00	1.70	4.76	1.96	.080	.050	.080	0.000	770.60	17.69
.002828	0.	0.	0.	0	0	0	0.00	132.31	150.00

FLOW DISTRIBUTION FOR SECNO= 9.91 CWSEL= 777.24

STA=	18.	24.	36.	72.	150.
PER Q=	.3	4.0	64.8	30.9	
AREA=	5.2	31.1	194.5	225.4	
VEL=	.8	1.8	4.8	2.0	

SPECIAL BRIDGE

SR	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.30	3.00	0.00	6.00	0.00	17.00	0.00	770.30	770.60

*SECNO 9.920
3280 CROSS SECTION 9.92 EXTENDED 3.03 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
1029.95	777.19	0.00	1277.	154.	17.	23.	774.20	776.40
9.92	9.73	780.03	0.00	0.00	780.19	.15	2.70	0.00	773.80
1430.	439.	636.	356.	217.	153.	175.	1.	0.	773.60
.01	2.02	4.14	2.03	.080	.050	.080	.049	770.30	260.00
.001398	60.	60.	60.	2	0	8	0.00	94.00	354.00

FLOW DISTRIBUTION FOR SECNO= 9.92 CWSEL= 780.03

STA=	260.	277.	300.	319.	340.	354.
PER Q=	10.4	20.2	44.4	19.5	5.4	
AREA=	86.4	130.7	153.4	123.6	51.6	
VEL=	1.7	2.2	4.1	2.3	1.5	

*SECNO 9.800
3280 CROSS SECTION 9.80 EXTENDED 4.67 FEET

9.80	9.37	780.17	0.00	0.00	780.35	.18	.15	.01	774.30
1430.	432.	649.	349.	203.	147.	162.	2.	0.	774.10
.01	2.13	4.43	2.15	.080	.050	.080	.049	770.80	260.00
.001697	100.	100.	100.	2	0	0	0.00	94.00	354.00

FLOW DISTRIBUTION FOR SECNO= 9.80 CWSEL= 780.17

STA=	260.	277.	300.	319.	340.	354.
PER Q=	10.3	19.9	45.4	19.4	5.1	
AREA=	80.3	122.4	146.5	115.9	46.5	
VEL=	1.8	2.3	4.4	2.4	1.6	

*SECNO 9.900
3280 CROSS SECTION 9.90 EXTENDED 3.84 FEET

9.90	8.54	780.54	0.00	0.00	780.80	.25	.43	.02	775.50
1430.	415.	686.	329.	170.	131.	134.	4.	1.	775.30
.03	2.45	5.24	2.47	.080	.050	.080	.050	772.00	260.00
.002769	200.	200.	200.	2	0	0	0.00	94.00	354.00

FLOW DISTRIBUTION FOR SECNO= 9.90 CWSEL= 780.54

STA=	260.	277.	300.	319.	340.	354.
PER Q=	9.8	19.2	48.0	18.9	4.2	
AREA=	66.2	103.4	130.8	98.6	34.9	
VEL=	2.1	2.7	5.2	2.7	1.7	

*SECNO 10.000
3280 CROSS SECTION 10.00 EXTENDED 4.07 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
10.00	7.37	781.27	0.00	0.00	781.48	.20	.68	.00	777.20
1430.	1024.	406.	0.	346.	82.	0.	6.	1.	777.20
.04	2.96	4.93	0.00	.080	.050	.080	.050	773.90	430.00
.004210	200.	200.	200.	2	0	0	0.00	100.00	530.00

FLOW DISTRIBUTION FOR SECNO= 10.00 CWSEL= 781.27

STA=	430.	516.	530.
PER Q=	71.6	28.4	
AREA=	346.1	82.3	
VEL=	3.0	4.9	

*SECNO 10.100
3280 CROSS SECTION 10.10 EXTENDED 3.62 FEET

10.10	6.92	782.22	0.00	0.00	782.49	.26	.99	.02	778.60
1430.	1001.	429.	0.	207.	76.	0.	8.	2.	778.60

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      .06       3.26       5.64       0.00       .080       .050       .080       .050    775.30    430.00
  .005936        200.       200.       200.          2          0          0       0.00    100.00    530.00

FLOW DISTRIBUTION FOR SECNO=      10.10          CWSEL=     782.22

STA=      430.       516.       530.
  PER Q=     70.0       30.0
   AREA=    307.4       76.0
    VEL=      3.3        5.6

*SECNO 10.200
3280 CROSS SECTION      10.20 EXTENDED       3.40 FEET

     10.20      6.70    783.50       0.00       0.00    783.80       .30      1.30       .01    780.10
     1430.       988.       442.         0.       288.        73.         0.        10.         2.     780.10
       .07       3.43       6.07       0.00       .080       .050       .080       .050    776.80    430.00
  .007165        200.       200.       200.          2          0          0       0.00    100.00    530.00

FLOW DISTRIBUTION FOR SECNO=      10.20          CWSEL=     783.50

STA=      430.       516.       530.
  PER Q=     69.1       30.9
   AREA=    287.9       72.9
    VEL=      3.4        6.1

*SECNO 10.900
     10.90      6.57    784.77       0.00       0.00    785.05       .28      1.25       .00    781.00
     1430.       297.       381.       751.       103.        59.       234.        11.         3.     780.20
       .09       2.87       6.41       3.20       .080       .050       .080       .050    778.20    106.32
  .005464        200.       200.       200.          2          0          0       0.00    117.08    223.40

FLOW DISTRIBUTION FOR SECNO=      10.90          CWSEL=     784.77

STA=      106.       116.       143.       153.       185.       212.       223.
  PER Q=      1.6       19.1       26.7       32.5       18.2        1.8
   AREA=     13.9       89.6       59.5      131.8       86.9       15.8
    VEL=      1.7        3.1        6.4        3.5        3.0        1.7

*SECNO 11.000
     11.00      6.19    785.99       0.00       0.00    786.36       .36      1.28       .03    782.60
     1430.       284.       405.       741.        90.        56.       208.        13.         3.     781.80
       .10       3.16       7.26       3.55       .080       .050       .080       .050    779.80    107.59
  .007649        200.       200.       200.          2          0          0       0.00    114.27    221.86

FLOW DISTRIBUTION FOR SECNO=      11.00          CWSEL=     785.99

STA=      108.       116.       143.       153.       185.       212.       222.
  PER Q=      1.3       18.5       28.3       32.8       17.5        1.5
   AREA=     10.5       79.5       55.7      119.8       76.8       11.8
    VEL=      1.8        3.3        7.3        3.9        3.3        1.8

*SECNO 11.100
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST
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11.10	6.22	787.52	0.00	0.00	787.88	.36	1.52	.00	784.10
1430.	285.	404.	741.	91.	56.	210.	15.	4.	783.30
.11	3.14	7.22	3.53	.080	.050	.080	.050	781.30	107.52
.007514	200.	200.	200.	2	0	0	0.00	114.41	221.94

FLOW DISTRIBUTION FOR SECNO= 11.10 CWSEL= 787.52

STA=	108.	116.	143.	153.	185.	212.	222.
PER Q=	1.4	18.6	28.2	32.8	17.5	1.5	
AREA=	10.7	80.0	55.9	120.4	77.3	12.0	
VEL=	1.8	3.3	7.2	3.9	3.2	1.8	

*SECNO 11.900

11.90	5.93	788.63	0.00	0.00	788.97	.34	1.10	.00	785.50
1430.	376.	387.	667.	138.	53.	191.	16.	4.	784.70
.12	2.73	7.28	3.50	.080	.050	.080	.050	782.70	68.30
.008193	140.	140.	140.	2	0	0	0.00	152.49	220.78

FLOW DISTRIBUTION FOR SECNO= 11.90 CWSEL= 788.63

STA=	68.	73.	116.	143.	153.	185.	212.	221.
PER Q=	.1	9.7	16.4	27.1	30.1	15.4	1.1	
AREA=	1.7	63.8	72.4	53.1	111.5	69.7	9.4	
VEL=	.9	2.2	3.2	7.3	3.9	3.2	1.7	

SPECIAL BRIDGE

SB	XK	XKOR	COEQ	RDLEN	BWP	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.90	3.00	250.00	10.00	0.00	58.00	0.00	783.10	782.80

*SECNO 12.100
3280 CROSS SECTION 12.10 EXTENDED .23 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
816.01	793.53	0.00	677.	758.	58.	77.	790.80	795.40

12.10	13.23	796.33	0.00	0.00	796.33	.01	7.36	0.00	786.70
1430.	912.	258.	260.	1568.	208.	419.	21.	5.	785.50
.18	.58	1.24	.62	.080	.050	.080	.050	783.10	80.00
.000070	165.	165.	165.	0	0	6	0.00	315.03	395.03

FLOW DISTRIBUTION FOR SECNO= 12.10 CWSEL= 796.33

STA=	80.	195.	320.	337.	367.	395.
PER Q=	13.0	50.8	18.0	14.7	3.5	
AREA=	469.6	1098.0	208.2	295.0	123.8	
VEL=	.4	.7	1.2	.7	.4	

*SECNO 12.800

3280 CROSS SECTION 12.80 EXTENDED .13 FEET

12.80	13.13	796.33	0.00	0.00	796.34	.01	.01	.00	786.80
1430.	910.	260.	261.	1543.	206.	413.	25.	6.	785.60
.22	.59	1.26	.63	.080	.050	.080	.050	783.20	80.00
.000073	80.	80.	80.	2	0	0	0.00	314.70	394.70

FLOW DISTRIBUTION FOR SECNO= 12.80 CWSEL= 796.33

STA=	80.	195.	320.	337.	367.	395.
PER Q=	12.7	50.9	18.2	14.8	3.5	
AREA=	457.8	1085.1	206.4	291.9	120.9	
VEL=	.4	.7	1.3	.7	.4	

*SECNO 12.900

12.90	12.54	796.34	0.00	0.00	796.35	.01	.01	.00	787.40
1430.	898.	270.	262.	1403.	196.	379.	33.	7.	786.20
.28	.64	1.38	.69	.080	.050	.080	.050	783.80	86.83
.000093	170.	170.	170.	0	0	0	0.00	306.01	392.84

FLOW DISTRIBUTION FOR SECNO= 12.90 CWSEL= 796.34

STA=	87.	195.	320.	337.	367.	393.
PER Q=	11.6	51.2	18.9	15.0	3.3	
AREA=	391.7	1011.6	196.4	274.3	105.2	
VEL=	.4	.7	1.4	.8	.4	

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORP -  01
  MODIFICATION -  50,51,52
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T1      JOB HUD-FIA H-4705  T06
T2      FLOOD INSURANCE STUDIES
T3      FLOODWAY DETERMINATION

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
      -1.       6.        0.        0.  0.000000      0.00     -1.0       0.   777.240     0.000
J2  NPROF      IPLOT     PREVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
      2.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000    15.000
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*PROF 2

CCHV=    .100 CEHV=    .300
*SECNO 9.910
 2800 NAT Q1=     268.90  WSEL=     777.24  ENC Q1=     268.90  WSEL=     777.34  RATIO=    .0000
 NAT Q1=     280.  RATIOS LOB,CH,ROB=    .0445    .6413    .3141  WSEL=     777.34
3280 CROSS SECTION       9.91 EXTENDED       2.54 FEET

   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL       OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL      TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN      ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR    TOPWID      ENDST


3470 ENCROACHMENT STATIONS=       28.8      144.4  TYPE=      4  TARGET=         .039
      9.91      6.64   777.24      0.00   777.24    777.52       .28      0.00      0.00    773.70
    1430.       37.      961.      431.      21.      195.      211.        0.        0.    774.00
      0.00      1.74      4.94      2.04      .080      .050      .080     0.000   770.60     28.77
   .003048        0.        0.        0.         0         0         0      0.00   115.61    144.38


FLOW DISTRIBUTION FOR SECNO=       9.91          CWSEL=     777.24

STA=       29.       36.       72.      144.
  PER Q=       2.6      67.2      30.2
   AREA=      21.4     194.5     211.0
    VEL=       1.7       4.9       2.0

SPECIAL BRIDGE

SB   XK          XKCR        COEQ        RDLEN       BWC         BWP         BAREA       SS          ELCHU       ELCHD
      0.00        2.30        3.00        0.00        6.00        0.00       17.00        0.00      770.30      770.60

*SECNO 9.920
 2800 NAT Q1=     382.44  WSEL=     780.03  ENC Q1=     382.44  WSEL=     780.13  RATIO=    .0000
 NAT Q1=     392.  RATIOS LOB,CH,ROB=    .3075    .4421    .2504  WSEL=     780.13
 WATER EL=CHANGE FROM NATURAL PROFILES BRIDGE
3280 CROSS SECTION       9.92 EXTENDED       5.03 FEET


3470 ENCROACHMENT STATIONS=      261.7      349.9  TYPE=      4  TARGET=         .025
      9.92      9.73   780.03      0.00   780.03    780.20       .16       .12       .01    773.80
    1430.      431.      650.      349.      209.      153.      165.        1.        0.    773.60
       .01      2.07      4.24      2.12      .080      .050      .080      .049   770.30    261.68
   .001464       60.       60.       60.         0         0         8      0.00    88.19    349.87


FLOW DISTRIBUTION FOR SECNO=       9.92          CWSEL=     780.03

STA=      262.      277.      300.      319.      340.      350.
  PER Q=       9.5      20.7      45.5      20.0       4.4
   AREA=      78.0     120.7     153.4     123.5      41.2
    VEL=       1.7       2.3       4.2       2.3       1.5

*SECNO 9.800
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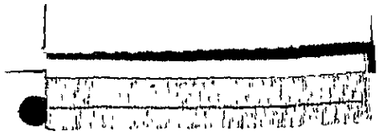

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 2800 NAT Q1=    347.11  WSEL=    780.17  ENC Q1=    347.11  WSEL=    780.27  RATIO=   .0000
 NAT Q1=    357.  RATIOS LOB,CH,ROB=   .3035   .4509   .2456  WSEL=    780.27
3280 CROSS SECTION     9.80 EXTENDED      4.68 FEET


3470 ENCROACHMENT STATIONS=     261.8     349.1  TYPE=      4  TARGET=        .027
     9.80      9.38   780.18      0.00   780.17   780.37      .19      .16      .01   774.30
     1430.      425.      664.      341.      194.      147.      152.        2.        0.   774.10
      .01      2.18      4.53      2.25      .080      .050      .080      .049   770.80   261.83
  .001772      100.      100.      100.         1         0         0      0.00    87.26   349.09


FLOW DISTRIBUTION FOR SECNO=      9.80          CWSEL=    780.18

STA=      262.      277.      300.      319.      340.      349.
  PER Q=      9.3      20.5      46.5      19.9       4.0
    AREA=    71.9     122.6     146.8     116.2      35.6
     VEL=      1.8       2.4       4.5       2.4       1.6

*SECNO 9.900
 2800 NAT Q1=    271.74  WSEL=    780.54  ENC Q1=    271.74  WSEL=    780.64  RATIO=  0.0000
 NAT Q1=    280.  RATIOS LOB,CH,ROB=   .2918   .4760   .2322  WSEL=    780.64
3280 CROSS SECTION     9.90 EXTENDED      3.86 FEET


3470 ENCROACHMENT STATIONS=     262.3     346.5  TYPE=      4  TARGET=        .031
     9.90      8.56   780.56      0.00   780.54   780.84      .27      .45      .03   775.50
     1430.      407.      706.      318.      162.      131.      121.        4.        1.   775.30
      .03      2.52      5.38      2.62      .080      .050      .080      .050   772.00   262.28
  .002904      200.      200.      200.         2         0         0      0.00    84.22   346.50


FLOW DISTRIBUTION FOR SECNO=      9.90          CWSEL=    780.56

STA=      262.      277.      300.      319.      340.      346.
  PER Q=      8.6      19.8      49.4      19.5       2.7
    AREA=    57.7     103.8     131.2      99.0      22.1
     VEL=      2.1       2.7       5.4       2.8       1.8

*SECNO 10.000
 2800 NAT Q1=    220.39  WSEL=    781.27  ENC Q1=    220.39  WSEL=    781.37  RATIO=   .0000
 NAT Q1=    228.  RATIOS LOB,CH,ROB=   .7191   .2809  0.0000  WSEL=    781.37
3280 CROSS SECTION     10.00 EXTENDED      4.13 FEET


   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         OLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


3470 ENCROACHMENT STATIONS=     434.0     530.0  TYPE=      4  TARGET=        .035
    10.00      7.43   781.33      0.00   781.27   781.55      .22      .70      .01   777.20
    1430.     1012.      418.        0.      335.       83.        0.        6.        1.   777.20
      .04      3.02      5.02      0.00      .080      .050      .080      .050   773.90   434.03
  .004332      200.      200.      200.         2         0         0      0.00    95.97   530.00
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FLOW DISTRIBUTION FOR SECNO=      10.00          CWSEL=     781.33

STA=      434.      516.      530.
  PER Q=     70.8      29.2
   AREA=    334.7      83.1
    VEL=      3.0       5.0

*SECNO 10.100
 2800 NAT Q1=     185.61  WSEL=     782.22  ENC Q1=     185.61  WSEL=     782.32  RATIO=   0.0000
 NAT Q1=     193.  RATIOS LOB,CH,ROB=    .7040    .2960   0.0000  WSEL=     782.32
3280 CROSS SECTION     10.10 EXTENDED      3.71 FEET


3470 ENCROACHMENT STATIONS=      434.6      530.0  TYPE=      4  TARGET=         .039
    10.10       7.00    782.30       0.00    782.22    782.58       .27      1.01       .02    778.60
    1430.       989.       441.        0.       298.       77.        0.        8.        2.    778.60
      .06       3.32       5.71       0.00       .080       .050       .080       .050    775.30    434.65
  .006011       200.       200.       200.          1          0          0      0.00     95.35    530.00

FLOW DISTRIBUTION FOR SECNO=      10.10          CWSEL=     782.30

STA=      435.      516.      530.
  PER Q=     69.2      30.8
   AREA=    297.7      77.2
    VEL=      3.3       5.7

*SECNO 10.200
 2800 NAT Q1=     168.93  WSEL=     783.50  ENC Q1=     168.93  WSEL=     783.60  RATIO=    .0000
 NAT Q1=     176.  RATIOS LOB,CH,ROB=    .6951    .3049   0.0000  WSEL=     783.60
3280 CROSS SECTION     10.20 EXTENDED      3.49 FEET


3470 ENCROACHMENT STATIONS=      435.0      530.0  TYPE=      4  TARGET=         .042
    10.20       6.79    783.59       0.00    783.50    783.90       .32      1.31       .01    780.10
    1430.       975.       455.        0.       279.       74.        0.        9.        2.    780.10
      .07       3.50       6.14       0.00       .080       .050       .080       .050    776.80    435.02
  .007214       200.       200.       200.          2          0          0      0.00     94.98    530.00

FLOW DISTRIBUTION FOR SECNO=      10.20          CWSEL=     783.59

STA=      435.      516.      530.
  PER Q=     68.2      31.8
   AREA=    278.6      74.1
    VEL=      3.5       6.1

*SECNO 10.900
 2800 NAT Q1=     193.46  WSEL=     784.77  ENC Q1=     193.46  WSEL=     784.87  RATIO=    .0000
 NAT Q1=     202.  RATIOS LOB,CH,ROB=    .2100    .2628    .5272  WSEL=     784.87

3470 ENCROACHMENT STATIONS=      114.5      213.8  TYPE=      4  TARGET=         .042
    10.90       6.65    784.85       0.00    784.77    785.15       .29      1.24       .00    781.00
    1430.       289.       387.       754.        96.        60.       228.       11.        2.    780.20
      .08       3.01       6.42       3.30       .080       .050       .080       .050    778.20    114.50
  .005377       200.       200.       200.          2          0          0      0.00     99.28    213.78

FLOW DISTRIBUTION FOR SECNO=      10.90          CWSEL=     784.85
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STA=      114.      116.      143.      153.      185.      212.      214.
  PER Q=        .4      19.8      27.1      33.4      18.8        .5
   AREA=       4.1      91.9      60.3     134.5      89.2       4.7
    VEL=       1.4       3.1       6.4       3.5       3.0       1.5

*SECNO 11.000
 2800 NAT Q1=     163.50  WSEL=     785.99  ENC Q1=     163.50  WSEL=     786.09  RATIO=    .0000
 NAT Q1=     171.  RATIOS LOB,CH,ROB=    .2014    .2785    .5201  WSEL=     786.09

3470 ENCROACHMENT STATIONS=      115.5      212.6  TYPE=      4  TARGET=         .045
    11.00      6.26    786.06      0.00    785.99    786.44       .38      1.27       .03    782.60
     1430.      275.      412.      743.       82.       56.      202.       13.        3.     781.80
      .10      3.34      7.30      3.68      .080      .050      .080      .050    779.80    115.55
  .007605      200.      200.      200.         2         0         0      0.00     97.04    212.59


FLOW DISTRIBUTION FOR SECNO=      11.00          CWSEL=     786.06

STA=      116.      116.      143.      153.      185.      212.      213.
  PER Q=        .1      19.2      28.8      33.7      18.1        .1
   AREA=       1.1      81.3      56.4     121.9      78.6       1.4
    VEL=        .9       3.4       7.3       4.0       3.3       1.0

*SECNO 11.100
 2800 NAT Q1=     164.97  WSEL=     787.52  ENC Q1=     164.97  WSEL=     787.62  RATIO=    .0000
 NAT Q1=     173.  RATIOS LOB,CH,ROB=    .2019    .2775    .5206  WSEL=     787.62
   SECNO     DEPTH     CWSEL     CRIWS     WSELK      EG        HV        HL       OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL      TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN      ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR    TOPWID      ENDST


3470 ENCROACHMENT STATIONS=      115.6      212.6  TYPE=      4  TARGET=         .046
    11.10      6.28    787.58      0.00    787.52    787.95       .38      1.51       .00    784.10
     1430.      276.      411.      743.       83.       57.      203.       14.        3.     783.30
      .11      3.33      7.27      3.67      .080      .050      .080      .050    781.30    115.58
  .007514      200.      200.      200.         2         0         0      0.00     96.97    212.56


FLOW DISTRIBUTION FOR SECNO=      11.10          CWSEL=     787.58

STA=      116.      116.      143.      153.      185.      212.      213.
  PER Q=        .1      19.2      28.7      33.7      18.2        .1
   AREA=       1.1      81.7      56.5     122.4      79.0       1.3
    VEL=        .8       3.4       7.3       3.9       3.3       1.0

*SECNO 11.900
 2800 NAT Q1=     157.98  WSEL=     788.63  ENC Q1=     157.98  WSEL=     788.73  RATIO=    .0000
 NAT Q1=     167.  RATIOS LOB,CH,ROB=    .2696    .2641    .4663  WSEL=     788.73

3470 ENCROACHMENT STATIONS=       91.1      210.6  TYPE=      4  TARGET=         .054
    11.90      6.00    788.70      0.00    788.63    789.07       .38      1.12       .00    785.50
     1430.      364.      402.      664.      120.       54.      182.       15.        4.     784.70
      .12      3.02      7.47      3.65      .080      .050      .080      .050    782.70     91.13
  .008498      140.      140.      140.         2         0         0      0.00    119.46    210.58


FLOW DISTRIBUTION FOR SECNO=      11.90          CWSEL=     788.70
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```
STA=       91.      116.      143.      153.      185.      211.
  PER Q=    8.1      17.4      28.1      31.6      14.9
  AREA=    46.3      74.1      53.7     113.4      68.3
   VEL=     2.5       3.4       7.5       4.0       3.1

SPECIAL BRIDGE

SB  XK         XKCR       COEQ       RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
     0.00       2.90       3.00     250.00      10.00       0.00      58.00       0.00     783.10     782.80

*SECNO 12.100
 2800 NAT Q1=    1709.79  WSEL=     796.33  ENC Q1=    1709.79  WSEL=     796.43  RATIO=    .0000
 NAT Q1=   1742.  RATIOS LOB,CH,ROB=    .6392    .1790    .1818  WSEL=     796.43
 WATER EL=CHANGE FROM NATURAL PROFILES BRIDGE
3280 CROSS SECTION      12.10 EXTENDED        .29 FEET


3470 ENCROACHMENT STATIONS=      133.9      378.9  TYPE=      4  TARGET=         .019
    12.10     13.29    796.39      0.00    796.33    796.40       .01       .04       .04    786.70
    1430.      918.      262.      250.     1468.      209.      380.       20.        4.     785.50
      .18       .63      1.25       .66       .080      .050      .080      .050    783.10    133.92
  .000071      165.      165.      165.         0         0         6      0.00    244.94    378.85

FLOW DISTRIBUTION FOR SECNO=      12.10          CWSEL=     796.39

STA=      134.      195.      320.      337.      367.      379.
  PER Q=    12.5      51.7      18.3      14.9       2.6
  AREA=    363.0    1104.7     209.1     296.6      83.2
   VEL=       .5        .7       1.3        .7        .4

*SECNO 12.900
 2800 NAT Q1=    1673.12  WSEL=     796.33  ENC Q1=    1673.12  WSEL=     796.43  RATIO=    .0000
 NAT Q1=   1709.  RATIOS LOB,CH,ROB=    .6378    .1802    .1820  WSEL=     796.43
3280 CROSS SECTION      12.80 EXTENDED        .19 FEET


3470 ENCROACHMENT STATIONS=      136.4      378.0  TYPE=      4  TARGET=         .021
    12.80     13.19    796.39      0.00    796.33    796.40       .01       .01       .00    786.80
    1430.      917.      264.      249.     1440.      207.      372.       24.        5.     785.60
      .21       .64      1.27       .67       .080      .050      .080      .050    783.20    136.43
  .000074       80.       80.       80.         0         0         0      0.00    241.59    378.03

FLOW DISTRIBUTION FOR SECNO=      12.80          CWSEL=     796.39

STA=      136.      195.      320.      337.      367.      378.
  PER Q=    12.2      51.9      18.5      15.0       2.4
  AREA=    347.4    1092.9     207.5     293.8      77.8
   VEL=       .5        .7       1.3        .7        .4

*SECNO 12.900
 2800 NAT Q1=    1479.17  WSEL=     796.34  ENC Q1=    1479.17  WSEL=     796.44  RATIO=    .0000
 NAT Q1=   1511.  RATIOS LOB,CH,ROB=    .6293    .1878    .1829  WSEL=     796.44

3470 ENCROACHMENT STATIONS=      143.4      376.8  TYPE=      4  TARGET=         .021
    12.90     12.61    796.41      0.00    796.34    796.42       .01       .01       .00    787.40
    1430.      904.      275.      250.     1308.      198.      342.       31.        6.     786.20
```

.26	.69	1.39	.73	.080	.050	.080	.050	783.80	143.40
.000095	170.	170.	170.	0	0	0	0.00	233.42	376.82

FLOW DISTRIBUTION FOR SECNO= 12.90 CWSEL= 796.41

STA=	143.	195.	320.	337.	367.	377.
PER Q=	10.9	52.3	19.2	15.3	2.2	
AREA=	287.9	1019.6	197.5	276.2	65.4	
VEL=	.5	.7	1.4	.8	.5	

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
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T1       JOB HUD-FIA H-4705  T06
T2       FLOOD INSURANCE STUDIES
T3       FLOODWAY DETERMINATION

J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ

       -1.        7.         0.         0.  0.000000       0.00      -1.0         0.    777.240      0.000

J2  NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLOC      IBW        CHNIM      ITRACE

     3.000      0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000     15.000
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*PROF 3

CCHV=    .100 CEHV=    .300
*SECNO 9.910
 2800 NAT Q1=    268.90. WSEL=    777.24  ENC Q1=    268.90  WSEL=    777.74  RATIO=   .0000
 NAT Q1=    326.  RATIOS LOB,CH,ROB=   .0496   .6190   .3314  WSEL=    777.74
3280 CROSS SECTION      9.91 EXTENDED      2.54 FEET

   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         OLOB      OCH       OROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


3470 ENCROACHMENT STATIONS=      36.0     118.4  TYPE=     4  TARGET=        .175
     9.91      6.64   777.24      0.00   777.24   777.63      .39      0.00      0.00   772.70
    1430.        0.     1082.      348.      0.      195.     141.        0.        0.   774.00
     0.00      0.00      5.56     2.47     .080     .050     .080     0.000   770.60    36.00
  .004374        0.        0.       0.        0        0        0      0.00    82.37   118.37

FLOW DISTRIBUTION FOR SECNO=      9.91          CWSEL=    777.24

STA=      36.      72.     118.
  PER Q=    75.7     24.3
   AREA=   194.5    140.6
    VEL=     5.6      2.5

   SPECIAL BRIDGE

SR  XK        XKOR      COEQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     0.00      2.30      3.00      0.00      6.00      0.00     17.00      0.00    770.30    770.60

   *SECNO 9.920
    2800 NAT Q1=    382.44  WSEL=    780.03  ENC Q1=    382.44  WSEL=    780.53  RATIO=   .0000
    NAT Q1=    433.  RATIOS LOB,CH,ROB=   .3114   .4336   .2550  WSEL=    780.53
    WATER EL=CHANGE FROM NATURAL PROFILES_BRIDGE
   3280 CROSS SECTION      9.92 EXTENDED      5.03 FEET


   3470 ENCROACHMENT STATIONS=     268.3     343.0  TYPE=     4  TARGET=        .117
        9.92      9.73   780.03      0.00   780.03   780.24      .20      .16      .02   773.80
       1430.      396.      706.      328.      175.      153.     139.       1.        0.   773.60
         .00      2.26      4.60     2.37     .080     .050     .080     .049   770.30   268.28
      .001724      60.       60.       60.        0        0        8     0.00    74.75   343.02

   FLOW DISTRIBUTION FOR SECNO=      9.92          CWSEL=    780.03

   STA=     268.     277.     300.     319.     340.     343.
     PER Q=     5.2     22.4     49.4     21.7      1.3
      AREA=    44.6    130.7    153.4    123.5     15.0
       VEL=     1.7      2.5      4.6      2.5      1.2

   *SECNO 9.900
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 2800 NAT Q1=     347.11  WSEL=     780.17  ENC Q1=     347.11  WSEL=     780.67  RATIO=    .0000
 NAT Q1=     396.  RATIOS LOB,CH,ROB=    .3079    .4412    .2509  WSEL=     780.67
3280 CROSS SECTION       9.80 EXTENDED       4.69 FEET


3470 ENCROACHMENT STATIONS=       269.0       342.3  TYPE=       4  TARGET=          .124
      9.80       9.40    780.20       0.00    780.17    780.44       .24       .19       .01    774.30
    1430.       386.       723.       321.       161.       147.       127.        2.        0.    774.10
      .01       2.40       4.92       2.53       .080       .050       .080       .049    770.80    268.97
  .002087       100.       100.       100.          1          0          0       0.00     73.29    342.26

FLOW DISTRIBUTION FOR SECNO=       9.80          CHSEL=     780.20

STA=      269.      277.      300.      319.      340.      342.
  PER Q=       4.7      22.3      50.5      21.6       .9
   AREA=      38.3     122.9     147.0     116.4      10.7
    VEL=       1.8       2.6       4.9       2.7       1.1

*SECNO 9.900
 2800 NAT Q1=     271.74  WSEL=     780.54  ENC Q1=     271.74  WSEL=     781.04  RATIO=    .0000
 NAT Q1=     316.  RATIOS LOB,CH,ROB=    .2979    .4629    .2392  WSEL=     781.04
3280 CROSS SECTION       9.90 EXTENDED       3.95 FEET


3470 ENCROACHMENT STATIONS=       271.0       340.1  TYPE=       4  TARGET=          .141
      9.90       8.65    780.65       0.00    780.54    780.98       .34       .52       .03    775.50
    1430.       358.       767.       305.       130.       133.       101.        3.        1.    775.30
      .02       2.76       5.78       3.02       .080       .050       .080       .050    772.00    271.03
  .003297       200.       200.       200.          2          0          0       0.00     69.03    340.06

FLOW DISTRIBUTION FOR SECNO=       9.90          CHSEL=     780.65

STA=      271.      277.      300.      319.      340.      340.
  PER Q=       3.2      21.8      53.6      21.4        .0
   AREA=      24.1     105.7     132.8     100.7        .3
    VEL=       1.9       2.9       5.8       3.0        .2

*SECNO 10.000
 2800 NAT Q1=     220.39  WSEL=     781.27  ENC Q1=     220.39  WSEL=     781.77  RATIO=    .0000
 NAT Q1=     262.  RATIOS LOB,CH,ROB=    .7304    .2696  0.0000  WSEL=     781.77
3280 CROSS SECTION      10.00 EXTENDED       4.33 FEET

   SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
   Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA    LEFT/RIGHT
   TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN      SSTA
   SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     ICC        ICONT      CORAR      TOPWID     ENDST


3470 ENCROACHMENT STATIONS=       447.9       530.0  TYPE=       4  TARGET=          .158
     10.00       7.63    781.53       0.00    781.27    781.79       .26       .80       .01    777.20
    1430.       963.       467.         0.       292.       86.         0.        5.        1.    777.20
      .04       3.30       5.43       0.00       .080       .050       .080       .050    773.90    447.88
  .004913       200.       200.       200.          2          0          0       0.00     82.12    530.00
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FLOW DISTRIBUTION FOR SECNO=     10.00          CHSEL=    781.53

STA=     448.      516.      530.
  PER Q=    67.4      32.6
   AREA=   292.0      85.9
    VEL=     3.3       5.4

*SECNO 10.100
 2800 NAT Q1=    185.61  WSEL=    782.22  ENC Q1=    185.61  WSEL=    782.72  RATIO=  0.0000
 NAT Q1=    224.  RATIOS LOB,CH,ROB=   .7176   .2824  0.0000  WSEL=    782.72
3280 CROSS SECTION    10.10 EXTENDED      4.00 FEET


3470 ENCROACHMENT STATIONS=     450.1     530.0  TYPE=     4  TARGET=        .173
    10.10      7.30   782.60      0.00   782.22   782.93      .33      1.12      .02   778.60
    1430.       937.      493.       0.      261.       81.       0.       7.       1.   778.60
      .05      3.59      6.06      0.00      .080      .050      .080      .050   775.30   450.14
  .006441       200.      200.      200.         2         0         0      0.00    79.86   530.00

FLOW DISTRIBUTION FOR SECNO=     10.10          CHSEL=    782.60

STA=     450.      516.      530.
  PER Q=    65.5      34.5
   AREA=   260.9      81.3
    VEL=     3.6       6.1

*SECNO 10.200
 2800 NAT Q1=    168.93  WSEL=    783.50  ENC Q1=    168.93  WSEL=    784.00  RATIO=   .0000
 NAT Q1=    207.  RATIOS LOB,CH,ROB=   .7102   .2898  0.0000  WSEL=    784.00
3280 CROSS SECTION    10.20 EXTENDED      3.85 FEET


3470 ENCROACHMENT STATIONS=     451.5     530.0  TYPE=     4  TARGET=        .182
    10.20      7.15   783.95      0.00   783.50   784.32      .37      1.38      .01   780.10
    1430.       922.      508.       0.      246.       79.       0.       8.       2.   780.10
      .06      3.75      6.41      0.00      .080      .050      .080      .050   776.80   451.49
  .007383       200.      200.      200.         2         0         0      0.00    78.51   530.00

FLOW DISTRIBUTION FOR SECNO=     10.20          CHSEL=    783.95

STA=     451.      516.      530.
  PER Q=    64.5      35.5
   AREA=   245.9      79.2
    VEL=     3.8       6.4

*SECNO 10.900
 2800 NAT Q1=    193.46  WSEL=    784.77  ENC Q1=    193.46  WSEL=    785.27  RATIO=   .0000
 NAT Q1=    237.  RATIOS LOB,CH,ROB=   .2179   .2489   .5332  WSEL=    785.27

3470 ENCROACHMENT STATIONS=     124.5     203.4  TYPE=     4  TARGET=        .184
    10.90      7.04   785.24      0.00   784.77   785.59      .35      1.27      .00   781.00
    1430.       222.      435.      772.       73.       64.      217.       10.       2.   780.20
      .08      3.05      6.78      3.55      .080      .050      .080      .050   778.20   124.47
  .005520       200.      200.      200.         2         0         0      0.00    78.93   203.40


FLOW DISTRIBUTION FOR SECNO=     10.90          CHSEL=    785.24
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STA=      124.      143.      153.      185.      203.
  PER Q=      15.6      30.5      39.2      14.8
   AREA=      72.9      64.2     146.9      70.5
    VEL=       3.1       6.8       3.8       3.0

*SECNO 11.000
 2800 NAT Q1=     163.50  WSEL=     785.99  ENC Q1=     163.50  WSEL=     786.49  RATIO=    .0000
 NAT Q1=     204.  RATIOS LOB,CH,ROB=    .2106    .2619    .5276  WSEL=     786.49

3470 ENCROACHMENT STATIONS=      126.6      201.0  TYPE=       4  TARGET=         .199
    11.00      6.66    786.46      0.00    785.99    786.93       .46      1.30       .03    782.60
    1430.      200.      467.      763.       59.       60.      191.       11.        2.     781.80
      .09      3.40      7.73      4.00      .080      .050      .080      .050    779.80    126.62
  .007774      200.      200.      200.         2         0         0      0.00     74.39    201.01


FLOW DISTRIBUTION FOR SECNO=      11.00          CWSEL=     786.46

STA=      127.      143.      153.      185.      201.
  PER Q=      14.0      32.7      40.3      13.1
   AREA=      58.8      60.4     134.9      56.0
    VEL=       3.4       7.7       4.3       3.3

*SECNO 11.100
 2800 NAT Q1=     164.97  WSEL=     787.52  ENC Q1=     164.97  WSEL=     788.02  RATIO=    .0000
 NAT Q1=     206.  RATIOS LOB,CH,ROB=    .2110    .2611    .5279  WSEL=     788.02
   SECNO     DEPTH     CWSEL     CRIWS     WSELK      EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB       ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL        XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL     IDC       ICONT     CORAR     TOPWID      ENDST


3470 ENCROACHMENT STATIONS=      126.6      201.1  TYPE=       4  TARGET=         .199
    11.10      6.71    788.01      0.00    787.52    788.46       .45      1.53       .00    784.10
    1430.      201.      465.      764.       60.       61.      193.       13.        3.     783.30
      .10      3.37      7.65      3.96      .080      .050      .080      .050    781.30    126.56
  .007545      200.      200.      200.         2         0         0      0.00     74.52    201.07


FLOW DISTRIBUTION FOR SECNO=      11.10          CWSEL=     788.01

STA=      127.      143.      153.      185.      201.
  PER Q=      14.0      32.5      40.3      13.1
   AREA=      59.7      60.8     136.1      56.8
    VEL=       3.4       7.6       4.2       3.3

*SECNO 11.900
 2800 NAT Q1=     157.98  WSEL=     788.63  ENC Q1=     157.98  WSEL=     789.13  RATIO=   C.0000
 NAT Q1=     205.  RATIOS LOB,CH,ROB=    .2933    .2420    .4647  WSEL=     789.13

3470 ENCROACHMENT STATIONS=      113.7      195.2  TYPE=       4  TARGET=         .230
    11.90      6.41    789.11      0.00    788.63    789.58       .46      1.12       .00    785.50
    1430.      326.      453.      650.       92.       58.      161.       14.        3.     784.70
      .10      3.56      7.82      4.04      .080      .050      .080      .050    782.70    113.66
  .008420      140.      140.      140.         2         0         0      0.00     81.56    195.22


FLOW DISTRIBUTION FOR SECNO=      11.90          CWSEL=     789.11
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STA=     114.     116.     143.     153.     185.     195.
  PER Q=          .9      21.9      31.7      37.9       7.6
   AREA=        6.3      85.5      58.0     126.9      34.2
    VEL=        2.0       3.7       7.8       4.3       3.2

SPECIAL BRIDGE

SB  XK          XKOR       COEQ       RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
     0.00        2.90       3.00     250.00      10.00       0.00      58.00       0.00     783.10     782.80

*SECNO 12.100
 2800 NAT Q1=    1709.79  WSEL=     796.33  ENC Q1=    1709.79  WSEL=     796.83  RATIO=    .0000
 NAT Q1=    1889.  RATIOS LOB,CH,ROB=    .6450    .1741    .1809  WSEL=     796.83
 WATER EL=CHANGE FROM NATURAL PROFILES BRIDGE
3280 CROSS SECTION      12.10 EXTENDED        .71 FEET


3470 ENCROACHMENT STATIONS=      155.5      369.7  TYPE=      4  TARGET=         .095
    12.10     13.71    796.81      0.00    796.33    796.82       .01       .04       .05    786.70
    1430.      929.      271.      231.     1437.      216.      333.       18.        4.     785.50
      .16       .65      1.25       .69      .080      .050      .080      .050    783.10    155.52
  .000069      165.      165.      165.         0         0         6      0.00    214.20    369.72


FLOW DISTRIBUTION FOR SECNO=      12.10          CWSEL=     796.81

STA=     156.     195.     320.     337.     367.     370.
  PER Q=       10.1      54.8      19.0      15.7         .4
   AREA=     279.7    1157.1     216.2     309.2      24.1
    VEL=         .5        .7       1.3        .7        .3

*SECNO 12.800
 2800 NAT Q1=    1673.12  WSEL=     796.33  ENC Q1=    1673.12  WSEL=     796.83  RATIO=    .0000
 NAT Q1=    1954.  RATIOS LOB,CH,ROB=    .6437    .1753    .1811  WSEL=     796.83
3280 CROSS SECTION      12.80 EXTENDED        .61 FEET


3470 ENCROACHMENT STATIONS=      157.3      369.4  TYPE=      4  TARGET=         .098
    12.80     13.61    796.81      0.00    796.33    796.82       .01       .01       .00    786.80
    1430.      926.      274.      231.     1411.      215.      327.       22.        4.     785.60
      .19       .66      1.28       .71      .080      .050      .080      .050    783.20    157.31
  .000071       80.       80.       80.         0         0         0      0.00    212.05    369.36


FLOW DISTRIBUTION FOR SECNO=      12.80          CWSEL=     796.81

STA=     157.     195.     320.     337.     367.     369.
  PER Q=        9.7      55.0      19.1      15.8         .4
   AREA=     265.7    1145.3     214.6     306.4      20.8
    VEL=         .5        .7       1.3        .7        .2

*SECNO 12.900
 2800 NAT Q1=    1479.17  WSEL=     796.34  ENC Q1=    1479.17  WSEL=     796.84  RATIO=    .0000
 NAT Q1=    1642.  RATIOS LOB,CH,ROB=    .6348    .1828    .1825  WSEL=     796.84
3280 CROSS SECTION      12.90 EXTENDED        .02 FEET
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3470 ENCROACHMENT STATIONS= 164.6 368.6 TYPE= 4 TARGET= .099

12.90	13.02	796.82	0.00	796.34	796.84	.01	.01	.00	787.40	
1430.	910.	286.	234.	1276.	205.	302.	29.	5.	786.20	
.25	.71	1.40	.77	.080	.050	.080	.050	783.80	164.62	
.000091	170.	170.	170.	0	0	0	0.00	203.98	368.60	

FLOW DISTRIBUTION FOR SECNO= 12.90 CWSEL= 796.82

STA=	165.	195.	320.	337.	367.	369.
PER Q=	8.0	55.6	20.0	16.2	.2	
AREA=	203.8	1071.9	204.6	288.7	13.4	
VEL=	.6	.7	1.4	.8	.2	

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**********************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
**********************************************

T1      JOB HUD-FIA H-4705  T06
T2      FLOOD INSURANCE STUDIES
T3      FLOODWAY DETERMINATION

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

     -1.        8.        0.        0.  0.000000      0.00     -1.0       0.    777.240     0.000

J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

    15.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000    15.000
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*PROF 4

CCHV=    .100 CEHV=    .300
*SECNO 9.910
 2800 NAT Q1=     268.90  WSEL=     777.24  ENC Q1=     268.90  WSEL=     778.24  RATIO=    .0000
 NAT Q1=     388.  RATIOS LOB,CH,ROB=    .0556    .5956    .3488  WSEL=     778.24
3280 CROSS SECTION       9.91 EXTENDED       2.54 FEET

   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


3470 ENCROACHMENT STATIONS=       36.0       92.6  TYPE=      4  TARGET=         .307
      9.91      6.64    777.24      0.00    777.24    777.82       .58      0.00      0.00    773.70
    1430.        0.      1250.      180.        C.      195.       65.        0.        0.    774.00
      0.00      0.00      6.43      2.78      .080      .050      .080     0.000    770.60     36.00
  .005836        0.        0.        0.         0         0         0      0.00     56.58     92.58

FLOW DISTRIBUTION FOR SECNO=       9.91          CWSEL=     777.24

STA=       36.       72.       93.
  PER Q=     87.4      12.6
   AREA=    194.5      64.8
    VEL=      6.4       2.8

SPECIAL BRIDGE

SB  XK        XKCR      COEQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     0.00      2.30      3.00      0.00      6.00      0.00     17.00      0.00    770.30    770.60

*SECNO 9.920
 2800 NAT Q1=     382.44  WSEL=     780.03  ENC Q1=     382.44  WSEL=     781.03  RATIO=    .0000
 NAT Q1=     487.  RATIOS LOB,CH,ROB=    .3155    .4244    .2601  WSEL=     781.03
 WATER EL=CHANGE FROM NATURAL PROFILES_BRIDGE
3280 CROSS SECTION       9.92 EXTENDED       5.03 FEET


3470 ENCROACHMENT STATIONS=      276.9      338.5  TYPE=      4  TARGET=         .214
      9.92      9.73    780.03      0.00    780.03    780.31       .28       .20       .03    773.80
    1430.      360.      792.      277.      131.      153.      115.        0.        0.    773.60
      .00      2.75      5.16      2.41      .080      .050      .080      .049    770.30    276.89
  .002173       60.       60.       60.         0         0         8      0.00     61.57    338.47

FLOW DISTRIBUTION FOR SECNO=       9.92          CWSEL=     780.03

STA=      277.      300.      319.      338.
  PER Q=     25.2      55.4      19.4
   AREA=    131.3     153.4     115.3
    VEL=      2.7       5.2       2.4

*SECNO 9.800
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 2800 NAT Q1=     347.11  WSEL=    780.17  ENC Q1=     347.11  WSEL=     781.17  RATIO=    .0000
 NAT Q1=     448.  RATIOS LOB,CH,ROB=    .3126    .4309    .2565  WSEL=     781.17
3280 CROSS SECTION      9.80 EXTENDED       4.75 FEET


3470 ENCROACHMENT STATIONS=      274.4      337.4  TYPE=      4  TARGET=         .225
     9.80      9.45    780.25      0.00    780.17    780.55       .30       .23       .01    774.30
    1430.      370.      799.      261.      137.      148.      104.        1.        0.    774.10
      .01      2.71      5.40      2.50      .080      .050      .080      .049    770.80    274.44
  .002491      100.      100.      100.         2         0         0      0.00     62.98    337.43


FLOW DISTRIBUTION FOR SECNO=      9.80          CWSEL=     780.25

STA=     274.      277.      300.      319.      337.
  PER Q=      1.1      24.8      55.9      18.2
   AREA=     12.4     124.2     148.0     104.4
    VEL=      1.3       2.9       5.4       2.5

*SECNO 9.900
 2800 NAT Q1=     271.74  WSEL=    780.54  ENC Q1=     271.74  WSEL=     781.54  RATIO=   0.0000
 NAT Q1=     364.  RATIOS LOB,CH,ROB=    .3043    .4490    .2466  WSEL=     781.54
3280 CROSS SECTION      9.90 EXTENDED       4.07 FEET


3470 ENCROACHMENT STATIONS=      276.8      334.5  TYPE=      4  TARGET=         .253
     9.90      8.77    780.77      0.00    780.54    781.20       .43       .61       .04    775.50
    1430.      352.      854.      224.      109.      135.       79.        3.        1.    775.30
      .02      3.22      6.32      2.85      .080      .050      .080      .050    772.00    276.83
  .003853      200.      200.      200.         2         0         0      0.00     57.67    334.50


FLOW DISTRIBUTION FOR SECNO=      9.90          CWSEL=     780.77

STA=     277.      277.      300.      319.      335.
  PER Q=       .0      24.6      59.7      15.7
   AREA=       .7     108.6     135.1      78.5
    VEL=       .3       3.2       6.3       2.9

*SECNO 10.000
 2800 NAT Q1=     220.39  WSEL=    781.27  ENC Q1=     220.39  WSEL=     782.27  RATIO=    .0000
 NAT Q1=     321.  RATIOS LOB,CH,ROB=    .7058    .2942    .0000  WSEL=     782.27
3280 CROSS SECTION     10.00 EXTENDED       4.60 FEET


   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWIC      ENDST


3470 ENCROACHMENT STATIONS=      467.1      530.0  TYPE=      4  TARGET=         .314
    10.00      7.90    781.80      0.00    781.27    782.18       .39       .98       .00    777.20
    1430.      862.      568.        0.      223.       90.        0.        4.        1.    777.20
      .03      3.86      6.33      0.00      .080      .050      .080      .050    773.90    467.09
  .006413      200.      200.      200.         3         0         0      0.00     62.91    530.00
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FLOW DISTRIBUTION FOR SECNO=    10.00          CWSEL=    781.80

STA=     467.     516.     530.
  PER Q=    60.3     39.7
   AREA=   223.4     89.6
    VEL=     3.9      6.3

*SECNO 10.100
 2800 NAT Q1=    185.61  WSEL=    782.22  ENC Q1=    185.61  WSEL=    783.22  RATIO=   .0000
 NAT Q1=    266.  RATIOS LOB,CH,ROB=   .7317   .2683  0.0000  WSEL=    783.22
3280 CROSS SECTION     10.10 EXTENDED      4.49 FEET


3470 ENCROACHMENT STATIONS=     464.5     530.0  TYPE=     4  TARGET=        .302
    10.10     7.79   783.09     0.00   782.22   783.47      .38     1.28      .00   778.60
    1430.     876.     554.       0.     229.     88.       0.       6.       1.    778.60
      .04     3.92     6.29     0.00     .080     .050     .080     .050   775.30   464.53
  .006431     200.     200.     200.        2        0        0     0.00    65.47   530.00

FLOW DISTRIBUTION FOR SECNO=    10.10          CWSEL=    783.09

STA=     465.     516.     530.
  PER Q=    61.2     38.8
   AREA=   229.4     88.1
    VEL=     3.8      6.3

*SECNO 10.200
 2800 NAT Q1=    168.93  WSEL=    783.50  ENC Q1=    168.93  WSEL=    784.50  RATIO=  0.0000
 NAT Q1=    247.  RATIOS LOB,CH,ROB=   .7257   .2743  0.0000  WSEL=    784.50
3280 CROSS SECTION     10.20 EXTENDED      4.34 FEET


3470 ENCROACHMENT STATIONS=     466.5     530.0  TYPE=     4  TARGET=        .316
    10.20     7.64   784.44     0.00   783.50   784.86      .43     1.38      .02   780.10
    1430.     855.     575.       0.     213.     86.       0.       7.       1.    780.10
      .06     4.01     6.69     0.00     .080     .050     .080     .050   776.80   466.49
  .007430     200.     200.     200.        2        0        0     0.00    63.51   530.00

FLOW DISTRIBUTION FOR SECNO=    10.20          CWSEL=    784.44

STA=     466.     516.     530.
  PER Q=    59.8     40.2
   AREA=   213.2     86.0
    VEL=     4.0      6.7

*SECNO 10.900
 2800 NAT Q1=    193.46  WSEL=    784.77  ENC Q1=    193.46  WSEL=    785.77  RATIO=  0.0000
 NAT Q1=    285.  RATIOS LOB,CH,ROB=   .2263   .2345   .5392  WSEL=    785.77

3470 ENCROACHMENT STATIONS=     133.2     194.5  TYPE=     4  TARGET=        .321
    10.90     7.53   785.73     0.00   784.77   786.16      .43     1.29      .00   781.00
    1430.     134.     499.     797.      45.      69.     205.       9.       2.    780.20
      .07     3.00     7.22     3.89     .080     .050     .080     .050   778.20   133.25
  .005680     200.     200.     200.        2        0        0     0.00    61.20   194.45

FLOW DISTRIBUTION FOR SECNO=    10.90          CWSEL=    785.73
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```
STA=     133.      143.      153.      185.      194.
  PER Q=      9.4      34.9      47.0       8.7
   AREA=     44.5      69.1     162.5      42.3
    VEL=      3.0       7.2       4.1       3.0

*SECNO 11.000
 2800 NAT Q1=     163.50  WSEL=     785.99  ENC Q1=     163.50  WSEL=     786.99  RATIO=  0.0000
 NAT Q1=     249.  RATIOS LOB,CH,ROB=    .2201    .2450    .5348  WSEL=     786.99

3470 ENCROACHMENT STATIONS=     135.8     191.6  TYPE=      4  TARGET=        .343
    11.00      7.16    786.96      0.00    785.99    787.54       .58      1.34       .05    782.60
    1430.       98.       541.      791.       30.       65.      178.       10.        2.    781.80
      .09      3.22      8.28      4.44      .080      .050      .080      .050    779.80    135.83
  .008019      200.      200.      200.         2         0         0      0.00     55.79    191.62


FLOW DISTRIBUTION FOR SECNO=     11.00          CWSEL=     786.96

STA=     136.      143.      153.      185.      192.
  PER Q=      6.8      37.9      49.3       6.0
   AREA=     30.4      65.4     150.8      27.5
    VEL=      3.2       8.3       4.7       3.1

*SECNO 11.100
 2800 NAT Q1=     164.97  WSEL=     787.52  ENC Q1=     164.97  WSEL=     788.52  RATIO=   .0000
 NAT Q1=     251.  RATIOS LOB,CH,ROB=    .2205    .2444    .5351  WSEL=     788.52
   SECNO     DEPTH     CWSEL     CRIWS     WSELK      EG        HV        HL        OLOSS    BANK ELEV
   Q         OLOB      OCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


3470 ENCROACHMENT STATIONS=     135.7     191.7  TYPE=      4  TARGET=        .342
    11.10      7.25    788.55      0.00    787.52    789.11       .56      1.56       .00    784.10
    1430.       99.       537.      793.       31.       66.      182.       11.        2.    783.30
      .09      3.16      8.11      4.36      .080      .050      .080      .050    781.30    135.73
  .007573      200.      200.      200.         3         0         0      0.00     55.99    191.73


FLOW DISTRIBUTION FOR SECNO=     11.10          CWSEL=     788.55

STA=     136.      143.      153.      185.      192.
  PER Q=      7.0      37.6      49.3       6.1
   AREA=     31.4      66.3     153.5      28.5
    VEL=      3.2       8.1       4.6       3.1

*SECNO 11.900
 2800 NAT Q1=     157.98  WSEL=     788.63  ENC Q1=     157.98  WSEL=     789.63  RATIO=  0.0000
 NAT Q1=     258.  RATIOS LOB,CH,ROB=    .3173    .2204    .4622  WSEL=     789.63

3470 ENCROACHMENT STATIONS=     122.1     186.1  TYPE=      4  TARGET=        .389
    11.90      6.96    789.66      0.00    788.63    790.17       .51      1.06       .00    785.50
    1430.       284.      501.      645.       80.       63.      149.       12.        2.    784.70
      .09      3.57      7.89      4.33      .080      .050      .080      .050    782.70    122.12
  .007603      140.      140.      140.         3         0         0      0.00     63.98    186.10


FLOW DISTRIBUTION FOR SECNO=     11.90          CWSEL=     789.66
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```
STA=      122.      143.      153.      185.      186.
  PER Q=      19.9      35.0      44.7        .5
  AREA=       79.7      63.4     144.4       4.4
   VEL=        3.6       7.9       4.4       1.5

SPECIAL BRIDGE

SB  XK          XKOR       COEQ       BRLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
     0.00        2.90       3.00     250.00      10.00       0.00      58.00       0.00     783.10     782.80

*SECNO 12.100
 2800 NAT Q1=    1709.79  WSEL=     796.33  ENC Q1=    1709.79  WSEL=     797.33  RATIO=    .0000
 NAT Q1=    2080.  RATIOS LOB,CH,ROB=    .6514    .1686    .1800  WSEL=     797.33
 WATER EL=CHANGE FROM NATURAL PROFILES BRIDGE
3280 CROSS SECTION      12.10 EXTENDED       1.25 FEET


3470 ENCROACHMENT STATIONS=      171.0      361.1  TYPE=      4  TARGET=         .178
    12.10     14.25    797.35      0.00    796.33    797.37       .01       .04       .05    786.70
    1430.      974.      294.      162.     1422.      226.      267.       16.        3.    785.50
      .15       .69      1.30       .61      .080      .050      .080      .050    783.10    170.96
  .000070      165.      165.      165.         0         0         6      0.00    190.17    361.13

FLOW DISTRIBUTION FOR SECNO=      12.10          CWSEL=     797.35

STA=      171.      195.      320.      337.      361.
  PER Q=       7.2      60.9      20.6      11.3
  AREA=      195.9    1225.6     225.5     266.6
   VEL=         .5        .7       1.3        .6

*SECNO 12.800
 2800 NAT Q1=    1673.12  WSEL=     796.33  ENC Q1=    1673.12  WSEL=     797.33  RATIO=    .0000
 NAT Q1=    2044.  RATIOS LOB,CH,ROB=    .6502    .1696    .1801  WSEL=     797.33
3280 CROSS SECTION      12.80 EXTENDED       1.16 FEET


3470 ENCROACHMENT STATIONS=      172.5      360.7  TYPE=      4  TARGET=         .181
    12.80     14.16    797.36      0.00    796.33    797.37       .01       .01       .00    786.80
    1430.      973.      297.      160.     1396.      224.      260.       20.        3.    785.60
      .18       .70      1.33       .62      .080      .050      .080      .050    783.20    172.46
  .000073       80.       80.       80.         0         0         0      0.00    188.23    360.69

FLOW DISTRIBUTION FOR SECNO=      12.80          CWSEL=     797.36

STA=      172.      195.      320.      337.      361.
  PER Q=       6.9      61.3      20.8      11.2
  AREA=      182.7    1213.7     223.9     259.8
   VEL=         .5        .7       1.3        .6

*SECNO 12.900
 2800 NAT Q1=    1479.17  WSEL=     796.34  ENC Q1=    1479.17  WSEL=     797.34  RATIO=  0.0000
 NAT Q1=    1822.  RATIOS LOB,CH,ROB=    .6424    .1763    .1813  WSEL=     797.34
3280 CROSS SECTION      12.90 EXTENDED        .57 FEET
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3470 ENCROACHMENT STATIONS= 179.1 359.5 TYPE= 4 TARGET= .188

12.90	13.57	797.37	0.00	796.34	797.39	.01	.01	.00	787.40
1430.	961.	312.	158.	1263.	214.	234.	27.	4.	786.20
.23	.76	1.46	.67	.080	.050	.080	.050	783.80	179.15
.000093	170.	170.	170.	0	0	0	0.00	180.31	359.45

FLOW DISTRIBUTION FOR SECNO= 12.90 CWSEL= 797.37

STA=	179.	195.	320.	337.	359.
PER Q=	4.7	62.5	21.8	11.0	
AREA=	122.7	1140.2	213.9	234.0	
VEL=	.5	.8	1.5	.7	

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION =  50,51,52
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

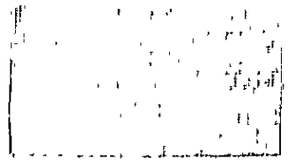
SWIFT DRAIN-100 YEAR

SUMMARY PRINTOUT

CWSEL	.01K	EG	TOPWID	STENCL	STENCR	WSELK
777.240	268.90	777.49	132.31	0.00	0.00	777.24
777.240	259.01	777.52	115.61	28.77	144.38	777.24
777.240	216.21	777.63	82.37	36.00	118.37	777.24
777.240	187.19	777.82	56.58	36.00	92.58	777.24
780.033	382.44	780.19	94.00	0.00	0.00	0.00
780.033	373.76	780.20	88.19	261.68	349.87	780.03
780.033	344.39	780.24	74.75	268.28	343.02	780.03
780.033	306.75	780.31	61.57	276.89	338.47	780.03
780.171	347.11	780.35	94.00	0.00	0.00	0.00
780.177	339.66	780.37	87.26	261.83	349.10	780.17
780.200	313.00	780.44	73.29	268.97	342.26	780.17
780.249	286.50	780.55	62.98	274.44	337.43	780.17
780.544	271.74	780.80	94.00	0.00	0.00	0.00
780.564	265.36	780.84	84.22	262.28	346.50	780.54
780.647	249.06	780.98	69.03	271.03	340.06	780.54
780.771	230.39	781.20	57.67	276.83	334.50	780.54
781.274	220.39	781.48	100.00	0.00	0.00	0.00
781.331	217.28	781.55	95.97	434.03	530.00	781.27
781.525	204.02	781.79	82.12	447.88	530.00	781.27
781.796	178.57	782.18	62.91	467.09	530.00	781.27
782.225	185.61	782.49	100.00	0.00	0.00	0.00
782.302	184.44	782.58	95.35	434.65	530.00	782.22
782.600	178.18	782.93	79.86	450.14	530.00	782.22
783.091	178.32	783.47	65.47	464.53	530.00	782.22
783.499	168.93	783.80	100.00	0.00	0.00	0.00
783.588	168.36	783.90	94.98	435.02	530.00	783.50
783.950	166.43	784.32	78.51	451.49	530.00	783.50
784.436	165.90	784.86	63.51	466.49	530.00	783.50
784.769	193.46	785.05	117.08	0.00	0.00	0.00
784.854	195.01	785.15	99.28	114.50	213.78	784.77
785.244	192.47	785.59	78.93	124.47	203.40	784.77
785.731	189.75	786.16	61.20	133.25	194.45	784.77

CWSEL	.01K	EG	TOPWID	STENCL	STENCR	WSELK
785.994	163.50	786.36	114.27	0.00	0.00	0.00
786.061	163.98	786.44	97.04	115.55	212.59	785.99
786.464	162.18	786.93	74.39	126.62	201.01	785.99
786.962	159.69	787.54	55.79	135.83	191.62	785.99
787.516	164.97	787.88	114.41	0.00	0.00	0.00
787.576	164.97	787.95	96.97	115.58	212.56	787.52
788.008	164.62	788.46	74.52	126.56	201.08	787.52
788.547	164.32	789.11	55.99	135.73	191.73	787.52
788.633	157.98	788.97	152.49	0.00	0.00	0.00
788.696	155.12	789.07	119.46	91.13	210.58	788.63
789.115	155.84	789.58	81.56	113.66	195.22	788.63
789.663	164.00	790.17	63.98	122.12	186.10	788.63
796.325	1709.79	796.33	315.03	0.00	0.00	0.00
796.388	1696.54	796.40	244.94	133.92	378.85	796.33
796.807	1729.71	796.82	214.20	155.52	369.72	796.33
797.355	1712.11	797.37	190.17	170.96	361.13	796.33
796.331	1673.12	796.34	314.70	0.00	0.00	0.00
796.393	1659.65	796.40	241.59	136.43	378.03	796.33
796.812	1693.84	796.82	212.05	157.31	369.36	796.33
797.360	1674.83	797.37	188.23	172.46	360.69	796.33
796.343	1479.17	796.35	306.01	0.00	0.00	0.00
796.406	1466.79	796.42	233.42	143.40	376.82	796.34
796.824	1498.85	796.84	203.98	164.62	368.60	796.34
797.372	1479.60	797.39	180.31	179.15	359.45	796.34

SUMMARY OF ERRORS



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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
**************************************************

T1      HUD-FIA F-4705
T2      PITTSFIELD TOWNSHIP FIS
T3      SWIFT DRAIN-100 YEAR

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      -1.       4.        0.        0.  0.000000      0.00      0.0       0.   777.240    0.000

J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

     1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC      .080      .080      .050      .100      .300     0.000     0.000     0.000     0.000     0.000
QT     8.000   810.000  1210.000  1430.000  1980.000  1430.000  1430.000  1430.000  1430.000     0.000
ET     0.000     0.000     0.000     0.000     0.000     1.400     5.400    10.400     0.000     0.000

X1     9.910    10.000    36.000    72.000     0.000     0.000     0.000     0.000     1.200     0.000
GR   782.000     0.000   779.300     6.000   777.000    14.000   774.400    24.000   772.500    36.000
GR   769.400    42.000   769.400    56.000   772.100    64.000   772.800    72.000   773.500   150.000
SB     0.000     2.800     3.000     0.000     6.000     0.000    17.000     0.000   770.300   770.600

X1     9.920    10.000   300.000   319.000    60.000    60.000    60.000     0.000     -.500     0.000
X2     0.000     0.000     1.000   774.200   776.400     0.000     0.000     0.000     0.000     0.000
BT     2.000   260.000   776.400     0.000   354.000   778.500     0.000     0.000     0.000     0.000
GR   775.500   260.000   775.400   277.000   774.300   300.000   772.400   305.000   770.800   306.000
GR   770.800   311.000   772.400   312.000   774.100   319.000   775.200   340.000   778.500   354.000

X1     9.800     0.000     0.000     0.000   100.000   100.000   100.000     0.000      .500     0.000

X1     9.900     0.000     0.000     0.000   200.000   200.000   200.000     0.000     1.200     0.000

X1    10.000     7.000   516.000   530.000   200.000   200.000   200.000     0.000     0.000     0.000
GR   777.300   430.000   777.200   516.000   775.600   518.000   773.900   520.000   773.900   523.000
GR   775.600   525.000   777.200   530.000   781.400   550.000     0.000     0.000     0.000     0.000

X1    10.100     0.000     0.000     0.000   200.000   200.000   200.000     0.000     1.400     0.000

X1    10.200     0.000     0.000     0.000   200.000   200.000   200.000     0.000     1.500     0.000

X1    10.900     9.000   143.000   153.000   200.000   200.000   200.000     0.000    -1.600     0.000
GR   791.800    88.000   783.500   116.000   782.600   143.000   779.800   146.000   779.800   151.000
GR   781.800   153.000   782.700   185.000   783.600   212.000   792.100   247.000     0.000     0.000
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X1	11.000	0.000	0.000	0.000	200.000	200.000	200.000	0.000	1.600	0.000
X1	11.100	0.000	0.000	0.000	200.000	200.000	200.000	0.000	1.500	0.000
X1	11.900	10.000	143.000	153.000	140.000	140.000	140.000	0.000	2.900	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	785.000	785.000	0.000
GR	791.700	30.000	785.000	73.000	783.500	116.000	782.600	143.000	779.800	146.000
GR	779.800	151.000	781.800	153.000	782.700	185.000	783.600	212.000	792.100	247.000
SB	0.000	3.600	3.000	250.000	10.000	0.000	58.000	0.000	783.100	782.800
X1	12.100	8.000	320.000	337.000	165.000	165.000	165.000	0.000	-.100	0.000
X2	0.000	0.000	1.000	790.800	795.400	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	795.400	795.400	0.000
GR	796.200	80.000	788.500	195.000	786.800	320.000	783.200	324.000	783.200	329.000
GR	785.600	337.000	787.600	367.000	798.000	400.000	0.000	0.000	0.000	0.000
X1	12.800	0.000	0.000	0.000	80.000	80.000	80.000	0.000	.100	0.000
X1	12.900	0.000	0.000	0.000	170.000	170.000	170.000	0.000	.600	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

*PROF 1

CCHV= .100 CEHV= .300
*SECNO 9.910
3280 CROSS SECTION 9.91 EXTENDED 2.54 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
9.91	6.64	777.24	0.00	777.24	777.49	.25	0.00	0.00	773.70
1430.	62.	926.	442.	36.	195.	225.	0.	0.	774.00
0.00	1.70	4.76	1.96	.080	.050	.080	0.000	770.60	17.69
.002828	0.	0.	0.	0	0	0	0.00	132.31	150.00

SPECIAL BRIDGE

SB	XK	XKCR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.80	3.00	0.00	6.00	0.00	17.00	0.00	770.30	770.60

*SECNO 9.920
3280 CROSS SECTION 9.92 EXTENDED 5.05 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
1084.88	777.19	0.00	1291.	140.	17.	23.	774.20	776.40
9.92	9.75	780.05	0.00	0.00	780.21	.15	2.72	0.00	773.80
1430.	439.	635.	357.	218.	154.	176.	1.	0.	773.60
.01	2.01	4.13	2.03	.080	.050	.080	.049	770.30	260.00
.001383	60.	60.	60.	2	0	8	0.00	94.00	354.00

*SECNO 9.800
3280 CROSS SECTION 9.80 EXTENDED 4.69 FEET

9.80	9.39	780.19	0.00	0.00	780.37	.18	.15	.01	774.30
1430.	433.	648.	350.	203.	147.	163.	2.	0.	774.10
.01	2.13	4.41	2.14	.080	.050	.080	.049	770.80	260.00
.001679	100.	100.	100.	2	0	0	0.00	94.00	354.00

*SECNO 9.900
3280 CROSS SECTION 9.90 EXTENDED 3.86 FEET

9.90	8.56	780.56	0.00	0.00	780.81	.25	.42	.02	775.50
1430.	415.	685.	330.	170.	131.	134.	4.	1.	775.30

.03	2.44	5.22	2.46	.080	.050	.080	.050	772.00	260.00
.002742	200.	200.	200.	2	0	0	0.00	94.00	354.00

*SECNO 10.000
3280 CROSS SECTION 10.00 EXTENDED 4.08 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
10.00	7.38	781.28	0.00	0.00	781.49	.20	.67	.00	777.20
1430.	1024.	406.	0.	347.	82.	0.	6.	1.	777.20
.04	2.95	4.92	0.00	.080	.050	.080	.050	773.90	430.00
.004183	200.	200.	200.	2	0	0	0.00	100.00	530.00

*SECNO 10.100
3280 CROSS SECTION 10.10 EXTENDED 3.63 FEET

10.10	6.93	782.23	0.00	0.00	782.49	.26	.99	.02	778.60
1430.	1002.	428.	0.	308.	76.	0.	8.	2.	778.60
.06	3.25	5.63	0.00	.080	.050	.080	.050	775.30	430.00
.005918	200.	200.	200.	2	0	0	0.00	100.00	530.00

*SECNO 10.200
3280 CROSS SECTION 10.20 EXTENDED 3.40 FEET

10.20	6.70	783.50	0.00	0.00	783.80	.30	1.30	.01	780.10
1430.	988.	442.	0.	288.	73.	0.	10.	2.	780.10
.07	3.43	6.07	0.00	.080	.050	.080	.050	776.80	430.00
.007160	200.	200.	200.	2	0	0	0.00	100.00	530.00

*SECNO 10.900
10.90	6.57	784.77	0.00	0.00	785.05	.28	1.25	.00	781.00
1430.	297.	381.	751.	103.	59.	235.	11.	3.	780.20
.09	2.87	6.41	3.20	.080	.050	.080	.050	778.20	106.32
.005463	200.	200.	200.	2	0	0	0.00	117.08	223.40

*SECNO 11.000
11.00	6.19	785.99	0.00	0.00	786.36	.36	1.28	.03	782.60
1430.	284.	405.	741.	90.	56.	208.	13.	3.	781.80
.10	3.16	7.26	3.55	.080	.050	.080	.050	779.80	107.59
.007649	200.	200.	200.	2	0	0	0.00	114.27	221.86

*SECNO 11.100

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

11.10	6.22	787.52	0.00	0.00	787.88	.36	1.52	.00	784.10
1430.	285.	404.	741.	91.	56.	210.	15.	4.	783.30
.11	3.14	7.22	3.53	.080	.050	.080	.050	781.30	107.52
.007514	200.	200.	200.	2	0	0	0.00	114.41	221.94

*SECNO 11.900

11.90	5.93	788.63	0.00	0.00	788.97	.34	1.10	.00	785.50
1430.	376.	387.	667.	138.	53.	191.	16.	4.	784.70
.12	2.73	7.28	3.50	.080	.050	.080	.050	782.70	68.30
.008193	140.	140.	140.	2	0	0	0.00	152.49	220.78

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	3.60	3.00	250.00	10.00	0.00	58.00	0.00	783.10	782.80

*SECNO 12.100
3280 CROSS SECTION 12.10 EXTENDED .31 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
822.61	793.53	0.00	759.	684.	58.	77.	790.80	795.40

12.10	13.30	796.40	0.00	0.00	796.41	.01	7.43	0.00	786.70
1430.	914.	256.	260.	1585.	209.	423.	21.	5.	785.50
.19	.58	1.22	.61	.080	.050	.080	.050	783.10	80.00
.000068	165.	165.	165.	0	0	6	0.00	315.27	395.27

*SECNO 12.800
3280 CROSS SECTION 12.80 EXTENDED .20 FEET

12.80	13.20	796.40	0.00	0.00	796.41	.01	.01	.00	786.80
1430.	911.	258.	260.	1561.	208.	417.	25.	6.	785.60
.22	.58	1.24	.62	.080	.050	.080	.050	783.20	80.00
.000071	80.	80.	80.	2	0	0	0.00	314.94	394.94

*SECNO 12.900

12.90	12.62	796.42	0.00	0.00	796.43	.01	.01	.00	787.40
1430.	899.	269.	262.	1421.	198.	384.	33.	7.	786.20
.28	.63	1.36	.68	.080	.050	.080	.050	783.80	85.73
.000091	170.	170.	170.	0	0	0	0.00	307.35	393.07

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  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
**************************************************

T1      HUD-FIA H-4705
T2      PITTSFIELD TOWNSHIP FIS
T3      SWIFT DRAIN-100 YEAR

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      -1.       4.        0.        0.  0.000000      0.00      0.0       0.   777.240    0.000

J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

     1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC      .080      .080      .050      .100      .300     0.000     0.000     0.000     0.000     0.000
QT     8.000   810.000  1210.000  1430.000  1980.000  1430.000  1430.000  1430.000  1430.000     0.000
ET     0.000     0.000     0.000     0.000     0.000     1.400     5.400    10.400     0.000     0.000

X1     9.910    10.000    36.000    72.000     0.000     0.000     0.000     0.000     1.200     0.000
GR   782.000     0.000   779.300     6.000   777.000    14.000   774.400    24.000   772.500    36.000
GR   769.400    42.000   769.400    56.000   772.100    64.000   772.800    72.000   773.500   150.000
SB     0.000     2.300     3.000     0.000     6.000     0.000    17.000     0.000   770.300   770.600

X1     9.920    10.000   300.000   319.000    60.000    60.000    60.000     0.000     -.500     0.000
X2     0.000     0.000     1.000   774.200   776.400     0.000     0.000     0.000     0.000     0.000
BT     2.000   260.000   776.400     0.000   354.000   778.500     0.000     0.000     0.000     0.000
GR   775.500   260.000   775.400   277.000   774.300   300.000   772.400   305.000   770.800   306.000
GR   770.800   311.000   772.400   312.000   774.100   319.000   775.200   340.000   778.500   354.000

X1     9.800     0.000     0.000     0.000   100.000   100.000   100.000     0.000      .500     0.000

X1     9.900     0.000     0.000     0.000   200.000   200.000   200.000     0.000     1.200     0.000

X1    10.000     7.000   516.000   530.000   200.000   200.000   200.000     0.000     0.000     0.000
GR   777.300   430.000   777.200   516.000   775.600   518.000   773.900   520.000   773.900   523.000
GR   775.600   525.000   777.200   530.000   781.400   550.000     0.000     0.000     0.000     0.000

X1    10.100     0.000     0.000     0.000   200.000   200.000   200.000     0.000     1.400     0.000

X1    10.200     0.000     0.000     0.000   200.000   200.000   200.000     0.000     1.500     0.000

X1    10.900     9.000   143.000   153.000   200.000   200.000   200.000     0.000    -1.600     0.000
GR   791.800    88.000   783.500   116.000   782.600   143.000   779.800   146.000   779.800   151.000
GR   781.800   153.000   782.700   185.000   783.600   212.000   792.100   247.000     0.000     0.000
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SWIFT RUN DRAIN
SUMMARY OF
SENSITIVITY

X1	11.000	0.000	0.000	0.000	200.000	200.000	200.000	0.000	1.600	0.000
X1	11.100	0.000	0.000	0.000	200.000	200.000	200.000	0.000	1.500	0.000
X1	11.900	10.000	143.000	153.000	140.000	140.000	140.000	0.000	2.900	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	785.000	785.000	0.000
GR	791.700	30.000	785.000	73.000	783.500	116.000	782.600	143.000	779.800	146.000
GR	779.800	151.000	781.800	153.000	782.700	185.000	783.600	212.000	792.100	247.000
SB	0.000	2.900	3.000	250.000	10.000	0.000	58.000	0.000	783.100	782.800
X1	12.100	8.000	320.000	337.000	165.000	165.000	165.000	0.000	-.100	0.000
X2	0.000	0.000	1.000	790.800	795.400	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	795.400	795.400	0.000
GR	796.200	80.000	788.500	195.000	786.800	320.000	783.200	324.000	783.200	329.000
GR	785.600	337.000	787.600	367.000	798.000	400.000	0.000	0.000	0.000	0.000
X1	12.800	0.000	0.000	0.000	80.000	80.000	80.000	0.000	.100	0.000
X1	12.900	0.000	0.000	0.000	170.000	170.000	170.000	0.000	.600	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

SWIFT DRAIN-100 YEAR

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
N	9.910	0.00	0.00	0.00	770.60	1430.00	777.24	0.00	777.49	28.28	4.76	456.21	268.90
NX 7	9.910	0.00	0.00	0.00	770.60	1430.00	777.24	0.00	777.49	13.86	4.76	456.21	384.14
NX 1.3	9.910	0.00	0.00	0.00	770.60	1430.00	777.24	0.00	777.49	47.79	4.76	456.21	206.85
	9.920	60.00	776.40	774.20	770.30	1430.00	780.03	0.00	780.19	13.98	4.14	545.70	382.44
	9.920	60.00	776.40	774.20	770.30	1430.00	780.03	0.00	780.19	6.85	4.14	545.70	546.34
	9.920	60.00	776.40	774.20	770.30	1430.00	780.03	0.00	780.19	23.63	4.14	545.70	294.19
	9.800	100.00	0.00	0.00	770.80	1430.00	780.17	0.00	780.35	16.97	4.43	511.61	347.11
	9.800	100.00	0.00	0.00	770.80	1430.00	780.09	0.00	780.27	8.70	4.49	504.01	484.88
	9.800	100.00	0.00	0.00	770.80	1430.00	780.27	0.00	780.44	27.10	4.34	521.39	274.70
	9.900	200.00	0.00	0.00	772.00	1430.00	780.54	0.00	780.80	27.69	5.24	433.93	271.74
	9.900	200.00	0.00	0.00	772.00	1430.00	780.25	0.00	780.54	16.51	5.61	405.82	351.90
	9.900	200.00	0.00	0.00	772.00	1430.00	780.88	0.00	781.10	38.05	4.88	465.39	231.83
	10.000	200.00	0.00	0.00	773.90	1430.00	781.27	0.00	781.48	42.10	4.93	428.41	220.39
	10.000	200.00	0.00	0.00	773.90	1430.00	780.71	0.00	780.99	32.15	5.86	371.20	252.19
	10.000	200.00	0.00	0.00	773.90	1430.00	781.81	0.00	781.97	49.37	4.28	481.81	203.51
	10.100	200.00	0.00	0.00	775.30	1430.00	782.22	0.00	782.49	59.36	5.64	383.44	185.61
	10.100	200.00	0.00	0.00	775.30	1430.00	781.44	0.00	781.89	58.66	7.42	305.17	186.71
	10.100	200.00	0.00	0.00	775.30	1430.00	782.89	0.00	783.07	61.23	4.65	449.61	182.74
	10.200	200.00	0.00	0.00	776.80	1430.00	783.50	0.00	783.80	71.65	6.07	360.76	168.93
	10.200	200.00	0.00	0.00	776.80	1430.00	782.70	0.00	783.24	75.44	8.18	280.93	164.64
	10.200	200.00	0.00	0.00	776.80	1430.00	784.19	0.00	784.39	70.58	4.92	429.52	170.22
	10.900	200.00	0.00	0.00	778.20	1430.00	784.77	0.00	785.05	54.64	6.41	397.47	193.46
	10.900	200.00	0.00	0.00	778.20	1430.00	784.03	0.00	784.51	53.55	8.30	313.13	195.42
	10.900	200.00	0.00	0.00	778.20	1430.00	785.44	0.00	785.62	54.16	5.27	477.13	194.31
	11.000	200.00	0.00	0.00	779.80	1430.00	785.99	0.00	786.36	76.49	7.26	354.12	163.50
	11.000	200.00	0.00	0.00	779.80	1430.00	785.20	0.00	785.91	85.28	9.90	266.34	154.85
	11.000	200.00	0.00	0.00	779.80	1430.00	786.65	0.00	786.89	72.93	5.88	430.93	167.45
	11.100	200.00	0.00	0.00	781.30	1430.00	787.52	0.00	787.88	75.14	7.22	356.30	164.97
	11.100	200.00	0.00	0.00	781.30	1430.00	786.87	0.00	787.48	71.66	9.27	283.01	168.92
	11.100	200.00	0.00	0.00	781.30	1430.00	788.12	0.00	788.36	74.62	5.93	427.57	165.54

SECND	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
11.900	140.00	0.00	0.00	782.70	1430.00	788.63	0.00	788.97	81.93	7.28	381.61	157.98
11.900	140.00	0.00	0.00	782.70	1430.00	787.94	0.00	788.66	94.39	10.17	278.55	147.19
11.900	140.00	0.00	0.00	782.70	1430.00	789.21	0.00	789.42	76.06	5.78	471.66	163.97
12.100	165.00	795.40	790.80	783.10	1430.00	796.33	0.00	796.33	.70	1.24	2194.61	1709.79
12.100	165.00	795.40	790.80	783.10	1430.00	796.30	0.00	796.30	.35	1.24	2185.21	2427.37
12.100	165.00	795.40	790.80	783.10	1430.00	796.35	0.00	796.36	1.17	1.23	2202.65	1322.23
12.800	80.00	0.00	0.00	783.20	1430.00	796.33	0.00	796.34	.73	1.26	2162.08	1673.12
12.800	80.00	0.00	0.00	783.20	1430.00	796.30	0.00	796.31	.36	1.26	2151.76	2373.64
12.800	80.00	0.00	0.00	783.20	1430.00	796.36	0.00	796.37	1.22	1.25	2171.34	1295.02
12.900	170.00	0.00	0.00	783.80	1430.00	796.34	0.00	796.35	.93	1.38	1979.22	1479.17
12.900	170.00	0.00	0.00	783.80	1430.00	796.30	0.00	796.31	.47	1.38	1967.32	2095.57
12.900	170.00	0.00	0.00	783.80	1430.00	796.38	0.00	796.39	1.55	1.37	1990.73	1146.97

SWIFT DRAIN-100 YEAR

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
9.910	1430.00	777.24	0.00	0.00	0.00	132.31	0.00
9.910	1430.00	777.24	0.00	0.00	0.00	132.31	0.00
9.910	1430.00	777.24	0.00	0.00	0.00	132.31	0.00
9.920	1430.00	780.03	0.00	2.79	0.00	94.00	60.00
9.920	1430.00	780.03	0.00	2.79	0.00	94.00	60.00
9.920	1430.00	780.03	0.00	2.79	0.00	94.00	60.00
9.800	1430.00	780.17	0.00	.14	0.00	94.00	100.00
9.800	1430.00	780.09	0.00	.06	0.00	94.00	100.00
9.800	1430.00	780.27	0.00	.24	0.00	94.00	100.00
9.900	1430.00	780.54	0.00	.37	0.00	94.00	200.00
9.900	1430.00	780.25	0.00	.16	0.00	94.00	200.00
9.900	1430.00	780.88	0.00	.60	0.00	94.00	200.00
10.000	1430.00	781.27	0.00	.73	0.00	100.00	200.00
10.000	1430.00	780.71	0.00	.46	0.00	100.00	200.00
10.000	1430.00	781.81	0.00	.93	0.00	100.00	200.00
10.100	1430.00	782.22	0.00	.95	0.00	100.00	200.00
10.100	1430.00	781.44	0.00	.73	0.00	100.00	200.00
10.100	1430.00	782.89	0.00	1.08	0.00	100.00	200.00
10.200	1430.00	783.50	0.00	1.27	0.00	100.00	200.00
10.200	1430.00	782.70	0.00	1.26	0.00	100.00	200.00
10.200	1430.00	784.19	0.00	1.30	0.00	100.00	200.00
10.900	1430.00	784.77	0.00	1.27	0.00	117.08	200.00
10.900	1430.00	784.03	0.00	1.33	0.00	111.55	200.00
10.900	1430.00	785.44	0.00	1.25	0.00	122.07	200.00
11.000	1430.00	785.95	0.00	1.23	0.00	114.27	200.00
11.000	1430.00	785.20	0.00	1.18	0.00	108.36	200.00
11.000	1430.00	786.65	0.00	1.22	0.00	119.20	200.00
11.100	1430.00	787.52	0.00	1.52	0.00	114.41	200.00
11.100	1430.00	786.87	0.00	1.66	0.00	109.51	200.00
11.100	1430.00	788.12	0.00	1.47	0.00	118.99	200.00
11.900	1430.00	788.63	0.00	1.12	0.00	152.49	140.00
11.900	1430.00	787.94	0.00	1.07	0.00	145.19	140.00
11.900	1430.00	789.21	0.00	1.09	0.00	158.59	140.00
12.100	1430.00	796.33	0.00	7.69	0.00	315.03	165.00
12.100	1430.00	796.30	0.00	8.35	0.00	314.94	165.00
12.100	1430.00	796.35	0.00	7.14	0.00	315.11	165.00
12.800	1430.00	796.33	0.00	.01	0.00	314.70	80.00
12.800	1430.00	796.30	0.00	.00	0.00	314.60	80.00
12.800	1430.00	796.36	0.00	.01	0.00	314.80	80.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
12.900	1430.00	796.34	0.00	.01	0.00	306.01	170.00
12.900	1430.00	796.30	0.00	.01	0.00	305.30	170.00
12.900	1430.00	796.38	0.00	.02	0.00	306.69	170.00

SUMMARY OF ERRORS

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  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
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T1      HUD-FIA H-4705 T06
T2      PITTSFIELD TWP FIS
T3      SWIFT RUN DRAIN 100 YEAR START ELEV

J1  ICHECK     INQ       NINV      IDIR       STRT      METRIC    HVINS     Q         WSEL      FQ

      -1.       4.        0.        0.  0.000000        0.00     -1.0        0.    771.400     0.000

J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

     1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC      .080      .080      .060      .100      .300     0.000     0.000     0.000     0.000     0.000
QT     5.000   810.000  1210.000  1430.000  1980.000  1430.000     0.000     0.000     0.000     0.000

X1     5.000    13.000   372.000   386.000     0.000     0.000     0.000     0.000     0.000     0.000
GR   775.000   240.000   778.500   270.000   767.500   310.000   765.900   372.000   764.000   378.000
GR   761.800   379.000   761.800   381.000   764.000   382.000   765.200   386.000   765.300   532.000
GR   765.800   550.000   767.000   560.000   774.900   570.000     0.000     0.000     0.000     0.000

X1     5.900    10.000   292.000   306.000   230.000   230.000   230.000     0.000     -.900     0.000
GR   777.500   100.000   767.300   250.000   767.200   292.000   765.100   294.000   763.800   295.000
GR   763.800   299.000   765.100   300.000   767.200   306.000   768.300   328.000   769.700   398.000

X1     5.950     0.000     0.000     0.000    79.000    79.000    79.000     0.000      .500     0.000

X1     6.000     0.000     0.000     0.000     1.000     1.000     1.000     0.000     0.000     0.000
X2     0.000     0.000     0.000   768.100   769.500     0.000     0.000     0.000     0.000     0.000

X1     6.100     0.000     0.000     0.000    20.000    20.000    20.000     0.000     0.000     0.000
X2     0.000     0.000     0.000   768.100   769.500     0.000     0.000     0.000     0.000     0.000

X1     6.200     0.000     0.000     0.000     1.000     1.000     1.000     0.000     0.000     0.000

X1     6.500     0.000     0.000     0.000    59.000    59.000    59.000     0.000      .400     0.000

X1     6.900     8.000   292.000   306.000    62.000    62.000    62.000     0.000      .400     0.000
X2     0.000     0.000     0.000   767.200   769.200     0.000     0.000     0.000     0.000     0.000
GR   777.500   100.000   767.300   250.000   767.200   292.000   765.300   294.000   765.300   300.000
GR   767.200   306.000   768.300   328.000   769.700   398.000     0.000     0.000     0.000     0.000
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  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

SWIFT RUN DRAIN 100 YEAR

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
5.000	0.00	0.00	0.00	761.80	1430.00	771.40	0.00	771.42	2.55	1.29	1486.61	895.93
5.000	0.00	0.00	0.00	761.80	810.00	770.00	0.00	770.01	2.05	1.00	1113.76	565.58
5.000	0.00	0.00	0.00	761.80	1210.00	771.00	0.00	771.01	2.32	1.19	1379.10	794.96
5.000	0.00	0.00	0.00	761.80	1980.00	771.90	0.00	771.92	3.70	1.63	1622.10	1029.37
5.900	230.00	0.00	0.00	762.90	1430.00	771.48	0.00	771.54	11.81	2.83	844.11	416.14
5.900	230.00	0.00	0.00	762.90	810.00	770.07	0.00	770.12	13.22	2.58	544.46	222.75
5.900	230.00	0.00	0.00	762.90	1210.00	771.08	0.00	771.13	11.65	2.70	754.93	354.47
5.900	230.00	0.00	0.00	762.90	1980.00	772.02	0.00	772.09	15.39	3.39	965.12	504.63
5.950	79.00	0.00	0.00	763.40	1430.00	771.58	0.00	771.65	16.22	3.19	755.82	355.07
5.950	79.00	0.00	0.00	763.40	810.00	770.18	0.00	770.25	20.18	3.05	467.60	180.29
5.950	79.00	0.00	0.00	763.40	1210.00	771.17	0.00	771.24	16.47	3.08	668.97	298.17
5.950	79.00	0.00	0.00	763.40	1980.00	772.14	0.00	772.24	20.08	3.74	879.98	441.82
6.000	1.00	769.50	768.10	763.40	1430.00	771.54	0.00	771.67	129.84	3.97	533.60	125.49
6.000	1.00	769.50	768.10	763.40	810.00	770.04	0.00	770.32	456.28	5.97	242.76	37.92
6.000	1.00	769.50	768.10	763.40	1210.00	771.13	0.00	771.26	158.04	4.15	450.06	96.25
6.000	1.00	769.50	768.10	763.40	1980.00	772.09	0.00	772.26	134.74	4.32	649.99	170.58
6.100	20.00	769.50	768.10	763.40	1430.00	771.79	0.00	771.90	97.26	3.54	585.46	145.00
6.100	20.00	769.50	768.10	763.40	810.00	770.69	0.00	770.79	135.89	3.61	364.68	69.48
6.100	20.00	769.50	768.10	763.40	1210.00	771.42	0.00	771.53	107.39	3.55	509.47	116.76
6.100	20.00	769.50	768.10	763.40	1980.00	772.36	0.00	772.50	103.73	3.90	707.27	194.41
6.200	1.00	0.00	0.00	763.40	1430.00	771.85	0.00	771.91	13.09	2.94	814.45	395.28
6.200	1.00	0.00	0.00	763.40	810.00	770.76	0.00	770.80	10.88	2.39	583.52	245.57
6.200	1.00	0.00	0.00	763.40	1210.00	771.48	0.00	771.53	12.60	2.78	734.62	340.88
6.200	1.00	0.00	0.00	763.40	1980.00	772.43	0.00	772.51	16.32	3.46	945.71	490.09
6.500	59.00	0.00	0.00	763.80	1430.00	771.93	0.00	772.00	16.95	3.24	744.28	347.32
6.500	59.00	0.00	0.00	763.80	810.00	770.83	0.00	770.88	15.36	2.74	516.09	206.69
6.500	59.00	0.00	0.00	763.80	1210.00	771.56	0.00	771.62	16.70	3.10	665.68	296.08
6.500	59.00	0.00	0.00	763.80	1980.00	772.53	0.00	772.62	20.29	3.75	876.93	439.61
6.900	62.00	769.20	767.20	765.70	1430.00	772.08	0.00	772.21	72.88	3.14	502.33	167.51
6.900	62.00	769.20	767.20	765.70	810.00	770.99	0.00	771.11	127.44	3.34	291.90	71.75
6.900	62.00	769.20	767.20	765.70	1210.00	771.72	0.00	771.84	84.58	3.17	430.13	131.57
6.900	62.00	769.20	767.20	765.70	1980.00	772.70	0.00	772.85	69.39	3.37	629.92	237.70

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
7.000	8.00	769.20	767.20	765.70	1430.00	772.14	0.00	772.26	67.45	3.05	515.01	174.12
7.000	8.00	769.20	767.20	765.70	810.00	771.10	0.00	771.21	103.35	3.09	312.11	79.68
7.000	8.00	769.20	767.20	765.70	1210.00	771.79	0.00	771.90	76.37	3.05	444.46	138.46
7.000	8.00	769.20	767.20	765.70	1980.00	772.76	0.00	772.91	65.24	3.30	642.67	245.14
7.100	1.00	0.00	0.00	765.70	1430.00	772.19	0.00	772.27	19.81	3.45	706.62	321.26
7.100	1.00	0.00	0.00	765.70	810.00	771.16	0.00	771.21	17.76	2.88	493.34	192.20
7.100	1.00	0.00	0.00	765.70	1210.00	771.84	0.00	771.91	19.53	3.29	632.46	273.83
7.100	1.00	0.00	0.00	765.70	1980.00	772.81	0.00	772.92	22.84	3.96	842.47	414.29
7.500	270.00	0.00	0.00	765.60	1430.00	772.87	0.00	773.00	37.33	4.39	563.96	234.04
7.500	270.00	0.00	0.00	765.60	810.00	771.81	0.00	771.93	41.39	4.04	357.59	125.90
7.500	270.00	0.00	0.00	765.60	1210.00	772.52	0.00	772.65	38.76	4.29	493.75	194.36
7.500	270.00	0.00	0.00	765.60	1980.00	773.56	0.00	773.71	37.59	4.74	707.38	322.93
7.600	200.00	0.00	0.00	766.50	1430.00	773.56	0.00	773.80	39.06	4.62	438.80	228.80
7.600	200.00	0.00	0.00	766.50	810.00	772.53	0.00	772.70	34.10	3.75	305.04	138.72
7.600	200.00	0.00	0.00	766.50	1210.00	773.23	0.00	773.44	37.62	4.35	395.01	197.28
7.600	200.00	0.00	0.00	766.50	1980.00	774.26	0.00	774.56	43.10	5.27	531.78	301.59
7.700	160.00	0.00	0.00	767.50	1430.00	774.24	0.00	774.53	52.03	5.12	396.39	198.24
7.700	160.00	0.00	0.00	767.50	810.00	773.15	0.00	773.40	53.51	4.42	256.02	110.73
7.700	160.00	0.00	0.00	767.50	1210.00	773.89	0.00	774.16	52.19	4.89	350.92	167.48
7.700	160.00	0.00	0.00	767.50	1980.00	774.99	0.00	775.33	52.94	5.66	495.31	272.14
7.800	1.00	772.50	771.80	767.50	1430.00	774.24	0.00	774.55	229.26	4.78	328.58	94.44
7.800	1.00	772.50	771.80	767.50	810.00	773.06	0.00	773.45	447.34	5.42	178.09	38.30
7.800	1.00	772.50	771.80	767.50	1210.00	773.88	0.00	774.18	263.26	4.84	282.17	74.57
7.800	1.00	772.50	771.80	767.50	1980.00	775.00	0.00	775.34	191.10	4.85	427.55	143.23
7.900	8.00	772.50	771.80	767.50	1430.00	774.45	0.00	774.71	178.57	4.35	355.77	107.01
7.900	8.00	772.50	771.80	767.50	810.00	773.49	0.00	773.70	209.73	4.04	233.10	55.93
7.900	8.00	772.50	771.80	767.50	1210.00	774.12	0.00	774.37	191.21	4.28	312.91	87.50
7.900	8.00	772.50	771.80	767.50	1980.00	775.18	0.00	775.49	159.96	4.54	452.08	156.55
8.100	1.00	0.00	0.00	767.50	1430.00	774.47	0.00	774.72	42.27	4.76	426.76	219.95
8.100	1.00	0.00	0.00	767.50	810.00	773.55	0.00	773.71	33.35	3.72	307.61	140.26
8.100	1.00	0.00	0.00	767.50	1210.00	774.15	0.00	774.38	40.67	4.47	384.12	189.73
8.100	1.00	0.00	0.00	767.50	1980.00	775.19	0.00	775.50	45.29	5.36	522.79	294.23
8.200	130.00	0.00	0.00	768.20	1430.00	775.04	0.00	775.31	47.71	4.97	408.83	207.02
8.200	130.00	0.00	0.00	768.20	810.00	774.01	0.00	774.22	43.56	4.10	277.68	122.72
8.200	130.00	0.00	0.00	768.20	1210.00	774.70	0.00	774.95	46.97	4.71	364.66	176.55
8.200	130.00	0.00	0.00	768.20	1980.00	775.79	0.00	776.11	49.17	5.52	508.15	282.38
8.300	1.00	773.70	772.70	768.20	1430.00	774.94	0.00	775.37	363.61	5.74	285.02	74.99
8.300	1.00	773.70	772.70	768.20	810.00	773.58	772.62	774.42	597.38	7.53	125.85	33.14
8.300	1.00	773.70	772.70	768.20	1210.00	774.56	0.00	775.03	456.90	6.03	236.17	56.61
8.300	1.00	773.70	772.70	768.20	1980.00	775.73	0.00	776.15	264.94	5.51	388.68	121.64
8.400	8.00	773.70	772.70	768.20	1430.00	775.30	0.00	775.61	226.63	4.79	332.13	94.99
8.400	8.00	773.70	772.70	768.20	810.00	774.54	0.00	774.75	215.41	4.12	232.09	55.19
8.400	8.00	773.70	772.70	768.20	1210.00	775.02	0.00	775.30	233.27	4.66	295.42	79.22
8.400	8.00	773.70	772.70	768.20	1980.00	775.99	0.00	776.34	201.88	4.98	423.43	139.35

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
8.500	1.00	0.00	0.00	768.20	1430.00	775.41	0.00	775.62	34.55	4.43	458.12	243.29
8.500	1.00	0.00	0.00	768.20	810.00	774.65	0.00	774.77	21.99	3.20	358.91	172.73
8.500	1.00	0.00	0.00	768.20	1210.00	775.13	0.00	775.31	31.35	4.07	421.47	216.11
8.500	1.00	0.00	0.00	768.20	1980.00	776.08	0.00	776.36	39.49	5.11	548.03	315.07
9.200	100.00	0.00	0.00	768.80	1430.00	775.76	0.00	776.02	42.63	4.77	425.49	219.03
9.200	100.00	0.00	0.00	768.80	810.00	774.88	0.00	775.04	32.38	3.68	311.06	142.36
9.200	100.00	0.00	0.00	768.80	1210.00	775.45	0.00	775.68	40.38	4.46	385.13	190.43
9.200	100.00	0.00	0.00	768.80	1980.00	776.48	0.00	776.79	45.79	5.38	520.82	292.62
9.030	40.00	0.00	0.00	770.10	1430.00	775.94	0.00	776.21	51.67	4.99	405.96	198.93
9.030	40.00	0.00	0.00	770.10	810.00	775.01	0.00	775.20	44.39	4.02	286.51	121.58
9.030	40.00	0.00	0.00	770.10	1210.00	775.62	0.00	775.87	50.45	4.71	364.50	170.36
9.030	40.00	0.00	0.00	770.10	1980.00	776.67	0.00	777.00	53.28	5.57	501.74	271.25
9.040	1.00	774.00	773.00	770.10	1430.00	775.89	0.00	776.24	290.80	4.89	307.35	83.86
9.040	1.00	774.00	773.00	770.10	810.00	774.92	0.00	775.26	479.69	5.14	181.81	36.98
9.040	1.00	774.00	773.00	770.10	1210.00	775.57	0.00	775.90	335.42	4.94	264.66	66.07
9.040	1.00	774.00	773.00	770.10	1980.00	776.64	0.00	777.02	227.80	4.88	405.89	131.19
9.050	8.00	774.00	773.00	770.10	1430.00	776.16	0.00	776.44	204.64	4.29	342.89	99.96
9.050	8.00	774.00	773.00	770.10	810.00	775.33	0.00	775.52	220.89	3.82	234.22	54.50
9.050	8.00	774.00	773.00	770.10	1210.00	775.87	0.00	776.13	214.46	4.18	304.53	82.63
9.050	8.00	774.00	773.00	770.10	1980.00	776.85	0.00	777.19	182.15	4.50	435.02	146.71
9.060	1.00	0.00	0.00	770.10	1430.00	776.24	0.00	776.46	39.50	4.54	445.18	227.53
9.060	1.00	0.00	0.00	770.10	810.00	775.41	0.00	775.54	28.35	3.42	336.60	152.13
9.060	1.00	0.00	0.00	770.10	1210.00	775.95	0.00	776.14	36.71	4.21	407.02	199.69
9.060	1.00	0.00	0.00	770.10	1980.00	776.92	0.00	777.20	43.64	5.20	536.76	299.72
9.070	130.00	0.00	0.00	770.40	1430.00	776.75	0.00	776.98	40.15	4.61	439.45	225.68
9.070	130.00	0.00	0.00	770.40	810.00	775.79	0.00	775.94	33.07	3.65	314.77	140.86
9.070	130.00	0.00	0.00	770.40	1210.00	776.43	0.00	776.63	38.54	4.33	396.84	194.91
9.070	130.00	0.00	0.00	770.40	1980.00	777.48	0.00	777.77	42.67	5.20	537.91	303.13
9.080	1.00	774.80	773.10	770.40	1430.00	776.66	0.00	777.03	293.55	5.19	293.99	83.46
9.080	1.00	774.80	773.10	770.40	810.00	775.55	0.00	776.06	742.05	6.39	150.77	29.74
9.080	1.00	774.80	773.10	770.40	1210.00	776.32	0.00	776.69	354.27	5.32	249.59	64.29
9.080	1.00	774.80	773.10	770.40	1980.00	777.41	0.00	777.81	218.34	5.10	394.60	134.00
9.090	8.00	774.80	773.10	770.40	1430.00	776.94	0.00	777.23	200.25	4.51	331.18	101.05
9.090	8.00	774.80	773.10	770.40	810.00	776.17	0.00	776.37	202.87	3.90	230.96	56.87
9.090	8.00	774.80	773.10	770.40	1210.00	776.65	0.00	776.92	211.68	4.40	293.33	83.17
9.090	8.00	774.80	773.10	770.40	1980.00	777.63	0.00	777.97	174.18	4.71	423.27	150.03
9.110	1.00	0.00	0.00	770.40	1430.00	777.06	0.00	777.25	30.94	4.21	480.68	257.07
9.110	1.00	0.00	0.00	770.40	810.00	776.28	0.00	776.38	19.78	3.04	378.39	182.14
9.110	1.00	0.00	0.00	770.40	1210.00	776.77	0.00	776.93	28.09	3.87	443.00	228.32
9.110	1.00	0.00	0.00	770.40	1980.00	777.73	0.00	777.98	35.65	4.88	571.73	331.63
9.910	60.00	0.00	0.00	770.60	1430.00	777.24	0.00	777.45	35.79	4.46	455.09	239.03
9.910	60.00	0.00	0.00	770.60	810.00	776.40	0.00	776.52	25.10	3.33	345.19	161.67
9.910	60.00	0.00	0.00	770.60	1210.00	776.94	0.00	777.12	33.25	4.14	415.57	209.84
9.910	60.00	0.00	0.00	770.60	1980.00	777.94	0.00	778.22	39.75	5.10	549.05	314.05

SWIFT RUN DRAIN 100 YEAR

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
5.000	1430.00	771.40	0.00	0.00	0.00	269.75	0.00
5.000	810.00	770.00	0.00	0.00	0.00	262.89	0.00
5.000	1210.00	771.00	0.00	0.00	0.00	267.79	0.00
5.000	1980.00	771.90	0.00	0.00	0.00	272.20	0.00
5.900	1430.00	771.48	0.00	.08	0.00	222.73	230.00
5.900	810.00	770.07	0.00	.07	0.00	201.98	230.00
5.900	1210.00	771.08	0.00	.08	0.00	216.77	230.00
5.900	1980.00	772.02	0.00	.12	0.00	230.59	230.00
5.950	1430.00	771.58	0.00	.10	0.00	216.83	79.00
5.950	810.00	770.18	0.00	.11	0.00	196.31	79.00
5.950	1210.00	771.17	0.00	.10	0.00	210.85	79.00
5.950	1980.00	772.14	0.00	.13	0.00	225.09	79.00
6.000	1430.00	771.54	0.00	-.04	0.00	216.20	1.00
6.000	810.00	770.04	0.00	-.15	0.00	194.25	1.00
6.000	1210.00	771.13	0.00	-.05	0.00	210.14	1.00
6.000	1980.00	772.09	0.00	-.05	0.00	224.35	1.00
6.100	1430.00	771.79	0.00	.25	0.00	219.87	20.00
6.100	810.00	770.69	0.00	.65	0.00	203.75	20.00
6.100	1210.00	771.42	0.00	.29	0.00	214.46	20.00
6.100	1980.00	772.36	0.00	.27	0.00	228.25	20.00
6.200	1430.00	771.85	0.00	.06	0.00	220.77	1.00
6.200	810.00	770.76	0.00	.07	0.00	204.81	1.00
6.200	1210.00	771.48	0.00	.06	0.00	215.38	1.00
6.200	1980.00	772.43	0.00	.07	0.00	229.34	1.00
6.500	1430.00	771.93	0.00	.08	0.00	216.04	59.00
6.500	810.00	770.83	0.00	.07	0.00	199.91	59.00
6.500	1210.00	771.56	0.00	.08	0.00	210.62	59.00
6.500	1980.00	772.53	0.00	.10	0.00	224.89	59.00
6.900	1430.00	772.08	0.00	.15	0.00	212.40	62.00
6.900	810.00	770.99	0.00	.16	0.00	196.40	62.00
6.900	1210.00	771.72	0.00	.16	0.00	207.06	62.00
6.900	1980.00	772.70	0.00	.17	0.00	221.51	62.00
7.000	1430.00	772.14	0.00	.06	0.00	213.32	8.00
7.000	810.00	771.10	0.00	.11	0.00	197.99	8.00
7.000	1210.00	771.79	0.00	.07	0.00	208.13	8.00
7.000	1980.00	772.76	0.00	.06	0.00	222.40	8.00
7.100	1430.00	772.19	0.00	.05	0.00	214.05	1.00
7.100	810.00	771.16	0.00	.06	0.00	198.86	1.00
7.100	1210.00	771.84	0.00	.05	0.00	208.89	1.00
7.100	1980.00	772.81	0.00	.05	0.00	223.19	1.00
7.500	1430.00	772.87	0.00	.68	0.00	203.40	270.00
7.500	810.00	771.81	0.00	.65	0.00	187.89	270.00

7.500	1210.00	772.52	0.00	.68	0.00	198.26	270.00
7.500	1980.00	773.56	0.00	.74	0.00	213.52	270.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
7.600	1430.00	773.56	0.00	.69	0.00	131.62	200.00
7.600	810.00	772.53	0.00	.72	0.00	127.65	200.00
7.600	1210.00	773.23	0.00	.71	0.00	130.33	200.00
7.600	1980.00	774.26	0.00	.70	0.00	134.31	200.00
7.700	1430.00	774.24	0.00	.68	0.00	130.37	160.00
7.700	810.00	773.15	0.00	.62	0.00	126.17	160.00
7.700	1210.00	773.89	0.00	.66	0.00	129.03	160.00
7.700	1980.00	774.99	0.00	.73	0.00	133.26	160.00
7.800	1430.00	774.24	0.00	-.00	0.00	130.39	1.00
7.800	810.00	773.06	0.00	-.09	0.00	125.79	1.00
7.800	1210.00	773.88	0.00	-.01	0.00	129.02	1.00
7.800	1980.00	775.00	0.00	.01	0.00	133.28	1.00
7.900	1430.00	774.45	0.00	.21	0.00	131.19	8.00
7.900	810.00	773.49	0.00	.43	0.00	127.54	8.00
7.900	1210.00	774.12	0.00	.24	0.00	129.93	8.00
7.900	1980.00	775.18	0.00	.18	0.00	133.99	8.00
8.100	1430.00	774.47	0.00	.02	0.00	131.27	1.00
8.100	810.00	773.55	0.00	.05	0.00	127.73	1.00
8.100	1210.00	774.15	0.00	.03	0.00	130.01	1.00
8.100	1980.00	775.19	0.00	.01	0.00	134.05	1.00
8.200	1430.00	775.04	0.00	.57	0.00	130.74	130.00
8.200	810.00	774.01	0.00	.46	0.00	126.82	130.00
8.200	1210.00	774.70	0.00	.55	0.00	129.44	130.00
8.200	1980.00	775.79	0.00	.60	0.00	133.63	130.00
8.300	1430.00	774.94	0.00	-.09	0.00	130.40	1.00
8.300	810.00	773.58	0.00	-.43	0.00	124.63	1.00
8.300	1210.00	774.56	0.00	-.13	0.00	128.95	1.00
8.300	1980.00	775.73	0.00	-.06	0.00	133.42	1.00
8.400	1430.00	775.30	0.00	.36	0.00	131.78	8.00
8.400	810.00	774.54	0.00	.95	0.00	128.83	8.00
8.400	1210.00	775.02	0.00	.45	0.00	130.71	8.00
8.400	1980.00	775.99	0.00	.26	0.00	134.42	8.00
8.500	1430.00	775.41	0.00	.11	0.00	132.18	1.00
8.500	810.00	774.65	0.00	.11	0.00	129.26	1.00
8.500	1210.00	775.13	0.00	.11	0.00	131.11	1.00
8.500	1980.00	776.08	0.00	.09	0.00	134.77	1.00
9.200	1430.00	775.76	0.00	.36	0.00	131.23	100.00
9.200	810.00	774.88	0.00	.23	0.00	127.83	100.00
9.200	1210.00	775.45	0.00	.33	0.00	130.04	100.00
9.200	1980.00	776.48	0.00	.40	0.00	134.00	100.00
9.030	1430.00	775.94	0.00	.17	0.00	131.15	40.00
9.030	810.00	775.01	0.00	.13	0.00	127.60	40.00
9.030	1210.00	775.62	0.00	.17	0.00	129.93	40.00
9.030	1980.00	776.67	0.00	.19	0.00	133.93	40.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
9.040	1430.00	775.89	0.00	-.05	0.00	130.97	1.00
9.040	810.00	774.92	0.00	-.10	0.00	127.23	1.00
9.040	1210.00	775.57	0.00	-.06	0.00	129.71	1.00
9.040	1980.00	776.64	0.00	-.03	0.00	133.84	1.00
9.050	1430.00	776.16	0.00	.27	0.00	132.01	8.00
9.050	810.00	775.33	0.00	.41	0.00	128.81	8.00
9.050	1210.00	775.87	0.00	.30	0.00	130.89	8.00
9.050	1980.00	776.85	0.00	.22	0.00	134.67	8.00
9.060	1430.00	776.24	0.00	.07	0.00	132.29	1.00
9.060	810.00	775.41	0.00	.08	0.00	129.10	1.00
9.060	1210.00	775.95	0.00	.08	0.00	131.18	1.00
9.060	1980.00	776.92	0.00	.07	0.00	134.93	1.00
9.070	1430.00	776.75	0.00	.51	0.00	131.94	130.00
9.070	810.00	775.79	0.00	.38	0.00	128.26	130.00
9.070	1210.00	776.43	0.00	.48	0.00	130.69	130.00
9.070	1980.00	777.48	0.00	.56	0.00	134.78	130.00
9.080	1430.00	776.66	0.00	-.09	0.00	131.60	1.00
9.080	810.00	775.55	0.00	-.24	0.00	127.35	1.00
9.080	1210.00	776.32	0.00	-.11	0.00	130.30	1.00
9.080	1980.00	777.41	0.00	-.07	0.00	134.51	1.00
9.090	1430.00	776.94	0.00	.28	0.00	132.69	8.00
9.090	810.00	776.17	0.00	.62	0.00	129.75	8.00
9.090	1210.00	776.65	0.00	.33	0.00	131.59	8.00
9.090	1980.00	777.63	0.00	.21	0.00	135.33	8.00
9.110	1430.00	777.06	0.00	.12	0.00	133.14	1.00
9.110	810.00	776.28	0.00	.11	0.00	130.15	1.00
9.110	1210.00	776.77	0.00	.12	0.00	132.05	1.00
9.110	1980.00	777.73	0.00	.11	0.00	135.74	1.00
9.910	1430.00	777.24	0.00	.18	0.00	132.28	60.00
9.910	810.00	776.40	0.00	.12	0.00	129.04	60.00
9.910	1210.00	776.94	0.00	.16	0.00	131.12	60.00
9.910	1980.00	777.94	0.00	.21	0.00	134.98	60.00

SUMMARY OF ERRORS

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HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
ERROR CORR - 01
MODIFICATION - 50,51,52
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

SWIFT DRAIN-100 YEAR

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	9.910	0.00	0.00	0.00	770.60	1430.00	777.24	0.00	777.49	28.28	4.76	456.21	268.90
	9.910	0.00	0.00	0.00	770.60	810.00	776.40	0.00	776.54	19.30	3.51	346.43	184.37
	9.910	0.00	0.00	0.00	770.60	1210.00	776.94	0.00	777.16	26.06	4.40	416.69	237.03
	9.910	0.00	0.00	0.00	770.60	1980.00	777.94	0.00	778.26	31.96	5.49	549.77	350.21
	9.920	60.00	776.40	774.20	770.30	1430.00	780.03	0.00	780.19	13.98	4.14	545.70	382.44
	9.920	60.00	776.40	774.20	770.30	810.00	779.15	0.00	779.22	7.37	2.78	462.28	298.40
	9.920	60.00	776.40	774.20	770.30	1210.00	779.74	0.00	779.87	11.69	3.70	518.31	353.94
	9.920	60.00	776.40	774.20	770.30	1980.00	780.69	0.00	780.92	19.39	5.14	607.34	449.63
	9.800	100.00	0.00	0.00	770.80	1430.00	780.17	0.00	780.35	16.97	4.43	511.61	347.11
	9.800	100.00	0.00	0.00	770.80	810.00	779.22	0.00	779.31	9.63	3.05	422.14	260.95
	9.800	100.00	0.00	0.00	770.80	1210.00	779.86	0.00	780.00	14.51	3.98	482.12	317.64
	9.800	100.00	0.00	0.00	770.80	1980.00	780.88	0.00	781.14	22.51	5.40	578.19	417.34
	9.900	200.00	0.00	0.00	772.00	1430.00	780.54	0.00	780.80	27.69	5.24	433.93	271.74
	9.900	200.00	0.00	0.00	772.00	810.00	779.44	0.00	779.59	19.48	3.91	330.40	183.51
	9.900	200.00	0.00	0.00	772.00	1210.00	780.18	0.00	780.40	25.21	4.82	399.79	241.00
	9.900	200.00	0.00	0.00	772.00	1980.00	781.36	0.00	781.70	32.71	6.14	510.69	346.18
	10.000	200.00	0.00	0.00	773.90	1430.00	781.27	0.00	781.48	42.10	4.93	428.41	220.39
	10.000	200.00	0.00	0.00	773.90	810.00	779.98	0.00	780.13	40.69	4.30	299.46	126.99
	10.000	200.00	0.00	0.00	773.90	1210.00	780.85	0.00	781.04	41.52	4.73	386.33	187.77
*	10.000	200.00	0.00	0.00	773.90	1980.00	782.20	779.67	782.45	43.92	5.39	520.92	298.76
	10.100	200.00	0.00	0.00	775.30	1430.00	782.22	0.00	782.49	59.36	5.64	383.44	185.61
	10.100	200.00	0.00	0.00	775.30	810.00	780.95	0.00	781.17	65.22	5.17	256.20	100.30
	10.100	200.00	0.00	0.00	775.30	1210.00	781.81	0.00	782.05	60.72	5.48	341.54	155.28
	10.100	200.00	0.00	0.00	775.30	1980.00	783.16	0.00	783.47	57.67	5.99	477.31	260.72
	10.200	200.00	0.00	0.00	776.80	1430.00	783.50	0.00	783.80	71.65	6.07	360.76	168.93
	10.200	200.00	0.00	0.00	776.80	810.00	782.33	0.00	782.58	75.32	5.47	244.15	93.33
	10.200	200.00	0.00	0.00	776.80	1210.00	783.11	0.00	783.39	72.95	5.89	321.70	141.67
	10.200	200.00	0.00	0.00	776.80	1980.00	784.39	0.00	784.74	69.13	6.43	450.30	238.13
	10.900	200.00	0.00	0.00	778.20	1430.00	784.77	0.00	785.05	54.64	6.41	397.47	193.46
	10.900	200.00	0.00	0.00	778.20	810.00	783.63	0.00	783.85	54.24	5.54	269.05	109.98
	10.900	200.00	0.00	0.00	778.20	1210.00	784.39	0.00	784.65	54.89	6.15	353.84	163.32
	10.900	200.00	0.00	0.00	778.20	1980.00	785.63	0.00	785.95	53.15	6.92	501.39	271.59

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
11.000	200.00	0.00	0.00	779.80	1430.00	785.99	0.00	786.36	76.49	7.26	354.12	163.50
11.000	200.00	0.00	0.00	779.80	810.00	784.89	0.00	785.20	82.27	6.50	232.32	89.30
11.000	200.00	0.00	0.00	779.80	1210.00	785.63	0.00	785.98	78.14	7.02	313.27	136.88
11.000	200.00	0.00	0.00	779.80	1980.00	786.81	0.00	787.22	72.99	7.77	449.82	231.76
11.100	200.00	0.00	0.00	781.30	1430.00	787.52	0.00	787.88	75.14	7.22	356.30	164.97
11.100	200.00	0.00	0.00	781.30	810.00	786.48	0.00	786.76	73.86	6.24	241.37	94.25
11.100	200.00	0.00	0.00	781.30	1210.00	787.18	0.00	787.51	75.10	6.92	317.60	139.63
11.100	200.00	0.00	0.00	781.30	1980.00	788.28	0.00	788.70	74.67	7.84	446.33	229.14
11.900	140.00	0.00	0.00	782.70	1430.00	788.63	0.00	788.97	81.93	7.28	381.61	157.98
11.900	140.00	0.00	0.00	782.70	810.00	787.61	0.00	787.96	97.23	6.88	232.75	82.15
11.900	140.00	0.00	0.00	782.70	1210.00	788.30	0.00	788.64	86.64	7.17	331.36	129.99
11.900	140.00	0.00	0.00	782.70	1980.00	789.39	0.00	789.74	73.14	7.52	499.67	231.52
12.100	165.00	795.40	790.80	783.10	1430.00	796.33	0.00	796.33	.70	1.24	2194.61	1709.79
12.100	165.00	795.40	790.80	783.10	810.00	788.89	0.00	790.42	174.97	9.92	81.69	61.24
12.100	165.00	795.40	790.80	783.10	1210.00	796.10	0.00	796.11	.55	1.08	2123.82	1630.42
12.100	165.00	795.40	790.80	783.10	1980.00	796.78	0.00	796.80	1.11	1.60	2338.39	1875.85
12.800	80.00	0.00	0.00	783.20	1430.00	796.33	0.00	796.34	.73	1.26	2162.08	1673.12
12.800	80.00	0.00	0.00	783.20	810.00	790.67	0.00	790.71	6.38	2.45	658.68	320.59
12.800	80.00	0.00	0.00	783.20	1210.00	796.11	0.00	796.11	.57	1.10	2091.70	1596.39
12.800	80.00	0.00	0.00	783.20	1980.00	796.79	0.00	796.81	1.16	1.62	2307.18	1839.27
12.900	170.00	0.00	0.00	783.80	1430.00	796.34	0.00	796.35	.93	1.38	1979.22	1479.17
12.900	170.00	0.00	0.00	783.80	810.00	790.79	0.00	790.85	9.99	2.91	559.12	256.25
12.900	170.00	0.00	0.00	783.80	1210.00	796.12	0.00	796.12	.74	1.21	1910.31	1408.50
12.900	170.00	0.00	0.00	783.80	1980.00	796.81	0.00	796.83	1.47	1.78	2124.17	1630.81

SWIFT DRAIN-100 YEAR

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	9.910	1430.00	777.24	0.00	0.00	0.00	132.31	0.00
	9.910	810.00	776.40	0.00	0.00	0.00	129.08	0.00
	9.910	1210.00	776.94	0.00	0.00	0.00	131.15	0.00
	9.910	1980.00	777.94	0.00	0.00	0.00	135.00	0.00
	9.920	1430.00	780.03	0.00	2.79	0.00	94.00	60.00
	9.920	810.00	779.15	0.00	2.75	0.00	94.00	60.00
	9.920	1210.00	779.74	0.00	2.80	0.00	94.00	60.00
	9.920	1980.00	780.69	0.00	2.75	0.00	94.00	60.00
	9.800	1430.00	780.17	0.00	.14	0.00	94.00	100.00
	9.800	810.00	779.22	0.00	.07	0.00	94.00	100.00
	9.800	1210.00	779.86	0.00	.12	0.00	94.00	100.00
	9.800	1980.00	780.88	0.00	.19	0.00	94.00	100.00
	9.900	1430.00	780.54	0.00	.37	0.00	94.00	200.00
	9.900	810.00	779.44	0.00	.22	0.00	92.90	200.00
	9.900	1210.00	780.18	0.00	.32	0.00	94.00	200.00
	9.900	1980.00	781.36	0.00	.48	0.00	94.00	200.00
	10.000	1430.00	781.27	0.00	.73	0.00	100.00	200.00
	10.000	810.00	779.98	0.00	.54	0.00	100.00	200.00
	10.000	1210.00	780.85	0.00	.67	0.00	100.00	200.00
*	10.000	1980.00	782.20	0.00	.84	0.00	100.00	200.00
	10.100	1430.00	782.22	0.00	.95	0.00	100.00	200.00
	10.100	810.00	780.95	0.00	.97	0.00	100.00	200.00
	10.100	1210.00	781.81	0.00	.95	0.00	100.00	200.00
	10.100	1980.00	783.16	0.00	.96	0.00	100.00	200.00
	10.200	1430.00	783.50	0.00	1.27	0.00	100.00	200.00
	10.200	810.00	782.33	0.00	1.38	0.00	100.00	200.00
	10.200	1210.00	783.11	0.00	1.30	0.00	100.00	200.00
	10.200	1980.00	784.39	0.00	1.23	0.00	100.00	200.00
	10.900	1430.00	784.77	0.00	1.27	0.00	117.08	200.00
	10.900	810.00	783.63	0.00	1.30	0.00	108.55	200.00
	10.900	1210.00	784.39	0.00	1.28	0.00	114.25	200.00
	10.900	1980.00	785.63	0.00	1.24	0.00	123.55	200.00
	11.000	1430.00	785.99	0.00	1.23	0.00	114.27	200.00
	11.000	810.00	784.89	0.00	1.26	0.00	105.99	200.00
	11.000	1210.00	785.63	0.00	1.24	0.00	111.56	200.00
	11.000	1980.00	786.81	0.00	1.18	0.00	120.38	200.00
	11.100	1430.00	787.52	0.00	1.52	0.00	114.41	200.00
	11.100	810.00	786.48	0.00	1.59	0.00	106.62	200.00
	11.100	1210.00	787.18	0.00	1.54	0.00	111.85	200.00
	11.100	1980.00	788.28	0.00	1.47	0.00	120.16	200.00
	11.900	1430.00	788.63	0.00	1.12	0.00	152.49	140.00
	11.900	810.00	787.61	0.00	1.14	0.00	135.42	140.00

11.900	1210.00	788.30	0.00	1.12	0.00	148.97	140.00
11.900	1980.00	789.39	0.00	1.11	0.00	160.44	140.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
12.100	1430.00	796.33	0.00	7.69	0.00	315.03	165.00
12.100	810.00	788.89	0.00	1.28	0.00	17.00	165.00
12.100	1210.00	796.10	0.00	7.80	0.00	314.32	165.00
12.100	1980.00	796.78	0.00	7.39	0.00	316.48	165.00
12.800	1430.00	796.33	0.00	.01	0.00	314.70	80.00
12.800	810.00	790.67	0.00	1.78	0.00	214.05	80.00
12.800	1210.00	796.11	0.00	.00	0.00	312.59	80.00
12.800	1980.00	796.79	0.00	.01	0.00	316.16	80.00
12.900	1430.00	796.34	0.00	.01	0.00	306.01	170.00
12.900	810.00	790.79	0.00	.12	0.00	205.45	170.00
12.900	1210.00	796.12	0.00	.01	0.00	301.90	170.00
12.900	1980.00	796.81	0.00	.02	0.00	314.32	170.00

SUMMARY OF ERRORS

CAUTION SECNO= 10.000 PROFILE= 4 WSEL ASSUMED BASED ON MIN DIFF
CAUTION SECNO= 10.000 PROFILE= 4 20 TRIALS ATTEMPTED TO BALANCE WSEL

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  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
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T1      HUD-FIA H-4705 T06
T2      PITTSFIELD TWP PIS
T3      SWIFT RUN DRAIN 100 YEAR START ELEV

J1  ICHECK     INQ       NINV      IDIR       STRT      METRIC    HVINS     Q         WSEL      FQ

      -1.        4.        0.        0.  0.000000        0.00     -1.0        0.    771.400     0.000

J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

     1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC       .080      .080      .060      .100      .300     0.000     0.000     0.000     0.000     0.000
OT      5.000   810.000  1210.000  1430.000  1980.000  1430.000     0.000     0.000     0.000     0.000

X1      5.000    13.000   372.000   386.000     0.000     0.000     0.000     0.000     0.000     0.000
GR    775.000   240.000   778.500   270.000   767.500   310.000   765.900   372.000   764.000   378.000
GR    761.800   379.000   761.800   381.000   764.000   382.000   765.200   386.000   765.300   532.000
GR    765.800   550.000   767.000   560.000   774.900   570.000     0.000     0.000     0.000     0.000

X1      5.900    10.000   292.000   306.000   230.000   230.000   230.000     0.000     -.900     0.000
GR    777.500   100.000   767.300   250.000   767.200   292.000   765.100   294.000   763.800   295.000
GR    763.800   299.000   765.100   300.000   767.200   306.000   768.300   328.000   759.700   398.000

X1      5.950     0.000     0.000     0.000    79.000    79.000    79.000     0.000      .500     0.000

X1      6.000     0.000     0.000     0.000     1.000     1.000     1.000     0.000     0.000     0.000
X2      0.000     0.000     0.000   768.100   769.500     0.000     0.000     0.000     0.000     0.000

X1      6.100     0.000     0.000     0.000    20.000    20.000    20.000     0.000     0.000     0.000
X2      0.000     0.000     0.000   768.100   769.500     0.000     0.000     0.000     0.000     0.000

X1      6.200     0.000     0.000     0.000     1.000     1.000     1.000     0.000     0.000     0.000

X1      6.500     0.000     0.000     0.000    59.000    59.000    59.000     0.000      .400     0.000

X1      6.900     8.000   292.000   306.000    62.000    62.000    62.000     0.000      .400     0.000
X2      0.000     0.000     0.000   767.200   769.200     0.000     0.000     0.000     0.000     0.000
GR    777.500   100.000   767.300   250.000   767.200   292.000   765.300   294.000   765.300   300.000
GR    767.200   306.000   768.300   328.000   769.700   398.000     0.000     0.000     0.000     0.000
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  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

SWIFT RUN DRAIN 100 YEAR

SUMMARY PRINTOUT TABLE  150
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	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	5.000	0.00	0.00	0.00	761.80	1430.00	771.40	0.00	771.42	2.55	1.29	1486.61	895.93
	5.000	0.00	0.00	0.00	761.80	1430.00	772.80	0.00	772.81	1.23	1.01	1869.06	1289.35
	5.000	0.00	0.00	0.00	761.80	1430.00	770.00	0.00	770.03	5.39	1.77	1113.76	565.58
	5.900	230.00	0.00	0.00	762.90	1430.00	771.48	0.00	771.54	11.81	2.33	844.11	416.14
	5.900	230.00	0.00	0.00	762.90	1430.00	772.84	0.00	772.86	4.76	2.01	1157.33	655.33
	5.900	230.00	0.00	0.00	762.90	1430.00	770.22	0.00	770.35	35.41	4.30	574.65	240.32
	5.950	79.00	0.00	0.00	763.40	1430.00	771.58	0.00	771.65	15.22	3.19	755.82	355.07
	5.950	79.00	0.00	0.00	763.40	1430.00	772.88	0.00	772.91	6.35	2.24	1047.31	567.63
	5.950	79.00	0.00	0.00	763.40	1430.00	770.51	0.00	770.66	43.79	4.57	532.79	216.09
	6.000	1.00	769.50	768.10	763.40	1430.00	771.54	0.00	771.67	129.84	3.97	533.60	125.49
	6.000	1.00	769.50	768.10	763.40	1430.00	772.86	0.00	772.92	34.21	2.36	820.79	244.50
*	6.000	1.00	769.50	768.10	763.40	1430.00	770.17	770.17	770.86	1099.63	9.46	265.50	43.12
	6.100	20.00	769.50	768.10	763.40	1430.00	771.79	0.00	771.90	97.26	3.54	585.46	145.00
	6.100	20.00	769.50	768.10	763.40	1430.00	772.93	0.00	772.98	32.50	2.32	834.58	250.82
	6.100	20.00	769.50	768.10	763.40	1430.00	771.41	0.00	771.56	151.47	4.22	507.87	116.19
	6.200	1.00	0.00	0.00	763.40	1430.00	771.85	0.00	771.91	13.09	2.94	814.45	395.28
	6.200	1.00	0.00	0.00	763.40	1430.00	772.96	0.00	772.99	6.00	2.19	1067.92	583.77
	6.200	1.00	0.00	0.00	763.40	1430.00	771.50	0.00	771.57	17.36	3.27	738.06	343.17
	6.500	59.00	0.00	0.00	763.80	1430.00	771.93	0.00	772.00	16.95	3.24	744.28	347.32
	6.500	59.00	0.00	0.00	763.80	1430.00	772.99	0.00	773.03	7.63	2.40	982.45	517.73
	6.500	59.00	0.00	0.00	763.80	1430.00	771.60	0.00	771.69	22.44	3.61	674.79	301.88
	6.900	62.00	769.20	767.20	765.70	1430.00	772.08	0.00	772.21	72.88	3.14	502.33	167.51
	6.900	62.00	769.20	767.20	765.70	1430.00	773.05	0.00	773.12	25.82	2.16	703.13	281.41
	6.900	62.00	769.20	767.20	765.70	1430.00	771.81	0.00	771.97	103.18	3.56	449.21	140.78
	7.000	8.00	769.20	767.20	765.70	1430.00	772.14	0.00	772.26	67.45	3.05	515.01	174.12
	7.000	8.00	769.20	767.20	765.70	1430.00	773.07	0.00	773.14	25.27	2.14	708.08	284.44
	7.000	8.00	769.20	767.20	765.70	1430.00	771.90	0.00	772.05	91.32	3.40	467.18	149.64
	7.100	1.00	0.00	0.00	765.70	1430.00	772.19	0.00	772.27	19.81	3.45	706.62	321.26
	7.100	1.00	0.00	0.00	765.70	1430.00	773.09	0.00	773.14	9.72	2.65	903.80	458.66
	7.100	1.00	0.00	0.00	765.70	1430.00	771.97	0.00	772.06	24.21	3.72	659.19	290.64

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CHSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
7.500	270.00	0.00	0.00	765.60	1430.00	772.87	0.00	773.00	37.33	4.39	563.96	234.04
7.500	270.00	0.00	0.00	765.60	1430.00	773.44	0.00	773.53	21.63	3.56	683.47	307.44
7.500	270.00	0.00	0.00	765.60	1430.00	772.77	0.00	772.91	41.27	4.56	544.21	222.61
7.600	200.00	0.00	0.00	766.50	1430.00	773.56	0.00	773.80	39.06	4.62	438.80	228.80
7.600	200.00	0.00	0.00	766.50	1430.00	773.88	0.00	774.07	30.17	4.22	480.31	260.36
7.600	200.00	0.00	0.00	766.50	1430.00	773.52	0.00	773.76	40.52	4.68	433.18	224.65
7.700	160.00	0.00	0.00	767.50	1430.00	774.24	0.00	774.53	52.03	5.12	396.39	198.24
7.700	160.00	0.00	0.00	767.50	1430.00	774.41	0.00	774.67	44.58	4.85	418.79	214.17
7.700	160.00	0.00	0.00	767.50	1430.00	774.22	0.00	774.52	53.02	5.16	393.73	196.38
7.800	1.00	772.50	771.80	767.50	1430.00	774.24	0.00	774.55	229.26	4.78	328.58	94.44
7.800	1.00	772.50	771.80	767.50	1430.00	774.41	0.00	774.68	186.55	4.42	350.86	104.70
7.800	1.00	772.50	771.80	767.50	1430.00	774.22	0.00	774.53	235.13	4.82	325.94	93.26
7.900	8.00	772.50	771.80	767.50	1430.00	774.45	0.00	774.71	178.57	4.35	355.77	107.01
7.900	8.00	772.50	771.80	767.50	1430.00	774.58	0.00	774.82	153.84	4.11	372.95	115.29
7.900	8.00	772.50	771.80	767.50	1430.00	774.43	0.00	774.70	181.67	4.38	353.83	106.09
8.100	1.00	0.00	0.00	767.50	1430.00	774.47	0.00	774.72	42.27	4.76	426.76	219.95
8.100	1.00	0.00	0.00	767.50	1430.00	774.60	0.00	774.83	37.88	4.57	443.55	232.33
8.100	1.00	0.00	0.00	767.50	1430.00	774.46	0.00	774.71	42.80	4.78	424.87	218.57
8.200	130.00	0.00	0.00	768.20	1430.00	775.04	0.00	775.31	47.71	4.97	408.83	207.02
8.200	130.00	0.00	0.00	768.20	1430.00	775.11	0.00	775.37	44.86	4.86	417.86	213.49
8.200	130.00	0.00	0.00	768.20	1430.00	775.03	0.00	775.31	48.03	4.98	407.86	206.34
8.300	1.00	773.70	772.70	768.20	1430.00	774.94	0.00	775.37	363.61	5.74	285.02	74.99
8.300	1.00	773.70	772.70	768.20	1430.00	775.03	0.00	775.42	322.98	5.48	296.26	79.57
8.300	1.00	773.70	772.70	768.20	1430.00	774.93	0.00	775.36	368.45	5.77	283.79	74.50
8.400	8.00	773.70	772.70	768.20	1430.00	775.30	0.00	775.61	226.63	4.79	332.13	94.99
8.400	8.00	773.70	772.70	768.20	1430.00	775.34	0.00	775.64	215.34	4.70	337.61	97.45
8.400	8.00	773.70	772.70	768.20	1430.00	775.30	0.00	775.60	227.79	4.80	331.59	94.75
8.500	1.00	0.00	0.00	768.20	1430.00	775.41	0.00	775.62	34.55	4.43	458.12	243.29
8.500	1.00	0.00	0.00	768.20	1430.00	775.44	0.00	775.65	33.53	4.38	462.93	246.95
8.500	1.00	0.00	0.00	768.20	1430.00	775.40	0.00	775.62	34.65	4.43	457.64	242.93
9.200	100.00	0.00	0.00	768.80	1430.00	775.76	0.00	776.02	42.63	4.77	425.49	219.03
9.200	100.00	0.00	0.00	768.80	1430.00	775.79	0.00	776.04	41.71	4.73	428.77	221.42
9.200	100.00	0.00	0.00	768.80	1430.00	775.76	0.00	776.01	42.72	4.77	425.17	218.79
9.030	40.00	0.00	0.00	770.10	1430.00	775.94	0.00	775.21	51.67	4.99	405.96	198.93
9.030	40.00	0.00	0.00	770.10	1430.00	775.96	0.00	776.23	50.51	4.96	408.86	201.00
9.030	40.00	0.00	0.00	770.10	1430.00	775.94	0.00	775.21	51.78	5.00	405.67	198.73
9.040	1.00	774.00	773.00	770.10	1430.00	775.89	0.00	776.24	290.80	4.89	307.35	83.86
9.040	1.00	774.00	773.00	770.10	1430.00	775.92	0.00	776.26	281.50	4.83	310.49	85.23
9.040	1.00	774.00	773.00	770.10	1430.00	775.89	0.00	776.24	291.73	4.89	307.05	83.72
9.050	8.00	774.00	773.00	770.10	1430.00	776.16	0.00	776.44	204.64	4.29	342.89	99.96
9.050	8.00	774.00	773.00	770.10	1430.00	776.18	0.00	776.45	200.94	4.27	344.84	100.88
9.050	8.00	774.00	773.00	770.10	1430.00	776.16	0.00	776.44	205.01	4.30	342.70	99.87

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
9.060	1.00	0.00	0.00	770.10	1430.00	776.24	0.00	776.46	39.50	4.54	445.18	227.53
9.060	1.00	0.00	0.00	770.10	1430.00	776.25	0.00	776.47	39.04	4.53	446.95	228.86
9.060	1.00	0.00	0.00	770.10	1430.00	776.23	0.00	776.46	39.55	4.55	445.01	227.40
9.070	130.00	0.00	0.00	770.40	1430.00	776.75	0.00	776.98	40.15	4.61	439.45	225.68
9.070	130.00	0.00	0.00	770.40	1430.00	776.75	0.00	776.98	39.87	4.60	440.51	226.46
9.070	130.00	0.00	0.00	770.40	1430.00	776.75	0.00	776.98	40.18	4.62	439.35	225.60
9.080	1.00	774.80	773.10	770.40	1430.00	776.66	0.00	777.03	293.55	5.19	293.99	83.46
9.080	1.00	774.80	773.10	770.40	1430.00	776.67	0.00	777.03	289.62	5.16	295.23	84.03
9.080	1.00	774.80	773.10	770.40	1430.00	776.66	0.00	777.03	293.93	5.19	293.87	83.41
9.090	8.00	774.80	773.10	770.40	1430.00	776.94	0.00	777.23	200.25	4.51	331.18	101.05
9.090	8.00	774.80	773.10	770.40	1430.00	776.94	0.00	777.23	198.87	4.50	331.89	101.40
9.090	8.00	774.80	773.10	770.40	1430.00	776.94	0.00	777.23	200.38	4.51	331.11	101.02
9.110	1.00	0.00	0.00	770.40	1430.00	777.06	0.00	777.25	30.94	4.21	480.68	257.07
9.110	1.00	0.00	0.00	770.40	1430.00	777.06	0.00	777.25	30.83	4.21	481.29	257.55
9.110	1.00	0.00	0.00	770.40	1430.00	777.06	0.00	777.24	30.95	4.21	480.62	257.03
9.910	60.00	0.00	0.00	770.60	1430.00	777.24	0.00	777.45	35.79	4.46	455.09	239.03
9.910	60.00	0.00	0.00	770.60	1430.00	777.24	0.00	777.46	35.58	4.45	455.60	239.42
9.910	60.00	0.00	0.00	770.60	1430.00	777.24	0.00	777.45	35.80	4.46	455.05	239.00

SWIFT RUN DRAIN 100 YEAR

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	5.000	1430.00	771.40	0.00	0.00	0.00	269.75	0.00
	5.000	1430.00	772.80	0.00	0.00	0.00	276.61	0.00
	5.000	1430.00	770.00	0.00	0.00	0.00	262.89	0.00
	5.900	1430.00	771.48	0.00	.08	0.00	222.73	230.00
	5.900	1430.00	772.84	0.00	.04	0.00	242.53	230.00
	5.900	1430.00	770.22	0.00	.22	0.00	204.17	230.00
	5.950	1430.00	771.58	0.00	.10	0.00	216.83	79.00
	5.950	1430.00	772.88	0.00	.04	0.00	235.77	79.00
	5.950	1430.00	770.51	0.00	.29	0.00	201.13	79.00
	6.000	1430.00	771.54	0.00	-.04	0.00	216.20	1.00
	6.000	1430.00	772.86	0.00	-.01	0.00	235.78	1.00
*	6.000	1430.00	770.17	0.00	-.34	0.00	196.06	1.00
	6.100	1430.00	771.79	0.00	.25	0.00	219.87	20.00
	6.100	1430.00	772.93	0.00	.07	0.00	236.67	20.00
	6.100	1430.00	771.41	0.00	1.24	0.00	214.35	20.00
	6.200	1430.00	771.85	0.00	.06	0.00	220.77	1.00
	6.200	1430.00	772.96	0.00	.03	0.00	237.05	1.00
	6.200	1430.00	771.50	0.00	.09	0.00	215.62	1.00
	6.500	1430.00	771.93	0.00	.08	0.00	216.04	59.00
	6.500	1430.00	772.99	0.00	.04	0.00	231.69	59.00
	6.500	1430.00	771.60	0.00	.10	0.00	211.26	59.00
	6.900	1430.00	772.08	0.00	.15	0.00	212.40	62.00
	6.900	1430.00	773.05	0.00	.06	0.00	226.57	62.00
	6.900	1430.00	771.81	0.00	.21	0.00	208.48	62.00
	7.000	1430.00	772.14	0.00	.06	0.00	213.32	8.00
	7.000	1430.00	773.07	0.00	.02	0.00	226.90	8.00
	7.000	1430.00	771.90	0.00	.09	0.00	209.82	8.00
	7.100	1430.00	772.19	0.00	.05	0.00	214.05	1.00
	7.100	1430.00	773.09	0.00	.02	0.00	227.19	1.00
	7.100	1430.00	771.97	0.00	.06	0.00	210.76	1.00
	7.500	1430.00	772.87	0.00	.68	0.00	203.40	270.00
	7.500	1430.00	773.44	0.00	.35	0.00	211.86	270.00
	7.500	1430.00	772.77	0.00	.80	0.00	201.96	270.00
	7.600	1430.00	773.56	0.00	.69	0.00	131.62	200.00
	7.600	1430.00	773.88	0.00	.43	0.00	132.83	200.00
	7.600	1430.00	773.52	0.00	.75	0.00	131.46	200.00
	7.700	1430.00	774.24	0.00	.68	0.00	130.37	160.00
	7.700	1430.00	774.41	0.00	.53	0.00	131.03	160.00
	7.700	1430.00	774.22	0.00	.70	0.00	130.30	160.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
7.800	1430.00	774.24	0.00	-.00	0.00	130.39	1.00
7.800	1430.00	774.41	0.00	.00	0.00	131.05	1.00
7.800	1430.00	774.22	0.00	-.00	0.00	130.31	1.00
7.900	1430.00	774.45	0.00	.21	0.00	131.19	8.00
7.900	1430.00	774.58	0.00	.17	0.00	131.69	8.00
7.900	1430.00	774.43	0.00	.22	0.00	131.13	8.00
8.100	1430.00	774.47	0.00	.02	0.00	131.27	1.00
8.100	1430.00	774.60	0.00	.02	0.00	131.76	1.00
8.100	1430.00	774.46	0.00	.02	0.00	131.21	1.00
8.200	1430.00	775.04	0.00	.57	0.00	130.74	130.00
8.200	1430.00	775.11	0.00	.51	0.00	131.01	130.00
8.200	1430.00	775.03	0.00	.57	0.00	130.71	130.00
8.300	1430.00	774.94	0.00	-.09	0.00	130.40	1.00
8.300	1430.00	775.03	0.00	-.08	0.00	130.73	1.00
8.300	1430.00	774.93	0.00	-.10	0.00	130.36	1.00
8.400	1430.00	775.30	0.00	.36	0.00	131.78	8.00
8.400	1430.00	775.34	0.00	.31	0.00	131.94	8.00
8.400	1430.00	775.30	0.00	.36	0.00	131.77	8.00
8.500	1430.00	775.41	0.00	.11	0.00	132.18	1.00
8.500	1430.00	775.44	0.00	.10	0.00	132.32	1.00
8.500	1430.00	775.40	0.00	.11	0.00	132.17	1.00
9.200	1430.00	775.76	0.00	.36	0.00	131.23	100.00
9.200	1430.00	775.79	0.00	.35	0.00	131.33	100.00
9.200	1430.00	775.76	0.00	.36	0.00	131.22	100.00
9.030	1430.00	775.94	0.00	.17	0.00	131.15	40.00
9.030	1430.00	775.96	0.00	.17	0.00	131.23	40.00
9.030	1430.00	775.94	0.00	.18	0.00	131.14	40.00
9.040	1430.00	775.89	0.00	-.05	0.00	130.97	1.00
9.040	1430.00	775.92	0.00	-.04	0.00	131.07	1.00
9.040	1430.00	775.89	0.00	-.05	0.00	130.97	1.00
9.050	1430.00	776.16	0.00	.27	0.00	132.01	8.00
9.050	1430.00	776.18	0.00	.26	0.00	132.07	8.00
9.050	1430.00	776.16	0.00	.27	0.00	132.01	8.00
9.060	1430.00	776.24	0.00	.07	0.00	132.29	1.00
9.060	1430.00	776.25	0.00	.07	0.00	132.34	1.00
9.060	1430.00	776.23	0.00	.07	0.00	132.29	1.00
9.070	1430.00	776.75	0.00	.51	0.00	131.94	130.00
9.070	1430.00	776.75	0.00	.51	0.00	131.97	130.00
9.070	1430.00	776.75	0.00	.51	0.00	131.94	130.00
9.080	1430.00	776.66	0.00	-.09	0.00	131.60	1.00
9.080	1430.00	776.67	0.00	-.09	0.00	131.64	1.00
9.080	1430.00	776.66	0.00	-.09	0.00	131.60	1.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
9.090	1430.00	776.94	0.00	.28	0.00	132.69	8.00
9.090	1430.00	776.94	0.00	.28	0.00	132.71	8.00
9.090	1430.00	776.94	0.00	.28	0.00	132.69	8.00
9.110	1430.00	777.06	0.00	.12	0.00	133.14	1.00
9.110	1430.00	777.06	0.00	.12	0.00	133.16	1.00
9.110	1430.00	777.06	0.00	.12	0.00	133.14	1.00
9.910	1430.00	777.24	0.00	.18	0.00	132.28	60.00
9.910	1430.00	777.24	0.00	.18	0.00	132.29	60.00
9.910	1430.00	777.24	0.00	.18	0.00	132.27	60.00

SUMMARY OF ERRORS

CAUTION SECNO= 6.000 PROFILE= 3 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 6.000 PROFILE= 3 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 6.000 PROFILE= 3 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 6.000 PROFILE= 3 SLOPE TOO STEEP

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
**************************************************

C
T1      HUD FIA H-4705 T06
T2      PITTSFIELD TWP EIS
T3      PAADI 100 YEAR

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      -1.       4.        0.        0.  0.000000      0.00     -1.0       0.   800.000    0.000

J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

     1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC      .060      .060      .035      .100      .300     0.000     0.000     0.000     0.000     0.000
QT     5.000  1500.000  2250.000  2650.000  3500.000  2650.000     0.000     0.000     0.000     0.000

       ***JUST U/S OF PLATT RD.

X1     2.400     4.000   304.000   368.000     0.000     0.000     0.000     0.000    -5.300     0.000
GR   800.500   304.000   791.100   322.000   791.100   347.000   804.700   368.000     0.000     0.000

X1     2.500     0.000     0.000     0.000   470.000   470.000   470.000     0.000     1.100     0.000

X1     2.600     0.000     0.000     0.000   470.000   470.000   470.000     0.000     1.100     0.000

X1     2.700     0.000     0.000     0.000   470.000   470.000   470.000     0.000     1.100     0.000

X1     2.800     0.000     0.000     0.000   470.000   470.000   470.000     0.000     1.100     0.000

X1     2.900     0.000     0.000     0.000   320.000   320.000   320.000     0.000      .900     0.000
NC     0.000     0.000     0.000      .200      .400     0.000     0.000     0.000     0.000     0.000

       ***D/S FACE OF PACKARD PD.

X1     2.950     6.000   117.000   160.000   150.000   150.000   150.000     0.000     -.100     0.000
GR   804.200   100.000   802.500   105.000   791.800   106.000   791.800   154.000   802.500   155.000
GR   803.300   160.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
SB     1.200     1.500     2.900   120.000    45.000    21.000   170.000     0.000   791.800   791.800

X1     3.050     0.000     0.000     0.000   175.000   175.000   175.000     0.000      .100     0.000
X2     0.000     0.000     1.000   798.400   803.000     0.000     0.000     0.000     0.000     0.000
NC     0.000     0.000      .040      .100      .300     0.000     0.000     0.000     0.000     0.000
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HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
ERROR CORR - 01
MODIFICATION - 50,51,52
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

PAAD1 100 YEAR

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
N	2.400	0.00	0.00	0.00	785.80	2650.00	800.00	0.00	800.23	4.48	3.89	681.40	1251.67
N*.7	2.400	0.00	0.00	0.00	785.80	2650.00	800.00	0.00	800.23	2.20	3.89	681.40	1788.10
N*1.3	2.400	0.00	0.00	0.00	785.80	2650.00	800.00	0.00	800.23	7.58	3.89	681.40	962.82
	2.500	470.00	0.00	0.00	786.90	2650.00	800.21	0.00	800.49	5.78	4.24	624.55	1102.20
	2.500	470.00	0.00	0.00	786.90	2650.00	800.08	0.00	800.37	2.94	4.30	616.40	1545.60
	2.500	470.00	0.00	0.00	786.90	2650.00	800.37	0.00	800.64	9.35	4.18	634.22	866.48
	2.600	470.00	0.00	0.00	788.00	2650.00	800.48	0.00	800.81	7.42	4.63	572.04	973.10
	2.600	470.00	0.00	0.00	788.00	2650.00	800.19	0.00	800.55	3.96	4.77	555.10	1331.88
	2.600	470.00	0.00	0.00	788.00	2650.00	800.82	0.00	801.13	11.27	4.46	593.80	789.33
	2.700	470.00	0.00	0.00	789.10	2650.00	800.82	0.00	801.22	9.44	5.04	525.70	862.59
	2.700	470.00	0.00	0.00	789.10	2650.00	800.35	0.00	800.79	5.42	5.33	497.29	1137.88
	2.700	470.00	0.00	0.00	789.10	2650.00	801.37	0.00	801.72	13.36	4.74	559.38	725.07
	2.800	470.00	0.00	0.00	790.20	2650.00	801.27	0.00	801.73	11.81	5.45	486.19	771.08
	2.800	470.00	0.00	0.00	790.20	2650.00	800.57	0.00	801.12	7.50	5.96	444.39	967.44
	2.800	470.00	0.00	0.00	790.20	2650.00	802.02	0.00	802.41	15.45	4.99	531.55	674.11
	2.900	320.00	0.00	0.00	791.10	2650.00	801.64	0.00	802.17	14.35	5.83	454.49	699.61
	2.900	320.00	0.00	0.00	791.10	2650.00	800.76	0.00	801.43	9.94	6.57	403.42	840.57
	2.900	320.00	0.00	0.00	791.10	2650.00	802.52	0.00	802.95	17.67	5.22	507.27	630.45
	2.950	150.00	0.00	0.00	791.70	2650.00	801.94	0.00	802.38	10.92	5.29	501.40	802.03
	2.950	150.00	0.00	0.00	791.70	2650.00	801.07	0.00	801.59	7.00	5.79	457.82	1001.81
	2.950	150.00	0.00	0.00	791.70	2650.00	802.84	0.00	803.20	15.17	4.84	547.12	680.44
*	3.050	175.00	803.00	798.40	791.80	2650.00	804.46	0.00	804.73	6.20	4.17	635.83	1064.02
*	3.050	175.00	803.00	798.40	791.80	2650.00	804.16	0.00	804.45	3.31	4.29	617.77	1456.91
	3.050	175.00	803.00	798.40	791.80	2650.00	804.77	0.00	805.03	9.62	4.05	654.51	854.59
	3.100	50.00	0.00	0.00	791.80	2650.00	804.66	0.00	804.77	2.93	2.68	989.39	1547.45
	3.100	50.00	0.00	0.00	791.80	2650.00	804.36	0.00	804.48	1.59	2.77	958.07	2102.61
	3.100	50.00	0.00	0.00	791.80	2650.00	804.97	0.00	805.08	4.48	2.59	1021.99	1251.87
	3.200	610.00	0.00	0.00	792.50	2650.00	804.84	0.00	804.97	3.49	2.83	935.88	1419.01
	3.200	610.00	0.00	0.00	792.50	2650.00	804.45	0.00	804.59	1.96	2.96	895.17	1891.04
	3.200	610.00	0.00	0.00	792.50	2650.00	805.26	0.00	805.37	5.12	2.71	978.87	1170.70

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
4.000	340.00	0.00	0.00	793.00	2650.00	804.95	0.00	805.11	4.45	3.19	830.10	1255.94
4.000	340.00	0.00	0.00	793.00	2650.00	804.50	0.00	804.68	2.55	3.36	789.06	1658.58
4.000	340.00	0.00	0.00	793.00	2650.00	805.43	0.00	805.57	6.43	3.03	873.61	1045.45
4.100	400.00	0.00	0.00	793.50	2650.00	805.13	0.00	805.30	4.98	3.31	800.72	1187.73
4.100	400.00	0.00	0.00	793.50	2650.00	804.60	0.00	804.79	2.98	3.53	750.82	1535.29
4.100	400.00	0.00	0.00	793.50	2650.00	805.69	0.00	805.84	6.94	3.11	852.20	1006.16
4.200	400.00	0.00	0.00	794.10	2650.00	805.34	0.00	805.52	5.77	3.47	763.50	1103.08
4.200	400.00	0.00	0.00	794.10	2650.00	804.71	0.00	804.93	3.60	3.75	706.44	1396.11
4.200	400.00	0.00	0.00	794.10	2650.00	805.98	0.00	806.14	7.74	3.22	822.42	952.30

PAAD1 100 YEAR

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	2.400	2650.00	800.00	0.00	0.00	0.00	64.00	0.00
	2.400	2650.00	800.00	0.00	0.00	0.00	64.00	0.00
	2.400	2650.00	800.00	0.00	0.00	0.00	64.00	0.00
	2.500	2650.00	800.21	0.00	.21	0.00	63.55	470.00
	2.500	2650.00	800.08	0.00	.08	0.00	63.36	470.00
	2.500	2650.00	800.37	0.00	.37	0.00	63.79	470.00
	2.600	2650.00	800.48	0.00	.27	0.00	62.26	470.00
	2.600	2650.00	800.19	0.00	.11	0.00	61.84	470.00
	2.600	2650.00	800.82	0.00	.45	0.00	62.80	470.00
	2.700	2650.00	800.82	0.00	.35	0.00	61.10	470.00
	2.700	2650.00	800.35	0.00	.16	0.00	60.38	470.00
	2.700	2650.00	801.37	0.00	.55	0.00	61.95	470.00
	2.800	2650.00	801.27	0.00	.45	0.00	60.10	470.00
	2.800	2650.00	800.57	0.00	.22	0.00	59.01	470.00
	2.800	2650.00	802.02	0.00	.65	0.00	61.25	470.00
	2.900	2650.00	801.64	0.00	.37	0.00	59.28	320.00
	2.900	2650.00	800.76	0.00	.19	0.00	57.93	320.00
	2.900	2650.00	802.52	0.00	.50	0.00	60.64	320.00
	2.950	2650.00	801.94	0.00	.30	0.00	49.91	150.00
	2.950	2650.00	801.07	0.00	.30	0.00	49.75	150.00
	2.950	2650.00	802.84	0.00	.32	0.00	54.03	150.00
*	3.050	2650.00	804.46	0.00	2.52	0.00	60.00	175.00
*	3.050	2650.00	804.16	0.00	3.09	0.00	59.89	175.00
	3.050	2650.00	804.77	0.00	1.94	0.00	60.00	175.00
	3.100	2650.00	804.66	0.00	.19	0.00	104.00	50.00
	3.100	2650.00	804.36	0.00	.19	0.00	104.00	50.00
	3.100	2650.00	804.97	0.00	.20	0.00	104.00	50.00
	3.200	2650.00	804.84	0.00	.19	0.00	104.00	610.00
	3.200	2650.00	804.45	0.00	.10	0.00	104.00	610.00
	3.200	2650.00	805.26	0.00	.29	0.00	104.00	610.00
	4.000	2650.00	804.95	0.00	.11	0.00	92.00	340.00
	4.000	2650.00	804.50	0.00	.05	0.00	92.00	340.00
	4.000	2650.00	805.43	0.00	.17	0.00	92.00	340.00
	4.100	2650.00	805.13	0.00	.18	0.00	92.00	400.00
	4.100	2650.00	804.60	0.00	.10	0.00	92.00	400.00
	4.100	2650.00	805.69	0.00	.26	0.00	92.00	400.00
	4.200	2650.00	805.34	0.00	.20	0.00	92.00	400.00

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HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
ERROR CORR - 01
MODIFICATION - 50,51,52
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

PAAD2 100 YEAR

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
N	5.900	0.00	0.00	0.00	799.70	2650.00	809.80	0.00	810.04	10.88	3.93	674.49	803.22
N*.7	5.900	0.00	0.00	0.00	799.70	2650.00	809.80	0.00	810.04	5.33	3.93	674.49	1147.45
N*1.3	5.900	0.00	0.00	0.00	799.70	2650.00	809.80	0.00	810.04	18.40	3.93	674.49	617.86
	6.000	200.00	0.00	0.00	800.00	2650.00	810.02	0.00	810.26	11.33	3.98	665.06	787.30
	6.000	200.00	0.00	0.00	800.00	2650.00	809.90	0.00	810.16	5.86	4.06	652.40	1094.41
	6.000	200.00	0.00	0.00	800.00	2650.00	810.17	0.00	810.40	17.80	3.88	682.30	628.04
	6.100	200.00	0.00	0.00	800.30	2650.00	810.24	0.00	810.50	11.77	4.04	656.13	772.32
	6.100	200.00	0.00	0.00	800.30	2650.00	810.01	0.00	810.28	6.44	4.20	630.44	1043.91
	6.100	200.00	0.00	0.00	800.30	2650.00	810.52	0.00	810.75	17.28	3.84	689.46	637.41
	6.200	280.00	0.00	0.00	800.70	2650.00	810.57	0.00	810.83	12.21	4.09	647.89	758.42
	6.200	280.00	0.00	0.00	800.70	2650.00	810.18	0.00	810.48	7.19	4.38	604.99	988.37
	6.200	280.00	0.00	0.00	800.70	2650.00	811.01	0.00	811.23	16.60	3.79	699.36	650.43
	6.900	20.00	0.00	0.00	800.70	765.00	810.84	0.00	810.87	1.15	1.38	555.37	714.15
	6.900	20.00	0.00	0.00	800.70	765.00	810.48	0.00	810.52	.66	1.45	526.69	944.43
	6.900	20.00	0.00	0.00	800.70	765.00	811.24	0.00	811.26	1.64	1.30	587.81	596.50
	7.000	100.00	0.00	0.00	800.80	765.00	810.85	0.00	810.88	1.19	1.40	548.18	700.75
	7.000	100.00	0.00	0.00	800.80	765.00	810.49	0.00	810.52	.68	1.47	519.18	924.85
	7.000	100.00	0.00	0.00	800.80	765.00	811.25	0.00	811.28	1.70	1.32	580.95	586.44
	7.100	179.00	0.00	0.00	801.10	765.00	810.87	0.00	810.90	1.35	1.46	525.77	659.42
	7.100	179.00	0.00	0.00	801.10	765.00	810.50	0.00	810.54	.78	1.54	495.35	866.02
	7.100	179.00	0.00	0.00	801.10	765.00	811.28	0.00	811.31	1.90	1.37	558.94	554.49
	7.200	1.00	0.00	0.00	802.10	765.00	810.86	0.00	810.91	2.16	1.71	447.28	520.27
	7.200	1.00	0.00	0.00	802.10	765.00	810.49	0.00	810.54	1.29	1.83	418.44	673.55
	7.200	1.00	0.00	0.00	802.10	765.00	811.28	0.00	811.32	2.98	1.60	479.35	443.10
	7.300	70.00	0.00	0.00	802.20	765.00	810.88	0.00	810.92	2.27	1.74	439.86	507.59
	7.300	70.00	0.00	0.00	802.20	765.00	810.50	0.00	810.55	1.36	1.86	411.00	655.57
	7.300	70.00	0.00	0.00	802.20	765.00	811.30	0.00	811.34	3.11	1.62	472.31	433.58
	7.800	150.00	0.00	0.00	802.50	765.00	810.92	0.00	810.95	1.84	1.59	481.06	564.49
	7.800	150.00	0.00	0.00	802.50	765.00	810.52	0.00	810.57	1.11	1.70	450.39	727.01
	7.800	150.00	0.00	0.00	802.50	765.00	811.35	0.00	811.38	2.51	1.49	514.84	482.97

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
7.900	200.00	0.00	0.00	802.80	765.00	810.95	0.00	811.00	2.10	1.66	461.32	528.49
7.900	200.00	0.00	0.00	802.80	765.00	810.55	0.00	810.59	1.29	1.78	429.57	674.69
7.900	200.00	0.00	0.00	802.80	765.00	811.40	0.00	811.43	2.82	1.54	496.07	455.67
7.950	140.00	0.00	0.00	803.00	765.00	810.57	0.00	811.39	65.47	7.24	105.67	94.55
7.950	140.00	0.00	0.00	803.00	765.00	810.06	0.00	811.00	39.14	7.80	98.08	122.28
7.950	140.00	0.00	0.00	803.00	765.00	811.11	0.00	811.81	91.95	6.73	113.71	79.78
8.050	75.00	813.50	811.10	803.70	765.00	812.65	0.00	813.21	42.39	5.99	127.80	117.50
8.050	75.00	813.50	811.10	803.70	765.00	812.03	0.00	812.69	25.04	6.53	117.21	152.87
8.050	75.00	813.50	811.10	803.70	765.00	813.18	0.00	813.66	60.22	5.54	137.97	98.58
8.100	60.00	0.00	0.00	803.80	765.00	813.25	0.00	813.28	1.36	1.18	515.05	655.79
8.100	60.00	0.00	0.00	803.80	765.00	812.73	0.00	812.77	.85	1.60	477.67	830.69
8.100	60.00	0.00	0.00	803.80	765.00	813.71	0.00	813.74	1.89	1.39	550.15	557.04
8.200	209.00	0.00	0.00	804.10	765.00	813.28	0.00	813.31	1.54	1.54	495.90	616.42
8.200	209.00	0.00	0.00	804.10	765.00	812.74	0.00	812.79	.98	1.68	456.67	774.35
8.200	209.00	0.00	0.00	804.10	765.00	813.75	0.00	813.78	2.11	1.44	530.86	527.09
8.300	84.00	0.00	0.00	804.20	765.00	813.23	0.00	813.36	4.37	2.85	268.34	366.09
8.300	84.00	0.00	0.00	804.20	765.00	812.69	0.00	812.83	2.61	3.04	251.41	473.69
8.300	84.00	0.00	0.00	804.20	765.00	813.72	0.00	813.83	6.25	2.70	283.42	305.88
8.310	1.00	814.10	811.60	804.20	765.00	813.19	0.00	813.38	19.37	3.51	217.71	173.84
8.310	1.00	814.10	811.60	804.20	765.00	812.65	0.00	812.85	9.39	3.51	217.71	249.63
8.310	1.00	814.10	811.60	804.20	765.00	813.67	0.00	813.86	33.03	3.51	217.71	133.11
8.320	6.00	814.10	811.60	804.20	765.00	813.20	0.00	813.39	19.37	3.51	217.71	173.82
8.320	6.00	814.10	811.60	804.20	765.00	812.66	0.00	812.85	9.39	3.51	217.71	249.62
8.320	6.00	814.10	811.60	804.20	765.00	813.69	0.00	813.88	33.04	3.51	217.71	133.09
8.400	1.00	0.00	0.00	804.20	765.00	813.27	0.00	813.40	4.30	2.84	269.61	368.70
8.400	1.00	0.00	0.00	804.20	765.00	812.71	0.00	812.86	2.58	3.03	252.24	476.07
8.400	1.00	0.00	0.00	804.20	765.00	813.78	0.00	813.89	6.14	2.58	285.14	308.67
8.500	71.00	0.00	0.00	804.40	765.00	813.30	0.00	813.43	4.57	2.89	264.27	357.70
8.500	71.00	0.00	0.00	804.40	765.00	812.73	0.00	812.88	2.77	3.10	246.48	459.61
8.500	71.00	0.00	0.00	804.40	765.00	813.82	0.00	813.93	6.47	2.73	280.24	300.70
8.510	1.00	814.10	811.60	804.40	765.00	813.25	0.00	813.45	21.27	3.62	211.51	165.88
8.510	1.00	814.10	811.60	804.40	765.00	812.69	0.00	812.89	10.31	3.62	211.51	238.27
8.510	1.00	814.10	811.60	804.40	765.00	813.76	0.00	813.96	36.29	3.62	211.51	126.98
8.520	6.00	814.10	811.60	804.40	765.00	813.26	0.00	813.47	21.27	3.62	211.51	165.87
8.520	6.00	814.10	811.60	804.40	765.00	812.70	0.00	812.90	10.31	3.62	211.51	238.26
8.520	6.00	814.10	811.60	804.40	765.00	813.78	0.00	813.98	36.30	3.62	211.51	126.97
8.600	1.00	0.00	0.00	804.40	765.00	813.35	0.00	813.48	4.50	2.88	265.67	360.58
8.600	1.00	0.00	0.00	804.40	765.00	812.76	0.00	812.91	2.74	3.09	247.41	462.24
8.600	1.00	0.00	0.00	804.40	765.00	813.88	0.00	813.99	6.34	2.71	282.13	303.77
8.900	20.00	0.00	0.00	804.40	765.00	813.44	0.00	813.49	2.23	1.85	413.39	512.45
8.900	20.00	0.00	0.00	804.40	765.00	812.86	0.00	812.92	1.43	2.02	378.53	639.43
8.900	20.00	0.00	0.00	804.40	765.00	813.96	0.00	814.01	3.01	1.72	444.90	440.98

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
8.910	49.00	0.00	0.00	804.50	765.00	813.45	0.00	813.50	2.31	1.87	408.38	502.97
8.910	49.00	0.00	0.00	804.50	765.00	812.86	0.00	812.93	1.50	2.05	373.14	625.45
8.910	49.00	0.00	0.00	804.50	765.00	813.98	0.00	814.02	3.11	1.74	440.27	434.02
8.920	1.00	0.00	0.00	806.50	765.00	813.41	0.00	813.52	7.01	2.58	285.64	288.96
8.920	1.00	0.00	0.00	806.50	765.00	812.81	0.00	812.95	5.20	3.06	249.65	335.38
8.920	1.00	0.00	0.00	806.50	765.00	813.95	0.00	814.04	8.47	2.41	317.97	262.82
8.930	80.00	0.00	0.00	806.50	765.00	813.14	0.00	813.92	78.88	7.04	108.60	86.13
8.930	80.00	0.00	0.00	806.50	765.00	812.37	0.00	813.40	46.21	8.15	93.85	112.54
8.930	80.00	0.00	0.00	806.50	765.00	813.82	0.00	814.39	103.09	6.05	126.52	75.34
9.010	140.00	821.50	811.50	806.80	765.00	814.30	0.00	814.82	55.94	5.78	132.28	102.29
9.010	140.00	821.50	811.50	806.80	765.00	813.19	0.00	814.04	41.25	7.43	103.03	119.11
9.010	140.00	821.50	811.50	806.80	765.00	815.16	0.00	815.50	60.15	4.68	163.32	98.64
9.100	60.00	0.00	0.00	806.90	765.00	814.85	0.00	814.92	3.66	2.18	351.01	399.98
9.100	60.00	0.00	0.00	806.90	765.00	814.06	0.00	814.16	2.75	2.50	305.62	461.03
9.100	60.00	0.00	0.00	806.90	765.00	815.53	0.00	815.59	4.44	1.96	390.83	362.95
9.900	220.00	0.00	0.00	807.30	765.00	814.92	0.00	815.04	6.31	2.72	281.16	304.52
9.900	220.00	0.00	0.00	807.30	765.00	814.10	0.00	814.26	5.03	3.19	240.12	341.08
9.900	220.00	0.00	0.00	807.30	765.00	815.64	0.00	815.73	7.40	2.41	315.84	281.15
9.950	160.00	0.00	0.00	807.50	765.00	815.00	0.00	815.21	12.04	3.70	205.54	220.43
9.950	160.00	0.00	0.00	807.50	765.00	814.13	0.00	814.41	8.70	4.23	180.77	259.37
9.950	160.00	0.00	0.00	807.50	765.00	815.75	0.00	815.92	15.20	3.35	228.59	196.23
10.010	30.00	815.00	814.30	808.20	765.00	816.23	0.00	816.25	2.05	1.71	758.90	533.71
10.010	30.00	815.00	814.30	808.20	765.00	815.95	0.00	815.99	1.26	1.87	696.11	682.32
10.010	30.00	815.00	814.30	808.20	765.00	816.46	0.00	816.48	2.90	1.59	812.37	448.97
10.100	40.00	0.00	0.00	808.40	765.00	816.22	0.00	816.27	2.37	1.96	570.11	496.68
10.100	40.00	0.00	0.00	808.40	765.00	815.95	0.00	816.00	1.38	2.08	528.20	652.35
10.100	40.00	0.00	0.00	808.40	765.00	816.46	0.00	816.50	3.43	1.84	613.53	412.86
10.900	28.00	0.00	0.00	808.90	765.00	816.11	0.00	816.37	25.03	4.82	285.94	152.91
10.900	28.00	0.00	0.00	808.90	765.00	815.76	0.00	816.14	17.60	5.53	229.81	182.37
10.900	28.00	0.00	0.00	808.90	765.00	816.39	0.00	816.58	31.63	4.25	337.71	136.02
11.010	1.00	817.50	813.90	808.90	765.00	818.17	0.00	818.20	2.92	1.87	770.72	447.36
11.010	1.00	817.50	813.90	808.90	765.00	817.99	0.00	818.02	1.71	2.02	723.39	584.81
11.010	1.00	817.50	813.90	808.90	765.00	818.28	0.00	818.31	4.45	1.78	799.97	362.81
11.100	40.00	0.00	0.00	808.60	765.00	818.15	0.00	818.23	2.55	2.15	355.38	479.32
11.100	40.00	0.00	0.00	808.60	765.00	817.97	0.00	818.04	1.52	2.20	347.24	620.82
11.100	40.00	0.00	0.00	808.60	765.00	818.27	0.00	818.34	4.11	2.12	360.59	377.19

PAAD2 100 YEAR

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
5.900	2650.00	809.80	0.00	0.00	0.00	114.84	0.00
5.900	2650.00	809.80	0.00	0.00	0.00	114.84	0.00
5.900	2650.00	809.80	0.00	0.00	0.00	114.84	0.00
6.000	2650.00	810.02	0.00	.22	0.00	114.32	200.00
6.000	2650.00	809.90	0.00	.10	0.00	113.62	200.00
6.000	2650.00	810.17	0.00	.37	0.00	115.27	200.00
6.100	2650.00	810.24	0.00	.23	0.00	113.83	200.00
6.100	2650.00	810.01	0.00	.11	0.00	112.05	200.00
6.100	2650.00	810.52	0.00	.36	0.00	115.66	200.00
6.200	2650.00	810.57	0.00	.33	0.00	113.37	280.00
6.200	2650.00	810.18	0.00	.17	0.00	109.72	280.00
6.200	2650.00	811.01	0.00	.48	0.00	116.20	280.00
6.900	765.00	810.84	0.00	.26	0.00	80.97	20.00
6.900	765.00	810.48	0.00	.30	0.00	79.95	20.00
6.900	765.00	811.24	0.00	.23	0.00	82.10	20.00
7.000	765.00	810.85	0.00	.01	0.00	80.71	100.00
7.000	765.00	810.49	0.00	.01	0.00	79.68	100.00
7.000	765.00	811.25	0.00	.02	0.00	81.87	100.00
7.100	765.00	810.87	0.00	.02	0.00	79.92	179.00
7.100	765.00	810.50	0.00	.01	0.00	78.86	179.00
7.100	765.00	811.28	0.00	.03	0.00	81.09	179.00
7.200	765.00	810.86	0.00	-.01	0.00	77.06	1.00
7.200	765.00	810.49	0.00	-.01	0.00	75.99	1.00
7.200	765.00	811.28	0.00	-.01	0.00	78.24	1.00
7.300	765.00	810.88	0.00	.01	0.00	76.78	70.00
7.300	765.00	810.50	0.00	.01	0.00	75.77	70.00
7.300	765.00	811.30	0.00	.02	0.00	77.98	70.00
7.800	765.00	810.92	0.00	.04	0.00	78.00	150.00
7.800	765.00	810.52	0.00	.03	0.00	78.00	150.00
7.800	765.00	811.35	0.00	.05	0.00	78.00	150.00
7.900	765.00	810.95	0.00	.04	0.00	78.00	200.00
7.900	765.00	810.55	0.00	.02	0.00	78.00	200.00
7.900	765.00	811.40	0.00	.05	0.00	78.00	200.00
7.950	765.00	810.57	0.00	-.38	0.00	14.89	140.00
7.950	765.00	810.06	0.00	-.49	0.00	14.77	140.00
7.950	765.00	811.11	0.00	-.29	0.00	15.38	140.00
8.050	765.00	812.65	0.00	2.08	0.00	18.18	75.00
8.050	765.00	812.03	0.00	1.97	0.00	16.12	75.00
8.050	765.00	813.18	0.00	2.07	0.00	19.95	75.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
8.100	765.00	813.25	0.00	.60	0.00	74.00	60.00
8.100	765.00	812.73	0.00	.70	0.00	74.00	60.00
8.100	765.00	813.71	0.00	.52	0.00	74.00	60.00
8.200	765.00	813.28	0.00	.03	0.00	74.00	209.00
8.200	765.00	812.74	0.00	.02	0.00	74.00	209.00
8.200	765.00	813.75	0.00	.04	0.00	74.00	209.00
8.300	765.00	813.23	0.00	-.04	0.00	31.00	84.00
8.300	765.00	812.69	0.00	-.06	0.00	31.00	84.00
8.300	765.00	813.72	0.00	-.03	0.00	31.00	84.00
8.310	765.00	813.19	0.00	-.05	0.00	31.00	1.00
8.310	765.00	812.65	0.00	-.03	0.00	31.00	1.00
8.310	765.00	813.67	0.00	-.05	0.00	31.00	1.00
8.320	765.00	813.20	0.00	.01	0.00	31.00	6.00
8.320	765.00	812.66	0.00	.01	0.00	31.00	6.00
8.320	765.00	813.69	0.00	.02	0.00	31.00	6.00
8.400	765.00	813.27	0.00	.07	0.00	31.00	1.00
8.400	765.00	812.71	0.00	.05	0.00	31.00	1.00
8.400	765.00	813.78	0.00	.09	0.00	31.00	1.00
8.500	765.00	813.30	0.00	.03	0.00	31.00	71.00
8.500	765.00	812.73	0.00	.01	0.00	31.00	71.00
8.500	765.00	813.82	0.00	.04	0.00	31.00	71.00
8.510	765.00	813.25	0.00	-.05	0.00	31.00	1.00
8.510	765.00	812.69	0.00	-.04	0.00	31.00	1.00
8.510	765.00	813.76	0.00	-.06	0.00	31.00	1.00
8.520	765.00	813.26	0.00	.01	0.00	31.00	6.00
8.520	765.00	812.70	0.00	.01	0.00	31.00	6.00
8.520	765.00	813.78	0.00	.02	0.00	31.00	6.00
8.600	765.00	813.35	0.00	.08	0.00	31.00	1.00
8.600	765.00	812.76	0.00	.06	0.00	31.00	1.00
8.600	765.00	813.88	0.00	.10	0.00	31.00	1.00
8.900	765.00	813.44	0.00	.09	0.00	60.00	20.00
8.900	765.00	812.86	0.00	.10	0.00	60.00	20.00
8.900	765.00	813.96	0.00	.08	0.00	60.00	20.00
8.910	765.00	813.45	0.00	.01	0.00	60.00	49.00
8.910	765.00	812.86	0.00	.01	0.00	60.00	49.00
8.910	765.00	813.98	0.00	.01	0.00	60.00	49.00
8.920	765.00	813.41	0.00	-.04	0.00	60.00	1.00
8.920	765.00	812.81	0.00	-.06	0.00	59.34	1.00
8.920	765.00	813.95	0.00	-.03	0.00	60.00	1.00
8.930	765.00	813.14	0.00	-.26	0.00	22.89	80.00
8.930	765.00	812.37	0.00	-.44	0.00	16.10	80.00
8.930	765.00	813.82	0.00	-.12	0.00	30.01	80.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
9.010	765.00	814.30	0.00	1.16	0.00	31.96	140.00
9.010	765.00	813.19	0.00	.82	0.00	20.17	140.00
9.010	765.00	815.16	0.00	1.34	0.00	40.92	140.00
9.100	765.00	814.85	0.00	.55	0.00	58.00	60.00
9.100	765.00	814.06	0.00	.88	0.00	58.00	60.00
9.100	765.00	815.53	0.00	.38	0.00	58.00	60.00
9.900	765.00	814.92	0.00	.07	0.00	50.00	220.00
9.900	765.00	814.10	0.00	.04	0.00	50.00	220.00
9.900	765.00	815.64	0.00	.10	0.00	50.00	220.00
9.950	765.00	815.00	0.00	.08	0.00	29.75	160.00
9.950	765.00	814.13	0.00	.03	0.00	29.54	160.00
9.950	765.00	815.75	0.00	.11	0.00	29.94	160.00
10.010	765.00	816.23	0.00	1.23	0.00	231.38	30.00
10.010	765.00	815.95	0.00	1.82	0.00	229.43	30.00
10.010	765.00	816.46	0.00	.71	0.00	233.02	30.00
10.100	765.00	816.22	0.00	-.00	0.00	162.21	40.00
10.100	765.00	815.95	0.00	-.01	0.00	147.99	40.00
10.100	765.00	816.46	0.00	.00	0.00	189.00	40.00
10.900	765.00	816.11	0.00	-.11	0.00	174.73	28.00
10.900	765.00	815.76	0.00	-.19	0.00	149.44	28.00
10.900	765.00	816.39	0.00	-.07	0.00	194.84	28.00
11.010	765.00	818.17	0.00	2.06	0.00	260.00	1.00
11.010	765.00	817.99	0.00	2.23	0.00	260.00	1.00
11.010	765.00	818.28	0.00	1.89	0.00	260.00	1.00
11.100	765.00	818.15	0.00	-.02	0.00	44.00	40.00
11.100	765.00	817.97	0.00	-.02	0.00	44.00	40.00
11.100	765.00	818.27	0.00	-.01	0.00	44.00	40.00

SUMMARY OF ERRORS

CAUTION SECNO= 10.010 PROFILE= 2 HYDRAULIC JUMP D.S.

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED JULY 1979
  ERROR CORR -  01,02,03
  MODIFICATION -  50,51,52,53
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PAAD 1 - D/S
& REVISED BSD

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C
T1      HUD FIA H-4705 T06
T2      PITTSFIELD TWP PIS
T3      PAAD1 100 YEAR

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
      -1.        2.        0.        0.  0.000000      0.00     -1.0        0.    794.800     0.000

J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
      1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

J3  VARIABLE CODES FOR SUMMARY PRINTOUT

    201.000     0.000   150.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC      .060      .060      .035      .100      .300     0.000     0.000     0.000     0.000     0.000
QT     5.000  1500.000  2250.000  2650.000  3500.000  2650.000     0.000     0.000     0.000     0.000

       ***JUST U/S OF PLATT RD.

X1     2.400     4.000   304.000   368.000     0.000     0.000     0.000     0.000    -5.300     0.000
GR   800.500   304.000   791.100   322.000   791.100   347.000   804.700   368.000     0.000     0.000

X1     2.500     0.000     0.000     0.000   470.000   470.000   470.000     0.000     1.100     0.000

X1     2.600     0.000     0.000     0.000   470.000   470.000   470.000     0.000     1.100     0.000

X1     2.700     0.000     0.000     0.000   470.000   470.000   470.000     0.000     1.100     0.000

X1     2.800     0.000     0.000     0.000   470.000   470.000   470.000     0.000     1.100     0.000

X1     2.900     0.000     0.000     0.000   320.000   320.000   320.000     0.000      .900     0.000
NC     0.000     0.000     0.000      .200      .400     0.000     0.000     0.000     0.000     0.000

       ***D/S FACE OF PACKARD RD.

X1     2.950     6.000   117.000   160.000   150.000   150.000   150.000     0.000     -.100     0.000
GR   804.200   100.000   802.500   105.000   791.800   106.000   791.800   154.000   802.500   155.000
GR   803.300   160.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
SB     1.200     1.500     2.900   120.000    45.000    21.000   170.000     0.000   791.800   791.800
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X1	3.050	0.000	0.000	0.000	175.000	175.000	175.000	0.000	.100	0.000
X2	0.000	0.000	1.000	798.400	803.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	.040	.100	.300	0.000	0.000	0.000	0.000	0.000
X1	3.100	8.000	174.000	278.000	50.000	50.000	50.000	0.000	0.000	0.000
GR	801.800	174.000	798.300	196.000	796.400	206.000	792.800	218.000	791.800	238.000
GR	791.800	263.000	797.400	272.000	800.200	278.000	0.000	0.000	0.000	0.000

***D/S LIMIT OF DETAILED STUDY

X1	3.200	0.000	0.000	0.000	610.000	610.000	610.000	0.000	.700	0.000
X1	4.000	6.000	326.000	418.000	340.000	340.000	340.000	0.000	0.000	0.000
GR	800.800	326.000	795.400	344.000	793.000	360.000	793.000	380.000	796.500	398.000
GR	802.200	418.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	4.100	0.000	0.000	0.000	400.000	400.000	400.000	0.000	.500	0.000

***JUST D/S OF RETENTION BASIN #1

X1	4.200	0.000	0.000	0.000	400.000	400.000	400.000	0.000	.600	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

*PROF 1

CCHV= .100 CEHV= .300

*SECNO 2.400

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
	***JUST U/S OF PLATT RD.								
2.40	9.00	794.80	0.00	794.80	795.06	.26	0.00	0.00	795.20
1500.	0.	1500.	0.	0.	365.	0.	0.	0.	799.40
0.00	0.00	4.11	0.00	.060	.035	.060	0.000	785.80	304.77
.000862	0.	0.	0.	0	0	0	0.00	56.13	360.90

*SECNO 2.500

2.50	8.32	795.22	0.00	0.00	795.55	.33	.47	.02	796.30
1500.	0.	1500.	0.	0.	327.	0.	4.	1.	800.50
.03	0.00	4.58	0.00	.060	.035	.060	.035	786.90	306.08
.001165	470.	470.	470.	1	0	0	0.00	53.76	359.84

*SECNO 2.600

2.60	7.80	795.80	0.00	0.00	796.18	.39	.62	.02	797.40
1500.	0.	1500.	0.	0.	300.	0.	7.	1.	801.60
.05	0.00	5.00	0.00	.060	.035	.060	.035	788.00	307.07
.001486	470.	470.	470.	2	0	0	0.00	51.97	359.04

*SECNO 2.700

2.70	7.42	796.52	0.00	0.00	796.96	.44	.76	.02	798.50
1500.	0.	1500.	0.	0.	281.	0.	10.	2.	802.70
.08	0.00	5.34	0.00	.060	.035	.060	.035	789.10	307.79
.001787	470.	470.	470.	2	0	0	0.00	50.67	358.46

*SECNO 2.800

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
2.80	7.18	797.38	0.00	0.00	797.87	.48	.89	.01	799.60
1500.	0.	1500.	0.	0.	269.	0.	13.	2.	803.80
.10	0.00	5.58	0.00	.060	.035	.060	.035	790.20	308.24
.002017	470.	470.	470.	2	0	0	0.00	49.85	358.09

*SECNO 2.900

2.90	6.94	798.04	0.00	0.00	798.57	.53	.69	.01	800.50
1500.	0.	1500.	0.	0.	257.	0.	15.	3.	804.70
.12	0.00	5.84	0.00	.060	.035	.060	.035	791.10	308.71
.002294	320.	320.	320.	2	0	0	0.00	49.01	357.72

CCHV= .200 CEHV= .400
*SECNO 2.950

***D/S FACE OF PACKARD RD.

2.95	6.84	798.54	0.00	0.00	798.85	.32	.24	.04	854.20
1500.	0.	1500.	0.	0.	333.	0.	16.	3.	803.20
.13	0.00	4.51	0.00	.060	.035	.060	.035	791.70	105.36
.001194	150.	150.	150.	2	0	0	0.00	49.28	154.64

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS 793.65 ,NOT 798.54 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.20	1.50	2.90	120.00	45.00	21.00	170.00	0.00	791.80	791.80

*SECNO 3.050
PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
800.35	800.08	0.00	0.	1500.	170.	158.	798.40	803.00

3.05	8.34	800.14	0.00	0.00	800.35	.21	1.50	0.00	804.20
1500.	0.	1500.	0.	0.	407.	0.	18.	3.	803.30
.14	0.00	3.69	0.00	.060	.035	.060	.035	791.80	105.22
.000650	175.	175.	175.	2	0	0	0.00	49.56	154.78

CCHV= .100 CEHV= .300
*SECNO 3.100
3280 CROSS SECTION 3.10 EXTENDED .07 FEET

3.10	8.47	800.27	0.00	0.00	800.39	.12	.03	.01	801.80
1500.	0.	1500.	0.	0.	541.	0.	18.	3.	800.20
.15	0.00	2.77	0.00	.060	.040	.060	.035	791.80	183.60
.000569	50.	50.	50.	2	0	0	0.00	94.40	278.00

*SECNO 3.200

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

***D/S LIMIT OF DETAILED STUDY

3.20	8.14	800.64	0.00	0.00	800.77	.13	.37	.00	802.50
1500.	0.	1500.	0.	0.	510.	0.	26.	4.	800.90
.20	0.00	2.94	0.00	.060	.040	.060	.036	792.50	185.67
.000665	610.	610.	610.	0	0	0	0.00	91.78	277.45

*SECNO 4.000
3280 CROSS SECTION 4.00 EXTENDED .07 FEET

4.00	7.87	800.87	0.00	0.00	801.04	.17	.26	.01	800.80
1500.	0.	1500.	0.	0.	458.	0.	29.	5.	802.20
.23	0.00	3.28	0.00	.060	.040	.060	.036	793.00	326.00
.000880	340.	340.	340.	2	0	0	0.00	87.34	413.34

*SECNO 4.100

4.10	7.73	801.23	0.00	0.00	801.41	.18	.37	.00	801.30
1500.	0.	1500.	0.	0.	446.	0.	33.	6.	802.70
.26	0.00	3.37	0.00	.060	.040	.060	.037	793.50	326.23
.000951	400.	400.	400.	2	0	0	0.00	86.62	412.85

*SECNO 4.200

***JUST D/S OF RETENTION BASIN #1.

4.20	7.52	801.62	0.00	0.00	801.81	.19	.40	.00	801.90
1500.	0.	1500.	0.	0.	428.	0.	37.	7.	803.30
.30	0.00	3.51	0.00	.060	.040	.060	.037	794.10	326.92
.001066	400.	400.	400.	2	0	0	0.00	85.20	412.12

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED JULY 1979
  ERROR CORR -  01,02,03
  MODIFICATION -  50,51,52,53
**************************************************

T1      JOB HUD-FIA H-4705  T06
T2      FLOOD INSURANCE STUDIES
T3      50 YEAR FLOW

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      -1.       3.        0.        0.  0.000000      0.00      -1.0        0.    798.000     0.000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

     2.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
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*PROF 2

CCHV= .100 CEHV= .300
*SECNO 2.400
3280 CROSS SECTION 2.40 EXTENDED 2.80 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
	***JUST U/S OF PLATT RD.								
2.40	12.20	798.00	0.00	798.00	798.26	.26	0.00	0.00	795.20
2250.	0.	2250.	0.	0.	555.	0.	0.	0.	799.40
0.00	0.00	4.05	0.00	.060	.035	.060	0.000	785.80	304.00
.000583	0.	0.	0.	0	0	0	0.00	61.84	365.84

*SECNO 2.500
3280 CROSS SECTION 2.50 EXTENDED 1.97 FEET

2.50	11.38	798.28	0.00	0.00	798.58	.31	.31	.02	796.30
2250.	0.	2250.	0.	0.	504.	0.	6.	1.	800.50
.03	0.00	4.46	0.00	.060	.035	.060	.035	786.90	304.00
.000766	470.	470.	470.	0	0	0	0.00	60.56	364.56

*SECNO 2.600
3280 CROSS SECTION 2.60 EXTENDED 1.24 FEET

2.60	10.64	798.64	0.00	0.00	799.01	.37	.41	.02	797.40
2250.	0.	2250.	0.	0.	460.	0.	11.	1.	801.60
.06	0.00	4.89	0.00	.060	.035	.060	.035	788.00	304.00
.000997	470.	470.	470.	2	0	0	0.00	59.43	363.43

*SECNO 2.700
3280 CROSS SECTION 2.70 EXTENDED .62 FEET

2.70	10.02	799.12	0.00	0.00	799.56	.44	.53	.02	798.50
2250.	0.	2250.	0.	0.	424.	0.	16.	2.	802.70
.08	0.00	5.31	0.00	.060	.035	.060	.035	789.10	304.00
.001267	470.	470.	470.	2	0	0	0.00	58.47	362.47

*SECNO 2.800
3280 CROSS SECTION 2.80 EXTENDED .13 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA

SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
2.80	9.53	799.73	0.00	0.00	800.23	.50	.66	.02	799.60
2250.	0.	2250.	0.	0.	395.	0.	20.	3.	803.80
.10	0.00	5.69	0.00	.060	.035	.060	.035	790.20	304.00
.001551	470.	470.	470.	2	0	0	0.00	57.72	361.72

*SECNO 2.900

2.90	9.13	800.23	0.00	0.00	800.79	.57	.54	.02	800.50
2250.	0.	2250.	0.	0.	372.	0.	23.	3.	804.70
.12	0.00	6.05	0.00	.060	.035	.060	.035	791.10	304.53
.001838	320.	320.	320.	2	0	0	0.00	56.57	361.09

CCHV= .200 CEHV= .400
*SECNO 2.950

***D/S FACE OF PACKARD RD.

2.95	8.93	800.63	0.00	0.00	801.04	.41	.22	.03	854.20
2250.	0.	2250.	0.	0.	436.	0.	24.	3.	803.20
.13	0.00	5.16	0.00	.060	.035	.060	.035	791.70	105.17
.001189	150.	150.	150.	2	0	0	0.00	49.67	154.83

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS 794.22 ,NOT 800.63 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.20	1.50	2.90	120.00	45.00	21.00	170.00	0.00	791.80	791.80

*SECNO 3.050
3280 CROSS SECTION 3.05 EXTENDED .30 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
804.71	802.65	0.00	261.	1992.	170.	158.	798.40	803.00

3.05	11.80	803.60	0.00	0.00	803.83	.23	2.78	0.00	804.20
2250.	0.	2250.	0.	0.	584.	0.	26.	3.	803.30
.14	0.00	3.85	0.00	.060	.035	.060	.035	791.80	101.78
.000563	175.	175.	175.	2	0	2	0.00	58.22	160.00

CCHV= .100 CEHV= .300
*SECNO 3.100
3280 CROSS SECTION 3.10 EXTENDED 3.56 FEET

3.10	11.96	803.76	0.00	0.00	803.86	.10	.02	.01	801.80
2250.	0.	2250.	0.	0.	896.	0.	27.	3.	800.20
.14	0.00	2.51	0.00	.060	.040	.060	.035	791.80	174.00

.000288	50.	50.	50.	2	0	0	0.00	104.00	278.00

*SECNO 3.200
3280 CROSS SECTION 3.20 EXTENDED 3.05 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

***D/S LIMIT OF DETAILED STUDY

3.20	11.45	803.95	0.00	0.00	804.06	.11	.19	.00	802.50
2250.	0.	2250.	0.	0.	843.	0.	39.	5.	800.90
.21	0.00	2.67	0.00	.060	.040	.060	.036	792.50	174.00
.000349	610.	610.	610.	2	0	0	0.00	104.00	278.00

*SECNO 4.000
3280 CROSS SECTION 4.00 EXTENDED 3.25 FEET

4.00	11.06	804.06	0.00	0.00	804.20	.14	.13	.01	800.80
2250.	0.	2250.	0.	0.	747.	0.	46.	6.	802.20
.24	0.00	3.01	0.00	.060	.040	.060	.036	793.00	326.00
.000445	340.	340.	340.	0	0	0	0.00	92.00	418.00

*SECNO 4.100
3280 CROSS SECTION 4.10 EXTENDED 2.94 FEET

4.10	10.74	804.24	0.00	0.00	804.39	.15	.19	.00	801.30
2250.	0.	2250.	0.	0.	718.	0.	52.	7.	802.70
.27	0.00	3.13	0.00	.060	.040	.060	.037	793.50	326.00
.000503	400.	400.	400.	2	0	0	0.00	92.00	418.00

*SECNO 4.200
3280 CROSS SECTION 4.20 EXTENDED 2.54 FEET

***JUST D/S OF RETENTION BASIN #1

4.20	10.34	804.44	0.00	0.00	804.61	.17	.22	.01	801.90
2250.	0.	2250.	0.	0.	681.	0.	59.	7.	803.30
.31	0.00	3.30	0.00	.060	.040	.060	.037	794.10	326.00
.000593	400.	400.	400.	1	0	0	0.00	92.00	418.00

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  HEC2 RELEASE DATED NOV 76 UPDATED JULY 1979
  ERROR CORR -  01,02,03
  MODIFICATION -  50,51,52,53
**************************************************

T1      JOB HUD-FIA H-4705  T06
T2      FLOOD INSURANCE STUDIES
T3      100 YEAR FLOW

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

     -1.        4.        0.        0.   0.000000     0.00      -1.0         0.   800.000     0.000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

     3.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
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*PROF 3

CCHV= .100 CEHV= .300
*SECNO 2.400
3280 CROSS SECTION 2.40 EXTENDED 4.80 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
	***JUST U/S OF PLATT RD.								
2.40	14.20	800.00	0.00	800.00	800.23	.23	0.00	0.00	795.20
2650.	0.	2650.	0.	0.	681.	0.	0.	0.	799.40
0.00	0.00	3.89	0.00	.060	.035	.060	0.000	785.80	304.00
.000448	0.	0.	0.	0	0	0	0.00	64.00	368.00

*SECNO 2.500
3280 CROSS SECTION 2.50 EXTENDED 3.91 FEET

2.50	13.31	800.21	0.00	0.00	800.49	.28	.24	.01	796.30
2650.	0.	2650.	0.	0.	625.	0.	7.	1.	800.50
.03	0.00	4.24	0.00	.060	.035	.060	.035	786.90	304.00
.000578	470.	470.	470.	0	0	0	0.00	63.55	367.55

*SECNO 2.600
3280 CROSS SECTION 2.60 EXTENDED 3.08 FEET

2.60	12.48	800.48	0.00	0.00	800.81	.33	.31	.02	797.40
2650.	0.	2650.	0.	0.	572.	0.	14.	1.	801.60
.06	0.00	4.63	0.00	.060	.035	.060	.035	788.00	304.00
.000742	470.	470.	470.	2	0	0	0.00	62.26	366.26

*SECNO 2.700
3280 CROSS SECTION 2.70 EXTENDED 2.32 FEET

2.70	11.72	800.82	0.00	0.00	801.22	.39	.39	.02	798.50
2650.	0.	2650.	0.	0.	526.	0.	19.	2.	802.70
.08	0.00	5.04	0.00	.060	.035	.060	.035	789.10	304.00
.000944	470.	470.	470.	2	0	0	0.00	61.10	365.10

*SECNO 2.800
3280 CROSS SECTION 2.80 EXTENDED 1.67 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA

SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
.2.80	11.07	801.27	0.00	0.00	801.73	.46	.49	.02	799.60
2650.	0.	2650.	0.	0.	486.	0.	25.	3.	803.80
.11	0.00	5.45	0.00	.060	.035	.060	.035	790.20	304.00
.001181	470.	470.	470.	2	0	0	0.00	60.10	364.10

*SECNO 2.900
3280 CROSS SECTION 2.90 EXTENDED 1.14 FEET

2.90	10.54	801.64	0.00	0.00	802.17	.53	.42	.02	800.50
2650.	0.	2650.	0.	0.	454.	0.	28.	3.	804.70
.12	0.00	5.83	0.00	.060	.035	.060	.035	791.10	304.00
.001435	320.	320.	320.	2	0	0	0.00	59.28	363.28

CCHV= .200 CEHV= .400
*SECNO 2.950

***D/S FACE OF PACKARD RD.

2.95	10.24	801.94	0.00	0.00	802.38	.43	.19	.02	854.20
2650.	0.	2650.	0.	0.	501.	0.	30.	3.	803.20
.13	0.00	5.29	0.00	.060	.035	.060	.035	791.70	105.04
.001092	150.	150.	150.	2	0	0	0.00	49.91	154.96

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS 794.50 ,NOT 801.94 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.20	1.50	2.90	120.00	45.00	21.00	170.00	0.00	791.80	791.80

*SECNO 3.050
3280 CROSS SECTION 3.05 EXTENDED 1.16 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
807.60	804.01	0.00	794.	1861.	170.	158.	798.40	803.00

3.05	12.66	804.46	0.00	0.00	804.73	.27	2.36	0.00	804.20
2650.	0.	2650.	0.	0.	636.	0.	32.	4.	803.30
.14	0.00	4.17	0.00	.060	.035	.060	.035	791.80	100.00
.000620	175.	175.	175.	2	0	3	0.00	60.00	160.00

CCHV= .100 CEHV= .300
*SECNO 3.100
3280 CROSS SECTION 3.10 EXTENDED 4.46 FEET

3.10	12.86	804.66	0.00	0.00	804.77	.11	.02	.02	801.80
2650.	0.	2650.	0.	0.	989.	0.	33.	4.	800.20
.15	0.00	2.68	0.00	.060	.040	.060	.035	791.80	174.00
.000293	50.	50.	50.	2	0	0	0.00	104.00	278.00

*SECNO 3.200
3280 CROSS SECTION 3.20 EXTENDED 3.94 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

***D/S LIMIT OF DETAILED STUDY

3.20	12.34	804.84	0.00	0.00	804.97	.12	.19	.00	802.50
2650.	0.	2650.	0.	0.	936.	0.	47.	5.	800.90
.21	0.00	2.83	0.00	.060	.040	.060	.036	792.50	174.00
.000349	610.	610.	610.	2	0	0	0.00	104.00	278.00

*SECNO 4.000
3280 CROSS SECTION 4.00 EXTENDED 4.15 FEET

4.00	11.95	804.95	0.00	0.00	805.11	.16	.13	.01	800.80
2650.	0.	2650.	0.	0.	830.	0.	54.	6.	802.20
.24	0.00	3.19	0.00	.060	.040	.060	.036	793.00	326.00
.000445	340.	340.	340.	0	0	0	0.00	92.00	418.00

*SECNO 4.100
3280 CROSS SECTION 4.10 EXTENDED 3.83 FEET

4.10	11.63	805.13	0.00	0.00	805.30	.17	.19	.00	801.30
2650.	0.	2650.	0.	0.	801.	0.	61.	7.	802.70
.27	0.00	3.31	0.00	.060	.040	.060	.037	793.50	326.00
.000498	400.	400.	400.	2	0	0	0.00	92.00	418.00

*SECNO 4.200
3280 CROSS SECTION 4.20 EXTENDED 3.43 FEET

***JUST D/S OF RETENTION BASIN #1

4.20	11.24	805.34	0.00	0.00	805.52	.19	.21	.01	801.90
2650.	0.	2650.	0.	0.	763.	0.	68.	8.	803.30
.30	0.00	3.47	0.00	.060	.040	.060	.037	794.10	326.00
.000577	400.	400.	400.	1	0	0	0.00	92.00	418.00

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED JULY 1979
  ERROR CORR -  01,02,03
  MODIFICATION -  50,51,52,53
**************************************************

T1      JOB HUD-FIA H-4705  T06
T2      FLOOD INSURANCE STUDIES
T3      500 YEAR FLOW

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
      -1.       5.        0.        0.  0.000000      0.00      -1.0        0.   801.600     0.000
J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
     15.000    0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
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*PROF 4

CCHV= .100 CEHV= .300
*SECNO 2.400
3280 CROSS SECTION 2.40 EXTENDED 6.40 FEET

SECNO	DEPTH	CWSEI	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
	***JUST U/S OF PLATT RD.								
2.40	15.80	801.60	0.00	801.60	801.91	.31	0.00	0.00	795.20
3500.	0.	3500.	0.	0.	784.	0.	0.	0.	799.40
0.00	0.00	4.47	0.00	.060	.035	.060	0.000	785.80	304.00
.000518	0.	0.	0.	0	0	0	0.00	64.00	368.00

*SECNO 2.500
3280 CROSS SECTION 2.50 EXTENDED 5.54 FEET

2.50	14.94	801.84	0.00	0.00	802.19	.36	.27	.01	796.30
3500.	0.	3500.	0.	0.	729.	0.	8.	1.	800.50
.03	0.00	4.80	0.00	.060	.035	.060	.035	786.90	304.00
.000641	470.	470.	470.	0	0	0	0.00	64.00	368.00

*SECNO 2.600
3280 CROSS SECTION 2.60 EXTENDED 4.73 FEET

2.60	14.13	802.13	0.00	0.00	802.55	.42	.33	.02	797.40
3500.	0.	3500.	0.	0.	677.	0.	16.	1.	801.60
.05	0.00	5.17	0.00	.060	.035	.060	.035	788.00	304.00
.000797	470.	470.	470.	2	0	0	0.00	64.00	368.00

*SECNO 2.700
3280 CROSS SECTION 2.70 EXTENDED 4.00 FEET

2.70	13.40	802.50	0.00	0.00	802.98	.48	.41	.02	798.50
3500.	0.	3500.	0.	0.	630.	0.	23.	2.	802.70
.08	0.00	5.55	0.00	.060	.035	.060	.035	789.10	304.00
.000982	470.	470.	470.	2	0	0	0.00	63.69	367.69

*SECNO 2.800
3280 CROSS SECTION 2.80 EXTENDED 3.36 FEET

SECNO	DEPTH	CWSEI	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA

SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
2.80	12.76	802.96	0.00	0.00	803.51	.55	.51	.02	799.60
3500.	0.	3500.	0.	0.	590.	0.	29.	3.	803.80
.10	0.00	5.93	0.00	.060	.035	.060	.035	790.20	304.00
.001186	470.	470.	470.	2	0	0	0.00	62.70	366.70

*SECNO 2.900
3280 CROSS SECTION 2.90 EXTENDED 2.82 FEET

2.90	12.22	803.32	0.00	0.00	803.94	.62	.41	.02	800.50
3500.	0.	3500.	0.	0.	556.	0.	34.	3.	804.70
.11	0.00	6.30	0.00	.060	.035	.060	.035	791.10	304.00
.001404	320.	320.	320.	1	0	0	0.00	61.86	365.86

CCHV= .200 CEHV= .400
*SECNO 2.950
3280 CROSS SECTION 2.95 EXTENDED .41 FEET

***D/S FACE OF PACKARD RD.

2.95	11.91	803.61	0.00	0.00	804.16	.54	.20	.01	854.20
3500.	0.	3500.	0.	0.	591.	0.	36.	3.	803.20
.12	0.00	5.92	0.00	.060	.035	.060	.035	791.70	101.43
.001322	150.	150.	150.	2	0	0	0.00	58.57	160.00

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS 795.05 ,NOT 803.61 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.20	1.50	2.90	120.00	45.00	21.00	170.00	0.00	791.80	791.80

*SECNO 3.050
3280 CROSS SECTION 3.05 EXTENDED 2.33 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
813.49	806.52	0.00	1809.	1724.	170.	158.	798.40	803.00

3.05	13.83	805.63	0.00	0.00	806.01	.38	1.85	0.00	804.20
3500.	0.	3500.	0.	0.	706.	0.	38.	4.	803.30
.13	0.00	4.96	0.00	.060	.035	.060	.035	791.80	100.00
.000794	175.	175.	175.	2	0	3	0.00	60.00	160.00

CCHV= .100 CEHV= .300
*SECNO 3.100

3280 CROSS SECTION 3.10 EXTENDED 5.70 FEET

3.10	14.10	805.90	0.00	0.00	806.06	.15	.02	.02	801.80
3500.	0.	3500.	0.	0.	1119.	0.	39.	4.	800.20
.13	0.00	3.13	0.00	.060	.040	.060	.035	791.80	174.00
.000327	50.	50.	50.	2	0	0	0.00	104.00	278.00

*SECNO 3.200
3280 CROSS SECTION 3.20 EXTENDED 5.21 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

***D/S LIMIT OF DETAILED STUDY

3.20	13.61	806.11	0.00	0.00	806.28	.17	.21	.00	802.50
3500.	0.	3500.	0.	0.	1067.	0.	55.	5.	800.90
.19	0.00	3.28	0.00	.060	.040	.060	.036	792.50	174.00
.000380	610.	610.	610.	2	0	0	0.00	104.00	278.00

*SECNO 4.000
3280 CROSS SECTION 4.00 EXTENDED 5.43 FEET

4.00	13.23	806.23	0.00	0.00	806.44	.21	.15	.01	800.80
3500.	0.	3500.	0.	0.	948.	0.	62.	6.	802.20
.21	0.00	3.69	0.00	.060	.040	.060	.036	793.00	326.00
.000517	340.	340.	340.	0	0	0	0.00	92.00	418.00

*SECNO 4.100
3280 CROSS SECTION 4.10 EXTENDED 5.13 FEET

4.10	12.93	806.43	0.00	0.00	806.66	.22	.22	.00	801.30
3500.	0.	3500.	0.	0.	920.	0.	71.	7.	802.70
.24	0.00	3.80	0.00	.060	.040	.060	.037	793.50	326.00
.000565	400.	400.	400.	2	0	0	0.00	92.00	418.00

*SECNO 4.200
3280 CROSS SECTION 4.20 EXTENDED 4.76 FEET

***JUST D/S OF RETENTION BASIN #1

4.20	12.56	806.66	0.00	0.00	806.90	.24	.24	.01	801.90
3500.	0.	3500.	0.	0.	886.	0.	79.	8.	803.30
.27	0.00	3.95	0.00	.060	.040	.060	.037	794.10	326.00
.000636	400.	400.	400.	1	0	0	0.00	92.00	418.00

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  HEC2 RELEASE DATED NOV 76 UPDATED JULY 1979
  ERROR CORR -  01,02,03
  MODIFICATION -  50,51,52,53
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

PAAD1 100 YEAR

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	FLTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	2.400	0.00	0.00	0.00	785.80	1500.00	794.80	0.00	795.06	8.62	4.11	365.09	511.01
	2.400	0.00	0.00	0.00	785.80	2250.00	798.00	0.00	798.26	5.83	4.05	554.91	931.87
	2.400	0.00	0.00	0.00	785.80	2650.00	800.00	0.00	800.23	4.48	3.89	681.40	1251.67
	2.400	0.00	0.00	0.00	785.80	3500.00	801.60	0.00	801.91	5.18	4.47	783.80	1537.61
	2.500	470.00	0.00	0.00	786.90	1500.00	795.22	0.00	795.55	11.65	4.58	327.42	439.46
	2.500	470.00	0.00	0.00	786.90	2250.00	798.28	0.00	798.58	7.66	4.46	504.36	812.84
	2.500	470.00	0.00	0.00	786.90	2650.00	800.21	0.00	800.49	5.78	4.24	624.55	1102.20
	2.500	470.00	0.00	0.00	786.90	3500.00	801.84	0.00	802.19	6.41	4.80	728.98	1382.68
	2.600	470.00	0.00	0.00	788.00	1500.00	795.80	0.00	796.18	14.86	5.00	300.02	389.18
	2.600	470.00	0.00	0.00	788.00	2250.00	798.64	0.00	799.01	9.97	4.89	460.36	712.72
	2.600	470.00	0.00	0.00	788.00	2650.00	800.48	0.00	800.81	7.42	4.63	572.04	973.10
	2.600	470.00	0.00	0.00	788.00	3500.00	802.13	0.00	802.55	7.97	5.17	676.99	1239.71
	2.700	470.00	0.00	0.00	789.10	1500.00	796.52	0.00	796.96	17.87	5.34	280.81	354.87
	2.700	470.00	0.00	0.00	789.10	2250.00	799.12	0.00	799.56	12.67	5.31	423.78	632.13
	2.700	470.00	0.00	0.00	789.10	2650.00	800.82	0.00	801.22	9.44	5.04	525.70	862.59
	2.700	470.00	0.00	0.00	789.10	3500.00	802.50	0.00	802.98	9.82	5.55	630.31	1116.62
	2.800	470.00	0.00	0.00	790.20	1500.00	797.38	0.00	797.87	20.17	5.58	268.91	334.03
	2.800	470.00	0.00	0.00	790.20	2250.00	799.73	0.00	800.23	15.51	5.69	395.41	571.40
	2.800	470.00	0.00	0.00	790.20	2650.00	801.27	0.00	801.73	11.81	5.45	486.19	771.08
	2.800	470.00	0.00	0.00	790.20	3500.00	802.96	0.00	803.51	11.86	5.93	589.78	1016.27
	2.900	320.00	0.00	0.00	791.10	1500.00	798.04	0.00	798.57	22.94	5.84	256.79	313.15
	2.900	320.00	0.00	0.00	791.10	2250.00	800.23	0.00	800.79	18.38	6.05	372.17	524.75
	2.900	320.00	0.00	0.00	791.10	2650.00	801.64	0.00	802.17	14.35	5.83	454.49	699.61
	2.900	320.00	0.00	0.00	791.10	3500.00	803.32	0.00	803.94	14.04	6.30	555.86	934.13
	2.950	150.00	0.00	0.00	791.70	1500.00	798.54	0.00	798.85	11.94	4.51	332.63	434.06
	2.950	150.00	0.00	0.00	791.70	2250.00	800.63	0.00	801.04	11.89	5.16	436.09	652.41
	2.950	150.00	0.00	0.00	791.70	2650.00	801.94	0.00	802.38	10.92	5.29	501.40	802.03
	2.950	150.00	0.00	0.00	791.70	3500.00	803.61	0.00	804.16	13.22	5.92	591.24	962.61
*	3.050	175.00	803.00	798.40	791.80	1500.00	800.14	0.00	800.35	6.50	3.69	406.87	588.25
*	3.050	175.00	803.00	798.40	791.80	2250.00	803.60	0.00	803.83	5.63	3.85	584.37	947.91
*	3.050	175.00	803.00	798.40	791.80	2650.00	804.46	0.00	804.73	6.20	4.17	635.83	1064.02
*	3.050	175.00	803.00	798.40	791.80	3500.00	805.63	0.00	806.01	7.94	4.96	705.69	1242.30

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
3.100	50.00	0.00	0.00	791.80	1500.00	800.27	0.00	800.39	5.69	2.77	540.62	628.89
3.100	50.00	0.00	0.00	791.80	2250.00	803.76	0.00	803.86	2.88	2.51	896.19	1326.07
3.100	50.00	0.00	0.00	791.80	2650.00	804.66	0.00	804.77	2.93	2.68	989.39	1547.45
3.100	50.00	0.00	0.00	791.80	3500.00	805.90	0.00	806.06	3.27	3.13	1119.03	1936.31
3.200	610.00	0.00	0.00	792.50	1500.00	800.64	0.00	800.77	6.65	2.94	510.05	581.79
3.200	610.00	0.00	0.00	792.50	2250.00	803.95	0.00	804.06	3.49	2.67	842.52	1203.73
3.200	610.00	0.00	0.00	792.50	2650.00	804.84	0.00	804.97	3.49	2.83	935.88	1419.01
3.200	610.00	0.00	0.00	792.50	3500.00	806.11	0.00	806.28	3.80	3.28	1067.45	1795.19
4.000	340.00	0.00	0.00	793.00	1500.00	800.87	0.00	801.04	8.80	3.28	457.84	505.63
4.000	340.00	0.00	0.00	793.00	2250.00	804.06	0.00	804.20	4.45	3.01	747.44	1067.18
4.000	340.00	0.00	0.00	793.00	2650.00	804.95	0.00	805.11	4.45	3.19	830.10	1255.94
4.000	340.00	0.00	0.00	793.00	3500.00	806.23	0.00	806.44	5.17	3.69	947.51	1539.91
4.100	400.00	0.00	0.00	793.50	1500.00	801.23	0.00	801.41	9.51	3.37	445.60	486.29
4.100	400.00	0.00	0.00	793.50	2250.00	804.24	0.00	804.39	5.03	3.13	718.46	1003.37
4.100	400.00	0.00	0.00	793.50	2650.00	805.13	0.00	805.30	4.98	3.31	800.72	1187.73
4.100	400.00	0.00	0.00	793.50	3500.00	806.43	0.00	806.66	5.65	3.80	920.39	1472.76
4.200	400.00	0.00	0.00	794.10	1500.00	801.62	0.00	801.81	10.66	3.51	427.74	459.38
4.200	400.00	0.00	0.00	794.10	2250.00	804.44	0.00	804.61	5.93	3.30	681.47	923.78
4.200	400.00	0.00	0.00	794.10	2650.00	805.34	0.00	805.52	5.77	3.47	763.50	1103.08
4.200	400.00	0.00	0.00	794.10	3500.00	806.66	0.00	806.90	6.36	3.95	885.58	1387.89

PAAD1 100 YEAR

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	2.400	1500.00	794.80	0.00	0.00	0.00	56.13	0.00
	2.400	2250.00	798.00	3.20	0.00	0.00	61.84	0.00
	2.400	2650.00	800.00	2.00	0.00	0.00	64.00	0.00
	2.400	3500.00	801.60	1.60	0.00	0.00	64.00	0.00
	2.500	1500.00	795.22	0.00	.42	0.00	53.76	470.00
	2.500	2250.00	798.28	3.05	.28	0.00	60.56	470.00
	2.500	2650.00	800.21	1.93	.21	0.00	63.55	470.00
	2.500	3500.00	801.84	1.63	.24	0.00	64.00	470.00
	2.600	1500.00	795.80	0.00	.57	0.00	51.97	470.00
	2.600	2250.00	798.64	2.84	.37	0.00	59.43	470.00
	2.600	2650.00	800.48	1.84	.27	0.00	62.26	470.00
	2.600	3500.00	802.13	1.66	.29	0.00	64.00	470.00
	2.700	1500.00	796.52	0.00	.73	0.00	50.67	470.00
	2.700	2250.00	799.12	2.60	.48	0.00	58.47	470.00
	2.700	2650.00	800.82	1.70	.35	0.00	61.10	470.00
	2.700	3500.00	802.50	1.68	.37	0.00	63.69	470.00
	2.800	1500.00	797.38	0.00	.86	0.00	49.85	470.00
	2.800	2250.00	799.73	2.35	.61	0.00	57.72	470.00
	2.800	2650.00	801.27	1.54	.45	0.00	60.10	470.00
	2.800	3500.00	802.96	1.69	.46	0.00	62.70	470.00
	2.900	1500.00	798.04	0.00	.65	0.00	49.01	320.00
	2.900	2250.00	800.23	2.19	.49	0.00	56.57	320.00
	2.900	2650.00	801.64	1.42	.37	0.00	59.28	320.00
	2.900	3500.00	803.32	1.68	.36	0.00	61.86	320.00
	2.950	1500.00	798.54	0.00	.50	0.00	49.28	150.00
	2.950	2250.00	800.63	2.09	.40	0.00	49.67	150.00
	2.950	2650.00	801.94	1.31	.30	0.00	49.91	150.00
	2.950	3500.00	803.61	1.67	.29	0.00	58.57	150.00
*	3.050	1500.00	800.14	0.00	1.60	0.00	49.56	175.00
*	3.050	2250.00	803.60	3.46	2.97	0.00	58.22	175.00
*	3.050	2650.00	804.46	.87	2.52	0.00	60.00	175.00
*	3.050	3500.00	805.63	1.16	2.01	0.00	60.00	175.00
	3.100	1500.00	800.27	0.00	.13	0.00	94.40	50.00
	3.100	2250.00	803.76	3.49	.17	0.00	104.00	50.00
	3.100	2650.00	804.66	.90	.19	0.00	104.00	50.00
	3.100	3500.00	805.90	1.25	.28	0.00	104.00	50.00
	3.200	1500.00	800.64	0.00	.36	0.00	91.78	610.00
	3.200	2250.00	803.95	3.31	.18	0.00	104.00	610.00
	3.200	2650.00	804.84	.90	.19	0.00	104.00	610.00
	3.200	3500.00	806.11	1.27	.20	0.00	104.00	610.00
	4.000	1500.00	800.87	0.00	.24	0.00	87.34	340.00
	4.000	2250.00	804.06	3.19	.11	0.00	92.00	340.00

4.000	2650.00	804.95	.90	.11	0.00	92.00	340.00
4.000	3500.00	806.23	1.27	.12	0.00	92.00	340.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
4.100	1500.00	801.23	0.00	.36	0.00	86.62	400.00
4.100	2250.00	804.24	3.01	.18	0.00	92.00	400.00
4.100	2650.00	805.13	.89	.18	0.00	92.00	400.00
4.100	3500.00	806.43	1.30	.21	0.00	92.00	400.00
4.200	1500.00	801.62	0.00	.39	0.00	85.20	400.00
4.200	2250.00	804.44	2.82	.21	0.00	92.00	400.00
4.200	2650.00	805.34	.89	.20	0.00	92.00	400.00
4.200	3500.00	806.66	1.33	.23	0.00	92.00	400.00

SUMMARY OF ERRORS

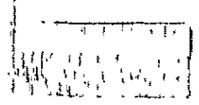
CAUTION SECNO= 3.050 PROFILE= 1 HYDRAULIC JUMP D.S.
CAUTION SECNO= 3.050 PROFILE= 2 HYDRAULIC JUMP D.S.
CAUTION SECNO= 3.050 PROFILE= 3 HYDRAULIC JUMP D.S.
CAUTION SECNO= 3.050 PROFILE= 4 HYDRAULIC JUMP D.S.

FLOOD INSURANCE ZONE DATA FOR PAAD1 100 YEAR

FLOOD HAZARD FACTOR FOR ENTIRE REACH USING SECTIONS

SECTION NUMBER	CUMULATIVE DISTANCE	ELEVATION DIFFERENCE BETWEEN BASE FLOOD AND@ 10_	2_	0.2_
2.400	0.	-5.20	-2.00	1.60
2.500	470.	-4.98	-1.93	1.63
2.600	940.	-4.68	-1.84	1.66
2.700	1410.	-4.30	-1.70	1.68
2.800	1880.	-3.89	-1.54	1.69
2.900	2200.	-3.60	-1.42	1.68
2.950	2350.	-3.40	-1.31	1.67
3.050	2525.	-4.32	-.87	1.16
3.100	2575.	-4.39	-.90	1.25
3.200	3185.	-4.21	-.90	1.27
4.000	3525.	-4.08	-.90	1.27
4.100	3925.	-3.90	-.89	1.30
4.200	4325.	-3.71	-.89	1.33
WEIGHTED AVG FOR REACH		-4.27	-1.36	1.49

FHF FOR THE REACH = 045 WITH 100.0_ OF THE REACH WITHIN 1.0 FEET
ZONE FOR THE REACH = A 9



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  HEC2 RELEASE DATED NOV 76 UPDATED JULY 1979
  ERROR CORR -  01,02,03
  MODIFICATION -  50,51,52,53
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C
T1       HUD FIA H-4705 T06
T2       PITTSFIELD TWP FIS
T3       PAAD2 10 YEAR
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J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-1.	2.	0.	0.	0.000000	0.00	-1.0	0.	804.000	0.000
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	1.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
J3	VARIABLE CODES FOR SUMMARY PRINTOUT									
	201.000	0.000	150.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

NC	.060	.060	.040	.100	.300	0.000	0.000	0.000	0.000	0.000
QT	5.000	1500.000	2250.000	2650.000	3500.000	2650.000	0.000	0.000	0.000	0.000

***JUST U/S OF RETENTION BASIN NO. 1

X1	5.900	9.000	376.000	494.000	0.000	0.000	0.000	0.000	-.300	0.000
GR	809.800	376.000	807.200	386.000	803.800	400.000	800.000	417.000	800.000	442.000
GR	804.200	453.000	807.000	472.000	808.700	482.000	810.600	494.000	0.000	0.000
X1	6.000	0.000	0.000	0.000	200.000	200.000	200.000	0.000	.300	0.000
X1	6.100	0.000	0.000	0.000	200.000	200.000	200.000	0.000	.300	0.000
X1	6.200	0.000	0.000	0.000	280.000	280.000	280.000	0.000	.400	0.000
QT	5.000	520.000	700.000	765.000	920.000	765.000	0.000	0.000	0.000	0.000

***JUST U/S OF CONFLUENCE WITH NORTHWEST BRANCH

X1	6.900	10.000	554.000	642.000	20.000	20.000	20.000	0.000	-.100	0.000
GR	808.200	554.000	804.800	566.000	800.800	582.000	800.800	600.000	802.600	606.000
GR	805.200	616.000	806.500	624.000	809.200	630.000	812.000	638.000	813.000	642.000
X1	7.000	0.000	0.000	0.000	100.000	100.000	100.000	0.000	.100	0.000
X1	7.100	0.000	0.000	0.000	179.000	179.000	179.000	0.000	.300	0.000

X1	7.200	0.000	0.000	0.000	1.000	1.000	1.000	0.000	1.000	0.000
X1	7.300	0.000	0.000	0.000	70.000	70.000	70.000	0.000	.100	0.000
X1	7.800	9.000	110.000	188.000	150.000	150.000	150.000	0.000	-.300	0.000
GR	807.100	110.000	806.600	120.000	806.000	126.000	804.800	134.000	802.800	143.000
GR	802.800	161.000	804.400	168.000	806.900	178.000	808.600	188.000	0.000	0.000
X1	7.900	0.000	0.000	0.000	200.000	200.000	200.000	0.000	.300	0.000
NC	0.000	0.000	0.000	.200	.400	0.000	0.000	0.000	0.000	0.000
	***D/S FACE MILL CREEK APTS. DRIVEWAY									
X1	7.950	6.000	100.000	121.000	140.000	140.000	140.000	0.000	0.000	0.000
GR	812.800	100.000	811.000	103.000	803.000	104.000	803.000	117.000	811.000	118.000
GR	812.800	121.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	1.900	2.900	50.000	13.000	0.000	81.000	0.000	803.700	803.000
X1	8.050	0.000	0.000	0.000	75.000	75.000	75.000	0.000	.700	0.000
X2	0.000	0.000	1.000	811.100	813.500	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.100	.300	0.000	0.000	0.000	0.000	0.000
X1	8.100	9.000	74.000	148.000	60.000	60.000	60.000	0.000	0.000	0.000
GR	810.300	74.000	808.600	82.000	805.900	94.000	804.400	104.000	803.800	107.000
GR	803.800	125.000	805.900	130.000	808.800	142.000	810.200	148.000	0.000	0.000
X1	8.200	0.000	0.000	0.000	209.000	209.000	209.000	0.000	.300	0.000
X1	8.300	4.000	96.000	127.000	84.000	84.000	84.000	0.000	.400	0.000
GR	805.900	96.000	804.400	104.000	803.800	107.000	803.800	127.000	0.000	0.000
	***D/S FACE FOOTBRIDGE									
X1	8.310	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	811.600	814.100	0.000	0.000	0.000	0.000	0.000
X1	8.320	0.000	0.000	0.000	6.000	6.000	6.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	811.600	814.100	0.000	0.000	0.000	0.000	0.000
X1	8.400	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X1	8.500	0.000	0.000	0.000	71.000	71.000	71.000	0.000	.200	0.000
	***D/S FACE FOOTBRIDGE									
X1	8.510	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	811.600	814.100	0.000	0.000	0.000	0.000	0.000

X1	8.520	0.000	0.000	0.000	6.000	6.000	6.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	811.600	814.100	0.000	0.000	0.000	0.000	0.000
X1	8.600	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X1	8.900	8.000	178.000	238.000	20.000	20.000	20.000	0.000	0.000	0.000
GR	811.100	178.000	807.500	184.000	805.300	190.000	804.400	196.000	804.400	214.000
GR	806.800	220.000	809.100	230.000	810.200	238.000	0.000	0.000	0.000	0.000
X1	8.910	0.000	0.000	0.000	49.000	49.000	49.000	0.000	.100	0.000
X1	8.920	0.000	0.000	0.000	1.000	1.000	1.000	0.000	2.000	0.000
NC	0.000	0.000	0.000	.200	.400	0.000	0.000	0.000	0.000	0.000

***D/S FACE I-94

X1	8.930	6.000	100.000	176.000	80.000	80.000	80.000	0.000	-.300	0.000
GR	818.500	100.000	812.800	130.000	806.800	130.100	806.800	146.000	812.800	146.100
GR	818.500	176.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	1.700	3.200	80.000	16.000	0.000	96.000	0.000	806.800	806.500
X1	9.010	0.000	0.000	0.000	140.000	140.000	140.000	0.000	.300	0.000
X2	0.000	0.000	1.000	811.500	821.500	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.100	.300	0.000	0.000	0.000	0.000	0.000
X1	9.100	6.000	242.000	300.000	60.000	60.000	60.000	0.000	0.000	0.000
GR	811.200	242.000	809.600	254.000	806.900	264.000	806.900	279.000	809.000	288.000
GR	812.300	300.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9.900	6.000	142.000	192.000	220.000	220.000	220.000	0.000	0.000	0.000
GR	812.700	142.000	809.500	152.000	807.300	159.000	807.300	174.000	810.000	180.000
GR	812.300	192.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.200	.400	0.000	0.000	0.000	0.000	0.000

***D/S FACE DRIVEWAY BRIDGE

X1	9.950	4.000	298.000	328.000	160.000	160.000	160.000	0.000	0.000	0.000
GR	816.000	298.000	808.200	299.000	807.500	327.000	816.000	328.000	0.000	0.000
SB	1.200	1.500	2.600	0.000	28.000	14.000	69.000	0.000	808.200	807.500
X1	10.010	12.000	292.000	324.000	30.000	30.000	30.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	814.300	815.000	0.000	0.000	0.000	0.000	0.000
BT	11.000	292.000	816.100	813.500	324.000	816.200	814.300	336.000	815.600	0.000
BT	362.000	815.000	0.000	384.000	815.100	0.000	414.000	815.400	0.000	440.000
BT	816.000	0.000	470.000	816.200	0.000	504.000	816.800	0.000	536.000	817.500
BT	0.000	564.000	818.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	816.100	292.000	808.200	293.000	808.400	321.000	813.500	324.000	813.500	336.000
GR	813.500	362.000	813.500	384.000	813.500	414.000	813.500	440.000	813.500	470.000
GR	813.500	504.000	818.000	536.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	10.100	6.000	186.000	226.000	40.000	40.000	40.000	0.000	0.000	0.000
GR	810.800	186.000	808.400	192.000	808.400	218.000	811.400	226.000	816.200	340.000
GR	816.300	375.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

***D/S FACE STONE SCHOOL RD.

X1	10.900	5.000	310.000	326.000	28.000	28.000	28.000	0.000	0.000	0.000
GR	813.900	310.000	808.900	311.000	808.900	325.000	813.900	326.000	817.300	570.000
SB	0.000	1.500	2.600	70.000	15.000	0.000	70.000	0.000	808.500	808.900
X1	11.010	0.000	0.000	72.000	72.000	72.000	0.000	-.300	0.000	0.000
X2	0.000	0.000	1.000	813.900	817.500	0.000	0.000	0.000	0.000	0.000
X1	11.100	5.000	320.000	364.000	40.000	40.000	40.000	0.000	0.000	0.000
GR	812.000	320.000	808.600	328.000	808.600	344.000	811.100	352.000	813.000	364.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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  HEC2 RELEASE DATED NOV 76 UPDATED JULY 1979
  ERROR CORR -  01,02,03
  MODIFICATION -  50,51,52,53
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T1      JOB HUD-FIA H-4705  T06
T2      FLOOD INSURANCE STUDIES
T3      100 YEAR FLOW

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

     -1.        4.        0.        0.  0.000000      0.00      -1.0        0.    809.800     0.000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

    3.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
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*PROF 3

CCHV= .100 CEHV= .300
*SECNO 5.900
3280 CROSS SECTION 5.90 EXTENDED .30 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
	***JUST U/S OF RETENTION BASIN NO. 1								
5.90	10.10	809.80	0.00	809.80	810.04	.24	0.00	0.00	809.50
2650.	0.	2650.	0.	0.	674.	0.	0.	0.	810.30
0.00	0.00	3.93	0.00	.060	.040	.060	0.000	799.70	376.00
.001088	0.	0.	0.	0	0	0	0.00	114.84	490.84

*SECNO 6.000
3280 CROSS SECTION 6.00 EXTENDED .22 FEET

6.00	10.02	810.02	0.00	0.00	810.26	.25	.22	.00	809.80
2650.	0.	2650.	0.	0.	665.	0.	3.	1.	810.60
.01	0.00	3.98	0.00	.060	.040	.060	.040	800.00	376.00
.001133	200.	200.	200.	0	0	0	0.00	114.32	490.32

*SECNO 6.100
3280 CROSS SECTION 6.10 EXTENDED .14 FEET

6.10	9.94	810.24	0.00	0.00	810.50	.25	.23	.00	810.10
2650.	0.	2650.	0.	0.	656.	0.	6.	1.	810.90
.03	0.00	4.04	0.00	.060	.040	.060	.040	800.30	376.00
.001177	200.	200.	200.	0	0	0	0.00	113.83	489.83

*SECNO 6.200
3280 CROSS SECTION 6.20 EXTENDED .07 FEET

6.20	9.87	810.57	0.00	0.00	810.83	.26	.34	.00	810.50
2650.	0.	2650.	0.	0.	648.	0.	10.	2.	811.30
.05	0.00	4.09	0.00	.060	.040	.060	.040	800.70	376.00
.001220	280.	280.	280.	0	0	0	0.00	113.37	489.37

*SECNO 6.900
3280 CROSS SECTION 6.90 EXTENDED 2.74 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA

SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
***JUST U/S OF CONFLUENCE WITH NORTHWEST BRANCH									
6.90	10.14	810.84	0.00	0.00	810.87	.03	.01	.02	808.10
765.	0.	765.	0.	0.	555.	0.	11.	2.	812.90
.05	0.00	1.38	0.00	.060	.040	.060	.040	800.70	554.00
.000115	20.	20.	20.	2	0	0	0.00	80.97	634.97

*SECNO 7.000
3280 CROSS SECTION 7.00 EXTENDED 2.65 FEET

7.00	10.05	810.85	0.00	0.00	810.88	.03	.01	.00	808.20
765.	0.	765.	0.	0.	548.	0.	12.	2.	813.00
.07	0.00	1.40	0.00	.060	.040	.060	.040	800.80	554.00
.000119	100.	100.	100.	2	0	0	0.00	80.71	634.71

*SECNO 7.100
3280 CROSS SECTION 7.10 EXTENDED 2.37 FEET

7.10	9.77	810.87	0.00	0.00	810.90	.03	.02	.00	808.50
765.	0.	765.	0.	0.	526.	0.	14.	2.	813.30
.10	0.00	1.46	0.00	.060	.040	.060	.040	801.10	554.00
.000135	179.	179.	179.	0	0	0	0.00	79.92	633.92

*SECNO 7.200
3280 CROSS SECTION 7.20 EXTENDED 1.37 FEET

7.20	8.76	810.86	0.00	0.00	810.91	.05	.00	.00	809.50
765.	0.	765.	0.	0.	447.	0.	14.	2.	814.30
.10	0.00	1.71	0.00	.060	.040	.060	.040	802.10	554.00
.000216	1.	1.	1.	0	0	0	0.00	77.06	631.06

*SECNO 7.300
3280 CROSS SECTION 7.30 EXTENDED 1.27 FEET

7.30	8.68	810.88	0.00	0.00	810.92	.05	.02	.00	809.60
765.	0.	765.	0.	0.	440.	0.	15.	2.	814.40
.12	0.00	1.74	0.00	.060	.040	.060	.040	802.20	554.00
.000227	70.	70.	70.	0	0	0	0.00	76.78	630.78

34

*SECNO 7.800
3280 CROSS SECTION 7.80 EXTENDED 4.11 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

7.80	8.42	810.92	0.00	0.00	810.95	.04	.03	.00	806.80
765.	0.	765.	0.	0.	481.	0.	16.	3.	808.30
.14	0.00	1.59	0.00	.060	.040	.060	.040	802.50	110.00
.000184	150.	150.	150.	0	0	0	0.00	78.00	188.00

*SECNO 7.900
3280 CROSS SECTION 7.90 EXTENDED 3.86 FEET

7.90	8.15	810.95	0.00	0.00	810.99	.04	.04	.00	807.10
765.	0.	765.	0.	0.	461.	0.	19.	3.	808.60
.18	0.00	1.66	0.00	.060	.040	.060	.040	802.80	110.00
.000210	200.	200.	200.	0	0	0	0.00	78.00	188.00

676

CCHV= .200 CEHV= .400
*SECNO 7.950

3301 HV CHANGED MORE THAN HVINS

***D/S FACE MILL CREEK APTS. DRIVEWAY

7.95	7.57	810.57	0.00	0.00	811.39	.81	.08	.31	812.80
765.	0.	765.	0.	0.	106.	0.	19.	3.	812.80
.18	0.00	7.24	0.00	.060	.040	.060	.040	803.00	103.05
.006547	140.	140.	140.	2	0	0	0.00	14.89	117.95

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.90	2.90	50.00	13.00	0.00	81.00	0.00	803.70	803.00

*SECNO 8.050
PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
813.21	812.09	0.00	0.	765.	81.	96.	811.10	813.50

8.05	8.95	812.65	0.00	0.00	813.21	.56	1.82	0.00	813.50
765.	0.	765.	0.	0.	128.	0.	20.	3.	813.50
.18	0.00	5.99	0.00	.060	.040	.060	.040	803.70	101.41
.004239	75.	75.	75.	2	0	0	0.00	18.18	119.59

CCHV= .100 CEHV= .300
*SECNO 8.100
3280 CROSS SECTION 8.10 EXTENDED 3.05 FEET

3301 HV CHANGED MORE THAN HVINS

8.10	9.45	813.25	0.00	0.00	813.28	.03	.02	.05	810.30

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     765.       0.     765.       0.       0.     516.       0.      20.       3.    810.20
      .20     0.00     1.48     0.00     .060     .040     .060     .040   803.80     74.00
  .000136      60.      60.      60.        2        0        0     0.00    74.00    148.00

*SECNO 8.200
3280 CROSS SECTION      8.20 EXTENDED      2.77 FEET

    SECNO    DEPTH    CWSEL    CRIWS    WSELK       EG       HV       HL    QLOSS   BANK ELEV
    Q        QLOB     QCH      QROB     ALOB        ACH      AROB     VOL   TWA   LEFT/RIGHT
    TIME     VLOB     VCH      VROB     XNL         XNCH     XNR      WTN   ELMIN      SSTA
    SLOPE    XLOBL    XLCH     XLOBR    ITRIAL      IDC      ICONT    CORAR TOPWID     ENDST

     8.20     9.18   813.28     0.00     0.00   813.31       .04      .03      .00   810.60
     765.       0.     765.       0.       0.     496.       0.      23.       4.    810.50
      .23     0.00     1.54     0.00     .060     .040     .060     .040   804.10     74.00
  .000154      209.     209.     209.        2        0        0     0.00    74.00    148.00

*SECNO 8.300
3280 CROSS SECTION      8.30 EXTENDED      9.03 FEET

     8.30     9.03   813.23     0.00     0.00   813.36      .13      .02      .03   806.30
     765.       0.     765.       0.       0.     268.       0.      23.       4.    804.20
      .24     0.00     2.85     0.00     .060     .040     .060     .040   804.20     96.00
  .000437       84.      84.      84.        2        0        0     0.00    31.00    127.00

*SECNO 8.310
3280 CROSS SECTION      8.31 EXTENDED      8.99 FEET

3370 NORMAL BRIDGE,NRD=   0 MIN ELTRD=  814.10 MAX ELLC=  811.60

        ***D/S FACE FOOTBRIDGE

     8.31     8.99   813.19     0.00     0.00   813.38      .19      .00      .02   806.30
     765.       0.     765.       0.       0.     218.       0.      23.       4.    804.20
      .24     0.00     3.51     0.00     .060     .040     .060     .040   804.20     96.00
  .001877       1.       1.       1.        2        0        0   -49.24    31.00    127.00

*SECNO 8.320
3280 CROSS SECTION      8.32 EXTENDED      9.00 FEET

3370 NORMAL BRIDGE,NRD=   0 MIN ELTRD=  814.10 MAX ELLC=  811.60

     8.32     9.00   813.20     0.00     0.00   813.39      .19      .01     0.00   806.30
     765.       0.     765.       0.       0.     218.       0.      23.       4.    804.20
      .24     0.00     3.51     0.00     .060     .040     .060     .040   804.20     96.00
  .001877       6.       6.       6.        0        0        0   -49.46    31.00    127.00

*SECNO 8.400
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3280 CROSS SECTION 8.40 EXTENDED 9.07 FEET

8.40	9.07	813.27	0.00	0.00	813.40	.13	.00	.01	806.30
765.	0.	765.	0.	0.	270.	0.	23.	4.	804.20
.24	0.00	2.84	0.00	.060	.040	.060	.040	804.20	96.00
.000431	1.	1.	1.	2	0	0	0.00	31.00	127.00

*SECNO 8.500
3280 CROSS SECTION 8.50 EXTENDED 8.90 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
8.50	8.90	813.30	0.00	0.00	813.43	.13	.03	.00	806.50
765.	0.	765.	0.	0.	264.	0.	24.	4.	804.40
.25	0.00	2.89	0.00	.060	.040	.060	.040	804.40	96.00
.000457	71.	71.	71.	2	0	0	0.00	31.00	127.00

*SECNO 8.510
3280 CROSS SECTION 8.51 EXTENDED 8.85 FEET

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 814.10 MAX ELLC= 811.60

***D/S FACE FOOTBRIDGE

8.51	8.85	813.25	0.00	0.00	813.45	.20	.00	.02	806.50
765.	0.	765.	0.	0.	212.	0.	24.	4.	804.40
.25	0.00	3.62	0.00	.060	.040	.060	.040	804.40	96.00
.002059	1.	1.	1.	2	0	0	-51.20	31.00	127.00

*SECNO 8.520
3280 CROSS SECTION 8.52 EXTENDED 8.86 FEET

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 814.10 MAX ELLC= 811.60

8.52	8.86	813.26	0.00	0.00	813.47	.20	.01	0.00	806.50
765.	0.	765.	0.	0.	212.	0.	24.	4.	804.40
.25	0.00	3.62	0.00	.060	.040	.060	.040	804.40	96.00
.002059	6.	6.	6.	0	0	0	-51.43	31.00	127.00

*SECNO 8.600
3280 CROSS SECTION 8.60 EXTENDED 8.95 FEET

8.60	8.95	813.35	0.00	0.00	813.48	.13	.00	.01	806.50
765.	0.	765.	0.	0.	266.	0.	24.	4.	804.40
.25	0.00	2.88	0.00	.060	.040	.060	.040	804.40	96.00

.000450	1.	1.	1.	2	0	0	0.00	31.00	127.00

*SECNO 8.900
3280 CROSS SECTION 8.90 EXTENDED 3.24 FEET

8.90	9.04	813.44	0.00	0.00	813.49	.05	.01	.01	811.10
765.	0.	765.	0.	0.	413.	0.	24.	4.	810.20
.25	0.00	1.85	0.00	.060	.040	.060	.040	804.40	178.00
.000223	20.	20.	20.	2	0	0	0.00	60.00	238.00

*SECNO 8.910
3280 CROSS SECTION 8.91 EXTENDED 3.15 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
8.91	8.95	813.45	0.00	0.00	813.50	.05	.01	.00	811.20
765.	0.	765.	0.	0.	408.	0.	24.	4.	810.30
.26	0.00	1.87	0.00	.060	.040	.060	.040	804.50	178.00
.000231	49.	49.	49.	0	0	0	0.00	60.00	238.00

*SECNO 8.920
3280 CROSS SECTION 8.92 EXTENDED 1.11 FEET

8.92	6.91	813.41	0.00	0.00	813.52	.11	.00	.02	813.20
765.	0.	765.	0.	0.	286.	0.	24.	4.	812.30
.26	0.00	2.68	0.00	.060	.040	.060	.040	806.50	178.00
.000701	1.	1.	1.	2	0	0	0.00	60.00	238.00

CCHV= .200 CEHV= .400
*SECNO 8.930

3301 HV CHANGED MORE THAN HVINS

***D/S FACE I-94

8.93	6.64	813.14	0.00	0.00	813.91	.77	.13	.26	818.20
765.	0.	765.	0.	0.	109.	0.	25.	4.	818.20
.26	0.00	7.05	0.00	.060	.040	.060	.040	806.50	126.60
.007890	80.	80.	80.	2	0	0	0.00	22.88	149.48

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.70	3.20	80.00	16.00	0.00	96.00	0.00	806.80	806.50

*SECNO 9.010
PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
814.82	814.22	0.00	0.	765.	96.	75.	811.50	821.50

9.01	7.50	814.30	0.00	0.00	814.82	.52	.91	0.00	818.50
765.	0.	765.	0.	0.	132.	0.	25.	4.	818.50
.27	0.00	5.79	0.00	.060	.040	.060	.040	806.80	122.06
.005597	140.	140.	140.	2	0	0	0.00	31.95	154.01

CCHV= .100 CEHV= .300
*SECNO 9.100
3280 CROSS SECTION 9.10 EXTENDED 3.65 FEET

9.10	7.95	814.85	0.00	0.00	814.92	.07	.06	.04	811.20
765.	0.	765.	0.	0.	351.	0.	25.	4.	812.30
.28	0.00	2.18	0.00	.060	.040	.060	.040	806.90	242.00
.000366	60.	60.	60.	2	0	0	0.00	58.00	300.00

*SECNO 9.900
3280 CROSS SECTION 9.90 EXTENDED 2.62 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

9.90	7.62	814.92	0.00	0.00	815.04	.11	.10	.01	812.70
765.	0.	765.	0.	0.	281.	0.	27.	4.	812.30
.30	0.00	2.72	0.00	.060	.040	.060	.040	807.30	142.00
.000631	220.	220.	220.	2	0	0	0.00	50.00	192.00

CCHV= .200 CEHV= .400
*SECNO 9.950

***D/S FACE DRIVEWAY BRIDGE

9.95	7.50	815.00	0.00	0.00	815.21	.21	.14	.04	816.00
765.	0.	765.	0.	0.	207.	0.	28.	5.	816.00
.31	0.00	3.70	0.00	.060	.040	.060	.040	807.50	298.13
.001205	160.	160.	160.	0	0	0	0.00	29.75	327.88

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.20	1.50	2.60	0.00	28.00	14.00	69.00	0.00	808.20	807.50

*SECNO 10.010
3280 CROSS SECTION 10.01 EXTENDED .13 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
817.86	815.86	.65	259.	506.	69.	85.	814.30	815.00

10.01	8.03	816.23	0.00	0.00	816.25	.03	1.04	0.00	816.10
765.	0.	414.	351.	0.	242.	517.	28.	5.	813.50
.32	0.00	1.71	.68	.060	.040	.060	.040	808.20	292.00
.000205	30.	30.	30.	2	0	4	0.00	231.38	523.38

*SECNO 10.100
3280 CROSS SECTION 10.10 EXTENDED 5.42 FEET

10.10	7.82	816.22	0.00	0.00	816.27	.05	.01	.01	810.80
765.	0.	575.	190.	0.	294.	276.	29.	5.	811.40
.33	0.00	1.96	.69	.060	.040	.060	.040	808.40	186.00
.000237	40.	40.	40.	2	0	0	0.00	162.12	348.12

*SECNO 10.900
3280 CROSS SECTION 10.90 EXTENDED 2.21 FEET

***D/S FACE STONE SCHOOL RD.

10.90	7.21	816.11	0.00	0.00	816.37	.26	.02	.09	813.90
765.	0.	532.	233.	0.	110.	176.	29.	5.	813.90
.33	0.00	4.82	1.33	.060	.040	.060	.040	808.90	310.00
.002504	28.	28.	28.	2	0	0	0.00	174.71	484.71

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.50	2.60	70.00	15.00	0.00	70.00	0.00	808.50	808.90

*SECNO 11.010
3280 CROSS SECTION 11.01 EXTENDED 4.27 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
818.89	816.12	0.00	106.	662.	70.	81.	813.90	817.50

11.01	9.27	818.17	0.00	0.00	818.20	.03	1.83	0.00	813.90
765.	0.	268.	497.	0.	143.	627.	30.	5.	813.90
.34	0.00	1.87	.79	.060	.040	.060	.039	808.90	310.00
.000292	72.	0.	72.	2	0	0	0.00	260.00	570.00

*SECNO 11.100
3280 CROSS SECTION 11.10 EXTENDED 6.15 FEET

11.10	9.55	818.15	0.00	0.00	818.23	.07	.01	.02	812.00
765.	0.	765.	0.	0.	355.	0.	30.	5.	813.00
.34	0.00	2.15	0.00	.060	.040	.060	.039	808.60	320.00
.000255	40.	40.	40.	2	0	0	0.00	44.00	364.00

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HEC2 RELEASE DATED NOV 76 UPDATED JULY 1979
ERROR CORR - 01,02,03
MODIFICATION - 50,51,52,53
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

PAAD2 10 YEAR

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
5.900	0.00	0.00	0.00	799.70	1500.00	804.00	0.00	805.17	123.83	8.67	173.05	134.80
5.900	0.00	0.00	0.00	799.70	2250.00	809.40	0.00	809.60	9.54	3.58	629.08	728.64
5.900	0.00	0.00	0.00	799.70	2650.00	809.80	0.00	810.04	10.88	3.93	674.49	803.22
5.900	0.00	0.00	0.00	799.70	3500.00	810.40	0.00	810.74	14.27	4.70	744.50	926.56
6.000	200.00	0.00	0.00	800.00	1500.00	806.00	0.00	806.43	35.05	5.30	283.25	253.36
6.000	200.00	0.00	0.00	800.00	2250.00	809.59	0.00	809.80	10.04	3.65	616.90	709.99
6.000	200.00	0.00	0.00	800.00	2650.00	810.02	0.00	810.26	11.33	3.98	665.06	787.30
6.000	200.00	0.00	0.00	800.00	3500.00	810.69	0.00	811.03	14.38	4.71	742.77	923.12
6.100	200.00	0.00	0.00	800.30	1500.00	806.70	0.00	807.05	26.71	4.77	314.55	290.25
6.100	200.00	0.00	0.00	800.30	2250.00	809.79	0.00	810.01	10.56	3.72	605.35	692.40
6.100	200.00	0.00	0.00	800.30	2650.00	810.24	0.00	810.50	11.77	4.04	656.13	772.32
6.100	200.00	0.00	0.00	800.30	3500.00	810.97	0.00	811.32	14.48	4.72	741.16	919.93
6.200	280.00	0.00	0.00	800.70	1500.00	807.43	0.00	807.73	21.72	4.40	340.56	321.84
6.200	280.00	0.00	0.00	800.70	2250.00	810.09	0.00	810.31	11.12	3.79	593.66	674.73
6.200	280.00	0.00	0.00	800.70	2650.00	810.57	0.00	810.83	12.20	4.09	647.89	758.56
6.200	280.00	0.00	0.00	800.70	3500.00	811.38	0.00	811.72	14.44	4.72	741.74	921.08
6.900	20.00	0.00	0.00	800.70	520.00	807.73	0.00	807.78	2.77	1.64	317.42	312.52
6.900	20.00	0.00	0.00	800.70	700.00	810.31	0.00	810.34	1.21	1.36	513.08	636.32
6.900	20.00	0.00	0.00	800.70	765.00	810.84	0.00	810.87	1.15	1.38	555.36	714.14
6.900	20.00	0.00	0.00	800.70	920.00	811.73	0.00	811.77	1.16	1.46	629.03	855.22
7.000	100.00	0.00	0.00	800.80	520.00	807.76	0.00	807.80	2.90	1.67	312.21	305.25
7.000	100.00	0.00	0.00	800.80	700.00	810.32	0.00	810.35	1.26	1.38	506.08	623.67
7.000	100.00	0.00	0.00	800.80	765.00	810.85	0.00	810.88	1.19	1.40	548.18	700.74
7.000	100.00	0.00	0.00	800.80	920.00	811.75	0.00	811.78	1.20	1.48	621.62	840.72
7.100	179.00	0.00	0.00	801.10	520.00	807.81	0.00	807.86	3.42	1.76	294.64	281.06
7.100	179.00	0.00	0.00	801.10	700.00	810.35	0.00	810.38	1.43	1.45	484.18	584.56
7.100	179.00	0.00	0.00	801.10	765.00	810.87	0.00	810.90	1.35	1.46	525.76	659.41
7.100	179.00	0.00	0.00	801.10	920.00	811.77	0.00	811.80	1.34	1.54	598.50	795.94
7.200	1.00	0.00	0.00	802.10	520.00	807.79	0.00	807.87	7.30	2.30	226.34	192.50
7.200	1.00	0.00	0.00	802.10	700.00	810.34	0.00	810.38	2.39	1.72	407.19	452.49
7.200	1.00	0.00	0.00	802.10	765.00	810.86	0.00	810.91	2.16	1.71	447.27	520.26
7.200	1.00	0.00	0.00	802.10	920.00	811.76	0.00	811.81	2.04	1.78	517.44	644.23

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	ES	10K*S	VCH	AREA	.01K
7.300	70.00	0.00	0.00	802.20	520.00	807.84	0.00	807.93	7.61	2.33	222.76	188.53
7.300	70.00	0.00	0.00	802.20	700.00	810.35	0.00	810.40	2.53	1.75	399.94	440.37
7.300	70.00	0.00	0.00	802.20	765.00	810.88	0.00	810.92	2.27	1.74	439.85	507.58
7.300	70.00	0.00	0.00	802.20	920.00	811.77	0.00	811.82	2.13	1.80	509.74	630.28
7.800	150.00	0.00	0.00	802.50	520.00	807.97	0.00	808.03	6.53	2.07	251.33	203.50
7.800	150.00	0.00	0.00	802.50	700.00	810.40	0.00	810.43	2.03	1.59	440.46	491.32
7.800	150.00	0.00	0.00	802.50	765.00	810.92	0.00	810.95	1.84	1.59	481.06	564.48
7.800	150.00	0.00	0.00	802.50	920.00	811.81	0.00	811.85	1.74	1.67	550.70	697.51
7.900	200.00	0.00	0.00	802.80	520.00	808.10	0.00	808.18	7.49	2.17	239.86	189.98
7.900	200.00	0.00	0.00	802.80	700.00	810.44	0.00	810.48	2.34	1.66	421.09	457.64
7.900	200.00	0.00	0.00	802.80	765.00	810.95	0.00	810.99	2.10	1.66	461.31	528.48
7.900	200.00	0.00	0.00	802.80	920.00	811.84	0.00	811.89	1.95	1.73	530.75	658.47
7.950	140.00	0.00	0.00	803.00	520.00	807.83	0.00	808.80	110.09	7.91	65.74	49.56
7.950	140.00	0.00	0.00	803.00	700.00	810.08	0.00	810.87	66.31	7.11	98.39	85.96
7.950	140.00	0.00	0.00	803.00	765.00	810.57	0.00	811.39	65.47	7.24	105.67	94.55
7.950	140.00	0.00	0.00	803.00	920.00	811.39	0.00	812.33	72.79	7.79	118.07	107.83
8.050	75.00	813.50	811.10	803.70	520.00	808.69	0.00	809.60	100.28	7.65	67.98	51.93
8.050	75.00	813.50	811.10	803.70	700.00	811.68	0.00	812.29	47.31	6.27	111.70	101.78
8.050	75.00	813.50	811.10	803.70	765.00	812.65	0.00	813.21	42.39	5.99	127.80	117.50
8.050	75.00	813.50	811.10	803.70	920.00	813.76	0.00	814.35	41.63	6.13	150.01	142.59
8.100	60.00	0.00	0.00	803.80	520.00	809.70	0.00	809.77	5.41	2.04	255.21	223.47
8.100	60.00	0.00	0.00	803.80	700.00	812.34	0.00	812.37	1.76	1.56	448.60	527.14
8.100	60.00	0.00	0.00	803.80	765.00	813.25	0.00	813.28	1.36	1.48	516.04	655.78
8.100	60.00	0.00	0.00	803.80	920.00	814.39	0.00	814.42	1.23	1.53	600.29	828.42
8.200	209.00	0.00	0.00	804.10	520.00	809.82	0.00	809.89	6.20	2.14	242.72	208.89
8.200	209.00	0.00	0.00	804.10	700.00	812.37	0.00	812.41	2.03	1.63	429.07	491.62
8.200	209.00	0.00	0.00	804.10	765.00	813.28	0.00	813.31	1.54	1.54	495.89	616.41
8.200	209.00	0.00	0.00	804.10	920.00	814.41	0.00	814.45	1.37	1.59	579.93	785.56
8.300	84.00	0.00	0.00	804.20	520.00	809.82	0.00	809.98	9.46	3.20	162.61	169.10
8.300	84.00	0.00	0.00	804.20	700.00	812.34	0.00	812.47	5.10	2.91	240.50	309.88
8.300	84.00	0.00	0.00	804.20	765.00	813.23	0.00	813.36	4.37	2.85	268.34	366.09
8.300	84.00	0.00	0.00	804.20	920.00	814.36	0.00	814.50	4.37	3.03	303.18	440.08
8.310	1.00	814.10	811.60	804.20	520.00	809.82	0.00	809.98	9.45	3.20	162.63	169.14
8.310	1.00	814.10	811.60	804.20	700.00	812.32	0.00	812.48	15.72	3.22	217.70	176.55
8.310	1.00	814.10	811.60	804.20	765.00	813.19	0.00	813.38	18.77	3.51	217.70	176.55
8.310	1.00	814.10	811.60	804.20	920.00	814.27	0.00	814.54	41.53	4.12	223.08	142.76
8.320	6.00	814.10	811.60	804.20	520.00	809.83	0.00	809.99	9.42	3.19	162.81	169.43
8.320	6.00	814.10	811.60	804.20	700.00	812.33	0.00	812.49	15.72	3.22	217.70	176.55
8.320	6.00	814.10	811.60	804.20	765.00	813.20	0.00	813.39	18.77	3.51	217.70	176.55
8.320	6.00	814.10	811.60	804.20	920.00	814.30	0.00	814.56	41.16	4.11	223.69	143.39
8.400	1.00	0.00	0.00	804.20	520.00	809.83	0.00	809.99	9.41	3.19	162.85	169.50
8.400	1.00	0.00	0.00	804.20	700.00	812.36	0.00	812.49	5.06	2.90	241.23	311.32
8.400	1.00	0.00	0.00	804.20	765.00	813.27	0.00	813.40	4.31	2.84	269.59	368.68
8.400	1.00	0.00	0.00	804.20	920.00	814.43	0.00	814.58	4.27	3.01	305.59	445.34

SECND	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
8.500	71.00	0.00	0.00	804.40	520.00	809.89	0.00	810.06	10.20	3.28	158.73	162.82
8.500	71.00	0.00	0.00	804.40	700.00	812.39	0.00	812.53	5.40	2.97	236.05	301.17
8.500	71.00	0.00	0.00	804.40	765.00	813.30	0.00	813.43	4.57	2.89	264.26	357.67
8.500	71.00	0.00	0.00	804.40	920.00	814.46	0.00	814.61	4.50	3.06	300.25	433.70
8.510	1.00	814.10	811.60	804.40	520.00	809.90	0.00	810.06	10.21	3.28	158.66	162.71
8.510	1.00	814.10	811.60	804.40	700.00	812.37	0.00	812.54	17.24	3.31	211.50	168.59
8.510	1.00	814.10	811.60	804.40	765.00	813.25	0.00	813.45	20.59	3.62	211.50	168.59
8.510	1.00	814.10	811.60	804.40	920.00	814.38	0.00	814.65	43.41	4.18	220.04	139.63
8.520	6.00	814.10	811.60	804.40	520.00	809.90	0.00	810.07	10.18	3.27	158.85	163.02
8.520	6.00	814.10	811.60	804.40	700.00	812.38	0.00	812.55	17.24	3.31	211.50	168.59
8.520	6.00	814.10	811.60	804.40	765.00	813.26	0.00	813.47	20.59	3.62	211.50	168.59
8.520	6.00	814.10	811.60	804.40	920.00	814.40	0.00	814.67	43.01	4.17	220.69	140.29
8.600	1.00	0.00	0.00	804.40	520.00	809.90	0.00	810.07	10.17	3.27	158.90	163.09
8.600	1.00	0.00	0.00	804.40	700.00	812.42	0.00	812.55	5.34	2.96	236.88	302.78
8.600	1.00	0.00	0.00	804.40	765.00	813.35	0.00	813.48	4.50	2.88	265.64	360.52
8.600	1.00	0.00	0.00	804.40	920.00	814.54	0.00	814.69	4.39	3.04	302.75	439.15
8.900	20.00	0.00	0.00	804.40	520.00	810.00	0.00	810.09	8.34	2.50	208.24	180.10
8.900	20.00	0.00	0.00	804.40	700.00	812.51	0.00	812.57	2.91	1.96	357.80	410.33
8.900	20.00	0.00	0.00	804.40	765.00	813.44	0.00	813.49	2.23	1.85	413.34	512.36
8.900	20.00	0.00	0.00	804.40	920.00	814.65	0.00	814.70	1.97	1.89	485.93	655.45
8.910	49.00	0.00	0.00	804.50	520.00	810.04	0.00	810.14	8.66	2.53	205.15	176.69
8.910	49.00	0.00	0.00	804.50	700.00	812.52	0.00	812.58	3.03	1.98	353.01	401.87
8.910	49.00	0.00	0.00	804.50	765.00	813.45	0.00	813.50	2.31	1.87	408.33	502.87
8.910	49.00	0.00	0.00	804.50	920.00	814.65	0.00	814.71	2.03	1.91	480.87	645.13
8.920	1.00	0.00	0.00	806.50	520.00	809.81	0.00	810.24	61.98	5.24	99.27	66.05
8.920	1.00	0.00	0.00	806.50	700.00	812.47	0.00	812.61	11.50	3.05	229.59	206.40
8.920	1.00	0.00	0.00	806.50	765.00	813.41	0.00	813.52	7.01	2.68	285.58	288.88
8.920	1.00	0.00	0.00	806.50	920.00	814.62	0.00	814.73	4.99	2.57	358.58	411.72
8.930	80.00	0.00	0.00	806.50	520.00	810.08	0.00	811.36	177.06	9.07	57.35	39.08
8.930	80.00	0.00	0.00	806.50	700.00	812.20	0.00	813.12	85.47	7.67	91.21	75.72
8.930	80.00	0.00	0.00	806.50	765.00	813.14	0.00	813.91	78.90	7.05	108.58	86.12
8.930	80.00	0.00	0.00	806.50	920.00	814.41	0.00	815.03	65.85	6.30	146.08	113.37
9.010	140.00	821.50	811.50	806.80	520.00	813.05	0.00	813.80	156.81	6.92	75.10	41.53
9.010	140.00	821.50	811.50	806.80	700.00	812.77	0.00	813.63	74.97	7.32	95.62	80.84
9.010	140.00	821.50	811.50	806.80	765.00	814.30	0.00	814.82	55.97	5.79	132.23	102.25
9.010	140.00	821.50	811.50	806.80	920.00	816.59	0.00	816.84	22.14	3.95	232.82	195.52
9.100	60.00	0.00	0.00	806.90	520.00	813.87	0.00	813.92	2.92	1.77	294.45	304.53
9.100	60.00	0.00	0.00	806.90	700.00	813.67	0.00	813.77	6.00	2.48	282.70	285.77
9.100	60.00	0.00	0.00	806.90	765.00	814.85	0.00	814.92	3.66	2.18	350.96	399.88
9.100	60.00	0.00	0.00	806.90	920.00	816.83	0.00	816.89	2.23	1.98	465.75	616.22
9.900	220.00	0.00	0.00	807.30	520.00	813.94	0.00	814.01	5.29	2.24	231.76	225.98
9.900	220.00	0.00	0.00	807.30	700.00	813.80	0.00	813.95	10.49	3.11	225.19	216.11
9.900	220.00	0.00	0.00	807.30	765.00	814.92	0.00	815.04	6.31	2.72	281.11	304.45
9.900	220.00	0.00	0.00	807.30	920.00	816.87	0.00	816.96	3.71	2.43	378.32	477.75

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	9.950	160.00	0.00	0.00	807.50	520.00	814.01	0.00	814.14	8.74	2.94	176.90	175.89
	9.950	160.00	0.00	0.00	807.50	700.00	813.95	0.00	814.20	16.31	4.00	175.15	173.34
	9.950	160.00	0.00	0.00	807.50	765.00	815.00	0.00	815.21	12.05	3.70	206.51	220.39
	9.950	160.00	0.00	0.00	807.50	920.00	816.89	0.00	817.08	8.68	3.49	263.47	312.28
	10.010	30.00	815.00	814.30	808.20	520.00	815.24	0.00	815.27	2.24	1.65	534.63	347.26
*	10.010	30.00	815.00	814.30	808.20	700.00	815.73	0.00	815.76	2.61	1.86	644.20	433.46
	10.010	30.00	815.00	814.30	808.20	765.00	816.23	0.00	816.25	2.05	1.71	758.84	533.66
	10.010	30.00	815.00	814.30	808.20	920.00	817.12	0.00	817.14	1.54	1.58	968.63	740.37
	10.100	40.00	0.00	0.00	808.40	520.00	815.25	0.00	815.28	2.01	1.66	431.47	366.73
	10.100	40.00	0.00	0.00	808.40	700.00	815.73	0.00	815.78	2.69	2.00	496.28	426.70
	10.100	40.00	0.00	0.00	808.40	765.00	816.22	0.00	816.27	2.37	1.96	570.07	496.64
	10.100	40.00	0.00	0.00	808.40	920.00	817.12	0.00	817.16	1.94	1.89	737.79	661.06
	10.900	28.00	0.00	0.00	808.90	520.00	815.07	0.00	815.43	32.20	5.04	142.63	91.63
	10.900	28.00	0.00	0.00	808.90	700.00	815.53	0.00	815.94	37.76	5.67	196.54	113.91
	10.900	28.00	0.00	0.00	808.90	765.00	816.11	0.00	816.37	25.04	4.82	285.89	152.89
	10.900	28.00	0.00	0.00	808.90	920.00	817.08	0.00	817.20	13.40	3.76	487.98	251.34
	11.010	1.00	817.50	813.90	808.90	520.00	816.25	0.00	816.35	10.02	3.08	310.82	164.28
	11.010	1.00	817.50	813.90	808.90	700.00	817.68	0.00	817.72	4.02	2.13	643.37	348.93
	11.010	1.00	817.50	813.90	808.90	765.00	818.17	0.00	818.20	2.92	1.87	770.68	447.33
	11.010	1.00	817.50	813.90	808.90	920.00	818.88	0.00	818.90	2.27	1.70	955.25	610.64
	11.100	40.00	0.00	0.00	808.60	520.00	816.33	0.00	816.38	2.87	1.89	275.32	307.21
	11.100	40.00	0.00	0.00	808.60	700.00	817.68	0.00	817.74	2.90	2.09	334.31	410.83
	11.100	40.00	0.00	0.00	808.60	765.00	818.15	0.00	818.23	2.55	2.15	355.38	479.31
	11.100	40.00	0.00	0.00	808.60	920.00	818.85	0.00	818.94	2.85	2.38	386.02	545.24

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SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
5.900	1500.00	804.00	0.00	0.00	0.00	55.74	0.00
5.900	2250.00	809.40	5.40	0.00	0.00	111.93	0.00
5.900	2650.00	809.80	.40	0.00	0.00	114.84	0.00
5.900	3500.00	810.40	.60	0.00	0.00	118.00	0.00
6.000	1500.00	806.00	0.00	2.00	0.00	74.23	200.00
6.000	2250.00	809.59	3.59	.19	0.00	110.82	200.00
6.000	2650.00	810.02	.43	.22	0.00	114.32	200.00
6.000	3500.00	810.69	.67	.29	0.00	118.00	200.00
6.100	1500.00	806.70	0.00	.70	0.00	78.69	200.00
6.100	2250.00	809.79	3.09	.20	0.00	109.76	200.00
6.100	2650.00	810.24	.45	.23	0.00	113.83	200.00
6.100	3500.00	810.97	.73	.29	0.00	118.00	200.00
6.200	1500.00	807.43	0.00	.73	0.00	82.22	280.00
6.200	2250.00	810.09	2.66	.30	0.00	108.67	280.00
6.200	2650.00	810.57	.49	.33	0.00	113.37	280.00
6.200	3500.00	811.38	.80	.41	0.00	118.00	280.00
6.900	520.00	807.73	0.00	.31	0.00	71.68	20.00
6.900	700.00	810.31	2.58	.22	0.00	79.46	20.00
6.900	765.00	810.84	.53	.26	0.00	80.97	20.00
6.900	920.00	811.73	.90	.36	0.00	83.53	20.00
7.000	520.00	807.76	0.00	.03	0.00	71.26	100.00
7.000	700.00	810.32	2.56	.01	0.00	79.21	100.00
7.000	765.00	810.85	.53	.01	0.00	80.71	100.00
7.000	920.00	811.75	.90	.01	0.00	83.27	100.00
7.100	520.00	807.81	0.00	.05	0.00	69.82	179.00
7.100	700.00	810.35	2.53	.02	0.00	78.42	179.00
7.100	765.00	810.87	.53	.02	0.00	79.92	179.00
7.100	920.00	811.77	.90	.02	0.00	82.48	179.00
7.200	520.00	807.79	0.00	-.02	0.00	63.91	1.00
7.200	700.00	810.34	2.55	-.01	0.00	75.66	1.00
7.200	765.00	810.86	.53	-.01	0.00	77.06	1.00
7.200	920.00	811.76	.90	-.01	0.00	79.62	1.00
7.300	520.00	807.84	0.00	.05	0.00	63.37	70.00
7.300	700.00	810.35	2.51	.02	0.00	75.44	70.00
7.300	765.00	810.88	.52	.01	0.00	76.78	70.00
7.300	920.00	811.77	.89	.01	0.00	79.34	70.00
7.800	520.00	807.97	0.00	.13	0.00	76.00	150.00
7.800	700.00	810.40	2.43	.04	0.00	78.00	150.00
7.800	765.00	810.92	.52	.04	0.00	78.00	150.00
7.800	920.00	811.81	.89	.04	0.00	78.00	150.00
7.900	520.00	808.10	0.00	.14	0.00	75.11	200.00
7.900	700.00	810.44	2.33	.04	0.00	78.00	200.00

7.900	765.00	810.95	.52	.04	0.00	78.00	200.00
7.900	920.00	811.84	.89	.03	0.00	78.00	200.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
7.950	520.00	807.83	0.00	-.28	0.00	14.21	140.00
7.950	700.00	810.08	2.26	-.35	0.00	14.77	140.00
7.950	765.00	810.57	.49	-.38	0.00	14.89	140.00
7.950	920.00	811.39	.81	-.46	0.00	16.29	140.00
8.050	520.00	808.69	0.00	.86	0.00	14.25	75.00
8.050	700.00	811.68	2.99	1.59	0.00	15.00	75.00
8.050	765.00	812.65	.97	2.08	0.00	18.18	75.00
8.050	920.00	813.76	1.11	2.38	0.00	21.00	75.00
8.100	520.00	809.70	0.00	1.01	0.00	69.07	60.00
8.100	700.00	812.34	2.63	.66	0.00	74.00	60.00
8.100	765.00	813.25	.91	.60	0.00	74.00	60.00
8.100	920.00	814.39	1.14	.62	0.00	74.00	60.00
8.200	520.00	809.82	0.00	.12	0.00	67.42	209.00
8.200	700.00	812.37	2.55	.04	0.00	74.00	209.00
8.200	765.00	813.28	.90	.03	0.00	74.00	209.00
8.200	920.00	814.41	1.14	.03	0.00	74.00	209.00
8.300	520.00	809.82	0.00	.00	0.00	31.00	84.00
8.300	700.00	812.34	2.51	-.04	0.00	31.00	84.00
8.300	765.00	813.23	.90	-.04	0.00	31.00	84.00
8.300	920.00	814.36	1.12	-.05	0.00	31.00	84.00
8.310	520.00	809.82	0.00	.00	0.00	31.00	1.00
8.310	700.00	812.32	2.49	-.02	0.00	31.00	1.00
8.310	765.00	813.19	.87	-.05	0.00	31.00	1.00
8.310	920.00	814.27	1.09	-.08	0.00	31.00	1.00
8.320	520.00	809.83	0.00	.01	0.00	31.00	6.00
8.320	700.00	812.33	2.50	.01	0.00	31.00	6.00
8.320	765.00	813.20	.87	.01	0.00	31.00	6.00
8.320	920.00	814.30	1.10	.03	0.00	31.00	6.00
8.400	520.00	809.83	0.00	.00	0.00	31.00	1.00
8.400	700.00	812.36	2.53	.03	0.00	31.00	1.00
8.400	765.00	813.27	.91	.07	0.00	31.00	1.00
8.400	920.00	814.43	1.16	.14	0.00	31.00	1.00
8.500	520.00	809.89	0.00	.06	0.00	31.00	71.00
8.500	700.00	812.39	2.50	.03	0.00	31.00	71.00
8.500	765.00	813.30	.91	.03	0.00	31.00	71.00
8.500	920.00	814.46	1.16	.03	0.00	31.00	71.00
8.510	520.00	809.90	0.00	.00	0.00	31.00	1.00
8.510	700.00	812.37	2.47	-.02	0.00	31.00	1.00
8.510	765.00	813.25	.88	-.05	0.00	31.00	1.00
8.510	920.00	814.38	1.12	-.09	0.00	31.00	1.00
8.520	520.00	809.90	0.00	.01	0.00	31.00	6.00
8.520	700.00	812.38	2.48	.01	0.00	31.00	6.00
8.520	765.00	813.26	.88	.01	0.00	31.00	6.00
8.520	920.00	814.40	1.14	.03	0.00	31.00	6.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
8.600	520.00	809.90	0.00	.00	0.00	31.00	1.00
8.600	700.00	812.42	2.52	.04	0.00	31.00	1.00
8.600	765.00	813.35	.93	.08	0.00	31.00	1.00
8.600	920.00	814.54	1.20	.14	0.00	31.00	1.00
8.900	520.00	810.00	0.00	.09	0.00	56.69	20.00
8.900	700.00	812.51	2.51	.09	0.00	60.00	20.00
8.900	765.00	813.44	.93	.09	0.00	60.00	20.00
8.900	920.00	814.65	1.21	.10	0.00	60.00	20.00
8.910	520.00	810.04	0.00	.04	0.00	56.20	49.00
8.910	700.00	812.52	2.49	.01	0.00	60.00	49.00
8.910	765.00	813.45	.92	.01	0.00	60.00	49.00
8.910	920.00	814.65	1.21	.01	0.00	60.00	49.00
8.920	520.00	809.81	0.00	-.23	0.00	40.33	1.00
8.920	700.00	812.47	2.65	-.06	0.00	58.78	1.00
8.920	765.00	813.41	.94	-.04	0.00	60.00	1.00
8.920	920.00	814.62	1.22	-.03	0.00	60.00	1.00
8.930	520.00	810.08	0.00	.27	0.00	16.02	80.00
8.930	700.00	812.20	2.12	-.27	0.00	16.09	80.00
8.930	765.00	813.14	.94	-.26	0.00	22.88	80.00
8.930	920.00	814.41	1.27	-.21	0.00	36.22	80.00
refer to * hand calculations given to Suzanne Elms on July 9, 1980 @ MPS in Ann Arbor for the 10 yr Flow From this point on. 9.010	520.00	~~813.05~~ 811.71	0.00	2.97	0.00	18.76	140.00
9.010	700.00	812.77	-.28	.57	0.00	16.10	140.00
9.010	765.00	814.30	1.53	1.16	0.00	31.95	140.00
9.010	920.00	816.59	2.29	2.18	0.00	55.99	140.00
9.100	520.00	~~813.87~~ 812.30	0.00	.82	0.00	58.00	60.00
9.100	700.00	813.67	-.20	.90	0.00	58.00	60.00
9.100	765.00	814.85	1.18	.55	0.00	58.00	60.00
9.100	920.00	816.83	1.98	.23	0.00	58.00	60.00
9.900	520.00	~~813.94~~ 812.54	0.00	.06	0.00	50.00	220.00
9.900	700.00	813.80	-.13	.13	0.00	50.00	220.00
9.900	765.00	814.92	1.12	.07	0.00	50.00	220.00
9.900	920.00	816.87	1.94	.04	0.00	50.00	220.00
9.950	520.00	~~814.01~~ 812.86	0.00	.07	0.00	29.51	160.00
9.950	700.00	813.95	-.06	.15	0.00	29.49	160.00
9.950	765.00	815.00	1.05	.08	0.00	29.75	160.00
9.950	920.00	816.89	1.90	.03	0.00	30.00	160.00
* 10.010	520.00	~~815.24~~ 813.62	0.00	1.23	0.00	224.28	30.00
10.010	700.00	815.73	.48	1.78	0.00	227.78	30.00
10.010	765.00	816.23	.50	1.23	0.00	231.38	30.00
10.010	920.00	817.12	.89	.23	0.00	237.74	30.00
10.100	520.00	~~815.25~~ 813.72	0.00	.00	0.00	131.56	40.00
10.100	700.00	815.73	.48	.00	0.00	142.78	40.00
10.100	765.00	816.22	.50	-.00	0.00	162.12	40.00
10.100	920.00	817.12	.89	-.00	0.00	189.00	40.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
10.900	520.00	~~815.07~~ 813.82	0.00	-.18	0.00	99.81	28.00
10.900	700.00	815.53	.46	-.20	0.00	133.04	28.00
10.900	765.00	816.11	.58	-.11	0.00	174.71	28.00
10.900	920.00	817.08	.97	-.04	0.00	243.99	28.00
11.010	520.00	~~816.25~~ 815.01	0.00	1.18	0.00	184.67	1.00
11.010	700.00	817.68	1.43	2.15	0.00	260.00	1.00
11.010	765.00	818.17	.49	2.06	0.00	260.00	1.00
11.010	920.00	818.88	.71	1.80	0.00	260.00	1.00
11.100	520.00	~~816.33~~ 815.05	0.00	.08	0.00	44.00	40.00
11.100	700.00	817.68	1.35	-.01	0.00	44.00	40.00
11.100	765.00	818.15	.48	-.02	0.00	44.00	40.00
11.100	920.00	818.85	.70	-.03	0.00	44.00	40.00

SUMMARY OF ERRORS

CAUTION SECNO= 10.010 PROFILE= 2 HYDRAULIC JUMP D.S.

FLOOD INSURANCE ZONE DATA FOR PAAD2 10 YEAR

FLOOD HAZARD FACTOR FOR ENTIRE REACH USING SECTIONS

SECTION NUMBER	CUMULATIVE DISTANCE	ELEVATION DIFFERENCE BETWEEN BASE FLOOD AND@ 10_	2_	0.2_
5.900	0.	-5.80	-.40	.60
6.000	200.	-4.02	-.43	.67
6.100	400.	-3.54	-.45	.73
6.200	680.	-3.15	-.49	.80
6.900	700.	-3.10	-.53	.90
7.000	800.	-3.09	-.53	.90
7.100	979.	-3.06	-.53	.90
7.200	980.	-3.07	-.53	.90
7.300	1050.	-3.03	-.52	.89
7.800	1200.	-2.95	-.52	.89
7.900	1400.	-2.85	-.52	.89
7.950	1540.	-2.75	-.49	.81
8.050	1615.	-3.96	-.97	1.11
8.100	1675.	-3.54	-.91	1.14
8.200	1884.	-3.46	-.90	1.14
8.300	1968.	-3.41	-.90	1.12
8.310	1969.	-3.36	-.87	1.09
8.320	1975.	-3.37	-.87	1.10
8.400	1976.	-3.44	-.91	1.16
8.500	2047.	-3.41	-.91	1.16
8.510	2048.	-3.36	-.88	1.12
8.520	2054.	-3.36	-.88	1.14
8.600	2055.	-3.44	-.93	1.20
8.900	2075.	-3.44	-.93	1.21
8.910	2124.	-3.41	-.92	1.21
8.920	2125.	-3.60	-.94	1.22
8.930	2205.	-3.06	-.94	1.27
9.010	2345.	-1.25	-1.53	2.29
9.100	2405.	-.97	-1.18	1.98
9.900	2625.	-.99	-1.12	1.94
9.950	2785.	-.99	-1.05	1.90
10.010	2815.	-.98	-.50	.89
10.100	2855.	-.98	-.50	.89
10.900	2883.	-1.04	-.58	.97
11.010	2884.	-1.92	-.49	.71
11.100	2924.	-1.83	-.48	.70
WEIGHTED AVG FOR REACH		-2.89	-.72	1.11

FHF FOR THE REACH = 030 WITH 73.4_ OF THE REACH WITHIN 1.0 FEET
ZONE FOR THE REACH = A 6

CONTINUOUS FLOOD HAZARD FACTORS BY EVEN INCREMENTS

INC NO.	TOTAL LENGTH	AVG ELEVATION DATA 10_	1_	DIFF.	WTD. AVG.	FHF	PERCENT WITHIN
	0.				SEC.		5.900
1	100.	804.50	809.85	-5.35	-5.35	055	100.
	200.				SEC.		6.000
2	200.	805.50	809.96	-4.46	-4.90	050	100.
3	300.	806.17	810.07	-3.90	-4.57	045	100.
	400.				SEC.		6.100
4	400.	806.52	810.19	-3.67	-4.35	045	100.
5	500.	806.83	810.30	-3.47	-4.17	040	80.
6	600.	807.09	810.42	-3.33	-4.03	040	83.
	680.				SEC.		6.200
7	700.	807.48	810.66	-3.18	-3.91	040	86.
	700.				SEC.		6.900
8	800.	807.75	810.84	-3.09	-3.81	040	88.
	800.				SEC.		7.000
9	900.	807.78	810.86	-3.08	-3.73	035	89.
	979.				SEC.		7.100
	980.				SEC.		7.200
10	1000.	807.80	810.86	-3.06	-3.66	035	90.
	1050.				SEC.		7.300
11	1100.	807.84	810.88	-3.04	-3.60	035	91.
	1200.				SEC.		7.800
12	1200.	807.93	810.90	-2.97	-3.55	035	92.
13	1300.	808.00	810.92	-2.92	-3.50	035	92.
	1400.				SEC.		7.900
14	1400.	808.07	810.94	-2.87	-3.46	035	93.
15	1500.	808.00	810.82	-2.82	-3.41	035	87.
	1540.				SEC.		7.950
16	1600.	808.21	811.46	-3.25	-3.40	035	88.
	1615.				SEC.		8.050
	1675.				SEC.		8.100
17	1700.	809.12	812.74	-3.62	-3.42	035	88.
18	1800.	809.75	813.26	-3.51	-3.42	035	89.
	1884.				SEC.		8.200
19	1900.	809.80	813.27	-3.47	-3.42	035	89.
	1968.				SEC.		8.300
	1969.				SEC.		8.310
	1975.				SEC.		8.320
	1976.				SEC.		8.400
20	2000.	809.84	813.28	-3.44	-3.42	035	90.
	2047.				SEC.		8.500
	2048.				SEC.		8.510
	2054.				SEC.		8.520
	2055.				SEC.		8.600
	2075.				SEC.		8.900
21	2100.	809.94	813.36	-3.42	-3.42	035	90.
	2124.				SEC.		8.910
	2125.				SEC.		8.920
22	2200.	810.04	813.30	-3.26	-3.42	035	91.
	2205.				SEC.		8.930
23	2300.	811.08	813.54	-2.46	-3.38	035	91.
	2345.				SEC.		9.010
24	2400.	812.95	814.36	-1.41	-3.29	035	88.
	2405.				SEC.		9.100
25	2500.	813.85	814.84	-.99	-3.20	030	84.
26	2600.	813.91	814.90	-.99	-3.12	030	81.
	2625.				SEC.		9.900
27	2700.	813.95	814.94	-.99	-3.04	030	78.

	2785.					SEC.	9.950
28	2800.	814.30	815.28	-.98	-2.96	030	75.
	2815.					SEC.	10.010
	2855.					SEC.	10.100
	2883.					SEC.	10.900
	2884.					SEC.	11.010
29	2900.	815.45	816.89	-1.44	-2.91	030	72.
	2924.					SEC.	11.100

THIS REACH CAN BE SUBDIVIDED BY INC NO. TO MEET FIA REQUIREMENTS
INPUT 20N WHERE N IS THE NUMBER OF REACHES AND THEN INPUT THE END
OF EACH REACH BY INC NO. FOR EXAMPLE@ 202 26 29
A NEGATIVE INC NO. WILL SUPPRESS INTERMEDIATE INC OUTPUT.

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**********************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
**********************************************

C
T1      HUD FIA H-4705 T06
T2      PITTSFIELD TWP FIS
T3      PAAD1 100 YEAR

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
       -1.       4.        0.        0.  0.000000      0.00     -1.0        0.   800.000     0.000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
     1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC      .060      .060      .035      .100      .300     0.000     0.000     0.000     0.000     0.000
QT     5.000  1500.000  2250.000  2650.000  3500.000  2650.000     0.000     0.000     0.000     0.000

       ***JUSI U/S OF PLATT RD.

X1     2.400     4.000   304.000   368.000     0.000     0.000     0.000     0.000    -5.300     0.000
GR   800.500   304.000   791.100   322.000   791.100   347.000   304.700   368.000     0.000     0.000

X1     2.500     0.000     0.000     0.000   470.000   470.000   470.000     0.000     1.100     0.000

X1     2.600     0.000     0.000     0.000   470.000   470.000   470.000     0.000     1.100     0.000

X1     2.700     0.000     0.000     0.000   470.000   470.000   470.000     0.000     1.100     0.000

X1     2.800     0.000     0.000     0.000   470.000   470.000   470.000     0.000     1.100     0.000

X1     2.900     0.000     0.000     0.000   320.000   320.000   320.000     0.000      .900     0.000
NC     0.000     0.000     0.000      .200      .400     0.000     0.000     0.000     0.000     0.000

       ***D/S FACE OF PACKARD RD.

X1     2.950     6.000   117.000   160.000   150.000   150.000   150.000     0.000     -.100     0.000
GR   804.200   100.000   802.500   105.000   791.800   106.000   791.800   154.000   802.500   155.000
GR   803.300   160.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
SB     1.200     1.500     2.900   120.000    45.000    21.000   170.000     0.000   791.800   791.800

X1     3.050     0.000     0.000     0.000   175.000   175.000   175.000     0.000      .100     0.000
X2     0.000     0.000     1.000   798.400   803.000     0.000     0.000     0.000     0.000     0.000
NC     0.000     0.000      .040      .100      .300     0.000     0.000     0.000     0.000     0.000
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P.P.A.D. CONVERGENCE

X1	3.100	8.000	174.000	278.000	50.000	50.000	50.000	0.000	0.000	0.000
GR	801.800	174.000	798.300	196.000	796.400	206.000	792.800	218.000	791.800	238.000
GR	791.300	263.000	797.400	272.000	800.200	278.000	0.000	0.000	0.000	0.000

***D/S LIMIT OF DETAILED STUDY

X1	3.200	0.000	0.000	0.000	610.000	610.000	610.000	0.000	.700	0.000

X1	4.000	6.000	326.000	418.000	340.000	340.000	340.000	0.000	0.000	0.000
GR	800.800	326.000	795.400	344.000	793.000	360.000	793.000	380.000	796.500	398.000
GR	802.200	418.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	4.100	0.000	0.000	0.000	400.000	400.000	400.000	0.000	.500	0.000

***JUST D/S OF RETENTION BASIN #1

X1	4.200	0.000	0.000	0.000	400.000	400.000	400.000	0.000	.600	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

****
HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
ERROR CORR - 01
MODIFICATION - 50,51,52
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

PAAD1 100 YEAR

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	2.400	0.00	0.00	0.00	785.80	2650.00	800.00	0.00	800.23	4.48	3.89	681.40	1251.67
	2.400	0.00	0.00	0.00	785.80	2650.00	802.10	0.00	802.26	2.64	3.25	815.80	1629.92
	2.400	0.00	0.00	0.00	785.80	2650.00	797.90	0.00	798.26	8.35	4.83	548.74	917.11
	2.500	470.00	0.00	0.00	786.90	2650.00	800.21	0.00	800.49	5.78	4.24	624.55	1102.20
	2.500	470.00	0.00	0.00	786.90	2650.00	802.22	0.00	802.41	3.34	3.52	753.35	1451.04
	2.500	470.00	0.00	0.00	786.90	2650.00	798.29	0.00	798.72	10.56	5.24	505.47	815.42
	2.600	470.00	0.00	0.00	788.00	2650.00	800.48	0.00	800.81	7.42	4.63	572.04	973.10
	2.600	470.00	0.00	0.00	788.00	2650.00	802.37	0.00	802.60	4.28	3.83	691.99	1280.54
	2.600	470.00	0.00	0.00	788.00	2650.00	798.80	0.00	799.29	13.05	5.64	469.70	733.69
	2.700	470.00	0.00	0.00	789.10	2650.00	800.82	0.00	801.22	9.44	5.04	525.70	862.59
	2.700	470.00	0.00	0.00	789.10	2650.00	802.57	0.00	802.84	5.54	4.18	634.02	1125.92
	2.700	470.00	0.00	0.00	789.10	2650.00	799.42	0.00	799.98	15.61	6.00	441.45	670.74
	2.800	470.00	0.00	0.00	790.20	2650.00	801.27	0.00	801.73	11.81	5.45	486.19	771.08
	2.800	470.00	0.00	0.00	790.20	2650.00	802.83	0.00	803.15	7.08	4.56	581.41	995.84
	2.800	470.00	0.00	0.00	790.20	2650.00	800.17	0.00	800.78	17.95	6.30	420.70	625.45
	2.900	320.00	0.00	0.00	791.10	2650.00	801.64	0.00	802.17	14.35	5.83	454.49	699.61
	2.900	320.00	0.00	0.00	791.10	2650.00	803.04	0.00	803.42	8.81	4.92	538.54	892.87
	2.900	320.00	0.00	0.00	791.10	2650.00	800.74	0.00	801.42	20.55	6.60	401.63	584.58
	2.950	150.00	0.00	0.00	791.70	2650.00	801.94	0.00	802.38	10.92	5.29	501.40	802.03
	2.950	150.00	0.00	0.00	791.70	2650.00	803.22	0.00	803.55	8.43	4.66	568.15	912.79
	2.950	150.00	0.00	0.00	791.70	2650.00	801.19	0.00	801.70	13.72	5.71	464.06	715.47
*	3.050	175.00	803.00	798.40	791.80	2650.00	804.46	0.00	804.73	6.20	4.17	635.83	1064.02
	3.050	175.00	803.00	798.40	791.80	2650.00	804.91	0.00	805.16	5.49	4.00	662.58	1131.42
*	3.050	175.00	803.00	798.40	791.80	2650.00	804.20	0.00	804.49	6.69	4.27	620.36	1024.77
	3.100	50.00	0.00	0.00	791.80	2650.00	804.66	0.00	804.77	2.93	2.68	989.39	1547.45
	3.100	50.00	0.00	0.00	791.80	2650.00	805.09	0.00	805.19	2.56	2.56	1034.14	1657.57
	3.100	50.00	0.00	0.00	791.80	2650.00	804.41	0.00	804.53	3.18	2.75	963.62	1485.14
	3.200	610.00	0.00	0.00	792.50	2650.00	804.84	0.00	804.97	3.49	2.83	935.88	1419.01
	3.200	610.00	0.00	0.00	792.50	2650.00	805.25	0.00	805.36	3.04	2.71	978.11	1520.08
	3.200	610.00	0.00	0.00	792.50	2650.00	804.61	0.00	804.74	3.78	2.91	911.79	1362.36

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
4.000	340.00	0.00	0.00	793.00	2650.00	804.95	0.00	805.11	4.45	3.19	830.10	1255.94
4.000	340.00	0.00	0.00	793.00	2650.00	805.34	0.00	805.49	3.90	3.06	866.17	1341.27
4.000	340.00	0.00	0.00	793.00	2650.00	804.73	0.00	804.90	4.81	3.27	809.65	1208.33
4.100	400.00	0.00	0.00	793.50	2650.00	805.13	0.00	805.30	4.98	3.31	800.72	1187.73
4.100	400.00	0.00	0.00	793.50	2650.00	805.50	0.00	805.66	4.39	3.18	833.76	1264.51
4.100	400.00	0.00	0.00	793.50	2650.00	804.93	0.00	805.10	5.36	3.39	781.68	1144.18
4.200	400.00	0.00	0.00	794.10	2650.00	805.34	0.00	805.52	5.77	3.47	763.50	1103.08
4.200	400.00	0.00	0.00	794.10	2650.00	805.68	0.00	805.85	5.09	3.33	795.23	1175.12
4.200	400.00	0.00	0.00	794.10	2650.00	805.14	0.00	805.34	6.21	3.55	745.88	1063.71

PAAD1 100 YEAR

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	2.400	2650.00	800.00	0.00	0.00	0.00	64.00	0.00
	2.400	2650.00	802.10	0.00	0.00	0.00	64.00	0.00
	2.400	2650.00	797.90	0.00	0.00	0.00	61.68	0.00
	2.500	2650.00	800.21	0.00	.21	0.00	63.55	470.00
	2.500	2650.00	802.22	0.00	.12	0.00	64.00	470.00
	2.500	2650.00	798.29	0.00	.39	0.00	60.59	470.00
	2.600	2650.00	800.48	0.00	.27	0.00	62.26	470.00
	2.600	2650.00	802.37	0.00	.15	0.00	64.00	470.00
	2.600	2650.00	798.80	0.00	.50	0.00	59.67	470.00
	2.700	2650.00	800.82	0.00	.35	0.00	61.10	470.00
	2.700	2650.00	802.57	0.00	.20	0.00	63.78	470.00
	2.700	2650.00	799.42	0.00	.62	0.00	58.94	470.00
	2.800	2650.00	801.27	0.00	.45	0.00	60.10	470.00
	2.800	2650.00	802.83	0.00	.26	0.00	62.50	470.00
	2.800	2650.00	800.17	0.00	.75	0.00	58.39	470.00
	2.900	2650.00	801.64	0.00	.37	0.00	59.28	320.00
	2.900	2650.00	803.04	0.00	.21	0.00	61.43	320.00
	2.900	2650.00	800.74	0.00	.57	0.00	57.88	320.00
	2.950	2650.00	801.94	0.00	.30	0.00	49.91	150.00
	2.950	2650.00	803.22	0.00	.18	0.00	57.40	150.00
	2.950	2650.00	801.19	0.00	.45	0.00	49.77	150.00
*	3.050	2650.00	804.46	0.00	2.52	0.00	60.00	175.00
	3.050	2650.00	804.91	0.00	1.69	0.00	60.00	175.00
*	3.050	2650.00	804.20	0.00	3.01	0.00	60.00	175.00
	3.100	2650.00	804.66	0.00	.19	0.00	104.00	50.00
	3.100	2650.00	805.09	0.00	.18	0.00	104.00	50.00
	3.100	2650.00	804.41	0.00	.20	0.00	104.00	50.00
	3.200	2650.00	804.84	0.00	.19	0.00	104.00	610.00
	3.200	2650.00	805.25	0.00	.16	0.00	104.00	610.00
	3.200	2650.00	804.61	0.00	.20	0.00	104.00	610.00
	4.000	2650.00	804.95	0.00	.11	0.00	92.00	340.00
	4.000	2650.00	805.34	0.00	.09	0.00	92.00	340.00
	4.000	2650.00	804.73	0.00	.12	0.00	92.00	340.00
	4.100	2650.00	805.13	0.00	.18	0.00	92.00	400.00
	4.100	2650.00	805.50	0.00	.16	0.00	92.00	400.00
	4.100	2650.00	804.93	0.00	.19	0.00	92.00	400.00
	4.200	2650.00	805.34	0.00	.20	0.00	92.00	400.00
	4.200	2650.00	805.68	0.00	.18	0.00	92.00	400.00
	4.200	2650.00	805.14	0.00	.22	0.00	92.00	400.00

00BREAK00

1) COUNTY: WASHTENAW

2) STUDY NAME: PITTSFIELD TWP

3) WATERCOURSE: WOOD OUTLET DR.

4) DOCUMENT TYPE: PRINTOUTS

00BREAK00

FLOOD INSURANCE HYDRAULIC REPORT

PROJECT: HUD-FIA-H-4705 Pittsfield Twp. FIS, Washtenaw Co., MI

CONSULTING FIRM: McNamee, Porter and Seeley/Smith, Hinchman and Grylls

WATERCOURSE: Wood Outlet Drain

STUDY LIMITS: Grand Trunk Western Railroad Bridge (North Crossing) to 90° bend at Ann Arbor Airport.

DATE OF AERIAL SURVEY: 11/78 Abrams Aerial Survey

DATE OF LAND SURVEY: 4/79 - 5/79 MP&S field crew

SOURCE OF FLOWS: Discharges were computed by MP&S/SH&G and approved by MDNR on 5/16/79

TOPOGRAPHIC INFORMATION: USGS topographic maps; 10 contours strip topo - 2' contours, 1" = 400'

METHOD OF ANALYSIS: HEC-2 water surface profile computer program

VARIABLES AND COEFFICIENTS:

Channel "n"	.05 - .055
Overbank "n"	.075 - .12
n values thru bridges	See XKOR table
Contraction Coefficients	.1-.45
Expansion Coefficients	.3 - .9

Bridge loss coefficients were chosen per References 1 and 2.

PHOTOGRAPHS: Enclosed for your review, please return.

CROSS-SECTIONS: See Table 1 for cross-section description. Cross-section plots enclosed. (IPlots)

XKOR calculations included

REFERENCES:

1. "Hec-2 Water Surface Profiles", Users Manual, U.S. Army Corps of Engineers, Feb. 1972.
2. "Application of the Hec-2 Bridge Routines", U.S. Army Corps of Engineers, June 1974.
3. "Roughness Characteristics of Natural Channels", Barnes, Harry H. Jr., Geological Survey Water Supply Paper 1849.
4. "Floodway Determination using computer Program Hec-2", Bonner, Vernon R., U.S. Army Corps of Engineers Hec Training Document 5, May 1974.

HIGH WATER MARKS & CALIBRATION

No high water data was found for this reach of detailed study.

Starting Conditions

Field information was obtained about 5000 feet downstream of the limit of detailed study in order to establish a good starting elevation. Divided flow would occur downstream around the railroad tracks. Rating curves were developed to determine the starting elevation. It should be noted that there is very little difference in starting elevation for a large range in flows. Convergence runs were made to get a sensitivity on the starting elevation. No change was seen for 15% changes in the starting depth.

Designated Floodway

Encroachment method 4 in the HEC-2 program was used to determine encroachment stations based on an allowable surcharge of 0.1 ft. At some cross-sections, because of topwidth or continuity problems, the floodway was input directly using engineering judgement. At field surveyed sections the designated floodway was established using the computer determined encroachment stations. Between field surveyed sections, the available topographic information was used to complete the floodway delineation. (See the enclosed 1"= 400' topographic map for floodway delineation.) After delineation of the natural 100 yr. flood plain by Abrams Aerial Survey, the floodway between field surveyed sections may be slightly modified.

Computer Outputs

Enclosed are complete computer outputs for (i) 100 year natural and 100 yr. designated floodway, (ii) 10, 50 and 500 yr. flood profiles (iii) sensitivity analysis and (iv) starting elevation convergence runs for your review.

Comments

We have not delineated the 100 year flood plain at this time since this will be done by Abrams after DNR approval of the 100 yr. and 500 yr. flood elevations. (See the enclosed profiled for the 100 yr. natural computed water surface profile.)

Wood Outlet Drain for the reach of detailed study is characterized by a channel with high banks running thru farmland which is very flat and generally lower than the banks. Upstream of the detailed study from USGS maps it appears that the channel is steeper with overbanks rising quickly away from the stream. Because of the type of channel, the hydrology was reviewed and changed slightly. At the upper end of the study, there appears to be some storage available, which would reduce the peak flow. It was assumed that the local runoff would not substantially add to the flow. The flows used, therefore, correspond to those that could be generated from the upstream area of 1.25 square miles. It should be noted that the stages throughout the study are very insensitive to the flows. The maximum 10 to 500 year differential was less than 1 foot for the entire reach of study. The other change that was made for the hydrology was the shortening of the first reach. It was found that the major increase to the flow takes place at a tributary just upstream of Textile Road. Therefore, the reach was stopped just upstream of the tributary. There is some storage available just upstream of Textile Road, but since the elevations both upstream and downstream are so insensitive to the flows (maximum 0.7 foot 10 to 500 year), no routing was done. A revised table of the hydrology is enclosed.

At cross-section 8.2 to 8.8, extra friction, expansion and contraction losses were added for the directional change at the bridge.

HUD-FIA H-7100
Pittsfield T06
VPK 12/13/79

ch @ 4.8

WOOD OUTLET DRAIN
RATING CURVES
(for starting elev)

Woods Q	Woods El	Woods Q	Woods El
50	813.88	200	816.21
75	815.78	250	816.32
100	817.87	300	816.42
125	818.55	350	816.51
150	818.80	400	816.60

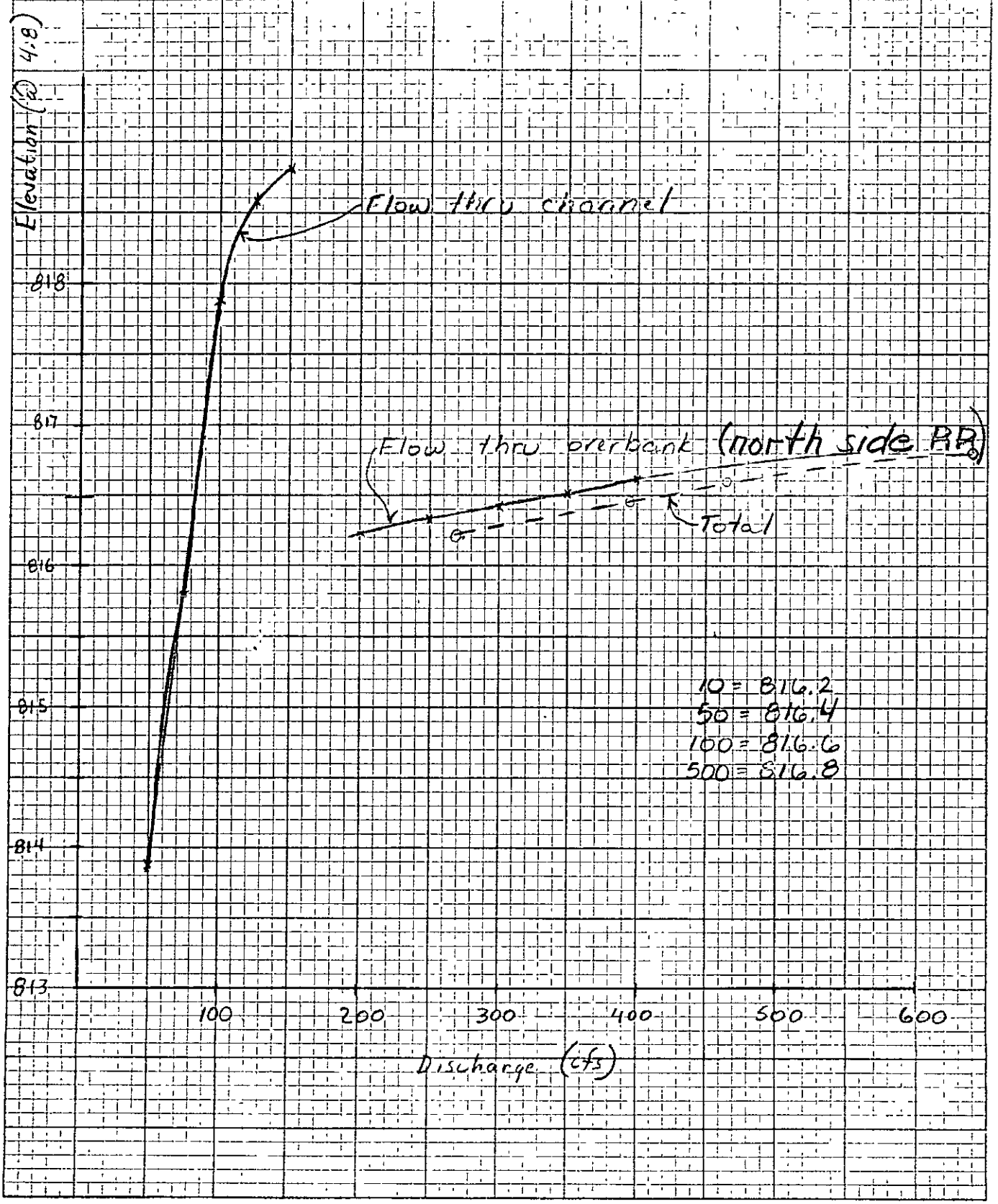


TABLE 7

Summary of Proposed Discharges
Pittsfield Township

Flooding Source and Location	Drainage Area (Square Miles)	Peak Discharge (cfs) 10-Yr.	50-Yr.	100-Yr.	500-Y
Wood Outlet Drain					
From Penn Central RR (u/s Crossing)	3.09				
To Just u/s of trib Approximately midway between Textile and Morgan Rds.	2.06	270	395	465	640
To Just u/s unnamed tributary N 1/2 S.20	1.69	205	300	350	485
To Ann Arbor Municipal Airport	1.25	~~180~~ 145	~~265~~ 215	~~310~~ 250	~~415~~ 345
Swift Drain					
From Clark Rd	4.4	810	1210	1430	198C
To US-23 ramp	3.9				
Pittsfield-Ann Arbor Drain					
From Township boundary (just u/s Packard Rd)	8.4	1500	2250	2650	350C
To Retention Pond #1	8.4				
From u/s end of Retention Pond #1	3.0	520	700	765	92C
To Stone School Rd.	2.8				

COMMUNITY: PITTSFIELD TWP.
WATERCOURSE: WOOD OUTLET DRAIN

TABLE 3 – XKOR CALCULATIONS

$XKOR = 1 + K_e + K_F \qquad K_F = \frac{29 n \ell^2}{R^{4/3}} \qquad R = \frac{A}{P}$

Cross Section Location	K_e	A	P	R	n	ℓ	K_F	XKOR	REMARKS
Penn Central R.R. (d/s crossing)	.9	12.5		1	.025	24	.4	2.3	
Penn Central R.R. (u/s crossing)	.9	10.1		.85	.025	24	.5	2.4	
Textile Rd.	.9	11.6		1	.025	41	.8	2.7	
Morgan Rd.	.9	7.1		.75	.025	20	.5	2.4	

CONSULTING ENGINEERS
ANN ARBOR MICHIGAN

COMMUNITY · PITTSFIELD TWP. FILE NO
WATERCOURSE: WOOD OUTLET DRAIN DATE CHK BY DATE

TABLE 1 - SECNO

Section Types	Description
1	Surveyed (See Remarks if Other Than MRS and/or Abrams)
2	Field Survey Section, partly modified for modelling
3	Synthetic - Repeat of nearby surveyed section with an invert adjustment (See Remarks)
4	Synthetic - Developed from Topo, surveyed sections, or other information

SECTION NO.	SECTION TYPE	REMARKS
1.0	1	
1.1, 1.2	3	R(1.0)
1.8	3	R(2.2)
2.2	1	
2.28, 2.32	4	Bridge face sections
2.8	1	
2.9	3	R(3.0)
3.0	1	
3.2	4	
3.4	4	
4.1	3	R(4.2)
4.2	1	
A 4.22, 4.32 (FARM XING)	4	Bridge face sections
B 4.8	1	
C 5.2	1	
D 5.3, 5.4 (TEXTILE RD)	4	Bridge face sections
E 5.8	1	

CONSULTING ENGINEERS
ANN ARBOR MICHIGAN

COMMUNITY: [illegible] FILE NO.
WATERCOURSE: WOOD OUTLET DRAIN
DATE CHK BY DATE

TABLE 1 - SECNO

Section Types	Description
1	Surveyed (See Remarks if Other Than MPS and/or Abram)
2	Field Survey Section, Partly modified for modelling
3	Synthetic - Repeat of nearby surveyed section with an invert adjustment (See Remarks)
4	Synthetic - Developed from topo, surveyed sections, or other information

	Section No.	Section Type	Remarks
	5.82, 5.84 5.85	3	R(5.8)
	5.86, 5.88 5.90	3	R(6.0)
F	6.0	1	
	6.02, 6.04 6.06	3	R(6.0)
	6.08	3	R(7.0)
G	6.09, 6.10	4	Add bridge
	6.12, 6.14	3	R(7.0)
H	7.0	1	
	7.01	3	R(7.0)
I	7.02, 7.03	4	Driveway
	7.04, 7.05 7.06, 7.08	3	R(7.0)
J	8.2	1	
K	8.21, 8.79	4	Face Sections
L	8.8	1	

CONSULTING ENGINEERS
ANN ARBOR MICHIGAN

COMMUNITY: MITCHELL TWP. FILE NO
WATERCOURSE: WOOD OUTLET DRAIN
COMPUTED BY DATE CHK BY DATE

TABLE 1 - SECNO

Section Types	Description
1	Surveyed (See Remarks if Other Than MRS and/or Abrams)
2	Field Survey Section, partly modified for modelling
3	Synthetic - Repeat of nearby surveyed section with an invert adjustment (See Remarks)
4	Synthetic - Developed from topo, surveyed sections, or other information

Section No.	Section Type	Remarks
8.82, 8.84	3	R(8.8)
8.86		
8.92, 8.94	3	R(9.0)
9.0	1	

T06

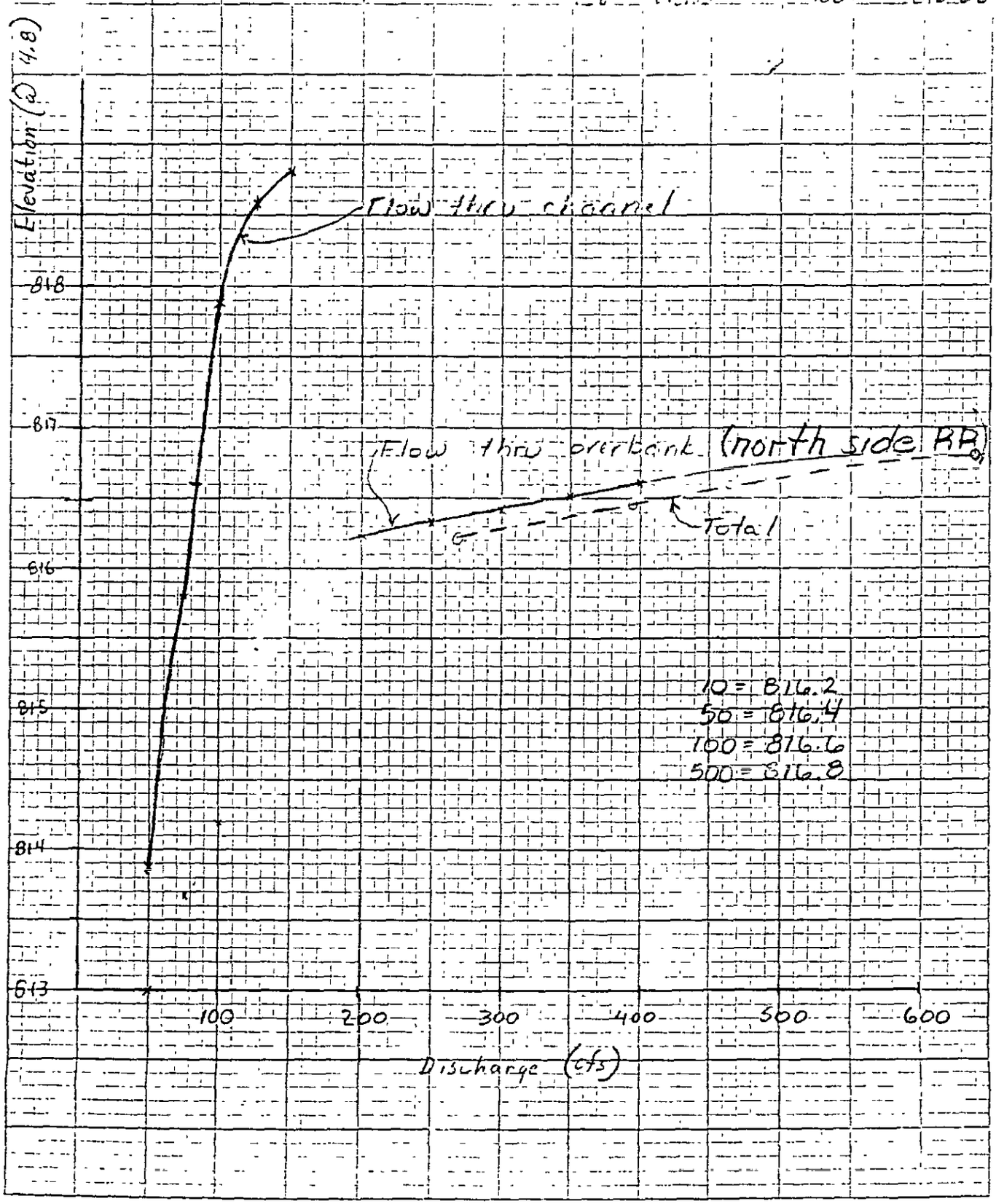
12/15/71

ch @ 4.8

WOOD OUTLET DRAIN
RATING CURVES

(for starting elev)

Q	[illegible]	Q	[illegible]
[illegible]	[illegible]	200	816.21
75	[illegible]	250	816.32
[illegible]	817.57	300	816.42
[illegible]	[illegible]	350	816.51
[illegible]	[illegible]	400	816.60



Floodway ?

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  C1
  MODIFICATION -  50,51,52
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C
T1      HUD-FIA H-4705
T2      PITTSFIELD TWP. FIS
T3      WOOD OUTLET DRAIN

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
      -1.       4.        0.        0.  0.000000      0.00      -1.0       0.   816.600    0.000

J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
      1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC      .100      .100      .055      .100      .300     0.000     0.000     0.000     0.000     0.000
QT     5.000   270.000   395.000   465.000   640.000   465.000     0.000     0.000     0.000     0.000
ET     0.000     0.000     0.000     0.000     0.000     1.400     5.400    10.400    15.400     0.000

X1     4.800    15.000   582.000   616.000     0.000     0.000     0.000     0.000     0.000     0.000
GR   817.200   565.000   816.700   581.000   813.700   588.000   810.600   600.000   813.400   613.000
GR   816.300   616.000   815.200   630.000   814.000   652.000   814.100   678.000   815.500   708.000
GR   816.600   764.000   816.300   830.000   815.300   975.000   816.100  1300.000   817.100  1435.000

X1     5.200    21.000   756.000   794.000   675.000   675.000   675.000      .850     0.000     0.000
X3     0.000     0.000     0.000     0.000     0.000  1050.000     0.000     0.000     0.000     0.000
X4     4.000   817.500    90.000   816.300   155.000   814.800   200.000   815.200   370.000     0.000
GR   820.000     0.000   814.700   440.000   814.400   482.000   814.600   544.000   814.500   602.000
GR   814.400   642.000   815.500   688.000   816.200   732.000   816.500   756.000   816.000   764.000
GR   811.600   778.000   811.400   780.000   811.500   781.000   811.600   782.000   811.900   783.000
GR   816.400   794.000   815.800   814.000   815.200   870.000   815.200   918.000   816.200   962.000
GR   817.000  1350.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

      ***D/S FACE TEXTILE RD.

X1     5.300     0.000     0.000     0.000   150.000   150.000   150.000     0.000     -.300     0.000
X3     0.000     0.000     0.000     0.000     0.000   900.000     0.000     0.000     0.000     0.000
SB     0.000     2.700     3.000     0.000     3.000     0.000    11.600     0.000   811.100   811.100

X1     5.400     0.000     0.000     0.000    41.000    41.000    41.000     0.000     0.000     0.000
X2     0.000     0.000     1.000   815.100     0.000     0.000     0.000     0.000      .850     0.000
X3     0.000     0.000     0.000     0.000     0.000   900.000     0.000     0.000     0.000     0.000
BT    13.000    45.000   819.000     0.000   180.000   817.300     0.000   395.000   816.500     0.000
BT   460.000   816.700     0.000   700.000   816.800     0.000   755.000   816.900     0.000   868.000
BT   817.100     0.000  1025.000   817.200     0.000  1090.000   817.500     0.000  1240.000   817.600
BT     0.000  1300.000   817.900     0.000  1370.000   818.000     0.000  1550.000   818.700     0.000
ET     0.000     0.000     0.000     0.000     0.000     1.400     5.400    10.400    15.400     0.000
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X1	5.800	20.000	1074.000	1114.000	59.000	59.000	59.000	.850	0.000	0.000
X4	5.000	816.600	370.000	815.200	480.000	815.600	620.000	817.500	1400.000	817.700
X4	1610.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	820.700	150.000	815.500	910.000	815.200	960.000	815.300	992.000	816.500	1018.000
GR	816.900	1046.000	816.800	1074.000	813.500	1092.000	812.100	1093.000	811.300	1100.000
GR	812.100	1107.000	812.600	1110.000	813.400	1111.000	814.500	1112.000	816.300	1114.000
GR	815.000	1148.000	815.600	1198.000	816.200	1258.000	816.300	1306.000	823.200	1720.000
X1	5.820	0.000	0.000	0.000	200.000	200.000	200.000	0.000	.200	0.000
X1	5.840	0.000	0.000	0.000	200.000	200.000	200.000	0.000	.200	0.000
X1	5.850	0.000	0.000	0.000	300.000	300.000	300.000	0.000	.300	0.000
QT	5.000	205.000	300.000	350.000	485.000	350.000	0.000	0.000	0.000	0.000
X1	5.860	25.000	678.000	708.000	200.000	200.000	200.000	0.000	-1.100	0.000
GR	823.700	80.000	820.400	150.000	820.000	215.000	819.400	444.000	818.300	476.000
GR	818.200	512.000	818.800	542.000	818.200	580.000	817.800	624.000	817.900	658.000
GR	817.700	678.000	815.000	689.000	814.000	691.000	813.300	692.000	813.300	698.000
GR	818.200	708.000	819.400	726.000	818.600	750.000	817.900	780.000	818.300	824.000
GR	818.200	874.000	818.600	922.000	819.200	1016.000	820.100	1315.000	822.400	1370.000
X1	5.880	0.000	0.000	0.000	500.000	500.000	500.000	0.000	.500	0.000
X1	5.900	0.000	0.000	0.000	500.000	500.000	500.000	0.000	.500	0.000
X1	6.000	0.000	0.000	0.000	50.000	50.000	50.000	0.000	.100	0.000
X1	6.020	0.000	0.000	0.000	200.000	200.000	200.000	0.000	.200	0.000
X1	6.040	0.000	0.000	0.000	350.000	350.000	350.000	0.000	.500	0.000
X1	6.060	0.000	0.000	0.000	370.000	370.000	370.000	0.000	.500	0.000

***D/S FACE 4' DIA. CULVERT

X1	6.080	24.000	824.000	844.000	470.000	470.000	470.000	0.000	-.500	0.000
X3	0.000	0.000	0.000	0.000	0.000	1045.000	0.000	0.000	0.000	0.000
GR	822.900	405.000	820.500	450.000	820.400	618.000	820.200	670.000	820.200	736.000
GR	820.800	750.000	821.800	812.000	822.200	824.000	821.000	830.000	817.500	833.000
GR	816.700	835.000	815.900	836.000	815.600	838.000	816.100	840.000	816.700	841.000
GR	817.500	843.000	821.600	844.000	821.300	862.000	820.500	902.000	820.200	954.000
GR	820.000	1026.000	820.400	1200.000	820.900	1285.000	821.600	1515.000	0.000	0.000
X1	6.090	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	818.000	0.000	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	1045.000	0.000	0.000	0.000	0.000
BT	2.000	828.000	821.400	0.000	844.000	821.600	0.000	0.000	0.000	0.000

FLOODWAY

X1	6.100	C.000	0.000	0.COC	18.000	18.000	18.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	818.000	0.000	0.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	1045.000	0.000	0.000	0.000	0.000
X1	6.120	C.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	1045.000	0.000	0.000	0.000	0.000
X1	6.140	0.000	0.000	0.000	330.000	330.000	330.000	C.000	.300	0.000
X3	0.000	0.000	0.000	0.000	0.000	1045.000	0.000	0.000	0.000	0.000
X1	7.000	0.000	0.000	C.000	360.000	360.000	360.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	1045.000	0.000	0.000	0.000	0.000
X1	7.010	0.000	0.000	0.000	180.000	180.000	180.000	0.000	.100	0.000
X3	0.000	C.000	0.000	0.000	0.000	1045.000	0.000	0.000	0.000	0.000
X1	7.020	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	818.900	820.200	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	1045.000	0.000	0.000	0.000	0.000
X1	7.030	0.000	0.000	0.000	18.000	18.000	18.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	818.900	820.200	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	1045.000	0.000	0.000	0.000	0.000
X1	7.040	C.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	1045.000	0.000	0.000	0.000	0.000
X1	7.050	0.000	0.000	0.000	350.000	350.000	350.000	0.000	.300	0.000
X3	0.000	C.000	0.000	0.000	0.000	1045.000	0.000	0.000	0.000	0.000
X1	7.060	0.000	0.000	0.000	350.000	350.000	350.000	0.000	.400	0.000
X3	0.000	0.000	0.000	0.000	0.000	1045.000	0.000	0.000	0.000	0.000
QT	5.000	145.000	215.000	250.000	345.000	250.000	0.000	0.000	0.000	0.000
X1	7.080	0.000	0.000	0.000	350.000	350.000	350.000	0.000	.400	0.000
X3	0.000	0.000	0.000	0.000	0.000	1045.000	0.000	0.000	0.000	0.000
NC	.110	.110	.055	.300	.600	0.000	0.000	0.000	0.000	0.000
X1	8.200	13.000	1366.000	1396.000	150.000	150.000	150.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	850.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	823.000	350.000	821.600	500.000	820.600	800.000	821.200	1100.000	821.000	1310.000
GR	823.200	1366.000	820.500	1370.000	817.500	1376.000	816.900	1377.000	817.500	1379.000
GR	817.600	1382.000	822.800	1388.000	823.800	1396.000	0.000	0.000	0.000	0.000

***D/S FACE MORGAN ROAD

X1	8.210	0.000	0.000	0.000	120.000	120.000	120.000	0.000	.100	0.000

X3	0.000	C.000	C.000	850.000	0.000	0.000	0.000	C.CCC	0.000	0.000
SB	0.000	2.400	2.50C	0.000	3.000	0.000	7.100	0.000	817.000	817.000
ET	0.000	0.000	0.000	0.000	C.000	1.400	5.4C0	1C.40C	15.400	0.000
X1	8.790	19.000	1380.000	1406.000	20.00C	2C.000	2C.0C0	0.000	-.100	0.000
X2	0.000	C.000	1.000	820.000	821.700	0.000	0.000	0.0CC	0.000	0.000
BT	11.000	450.000	823.900	0.00C	935.000	823.000	0.000	1240.000	821.200	0.000
BT	1340.000	821.200	0.000	1350.00C	822.500	0.000	1375.CCC	821.70C	0.000	1397.000
BT	822.500	0.000	1410.000	822.800	0.000	1440.000	821.300	0.000	1490.000	821.200
BT	0.000	1600.000	824.400	C.00C	0.000	0.000	0.000	0.000	0.000	0.000
GR	822.500	102C.000	821.800	1105.000	821.300	1300.000	819.000	1323.000	822.400	1360.000
GR	823.000	138C.000	817.800	1390.00C	817.800	1393.000	817.200	1394.000	817.800	1395.000
GR	817.800	14C0.000	821.700	1406.000	822.000	1422.000	821.200	1450.000	821.200	1554.000
GR	822.800	1596.000	823.800	1642.000	824.800	1684.000	825.400	1728.00C	0.000	0.000
X1	8.800	C.000	0.000	0.000	110.000	110.000	110.000	C.00C	.100	0.000
NC	.100	.100	.055	.10C	.30C	0.000	0.000	0.000	0.000	0.000
X1	8.820	C.000	0.CCC	0.00C	200.000	200.000	200.000	0.000	.200	0.000
X1	8.840	C.000	0.000	0.0CC	250.000	250.000	250.000	0.000	.300	0.000
X1	8.860	C.000	0.000	0.00C	250.000	250.000	250.000	0.000	.200	0.000
X1	8.920	23.000	2630.0C0	2670.000	100.000	100.000	100.000	0.000	-.400	0.000
X3	0.000	0.000	0.0C0	21C0.00C	0.000	3400.000	0.000	0.000	0.000	0.000
X4	7.000	820.200	1950.000	820.300	2200.000	821.200	2310.0C0	822.40C	2370.000	822.800
X4	2430.000	822.800	2580.CC0	823.600	2602.000	0.000	0.000	0.000	0.000	0.000
GR	821.200	1775.000	824.400	2618.000	824.700	2630.000	824.300	2638.000	819.000	2646.000
GR	819.000	2653.0C0	818.400	2654.000	819.000	2655.000	819.000	2660.00C	824.400	267C.000
GR	824.300	27CC.C00	824.200	2744.00C	823.500	2800.000	823.600	2866.000	823.800	2944.000
GR	823.500	3018.000	822.800	3200.00C	823.40C	3415.000	823.600	3545.00C	823.500	3630.000
GR	822.800	37C0.000	822.6C0	3780.00C	823.600	3850.000	0.000	0.000	0.000	0.000
X1	8.940	C.000	0.000	0.000	200.000	200.000	200.000	0.000	.2C0	0.000
X3	0.000	0.000	0.000	21C0.000	0.000	3400.000	0.000	0.000	0.000	0.000
X1	9.000	C.000	C.CCC	0.C0C	20C.000	200.000	200.000	0.000	.200	0.000
X3	0.000	0.000	0.000	2100.000	0.000	3400.000	0.000	0.00C	0.000	0.000
EJ	0.000	C.000	0.00C	C.C0C	0.000	0.000	0.000	0.00C	0.000	0.000

*PROF 1

CCHV= .100 CEHV= .300
*SECNO 4.800

SECNC	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
4.80	6.00	816.60	0.00	816.60	816.62	.02	0.00	0.00	867.20
465.	0.	203.	262.	0.	128.	642.	0.	0.	816.30
0.00	0.00	1.58	.41	.100	.055	.100	0.000	810.60	581.23
.000659	0.	0.	0.	0	0	0	0.00	786.27	1367.50

*SECNO 5.200

3470 ENCROACHMENT STATIONS= .0 892.5 TYPE= 1 TARGET= 1049.999

5.20	5.47	816.87	0.00	0.00	816.87	.00	.25	.00	816.50
465.	333.	70.	61.	921.	89.	233.	16.	12.	816.40
.45	.36	.79	.26	.100	.055	.100	.055	811.40	124.23
.000241	675.	675.	675.	2	0	0	0.00	768.27	892.50

*SECNO 5.300
3280 CROSS SECTION 5.30 EXTENDED .20 FEET

3470 ENCROACHMENT STATIONS= .0 900.0 TYPE= 1 TARGET= 899.999

***D/S FACE TEXTILE RD.

5.30	5.80	816.90	0.00	0.00	816.90	.00	.03	.00	816.20
465.	326.	88.	50.	986.	117.	177.	20.	15.	816.10
.56	.33	.75	.28	.100	.055	.100	.055	811.10	232.34
.000184	150.	150.	150.	2	0	0	0.00	667.66	900.00

SPECIAL BRIDGE

SB	XK	XKCR	CDFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.70	3.00	0.00	3.00	0.00	11.60	0.00	811.10	811.10

*SECNO 5.400
3280 CROSS SECTION 5.40 EXTENDED .51 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
884.27	816.90	0.00	437.	32.	12.	-2433.	0.00	816.50

3470 ENCROACHMENT STATIONS= .0 900.0 TYPE= 1 TARGET= 899.999

5.40	6.11	817.21	0.00	0.00	817.21	.00	.31	0.00	816.20
465.	328.	83.	54.	1153.	129.	210.	21.	15.	816.10
.59	.28	.65	.25	.100	.055	.100	.055	811.10	206.48
.000119	41.	41.	41.	0	0	10	0.00	693.52	900.00

*SECNO 5.800

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLCB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
5.80	5.92	817.22	0.00	0.00	817.22	.00	.01	.00	816.80
465.	273.	111.	81.	887.	123.	328.	23.	16.	816.30
.63	.31	.90	.25	.100	.055	.100	.055	811.30	336.75
.000225	59.	59.	59.	0	0	0	0.00	1000.77	1337.52

*SECNO 5.820

5.82	5.77	817.27	0.00	0.00	817.28	.01	.05	.00	817.00
465.	269.	121.	75.	794.	118.	273.	29.	21.	816.50
.74	.34	1.03	.28	.100	.055	.100	.055	811.50	345.22
.000308	200.	200.	200.	1	0	0	0.00	957.13	1302.35

*SECNO 5.840

5.84	5.64	817.34	0.00	0.00	817.35	.01	.07	.00	817.20
465.	265.	130.	70.	717.	113.	231.	34.	25.	816.70
.83	.37	1.15	.30	.100	.055	.100	.055	811.70	352.21
.000405	200.	200.	200.	1	0	0	0.00	921.11	1273.32

*SECNO 5.850

3265 DIVIDED FLOW

5.85	5.48	817.48	0.00	0.00	817.49	.01	.14	.00	817.50
465.	258.	143.	65.	632.	108.	188.	41.	31.	817.00
.95	.41	1.32	.34	.100	.055	.100	.055	812.00	360.34
.000568	300.	300.	300.	2	0	0	0.00	848.21	1239.58

*SECNO 5.860

3265 DIVIDED FLOW

5.86	5.41	817.61	0.00	0.00	817.69	.08	.18	.02	816.60
350.	56.	262.	32.	112.	101.	81.	44.	34.	817.10
.98	.50	2.58	.39	.100	.055	.100	.055	812.20	464.11
.001957	200.	200.	200.	2	0	0	0.00	433.52	939.06

*SECNO 5.880

3265 DIVIDED FLOW

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLCB	QCH	QROB	ALOB	ACH	ARCB	VOL	TWA	LEFT/RIGHT
TIME	VLCB	VCH	VRCB	XNL	XNCH	XNR	WTN	ELMIN	SSTA

SLOPE	XLCBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TCPWID	ENDST
5.88	5.67	818.37	0.00	0.00	818.41	.04	.72	.00	817.10
350.	75.	223.	52.	168.	109.	140.	48.	40.	817.60
1.08	.45	2.04	.37	.100	.055	.100	.055	812.70	456.55
.001104	500.	500.	500.	2	0	0	0.00	503.75	979.73

*SECNO 5.900

3265 DIVIDED FLOW

5.90	5.70	818.90	0.00	0.00	818.94	.04	.53	.00	817.60
350.	77.	218.	55.	176.	110.	149.	53.	45.	818.10
1.18	.44	1.98	.37	.100	.055	.100	.055	813.20	455.57
.001026	500.	500.	500.	2	0	0	0.00	511.56	985.03

*SECNO 6.000

3265 DIVIDED FLOW

6.00	5.66	818.96	0.00	0.00	819.00	.04	.05	.00	817.70
350.	74.	224.	52.	166.	109.	137.	53.	46.	818.20
1.19	.45	2.06	.38	.100	.055	.100	.055	813.30	456.87
.001131	50.	50.	50.	0	0	0	0.00	501.22	978.01

*SECNO 6.020

3265 DIVIDED FLOW

6.02	5.68	819.18	0.00	0.00	819.22	.04	.22	.00	817.90
350.	75.	222.	53.	169.	109.	141.	55.	48.	818.40
1.23	.44	2.03	.37	.100	.055	.100	.055	813.50	456.49
.001099	200.	200.	200.	0	0	0	0.00	504.25	980.06

*SECNO 6.040

3265 DIVIDED FLOW

6.04	5.59	819.59	0.00	0.00	819.65	.05	.42	.00	818.40
350.	69.	235.	46.	150.	107.	120.	58.	52.	818.90
1.29	.46	2.20	.38	.100	.055	.100	.055	814.00	458.99
.001327	350.	350.	350.	1	0	0	0.00	484.39	966.58

*SECNO 6.060

3265 DIVIDED FLOW

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALCB	ACH	ARCB	VOL	TWA	LEFT/RIGHT
TIME	VLCB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
6.06	5.59	820.09	0.00	0.00	820.14	.05	.49	.00	818.90
350.	69.	235.	46.	150.	107.	120.	62.	56.	819.40

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    1.35      .46     2.20      .38      .100      .055      .100      .055   814.50   458.98
 .001326      270.     370.     370.        2         0         0      0.00   484.50   966.65

*SECNO 6.080

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=         .0     1045.0  TYPE=      1  TARGET=     1044.999

        ***D/S FACE 4' DIA. CULVERT

    6.08      5.65   820.75      0.00      0.00   820.77       .02       .64       .00   821.70
     350.      149.      110.      92.      299.      56.      166.      66.       62.    821.10
    1.48       .50      1.96      .55      .100      .055      .100      .055   815.10   436.03
 .001379      470.     470.     470.        1         0         0      0.00   559.14  1045.00

*SECNO 6.090

3265 DIVIDED FLOW


3370 NORMAL BRIDGE,NRD=  2 MIN ELTRD=  821.40 MAX ELLC=     0.00


3470 ENCROACHMENT STATIONS=         .0     1045.0  TYPE=      1  TARGET=     1044.999
    6.09      5.67   820.77      0.00      0.00   820.78       .01       .00       .00   821.70
     350.      217.       0.     133.      305.       0.      169.      66.       62.    821.10
    1.48       .71     0.00      .79      .100      .055      .100      .055   815.10   435.71
 .002748        1.       1.       1.        1         0         0    -56.25   560.78  1045.00

*SECNO 6.100

3265 DIVIDED FLOW


3370 NORMAL BRIDGE,NRD=  2 MIN ELTRD=  821.40 MAX ELLC=     0.00


3470 ENCROACHMENT STATIONS=         .0     1045.0  TYPE=      1  TARGET=     1044.999
    6.10      5.72   820.82      0.00      0.00   820.82       .01       .05       .00   821.70
     350.      218.       0.     132.      322.       0.      177.      67.       62.    821.10
    1.49       .68     0.00      .74      .100      .055      .100      .055   815.10   434.87
 .002348       18.      18.      18.         0         0         0    -56.94   565.13  1045.00

*SECNO 6.120

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=         .0     1045.0  TYPE=      1  TARGET=     1044.999
    6.12      5.71   820.81      0.00      0.00   820.83       .02       .00       .00   821.70
     350.      155.      101.      94.      326.      57.      180.      67.       62.    821.10
    1.49       .48      1.77      .52      .100      .055      .100      .055   815.10   434.65
 .001137        1.       1.       1.         0         0         0      0.00   566.40  1045.00
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*SECNO 6.140

3265 DIVIDED FLOW

   SECNO     DEPTH     CWSEL     CRITWS    WSELK     EG        HV        HL        OLOSS     BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA     LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


3470 ENCROACHMENT STATIONS=        .0     1045.0  TYPE=     1  TARGET=    1044.999
     6.14      5.77    821.17      0.00      0.00    821.18       .01       .35       .00    822.00
     350.      158.      97.       95.       343.      58.      188.       71.       67.     821.40
     1.60       .46      1.67       .50       .100      .055      .100      .055    815.40   433.80
  .001012      330.      330.      330.         2         0         0      0.00    571.23  1045.00

*SECNO 7.000

3265 DIVIDED FLOW

3280 CROSS SECTION       7.00 EXTENDED        .03 FEET


3470 ENCROACHMENT STATIONS=        .0     1045.0  TYPE=     1  TARGET=    1044.999
     7.00      6.03    821.43      0.00      0.00    821.44       .01       .26       .00    822.00
     350.      174.      76.       100.      444.      62.      240.       76.       71.     821.40
     1.78       .39      1.22       .42       .100      .055      .100      .055    815.40   428.75
  .000537      360.      360.      360.         2         0         0      0.00    597.75  1045.00

*SECNO 7.010

3265 DIVIDED FLOW

3280 CROSS SECTION       7.01 EXTENDED        .03 FEET


3470 ENCROACHMENT STATIONS=        .0     1045.0  TYPE=     1  TARGET=    1044.999
     7.01      6.03    821.53      0.00      0.00    821.54       .01       .10       .00    822.10
     350.      174.      76.       100.      443.      62.      240.       80.       74.     821.50
     1.86       .39      1.22       .42       .100      .055      .100      .055    815.50   428.79
  .000539      180.      180.      180.         2         0         0      0.00    597.65  1045.00

*SECNO 7.020

3265 DIVIDED FLOW

3280 CROSS SECTION       7.02 EXTENDED        .03 FEET


3370 NORMAL BRIDGE,NRC=  0 MIN ELTRD=  820.20 MAX ELLC=  818.90


3470 ENCROACHMENT STATIONS=        .0     1045.0  TYPE=     1  TARGET=    1044.999
     7.02      6.03    821.53      0.00      0.00    821.54       .00       .00       .00    822.10
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     350.      208.       36.      105.      431.       47.      218.       80.       74.    821.50
     1.86       .48       .78       .48      .100      .055      .100      .055    815.50    428.78
 .000848        1.        1.        1.         0         0         0    -49.78    597.68   1045.00

*SECNO 7.030

3265 DIVIDED FLOW

3280 CROSS SECTION       7.03 EXTENDED        .05 FEET


3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  820.20 MAX ELLC=  818.90

3470 ENCROACHMENT STATIONS=          .0    1045.0  TYPE=     1  TARGET=    1044.999
     7.03      6.05   821.55      0.00      0.00   821.55       .00       .01       .00    822.10
     350.       208.      36.      106.      437.       47.      221.       80.       74.    821.50
     1.87       .48       .77       .48      .100      .055      .100      .055    815.50    428.49
 .000814        18.       18.       18.         0         0         0    -49.78    598.39   1045.00

*SECNC 7.040

3265 DIVIDED FLOW

3280 CROSS SECTION       7.04 EXTENDED        .05 FEET

   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLDSS     BANK ELEV
   C         QLOB      QCH       QROB      ALCB      ACH       ARCB      VOL       TWA     LEFT/RIGHT
   TIME      VLOB      VCH       VRCB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLCBR     ITRIAL    ICC       ICENT     CORAR     TOPWID      ENDST

3470 ENCROACHMENT STATIONS=          .0    1045.0  TYPE=     1  TARGET=    1044.999
     7.04      6.05   821.55      0.00      0.00   821.56       .01       .00       .00    822.10
     350.       175.      75.      100.      450.       63.      244.       80.       74.    821.50
     1.87       .39      1.20       .41      .100      .055      .100      .055    815.50    428.42
 .000516         1.        1.        1.         0         0         0      0.00    598.55   1045.00

*SECNC 7.050

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS=          .0    1045.0  TYPE=     1  TARGET=    1044.999
     7.05      5.95   821.75      0.00      0.00   821.76       .01       .20       .00    822.40
     350.       170.      81.       99.      412.       61.      224.       86.       79.    821.80
     2.03       .41      1.34       .44      .100      .055      .100      .055    815.80    430.33
 .000648        350.      350.      350.         2         0         0      0.00    590.85   1045.00

*SECNC 7.060

3265 DIVIDED FLOW
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3470 ENCROACHMENT STATIONS=        .0     1045.0  TYPE=      1  TARGET=     1044.999
      7.06       5.81     822.01       0.00       0.00     822.02       .01        .27        .00     822.80
       350.       162.       92.        96.        361.       59.       197.       91.        84.      822.20
      2.16        .45       1.58        .49        .100       .055      .100       .055     816.20     432.90
   .000899       350.       350.       350.          2          0         0       0.00     576.27    1045.00

*SECNC 7.080

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS=        .0     1045.0  TYPE=      1  TARGET=     1044.999
      7.08       5.69     822.29       0.00       0.00     822.30       .01        .27        .00     823.20
       250.       109.       75.        66.        313.       57.       173.       96.        88.      822.60
      2.31        .35       1.33        .38        .100       .055      .100       .055     816.60     435.33
   .000637       350.       350.       350.          0          0         0       0.00     562.75    1045.00

CCHV=     .300 CEHV=     .600
*SECNC 8.200

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS=      850.0     1396.0  TYPE=      1  TARGET=     -850.000
      8.20       5.46     822.36       0.00       0.00     822.36       .00        .07        .00     823.20
       250.       187.       63.         0.        640.       66.         0.       98.        90.   100000.00
      2.40        .29        .96        0.00        .110       .055      .110       .055     816.90     850.00
   .000325       150.       150.       150.          2          0         0       0.00     514.82    1387.49

*SECNC 8.210

3265 DIVIDED FLOW

   SECNO      DEPTH      CWSEL      CRITS      WSELK      EG         HV         HL         OLOSS     BANK ELEV
   Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA     LEFT/RIGHT
   TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN       SSTA
   SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID      ENDST


3470 ENCROACHMENT STATIONS=      850.0     1396.0  TYPE=      1  TARGET=     -850.000

        ***D/S FACE MORGAN ROAD

      8.21       5.40     822.40       0.00       0.00     822.40       .01        .04        .00     823.30
       250.       185.       65.         0.        615.       65.         0.       100.       91.      823.90
      2.46        .30       1.01        0.00        .110       .055      .110       .055     817.00     850.00
   .000362       120.       120.       120.          1          0         0       0.00     513.40    1387.43


SPECIAL BRIDGE

SB  XK         XKOR       COEQ       RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
      0.00       2.40       2.50       0.00       3.00       0.00       7.10       0.00     817.00     817.00

*SECNC 8.790
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3265 DIVIDED FLOW

3280 CROSS SECTION 8.79 EXTENDED .03 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	CWEIR	GPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
868.60	822.40	0.00	242.	6.	7.	9.	820.00	821.70

8.79	5.32	822.42	0.00	0.00	822.43	.01	.03	0.00	822.90
250.	102.	93.	55.	346.	86.	198.	100.	92.	821.60
2.47	.30	1.08	.28	.110	.055	.110	.055	817.10	1020.00
.000350	20.	20.	20.	0	0	11	0.00	552.35	1588.92

*SECNC 8.800

3265 DIVIDED FLOW

8.80	5.26	822.46	0.00	0.00	822.47	.01	.04	.00	823.00
250.	100.	97.	54.	323.	84.	186.	102.	93.	821.70
2.52	.31	1.14	.29	.110	.055	.110	.055	817.20	1024.63
.000404	110.	110.	110.	0	0	0	0.00	543.52	1587.12

CCHV= .100 CEHV= .300
*SECNO 8.820

3265 DIVIDED FLOW

8.82	5.15	822.55	0.00	0.00	822.56	.01	.09	.00	823.20
250.	99.	98.	52.	284.	81.	165.	104.	95.	821.90
2.60	.35	1.20	.32	.100	.055	.100	.055	817.40	1038.91
.000463	200.	200.	200.	1	0	0	0.00	523.26	1584.04

*SECNO 8.840

3265 DIVIDED FLOW

8.84	4.98	822.68	0.00	0.00	822.70	.01	.14	.00	823.50
250.	94.	109.	47.	234.	78.	137.	107.	98.	822.20
2.69	.40	1.41	.35	.100	.055	.100	.055	817.70	1058.43
.000666	250.	250.	250.	2	0	0	0.00	497.47	1579.82

*SECNC 8.860

3265 DIVIDED FLOW

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	FV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLCBR	ITRIAL	ICC	ICCNT	CORAR	TOPWID	ENDST

8.86	4.95	822.85	0.00	0.00	822.87	.02	.17	.00	823.70

```
     25C.      92.     111.      46.     226.      77.     132.     109.     1C1.    822.40
     2.77      .41     1.45      .35     .1CC     .055     .100     .055   817.90  1061.90
  .000712     250.     250.     25C.        2        0        0     0.00   492.88  1579.07

*SECNC 8.920

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS=    2100.0    3400.0  TYPE=     1  TARGET=    13C0.CCC
     8.92     4.90   822.90     C.CO     C.CC   822.91      .00      .04      .00    824.30
     25C.     165.      78.       7.     516.      92.      82.     111.     103.    824.CO
     2.83      .32      .84      .09     .1CC     .055     .100     .055   818.00  1950.0C
  .000228     100.     100.     100.        1        0        0     0.00   829.57  3384.24

*SECNO 8.940

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS=    2100.0    3400.0  TYPE=     1  TARGET=    13C0.CCC
     8.94     4.75   822.95     C.00     C.CC   823.C4      .08      .10      .02    824.50
     250.      23.     219.       8.      68.      88.      38.     113.     1C6.    824.20
     2.85      .34     2.49      .21     .1CC     .055     .100     .055   818.20  21CC.00
  .002089     200.     200.     200.        2        0        0     0.00   434.82  3326.13

*SECNC 9.000

3265 DIVIDED FLCW

3470 ENCROACHMENT STATIONS=    2100.0    3400.0  TYPE=     1  TARGET=    13C0.CCC
     9.00     4.93   823.33     C.00     C.CO   823.38      .05      .34      .00    824.70
     250.      35.     195.      20.     106.      93.      87.     114.     1C8.    824.40
     2.88      .33     2.11      .23     .1CC     .055     .100     .055   818.40  21CC.00
  .001429     200.     200.     200.        2        0        0     0.00   591.61  3389.60
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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  C1
  MODIFICATION -  50,51,52
**************************************************


T1       JOB HLD-FIA H-4705  T06
T2       FLOOD INSURANCE STUDIES
T3       FLOODWAY DETERMINATION

J1   ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     C         WSEL      FQ

       -1.       6.        0.        0.  C.000000      0.00      -1.0        0.    816.600     0.000

J2   NPRCF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

     15.000     C.000    -1.000     0.CC0     C.0CC     0.0CC     C.000     0.000     0.000     0.000
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*PROF 2

CCHV=    .100 CEHV=    .300
*SECNO 4.800
 2800 NAT Q1=     181.12  WSEL=     816.60  ENC Q1=     181.12  WSEL=     816.70  RATIO=  0.0000
 NAT Q1=     201.  RATIOS LOB,CH,ROB=  0.0000   .4093   .5907  WSEL=     816.70
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        FV        FL        OLOSS    BANK ELEV
   Q         GLOB      GCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


3470 ENCROACHMENT STATIONS=      565.0    1120.5  TYPE=     4  TARGET=        .099
     4.80      6.00   816.60      0.00   816.60   816.62      .02      0.00      0.00   817.20
      465.       0.      222.      243.       0.      128.     496.       0.        0.    816.30
     0.00      0.00     1.73       .49       .100     .055     .100     0.000   810.60   581.23
  .000788        0.       0.        0.        0        0        0      0.00   539.23  1120.46


*SECNO 5.200

3470 ENCROACHMENT STATIONS=        .0     892.5  TYPE=     1  TARGET=    1049.999
     5.20      5.49   816.89      0.00   816.87   816.89      .00       .27       .00   816.50
      465.      333.      70.       62.      525.      89.     237.       15.       10.    816.40
       .46       .36      .78       .26       .100     .055     .100     .055   811.40   123.34
  .000234      675.      675.      675.        2        0        0      0.00   769.16   892.50


*SECNO 5.300
3280 CROSS SECTION      5.30 EXTENDED       .22 FEET


3470 ENCROACHMENT STATIONS=        .0     900.0  TYPE=     1  TARGET=     899.999

        ***D/S FACE TEXTILE RD.

     5.30      5.82   816.92      0.00   816.90   816.92      .00       .03       .00   816.20
      465.      326.      88.       51.      995.     118.     179.       19.       13.    816.10
       .56       .33      .75       .28       .100     .055     .100     .055   811.10   230.88
  .000179      150.      150.      150.        2        0        0      0.00   669.12   900.00


SPECIAL BRIDGE

SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     0.00      2.70      3.00      0.00      3.00      0.00     11.60      0.00   811.10    811.10

*SECNO 5.400
3280 CROSS SECTION      5.40 EXTENDED       .51 FEET

PRESSURE AND WEIR FLOW

 EGPRS      EGLWC      H3        QWEIR     QPR       BAREA   TRAPEZOID      ELLC      ELTRD
                                                              AREA
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   884.29    818.21      0.00      437.       31.       12.    -2433.        0.00    816.50


3470 ENCROACHMENT STATIONS=        .0     900.0  TYPE=      1  TARGET=      899.999
     5.40      6.11   817.21      0.00   817.21   817.21       .00       .29      0.00   816.20
     465.      328.      83.       54.    1154.     129.      210.       20.       13.    816.10
      .59       .28      .65       .25     .100     .055      .100      .055    811.10   206.39
  .000119       41.      41.       41.        0        0        10      0.00    693.61   900.00


*SECNO 5.800
 2800 NAT Q1=    310.09  WSEL=    817.22  ENC Q1=    310.09  WSEL=    817.32  RATIO=   .0000
 NAT Q1=    340.  RATIOS LOB,CH,ROB=   .5909   .2277   .1814  WSEL=    817.32
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


3470 ENCROACHMENT STATIONS=      443.6    1107.0  TYPE=      4  TARGET=        .089
     5.80      5.92   817.22      0.00   817.22   817.22       .01       .01       .00   816.80
     465.      276.     121.       68.     798.     123.      210.       22.       14.    816.30
      .63       .35      .98       .33     .100     .055      .100      .055    811.30   443.64
  .000265       59.      59.       59.        0        0         0      0.00    663.34  1106.98


*SECNO 5.820
 2800 NAT Q1=    265.08  WSEL=    817.27  ENC Q1=    265.08  WSEL=    817.37  RATIO=   .0000
 NAT Q1=    296.  RATIOS LOB,CH,ROB=   .5847   .2451   .1702  WSEL=    817.37

3470 ENCROACHMENT STATIONS=      454.8    1075.9  TYPE=      4  TARGET=        .103
     5.82      5.78   817.28      0.00   817.27   817.29       .01       .06       .00   817.00
     465.      272.     132.       61.     707.     118.      161.       27.       17.    816.50
      .72       .38     1.12       .38     .100     .055      .100      .055    811.50   454.81
  .000366      200.     200.      200.        0        0         0      0.00    621.12  1075.94


*SECNO 5.840
 2800 NAT Q1=    231.02  WSEL=    817.34  ENC Q1=    231.02  WSEL=    817.44  RATIO=   .0000
 NAT Q1=    259.  RATIOS LOB,CH,ROB=   .5771   .2627   .1601  WSEL=    817.44

3470 ENCROACHMENT STATIONS=      461.1    1058.9  TYPE=      4  TARGET=        .108
     5.84      5.66   817.36      0.00   817.34   817.37       .01       .08       .00   817.20
     465.      268.     142.       55.     643.     114.      131.       31.       20.    816.70
      .80       .42     1.25       .42     .100     .055      .100      .055    811.70   461.14
  .000473      200.     200.      200.        1        0         0      0.00    597.74  1058.89


*SECNO 5.850
 2800 NAT Q1=    195.10  WSEL=    817.48  ENC Q1=    195.10  WSEL=    817.58  RATIO=  0.0000
 NAT Q1=    218.  RATIOS LOB,CH,ROB=   .5647   .2879   .1473  WSEL=    817.58

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=      466.1    1045.4  TYPE=      4  TARGET=        .107
     5.85      5.52   817.52      0.00   817.48   817.54       .01       .16       .00   817.50
     465.      263.     154.       48.     574.     110.      104.       37.       24.    817.00
      .91       .46     1.41       .46     .100     .055      .100      .055    812.00   466.06
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  .000636      300.      300.      300.         2         0         0     0.00    556.48   1045.38

*SECNO 5.860
 2800 NAT Q1=      79.12  WSEL=     817.61  ENC Q1=      79.12  WSEL=     817.71  RATIO=    .0000
 NAT Q1=      88.  RATIOS LOB,CH,ROB=    .1811    .7044    .1145  WSEL=     817.71

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=      592.0      823.1  TYPE=      4  TARGET=         .104
     5.86      5.46    817.66      0.00    817.61    817.76       .09       .20       .02    816.60
     350.       48.      279.       22.       77.      103.       47.       39.       26.     817.10
      .94       .63      2.71       .48      .100      .055      .100      .055    812.20    591.97
  .002108      200.      200.      200.         2         0         0     0.00    202.51    823.13


*SECNO 5.880
 2800 NAT Q1=     105.35  WSEL=     818.37  ENC Q1=     105.35  WSEL=     818.47  RATIO=    .0000
 NAT Q1=     117.  RATIOS LOB,CH,ROB=    .2318    .5977    .1705  WSEL=     818.47

3265 DIVIDED FLOW

   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


3470 ENCROACHMENT STATIONS=      532.6      862.4  TYPE=      4  TARGET=         .102
     5.88      5.76    818.46      0.00    818.37    818.51       .05       .75       .00    817.10
     350.       70.      234.       46.      138.      112.      106.       43.       29.     817.60
     1.02       .51      2.09       .43      .100      .055      .100      .055    812.70    532.65
  .001118      500.      500.      500.         2         0         0     0.00    314.55    862.42


*SECNO 5.900
 2800 NAT Q1=     109.28  WSEL=     818.90  ENC Q1=     109.28  WSEL=     819.00  RATIO=    .0000
 NAT Q1=     122.  RATIOS LOB,CH,ROB=    .2376    .5848    .1776  WSEL=     819.00

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=      528.1      865.4  TYPE=      4  TARGET=         .103
     5.90      5.80    819.00      0.00    818.90    819.04       .04       .54       .00    817.60
     350.       72.      228.       49.      146.      113.      114.       47.       32.     818.10
     1.12       .50      2.02       .43      .100      .055      .100      .055    813.20    528.14
  .001030      500.      500.      500.         2         0         0     0.00    323.87    865.42


*SECNO 6.000
 2800 NAT Q1=     104.09  WSEL=     818.96  ENC Q1=     104.09  WSEL=     819.06  RATIO=    .0000
 NAT Q1=     116.  RATIOS LOB,CH,ROB=    .2295    .6029    .1677  WSEL=     819.06

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=      531.6      862.4  TYPE=      4  TARGET=         .100
     6.00      5.75    819.05      0.00    818.96    819.10       .05       .05       .00    817.70
     350.       70.      235.       46.      137.      112.      105.       47.       33.     818.20
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    1.13       .51      2.10       .44       .100      .055      .100      .055    813.30    531.64
 .001139       50.      50.        50.          0         0         0      0.00    315.03    862.38


*SECNO 6.020
 2800 NAT Q1=     105.59  WSEL=     819.18  ENC Q1=     105.59  WSEL=     819.28  RATIO=   0.0000
 NAT Q1=     119.  RATIOS LOB,CH,ROB=    .2335    .5938    .1726  WSEL=     819.28

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=      549.5      859.3  TYPE=      4  TARGET=         .110
     6.02       5.78    819.28       0.00    819.18    819.32       .05       .22       .00    817.90
     350.        70.      234.        46.      134.      113.      106.       49.       34.     818.40
     1.16        .52      2.08        .44       .100      .055      .100      .055    813.50    549.47
 .001101       200.      200.       200.          2         0         0      0.00    295.37    859.34


*SECNO 6.040
 2800 NAT Q1=      96.08  WSEL=     819.59  ENC Q1=      96.08  WSEL=     819.69  RATIO=    .0000
 NAT Q1=     108.  RATIOS LOB,CH,ROB=    .2188    .6262    .1551  WSEL=     819.69

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=      570.6      848.1  TYPE=      4  TARGET=         .113
     6.04       5.69    819.69       0.00    819.59    819.75       .06       .42       .00    818.40
     350.        64.      247.        39.      113.      110.       86.       52.       36.     818.90
     1.22        .56      2.25        .45       .100      .055      .100      .055    814.00    570.59
 .001329       350.      350.       350.          2         0         0      0.00    259.19    848.08


*SECNO 6.060
 2800 NAT Q1=      96.13  WSEL=     820.09  ENC Q1=      96.13  WSEL=     820.19  RATIO=    .0000
 NAT Q1=     107.  RATIOS LOB,CH,ROB=    .2171    .6298    .1531  WSEL=     820.19

3265 DIVIDED FLOW

   SECNO     DEPTH     CHSEL     CRIWS     WSELK     EG        HV        HL        QLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       ARCB      VOL       TWA    LEFT/RIGHT
   TIME      VLCB      VCH       VRCB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


3470 ENCROACHMENT STATIONS=      564.0      852.6  TYPE=      4  TARGET=         .104
     6.06       5.69    820.19       0.00    820.09    820.24       .06       .49       .00    818.90
     350.        65.      246.        40.      116.      110.       88.       54.       39.     819.40
     1.28        .56      2.24        .45       .100      .055      .100      .055    814.50    564.01
 .001326       370.      370.       370.          2         0         0      0.00    269.88    852.56


*SECNO 6.080

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=          .0     1045.0  TYPE=      1  TARGET=    1044.999

        ***D/S FACE 4' DIA. CULVERT
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     6.08      5.71    820.81      0.00    820.75    820.83       .02       .58       .00    821.70
      350.      154.      102.        93.      323.        57.      178.       59.        43.     821.10
     1.43       .48      1.80        .53       .100      .055      .100      .055    815.10    434.83
  .001165      47C.      470.      470.         0          0         0      0.00    565.39   1045.00

*SECNC 6.090

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRC=  2 MIN ELTRD=  821.40 MAX ELLC=    0.00

3470 ENCROACHMENT STATIONS=         .0    1045.C  TYPE=     1  TARGET=    1044.999
     6.C9      5.72    820.82      0.00    820.77    820.83       .01       .00       .00    821.70
      350.      218.        0.      132.      326.        0.      179.       59.        43.     821.10
     1.43       .67      0.00        .73       .100      .055      .100      .055    815.10    434.66
  .002257        1.        1.        1.         1          0         0    -57.12    566.35   1045.00

*SECNC 6.100

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD=  2 MIN ELTRD=  821.40 MAX ELLC=    0.00

3470 ENCROACHMENT STATIONS=         .0    1045.C  TYPE=     1  TARGET=    1044.999
     6.10      5.76    820.86      0.00    820.82    820.87       .01       .04       .00    821.70
      350.      219.        0.      131.      339.        0.      186.       59.        43.     821.10
     1.44       .64      0.00        .70       .100      .055      .100      .055    815.10    433.98
  .001996       18.       18.       18.         0          0         0    -57.69    570.21   1045.00

*SECNC 6.120

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS=         .0    1045.0  TYPE=     1  TARGET=    1044.999
     6.12      5.76    820.86      0.00    820.81    820.87       .01       .00       .00    821.70
      350.      158.       97.       95.      343.        58.      188.       59.        43.     821.10
     1.44       .46      1.67        .50       .100      .055      .100      .055    815.10    433.79
  .001011        1.        1.        1.         0          0         0      0.00    571.28   1045.00

*SECNO 6.140

3265 DIVIDED FLOW

   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
   Q         OLCB      QCH       QRCB      ALCB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

3470 ENCROACHMENT STATIONS=         .0    1045.0  TYPE=     1  TARGET=    1044.999
     6.14      5.79    821.19      0.00    821.17    821.20       .01       .33       .00    822.00
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     350.      160.       95.       95.      350.       58.      192.       64.       48.    821.40
    1.55       .46      1.63       .50      .100      .055      .100      .055   815.40   433.43
 .000964      330.      330.      330.         2         0         0      0.00   573.27  1045.00

*SECNO 7.000

3265 DIVIDED FLOW

3280 CROSS SECTION       7.00 EXTENDED        .04 FEET


3470 ENCROACHMENT STATIONS=          .0    1045.0  TYPE=      1  TARGET=    1044.999
     7.00      6.04    821.44      0.00   821.43    821.45       .01       .25       .00   822.00
     350.      174.       75.      100.      447.      62.      242.       69.       52.    821.40
     1.73       .39      1.21       .41      .100      .055      .100      .055   815.40   428.58
 .000526      360.      360.      360.         2         0         0      0.00   598.17  1045.00

*SECNO 7.010

3265 DIVIDED FLOW

3280 CROSS SECTION       7.01 EXTENDED        .04 FEET


3470 ENCROACHMENT STATIONS=          .0    1045.0  TYPE=      1  TARGET=    1044.999
     7.01      6.04    821.54      0.00   821.53    821.55       .01       .10       .00   822.10
     350.      174.       76.      100.      445.      62.      241.       72.       55.    821.50
     1.81       .39      1.21       .41      .100      .055      .100      .055   815.50   428.66
 .000531      180.      180.      180.         2         0         0      0.00   597.97  1045.00

*SECNO 7.020

3265 DIVIDED FLOW

3280 CROSS SECTION       7.02 EXTENDED        .04 FEET


3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  820.20 MAX ELLC=  818.90

3470 ENCROACHMENT STATIONS=          .0    1045.0  TYPE=      1  TARGET=    1044.999
     7.02      6.04    821.54      0.00   821.53    821.55       .00       .00       .00   822.10
     350.      208.       36.      105.      434.      47.      219.       72.       55.    821.50
     1.81       .48       .77       .48      .100      .055      .100      .055   815.50   428.65
 .000833        1.        1.        1.         0         0         0    -49.78   598.00  1045.00

*SECNO 7.030

3265 DIVIDED FLOW

3280 CROSS SECTION       7.03 EXTENDED        .05 FEET
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3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  820.20 MAX ELLC=  818.90


3470 ENCROACHMENT STATIONS=        .0    1045.0  TYPE=     1  TARGET=    1044.999
     7.03      6.06   821.56      0.00   821.55   821.56      .00       .01       .00    822.10
     350.       209.      36.      106.      440.      47.      222.       73.       55.     821.50
     1.82       .47       .76       .48       .100      .055      .100      .055   815.50   428.36
  .000800       18.       18.       18.         0         0         0    -49.78   598.70  1045.00

*SECNO 7.040

3265 DIVIDED FLOW

3280 CROSS SECTION      7.04 EXTENDED       .06 FEET

   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


3470 ENCROACHMENT STATIONS=        .0    1045.0  TYPE=     1  TARGET=    1044.999
     7.04      6.06   821.56      0.00   821.55   821.56      .01       .00       .00    822.10
     350.       175.      75.      100.      452.      63.      245.       73.       55.     821.50
     1.82       .39      1.19       .41       .100      .055      .100      .055   815.50   428.30
  .005C9        1.        1.        1.         0         0         0      0.00   598.86  1045.00

*SECNO 7.050

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=        .0    1045.0  TYPE=     1  TARGET=    1044.999
     7.05      5.95   821.75      0.00   821.75   821.76      .01       .20       .00    822.40
     350.       170.      81.       99.      413.      61.      224.       78.       60.     821.80
     1.98       .41      1.33       .44       .100      .055      .100      .055   815.80   430.24
  .000642       350.      350.      350.         2         0         0      0.00   591.31  1045.00

*SECNO 7.060

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=        .0    1045.0  TYPE=     1  TARGET=    1044.999
     7.06      5.81   822.01      0.00   822.01   822.03      .01       .26       .00    822.80
     350.       162.      92.       96.      361.      59.      197.       84.       65.     822.20
     2.11       .45      1.57       .49       .100      .055      .100      .055   816.20   432.86
  .000894       350.      350.      350.         2         0         0      0.00   576.51  1045.00

*SECNO 7.080

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=        .0    1045.0  TYPE=     1  TARGET=    1044.999
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     7.08      5.69    822.29      0.00    822.29    822.30       .01       .27       .00    823.20
     250.      109.       75.       66.      313.       57.      173.       88.       69.     822.60
     2.26       .35      1.33       .38      .100      .055      .100      .055   816.60    435.32
  .000637      350.      350.      350.         0         0         0      0.00   562.78   1045.00

CCHV=     .300 CEHV=     .600
*SECNO 8.200

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=      850.0     1396.0  TYPE=       1  TARGET=     -850.000
     8.20      5.46    822.36      0.00    822.36    822.36       .00       .07       .00    823.20
     250.      187.       63.        0.      640.       66.        0.       91.       71.  100000.00
     2.35       .29       .96      0.00      .110      .055      .110      .055   816.90    850.00
  .000324      150.      150.      150.         2         0         0      0.00   514.86   1387.49


*SECNO 8.210

3265 DIVIDED FLOW

   SECNO     DEPTH     CHSEL     CRIWS     WSELK     EG        HV        HL        QLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    ICC       ICONT     CORAR     TOPWID      ENDST


3470 ENCROACHMENT STATIONS=      850.0     1396.0  TYPE=       1  TARGET=     -850.000
        ***D/S FACE MORGAN ROAD

     8.21      5.40    822.40      0.00    822.40    822.41       .01       .04       .00    823.30
     250.      185.       65.        0.      615.       65.        0.       92.       73.     823.90
     2.42       .30      1.01       .00      .110      .055      .110      .055   817.00    850.00
  .000361      120.      120.      120.         1         0         0      0.00   513.43   1387.43


SPECIAL BRIDGE

SB   XK         XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
     0.00       2.40       2.50       0.00       3.00       0.00       7.10       0.00     817.00     817.00

*SECNO 8.790
 2800 NAT Q1=     133.54  WSEL=     822.42  ENC Q1=     133.54  WSEL=     822.52  RATIO=    .0000
 NAT Q1=     147.  RATIOS LOB,CH,ROB=    .4209    .3510    .2281  WSEL=     822.52
 WATER EL=CHANGE FROM NATURAL PROFILES BRIDGE

3265 DIVIDED FLOW

3280 CROSS SECTION       8.79 EXTENDED        .02 FEET


3470 ENCROACHMENT STATIONS=     1136.7     1539.7  TYPE=       4  TARGET=         .090
     8.79      5.32    822.42      0.00    822.42    822.43       .01       .01       .00    822.90
     250.      101.      101.       48.      288.       86.      155.       93.       73.     821.60
     2.42       .35      1.18       .31      .110      .055      .110      .055   817.10   1136.66
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  .000419      20.      20.      20.       0        0       11      0.00   386.23  1539.67

*SECNC 8.800
 2800 NAT Q1=    124.36  WSEL=    822.46  ENC Q1=    124.36  WSEL=    822.56  RATIO=   .0000
 NAT Q1=    138.  RATIOS LOB,CH,RCB=   .4131   .3633   .2235  WSEL=    822.56

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=    1150.1    1535.7  TYPE=      4  TARGET=        .100
     8.80     5.27   822.47     0.00   822.46   822.48      .01      .05      .00   823.00
     250.      98.      106.      46.      264.      84.      142.      94.      74.    821.70
     2.46      .37     1.25      .32      .110     .055      .110     .055   817.20  1150.11
  .000484     110.      110.      110.        0        0        0     0.00   366.70  1535.68


CCHV=    .100 CEHV=    .300
*SECNC 8.820
 2800 NAT Q1=    116.15  WSEL=    822.55  ENC Q1=    116.15  WSEL=    822.65  RATIO=   .0000
 NAT Q1=    130.  RATIOS LOB,CH,RCB=   .4119   .3669   .2212  WSEL=    822.65

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=    1166.7    1532.6  TYPE=      4  TARGET=        .108
     8.82     5.17   822.57     0.00   822.55   822.59      .01      .10      .00   823.20
     250.      98.      107.      45.      232.      82.      126.      96.      75.    821.90
     2.54      .42     1.31      .35      .100     .055      .100     .055   817.40  1166.69
  .000542     200.      200.      200.        1        0        0     0.00   344.35  1532.62

*SECNC 8.840
 2800 NAT Q1=     96.84  WSEL=    822.68  ENC Q1=     96.84  WSEL=    822.78  RATIO=   .0000
 NAT Q1=    109.  RATIOS LOB,CH,RCB=   .3892   .4083   .2025  WSEL=    822.78

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=    1190.0    1529.2  TYPE=      4  TARGET=        .108
     8.84     5.03   822.73     0.00   822.68   822.75      .02      .16      .00   823.50
     250.      92.      118.      39.      190.      78.      104.      99.      77.    822.20
     2.61      .49     1.51      .38      .100     .055      .100     .055   817.70  1190.01
  .000754     250.      250.      250.        1        0        0     0.00   315.76  1529.24

*SECNO 8.860
 2800 NAT Q1=     93.66  WSEL=    822.85  ENC Q1=     93.66  WSEL=    822.95  RATIO=  0.0000
 NAT Q1=    105.  RATIOS LOB,CH,RCB=   .3850   .4162   .1988  WSEL=    822.95

3265 DIVIDED FLOW

   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


3470 ENCROACHMENT STATIONS=    1195.3    1528.2  TYPE=      4  TARGET=        .109
     8.86     5.02   822.92     0.00   822.85   822.94      .02      .19      .00   823.70
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     250.      92.     119.      39.     186.      78.     103.     101.      79.    822.40
    2.68      .49     1.52      .38     .100     .055     .100     .055   817.90  1195.34
 .000764     250.     250.     250.        2        0        0     0.00   309.42  1528.24

*SECNO 8.920

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS=    2100.0    3400.0  TYPE=      1  TARGET=    1300.000
    8.92     4.97   822.97     0.00   822.90   822.97      .00      .04      .00   824.30
     250.     165.     75.       9.     542.      94.     100.     102.      80.    824.00
    2.74      .30      .80      .09     .100     .055     .100     .055   818.00  1950.00
 .000205     100.     100.     100.        2        0        0     0.00   861.61  3400.00

*SECNO 8.940

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS=    2100.0    3400.0  TYPE=      1  TARGET=    1300.000
    8.94     4.81   823.01     0.00   822.95   823.09      .07      .09      .02   824.50
     250.      27.     211.      12.      80.      89.      53.     104.      83.    824.20
    2.77      .34     2.36      .22     .100     .055     .100     .055   818.20  2100.00
 .001842     200.     200.     200.        2        0        0     0.00   489.68  3348.33

*SECNO 9.000

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS=    2100.0    3400.0  TYPE=      1  TARGET=    1300.000
    9.00     4.95   823.35     0.00   823.33   823.40      .05      .31      .00   824.70
     250.      36.     192.      22.     111.      93.      95.     105.      86.    824.40
    2.80      .32     2.05      .23     .100     .055     .100     .055   818.40  2100.00
 .001351     200.     200.     200.        2        0        0     0.00   613.02  3398.27
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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  C1
  MODIFICATION -  50,51,52
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

WOOD OUTLET DRAIN

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
4.800	0.00	0.00	0.00	810.60	465.00	816.60	0.00	816.62	6.59	1.58	770.54	181.12
4.800	0.00	0.00	0.00	810.60	465.00	816.60	0.00	816.62	7.88	1.73	624.22	165.64
5.200	675.00	0.00	0.00	811.40	465.00	816.87	0.00	816.87	2.41	.79	1242.77	299.31
5.200	675.00	0.00	0.00	811.40	465.00	816.89	0.00	816.89	2.34	.78	1255.39	303.71
5.300	150.00	0.00	0.00	811.10	465.00	816.90	0.00	816.90	1.84	.75	1280.23	342.95
5.300	150.00	0.00	0.00	811.10	465.00	816.92	0.00	816.92	1.79	.75	1291.98	347.43
5.400	41.00	816.50	0.00	811.10	465.00	817.21	0.00	817.21	1.19	.65	1492.24	426.62
5.400	41.00	816.50	0.00	811.10	465.00	817.21	0.00	817.21	1.19	.65	1493.01	426.93
5.800	59.00	0.00	0.00	811.30	465.00	817.22	0.00	817.22	2.25	.90	1338.43	310.09
5.800	59.00	0.00	0.00	811.30	465.00	817.22	0.00	817.22	2.65	.98	1130.19	285.63
5.820	200.00	0.00	0.00	811.50	465.00	817.27	0.00	817.28	3.08	1.03	1183.92	265.08
5.820	200.00	0.00	0.00	811.50	465.00	817.28	0.00	817.29	3.66	1.12	986.02	242.92
5.840	200.00	0.00	0.00	811.70	465.00	817.34	0.00	817.35	4.05	1.15	1061.57	231.02
5.840	200.00	0.00	0.00	811.70	465.00	817.36	0.00	817.37	4.73	1.25	887.28	213.78
5.850	300.00	0.00	0.00	812.00	465.00	817.48	0.00	817.49	5.68	1.32	927.35	195.10
5.850	300.00	0.00	0.00	812.00	465.00	817.52	0.00	817.54	6.36	1.41	787.33	184.39
5.860	200.00	0.00	0.00	812.20	350.00	817.61	0.00	817.69	19.57	2.58	295.04	79.12
5.860	200.00	0.00	0.00	812.20	350.00	817.66	0.00	817.76	21.08	2.71	226.54	76.23
5.880	500.00	0.00	0.00	812.70	350.00	818.37	0.00	818.41	11.04	2.04	417.56	105.35
5.880	500.00	0.00	0.00	812.70	350.00	818.46	0.00	818.51	11.18	2.09	356.05	104.70
5.900	500.00	0.00	0.00	813.20	350.00	818.90	0.00	818.94	10.26	1.98	434.74	109.28
5.900	500.00	0.00	0.00	813.20	350.00	819.00	0.00	819.04	10.30	2.02	373.82	109.08
6.000	50.00	0.00	0.00	813.30	350.00	818.96	0.00	819.00	11.31	2.06	412.05	104.09
6.000	50.00	0.00	0.00	813.30	350.00	819.05	0.00	819.10	11.39	2.10	353.05	103.72
6.020	200.00	0.00	0.00	813.50	350.00	819.18	0.00	819.22	10.99	2.03	418.65	105.59
6.020	200.00	0.00	0.00	813.50	350.00	819.28	0.00	819.32	11.01	2.08	352.56	105.47

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
6.040	350.00	0.00	0.00	814.00	350.00	819.59	0.00	819.65	13.27	2.20	376.11	96.08
6.040	350.00	0.00	0.00	814.00	350.00	819.69	0.00	819.75	13.29	2.25	309.13	96.00
6.060	370.00	0.00	0.00	814.50	350.00	820.09	0.00	820.14	13.26	2.20	376.33	96.13
6.060	370.00	0.00	0.00	814.50	350.00	820.19	0.00	820.24	13.26	2.24	314.10	96.12
6.080	470.00	0.00	0.00	815.10	350.00	820.75	0.00	820.77	13.79	1.96	521.36	94.25
6.080	470.00	0.00	0.00	815.10	350.00	820.81	0.00	820.83	11.65	1.80	557.41	102.53
6.090	1.00	821.40	0.00	815.10	350.00	820.77	0.00	820.78	27.48	0.00	474.67	66.77
6.090	1.00	821.40	0.00	815.10	350.00	820.82	0.00	820.83	22.57	0.00	505.39	73.67
6.100	18.00	821.40	0.00	815.10	350.00	820.82	0.00	820.82	23.48	0.00	499.10	72.23
6.100	18.00	821.40	0.00	815.10	350.00	820.86	0.00	820.87	19.96	0.00	525.53	78.35
6.120	1.00	0.00	0.00	815.10	350.00	820.81	0.00	820.83	11.37	1.77	562.81	103.81
6.120	1.00	0.00	0.00	815.10	350.00	820.86	0.00	820.87	10.11	1.67	589.00	110.10
6.140	330.00	0.00	0.00	815.40	350.00	821.17	0.00	821.18	10.12	1.67	588.72	110.04
6.140	330.00	0.00	0.00	815.40	350.00	821.19	0.00	821.20	9.64	1.63	599.76	112.73
7.000	360.00	0.00	0.00	815.40	350.00	821.43	0.00	821.44	5.37	1.22	746.33	151.10
7.000	360.00	0.00	0.00	815.40	350.00	821.44	0.00	821.45	5.26	1.21	751.83	152.64
7.010	180.00	0.00	0.00	815.50	350.00	821.53	0.00	821.54	5.39	1.22	744.97	150.72
7.010	180.00	0.00	0.00	815.50	350.00	821.54	0.00	821.55	5.31	1.21	749.20	151.90
7.020	1.00	820.20	818.90	815.50	350.00	821.53	0.00	821.54	8.48	.78	695.53	120.16
7.020	1.00	820.20	818.90	815.50	350.00	821.54	0.00	821.55	8.33	.77	699.76	121.28
7.030	18.00	820.20	818.90	815.50	350.00	821.55	0.00	821.55	8.14	.77	704.90	122.65
7.030	18.00	820.20	818.90	815.50	350.00	821.56	0.00	821.56	8.00	.76	708.97	123.74
7.040	1.00	0.00	0.00	815.50	350.00	821.55	0.00	821.56	5.16	1.20	756.74	154.02
7.040	1.00	0.00	0.00	815.50	350.00	821.56	0.00	821.56	5.09	1.19	760.76	155.15
7.050	350.00	0.00	0.00	815.80	350.00	821.75	0.00	821.76	6.48	1.34	696.29	137.47
7.050	350.00	0.00	0.00	815.80	350.00	821.75	0.00	821.76	6.42	1.33	698.82	138.14
7.060	350.00	0.00	0.00	816.20	350.00	822.01	0.00	822.02	8.99	1.58	616.02	116.76
7.060	350.00	0.00	0.00	816.20	350.00	822.01	0.00	822.03	8.94	1.57	617.29	117.08
7.080	350.00	0.00	0.00	816.60	250.00	822.29	0.00	822.30	6.37	1.33	542.44	99.05
7.080	350.00	0.00	0.00	816.60	250.00	822.29	0.00	822.30	6.37	1.33	542.58	99.08
8.200	150.00	0.00	0.00	816.90	250.00	822.36	0.00	822.36	3.25	.96	705.58	138.73
8.200	150.00	0.00	0.00	816.90	250.00	822.36	0.00	822.36	3.24	.96	706.17	138.90
8.210	120.00	0.00	0.00	817.00	250.00	822.40	0.00	822.40	3.62	1.01	679.44	131.46
8.210	120.00	0.00	0.00	817.00	250.00	822.40	0.00	822.41	3.61	1.01	679.99	131.61
8.790	20.00	821.70	820.00	817.10	250.00	822.42	0.00	822.43	3.50	1.08	630.79	133.54
8.790	20.00	999999.00	0.00	817.10	250.00	822.42	0.00	822.43	4.19	1.18	529.31	122.11
8.800	110.00	0.00	0.00	817.20	250.00	822.46	0.00	822.47	4.04	1.14	593.28	124.36
8.800	110.00	0.00	0.00	817.20	250.00	822.47	0.00	822.48	4.84	1.25	491.28	113.64

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
8.820	200.00	0.00	0.00	817.40	250.00	822.55	0.00	822.56	4.63	1.20	530.60	116.15
8.820	200.00	0.00	0.00	817.40	250.00	822.57	0.00	822.59	5.42	1.31	440.05	107.38
8.840	250.00	0.00	0.00	817.70	250.00	822.68	0.00	822.70	6.66	1.41	448.56	96.84
8.840	250.00	0.00	0.00	817.70	250.00	822.73	0.00	822.75	7.54	1.51	371.91	91.03
8.860	250.00	0.00	0.00	817.90	250.00	822.85	0.00	822.87	7.12	1.45	434.41	93.66
8.860	250.00	0.00	0.00	817.90	250.00	822.92	0.00	822.94	7.64	1.52	367.24	90.44
8.920	100.00	0.00	0.00	818.00	250.00	822.90	0.00	822.91	2.28	.84	689.81	165.46
8.920	100.00	0.00	0.00	818.00	250.00	822.97	0.00	822.97	2.05	.80	737.24	174.79
8.940	200.00	0.00	0.00	818.20	250.00	822.95	0.00	823.04	20.89	2.49	193.96	54.70
8.940	200.00	0.00	0.00	818.20	250.00	823.01	0.00	823.09	18.42	2.36	222.61	58.26
9.000	200.00	0.00	0.00	818.40	250.00	823.33	0.00	823.38	14.29	2.11	284.87	66.14
9.000	200.00	0.00	0.00	818.40	250.00	823.35	0.00	823.40	13.51	2.05	299.44	68.03

WOOD OUTLET DRAIN

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
4.800	465.00	816.60	0.00	0.00	0.00	786.27	0.00
4.800	465.00	816.60	0.00	0.00	0.00	539.23	0.00
5.200	465.00	816.87	0.00	.27	0.00	768.27	675.00
5.200	465.00	816.89	0.00	.29	.02	769.16	675.00
5.300	465.00	816.90	0.00	.03	0.00	667.66	150.00
5.300	465.00	816.92	0.00	.03	.02	669.12	150.00
5.400	465.00	817.21	0.00	.31	0.00	693.52	41.00
5.400	465.00	817.21	0.00	.29	.00	693.61	41.00
5.800	465.00	817.22	0.00	.01	0.00	1000.77	59.00
5.800	465.00	817.22	0.00	.01	.00	663.34	59.00
5.820	465.00	817.27	0.00	.05	0.00	957.13	200.00
5.820	465.00	817.28	0.00	.06	.01	621.12	200.00
5.840	465.00	817.34	0.00	.07	0.00	921.11	200.00
5.840	465.00	817.36	0.00	.08	.02	597.74	200.00
5.850	465.00	817.48	0.00	.14	0.00	848.21	300.00
5.850	465.00	817.52	0.00	.16	.04	556.48	300.00
5.860	350.00	817.61	0.00	.13	0.00	433.52	200.00
5.860	350.00	817.66	0.00	.14	.05	202.51	200.00
5.880	350.00	818.37	0.00	.76	0.00	503.75	500.00
5.880	350.00	818.46	0.00	.80	.09	314.55	500.00
5.900	350.00	818.90	0.00	.54	0.00	511.56	500.00
5.900	350.00	819.00	0.00	.54	.10	323.87	500.00
6.000	350.00	818.96	0.00	.05	0.00	501.22	50.00
6.000	350.00	819.05	0.00	.05	.10	315.03	50.00
6.020	350.00	819.18	0.00	.22	0.00	504.25	200.00
6.020	350.00	819.28	0.00	.23	.10	295.37	200.00
6.040	350.00	819.59	0.00	.41	0.00	484.39	350.00
6.040	350.00	819.69	0.00	.42	.10	259.19	350.00
6.060	350.00	820.09	0.00	.49	0.00	484.50	370.00
6.060	350.00	820.19	0.00	.49	.10	269.88	370.00
6.080	350.00	820.75	0.00	.67	0.00	559.14	470.00
6.080	350.00	820.81	0.00	.63	.06	565.39	470.00
6.090	350.00	820.77	0.00	.02	0.00	560.78	1.00
6.090	350.00	820.82	0.00	.01	.05	566.35	1.00
6.100	350.00	820.82	0.00	.05	0.00	565.13	18.00

6.100	350.00	820.86	0.00	.04	.05	570.21	18.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
6.120	350.00	820.81	0.00	-.00	0.00	566.40	1.00
6.120	350.00	820.86	0.00	-.00	.05	571.28	1.00
6.140	350.00	821.17	0.00	.36	0.00	571.23	330.00
6.140	350.00	821.19	0.00	.33	.02	573.27	330.00
7.000	350.00	821.43	0.00	.27	0.00	597.75	360.00
7.000	350.00	821.44	0.00	.26	.01	598.17	360.00
7.010	350.00	821.53	0.00	.10	0.00	597.65	180.00
7.010	350.00	821.54	0.00	.10	.01	597.97	180.00
7.020	350.00	821.53	0.00	.00	0.00	597.68	1.00
7.020	350.00	821.54	0.00	.00	.01	598.00	1.00
7.030	350.00	821.55	0.00	.02	0.00	598.39	18.00
7.030	350.00	821.56	0.00	.01	.01	598.70	18.00
7.040	350.00	821.55	0.00	-.00	0.00	598.55	1.00
7.040	350.00	821.56	0.00	-.00	.01	598.86	1.00
7.050	350.00	821.75	0.00	.20	0.00	590.85	350.00
7.050	350.00	821.75	0.00	.20	.00	591.31	350.00
7.060	350.00	822.01	0.00	.26	0.00	576.27	350.00
7.060	350.00	822.01	0.00	.26	.00	576.51	350.00
7.080	250.00	822.29	0.00	.27	0.00	562.75	350.00
7.080	250.00	822.29	0.00	.27	.00	562.78	350.00
8.200	250.00	822.36	0.00	.07	0.00	514.82	150.00
8.200	250.00	822.36	0.00	.07	.00	514.86	150.00
8.210	250.00	822.40	0.00	.04	0.00	513.40	120.00
8.210	250.00	822.40	0.00	.04	.00	513.43	120.00
8.790	250.00	822.42	0.00	.02	0.00	552.35	20.00
8.790	250.00	822.42	0.00	.02	.00	386.23	20.00
8.800	250.00	822.46	0.00	.04	0.00	543.52	110.00
8.800	250.00	822.47	0.00	.05	.01	366.70	110.00
8.820	250.00	822.55	0.00	.09	0.00	523.26	200.00
8.820	250.00	822.57	0.00	.10	.02	344.35	200.00
8.840	250.00	822.68	0.00	.13	0.00	497.47	250.00
8.840	250.00	822.73	0.00	.15	.05	315.76	250.00
8.860	250.00	822.85	0.00	.17	0.00	492.88	250.00
8.860	250.00	822.92	0.00	.19	.06	309.42	250.00
8.920	250.00	822.90	0.00	.05	0.00	829.57	100.00
8.920	250.00	822.97	0.00	.05	.07	861.61	100.00
8.940	250.00	822.95	0.00	.05	0.00	434.82	200.00
8.940	250.00	823.01	0.00	.04	.06	489.68	200.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
9.000	250.00	823.33	0.00	.38	0.00	591.61	200.00
9.000	250.00	823.35	0.00	.34	.02	613.02	200.00

SUMMARY OF ERRORS

100,10,50,500 yr run

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  C1
  MODIFICATION -  50,51,52
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C
T1      HUD-FIA H-4705
T2      PITTSFIELD TWP. FIS
T3      WOOD OUTLET DRAIN

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     C         WSEL      FQ

      -1.       4.        0.        0.  0.000000      0.00      -1.0       0.    816.600     0.000

J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

     1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC      .100      .100      .055      .100      .300     0.000     0.000     0.000     0.000     0.000
QT     5.000   270.000   395.000   465.000   640.000   465.000     0.000     0.000     0.000     0.000
ET     0.000     0.000     0.000     0.000     0.000     1.400     5.400    10.400    15.400     0.000

XI     4.800    15.000   582.000   616.000     0.000     0.000     0.000     0.000     0.000     0.000
GR   817.200   565.000   816.700   581.000   813.700   588.000   810.600   600.000   813.400   613.000
GR   816.300   616.000   815.200   630.000   814.000   652.000   814.100   678.000   815.500   708.000
GR   816.600   764.000   816.300   830.000   815.300   975.000   816.100  1300.000   817.100  1435.000

X1     5.200    21.000   756.000   794.000   675.000   675.000   675.000      .850     0.000     0.000
X3     0.000     0.000     0.000     0.000     0.000  1050.000     0.000     0.000     0.000     0.000
X4     4.000   817.500    90.000   816.300   155.000   814.800   200.000   815.200   370.000     0.000
GR   820.000     0.000   814.700   440.000   814.400   482.000   814.600   544.000   814.500   602.000
GR   814.400   642.000   815.500   688.000   816.200   732.000   816.500   756.000   816.000   764.000
GR   811.600   778.000   811.400   780.000   811.500   781.000   811.600   782.000   811.900   783.000
GR   816.400   794.000   815.800   814.000   815.200   870.000   815.200   918.000   816.200   962.000
GR   817.000  1350.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

      ***D/S FACE TEXTILE RD.

X1     5.300     0.000     0.000     0.000   150.000   150.000   150.000     0.000     -.300     0.000
X3     0.000     0.000     0.000     0.000     0.000   900.000     0.000     0.000     0.000     0.000
SB     0.000     2.700     3.000     0.000     3.000     0.000    11.600     0.000   811.100   811.100

X1     5.400     0.000     0.000     0.000    41.000    41.000    41.000     0.000     0.000     0.000
X2     0.000     0.000     1.000   815.100     0.000     0.000     0.000     0.000      .850     0.000
X3     0.000     0.000     0.000     0.000     0.000   900.000     0.000     0.000     0.000     0.000
BT    13.000    45.000   819.000     0.000   180.000   817.300     0.000   395.000   816.500     0.000
BT   460.000   816.700     0.000   700.000   816.800     0.000   755.000   816.900     0.000   868.000
BT   817.100     0.000  1025.000   817.200     0.000  1090.000   817.500     0.000  1240.000   817.600
BT     0.000  1300.000   817.900     0.000  1370.000   818.000     0.000  1550.000   818.700     0.000
ET     0.000     0.000     0.000     0.000     0.000     1.400     5.400    10.400    15.400     0.000
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X1	5.800	20.000	1074.000	1114.000	59.000	59.000	59.000	.850	0.000	0.000
X4	5.000	816.600	370.000	815.200	480.000	815.600	620.000	817.500	1400.000	817.700
X4	1610.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	820.700	150.000	815.500	910.000	815.200	960.000	815.300	992.000	816.500	1018.000
GR	816.900	1046.000	816.800	1074.000	813.500	1092.000	812.100	1093.000	811.300	1100.000
GR	812.100	1107.000	812.600	1110.000	813.400	1111.000	814.500	1112.000	816.300	1114.000
GR	815.000	1148.000	815.600	1198.000	816.200	1258.000	816.300	1306.000	823.200	1720.000
X1	5.820	0.000	0.000	0.000	200.000	200.000	200.000	0.000	.200	0.000
X1	5.840	0.000	0.000	0.000	200.000	200.000	200.000	0.000	.200	0.000
X1	5.850	0.000	0.000	0.000	300.000	300.000	300.000	0.000	.300	0.000
QT	5.000	205.000	300.000	350.000	485.000	350.000	0.000	0.000	0.000	0.000
X1	5.860	25.000	678.000	708.000	200.000	200.000	200.000	0.000	-1.100	0.000
GR	823.700	80.000	820.400	150.000	820.000	215.000	819.400	444.000	818.300	476.000
GR	818.200	512.000	818.800	542.000	818.200	580.000	817.800	624.000	817.900	658.000
GR	817.700	678.000	815.000	689.000	814.000	691.000	813.300	692.000	813.300	698.000
GR	818.200	708.000	819.400	726.000	818.600	750.000	817.900	780.000	818.300	824.000
GR	818.200	874.000	818.600	922.000	819.200	1016.000	820.100	1315.000	822.400	1370.000
X1	5.880	0.000	0.000	0.000	500.000	500.000	500.000	0.000	.500	0.000
X1	5.900	0.000	0.000	0.000	500.000	500.000	500.000	0.000	.500	0.000
X1	6.000	0.000	0.000	0.000	50.000	50.000	50.000	0.000	.100	0.000
X1	6.020	0.000	0.000	0.000	200.000	200.000	200.000	0.000	.200	0.000
X1	6.040	0.000	0.000	0.000	350.000	350.000	350.000	0.000	.500	0.000
X1	6.060	0.000	0.000	0.000	370.000	370.000	370.000	0.000	.500	0.000

***D/S FACE 4' DIA. CULVERT

X1	6.080	24.000	824.000	844.000	470.000	470.000	470.000	0.000	-.500	0.000
X3	0.000	0.000	0.000	0.000	0.000	1045.000	0.000	0.000	0.000	0.000
GR	822.900	405.000	820.500	450.000	820.400	618.000	820.200	670.000	820.200	736.000
GR	820.800	790.000	821.800	812.000	822.200	824.000	821.000	830.000	817.500	833.000
GR	816.700	835.000	815.900	836.000	815.600	838.000	816.100	840.000	816.700	841.000
GR	817.500	843.000	821.600	844.000	821.300	862.000	820.500	902.000	820.200	954.000
GR	820.000	1026.000	820.400	1200.000	820.900	1285.000	821.600	1515.000	0.000	0.000
X1	6.090	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	818.000	0.000	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	1045.000	0.000	0.000	0.000	0.000
BT	2.000	828.000	821.400	0.000	844.000	821.600	0.000	0.000	0.000	0.000

X1	6.100	0.000	0.000	0.000	18.000	18.000	18.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	818.000	0.000	0.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	1045.000	0.000	0.000	0.000	0.000
X1	6.120	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	1045.000	0.000	0.000	0.000	0.000
X1	6.140	0.000	0.000	0.000	330.000	330.000	330.000	0.000	.300	0.000
X3	0.000	0.000	0.000	0.000	0.000	1045.000	0.000	0.000	0.000	0.000
X1	7.000	0.000	0.000	0.000	360.000	360.000	360.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	1045.000	0.000	0.000	0.000	0.000
X1	7.010	0.000	0.000	0.000	180.000	180.000	180.000	0.000	.100	0.000
X3	0.000	0.000	0.000	0.000	0.000	1045.000	0.000	0.000	0.000	0.000
X1	7.020	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	818.900	820.200	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	1045.000	0.000	0.000	0.000	0.000
X1	7.030	0.000	0.000	0.000	18.000	18.000	18.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	818.900	820.200	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	1045.000	0.000	0.000	0.000	0.000
X1	7.040	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	1045.000	0.000	0.000	0.000	0.000
X1	7.050	0.000	0.000	0.000	350.000	350.000	350.000	0.000	.300	0.000
X3	0.000	0.000	0.000	0.000	0.000	1045.000	0.000	0.000	0.000	0.000
X1	7.060	0.000	0.000	0.000	350.000	350.000	350.000	0.000	.400	0.000
X3	0.000	0.000	0.000	0.000	0.000	1045.000	0.000	0.000	0.000	0.000
QT	5.000	145.000	215.000	250.000	345.000	250.000	0.000	0.000	0.000	0.000
X1	7.080	0.000	0.000	0.000	350.000	350.000	350.000	0.000	.400	0.000
X3	0.000	0.000	0.000	0.000	0.000	1045.000	0.000	0.000	0.000	0.000
NC	.110	.110	.055	.300	.600	0.000	0.000	0.000	0.000	0.000
X1	8.200	13.000	1366.000	1396.000	150.000	150.000	150.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	850.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	823.000	350.000	821.600	500.000	820.600	800.000	821.200	1100.000	821.000	1310.000
GR	823.200	1366.000	820.500	1370.000	817.500	1376.000	816.900	1377.000	817.500	1379.000
GR	817.600	1382.000	822.800	1388.000	823.800	1396.000	0.000	0.000	0.000	0.000

***D/S FACE MORGAN ROAD

X1	8.210	0.000	0.000	0.000	120.000	120.000	120.000	0.000	.100	0.000

X3	0.000	0.000	0.000	850.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	2.400	2.500	0.000	3.000	0.000	7.100	0.000	817.000	817.000
ET	0.000	0.000	0.000	0.000	0.000	1.400	5.400	10.400	15.400	0.000
X1	8.790	19.000	1380.000	1406.000	20.000	20.000	20.000	0.000	-.100	0.000
X2	0.000	0.000	1.000	820.000	821.700	0.000	0.000	0.000	0.000	0.000
BT	11.000	450.000	823.900	0.000	935.000	823.000	0.000	1240.000	821.200	0.000
BT	1340.000	821.200	0.000	1350.000	822.500	0.000	1375.000	821.700	0.000	1397.000
BT	822.500	0.000	1410.000	822.800	0.000	1440.000	821.300	0.000	1490.000	821.200
BT	0.000	1600.000	824.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	822.500	1020.000	821.800	1105.000	821.300	1300.000	819.000	1323.000	822.400	1360.000
GR	823.000	1380.000	817.800	1390.000	817.800	1393.000	817.200	1394.000	817.800	1395.000
GR	817.800	1400.000	821.700	1406.000	822.000	1422.000	821.200	1450.000	821.200	1554.000
GR	822.800	1596.000	823.800	1642.000	824.800	1684.000	825.400	1728.000	0.000	0.000
X1	8.800	0.000	0.000	0.000	110.000	110.000	110.000	0.000	.100	0.000
NC	.100	.100	.055	.100	.300	0.000	0.000	0.000	0.000	0.000
X1	8.820	0.000	0.000	0.000	200.000	200.000	200.000	0.000	.200	0.000
X1	8.840	0.000	0.000	0.000	250.000	250.000	250.000	0.000	.300	0.000
X1	8.860	0.000	0.000	0.000	250.000	250.000	250.000	0.000	.200	0.000
X1	8.920	23.000	2630.000	2670.000	100.000	100.000	100.000	0.000	-.400	0.000
X3	0.000	0.000	0.000	2100.000	0.000	3400.000	0.000	0.000	0.000	0.000
X4	7.000	820.200	1950.000	820.300	2200.000	821.200	2310.000	822.400	2370.000	822.800
X4	2430.000	822.800	2580.000	823.600	2602.000	0.000	0.000	0.000	0.000	0.000
GR	821.200	1775.000	824.400	2618.000	824.700	2630.000	824.300	2638.000	819.000	2646.000
GR	819.000	2653.000	818.400	2654.000	819.000	2655.000	819.000	2660.000	824.400	2670.000
GR	824.300	2700.000	824.200	2744.000	823.500	2800.000	823.600	2866.000	823.800	2944.000
GR	823.500	3018.000	822.800	3200.000	823.400	3415.000	823.600	3545.000	823.500	3630.000
GR	822.800	3700.000	822.600	3780.000	823.600	3850.000	0.000	0.000	0.000	0.000
X1	8.940	0.000	0.000	0.000	200.000	200.000	200.000	0.000	.200	0.000
X3	0.000	0.000	0.000	2100.000	0.000	3400.000	0.000	0.000	0.000	0.000
X1	9.000	0.000	0.000	0.000	200.000	200.000	200.000	0.000	.200	0.000
X3	0.000	0.000	0.000	2100.000	0.000	3400.000	0.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
ERROR CORR - 01
MODIFICATION - 50,51,52
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

WOOD OUTLET DRAIN

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
4.800	0.00	0.00	0.00	810.60	465.00	816.60	0.00	816.62	6.59	1.58	770.54	181.12
4.800	0.00	0.00	0.00	810.60	270.00	816.20	0.00	816.22	5.28	1.34	488.38	117.53
4.800	0.00	0.00	0.00	810.60	395.00	816.40	0.00	816.42	7.30	1.62	621.45	146.19
4.800	0.00	0.00	0.00	810.60	640.00	816.80	0.00	816.82	8.59	1.76	930.69	218.42
5.200	675.00	0.00	0.00	811.40	465.00	816.87	0.00	816.87	2.41	.79	1242.77	299.31
5.200	675.00	0.00	0.00	811.40	270.00	816.42	0.00	816.42	1.96	.65	904.06	192.65
5.200	675.00	0.00	0.00	811.40	395.00	816.69	0.00	816.69	2.46	.76	1101.65	251.99
5.200	675.00	0.00	0.00	811.40	640.00	817.13	0.00	817.14	2.94	.93	1446.14	373.32
5.300	150.00	0.00	0.00	811.10	465.00	816.90	0.00	816.90	1.84	.75	1280.23	342.95
5.300	150.00	0.00	0.00	811.10	270.00	816.44	0.00	816.45	1.30	.57	983.89	236.83
5.300	150.00	0.00	0.00	811.10	395.00	816.72	0.00	816.72	1.76	.71	1158.81	297.83
5.300	150.00	0.00	0.00	811.10	640.00	817.17	0.00	817.18	2.37	.91	1464.82	415.47
5.400	41.00	816.50	0.00	811.10	465.00	817.21	0.00	817.21	1.19	.65	1492.24	426.62
5.400	41.00	816.50	0.00	811.10	270.00	817.05	0.00	817.05	.50	.41	1382.89	382.73
5.400	41.00	816.50	0.00	811.10	395.00	817.16	0.00	817.16	.92	.56	1455.52	411.71
5.400	41.00	816.50	0.00	811.10	640.00	817.33	0.00	817.33	1.93	.84	1575.76	461.16
5.800	59.00	0.00	0.00	811.30	465.00	817.22	0.00	817.22	2.25	.90	1338.43	310.09
5.800	59.00	0.00	0.00	811.30	270.00	817.06	0.00	817.06	1.05	.60	1180.41	264.08
5.800	59.00	0.00	0.00	811.30	395.00	817.16	0.00	817.17	1.80	.80	1285.16	294.33
5.800	59.00	0.00	0.00	811.30	640.00	817.34	0.00	817.35	3.39	1.13	1462.42	347.65
5.820	200.00	0.00	0.00	811.50	465.00	817.27	0.00	817.28	3.08	1.03	1183.92	265.08
5.820	200.00	0.00	0.00	811.50	270.00	817.08	0.00	817.08	1.56	.70	1007.06	216.33
5.820	200.00	0.00	0.00	811.50	395.00	817.21	0.00	817.21	2.53	.92	1124.24	248.28
5.820	200.00	0.00	0.00	811.50	640.00	817.42	0.00	817.42	4.28	1.25	1335.46	309.20
5.840	200.00	0.00	0.00	811.70	465.00	817.34	0.00	817.35	4.05	1.15	1061.57	231.02
5.840	200.00	0.00	0.00	811.70	270.00	817.12	0.00	817.12	2.24	.82	870.45	180.44
5.840	200.00	0.00	0.00	811.70	395.00	817.26	0.00	817.27	3.45	1.04	993.59	212.72
5.840	200.00	0.00	0.00	811.70	640.00	817.51	0.00	817.52	5.37	1.37	1223.14	276.31
5.850	300.00	0.00	0.00	812.00	465.00	817.48	0.00	817.49	5.68	1.32	927.35	195.10
5.850	300.00	0.00	0.00	812.00	270.00	817.20	0.00	817.21	3.74	1.03	703.51	139.64
5.850	300.00	0.00	0.00	812.00	395.00	817.39	0.00	817.40	5.09	1.24	848.99	175.00
5.850	300.00	0.00	0.00	812.00	640.00	817.69	0.00	817.70	6.78	1.50	1115.48	245.84

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
5.860	200.00	0.00	0.00	812.20	350.00	817.61	0.00	817.69	19.57	2.58	295.04	79.12
5.860	200.00	0.00	0.00	812.20	205.00	817.28	0.00	817.34	13.36	2.00	171.88	56.09
5.860	200.00	0.00	0.00	812.20	300.00	817.50	0.00	817.58	18.22	2.44	250.22	70.28
5.860	200.00	0.00	0.00	812.20	485.00	817.85	0.00	817.93	22.23	2.88	406.63	102.87
5.880	500.00	0.00	0.00	812.70	350.00	818.37	0.00	818.41	11.04	2.04	417.56	105.35
5.880	500.00	0.00	0.00	812.70	205.00	817.89	0.00	817.94	10.71	1.83	209.07	62.64
5.880	500.00	0.00	0.00	812.70	300.00	818.23	0.00	818.27	10.98	1.98	350.49	90.54
5.880	500.00	0.00	0.00	812.70	485.00	818.67	0.00	818.71	11.32	2.18	578.03	144.16
5.900	500.00	0.00	0.00	813.20	350.00	818.90	0.00	818.94	10.26	1.98	434.74	109.28
5.900	500.00	0.00	0.00	813.20	205.00	818.42	0.00	818.46	10.17	1.79	218.11	64.29
5.900	500.00	0.00	0.00	813.20	300.00	818.76	0.00	818.80	10.22	1.92	365.75	93.83
5.900	500.00	0.00	0.00	813.20	485.00	819.21	0.00	819.25	10.37	2.10	603.43	150.60
6.000	50.00	0.00	0.00	813.30	350.00	818.96	0.00	819.00	11.31	2.06	412.05	104.09
6.000	50.00	0.00	0.00	813.30	205.00	818.47	0.00	818.51	11.24	1.86	200.82	61.16
6.000	50.00	0.00	0.00	813.30	300.00	818.81	0.00	818.86	11.32	2.01	344.08	89.18
6.000	50.00	0.00	0.00	813.30	485.00	819.26	0.00	819.30	11.32	2.18	578.00	144.15
6.020	200.00	0.00	0.00	813.50	350.00	819.18	0.00	819.22	10.99	2.03	418.65	105.59
6.020	200.00	0.00	0.00	813.50	205.00	818.69	0.00	818.74	10.96	1.85	205.11	61.93
6.020	200.00	0.00	0.00	813.50	300.00	819.04	0.00	819.08	11.00	1.98	350.13	90.46
6.020	200.00	0.00	0.00	813.50	485.00	819.49	0.00	819.53	10.99	2.15	586.35	146.27
6.040	350.00	0.00	0.00	814.00	350.00	819.59	0.00	819.65	13.27	2.20	376.11	96.08
6.040	350.00	0.00	0.00	814.00	205.00	819.10	0.00	819.16	13.12	1.98	174.83	56.59
6.040	350.00	0.00	0.00	814.00	300.00	819.45	0.00	819.51	13.28	2.14	310.89	82.33
6.040	350.00	0.00	0.00	814.00	485.00	819.90	0.00	819.95	13.17	2.32	536.28	133.63
6.060	370.00	0.00	0.00	814.50	350.00	820.09	0.00	820.14	13.26	2.20	376.33	96.13
6.060	370.00	0.00	0.00	814.50	205.00	819.59	0.00	819.64	13.21	1.99	173.72	56.40
6.060	370.00	0.00	0.00	814.50	300.00	819.95	0.00	820.00	13.26	2.14	311.20	82.39
6.060	370.00	0.00	0.00	814.50	485.00	820.39	0.00	820.44	13.23	2.32	535.06	133.33
6.080	470.00	0.00	0.00	815.10	350.00	820.75	0.00	820.77	13.79	1.96	521.36	94.25
6.080	470.00	0.00	0.00	815.10	205.00	820.32	0.00	820.36	17.56	2.18	288.98	48.92
6.080	470.00	0.00	0.00	815.10	300.00	820.63	0.00	820.65	14.42	2.01	450.68	79.00
6.080	470.00	0.00	0.00	815.10	485.00	821.04	0.00	821.06	12.94	1.89	686.37	134.83
6.090	1.00	821.40	0.00	815.10	350.00	820.77	0.00	820.78	27.48	0.00	474.67	66.77
6.090	1.00	821.40	0.00	815.10	205.00	820.35	0.00	820.36	61.92	0.00	259.78	26.05
6.090	1.00	821.40	0.00	815.10	300.00	820.65	0.00	820.65	32.68	0.00	406.95	52.48
6.090	1.00	821.40	0.00	815.10	485.00	821.05	0.00	821.06	21.65	0.00	630.63	104.23
6.100	18.00	821.40	0.00	815.10	350.00	820.82	0.00	820.82	23.48	0.00	499.10	72.23
6.100	18.00	821.40	0.00	815.10	205.00	820.44	0.00	820.45	38.88	0.00	301.75	32.88
6.100	18.00	821.40	0.00	815.10	300.00	820.70	0.00	820.71	25.97	0.00	437.94	58.87
6.100	18.00	821.40	0.00	815.10	485.00	821.09	0.00	821.10	19.34	0.00	653.84	110.27
6.120	1.00	0.00	0.00	815.10	350.00	820.81	0.00	820.83	11.37	1.77	562.81	103.81
6.120	1.00	0.00	0.00	815.10	205.00	820.43	0.00	820.46	11.42	1.78	356.55	60.67
6.120	1.00	0.00	0.00	815.10	300.00	820.69	0.00	820.71	11.36	1.78	497.77	89.01

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
6.140	330.00	0.00	0.00	815.40	350.00	821.17	0.00	821.18	10.12	1.67	588.72	110.04
6.140	330.00	0.00	0.00	815.40	205.00	820.79	0.00	820.81	9.83	1.66	381.48	65.38
6.140	330.00	0.00	0.00	815.40	300.00	821.05	0.00	821.07	10.12	1.68	521.62	94.31
6.140	330.00	0.00	0.00	815.40	485.00	821.44	0.00	821.45	10.16	1.68	750.01	152.13
7.000	360.00	0.00	0.00	815.40	350.00	821.43	0.00	821.44	5.37	1.22	746.33	151.10
7.000	360.00	0.00	0.00	815.40	205.00	821.04	0.00	821.05	4.80	1.15	518.43	93.59
7.000	360.00	0.00	0.00	815.40	300.00	821.31	0.00	821.32	5.19	1.20	674.50	131.71
7.000	360.00	0.00	0.00	815.40	485.00	821.72	0.00	821.72	5.75	1.28	917.35	202.25
7.010	180.00	0.00	0.00	815.50	350.00	821.53	0.00	821.54	5.39	1.22	744.97	150.72
7.010	180.00	0.00	0.00	815.50	205.00	821.13	0.00	821.14	4.95	1.17	512.08	92.17
7.010	180.00	0.00	0.00	815.50	300.00	821.41	0.00	821.41	5.25	1.20	671.47	130.92
7.010	180.00	0.00	0.00	815.50	485.00	821.82	0.00	821.83	5.71	1.27	919.70	203.00
7.020	1.00	820.20	818.90	815.50	350.00	821.53	0.00	821.54	8.48	.78	695.53	120.16
7.020	1.00	820.20	818.90	815.50	205.00	821.13	0.00	821.14	10.04	.80	462.70	64.70
7.020	1.00	820.20	818.90	815.50	300.00	821.41	0.00	821.42	8.77	.78	622.04	101.33
7.020	1.00	820.20	818.90	815.50	485.00	821.82	0.00	821.83	8.14	.80	870.28	170.03
7.030	18.00	820.20	818.90	815.50	350.00	821.55	0.00	821.55	8.14	.77	704.90	122.65
7.030	18.00	820.20	818.90	815.50	205.00	821.15	0.00	821.15	9.41	.77	472.83	66.84
7.030	18.00	820.20	818.90	815.50	300.00	821.43	0.00	821.43	8.37	.76	631.53	103.70
7.030	18.00	820.20	818.90	815.50	485.00	821.84	0.00	821.84	7.87	.79	879.47	172.84
7.040	1.00	0.00	0.00	815.50	350.00	821.55	0.00	821.56	5.16	1.20	756.74	154.02
7.040	1.00	0.00	0.00	815.50	205.00	821.15	0.00	821.16	4.64	1.14	525.47	95.18
7.040	1.00	0.00	0.00	815.50	300.00	821.43	0.00	821.43	5.01	1.18	683.54	134.09
7.040	1.00	0.00	0.00	815.50	485.00	821.84	0.00	821.84	5.51	1.25	931.01	206.62
7.050	350.00	0.00	0.00	815.80	350.00	821.75	0.00	821.76	6.48	1.34	696.29	137.47
7.050	350.00	0.00	0.00	815.80	205.00	821.34	0.00	821.35	6.38	1.33	461.00	81.14
7.050	350.00	0.00	0.00	815.80	300.00	821.62	0.00	821.63	6.44	1.33	621.79	118.20
7.050	350.00	0.00	0.00	815.80	485.00	822.05	0.00	822.06	6.59	1.36	874.81	188.91
7.060	350.00	0.00	0.00	816.20	350.00	822.01	0.00	822.02	8.99	1.58	616.02	116.76
7.060	350.00	0.00	0.00	816.20	205.00	821.60	0.00	821.62	9.52	1.63	387.48	66.45
7.060	350.00	0.00	0.00	816.20	300.00	821.88	0.00	821.90	9.12	1.59	543.61	99.32
7.060	350.00	0.00	0.00	816.20	485.00	822.31	0.00	822.32	8.75	1.56	791.63	163.99
7.080	350.00	0.00	0.00	816.60	250.00	822.29	0.00	822.30	6.37	1.33	542.44	99.05
7.080	350.00	0.00	0.00	816.60	145.00	821.89	0.00	821.91	6.83	1.37	327.80	55.49
7.080	350.00	0.00	0.00	816.60	215.00	822.17	0.00	822.18	6.62	1.36	472.61	83.59
7.080	350.00	0.00	0.00	816.60	345.00	822.57	0.00	822.58	5.91	1.28	712.97	141.94
8.200	150.00	0.00	0.00	816.90	250.00	822.36	0.00	822.36	3.25	.96	705.58	138.73
8.200	150.00	0.00	0.00	816.90	145.00	821.97	0.00	821.97	2.73	.84	506.90	87.78
8.200	150.00	0.00	0.00	816.90	215.00	822.24	0.00	822.24	3.11	.93	644.46	121.98
8.200	150.00	0.00	0.00	816.90	345.00	822.64	0.00	822.65	3.57	1.04	852.52	182.61
8.210	120.00	0.00	0.00	817.00	250.00	822.40	0.00	822.40	3.62	1.01	679.44	131.46
8.210	120.00	0.00	0.00	817.00	145.00	822.00	0.00	822.01	3.25	.91	474.38	80.45
8.210	120.00	0.00	0.00	817.00	215.00	822.28	0.00	822.28	3.49	.98	618.23	115.07
8.210	120.00	0.00	0.00	817.00	345.00	822.69	0.00	822.69	3.91	1.09	826.75	174.56

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
8.790	20.00	821.70	820.00	817.10	250.00	822.42	0.00	822.43	3.50	1.08	630.79	133.54
8.790	20.00	821.70	820.00	817.10	145.00	822.03	0.00	822.03	2.80	.91	423.14	86.64
8.790	20.00	821.70	820.00	817.10	215.00	822.30	0.00	822.31	3.34	1.03	564.72	117.56
8.790	20.00	821.70	820.00	817.10	345.00	822.71	0.00	822.72	3.79	1.16	793.39	177.28
8.800	110.00	0.00	0.00	817.20	250.00	822.46	0.00	822.47	4.04	1.14	593.28	124.36
8.800	110.00	0.00	0.00	817.20	145.00	822.06	0.00	822.07	3.32	.98	387.76	79.58
8.800	110.00	0.00	0.00	817.20	215.00	822.34	0.00	822.35	3.88	1.10	527.92	109.13
8.800	110.00	0.00	0.00	817.20	345.00	822.76	0.00	822.76	4.28	1.23	756.15	166.74
8.820	200.00	0.00	0.00	817.40	250.00	822.55	0.00	822.56	4.63	1.20	530.60	116.15
8.820	200.00	0.00	0.00	817.40	145.00	822.13	0.00	822.14	4.16	1.07	325.84	71.08
8.820	200.00	0.00	0.00	817.40	215.00	822.42	0.00	822.43	4.55	1.17	466.01	100.82
8.820	200.00	0.00	0.00	817.40	345.00	822.85	0.00	822.86	4.74	1.27	689.88	158.46
8.840	250.00	0.00	0.00	817.70	250.00	822.68	0.00	822.70	6.66	1.41	448.56	96.84
8.840	250.00	0.00	0.00	817.70	145.00	822.25	0.00	822.27	6.30	1.28	252.54	57.77
8.840	250.00	0.00	0.00	817.70	215.00	822.56	0.00	822.57	6.66	1.38	386.53	83.29
8.840	250.00	0.00	0.00	817.70	345.00	822.98	0.00	822.99	6.56	1.46	603.71	134.72
8.860	250.00	0.00	0.00	817.90	250.00	822.85	0.00	822.87	7.12	1.45	434.41	93.66
8.860	250.00	0.00	0.00	817.90	145.00	822.42	0.00	822.43	6.85	1.32	238.38	55.39
8.860	250.00	0.00	0.00	817.90	215.00	822.73	0.00	822.74	7.14	1.42	373.00	80.47
8.860	250.00	0.00	0.00	817.90	345.00	823.15	0.00	823.16	7.01	1.50	586.72	130.28
8.920	100.00	0.00	0.00	818.00	250.00	822.90	0.00	822.91	2.28	.84	689.81	165.46
8.920	100.00	0.00	0.00	818.00	145.00	822.46	0.00	822.47	1.73	.69	442.43	110.26
8.920	100.00	0.00	0.00	818.00	215.00	822.78	0.00	822.78	2.15	.80	591.35	146.66
8.920	100.00	0.00	0.00	818.00	345.00	823.20	0.00	823.20	2.41	.89	954.98	222.29
8.940	200.00	0.00	0.00	818.20	250.00	822.95	0.00	823.04	20.89	2.49	193.96	54.70
8.940	200.00	0.00	0.00	818.20	145.00	822.50	0.00	822.56	13.77	1.90	84.89	39.08
8.940	200.00	0.00	0.00	818.20	215.00	822.82	0.00	822.90	19.63	2.38	144.31	48.53
8.940	200.00	0.00	0.00	818.20	345.00	823.26	0.00	823.33	19.69	2.51	367.86	77.75
9.000	200.00	0.00	0.00	818.40	250.00	823.33	0.00	823.38	14.29	2.11	284.87	66.14
9.000	200.00	0.00	0.00	818.40	145.00	822.77	0.00	822.82	12.70	1.85	92.07	40.69
9.000	200.00	0.00	0.00	818.40	215.00	823.18	0.00	823.24	14.53	2.09	207.72	56.40
9.000	200.00	0.00	0.00	818.40	345.00	823.61	0.00	823.65	13.21	2.09	478.72	94.93

WOOD OUTLET DRAIN

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
4.800	465.00	816.60	0.00	0.00	0.00	786.27	0.00
4.800	270.00	816.20	0.00	0.00	0.00	629.09	0.00
4.800	395.00	816.40	0.00	0.00	0.00	704.62	0.00
4.800	640.00	816.80	0.00	0.00	0.00	816.70	0.00
5.200	465.00	816.87	0.00	.27	0.00	768.27	675.00
5.200	270.00	816.42	0.00	.22	0.00	737.43	675.00
5.200	395.00	816.69	0.00	.29	0.00	758.25	675.00
5.200	640.00	817.13	0.00	.33	0.00	782.47	675.00
5.300	465.00	816.90	0.00	.03	0.00	667.66	150.00
5.300	270.00	816.44	0.00	.02	0.00	629.73	150.00
5.300	395.00	816.72	0.00	.03	0.00	652.38	150.00
5.300	640.00	817.17	0.00	.04	0.00	690.23	150.00
5.400	465.00	817.21	0.00	.31	0.00	693.52	41.00
5.400	270.00	817.05	0.00	.61	0.00	680.30	41.00
5.400	395.00	817.16	0.00	.44	0.00	689.11	41.00
5.400	640.00	817.33	0.00	.16	0.00	703.45	41.00
5.800	465.00	817.22	0.00	.01	0.00	1000.77	59.00
5.800	270.00	817.06	0.00	.00	0.00	956.11	59.00
5.800	395.00	817.16	0.00	.01	0.00	985.94	59.00
5.800	640.00	817.34	0.00	.01	0.00	1034.46	59.00
5.820	465.00	817.27	0.00	.05	0.00	957.13	200.00
5.820	270.00	817.08	0.00	.02	0.00	896.13	200.00
5.820	395.00	817.21	0.00	.04	0.00	939.73	200.00
5.820	640.00	817.42	0.00	.07	0.00	999.95	200.00
5.840	465.00	817.34	0.00	.07	0.00	921.11	200.00
5.840	270.00	817.12	0.00	.04	0.00	825.04	200.00
5.840	395.00	817.26	0.00	.06	0.00	887.46	200.00
5.840	640.00	817.51	0.00	.09	0.00	968.39	200.00
5.850	465.00	817.48	0.00	.14	0.00	848.21	300.00
5.850	270.00	817.20	0.00	.08	0.00	750.43	300.00
5.850	395.00	817.39	0.00	.12	0.00	816.14	300.00
5.850	640.00	817.69	0.00	.18	0.00	937.15	300.00
5.860	350.00	817.61	0.00	.13	0.00	433.52	200.00
5.860	205.00	817.28	0.00	.08	0.00	326.96	200.00
5.860	300.00	817.50	0.00	.11	0.00	396.36	200.00
5.860	485.00	817.85	0.00	.16	0.00	498.72	200.00
5.880	350.00	818.37	0.00	.76	0.00	503.75	500.00
5.880	205.00	817.89	0.00	.61	0.00	361.56	500.00
5.880	300.00	818.23	0.00	.73	0.00	472.03	500.00
5.880	485.00	818.67	0.00	.82	0.00	583.99	500.00
5.900	350.00	818.90	0.00	.54	0.00	511.56	500.00
5.900	205.00	818.42	0.00	.52	0.00	369.48	500.00

5.900	300.00	818.76	0.00	.53	0.00	479.43	500.00
5.900	485.00	819.21	0.00	.55	0.00	601.41	500.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
6.000	350.00	818.96	0.00	.05	0.00	501.22	50.00
6.000	205.00	818.47	0.00	.05	0.00	354.18	50.00
6.000	300.00	818.81	0.00	.05	0.00	468.89	50.00
6.000	485.00	819.26	0.00	.05	0.00	583.97	50.00
6.020	350.00	819.18	0.00	.22	0.00	504.25	200.00
6.020	205.00	818.69	0.00	.22	0.00	358.04	200.00
6.020	300.00	819.04	0.00	.22	0.00	471.86	200.00
6.020	485.00	819.49	0.00	.22	0.00	589.75	200.00
6.040	350.00	819.59	0.00	.41	0.00	484.39	350.00
6.040	205.00	819.10	0.00	.41	0.00	329.83	350.00
6.040	300.00	819.45	0.00	.42	0.00	445.93	350.00
6.040	485.00	819.90	0.00	.41	0.00	555.48	350.00
6.060	350.00	820.09	0.00	.49	0.00	484.50	370.00
6.060	205.00	819.59	0.00	.49	0.00	328.76	370.00
6.060	300.00	819.95	0.00	.49	0.00	446.17	370.00
6.060	485.00	820.39	0.00	.49	0.00	554.98	370.00
6.080	350.00	820.75	0.00	.67	0.00	559.14	470.00
6.080	205.00	820.32	0.00	.73	0.00	518.50	470.00
6.080	300.00	820.63	0.00	.68	0.00	546.88	470.00
6.080	485.00	821.04	0.00	.65	0.00	589.07	470.00
6.090	350.00	820.77	0.00	.02	0.00	560.78	1.00
6.090	205.00	820.35	0.00	.04	0.00	522.25	1.00
6.090	300.00	820.65	0.00	.02	0.00	548.74	1.00
6.090	485.00	821.05	0.00	.01	0.00	589.96	1.00
6.100	350.00	820.82	0.00	.05	0.00	565.13	18.00
6.100	205.00	820.44	0.00	.09	0.00	529.77	18.00
6.100	300.00	820.70	0.00	.05	0.00	554.28	18.00
6.100	485.00	821.09	0.00	.04	0.00	594.24	18.00
6.120	350.00	820.81	0.00	-.00	0.00	566.40	1.00
6.120	205.00	820.43	0.00	-.01	0.00	530.34	1.00
6.120	300.00	820.69	0.00	-.01	0.00	555.08	1.00
6.120	485.00	821.08	0.00	-.00	0.00	595.13	1.00
6.140	350.00	821.17	0.00	.36	0.00	571.23	330.00
6.140	205.00	820.79	0.00	.35	0.00	534.64	330.00
6.140	300.00	821.05	0.00	.36	0.00	559.19	330.00
6.140	485.00	821.44	0.00	.36	0.00	598.04	330.00
7.000	350.00	821.43	0.00	.27	0.00	597.75	360.00
7.000	205.00	821.04	0.00	.25	0.00	558.64	360.00
7.000	300.00	821.31	0.00	.26	0.00	586.93	360.00
7.000	485.00	821.72	0.00	.28	0.00	611.63	360.00
7.010	350.00	821.53	0.00	.10	0.00	597.65	180.00
7.010	205.00	821.13	0.00	.09	0.00	557.55	180.00
7.010	300.00	821.41	0.00	.09	0.00	586.38	180.00
7.010	485.00	821.82	0.00	.10	0.00	611.84	180.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
7.020	350.00	821.53	0.00	.00	0.00	597.68	1.00
7.020	205.00	821.13	0.00	.01	0.00	557.61	1.00
7.020	300.00	821.41	0.00	.00	0.00	586.44	1.00
7.020	485.00	821.82	0.00	.00	0.00	611.87	1.00
7.030	350.00	821.55	0.00	.02	0.00	598.39	18.00
7.030	205.00	821.15	0.00	.02	0.00	559.35	18.00
7.030	300.00	821.43	0.00	.02	0.00	588.16	18.00
7.030	485.00	821.84	0.00	.01	0.00	612.67	18.00
7.040	350.00	821.55	0.00	-.00	0.00	598.55	1.00
7.040	205.00	821.15	0.00	-.00	0.00	559.85	1.00
7.040	300.00	821.43	0.00	-.00	0.00	588.56	1.00
7.040	485.00	821.84	0.00	-.00	0.00	612.83	1.00
7.050	350.00	821.75	0.00	.20	0.00	590.85	350.00
7.050	205.00	821.34	0.00	.19	0.00	548.68	350.00
7.050	300.00	821.62	0.00	.20	0.00	577.33	350.00
7.050	485.00	822.05	0.00	.21	0.00	607.88	350.00
7.060	350.00	822.01	0.00	.26	0.00	576.27	350.00
7.060	205.00	821.60	0.00	.26	0.00	535.67	350.00
7.060	300.00	821.88	0.00	.26	0.00	562.95	350.00
7.060	485.00	822.31	0.00	.26	0.00	601.21	350.00
7.080	250.00	822.29	0.00	.27	0.00	562.75	350.00
7.080	145.00	821.89	0.00	.29	0.00	525.33	350.00
7.080	215.00	822.17	0.00	.28	0.00	550.71	350.00
7.080	345.00	822.57	0.00	.26	0.00	593.84	350.00
8.200	250.00	822.36	0.00	.07	0.00	514.82	150.00
8.200	145.00	821.97	0.00	.08	0.00	503.87	150.00
8.200	215.00	822.24	0.00	.07	0.00	511.48	150.00
8.200	345.00	822.64	0.00	.07	0.00	522.78	150.00
8.210	250.00	822.40	0.00	.04	0.00	513.40	120.00
8.210	145.00	822.00	0.00	.04	0.00	502.05	120.00
8.210	215.00	822.28	0.00	.04	0.00	510.04	120.00
8.210	345.00	822.69	0.00	.04	0.00	521.39	120.00
8.790	250.00	822.42	0.00	.02	0.00	552.35	20.00
8.790	145.00	822.03	0.00	.02	0.00	489.19	20.00
8.790	215.00	822.30	0.00	.02	0.00	533.82	20.00
8.790	345.00	822.71	0.00	.03	0.00	570.56	20.00
8.800	250.00	822.46	0.00	.04	0.00	543.52	110.00
8.800	145.00	822.06	0.00	.03	0.00	477.45	110.00
8.800	215.00	822.34	0.00	.04	0.00	522.44	110.00
8.800	345.00	822.76	0.00	.04	0.00	566.14	110.00
8.820	250.00	822.55	0.00	.09	0.00	523.26	200.00
8.820	145.00	822.13	0.00	.07	0.00	449.50	200.00
8.820	215.00	822.42	0.00	.08	0.00	503.06	200.00
8.820	345.00	822.85	0.00	.09	0.00	558.90	200.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
8.840	250.00	822.68	0.00	.13	0.00	497.47	250.00
8.840	145.00	822.25	0.00	.12	0.00	394.31	250.00
8.840	215.00	822.56	0.00	.13	0.00	477.03	250.00
8.840	345.00	822.98	0.00	.14	0.00	547.02	250.00
8.860	250.00	822.85	0.00	.17	0.00	492.88	250.00
8.860	145.00	822.42	0.00	.16	0.00	375.27	250.00
8.860	215.00	822.73	0.00	.17	0.00	472.46	250.00
8.860	345.00	823.15	0.00	.17	0.00	541.31	250.00
8.920	250.00	822.90	0.00	.05	0.00	829.57	100.00
8.920	145.00	822.46	0.00	.05	0.00	352.71	100.00
8.920	215.00	822.78	0.00	.05	0.00	595.18	100.00
8.920	345.00	823.20	0.00	.05	0.00	1007.37	100.00
8.940	250.00	822.95	0.00	.05	0.00	434.82	200.00
8.940	145.00	822.50	0.00	.04	0.00	96.97	200.00
8.940	215.00	822.82	0.00	.04	0.00	318.06	200.00
8.940	345.00	823.26	0.00	.06	0.00	670.83	200.00
9.000	250.00	823.33	0.00	.38	0.00	591.61	200.00
9.000	145.00	822.77	0.00	.27	0.00	115.04	200.00
9.000	215.00	823.18	0.00	.36	0.00	461.98	200.00
9.000	345.00	823.61	0.00	.35	0.00	826.91	200.00

SUMMARY OF ERRORS

IPLOTS of detailed study

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*************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
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C
T1      HUD-FIA H-4705
T2      PITTSFIELD TWP. FIS
T3      WOOD OUTLET DRAIN

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

     -1.        4.        0.        0.   0.000000     0.00      -1.0       0.    816.600    0.000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

     1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC      .100      .100      .055      .100      .300      0.000     0.000     0.000     0.000     0.000
QT     5.000   270.000   395.000   465.000   640.000   465.000     0.000     0.000     0.000     0.000
ET     0.000     0.000     0.000     0.000     0.000     1.400     5.400    10.400    15.400     0.000

X1     4.800    15.000   582.000   616.000     0.000     0.000     0.000     0.000     0.000     1.000
GR   817.200   565.000   816.700   581.000   813.700   588.000   810.600   600.000   813.400   613.000
GR   816.300   616.000   815.200   630.000   814.000   652.000   814.100   678.000   815.500   708.000
GR   816.600   764.000   816.300   830.000   815.300   975.000   816.100  1300.000   817.100  1435.000

X1     5.200    21.000   756.000   794.000   675.000   675.000   675.000      .850     0.000     1.000
X3     0.000     0.000     0.000     0.000     0.000  1050.000     0.000     0.000     0.000     0.000
X4     4.000   817.500    90.000   816.300   155.000   814.800   200.000   815.200   370.000     0.000
GR   820.000     0.000   814.700   440.000   814.400   482.000   814.600   544.000   814.500   602.000
GR   814.400   642.000   815.500   688.000   816.200   732.000   816.500   756.000   816.000   764.000
GR   811.600   778.000   811.400   780.000   811.500   781.000   811.600   782.000   811.900   783.000
GR   816.400   794.000   815.800   814.000   815.200   870.000   815.200   918.000   816.200   962.000
GR   817.000  1350.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

        ***D/S FACE TEXTILE RD.

X1     5.300     0.000     0.000     0.000   150.000   150.000   150.000     0.000     -.300     0.000
X3     0.000     0.000     0.000     0.000     0.000   900.000     0.000     0.000     0.000     0.000
SB     0.000     2.700     3.000     0.000     3.000     0.000    11.600     0.000   811.100   811.100

X1     5.400     0.000     0.000     0.000    41.000    41.000    41.000     0.000     0.000     1.000
X2     0.000     0.000     1.000   815.100     0.000     0.000     0.000     0.000      .850     0.000
X3     0.000     0.000     0.000     0.000     0.000   900.000     0.000     0.000     0.000     0.000
BT    13.000    45.000   819.000     0.000   180.000   817.300     0.000   395.000   816.500     0.000
BT   460.000   816.700     0.000   700.000   816.800     0.000   755.000   816.900     0.000   868.000
BT   817.100     0.000  1025.000   817.200     0.000  1090.000   817.500     0.000  1240.000   817.600
BT     0.000  1300.000   817.900     0.000  1370.000   818.000     0.000  1550.000   818.700     0.000
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X1	5.800	20.000	1074.000	1114.000	59.000	59.000	59.000	.850	0.000	1.000
X4	5.000	816.600	370.000	815.200	480.000	815.600	620.000	817.500	1400.000	817.700
X4	1610.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	820.700	150.000	815.500	910.000	815.200	960.000	815.300	992.000	816.500	1018.000
GR	816.900	1046.000	816.800	1074.000	813.500	1092.000	812.100	1093.000	811.300	1100.000
GR	812.100	1107.000	812.600	1110.000	813.400	1111.000	814.500	1112.000	816.300	1114.000
GR	815.000	1148.000	815.600	1198.000	816.200	1258.000	816.300	1306.000	823.200	1720.000
X1	5.820	0.000	0.000	0.000	200.000	200.000	200.000	0.000	.200	0.000
X1	5.840	0.000	0.000	0.000	200.000	200.000	200.000	0.000	.200	0.000
X1	5.850	0.000	0.000	0.000	300.000	300.000	300.000	0.000	.300	0.000
QT	5.000	205.000	300.000	350.000	485.000	350.000	0.000	0.000	0.000	0.000
X1	5.860	25.000	678.000	708.000	200.000	200.000	200.000	0.000	-1.100	0.000
GR	823.700	80.000	820.400	150.000	820.000	215.000	819.400	444.000	818.300	476.000
GR	818.200	512.000	818.800	542.000	818.200	580.000	817.800	624.000	817.900	658.000
GR	817.700	678.000	815.000	689.000	814.000	691.000	813.300	692.000	813.300	698.000
GR	818.200	708.000	819.400	726.000	818.600	750.000	817.900	780.000	818.300	824.000
GR	818.200	874.000	818.600	922.000	819.200	1016.000	820.100	1315.000	822.400	1370.000
X1	5.880	0.000	0.000	0.000	500.000	500.000	500.000	0.000	.500	0.000
X1	5.900	0.000	0.000	0.000	500.000	500.000	500.000	0.000	.500	0.000
X1	6.000	0.000	0.000	0.000	50.000	50.000	50.000	0.000	.100	1.000
X1	6.020	0.000	0.000	0.000	200.000	200.000	200.000	0.000	.200	0.000
X1	6.040	0.000	0.000	0.000	350.000	350.000	350.000	0.000	.500	0.000
X1	6.060	0.000	0.000	0.000	370.000	370.000	370.000	0.000	.500	0.000

***D/S FACE 4' DIA. CULVERT

X1	6.080	24.000	824.000	844.000	470.000	470.000	470.000	0.000	-.500	0.000
X3	0.000	0.000	0.000	0.000	0.000	1045.000	0.000	0.000	0.000	0.000
GR	822.900	405.000	820.500	450.000	820.400	618.000	820.200	670.000	820.200	736.000
GR	820.800	790.000	821.800	812.000	822.200	824.000	821.000	830.000	817.500	833.000
GR	816.700	835.000	815.500	836.000	815.600	838.000	816.100	840.000	816.700	841.000
GR	817.500	843.000	821.600	844.000	821.300	862.000	820.500	902.000	820.200	954.000
GR	820.000	1026.000	820.400	1200.000	820.900	1285.000	821.600	1515.000	0.000	0.000
X1	6.090	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	1.000
X2	0.000	0.000	0.000	818.000	0.000	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	1045.000	0.000	0.000	0.000	0.000
BT	2.000	828.000	821.400	0.000	844.000	821.600	0.000	0.000	0.000	0.000

IPLOTS

X1	6.100	C.000	0.000	0.000	18.000	18.000	18.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	818.000	0.000	0.000	1.000	0.000	0.000	0.000
X3	0.000	C.000	C.000	0.000	0.000	1045.000	0.000	0.000	0.000	0.000
X1	6.120	C.000	0.000	0.000	1.000	1.000	1.000	C.000	0.000	0.000
X3	0.000	C.000	0.000	0.000	0.000	1045.000	0.000	0.000	0.000	0.000
X1	6.140	0.000	0.000	C.000	330.000	330.000	330.000	C.000	.300	0.000
X3	0.000	0.000	0.000	0.000	0.000	1045.000	0.000	0.000	0.000	0.000
X1	7.000	0.000	0.000	0.000	360.000	360.000	360.000	0.000	0.000	1.000
X3	0.000	0.000	0.000	0.000	0.000	1045.000	0.000	0.000	0.000	0.000
X1	7.010	C.000	0.000	0.000	180.000	180.000	180.000	C.000	.100	0.000
X3	0.000	0.000	0.000	0.000	0.000	1045.000	0.000	0.000	0.000	0.000
X1	7.020	C.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	1.000
X2	0.000	0.000	0.000	818.900	820.200	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	1045.000	0.000	C.000	0.000	0.000
X1	7.030	0.000	0.000	0.000	18.000	18.000	18.000	C.000	0.000	0.000
X2	0.000	C.000	0.000	818.900	820.200	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	1045.000	0.000	0.000	0.000	0.000
X1	7.040	C.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	1045.000	0.000	0.000	0.000	0.000
X1	7.050	0.000	0.000	0.000	350.000	350.000	350.000	0.000	.300	0.000
X3	0.000	0.000	0.000	0.000	0.000	1045.000	0.000	0.000	0.000	0.000
X1	7.060	C.000	C.000	0.000	350.000	350.000	350.000	C.000	.400	0.000
X3	0.000	0.000	0.000	0.000	0.000	1045.000	0.000	0.000	0.000	0.000
QT	5.000	145.000	215.000	250.000	345.000	250.000	0.000	0.000	0.000	0.000
X1	7.080	0.000	0.000	0.000	350.000	350.000	350.000	0.000	.400	0.000
X3	0.000	C.000	0.000	0.000	0.000	1045.000	0.000	0.000	0.000	0.000
NC	.110	.110	.055	.300	.600	0.000	0.000	0.000	0.000	0.000
X1	8.200	13.000	1366.000	1396.000	150.000	150.000	150.000	0.000	0.000	1.000
X3	0.000	0.000	0.000	850.000	0.000	0.000	C.000	C.000	0.000	0.000
GR	823.000	350.000	821.600	500.000	820.600	800.000	821.200	1100.000	821.000	1310.000
GR	823.200	1366.000	820.500	1370.000	817.500	1376.000	816.900	1377.000	817.500	1379.000
GR	817.600	1382.000	822.800	1388.000	823.800	1396.000	0.000	C.000	0.000	0.000

***D/S FACE MORGAN ROAD

X1	8.210	0.000	0.000	0.000	120.000	120.000	120.000	0.000	.100	0.000
X3	0.000	0.000	0.000	850.000	0.000	0.000	0.000	0.000	0.000	0.000

SB	0.000	2.400	2.500	0.000	3.000	0.000	7.100	0.000	817.000	817.000
X1	8.790	19.000	1380.000	1406.000	20.000	20.000	20.000	0.000	-.100	1.000
X2	0.000	0.000	1.000	820.000	821.700	0.000	0.000	0.000	0.000	0.000
BT	11.000	450.000	823.900	0.000	935.000	823.000	0.000	1240.000	821.200	0.000
BT	1340.000	821.200	0.000	1350.000	822.500	0.000	1375.000	821.700	0.000	1397.000
BT	822.500	0.000	1410.000	822.800	0.000	1440.000	821.300	0.000	1490.000	821.200
BT	0.000	1600.000	824.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	822.500	1020.000	821.800	1105.000	821.300	1300.000	819.000	1323.000	822.400	1360.000
GR	823.000	1380.000	817.800	1390.000	817.800	1393.000	817.200	1394.000	817.800	1395.000
GR	817.800	1400.000	821.700	1406.000	822.000	1422.000	821.200	1450.000	821.200	1554.000
GR	822.800	1596.000	823.800	1642.000	824.800	1684.000	825.400	1728.000	0.000	0.000
X1	8.800	0.000	0.000	0.000	110.000	110.000	110.000	0.000	.100	1.000
NC	.100	.100	.055	.100	.300	0.000	0.000	0.000	0.000	0.000
X1	8.820	0.000	0.000	0.000	200.000	200.000	200.000	0.000	.200	0.000
X1	8.840	0.000	0.000	0.000	250.000	250.000	250.000	0.000	.300	0.000
X1	8.860	0.000	0.000	0.000	250.000	250.000	250.000	0.000	.200	0.000
X1	8.920	23.000	2630.000	2670.000	100.000	100.000	100.000	0.000	-.400	0.000
X3	0.000	0.000	0.000	2100.000	0.000	3400.000	0.000	0.000	0.000	0.000
X4	7.000	820.200	1950.000	820.300	2200.000	821.200	2310.000	822.400	2370.000	822.800
X4	2430.000	822.800	2580.000	823.600	2602.000	0.000	0.000	0.000	0.000	0.000
GR	821.200	1775.000	824.400	2618.000	824.700	2630.000	824.300	2638.000	819.000	2646.000
GR	819.000	2653.000	818.400	2654.000	819.000	2655.000	819.000	2660.000	824.400	2670.000
GR	824.300	2700.000	824.200	2744.000	823.500	2800.000	823.600	2866.000	823.800	2944.000
GR	823.500	3018.000	822.800	3200.000	823.400	3415.000	823.600	3545.000	823.500	3630.000
GR	822.800	3700.000	822.600	3780.000	823.600	3850.000	0.000	0.000	0.000	0.000
X1	8.940	0.000	0.000	0.000	200.000	200.000	200.000	0.000	.200	0.000
X3	0.000	0.000	0.000	2100.000	0.000	3400.000	0.000	0.000	0.000	0.000
X1	9.000	0.000	0.000	0.000	200.000	200.000	200.000	0.000	.200	1.000
X3	0.000	0.000	0.000	2100.000	0.000	3400.000	0.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

*PRCF 1

CCHV= .100 CEHV= .300

*SECNO 4.800

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	ICC	ICCNT	CORAR	TOPWID	ENDST
4.80	6.00	816.60	0.00	816.60	816.62	.02	0.00	0.00	867.20
465.	0.	203.	262.	0.	128.	642.	0.	0.	816.30
0.00	0.00	1.58	.41	.100	.055	.100	0.000	810.60	581.23
.000659	0.	0.	0.	0	0	0	0.00	786.27	1367.50

*SECNO 5.200

3470 ENCROACHMENT STATIONS= .0 892.5 TYPE= 1 TARGET= 1049.999

5.20	5.47	816.87	0.00	0.00	816.87	.00	.25	.00	816.50
465.	333.	70.	61.	921.	89.	233.	16.	12.	816.40
.45	.36	.79	.26	.100	.055	.100	.055	811.40	124.23
.000241	675.	675.	675.	2	0	0	0.00	768.27	892.50

*SECNO 5.300

3280 CROSS SECTION 5.30 EXTENDED .20 FEET

3470 ENCROACHMENT STATIONS= .0 900.0 TYPE= 1 TARGET= 899.999

***D/S FACE TEXTILE RD.

5.30	5.80	816.90	0.00	0.00	816.90	.00	.03	.00	816.20
465.	326.	88.	50.	986.	117.	177.	20.	15.	816.10
.56	.33	.75	.28	.100	.055	.100	.055	811.10	232.34
.000184	150.	150.	150.	2	0	0	0.00	667.66	900.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.70	3.00	0.00	3.00	0.00	11.60	0.00	811.10	811.10

*SECNO 5.400

3280 CROSS SECTION 5.40 EXTENDED .51 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
884.27	816.90	0.00	437.	32.	12.	-2433.	0.00	816.50

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3470 ENCROACHMENT STATIONS=          .0      900.0  TYPE=      1  TARGET=      899.995
     5.40       6.11     817.21       0.00       0.00     817.21        .00        .31       0.00     816.20
     465.       328.       83.         54.      1153.       129.       210.        21.        15.      816.10
      .59        .28        .65         .25        .100       .055       .100       .055     811.10     206.48
  .000119         41.        41.         41.          0          0         10       0.00     693.52     900.00


8930,RDST NOT ON GR CARD      44.99
8930,RDST NOT ON GR CARD     159.75
8930,RDST NOT ON GR CARD     397.75
8930,RDST NOT ON GR CARD     601.75
8930,RDST NOT ON GR CARD     648.50
8930,RDST NOT ON GR CARD     744.55
8930,RDST NOT ON GR CARD     878.00
8930,RDST NOT ON GR CARD     933.25
8930,RDST NOT ON GR CARD    1060.75
8930,RDST NOT ON GR CARD    1171.25
*SECNO 5.800
   SECNO      DEPTH      CWSEL      CRITS      WSELK      EG         HV         HL         CLOSS    BANK ELEV
   Q          QLOB       QCH        QROB       ALOB       ACH        ARCB       VOL        TWA    LEFT/RIGHT
   TIME       VLCB       VCH        VRCB       XNL        XNCH       XNR        WTN        ELMIN        SSTA
   SLOPE      XLOBL      XLCH       XLCBR      ITRIAL     ICC        ICONT      CORAR      TOPWID       ENDST

     5.80       5.52     817.22       0.00       0.00     817.22        .00        .01        .00     816.80
     465.       273.       111.         81.        687.       123.       328.        23.        16.      816.30
      .63        .31        .90         .25        .100       .055       .100       .055     811.30     336.75
  .000225         59.        59.         59.          0          0          0       0.00    1000.77    1337.52


*SECNO 5.820
     5.82       5.77     817.27       0.00       0.00     817.28        .01        .05        .00     817.00
     465.       269.       121.         75.        794.       118.       273.        29.        21.      816.50
      .74        .34       1.03         .28        .100       .055       .100       .055     811.50     345.22
  .000308         200.       200.        200.          1          0          0       0.00     957.13    1302.35


*SECNO 5.840
     5.84       5.64     817.34       0.00       0.00     817.35        .01        .07        .00     817.20
     465.       265.       130.         70.        717.       113.       231.        34.        25.      816.70
      .83        .37       1.15         .30        .100       .055       .100       .055     811.70     352.21
  .000405         200.       200.        200.          1          0          0       0.00     921.11    1273.32


*SECNO 5.850

3265 DIVIDED FLOW

     5.85       5.48     817.48       0.00       0.00     817.49        .01        .14        .00     817.50
     465.       258.       143.         65.        632.       108.       188.        41.        31.      817.00
      .95        .41       1.32         .34        .100       .055       .100       .055     812.00     360.34
  .000568         300.       300.        300.          2          0          0       0.00     848.21    1239.58


*SECNO 5.860

3265 DIVIDED FLOW

     5.86       5.41     817.61       0.00       0.00     817.69        .08        .18        .02     816.60
     350.        56.       262.         32.        112.       101.        81.        44.        34.      817.10
      .98        .50       2.58         .39        .100       .055       .100       .055     812.20     464.11
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.001957	200.	200.	200.	2	0	0	0.00	433.52	939.06

*SECNC 5.880

3265 DIVIDED FLOW

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALCB	ACH	ARCB	VOL	TWA	LEFT/RIGHT
TIME	VLCB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICCNT	CORAR	TOPWID	ENDST
5.88	5.67	818.37	0.00	0.00	818.41	.04	.72	.00	817.10
350.	75.	223.	52.	168.	109.	140.	48.	40.	817.60
1.08	.45	2.04	.37	.100	.055	.100	.055	812.70	456.55
.001104	500.	500.	500.	2	0	0	0.00	503.75	979.73

*SECNC 5.900

3265 DIVIDED FLOW

5.90	5.70	818.90	0.00	0.00	818.94	.04	.53	.00	817.60
350.	77.	218.	55.	176.	110.	149.	53.	45.	818.10
1.18	.44	1.98	.37	.100	.055	.100	.055	813.20	455.57
.001026	500.	500.	500.	2	0	0	0.00	511.56	985.03

*SECNO 6.000

3265 DIVIDED FLOW

6.00	5.66	818.96	0.00	0.00	819.00	.04	.05	.00	817.70
350.	74.	224.	52.	166.	109.	137.	53.	46.	818.20
1.19	.45	2.06	.38	.100	.055	.100	.055	813.30	456.87
.001131	50.	50.	50.	0	0	0	0.00	501.22	978.01

*SECNO 6.020

3265 DIVIDED FLOW

6.02	5.68	819.18	0.00	0.00	819.22	.04	.22	.00	817.90
350.	75.	222.	53.	169.	109.	141.	55.	48.	818.40
1.23	.44	2.03	.37	.100	.055	.100	.055	813.50	456.49
.001099	200.	200.	200.	0	0	0	0.00	504.25	980.06

*SECNO 6.040

3265 DIVIDED FLOW

6.04	5.59	819.59	0.00	0.00	819.65	.05	.42	.00	818.40
350.	69.	235.	46.	150.	107.	120.	58.	52.	818.90
1.29	.46	2.20	.38	.100	.055	.100	.055	814.00	458.99
.001327	350.	350.	350.	1	0	0	0.00	484.39	966.58

*SECNO 6.060

3265 DIVIDED FLOW

SECNC	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLCB	QCH	QROB	ALCB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
6.06	5.59	820.09	0.00	C.CO	820.14	.05	.49	.00	818.90
350.	69.	235.	46.	150.	107.	120.	62.	56.	819.40
1.35	.46	2.20	.38	.100	.055	.100	.055	814.50	458.98
.001326	370.	370.	370.	2	0	0	0.00	484.50	966.65

*SECNO 6.080

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= .0 1045.0 TYPE= 1 TARGET= 1044.999

***D/S FACE 4' DIA. CULVERT

6.08	5.65	820.75	0.00	C.CO	820.77	.02	.64	.00	821.70
350.	149.	110.	92.	299.	56.	166.	66.	62.	821.10
1.48	.50	1.96	.55	.100	.055	.100	.055	815.10	436.03
.001379	470.	470.	470.	1	0	0	0.00	559.14	1045.00

*SECNO 6.090

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRC= 2 MIN ELTRD= 821.40 MAX ELLC= 0.00

3470 ENCROACHMENT STATIONS= .0 1045.C TYPE= 1 TARGET= 1044.999

6.09	5.67	820.77	0.00	0.00	820.78	.01	.00	.00	821.70
350.	217.	0.	133.	305.	0.	169.	66.	62.	821.10
1.48	.71	0.00	.79	.100	.055	.100	.055	815.10	435.71
.002748	1.	1.	1.	1	0	0	-56.25	560.78	1045.00

8930,RDST NOT ON GR CARD 827.99
*SECNO 6.100

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRC= 2 MIN ELTRD= 821.40 MAX ELLC= C.00

3470 ENCROACHMENT STATIONS= .0 1045.C TYPE= 1 TARGET= 1044.999

6.10	5.72	820.82	0.00	0.00	820.82	.01	.05	.00	821.70
350.	218.	0.	132.	322.	0.	177.	67.	62.	821.10
1.49	.68	0.00	.74	.100	.055	.100	.055	815.10	434.87
.002348	18.	18.	18.	0	0	0	-56.94	565.13	1045.00

*SECNC 6.120

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= .0 1045.0 TYPE= 1 TARGET= 1044.999

6.12	5.71	820.81	0.00	0.00	820.83	.02	.00	.00	821.70
350.	155.	101.	94.	326.	57.	180.	67.	62.	821.10
1.49	.48	1.77	.52	.100	.055	.100	.055	815.10	434.65
.C01137	1.	1.	1.	0	0	0	0.00	566.40	1045.00

*SECNO 6.140

3265 DIVIDED FLOW

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALCB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= .0 1045.0 TYPE= 1 TARGET= 1044.999

6.14	5.77	821.17	0.00	0.00	821.18	.01	.35	.00	822.00
350.	158.	97.	95.	343.	58.	188.	71.	67.	821.40
1.60	.46	1.67	.50	.100	.055	.100	.055	815.40	433.80
.001012	330.	330.	330.	2	0	0	0.00	571.23	1045.00

*SECNO 7.000

3265 DIVIDED FLOW

3280 CROSS SECTION 7.00 EXTENDED .03 FEET

3470 ENCROACHMENT STATIONS= .0 1045.0 TYPE= 1 TARGET= 1044.999

7.00	6.03	821.43	0.00	0.00	821.44	.01	.26	.00	822.00
350.	174.	76.	100.	444.	62.	240.	76.	71.	821.40
1.78	.39	1.22	.42	.100	.055	.100	.055	815.40	428.75
.000537	360.	360.	360.	2	0	0	0.00	597.75	1045.00

*SECNC 7.010

3265 DIVIDED FLOW

3280 CROSS SECTION 7.01 EXTENDED .03 FEET

3470 ENCROACHMENT STATIONS= .0 1045.C TYPE= 1 TARGET= 1044.999

7.01	6.03	821.53	0.00	0.00	821.54	.01	.10	.00	822.10
35C.	174.	76.	100.	443.	62.	240.	80.	74.	821.50
1.86	.39	1.22	.42	.100	.055	.100	.055	815.50	428.79
.000539	180.	180.	180.	2	0	0	0.00	597.65	1045.00

*SECNC 7.020

3265 DIVIDED FLOW

3280 CROSS SECTION 7.02 EXTENDED .03 FEET

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 820.20 MAX ELLC= 818.90

3470 ENCROACHMENT STATIONS= .0 1045.0 TYPE= 1 TARGET= 1044.999

7.02	6.03	821.53	0.00	0.00	821.54	.00	.00	.00	822.10
350.	208.	36.	105.	431.	47.	218.	80.	74.	821.50
1.86	.48	.78	.48	.100	.055	.100	.055	815.50	428.78
.000848	1.	1.	1.	0	0	0	-49.78	597.68	1045.00

*SECNO 7.030

3265 DIVIDED FLOW

3280 CROSS SECTION 7.03 EXTENDED .05 FEET

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 820.20 MAX ELLC= 818.50

3470 ENCROACHMENT STATIONS= .0 1045.0 TYPE= 1 TARGET= 1044.999

7.03	6.05	821.55	0.00	0.00	821.55	.00	.01	.00	822.10
350.	208.	36.	106.	437.	47.	221.	80.	74.	821.50
1.87	.48	.77	.48	.100	.055	.100	.055	815.50	428.49
.000814	18.	18.	18.	0	0	0	-49.78	598.39	1045.00

*SECNO 7.040

3265 DIVIDED FLOW

3280 CROSS SECTION 7.04 EXTENDED .05 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	ARCB	VOL	TWA	LEFT/RIGHT
TIME	VLCB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	ICC	ICCNT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= .0 1045.0 TYPE= 1 TARGET= 1044.999

7.04	6.05	821.55	0.00	0.00	821.56	.01	.00	.00	822.10
350.	175.	75.	100.	450.	63.	244.	80.	74.	821.50
1.87	.39	1.20	.41	.100	.055	.100	.055	815.50	428.42
.000516	1.	1.	1.	0	0	0	0.00	598.55	1045.00

*SECNO 7.050

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= .0 1045.0 TYPE= 1 TARGET= 1044.999

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     7.05       5.95    821.75       0.00       C.CC    821.76        .01        .20        .00    822.40
     350.       170.       81.        99.       412.       61.       224.       86.        79.     821.8C
     2.03        .41      1.34        .44       .1CC       .055      .100       .055    815.80    430.33
  .000648       350.       350.       350.         2          0         0       0.00    590.85   1045.00

*SECNO 7.060

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=          .0     1045.0  TYPE=       1  TARGET=     1044.995
     7.06       5.81    822.01       0.00       C.00    822.02        .01        .27        .00    822.80
     350.       162.       92.        96.       361.       59.       197.       91.        84.     822.20
     2.16        .45      1.58        .49       .100       .055      .100       .055    816.20    432.9C
  .000899       350.       350.       350.         2          0         0       0.00    576.27   1045.00

*SECNO 7.080

3265 DIVIDED FLCW


3470 ENCROACHMENT STATIONS=          .0     1045.0  TYPE=       1  TARGET=     1C44.999
     7.C8       5.69    822.29       0.00       0.00    822.30        .01        .27        .00    823.20
     250.       109.       75.        66.       313.       57.       173.       96.        88.     822.60
     2.31        .35      1.33        .38       .100       .055      .1CC       .055    816.60    435.33
  .000637       35C.       350.       350.         0          0         0       0.00    562.75   1045.00


CCHV=     .300 CEHV=     .600

*SECNO 8.200

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=        850.0     1396.0  TYPE=       1  TARGET=     -850.CCC
     8.20       5.46    822.36       0.CO       C.CO    822.36        .00        .07        .00    823.20
     250.       187.       63.         C.        64C.       66.         0.       98.        90.  100000.00
     2.40        .29       .96       0.00       .110       .055      .110       .055    816.9C    85C.00
  .000325       150.       150.       150.         2          0         0       0.00    514.82   1387.49

*SECNC 8.210

3265 DIVIDED FLOW

   SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS     BANK ELEV
   Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA     LEFT/RIGHT
   TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN        SSTA
   SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID       ENDST


3470 ENCROACHMENT STATIONS=        850.0     1396.C  TYPE=       1  TARGET=     -850.000

        ***D/S FACE MORGAN ROAD

     8.21       5.40    822.40       0.00       0.00    822.40        .01        .04        .0C    823.30
     250.       185.       65.         0.       615.       65.         0.      100.        91.     823.90
     2.46        .30      1.01       0.00       .110       .055      .110       .055    817.00    85C.00
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.000362	120.	120.	120.	1	0	0	0.00	513.40	1387.43

SPECIAL BRIDGE

SB	XK	XKCR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.40	2.50	0.00	3.00	0.00	7.10	0.00	817.00	817.00

*SECNC 8.790

3265 DIVIDED FLOW

3280 CROSS SECTION 8.79 EXTENDED .03 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
868.60	822.40	0.00	242.	6.	7.	9.	820.00	821.70
8.79	5.32	822.42	0.00	0.00	822.43	.01	.03	0.00	822.90
250.	102.	93.	55.	346.	86.	198.	100.	92.	821.60
2.47	.30	1.08	.28	.110	.055	.110	.055	817.10	1020.00
.000350	20.	20.	20.	0	0	11	0.00	552.35	1588.92

8930,RDST NOT ON GR CARD 1240.00
8930,RDST NOT ON GR CARD 1340.00
8930,RDST NOT ON GR CARD 1375.00
8930,RDST NOT ON GR CARD 1410.00
8930,RDST NOT ON GR CARD 1440.00
8930,RDST NOT ON GR CARD 1490.00
8930,RDST NOT ON GR CARD 1600.00
8930,RDST NOT ON GR CARD 1600.00
*SECNO 8.800

3265 DIVIDED FLOW

8.80	5.26	822.46	0.00	0.00	822.47	.01	.04	.00	823.00
250.	100.	97.	54.	323.	84.	186.	102.	93.	821.70
2.52	.31	1.14	.29	.110	.055	.110	.055	817.20	1024.63
.000404	110.	110.	110.	0	0	0	0.00	543.52	1587.12

CCHV= .100 CEHV= .300
*SECNC 8.820

3265 DIVIDED FLOW

8.82	5.15	822.55	0.00	0.00	822.56	.01	.09	.00	823.20
250.	99.	98.	52.	284.	81.	165.	104.	95.	821.90
2.60	.35	1.20	.32	.100	.055	.100	.055	817.40	1038.91
.000463	200.	200.	200.	1	0	0	0.00	523.26	1584.04

*SECNC 8.840

3265 DIVIDED FLOW

8.84	4.98	822.68	0.00	0.00	822.70	.01	.14	.00	823.50
250.	94.	109.	47.	234.	78.	137.	107.	98.	822.20
2.69	.40	1.41	.35	.100	.055	.100	.055	817.70	1058.43
.000666	250.	250.	250.	2	0	0	0.00	497.47	1579.82

*SECNO 8.860

3265 DIVIDED FLOW

SECNO	DEPTH	CWSEL	CRITS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLCB	QCH	QRCB	ALOB	ACH	ARCB	VOL	TWA	LEFT/RIGHT
TIME	VLCB	VCH	VRCB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
8.86	4.95	822.85	0.00	0.00	822.87	.02	.17	.00	823.70
250.	92.	111.	46.	226.	77.	132.	109.	101.	822.40
2.77	.41	1.45	.35	.100	.055	.100	.055	817.90	1061.90
.000712	250.	250.	250.	2	0	0	0.00	492.88	1579.07

*SECNO 8.920

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 2100.0 3400.0 TYPE= 1 TARGET= 1300.000

8.92	4.90	822.90	0.00	0.00	822.91	.00	.04	.00	824.30
250.	165.	78.	7.	516.	92.	82.	111.	103.	824.00
2.83	.32	.84	.09	.100	.055	.100	.055	818.00	1950.00
.000228	100.	100.	100.	1	0	0	0.00	829.57	3384.24

*SECNO 8.940

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 2100.0 3400.0 TYPE= 1 TARGET= 1300.000

8.94	4.75	822.95	0.00	0.00	823.04	.08	.10	.02	824.50
250.	23.	219.	8.	68.	88.	38.	113.	106.	824.20
2.85	.34	2.49	.21	.100	.055	.100	.055	818.20	2100.00
.002089	200.	200.	200.	2	0	0	0.00	434.82	3326.13

*SECNO 9.000

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 2100.0 3400.0 TYPE= 1 TARGET= 1300.000

9.00	4.93	823.33	0.00	0.00	823.38	.05	.34	.00	824.70
250.	35.	195.	20.	106.	93.	87.	114.	108.	824.40
2.88	.33	2.11	.23	.100	.055	.100	.055	818.40	2100.00
.001429	200.	200.	200.	2	0	0	0.00	591.61	3389.60

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*************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
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d/s run
thru channel
- convergence

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T1      HUD-FIA  F-4705
T2      TOWNSHIP OF PITTSFIELD FIS
T3      WOOD OUTLET DRAIN

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      -1.        2.        0.        0.  0.000000      0.00      -1.0        0.   808.590     0.000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

      1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC       .090      .090      .050      .100      .300     0.000     0.000     0.000     0.000     0.000
QT      5.000   465.000   465.000   465.000   465.000   465.000     0.000     0.000     0.000     0.000

X1      1.000    12.000  1856.000  1892.000     0.000     0.000     0.000     0.000     0.000     0.000
GR    810.400  1856.000   808.000  1866.000   805.000  1872.000   803.600  1877.000   805.000  1880.000
GR    808.700  1884.000   809.500  1892.000   808.700  1904.000   808.200  1926.000   807.800  2125.000
GR    809.100  2260.000   811.700  2400.000     0.000     0.000     0.000     0.000     0.000     0.000

X1      1.100     0.000     0.000     0.000   500.000   500.000   500.000     0.000      .600     0.000

X1      1.200     0.000     0.000     0.000   500.000   500.000   500.000     0.000      .700     0.000
NC       .075      .075     0.000      .450      .900     0.000     0.000     0.000     0.000     0.000
QT      5.000    50.000    75.000   100.000   125.000   150.000     0.000     0.000     0.000     0.000

X1      1.800    12.000   520.000   536.000   500.000   500.000   500.000     0.000     -.700     0.000
GR    812.000   484.000   811.800   500.000   811.200   508.000   809.800   520.000   807.000   522.000
GR    806.500   525.000   806.300   527.000   806.500   528.000   807.000   530.000   810.000   536.000
GR    810.600   542.000   810.800   562.000     0.000     0.000     0.000     0.000     0.000     0.000

X1      2.200     0.000     0.000     0.000   550.000   550.000   550.000     0.000      .700     0.000

X1      2.280     6.000   668.100   672.300   188.000   188.000   188.000     0.000     0.000     0.000
X3     10.000     0.000     0.000     0.000     0.000     0.000     0.000   813.300   813.300     0.000
GR    812.900   650.000   808.700   668.100   806.700   668.200   806.700   672.200   808.700   672.300
GR    812.900   700.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
SB      0.000     2.300     2.600    50.000     4.000     0.000    12.500     0.000   806.700   806.700

X1      2.320     0.000     0.000     0.000    24.000    24.000    24.000     0.000     0.000     0.000
X2      0.000     0.000     1.000   810.700   813.300     0.000     0.000     0.000     0.000     0.000
X3     10.000     0.000     0.000     0.000     0.000     0.000     0.000   813.300   813.300     0.000
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X1	2.800	7.000	1341.000	1360.000	63.000	63.000	63.000	0.000	0.000	0.000
GR	811.100	1335.000	809.800	1341.000	807.700	1345.000	807.200	1348.000	807.700	1355.000
GR	809.600	1360.000	811.400	1380.000	811.500	1410.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.100	.300	0.000	0.000	0.000	0.000	0.000
X1	2.900	11.000	1460.000	1489.000	300.000	300.000	300.000	0.000	-1.700	0.000
GR	815.200	1460.000	812.500	1470.000	810.100	1472.000	809.600	1479.000	810.100	1485.000
GR	812.500	1489.000	814.000	1491.000	813.400	1498.000	812.400	1575.000	812.400	1677.000
GR	814.300	1735.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	3.000	0.000	0.000	0.000	1100.000	1100.000	1100.000	0.000	1.700	0.000
X1	4.100	7.000	410.000	437.100	425.000	425.000	425.000	0.000	-.400	0.000
GR	815.000	380.000	814.500	410.000	812.700	420.000	810.900	421.000	810.300	428.000
GR	811.000	437.000	812.400	437.100	0.000	0.000	0.000	0.000	0.000	0.000
X1	4.200	0.000	0.000	0.000	450.000	450.000	450.000	0.000	.400	0.000
NC	0.000	0.000	0.000	.450	.900	0.000	0.000	0.000	0.000	0.000
X1	4.220	6.000	752.100	756.300	50.000	50.000	50.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	818.300	818.300	0.000
GR	817.700	730.000	811.500	752.100	810.500	752.200	810.500	756.200	811.500	756.300
GR	817.700	780.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	2.400	2.600	50.000	4.000	0.000	10.100	0.000	810.500	810.500
X1	4.320	0.000	0.000	0.000	24.000	24.000	24.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	813.600	818.300	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	818.300	818.300	0.000
NC	0.000	0.000	0.000	.100	.300	0.000	0.000	0.000	0.000	0.000
X1	4.800	6.000	581.000	616.000	88.000	88.000	88.000	0.000	0.000	0.000
GR	817.200	565.000	816.700	581.000	813.700	588.000	810.600	600.000	813.400	613.000
GR	816.300	616.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CONVERGENCE (SUMMARY) D/S THRU CHANNEL

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*PROF 1

CCHV=    .100 CEHV=    .300
*SECNO 1.000

3265 DIVIDED FLOW

   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        CLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALCB      ACH       ARCB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID       ENDST

     1.00      4.99    808.59      0.00    808.59    808.88      .29      0.00      0.00    810.40
     465.        C.      294.      171.        0.       55.      153.        0.        0.     809.50
     0.00      0.00      5.40      1.11      .090      .050      .090     0.000    803.60   1863.54
  .010437        C.        0.        0.         0         0         0      0.00    318.54   2207.04


*SECNC 1.100
     1.10      5.95    810.15      0.00      0.00    810.17      .02      1.26       .03    811.00
     465.        0.      135.      330.        C.       80.      492.        4.        4.     810.10
      .14      0.00      1.70       .67      .090      .050      .090      .050    804.20   1855.55
  .001102       5CC.      500.      500.         7         0         0      0.00    424.63   2284.18


*SECNC 1.200

3265 DIVIDED FLOW

     1.20      5.85    810.75      0.00      0.00    810.78      .02       .61       .CC    811.70
     465.        0.      142.      323.        C.       77.      455.       11.        9.     810.80
      .27      0.00      1.86       .71      .090      .050      .090      .050    804.90   1859.94
  .001345       50C.      500.      50C.         4         0         0      0.00    418.00   2279.08


CCHV=    .450 CEHV=    .900
*SECNO 1.800
3280 CROSS SECTICN      1.80 EXTENDED      1.05 FEET

     1.80      5.55    811.15      0.00      0.CC    811.16      .00       .38       .01    809.10
      50.        3.       41.        6.       19.       69.       32.       15.       12.     8C9.30
      .55       .18       .59       .19      .075      .050      .075      .050    805.60    495.68
  .000067       500.      500.      500.         2         0         0      0.00     66.32    562.00


*SECNO 2.200
3280 CROSS SECTICN      2.20 EXTENDED      .41 FEET

   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLCSS    BANK ELEV
   Q         QLOB      QCH       QRCB      ALCB      ACH       ARCB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
   SLCPE     XLCBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID       ENDST

     2.20      4.91    811.21      0.CC      C.CC    811.21      .01       .05       .00    809.80
      50.        2.       46.        3.        8.       59.       16.       16.       13.     810.00
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HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
ERROR CORR - 01
MODIFICATION - 50,51,52
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

WOOD OUTLET DRAIN

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
1.000	0.00	0.00	0.00	803.60	465.00	808.59	0.00	808.88	104.37	5.40	207.71	45.52
1.000	0.00	0.00	0.00	803.60	465.00	808.59	0.00	808.88	104.37	5.40	207.71	45.52
1.000	0.00	0.00	0.00	803.60	465.00	808.59	0.00	808.88	104.37	5.40	207.71	45.52
1.000	0.00	0.00	0.00	803.60	465.00	808.59	0.00	808.88	104.37	5.40	207.71	45.52
1.000	0.00	0.00	0.00	803.60	465.00	808.59	0.00	808.88	104.37	5.40	207.71	45.52
1.100	500.00	0.00	0.00	804.20	465.00	810.15	0.00	810.17	11.02	1.70	571.31	140.05
1.100	500.00	0.00	0.00	804.20	465.00	810.15	0.00	810.17	11.02	1.70	571.31	140.05
1.100	500.00	0.00	0.00	804.20	465.00	810.15	0.00	810.17	11.02	1.70	571.31	140.05
1.100	500.00	0.00	0.00	804.20	465.00	810.15	0.00	810.17	11.02	1.70	571.31	140.05
1.100	500.00	0.00	0.00	804.20	465.00	810.15	0.00	810.17	11.02	1.70	571.31	140.05
1.200	500.00	0.00	0.00	804.90	465.00	810.75	0.00	810.78	13.45	1.86	531.38	126.79
1.200	500.00	0.00	0.00	804.90	465.00	810.75	0.00	810.78	13.45	1.86	531.38	126.79
1.200	500.00	0.00	0.00	804.90	465.00	810.75	0.00	810.78	13.45	1.86	531.38	126.79
1.200	500.00	0.00	0.00	804.90	465.00	810.75	0.00	810.78	13.45	1.86	531.38	126.79
1.200	500.00	0.00	0.00	804.90	465.00	810.75	0.00	810.78	13.45	1.86	531.38	126.79
1.800	500.00	0.00	0.00	805.60	50.00	811.15	0.00	811.16	.67	.59	120.51	61.14
1.800	500.00	0.00	0.00	805.60	75.00	811.18	0.00	811.19	1.46	.87	122.24	62.05
1.800	500.00	0.00	0.00	805.60	100.00	811.20	0.00	811.22	2.53	1.15	123.93	62.91
1.800	500.00	0.00	0.00	805.60	125.00	811.23	0.00	811.26	3.83	1.42	125.90	63.91
1.800	500.00	0.00	0.00	805.60	150.00	811.27	0.00	811.30	5.30	1.69	128.39	65.14
2.200	550.00	0.00	0.00	806.30	50.00	811.21	0.00	811.21	1.46	.78	82.56	41.38
2.200	550.00	0.00	0.00	806.30	75.00	811.29	0.00	811.31	2.96	1.13	87.12	43.62
2.200	550.00	0.00	0.00	806.30	100.00	811.39	0.00	811.42	4.66	1.44	92.55	46.35
2.200	550.00	0.00	0.00	806.30	125.00	811.50	0.00	811.54	6.36	1.71	98.85	49.58
2.200	550.00	0.00	0.00	806.30	150.00	811.62	0.00	811.67	7.93	1.95	105.90	53.27
2.280	188.00	0.00	0.00	806.70	50.00	811.27	0.00	811.38	35.88	2.63	19.00	8.35
2.280	188.00	0.00	0.00	806.70	75.00	811.42	0.00	811.65	73.74	3.82	19.64	8.73
2.280	188.00	0.00	0.00	806.70	100.00	811.60	0.00	811.97	118.63	4.91	20.36	9.18
2.280	188.00	0.00	0.00	806.70	125.00	811.78	0.00	812.32	167.28	5.91	21.14	9.66
2.280	188.00	0.00	0.00	806.70	150.00	811.97	0.00	812.70	217.97	6.84	21.93	10.16

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
2.320	24.00	813.30	810.70	806.70	50.00	811.76	0.00	811.84	27.15	2.38	21.03	9.60
2.320	24.00	813.30	810.70	806.70	75.00	812.56	0.00	812.71	40.78	3.07	24.42	11.74
2.320	24.00	813.30	810.70	806.70	100.00	813.47	0.00	813.47	2.37	1.06	150.73	64.94
2.320	24.00	813.30	810.70	806.70	125.00	813.70	0.00	813.71	2.98	1.22	162.11	72.36
2.320	24.00	813.30	810.70	806.70	150.00	813.87	0.00	813.89	3.66	1.37	171.01	78.37
2.800	63.00	0.00	0.00	807.20	50.00	811.89	0.00	811.89	.68	.59	109.56	60.44
2.800	63.00	0.00	0.00	807.20	75.00	812.78	0.00	812.79	.66	.66	149.64	92.19
2.800	63.00	0.00	0.00	807.20	100.00	813.48	0.00	813.48	.69	.74	180.95	120.69
2.800	63.00	0.00	0.00	807.20	125.00	813.71	0.00	813.72	.91	.87	191.44	130.89
2.800	63.00	0.00	0.00	807.20	150.00	813.89	0.00	813.90	1.17	1.01	199.50	138.94
2.900	300.00	0.00	0.00	807.90	50.00	811.91	0.00	811.91	.43	.37	266.15	75.99
2.900	300.00	0.00	0.00	807.90	75.00	812.79	0.00	812.80	.19	.27	497.69	172.60
2.900	300.00	0.00	0.00	807.90	100.00	813.49	0.00	813.49	.13	.24	688.12	279.06
2.900	300.00	0.00	0.00	807.90	125.00	813.73	0.00	813.73	.15	.27	753.45	321.58
2.900	300.00	0.00	0.00	807.90	150.00	813.91	0.00	813.91	.18	.30	804.05	356.22
3.000	1100.00	0.00	0.00	809.60	50.00	812.02	0.00	812.06	12.91	1.52	32.83	13.92
3.000	1100.00	0.00	0.00	809.60	75.00	812.84	0.00	812.86	6.20	1.25	103.98	30.13
3.000	1100.00	0.00	0.00	809.60	100.00	813.52	0.00	813.53	2.07	.80	246.96	69.51
3.000	1100.00	0.00	0.00	809.60	125.00	813.77	0.00	813.77	1.94	.80	304.78	89.78
3.000	1100.00	0.00	0.00	809.60	150.00	813.95	0.00	813.96	1.92	.81	353.03	108.27
4.100	425.00	0.00	0.00	809.90	50.00	812.49	0.00	812.52	9.32	1.33	37.53	16.38
4.100	425.00	0.00	0.00	809.90	75.00	813.16	0.00	813.19	9.80	1.47	50.88	23.95
4.100	425.00	0.00	0.00	809.90	100.00	813.67	0.00	813.71	10.25	1.59	62.70	31.24
4.100	425.00	0.00	0.00	809.90	125.00	813.90	0.00	813.95	12.68	1.82	68.70	35.11
4.100	425.00	0.00	0.00	809.90	150.00	814.09	0.00	814.16	15.25	2.04	73.68	38.41
4.200	450.00	0.00	0.00	810.30	50.00	812.91	0.00	812.94	9.13	1.32	37.84	16.55
4.200	450.00	0.00	0.00	810.30	75.00	813.59	0.00	813.63	9.45	1.45	51.63	24.40
4.200	450.00	0.00	0.00	810.30	100.00	814.12	0.00	814.16	9.75	1.56	63.95	32.03
4.200	450.00	0.00	0.00	810.30	125.00	814.44	0.00	814.49	11.11	1.73	72.33	37.51
4.200	450.00	0.00	0.00	810.30	150.00	814.71	0.00	814.76	11.94	1.88	80.76	43.41
4.220	50.00	0.00	0.00	810.50	50.00	813.00	0.00	813.36	170.27	4.82	10.38	3.83
4.220	50.00	0.00	0.00	810.50	75.00	813.67	0.00	814.17	191.81	5.67	13.23	5.42
4.220	50.00	0.00	0.00	810.50	100.00	814.19	0.00	814.84	223.00	6.50	15.40	6.70
4.220	50.00	0.00	0.00	810.50	125.00	814.51	0.00	815.38	276.98	7.47	16.73	7.51
4.220	50.00	0.00	0.00	810.50	150.00	814.77	0.00	815.87	334.18	8.40	17.85	8.21
4.320	24.00	818.30	813.60	810.50	50.00	813.46	0.00	813.72	103.72	4.05	12.34	4.91
4.320	24.00	818.30	813.60	810.50	75.00	815.53	0.00	815.73	53.71	3.57	21.03	10.23
4.320	24.00	818.30	813.60	810.50	100.00	817.67	0.00	817.84	37.73	3.33	30.02	16.28
4.320	24.00	818.30	813.60	810.50	125.00	818.58	0.00	818.58	1.11	.99	216.26	118.41
4.320	24.00	818.30	813.60	810.50	150.00	818.79	0.00	818.80	1.39	1.13	226.93	127.15
4.800	88.00	0.00	0.00	810.60	50.00	813.88	0.00	813.89	6.88	1.10	45.25	19.06
4.800	88.00	0.00	0.00	810.60	75.00	815.78	0.00	815.79	1.51	.75	100.50	61.07
4.800	88.00	0.00	0.00	810.60	100.00	817.87	0.00	817.87	.50	.57	187.32	140.88
4.800	88.00	0.00	0.00	810.60	125.00	818.58	0.00	818.59	.49	.61	223.82	177.94
4.800	88.00	0.00	0.00	810.60	150.00	818.80	0.00	818.80	.63	.70	234.70	189.67

WCCD OUTLET DRAIN

SUMMARY PRINTOLT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
1.000	465.00	808.59	0.00	0.00	0.00	318.54	0.00
1.000	465.00	808.59	0.00	0.00	0.00	318.54	0.00
1.000	465.00	808.59	0.00	0.00	0.00	318.54	0.00
1.000	465.00	808.59	0.00	0.00	0.00	318.54	0.00
1.000	465.00	808.59	0.00	0.00	0.00	318.54	0.00
1.100	465.00	810.15	0.00	1.56	0.00	424.63	500.00
1.100	465.00	810.15	0.00	1.56	0.00	424.63	500.00
1.100	465.00	810.15	0.00	1.56	0.00	424.63	500.00
1.100	465.00	810.15	0.00	1.56	0.00	424.63	500.00
1.100	465.00	810.15	0.00	1.56	0.00	424.63	500.00
1.200	465.00	810.75	0.00	.60	0.00	418.00	500.00
1.200	465.00	810.75	0.00	.60	0.00	418.00	500.00
1.200	465.00	810.75	0.00	.60	0.00	418.00	500.00
1.200	465.00	810.75	0.00	.60	0.00	418.00	500.00
1.200	465.00	810.75	0.00	.60	0.00	418.00	500.00
1.800	50.00	811.15	0.00	.40	0.00	66.32	500.00
1.800	75.00	811.18	0.00	.43	0.00	68.37	500.00
1.800	100.00	811.20	0.00	.45	0.00	70.32	500.00
1.800	125.00	811.23	0.00	.48	0.00	72.53	500.00
1.800	150.00	811.27	0.00	.51	0.00	75.23	500.00
2.200	50.00	811.21	0.00	.05	0.00	54.08	550.00
2.200	75.00	811.29	0.00	.11	0.00	55.19	550.00
2.200	100.00	811.39	0.00	.18	0.00	56.49	550.00
2.200	125.00	811.50	0.00	.27	0.00	57.95	550.00
2.200	150.00	811.62	0.00	.35	0.00	59.55	550.00
2.280	50.00	811.27	0.00	.07	0.00	4.20	188.00
2.280	75.00	811.42	0.00	.13	0.00	4.20	188.00
2.280	100.00	811.60	0.00	.21	0.00	4.20	188.00
2.280	125.00	811.78	0.00	.28	0.00	4.20	188.00
2.280	150.00	811.97	0.00	.35	0.00	4.20	188.00
2.320	50.00	811.76	0.00	.48	0.00	4.20	24.00
2.320	75.00	812.56	0.00	1.14	0.00	4.20	24.00
2.320	100.00	813.47	0.00	1.87	0.00	50.00	24.00
2.320	125.00	813.70	0.00	1.91	0.00	50.00	24.00
2.320	150.00	813.87	0.00	1.90	0.00	50.00	24.00
2.800	50.00	811.89	0.00	.13	0.00	45.00	63.00
2.800	75.00	812.78	0.00	.22	0.00	45.00	63.00
2.800	100.00	813.48	0.00	.01	0.00	45.00	63.00
2.800	125.00	813.71	0.00	.01	0.00	45.00	63.00
2.800	150.00	813.89	0.00	.02	0.00	45.00	63.00
2.900	50.00	811.91	0.00	.02	0.00	242.90	300.00
2.900	75.00	812.79	0.00	.02	0.00	272.39	300.00
2.900	100.00	813.49	0.00	.01	0.00	274.96	300.00
2.900	125.00	813.73	0.00	.02	0.00	275.00	300.00

2.900	150.00	813.91	0.00	.02	0.00	275.00	300.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
3.000	50.00	812.02	0.00	.11	0.00	17.80	1100.00
3.000	75.00	812.84	0.00	.05	0.00	170.21	1100.00
3.000	100.00	813.52	0.00	.03	0.00	239.14	1100.00
3.000	125.00	813.77	0.00	.04	0.00	250.30	1100.00
3.000	150.00	813.95	0.00	.04	0.00	259.25	1100.00
4.100	50.00	812.49	0.00	.47	0.00	18.16	425.00
4.100	75.00	813.16	0.00	.32	0.00	21.87	425.00
4.100	100.00	813.67	0.00	.14	0.00	24.69	425.00
4.100	125.00	813.90	0.00	.14	0.00	26.01	425.00
4.100	150.00	814.09	0.00	.14	0.00	27.05	425.00
4.200	50.00	812.91	0.00	.42	0.00	18.26	450.00
4.200	75.00	813.59	0.00	.43	0.00	22.06	450.00
4.200	100.00	814.12	0.00	.45	0.00	24.97	450.00
4.200	125.00	814.44	0.00	.54	0.00	26.77	450.00
4.200	150.00	814.71	0.00	.62	0.00	39.41	450.00
4.220	50.00	813.00	0.00	.09	0.00	4.20	50.00
4.220	75.00	813.67	0.00	.08	0.00	4.20	50.00
4.220	100.00	814.19	0.00	.07	0.00	4.20	50.00
4.220	125.00	814.51	0.00	.07	0.00	4.20	50.00
4.220	150.00	814.77	0.00	.06	0.00	4.20	50.00
4.320	50.00	813.46	0.00	.47	0.00	4.20	24.00
4.320	75.00	815.53	0.00	1.86	0.00	4.20	24.00
4.320	100.00	817.67	0.00	3.48	0.00	4.20	24.00
4.320	125.00	818.58	0.00	4.06	0.00	50.00	24.00
4.320	150.00	818.79	0.00	4.02	0.00	50.00	24.00
4.800	50.00	813.88	0.00	.41	0.00	25.90	88.00
4.800	75.00	815.78	0.00	.25	0.00	32.30	88.00
4.800	100.00	817.87	0.00	.20	0.00	51.00	88.00
4.800	125.00	818.58	0.00	.01	0.00	51.00	88.00
4.800	150.00	818.80	0.00	.01	0.00	51.00	88.00

SUMMARY OF ERRORS

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  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

WOOD OUTLET DRAIN

SUMMARY PRINTOUT TABLE 150

SECNO	XLOB	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
1.000	0.00	0.00	0.00	803.60	465.00	810.35	0.00	810.36	2.71	.96	930.02	282.56
1.000	0.00	0.00	0.00	803.60	465.00	810.35	0.00	810.36	2.71	.96	930.02	282.56
1.000	0.00	0.00	0.00	803.60	465.00	810.35	0.00	810.36	2.71	.96	930.02	282.56
1.000	0.00	0.00	0.00	803.60	465.00	810.35	0.00	810.36	2.71	.96	930.02	282.56
1.000	0.00	0.00	0.00	803.60	465.00	810.35	0.00	810.36	2.71	.96	930.02	282.56
1.100	500.00	0.00	0.00	804.20	465.00	810.53	0.00	810.54	5.30	1.26	737.86	202.03
1.100	500.00	0.00	0.00	804.20	465.00	810.53	0.00	810.54	5.30	1.26	737.86	202.03
1.100	500.00	0.00	0.00	804.20	465.00	810.53	0.00	810.54	5.30	1.26	737.86	202.03
1.100	500.00	0.00	0.00	804.20	465.00	810.53	0.00	810.54	5.30	1.26	737.86	202.03
1.100	500.00	0.00	0.00	804.20	465.00	810.53	0.00	810.54	5.30	1.26	737.86	202.03
1.200	500.00	0.00	0.00	804.90	465.00	810.88	0.00	810.90	10.23	1.65	586.50	145.37
1.200	500.00	0.00	0.00	804.90	465.00	810.88	0.00	810.90	10.23	1.65	586.50	145.37
1.200	500.00	0.00	0.00	804.90	465.00	810.88	0.00	810.90	10.23	1.65	586.50	145.37
1.200	500.00	0.00	0.00	804.90	465.00	810.88	0.00	810.90	10.23	1.65	586.50	145.37
1.200	500.00	0.00	0.00	804.90	465.00	810.88	0.00	810.90	10.23	1.65	586.50	145.37
1.800	500.00	0.00	0.00	805.60	50.00	811.21	0.00	811.21	.63	.58	124.22	63.06
1.800	500.00	0.00	0.00	805.60	75.00	811.23	0.00	811.24	1.38	.86	125.69	63.80
1.800	500.00	0.00	0.00	805.60	100.00	811.25	0.00	811.26	2.40	1.13	127.08	64.50
1.800	500.00	0.00	0.00	805.60	125.00	811.28	0.00	811.30	3.65	1.40	128.96	65.42
1.800	500.00	0.00	0.00	805.60	150.00	811.30	0.00	811.34	5.08	1.66	131.35	66.58
2.200	550.00	0.00	0.00	806.30	50.00	811.26	0.00	811.27	1.37	.76	85.33	42.74
2.200	550.00	0.00	0.00	806.30	75.00	811.33	0.00	811.35	2.80	1.11	89.53	44.82
2.200	550.00	0.00	0.00	806.30	100.00	811.42	0.00	811.45	4.46	1.42	94.58	47.38
2.200	550.00	0.00	0.00	806.30	125.00	811.53	0.00	811.57	6.11	1.69	100.77	50.57
2.200	550.00	0.00	0.00	806.30	150.00	811.64	0.00	811.69	7.69	1.93	107.43	54.08
2.280	188.00	0.00	0.00	806.70	50.00	811.32	0.00	811.42	34.88	2.60	19.20	8.47
2.280	188.00	0.00	0.00	806.70	75.00	811.46	0.00	811.68	72.20	3.79	19.79	8.83
2.280	188.00	0.00	0.00	806.70	100.00	811.62	0.00	811.99	116.88	4.88	20.48	9.25
2.280	188.00	0.00	0.00	806.70	125.00	811.80	0.00	812.34	165.37	5.89	21.23	9.72
2.280	188.00	0.00	0.00	806.70	150.00	811.98	0.00	812.71	216.32	6.82	22.00	10.20

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	ICK*S	VCH	AREA	.01K
2.320	24.00	813.30	810.70	806.70	50.00	811.80	0.00	811.89	26.44	2.35	21.24	9.72
2.320	24.00	813.30	810.70	806.70	75.00	812.60	0.00	812.74	40.07	3.05	24.58	11.85
2.320	24.00	813.30	810.70	806.70	100.00	813.47	0.00	813.48	2.36	1.06	151.03	65.13
2.320	24.00	813.30	810.70	806.70	125.00	813.70	0.00	813.71	2.97	1.22	162.29	72.48
2.320	24.00	813.30	810.70	806.70	150.00	813.87	0.00	813.89	3.66	1.37	171.11	78.44
2.800	63.00	0.00	0.00	807.20	50.00	811.93	0.00	811.94	.65	.58	111.61	61.92
2.800	63.00	0.00	0.00	807.20	75.00	812.81	0.00	812.82	.64	.65	151.21	93.55
2.800	63.00	0.00	0.00	807.20	100.00	813.48	0.00	813.49	.68	.74	181.22	120.95
2.800	63.00	0.00	0.00	807.20	125.00	813.71	0.00	813.72	.91	.87	191.60	131.05
2.800	63.00	0.00	0.00	807.20	150.00	813.89	0.00	813.90	1.16	1.01	199.59	139.03
2.900	300.00	0.00	0.00	807.90	50.00	811.95	0.00	811.95	.39	.35	277.02	79.77
2.900	300.00	0.00	0.00	807.90	75.00	812.83	0.00	812.83	.18	.27	507.10	177.32
2.900	300.00	0.00	0.00	807.90	100.00	813.50	0.00	813.50	.13	.24	689.76	280.07
2.900	300.00	0.00	0.00	807.90	125.00	813.73	0.00	813.73	.15	.27	754.38	322.20
2.900	300.00	0.00	0.00	807.90	150.00	813.91	0.00	813.91	.18	.30	804.59	356.60
3.000	1100.00	0.00	0.00	809.60	50.00	812.05	0.00	812.09	12.24	1.50	33.43	14.29
3.000	1100.00	0.00	0.00	809.60	75.00	812.87	0.00	812.89	5.70	1.20	109.63	31.42
3.000	1100.00	0.00	0.00	809.60	100.00	813.53	0.00	813.53	2.04	.79	248.33	69.96
3.000	1100.00	0.00	0.00	809.60	125.00	813.77	0.00	813.77	1.93	.79	305.59	90.08
3.000	1100.00	0.00	0.00	809.60	150.00	813.96	0.00	813.96	1.91	.81	353.52	108.47
4.100	425.00	0.00	0.00	809.90	50.00	812.51	0.00	812.54	9.13	1.32	37.84	16.55
4.100	425.00	0.00	0.00	809.90	75.00	813.17	0.00	813.21	9.65	1.47	51.19	24.14
4.100	425.00	0.00	0.00	809.90	100.00	813.67	0.00	813.71	10.21	1.59	62.80	31.30
4.100	425.00	0.00	0.00	809.90	125.00	813.91	0.00	813.96	12.65	1.82	68.76	35.15
4.100	425.00	0.00	0.00	809.90	150.00	814.09	0.00	814.16	15.23	2.03	73.72	38.44
4.200	450.00	0.00	0.00	810.30	50.00	812.92	0.00	812.95	9.03	1.32	38.01	16.64
4.200	450.00	0.00	0.00	810.30	75.00	813.60	0.00	813.63	9.36	1.45	51.82	24.51
4.200	450.00	0.00	0.00	810.30	100.00	814.12	0.00	814.16	9.72	1.56	64.02	32.07
4.200	450.00	0.00	0.00	810.30	125.00	814.44	0.00	814.49	11.09	1.73	72.37	37.53
4.200	450.00	0.00	0.00	810.30	150.00	814.71	0.00	814.76	11.93	1.88	80.78	43.42
4.220	50.00	0.00	0.00	810.50	50.00	813.00	0.00	813.36	168.58	4.80	10.42	3.85
4.220	50.00	0.00	0.00	810.50	75.00	813.68	0.00	814.18	190.47	5.66	13.26	5.43
4.220	50.00	0.00	0.00	810.50	100.00	814.19	0.00	814.85	222.62	6.49	15.40	6.70
4.220	50.00	0.00	0.00	810.50	125.00	814.52	0.00	815.38	276.74	7.47	16.74	7.51
4.220	50.00	0.00	0.00	810.50	150.00	814.77	0.00	815.87	334.04	8.40	17.85	8.21
4.320	24.00	818.30	813.60	810.50	50.00	813.47	0.00	813.72	103.33	4.05	12.36	4.92
4.320	24.00	818.30	813.60	810.50	75.00	815.54	0.00	815.74	53.47	3.56	21.06	10.26
4.320	24.00	818.30	813.60	810.50	100.00	817.67	0.00	817.84	37.70	3.33	30.03	16.29
4.320	24.00	818.30	813.60	810.50	125.00	818.58	0.00	818.58	1.11	.99	216.27	118.41
4.320	24.00	818.30	813.60	810.50	150.00	818.79	0.00	818.80	1.39	1.13	226.93	127.15
4.800	88.00	0.00	0.00	810.60	50.00	813.88	0.00	813.90	6.85	1.10	45.32	19.10
4.800	88.00	0.00	0.00	810.60	75.00	815.78	0.00	815.79	1.50	.74	100.74	61.28
4.800	88.00	0.00	0.00	810.60	100.00	817.87	0.00	817.88	.50	.57	187.43	140.99
4.800	88.00	0.00	0.00	810.60	125.00	818.58	0.00	818.59	.49	.61	223.83	177.94
4.800	88.00	0.00	0.00	810.60	150.00	818.80	0.00	818.80	.63	.70	234.70	189.68

WOOD CUTLET DRAIN

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
1.000	465.00	810.35	0.00	0.00	0.00	471.10	0.00
1.000	465.00	810.35	0.00	0.00	0.00	471.10	0.00
1.000	465.00	810.35	0.00	0.00	0.00	471.10	0.00
1.000	465.00	810.35	0.00	0.00	0.00	471.10	0.00
1.000	465.00	810.35	0.00	0.00	0.00	471.10	0.00
1.100	465.00	810.53	0.00	.18	0.00	446.81	500.00
1.100	465.00	810.53	0.00	.18	0.00	446.81	500.00
1.100	465.00	810.53	0.00	.18	0.00	446.81	500.00
1.100	465.00	810.53	0.00	.18	0.00	446.81	500.00
1.100	465.00	810.53	0.00	.18	0.00	446.81	500.00
1.200	465.00	810.88	0.00	.35	0.00	426.70	500.00
1.200	465.00	810.88	0.00	.35	0.00	426.70	500.00
1.200	465.00	810.88	0.00	.35	0.00	426.70	500.00
1.200	465.00	810.88	0.00	.35	0.00	426.70	500.00
1.200	465.00	810.88	0.00	.35	0.00	426.70	500.00
1.800	50.00	811.21	0.00	.32	0.00	70.65	500.00
1.800	75.00	811.23	0.00	.34	0.00	72.29	500.00
1.800	100.00	811.25	0.00	.36	0.00	73.82	500.00
1.800	125.00	811.28	0.00	.39	0.00	75.82	500.00
1.800	150.00	811.30	0.00	.42	0.00	78.00	500.00
2.200	50.00	811.26	0.00	.05	0.00	54.76	550.00
2.200	75.00	811.33	0.00	.10	0.00	55.77	550.00
2.200	100.00	811.42	0.00	.17	0.00	56.96	550.00
2.200	125.00	811.53	0.00	.25	0.00	58.39	550.00
2.200	150.00	811.64	0.00	.34	0.00	59.90	550.00
2.280	50.00	811.32	0.00	.06	0.00	4.20	188.00
2.280	75.00	811.46	0.00	.13	0.00	4.20	188.00
2.280	100.00	811.62	0.00	.20	0.00	4.20	188.00
2.280	125.00	811.80	0.00	.27	0.00	4.20	188.00
2.280	150.00	811.98	0.00	.34	0.00	4.20	188.00
2.320	50.00	811.80	0.00	.49	0.00	4.20	24.00
2.320	75.00	812.60	0.00	1.14	0.00	4.20	24.00
2.320	100.00	813.47	0.00	1.85	0.00	50.00	24.00
2.320	125.00	813.70	0.00	1.90	0.00	50.00	24.00
2.320	150.00	813.87	0.00	1.89	0.00	50.00	24.00
2.800	50.00	811.93	0.00	.13	0.00	45.00	63.00
2.800	75.00	812.81	0.00	.21	0.00	45.00	63.00
2.800	100.00	813.48	0.00	.01	0.00	45.00	63.00
2.800	125.00	813.71	0.00	.01	0.00	45.00	63.00
2.800	150.00	813.89	0.00	.02	0.00	45.00	63.00
2.900	50.00	811.95	0.00	.02	0.00	245.01	300.00
2.900	75.00	812.83	0.00	.01	0.00	272.51	300.00
2.900	100.00	813.50	0.00	.01	0.00	274.99	300.00
2.900	125.00	813.73	0.00	.02	0.00	275.00	300.00

2.900	150.00	813.91	0.00	.02	0.00	275.00	300.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
3.000	50.00	812.05	0.00	.10	0.00	17.89	1100.00
3.000	75.00	812.87	0.00	.04	0.00	173.92	1100.00
3.000	100.00	813.53	0.00	.03	0.00	239.41	1100.00
3.000	125.00	813.77	0.00	.04	0.00	250.45	1100.00
3.000	150.00	813.96	0.00	.04	0.00	259.33	1100.00
4.100	50.00	812.51	0.00	.46	0.00	18.26	425.00
4.100	75.00	813.17	0.00	.30	0.00	21.95	425.00
4.100	100.00	813.67	0.00	.14	0.00	24.71	425.00
4.100	125.00	813.91	0.00	.14	0.00	26.02	425.00
4.100	150.00	814.09	0.00	.14	0.00	27.06	425.00
4.200	50.00	812.92	0.00	.41	0.00	18.31	450.00
4.200	75.00	813.60	0.00	.43	0.00	22.11	450.00
4.200	100.00	814.12	0.00	.45	0.00	24.99	450.00
4.200	125.00	814.44	0.00	.54	0.00	26.78	450.00
4.200	150.00	814.71	0.00	.61	0.00	39.46	450.00
4.220	50.00	813.00	0.00	.09	0.00	4.20	50.00
4.220	75.00	813.68	0.00	.08	0.00	4.20	50.00
4.220	100.00	814.19	0.00	.07	0.00	4.20	50.00
4.220	125.00	814.52	0.00	.07	0.00	4.20	50.00
4.220	150.00	814.77	0.00	.06	0.00	4.20	50.00
4.320	50.00	813.47	0.00	.46	0.00	4.20	24.00
4.320	75.00	815.54	0.00	1.86	0.00	4.20	24.00
4.320	100.00	817.67	0.00	3.48	0.00	4.20	24.00
4.320	125.00	818.58	0.00	4.06	0.00	50.00	24.00
4.320	150.00	818.79	0.00	4.02	0.00	50.00	24.00
4.800	50.00	813.88	0.00	.41	0.00	25.91	88.00
4.800	75.00	815.78	0.00	.25	0.00	32.32	88.00
4.800	100.00	817.87	0.00	.20	0.00	51.00	88.00
4.800	125.00	818.58	0.00	.01	0.00	51.00	88.00
4.800	150.00	818.80	0.00	.01	0.00	51.00	88.00

SUMMARY OF ERRORS

dls run
thru o'bank
confluence

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**************************************************
_ HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
**************************************************

T1      HUD-FIA H-4705
T2      PITTSFIELD TWP. FIS
T3      WOOD OUTLET DRAIN OVERBANK FLOW - 100 YEAR

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
      -1.       2.        0.        0.  0.000000      0.00      -1.0       0.   810.350     0.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
     1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC      .090      .090      .050      .100      .300     0.000     0.000     0.000     0.000     0.000
QT     5.000   465.000   465.000   465.000   465.000   465.000     0.000     0.000     0.000     0.000

X1     1.000    12.000  1856.000  1892.000     0.000     0.000     0.000     0.000     0.000     0.000
GR   810.400  1856.000   808.000  1866.000   805.000  1872.000   803.600  1877.000   805.000  1880.000
GR   808.700  1884.000   809.500  1892.000   803.700  1904.000   808.200  1926.000   807.800  2125.000
GR   809.100  2260.000   811.700  2400.000     0.000     0.000     0.000     0.000     0.000     0.000

X1     1.100     0.000     0.000     0.000   500.000   500.000   500.000     0.000      .600     0.000

X1     1.200     0.000     0.000     0.000   500.000   500.000   500.000     0.000      .700     0.000
NC      .120      .120      .120      .200      .600     0.000     0.000     0.000     0.000     0.000
QT     5.000   200.000   250.000   300.000   350.000   400.000     0.000     0.000     0.000     0.000

X1     2.200     5.000   562.000  1400.000  1050.000  1050.000  1050.000     0.000     0.000     0.000
GR   810.800   562.000   809.800   578.000   810.200   865.000   810.900   895.000   813.700  1400.000

X1     3.000     8.000  1742.000  2765.000  1560.000  1560.000  1560.000     0.000     0.000     0.000
GR   814.400  1742.000   811.400  1785.000   811.800  1855.000   811.700  1895.000   812.200  1915.000
GR   812.300  2240.000   812.500  2330.000   814.900  2765.000     0.000     0.000     0.000     0.000

X1     3.200     4.000     0.000  1300.000   270.000   270.000   270.000     0.000     0.000     0.000
GR   816.000     0.000   814.000    50.000   814.000   800.000   815.000  1300.000     0.000     0.000

X1     3.400     4.000     0.000  1200.000   340.000   340.000   340.000     0.000     0.000     0.000
GR   816.000     0.000   814.500    50.000   814.800   700.000   815.000  1200.000     0.000     0.000

X1     4.800    10.000   616.000  1435.000   420.000   420.000   420.000     0.000     0.000     0.000
GR   816.300   616.000   815.200   630.000   814.000   652.000   814.100   678.000   815.500   708.000
GR   816.600   764.000   816.300   830.000   815.300   975.000   815.100  1300.000   817.100  1435.000
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EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CONVERGENCE
D/S THRU OVERBANK

*PROF 1

CCHV= .100 CEHV= .300
*SEC NO 1.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	FWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
1.00	6.75	810.35	0.00	810.35	810.36	.01	0.00	0.00	810.40
465.	0.	103.	362.	0.	107.	823.	0.	0.	809.50
0.00	0.00	.96	.44	.090	.050	.090	0.000	803.60	1856.21
.000271	0.	0.	0.	0	0	0	0.00	471.10	2327.31

*SEC NO 1.100

1.10	6.33	810.53	0.00	0.00	810.54	.01	.18	.00	811.00
465.	0.	116.	349.	0.	92.	645.	10.	5.	810.10
.19	0.00	1.26	.54	.090	.050	.090	.050	804.20	1857.95
.000530	500.	500.	500.	2	0	0	0.00	446.81	2304.76

*SEC NO 1.200

1.20	5.98	810.83	0.00	0.00	810.90	.02	.36	.00	811.70
465.	0.	133.	332.	0.	81.	506.	17.	10.	810.80
.34	0.00	1.65	.66	.090	.050	.090	.050	804.90	1859.40
.001023	500.	500.	500.	2	0	0	0.00	426.70	2286.10

CCHV= .200 CEHV= .600
*SEC NO 2.200
3280 CROSS SECTION 2.20 EXTENDED .94 FEET

2.20	1.94	811.74	0.00	0.00	811.74	.00	.83	.00	810.80
200.	0.	200.	0.	0.	520.	0.	32.	21.	813.70
1.25	0.00	.32	0.00	.120	.120	.120	.086	809.80	562.00
.000488	1050.	1050.	1050.	2	0	0	0.00	483.99	1045.99

*SEC NO 3.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	FWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
3.00	1.58	812.98	0.00	0.00	812.98	.00	1.24	.00	814.40
200.	0.	200.	0.	0.	497.	0.	52.	42.	814.90
2.32	0.00	.40	0.00	.120	.120	.120	.100	811.40	1762.31
.001531	1560.	1560.	1560.	2	0	0	0.00	655.24	2417.55

*SEC NO 3.200

3.20	.23	814.23	0.00	0.00	814.25	.02	1.26	.01	816.00
200.	0.	200.	0.	0.	171.	0.	54.	46.	816.00
2.39	0.00	1.17	0.00	.120	.120	.120	.102	814.00	44.51
.070361	270.	270.	270.	3	0	0	0.00	810.44	854.95

****
HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
ERROR CORR - 01
MODIFICATION - 50,51,52
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

WOOD OUTLET DRAIN OVERBA

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	1.000	0.00	0.00	0.00	803.60	465.00	810.35	0.00	810.36	2.71	.96	930.02	282.56
	1.000	0.00	0.00	0.00	803.60	465.00	810.35	0.00	810.36	2.71	.96	930.02	282.56
	1.000	0.00	0.00	0.00	803.60	465.00	810.35	0.00	810.36	2.71	.96	930.02	282.56
	1.000	0.00	0.00	0.00	803.60	465.00	810.35	0.00	810.36	2.71	.96	930.02	282.56
	1.000	0.00	0.00	0.00	803.60	465.00	810.35	0.00	810.36	2.71	.96	930.02	282.56
	1.100	500.00	0.00	0.00	804.20	465.00	810.53	0.00	810.54	5.30	1.26	737.86	202.03
	1.100	500.00	0.00	0.00	804.20	465.00	810.53	0.00	810.54	5.30	1.26	737.86	202.03
	1.100	500.00	0.00	0.00	804.20	465.00	810.53	0.00	810.54	5.30	1.26	737.86	202.03
	1.100	500.00	0.00	0.00	804.20	465.00	810.53	0.00	810.54	5.30	1.26	737.86	202.03
	1.100	500.00	0.00	0.00	804.20	465.00	810.53	0.00	810.54	5.30	1.26	737.86	202.03
	1.200	500.00	0.00	0.00	804.90	465.00	810.88	0.00	810.90	10.23	1.65	586.50	145.37
	1.200	500.00	0.00	0.00	804.90	465.00	810.88	0.00	810.90	10.23	1.65	586.50	145.37
	1.200	500.00	0.00	0.00	804.90	465.00	810.88	0.00	810.90	10.23	1.65	586.50	145.37
	1.200	500.00	0.00	0.00	804.90	465.00	810.88	0.00	810.90	10.23	1.65	586.50	145.37
	1.200	500.00	0.00	0.00	804.90	465.00	810.88	0.00	810.90	10.23	1.65	586.50	145.37
	2.200	1050.00	0.00	0.00	809.80	200.00	811.74	0.00	811.74	4.88	.32	620.39	90.53
	2.200	1050.00	0.00	0.00	809.80	250.00	811.81	0.00	811.81	6.55	.38	656.36	97.67
	2.200	1050.00	0.00	0.00	809.80	300.00	811.88	0.00	811.89	8.18	.43	692.18	104.91
	2.200	1050.00	0.00	0.00	809.80	350.00	811.95	0.00	811.95	9.72	.48	727.90	112.26
	2.200	1050.00	0.00	0.00	809.80	400.00	812.02	0.00	812.02	11.16	.52	763.60	119.73
	3.000	1560.00	0.00	0.00	811.40	200.00	812.98	0.00	812.98	15.31	.40	496.60	51.11
	3.000	1560.00	0.00	0.00	811.40	250.00	813.17	0.00	813.17	12.12	.40	622.38	71.82
	3.000	1560.00	0.00	0.00	811.40	300.00	813.33	0.00	813.33	10.61	.41	735.42	92.10
	3.000	1560.00	0.00	0.00	811.40	350.00	813.47	0.00	813.47	9.75	.42	840.05	112.11
	3.000	1560.00	0.00	0.00	811.40	400.00	813.60	0.00	813.60	9.20	.43	938.48	131.91
	3.200	270.00	0.00	0.00	814.00	200.00	814.23	0.00	814.25	703.61	1.17	171.48	7.54
*	3.200	270.00	0.00	0.00	814.00	250.00	814.22	0.00	814.26	1046.82	1.44	174.10	7.73
	3.200	270.00	0.00	0.00	814.00	300.00	814.26	0.00	814.29	963.49	1.50	199.97	9.66
	3.200	270.00	0.00	0.00	814.00	350.00	814.30	0.00	814.34	731.12	1.46	239.81	12.94
	3.200	270.00	0.00	0.00	814.00	400.00	814.36	0.00	814.39	530.87	1.39	288.16	17.36

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
3.400	340.00	0.00	0.00	814.50	200.00	815.46	0.00	815.46	11.27	.32	633.55	59.57
3.400	340.00	0.00	0.00	814.50	250.00	815.55	0.00	815.56	11.63	.34	730.67	73.30
3.400	340.00	0.00	0.00	814.50	300.00	815.64	0.00	815.64	12.25	.37	814.37	85.73
3.400	340.00	0.00	0.00	814.50	350.00	815.71	0.00	815.72	12.95	.39	889.04	97.25
3.400	340.00	0.00	0.00	814.50	400.00	815.77	0.00	815.78	13.67	.42	957.66	108.17
4.800	420.00	0.00	0.00	814.00	200.00	816.21	0.00	815.22	32.82	.52	381.30	34.91
4.800	420.00	0.00	0.00	814.00	250.00	816.32	0.00	816.32	32.69	.56	447.29	43.72
4.800	420.00	0.00	0.00	814.00	300.00	816.42	0.00	816.42	31.47	.58	518.29	53.47
4.800	420.00	0.00	0.00	814.00	350.00	816.52	0.00	816.52	31.02	.60	583.50	62.84
4.800	420.00	0.00	0.00	814.00	400.00	816.60	0.00	816.61	31.03	.62	643.45	71.81

WOOD OUTLET DRAIN OVERBA

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	KLCH
	1.000	465.00	810.35	0.00	0.00	0.00	471.10	0.00
	1.000	465.00	810.35	0.00	0.00	0.00	471.10	0.00
	1.000	465.00	810.35	0.00	0.00	0.00	471.10	0.00
	1.000	465.00	810.35	0.00	0.00	0.00	471.10	0.00
	1.000	465.00	810.35	0.00	0.00	0.00	471.10	0.00
	1.100	465.00	810.53	0.00	.18	0.00	446.81	500.00
	1.100	465.00	810.53	0.00	.18	0.00	446.81	500.00
	1.100	465.00	810.53	0.00	.18	0.00	446.81	500.00
	1.100	465.00	810.53	0.00	.18	0.00	446.81	500.00
	1.100	465.00	810.53	0.00	.18	0.00	446.81	500.00
	1.200	465.00	810.88	0.00	.35	0.00	426.70	500.00
	1.200	465.00	810.88	0.00	.35	0.00	426.70	500.00
	1.200	465.00	810.88	0.00	.35	0.00	426.70	500.00
	1.200	465.00	810.88	0.00	.35	0.00	426.70	500.00
	1.200	465.00	810.88	0.00	.35	0.00	426.70	500.00
	2.200	200.00	811.74	0.00	.85	0.00	483.99	1050.00
	2.200	250.00	811.81	0.00	.93	0.00	497.22	1050.00
	2.200	300.00	811.88	0.00	1.00	0.00	510.05	1050.00
	2.200	350.00	811.95	0.00	1.07	0.00	522.52	1050.00
	2.200	400.00	812.02	0.00	1.13	0.00	534.70	1050.00
	3.000	200.00	812.98	0.00	1.24	0.00	655.24	1560.00
	3.000	250.00	813.17	0.00	1.36	0.00	691.76	1560.00
	3.000	300.00	813.33	0.00	1.45	0.00	723.02	1560.00
	3.000	350.00	813.47	0.00	1.52	0.00	750.79	1560.00
	3.000	400.00	813.60	0.00	1.58	0.00	776.00	1560.00
	3.200	200.00	814.23	0.00	1.25	0.00	810.44	270.00
*	3.200	250.00	814.22	0.00	1.05	0.00	811.33	270.00
	3.200	300.00	814.26	0.00	.93	0.00	820.05	270.00
	3.200	350.00	814.30	0.00	.83	0.00	833.30	270.00
	3.200	400.00	814.36	0.00	.76	0.00	849.11	270.00
	3.400	200.00	815.46	0.00	1.23	0.00	957.44	340.00
	3.400	250.00	815.55	0.00	1.33	0.00	1002.05	340.00
	3.400	300.00	815.64	0.00	1.38	0.00	1038.96	340.00
	3.400	350.00	815.71	0.00	1.41	0.00	1070.81	340.00
	3.400	400.00	815.77	0.00	1.41	0.00	1099.27	340.00
	4.800	200.00	816.21	0.00	.75	0.00	599.66	420.00
	4.800	250.00	816.32	0.00	.77	0.00	637.54	420.00
	4.800	300.00	816.42	0.00	.78	0.00	681.25	420.00
	4.800	350.00	816.52	0.00	.80	0.00	719.05	420.00
	4.800	400.00	816.60	0.00	.83	0.00	751.71	420.00

SUMMARY OF ERRORS

CAUTION SECNO= 3.200 PROFILE= 2 SLOPE TOO STEEP

dls run thru o'bank - convergence

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  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
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T1      HUD-FIA H-4705
T2      PITTSFIELD TWP. FIS
T3      WOOD OUTLET DRAIN OVERBANK FLOW - 100 YEAR

J1  ICHECK     INQ       NINV      IDIR      STR1      METRIC    HVINS     Q         WSEL      FQ

      -1.        2.        0.        0.  0.000000      0.00      -1.0        0.   808.590     0.000

J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

     1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC       .090      .090      .050      .100      .300     0.000     0.000     0.000     0.000     0.000
QT      5.000   465.000   465.000   465.000   465.000   465.000     0.000     0.000     0.000     0.000

X1      1.000    12.000  1856.000  1892.000     0.000     0.000     0.000     0.000     0.000     0.000
GR    810.400  1856.000   808.000  1866.000   805.000  1872.000   803.600  1877.000   805.000  1880.000
GR    808.700  1884.000   809.500  1892.000   803.700  1904.000   808.200  1926.000   807.800  2125.000
GR    809.100  2250.000   811.700  2400.000     0.000     0.000     0.000     0.000     0.000     0.000

X1      1.100     0.000     0.000     0.000   500.000   500.000   500.000     0.000      .600     0.000

X1      1.200     0.000     0.000     0.000   500.000   500.000   500.000     0.000      .700     0.000
NC       .120      .120      .120      .200      .600     0.000     0.000     0.000     0.000     0.000
QT      5.000   200.000   250.000   300.000   350.000   400.000     0.000     0.000     0.000     0.000

X1      2.200     5.000   562.000  1400.000  1050.000  1050.000  1050.000     0.000     0.000     0.000
GR    810.800   562.000   809.800   578.000   810.200   865.000   810.900   895.000   813.700  1400.000

X1      3.000     3.000  1742.000  2765.000  1560.000  1560.000  1560.000     0.000     0.000     0.000
GR    814.400  1742.000   811.400  1785.000   811.800  1855.000   811.700  1895.000   812.200  1915.000
GR    812.300  2240.000   812.500  2330.000   814.900  2765.000     0.000     0.000     0.000     0.000

X1      3.200     4.000     0.000  1300.000   270.000   270.000   270.000     0.000     0.000     0.000
GR    816.000     0.000   814.000    50.000   814.000   800.000   816.000  1300.000     0.000     0.000

X1      3.400     4.000     0.000  1200.000   340.000   340.000   340.000     0.000     0.000     0.000
GR    816.000     0.000   814.500    50.000   814.800   700.000   816.000  1200.000     0.000     0.000

X1      4.800    10.000   616.000  1435.000   420.000   420.000   420.000     0.000     0.000     0.000
GR    816.300   616.000   815.200   630.000   814.000   652.000   814.100   678.000   815.500   709.000
GR    816.600   754.000   816.300   830.000   815.300   975.000   815.100  1300.000   817.100  1435.000
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EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
ERROR CORR - 01
MODIFICATION - 50,51,52
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

WOOD OUTLET DRAIN OVERBA

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
1.000	0.00	0.00	0.00	803.60	465.00	808.59	0.00	808.88	104.37	5.40	207.71	45.52
1.000	0.00	0.00	0.00	803.60	465.00	808.59	0.00	808.88	104.37	5.40	207.71	45.52
1.000	0.00	0.00	0.00	803.60	465.00	808.59	0.00	808.88	104.37	5.40	207.71	45.52
1.000	0.00	0.00	0.00	803.60	465.00	808.59	0.00	808.88	104.37	5.40	207.71	45.52
1.000	0.00	0.00	0.00	803.60	465.00	808.59	0.00	808.88	104.37	5.40	207.71	45.52
1.100	500.00	0.00	0.00	804.20	465.00	810.15	0.00	810.17	11.02	1.70	571.31	140.05
1.100	500.00	0.00	0.00	804.20	465.00	810.15	0.00	810.17	11.02	1.70	571.31	140.05
1.100	500.00	0.00	0.00	804.20	465.00	810.15	0.00	810.17	11.02	1.70	571.31	140.05
1.100	500.00	0.00	0.00	804.20	465.00	810.15	0.00	810.17	11.02	1.70	571.31	140.05
1.100	500.00	0.00	0.00	804.20	465.00	810.15	0.00	810.17	11.02	1.70	571.31	140.05
1.200	500.00	0.00	0.00	804.90	465.00	810.75	0.00	810.78	13.45	1.86	531.38	126.79
1.200	500.00	0.00	0.00	804.90	465.00	810.75	0.00	810.78	13.45	1.86	531.38	126.79
1.200	500.00	0.00	0.00	804.90	465.00	810.75	0.00	810.78	13.45	1.86	531.38	126.79
1.200	500.00	0.00	0.00	804.90	465.00	810.75	0.00	810.78	13.45	1.86	531.38	126.79
1.200	500.00	0.00	0.00	804.90	465.00	810.75	0.00	810.78	13.45	1.86	531.38	126.79
2.200	1050.00	0.00	0.00	809.80	200.00	811.75	0.00	811.75	4.77	.32	625.79	91.60
2.200	1050.00	0.00	0.00	809.80	250.00	811.83	0.00	811.83	6.34	.38	664.26	99.26
2.200	1050.00	0.00	0.00	809.80	300.00	811.90	0.00	811.90	7.82	.43	703.60	107.25
2.200	1050.00	0.00	0.00	809.80	350.00	811.97	0.00	811.98	9.36	.47	738.20	114.40
2.200	1050.00	0.00	0.00	809.80	400.00	812.04	0.00	812.05	10.75	.52	774.22	121.97
3.000	1560.00	0.00	0.00	811.40	200.00	812.98	0.00	812.98	15.45	.40	495.09	50.88
3.000	1560.00	0.00	0.00	811.40	250.00	813.17	0.00	813.17	12.25	.40	620.08	71.43
3.000	1560.00	0.00	0.00	811.40	300.00	813.32	0.00	813.33	10.80	.41	731.10	91.30
3.000	1560.00	0.00	0.00	811.40	350.00	813.47	0.00	813.47	9.79	.42	838.69	111.84
3.000	1560.00	0.00	0.00	811.40	400.00	813.60	0.00	813.60	9.23	.43	937.39	131.68
3.200	270.00	0.00	0.00	814.00	200.00	814.23	0.00	814.25	671.77	1.15	173.95	7.72
3.200	270.00	0.00	0.00	814.00	250.00	814.23	0.00	814.26	995.35	1.41	176.83	7.92
3.200	270.00	0.00	0.00	814.00	300.00	814.26	0.00	814.29	915.83	1.48	203.14	9.91
3.200	270.00	0.00	0.00	814.00	350.00	814.31	0.00	814.34	724.85	1.46	240.46	13.00
3.200	270.00	0.00	0.00	814.00	400.00	814.36	0.00	814.39	520.61	1.38	289.93	17.53

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRTWS	EG	10K*S	VCH	AREA	.01K
3.400	340.00	0.00	0.00	814.50	200.00	815.45	0.00	815.46	11.26	.32	633.73	59.60
3.400	340.00	0.00	0.00	814.50	250.00	815.56	0.00	815.56	11.71	.34	728.96	73.05
3.400	340.00	0.00	0.00	814.50	300.00	815.64	0.00	815.64	12.30	.37	813.13	85.54
3.400	340.00	0.00	0.00	814.50	350.00	815.71	0.00	815.72	12.96	.39	888.78	97.21
3.400	340.00	0.00	0.00	814.50	400.00	815.77	0.00	815.78	13.68	.42	957.48	108.14
4.800	420.00	0.00	0.00	814.00	200.00	816.21	0.00	816.21	33.15	.53	379.98	34.74
4.800	420.00	0.00	0.00	814.00	250.00	816.32	0.00	816.33	32.26	.56	449.50	44.02
4.800	420.00	0.00	0.00	814.00	300.00	816.42	0.00	816.43	31.51	.58	518.09	53.45
4.800	420.00	0.00	0.00	814.00	350.00	816.51	0.00	816.52	30.93	.60	584.10	62.93
4.800	420.00	0.00	0.00	814.00	400.00	816.60	0.00	816.61	31.09	.62	643.09	71.74

WOOD OUTLET DRAIN OVERBA

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
1.000	465.00	808.59	0.00	0.00	0.00	318.54	0.00
1.000	465.00	808.59	0.00	0.00	0.00	318.54	0.00
1.000	465.00	808.59	0.00	0.00	0.00	318.54	0.00
1.000	465.00	808.59	0.00	0.00	0.00	318.54	0.00
1.000	465.00	808.59	0.00	0.00	0.00	318.54	0.00
1.100	465.00	810.15	0.00	1.56	0.00	424.63	500.00
1.100	465.00	810.15	0.00	1.56	0.00	424.63	500.00
1.100	465.00	810.15	0.00	1.56	0.00	424.63	500.00
1.100	465.00	810.15	0.00	1.56	0.00	424.63	500.00
1.100	465.00	810.15	0.00	1.56	0.00	424.63	500.00
1.200	465.00	810.75	0.00	.60	0.00	418.00	500.00
1.200	465.00	810.75	0.00	.60	0.00	418.00	500.00
1.200	465.00	810.75	0.00	.60	0.00	418.00	500.00
1.200	465.00	810.75	0.00	.60	0.00	418.00	500.00
1.200	465.00	810.75	0.00	.60	0.00	418.00	500.00
2.200	200.00	811.75	0.00	1.00	0.00	486.00	1050.00
2.200	250.00	811.83	0.00	1.07	0.00	500.07	1050.00
2.200	300.00	811.90	0.00	1.14	0.00	514.07	1050.00
2.200	350.00	811.97	0.00	1.22	0.00	526.06	1050.00
2.200	400.00	812.04	0.00	1.29	0.00	538.27	1050.00
3.000	200.00	812.98	0.00	1.23	0.00	654.79	1560.00
3.000	250.00	813.17	0.00	1.34	0.00	691.11	1560.00
3.000	300.00	813.32	0.00	1.42	0.00	721.85	1560.00
3.000	350.00	813.47	0.00	1.49	0.00	750.43	1560.00
3.000	400.00	813.60	0.00	1.55	0.00	775.73	1560.00
3.200	200.00	814.23	0.00	1.25	0.00	811.28	270.00
3.200	250.00	814.23	0.00	1.06	0.00	812.25	270.00
3.200	300.00	814.26	0.00	.94	0.00	821.11	270.00
3.200	350.00	814.31	0.00	.84	0.00	833.52	270.00
3.200	400.00	814.36	0.00	.77	0.00	849.68	270.00
3.400	200.00	815.45	0.00	1.22	0.00	957.53	340.00
3.400	250.00	815.56	0.00	1.33	0.00	1001.28	340.00
3.400	300.00	815.64	0.00	1.38	0.00	1038.42	340.00
3.400	350.00	815.71	0.00	1.41	0.00	1070.70	340.00
3.400	400.00	815.77	0.00	1.41	0.00	1099.20	340.00
4.800	200.00	816.21	0.00	.75	0.00	598.90	420.00
4.800	250.00	816.32	0.00	.76	0.00	638.95	420.00
4.800	300.00	816.42	0.00	.78	0.00	681.13	420.00
4.800	350.00	816.51	0.00	.80	0.00	719.39	420.00
4.800	400.00	816.60	0.00	.83	0.00	751.65	420.00

SUMMARY OF ERRORS

Sensitivity
Alan

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**********************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
**********************************************

C
T1      HUD-FIA H-4705
T2      PITTSFIELD TWP. FIS
T3      WOOD OUTLET DRAIN

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
      -1.        4.        0.        0.  0.000000      0.00     -1.0       0.    816.600     0.000

J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
     1.000      0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC       .100      .100      .055      .100      .300        0.000     0.000     0.000     0.000     0.000
QT      5.000   270.000   395.000   465.000   640.000      465.000     0.000     0.000     0.000     0.000
ET      0.000     0.000     0.000     0.000     0.000        1.400     5.400    10.400    15.400     0.000

X1      4.800    15.000   582.000   616.000     0.000        0.000     0.000     0.000     0.000     0.000
GR    817.200   565.000   816.700   581.000   813.700      588.000   810.600   600.000   813.400   613.000
GR    816.300   616.000   815.200   630.000   814.000      652.000   814.100   678.000   815.500   708.000
GR    816.600   764.000   816.300   830.000   815.300      975.000   816.100  1300.000   817.100  1435.000

X1      5.200    21.000   756.000   794.000   675.000      675.000   675.000      .850     0.000     0.000
X3      0.000     0.000     0.000     0.000     0.000     1050.000     0.000     0.000     0.000     0.000
X4      4.000   817.500    90.000   816.300   155.000      814.800   200.000   815.200   370.000     0.000
GR    820.000     0.000   814.700   440.000   814.400      482.000   814.600   544.000   814.500   602.000
GR    814.400   642.000   815.500   698.000   816.200      732.000   816.500   756.000   816.000   764.000
GR    811.600   778.000   811.400   780.000   811.500      781.000   811.600   782.000   811.900   783.000
GR    816.400   794.000   815.900   814.000   815.200      870.000   815.200   918.000   816.200   962.000
GR    817.000  1350.000     0.000     0.000     0.000        0.000     0.000     0.000     0.000     0.000

      ***D/S FACE TEXTILE RD.

X1      5.300     0.000     0.000     0.000   150.000      150.000   150.000     0.000      -.300     0.000
X3      0.000     0.000     0.000     0.000     0.000      900.000     0.000     0.000     0.000     0.000
SB      0.000     2.700     3.000     0.000     3.000        0.000    11.600     0.000   811.100   811.100

X1      5.400     0.000     0.000     0.000    41.000       41.000    41.000     0.000     0.000     0.000
X2      0.000     0.000     1.000   815.100     0.000        0.000     0.000     0.000      .850     0.000
X3      0.000     0.000     0.000     0.000     0.000      900.000     0.000     0.000     0.000     0.000
BT     13.000    45.000   819.000     0.000   180.000      817.300     0.000   395.000   816.500     0.000
BT    460.000   816.700     0.000   700.000   816.800        0.000   755.000   816.900     0.000   868.000
BT    817.100     0.000  1025.000   817.200     0.000     1090.000   817.500     0.000  1240.000   817.600
BT      0.000  1300.000   817.900     0.000  1370.000      818.000     0.000  1550.000   818.700     0.000
ET      0.000     0.000     0.000     0.000     0.000        1.400     5.400    10.400    15.400     0.000
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X1	5.800	20.000	1074.000	1114.000	59.000	59.000	59.000	.850	0.000	0.000
X4	5.000	816.600	370.000	815.200	480.000	815.600	620.000	817.500	1400.000	817.700
X4	1610.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	820.700	150.000	815.500	910.000	815.200	960.000	815.300	992.000	816.500	1018.000
GR	816.900	1046.000	816.800	1074.000	813.500	1092.000	812.100	1093.000	811.300	1100.000
GR	812.100	1107.000	812.600	1110.000	813.400	1111.000	814.500	1112.000	816.300	1114.000
GR	815.000	1148.000	815.600	1198.000	816.200	1258.000	816.300	1306.000	823.200	1720.000
X1	5.820	0.000	0.000	0.000	200.000	200.000	200.000	0.000	.200	0.000
X1	5.840	0.000	0.000	0.000	200.000	200.000	200.000	0.000	.200	0.000
X1	5.850	0.000	0.000	0.000	300.000	300.000	300.000	0.000	.300	0.000
QT	5.000	205.000	300.000	350.000	485.000	350.000	0.000	0.000	0.000	0.000
X1	5.860	25.000	678.000	708.000	200.000	200.000	200.000	0.000	-1.100	0.000
GR	823.700	80.000	820.400	150.000	820.000	215.000	819.400	444.000	818.300	476.000
GR	818.200	512.000	818.800	542.000	818.200	580.000	817.800	624.000	817.900	658.000
GR	817.700	678.000	815.000	689.000	814.000	691.000	813.300	692.000	813.300	698.000
GR	818.200	708.000	819.400	726.000	818.600	750.000	817.900	780.000	818.300	824.000
GR	818.200	874.000	818.600	922.000	819.200	1016.000	820.100	1315.000	822.400	1370.000
X1	5.880	0.000	0.000	0.000	500.000	500.000	500.000	0.000	.500	0.000
X1	5.900	0.000	0.000	0.000	500.000	500.000	500.000	0.000	.500	0.000
X1	6.000	0.000	0.000	0.000	50.000	50.000	50.000	0.000	.100	0.000
X1	6.020	0.000	0.000	0.000	200.000	200.000	200.000	0.000	.200	0.000
X1	6.040	0.000	0.000	0.000	350.000	350.000	350.000	0.000	.500	0.000
X1	6.060	0.000	0.000	0.000	370.000	370.000	370.000	0.000	.500	0.000

***D/S FACE 4' DIA. CULVERT

X1	6.080	24.000	824.000	844.000	470.000	470.000	470.000	0.000	-.500	0.000
X3	0.000	0.000	0.000	0.000	0.000	1045.000	0.000	0.000	0.000	0.000
GR	822.900	405.000	820.500	450.000	820.400	618.000	820.200	670.000	820.200	736.000
GR	820.800	790.000	821.900	812.000	822.200	824.000	821.000	830.000	817.500	833.000
GR	816.700	835.000	815.900	836.000	815.600	838.000	816.100	840.000	816.700	841.000
GR	817.500	843.000	821.600	844.000	821.300	862.000	820.500	902.000	820.200	954.000
GR	820.000	1026.000	820.400	1200.000	820.900	1285.000	821.600	1515.000	0.000	0.000
X1	6.090	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	818.000	0.000	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	1045.000	0.000	0.000	0.000	0.000
BT	2.000	828.000	821.400	0.000	844.000	821.600	0.000	0.000	0.000	0.000

SENSITIVITY
(SUMMARY ONLY)

X1	6.100	0.000	0.000	0.000	18.000	18.000	18.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	818.000	0.000	0.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	1045.000	0.000	0.000	0.000	0.000
X1	6.120	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	1045.000	0.000	0.000	0.000	0.000
X1	6.140	0.000	0.000	0.000	330.000	330.000	330.000	0.000	.300	0.000
X3	0.000	0.000	0.000	0.000	0.000	1045.000	0.000	0.000	0.000	0.000
X1	7.000	0.000	0.000	0.000	360.000	360.000	360.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	1045.000	0.000	0.000	0.000	0.000
X1	7.010	0.000	0.000	0.000	180.000	180.000	180.000	0.000	.100	0.000
X3	0.000	0.000	0.000	0.000	0.000	1045.000	0.000	0.000	0.000	0.000
X1	7.020	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	818.900	820.200	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	1045.000	0.000	0.000	0.000	0.000
X1	7.030	0.000	0.000	0.000	18.000	18.000	18.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	818.900	820.200	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	1045.000	0.000	0.000	0.000	0.000
X1	7.040	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	1045.000	0.000	0.000	0.000	0.000
X1	7.050	0.000	0.000	0.000	350.000	350.000	350.000	0.000	.300	0.000
X3	0.000	0.000	0.000	0.000	0.000	1045.000	0.000	0.000	0.000	0.000
X1	7.060	0.000	0.000	0.000	350.000	350.000	350.000	0.000	.400	0.000
X3	0.000	0.000	0.000	0.000	0.000	1045.000	0.000	0.000	0.000	0.000
QT	5.000	145.000	215.000	250.000	345.000	250.000	0.000	0.000	0.000	0.000
X1	7.080	0.000	0.000	0.000	350.000	350.000	350.000	0.000	.400	0.000
X3	0.000	0.000	0.000	0.000	0.000	1045.000	0.000	0.000	0.000	0.000
NC	.110	.110	.055	.300	.600	0.000	0.000	0.000	0.000	0.000
X1	8.200	13.000	1366.000	1396.000	150.000	150.000	150.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	850.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	823.000	350.000	821.600	500.000	820.600	800.000	821.200	1100.000	821.000	1310.000
GR	823.200	1366.000	820.500	1370.000	817.500	1376.000	816.900	1377.000	817.500	1379.000
GR	817.600	1382.000	822.800	1388.000	823.800	1396.000	0.000	0.000	0.000	0.000

***D/S FACE MORGAN ROAD

X1	8.210	0.000	0.000	0.000	120.000	120.000	120.000	0.000	.100	0.000

X3	0.000	0.000	0.000	850.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	2.400	2.500	0.000	3.000	0.000	7.100	0.000	817.000	817.000
ET	0.000	0.000	0.000	0.000	0.000	1.400	5.400	10.400	15.400	0.000
X1	8.790	19.000	1380.000	1406.000	20.000	20.000	20.000	0.000	-.100	0.000
X2	0.000	0.000	1.000	820.000	821.700	0.000	0.000	0.000	0.000	0.000
BT	11.000	450.000	823.900	0.000	935.000	823.000	0.000	1240.000	821.200	0.000
BT	1340.000	821.200	0.000	1350.000	822.500	0.000	1375.000	821.700	0.000	1397.000
BT	822.500	0.000	1410.000	822.800	0.000	1440.000	821.300	0.000	1490.000	821.200
BT	0.000	1600.000	824.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	822.500	1020.000	321.800	1105.000	821.300	1300.000	819.000	1323.000	822.400	1360.000
GR	823.000	1380.000	817.800	1390.000	817.800	1393.000	817.200	1394.000	817.800	1395.000
GR	817.800	1400.000	821.700	1406.000	822.000	1422.000	821.200	1450.000	821.200	1554.000
GR	822.800	1596.000	823.800	1642.000	824.800	1684.000	825.400	1728.000	0.000	0.000
X1	8.800	0.000	0.000	0.000	110.000	110.000	110.000	0.000	.100	0.000
NC	.100	.100	.055	.100	.300	0.000	0.000	0.000	0.000	0.000
X1	8.820	0.000	0.000	0.000	200.000	200.000	200.000	0.000	.200	0.000
X1	8.840	0.000	0.000	0.000	250.000	250.000	250.000	0.000	.300	0.000
X1	8.860	0.000	0.000	0.000	250.000	250.000	250.000	0.000	.200	0.000
X1	8.920	23.000	2630.000	2670.000	100.000	100.000	100.000	0.000	-.400	0.000
X3	0.000	0.000	0.000	2100.000	0.000	3400.000	0.000	0.000	0.000	0.000
X4	7.000	820.200	1950.000	820.300	2200.000	821.200	2310.000	822.400	2370.000	822.800
X4	2430.000	822.800	2580.000	823.600	2602.000	0.000	0.000	0.000	0.000	0.000
GR	821.200	1775.000	824.400	2618.000	824.700	2630.000	824.300	2638.000	819.000	2646.000
GR	819.000	2653.000	818.400	2654.000	819.000	2655.000	819.000	2660.000	824.400	2670.000
GR	824.300	2700.000	824.200	2744.000	823.500	2800.000	823.600	2866.000	823.800	2944.000
GR	823.500	3018.000	822.800	3200.000	823.400	3415.000	823.600	3545.000	823.500	3630.000
GR	922.800	3700.000	822.600	3780.000	823.600	3850.000	0.000	0.000	0.000	0.000
X1	8.940	0.000	0.000	0.000	200.000	200.000	200.000	0.000	.200	0.000
X3	0.000	0.000	0.000	2100.000	0.000	3400.000	0.000	0.000	0.000	0.000
X1	9.000	0.000	0.000	0.000	200.000	200.000	200.000	0.000	.200	0.000
X3	0.000	0.000	0.000	2100.000	0.000	3400.000	0.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

WOOD OUTLET DRAIN

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	4.800	0.00	0.00	0.00	810.60	465.00	816.60	0.00	816.62	6.59	1.58	770.54	181.12
*7	4.800	0.00	0.00	0.00	810.60	465.00	816.60	0.00	816.62	3.23	1.58	770.54	258.74
*13	4.800	0.00	0.00	0.00	810.60	465.00	816.60	0.00	816.62	11.14	1.58	770.54	139.32
	5.200	675.00	0.00	0.00	811.40	465.00	816.87	0.00	816.87	2.41	.79	1242.77	299.31
	5.200	675.00	0.00	0.00	811.40	465.00	816.76	0.00	816.76	1.45	.85	1157.49	386.14
	5.200	675.00	0.00	0.00	811.40	465.00	816.99	0.00	817.00	3.33	.74	1332.14	254.64
	5.300	150.00	0.00	0.00	811.10	465.00	816.90	0.00	816.90	1.84	.75	1280.23	342.95
	5.300	150.00	0.00	0.00	811.10	465.00	816.78	0.00	816.78	1.08	.80	1202.20	448.15
	5.300	150.00	0.00	0.00	811.10	465.00	817.04	0.00	817.04	2.55	.70	1371.66	291.00
	5.400	41.00	816.50	0.00	811.10	465.00	817.21	0.00	817.21	1.19	.65	1492.24	426.62
	5.400	41.00	816.50	0.00	811.10	465.00	817.20	0.00	817.21	.59	.65	1488.28	607.15
	5.400	41.00	816.50	0.00	811.10	465.00	817.22	0.00	817.23	1.97	.64	1501.05	330.94
	5.800	59.00	0.00	0.00	811.30	465.00	817.22	0.00	817.22	2.25	.90	1338.43	310.09
	5.800	59.00	0.00	0.00	811.30	465.00	817.21	0.00	817.21	1.12	.91	1328.69	438.84
	5.800	59.00	0.00	0.00	811.30	465.00	817.24	0.00	817.24	3.68	.89	1355.64	242.48
	5.820	200.00	0.00	0.00	811.50	465.00	817.27	0.00	817.28	3.08	1.03	1183.92	265.08
	5.820	200.00	0.00	0.00	811.50	465.00	817.23	0.00	817.24	1.63	1.06	1149.24	364.68
	5.820	200.00	0.00	0.00	811.50	465.00	817.32	0.00	817.32	4.63	.98	1239.37	216.15
	5.840	200.00	0.00	0.00	811.70	465.00	817.34	0.00	817.35	4.05	1.15	1061.57	231.02
	5.840	200.00	0.00	0.00	811.70	465.00	817.27	0.00	817.28	2.32	1.22	997.83	305.51
	5.840	200.00	0.00	0.00	811.70	465.00	817.42	0.00	817.43	5.76	1.07	1136.92	193.71
	5.850	300.00	0.00	0.00	812.00	465.00	817.48	0.00	817.49	5.68	1.32	927.35	195.10
	5.850	300.00	0.00	0.00	812.00	465.00	817.35	0.00	817.37	3.73	1.50	823.00	240.65
	5.850	300.00	0.00	0.00	812.00	465.00	817.61	0.00	817.62	7.14	1.17	1043.92	174.03
	5.860	200.00	0.00	0.00	812.20	350.00	817.61	0.00	817.69	19.57	2.58	295.04	79.12
	5.860	200.00	0.00	0.00	812.20	350.00	817.40	0.00	817.52	14.86	3.09	214.09	90.79
	5.860	200.00	0.00	0.00	812.20	350.00	817.80	0.00	817.85	21.81	2.18	382.19	74.94
	5.880	500.00	0.00	0.00	812.70	350.00	818.37	0.00	818.41	11.04	2.04	417.56	105.35
	5.880	500.00	0.00	0.00	812.70	350.00	818.06	0.00	818.15	10.64	2.70	274.99	107.32
	5.880	500.00	0.00	0.00	812.70	350.00	818.60	0.00	818.63	11.60	1.67	536.13	102.76

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
5.900	500.00	0.00	0.00	813.20	350.00	818.90	0.00	818.94	10.26	1.98	434.74	109.28
5.900	500.00	0.00	0.00	813.20	350.00	818.59	0.00	818.67	10.09	2.64	285.01	110.17
5.900	500.00	0.00	0.00	813.20	350.00	819.15	0.00	819.17	10.35	1.60	567.13	108.77
6.000	50.00	0.00	0.00	813.30	350.00	818.96	0.00	819.00	11.31	2.06	412.05	104.09
6.000	50.00	0.00	0.00	813.30	350.00	818.63	0.00	818.72	11.23	2.76	264.83	104.47
6.000	50.00	0.00	0.00	813.30	350.00	819.20	0.00	819.23	11.28	1.65	543.59	104.20
6.020	200.00	0.00	0.00	813.50	350.00	819.18	0.00	819.22	10.99	2.03	418.65	105.59
6.020	200.00	0.00	0.00	813.50	350.00	818.86	0.00	818.95	10.91	2.72	270.23	105.98
6.020	200.00	0.00	0.00	813.50	350.00	819.43	0.00	819.45	10.96	1.63	551.45	105.72
6.040	350.00	0.00	0.00	814.00	350.00	819.59	0.00	819.65	13.27	2.20	376.11	96.08
6.040	350.00	0.00	0.00	814.00	350.00	819.26	0.00	819.38	13.42	2.96	232.10	95.53
6.040	350.00	0.00	0.00	814.00	350.00	819.84	0.00	819.87	12.95	1.75	507.09	97.27
6.060	370.00	0.00	0.00	814.50	350.00	820.09	0.00	820.14	13.26	2.20	376.33	96.13
6.060	370.00	0.00	0.00	814.50	350.00	819.76	0.00	819.87	13.32	2.95	233.54	95.91
6.060	370.00	0.00	0.00	814.50	350.00	820.33	0.00	820.35	13.34	1.77	499.28	95.81
6.080	470.00	0.00	0.00	815.10	350.00	820.75	0.00	820.77	13.79	1.96	521.36	94.25
6.080	470.00	0.00	0.00	815.10	350.00	820.47	0.00	820.53	14.76	2.91	373.08	91.11
6.080	470.00	0.00	0.00	815.10	350.00	820.97	0.00	820.98	13.32	1.48	647.26	95.89
6.090	1.00	821.40	0.00	815.10	350.00	820.77	0.00	820.78	27.48	0.00	474.67	66.77
6.090	1.00	821.40	0.00	815.10	350.00	820.52	0.00	820.54	35.74	0.00	347.48	58.54
6.090	1.00	821.40	0.00	815.10	350.00	820.98	0.00	820.99	23.20	0.00	592.11	72.67
6.100	18.00	821.40	0.00	815.10	350.00	820.82	0.00	820.82	23.48	0.00	499.10	72.23
6.100	18.00	821.40	0.00	815.10	350.00	820.58	0.00	820.60	28.12	0.00	375.15	66.00
6.100	18.00	821.40	0.00	815.10	350.00	821.02	0.00	821.02	20.67	0.00	614.37	76.98
6.120	1.00	0.00	0.00	815.10	350.00	820.81	0.00	820.83	11.37	1.77	562.81	103.81
6.120	1.00	0.00	0.00	815.10	350.00	820.57	0.00	820.61	11.16	2.53	422.68	104.76
6.120	1.00	0.00	0.00	815.10	350.00	821.02	0.00	821.03	11.68	1.38	679.98	102.42
6.140	330.00	0.00	0.00	815.40	350.00	821.17	0.00	821.18	10.12	1.67	588.72	110.04
6.140	330.00	0.00	0.00	815.40	350.00	820.92	0.00	820.95	9.73	2.36	448.44	112.20
6.140	330.00	0.00	0.00	815.40	350.00	821.38	0.00	821.39	10.26	1.30	713.47	109.29
7.000	360.00	0.00	0.00	815.40	350.00	821.43	0.00	821.44	5.37	1.22	746.33	151.10
7.000	360.00	0.00	0.00	815.40	350.00	821.18	0.00	821.19	4.80	1.65	596.09	159.76
7.000	360.00	0.00	0.00	815.40	350.00	821.65	0.00	821.66	5.72	.98	878.94	146.30
7.010	180.00	0.00	0.00	815.50	350.00	821.53	0.00	821.54	5.39	1.22	744.97	150.72
7.010	180.00	0.00	0.00	815.50	350.00	821.27	0.00	821.28	4.95	1.67	589.21	157.37
7.010	180.00	0.00	0.00	815.50	350.00	821.76	0.00	821.76	5.68	.97	881.10	146.81
7.020	1.00	820.20	818.90	815.50	350.00	821.53	0.00	821.54	8.48	.78	695.53	120.16
7.020	1.00	820.20	818.90	815.50	350.00	821.27	0.00	821.28	9.00	1.10	539.85	116.65
7.020	1.00	820.20	818.90	815.50	350.00	821.76	0.00	821.76	8.25	.62	831.68	121.86
7.030	18.00	820.20	818.90	815.50	350.00	821.55	0.00	821.55	8.14	.77	704.90	122.65
7.030	18.00	820.20	818.90	815.50	350.00	821.29	0.00	821.30	8.43	1.07	551.56	120.53
7.030	18.00	820.20	818.90	815.50	350.00	821.77	0.00	821.78	7.99	.61	840.31	123.83

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
7.040	1.00	0.00	0.00	815.50	350.00	821.55	0.00	821.56	5.16	1.20	756.74	154.02
7.040	1.00	0.00	0.00	815.50	350.00	821.29	0.00	821.30	4.64	1.62	603.84	162.48
7.040	1.00	0.00	0.00	815.50	350.00	821.77	0.00	821.78	5.49	.96	891.89	149.40
7.050	350.00	0.00	0.00	815.80	350.00	821.75	0.00	821.76	6.48	1.34	696.29	137.47
7.050	350.00	0.00	0.00	815.80	350.00	821.47	0.00	821.49	6.32	1.89	535.36	139.18
7.050	350.00	0.00	0.00	815.80	350.00	821.98	0.00	821.99	6.60	1.05	836.33	136.29
7.060	350.00	0.00	0.00	816.20	350.00	822.01	0.00	822.02	8.99	1.58	616.02	116.76
7.060	350.00	0.00	0.00	816.20	350.00	821.73	0.00	821.76	9.34	2.31	456.31	114.52
7.060	350.00	0.00	0.00	816.20	350.00	822.25	0.00	822.25	8.80	1.20	754.48	117.99
7.080	350.00	0.00	0.00	816.60	250.00	822.29	0.00	822.30	6.37	1.33	542.44	99.05
7.080	350.00	0.00	0.00	816.60	250.00	822.02	0.00	822.04	6.71	1.96	393.05	96.50
7.080	350.00	0.00	0.00	816.60	250.00	822.51	0.00	822.51	6.03	.99	676.99	101.82
8.200	150.00	0.00	0.00	816.90	250.00	822.36	0.00	822.36	3.25	.96	705.58	138.73
8.200	150.00	0.00	0.00	816.90	250.00	822.10	0.00	822.11	2.83	1.25	574.87	148.64
8.200	150.00	0.00	0.00	816.90	250.00	822.58	0.00	822.58	3.54	.79	820.58	132.81
8.210	120.00	0.00	0.00	817.00	250.00	822.40	0.00	822.40	3.62	1.01	679.44	131.46
8.210	120.00	0.00	0.00	817.00	250.00	822.14	0.00	822.15	3.31	1.34	542.46	137.33
8.210	120.00	0.00	0.00	817.00	250.00	822.62	0.00	822.63	3.89	.83	794.98	126.80
8.790	20.00	821.70	820.00	817.10	250.00	822.42	0.00	822.43	3.50	1.08	630.79	133.54
8.790	20.00	821.70	820.00	817.10	250.00	822.17	0.00	822.18	2.96	1.36	494.72	145.38
8.790	20.00	821.70	820.00	817.10	250.00	822.65	0.00	822.65	3.83	.89	754.03	127.81
8.800	110.00	0.00	0.00	817.20	250.00	822.46	0.00	822.47	4.04	1.14	593.28	124.36
8.800	110.00	0.00	0.00	817.20	250.00	822.20	0.00	822.22	3.47	1.46	458.08	134.12
8.800	110.00	0.00	0.00	817.20	250.00	822.69	0.00	822.70	4.31	.94	718.90	120.40
8.820	200.00	0.00	0.00	817.40	250.00	822.55	0.00	822.56	4.63	1.20	530.60	116.15
8.820	200.00	0.00	0.00	817.40	250.00	822.28	0.00	822.30	4.25	1.58	393.90	121.21
8.820	200.00	0.00	0.00	817.40	250.00	822.78	0.00	822.79	4.81	.98	653.74	114.04
8.840	250.00	0.00	0.00	817.70	250.00	822.68	0.00	822.70	6.66	1.41	448.56	96.84
8.840	250.00	0.00	0.00	817.70	250.00	822.40	0.00	822.43	6.48	1.90	313.52	98.18
8.840	250.00	0.00	0.00	817.70	250.00	822.92	0.00	822.93	6.64	1.12	570.43	96.99
8.860	250.00	0.00	0.00	817.90	250.00	822.85	0.00	822.87	7.12	1.45	434.41	93.66
8.860	250.00	0.00	0.00	817.90	250.00	822.56	0.00	822.60	7.04	1.96	298.91	94.25
8.860	250.00	0.00	0.00	817.90	250.00	823.09	0.00	823.10	7.08	1.15	554.95	93.97
8.920	100.00	0.00	0.00	818.00	250.00	822.90	0.00	822.91	2.28	.84	689.81	165.46
8.920	100.00	0.00	0.00	818.00	250.00	822.63	0.00	822.63	1.88	1.05	508.63	182.12
8.920	100.00	0.00	0.00	818.00	250.00	823.14	0.00	823.14	2.47	.69	884.96	158.93
8.940	200.00	0.00	0.00	818.20	250.00	822.95	0.00	823.04	20.89	2.49	193.96	54.70
8.940	200.00	0.00	0.00	818.20	250.00	822.61	0.00	822.76	17.49	3.12	97.62	59.78
8.940	200.00	0.00	0.00	818.20	250.00	823.22	0.00	823.26	19.12	1.90	344.47	57.18
9.000	200.00	0.00	0.00	818.40	250.00	823.33	0.00	823.38	14.29	2.11	284.87	66.14
9.000	200.00	0.00	0.00	818.40	250.00	822.96	0.00	823.08	14.34	2.88	126.43	66.01
9.000	200.00	0.00	0.00	818.40	250.00	823.55	0.00	823.58	13.65	1.63	434.05	67.66

WOOD OUTLET DRAIN

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
4.800	465.00	816.60	0.00	0.00	0.00	786.27	0.00
4.800	465.00	816.60	0.00	0.00	0.00	786.27	0.00
4.800	465.00	816.60	0.00	0.00	0.00	786.27	0.00
5.200	465.00	816.87	0.00	.27	0.00	768.27	675.00
5.200	465.00	816.76	0.00	.16	0.00	762.23	675.00
5.200	465.00	816.99	0.00	.39	0.00	774.54	675.00
5.300	465.00	816.90	0.00	.03	0.00	667.66	150.00
5.300	465.00	816.78	0.00	.02	0.00	657.88	150.00
5.300	465.00	817.04	0.00	.04	0.00	678.93	150.00
5.400	465.00	817.21	0.00	.31	0.00	693.52	41.00
5.400	465.00	817.20	0.00	.43	0.00	693.05	41.00
5.400	465.00	817.22	0.00	.19	0.00	694.57	41.00
5.800	465.00	817.22	0.00	.01	0.00	1000.77	59.00
5.800	465.00	817.21	0.00	.00	0.00	998.08	59.00
5.800	465.00	817.24	0.00	.01	0.00	1005.51	59.00
5.820	465.00	817.27	0.00	.05	0.00	957.13	200.00
5.820	465.00	817.23	0.00	.03	0.00	947.06	200.00
5.820	465.00	817.32	0.00	.08	0.00	973.02	200.00
5.840	465.00	817.34	0.00	.07	0.00	921.11	200.00
5.840	465.00	817.27	0.00	.04	0.00	890.20	200.00
5.840	465.00	817.42	0.00	.10	0.00	943.46	200.00
5.850	465.00	817.48	0.00	.14	0.00	848.21	300.00
5.850	465.00	817.35	0.00	.08	0.00	805.21	300.00
5.850	465.00	817.61	0.00	.19	0.00	915.79	300.00
5.860	350.00	817.61	0.00	.13	0.00	433.52	200.00
5.860	350.00	817.40	0.00	.04	0.00	365.98	200.00
5.860	350.00	817.80	0.00	.18	0.00	487.28	200.00
5.880	350.00	818.37	0.00	.76	0.00	503.75	500.00
5.880	350.00	818.06	0.00	.67	0.00	417.31	500.00
5.880	350.00	818.60	0.00	.80	0.00	555.42	500.00
5.900	350.00	818.90	0.00	.54	0.00	511.56	500.00
5.900	350.00	818.59	0.00	.52	0.00	425.49	500.00
5.900	350.00	819.15	0.00	.55	0.00	576.36	500.00
6.000	350.00	818.96	0.00	.05	0.00	501.22	50.00
6.000	350.00	818.63	0.00	.05	0.00	408.84	50.00
6.000	350.00	819.20	0.00	.05	0.00	559.52	50.00
6.020	350.00	819.18	0.00	.22	0.00	504.25	200.00
6.020	350.00	818.86	0.00	.22	0.00	413.37	200.00
6.020	350.00	819.43	0.00	.22	0.00	565.19	200.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
6.040	350.00	819.59	0.00	.41	0.00	484.39	350.00
6.040	350.00	819.26	0.00	.41	0.00	381.41	350.00
6.040	350.00	819.84	0.00	.41	0.00	543.22	350.00
6.060	350.00	820.09	0.00	.49	0.00	484.50	370.00
6.060	350.00	819.76	0.00	.50	0.00	382.62	370.00
6.060	350.00	820.33	0.00	.49	0.00	539.89	370.00
6.080	350.00	820.75	0.00	.67	0.00	559.14	470.00
6.080	350.00	820.47	0.00	.72	0.00	533.19	470.00
6.080	350.00	820.97	0.00	.65	0.00	581.99	470.00
6.090	350.00	820.77	0.00	.02	0.00	560.78	1.00
6.090	350.00	820.52	0.00	.05	0.00	537.95	1.00
6.090	350.00	820.98	0.00	.01	0.00	582.80	1.00
6.100	350.00	820.82	0.00	.05	0.00	565.13	18.00
6.100	350.00	820.58	0.00	.06	0.00	543.00	18.00
6.100	350.00	821.02	0.00	.04	0.00	586.95	18.00
6.120	350.00	820.81	0.00	-.00	0.00	566.40	1.00
6.120	350.00	820.57	0.00	-.02	0.00	541.94	1.00
6.120	350.00	821.02	0.00	-.00	0.00	587.92	1.00
6.140	350.00	821.17	0.00	.36	0.00	571.23	330.00
6.140	350.00	820.92	0.00	.35	0.00	546.48	330.00
6.140	350.00	821.38	0.00	.36	0.00	593.93	330.00
7.000	350.00	821.43	0.00	.27	0.00	597.75	360.00
7.000	350.00	821.18	0.00	.26	0.00	572.60	360.00
7.000	350.00	821.65	0.00	.27	0.00	608.25	360.00
7.010	350.00	821.53	0.00	.10	0.00	597.65	180.00
7.010	350.00	821.27	0.00	.09	0.00	571.32	180.00
7.010	350.00	821.76	0.00	.10	0.00	608.44	180.00
7.020	350.00	821.53	0.00	.00	0.00	597.68	1.00
7.020	350.00	821.27	0.00	.01	0.00	571.39	1.00
7.020	350.00	821.76	0.00	.00	0.00	608.47	1.00
7.030	350.00	821.55	0.00	.02	0.00	598.39	18.00
7.030	350.00	821.29	0.00	.02	0.00	573.56	18.00
7.030	350.00	821.77	0.00	.01	0.00	609.23	18.00
7.040	350.00	821.55	0.00	-.00	0.00	598.55	1.00
7.040	350.00	821.29	0.00	-.00	0.00	574.03	1.00
7.040	350.00	821.77	0.00	-.00	0.00	609.39	1.00
7.050	350.00	821.75	0.00	.20	0.00	590.85	350.00
7.050	350.00	821.47	0.00	.18	0.00	561.54	350.00
7.050	350.00	821.98	0.00	.21	0.00	604.60	350.00
7.060	350.00	822.01	0.00	.26	0.00	576.27	350.00
7.060	350.00	821.73	0.00	.26	0.00	547.86	350.00
7.060	350.00	822.25	0.00	.26	0.00	598.38	350.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
7.080	250.00	822.29	0.00	.27	0.00	562.75	350.00
7.080	250.00	822.02	0.00	.29	0.00	536.66	350.00
7.080	250.00	822.51	0.00	.26	0.00	587.38	350.00
8.200	250.00	822.36	0.00	.07	0.00	514.82	150.00
8.200	250.00	822.10	0.00	.09	0.00	507.64	150.00
8.200	250.00	822.58	0.00	.07	0.00	521.06	150.00
8.210	250.00	822.40	0.00	.04	0.00	513.40	120.00
8.210	250.00	822.14	0.00	.04	0.00	505.85	120.00
8.210	250.00	822.62	0.00	.04	0.00	519.68	120.00
8.790	250.00	822.42	0.00	.02	0.00	552.35	20.00
8.790	250.00	822.17	0.00	.03	0.00	512.14	20.00
8.790	250.00	822.65	0.00	.02	0.00	565.91	20.00
8.800	250.00	822.46	0.00	.04	0.00	543.52	110.00
8.800	250.00	822.20	0.00	.03	0.00	500.53	110.00
8.800	250.00	822.69	0.00	.04	0.00	562.08	110.00
8.820	250.00	822.55	0.00	.09	0.00	523.26	200.00
8.820	250.00	822.28	0.00	.07	0.00	479.51	200.00
8.820	250.00	822.78	0.00	.09	0.00	554.90	200.00
8.840	250.00	822.68	0.00	.13	0.00	497.47	250.00
8.840	250.00	822.40	0.00	.12	0.00	442.63	250.00
8.840	250.00	822.92	0.00	.14	0.00	535.77	250.00
8.860	250.00	822.85	0.00	.17	0.00	492.98	250.00
8.860	250.00	822.56	0.00	.17	0.00	434.34	250.00
8.860	250.00	823.09	0.00	.17	0.00	530.68	250.00
8.920	250.00	822.90	0.00	.05	0.00	829.57	100.00
8.920	250.00	822.63	0.00	.06	0.00	476.01	100.00
8.920	250.00	823.14	0.00	.05	0.00	936.38	100.00
8.940	250.00	822.95	0.00	.05	0.00	434.82	200.00
8.940	250.00	822.61	0.00	-.01	0.00	136.11	200.00
8.940	250.00	823.22	0.00	.08	0.00	652.20	200.00
9.000	250.00	823.33	0.00	.38	0.00	591.61	200.00
9.000	250.00	822.96	0.00	.34	0.00	263.67	200.00
9.000	250.00	823.55	0.00	.34	0.00	759.00	200.00

SUMMARY OF ERRORS

WOOD OUTLET DRAIN

- START ELEV RUN
- CHANNEL FLOW
- CROSS-SECTION PLOTS

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  C1
  MODIFICATION -  50,51,52
**************************************************

T1      HUD-FIA  H-4705
T2      TOWNSHIP OF PITTSFIELD FIS
T3      WOOD OUTLET DRAIN

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
      -1.       2.        0.        0.    .001300      0.00     -1.0       0.    810.500     0.000
J2  NPRCF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
     1.000     1.000    -1.000     5.000    20.000     0.000     0.000     0.000     0.000     0.000

NC      .090      .090      .050      .100      .300     0.000     0.000     0.000     0.000     0.000
QT     5.000   465.000   465.000   465.000   465.000   465.000     0.000     0.000     0.000     0.000

X1     1.000    12.000  1856.000  1892.000     0.000     0.000     0.000     0.000     0.000     0.000
GR   810.400  1856.000   808.000  1866.000   805.000  1872.000   803.600  1877.000   805.000  1880.000
GR   808.700  1884.000   809.500  1892.000   808.700  1904.000   808.200  1926.000   807.800  2125.000
GR   809.100  2260.000   811.700  2400.000     0.000     0.000     0.000     0.000     0.000     0.000

X1     1.100     0.000     0.000     0.000   500.000   500.000   500.000     0.000      .600     0.000

X1     1.200     0.000     0.000     0.000   500.000   500.000   500.000     0.000      .700     0.000
NC      .075      .075     0.000      .450      .900     0.000     0.000     0.000     0.000     0.000
QT     5.000    50.000    75.000   100.000   125.000   150.000     0.000     0.000     0.000     0.000

X1     1.800    12.000   520.000   536.000   500.000   500.000   500.000     0.000     -.700     0.000
GR   812.000   484.000   811.800   500.000   811.200   508.000   809.800   520.000   807.000   522.000
GR   806.500   525.000   806.300   527.000   806.500   528.000   807.000   530.000   810.000   536.000
GR   810.600   542.000   810.800   562.000     0.000     0.000     0.000     0.000     0.000     0.000

X1     2.200     0.000     0.000     0.000   550.000   550.000   550.000     0.000      .700     0.000

X1     2.280     6.000   668.100   672.300   188.000   188.000   188.000     0.000     0.000     0.000
X3    10.000     0.000     0.000     0.000     0.000     0.000     0.000   813.300   813.300     0.000
GR   812.900   650.000   808.700   668.100   806.700   668.200   806.700   672.200   808.700   672.300
GR   812.900   700.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
SB     0.000     2.300     2.600    50.000     4.000     0.000    12.500     0.000   806.700   806.700

X1     2.320     0.000     0.000     0.000    24.000    24.000    24.000     0.000     0.000     0.000
X2     0.000     0.000     1.000   810.700   813.300     0.000     0.000     0.000     0.000     0.000
X3    10.000     0.000     0.000     0.000     0.000     0.000     0.000   813.300   813.300     0.000
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CHANNEL

X1	2.800	7.000	1341.000	1360.000	63.000	63.000	63.000	0.000	0.000	0.000
GR	811.100	1335.000	809.800	1341.000	807.700	1345.000	807.200	1348.000	807.700	1355.000
GR	809.600	1360.000	811.400	1380.000	811.500	1410.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.100	.300	0.000	0.000	0.000	0.000	0.000
X1	2.900	11.000	1460.000	1489.000	300.000	300.000	300.000	0.000	-1.700	0.000
GR	815.200	1460.000	812.500	1470.000	810.100	1472.000	809.600	1479.000	810.100	1485.000
GR	812.500	1489.000	814.000	1491.000	813.400	1498.000	812.400	1575.000	812.400	1677.000
GR	814.300	1735.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	3.000	0.000	0.000	0.000	1100.000	1100.000	1100.000	0.000	1.700	0.000
X1	4.100	7.000	410.000	437.100	425.000	425.000	425.000	0.000	-.400	0.000
GR	815.000	380.000	814.500	410.000	812.700	420.000	810.900	421.000	810.300	428.000
GR	811.000	437.000	812.400	437.100	0.000	0.000	0.000	0.000	0.000	0.000
X1	4.200	0.000	0.000	0.000	450.000	450.000	450.000	0.000	.400	0.000
NC	0.000	0.000	0.000	.450	.900	0.000	0.000	0.000	0.000	0.000
X1	4.220	6.000	752.100	756.300	50.000	50.000	50.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	818.300	818.300	0.000
GR	817.700	730.000	811.500	752.100	810.500	752.200	810.500	756.200	811.500	756.300
GR	817.700	780.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	2.400	2.600	50.000	4.000	0.000	10.100	0.000	810.500	810.500
X1	4.320	0.000	0.000	0.000	24.000	24.000	24.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	813.600	818.300	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	818.300	818.300	0.000
NC	0.000	0.000	0.000	.100	.300	0.000	0.000	0.000	0.000	0.000
X1	4.800	6.000	581.000	616.000	88.000	88.000	88.000	0.000	0.000	0.000
GR	817.200	565.000	816.700	581.000	813.700	588.000	810.600	600.000	813.400	613.000
GR	816.300	616.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

WOOD OUTLET DRAIN

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
1.000	0.00	0.00	0.00	803.60	465.00	809.47	0.00	809.49	13.06	1.83	537.35	128.68
1.000	0.00	0.00	0.00	803.60	465.00	809.47	0.00	809.49	13.06	1.83	537.35	128.68
1.000	0.00	0.00	0.00	803.60	465.00	809.47	0.00	809.49	13.06	1.83	537.35	128.68
1.000	0.00	0.00	0.00	803.60	465.00	809.47	0.00	809.49	13.06	1.83	537.35	128.68
1.000	0.00	0.00	0.00	803.60	465.00	809.47	0.00	809.49	13.06	1.83	537.35	128.68
1.100	500.00	0.00	0.00	804.20	465.00	810.10	0.00	810.12	12.11	1.76	552.61	133.61
1.100	500.00	0.00	0.00	804.20	465.00	810.10	0.00	810.12	12.11	1.76	552.61	133.61
1.100	500.00	0.00	0.00	804.20	465.00	810.10	0.00	810.12	12.11	1.76	552.61	133.61
1.100	500.00	0.00	0.00	804.20	465.00	810.10	0.00	810.12	12.11	1.76	552.61	133.61
1.100	500.00	0.00	0.00	804.20	465.00	810.10	0.00	810.12	12.11	1.76	552.61	133.61
1.200	500.00	0.00	0.00	804.90	465.00	810.74	0.00	810.77	13.87	1.89	525.30	124.87
1.200	500.00	0.00	0.00	804.90	465.00	810.74	0.00	810.77	13.87	1.89	525.30	124.87
1.200	500.00	0.00	0.00	804.90	465.00	810.74	0.00	810.77	13.87	1.89	525.30	124.87
1.200	500.00	0.00	0.00	804.90	465.00	810.74	0.00	810.77	13.87	1.89	525.30	124.87
1.200	500.00	0.00	0.00	804.90	465.00	810.74	0.00	810.77	13.87	1.89	525.30	124.87
1.800	500.00	0.00	0.00	805.60	50.00	811.15	0.00	811.16	.67	.59	120.49	61.13
1.800	500.00	0.00	0.00	805.60	75.00	811.18	0.00	811.19	1.46	.87	122.26	62.06
1.800	500.00	0.00	0.00	805.60	100.00	811.20	0.00	811.22	2.52	1.15	123.99	62.94
1.800	500.00	0.00	0.00	805.60	125.00	811.23	0.00	811.26	3.83	1.42	125.91	63.91
1.800	500.00	0.00	0.00	805.60	150.00	811.27	0.00	811.30	5.30	1.69	128.47	65.18
2.200	550.00	0.00	0.00	806.30	50.00	811.21	0.00	811.21	1.46	.78	82.54	41.37
2.200	550.00	0.00	0.00	806.30	75.00	811.29	0.00	811.31	2.96	1.13	87.13	43.63
2.200	550.00	0.00	0.00	806.30	100.00	811.39	0.00	811.42	4.65	1.44	92.59	46.37
2.200	550.00	0.00	0.00	806.30	125.00	811.50	0.00	811.54	6.35	1.71	98.88	49.59
2.200	550.00	0.00	0.00	806.30	150.00	811.62	0.00	811.67	7.92	1.95	105.94	53.29
2.280	188.00	0.00	0.00	806.70	50.00	811.27	0.00	811.38	35.89	2.63	19.00	8.35
2.280	188.00	0.00	0.00	806.70	75.00	811.42	0.00	811.65	73.73	3.82	19.64	8.73
2.280	188.00	0.00	0.00	806.70	100.00	811.60	0.00	811.97	118.59	4.91	20.37	9.18
2.280	188.00	0.00	0.00	806.70	125.00	811.78	0.00	812.32	167.25	5.91	21.14	9.67
2.280	188.00	0.00	0.00	806.70	150.00	811.97	0.00	812.70	217.92	6.84	21.94	10.16

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
2.320	24.00	813.30	810.70	806.70	50.00	811.76	0.00	811.84	27.15	2.38	21.03	9.60
2.320	24.00	813.30	810.70	806.70	75.00	812.56	0.00	812.71	40.77	3.07	24.42	11.75
2.320	24.00	813.30	810.70	806.70	100.00	813.47	0.00	813.47	2.37	1.06	150.73	64.94
2.320	24.00	813.30	810.70	806.70	125.00	813.70	0.00	813.71	2.98	1.22	162.12	72.36
2.320	24.00	813.30	810.70	806.70	150.00	813.87	0.00	813.89	3.66	1.37	171.01	78.37
2.800	63.00	0.00	0.00	807.20	50.00	811.89	0.00	811.89	.68	.59	109.55	60.43
2.800	63.00	0.00	0.00	807.20	75.00	812.78	0.00	812.79	.66	.66	149.64	92.19
2.800	63.00	0.00	0.00	807.20	100.00	813.48	0.00	813.48	.69	.74	180.96	120.69
2.800	63.00	0.00	0.00	807.20	125.00	813.71	0.00	813.72	.91	.87	191.45	130.90
2.800	63.00	0.00	0.00	807.20	150.00	813.89	0.00	813.90	1.17	1.01	199.50	138.94
2.900	300.00	0.00	0.00	807.90	50.00	811.91	0.00	811.91	.43	.37	266.09	75.97
2.900	300.00	0.00	0.00	807.90	75.00	812.80	0.00	812.80	.19	.27	497.74	172.62
2.900	300.00	0.00	0.00	807.90	100.00	813.49	0.00	813.49	.13	.24	688.15	279.08
2.900	300.00	0.00	0.00	807.90	125.00	813.73	0.00	813.73	.15	.27	753.46	321.59
2.900	300.00	0.00	0.00	807.90	150.00	813.91	0.00	813.91	.18	.30	804.06	356.23
3.000	1100.00	0.00	0.00	809.60	50.00	812.02	0.00	812.06	12.91	1.52	32.83	13.92
3.000	1100.00	0.00	0.00	809.60	75.00	812.84	0.00	812.86	6.19	1.25	104.01	30.14
3.000	1100.00	0.00	0.00	809.60	100.00	813.52	0.00	813.53	2.07	.80	246.98	69.52
3.000	1100.00	0.00	0.00	809.60	125.00	813.77	0.00	813.77	1.94	.80	304.80	89.79
3.000	1100.00	0.00	0.00	809.60	150.00	813.95	0.00	813.96	1.92	.81	353.05	108.28
4.100	425.00	0.00	0.00	809.90	50.00	812.49	0.00	812.52	9.32	1.33	37.53	16.38
4.100	425.00	0.00	0.00	809.90	75.00	813.16	0.00	813.19	9.80	1.47	50.88	23.95
4.100	425.00	0.00	0.00	809.90	100.00	813.67	0.00	813.71	10.25	1.59	62.71	31.24
4.100	425.00	0.00	0.00	809.90	125.00	813.90	0.00	813.95	12.67	1.82	68.70	35.11
4.100	425.00	0.00	0.00	809.90	150.00	814.09	0.00	814.16	15.25	2.04	73.68	38.41
4.200	450.00	0.00	0.00	810.30	50.00	812.91	0.00	812.94	9.13	1.32	37.84	16.54
4.200	450.00	0.00	0.00	810.30	75.00	813.59	0.00	813.63	9.45	1.45	51.63	24.40
4.200	450.00	0.00	0.00	810.30	100.00	814.12	0.00	814.16	9.74	1.56	63.95	32.03
4.200	450.00	0.00	0.00	810.30	125.00	814.44	0.00	814.49	11.11	1.73	72.33	37.51
4.200	450.00	0.00	0.00	810.30	150.00	814.71	0.00	814.76	11.94	1.88	80.76	43.41
4.220	50.00	0.00	0.00	810.50	50.00	813.00	0.00	813.36	170.28	4.82	10.38	3.83
4.220	50.00	0.00	0.00	810.50	75.00	813.67	0.00	814.17	191.80	5.67	13.23	5.42
4.220	50.00	0.00	0.00	810.50	100.00	814.19	0.00	814.84	222.99	6.50	15.40	6.70
4.220	50.00	0.00	0.00	810.50	125.00	814.51	0.00	815.38	276.97	7.47	16.73	7.51
4.220	50.00	0.00	0.00	810.50	150.00	814.77	0.00	815.87	334.17	8.40	17.85	8.21
4.320	24.00	818.30	813.60	810.50	50.00	813.46	0.00	813.72	103.72	4.05	12.34	4.91
4.320	24.00	818.30	813.60	810.50	75.00	815.53	0.00	815.73	53.71	3.57	21.03	10.23
4.320	24.00	818.30	813.60	810.50	100.00	817.67	0.00	817.84	37.73	3.33	30.02	16.28
4.320	24.00	818.30	813.60	810.50	125.00	818.58	0.00	818.58	1.11	.99	216.26	118.41
4.320	24.00	818.30	813.60	810.50	150.00	818.79	0.00	818.80	1.39	1.13	226.93	127.15
4.800	88.00	0.00	0.00	810.60	50.00	813.88	0.00	813.89	6.88	1.10	45.25	19.06
4.800	88.00	0.00	0.00	810.60	75.00	815.78	0.00	815.79	1.51	.75	100.50	61.07
4.800	88.00	0.00	0.00	810.60	100.00	817.87	0.00	817.87	.50	.57	187.32	140.88
4.800	88.00	0.00	0.00	810.60	125.00	818.58	0.00	818.59	.49	.61	223.82	177.94
4.800	88.00	0.00	0.00	810.60	150.00	818.80	0.00	818.80	.63	.70	234.70	189.67

WOOD OUTLET DRAIN

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
1.000	465.00	809.47	0.00	0.00	-1.03	419.18	0.00
1.000	465.00	809.47	0.00	0.00	-1.03	419.18	0.00
1.000	465.00	809.47	0.00	0.00	-1.03	419.18	0.00
1.000	465.00	809.47	0.00	0.00	-1.03	419.18	0.00
1.000	465.00	809.47	0.00	0.00	-1.03	419.18	0.00
1.100	465.00	810.10	0.00	.63	0.00	422.07	500.00
1.100	465.00	810.10	0.00	.63	0.00	422.07	500.00
1.100	465.00	810.10	0.00	.63	0.00	422.07	500.00
1.100	465.00	810.10	0.00	.63	0.00	422.07	500.00
1.100	465.00	810.10	0.00	.63	0.00	422.07	500.00
1.200	465.00	810.74	0.00	.65	0.00	416.79	500.00
1.200	465.00	810.74	0.00	.65	0.00	416.79	500.00
1.200	465.00	810.74	0.00	.65	0.00	416.79	500.00
1.200	465.00	810.74	0.00	.65	0.00	416.79	500.00
1.200	465.00	810.74	0.00	.65	0.00	416.79	500.00
1.800	50.00	811.15	0.00	.41	0.00	66.29	500.00
1.800	75.00	811.18	0.00	.44	0.00	68.40	500.00
1.800	100.00	811.20	0.00	.46	0.00	70.39	500.00
1.800	125.00	811.23	0.00	.49	0.00	72.53	500.00
1.800	150.00	811.27	0.00	.52	0.00	75.31	500.00
2.200	50.00	811.21	0.00	.05	0.00	54.07	550.00
2.200	75.00	811.29	0.00	.11	0.00	55.19	550.00
2.200	100.00	811.39	0.00	.18	0.00	56.50	550.00
2.200	125.00	811.50	0.00	.27	0.00	57.96	550.00
2.200	150.00	811.62	0.00	.35	0.00	59.56	550.00
2.280	50.00	811.27	0.00	.07	0.00	4.20	188.00
2.280	75.00	811.42	0.00	.13	0.00	4.20	188.00
2.280	100.00	811.60	0.00	.21	0.00	4.20	188.00
2.280	125.00	811.78	0.00	.28	0.00	4.20	188.00
2.280	150.00	811.97	0.00	.35	0.00	4.20	188.00
2.320	50.00	811.76	0.00	.48	0.00	4.20	24.00
2.320	75.00	812.56	0.00	1.14	0.00	4.20	24.00
2.320	100.00	813.47	0.00	1.87	0.00	50.00	24.00
2.320	125.00	813.70	0.00	1.91	0.00	50.00	24.00
2.320	150.00	813.87	0.00	1.90	0.00	50.00	24.00
2.800	50.00	811.89	0.00	.13	0.00	45.00	63.00
2.800	75.00	812.78	0.00	.22	0.00	45.00	63.00
2.800	100.00	813.48	0.00	.01	0.00	45.00	63.00
2.800	125.00	813.71	0.00	.01	0.00	45.00	63.00
2.800	150.00	813.89	0.00	.02	0.00	45.00	63.00
2.900	50.00	811.91	0.00	.02	0.00	242.89	300.00
2.900	75.00	812.80	0.00	.02	0.00	272.39	300.00
2.900	100.00	813.49	0.00	.01	0.00	274.96	300.00
2.900	125.00	813.73	0.00	.02	0.00	275.00	300.00

2.900	150.00	813.91	0.00	.02	0.C0	275.00	300.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
3.000	50.00	812.02	0.00	.11	0.00	17.80	1100.00
3.000	75.00	812.84	0.00	.05	0.00	170.24	1100.00
3.000	100.00	813.52	0.00	.03	0.00	239.15	1100.00
3.000	125.00	813.77	0.00	.04	0.00	250.30	1100.00
3.000	150.00	813.95	0.00	.04	0.00	259.25	1100.00
4.100	50.00	812.49	0.00	.47	0.00	18.16	425.00
4.100	75.00	813.16	0.00	.32	0.00	21.87	425.00
4.100	100.00	813.67	0.00	.14	0.00	24.69	425.00
4.100	125.00	813.90	0.00	.14	0.00	26.01	425.00
4.100	150.00	814.09	0.00	.14	0.00	27.05	425.00
4.200	50.00	812.91	0.00	.42	0.00	18.26	450.00
4.200	75.00	813.59	0.00	.43	0.00	22.06	450.00
4.200	100.00	814.12	0.00	.45	0.00	24.97	450.00
4.200	125.00	814.44	0.00	.54	0.00	26.77	450.00
4.200	150.00	814.71	0.00	.62	0.00	39.42	450.00
4.220	50.00	813.00	0.00	.09	0.00	4.20	50.00
4.220	75.00	813.67	0.00	.08	0.00	4.20	50.00
4.220	100.00	814.19	0.00	.07	0.00	4.20	50.00
4.220	125.00	814.51	0.00	.07	0.00	4.20	50.00
4.220	150.00	814.77	0.00	.06	0.00	4.20	50.00
4.320	50.00	813.46	0.00	.47	0.00	4.20	24.00
4.320	75.00	815.53	0.00	1.86	0.00	4.20	24.00
4.320	100.00	817.67	0.00	3.48	0.00	4.20	24.00
4.320	125.00	818.58	0.00	4.06	0.00	50.00	24.00
4.320	150.00	818.79	0.00	4.02	0.00	50.00	24.00
4.800	50.00	813.88	0.00	.41	0.00	25.90	88.00
4.800	75.00	815.78	0.00	.25	0.00	32.30	88.00
4.800	100.00	817.87	0.00	.20	0.00	51.00	88.00
4.800	125.00	818.58	0.00	.01	0.00	51.00	88.00
4.800	150.00	818.80	0.00	.01	0.00	51.00	88.00

SUMMARY OF ERRORS

WOOD OUTLET DRAIN
- START ELEV RUN
- OVERBANK FLOW
- CROSS SECTION PLOTS

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**********************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
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OVERBANK

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
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T'      HUD-FIA H-4705
T2      PITTSFIELD TWP. PIS
T3      WOOD OUTLET DRAIN OVERBANK FLOW - 100 YEAR

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         BSEL      FQ

      -1.       2.        0.        0.    .001300      0.00     -1.0       0.     810.500    0.000

J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

     1.000     1.000    -1.000     5.000    20.000     0.000     0.000     0.000     0.000     0.000

NC      .090      .090      .050      .100      .300     0.000     0.000     0.000     0.000     0.000
QT     5.000   465.000   465.000   465.000   465.000   465.000     0.000     0.000     0.000     0.000

X1      1.000    12.000  1856.000  1892.000     0.000     0.000     0.000     0.000     0.000     0.000
GR    810.400  1856.000   808.000  1866.000   805.000  1872.000   803.600  1877.000   805.000  1880.000
GR    808.700  1884.000   809.500  1892.000   808.700  1904.000   808.200  1926.000   807.800  2125.000
GR    809.100  2260.000   811.700  2400.000     0.000     0.000     0.000     0.000     0.000     0.000

X1      1.100     0.000     0.000     0.000   500.000   500.000   500.000     0.000      .600     0.000

X1      1.200     0.000     0.000     0.000   500.000   500.000   500.000     0.000      .700     0.000
NC       .120      .120      .120      .200      .600     0.000     0.000     0.000     0.000     0.000
QT     5.000   200.000   250.000   300.000   350.000   400.000     0.000     0.000     0.000     0.000

X1      2.200     5.000   562.000  1400.000  1050.000  1050.000  1050.000     0.000     0.000     0.000
GR    810.800   562.000   809.800   578.000   810.200   865.000   810.900   895.000   813.700  1400.000

X1      3.000     8.000  1742.000  2765.000  1560.000  1560.000  1560.000     0.000     0.000     0.000
GR    814.400  1742.000   811.400  1785.000   811.800  1855.000   811.700  1895.000   812.200  1915.000
GR    812.300  2240.000   812.500  2330.000   814.900  2765.000     0.000     0.000     0.000     0.000

X1      3.200     4.000     0.000  1300.000   270.000   270.000   270.000     0.000     0.000     0.000
GR    816.000     0.000   814.000    50.000   814.000   800.000   816.000  1300.000     0.000     0.000

X1      3.400     4.000     0.000  1200.000   340.000   340.000   340.000     0.000     0.000     0.000
GR    816.000     0.000   814.500    50.000   814.800   700.000   816.000  1200.000     0.000     0.000

X1      4.800    10.000   616.000  1435.000   420.000   420.000   420.000     0.000     0.000     0.000
GR    816.300   616.000   815.200   630.000   814.000   652.000   814.100   678.000   815.500   708.000
GR    816.600   764.000   816.300   830.000   815.300   975.000   816.100  1300.000   817.100  1435.000
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EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CODE -  01
  MODIFICATION -  50,51,52
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

WOOD OUTLET DRAIN OVERBA

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	EININ	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
1.000	0.00	0.00	0.00	803.60	465.00	809.47	0.00	809.49	13.06	1.83	537.35	128.68
1.000	0.00	0.00	0.00	803.60	465.00	809.47	0.00	809.49	13.06	1.83	537.35	128.68
1.000	0.00	0.00	0.00	803.60	465.00	809.47	0.00	809.49	13.06	1.83	537.35	128.68
1.000	0.00	0.00	0.00	803.60	465.00	809.47	0.00	809.49	13.06	1.83	537.35	128.68
1.000	0.00	0.00	0.00	803.60	465.00	809.47	0.00	809.49	13.06	1.83	537.35	128.68
1.100	500.00	0.00	0.00	804.20	465.00	810.10	0.00	810.12	12.11	1.76	552.61	133.61
1.100	500.00	0.00	0.00	804.20	465.00	810.10	0.00	810.12	12.11	1.76	552.61	133.61
1.100	500.00	0.00	0.00	804.20	465.00	810.10	0.00	810.12	12.11	1.76	552.61	133.61
1.100	500.00	0.00	0.00	804.20	465.00	810.10	0.00	810.12	12.11	1.76	552.61	133.61
1.100	500.00	0.00	0.00	804.20	465.00	810.10	0.00	810.12	12.11	1.76	552.61	133.61
1.200	500.00	0.00	0.00	804.90	465.00	810.74	0.00	810.77	13.87	1.89	525.30	124.87
1.200	500.00	0.00	0.00	804.90	465.00	810.74	0.00	810.77	13.87	1.89	525.30	124.87
1.200	500.00	0.00	0.00	804.90	465.00	810.74	0.00	810.77	13.87	1.89	525.30	124.87
1.200	500.00	0.00	0.00	804.90	465.00	810.74	0.00	810.77	13.87	1.89	525.30	124.87
1.200	500.00	0.00	0.00	804.90	465.00	810.74	0.00	810.77	13.87	1.89	525.30	124.87
2.200	1050.00	0.00	0.00	809.80	200.00	811.76	0.00	811.76	4.73	.32	627.68	91.97
2.200	1050.00	0.00	0.00	809.80	250.00	811.83	0.00	811.84	6.29	.38	666.53	99.71
2.200	1050.00	0.00	0.00	809.80	300.00	811.90	0.00	811.90	7.72	.42	707.22	107.99
2.200	1050.00	0.00	0.00	809.80	350.00	811.98	0.00	811.98	9.29	.47	740.22	114.83
2.200	1050.00	0.00	0.00	809.80	400.00	812.05	0.00	812.06	10.69	.52	776.09	122.37
3.000	1560.00	0.00	0.00	811.40	200.00	812.98	0.00	812.98	15.47	.40	494.92	50.85
3.000	1560.00	0.00	0.00	811.40	250.00	813.17	0.00	813.17	12.27	.40	619.70	71.36
3.000	1560.00	0.00	0.00	811.40	300.00	813.32	0.00	813.32	10.88	.41	729.26	90.96
3.000	1560.00	0.00	0.00	811.40	350.00	813.47	0.00	813.47	9.78	.42	839.04	111.91
3.000	1560.00	0.00	0.00	811.40	400.00	813.60	0.00	813.60	9.21	.43	938.12	131.83
3.200	270.00	0.00	0.00	814.00	200.00	814.23	0.00	814.25	669.31	1.15	174.15	7.73
3.200	270.00	0.00	0.00	814.00	250.00	814.23	0.00	814.26	989.11	1.41	177.17	7.95
3.200	270.00	0.00	0.00	814.00	300.00	814.26	0.00	814.29	895.71	1.47	204.55	10.02
3.200	270.00	0.00	0.00	814.00	350.00	814.30	0.00	814.34	727.88	1.46	240.15	12.97
3.200	270.00	0.00	0.00	814.00	400.00	814.36	0.00	814.39	522.94	1.38	289.52	17.49

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
3.400	340.00	0.00	0.00	814.50	200.00	815.46	0.00	815.46	11.27	.32	633.58	59.58
3.400	340.00	0.00	0.00	814.50	250.00	815.56	0.00	815.56	11.70	.34	729.18	73.08
3.400	340.00	0.00	0.00	814.50	300.00	815.64	0.00	815.64	12.31	.37	812.83	85.50
3.400	340.00	0.00	0.00	814.50	350.00	815.71	0.00	815.72	12.96	.39	888.91	97.23
3.400	340.00	0.00	0.00	814.50	400.00	815.77	0.00	815.78	13.68	.42	957.51	108.15
4.800	420.00	0.00	0.00	814.00	200.00	816.21	0.00	816.21	33.07	.53	380.28	34.78
4.800	420.00	0.00	0.00	814.00	250.00	816.32	0.00	816.32	31.77	.55	451.99	44.35
4.800	420.00	0.00	0.00	814.00	300.00	816.42	0.00	816.43	31.59	.58	517.58	53.37
4.800	420.00	0.00	0.00	814.00	350.00	816.51	0.00	816.52	30.98	.60	583.80	62.89
4.800	420.00	0.00	0.00	814.00	400.00	816.60	0.00	816.61	31.07	.62	643.19	71.76

WOOD OUTLET DRAIN OVERBA

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
1.000	465.00	809.47	0.00	0.00	-1.03	419.18	0.00
1.000	465.00	809.47	0.00	0.00	-1.03	419.18	0.00
1.000	465.00	809.47	0.00	0.00	-1.03	419.18	0.00
1.000	465.00	809.47	0.00	0.00	-1.03	419.18	0.00
1.000	465.00	809.47	0.00	0.00	-1.03	419.18	0.00
1.100	465.00	810.10	0.00	.63	0.00	422.07	500.00
1.100	465.00	810.10	0.00	.63	0.00	422.07	500.00
1.100	465.00	810.10	0.00	.63	0.00	422.07	500.00
1.100	465.00	810.10	0.00	.63	0.00	422.07	500.00
1.100	465.00	810.10	0.00	.63	0.00	422.07	500.00
1.200	465.00	810.74	0.00	.65	0.00	416.79	500.00
1.200	465.00	810.74	0.00	.65	0.00	416.79	500.00
1.200	465.00	810.74	0.00	.65	0.00	416.79	500.00
1.200	465.00	810.74	0.00	.65	0.00	416.79	500.00
1.200	465.00	810.74	0.00	.65	0.00	416.79	500.00
2.200	200.00	811.76	0.00	1.01	0.00	486.70	1050.00
2.200	250.00	811.83	0.00	1.09	0.00	500.89	1050.00
2.200	300.00	811.90	0.00	1.16	0.00	515.33	1050.00
2.200	350.00	811.98	0.00	1.24	0.00	526.76	1050.00
2.200	400.00	812.05	0.00	1.31	0.00	538.90	1050.00
3.000	200.00	812.98	0.00	1.22	0.00	654.74	1560.00
3.000	250.00	813.17	0.00	1.33	0.00	691.01	1560.00
3.000	300.00	813.32	0.00	1.42	0.00	721.35	1560.00
3.000	350.00	813.47	0.00	1.49	0.00	750.52	1560.00
3.000	400.00	813.60	0.00	1.55	0.00	775.91	1560.00
3.200	200.00	814.23	0.00	1.25	0.00	811.35	270.00
3.200	250.00	814.23	0.00	1.06	0.00	812.37	270.00
3.200	300.00	814.26	0.00	.94	0.00	821.58	270.00
3.200	350.00	814.30	0.00	.84	0.00	833.41	270.00
3.200	400.00	814.36	0.00	.76	0.00	849.55	270.00
3.400	200.00	815.46	0.00	1.22	0.00	957.45	340.00
3.400	250.00	815.56	0.00	1.33	0.00	1001.38	340.00
3.400	300.00	815.64	0.00	1.38	0.00	1038.29	340.00
3.400	350.00	815.71	0.00	1.41	0.00	1070.76	340.00
3.400	400.00	815.77	0.00	1.41	0.00	1099.21	340.00
4.800	200.00	816.21	0.00	.75	0.00	599.07	420.00
4.800	250.00	816.32	0.00	.76	0.00	640.53	420.00
4.800	300.00	816.42	0.00	.78	0.00	680.83	420.00
4.800	350.00	816.51	0.00	.80	0.00	719.22	420.00
4.800	400.00	816.60	0.00	.83	0.00	751.66	420.00

SUMMARY OF ERRORS

00BREAK00

1) COUNTY: WASHTENAW

2) STUDY NAME: SCIO TWP FIS

3) WATERCOURSE: HONEY CREEK & TRIBS 1, 2 & 3

4) DOCUMENT TYPE: PRINTOUTS

00BREAK00

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED [illegible] 1984
  ERROR CORR - 01,02,03,04,05,06
  MODIFICATION - 50,51,52,53,54,55,56
  IBM-PC-XT VERSION 1.1
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T1	WILDWOOD SUBDIVISION	START HURON RIVER	BONDEEON
T2	100-YEAR FLOOD PROFILE	HIGHWATER FROM	6/17/86
T3	HONEY CREEK 1600 CFS	C OF E REPORT	

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	0.	0.	0.	.000000	.00	.0	1600.	801.000	.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	-1.000	.000	-1.000	.000	.000	.000	.000	.000	.000	.000

J3 VARIABLE CODES FOR SUMMARY PRINTOUT

38.000	39.000	42.000	1.000	3.000	11.000	12.000	10.000	.000	.000

NC	.050	.050	.040	.500	1.000	.000	.000	.000	.000	.000
X1	400.000	13.000	385.000	417.000	.000	.000	.000	.000	.000	.000
GR	807.700	324.000	798.400	338.000	797.400	347.000	797.000	385.000	796.400	386.000
GR	794.900	400.000	796.300	415.000	797.700	417.000	798.400	467.000	798.700	517.000
GR	799.500	542.000	801.300	554.000	801.900	604.000	.000	.000	.000	.000
NC	.100	.050	.040	.000	.000	.000	.000	.000	.000	.000
X1	100.000	10.000	385.000	438.000	300.000	270.000	300.000	.000	.000	.000
GR	802.900	240.000	800.600	290.000	798.000	340.000	798.000	385.000	797.200	387.000
GR	796.600	400.000	797.100	412.000	800.000	418.000	802.600	438.000	804.000	469.000
X1	25.000	7.000	375.000	419.000	100.000	100.000	100.000	.000	.000	.000
GR	801.100	340.000	799.800	375.000	797.200	389.000	796.600	400.000	797.100	412.000
GR	800.000	418.000	802.600	419.000	.000	.000	.000	.000	.000	.000
NC	.000	.000	.020	.000	.000	.000	.000	.000	.000	.000
X1	1.000	7.000	383.500	416.500	25.000	25.000	25.000	.000	.000	.000
GR	805.000	383.500	798.300	383.500	797.500	388.000	796.500	400.000	797.500	409.000
GR	798.200	416.500	805.000	416.500	.000	.000	.000	.000	.000	.000
NC	.120	.120	.040	.000	.000	.000	.000	.000	.000	.000
X1	2.000	9.000	354.000	433.000	25.000	25.000	25.000	.000	.000	.000
GR	807.400	354.000	801.500	370.000	798.300	383.500	797.500	388.000	796.500	400.000
GR	797.500	409.000	798.200	416.500	800.900	424.500	805.800	433.000	.000	.000

X1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	.000	.000	.000
GR	[illegible]	[illegible]	[illegible]	265.[illegible]	[illegible]	[illegible]	[illegible]	375.[illegible]	796.700	400.000
GR	[illegible]	[illegible]	[illegible]	424.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	.000	.000
X1	490.000	8.000	385.000	410.000	400.000	450.000	450.000	.000	.000	.000
GR	807.700	125.000	803.900	206.000	802.100	287.000	798.[illegible]	385.000	798.600	400.000
GR	800.000	410.000	802.200	425.000	807.800	445.000	.000	.000	.000	.000
X1	970.000	15.000	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	.000	.000	.000
GR	810.000	325.000	805.200	340.000	803.[illegible]	365.000	803.500	390.000	801.900	395.000
GR	800.400	400.000	801.800	412.000	802.800	420.000	803.500	445.000	803.800	470.000
GR	805.700	515.000	807.300	580.000	804.500	700.000	806.000	756.000	808.000	795.000
NC	.120	.080	.040	.000	.000	.000	.000	.000	.000	.000
X1	1550.000	8.000	380.000	415.000	300.000	400.000	400.000	.000	.000	.000
GR	812.200	265.000	807.500	296.000	805.900	380.000	802.800	400.000	805.500	415.000
GR	806.100	526.000	808.200	570.000	816.000	580.000	.000	.000	.000	.000
NC	.120	.100	.040	.000	.000	.000	.000	.000	.000	.000
X1	1920.000	13.000	385.000	440.000	280.000	210.000	320.000	.000	.000	.000
GR	813.400	255.000	811.900	260.000	808.400	285.000	808.900	335.000	808.200	360.000
GR	807.600	385.000	805.400	393.000	804.400	400.000	805.600	407.000	807.800	415.000
GR	808.400	440.000	811.600	465.000	814.000	480.000	.000	.000	.000	.000
NC	.100	.080	.040	.000	.000	.000	.000	.000	.000	.000
X1	2210.000	10.000	388.000	410.000	150.000	210.000	270.000	.000	.000	.000
GR	817.400	323.000	809.400	338.000	807.200	388.000	806.600	390.000	805.400	400.000
GR	806.900	410.000	807.900	413.000	809.100	423.000	811.000	493.000	817.800	553.000
NC	.120	.080	.040	.000	.000	.000	.000	.000	.000	.000
X1	2460.000	14.000	386.000	418.000	260.000	200.000	240.000	.000	.000	.000
GR	817.900	341.000	813.300	361.000	808.800	376.000	808.800	386.000	807.400	390.000
GR	806.600	400.000	807.600	410.000	810.200	418.000	810.800	468.000	811.500	518.000
GR	812.500	568.000	813.600	618.000	815.700	666.000	818.000	703.000	.000	.000
EJ	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

[illegible]

SECNO	DEPTH	CWSEL	[illegible]	ASEL	ES	[illegible]	[illegible]	[illegible]	[illegible]
Q	QLOB	QC-	QROB	ALOB	ACH	[illegible]	[illegible]	[illegible]	[illegible]
TIME	VLOB	VCH	VROB	NL	VNCH	[illegible]	[illegible]	[illegible]	[illegible]
BLOPE	XLOBL	XLCH	XLOBR	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

*PROF 1

CCHV= .500 CE-V= 1.[illegible]

*SECNO 400.00

400.00	6.10	801.[illegible]	.00	801.[illegible]	8[illegible]1.12	.12	.00	[illegible]	797.[illegible]
1600.	404.	608.	588.	177.	168.	325.	0.	0.	797.70
.00	2.28	3.61	1.31	.050	.040	.050	.000	794.91	334.09
.001069	0.	0.	0.	0	0	0	.00	217.91	552.00

*SECNO 100.000

100.00	5.01	801.61	.00	.00	801.99	.38	.61	.27	798.00
1600.	655.	945.	0.	289.	153.	0.	4.	1.	802.60
.02	2.27	6.17	.00	.100	.040	.050	.000	796.60	268.07
.005576	300.	300.	270.	2	0	0	.00	162.30	430.37

*SECNO 25.000

3280 CROSS SECTION 25.00 EXTENDED 1.09 FEET

25.00	5.59	802.19	.00	.00	803.04	.85	.58	.47	799.80
1600.	100.	1500.	0.	61.	197.	0.	5.	2.	802.60
.02	1.65	7.62	.00	.100	.040	.050	.000	796.60	340.00
.006112	100.	100.	100.	2	0	0	.00	78.34	418.84

*SECNO 1.000

3301 HV CHANGED MORE THAN HVINS

1.00	5.79	802.29	.00	.00	803.77	1.48	.10	.63	805.00
1600.	0.	1600.	0.	0.	164	0.	5.	2.	805.00
.02	00	9.75	.00	.100	.020	.050	.000	796.50	383.50
.002731	25.	25.	25.	2	0	0	.00	33.00	416.50

*SECNO 2.000

3301 HV CHANGED MORE THAN HVINS

2.00	7.51	804.01	.00	.00	804.38	.37	.06	.55	807.40
1600.	0.	1600.	0.	0.	329.	0.	5.	2.	805.80
.02	.00	4.86	.00	.120	.040	.120	.000	796.50	363.19
.002132	25.	25.	25.	4	0	0	.00	66.71	429.90

SECNO	DEPTH	ELEV	VEL HD	AREA	EG	-	FR	CLASS	SEQ CLS
Q	SLOP	QCH	SPCH	KLOB	KCH	KROB	WSEL	TOP	LEFT STA
TIME	WLOB	WD	XNCH	XWSL	XNCH	XWR	XTRL	CRIT	BETA
SLOPE	WLOBL	WLOB	LOBS	ZTRAP	ZCH	ZROB	CCHAN	TOPWID	E.G.

*SECNO 51.000

51.00	7.66	804.34	.00	.00	804.51	.15	.12	.11	787.79
160.	410.	1147.	42.	475.	715.	55.	5.	2	798.34
.07	.84	5.63	.35	.121	.044	120	0	776.71	2.27 26
.000716	70.	84.	10.	2	0	0	.00	24.71	485.57

*SECNO 499.000

499.00	6.27	804.97	.00	.00	805.14	.26	.51	.11	797.8.
1600.	713.	796.	90.	547.	141.	69.	17.	4.	8.0.00
.06	1.30	5.65	1.30	.120	.040	.12.	.000	798.10	185.27
.002327	400.	450.	450.	2	0	0	.00	249.33	434.55

*SECNO 970.000

3265 DIVIDED FLOW

970.00	5.89	806.29	.00	.00	806.79	.50	1.41	.24	802.50
1600.	168.	985.	447.	112.	138.	347.	19.	6.	802.80
.08	1.50	7.16	1.29	.120	.040	.120	.000	800.40	336.62
.005000	350.	500.	350.	2	0	0	.00	339.99	761.52

*SECNO 1550.000

1550.00	5.59	808.20	.00	.00	808.59	.29	1.69	.11	805.90
1600.	141.	812.	647.	136.	141.	328.	24.	9.	805.50
.11	1.03	5.75	1.98	.120	.040	.080	.000	802.80	290.75
.003804	300.	400.	400.	2	0	0	.00	279.38	570.12

*SECNO 1920.000

1920.00	5.55	809.38	.00	.00	810.75	.77	1.68	.42	807.60
1600.	265.	1322.	12.	162.	172.	10.	27.	10.	808.40
.13	1.62	7.71	1.24	.120	.040	.100	.000	804.40	272.71
.009636	280.	320.	210.	2	0	0	.00	172.63	452.35

*SECNO 2210.000

2210.00	6.39	811.79	.00	.00	812.27	.48	1.38	15	807.20
1600.	375.	877.	328.	180.	124.	172.	29.	11.	806.90
.14	2.08	7.21	1.91	.100	.040	.080	.000	805.40	333.50
.00381.	150.	27..	210.	2	0	0	.00	166.56	500.06

SECND	DEPTH	CWSEL	[illegible]	WSEL	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	[illegible]	TWA	[illegible]
TIME	VLOB	VCH	VROB	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
SLOPE	XLOBL	XLCH	XLOBR	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

*SECND 2460.[illegible]

2460.00	6.11	[illegible]	[illegible]	[illegible]	[illegible]	52	[illegible]	[illegible]	[illegible]
1600.	107.	[illegible]	[illegible]	65.	162.	225.	[illegible]	12.	[illegible]
.15	[illegible]	[illegible]	[illegible]	.12	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
.004042	[illegible]	240.	[illegible]	4	0	0	[illegible]	214.68	[illegible]

THIS RUN EXECUTED 05/17/86 11:31:18

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY 1984
  ERROR CORR - [illegible]
  MODIFICATION - [illegible]
  IBM-PC-XT VERSION 1.1
*****************************************************
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

HONEY CREEK 1600 CFS

SUMMARY PRINTOUT

SECNO	XLCH	ELMIN	CWSEL	EG	HL	DLOSS	HV
400.000	.00	794.90	801.00	801.12	.00	.00	.12
100.000	300.00	796.60	801.61	801.99	.61	.27	.38
25.000	100.00	796.60	802.19	803.04	.58	.47	.85
1.000	25.00	796.50	802.29	803.77	.10	.63	1.48
2.000	25.00 25	796.50	804.01	804.38	.06	.55	.37
50.000	20.00 50	796.70	804.36	804.51 ✓	.02	.11	.15
490.000	450.00 540	798.60	804.87	805.14 ✓	.51	.11	.26
970.000	500.00 1000	800.40	806.29	806.79 ✓	1.41	.24	.50
1550.000	400.00 1400	802.80	808.30	808.59 ✓	1.69	.11	.29
1920.000	320.00 1720	804.40	809.98	810.75 ✓	1.68	.49	.77
2210.000	270.00 1990	805.40	811.79	812.27	1.38	.15	.48
2460.000	240.00	806.60	812.71	813.23	.92	.04	.52

SCIO TOWNSHIP, MICHIGAN
LIMITED DETAIL FLOOD INSURANCE STUDY
HYDRAULIC COMPUTATION BACKGROUND INFORMATION

Four streams were studied - Honey Creek from the mouth at Huron River to about 0.34 mile downstream of Scio Church Road, Tributary No. 1 - Sister Lakes Drain from its confluence with Honey Creek to about 0.11 mile upstream of Jackson Road, Tributary No. 2 from its confluence with the Honey Creek to about 2.44 miles upstream, and Tributary No. 3 from its confluence with Honey Creek to about 0.88 mile upstream.

A revised copy of the hydrology developed for the Township of Scio Limited Detail Flood Insurance Study was submitted to Michigan Department of Natural Resources for review and approval.

Mannings "n" values were obtained for the study during a site visit.

The starting water surface elevation at downstream limit for Honey Creek was determined by beginning the computations at the mouth using the slope - area method. The starting water surface elevations for tributaries were also found by the slope-area method with computations beginning at streams' mouths. Each stream was treated as a separate run.

For the encroached runs on the four streams, the computations were begun using the results from 100-year profile runs.

DEPARTMENT OF THE ARMY
DETROIT DISTRICT, CORPS OF ENGINEERS
BOX 1027
DETROIT, MICHIGAN 48231-1027

March 5, 1987

IN REPLY REFER TO

Great Lakes Hydraulics and Hydrology Branch

Mr. Dan Morgan, P.E.
Department Liaison
Land and Water Management Division
Michigan Department of Natural Resources
P.O. Box 30028
Lansing, Michigan 48909

Dear Mr. Morgan:

Submitted for your review and approval is a copy of the hydraulic calculations for the Scio Township, Michigan Limited Detail Flood Insurance Study. Enclosed are the HEC-2 100-year unencroached and encroached runs, a map showing the location of cross sections along with the corresponding section numbers in the computer run, copies of the bridge sketches in the field notes, and a brief write up dealing with items that will assist the review process.

According to FEMA guidelines, the information supplied to aid in the review process is not intended for flood plain management purposes or distribution to other individuals at this time. Before using or distributing this information, approval should be obtained from FEMA.

Since FEMA has requested the submittal of this report as soon as possible, a response from your office within two weeks would be appreciated. If you have any questions regarding the enclosed data, please contact Mrs. Hanna Kobylinski at (313) 226-4761.

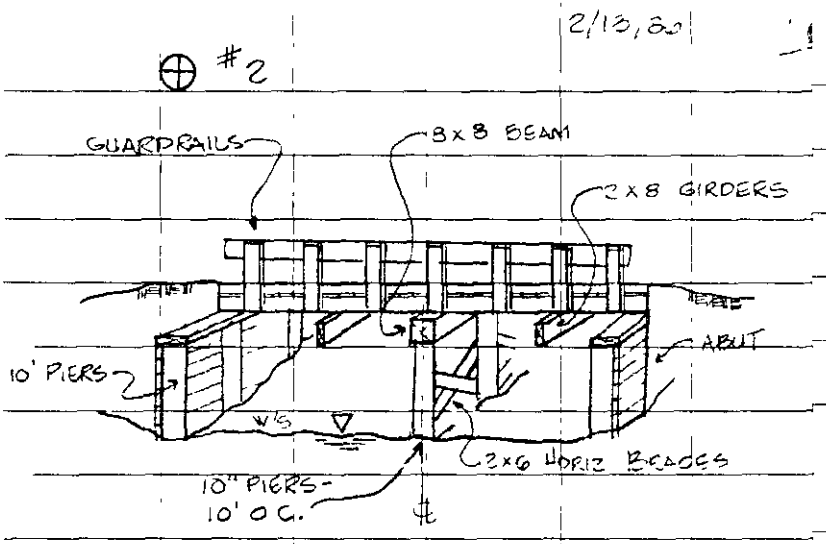
Sincerely,

P. M. O'Dell, P.E.
Chief, Engineering Division

Enclosures

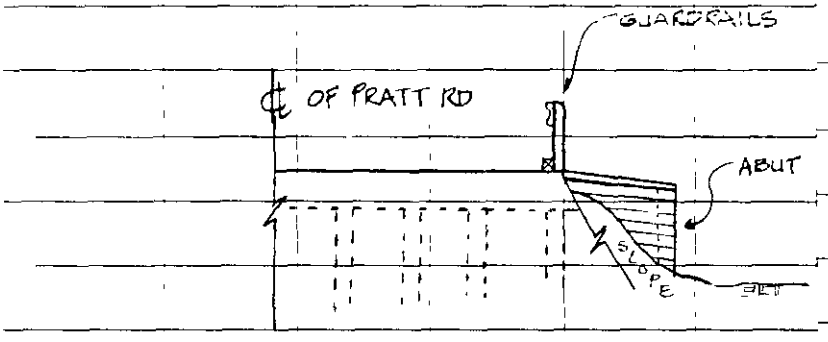
Pratt Road over Honey Creek
X-section # 13350 on HEC-2 run

2/13/80



U/S FACE LOOKING D/S

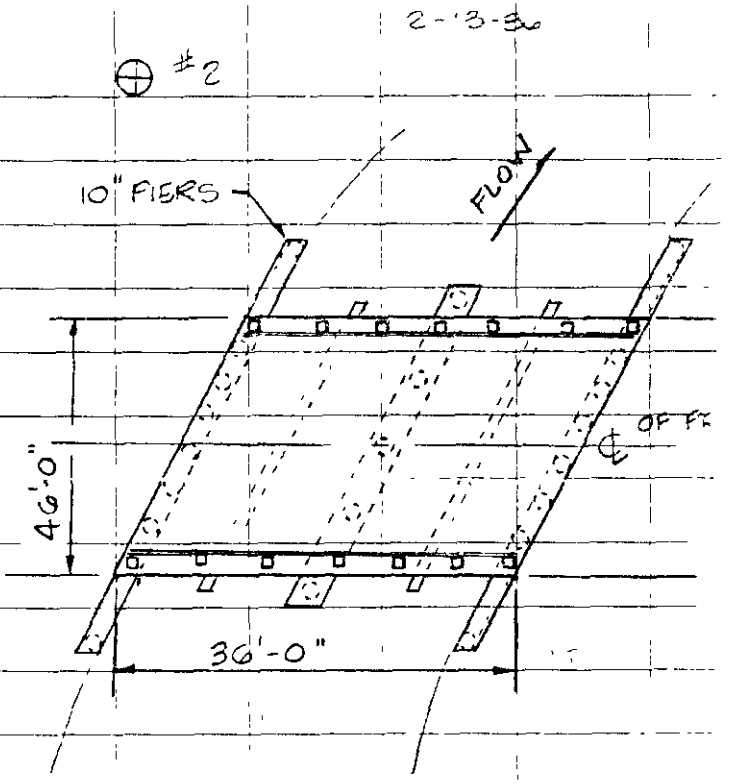
N.T.S



LEFT SIDE VIEW

N.T.S.

2-13-80



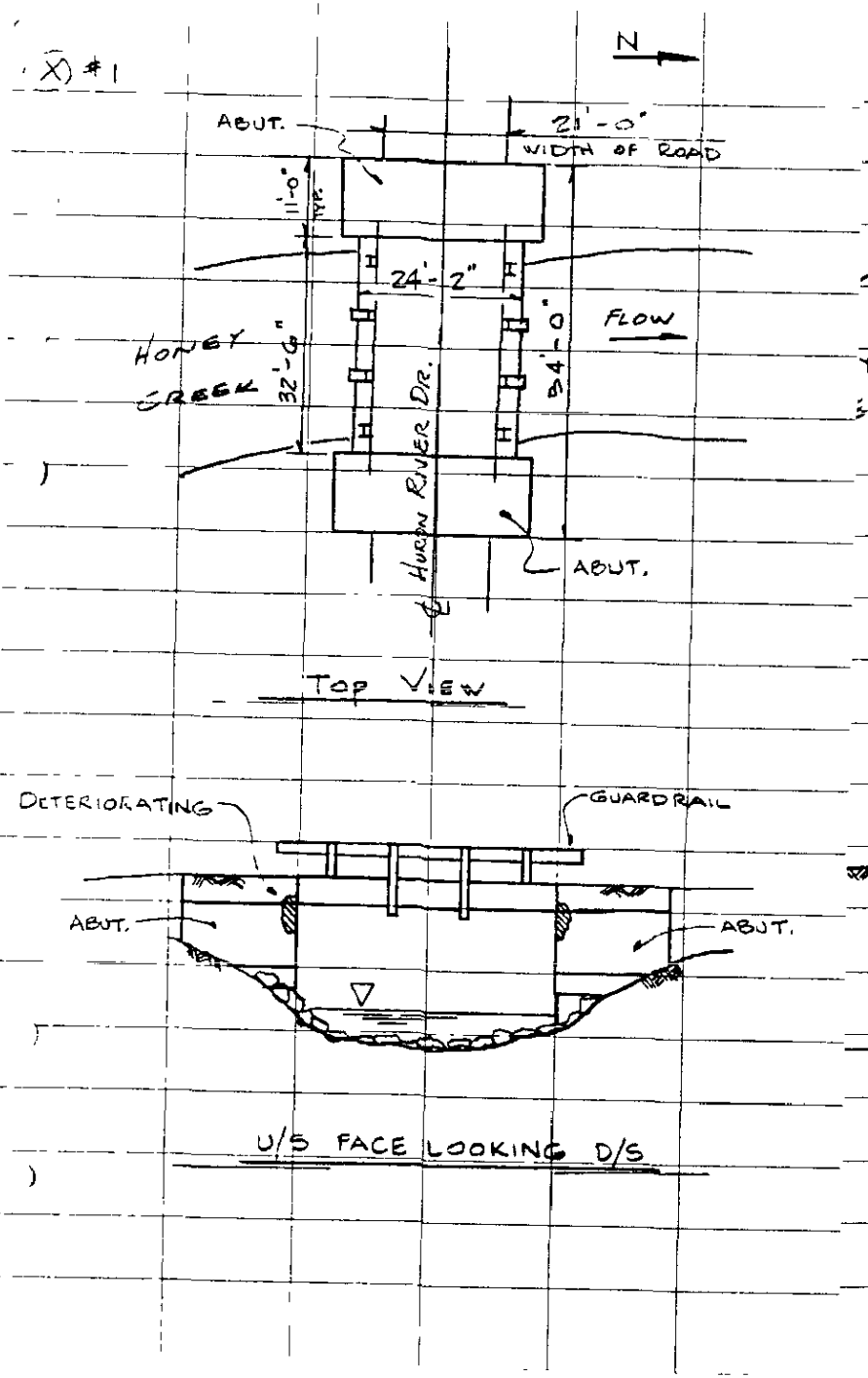
PLAN

N.T.S

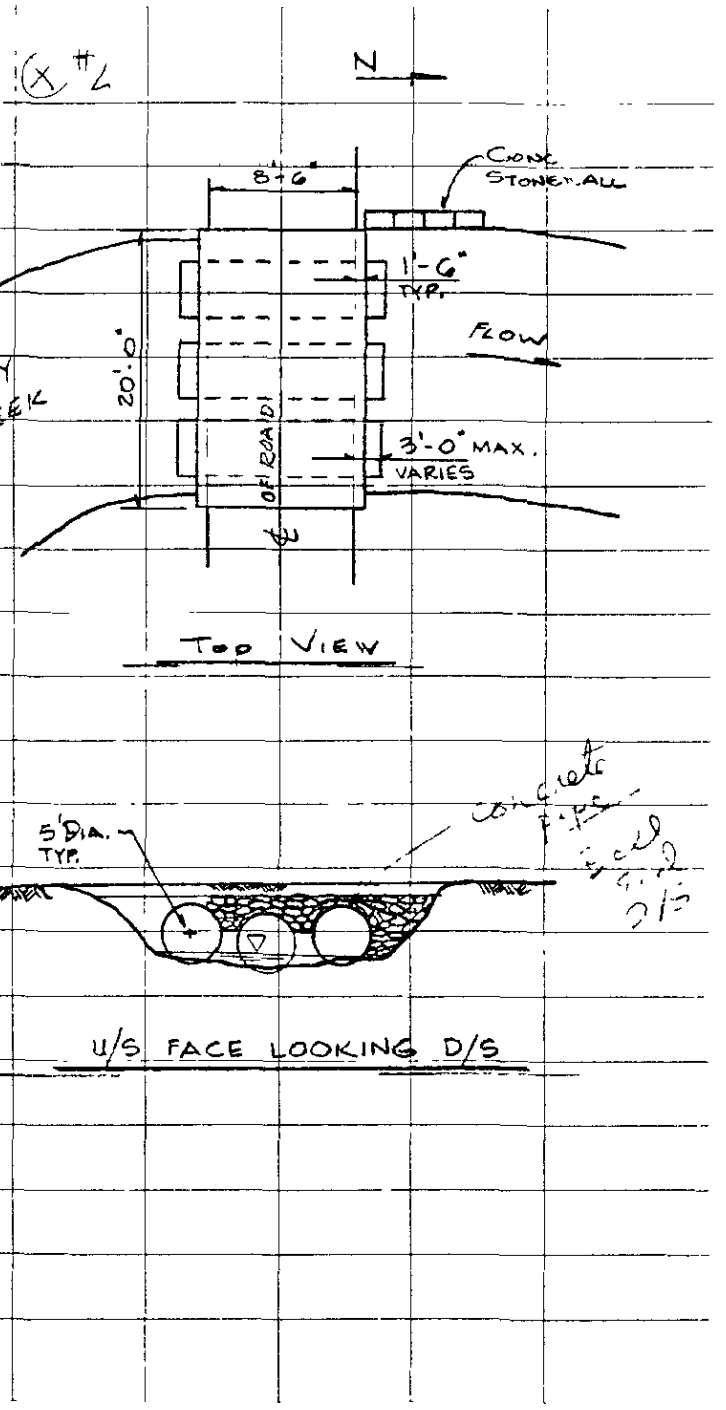
ALL WOOD STRUCTU

45° SKEW

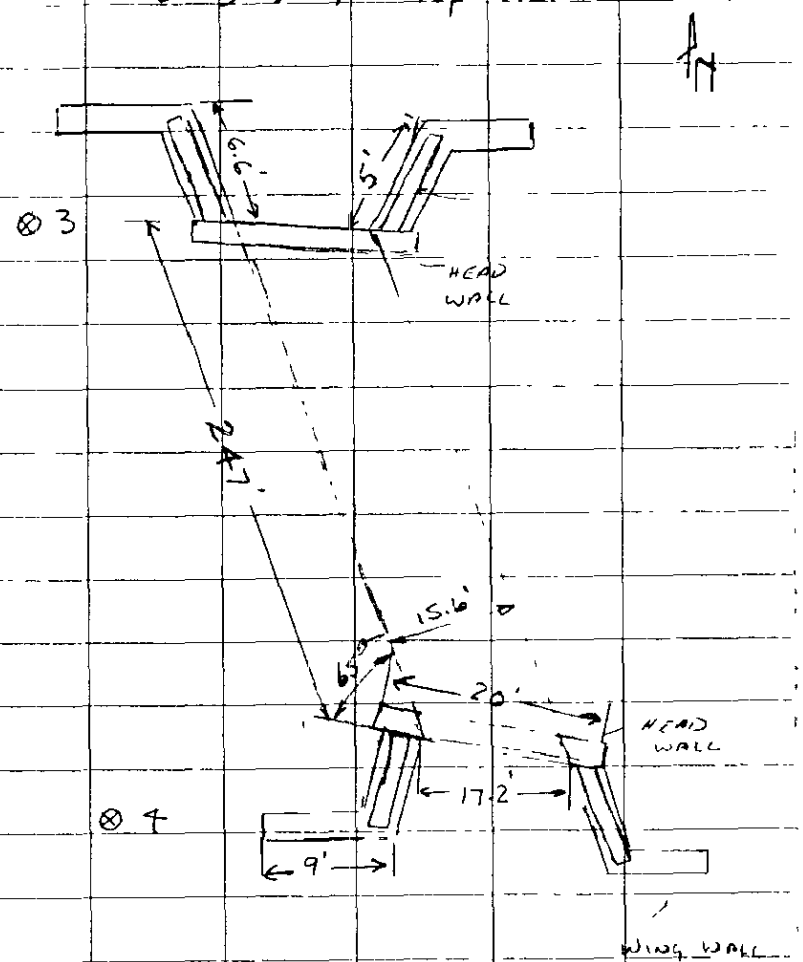
Huron River Dr bridge over Honey Creek
X-section # 199 on HEC-2 run



Private driveway over Honey Creek
X-section # 12963 on HEC-2 run

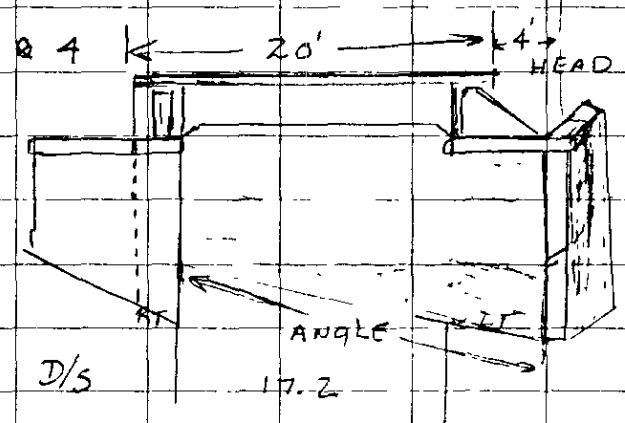


⊗ 3 + 4 Top VIEW



⊗3 North side of I-94 @
D/S face of box culvert over
Tributary #1.
X-section # 1000 on HEC-2 run

⊗ 4 Front VIEW

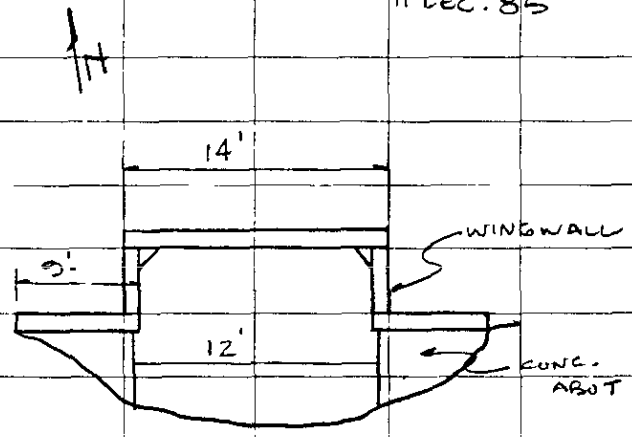


NOTE:
⊗ 3 SAME DATA BUT OPPOSITE ON
U/S SIDE

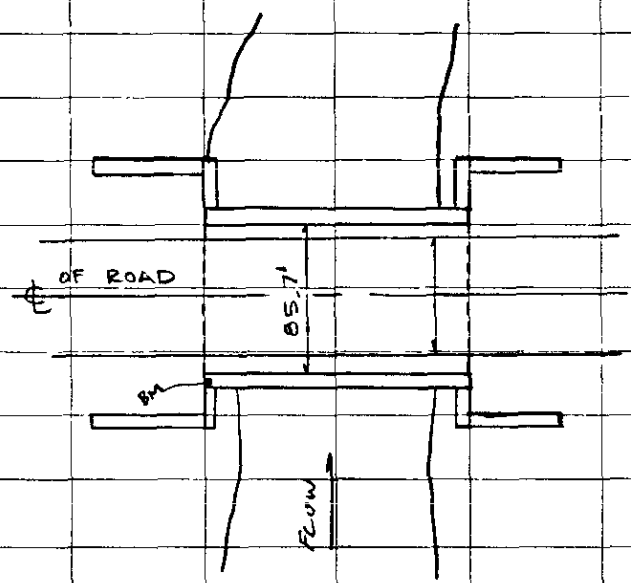
⊗4 South side of I-94 @
u/s face of box culvert over
Tributary No 1
X-section # 1247 on HEC-2 run

⊗ 5

11 DEC. 85



U/S FACE LOOKING D/S

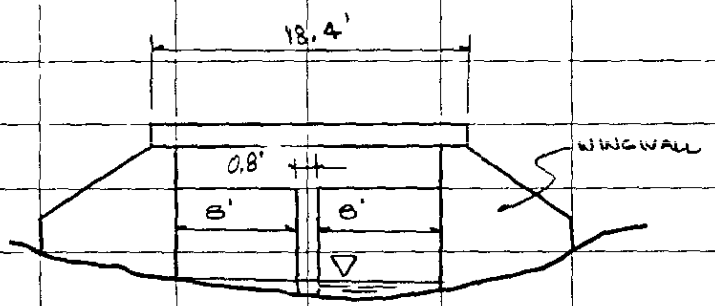


Top View

u/s face of conc. box culvert on Jackson Road over Tributary #1.

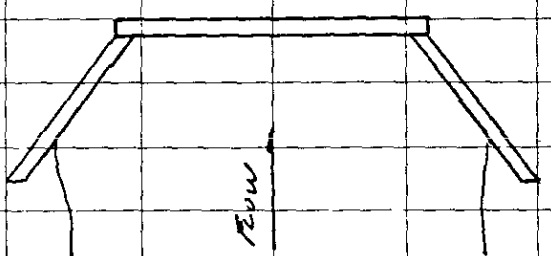
x-section # 1935 on HEC-2 run.

⊗7 11 DEC. 86



U/S FACE LOOKING D/S

NOTE: ⊗6 - SAME DATA BUT OPPOSITE ON U/S SIDE

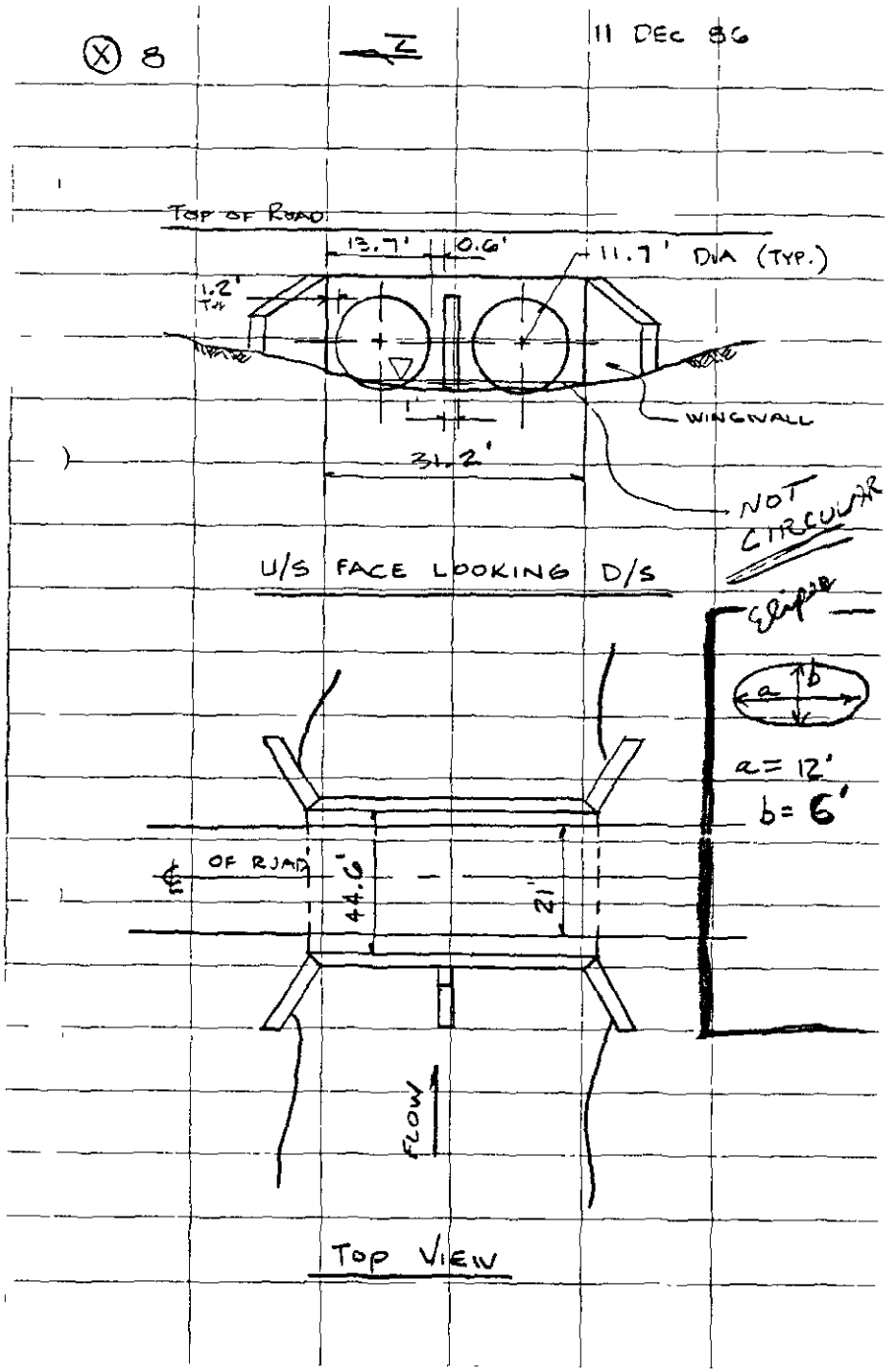


DIST TO OTHER END OF BOX CULV. = 207' (STADIA)

TOP VIEW

⊗6 North side of I-94 @ D/S face of box culvert over Honey Creek
x-section # 20150 on HEC-2 run

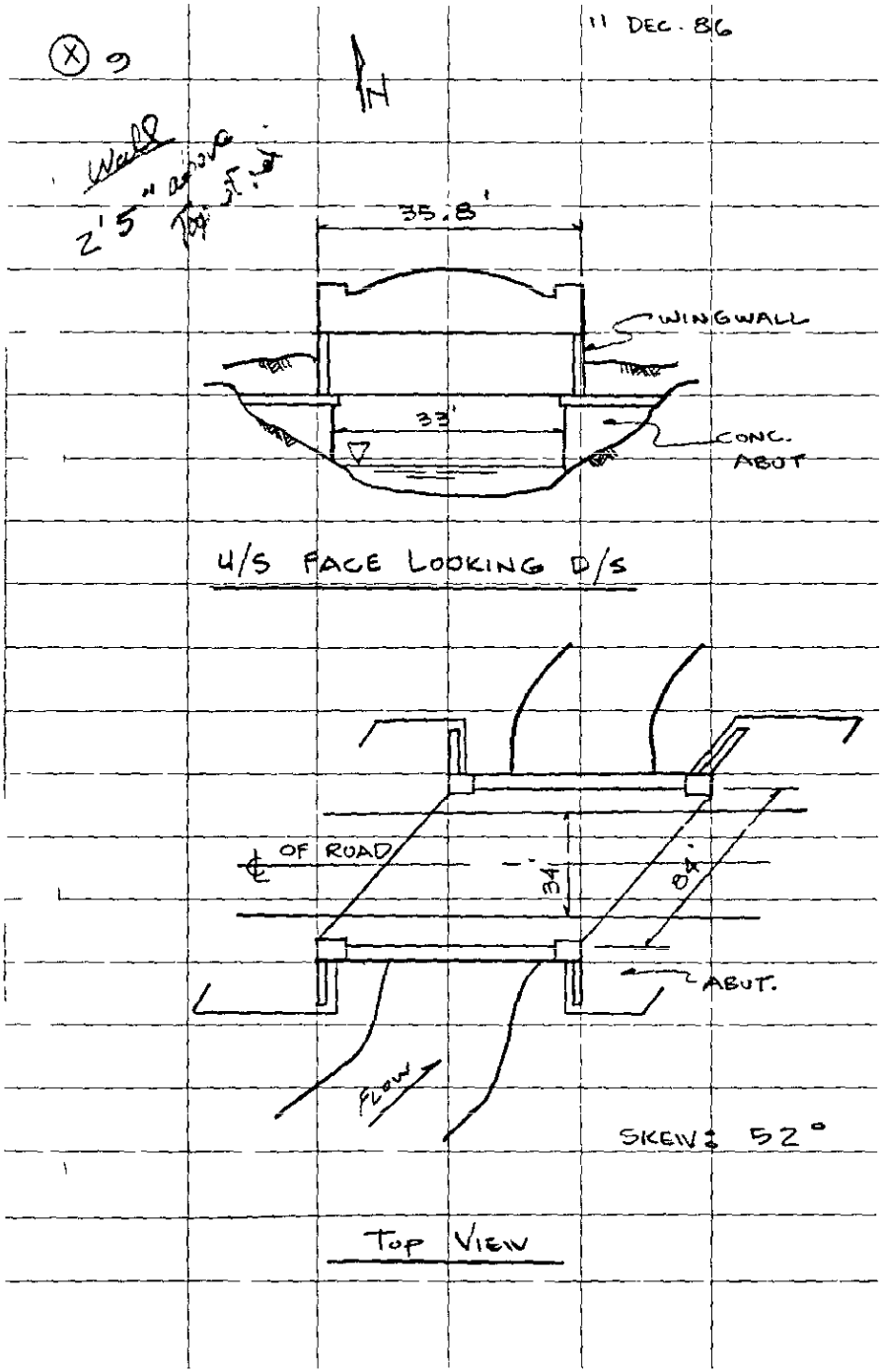
⊗7 South side of I-94 @ U/S face of box culvert over Honey Creek
x-section # 20357 on HEC-2 run



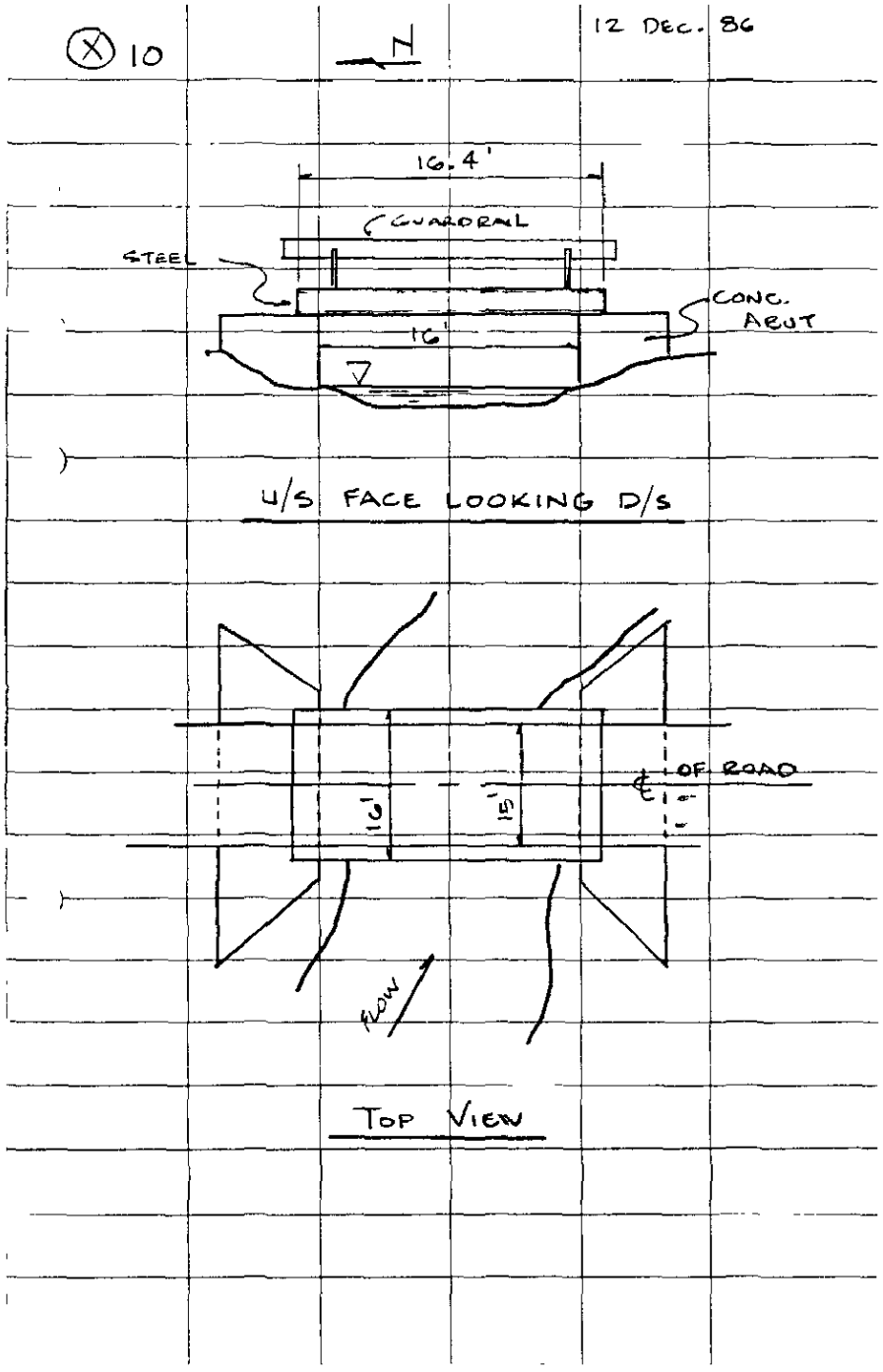
U/s face of Leeb Road over Honey Creek
X-section # 21420 on HEC-2 run

11 DEC. 86

(X) 9

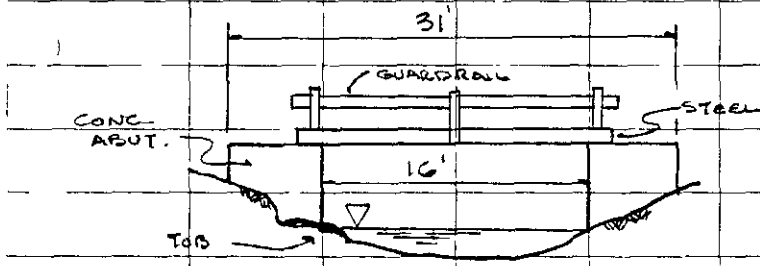


u/s face of Jackson Road over Honey Creek
x-section # 23350 on HEC-2 run

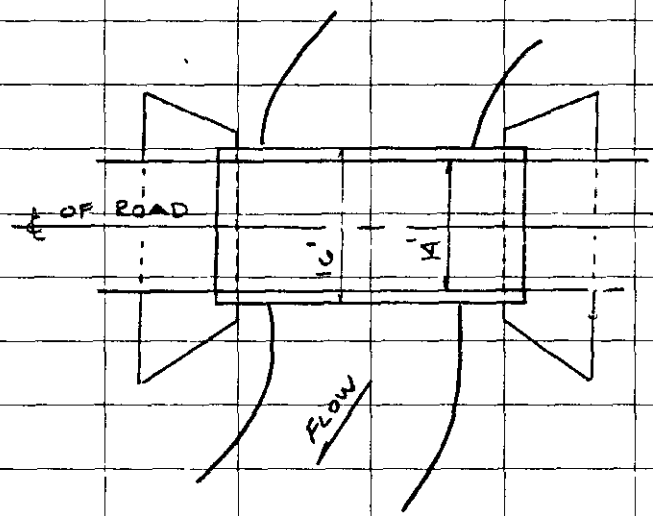


u/s face of bridge on Staebler Road over Honey Creek
X-section # 27539 on HEC-2 run

⊗ 11 N 12 DEC. 86

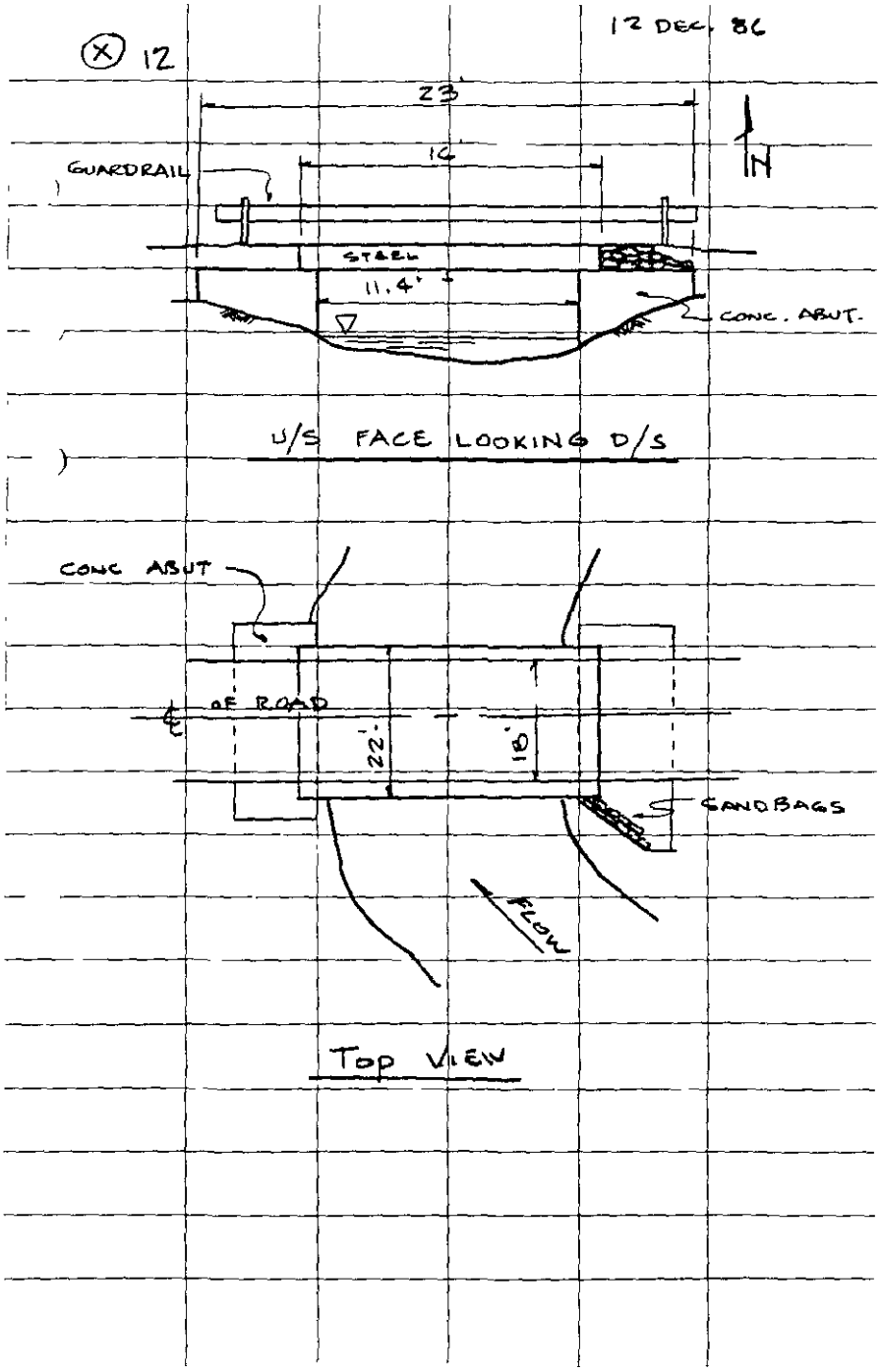


U/S FACE LOOKING D/S

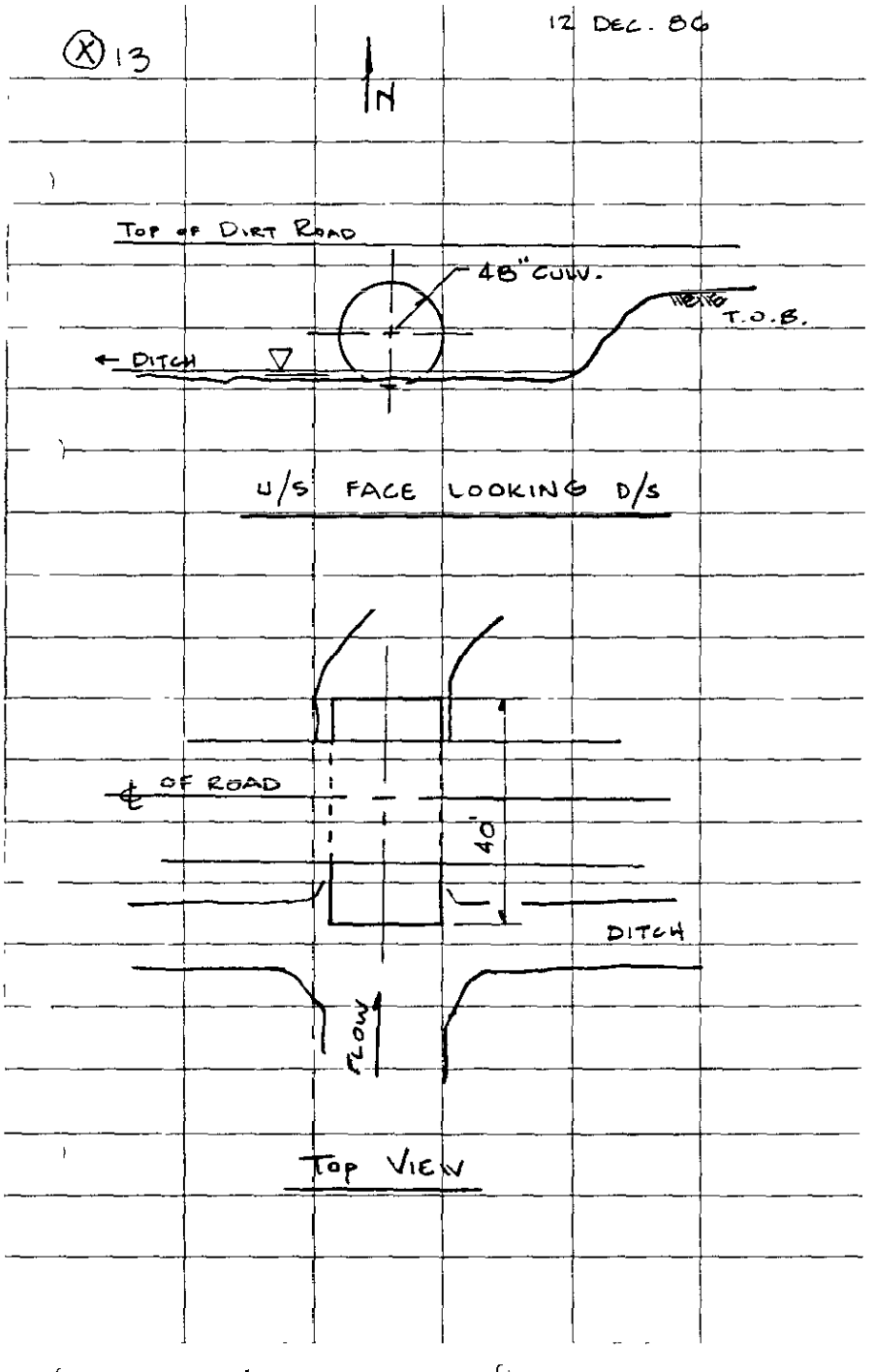


Top View

u/s face of bridge on Staebler Road over Honey Creek
x-section # 30917 on HEC-2 run



u/s face of bridge on Park Road over Honey Creek
x-section # 31300 on HEC-2 run



u/s face of culvert on Liberty Road over Honey Creek
X-section # 35611 on HEC-2 run

13 DEC. 86

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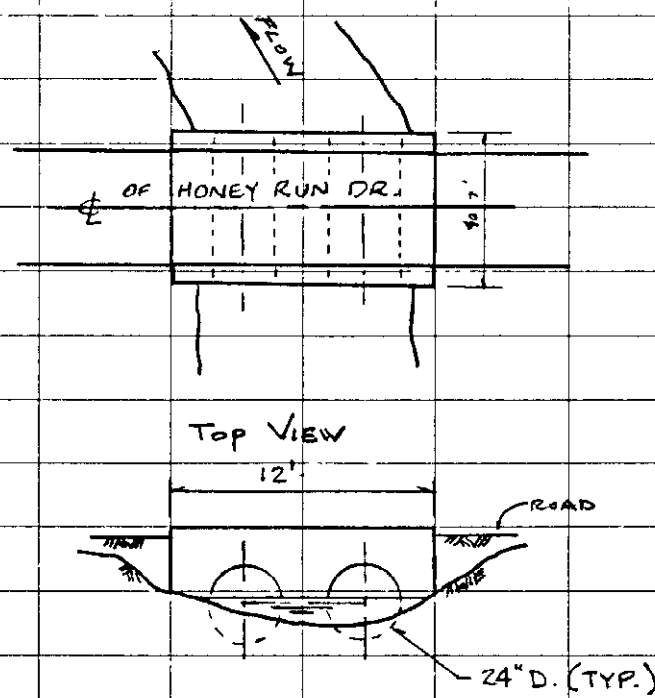
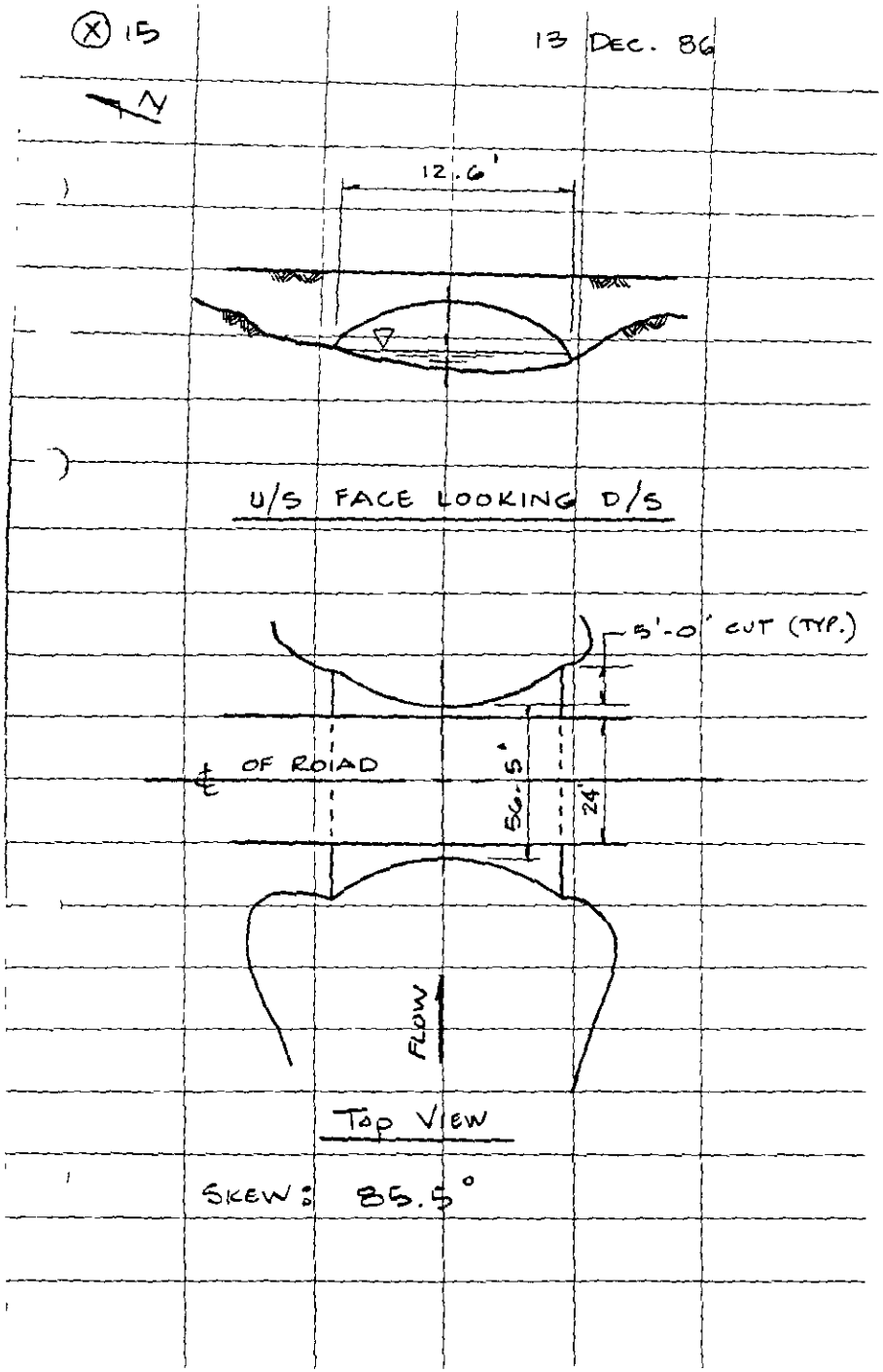


U/S FACE LOOKING D/S

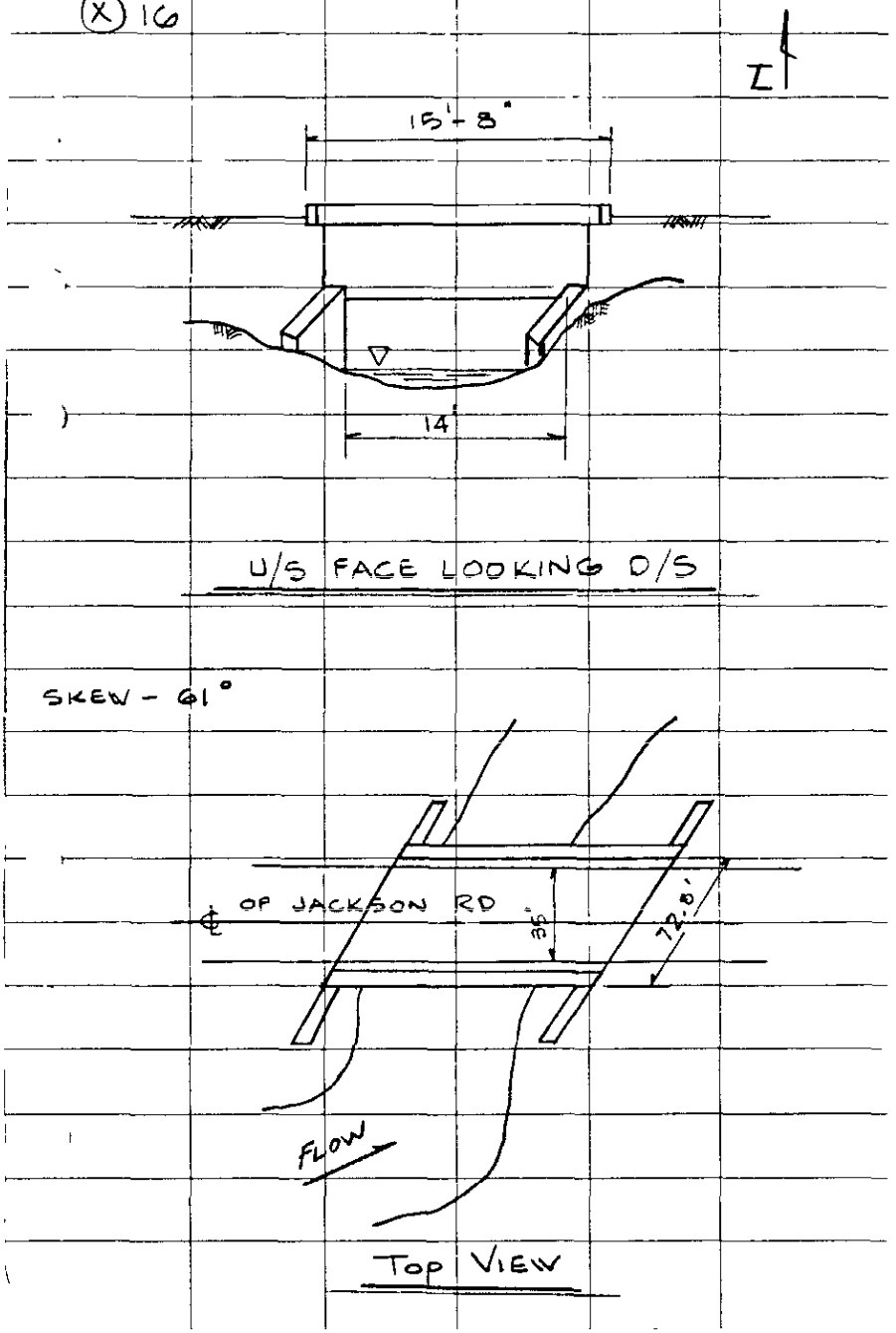
u/s face of concrete culvertes on Honey Run Drive over Tributary #3
x-section # 2500 on HEC-2 run



u/s face of CMP on Sarno-3M Drive over Tributary #2
x-section # 2645 on HEC-2 run

12 DEC 86

(X) 16



u/s face of box culvert on Jackson Rd over Tributary #2
X-section #45'5C on HEC-2 run

FLOOD INSURANCE STUDY



TOWNSHIP OF SCIO
MICHIGAN
WASHTENAW COUNTY



PRELIMINARY

Federal Emergency Management Agency

COMMUNITY NUMBER - 260537

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Honey Creek Triubtary No. 2	Panel 05P
Honey Creek Tributary No. 3	Panel 06P

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Flood Insurance Rate Map

Elevation Reference Marks

FLOOD INSURANCE STUDY

TOWNSHIP OF SCIO,
WASHTENAW COUNTY,
MICHIGAN

1 INTRODUCTION

1.1 Purpose of Study

This Flood Insurance Study investigates the existence and severity of flood hazards in the Township of Scio, Washtenaw County, Michigan, and aids in the administration of the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973. This study has developed flood risk data for various areas of the community that will be used to establish actuarial flood insurance rates and assist the community in its efforts to promote sound floodplain management. Minimum floodplain management requirements for participation in the National Flood Insurance Program are set forth in the Code of Federal Regulations at 44 CFR, 60.3.

In some states or communities, floodplain management criteria or regulations may exist that are more restrictive or comprehensive than the minimum Federal requirements. In such cases, the more restrictive criteria take precedence and the state (or other jurisdictional agency) will be able to explain them.

1.2 Authority and Acknowledgments

The sources of authority for this Flood Insurance Study are the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973.

The hydrologic and hydraulic analyses for this study were performed by the U.S. Army Corps of Engineers (COE), Detroit District, (the Study Contractor) for the Federal Emergency Management Agency (FEMA), under Inter-Agency Agreement No. EMW-85-E-1822, Project Order No. 1. This study was completed in 1987.

1.3 Coordination

On May 20, 1985, streams requiring detailed study were identified at a meeting attended by representatives of the Study Contractor, the Michigan Department of Natural Resources (MDNR), FEMA, and the Township of Scio. Results of the technical aspects of the study were coordinated with and reviewed and approved by the MDNR.

On , the results of this Flood Insurance Study were reviewed and accepted at a final coordination meeting attended by representatives of the Study Contractor, FEMA, and the community.

2.0 AREA STUDIED

2.1 Scope of Study

This Flood Insurance Study covers the incorporated area of the Township of Scio, Washtenaw County, Michigan. The area of study is shown on the Vicinity Map (Figure 1).

Flooding caused by overflow of Honey Creek and three of its tributaries was studied in detail.

Areas having low development potential or minimal flood hazards were previously studied using approximate analyses. The results were shown on the Flood Hazard Boundary Map for the Township of Scio, Michigan (Reference 1) and are incorporated into this Flood Insurance Study.

The areas studied were selected with priority given to all known flood hazard areas and areas of projected development or proposed construction through May 1992. The scope and methods of study were proposed to and agreed upon by FEMA and the Township of Scio.

2.2 Community Description

The Township of Scio is in central Washtenaw County in southeastern Michigan and has a total land area of 34.4 square miles. Scio is bordered by the City of Ann Arbor and the Township of Ann Arbor to the east, the Township of Lodi to the south, the Township of Lima to the west, and the Township of Webster to the north. Scio is served by Interstate 94 and Conrail. The 1980 population of the Township of Scio was reported to be 8,029 (Reference 2).

2.3 Principal Flood Problems

Based on gage records on the Huron River at Ann Arbor, periods of high runoff occur mostly in late winter and spring. The potential also exists for flooding to occur due to summer precipitation patterns (Reference 3).

2.4 Flood Protection Measures

Flood protection measures are not known to exist within the study area.

3.0 ENGINEERING METHODS

For the flooding sources studied in detail in the community, standard hydrologic and hydraulic study methods were used to determine the flood hazard data required for this study. Flood events of a magnitude that are expected to be equaled or exceeded once on the average during any 10-, 50-, 100-, or 500-year period (recurrence interval) have been selected as having special significance for floodplain management and for flood insurance rates. These events, commonly termed the 10-, 50-, 100-, and 500-year floods, have a 10-, 2-, 1-, and 0.2-percent chance, respectively, of being equaled or exceeded during any year. Although the

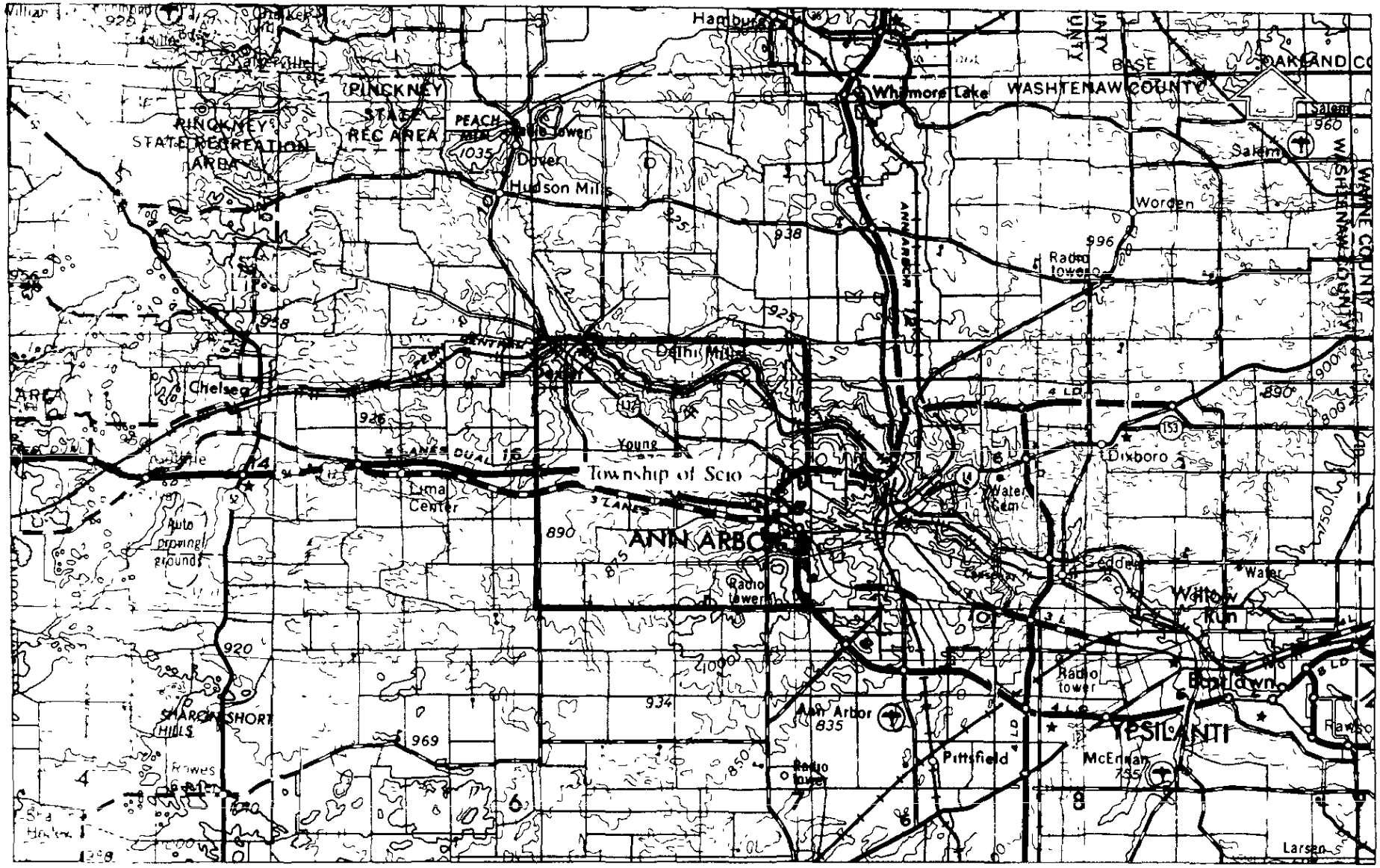

FIGURE 1

FEDERAL EMERGENCY MANAGEMENT AGENCY

TOWNSHIP OF SCIO, MI

(WASHTENAW CO.)

APPROXIMATE SCALE

3 0 3 6 9 MILES

VICINITY MAP

recurrence interval represents the long-term average period between floods of a specific magnitude, rare floods could occur at short intervals or even within the same year. The risk of experiencing a rare flood increases when periods greater than 1 year are considered. For example, the risk of having a flood that equals or exceeds the 100-year flood (1-percent chance of annual exceedence) in any 50-year period is approximately 40 percent (4 in 10), and, for any 90-year period, the risk increases to approximately 60 percent (6 in 10). The analyses reported herein reflect flooding potentials based on conditions existing in the community at the time of completion of this study. Maps and flood elevations will be amended periodically to reflect future changes.

3.1 Hydrologic Analyses

Hydrologic analyses were carried out to establish the peak discharge-frequency relationships for each riverine flooding source studied in detail affecting the community.

Because Honey Creek and its tributaries are ungaged, the U.S. Soil Conservation Service (SCS) unit hydrograph option of the HEC-1 computer program (Reference 4) was used to determine discharges. The first step in determining the discharges on Honey Creek and its tributaries was to find the drainage area at various points of interest. This was done using the COE "Gazetter of the Huron River Basin" (Reference 5). Subbasin delineations were determined based on topographic maps (Reference 6). SCS curve numbers were used to determine precipitation losses. Soil types were determined from both the general and detailed soil survey maps for Washtenaw County.

Rainfall-duration values were taken from Hydro 35 and Technical Paper No. 40 (References 7 and 8). Time of concentration values were computed using the following equations:

$V = 2.1s^{1/2}$ (small tributary and swamps with channels)
$= 1.2s^{1/2}$ (waterways and swamps without channels)
$= 0.48s^{1/2}$ (sheet flow)

$$t_c = \frac{\text{Length (feet)}}{V \times 3600}$$

where s is the slope of the channel in percent, V is the velocity of water in feet per second, length is the distance traveled by the various modes of conveyance, and t_c is the time of concentration in hours.

Downstream of Honey Creek Tributary No. 1, two Modified Puls routing reaches were added to account for the natural value storage. Data for the routings were based on preliminary HEC-2 step-backwater computer program runs (Reference 9).

Peak discharge-drainage area relationships for the 100-year floods of each flooding source studied in detail in the community are shown in Table 1.

TABLE 1 - SUMMARY OF DISCHARGES

FLOODING SOURCE AND LOCATION	DRAINAGE AREA (SQ MILES)	PEAK DISCHARGE (CFS) 100-YEAR
HONEY CREEK		
at mouth	22.6	1,740
just upstream of the confluence of Tributary No. 1	10.5	990
just upstream of the confluence of Tributary No. 2	4.9	420
just upstream of the confluence of Tributary No. 3	1.8	350
HONEY CREEK TRIBUTARY NO. 1		
at mouth	6.0	830
HONEY CREEK TRIBUTARY NO. 2		
at mouth	4.5	630
9,000 feet upstream of mouth	1.4	360
HONEY CREEK TRIBUTARY NO. 3		
at mouth	1.3	150

3.2 Hydraulic Analyses

Analyses of the hydraulic characteristics of flooding from the sources studied were carried out to provide estimates of the elevations of floods of the selected recurrence intervals.

Cross-section data for the backwater analyses were obtained by field surveys completed in 1986. Additional data downstream of Miller Road to downstream of Pratt Road and upstream of Dexter-Ann Arbor Road were obtained from the MDNR. All bridges and culverts were surveyed to obtain elevation data and structural geometry.

Locations of selected cross sections used in the hydraulic analyses are shown on the Flood Profiles and on the Flood Insurance Rate Map.

Channel and overbank roughness factors (Manning's "n") used in the hydraulic computations were chosen by engineering judgment and were based on field observation of the streams and floodplain areas. The channel "n" values for the four streams studied ranged from 0.035 to 0.050 and the overbank "n" values ranged from 0.03 to 0.07.

The starting water-surface elevation for Honey Creek was determined using the slope-area method and beginning the computations at the confluence of the Huron River. The starting water-surface elevations for the tributaries were also determined by the slope-area method. The water-surface elevations were developed using the HEC-2 step-backwater computer program (Reference 9).

Flood profiles were drawn showing the computed water-surface elevations for floods of the selected recurrence intervals.

The hydraulic analyses for this study are based on the effects of unobstructed flow. The flood elevations shown on the profiles are thus considered valid only if hydraulic structures remain unobstructed, operate properly, and do not fail.

All elevations are referenced to the National Geodetic Vertical Datum of 1929 (NGVD). Elevation reference marks used in this study are shown on the map and described in the exhibit labeled Elevation Reference Marks.

4.0 FLOODPLAIN MANAGEMENT APPLICATIONS

The National Flood Insurance Program encourages state and local governments to adopt sound floodplain management programs. Therefore, each Flood Insurance Study provides 100-year flood elevations and delineations of the 100- and 500-year floodplain boundaries and 100-year floodway to assist communities in developing floodplain management measures.

4.1 Floodplain Boundaries

To provide a national standard without regional discrimination, the 1-percent annual chance (100-year) flood has been adopted by FEMA as the base flood for floodplain management purposes. The 0.2-percent annual chance (500-year) flood is employed to indicate additional areas of flood risk in the community. For each stream studied in detail, the 100- and 500-year floodplain boundaries have been delineated using the flood elevations determined at each cross section. Between cross sections, the boundaries were interpolated using topographic maps at a scale of 1:24000 with a contour interval of 10 feet (Reference 6).

The 100-year floodplain boundaries are shown on the Flood Insurance Rate Map. On this map, the 100-year floodplain boundary corresponds to the boundary of the areas of special flood hazards (Zones A, AE, AH, AO, A99, V, and VE). Small areas within the floodplain boundaries may lie above the flood elevations but cannot be shown due to limitations of the map scale and/or lack of detailed topographic data.

For the streams studied by approximate methods, only the 100-year floodplain boundary was delineated using the Flood Hazard Boundary Map for the Township of Scio (Reference 1).

4.2 Floodways

Encroachment on floodplains, such as structures and fill, reduces the flood-carrying capacity, increases the flood heights and velocities, and increases flood hazards in areas beyond the encroachment itself. One aspect of floodplain management involves balancing the economic gain from floodplain development against the resulting increase in flood hazard. For purposes of the National Flood Insurance Program, a floodway is used as a tool to assist local communities in this aspect of floodplain management. Under this concept, the area of the 100-year floodplain is divided into a floodway and a floodway fringe. The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 100-year flood can be carried without substantial increases in flood heights. Minimum Federal standards limit such increases to 1.0 foot, provided that hazardous velocities are not produced. In Michigan though, under Michigan Act 245, Public Acts of 1929, as amended by Act 167, Public Acts of 1968 (Reference 10), encroachment in the floodplain is limited to that which will cause only an insignificant increase in flood heights. Thus, at the recommendation of the Bureau of the Water Management, a floodway having no more than a 0.1-foot surcharge has been delineated for this study. The floodways in this study are presented to local agencies as minimum standards that can be adopted directly or that can be used as a basis for additional floodway studies.

The floodways presented in this study were computed for certain stream segments on the basis of equal conveyance reduction from each side of the floodplain. Floodway widths were computed at cross sections. Between cross sections, the floodway boundaries were interpolated. The results of the floodway computations are tabulated for selected cross sections and are shown in Table 2, Floodway Data. The computed floodways are shown on the Flood Insurance Rate Map. In cases where the floodway and the 100-year floodplain boundaries are either close together or collinear, only the floodway boundary is shown.

Along streams where floodways have not been computed, the community must ensure that the cumulative effect of development in the floodplain will not cause an increase in the base flood elevations at any point within the community greater than the State's allowable surcharge.

The area between the floodway and the 100-year floodplain boundaries is termed the floodway fringe. The floodway fringe encompasses the portion of the floodplain that could be completely obstructed without increasing the water-surface elevation of the 100-year flood by more than the State's allowable surcharge at any point. Typical relationships between the floodway and the floodway fringe and their significance to floodplain development are shown in Figure 2.

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY (NGVD)	WITHOUT FLOODWAY (NGVD)	WITH FLOODWAY (NGVD)	INCREASE (FEET)
HONEY CREEK								
A	176	33	155	11.2	802.0	802.0	802.0	0.0
B	850	124	507	3.4	805.3	805.3	805.3	0.0
C	2,800	102	334	5.2	818.8	818.8	818.9	0.1
D	4,500	108	378	4.6	826.2	826.2	826.3	0.1
E	6,000	233	583	3.0	830.7	830.7	830.8	0.1
F	7,730	338	1,142	1.5	836.4	836.4	836.5	0.1
G	9,120	233	614	2.8	837.2	837.2	837.3	0.1
H	11,550	413	847	2.1	841.0	841.0	841.1	0.1
I	13,350	256	816	2.1	848.6	848.6	848.7	0.1
J	13,400	262	834	2.1	848.6	848.6	848.7	0.1
K	14,740	269	1,296	1.3	849.2	849.2	849.3	0.1
L	16,290	408	1,231	1.4	849.9	848.9	850.0	0.1
M	19,706	16	113	8.8	856.0	856.0	856.1	0.1
N	21,300	121	862	0.5	862.2	862.2	862.3	0.1
O	23,186	53	317	1.3	862.2	862.2	862.3	0.1
P	25,000	254	684	0.6	862.5	862.5	862.6	0.1
Q	27,600	97	223	1.9	869.2	869.2	869.3	0.1
R	31,340	62	246	1.7	881.9	881.9	882.0	0.1
S	35,520	226	365	1.2	884.7	884.7	884.8	0.1

[1] FEET ABOVE MOUTH

TABLE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

TOWNSHIP OF SCIO, MI
(WASHTENAW CO.)

FLOODWAY DATA

HONEY CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY (FEET NGVD)	WITHOUT FLOODWAY (FEET NGVD)	WITH FLOODWAY (FEET NGVD)	INCREASE (FEET)
HONEY CREEK TRIBUTARY NO 1								
A	950	38	143	5.8	857.7	857.7	857.8	0.1
B	1750	46	152	5.5	861.7	861 7	861.8	0.1
HONEY CREEK TRIBUTARY NO 2								
A	2686	152	532	1.2	863.5	863.5	863.6	0.1
B	5500	70	211	3.0	870.8	870.8	870 9	0.1
C	12,900	206	255	1 4	876.0	876 0	876 1	0 1
HONEY CREEK TRIBUTARY NO 3								
A	1000	55	84	1.8	886.3	886 3	886 4	0.1
B	2409	26	49	3.1	888.7	888 7	888 8	0 1
C	4650	138	287	0 5	890.2	890 2	890 3	0.1

[1] E MOUTH

TABLE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

TOWNSHIP OF SCIO, MI
(WASHTENAW CO.)

FLOODWAY DATA

HONEY CREEK TRIBUTARY NO. 1
HONEY CREEK TRIBUTARY NO. 2 –HONEY CREEK TRIBUTARY NO. 3

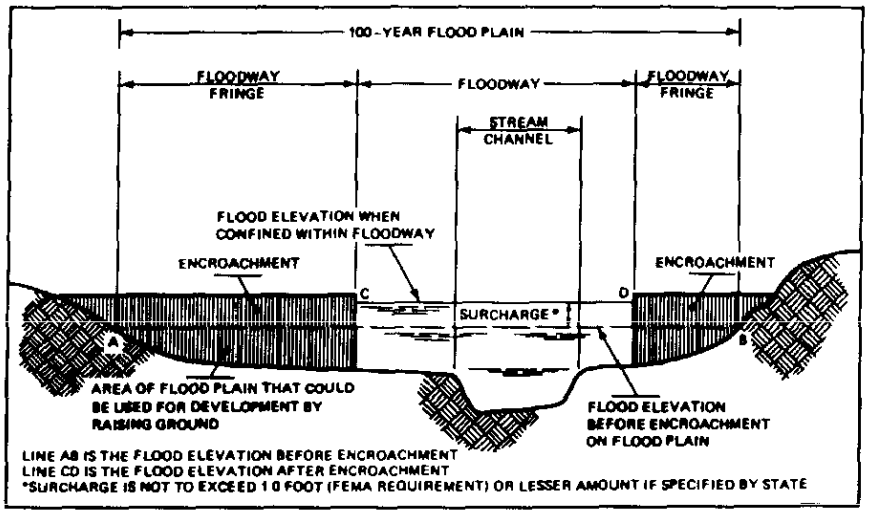

FIGURE 2 - Floodway Schematic

5.0 INSURANCE APPLICATION

For flood insurance rating purposes, flood insurance zone designations are assigned to a community based on the results of the engineering analyses. These zones are as follows:

Zone A

Zone A is the flood insurance rate zone that corresponds to the 100-year floodplains that are determined in the Flood Insurance Study by approximate methods. Because detailed hydraulic analyses are not performed for such areas, no base flood elevations or depths are shown within this zone.

Zone AE

Zone AE is the flood insurance rate zone that corresponds to the 100-year floodplains that are determined in the Flood Insurance Study by detailed methods. Whole-foot base flood elevations derived from the detailed hydraulic analyses are shown at selected intervals within this zone.

Zone X

Zone X is the flood insurance rate zone that corresponds to areas outside the 100-year floodplain, areas of 100-year flooding where average depths are less than 1 foot, areas of 100-year flooding where the contributing drainage area is less than 1 square mile, and areas protected from the 100-year flood by levees. No base flood elevations or depths are shown within this zone.

6.0 FLOOD INSURANCE RATE MAP

The Flood Insurance Rate Map is designed for flood insurance and floodplain management applications.

For flood insurance applications, the map designates flood insurance rate zones as described in Section 5.0 and, in the 100-year floodplains that were studied by detailed methods, shows selected whole-foot base flood elevations or average depths. Insurance agents use the zones and base flood elevations in conjunction with information on structures and their contents to assign premium rates for flood insurance policies.

For floodplain management applications, the map shows by tints, screens, and symbols the 100- and 500-year floodplains, the floodways, and the locations of selected cross sections used in the hydraulic analyses and floodway computations.

7.0 OTHER STUDIES

Flood Insurance Studies have been published for the City of Ann Arbor (Reference 11) and the Township of Ann Arbor (Reference 12) and are in agreement with this study.

This Flood Insurance Study supersedes the previously printed Flood Hazard Boundary Map for the Township of Scio (Reference 1).

8.0 LOCATION OF DATA

Information concerning the pertinent data used in the preparation of this study can be obtained by contacting the Natural and Technological Hazards Division, FEMA, 175 West Jackson Boulevard, 4th Floor, Chicago, Illinois 60604.

9.0 REFERENCES AND BIBLIOGRAPHY

1. U.S. Department of Housing and Urban Development, Federal Insurance Administration, Flood Hazard Boundary Map, Township of Scio, Washtenaw County, Michigan, November 1976.

2. U.S. Department of Commerce, Bureau of the Census, 1980 Census of Population, Number of Inhabitants, Michigan, Washington, D.C., January 1982.

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4. U.S. Army Corps of Engineers, HEC-1 Flood Hydrograph Package, Users Manual, Computer Program 723-X6-L2010, Davis, California, January 1985.

5. ————, Technical Paper No. 7, Gazetteer of the Huron River Basin, June 1972.

6. U.S. Geological Survey, 7.5 Minute Series Topographic Maps, Scale 1:24000, Contour Interval 10 Feet: Ann Arbor West, Michigan, 1965, photorevised 1983; and Dexter, Michigan, 1964, photorevised 1983.

7. U.S. Department of Commerce, National Oceanic and Atmospheric Administration, Technical Memorandum NWS Hydro 35, Five- to Sixty-Minute Precipitation Frequency for the Eastern and Central United States, June 1977.

8. ————, Technical Paper No. 40, Rainfall Frequency Atlas of the United States, Washington, D.C., May 1961.

9. U.S. Army Corps of Engineers, Hydrologic Engineering Center, HEC-2 Water-Surface Profiles, Generalized Computer Program 723-X6-L202A, Users Manual, Davis, California, April 1984.

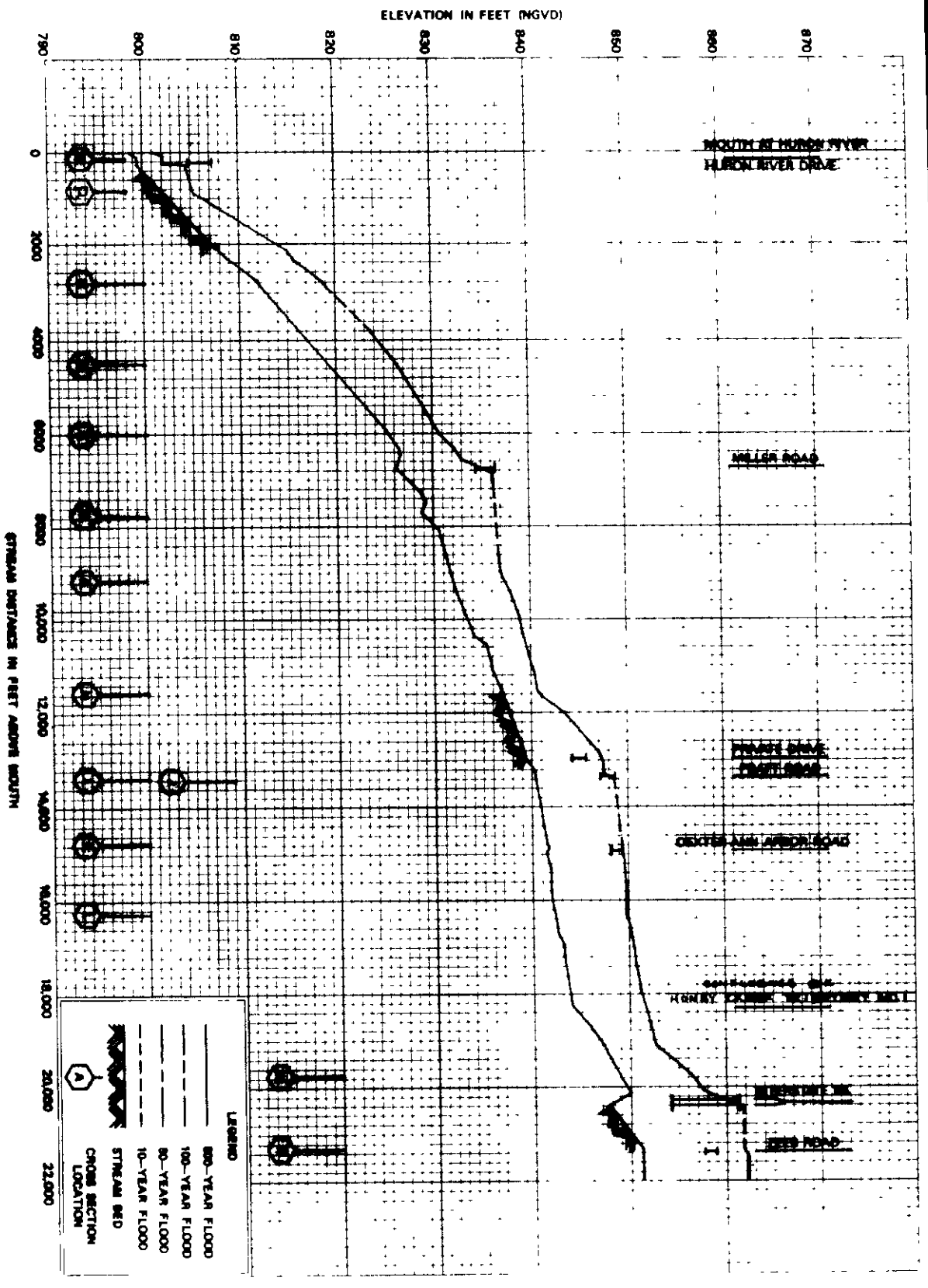
10. State of Michigan, Floodplain Control Act of 1968, Act 245, P.A. 1929 as amended by Act 167, P.A. 1968, Michigan Water Resources Commission, Lansing, Michigan, 1968.

11. Federal Emergency Management Agency, Flood Insurance Study, City of Ann Arbor, Washtenaw County, Michigan, August 1985.

12. ----------, Federal Insurance Administration, Flood Insurance Study, Township of Ann Arbor, Washtenaw County, Michigan, June 1980.

ELEVATION REFERENCE MARKS

REFERENCE MARK	FLOOD INSURANCE RATE MAP PANEL	ELEVATION (FEET NGVD)	DESCRIPTION OF LOCATION
1	0004	870.54	painted chiseled square 6.4 feet above drain center of west concrete headwall of culvert for Honey Creek Tributary No. 2 at intersection of Jackson Road and Staebler Road
2	0004	861.59	spike in utility pole located at southeast corner of intersection of Jackson Road and Jackson Industrial Drive
3	0012	880.59	painted chiseled square 6.5 feet above drain on southwest concrete wingwall of bridge over Honor Creek at intersection of Park Road and Staebler Road
4	0012	865.46	Square cut on southwest corner of wingwall located on south side of Jackson Road, 0.65 mile east of Zeeb Road bridge over Honey Creek Tributary No. 1
5	0011	900.91	painted orange chiseled square on east end of 20-inch concrete culvert at intersection of Strieter Road and Scio Church Road



FEDERAL EMERGENCY MANAGEMENT AGENCY

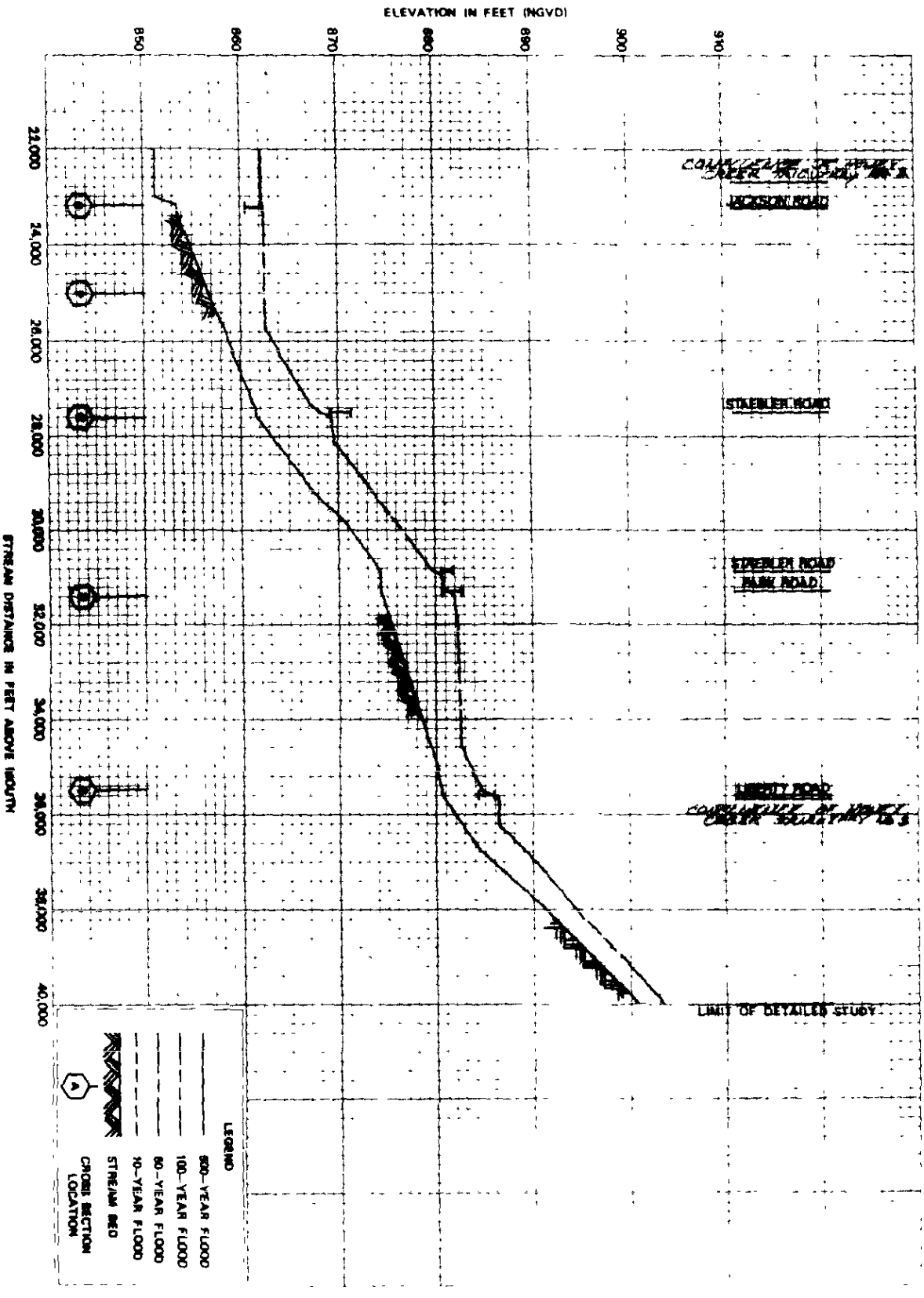
TOWNSHIP OF SCIO, MI

(WASHTENAW CO.)

FLOOD PROFILES

HONEY CREEK

01P



FEDERAL EMERGENCY MANAGEMENT AGENCY

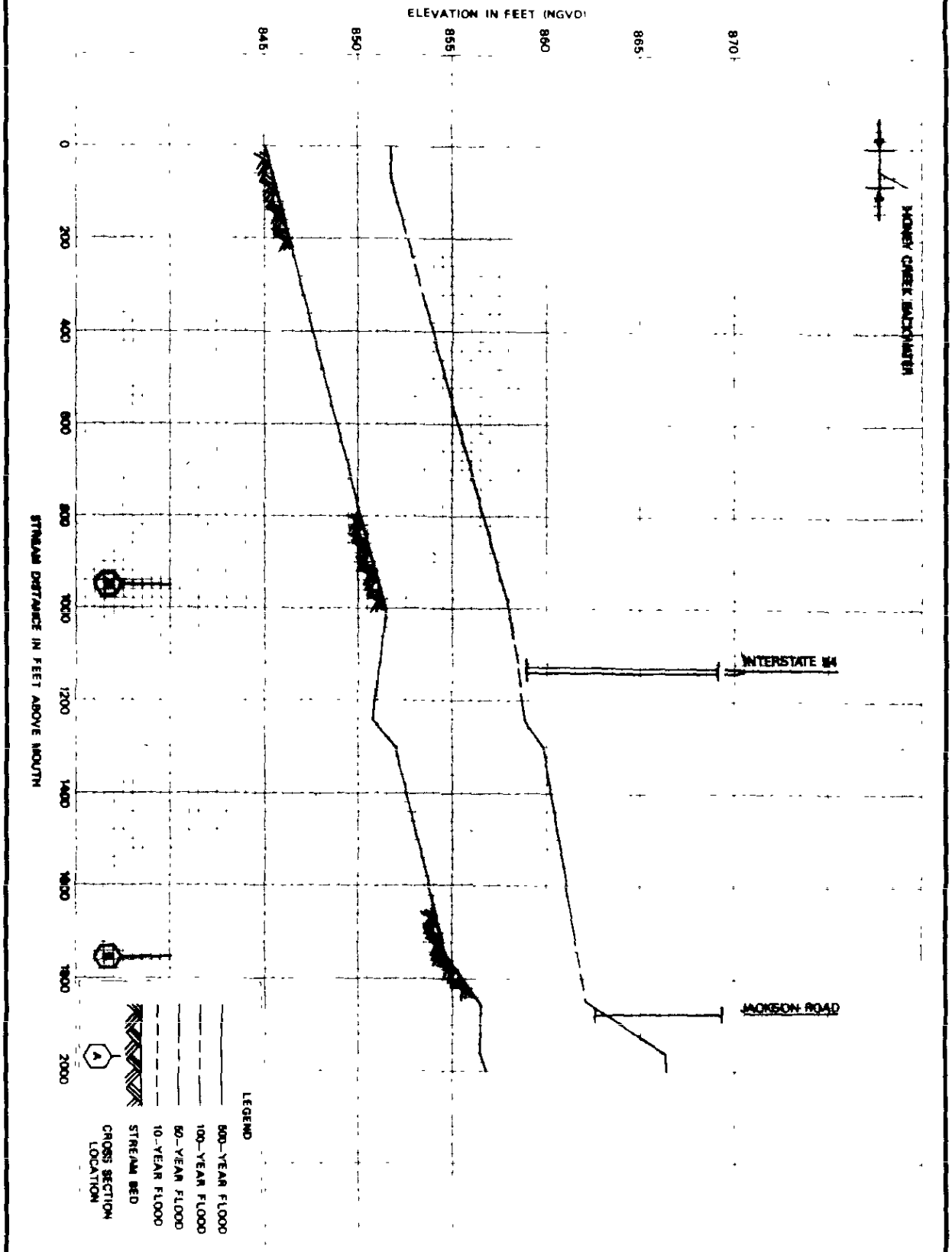
TOWNSHIP OF SCIO, MI

(WASHTENAW CO.)

FLOOD PROFILES

HONEY CREEK

02P



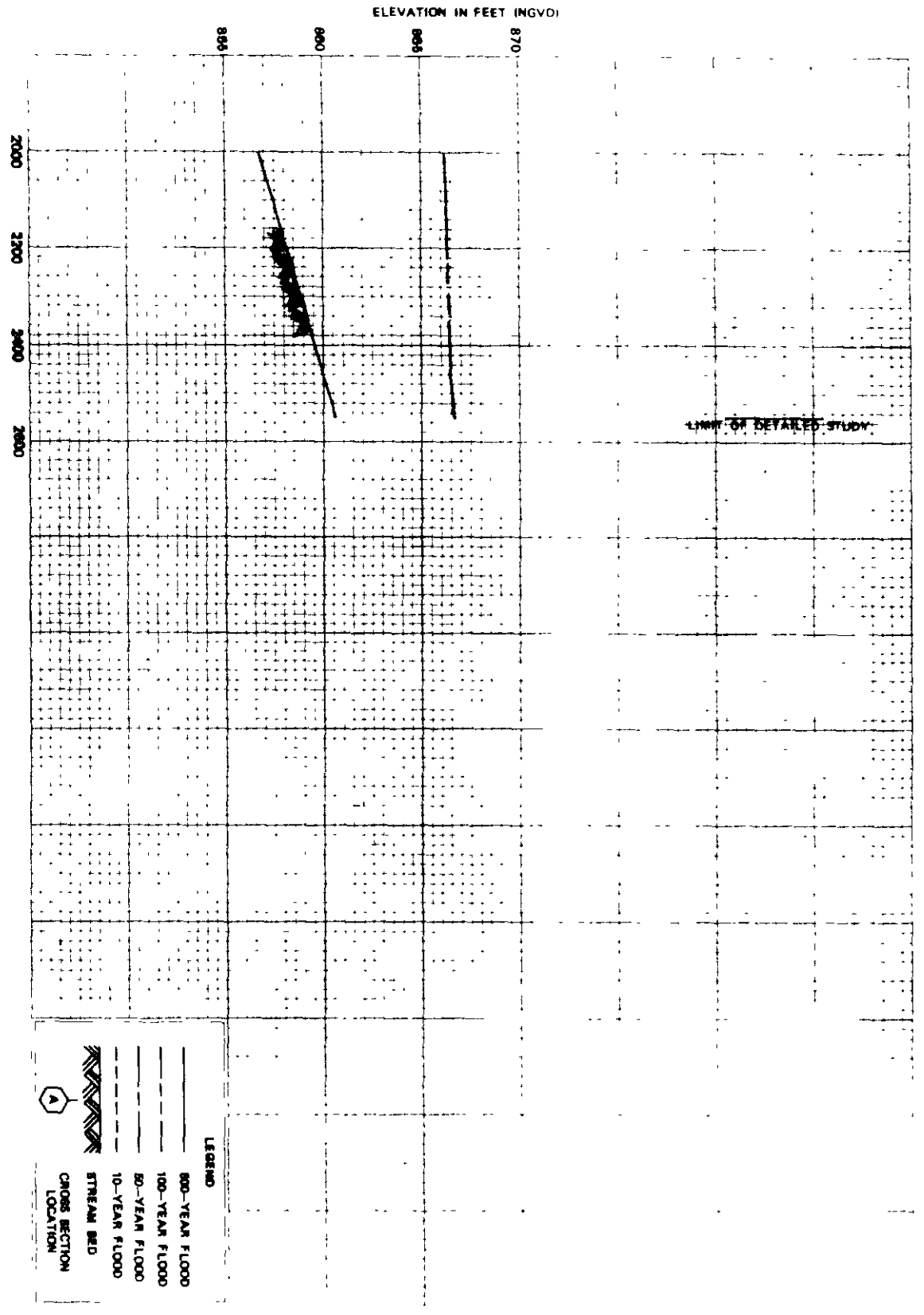
FEDERAL EMERGENCY MANAGEMENT AGENCY

TOWNSHIP OF SCIO, MI

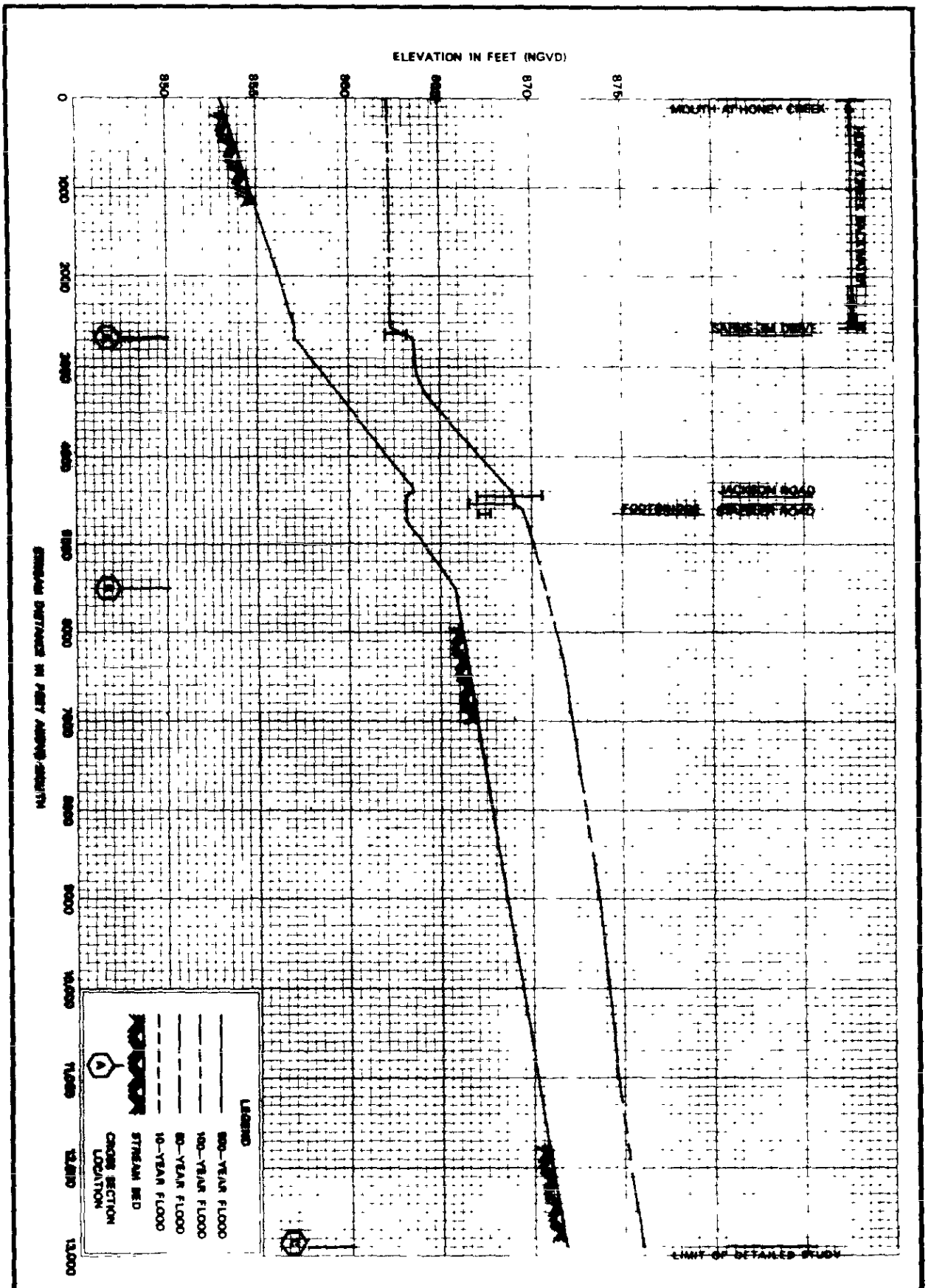
(WASHTENAW CO.)

FLOOD PROFILES

HONEY CREEK TRIBUTARY NO. 1



040	FEDERAL EMERGENCY MANAGEMENT AGENCY TOWNSHIP OF SCIO, MI (WASHTENAW CO.)	FLOOD PROFILES HONEY CREEK TRIBUTARY NO. 1

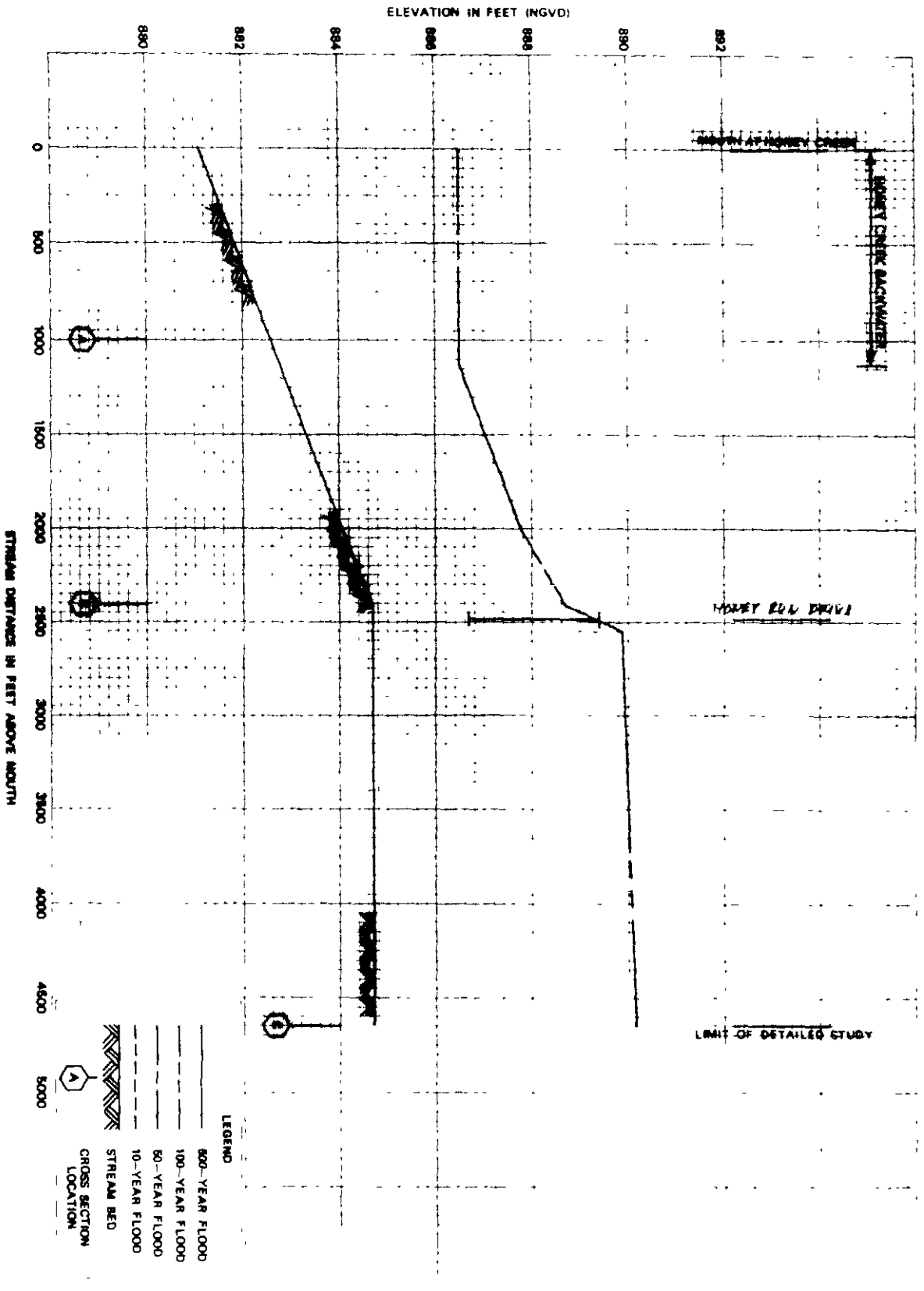


FEDERAL EMERGENCY MANAGEMENT AGENCY

[redacted]

FLOOD PROFILES

HONEY CREEK TRIBUTARY NO. 2


ELEVATION IN FEET (NGVD)
880
882
884
886
888
890
892
STREAM DISTANCE IN FEET ABOVE MOUTH
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
HONEY CREEK BACKWATER
HONEY RD. DRIVE
LIMIT OF DETAILED STUDY
LEGEND
500-YEAR FLOOD
100-YEAR FLOOD
50-YEAR FLOOD
10-YEAR FLOOD
STREAM BED
CROSS SECTION LOCATION

Scio Twp FIS

HONEY CREEK

100 YR FLOODPLAIN:

ENCROACHED

INP = HONEYH2E

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EEEEEE   EEEEEE        L       EEEEEE   EEEEEE
E        E             L       E        E
E        E             L       E        E
EEEE     EEEE          L       EEEE     EEEE
E        E             L       E        E
EEEEEE   EEEEEE        LLLLLL  EEEEEE   EEEEEE
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USACOE DETROIT H800 V05 5 1 1 PRINTER 6

EE EEE 4 MAR 87 10 36 45

TERMINAL 105

THIS RUN EXECUTED 4 MAR 87 10:21:37

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  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
**************************************************

C
T1       SCIO TWP FLOOD INSURANCE STUDY
T2       HONEY CREEK
T3       100 YEAR FLOODPLAIN

J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ
        0.       2.         0.         0.   0.000000       0.00       0.0        0.     808.020    0.000

J2  NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE
      1 000      0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

J3  VARIABLE CODES FOR SUMMARY PRINTOUT
    110.000    150.000    200.000      0.000      0.000      0 000      0 000      0.000      0.000      0.000

QT      1.000   1740.000   1740.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
NC      0.050      0.070      0.050      0.300      0.500      0.000      0.000      0.000      0.000      0.000
ET      0.000      4.100      1.400      0.000    304.000      0.000      0.000      0.000      0.000      0.000
X1      0.000     19.000    249.000    284.000      0.000      0.000      0.000      0.000     -0.650      0.000
GR    812.700      0.000    812.400     50.000    812.200    100.000    811.800    150.000    811.300    200.000
GR    810.400    249.000    802.500    250.000    800.800    254.000    799.500    260.000    799.700    265.000
GR    800.000    270 000    800.800    275.000    803.000    283.000    810.400    284.000    810.000    304.000
GR    809 400    350.000    809.000    400 000    808.500    450.000    808.300    500.000      0.000      0.000

ET      0.000      4.100      0.000      0.000    304.000      0.000      0.000      0.000      0.000      0.000
X1    125.000      0.000      0.000      0.000    125.000    125.000    125.000      0.000      0.500      0.000

ET      0.000      4.100      0.000      0.000    304.000      0.000      0.000      0.000      0.000      0.000
          DOWNSTREAM FACE OF HURON RIVER DRIVE
X1    176 000      0.000      0.000      0.000     51.000     51.000     51.000      0.000      0.150      0.000

SB      0.000      1.720      3.000      0.000     32.500      0.000    276.250      0.000      0.000      0.000
ET      0.000      4.100      0.000      0.000    304.000      0.000      0.000      0.000      0.000      0.000
          U/S FACE OF HURON RIVER DRIVE
X1    199 000     19.000    249.000    284.000     23.000     23.000     23.000      0.000      0.000      0.000
X2      0 000      0.000      1.000    808.700    808.300      0.000      0.000      0.000      0 000      0 000
BT     16.000      0.000    812.700      0.000     50.000    812 400      0.000    100.000    812.200      0.000
BT    150.000    811 800      0.000    200.000    811 300      0.000    249.000    810.400      0.000    250.000
BT    810.400    802.500    250.000    810.400    807.700    283.000    810.400    808.700    283.000    810.400
BT    803 000    284.000    810.400      0.000    304.000    810.000      0.000    350.000    809.400      0.000
BT    400.000    809.000      0.000    450 000    808.500      0.000    500.000    808.300      0.000      0.000
GR    812.700      0.000    812.400     50.000    812.200    100.000    811.800    150.000    811.300    200 000
GR    810.400    249 000    802.500    250.000    800.800    254.000    799.500    260.000    799.700    265.000
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Note:
See manual
Run for revisions
to XSEC 0 → 2100

GR	800.000	270.000	800.800	275.000	803.000	283.000	810.400	284.000	810.000	304.000
GR	809.400	350.000	809.000	400.000	808.500	450.000	808.300	500.000	0.000	0.000
NC	0.070	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	0.000	0.000	304.000	0.000	0.000	0.000	0.000	0.000
	UPSTREAM OF HURON RIVER DRIVE									
X1	250.000	0 000	0.000	0.000	51.000	51.000	51.000	0.000	0.200	0.000
ET	0.000	4.100	0.000	0.000	304.000	0.000	0.000	0.000	0.000	0.000
X1	850.000	0.000	0.000	0.000	600.000	600.000	600.000	0.000	2.300	0.000
ET	0.000	4.100	0.000	0.000	304 000	0 000	0.000	0.000	0.000	0.000
X1	1200.000	0.000	0.000	0.000	350.000	350.000	350.000	0.000	1.350	0.000
ET	0.000	0.000	6.100	0.000	0.000	210.000	375.000	0.000	0.000	0.000
X1	1850.000	19.000	220.000	252.000	650.000	650.000	650.000	0.000	-1.000	0.000
GR	847.000	0.000	845.000	50 000	840.000	105.000	830.000	135.000	820.000	175.000
GR	812.200	210.000	812.000	220 000	810.000	223.000	809 000	225.000	808.000	230.000
GR	807.600	235.000	807.800	240.000	808.500	245.000	810.000	250.000	812.000	252.000
GR	812.700	300.000	814.400	400.000	816 000	500.000	818.000	600.000	0.000	0.000
ET	0.000	0.000	1.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	2100.000	0.000	0.000	0.000	250 000	250.000	250.000	0.000	1.000	0.000
X1	2300.000	0.000	0.000	0.000	200.000	200.000	200.000	0.000	1.300	0.000
X1	2500.000	0.000	0.000	0.000	200.000	200.000	200.000	0.000	1.300	0.000
X1	2650.000	31.000	222.000	250.000	150.000	150.000	150.000	0.000	-1.000	0.000
GR	821.200	0.000	820 700	25.000	821.000	50.000	820.500	75.000	820.700	100.000
GR	819.900	125 000	817.900	150.000	816.900	175.000	816.900	200.000	815.900	222.000
GR	814.000	223 000	813.000	225.000	812.100	230.000	812.300	235.000	812.200	240.000
GR	813.300	245.000	814.000	246.000	815.700	250.000	816.300	263.000	836.400	305.000
GR	835.700	330.000	835.500	355.000	836.500	380.000	836.800	385.000	836.800	395.000
GR	836.500	401 000	836.000	406.000	836.400	412.000	836.600	437.000	837.500	462.000
GR	840 300	487.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	CROSS SECTION A									
X1	2800.000	0.000	0.000	0 000	150.000	150.000	150.000	0.000	1.000	0.000
NC	0.060	0.060	0.000	0.000	0.000	0.000	0.000	0 000	0.000	0.000
X1	3800.000	0.000	0.000	0 000	1000.000	1000.000	1000.000	0.000	4.100	0.000
X1	4500.000	0.000	0.000	0.000	700.000	700.000	700.000	0.000	2.900	0.000
	START OF MDNR PROVIDED DATA									
X1	5000.000	15.000	32.000	56.000	500.000	500.000	500.000	0.000	-5.500	0.000
X3	0 000	0.000	0.000	0.000	0.000	162.000	836.000	0.000	0.000	0.000
GR	840.000	0.000	838.000	10.000	836.000	15.000	834.000	20.000	832.000	23.000
GR	831.100	32 000	828.000	33 000	826.700	44.000	826.800	54.000	828.000	56.000
GR	830.000	75.000	830 000	265.000	832 000	330.000	834.000	500.000	836.000	600.000

NC	0.000	0.000	0.000	0 300	0.500	0 000	0.000	0.000	0.000	0.000
ET	0.000	0.000	6.100	0.000	0.000	32.000	265.000	0.000	0.000	0.000
X1	6000.000	0.000	0.000	0.000	1000.000	1000.000	1000.000	0.000	4.100	0.000
ET	0.000	4.100	6.100	32.000	182.000	32.000	175.000	0.000	0.000	0.000
X1	6330.000	0.000	0.000	0.000	330.000	330.000	330.000	0.000	1.400	0.000
ET	0.000	0 000	1.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	6430.000	17.000	68 000	92.000	250.000	50 000	100.000	0.000	0.000	0.000
X3	0.000	0.000	0 000	0.000	0.000	150.000	836.300	0.000	0.000	0.000
GR	840 000	0.000	838.000	20.000	836 000	30.000	834.000	42.000	832.000	52.000
GR	830.000	60.000	828.000	68.000	826.900	69.000	826.800	80.000	826.900	90.000
GR	828.800	92.000	830.000	110.000	830.000	251.000	832.000	331.000	834.000	451.000
GR	936.000	580.000	938.000	715.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.000	1.000	0 000	0.000	0.000	0.000	0.000
ET	0 000	4.100	6.100	168.000	217.000	172.000	213.000	0 000	0.000	0.000
X1	6680.000	15.000	180.000	205.000	250.000	250.000	200.000	0.000	0.000	0.000
GR	840 000	0.000	838 000	40.000	836.000	55.000	834.000	90.000	832.000	165.000
GR	830.000	175.000	829.100	180.000	826.900	180.100	826.300	192.000	827.000	203.000
GR	830 400	205.000	832.000	280.000	834.000	360.000	836.000	535.000	838.000	695.000
ET	0 000	0.000	1.400	0.000	0 000	0.000	0.000	0.000	0.000	0.000
	DOWNSTREAM FACE OF MILLER ROAD									
X1	6720.000	14.000	185.000	214.000	40.000	40.000	40.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	836.300	836.300	0.000
GR	840.500	0 000	835.700	100.000	831.300	185.000	827.400	187.000	826.800	200.000
GR	827 500	212.000	831.400	214.000	832.300	300.000	831.800	400.000	835.200	500.000
GR	837 500	600.000	838 200	700.000	838.300	800.000	839.800	900.000	0.000	0.000
SB	0.000	1.630	2.500	0.000	24.770	0.000	206.100	0.000	826.900	826.300
	UPSTREAM FACE OF MILLER ROAD									
X1	6770.000	14.000	186.000	214.000	50.000	50.000	50.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	834.520	836.300	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0 000	0.000	0.000	836.300	836.300	0.000
BT	15.000	0.000	840.000	0.000	50.000	838.300	0.000	100.000	837.400	0.000
BT	150.000	836.500	0.000	186 000	836.400	0.000	186.000	836.400	830.800	187.000
BT	836 400	834.520	213.000	836.300	834.520	213.000	836.300	827.400	214.000	836.300
BT	0.000	300.000	836.300	0 000	400.000	836.400	0.000	500.000	837.000	0.000
BT	600 000	837.800	0.000	700.000	838.700	0.000	0.000	0.000	0.000	0.000
GR	838.300	0.000	836.000	50.000	833.400	100.000	832.000	150.000	830.800	186.000
GR	827 300	187.000	826.200	200.000	827.400	213.000	829.600	214.000	834.200	300.000
GR	834 600	400.000	835.900	500.000	836 800	600.000	838.700	700.000	0.000	0.000
NC	0 040	0.050	0 040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	0.000	160.000	200.000	0.000	0.000	0.000	0.000	0.000
X1	6776.000	14.000	160 000	200.000	6.000	6.000	6.000	0.000	0.000	0.000
GR	839.200	0.000	837.800	25.000	835.400	75.000	833.500	125 000	831.400	160.000
GR	826.800	170.000	826.600	180.000	827.200	190.000	830.000	200.000	832.400	275.000
GR	833.500	375.000	835.200	425 000	836.600	475.000	838.300	580.000	0.000	0.000

ET	0.000	4.100	6.100	146.000	214.000	160.000	200.000	0.000	0 000	0.000
X1	6790.000	0.000	0.000	0.000	14.000	14.000	14.000	0.000	0.000	0.000
ET	0 000	0.000	1.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	6820.000	15.000	145.000	195.000	30.000	30 000	30.000	0 000	0.000	0.000
X3	0.000	0.000	0.000	100.000	836.300	228.000	836.300	0.000	0.000	0.000
GR	840.000	0.000	838.000	50.000	836.000	85.000	834.000	135.000	832.000	145.000
GR	828.700	150.000	827.000	154.000	826.900	168 000	827.400	182.000	828.500	186.000
GR	830.400	195.000	832.000	360.000	834.000	410.000	836.000	425.000	837 000	450.000
NC	0 000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
X1	7220.000	15.000	110.000	125.000	220.000	260.000	400.000	0.000	0.000	0.000
GR	840.000	0.000	838.000	25.000	836.000	65.000	834.000	85.000	832.000	90.000
GR	832.000	95.000	829.700	100.000	828.700	115.000	829.300	125.000	831.800	130.000
GR	832.000	510.000	834.000	690.000	836.000	720.000	838.000	760.000	840.000	805.000
ET	0.000	4.100	0.000	226.000	869.000	0.000	0.000	0.000	0.000	0.000
X1	7470.000	16.000	530.000	565.000	200.000	140.000	250.000	0.000	0.000	0.000
GR	840.000	0.000	838.000	95.000	836.000	215.000	834.000	280.000	832.000	380.000
GR	831.600	530 000	830.500	533.000	829.200	547.000	830.200	563.000	831.900	565.000
GR	832.800	645.000	834.000	750.000	836.000	840.000	836.000	1080.000	838.000	1130.000
GR	840 000	1160.000	0.000	0.000	0.000	0 000	0.000	0.000	0.000	0.000
X1	7730.000	15.000	465.000	510.000	190.000	250.000	260.000	0.000	0.000	0.000
GR	840.000	0.000	838.000	150.000	836.000	260.000	834.000	325.000	832.000	455.000
GR	832.000	465.000	830.300	467 000	828.700	485.000	830.700	503.000	831.400	505.000
GR	833.300	510.000	834.000	560 000	836.000	745.000	838.000	810.000	840.000	860.000
NC	0.070	0.060	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	8045.000	15.000	360 000	385.000	270.000	290.000	315.000	0.000	0.000	0.000
GR	840.000	0.000	838.000	40.000	836.000	80.000	834.000	125.000	833.300	347.000
GR	832.500	360.000	831.500	363.000	830.600	372.000	831.000	382.000	832.400	385.000
GR	833.800	397.000	834 000	425.000	836.000	645.000	838.000	655.000	840.000	675.000
X1	8385.000	13.000	330.000	344.000	200.000	350.000	340.000	0.000	0.000	0.000
GR	840 000	0.000	838 000	30.000	836.000	70.000	834.000	150.000	833.400	330.000
GR	831.700	331 000	831.000	337.000	833.600	344.000	833.900	348.000	834.000	440.000
GR	836.000	480.000	838.000	565 000	840.000	760.000	0 000	0.000	0.000	0.000
X1	8725 000	15 000	180 000	210.000	190.000	130.000	340.000	0.000	0.000	0.000
GR	840.000	0.000	838.000	50 000	836.000	90.000	834.000	140.000	834.000	180.000
GR	832.200	187.000	831.400	195.000	831.800	205.000	833.100	210.000	832.100	410.000
GR	836.000	465.000	858.000	480.000	838.000	530.000	838.000	610.000	840.000	780.000
X1	8970.000	16.000	391.000	406.000	50.000	150.000	245.000	0.000	0.000	0.000
GR	840.000	0.000	838.000	50.000	836.000	90 000	834.000	130.000	834.000	230.000
GR	834.000	380.000	834.200	391.000	832.400	393.000	831.600	399.000	832.500	405.000
GR	834.200	406.000	836.000	420.000	838.000	449.000	838.000	610.000	838.000	648.000
GR	840.000	868.000	0.000	0.000	0 000	0.000	0.000	0.000	0.000	0.000

X1	9120.000	12.000	323.000	340.000	150.000	110.000	150.000	0.000	0.000	0.000
GR	840.000	0.000	838.000	75.000	836.000	125.000	834.000	305.000	834.000	323.000
GR	833.200	324.000	831.900	332.000	833.000	339.000	834.500	340.000	836.000	385.000
GR	838.000	445.000	840.000	560.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9500.000	11.000	155.000	182.000	300.000	310.000	380.000	0.000	0.000	0.000
GR	840.000	0 000	838.000	60.000	836.000	110.000	835.200	155.000	833.400	157.000
GR	832.600	166 000	833.000	180 000	834.200	182.000	836.000	290.000	838 000	380.000
GR	840 000	530 000	0.000	0.000	0.000	0.000	0 000	0.000	0.000	0.000
X1	9970.000	10.000	308.000	324.000	310.000	360.000	470.000	0 000	0.000	0.000
GR	840.000	0.000	838.000	150.000	836.000	225.000	835.700	308.000	834.000	311.000
GR	833 300	317.000	834.000	322.000	835.400	324.000	838.000	510.000	840.000	808.000
X1	10325.000	9.000	548.000	575.000	210.000	165.000	355.000	0.000	0.000	0.000
GR	840.000	0.000	838.000	135.000	837.500	425.000	837.000	548.000	834.200	560.000
GR	834.700	572.000	834.000	575 000	838.000	680.000	840.000	880.000	0.000	0.000
X1	10510.000	9.000	530.000	555.000	170.000	170.000	185.000	0.000	0.000	0.000
GR	840.000	0.000	838.000	120.000	837.000	530.000	836.500	530.000	835.500	543.000
GR	835.500	555.000	837.500	555.000	838.000	710.000	840.000	830.000	0.000	0.000
X1	11115.000	9.000	520.000	535.000	560.000	260.000	605.000	0.000	0.000	0.000
GR	840.000	0.000	838.000	130.000	838.000	520.000	836.500	520.000	836.000	528.000
GR	836.700	535.000	838.000	535.000	838.000	605.000	840.000	680.000	0.000	0.000

END OF MDNR PROVIDED DATA

X1	11550 000	9.000	453.000	470.000	435.000	435.000	435.000	0.000	0.000	0.000
GR	842 000	0.000	839.200	165.000	839.200	453.000	837.500	453.000	837.000	460.000
GR	837 500	470.000	838.800	470.000	838.800	560.000	842.000	647.000	0.000	0.000
X1	11625.000	9.000	455.000	470.000	75.000	75 000	75.000	0.000	0.000	0.000
GR	842.300	0.000	839.700	165.000	839.700	455.000	837.700	455.000	837.200	460.000
GR	837.700	470.000	839.400	470.000	839.400	555.000	842.300	640.000	0.000	0.000
X1	11700.000	9 000	455.000	470.000	75.000	75.000	75.000	0.000	0.000	0.000
GR	842.700	0.000	840.300	160.000	840 300	455.000	837.900	455.000	837.300	460.000
GR	837.900	470.000	840.200	470 000	840.200	550 000	842.660	635.000	0.000	0.000
X1	11775.000	9 000	440.000	456.000	75.000	75.000	75.000	0.000	0.000	0.000
GR	843.000	0.000	840 800	145.000	840.800	440.000	838.000	440.000	837.400	448.000
GR	838 000	456.000	840.800	456.000	840.800	531.000	843 000	616.000	0.000	0.000
NC	0.000	0 070	0.000	0.300	0 500	0.000	0.000	0.000	0.000	0.000
X1	12000.000	9.000	387.000	402.000	225.000	225 000	225.000	0 000	0.000	0.000
GR	844.000	0.000	842 500	130.000	842.500	387.000	838.500	387.000	837.900	398.000
GR	838.600	402.000	841.900	402.000	841 900	485.000	844.000	585.000	0.000	0.000

ET	0.000	4.100	0.000	60.000	467.000	0.000	0.000	0.000	0.000	0.000
	DOWNSTREAM OF PRIVATE DRIVEWAY									
X1	12900.000	19.000	250.000	275.000	900.000	900.000	900.000	0.000	0.000	0.000
GR	845.700	0.000	845.400	50.000	845.000	100.000	845.100	150.000	845.300	200.000
GR	846.100	250.000	840.300	254.000	839.900	257.000	840.200	258.000	839.500	262.500
GR	839.800	265.500	839.500	268.000	840.100	271.000	846.000	275.000	845 400	300.000
GR	845 400	350.000	845.300	400.000	845.400	450.000	846.200	500.000	0 000	0.000
NC	0.000	0.000	0.000	0.000	1 000	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	0.000	72.000	454.000	0.000	0.000	0.000	0.000	0.000
X1	12950.000	33.000	250.000	275.000	50.000	50.000	50.000	0.000	0.000	0.000
GR	845 700	0.000	845.400	50.000	845.000	100.000	845.100	150.000	845.300	200.000
GR	846.100	250 000	841.000	254.500	839.400	255.000	838.800	255.700	838.600	257.000
GR	838.800	258.300	839 400	259.000	841.000	259.500	841.400	260.000	839.800	260.500
GR	839.200	261.200	838.900	262.500	839.200	263.700	839.800	264.500	841.400	265.000
GR	841.900	265.600	840.200	266.200	839.600	267.000	839.400	268.200	839.600	269.300
GR	840.200	270.000	841 900	270.800	846.000	275.000	845.400	300.000	845.400	350.000
GR	845.300	400.000	845.400	450.000	846.200	500.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	6.100	73.000	454.000	73 000	410.000	0.000	0.000	0.000
	DOWNSTREAM FACE OF PRIVATE DRIVEWAY									
X1	12951.000	0.000	0.000	0.000	1 000	1.000	1.000	0.000	0.000	0.000
BT	32.000	0 000	845.700	0 000	50.000	845.400	0.000	100.000	845.000	0.000
BT	150.000	845.100	0.000	200.000	845.300	0.000	250.000	846.100	0.000	254.500
BT	845 900	841.000	255.000	845.900	842.700	255.700	845 900	843.300	257.000	845.900
BT	843.600	258.300	845.900	843.300	259 000	845.900	842.700	259.500	845.900	841.000
BT	260.000	845.900	841.400	260.500	845 900	842.900	261.200	845.900	843.600	262.500
BT	845.900	843.900	263.700	845.900	843.600	264.500	845.900	842.900	265.000	845.900
BT	841.400	265.600	845.900	841.900	266.200	845.900	843.500	267.000	845.900	844.200
BT	268.200	845.900	844.400	269.300	845 900	844.200	270.000	845.900	843.500	270.800
BT	845.900	841.900	275.000	846.000	0.000	300.000	845.400	0.000	350.000	845.400
BT	0.000	400.000	845.300	0 000	500.000	846.200	0.000	0.000	0.000	0.000
ET	0.000	4.100	6.100	76.000	451.000	76.000	407.000	0.000	0.000	0.000
	U/S FACE OF PRIVATE DRIVEWAY									
X1	12963.000	0 000	0.000	0.000	12 000	12.000	12.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
ET	0.000	4.100	6.100	76 000	451.000	76.000	416.000	0.000	0.000	0.000
X1	12964.000	0.000	0.000	0.000	1 000	1.000	1.000	0.000	0.000	0.000
NC	0.040	0.040	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	6.100	87.000	437.000	87.000	404.000	0.000	0.000	0.000
	UPSTREAM OF PRIVATE DRIVEWAY									
X1	13014.000	19.000	250.000	275.000	50.000	50.000	50.000	0.000	0.000	0.000
GR	845.700	0.000	845.400	50 000	845.000	100.000	845.100	150.000	845.300	200.000
GR	846.100	250 000	840.300	254.000	839.900	257.000	840.200	258.000	839.500	262.500
GR	839 800	265.500	839.500	268.000	840.100	271.000	846.000	275.000	845.400	300.000
GR	845.400	350 000	845.300	400.000	845.400	450.000	846.200	500.000	0.000	0.000

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ET      0.000      0.000      1.400      0.000      0.000      0.000      0.000      0.000      0.000      0.000
X1  13253.000     26.000    224.000    260.000    239.000    239.000    239.000      0.000      0.000      0.000
GR    853.200      0.000    852.100     25.000    850.900     50.000    849.900     75.000    849.300    100.000
GR    849.000    125.000    848.800    150.000    848.800    175.000    845.500    200.000    842.200    224.000
GR    842.100    224.000    842.100    224.800    840.700    242.500    840.800    243.300    842.000    259.200
GR    842.000    260.000    842.100    260.000    845.200    310.000    848.100    335.000    847.900    360.000
GR    847.600    385.000    847.500    410.000    847.470    435.000    847.200    460.000    847.900    485.000
GR    848.400    510.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

NC      0.000      0.000      0.000      0.300      0.500      0.000      0.000      0.000      0.000      0.000
          DOWNSTREAM FACE OF PRATT ROAD
X1  13304.000      0.000      0.000      0.000     51.000     51.000     51.000      0.000      0.000      0.000

SB      0.000      1.770      3.000      0.000     35.170      0.000    204.320      0.000      0.000      0.000
          U/S FACE OF PRATT ROAD
X1  13350.000      0.000      0.000      0.000     46.000     46.000     46.000      0.000      0.000      0.000
X2      0.000      0.000      1.000    847.400    847.470      0.000      0.000      0.000      0.000      0.000
BT     28.000      0.000    853.210      0.000     25.000    852.100      0.000     50.000    850.920      0.000
BT     75.000    849.870      0.000    100.000    849.320      0.000    125.000    849.000      0.000    150.000
BT    848.780      0.000    175.000    848.790      0.000    200.000    848.860      0.000    224.000    848.850
BT    842.100    224.800    848.850    842.100    224.800    848.850    847.400    242.500    848.780    847.380
BT    242.500    848.780    840.700    243.300    848.780    840.800    243.300    848.780    847.380    259.200
BT    848.700    847.300    259.200    848.700    842.000    260.000    848.690    842.000    310.000    848.400
BT      0.000    335.000    848.090      0.000    360.000    847.870      0.000    385.000    847.600      0.000
BT    410.000    847.520      0.000    435.000    847.470      0.000    460.000    847.620      0.000    485.000
BT    847.920      0.000    510.000    848.440      0.000      0.000      0.000      0.000      0.000      0.000

NC      0.000      0.000      0.060      0.000      0.000      0.000      0.000      0.000      0.000      0.000
          UPSTREAM OF PRATT ROAD
X1  13400.000      0.000      0.000      0.000     50.000     50.000     50.000      0.000      0.000      0.000

NC      0.070      0.050      0.000      0.300      0.500      0.000      0.000      0.000      0.000      0.000
ET      0.000      4.100      6.100    349.000    649.000    380.000    649.000      0.000      0.000      0.000
          DOWNSTREAM OF DEXTER-ANN ARBOR ROAD
X1  14740.000     13.000    490.000    508.000   1340.000   1340.000   1340.000      0.000      0.000      0.000
GR    844.800    300.000    845.000    360.000    845.300    430.000    845.000    490.000    844.000    491.000
GR    843.000    492.000    842.000    492.000    841.700    500.000    842.000    502.000    843.000    503.000
GR    844.100    508.000    844.300    600.000    845.000    745.000      0.000      0.000      0.000      0.000

ET      0.000      0.000      1.400      0.000      0.000      0.000      0.000      0.000      0.000      0.000
          D/S FACE OF DEXTER-ANN ARBOR ROAD--START OF MDNR PROVIDED DATA
X1  14790.000     20.000    485.000    515.000     50.000     50.000     50.000      0.000      0.000      0.000
GR    848.400    335.000    846.000    465.000    845.000    485.000    844.000    492.000    842.900    492.000
GR    842.000    494.000    841.500    500.000    842.000    506.000    842.900    507.000    844.100    507.000
GR    845.000    515.000    846.000    568.000    847.000    575.000    848.000    590.000    849.000    607.000
GR    850.000    625.000    851.000    650.000    852.000    660.000    853.000    680.000    854.000    720.000

SB      0.000      2.220      2.800      0.000     27.660      6.000    139.000      0.000    841.950    841.950
ET      0.000      4.100      6.100    100.000    550.000    420.000    508.000      0.000      0.000      0.000
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U/S FACE OF DEXTER-ANN ARBOR ROAD

X1	14890.000	18.000	490.000	508.000	60.000	160.000	100.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	848.370	849.200	0.000	0.000	0.000	0.000	0.000
BT	9.000	0.000	850.000	0.000	210 000	848.400	0.000	478.000	848.800	0.000
BT	478.100	850 090	0.000	518.000	850.090	0.000	518.100	849.200	0.000	610.000
BT	849 800	0.000	710.000	852.900	0.000	748.000	853.600	0.000	0.000	0.000
GR	848.000	0.000	846.000	200.000	845.000	410.000	844.000	455.000	844.100	490.000
GR	843.000	492.000	842.000	492.000	841.900	500.000	842.000	507.000	843.000	507.000
GR	844.100	508.000	845.000	575.000	846.000	590.000	849.000	610.000	850.000	625.000
GR	851.000	660.000	852.000	700.000	854.000	720.000	0.000	0.000	0.000	0.000
NC	0.060	0.060	0.045	0.100	0.300	0.000	0.000	0.000	0.000	0.000
ET	0 000	0.000	1.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000

UPSTREAM OF DEXTER-ANN ARBOR ROAD

X1	15060.000	13.000	490.000	508.000	120.000	180.000	170.000	0.000	0.000	0.000
GR	844.800	300.000	845.000	360.000	845.300	430 000	845.000	490.000	844.000	491.000
GR	843.000	492.000	842 000	492.000	841.700	500.000	842.000	502.000	843.000	503.000
GR	844.100	508.000	844.300	600 000	845.000	745.000	0.000	0.000	0.000	0.000
X1	15290.000	20.000	490.000	520.000	220.000	240.000	230.000	0.000	0.000	0.000
GR	846.000	215.000	846.200	370.000	845.000	490.000	843.900	491.000	843.000	491.000
GR	842.300	492.000	842.000	500.000	843.400	509.000	843.000	512.000	843.900	512.000
GR	845.000	520 000	845.300	550.000	845.000	575.000	844.000	600.000	845.000	700.000
GR	846.000	710.000	847.000	725.000	848.000	745.000	849.000	765.000	850.000	780.000
X1	15790.000	21.000	485.000	513.000	500.000	500.000	500.000	0.000	0.000	0 000
GR	850.000	147.000	849.000	195.000	848.000	215.000	847.000	245.000	846.000	305.000
GR	845.000	485.000	843.900	490.000	843.000	490.000	842.400	492.000	842.000	500.000
GR	842.400	507.000	843.000	510 000	843.900	511.000	845.000	513.000	845.800	555.000
GR	845.000	595.000	844.000	599.000	844.000	605.000	845.000	610.000	846.000	705.000
GR	849.000	740.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	16290.000	16.000	295.000	314.000	480.000	440.000	500.000	0.000	0.000	0.000
GR	848.000	0.000	848.000	135.000	847.000	208.000	846.000	270.000	845.800	295.000
GR	843 500	295.000	843.000	297.000	842.300	305.000	843.000	311.000	843.500	313.000
GR	846.700	314.000	847 000	414.000	848.000	439.000	849.000	454.000	850.000	484.000
GR	854.000	730.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	16680.000	19.000	490.000	508.000	345.000	380 000	390.000	0.000	0.000	0.000
GR	849.000	240.000	849.200	265.000	849.000	290.000	848.000	440.000	847.000	470.000
GR	846.000	480.000	849.000	490.000	844.000	491.000	842.600	493.000	843.500	500.000
GR	842.600	507.000	844.000	507.000	845.000	508.000	846.000	525.000	848.000	595.000
GR	849.000	680.000	850.000	725.000	851.000	745.000	852.000	765.000	0.000	0.000
ET	0 000	4.100	0.000	225.000	693.710	0.000	0.000	0.000	0.000	0.000
X1	16975.000	16.000	470.000	515.000	225.000	225.000	295.000	0.000	0.000	0.000
GR	849.800	225.000	849.000	280.000	849.000	365.000	849.000	440.000	847.300	455.000
GR	848.000	460.000	848.000	470.000	844.500	485.000	843.200	492.000	843.400	507.000
GR	847.000	515.000	847.800	525.000	848.000	560.000	849.000	640.000	850.000	680.000
GR	853.000	770.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	17286.000	20.000	485.000	520.000	160.000	275.000	311.000	0.000	0.000	0.000
GR	851.400	202.000	851.000	210.000	850.000	216.000	849.000	225.000	849.000	338.000
GR	850.000	340.000	850.300	355.000	849.700	370.000	848.000	390.000	847.000	425.000
GR	846.000	485.000	845.000	490.000	843.400	494.000	843.200	500.000	843.200	507.000
GR	845 000	509.000	848.000	520.000	849.000	575.000	850.000	635 000	851.000	675.000
X1	17657.000	17.000	475.000	511.000	310.000	120.000	371.000	0.000	0.000	0.000
GR	850.000	94 000	849.000	148.000	849.000	245.000	848.900	285.000	849.000	337.000
GR	849.600	385 000	849.000	475.000	845.800	488.000	843.900	492.000	843.600	500.000
GR	843.900	507.000	846.000	509.000	847 000	511.000	848.000	518.000	849.000	527.000
GR	850.000	572.000	852.000	660.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	17980.000	22.000	492.000	509.000	175.000	195.000	323.000	0.000	0.000	0.000
GR	851.000	270.000	851.200	305.000	851 000	350.000	850.000	370.000	849.600	395.000
GR	850.000	425.000	850.200	435.000	850.000	445.000	847.000	465.000	846.500	492.000
GR	844.200	493.000	843.900	500.000	844 200	507.000	846.500	509.000	847.000	512.000
GR	848.000	520.000	848.200	530.000	848 000	542.000	848.000	555.000	849.000	565.000
GR	850.000	585.000	852.000	700.000	0.000	0.000	0.000	0.000	0.000	0.000
QT	1 000	990 000	990.000	0.000	0.000	0.000	0.000	0 000	0.000	0.000
X1	18240 000	13.000	490.000	509.000	255.000	245.000	260.000	0.000	0.000	0.000
GR	851.400	330.000	851.200	400.000	850.800	445.000	850.000	455 000	848.600	490.000
GR	847.200	492.000	844.000	494.000	844.800	505.000	847.200	507.000	848.800	509.000
GR	849.000	522.000	850.000	555.000	850.700	620.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	0.000	308.000	691.000	0.000	0.000	0.000	0.000	0.000
	END OF MDNR PROVIDED DATA									
X1	18690 000	13 000	491.000	508.000	330.000	330.000	450.000	0.000	0.000	0.000
GR	852.000	255.000	851.000	307.000	850.000	380.000	849.000	445.000	848.000	491.000
GR	846.500	493 000	846.000	500.000	846.500	507.000	848.900	508.000	849.000	520.000
GR	850.000	530.000	851.000	580.000	852.000	690.000	0.000	0.000	0.000	0.000
NC	0.050	0.050	0.035	0.000	0.800	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	0.000	109.000	387.000	0.000	0.000	0.000	0.000	0.000
X1	18900 000	14.000	239.000	257.000	210.000	210.000	210.000	0.000	0.200	0.000
GR	853.200	0.000	852.400	40.000	851 800	90.000	851.000	140.000	850.300	190.000
GR	849.200	239 000	846.700	240.000	846.400	250.000	846.800	256.000	849.600	257.000
GR	850.400	280.000	852.000	390.000	852.400	440.000	852.800	490.000	0.000	0.000
X1	19114.000	14 000	249.000	267.000	214.000	214.000	214.000	0.000	0.370	0.000
GR	854.200	0.000	853.600	50.000	853.000	100.000	852.400	150.000	851.500	200.000
GR	850.400	249.000	847.200	250.000	846.800	260 000	847.200	266.000	850.600	267.000
GR	851.600	300.000	852.900	350.000	853.300	400.000	853.900	450.000	0.000	0.000
ET	0.000	4 100	6.100	205 000	311.000	205.000	267.000	0 000	0.000	0.000
X1	19264.000	0.000	0.000	0 000	150.000	150.000	150.000	0.000	0.400	0.000
ET	0 000	0.000	1.400	224.000	271 000	0.000	0.000	0.000	0.000	0.000
X1	19314 000	15.000	250.000	266.000	50.000	50.000	50.000	0.000	-0.200	0.000
GR	856.200	0.000	855.800	50 000	855.400	100.000	855.000	150.000	854.900	200.000
GR	852 400	220.000	852.000	250 000	848.000	250.000	847.900	260.000	848.000	266.000
GR	851.500	266.000	854.500	300.000	855.100	350.000	855.500	400.000	855.900	450.000

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X1  19706.000    15.000   250.000   266.000   392.000   392.000   392.000     0.000    -0.400     0.000
GR    858.800     0.000   858.600    50.000   858.400   100.000   858.200   150.000   857.900   200.000
GR    856.900   240.000   856.000   250.000   849.700   250.000   849.300   260.000   849.700   266.000
GR    856.000   266.000   857.500   300.000   858.300   350.000   858.600   400.000   858.800   450.000

ET      0.000     0.000     4.100   248.400   269.340     0.000     0.000     0.000     0.000     0.000
          DOWNSTREAM OF NORTH SIDE OF INTERSTATE 94
X1  20099.000    20.000   250.000   266.800   393.000   393.000   393.000     0.000     0.000     0.000
GR    861.300     0.000   861.400    50 000   861.200   100.000   861.100   150.000   861.000   200.000
GR    859.700   220.000   859.800   233.200   859.800   248.000   850.000   250.000   850.600   255.000
GR    850.600   258 000   850.300   258.800   850.400   260.000   850.400   266.800   859.800   270.000
GR    860.200   300.000   860.700   350.000   861.000   400.000   861.000   450.000   861.300   500.000

ET      0.000     0.000     1.400     0.000     0.000     0.000     0.000     0.000     0.000     0.000
          D/S FACE OF NORTH SIDE OF INTERSTATE 94
X1  20150.000    20.000   250.000   266.800    51.000    51.000    51.000     0.000     0.000     0.000
GR    861.300     0.000   861.400    50.000   861.200   100.000   861.100   150.000   861.000   200.000
GR    859 700   220.000   859.800   233.200   859.800   250.000   850.000   250.000   850.600   255.000
GR    850.600   258.000   850.300   258 800   850.400   260.000   850.400   266.800   859.800   266.800
GR    860.200   300.000   860.700   350.000   861.000   400.000   861.000   450.000   861.300   500.000

CB      0.000     2.400     3.000     0.000    16.800     0.000    88.000     0.000     0.000     0.000
          U/S FACE OF SOUTH SIDE OF INTERSTATE 94
X1  20357.000    20.000   250.000   266.900   207.000   207.000   207.000     0.000     0.000     0.000
X2      0.000     0.000     1.000   855.300   861.500     0.000     0.000     0.000     0.000     0.000
BT     19.000     0.000   861.800     0.000    50.000   861.700     0.000   100.000   861.600     0.000
BT    150.000   861 600     0.000   200 000   861.600     0.000   250.000   861.600   849.600   250.000
BT    861.600   855.300   258.000   861.600   855.300   258.000   861.600   849.900   258.800   861.600
BT    855 300   258.800   861.600   850.500   266.900   861.500   855.400   266.900   861.500   849.700
BT    280.000   861.500     0.000   300.000   861.600     0.000   350.000   861.600     0.000   400.000
BT    861.700     0 000   450.000   861.900     0.000   500.000   862.000     0.000     0.000     0.000
GR    861.800     0.000   861.700    50.000   861.600   100.000   861.600   150.000   861.600   200.000
GR    847.700   250.000   849.600   250.000   849.700   255.000   849.900   258.000   850.500   258.800
GR    849.300   260.000   850 300   265.000   849.700   266.900   849.800   266.900   861.500   280.000
GR    861 600   300.000   861.600   350.000   861.700   400.000   861.900   450.000   862.000   500.000

          UPSTREAM OF SOUTH SIDE OF INTERSTATE 94
X1  20408 000     0.000     0.000     0.000    51.000    51.000    51.000     0.000     0.000     0.000

ET      0.000     4.100     6.100   100.000   341.000   100.000   266.000     0.000     0.000     0.000
          CROSS SECTION DOWNSTREAM OF ZEEB ROAD--CROSS SECTION B
X1  21300.000    30.000   190.000   250.000   892 000   892.000   892.000     0.000     0.000     0.000
GR    862.700     0.000   863.100    25 000   862.100    50 000   860.400    75.000   856.000   100.000
GR    856.100   125.000   857.400   150.000   858.500   175.000   856.500   190.000   852.600   203.000
GR    851.800   207.000   851.500   210.000   851.700   215.000   851.600   220.000   851.200   225.000
GR    851.500   230.000   852 000   234.000   853.000   243.000   856 700   250.000   857.500   260.000
GR    858.600   275.000   860.500   300.000   862.500   325.000   863 100   350.000   863.500   375.000
GR    863.400   400.000   863.200   425.000   863 400   450.000   863.300   475.000   863.100   500.000
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ET	0.000	0.000	1.400	0.000	0.000	0.000	0 000	0.000	0.000	0.000
		D/S FACE OF ZEEB ROAD								
X1	21375.000	24.000	150.000	181.200	75.000	75.000	75.000	0.000	0.000	0.000
GR	869.700	0.000	867.500	50.000	865.200	100.000	859.000	150 000	851.000	151.200
GR	847.300	152.500	845.300	155.000	844.900	157 500	845.300	160.000	847.300	162.500
GR	851.000	163.800	851.800	168.900	848.400	170.000	846.500	172.500	846.000	174.800
GR	846.600	177.500	848.400	179 500	851.800	180.600	862.200	181.200	861.400	200.000
GR	860 800	250.000	861.100	300.000	862.100	350.000	863.200	400.000	0.000	0.000
SB	0.000	1.550	3.000	0.000	24.000	0.000	113.100	0.000	0.000	0.000
		U/S FACE OF ZEEB ROAD								
X1	21420.000	0.000	0.000	0.000	45.000	45.000	45 000	0.000	0.000	0.000
X2	0.000	0.000	1 000	857.500	859.000	0.000	0.000	0.000	0.000	0.000
BT	24.000	0.000	869.700	0.000	50.000	867 500	0.000	100.000	865.200	0.000
BT	150.000	859.000	0 000	151.200	859.200	851.000	152.500	859.300	854.700	155.000
BT	859.500	856.700	157.500	859.800	857.400	160.000	860.000	856.700	162.500	860.300
BT	854.700	163.800	860.500	851.000	168.900	861.000	851.800	170.000	861.100	855.300
BT	172.500	861.300	857.200	174.800	861.700	857.700	177.500	861.800	857.000	179.500
BT	862.000	855.300	180.600	862.200	851.800	181.200	862.200	0.000	200.000	861.400
BT	0.000	250.000	860.800	0.000	300.000	861.100	0.000	350.000	862.100	0.000
BT	400.000	863 200	0.000	0 000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.040	0.050	0.100	0.300	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	0.000	27.000	414 000	0.000	0.000	0.000	0.000	0.000
		UPSTREAM OF ZEEB ROAD								
X1	21471 000	30.000	190.000	250.000	51.000	51.000	51.000	0.000	0.000	0.000
GR	862.700	0.000	863.100	25.000	862 100	50.000	860.400	75.000	856.000	100.000
GR	856.100	125.000	857.400	150.000	858.500	175.000	856.500	190.000	852.600	203.000
GR	851.800	207.000	851.500	210.000	851.700	215.000	851.600	220.000	851.200	225.000
GR	851.500	230 000	852.000	234.000	853.000	243.000	856.700	250.000	857.500	260.000
GR	858.600	275.000	860.500	300.000	862.500	325.000	863.100	350.000	863.500	375.000
GR	863.400	400.000	863.200	425.000	863.400	450.000	863.300	475.000	863.100	500.000
X1	22000.000	0.000	0.000	0.000	529.000	529.000	529.000	0.000	0.000	0.000
NC	0.040	0.050	0.060	0.000	0.000	0.000	0.000	0.000	0.000	0.000
QT	1.000	420.000	420.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	0.000	148.000	292.000	0.000	0.000	0.000	0.000	0 000
X1	23000.000	0 000	0 000	0.000	1000.000	1000.000	1000.000	0.000	0.000	0.000
NC	0 000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	0.000	216.000	267 000	0.000	0.000	0.000	0.000	0.000
		DOWNSTREAM OF JACKSON ROAD--CROSS SECTION C								
X1	23186.000	27.000	233.000	250.000	186.000	186.000	186.000	0.000	0.000	0.000
GR	861.900	0.000	860.600	25.000	860.900	50.000	861.600	75.000	861.300	100.000
GR	860.300	125.000	859.000	150.000	857.600	175.000	857.400	200.000	857.000	225.000
GR	856.500	233.000	854.700	237 000	853.500	239.000	853.800	241.000	854.600	246.000
GR	856.200	250.000	857.000	260.000	857 300	275.000	856.700	300.000	856.200	325.000
GR	856.300	350.000	856 400	375.000	856.300	400.000	856.500	425.000	856.600	450.000
GR	856.800	475.000	861 900	500.000	0.000	0.000	0.000	0.000	0.000	0.000

	D/S FACE OF JACKSON ROAD									
X1	23216.000	22.000	299.000	335.800	30.000	30.000	30.000	0.000	0.000	0.000
GR	863.000	0.000	862.800	50.000	862.600	100.000	862.500	150.000	862.300	200.000
GR	862 300	250.000	862.400	299.000	856.700	300.000	856.200	305.000	855.800	310.000
GR	855 900	315.000	854.800	321.000	853.500	325.000	854.800	328.000	854.500	333.000
GR	862.400	335.800	862.400	350.000	862.600	400.000	862.400	450.000	862.800	500.000
GR	862.900	550.000	863.100	600.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	1.988	3.000	0.000	33.000	0.000	161.700	0.000	0.000	0.000
ET	0.000	4.100	4.100	299.000	335.800	0.000	0.000	0.000	0.000	0.000
	U/S FACE OF JACKSON ROAD									
X1	23300.000	0.000	0.000	0.000	84.000	84.000	84.000	0.000	0.000	0.000
X2	0 000	0.000	1 000	860.500	862.300	0.000	0.000	0.000	0.000	0.000
BT	18.000	0.000	863.000	0.000	50.000	862.800	0.000	100.000	862.600	0.000
BT	150 000	862 500	0 000	200.000	862.300	0.000	250.000	862.300	0.000	299.000
BT	862.400	0 000	300.000	862.400	856.700	300.000	864.900	858.500	333.000	864.900
BT	858.500	333.000	862.400	854.500	335.800	862.400	0.000	350.000	862.400	0.000
BT	400.000	862 600	0.000	450.000	862.400	0.000	500.000	862.800	0.000	550.000
BT	862.900	0.000	600.000	863.100	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.030	0.000	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0 000	4.100	6.100	175.000	308.000	220.000	308.000	0.000	0.000	0.000
	UPSTREAM OF JACKSON ROAD									
X1	23350.000	27 000	233.000	250.000	50.000	50.000	50.000	0.000	0.000	0.000
GR	861.900	0.000	860.800	25 000	860.900	50.000	861.600	75.000	861.300	100.000
GR	860.300	125.000	859.000	150.000	857.600	175.000	857.400	200.000	857.000	225.000
GR	856.500	233.000	854.700	237.000	853.500	239.000	853.800	241.000	854.600	246.000
GR	856.200	250 000	857.000	260.000	857.300	275.000	856.700	300.000	856.200	325.000
GR	856.300	350 000	856.400	375.000	856.300	400.000	856.500	425.000	856.600	450.000
GR	856.800	475.000	861.900	500.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0 000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	1.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	25000.000	21.000	230.000	250.000	1650.000	1650.000	1650.000	0.000	0.000	0.000
GR	864.400	0.000	864.200	25.000	864.300	50.000	864.600	100.000	863.100	150.000
GR	861.700	175.000	861.400	200.000	860.000	230.000	857.900	235.000	856.800	240.000
GR	857.800	245.000	860.000	250 000	860.200	255.000	860.400	275.000	860.000	300.000
GR	859.700	325 000	859.800	375.000	860.000	440.000	860.200	450.000	861.000	465.000
GR	864.200	500.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	25333.000	19.000	230 000	250 000	333.000	333.000	333.000	0.000	0.000	0.000
GR	865 400	0.000	865.300	25.000	865.300	50.000	865.400	100.000	864.400	150.000
GR	863.300	175 000	862.900	200.000	860.700	230.000	858.100	235.000	857.400	240.000
GR	858 100	245.000	860.500	250.000	861 100	260.000	861.100	275.000	860.500	325.000
GR	860 400	350.000	860.700	400.000	861.300	450.000	864.600	500.000	0.000	0.000
X1	25666.000	19.000	230.000	250.000	333.000	333.000	333.000	0.000	0.000	0.000
GR	866.400	0.000	866.400	25.000	866 300	50.000	866.200	100.000	865.600	150.000
GR	864 600	175.000	864.200	200.000	862.000	230.000	858.600	235.000	858.100	240.000
GR	858.600	245.000	861.300	250.000	862.500	260.000	862.400	275 000	861.800	325.000
GR	861.500	350 000	861.800	400.000	862.800	450 000	865.100	500.000	0.000	0.000

NC	0.040	0.040	0.055	0.000	0.000	0.000	0.000	0 000	0.000	0.000
ET	0.000	0.000	6.100	0.000	0.000	230.000	410.000	0.000	0.000	0.000
X1	26000.000	20.000	230.000	253.000	334.000	334.000	334.000	0.000	0.000	0.000
GR	867.500	0 000	867.400	50 000	867.000	100.000	866.800	135.000	865.700	175.000
GR	865.200	200.000	862.500	230.000	859.000	235.000	858.700	240.000	859.000	245.000
GR	860.000	247.000	862.000	250.000	863.200	253.000	863.800	260.000	863.300	285.000
GR	863.000	325.000	862.500	350.000	862.900	400.000	864.100	450.000	865.800	500.000
ET	0.000	0.000	1.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	26490.000	22.000	230.000	250.000	490.000	490.000	490.000	0.000	0.000	0.000
GR	868.100	0.000	868.000	50.000	867.600	100.000	867.400	155.000	866.500	175.000
GR	866.200	200.000	863.800	230.000	860.100	235.000	859.700	240.000	860.100	245.000
GR	863 300	250.000	865.700	260.000	864.900	275.000	864.700	300.000	864.600	325.000
GR	864 200	350.000	864.300	375 000	864 500	400.000	865.000	425.000	865.800	450.000
GR	866.900	475.000	867.600	500.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	26980.000	23.000	228.000	250.000	490.000	490.000	490.000	0.000	0.000	0.000
GR	868.800	0.000	868.800	25.000	868.700	50.000	868 400	100.000	868.200	150.000
GR	867.400	175.000	867.200	200.000	865.300	228.000	861.200	235.000	860.700	240.000
GR	861 200	245.000	864.600	250.000	867.600	260.000	866.300	275.000	866.100	300.000
GR	866.000	325.000	865.600	350.000	865.700	375.000	865.900	400.000	866.300	425.000
GR	867.500	450.000	868.800	475 000	869.300	500.000	0.000	0.000	0 000	0 000

NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	6.100	218.000	259.000	218.000	250.000	0.000	0.000	0.000
	DOWNSTREAM OF STAEBLER ROAD									
X1	27472.000	27.000	228.000	250 000	492.000	492.000	492.000	0.000	0.000	0.000
GR	869 600	0.000	869.900	25.000	869.600	50.000	869.300	75.000	869.300	100.000
GR	869.100	125.000	869.100	150 000	868.400	175.000	868.300	200.000	867.300	225.000
GR	866.800	228.000	862.400	235.000	861.700	240.000	862.000	245.000	862.500	246.000
GR	866.100	250.000	869.800	260.000	868.000	275.000	867.900	300.000	867.900	325.000
GR	867.500	350.000	867.600	375 000	867 800	400.000	868.100	425.000	869.500	450.000
GR	871.000	475.000	871.300	500.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	1.400	0.000	0.000	0 000	0.000	0.000	0.000	0.000
X1	27522.000	20.000	300.000	316 000	50.000	50.000	50.000	0.000	0.000	0.000
GR	872.900	0 000	872.100	50.000	871.300	100.000	871.100	150.000	871.000	200.000
GR	871.100	250.000	871.500	300.000	863.300	300.000	863.200	305.000	863.400	311.000
GR	865.900	313.000	866.000	316.000	871.500	316.000	871.400	324.000	870.900	350.000
GR	870.600	400.000	870.700	450.000	870.800	500.000	871.200	550.000	872.200	600.000
	D/S FACE OF STAEBLER ROAD									
X1	27523.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	17.000	0.000	872.900	0.000	50.000	872.100	0.000	100.000	871.300	0.000
BT	150.000	871.100	0.000	200.000	871.000	0.000	250.000	871.100	0.000	300.000
BT	871.500	863.300	300.000	871 500	869.600	316.000	871.400	869.500	316.000	871.400
BT	866.000	324.000	871.400	0.000	350.000	870.900	0.000	400.000	870 600	0.000
BT	450.000	870.700	0.000	500.000	870.800	0.000	550.000	871.200	0.000	600.000
BT	872.200	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

U/S FACE OF STAEBLER ROAD

X1	27539.000	0.000	0.000	0.000	16.000	16.000	16.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0 000	0.000	0.000
X1	27540.000	0 000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
NC	0 030	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	6.100	171.000	307.000	210.000	307.000	0.000	0.000	0.000

UPSTREAM OF STAEBLER ROAD--CROSS SECTION D

X1	27600.000	27 000	228.000	250.000	60.000	60.000	60.000	0.000	0.000	0.000
GR	869.600	0.000	869.900	25.000	869.600	50.000	869.300	75.000	869.300	100.000
GR	869.100	125.000	869.100	150.000	868.400	175.000	868.300	200.000	867.300	225.000
GR	866.800	228.000	862.400	235.000	861.700	240.000	862.000	245.000	862.500	246.000
GR	866.100	250.000	869.800	260.000	868.000	275.000	867.900	300.000	867.900	325.000
GR	867.500	350.000	867.600	375.000	867.800	400.000	868.100	425.000	869 500	450.000
GR	871.000	475.000	871.300	500.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	4.100	215.000	255.000	0.000	0.000	0.000	0.000	0.000
X1	28140.000	25.000	225.000	250.000	540.000	540.000	540.000	0.000	0.000	0.000
GR	872.000	0.000	872.100	25.000	871.700	50.000	871.200	75.000	871.100	100.000
GR	870 900	125.000	870.600	150.000	870.200	175.000	870.100	200.000	869.400	225.000
GR	864.400	235 000	863.700	240.000	864.300	245.000	868.200	250.000	870.900	260.000
GR	870.200	275.000	869.700	300.000	869.700	325.000	869.700	350.000	869.700	375.000
GR	870.000	400.000	870.300	425.000	871 500	450.000	873.000	475.000	873.300	500.000
ET	0.000	0.000	4.100	225.000	251.000	0.000	0.000	0.000	0.000	0.000
X1	28680 000	25.000	225.000	250.000	540.000	540.000	540.000	0.000	0.000	0.000
GR	874.200	0.000	874.200	25 000	873.600	50.000	873.300	75.000	872.900	100.000
GR	872.700	125.000	872.400	150 000	871.800	175.000	871.800	200.000	871.300	225.000
GR	866.700	235.000	865.800	240.000	866.400	245.000	870.300	250 000	872.100	260.000
GR	871.800	275 000	871.500	300.000	871.700	325.000	871.800	350.000	871.800	375.000
GR	872.000	400.000	872.700	425.000	873 600	450.000	874.800	475.000	875.400	500.000
ET	0.000	0.000	1.400	0.000	0.000	0 000	0.000	0.000	0.000	0.000
X1	29225 000	25.000	227.000	252.000	545.000	545.000	545.000	0.000	0.000	0.000
GR	876.400	0.000	876.000	25.000	875.400	50.000	875.200	75.000	875.000	100.000
GR	874.200	125.000	874.000	150.000	873.600	175.000	873.600	200.000	873.200	227.000
GR	868.800	235.000	868.000	240.000	868.800	245.000	872.400	252.000	873.100	260.000
GR	873.000	275.000	873.400	300 000	873.600	325.000	874.200	350.000	874.400	375.000
GR	874.800	400.000	875.000	425 000	875.800	450.000	876.800	475.000	877.200	500.000
X1	29765.000	24 000	225.000	250.000	540.000	540.000	540.000	0.000	0.000	0.000
GR	878.700	0.000	878.400	25.000	877.800	50.000	877.700	75.000	877.400	100.000
GR	876.400	125.000	876.200	150.000	875.800	175.000	876.000	200.000	875.700	225.000
GR	871.200	235.000	870.300	240 000	871.000	245.000	874.700	250.000	875.000	275.000
GR	875.400	300.000	875.700	325.000	876 200	350.000	876.700	375.000	877.200	400.000
GR	877.600	425.000	878.100	450 000	879.000	475.000	879.300	500.000	0.000	0.000

X1	30305.000	24.000	225.000	250.000	540.000	540.000	540.000	0.000	0.000	0.000
GR	880.800	0.000	880.500	25.000	880.200	50.000	880.000	75.000	879.900	100.000
GR	878.600	125.000	878.400	150.000	878.200	175.000	878.400	200.000	878.200	225.000
GR	873.300	235.000	872.400	240.000	873.100	245.000	877.200	250.000	877.100	275.000
GR	877.500	300.000	877.800	325.000	878.400	350.000	879.100	375.000	879.600	400.000
GR	880.300	425.000	880.500	450.000	881.100	475.000	881.400	500.000	0.000	0.000
NC	0.040	0.040	0.050	0.300	0.500	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	4.100	219.000	270.000	0.000	0.000	0.000	0.000	0.000
	DOWNSTREAM OF STAEBLER ROAD									
X1	30850.000	25.000	218.000	250.000	545.000	545.000	545.000	0.000	0.000	0.000
GR	883.300	0.000	882.800	25.000	882.500	50.000	882.300	75.000	882.300	100.000
GR	880.900	125.000	880.500	150.000	880.200	175.000	880.600	200.000	880.600	218.000
GR	875.500	228.000	874.800	230.000	874.500	235.000	875.600	240.000	879.600	250.000
GR	879.100	275.000	879.800	300.000	880.400	325.000	880.800	350.000	881.300	375.000
GR	881 900	400.000	882.500	425.000	882.900	450.000	883.500	475.000	883.800	500.000
NC	0.000	0.000	0.000	0.500	1.000	0.000	0.000	0.000	0.000	0.000
ET	0 000	0.000	1.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	D/S FACE OF STAEBLER ROAD									
X1	30901.000	18.000	250.000	266.000	51.000	51.000	51.000	0 000	0.000	0.000
GR	882.800	0.000	881.900	50.000	881.000	100.000	880.500	150.000	880.900	200.000
GR	881.800	250.000	875.100	250.000	875.300	255.000	874.600	258.000	873.900	260.000
GR	873 700	266.000	881.800	266.000	881.800	281.000	881.500	300.000	880.500	350.000
GR	880.000	400.000	879.800	450.000	879.500	500.000	0.000	0.000	0.000	0.000
SB	0.000	1.460	3.000	0.000	16.000	0 000	105.600	0.000	0.000	0.000
	U/S FACE OF STAEBLER ROAD									
X1	30917.000	0.000	0.000	0.000	16.000	16.000	16.000	0.000	0.000	0.000
X2	0 000	0.000	1.000	880.700	879.500	0.000	0.000	0 000	0.000	0.000
BT	15.000	0.000	882.800	0.000	50.000	881.900	0.000	100.000	881.000	0.000
BT	150.000	880.500	0 000	200.000	880.900	0.000	250.000	881.800	875.100	250.000
BT	881.800	880.700	266.000	881.800	880.700	266.000	881.800	873 700	281.000	881.800
BT	0 000	300.000	881.500	0.000	350.000	880.500	0.000	400.000	880.000	0.000
BT	450.000	879.800	0.000	500.000	879.500	0.000	0.000	0.000	0.000	0.000
NC	0.050	0 000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0 000	4 100	0.000	159.000	309.000	0.000	0.000	0.000	0.000	0.000
	UPSTREAM OF STAEBLER ROAD									
X1	31000 000	25.000	218.000	250.000	83.000	83.000	83.000	0.000	0.000	0.000
GR	883.300	0 000	882.800	25.000	882 500	50.000	882.300	75.000	882.300	100.000
GR	880.900	125.000	880.500	150.000	880.200	175.000	880.600	200.000	880.600	218.000
GR	875.500	228.000	874.800	230.000	874.500	235.000	875.600	240.000	879.600	250.000
GR	879.100	275.000	879.800	300.000	880.400	325.000	880.800	350.000	881.300	375.000
GR	881 900	400.000	882.500	425.000	882.900	450.000	883.500	475 000	883.800	500.000
ET	0.000	4.100	0.000	209.000	259.000	0.000	0.000	0.000	0.000	0.000
	DOWNSTREAM OF PARK ROAD									
X1	31200.000	0.000	0.000	0 000	200.000	200.000	200.000	0.000	0.000	0.000

ET	0.000	4.100	0.000	250.000	261.400	0.000	0.000	0.000	0.000	0.000
	DOWNSTREAM FACE OF PARK ROAD									
X1	31278.000	16.000	250.000	261.400	78.000	78.000	78.000	0.000	0.000	0.000
GR	882.100	0.000	882.100	50.000	882.200	100.000	882.100	150.000	882.400	200.000
GR	875.700	250.000	875.600	250.000	874.400	254.000	873.600	257.000	873.900	261.400
GR	874.000	261.400	882.500	300.000	881.900	350.000	881.700	400.000	882.100	450.000
GR	882.700	500.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	1.780	3.000	0.000	11.400	0.000	77.520	0.000	0.000	0.000
ET	0.000	4.100	6.100	201.000	310.000	230.000	275.000	0.000	0.000	0.000
	UPSTREAM FACE OF PARK ROAD									
X1	31300.000	0.000	0.000	0.000	22.000	22.000	22.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	880.800	881.700	0.000	0.000	0.000	0.000	0.000
BT	14.000	0.000	882.100	0.000	50.000	882.100	0.000	100.000	882.200	0.000
BT	150.000	882.100	0.000	200.000	882.400	0.000	250.000	882.800	875.600	250.000
BT	882.800	880.800	261.400	882.800	880.800	261.400	882.800	873.900	300.000	882.500
BT	0.000	350.000	881.900	0.000	400.000	881.700	0.000	450.000	882.100	0.000
BT	500.000	882.700	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.050	0.055	0.100	0.300	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	6.100	189.000	280.000	218.000	280.000	0.000	0.000	0.000
	UPSTREAM OF PARK ROAD--CROSS SECTION E									
X1	31340.000	25.000	218.000	250.000	40.000	40.000	40.000	0.000	0.000	0.000
GR	883.300	0.000	882.800	25.000	882.500	50.000	882.300	75.000	882.300	100.000
GR	880.900	125.000	880.500	150.000	880.200	175.000	880.600	200.000	880.600	218.000
GR	875.500	228.000	874.800	230.000	874.500	235.000	875.600	240.000	879.600	250.000
GR	879.100	275.000	879.800	300.000	880.400	325.000	880.800	350.000	881.300	375.000
GR	881.900	400.000	882.500	425.000	882.900	450.000	883.500	475.000	883.800	500.000
ET	0.000	0.000	1.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	32000.000	0.000	0.000	0.000	660.000	660.000	660.000	0.000	1.000	0.000
X1	33000.000	26.000	225.000	250.000	1000.000	1000.000	1000.000	0.000	-3.900	0.000
GR	883.100	0.000	883.100	25.000	883.300	50.000	883.300	75.000	883.100	100.000
GR	883.100	125.000	883.200	150.000	883.600	175.000	884.000	200.000	883.900	225.000
GR	881.700	231.000	880.900	235.000	881.200	240.000	881.600	245.000	884.700	250.000
GR	885.700	260.000	885.400	275.000	885.300	300.000	885.400	325.000	885.200	350.000
GR	885.300	375.000	885.400	400.000	885.200	425.000	885.200	450.000	885.200	475.000
GR	885.000	500.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.060	0.060	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	34500.000	26.000	225.000	250.000	1500.000	1500.000	1500.000	0.000	-1.400	0.000
GR	883.100	0.000	883.100	25.000	883.300	50.000	883.300	75.000	883.100	100.000
GR	883.100	125.000	883.200	150.000	883.600	175.000	884.000	200.000	883.900	225.000
GR	881.700	231.000	880.900	235.000	881.200	240.000	881.600	245.000	884.700	250.000
GR	885.700	260.000	885.400	275.000	885.300	300.000	885.400	325.000	885.200	350.000
GR	885.300	375.000	885.400	400.000	885.200	425.000	885.200	450.000	885.200	475.000
GR	885.000	500.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

DOWNSTREAM OF LIBERTY ROAD--CROSS SECTION F

X1	35520.000	26.000	225.000	250.000	1020.000	1020.000	1020.000	0.000	0.000	0.000
GR	883.100	0.000	883.100	25.000	883.300	50.000	883 300	75.000	883.100	100.000
GR	883 100	125.000	883.200	150.000	883.600	175.000	884.000	200.000	883.900	225.000
GR	881.700	231.000	880.900	235.000	881.200	240.000	881.600	245.000	884.700	250.000
GR	885.700	260.000	885.400	275.000	885.300	300.000	885.400	325.000	885.200	350.000
GR	885.300	375.000	885.400	400 000	885.200	425.000	885.200	450.000	885.200	475.000
GR	885.000	500.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.400	0.800	0.000	0.000	0.000	0.000	0.000

D/S FACE OF LIBERTY ROAD

X1	35571.000	25 000	293.000	321.000	51.000	51.000	51.000	0.000	0.000	0.000
GR	883.000	0.000	883.000	50.000	883.500	100.000	883.500	150.000	883.900	200.000
GR	884.800	250 000	883.900	293.000	882.000	296.000	882.200	298.000	881.000	298.400
GR	880.300	299.400	880.200	300.000	880.300	300.600	881.000	301.600	882.200	302.000
GR	881.800	305.000	881.800	310.000	882.100	315.000	887.300	321.000	886.700	350.000
GR	886 700	400.000	886.600	450.000	886.700	500.000	886.700	550.000	886.700	600.000
SB	0.000	2.364	3.000	0.000	3.540	0.000	12.570	0.000	0.000	0.000

U/S FACE OF LIBERTY ROAD

X1	35611.000	0 000	0.000	0.000	40.000	40.000	40.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	884.200	884.000	0 000	0 000	0.000	0.000	0.000
BT	19.000	0.000	886.000	0.000	50.000	886.000	0.000	100.000	886.000	0.000
BT	150.000	886.000	0.000	200.000	886.000	0.000	250 000	886.000	0.000	296.000
BT	886.000	0.000	298.000	886.000	882.200	298.400	886.000	883.400	299.400	886.000
BT	884.100	300.000	886.000	884.200	300.600	886.000	884.100	301.600	886.000	883.400
BT	302.000	886.000	882.200	350.000	886.700	0.000	400 000	886 700	0.000	450.000
BT	886.600	0.000	500.000	886.700	0.000	600.000	886.700	0.000	0.000	0.000
GT	1.000	350.000	350.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.050	0.050	0 045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0 000	4.100	0.000	27.000	449.000	0.000	0 000	0.000	0.000	0.000

UPSTREAM OF LIBERTY ROAD

X1	35662 000	26.000	225.000	250.000	51.000	51.000	51 000	0.000	0.000	0.000
GR	883.100	0.000	883.100	25 000	883.300	50.000	883.300	75.000	883.100	100.000
GR	883.100	125.000	883.200	150.000	883.600	175.000	884.000	200.000	883.900	225.000
GR	881.700	231 000	880.900	235.000	881.200	240 000	881.600	245.000	884.700	250.000
GR	885.700	260.000	885.400	275.000	885.300	300.000	885.400	325.000	885.200	350.000
GR	885 300	375.000	885.400	400.000	885.200	425.000	885.200	450.000	885.200	475.000
GR	885.000	500.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	36108 000	18.000	225.000	250.000	446.000	446.000	446.000	0.000	0.000	0.000
GR	885.800	0.000	885.500	75.000	885.400	100.000	885.300	125.000	885.300	150.000
GR	885.500	175.000	885.700	200.000	885.600	225.000	883.300	230.000	882.800	235.000
GR	883.300	240.000	886.300	250.000	886.800	260.000	886.700	275.000	886.800	325.000
GR	886.800	375.000	886.700	425.000	886.700	500.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
X1	36256.000	18 000	225.000	250 000	148.000	148.000	148.000	0.000	0.000	0.000
GR	886.700	0.000	886.400	75.000	886.300	100.000	886.200	125.000	886.100	150.000
GR	886 200	175.000	886.300	200 000	886.200	225.000	883.800	230.000	883.400	235.000
GR	883 800	240.000	886 800	250.000	887.200	260.000	887 200	275.000	887.300	325.000
GR	887.300	375.000	887.300	425.000	887.400	500.000	0 000	0.000	0.000	0.000

X1	36404.000	18.000	225.000	250.000	148 000	148.000	148 000	0.000	0.000	0.000
GR	887.600	0.000	887.200	75.000	887 100	100.000	887.100	125.000	887.000	150.000
GR	887.000	175.000	886 900	200.000	886.800	225.000	884.400	230.000	884.000	235.000
GR	884.400	240.000	887.300	250.000	887.600	260.000	887.600	275.000	887.600	325.000
GR	887.600	375 000	887.600	425.000	887.700	500.000	0.000	0.000	0.000	0.000
X1	36554.000	18.000	225.000	250.000	150 000	150.000	150.000	0.000	0.000	0.000
GR	888.400	0.000	888 000	75.000	887.900	100.000	887.900	125.000	887.900	150.000
GR	887.700	175.000	887.500	200.000	887.300	225.000	885.100	230.000	884.600	235.000
GR	885.100	240.000	887.900	250.000	888.100	260.000	888.200	275.000	888.200	325.000
GR	888.200	375.000	888 300	425.000	888.500	500.000	0.000	0.000	0.000	0.000
X1	37000.000	14 000	225.000	248.000	446.000	446.000	446.000	0.000	0.000	0.000
GR	891.000	0 000	890.500	50.000	890.200	75 000	890 000	125.000	889.000	225.000
GR	887 000	230.000	886.500	235.000	887.000	240.000	889.500	248.000	890.000	275.000
GR	889.700	325.000	889.800	375.000	890.000	425.000	890.300	480.000	0.000	0.000
X1	38000.000	12.000	225.000	245.000	1000.000	1000.000	1000.000	0.000	0.000	0.000
GR	896.700	0.000	895.000	100 000	894.000	175.000	893.000	225.000	891.000	235.000
GR	891.800	243.000	893.500	245.000	893.600	250.000	894.500	290.000	894.500	350.000
GR	895.000	400.000	896.000	455.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	39000.000	11.000	225.000	244.000	1000.000	1000.000	1000.000	0.000	0.000	0.000
GR	900.000	0.000	901.000	50.000	901.000	75 000	898.500	160.000	897.700	225.000
GR	896 000	232.000	896.500	240.000	898.400	244.000	900.000	325.000	904.500	400.000
GR	905.500	415 000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	40000.000	13.000	225.000	244.000	1000.000	1000.000	1000.000	0.000	0.000	0.000
GR	904.000	0.000	905.000	25.000	905.000	75.000	903.000	150.000	902.000	200.000
GR	901 500	225.000	900.700	230.000	902.000	243.000	902.500	244.000	903.000	275.000
GR	903 500	290.000	905.500	350 000	909.200	400.000	0.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= 0.300 CEHV= 0.500

*SECNO 0.000

0.00	9.17	808.02	0.00	0.00	808 67	0 65	0.00	0.00	809.75
1740.	0.	1740.	0.	0.	269.	0.	0.	0.	809.75
0.00	0.00	6.47	0.00	0.000	0.050	0.000	0.000	798.85	249.22
0.004484	0.	0.	0.	0	0	0	0.00	34.55	283 77

*SECNO 125 000

3470 ENCROACHMENT STATIONS= 0.0 304.0 TYPE= 1 TARGET= 304.000

125 00	9.24	808.59	0.00	0.00	809.23	0.64	0.55	0.00	810.25
1740.	0.	1740.	0.	0.	271.	0.	1.	0.	810 25
0.01	0.00	6 42	0.00	0.000	0.050	0.000	0.000	799.35	249.21
0.004385	125.	125.	125.	0	0	0	0.00	34 56	283.77

*SECNO 176.000

DOWNSTREAM FACE OF HURON RIVER DRIVE

176 00	9 33	808.83	0.00	0.00	809.45	0 63	0.22	0 00	810.40
1740.	0.	1740.	0.	0.	274.	0	1.	0	810.40
0.01	0.00	6.35	0.00	0.000	0.050	0.000	0.000	799.50	249.20
0.004246	51.	51.	51.	1	0	0	0.00	34.59	283.79

SPECIAL BRIDGE

5070, VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED

SB XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
0.00	1.72	3.00	0.00	32.50	0.00	276.25	0.00	799.50	799.50

*SECNO 199.000

6070, LOW FLOW BY NORMAL BRIDGE

EGPRS= 809.885 EGLWC= 809.453 ELLC= 808.700 PCWSE= 808.826 ELTRD= 808.300

3370 NORMAL BRIDGE, NRD= 16 MIN ELTRD= 808 30 MAX ELLC= 808.70

U/S FACE OF HURON RIVER DRIVE

199.00	9.41	808 91	0.00	0 00	809.67	0.76	0.15	0.07	810.40
1740.	0.	1740.	0.	0	249	0.	1.	0	810.40
0.01	0.00	7.00	0 00	0.000	0.050	0.000	0.000	799.50	249.19
0.011770	23	23.	23.	2	0	0	-28.44	34.61	283.80

Profile too high. Do not use elevations See attached

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= 0.100 CEHV= 0.300
*SECNO 250.000

3470 ENCROACHMENT STATIONS= 0.0 304.0 TYPE= 1 TARGET= 304.000
UPSTREAM OF HURON RIVER DRIVE

250 00	9.73	809.43	0.00	0.00	810.00	0.57	0.31	0.02	810.60
1740	0.	1740.	0.	0.	288.	0	2	0.	810.60
0 01	0.00	6.04	0.00	0.000	0.050	0.000	0.000	799.70	249 15
0 003667	51.	51.	51.	2	0	0	0.00	34 69	283.84

*SECNO 850.000

850.00	9.66	811.66	0.00	0.00	812.23	0.58	2.23	0.00	812.90
1740.	0.	1740.	0.	0.	286.	0.	5.	1.	812.90
0.04	0.00	6.09	0.00	0.000	0.050	0.000	0.000	802.00	249.16
0.003764	600.	600	600.	2	0	0	0.00	34.67	283.83

*SECNO 1200.000

3470 ENCROACHMENT STATIONS= 0 0 304.0 TYPE= 1 TARGET= 304.000

1200.00	9.63	812.98	0.00	0.00	813.56	0.58	1.32	0.00	814.25
1740.	0.	1740.	0	0.	285.	0.	8.	1.	814.25
0.05	0.00	6 11	0 00	0.000	0.050	0.000	0.000	803.35	249.16
0.003805	350	350.	350.	2	0	0	0.00	34 67	283.83

*SECNO 1850.000

1850.00	8.30	814.90	0.00	0.00	815.05	0.15	1.45	0.04	811 00
1740	112.	921.	707.	69	228.	475.	16.	3	811.00
0.12	1.64	4 04	1.49	0.070	0 050	0.070	0.000	806.60	193.41
0.001471	650	650.	650.	2	0	0	0.00	300 15	493.56

*SECNO 2100.000

2100.00	7.71	815 31	0.00	0 00	815.55	0.25	0.47	0.03	812.00
1740.	104.	1038	597.	54.	209.	343.	20.	5.	812 00
0 14	1.94	4 97	1.74	0.070	0.050	0.070	0.000	807.60	196.06
0 002494	250.	250.	250.	2	0	0	0.00	260.63	456.69

*SECNO 2300.000

2300.00	6.93	815.83	0.00	0.00	816.34	0.51	0.70	0.08	813.30
1740.	89.	1229.	422.	36.	184	203.	22.	6.	813.30
0.15	2.43	6.69	2 08	0.070	0 050	0.070	0.000	808.90	199.56
0.005343	200.	200.	200.	2	0	0	0.00	208.42	407.97

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN.	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
*SECNO 2500.000									
2500.00	6.73	816.93	0.00	0.00	817.54	0.61	1.18	0.03	814.60
1740	83.	1281.	376.	33.	178.	174.	24.	7.	814.60
0.16	2.56	7.21	2.16	0.070	0.050	0.070	0.000	810.20	200.41
0 006493	200.	200.	200.	2	0	0	0.00	195.84	396.26
*SECNO 2650.000									
2650.00	6 79	817.89	0.00	0.00	818.50	0.62	0.96	0.00	814.90
1740.	389.	1209.	141.	148.	165.	45.	25.	8.	814.70
0.16	2 64	7 33	3.17	0.070	0.050	0.070	0.000	811.10	137.66
0.006297	150.	150.	150.	2	0	0	0.00	130.75	268.41
*SECNO 2800.000									
CROSS SECTION A									
2800.00	6.74	818.84	0.00	0.00	819 47	0.64	0.96	0.01	815.90
1740.	382	1218.	140.	144.	164.	44.	26.	8.	815.70
0.17	2.66	7.44	3.20	0.070	0.050	0.070	0.000	812.10	138 24
0.006560	150.	150.	150.	1	0	0	0.00	130.07	268.31
*SECNO 3800.000									
3800 00	7.44	823.64	0.00	0.00	823.98	0.34	4.47	0.03	820.00
1740	534.	1035	171.	206.	183.	57.	35.	11.	819.80
0.23	2.60	5.64	3.00	0.060	0.050	0.060	0.000	816 20	129.45
0.003244	1000.	1000.	1000.	3	0	0	0.00	140.33	269.78
*SECNO 4500.000									
4500.00	7.09	826.19	0.00	0.00	826.63	0.44	2.62	0.03	822.90
1740	482.	1094.	164.	174.	174.	50.	42.	13.	822.70
0.27	2.77	6.31	3.27	0.060	0.050	0.060	0.000	819.10	133.89
0.004366	700.	700.	700.	3	0	0	0.00	135 14	269.04
*SECNO 5000.000									
3470 ENCROACHMENT STATIONS=			0.0	162.0	TYPE=	1	TARGET=	161.999	
START OF MDNR PROVIDED DATA									
5000 00	6.77	827.97	0 00	0.00	828.15	0.18	1.50	0.03	825.60
1740.	32	663.	1045.	19.	150.	386.	48.	15.	822.50
0.31	1.70	4.41	2.70	0.060	0.050	0.060	0.000	821.20	20.80
0.002187	500.	500.	500.	2	0	0	0.00	141.20	162.00

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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

CCHV=    0.300 CEHV=    0.500
*SECNO 6000.000
  6000.00      5.37    830.67      0.00      0.00    830.83      0.16      2.67      0.01    829.70
    1740         4.      539.     1197.        5.      117.      522.        62.       20.     826.60
     0 41      0.92      4.60      2.29    0 060     0.050     0.060     0.000    825.30     22.89
 0.003340     1000.      1000      1000         3         0         0      0.00    313.28    336.17

*SECNO 6330.000

3470 ENCROACHMENT STATIONS=       32.0      182.0  TYPE=       1  TARGET=      150.000
  6330.00      5 38    832.08      0.00      0.00    832.47      0.39      1.52      0.11    831.10
    1740.        0.      754.      986.        0.      117.      282.        65        22.     828.00
     0.42      0.00      6 42      3.50     0.000     0.050     0.060     0.000    826.70     32.00
 0.006803      330.      330.      330         2         0         0      0.00    150.00    182.00

*SECNO 6430.000

3470 ENCROACHMENT STATIONS=        0.0      150.0  TYPE=       1  TARGET=      149.999
  6430.00      5.75    832.55      0.00      0.00    833.11      0.56      0.56      0.09    828.00
    1740.       162.      974.      605.        42.     134.      159.        66.       22.     828.80
     0 43      3.88      7.25      3.81     0.060     0.050     0.060     0.000    826.80     49.23
 0.006411      250.      100.        50         2         0         0      0.00    100.77    150.00

CCHV=    0.300 CEHV=    1 000
*SECNO 6680 000

3470 ENCROACHMENT STATIONS=      168.0      217.0  TYPE=       1  TARGET=       49.000
  6680.00      7.62    833.92      0.00      0.00    834.74      0.82      1.36      0.26    829.10
    1740.       190.     1397.      153.        44.     178.       41.        68.       23.     830.40
     0.44      4.29      7.85      3.76     0.060     0.050     0.060     0.000    826.30    168.00
 0.006227      250.      200.      250.         2         0         0      0.00     49.00    217.00

*SECNO 6720.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=       836.30 ELREA=       836.30

          DOWNSTREAM FACE OF MILLER ROAD
  6720.00      7.41    834.21      0.00      0.00    835.43      1.22      0.29      0.40    831.30
    1740.        0.      1740.       0.        0.      196.        0.        68.       23.     831.40
     0 44      0.00      8.86      0 00     0.000     0.050     0.000     0.000    826.80    185.00
 0.008521       40.       40.       40.         2         0         0      0.00     29.00    214.00
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.63	2.50	0.00	24.77	0 00	206.10	0.00	826.90	826.30

*SECNO 6770.000
PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
836.01	835.40	0.00	0.	1740.	206.	189.	834.52	836.30

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 836.30 ELREA= 836.30

UPSTREAM FACE OF MILLER ROAD

6770 00	8.92	835.12	0.00	0.00	836.01	0.89	0.58	0.00	830.80
1740	0.	1740.	0.	0.	230.	0.	68.	23.	829.60
0.44	0.00	7.58	0.00	0.000	0.050	0.000	0.000	826.20	186.00
0.004726	50.	50	50.	3	0	0	0.00	28.00	214.00

*SECNO 6776.000

3470 ENCROACHMENT STATIONS= 160.0 200.0 TYPE= 1 TARGET= 40.000

6776.00	9.08	835.68	0.00	0.00	836.15	0.48	0.02	0.12	831.40
1740.	0	1740.	0.	0.	314.	0.	68.	23.	100000.00
0.44	0 00	5.54	0.00	0.000	0.040	0.000	0.000	826.60	160.00
0.001985	6.	6.	6	2	0	0	0.00	40.00	200.00

*SECNO 6790.000

3470 ENCROACHMENT STATIONS= 146.0 214.0 TYPE= 1 TARGET= 68.000

6790 00	9.38	835.98	0.00	0.00	836.24	0.25	0.02	0.07	831.40
1740	141.	1417.	182.	58.	326.	81.	68.	23.	830.00
0.44	2.42	4.34	2.26	0.040	0.040	0.050	0.000	826.60	146.00
0.000871	14.	14.	14.	2	0	0	0.00	68 00	214.00

*SECNO 6820.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 100.0 228.0 TYPE= 1 TARGET= 128.000
ELENCL= 836.30 ELENCR= 836.30

6820.00	9.27	836.17	0.00	0.00	836.29	0.13	0.02	0.04	832.00
1740	105.	1300.	335.	83.	411.	185.	69.	23.	830.40
0.44	1.27	3.16	1.81	0.040	0.040	0.050	0.000	826.90	100.00
0.000457	30	30.	30.	2	0	0	0.00	128.00	228.00

CCHV= 0.300 CEHV= 0.500
*SECNO 7220.000

7220.00	7.67	836.37	0.00	0.00	836.38	0.01	0.05	0.04	890.00
1740.	0.	218.	1522.	0.	276.	2371.	80.	25.	829.30
0.58	0.00	0.79	0.64	0.000	0.040	0.050	0.000	828.70	57.78
0.000071	220.	400.	260.	0	0	0	0.00	669.43	727.22

*SECNO 7470.000
3470 ENCROACHMENT STATIONS= 226.0 869.0 TYPE= 1 TARGET= 643.000

7470.00	7.18	836.38	0.00	0.00	836.39	0.01	0.01	0.00	831.60
1740.	997.	275.	468.	1109.	225.	771.	89.	28.	831.90
0.63	0.90	1.22	0.61	0.040	0.040	0.050	0.000	829.20	226.00
0.000094	200	250.	140.	2	0	0	0.00	643.00	869.00

*SECNO 7730.000

7730.00	7.70	836.40	0.00	0.00	836.44	0.04	0.03	0.01	832.00
1740.	802.	628	310.	581.	286.	399.	97.	31.	833.30
0.67	1.38	2.19	0.78	0.040	0.040	0.050	0.000	828.70	238.01
0.000307	190.	260.	250.	0	0	0	0.00	519.99	758.00

*SECNO 8045.000

8045.00	5.93	836.53	0.00	0.00	836.58	0.05	0.13	0.00	832.50
1740.	867	414.	459.	758.	135.	452.	106.	34	832.40
0.72	1.14	3.07	1.02	0.070	0.040	0.060	0.000	830.60	69.44
0.000745	270.	315.	290.	2	0	0	0.00	578.20	647.64

*SECNO 8385.000

8385.00	5.77	836.77	0.00	0.00	836.82	0.05	0.24	0.00	833.40
1740.	975.	226.	539.	700.	68.	355.	113.	37.	833.60
0.77	1.39	3.32	1.52	0.070	0.040	0.060	0.000	831.00	54.61
0.001112	200.	340.	350.	2	0	0	0.00	458.09	512.70

SECNO / Q / TIME / SLOPE	DEPTH / QLOB / VLOB / XLOBL	CWSEL / QCH / VCH / XLCH	CRIWS / QROB / VROB / XLOBR	WSELK / ALOB / XNL / ITRIAL	EG / ACH / XNCH / IDC	HV / AROB / XNR / ICONT	HL / VOL / WTN / CORAR	OLOSS / TWA / ELMIN / TOPWID	BANK ELEV LEFT/RIGHT / SSTA / ENDST
*SECNO 8725.000									
8725 00	5.51	836.91	0.00	0.00	836.94	0.03	0.11	0.01	834.00
1740.	164.	296.	1280.	220.	143.	1019.	118.	39.	833.10
0.81	0.75	2.07	1 26	0.070	0.040	0.060	0.000	831.40	71.84
0.000396	190.	340.	130.	2	0	0	0.00	393.78	465.62
*SECNO 8970.000									
8970.00	5.37	836.97	0.00	0.00	837.04	0.07	0.08	0.02	834.20
1740.	1433.	265.	42.	863.	70.	33.	121.	40.	834.20
0 82	1.66	3.77	1.28	0.070	0.040	0.060	0.000	831.60	70.57
0.001524	50.	245.	150.	2	0	0	0.00	363.52	434.09
*SECNO 9120.000									
9120.00	5.34	837.24	0.00	0.00	837.43	0.19	0 33	0.06	834.00
1740.	1051.	456	233	480	78	112	124	41.	834.50
0.84	2.19	5.83	2.08	0.070	0.040	0.060	0.000	831.90	94.07
0.003554	150.	150.	110.	2	0	0	0.00	328.05	422.12
*SECNO 9500 000									
9500 00	5.51	838.11	0.00	0.00	838.27	0.16	0.83	0.01	835.20
1740.	249.	640	851.	169.	137.	426.	129.	43.	834.20
0.87	1.47	4.67	2.00	0.070	0.040	0.060	0.000	832.60	56.59
0 001906	300.	380.	310.	2	0	0	0.00	331.92	388.52
*SECNO 9970.000									
9970.00	5.59	838.89	0.00	0.00	838.98	0.08	0.68	0.02	835.70
1740	670.	332.	738.	424.	78.	466.	136.	47.	835.40
0 92	1 58	4.25	1.58	0.070	0.040	0 060	0.000	833.30	83.25
0.001708	310.	470.	360.	2	0	0	0.00	559.37	642.62
*SECNO 10325.000									
10325.00	5.23	839.23	0.00	0.00	839.29	0.06	0.30	0.01	837.00
1740	700	377.	663.	725	116.	415.	141.	50.	834.00
0.95	0.97	3.26	1.60	0.070	0.040	0.060	0.000	834.00	51.82
0.001130	210	355.	165.	2	0	0	0.00	751.42	803.23

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
*SECND 10510 000									
10510.00	3.97	839.47	0.00	0.00	839.51	0.04	0.22	0.00	837.00
1740.	1048.	289.	403.	874.	93.	332.	146.	53.	837.50
0 98	1 20	3.11	1.21	0.070	0.040	0.060	0.000	835.50	31.65
0.001388	170.	185.	170.	1	0	0	0.00	766.71	798.35
*SECND 11115 000									
3280 CROSS SECTION 11115.00 EXTENDED 0.17 FEET									
11115.00	4.17	840 17	0.00	0.00	840.20	0.04	0.69	0.00	838.00
1740.	1243.	175.	321.	997.	58.	239.	161.	61.	838.00
1.08	1.25	3.02	1 34	0.070	0.040	0.060	0.000	836.00	0.00
0.001367	560.	605.	260.	2	0	0	0.00	680.00	680.00
*SECND 11550.000									
END OF MDNR PROVIDED DATA									
11550 00	3.97	840.97	0.00	0.00	841.06	0.08	0.83	0.02	839.20
1740.	946.	270.	524	604	63.	260.	172.	67.	838.80
1.14	1.57	4.27	2.02	0.070	0.040	0.060	0.000	837.00	60.47
0.002851	435.	435.	435.	2	0	0	0.00	558.64	619.10
*SECND 11625 000									
11625.00	4.02	841.22	0 00	0.00	841.36	0.13	0.27	0.02	839 70
1740.	956.	306.	478.	516.	57.	204.	173.	68.	839.40
1.15	1 85	5.40	2.34	0.070	0.040	0.060	0.000	837.20	68.24
0.004840	75.	75.	75.	2	0	0	0.00	540 24	608.48
*SECND 11700.000									
11700.00	4.32	841.62	0.00	0.00	841.85	0.23	0.45	0.05	840.30
1740.	956.	412	372.	450.	60.	149.	175.	69.	840.20
1.15	2.13	6.82	2.50	0.070	0.040	0.060	0.000	837.30	71.61
0.007595	75.	75.	75.	2	0	0	0.00	527.66	599.27
*SECND 11775 000									
11775 00	4.76	842.16	0.00	0.00	842.41	0.25	0.54	0.01	840.80
1740.	943.	485	312.	460.	71.	137.	176.	70.	840.80
1.16	2.05	6 81	2.27	0.070	0.040	0.060	0.000	837.40	55 67
0.006858	75	75.	75.	2	0	0	0.00	527.70	583 37

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= 0.300 CEHV= 0.500
*SECNO 12000.000

12000.00	5.76	843.66	0.00	0.00	843.98	0.32	1.54	0.04	842.50
1740.	650.	596.	494.	357.	82.	220.	179.	73.	841.90
1.18	1.82	7 29	2.24	0.070	0.040	0.070	0.000	837.90	29.39
0.006851	225.	225.	225.	2	0	0	0.00	539 46	568.85

*SECNO 12900.000
3280 CROSS SECTION 12900.00 EXTENDED 0.88 FEET

3470 ENCROACHMENT STATIONS= 60.0 467.0 TYPE= 1 TARGET= 407.000
DOWNSTREAM OF PRIVATE DRIVEWAY

12900.00	7.57	847.07	0.00	0.00	847.27	0 20	3.25	0.04	846.10
1740.	508.	787.	445.	342.	155.	318.	194.	82.	846.00
1.26	1.49	5.08	1.40	0.070	0.040	0.070	0.000	839.50	60.00
0.002225	900.	900.	900.	3	0	0	0.00	407.00	467.00

CCHV= 0 300 CEHV= 1.000
*SECNO 12950.000
3280 CROSS SECTION 12950.00 EXTENDED 1.05 FEET

3470 ENCROACHMENT STATIONS= 72.0 454.0 TYPE= 1 TARGET= 382.000

12950.00	8.65	847.25	0 00	0.00	847.40	0.15	0.11	0.02	846.10
1740.	554.	691.	495.	350.	154.	329.	195.	83.	846.00
1.26	1.58	4.49	1.50	0 070	0.040	0.070	0.000	838.60	72.00
0.002237	50.	50.	50.	2	0	0	0.00	382.00	454.00

*SECNO 12951.000
3280 CROSS SECTION 12951 00 EXTENDED 1.15 FEET

3370 NORMAL BRIDGE, NRD= 32 MIN ELTRD= 845.00 MAX ELLC= 844.40

3470 ENCROACHMENT STATIONS= 73.0 454.0 TYPE= 1 TARGET= 381.000
DOWNSTREAM FACE OF PRIVATE DRIVEWAY

12951.00	8.75	847 35	0.00	0 00	847.42	0.08	0 00	0.02	846.10
1740.	795.	259	686.	365.	93.	336.	195.	83.	846 00
1.26	2.18	2.78	2.04	0.070	0.040	0.070	0.000	838.60	73.00
0.004005	1.	1	1.	2	0	0	-73.23	381.00	454 00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 12963.000
3280 CROSS SECTION 12963 00 EXTENDED 1.19 FEET

3370 NORMAL BRIDGE, NRD= 32 MIN ELTRD= 845.00 MAX ELLC= 844.40

3470 ENCROACHMENT STATIONS= 76.0 451.0 TYPE= 1 TARGET= 375.000
U/S FACE OF PRIVATE DRIVEWAY

12963.00	8.80	847.40	0.00	0.00	847.47	0.08	0.05	0.00	846.10
1740.	791.	259.	690.	366.	94.	339.	196.	83.	846.00
1.26	2.16	2.75	2.04	0.070	0.040	0 070	0.000	838.60	76.00
0.003849	12	12.	12.	1	0	0	-72.24	375.00	451.00

*SECNO 12964.000
3280 CROSS SECTION 12964 00 EXTENDED 1.20 FEET

3470 ENCROACHMENT STATIONS= 76.0 451.0 TYPE= 1 TARGET= 375.000

12964.00	8.80	847.40	0.00	0 00	847.53	0.13	0.00	0.05	846.10
1740.	563.	665.	512.	368.	158.	349	196.	83.	846.00
1 26	1.53	4.22	1.47	0 070	0.040	0.070	0.000	838.60	76.00
0.001916	1	1.	1.	0	0	0	0.00	375.00	451 00

*SECNO 13014.000
3280 CROSS SECTION 13014.00 EXTENDED 1.27 FEET

3470 ENCROACHMENT STATIONS= 87.0 437.0 TYPE= 1 TARGET= 350.000
UPSTREAM OF PRIVATE DRIVEWAY

13014.00	7.97	847.47	0.00	0.00	847 58	0.11	0.05	0.00	846.10
1740.	578.	644.	519.	355.	165.	333.	197.	83.	846.00
1.27	1.63	3.91	1.56	0.040	0.030	0.040	0 000	839.50	87.00
0.000684	50	50.	50	2	0	0	0.00	350.00	437.00

*SECNO 13253.000

3265 DIVIDED FLOW

13253 00	6.94	847 64	0.00	0.00	847 84	0 20	0.16	0.09	842.20
1740	232.	984.	524.	108.	224.	242.	201.	85.	842.10
1.29	2.15	4.39	2 17	0.040	0.030	0.040	0.000	840.70	183.83
0.000695	239.	239.	239.	2	0	0	0.00	240.62	475.54

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= 0.300 CEHV= 0.500
*SECNO 13304 000

3265 DIVIDED FLOW

DOWNSTREAM FACE OF PRATT ROAD

13304.00	6.98	847.68	0 00	0.00	847.87	0 20	0.03	0.00	842.20
1740.	233.	980.	527.	110.	225.	247.	201.	85.	842 10
1.29	2.13	4.35	2.13	0.040	0.030	0.040	0.000	840.70	183.56
0 000677	51	51.	51.	0	0	0	0.00	245.38	476 79

SPECIAL BRIDGE

5070, VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED

SB	XK	XKOR	COFQ	RDI FN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.77	3.00	0.00	35.17	0.00	204.32	0.00	840.70	840.70

*SECNO 13350.000
3280 CROSS SECTION 13350.00 EXTENDED 0.17 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
849 67	847.87	0.00	503.	1230.	204.	236.	847.40	847.47

U/S FACE OF PRATT ROAD

13350.00	7.87	848.57	0.00	0.00	848.67	0.10	0.80	0.00	842 20
1740	247.	860.	633.	149.	258.	448.	202.	86.	842.10
1.30	1.66	3.34	1.41	0.040	0.030	0.040	0.000	840.70	176.74
0.000333	46.	46.	46.	2	0	0	0.00	333.26	510.00

*SECNO 13400.000
3280 CROSS SECTION 13400 00 EXTENDED 0.24 FEET

UPSTREAM OF PRATT ROAD

13400.00	7.94	848.64	0.00	0.00	848.71	0 06	0.02	0.01	842.20
1740.	327.	562	851.	153.	260.	467.	203.	86.	842.10
1.30	2.14	2.16	1.82	0.040	0.060	0.040	0.000	840.70	176.18
0.000550	50	50	50	2	0	0	0.00	333.82	510.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= 0.300 CEHV= 0.500

*SECNO 14740.000

3280 CROSS SECTION 14740.00 EXTENDED 4.23 FEET

3470 ENCROACHMENT STATIONS= 349.0 649.0 TYPE= 1 TARGET= 300.000

DOWNSTREAM OF DEXTER-ANN ARBOR ROAD

14740.00	7.53	849.23	0.00	0.00	849.25	0.03	0.54	0.01	845.00
1740.	539.	168.	1033.	577	119.	699.	238.	96.	844.10
1.59	0.93	1.41	1.48	0.070	0.060	0.050	0.000	841.70	349.00
0.000305	1340.	1340.	1340.	1	0	0	0.00	300.00	649.00

*SECNO 14790.000

3280 CROSS SECTION 14790.00 EXTENDED 0.82 FEET

D/S FACE OF DEXTER-ANN ARBOR ROAD--START OF MDNR PROVIDED DATA

14790.00	7.72	849.22	0.00	0.00	849.32	0.10	0.03	0.04	845.00
1740.	511.	560.	669.	337.	180.	255.	239.	96	845.00
1.60	1 52	3.10	2.63	0.070	0.060	0.050	0.000	841.50	335.00
0 001632	50.	50.	50.	2	0	0	0.00	275.95	610.95

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS 845.41 ,NOT 849.22 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.22	2.80	0 00	27.66	6 00	139.00	0 00	841.95	841.95

*SECNO 14890.000

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
854.62	850 66	0.00	1199	545.	139.	139.	848.37	849 20

3470 ENCROACHMENT STATIONS= 100.0 550.0 TYPE= 1 TARGET= 450.000

U/S FACE OF DEXTER-ANN ARBOR ROAD

14890.00	7.84	849.74	0.00	0.00	849.75	0.01	0.43	0.00	844.10
1740.	1308.	165.	267.	1651.	135.	225.	242.	97	844.10
1.63	0.79	1.22	1 19	0.070	0.060	0.050	0.000	841.90	100.00
0.000198	60	100	160.	1	0	5	0.00	450.00	550.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= 0.100 CEHV= 0.300
*SECNO 15060.000
3280 CROSS SECTION 15060.00 EXTENDED 4.96 FEET

UPSTREAM OF DEXTER-ANN ARBOR ROAD

15060.00	8.06	849.76	0.00	0.00	849.77	0.01	0.02	0.00	845.00
1740.	628.	150.	962.	891.	129.	1253.	249	98.	844.10
1.68	0.70	1.17	0.77	0.060	0.045	0.060	0.000	841.70	300.00
0.000107	120.	170.	180.	2	0	0	0.00	445.00	745.00

*SECNO 15290.000
3280 CROSS SECTION 15290.00 EXTENDED 3.80 FEET

15290.00	7.79	849.79	0 00	0.00	849.80	0 01	0.03	0.00	845.00
1740.	700.	235.	805.	1076.	200.	1087.	261.	101.	845.00
1.76	0.65	1.17	0.74	0.060	0.045	0.060	0.000	842.00	215.00
0.000113	220.	230	240.	0	0	0	0.00	561.94	776.94

*SECNO 15790.000
3280 CROSS SECTION 15790.00 EXTENDED 0.84 FEET

15790.00	7.85	849 85	0 00	0.00	849.86	0.01	0.06	0.00	845.00
1740.	771.	259.	710.	1096.	194.	942.	288.	107.	845.00
1.93	0.70	1.33	0.75	0.060	0.045	0.060	0.000	842.00	154.60
0.000133	500.	500.	500.	0	0	0	0.00	585.40	740.00

*SECNO 16290.000
3280 CROSS SECTION 16290 00 EXTENDED 1.94 FEET

16290 00	7.64	849 94	0.00	0.00	849.98	0.04	0.12	0.01	845.80
1740.	902.	345.	493.	756	134.	406.	306.	113	846.70
2.02	1.19	2.58	1.21	0.060	0.045	0.060	0.000	842.30	0.00
0.000612	480.	500.	440	2	0	0	0.00	482.33	482.33

*SECNO 16680.000
3280 CROSS SECTION 16680.00 EXTENDED 1.22 FEET

16680.00	7.62	850.22	0.00	0.00	850.28	0.06	0.29	0.01	849.00
1740.	585.	390.	765.	460.	124.	484.	316.	117.	845.00
2.08	1.27	3.15	1.58	0.060	0.045	0.060	0.000	842.60	240.00
0.001052	345.	390.	380.	2	0	0	0.00	489.37	729.37

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 16975.000

3470 ENCROACHMENT STATIONS= 225.0 693.7 TYPE= 1 TARGET= 468.710

16975.00	7.26	850.46	0.00	0 00	850.57	0.11	0.27	0.01	848.00
1740.	409.	903.	428.	364.	259.	318.	322.	120.	847.00
2.11	1.12	3.49	1.35	0.060	0.045	0.060	0.000	843.20	225.00
0 001126	225.	295.	225.	2	0	0	0.00	468.71	693.71

*SECNO 17286.000

17286.00	7.54	850 74	0.00	0.00	850.81	0.07	0.23	0.00	846.00
1740.	900.	629.	210.	634.	209	207.	327.	122.	848.00
2.14	1.42	3.01	1.02	0.060	0.045	0.060	0.000	843.20	211.63
0.000808	160.	311.	275.	0	0	0	0.00	452.48	664.11

*SECNO 17657.000

3280 CROSS SECTION 17657.00 EXTENDED 1.02 FEET

17657 00	7.42	851.02	0.00	0.00	851.11	0.08	0.30	0.00	849.00
1740.	889.	681.	169.	706.	202.	139.	334.	125.	847.00
2.18	1 26	3.37	1 22	0.060	0.045	0.060	0.000	843.60	94.00
0.001123	310	371.	120	2	0	0	0 00	522.93	616.93

*SECNO 17980.000

3280 CROSS SECTION 17980 00 EXTENDED 0.30 FEET

17980 00	7.40	851.30	0.00	0.00	851.46	0 15	0.33	0.02	846.50
1740.	640.	564.	536.	317.	119.	270.	338.	127.	846.50
2.20	2.02	4.73	1.98	0.060	0.045	0.060	0.000	843.90	270.00
0.001840	175	323.	195.	2	0	0	0.00	389.78	659.78

*SECNO 18240.000

3280 CROSS SECTION 18240.00 EXTENDED 1.07 FEET

18240.00	7.77	851 77	0 00	0.00	851.89	0.13	0.44	0.00	848.60
990.	215.	467	308.	167.	120.	204.	342	129.	848.80
2.23	1 29	3.89	1.51	0.060	0.045	0.060	0.000	844.00	330.00
0.001520	255.	260.	245.	2	0	0	0.00	290.00	620.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 18690.000
3280 CROSS SECTION 18690.00 EXTENDED 0.20 FEET

3470 ENCROACHMENT STATIONS= 308.0 691.0 TYPE= 1 TARGET= 383.000
END OF MDNR PROVIDED DATA

18690.00	6.20	852.20	0.00	0.00	852.24	0.04	0.34	0.01	848.00
990.	560.	235.	195.	469.	98.	229.	347.	131.	848.90
2.30	1.19	2.40	0.85	0.060	0.045	0.060	0.000	846.00	308.00
0.000602	330.	450.	330.	2	0	0	0.00	382.00	690.00

CCHV= 0.100 CEHV= 0.800
*SECNO 18900.000

3470 ENCROACHMENT STATIONS= 109.0 387.0 TYPE= 1 TARGET= 278.000

18900.00	5.76	852.36	0.00	0.00	852.50	0.14	0.18	0.08	849.40
990	370.	415.	205.	222.	98.	155.	350.	133.	849.80
2.33	1.66	4.25	1.32	0.050	0.035	0.050	0.000	846.60	109.00
0.001346	210.	210.	210.	2	0	0	0.00	278.00	387.00

*SECNO 19114.000

19114.00	5.59	852.76	0.00	0.00	853.33	0.57	0.48	0.35	850.77
990.	204.	674.	113.	93.	93.	55.	352.	134.	850.97
2.34	2.20	7.22	2.07	0.050	0.035	0.050	0.000	847.17	150.59
0.004449	214.	214.	214.	2	0	0	0.00	179.77	330.36

*SECNO 19264.000

3470 ENCROACHMENT STATIONS= 205.0 311.0 TYPE= 1 TARGET= 106.000

19264.00	5.88	853.45	0.00	0.00	853.93	0.48	0.59	0.01	851.17
990.	199.	651.	140.	79.	99.	63.	352.	135.	851.37
2.35	2.52	6.60	2.24	0.050	0.035	0.050	0.000	847.57	205.00
0.003455	150.	150.	150.	3	0	0	0.00	106.00	311.00

*SECNO 19314.000

19314.00	5.91	853.61	0.00	0.00	854.40	0.79	0.22	0.25	851.80
990.	162.	754.	74.	56.	94.	30.	353.	135.	851.30
2.35	2.89	8.05	2.46	0.050	0.035	0.050	0.000	847.70	208.76
0.005684	50	50.	50.	2	0	0	0.00	83.38	292.13

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
*SECNO 19706.000									
19706.00	7.12	856.02	0.00	0.00	857.25	1.23	2.50	0.35	855.60
990.	1.	987.	2.	1.	111	2.	354.	135.	855.60
2.36	0.90	8.91	0.90	0.050	0.035	0.050	0.000	848.90	245.24
0.007232	392.	392.	392.	2	0	0	0.00	30.47	275.71
*SECNO 20099.000									
DOWNSTREAM OF NORTH SIDE OF INTERSTATE 94									
20099.00	7.85	857.85	0.00	0.00	858.76	0.91	1.48	0.03	850.00
990.	8.	967	15.	6.	125.	9.	355.	136.	850 40
2.37	1.21	7.73	1 61	0.050	0.035	0.050	0 000	850 00	248.40
0.002299	393.	393.	393.	2	0	0	0.00	20.94	269.34
*SECNO 20150.000									
D/S FACE OF NORTH SIDE OF INTERSTATE 94									
20150 00	8.02	858.02	0.00	0.00	858.95	0.93	0.17	0.02	859.80
990.	0.	990.	0.	0.	128.	0.	355.	136.	859.80
2.38	0.00	7 74	0.00	0.000	0 035	0.000	0.000	850.00	250.00
0.005352	51.	51.	51.	2	0	0	0.00	16.80	266.80

SPECIAL BRIDGE

5070, VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.40	3.00	0 00	16.80	0.00	88.00	0.00	850.00	850.00

*SECNO 20357.000

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
862.74	858.17	0.00	110.	889.	88.	89.	855.30	861.50
U/S FACE OF SOUTH SIDE OF INTERSTATE 94								
20357.00	14.07	861.77	0.00	0.00	861.82	0.05	2.87	0 00	847 70
990.	439.	473.	79.	380.	202.	100	357.	137	849.80
2.41	1.15	2.34	0.79	0.050	0.035	0.050	0.000	847.70	14.54
0.000137	207.	207.	207.	2	0	4	0.00	403.19	417.73

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 20408.000

UPSTREAM OF SOUTH SIDE OF INTERSTATE 94

20408.00	14.08	861.78	0.00	0.00	861.83	0.05	0.01	0.00	847.70
990.	439.	472	79.	382.	202.	101.	358.	137.	849.80
2.42	1.15	2.33	0.78	0.050	0.035	0.050	0.000	847.70	10.92
0.000136	51.	51.	51.	2	0	0	0.00	408.62	419.54

*SECNO 21300.000

3470 ENCROACHMENT STATIONS= 100.0 341.0 TYPE= 1 TARGET= 241.000

CROSS SECTION DOWNSTREAM OF ZEEB ROAD--CROSS SECTION B

21300.00	10.68	861.88	0.00	0.00	861.90	0.02	0.07	0.00	856.50
990.	243.	670	78.	438.	546.	175.	377.	143.	856.70
2.67	0.55	1.23	0.44	0.050	0.035	0.050	0.000	851.20	100.00
0.000045	892.	892.	892.	2	0	0	0.00	217.25	317.25

*SECNO 21375.000

3265 DIVIDED FLOW

D/S FACE OF ZEEB ROAD

21375.00	16.98	861.88	0.00	0.00	861.95	0.07	0.01	0.04	859.00
990.	18.	936.	36.	33.	428.	104.	378.	144.	862.20
2.68	0.53	2.19	0.35	0.050	0.035	0.050	0.000	844.90	126.77
0.000196	75.	75.	75.	1	0	0	0.00	204.76	339.04

SPECIAL BRIDGE

5070, VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED

SB	XK	XKOR	CDFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.55	3.00	0.00	24.00	0.00	113.10	0.00	844.90	844.90

*SECNO 21420.000

3265 DIVIDED FLOW

PRESSURE AND WEIR FLOW

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
863.72	861 95	0.00	623.	368.	113.	302.	857.50	859.00

U/S FACE OF ZEEB ROAD

21420.00	17 16	862.06	0.00	0.00	862.13	0.07	0.18	0.00	859.00
990	20.	920.	50.	38.	434.	132.	379.	144.	862.20
2.68	0.53	2.12	0.37	0.050	0.035	0.050	0.000	844.90	125.29
0.000182	45.	45.	45.	2	0	4	0.00	219.73	348.21

CCHV= 0.100 CEHV= 0.300
*SECND 21471.000

3470 ENCROACHMENT STATIONS= 27.0 414.0 TYPE= 1 TARGET= 387.000

UPSTREAM OF ZEEB ROAD

21471.00	10.93	862.13	0.00	0.00	862.14	0.01	0.00	0.01	856.50
990.	351	522	117	581.	561.	193.	380.	144.	856.70
2.70	0.60	0.93	0.61	0.050	0.050	0.040	0.000	851.20	49.26
0.000052	51.	51	51.	2	0	0	0 00	271.11	320.37

*SECND 22000.000

22000.00	10.96	862.16	0.00	0.00	862.17	0.01	0.03	0.00	856.50
990.	352.	521.	118.	584.	563.	194.	396.	148.	856.70
2.89	0.60	0.92	0.61	0.050	0 050	0.040	0.000	851.20	48.58
0.000051	529	529.	529.	2	0	0	0.00	272.13	320.71

*SECND 23000 000

3470 ENCROACHMENT STATIONS= 148.0 292.0 TYPE= 1 TARGET= 144.000

23000.00	11.00	862.20	0.00	0.00	862.20	0.00	0.04	0.00	856.50
420	83.	281	55.	187	566.	164.	422.	152.	856.70
3.49	0.45	0.50	0.34	0.040	0 060	0.050	0 000	851.20	148.00
0.000021	1000.	1000.	1000.	0	0	0	0.00	144.00	292.00

CCHV= 0.300 CEHV= 0.500
*SECND 23186.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3280 CROSS SECTION 23186.00 EXTENDED 0.30 FEET

3470 ENCROACHMENT STATIONS= 216.0 267.0 TYPE= 1 TARGET= 51.000

DOWNSTREAM OF JACKSON ROAD--CROSS SECTION C

23186.00	8.70	862.20	0.00	0.00	862.23	0.03	0.01	0.01	856.50
420.	133.	174.	113.	90.	127.	92.	425.	153.	856.20
3.52	1.48	1.37	1.23	0.040	0.060	0.050	0.000	853.50	216.00
0.000229	186.	186.	186.	1	0	0	0.00	51.00	267.00

*SECNO 23216.000

D/S FACE OF JACKSON ROAD

23216.00	8.70	862.20	0.00	0.00	862.25	0.05	0.01	0.01	862.40
420.	0.	420.	0.	0.	240.	0.	425.	153.	862.40
3.53	0.00	1.75	0.00	0.000	0.060	0.000	0.000	853.50	299.03
0.000575	30.	30.	30.	0	0	0	0.00	36.69	335.73

SPECIAL BRIDGE

5070, VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.99	3.00	0.00	33.00	0.00	161.70	0.00	853.50	853.50

*SECNO 23300.000

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
862.41	862.25	0.00	7.	413.	162.	231.	860.50	862.30

3470 ENCROACHMENT STATIONS= 299.0 335.8 TYPE= 1 TARGET= 36.800

U/S FACE OF JACKSON ROAD

23300.00	8.85	862.35	0.00	0.00	862.40	0.05	0.15	0.00	862.40
420	0.	420	0.	0.	246.	0.	426.	153.	100000.00
3.54	0.00	1.71	0.00	0.000	0.060	0.000	0.000	853.50	299.01
0.000537	84.	84	84	2	0	4	0.00	36.77	335.78

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 23350.000
3280 CROSS SECTION 23350.00 EXTENDED 0.51 FEET

3470 ENCROACHMENT STATIONS= 175.0 308.0 TYPE= 1 TARGET= 133.000
UPSTREAM OF JACKSON ROAD

23350.00	8.91	862.41	0.00	0.00	862.41	0.01	0.00	0.01	856.50
420.	209.	72.	139.	298	130.	319	426.	153.	856.20
3 57	0.70	0.55	0 44	0.030	0.050	0.050	0.000	853.50	175.00
0.000025	50.	50.	50.	2	0	0	0.00	133.00	308.00

CCHV= 0.100 CEHV= 0.300
*SECNO 25000.000

25000.00	5.68	862 48	0 00	0.00	862.49	0.01	0.07	0.00	860.00
420.	52.	68.	300.	82.	87.	547.	454.	162.	860.00
4 34	0.63	0.78	0.55	0.030	0.050	0.050	0.000	856.80	161.03
0.000103	1650.	1650.	1650.	2	0	0	0.00	320.18	481.21

*SECNO 25333.000

25333.00	5.13	862.53	0.00	0.00	862.55	0.01	0.06	0.00	860.70
420.	20.	107.	294.	23.	80	365.	458.	164.	860.50
4.43	0.87	1.34	0.80	0.030	0.050	0.050	0.000	857.40	205.00
0.000348	333.	333.	333.	2	0	0	0.00	263.70	468.69

*SECNO 25666.000

25666.00	4.62	862.72	0.00	0.00	862.82	0.10	0.25	0.03	862.00
420	4.	225.	191.	4.	70.	145	461	166.	861.30
4.47	1.25	3.22	1.31	0.030	0.050	0.050	0.000	858.10	220.15
0 002495	333.	333.	333.	2	0	0	0.00	225.98	446.12

*SECNO 26000.000

3265 DIVIDED FLOW

26000.00	4.90	863.60	0.00	0.00	863.71	0.11	0.89	0.00	862.50
420.	9.	254.	157.	7.	81.	99	463.	167.	863 20
4 51	1.33	3.14	1.59	0 040	0.055	0.040	0.000	858.70	217.70
0.002857	334.	334.	334.	2	0	0	0.00	199.84	429 45

SECND	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 26490.000

3265 DIVIDED FLOW

26490.00	5.32	865.02	0.00	0.00	865.17	0.15	1.44	0.01	863.80
420.	14	298.	109.	9.	83.	77.	465.	170.	863.30
4.56	1.46	3.59	1.40	0.040	0.055	0.040	0.000	859.70	214.80
0.003029	490.	490.	490.	2	0	0	0.00	195.02	425.50

*SECNO 26980.000

3265 DIVIDED FLOW

26980.00	5.69	866.39	0.00	0.00	866.53	0.14	1.37	0.00	865.30
420.	11.	317.	92.	9	94.	73.	467.	172.	864.60
4.60	1.25	3.38	1.26	0.040	0.055	0.040	0.000	860.70	212.01
0.002579	490.	490.	490.	1	0	0	0.00	196.69	426.77

CCHV= 0.300 CEHV= 0.500
*SECNO 27472.000

3470 ENCROACHMENT STATIONS= 218.0 259.0 TYPE= 1 TARGET= 41.000
DOWNSTREAM OF STAEBLER ROAD

27472.00	6.10	867.80	0.00	0.00	868.05	0.25	1.46	0.05	866.80
420	7.	406	7.	5	101.	4	468.	173.	866.10
4.64	1.42	4.04	1.88	0.040	0.055	0.040	0.000	861.70	218.00
0.003459	492.	492.	492.	2	0	0	0.00	36.60	254.60

*SECNO 27522 000

27522.00	4.71	867.91	0.00	0.00	868.59	0.68	0.32	0.22	871.50
420.	0.	420.	0.	0	63.	0.	468	173.	871.50
4.64	0 00	6.63	0 00	0.000	0.055	0.000	0.000	863.20	300.00
0.016259	50.	50.	50.	2	0	0	0.00	16.00	316.00

*SECNO 27523.000

3370 NORMAL BRIDGE, NRD= 17 MIN ELTRD= 870.60 MAX ELLC= 869.60

D/S FACE OF STAEBLER ROAD

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
27523.00	4 74	867 94	0.00	0.00	868.61	0.68	0.02	0.00	871.50
420.	0.	420.	0.	0.	64.	0.	468.	173.	871.50
4.64	0.00	6.60	0.00	0.000	0.055	0.000	0.000	863.20	300.00
0.022227	1.	1.	1.	1	0	0	0.00	16.00	316.00

*SECNO 27539 000

3370 NORMAL BRIDGE, NRD= 17 MIN ELTRD= 870.60 MAX ELLC= 869.60

U/S FACE OF STAEBLER ROAD

27539.00	5.22	868 42	0.00	0.00	868.96	0.53	0.30	0.04	871.50
420.	0.	420.	0.	0.	72.	0.	468.	173.	871.50
4.64	0.00	5.87	0 00	0 000	0.055	0.000	0.000	863.20	300.00
0.016307	16.	16.	16.	2	0	0	0.00	16.00	316.00

*SECNO 27540.000

27540.00	5.24	868.44	0.00	0.00	868.97	0.53	0.01	0.00	871.50
420.	0	420.	0.	0.	72.	0.	468.	173.	871.50
4.64	0.00	5.84	0.00	0.000	0.055	0.000	0.000	863.20	300.00
0.011309	1.	1.	1.	0	0	0	0.00	16.00	316.00

*SECNO 27600.000

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 171.0 307.0 TYPE= 1 TARGET= 136.000

UPSTREAM OF STAEBLER ROAD---CROSS SECTION D

27600.00	7.46	869.16	0.00	0.00	869.21	0.05	0.09	0.14	866.80
420	86.	258.	76.	64.	130.	57.	468.	173.	866.10
4.65	1.36	1.97	1.33	0.030	0.055	0.030	0.000	861.70	171.00
0.000585	60.	60.	60.	2	0	0	0.00	128.96	307.00

CCHV= 0 100 CEHV= 0.300

*SECNO 28140.000

28140 00	5.98	869.68	0.00	0.00	869.93	0.25	0.66	0.06	869.40
420.	1.	409.	10.	1.	101.	4.	471.	174.	868.20
4.69	0.82	4.04	2.48	0.030	0.055	0.030	0.000	863.70	215.27
0.003943	540.	540.	540.	3	0	0	0.00	40.18	255.45

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECND 28680.000

3265 DIVIDED FLOW

28680.00	5.97	871.77	0.00	0.00	871.99	0.22	2.06	0.00	871.30
420.	6.	393.	21.	5.	101.	14.	472.	175.	870.30
4.73	1.14	3.90	1.52	0.030	0.055	0.030	0.000	865.80	201.60
0.003687	540.	540.	540.	2	0	0	0.00	120.93	342.02

*SECND 29225.000

29225.00	5.70	873.70	0.00	0.00	873.87	0.17	1.87	0.01	873.20
420.	11	342.	67.	11.	96	35.	474.	177.	872.40
4.78	1.07	3.55	1.93	0.030	0.055	0.030	0.000	868.00	169.08
0.003201	545.	545.	545.	2	0	0	0.00	159.86	328.94

*SECND 29765.000

29765.00	5.38	875.68	0.00	0.00	875.88	0.20	2.01	0.01	875.70
420.	0.	333.	87.	0.	86.	36.	475.	179.	874.70
4.82	0.00	3.85	2.42	0.000	0.055	0.030	0.000	870.30	225.04
0.004379	540.	540.	540.	2	0	0	0.00	98.43	323.47

*SECND 30305.000

30305.00	5.53	877.93	0.00	0.00	878.11	0.18	2.23	0.00	878.20
420.	0.	321.	99.	0	87.	44.	477.	180.	877.20
4.86	0.00	3.67	2.28	0.000	0.055	0.030	0.000	872.40	225.53
0.003888	540.	540.	540.	2	0	0	0.00	105.36	330.89

CCHV= 0.300 CEHV= 0.500

*SECND 30850.000

DOWNSTREAM OF STAEBLER ROAD

30850.00	5.42	879.92	0.00	0.00	880.12	0.20	1.99	0.01	880.60
420	0.	383.	37.	0.	103.	26.	479.	181.	879.60
4.91	0.00	3.74	1.40	0.000	0.050	0.040	0.000	874.50	219.33
0.003446	545	545.	545.	2	0	0	0.00	85.64	304.97

CCHV= 0.500 CEHV= 1.000

*SECND 30901.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3265 DIVIDED FLOW

3280 CROSS SECTION 30901.00 EXTENDED 0.60 FEET

D/S FACE OF STAEBLER ROAD

30901.00	6.41	880.11	0.00	0.00	880.36	0.25	0.19	0.05	881.80
420.	0.	379.	41.	0.	90.	33.	479.	181.	881.80
4.91	0.00	4.24	1.22	0.000	0.050	0.040	0.000	873.70	250.00
0.004238	51.	51	51.	0	0	0	0.00	126.32	500.00

SPECIAL BRIDGE

5070, VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.46	3.00	0.00	16.00	0.00	105.60	0.00	873.70	873.70

*SECNO 30917.000

6070, LOW FLOW BY NORMAL BRIDGE

EGPRS= 0.000 EGLWC= 880.365 ELLC= 880.700 PCWSE= 880.111 ELTRD= 879.500

3265 DIVIDED FLOW

3280 CROSS SECTION 30917.00 EXTENDED 0.83 FEET

3370 NORMAL BRIDGE, NRD= 15 MIN ELTRD= 879.50 MAX ELLC= 880.70

U/S FACE OF STAEBLER ROAD

30917.00	6.63	880.33	0.00	0.00	880.48	0.15	0.07	0.05	881.80
420.	0.	322.	98.	0.	93.	61.	479.	181.	881.80
4.91	0.00	3.46	1.61	0.000	0.050	0.040	0.000	873.70	250.00
0.004375	16.	16	16.	3	0	0	0.00	148.99	500.00

*SECNO 31000.000

3470 ENCROACHMENT STATIONS= 159.0 309.0 TYPE= 1 TARGET= 150.000

UPSTREAM OF STAEBLER ROAD

31000.00	6.12	880.62	0.00	0.00	880.70	0.08	0.18	0.03	880.60
420.	5.	316.	100	11.	124.	67.	479.	181.	879.60
4.92	0.43	2.54	1.48	0.050	0.050	0.040	0.000	874.50	159.00
0.001304	83.	83.	83.	2	0	0	0.00	150.00	309.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 31200.000

3470 ENCROACHMENT STATIONS= 209.0 259.0 TYPE= 1 TARGET= 50.000
DOWNSTREAM OF PARK ROAD

31200.00	6.41	880.91	0.00	0.00	881.04	0 13	0.29	0.05	880.60
420.	1.	397.	21	3.	134.	13.	480.	182.	879.60
4.94	0.53	2 97	1.69	0.050	0.050	0.040	0.000	874.50	209.00
0.001626	200.	200.	200.	2	0	0	0.00	50.00	259.00

*SECNO 31278.000

3470 ENCROACHMENT STATIONS= 250.0 261.4 TYPE= 1 TARGET= 11.400
DOWNSTREAM FACE OF PARK ROAD

31278 00	7 54	881.14	0.00	0.00	881.58	0.45	0.23	0.31	875.70
420.	0.	420.	0.	0.	78.	0.	480.	182.	100000.00
4.74	0.00	5 35	0.00	0.000	0.050	0.000	0.000	873 60	250.00
0.006861	78.	78.	78.	2	0	0	0.00	11.40	261.40

SPECIAL BRIDGE

5070, VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0 00	1.78	3.00	0.00	11.40	0.00	77 52	0.00	873.60	873 60

*SECNO 31300.000
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
881.95	881.17	0.00	9.	412.	78.	82.	880.80	881.70

3470 ENCROACHMENT STATIONS= 201.0 310.0 TYPE= 1 TARGET= 109.000
UPSTREAM FACE OF PARK ROAD

31300.00	8.29	881.89	0.00	0.00	881.92	0 02	0.34	0.00	875.70
420.	119.	129.	171.	143.	87.	141.	480.	182.	874.00
4.95	0.83	1.49	1.21	0.050	0.050	0.040	0.000	873.60	203.78
0.000176	22.	22	22.	2	0	4	0.00	93.47	297.25

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= 0.100 CEHV= 0.300
*SECNO 31340.000

3470 ENCROACHMENT STATIONS= 189.0 280.0 TYPE= 1 TARGET= 91.000
UPSTREAM OF PARK ROAD--CROSS SECTION E

31340.00	7.39	881.89	0.00	0.00	881.93	0.04	0.01	0.01	880.60
420.	31.	294	95.	38.	165.	77.	481.	182.	879.60
4 96	0.80	1.78	1.23	0.050	0.055	0.050	0.000	874.50	189.00
0.000532	40.	40.	40.	2	0	0	0.00	91.00	280.00

*SECNO 32000.000

32000.00	6.77	882.27	0.00	0.00	882.30	0.03	0.36	0.00	881.60
420	43.	244.	133	72.	145.	144.	485.	185.	880.60
5 09	0.59	1.68	0.92	0.050	0.055	0.050	0.000	875.50	118.47
0.000565	660.	660.	660.	2	0	0	0.00	254.82	373.29

*SECNO 33000 000
3280 CROSS SECTION 33000.00 EXTENDED 3.22 FEET

33000.00	5.43	882.43	0 00	0.00	882.43	0.00	0.13	0.00	880.00
420.	305.	56.	59.	667.	108.	260.	501.	193.	880.80
5.74	0.46	0.52	0.23	0.050	0.055	0.050	0.000	877.00	0.00
0.000056	1000.	1000.	1000.	2	0	0	0.00	500.00	500.00

*SECNO 34500.000
3280 CROSS SECTION 34500.00 EXTENDED 0 95 FEET

34500.00	3.14	882.64	0.00	0.00	882.73	0.09	0.28	0.03	882.50
420.	251.	169.	0.	156	52.	0.	523.	206.	883.30
5 92	1.61	3.28	0.00	0.060	0.055	0.000	0.000	879.50	0.00
0.005671	1500.	1500.	1500	2	0	0	0.00	248.95	248.95

*SECNO 35520.000
3280 CROSS SECTION 35520.00 EXTENDED 1.64 FEET

DOWNSTREAM OF LIBERTY ROAD--CROSS SECTION F

35520.00	3.85	884 75	0.00	0.00	884.77	0.02	2.03	0.01	883.90
420.	309.	111.	0.	311.	68	0.	530.	212.	884.70
6.16	0.99	1.62	0 01	0.060	0 055	0.000	0.000	880.90	0.00
0.001003	1020.	1020.	1020	4	0	0	0.00	250.40	250.40

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= 0.400 CEHV= 0.800
*SECNO 35571.000

3265 DIVIDED FLOW

3280 CROSS SECTION 35571.00 EXTENDED 1.80 FEET

D/S FACE OF LIBERTY ROAD

35571.00	4.60	884.80	0.00	0.00	884.82	0.02	0.05	0.00	883.90
420.	313.	107	0.	329.	69.	0.	530.	212.	887 30
6.18	0.95	1.55	0.00	0.060	0.055	0.000	0.000	880.20	0.00
0.001027	51.	51.	51.	2	0	0	0.00	318.10	318.12

SPECIAL BRIDGE

5070.VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED

SB XK	XKOR	COFQ	RDLEN	BWC	BWP	DAREA	SS	ELCHU	ELCHD
0.00	2.36	3.00	0.00	3.54	0.00	12.57	0.00	880.20	880.20

*SECNO 35611.000
3280 CROSS SECTION 35611.00 EXTENDED 3.50 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
925.78	884.82	0.00	335.	86.	13.	14.	884.20	886.00

U/S FACE OF LIBERTY ROAD

35611.00	6.30	886.50	0.00	0.00	886.50	0.00	1.68	0.00	883.90
420.	358.	62.	0.	828.	114.	0.	53i.	213.	887.30
6.20	0.43	0.55	0.00	0.060	0.055	0.000	0.000	880.20	0.00
0.000075	40	40	40	0	0	9	0.00	320.08	320.08

*SECNO 35662.000
3280 CROSS SECTION 35662.00 EXTENDED 1.50 FEET

3470 ENCROACHMENT STATIONS= 27.0 449.0 TYPE= 1 TARGET= 422.000
UPSTREAM OF LIBERTY ROAD

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
35662.00	5.60	886.50	0.00	0.00	886.51	0 00	0.00	0.00	883.90
350.	241.	61.	49.	616.	113.	236.	532.	213.	884.70
6.24	0.39	0.54	0.21	0.050	0.045	0.050	0.000	880.90	27.00
0.000038	51.	51.	51	2	0	0	0.00	422.00	449.00
*SECNO 36108.000									
3280 CROSS SECTION	36108.00	EXTENDED		0 74	FEET				
36108.00	3.75	886.55	0 00	0.00	886.58	0.03	0.05	0.02	885.60
350.	227.	122.	0.	228.	63.	1.	538.	217.	886.30
6.33	1.00	1.95	0.24	0.050	0.045	0.050	0.000	882.80	0.00
0.001083	446.	446.	446.	1	0	0	0.00	254.74	254.74
CCHV= 0.100 CEHV= 0.300									
*SECNO 36256.000									
3280 CROSS SECTION	36256 00	EXTENDED		0.05	FEET				
36256.00	3.35	886.75	0.00	0.00	886.93	0.18	0.31	0.04	886.20
350.	125.	225.	0.	93.	55.	0.	539.	218	886.80
6.34	1.35	4 11	0.00	0.050	0.045	0.000	0.000	883.40	0.00
0.005687	148.	148.	148.	3	0	0	0.00	249.84	249.84
*SECNO 36404.000									
36404.00	3.53	887.53	0.00	0.00	887.70	0.18	0.77	0.00	886.80
350.	111.	239.	0.	88.	60.	1.	540.	218.	887.30
6.36	1.27	3.99	0.49	0.050	0.045	0.050	0.000	884.00	12.65
0.004800	148.	148.	148.	2	0	0	0.00	245.10	257.75
*SECNO 36554.000									
36554.00	3.64	888.24	0.00	0.00	888.42	0.19	0.72	0.00	887.30
350	99.	248.	3	76.	61.	7.	540.	219.	887.90
6.37	1 30	4.04	0.42	0.050	0.045	0.050	0.000	884.60	31.37
0.004743	150.	150.	150.	2	0	0	0.00	359.96	391 34
*SECNO 37000.000									
37000.00	3.63	890.13	0.00	0.00	890.27	0.14	1.84	0.00	889.00
350.	84.	218.	47.	66.	60.	57.	542.	223.	889.50
6.42	1.29	3.67	0.83	0.050	0 045	0.050	0.000	886.50	91.64
0.003631	446.	446.	446.	3	0	0	0.00	357.82	449.46

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
*SECNO 38000.000									
38000.00	3.41	894.41	0.00	0.00	894.62	0.21	4.32	0.02	893.00
350	97.	227.	26.	52.	52.	19.	545.	229.	893.50
6.50	1.87	4.38	1.36	0.050	0.045	0.050	0.000	891.00	143 95
0.005235	1000.	1000.	1000.	2	0	0	0.00	142.23	286.18
*SECNO 39000.000									
39000.00	3.19	899.19	0.00	0.00	899.33	0.14	4 71	0.01	897.70
350.	153.	180.	16.	79.	47.	16.	548.	232.	898.40
6.59	1.94	3.85	1.04	0.050	0.045	0.050	0.000	896.00	136.55
0.004261	1000.	1000.	1000.	5	0	0	0.00	147.44	283.98
*SECNO 40000 000									
40000.00	2.69	903.39	0.00	0.00	903.50	0.11	4.16	0 00	901.50
350.	188.	132.	29.	88.	39	22.	552.	236	902.50
6.70	2 13	3.38	1.33	0.050	0.045	0.050	0.000	900 70	135.33
0.004067	1000.	1000.	1000.	5	0	0	0.00	151.41	286.74

THIS RUN EXECUTED 4 MAR 87 10:21:57

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
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T1      SCIO TOWNSHIP FLOOD INSURANCE STUDY
T2      HONEY CREEK
T3      100 YEAR FLOODPLAIN -- ENCROACHED

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

       0.       3.        0.        0.  0.000000      0.00      0.0       0.    808.130     0.000

J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

    15.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

*PROF 2

CCHV=   0.300 CEHV=   0.500
*SECNO 0.000
 2800 NAT Q1=     259.85  WSEL=     808.02  ENC Q1=     264.67  WSEL=     808.12  RATIO= -0.0185
 NAT Q1=     267.   RATIOS LOB,CH,ROB=  0.0000  0.9917  0.0083  WSEL=     808.12
3280 CROSS SECTION       0.00 EXTENDED       0.48 FEET


3470 ENCROACHMENT STATIONS=      249.0      284.0  TYPE=      4  TARGET=        0/008
      0.00      9.28    808.13      0.00    808.02    808.76      0.63      0.00      0.00    809.75
    1740.         0.    1740.         0.        0.     273.         0.        0.        0.    809.75
     0 00      0.00      6.38      0.00     0.000     0.050     0.000     0.000    798.85    249.21
 0.004306         0.        0.        0.         0         0         0      0.00     34.58    283.78


*SECNO 125.000
 2800 NAT Q1=     262.76  WSEL=     808.59  ENC Q1=     267.92  WSEL=     808.69  RATIO= -0.0196
 NAT Q1=     271.   RATIOS LOB,CH,ROB=  0.0000  0.9888  0.0112  WSEL=     808.69
3280 CROSS SECTION     125.00 EXTENDED       0.51 FEET


3470 ENCROACHMENT STATIONS=      249.0      284.0  TYPE=      4  TARGET=        0.011
    125.00      9.32    808.67      0.00    808.59    809.30      0.63      0.53      0.00    810.25
    1740.         0.    1740.         0.        0.     274.         0.        1.        0.    810.25
      0.01      0.00      6.36      0.00     0.000     0.050     0.000     0.000    799.35    249.20
 0.004253       125.      125.      125.         1         0         0      0.00     34.58    283.79


*SECNO 176 000
 2800 NAT Q1=     267.04  WSEL=     808.83  ENC Q1=     272.22  WSEL=     808.93  RATIO= -0.0194
 NAT Q1=     277.   RATIOS LOB,CH,ROB=  0.0000  0.9845  0.0155  WSEL=     808.93
3280 CROSS SECTION     176.00 EXTENDED       0.60 FEET


3470 ENCROACHMENT STATIONS=      249.0      284.0  TYPE=      4  TARGET=        0.016
          DOWNSTREAM FACE OF HURON RIVER DRIVE
    176 00      9.40    808.90      0.00    808.83    809.52      0.61      0.21      0.00    810 40
    1740.         0.    1740.         0.         0     277.         0.        1.        0.    810.40
     0 01      0.00      6.29      0.00     0.000     0.050     0.000     0.000    799.50    249.19
 0.004118        51.       51.       51.         2         0         0      0.00     34 61    283.80
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Do not use revision in natural run

See

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

SPECIAL BRIDGE

5070, VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.72	3.00	0.00	32.50	0.00	276.25	0.00	799.50	799.50

*SECNO 199.000

6070, LOW FLOW BY NORMAL BRIDGE

EGPRS= 809.963 EGLWC= 809.625 ELLC= 808.700 PCWSE= 808.904 ELTRD= 808.300
2800 NAT Q1= 160.38 WSEL= 808.91 ENC Q1= 160.38 WSEL= 809.01 RATIO= 0.0000
NAT Q1= 166. RATIOS LOB, CH, ROB= 0.0000 0.9653 0.0347 WSEL= 809.01
WATER EL=CHANGE FROM NATURAL PROFILES BRIDGE
3280 CROSS SECTION 199.00 EXTENDED 0.69 FEET

3470 ENCROACHMENT STATIONS= 249.0 284.0 TYPE= 4 TARGET= 0.035
U/S FACE OF HURON RIVER DRIVE

199.00	9.49	808.99	0.00	808.91	809.59	0.60	0.09	0.00	810.40
1740.	0.	1740.	0.	0.	280	0.	1.	0.	810.40
0.01	0.00	6.22	0.00	0.000	0.050	0.000	0.000	799.50	249.18
0.003994	23.	23.	23.	0	0	0	0.00	34.63	283.81

CCHV= 0.100 CEHV= 0.300
*SECNO 250.000
2800 NAT Q1= 287.33 WSEL= 809.43 ENC Q1= 292.27 WSEL= 809.53 RATIO= -0.0172
NAT Q1= 306. RATIOS LOB, CH, ROB= 0.0000 0.9539 0.0461 WSEL= 809.53
3280 CROSS SECTION 250.00 EXTENDED 0.68 FEET

3470 ENCROACHMENT STATIONS= 249.0 284.0 TYPE= 4 TARGET= 0.046
UPSTREAM OF HURON RIVER DRIVE

250.00	9.49	809.19	0.00	809.43	809.79	0.60	0.20	0.00	810.60
1740	0.	1740.	0.	0	280	0.	2	0.	810.60
0.01	0.00	6.22	0.00	0.000	0.050	0.000	0.000	799.70	249.18
0.004004	51.	51.	51.	1	0	0	0.00	34.63	283.81

*SECNO 850.000
2800 NAT Q1= 283.60 WSEL= 811.66 ENC Q1= 288.40 WSEL= 811.76 RATIO= -0.0170
NAT Q1= 300. RATIOS LOB, CH, ROB= 0.0000 0.9610 0.0390 WSEL= 811.76

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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

3280 CROSS SECTION     850 00 EXTENDED       0.77 FEET

3470 ENCROACHMENT STATIONS=      249.0      284.0  TYPE=      4  TARGET=         0.039
   850.00      9.57    811.57      0.00    811.66    812.16      0.59      2.37      0.00    812.90
    1740.        0.      1740.        0.        0.       283        0.        5.        1.     812.90
     0.04      0.00      6.16      0.00     0.000     0.050     0.000     0.000    802.00    249.17
0.003883      600.      600.      600.         2         0         0      0.00     34.65    283.82

*SECNO 1200.000
 2800 NAT Q1=     282.07  WSEL=     812.98  ENC Q1=     287.00  WSEL=     813.08  RATIO= -0.0175
 NAT Q1=     298.   RATIOS LOB,CH,ROB=  0.0000  0.9634  0.0366  WSEL=     813.08
3280 CROSS SECTION    1200.00 EXTENDED       0.78 FEET

3470 ENCROACHMENT STATIONS=      249.0      284.0  TYPE=      4  TARGET=         0.037
  1200.00      9.58    812.93      0.00    812.98    813.52      0.59      1.36      0.00    814.25
    1740.        0.      1740.        0.        0.       283.        0.        8.        1.     814.25
     0.05      0.00      6.15      0.00     0.000     0.050     0.000     0.000    803.35    249.17
0.003869      350.      350.      350.         2         0         0      0.00     34.65    283.82

*SECNO 1850.000

3470 ENCROACHMENT STATIONS=      210.0      375.0  TYPE=      1  TARGET=       165.000
  1850.00      8.36    814.96      0.00    814.90    815.15      0.19      1.59      0.04    811.00
     1740       67.      1000.       673.       39.       229.       369.       15.        2.     811.00
     0.11      1.73      4.36      1.83     0.070     0.050     0.070     0.000    806.60    210.00
0.001689      650.      650.      650.         2         0         0      0.00    165.00    375.00

*SECNO 2100.000
 2800 NAT Q1=     348.39  WSEL=     815.31  ENC Q1=     348.39  WSEL=     815.41  RATIO=  0.0000
 NAT Q1=     365.   RATIOS LOB,CH,ROB=  0.0608  0.5846  0.3546  WSEL=     815.41

3470 ENCROACHMENT STATIONS=      209.3      383.4  TYPE=      4  TARGET=         0.045
  2100.00      7.82    815.42      0.00    815.31    815.67      0.26      0.50      0.02    812.00
    1740.       79.      1058.       603.       35.       212.       315.       18.        3.     812.00
     0.13      2.24      4.98      1.92     0.070     0.050     0.070     0.000    807.60    209.32
0.002449      250.      250.      250.         2         0         0      0.00    174.12    383.44
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Do not use see natural run

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   SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
   Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA    LEFT/RIGHT
   TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN        SSTA
   SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID       ENDST


*SECNO 2300.000
 2800 NAT Q1=     238.05  WSEL=     815.83  ENC Q1=     238.05  WSEL=     815.93  RATIO=  0.0000
 NAT Q1=     250.   RATIOS LOB,CH,ROB=  0.0523  0.6913  0.2565  WSEL=     815.93

3470 ENCROACHMENT STATIONS=      211.7      340.3  TYPE=      4  TARGET=        0.049
  2300.00      7.01    815.91      0.00    815.83    816.46      0.54      0.70      0.09    813.30
    1740.       51.     1266.      423.       21.       187.      172.       20.        4.     813.30
     0.14      2.44      6.78      2.46     0.070     0.050     0.070     0.000    808.90    211.67
 0.005380      200.      200.      200.         2         0         0      0.00    128.60    340.27


*SECNO 2500.000
 2800 NAT Q1=     215.93  WSEL=     816.93  ENC Q1=     215.93  WSEL=     817.03  RATIO=  0.0000
 NAT Q1=     226.   RATIOS LOB,CH,ROB=  0.0495  0.7223  0.2283  WSEL=     817.03

3470 ENCROACHMENT STATIONS=      211.8      331.0  TYPE=      4  TARGET=        0.046
  2500.00      6.82    817.02      0.00    816.93    817.67      0.65      1.18      0.03    814.60
    1740.       49.     1317.      374.       19.       180.      145.       22.        5.     814.60
     0.15      2.57      7.30      2.59     0.070     0.050     0.070     0.000    810.20    211.83
 0.006522      200.      200.      200.         2         0         0      0.00    119.17    331.00


*SECNO 2650.000
 2800 NAT Q1=     219.28  WSEL=     817.89  ENC Q1=     219.28  WSEL=     817.99  RATIO=  0.0000
 NAT Q1=     229.   RATIOS LOB,CH,ROB=  0.2329  0.6845  0.0826  WSEL=     817.99

3470 ENCROACHMENT STATIONS=      160.4      262.2  TYPE=      4  TARGET=        0.042
  2650.00      6.89    817.99      0.00    817.89    818.63      0.65      0.96      0.00    814.90
    1740.      385.     1243.      112.      135.      168.       37.       23.        5.     814.70
     0.15      2.85      7.41      3.06     0.070     0.050     0.070     0.000    811.10    160.43
 0.006294      150.      150.      150.         2         0         0      0.00    101.75    262.18


*SECNO 2800.000
 2800 NAT Q1=     214.82  WSEL=     818.84  ENC Q1=     214.82  WSEL=     818.94  RATIO=  0.0000
 NAT Q1=     224.   RATIOS LOB,CH,ROB=  0.2282  0.6899  0.0818  WSEL=     818.94

3470 ENCROACHMENT STATIONS=      160.7      262.3  TYPE=      4  TARGET=        0.041
          CROSS SECTION A
  2800.00      6.84    818.94      0.00    818.84    819.60      0.67      0.96      0.01    815.90
    1740.      377.     1251.      112.      132.      166.       36.       24.        5.     815.70
     0.16      2.86      7.51      3.10     0.070     0.050     0.070     0.000    812.10    160.67
 0.006550      150.      150.      150.         2         0         0      0.00    101.59    262.25
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  SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
  Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
  TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
  SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

*SECNO 3800.000
 2800 NAT Q1=     305.52  WSEL=     823.64  ENC Q1=     305.52  WSEL=     823.74  RATIO=  0.0000
 NAT Q1=     317.   RATIOS LOB,CH,ROB=  0.3141  0.5867  0.0992  WSEL=     823 74

3470 ENCROACHMENT STATIONS=      150.8      263.9  TYPE=      4  TARGET=        0.037
  3800.00      7.53   823.73      0.00   823.64   824.08      0.35      4.44      0.03   820.00
    1740.       529.     1052.      159.      194.      186.       50.       33.        8.    819.80
     0.22      2 73      5 66      3.19     0.060     0.050     0.060     0.000   816.20   150.77
 0.003211     1000.     1000.     1000.         2         0         0      0.00   113.12   263.89

*SECNO 4500.000
 2800 NAT Q1=     263.32  WSEL=     826.19  ENC Q1=     263.32  WSEL=     826.29  RATIO=  0.0000
 NAT Q1=     275.   RATIOS LOB,CH,ROB=  0.2857  0.6189  0.0954  WSEL=     826.29

3470 ENCROACHMENT STATIONS=      155.4      263.0  TYPE=      4  TARGET=        0.042
  4500.00      7.16   826.26      0.00   826.19   826.72      0.46      2.61      0.03   822.90
    1740.       472.     1116.      152.      160.      175.       42.       39.       10.    822.70
     0.26      2.95      6.36      3.59     0.060     0.050     0.060     0.000   819.10   155.40
 0 004384      700.      700       700.         0         0         0      0.00   107.65   263.05

*SECNO 5000.000

3470 ENCROACHMENT STATIONS=        0.0      162 0  TYPE=      1  TARGET=      161.999
          START OF MDNR PROVIDED DATA
  5000.00      6.83   828 03      0.00   827.97   828.21      0.18      1.46      0.03   825 60
    1740.        33.      658.     1049.       20.      152.       393.      45.       11.    822.50
     0.30      1.69      4 33      2.67     0.060     0.050     0.060     0.000   821.20    20.70
 0.002082      500.      500       500.         2         0         0      0.00   141.29   162.00

CCHV=    0.300 CEHV=    0.500
*SECNO 6000.000

3470 ENCROACHMENT STATIONS=       32.0      265.0  TYPE=      1  TARGET=      233.000
  6000.00      5.43   830.73      0.00   830 67   830 90      0.18      2.70      0 00   829.70
    1740.         0.      559.     1181.        0.      118.       464.      58.       15.    826.60
     0 39      0.00      4.72      2.54     0.000     0.050     0.060     0.000   825.30    32.00
 0.003628     1000.     1000.     1000.         2         0         0      0.00   233.00   265.00
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   SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
   Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA    LEFT/RIGHT
   TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN       SSTA
   SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID      ENDST

*SECNO 6330.000

3470 ENCROACHMENT STATIONS=      32.0      175.0  TYPE=      1  TARGET=      143.000
  6330.00       5.49     832.19       0.00     832.08     832.57       0.38       1.56       0.10     831.10
    1740.          0       758.       982.         0.       120.       279.         62.        17.      828.00
     0.41       0.00       6.32       3.52      0.000     0.050      0.060      0.000     826.70      32.00
 0.006442       330.       330.       330.          2          0          0       0.00     143.00     175.00

*SECNO 6430.000

3470 ENCROACHMENT STATIONS=       0.0      150.0  TYPE=      1  TARGET=      149.999
  6430.00       5.84     832.64       0.00     832.55     833.16       0.53       0.52       0.07     828.00
    1740.       164.       963.       613.         43.       136.       164.         62.        17.      828.80
     0.41       3.80       7.07       3.74      0.060     0.050      0.060      0.000     826.80      48.82
 0.005970       250.       100.        50.          2          0          0       0.00     101.18     150.00


CCHV=    0.300 CEHV=    1.000
*SECNO 6680.000

3470 ENCROACHMENT STATIONS=      172.0      213.0  TYPE=      1  TARGET=       41.000
  6680.00       7.70     834.00       0.00     833.92     834.94       0.94       1.36       0.41     829.10
    1740.       153.      1482.       104.         33       180.         28.         64.        17.      830.40
     0.42       4.60       8.23       3.71      0.060     0.050      0.060      0.000     826.30     172.00
 0.006747       250.       200.       250.          2          0          0       0.00      41.00     213.00


*SECNO 6720.000
 2800 NAT Q1=     188.49  WSEL=     834.21  ENC Q1=     193.16  WSEL=     834.31  RATIO= -0.0247
 NAT Q1=     193.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=     834.31

3470 ENCROACHMENT STATIONS=      185.0      214.0  TYPE=      4  TARGET=        0.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      836.30 ELREA=      836.30

          DOWNSTREAM FACE OF MILLER ROAD
  6720.00       7.51     834.31       0.00     834.21     835.50       1.19       0.31       0.25     831.30
    1740.          0.      1740.         0.         0.       199.         0.         64.        17.      831.40
     0.42       0.00       8.74       0.00      0.000     0.050      0.000      0.000     826.80     185.00
 0.009072        40.        40.        40.          1          0          0       0.00      29.00     214.00
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

SPECIAL BRIDGE

SB	XK	XKOR	CDFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0 00	1.63	2 50	0.00	24.77	0.00	206.10	0.00	826.90	826 30

*SECNO 6770.000
2800 NAT Q1= 253.12 WSEL= 835.12 ENC Q1= 258.26 WSEL= 835.22 RATIO= -0.0203
NAT Q1= 258. RATIOS LOB,CH,ROB= 0.0000 1.0000 0.0000 WSEL= 835.22
WATER EL=CHANGE FROM NATURAL PROFILES BRIDGE

3470 ENCROACHMENT STATIONS= 186.0 214.0 TYPE= 4 TARGET= 0.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 836 30 ELREA= 836.30

UPSTREAM FACE OF MILLER ROAD

6770.00	7.02	835.22	0.00	835.12	836.09	0.87	0.35	0.09	830 80
1740.	0	1740.	0.	0.	233.	0.	64.	17.	829.60
0.42	0.00	7.48	0.00	0.000	0.050	0.000	0.000	826.20	186.00
0.005619	50.	50.	50.	0	0	0	0.00	28.00	214.00

*SECNO 6776.000
2800 NAT Q1= 390 57 WSEL= 835.68 ENC Q1= 460.03 WSEL= 835.78 RATIO= -0.1779
NAT Q1= 1063. RATIOS LOB,CH,ROB= 0.1187 0.4328 0.4485 WSEL= 835.78

3470 ENCROACHMENT STATIONS= 160.0 200.0 TYPE= 4 TARGET= 0.567

6776.00	9.17	835.77	0.00	835.68	836.23	0.47	0.02	0.12	831.40
1740.	0.	1740.	0.	0.	318.	0.	64.	17.	830.00
0.42	0.00	5.47	0.00	0.000	0.040	0.000	0.000	826.60	160.00
0.001920	6.	6.	6.	2	0	0	0.00	40.00	200.00

*SECNO 6790.000

3470 ENCROACHMENT STATIONS= 160.0 200.0 TYPE= 1 TARGET= 40.000

6790 00	9.20	835 80	0.00	835.98	836.26	0.46	0.03	0.00	831.40
1740.	0.	1740.	0.	0.	319.	0.	65.	17.	100000.00
0.42	0.00	5.46	0.00	0.000	0.040	0.000	0.000	826.60	160.00
0.001903	14.	14.	14.	2	0	0	0.00	40.00	200.00

*SECNO 6820.000

3470 ENCROACHMENT STATIONS= 100.0 228.0 TYPE= 1 TARGET= 128.000

SECND	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
ELENCL= 836.30	ELENCR= 836.30								
6820.00	9.36	836.26	0.00	836.17	836.39	0.12	0.02	0.10	832.00
1740.	111.	1293.	336.	87.	416.	188	65.	18.	830.40
0.42	1.27	3.11	1.78	0.040	0.040	0.050	0.000	826.90	100.00
0.000435	30.	30.	30.	2	0	0	0.00	128.00	228.00

CCHV= 0.300 CEHV= 0.500
*SECND 7220.000
2800 NAT Q1= 2069.35 WSEL= 836.37 ENC Q1= 2069.35 WSEL= 836.47 RATIO= 0.0000
NAT Q1= 2156. RATIOS LOB,CH,ROB= 0.0000 0.1233 0.8767 WSEL= 836.47

3470 ENCROACHMENT STATIONS= 0.0 646.6 TYPE= 4 TARGET= 0.040

7220.00	7.76	836.46	0.00	836.37	836.47	0.01	0.05	0.03	840.00
1740	0.	224	1516.	0.	282	2267.	76.	20.	829.30
0.55	0.00	0.79	0.67	0.000	0.040	0.050	0.000	828.70	55.83
0.000071	220.	400.	260.	2	0	0	0.00	590.79	646.63

*SECND 7470.000
2800 NAT Q1= 1795.09 WSEL= 836.38 ENC Q1= 1795.09 WSEL= 836.48 RATIO= 0.0000
NAT Q1= 1895. RATIOS LOB,CH,ROB= 0.5669 0.1538 0.2793 WSEL= 836.48

3470 ENCROACHMENT STATIONS= 278.6 771.0 TYPE= 4 TARGET= 0.053

7470.00	7.27	836.47	0.00	836.38	836.48	0.01	0.01	0.00	831.60
1740.	995.	282.	463.	1052.	228.	700.	84.	22.	831.90
0.61	0.95	1.24	0.66	0.040	0.040	0.050	0.000	829.20	278.57
0.000094	200.	250.	140.	0	0	0	0.00	492.48	771.05

*SECND 7730.000
2800 NAT Q1= 993.11 WSEL= 836.40 ENC Q1= 993.11 WSEL= 836.50 RATIO= 0.0000
NAT Q1= 1045. RATIOS LOB,CH,ROB= 0.4628 0.3519 0.1853 WSEL= 836.50

3470 ENCROACHMENT STATIONS= 308.4 646.1 TYPE= 4 TARGET= 0.050

7730.00	7.79	836.49	0.00	836.40	836.53	0.05	0.03	0.02	832.00
1740.	801.	646.	293.	535.	290.	316.	92.	24.	833.30
0.64	1.50	2.23	0.93	0.040	0.040	0.050	0.000	828.70	308.40
0.000311	190	260.	250.	2	0	0	0.00	337.73	646.13

*SECND 8045.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

2800 NAT Q1= 637.48 WSEL= 836.53 ENC Q1= 637.48 WSEL= 836.63 RATIO= 0.0000
NAT Q1= 677. RATIOS LOB,CH,ROB= 0.4976 0.2308 0.2716 WSEL= 836.63

3470 ENCROACHMENT STATIONS= 122.9 550.5 TYPE= 4 TARGET= 0.059

8045.00	6.02	836.62	0.00	836.53	836.67	0.05	0.13	0.00	832.50
1740.	865.	428.	447.	714.	137.	376.	100.	26.	832.40
0.69	1.21	3.12	1.19	0.070	0.040	0.060	0.000	830.60	122.91
0.000751	270.	315.	290.	1	0	0	0.00	427.54	550.45

*SECNO 8385.000
2800 NAT Q1= 521.88 WSEL= 836.77 ENC Q1= 521.88 WSEL= 836.87 RATIO= 0.0000
NAT Q1= 553. RATIOS LOB,CH,ROB= 0.5609 0.1267 0.3123 WSEL= 836.87

3470 ENCROACHMENT STATIONS= 112.2 453.6 TYPE= 4 TARGET= 0.057

8385.00	5.86	836.86	0.00	836.77	836.92	0.06	0.24	0.00	833.40
1740.	983.	234.	523.	660.	69.	315.	107.	29.	833.60
0.73	1.49	3.37	1.66	0.070	0.040	0.060	0.000	831.00	112.22
0.001117	200.	340.	350.	1	0	0	0.00	341.36	453.58

*SECNO 8725.000
2800 NAT Q1= 874.64 WSEL= 836.91 ENC Q1= 874.64 WSEL= 837.01 RATIO= 0.0000
NAT Q1= 913. RATIOS LOB,CH,ROB= 0.0970 0.1688 0.7342 WSEL= 837.01

3470 ENCROACHMENT STATIONS= 124.2 438.7 TYPE= 4 TARGET= 0.042

8725.00	5.60	837.00	0.00	836.91	837.04	0.03	0.11	0.01	834.00
1740.	138.	307.	1296.	163.	146.	994.	111.	30.	833.10
0.77	0.84	2.10	1.30	0.070	0.040	0.060	0.000	831.40	124.16
0.000395	190.	340.	130.	1	0	0	0.00	314.52	438.68

*SECNO 8970.000
2800 NAT Q1= 445.78 WSEL= 836.97 ENC Q1= 445.78 WSEL= 837.07 RATIO= 0.0000
NAT Q1= 471. RATIOS LOB,CH,ROB= 0.8252 0.1492 0.0256 WSEL= 837.07

3470 ENCROACHMENT STATIONS= 113.4 406.0 TYPE= 4 TARGET= 0.054

8970.00	5.47	837.07	0.00	836.97	837.14	0.07	0.08	0.02	834.20
1740.	1489.	251.	0.	844.	72.	0.	114.	31.	834.20
0.79	1.76	3.50	0.00	0.070	0.040	0.000	0.000	831.60	113.36
0.001580	50.	245.	150.	2	0	0	0.00	292.64	406.00

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   SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
   Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA    LEFT/RIGHT
   TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN        SSTA
   SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID       ENDST


*SECNO 9120.000
 2800 NAT Q1=     291.86  WSEL=     837.24  ENC Q1=     291.86  WSEL=     837.34  RATIO=  0.0000
 NAT Q1=     312.   RATIOS LOB, CH, ROB=  0.6076  0.2543  0.1381  WSEL=     837.34

3470 ENCROACHMENT STATIONS=      143.3      376.4  TYPE=      4  TARGET=        0.063
  9120.00      5.43    837.33      0.00    837.24    837 54      0.21       0.34       0.07    834.00
    1740.      1068.       473.      199.      454.       80.       81.       117.       32.     834.50
     0.80       2.35       5.93      2.45     0.070     0.040     0.060     0.000    831.90    143.30
 0.003574       150.       150.      110.         2         0         0      0.00    233.07    376.36


*SECNO 9500.000
 2800 NAT Q1=     398.52  WSEL=     838.11  ENC Q1=     398.52  WSEL=     838.21  RATIO=  0.0000
 NAT Q1=     422.   RATIOS LOB, CH, ROB=  0.1471  0.3589  0.4940  WSEL=     838.21

3470 ENCROACHMENT STATIONS=      105.6      317.5  TYPE=      4  TARGET=        0.055
  9500.00      5.62    838.22      0.00    838.11    838.40      0.18       0.84       0.01    835.20
    1740.       218.       662.      860.      127.      140.      389.      121.       33.     834.20
     0.83       1.72       4.74      2.21     0.070     0.040     0.060     0.000    832.60    105.62
 0.001911       300.       380.       310         1         0         0      0.00    211.91    317.53


*SECNO 9970.000
 2800 NAT Q1=     421.05  WSEL=     838.89  ENC Q1=     421.05  WSEL=     838.99  RATIO=  0.0000
 NAT Q1=     452.   RATIOS LOB, CH, ROB=  0.3847  0.1840  0.4313  WSEL=     838.99

3470 ENCROACHMENT STATIONS=      180.1      485.4  TYPE=      4  TARGET=        0.068
  9970.00      5.70    839.00      0.00    838.89    839.10      0.10       0.68       0.02    835.70
    1740.       656.       343.      740.      370.       80.      399.      128.       35.     835.40
     0.87       1.78       4.29      1.85     0.070     0.040     0.060     0.000    833.30    180.06
 0.001694       310.       470.      360.         2         0         0      0.00    305.29    485.35


*SECNO 10325.000
 2800 NAT Q1=     517.63  WSEL=     839.23  ENC Q1=     517.63  WSEL=     839.33  RATIO=  0.0000
 NAT Q1=     557.   RATIOS LOB, CH, ROB=  0.4139  0.2091  0.3769  WSEL=     839.33

3470 ENCROACHMENT STATIONS=      162.9      671.1  TYPE=      4  TARGET=        0.071
 10325.00      5.35    839.35      0.00    839.23    839.41      0.07       0.30       0.01    837.00
    1740.       711.       391.      638.      680.      118.      337.      132.       37.     834.00
     0.91       1.05       3.30      1.89     0.070     0.040     0.060     0.000    834.00    162.87
 0.001122       210.       355       165.         1         0         0      0.00    508.24    671.12
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   SECND     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


*SECNO 10510.000
 2800 NAT Q1=     466.97  WSEL=     839.47  ENC Q1=     466.97  WSEL=     839.57  RATIO=  0.0000
 NAT Q1=     505.   RATIOS LOB,CH,ROB=  0.6039  0.1600  0.2361  WSEL=     839.57

3470 ENCROACHMENT STATIONS=      131.4      704.9  TYPE=      4  TARGET=        0.075
 10510.00      4.08    839 58      0.00    839.47    839.63      0.05      0.21      0.01    837.00
    1740.     1066.       299.      375.      836.       96.      276.      137.       39.     837.50
     0.94      1.27      3.13      1.36     0.070     0.040     0.060     0.000    835.50    131.37
 0.001350      170.      185.      170.         2         0         0      0.00    573.50    704.87


*SECNO 11115.000
 2800 NAT Q1=     470.59  WSEL=     840.17  ENC Q1=     470.59  WSEL=     840.27  RATIO=  0.0000
 NAT Q1=     510.   RATIOS LOB,CH,ROB=  0.7160  0.0969  0.1871  WSEL=     840 27
3280 CROSS SECTION  11115.00 EXTENDED       0.28 FEET


3470 ENCROACHMENT STATIONS=       97.6      614.6  TYPE=      4  TARGET=        0.077
 11115.00      4.28    840.28      0.00    840.17    840.32      0.04      0.69      0.00    838.00
    1740.     1279.       182      279.      955.       60.      180.      151.       46.     838.00
     1.03      1 34      3.05      1.55     0.070     0.040     0.060     0.000    836.00     97.56
 0.001347      560.      605.      260.         2         0         0      0.00    517.02    614 58


*SECNO 11550.000
 2800 NAT Q1=     325.89  WSEL=     840.97  ENC Q1=     325.89  WSEL=     841.07  RATIO=  0.0000
 NAT Q1=     355.   RATIOS LOB,CH,ROB=  0.5503  0.1492  0.3005  WSEL=     841.07

3470 ENCROACHMENT STATIONS=      152.3      565.4  TYPE=      4  TARGET=        0.082
           END OF MDNR PROVIDED DATA
 11550.00      4.07    841.07      0.00    840.97    841.17      0.10      0.82      0.03    839.20
    1740.      967.       283      490.      564.       65.      217.      161.       50.     838.80
     1.08      1.71      4.34      2.26     0.070     0.040     0.060     0.000    837.00    152.25
 0 002833      435.      435.      435.         1         0         0      0.00    413.11    565.36


*SECNO 11625.000
 2800 NAT Q1=     250.10  WSEL=     841.22  ENC Q1=     250.10  WSEL=     841.32  RATIO=  0.0000
 NAT Q1=     275.   RATIOS LOB,CH,ROB=  0.5581  0.1668  0.2752  WSEL=     841.32

3470 ENCROACHMENT STATIONS=      158.2      555.7  TYPE=      4  TARGET=        0.092
 11625.00      4.12    841.32      0.00    841.22    841.47      0.15      0.27      0 03    839.70
    1740.      982.       320.      438.      482.       58.      165.      162.       51.     839.40
     1.09      2.04      5.51      2 66     0.070     0.040     0.060     0.000    837.20    158.16
 0.004856       75.       75        75.         1         0         0      0.00    397.55    555.71
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  SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
  Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
  TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
  SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

*SECNO 11700.000
 2800 NAT Q1=     199.66  WSEL=     841.62  ENC Q1=     199.66  WSEL=     841.72  RATIO=  0.0000
 NAT Q1=     222.   RATIOS LOB,CH,ROB=  0.5606  0.2217  0.2177  WSEL=     841.72

3470 ENCROACHMENT STATIONS=      159.1      545.4  TYPE=      4  TARGET=        0.100
 11700.00      4.42    841.72      0.00    841.62    841.97      0.26      0.45      0.05    840.30
    1740.       986.      429.      324.      421.       62.      115.      164.       52.     840.20
     1.09       2.34      6.94      2.82     0.070     0.040     0.060     0.000    837.30    159.06
 0.007612        75.       75.       75.         1         0         0      0.00    386.33    545.39

*SECNO 11775.000
 2800 NAT Q1=     210.12  WSEL=     842.16  ENC Q1=     210.12  WSEL=     842.26  RATIO=  0.0000
 NAT Q1=     233.   RATIOS LOB,CH,ROB=  0.5543  0.2613  0.1843  WSEL=     842.26

3470 ENCROACHMENT STATIONS=      143.1      525.3  TYPE=      4  TARGET=        0.097
 11775.00      4.85    842.25      0.00    842.16    842.53      0.28      0.54      0.01    840.80
    1740.       973.      505.      262.      431.       73.      100.      165.       52.     840.80
     1.10       2.26      6.94      2.61     0.070     0.040     0.060     0.000    837.40    143.14
 0.006926        75.       75.       75.         2         0         0      0.00    382.12    525.26

CCHV=   0.300 CEHV=   0.500
*SECNO 12000.000
 2800 NAT Q1=     210.21  WSEL=     843.66  ENC Q1=     210.21  WSEL=     843.76  RATIO=  0.0000
 NAT Q1=     231    RATIOS LOB,CH,ROB=  0.3932  0.3205  0.2863  WSEL=     843.76

3470 ENCROACHMENT STATIONS=      129.6      497.3  TYPE=      4  TARGET=        0.092
 12000.00      5.86    843.76      0.00    843.66    844.11      0.35      1.55      0.04    842.50
    1740.       666.      614.      460.      325.       83.      176       168.       54.     841.90
     1.11       2.05      7.37      2.62     0.070     0.040     0.070     0.000    837.90    129.61
 0.006829        225.      225       225         1         0         0      0.00    367.65    497.26

*SECNO 12900.000
 2800 NAT Q1=     368.88  WSEL=     847.07  ENC Q1=     368.88  WSEL=     847.17  RATIO=  0.0000
 NAT Q1=     431    RATIOS LOB,CH,ROB=  0.3406  0.3966  0.2629  WSEL=     847.17
3280 CROSS SECTION  12900.00 EXTENDED       1.48 FEET

3470 ENCROACHMENT STATIONS=       61.8      427.7  TYPE=      4  TARGET=        0.144
          DOWNSTREAM OF PRIVATE DRIVEWAY
 12900.00      7.68    847.18      0.00    847.07    847.38      0.21      3.23      0.04    846.10
    1740.       547       804.      389.      357.      157.      269.      182.       62.     846.00
     1.19       1.53      5.11      1.45     0.070     0.040     0.070     0.000    839.50     61.82
 0.002206        900.      900.      900.         3         0         0      0.00    365.87    427.68
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  SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
  Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
  TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
  SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

CCHV=   0.300 CEHV=   1.000
*SECNO 12950.000
 2800 NAT Q1=     367.87  WSEL=     847.25  ENC Q1=     367.87  WSEL=     847.35  RATIO=  0.0000
 NAT Q1=     455.   RATIOS LOB,CH,ROB=  0.3759  0.3297  0.2944  WSEL=     847.35
3280 CROSS SECTION  12950.00 EXTENDED       1 66 FEET

3470 ENCROACHMENT STATIONS=       71.3      418.1  TYPE=      4  TARGET=        0.192
 12950.00      8.76    847.36      0.00    847.25    847.51      0.15      0.11      0.02    846.10
    1740       604.      709.      427.      371.      157.      277.      183.       62.     846.00
     1 20      1 63      4.53      1.54     0.070     0.040     0.070     0.000    838.60     71.33
 0.002224       50.       50.       50.         2         0         0      0.00    346.80    418.13

*SECNO 12951 000
3280 CROSS SECTION  12951.00 EXTENDED       1.75 FEET

3370 NORMAL BRIDGE,NRD= 32 MIN ELTRD=  845.00 MAX ELLC=  844.40

3470 ENCROACHMENT STATIONS=       73.0      410.0  TYPE=      1  TARGET=      337.000
           DOWNSTREAM FACE OF PRIVATE DRIVEWAY
 12951.00      8.85    847.45      0.00    847 35    847.53      0.09      0.00      0.02    846.10
    1740.      875.      276.      589.      383.       96.      272.      183.       62.     846.00
     1.20      2.28      2.88      2 17     0.070     0.040     0.070     0.000    838 60     73.00
 0.004144        1.        1.        1.         2         0         0    -63.49    337.00    410.00

*SECNO 12963.000
3280 CROSS SECTION  12963.00 EXTENDED       1.29 FEET

3370 NORMAL BRIDGE,NRD= 32 MIN ELTRD=  845.00 MAX ELLC=  844.40

3470 ENCROACHMENT STATIONS=       76.0      407.0  TYPE=      1  TARGET=      331.000
           U/S FACE OF PRIVATE DRIVEWAY
 12963.00      8.90    847.50      0.00    847.40    847.58      0.09      0.05      0.00    846.10
    1740       875.      277.      588.      384.       97.      272.      183.       62.     846.00
     1.20      2.28      2.86      2.16     0.070     0.040     0.070     0.000    838.60     76.00
 0 004027       12.       12.       12         1         0         0    -63.31    331.00    407.00
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

*SECNO 12964.000
3280 CROSS SECTION  12964.00 EXTENDED      1.30 FEET

3470 ENCROACHMENT STATIONS=      76.0      416.0  TYPE=      1  TARGET=      340.000
 12964.00      8.90    847.50      0.00    847.40    847.64      0.14      0.00      0.05    846.10
    1740.       611.      687.       442.      386.      160.      293.      183.       62.     846.00
     1.20      1.59      4.29      1.51     0.070     0.040     0.070     0.000    838.60     76.00
 0.001937        1.        1.        1.         0         0         0      0.00    340.00    416.00

*SECNO 13014.000
3280 CROSS SECTION  13014.00 EXTENDED      1.37 FEET

3470 ENCROACHMENT STATIONS=      87.0      404.0  TYPE=      1  TARGET=      317.000
          UPSTREAM OF PRIVATE DRIVEWAY
 13014.00      8.07    847 57      0.00    847.47    847.69      0.12      0.05      0.00    846.10
    1740.       629.      666.       445.      371.      167.      276.      184.       63.     846.00
     1 21      1.69      3.98      1.61     0.040     0.030     0.040     0.000    839.50     87.00
 0.000695        50       50.       50.         2         0         0      0.00    317.00    404 00

*SECNO 13253.000
 2800 NAT Q1=     660.07  WSEL=     847.64  ENC Q1=     660.07  WSEL=     847.74  RATIO=   0.0000
 NAT Q1=     686.   RATIOS LOB,CH,ROB=   0.1350   0.5587   0.3062  WSEL=     847.74

3470 ENCROACHMENT STATIONS=     200.2      312.6  TYPE=      4  TARGET=        0.037
 13253.00      7.04    847.74      0.00    847.64    847.96      0.22      0.17      0.10    842.20
    1740.       211.      1011.      518.       93.       228.      210.      188.       64.     842.10
     1.22      2.27       4.44      2.46     0.040     0.030     0.040     0.000    840.70    200.23
 0.000697       239.       239      239.         0         0         0      0.00    112.35    312.58

CCHV=   0.300 CEHV=   0.500
*SECNO 13304.000
 2800 NAT Q1=     668.97  WSEL=     847.68  ENC Q1=     668.97  WSEL=     847.78  RATIO=   0.0000
 NAT Q1=     697.   RATIOS LOB,CH,ROB=   0.1356   0.5560   0.3084  WSEL=     847.78

3470 ENCROACHMENT STATIONS=     200.4      313.0  TYPE=      4  TARGET=        0.040
          DOWNSTREAM FACE OF PRATT ROAD
 13304.00      7.08    847.78      0.00    847.68    847.99      0.21      0.04      0.00    842.20
    1740        210.      1008.      521.       93.       229.      213.      188.       64.     842.10
     1 23      2.26       4.40      2.44     0.040     0.030     0.040     0.000    840.70    200 45
 0 000679       51.       51.       51         0         0         0      0.00    112.53    312.98
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SECND	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

SPECIAL BRIDGE

5070, VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.77	3.00	0.00	35.17	0.00	204.32	0.00	840.70	840.70

*SECND 13350.000
2800 NAT Q1= 953.43 WSEL= 848.57 ENC Q1= 953 43 WSEL= 848.67 RATIO= 0.0000
NAT Q1= 992. RATIOS LOB, CH, ROB= 0.1421 0.4862 0.3717 WSEL= 848.67
WATER EL=CHANGE FROM NATURAL PROFILES BRIDGE
3280 CROSS SECTION 13350.00 EXTENDED 0.27 FEET

3470 ENCROACHMENT STATIONS= 197.1 453.6 TYPE= 4 TARGET= 0 039
U/S FACE OF PRATT ROAD

13350.00	7 97	848.67	0.00	848.57	848.78	0.11	0.02	0.03	842 20
1740.	229.	876.	635.	124.	261.	424.	189.	64.	842.10
1.23	1.84	3.35	1.50	0.040	0.030	0.040	0.000	840.70	197.13
0.000329	46.	46.	46.	0	0	3	0.00	256 49	453.61

*SECND 13400.000
2800 NAT Q1= 742.06 WSEL= 848.64 ENC Q1= 742.06 WSEL= 848.74 RATIO= 0.0000
NAT Q1= 776. RATIOS LOB, CH, ROB= 0.1873 0.3161 0 4966 WSEL= 848.74
3280 CROSS SECTION 13400.00 EXTENDED 0.35 FEET

3470 ENCROACHMENT STATIONS= 198.3 460.2 TYPE= 4 TARGET= 0.043
UPSTREAM OF PRATT ROAD

13400 00	8.05	848.75	0.00	848.64	848.81	0.07	0.02	0.01	842.20
1740.	298.	576	866.	123.	264.	448	190.	64.	842.10
1.24	2.43	2.18	1.94	0.040	0 060	0.040	0.000	840.70	198.33
0.000551	50.	50.	50.	2	0	0	0.00	261.82	460 16

CCHV= 0.300 CEHV= 0.500
*SECND 14740.000
3280 CROSS SECTION 14740.00 EXTENDED 4.35 FEET

3470 ENCROACHMENT STATIONS= 380.0 649.0 TYPE= 1 TARGET= 269.000
DOWNSTREAM OF DEXTER-ANN ARBOR ROAD

14740.00	7.65	849.35	0.00	849.23	849.39	0.03	0 56	0.01	845.00
1740.	447.	179.	1114.	459.	121.	715.	223.	73.	844.10
1.51	0.97	1.47	1.56	0.070	0.060	0.050	0.000	841.70	380.00
0.000328	1340.	1340.	1340.	1	0	0	0.00	269.00	649.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 14790.000
2800 NAT Q1= 430.67 WSEL= 849.22 ENC Q1= 430.67 WSEL= 849.32 RATIO= 0.0000
NAT Q1= 453. RATIOS LOB, CH, ROB= 0.2998 0.3148 0.3854 WSEL= 849.32
3280 CROSS SECTION 14790.00 EXTENDED 0.95 FEET

3470 ENCROACHMENT STATIONS= 378.0 580.4 TYPE= 4 TARGET= 0.048
D/S FACE OF DEXTER-ANN ARBOR ROAD--START OF MDNR PROVIDED DATA

14790.00	7.85	849.35	0.00	849.22	849.46	0.11	0.03	0.04	845.00
1740.	506.	574.	661.	298.	184	236.	224.	73.	845.00
1.51	1.69	3.11	2.81	0.070	0.060	0.050	0.000	841.50	377.96
0.001598	50.	50.	50.	2	0	0	0.00	202.48	580.45

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS 845.41 ,NOT 849.35 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.22	2.80	0.00	27.66	6.00	139.00	0.00	841.95	841.95

*SECNO 14890.000
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
854.75	850.67	0.00	1248.	497.	139.	139.	848.37	849.20

3470 ENCROACHMENT STATIONS= 420.0 508.0 TYPE= 1 TARGET= 88.000
U/S FACE OF DEXTER-ANN ARBOR ROAD

14890.00	7.70	849.60	0.00	849.74	849.79	0.18	0.33	0.00	844.10
1740	1233	507.	0.	377.	133.	0.	225.	73.	100000.00
1.52	3.27	3.81	0.00	0.070	0 060	0.000	0.000	841.90	420.00
0.002724	60.	100.	160.	2	0	5	0.00	88.00	508.00

CCHV= 0.100 CEHV= 0.300
*SECNO 15060.000
2800 NAT Q1= 1684.31 WSEL= 849.76 ENC Q1= 1684.31 WSEL= 849.86 RATIO= 0.0000
NAT Q1= 1739. RATIOS LOB, CH, ROB= 0.3621 0.0857 0.5522 WSEL= 849.86

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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

3280 CROSS SECTION  15060.00 EXTENDED      5.03 FEET

3470 ENCROACHMENT STATIONS=      307.2      737.4  TYPE=      4  TARGET=        0.031
          UPSTREAM OF DEXTER-ANN ARBOR ROAD
 15060.00      8.14    849.84      0.00    849.76    849.85      0 01      0.04      0.02    845.00
    1740.       622.       154.       964.       868.       130.      1233.       230.       74.     844.10
     1.57      0.72       1.18      0.78     0.060     0.045     0.060     0.000    841.70    307.20
 0.000109       120.       170.       180.         1         0         0      0.00    430.21    737.42

*SECNO 15290.000
 2800 NAT Q1=    1636 63  WSEL=     849.79  ENC Q1=    1636.63  WSEL=     849.89  RATIO=   0.0000
 NAT Q1=    1692.   RATIOS LOB,CH,ROB=   0.4041   0.1336   0.4624  WSEL=     849.89
3280 CROSS SECTION  15290.00 EXTENDED      3.86 FEET

3470 ENCROACHMENT STATIONS=      226.5      727.5  TYPE=      4  TARGET=        0.033
 15290.00      7.86    849.86      0.00    849.79    849.87      0.01      0.03      0.00    845.00
    1740.       697.       241        802.      1050.       202.      1031.       242.       77.     845.00
     1.65      0.66       1.19      0.78     0.060     0.045     0.060     0.000    842.00    226.51
 0.000115       220.       230.       240.         0         0         0      0.00    501.04    727.55

*SECNO 15790.000
 2800 NAT Q1=    1506.06  WSEL=     849.85  ENC Q1=    1506 06  WSEL=     849.95  RATIO=   0.0000
 NAT Q1=    1568.   RATIOS LOB,CH,ROB=   0 4453   0.1466   0.4081  WSEL=     849.95
3280 CROSS SECTION  15790.00 EXTENDED      0.92 FEET

3470 ENCROACHMENT STATIONS=      233.0      708.4  TYPE=      4  TARGET=        0.040
 15790.00      7.93    849.93      0.00    849.85    849.94      0.01      0.06      0.00    845.00
    1740.       771        267.       702.      1034.       197.       888.       267.       82.     845.00
     1.81      0.75       1 36      0.79     0 060     0.045     0.060     0.000    842.00    233.03
 0.000136       500.       500.       500.         0         0         0      0.00    475.33    708.36

*SECNO 16290.000
 2800 NAT Q1=     703.11  WSEL=     849.94  ENC Q1=     703 11  WSEL=     850.04  RATIO=   0.0000
 NAT Q1=     741.   RATIOS LOB,CH,ROB=   0 5225   0.1925   0.2850  WSEL=     850.04
3280 CROSS SECTION  16290.00 EXTENDED      2.02 FEET
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


3470 ENCROACHMENT STATIONS=      23.4      431.5  TYPE=      4  TARGET=        0.052
 16290.00      7.72    850 02      0.00    849.94    850.07      0.04      0.12      0.01    845.80
    1740.       910.       355.       475.       732.       135.       364.       285.       87.     846.70
     1.90       1.24       2.62       1.31     0.060     0.045     0 060     0.000    842.30     23.36
 0 000625       480.       500.       440.         2         0         0      0.00    408.13    431.49

*SECNO 16680.000
 2800 NAT Q1=     536.40  WSEL=     850.22  ENC Q1=     536.40  WSEL=     850.32  RATIO=   0.0000
 NAT Q1=     570.   RATIOS LOB,CH,ROB=   0.3437   0.2161   0.4402  WSEL=     850.32
3280 CROSS SECTION   16680.00 EXTENDED       1.31 FEET

3470 ENCROACHMENT STATIONS=      289.5      661.5  TYPE=      4  TARGET=        0.059
 16680.00      7.70    850.30      0.00    850.22    850.37      0.07      0.29      0.01    849.00
    1740       579        401       760        422        125       440        294.       90.     845.00
     1.95       1.37       3.20       1.72     0.060     0.045     0.060     0.000    842.60    289.54
 0.001066       345.       390        380.         1         0         0      0.00    371.91    661.45


*SECNO 16975.000
 2800 NAT Q1=     518.52  WSEL=     850.46  ENC Q1=     518.52  WSEL=     850.56  RATIO=   0.0000
 NAT Q1=     550.   RATIOS LOB,CH,ROB=   0.2456   0.5032   0.2512  WSEL=     850.56
3280 CROSS SECTION   16975.00 EXTENDED       0.75 FEET


3470 ENCROACHMENT STATIONS=      277.4      633.0  TYPE=      4  TARGET=        0.058
 16975.00      7.34    850.54      0.00    850.46    850.66      0.12      0.28      0.02    848 00
    1740.       398.       932.       410.       328.       263.       277.       299.       92.     847.00
     1.98       1.21       3.54       1.48     0.060     0.045     0.060     0.000    843.20    277.39
 0.001137       225.       295.       225.         1         0         0      0.00    355.62    633.01


*SECNO 17286.000
 2800 NAT Q1=     612.12  WSEL=     850.74  ENC Q1=     612.12  WSEL=     850.84  RATIO=   0.0000
 NAT Q1=     648.   RATIOS LOB,CH,ROB=   0.5214   0.3520   0.1266  WSEL=     850.84

3470 ENCROACHMENT STATIONS=      244.3      588.8  TYPE=      4  TARGET=        0.055
 17286.00      7.63    850.83      0.00    850.74    850 90      0.07      0.24      0.00    846.00
    1740.       909        650.       181.       612.       213.       152.       304.       94.     848.00
     2.01       1 49       3 05       1.19     0.060     0.045     0.060     0.000    843.20    244.28
 0.000816       160.       311.       275.         2         0         0      0.00    344.54    588.82
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

*SECNO 17657.000
 2800 NAT Q1=     519.16  WSEL=     851.02  ENC Q1=     519.16  WSEL=     851.12  RATIO=  0.0000
 NAT Q1=     554.   RATIOS LOB,CH,ROB=  0.5222  0.3779  0.0999  WSEL=     851.12
3280 CROSS SECTION  17657.00 EXTENDED       1.12 FEET

3470 ENCROACHMENT STATIONS=      131.5      544.2  TYPE=      4  TARGET=        0.063
 17657.00      7.52    851.12      0.00    851.02    851.21      0.09      0.30      0.00    849.00
    1740.       910.       703.       127.       688.       205.        82.       311.        96.     847.00
     2 05      1.32      3.42      1.54     0.060     0.045     0.060     0.000    843.60    131.51
 0.001129       310.       371.       120.         2         0         0      0.00    412.70    544.21

*SECNO 17980.000
 2800 NAT Q1=     405.60  WSEL=     851.30  ENC Q1=     405.60  WSEL=     851.40  RATIO=  0.0000
 NAT Q1=     428.   RATIOS LOB,CH,ROB=  0.3738  0.3149  0.3113  WSEL=     851.40
3280 CROSS SECTION  17980.00 EXTENDED       0.39 FEET

3470 ENCROACHMENT STATIONS=      378.0      586.1  TYPE=      4  TARGET=        0.052
 17980 00      7.49    851.39      0.00    851.30    851.56      0.17      0.33      0.02    846.50
    1740.       637        578.       524.       285.       121.       230.       315.        98.     846.50
     2.07      2.24      4 78      2.28     0.060     0.045     0.060     0.000    843.90    377.98
 0.001848       175.       323.       195.         2         0         0      0.00    208.07    586.05

*SECNO 18240 000
 2800 NAT Q1=     253.89  WSEL=     851.77  ENC Q1=     253.89  WSEL=     851 87  RATIO=  0.0000
 NAT Q1=     271.   RATIOS LOB,CH,ROB=  0.2284  0.4542  0.3174  WSEL=     851.87
3280 CROSS SECTION  18240 00 EXTENDED       1.17 FEET

3470 ENCROACHMENT STATIONS=      411.0      597.8  TYPE=      4  TARGET=        0.061
 18240.00      7.87    851.87      0.00    851.77    852.00      0.14      0.44      0.00    848.60
     990.       209.       479.       303.       136.       122.       187.       318.        99.     848.80
     2 10      1.54      3.92      1.62     0.060     0 045     0.060     0.000    844.00    411.01
 0.001516       255.       260.       245.         2         0         0      0.00    186.82    597.84

*SECNO 18690.000
 2800 NAT Q1=     403 58  WSEL=     852.20  ENC Q1=     403.58  WSEL=     852.30  RATIO=  0.0000
 NAT Q1=     439.   RATIOS LOB,CH,ROB=  0.5750  0 2244  0.2006  WSEL=     852.30
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

3280 CROSS SECTION  18690.00 EXTENDED      0.31 FEET

3470 ENCROACHMENT STATIONS=      325.8      583.0  TYPE=      4  TARGET=        0.081
          END OF MDNR PROVIDED DATA
 18690.00      6.31    852.31      0.00    852.20    852.35      0.04      0.34      0.01    848.00
     990.       576.      241.      172.      463.      100.      163.      323.      100.     848.90
     2.17      1.24      2.42      1.06     0.060     0.045     0.060     0.000    846.00    325.79
 0.000598       330.      450.      330.         2         0         0      0.00    257.21    583.00

CCHV=    0.100 CEHV=    0.800
*SECNO 18900.000
 2800 NAT Q1=     269.82  WSEL=     852.36  ENC Q1=     269.82  WSEL=     852.46  RATIO=   0.0000
 NAT Q1=     293.   RATIOS LOB, CH, ROB=   0.3865   0.3977   0.2158  WSEL=     852.46

3470 ENCROACHMENT STATIONS=      137.8      320.5  TYPE=      4  TARGET=        0.080
 18900.00      5.87    852.47      0.00    852.36    852.62      0.15      0.18      0.09    849.40
     990       372.      428.      190.      207.      100.      116.      325       102.     849.80
     2.19      1.80      4.29      1.64     0.050     0.035     0.050     0.000    846.60    137.84
 0.001340       210.      210       210.         2         0         0      0.00    182.63    320.46

*SECNO 19114.000
 2800 NAT Q1=     148.43  WSEL=     852.76  ENC Q1=     148.43  WSEL=     852.86  RATIO=   0.0000
 NAT Q1=     159.   RATIOS LOB, CH, ROB=   0.2210   0.6560   0.1230  WSEL=     852.86

3470 ENCROACHMENT STATIONS=      199.7      292.2  TYPE=      4  TARGET=        0.066
 19114.00      5.68    852.85      0.00    852.76    853.47      0.62      0.48      0.37    850.77
     990.       199       695       96.       75.       95.       38.      327.      102.     850.97
     2.20      2.63      7.32      2.53     0.050     0.035     0.050     0.000    847.17    199.73
 0.004458       214.      214.      214.         2         0         0      0.00     92.47    292.20

*SECNO 19264.000

3470 ENCROACHMENT STATIONS=      205.0      267.0  TYPE=      1  TARGET=       62.000
 19264.00      5.97    853.54      0.00    853.45    854.20      0.67      0.69      0.04    851.17
     990.       252.      738.        0.       82.      100.        0.      328.      102.  100000.00
     2.20      3.05      7.38      0.00     0.050     0.035     0.000     0.000    847.57    205.00
 0.004772       150.      150       150.         2         0         0      0.00     62.00    267.00
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   SECND      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
   Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA    LEFT/RIGHT
   TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN        SSTA
   SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID       ENDST


*SECNO 19314.000
 2800 NAT Q1=     131.31  WSEL=     853.61  ENC Q1=     131.31  WSEL=     853.71  RATIO=  0.0000
 NAT Q1=     138.  RATIOS LOB, CH, ROB=  0.1736  0.7466  0.0798  WSEL=     853.71

3470 ENCROACHMENT STATIONS=      220.5      274.9  TYPE=      4  TARGET=        0.047
 19314.00      6.06    853.76      0.00    853.61    854.57      0.81      0.25      0.11    851.80
     990.       161.      771.       58.       52        96.       18.       328       103.     851.30
     2 21      3.09      8 01      3.17     0.050     0.035     0.050     0.000    847.70    220.53
 0.005439       50.       50.       50.         2         0         0      0.00     54.39    274.92


*SECND 19706.000
 2800 NAT Q1=     116.41  WSEL=     856.02  ENC Q1=     118.74  WSEL=     856.12  RATIO= -0 0200
 NAT Q1=     119.  RATIOS LOB, CH, ROB=  0 0015  0 9953  0.0032  WSEL=     856 12

3470 ENCROACHMENT STATIONS=      250.0      266.0  TYPE=      4  TARGET=        0 005
 19706.00      7.23    856.13      0 00    856 02    857 34      1.20      2.45      0.31    855.60
     990.         0.      990.         0.        0.       113.         0       329.       103.     855.60
     2.22      0.00      8.80      0.00     0.000     0.035     0.000     0.000    848.90    250.00
 0.007262       392       392.      392.         2         0         0      0.00     16.00    266.00


*SECNO 20099 000

3470 ENCROACHMENT STATIONS=      248.4      269.3  TYPE=      1  TARGET=       20.940
          DOWNSTREAM OF NORTH SIDE OF INTERSTATE 94
 20099.00      7.93    857.93      0.00    857.85    858.82      0.89      1.45      0.03    850.00
     990.         9.      967.       15.        6.       126.       10.       330.       103      850.40
     2.23      1.20      7.66      1.59     0 050     0.035     0.050     0.000    850.00    248.40
 0.002225       393.      393.      393.         2         0         0      0.00     20.94    269.34


*SECNO 20150.000
 2800 NAT Q1=     135.33  WSEL=     858.02  ENC Q1=     137.74  WSEL=     858.12  RATIO= -0.0178
 NAT Q1=     138.  RATIOS LOB, CH, ROB=  0 0000  1.0000  0.0000  WSEL=     858.12

3470 ENCROACHMENT STATIONS=      250.0      266 8  TYPE=      4  TARGET=        0.000
          D/S FACE OF NORTH SIDE OF INTERSTATE 94
 20150.00      8.09    858.09      0.00    858.02    859.00      0.91      0.17      0.02    859.80
     990.         0.      990         0.        0.       129.         0.       330.       103.     859.80
     2.24      0.00      7.67      0.00     0.000     0.035     0.000     0.000    850.00    250.00
 0.005225       51.       51.       51.         2         0         0      0.00     16.80    266.80
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


SPECIAL BRIDGE

5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
SB  XK         XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
     0.00       2.40       3.00       0.00      16.80       0.00      88.00       0.00     850.00     850.00

*SECNO 20357.000
 2800 NAT Q1=     846.69  WSEL=     861.77  ENC Q1=     846.69  WSEL=     861.87  RATIO=  0.0000
 NAT Q1=     868.   RATIOS LOB,CH,ROB=  0.4456  0.4722  0.0822  WSEL=     861.87
 WATER EL=CHANGE FROM NATURAL PROFILES BRIDGE
3280 CROSS SECTION  20357.00 EXTENDED       0.04 FEET


3470 ENCROACHMENT STATIONS=      215.4      277.4  TYPE=      4  TARGET=        0.025
          U/S FACE OF SOUTH SIDE OF INTERSTATE 94
 20357.00     14.14    861.84      0.00    861.77    861.89      0.06      0.08      0.09    847.70
     990.      436.      479.       75.      323.      203.       77.       332.      103.     849.80
     2.27      1.35      2.36      0.97     0.050     0.035     0.050     0.000    847.70    215.36
 0.000138      207.      207.      207.         0         0         4      0.00     62.04    277.40

*SECNO 20408.000
 2800 NAT Q1=     848.16  WSEL=     861.78  ENC Q1=     848.16  WSEL=     861.88  RATIO=  0.0000
 NAT Q1=     870.   RATIOS LOB,CH,ROB=  0.4458  0.4718  0.0824  WSEL=     861.88
3280 CROSS SECTION  20408.00 EXTENDED       0.05 FEET


3470 ENCROACHMENT STATIONS=      215.3      277.5  TYPE=      4  TARGET=        0.025
          UPSTREAM OF SOUTH SIDE OF INTERSTATE 94
 20408.00     14.15    861.85      0.00    861.78    861.90      0.06      0.01      0.00    847.70
     990.      437.      479.       75.      324       203.       77.       333.      103.     849.80
     2.28      1.35      2.35      0.97     0.050     0.035     0.050     0.000    847.70    215.27
 0.000137       51.       51.       51.         0         0         0      0.00     62.19    277.46


*SECNO 21300.000

3470 ENCROACHMENT STATIONS=      100.0      266.0  TYPE=      1  TARGET=      166.000
          CROSS SECTION DOWNSTREAM OF ZEEB ROAD--CROSS SECTION B
 21300.00     10.75    861.95      0.00    861.88    861.97      0.02      0.07      0.00    856.50
     990.      255.      696.       38.      445.      551.       74.       350.      106.     856.70
     2.51      0.57      1.26      0.52     0.050     0.035     0.050     0.000    851.20    100.00
 0.000048      892.      892.      892.         1         0         0      0.00    166.00    266.00
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 21375.000
2800 NAT Q1= 707.04 WSEL= 861.88 ENC Q1= 707.04 WSEL= 861.98 RATIO= 0.0000
NAT Q1= 721. RATIOS LOB,CH,ROB= 0.0191 0 9377 0.0433 WSEL= 861.98

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 144.6 287.2 TYPE= 4 TARGET= 0.019
D/S FACE OF ZEEB ROAD

21375.00	17.05	861.95	0.00	861.88	862.02	0.07	0.01	0.04	859.00
990.	9.	948.	33.	14.	431	85.	351.	106.	862.20
2.52	0.63	2.20	0.39	0.050	0.035	0.050	0.000	844.90	144.63
0.000198	75.	75.	75.	1	0	0	0.00	136.76	287.15

SPECIAL BRIDGE

5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.55	3.00	0.00	24.00	0.00	113.10	0.00	844.90	844.90

*SECNO 21420.000
2800 NAT Q1= 733.88 WSEL= 862.06 ENC Q1= 733 88 WSEL= 862.16 RATIO= 0.0000
NAT Q1= 750. RATIOS LOB,CH,ROB= 0.0216 0 9199 0.0585 WSEL= 862.16
WATER EL=CHANGE FROM NATURAL PROFILES BRIDGE

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 144.2 294.5 TYPE= 4 TARGET= 0.021
U/S FACE OF ZEEB ROAD

21420.00	17.24	862.14	0.00	862.06	862.21	0.07	0.01	0.00	859.00
990.	10.	933.	47.	16.	436.	112.	352.	106.	862.20
2.53	0.63	2.14	0.42	0.050	0.035	0.050	0.000	844.90	144.24
0.000184	45.	45.	45.	0	0	4	0.00	148.76	294.47

CCHV= 0.100 CEHV= 0.300
*SECNO 21471.000
2800 NAT Q1= 1378.92 WSEL= 862.13 ENC Q1= 1378 92 WSEL= 862 23 RATIO= 0.0000
NAT Q1= 1418. RATIOS LOB,CH,ROB= 0.3570 0.5222 0.1207 WSEL= 862.23

3470 ENCROACHMENT STATIONS= 80.7 291.8 TYPE= 4 TARGET= 0.027
UPSTREAM OF ZEEB ROAD

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
21471.00	11.00	862.20	0.00	862 13	862.22	0 01	0.00	0.01	856.50
990.	349.	532.	109.	554.	566.	163.	353	106.	856.70
2.54	0.63	0.94	0.67	0.050	0.050	0.040	0.000	851.20	80.72
0.000052	51	51.	51.	2	0	0	0.00	211.04	291.76

*SECNO 22000.000
2800 NAT Q1= 1389.35 WSEL= 862.16 ENC Q1= 1389.35 WSEL= 862.26 RATIO= 0.0000
NAT Q1= 1428. RATIOS LOB,CH,ROB= 0.3578 0.5208 0.1214 WSEL= 862.26

3470 ENCROACHMENT STATIONS= 80.4 292.1 TYPE= 4 TARGET= 0.027

22000 00	11.03	862.23	0.00	862 16	862.24	0.01	0.03	0.00	856.50
990.	350.	530.	109.	558.	568.	165.	369	109.	856.70
2.73	0.63	0.93	0.66	0.050	0.050	0.040	0.000	851.20	80.45
0.000051	529.	529	529.	0	0	0	0.00	211.62	292.07

*SECNO 23000.000
2800 NAT Q1= 917.27 WSEL= 862.20 ENC Q1= 917.27 WSEL= 862.30 RATIO= 0.0000
NAT Q1= 1415. RATIOS LOB,CH,ROB= 0.4584 0.4415 0.1001 WSEL= 862.30

3470 ENCROACHMENT STATIONS= 129.2 250.0 TYPE= 4 TARGET= 0.352

23000 00	11.08	862.28	0.00	862.20	862.28	0 00	0.04	0.00	856.50
420.	139.	281.	0.	292	570.	0.	393.	113	856.70
3.30	0.48	0.49	0.00	0.040	0.060	0.000	0.000	851.20	129.16
0.000023	1000.	1000.	1000.	1	0	0	0.00	120.84	250.00

CCHV= 0.300 CEHV= 0.500
*SECNO 23186.000
2800 NAT Q1= 277.71 WSEL= 862.20 ENC Q1= 277.71 WSEL= 862.30 RATIO= 0.0000
NAT Q1= 1915. RATIOS LOB,CH,ROB= 0.2715 0.0614 0.6671 WSEL= 862.30
3280 CROSS SECTION 23186.00 EXTENDED 0.38 FEET

3470 ENCROACHMENT STATIONS= 233.0 285.7 TYPE= 4 TARGET= 0.855
DOWNSTREAM OF JACKSON ROAD---CROSS SECTION C

23186.00	8.78	862.28	0.00	862.20	862.30	0.03	0.01	0.01	856.50
420.	0.	160.	260.	0.	128.	189.	396.	113.	856.20
3.34	0.00	1.24	1 38	0.000	0 060	0.050	0.000	853.50	233.00
0.000269	186.	186.	186.	0	0	0	0.00	52.73	285.73

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 23216.000
2800 NAT Q1= 175.20 WSEL= 862.20 ENC Q1= 179.07 WSEL= 862.30 RATIO= -0.0221
NAT Q1= 179. RATIOS LOB,CH,ROB= 0.0000 1.0000 0.0000 WSEL= 862.30

3470 ENCROACHMENT STATIONS= 299.0 335.8 TYPE= 4 TARGET= 0.000
D/S FACE OF JACKSON ROAD

23216.00	8.78	862.28	0.00	862.20	862.32	0.05	0.01	0.01	862.40
420.	0.	420.	0.	0.	243.	0.	396.	113.	862.40
3.34	0.00	1.73	0.00	0.000	0.060	0.000	0.000	853.50	299.02
0.000554	30.	30.	30.	1	0	0	0.00	36.74	335.76

SPECIAL BRIDGE

5070.VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	RAREA	SS	ELCHU	ELCHD
	0.00	1.99	3.00	0.00	33.00	0.00	161.70	0.00	853.50	853.50

*SECNO 23300.000
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
862.49	862.33	0.00	21.	399.	162.	231	860.50	862.30

3470 ENCROACHMENT STATIONS= 299.0 335.8 TYPE= 1 TARGET= 36.800
U/S FACE OF JACKSON ROAD

23300.00	8.92	862.42	0.00	862.35	862.47	0.04	0.14	0.00	862.40
420.	0.	420.	0.	0.	248.	0.	396.	113.	100000.00
3.36	0.00	1.69	0.00	0.000	0.060	0.000	0.000	853.50	299.00
0.000521	84.	84.	84.	2	0	4	0.00	36.80	335.80

*SECNO 23350.000
3280 CROSS SECTION 23350.00 EXTENDED 0.57 FEET

3470 ENCROACHMENT STATIONS= 220.0 308.0 TYPE= 1 TARGET= 88.000
UPSTREAM OF JACKSON ROAD

23350.00	8.97	862.47	0.00	862.41	862.48	0.01	0.01	0.01	856.50
420.	77.	116.	227.	73.	132.	322.	397.	113.	856.20
3.37	1.06	0.88	0.70	0.030	0.050	0.050	0.000	853.50	220.00
0.000063	50.	50.	50.	2	0	0	0.00	88.00	308.00

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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

CCHV=   0.100 CEHV=   0.300
*SECNO 25000.000
 2800 NAT Q1=     414.42  WSEL=     862.48  ENC Q1=     414.42  WSEL=     862.58  RATIO=   0.0000
 NAT Q1=     444.   RATIOS LOB,CH,ROB=   0.1300  0.1561  0.7140  WSEL=     862.58

3470 ENCROACHMENT STATIONS=      199.3      452.8  TYPE=      4  TARGET=        0.066
 25000.00      5.81    862.61      0.00    862.48    862.61      0.01      0.13      0.00    860.00
     420.       44.       70.       306.       58.       89.       537.      420.       120.     860.00
     4 11      0.76      0.78      0.57     0.030     0.050     0.050     0.000    856.80    199.31
 0.000101     1650.     1650.     1650.         0         0         0      0.00    253.54    452.85


*SECNO 25333.000
 2800 NAT Q1=     225.11  WSEL=     862.53  ENC Q1=     225.11  WSEL=     862.63  RATIO=   0.0000
 NAT Q1=     244.   RATIOS LOB,CH,ROB=   0.0504  0.2434  0.7061  WSEL=     862.63

3470 ENCROACHMENT STATIONS=      227.8      438.6  TYPE=      4  TARGET=        0.079
 25333.00      5.26    862.66      0.00    862.53    862.67      0.02      0.06      0.00    860.70
     420.       4.       110.      306.       4.        82.       363.      424.       121.     860.50
     4.20      0.92      1.34      0.84     0.030     0.050     0.050     0.000    857.40    227.82
 0.000334      333.      333.      333.         1         0         0      0.00    210.79    438.61


*SECNO 25666.000
 2800 NAT Q1=      84.09  WSEL=     862.72  ENC Q1=      84.09  WSEL=     862.82  RATIO=   0.0000
 NAT Q1=      94.   RATIOS LOB,CH,ROB=   0.0133  0.4992  0.4875  WSEL=     862.82

3470 ENCROACHMENT STATIONS=      230.0      388.5  TYPE=      4  TARGET=        0.109
 25666.00      4.73    862 83      0 00    862.72    862.94      0.10      0.24      0.03    862.00
     420.         0.      231.      189.         0        72.      129.      427.       123.     861.30
     4.24      0.00      3.20      1.47     0.000     0.050     0.050     0.000    858.10    230.00
 0.002483      333.      333       333.         2         0         0      0.00    158.49    388.49


*SECNO 26000.000

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=      230.0      410.0  TYPE=      1  TARGET=      180.000
 26000 00      4.99    863.69      0.00    863.60    863.79      0.10      0.85      0.00    862.50
     420.         0       245.      175.         0.        83.      106.      428.       124.     863.20
     4.28      0.00      2 96      1.65     0.000     0.055     0.040     0.000    858.70    230.00
 0.002609      334.      334.      334.         2         0         0      0.00    173.06    410.00
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

*SECNO 26490.000
 2800 NAT Q1=      76.31  WSEL=     865.02  ENC Q1=      76 31  WSEL=     865.12  RATIO=  0.0000
 NAT Q1=      85.   RATIOS LOB,CH,ROB=  0.0356  0.6593  0.3051  WSEL=     865.12

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=      230.0      379.2  TYPE=      4  TARGET=        0.106
 26490.00      5.39    865 09      0.00    865 02    865.25      0.17      1.45      0.02    863.80
     420.        0.       312.      108.       0.       85.       67.       430.      126.     863.30
     4.32      0.00      3.68      1.62     0.000     0.055     0.040     0.000    859 70    230 00
 0.003369      490.      490.      490.         1         0         0      0.00    135.22    379.21


*SECNO 26980.000
 2800 NAT Q1=      82 71  WSEL=     866.39  ENC Q1=      82.71  WSEL=     866.49  RATIO=  0 0000
 NAT Q1=      93.   RATIOS LOB,CH,ROB=  0.0298  0.7022  0.2680  WSEL=     866.49

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=      228 0      374.7  TYPE=      4  TARGET=        0.108
 26980 00      5.84    866.54      0.00    866.39    866.68      0 14      1.42      0.00    865.30
     420.        0.       321.       99.       0.       97.       68.       432.      127.     864.60
     4.37      0.00      3.31      1.45     0.000     0.055     0.040     0.000    860.70    228.00
 0 002512      490.      490.      490.         1         0         0      0.00    130.97    374.72


CCHV=    0.300 CEHV=    0.500
*SECND 27472.000

3470 ENCROACHMENT STATIONS=      218.0      250.0  TYPE=      1  TARGET=       32.000
           DOWNSTREAM OF STAEBLER ROAD
 27472.00      6.24    867.94      0.00    867.80    868.18      0.24      1.45      0.05    866.80
     420.       10.       410.        0.       6.      104.        0.       433.      128.  100000.00
     4.40      1.64      3.96      0.00     0.040     0.055     0.000     0.000    861.70    218.00
 0 003518      492.      492.      492.         2         0         0      0.00     32.00    250.00


*SECND 27522.000
 2800 NAT Q1=      32.94  WSEL=     867.91  ENC Q1=      34.14  WSEL=     868.01  RATIO= -0.0366
 NAT Q1=      34.   RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=     868.01
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


3470 ENCROACHMENT STATIONS=      300.0      316.0  TYPE=      4  TARGET=         0.000
 27522.00      4.86    868.06      0.00    867.91    868.69      0.63      0.32      0.20    871.50
     420.        0.      420.        0.        0.       66.        0.      433.       128.     871.50
     4.40      0.00      6.38      0.00     0.000     0.055     0.000     0.000    863.20    300.00
 0.014576        50.       50        50.         2         0         0      0.00     16.00    316.00


*SECNO 27523.000
 2800 NAT Q1=      28.17  WSEL=     867.94  ENC Q1=      29.20  WSEL=     868.04  RATIO= -0.0364
 NAT Q1=      29   RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=     868.04

3370 NORMAL BRIDGE,NRD= 17 MIN ELTRD=  870.60 MAX ELLC=  869.60


3470 ENCROACHMENT STATIONS=      300.0      316.0  TYPE=      4  TARGET=         0.000
          D/S FACE OF STAEBLER ROAD
 27523.00      4.88    868.08      0.00    867.94    868.71      0.63      0.02      0.00    871.50
     420.        0.      420.        0.        0.       66.        0.      433.       128.     871.50
     4.40      0.00      6.36      0.00     0.000     0.055     0.000     0.000    863.20    300.00
 0.020145         1.        1.        1.         0         0         0      0.00     16.00    316.00


*SECNO 27539.000
 2800 NAT Q1=      32.89  WSEL=     868.42  ENC Q1=      33.83  WSEL=     868.52  RATIO= -0.0285
 NAT Q1=      34.   RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=     868.52

3370 NORMAL BRIDGE,NRD= 17 MIN ELTRD=  870.60 MAX ELLC=  869.60


3470 ENCROACHMENT STATIONS=      300.0      316.0  TYPE=      4  TARGET=         0.000
          U/S FACE OF STAEBLER ROAD
 27539.00      5.31    868.51      0.00    868.42    869.03      0.51      0.28      0.03    871.50
     420.        0.      420         0.         0        73.        0.      433.       128      871.50
     4.41      0.00      5.75      0.00     0.000     0.055     0.000     0.000    863.20    300.00
 0.015500         16        16.       16.         2         0         0      0.00     16.00    316.00


*SECNO 27540.000
 2800 NAT Q1=      39.49  WSEL=     868.44  ENC Q1=      40.75  WSEL=     868.54  RATIO= -0.0317
 NAT Q1=      41.   RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=     868.54

3470 ENCROACHMENT STATIONS=      300.0      316.0  TYPE=      4  TARGET=         0.000
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
27540.00	5.33	868.53	0.00	868.44	869.04	0.51	0.01	0.00	871.50
420.	0.	420.	0.	0.	73.	0.	433.	128.	871.50
4.41	0.00	5.74	0.00	0.000	0.055	0.000	0.000	863.20	300.00
0.010734	1.	1.	1.	0	0	0	0.00	16.00	316.00

*SECNO 27600.000

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 210.0 307.0 TYPE= 1 TARGET= 97.000
UPSTREAM OF STAEBLER ROAD--CROSS SECTION D

27600.00	7.52	869.22	0.00	869.16	869.28	0.06	0.10	0.14	866.80
420	54.	279.	87.	31.	132.	60.	434.	128.	866.10
4.41	1.76	2.12	1.45	0.030	0.055	0.030	0.000	861.70	210.00
0.000663	60	60.	60.	2	0	0	0.00	90.58	307.00

CCHV= 0.100 CEHV= 0.300
*SECNO 28140.000

3470 ENCROACHMENT STATIONS= 215.0 255.0 TYPE= 1 TARGET= 40.000

28140.00	6.10	869.80	0.00	869.68	870.02	0.23	0.70	0.05	869.40
420.	3.	405.	12.	3.	104.	5.	436.	129.	868.20
4.45	1.17	3.88	2.63	0.030	0.055	0.030	0.000	863.70	215.00
0.003500	540.	540.	540.	3	0	0	0.00	40.00	255.00

*SECNO 28680 000

3470 ENCROACHMENT STATIONS= 225.0 251.0 TYPE= 1 TARGET= 26.000

28680.00	6.02	871.82	0.00	871.77	872.08	0.26	2.04	0.01	871.30
420	0.	417	3.	0.	102.	1.	437.	130.	870.30
4.49	0.00	4.10	2.27	0.000	0.055	0.030	0.000	865.80	225.00
0.004108	540.	540.	540.	2	0	0	0.00	26.00	251.00

*SECNO 29225.000
2800 NAT Q1= 74.24 WSEL= 873.70 ENC Q1= 74.24 WSEL= 873.80 RATIO= 0.0000
NAT Q1= 83. RATIOS LOB, CH, ROB= 0.0460 0.7633 0.1907 WSEL= 873.80

3470 ENCROACHMENT STATIONS= 227.0 283.3 TYPE= 4 TARGET= 0.102

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  SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS     BANK ELEV
  Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA    LEFT/RIGHT
  TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN       SSTA
  SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID      ENDST


29225.00      5.84     873.84       0.00     873.70     874.02       0.18       1.93       0.01     873.20
   420.         0.        352.        68.         0.        100.        27.        439.        130.      872.40
    4.54       0.00       3.53       2.50       0.000      0.055      0.030      0.000     868.00     227.00
0.003095       545.       545.       545.           2          0          0       0.00      56.30     283.30


*SECND 29765.000
 2800 NAT Q1=      63.47  WSEL=     875.68  ENC Q1=      63.47  WSEL=     875.78  RATIO=   0.0000
 NAT Q1=      70.  RATIOS LOB,CH,ROB=  0.0002  0.7541  0.2457  WSEL=     875.78

3470 ENCROACHMENT STATIONS=      225.0      275.0  TYPE=       4  TARGET=         0.091
 29765.00      5.48     875.78       0.00     875.68     876.00       0.22       1.97       0.01     875.70
   420.         0.        348         72.         0.         89.         23        440.        131.      874.70
    4.57       0.00       3.91       3.07       0.000      0.055      0.030      0.000     870.30     225.00
0.004362       540.       540.       540.           1          0          0       0.00      49.99     274.99


*SECND 30305.000
 2800 NAT Q1=      67.35  WSEL=     877.93  ENC Q1=      67.35  WSEL=     878.03  RATIO=   0.0000
 NAT Q1=      74.  RATIOS LOB,CH,ROB=  0.0000  0.7265  0.2735  WSEL=     878.03

3470 ENCROACHMENT STATIONS=      225.0      285.7  TYPE=       4  TARGET=         0.084
 30305.00      5.63     878.03       0.00     877.93     878.23       0.19       2.22       0.00     878.20
   420.         0.        333.        87.         0.         90.         31.        441.        131.      877.20
    4.62       0.00       3.72       2.79       0.000      0.055      0.030      0.000     872.40     225.34
0.003884       540.       540.       540.           2          0          0       0.00      60.36     285.70


CCHV=    0.300 CEHV=    0.500
*SECND 30850.000

3470 ENCROACHMENT STATIONS=      219.0      270.0  TYPE=       1  TARGET=        51.000
          DOWNSTREAM OF STAEBLER ROAD
 30850.00      5.52     880.02       0.00     879.92     880.23       0.22       2.00       0.01100000.00
   420.         0.        401.        19.         0.        106.        12.        443.        132.      879.60
    4.66       0.00       3.80       1.54       0.000      0.050      0.040      0.000     874.50     219.14
0.003461       545.       545.       545.           2          0          0       0.00      50.85     270.00


CCHV=    0.500 CEHV=    1.000
*SECND 30901.000
 2800 NAT Q1=      64.52  WSEL=     880.11  ENC Q1=      64.52  WSEL=     880.21  RATIO=   0.0000
 NAT Q1=      70.  RATIOS LOB,CH,ROB=  0.0000  0.8587  0.1413  WSEL=     880.21
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3265 DIVIDED FLOW

3280 CROSS SECTION 30901.00 EXTENDED 0.71 FEET

3470 ENCROACHMENT STATIONS= 250.0 468.3 TYPE= 4 TARGET= 0.074
D/S FACE OF STAEBLER ROAD

30901.00	6.51	880.21	0.00	880.11	880.48	0.27	0.20	0.05	881.80
420.	0.	390.	30.	0.	91.	26.	443.	132.	881.80
4.66	0.00	4.28	1.16	0.000	0.050	0.040	0.000	873.70	250.00
0.004261	51.	51.	51.	1	0	0	0.00	104.89	468.33

SPECIAL BRIDGE

5070, VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1 46	3.00	0 00	16.00	0.00	105.60	0.00	873.70	873.70

*SECNO 30917.000

6070, LOW FLOW BY NORMAL BRIDGE

EGPRS= 0.000 EGLWC= 880.699 ELLC= 880.700 PCWSE= 880.212 ELTRD= 879.500
2800 NAT Q1= 63.50 WSEL= 880.33 ENC Q1= 63.50 WSEL= 880.43 RATIO= 0.0000
NAT Q1= 70. RATIOS LOB, CH, ROB= 0.0000 0.7138 0.2862 WSEL= 880.43
WATER EL=CHANGE FROM NATURAL PROFILES BRIDGE

3265 DIVIDED FLOW

3280 CROSS SECTION 30917.00 EXTENDED 0.93 FEET

3470 ENCROACHMENT STATIONS= 250.0 478.3 TYPE= 4 TARGET= 0.090
U/S FACE OF STAEBLER ROAD

30917.00	6.73	880.43	0.00	880.33	880.61	0.17	0.06	0.05	881.80
420.	0.	345.	75.	0.	95.	57.	443	132.	881.80
4.66	0.00	3 64	1.33	0.000	0.050	0.040	0.000	873.70	250.00
0.002982	16.	16	16.	0	0	0	0.00	137 83	478.35

*SECNO 31000.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

2800 NAT Q1= 116.30 WSEL= 880.62 ENC Q1= 116.30 WSEL= 880.72 RATIO= 0.0000
NAT Q1= 128. RATIOS LOB,CH,ROB= 0.0214 0.7134 0.2651 WSEL= 880.72

3470 ENCROACHMENT STATIONS= 218.0 290.3 TYPE= 4 TARGET= 0.090
UPSTREAM OF STAEBLER ROAD

31000.00	6.22	880.72	0.00	880.62	880.81	0.09	0.16	0.04	880.60
420.	0.	329.	91.	0.	128.	56.	443.	132.	879.60
4.67	0.00	2.58	1.63	0.000	0.050	0.040	0.000	874.50	218.00
0.001306	83.	83.	83.	2	0	0	0.00	72.35	290.35

*SECNO 31200.000
2800 NAT Q1= 104.16 WSEL= 880.91 ENC Q1= 104.16 WSEL= 881.01 RATIO= 0.0000
NAT Q1= 163. RATIOS LOB,CH,ROB= 0.0563 0.6301 0.3136 WSEL= 881.01

3470 ENCROACHMENT STATIONS= 218.0 252.7 TYPE= 4 TARGET= 0.360
DOWNSTREAM OF PARK ROAD

31200.00	6.51	881.01	0.00	880.91	881.15	0.14	0.29	0.05	880.60
420.	0.	414.	6.	0.	137.	4.	444.	133.	879.60
4.69	0.00	3.02	1.45	0.000	0.050	0.040	0.000	874.50	218.00
0.001655	200.	200.	200.	2	0	0	0.00	34.73	252.73

*SECNO 31278.000
2800 NAT Q1= 50.70 WSEL= 881.14 ENC Q1= 84.03 WSEL= 881.24 RATIO= -0.6572
NAT Q1= 253. RATIOS LOB,CH,ROB= 0.2632 0.3319 0.4049 WSEL= 881.24

3470 ENCROACHMENT STATIONS= 250.0 261.4 TYPE= 4 TARGET= 0.668
DOWNSTREAM FACE OF PARK ROAD

31278.00	7.64	881.24	0.00	881.14	881.67	0.43	0.23	0.29	875.70
420.	0.	420.	0.	0.	80.	0.	444.	133.	874.00
4.70	0.00	5.27	0.00	0.000	0.050	0.000	0.000	873.60	250.00
0.006600	78.	78	78.	2	0	0	0.00	11.40	261.40

SPECIAL BRIDGE

5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED

SB XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
0.00	1.78	3.00	0.00	11.40	0.00	77.52	0.00	873.60	873.60

*SECNO 31300.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
882.05	881.29	0.00	18.	403	78.	82.	880.80	881.70

3470 ENCROACHMENT STATIONS= 230.0 275.0 TYPE= 1 TARGET= 45.000
UPSTREAM FACE OF PARK ROAD

31300.00	8.35	881.95	0.00	881.89	881.99	0.04	0.31	0.00	875.70
420.	119.	157.	144.	98.	88.	88.	444.	133.	874.00
4.70	1.22	1.79	1.64	0.050	0.050	0.040	0.000	873.60	230.00
0.000252	22.	22.	22.	2	0	4	0.00	45.00	275.00

CCHV= 0.100 CEHV= 0.300
*SECND 31340.000

3470 ENCROACHMENT STATIONS= 218.0 280.0 TYPE= 1 TARGET= 62.000
UPSTREAM OF PARK ROAD--CROSS SECTION E

31340.00	7.46	881.96	0.00	881.89	882.00	0.05	0.01	0.00	880.60
420.	0.	314.	106.	0.	167.	79.	445.	133.	879.60
4.71	0.00	1.88	1.34	0.000	0.055	0.050	0.000	874.50	218.00
0.000614	40.	40.	40.	2	0	0	0.00	62.00	280.00

*SECND 32000.000
2800 NAT Q1= 176.74 WSEL= 882.27 ENC Q1= 176.74 WSEL= 882.37 RATIO= 0.0000
NAT Q1= 191. RATIOS LOB,CH,ROB= 0.1153 0.5570 0.3277 WSEL= 882.37

3470 ENCROACHMENT STATIONS= 161.7 321.2 TYPE= 4 TARGET= 0.076

32000.00	6.86	882.36	0.00	882.27	882.39	0.03	0.39	0.00	881.60
420.	35.	254.	132.	52.	148.	126.	449.	135.	880.60
4.84	0.67	1.71	1.05	0.050	0.055	0.050	0.000	875.50	161.72
0.000568	660.	660.	660.	2	0	0	0.00	159.51	321.22

*SECND 33000.000
2800 NAT Q1= 561.64 WSEL= 882.43 ENC Q1= 561.64 WSEL= 882.53 RATIO= 0.0000
NAT Q1= 602. RATIOS LOB,CH,ROB= 0.7165 0.1291 0.1544 WSEL= 882.53

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  SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
  Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
  TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
  SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

3280 CROSS SECTION  33000.00 EXTENDED      3 32 FEET


3470 ENCROACHMENT STATIONS=        9.2      454.2  TYPE=      4  TARGET=        0.067
 33000.00      5.52    882.52      0.00    882.43    882.53      0.00      0.13      0.00    880.00
     420.       308.       58.       54.       660.      111.      227.      464.      141.     880.80
     5.46      0.47      0.53      0.24     0.050     0.055     0.050     0.000    877.00      9.18
 0.000056     1000.     1000.     1000.         2         0         0      0.00    445.01    454.19


*SECNO 34500.000
 2800 NAT Q1=      55.77  WSEL=     882.64  ENC Q1=      55.77  WSEL=     882.74  RATIO=   0.0000
 NAT Q1=      64.  RATIOS LOB,CH,ROB=   0.6259   0.3741   0.0000  WSEL=     882.74
3280 CROSS SECTION  34500.00 EXTENDED      1 04 FEET


3470 ENCROACHMENT STATIONS=       32.2      250.0  TYPE=      4  TARGET=        0.131
 34500.00      3.23    882.73      0.00    882.64    882.83      0.10      0.28      0.03    882.50
     420.       239.      181.        0.      142.       54.         0.      485.      153.     883.30
     5.63      1.68      3.38      0.00     0.060     0.055     0.000     0.000    879.50     32.25
 0.005750     1500.     1500.     1500.         3         0         0      0.00    216.84    249.09


*SECNO 35520.000
 2800 NAT Q1=     132.63  WSEL=     884.75  ENC Q1=     132.63  WSEL=     884.85  RATIO=   0.0000
 NAT Q1=     147.  RATIOS LOB,CH,ROB=   0.7471   0.2529   0.0000  WSEL=     884.85
3280 CROSS SECTION  35520.00 EXTENDED      1.75 FEET


3470 ENCROACHMENT STATIONS=       24.3      250.0  TYPE=      4  TARGET=        0.099
          DOWNSTREAM OF LIBERTY ROAD--CROSS SECTION F
 35520.00      3.95    884.85      0.00    884.75    884.88      0.02      2.03      0.01    883.90
     420.       303.      117.        0.      294.       71.         0.      491.      158.     884.70
     5.87      1.03      1.64      0.00     0.060     0.055     0.000     0.000    880.90     24.28
 0.001000     1020.     1020.     1020.         4         0         0      0.00    225.73    250.01


CCHV=   0.400 CEHV=   0.800
*SECNO 35571.000
 2800 NAT Q1=     131.07  WSEL=     884.80  ENC Q1=     131.07  WSEL=     884.90  RATIO=   0.0000
 NAT Q1=     146.  RATIOS LOB,CH,ROB=   0.7581   0.2419   0.0000  WSEL=     884.90
3280 CROSS SECTION  35571.00 EXTENDED      1.90 FEET
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 20.6 321.0 TYPE= 4 TARGET= 0.102
D/S FACE OF LIBERTY ROAD

35571.00	4.71	884.91	0.00	884.80	884.93	0.02	0.05	0.00	883.90
420.	307.	113.	0.	319.	72.	0.	492.	158.	887.30
5.88	0.96	1.58	0.00	0.060	0.055	0.000	0.000	880.20	20 62
0.001029	51.	51.	51.	0	0	0	0.00	297.61	318.23

SPECIAL BRIDGE

5070, VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED

SB XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
0.00	2.36	3.00	0.00	3.54	0.00	12.57	0.00	880.20	880.20

*SECNO 35611.000
2800 NAT Q1= 485.09 WSEL= 886.50 ENC Q1= 485.09 WSEL= 886.60 RATIO= 0.0000
NAT Q1= 511. RATIOS LOB,CH,ROB= 0.8538 0.1462 0.0000 WSEL= 886.60
WATER EL=CHANGE FROM NATURAL PROFILES BRIDGE
3280 CROSS SECTION 35611.00 EXTENDED 3.61 FEET

3470 ENCROACHMENT STATIONS= 12.1 321.0 TYPE= 4 TARGET= 0.051
U/S FACE OF LIBERTY ROAD

35611.00	6.41	886 61	0.00	886.50	886.61	0.00	0.01	0.01	883.90
420.	355	65	0.	815.	116.	0	492.	159.	887.30
5.90	0.44	0.55	0.00	0.060	0.055	0.000	0.000	880.20	12.15
0.000074	40	40.	40.	0	0	9	0.00	308.05	320.20

*SECNO 35662.000
2800 NAT Q1= 564.54 WSEL= 886.50 ENC Q1= 564 54 WSEL= 886.60 RATIO= 0.0000
NAT Q1= 693. RATIOS LOB,CH,ROB= 0.6832 0.1464 0.1704 WSEL= 886.60
3280 CROSS SECTION 35662.00 EXTENDED 3.51 FEET

3470 ENCROACHMENT STATIONS= 26.8 372.5 TYPE= 4 TARGET= 0.185
UPSTREAM OF LIBERTY ROAD

35662.00	5.71	886.61	0 00	886.50	886.61	0.00	0.00	0.00	883.90
350.	254.	63.	34	638.	115.	156.	493.	159	884.70
5.94	0.40	0 54	0.21	0.050	0 045	0.050	0.000	880.90	26.77
0.000038	51	51.	51.	0	0	0	0.00	345.73	372.50

```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

*SECNO 36108.000
 2800 NAT Q1=     106.33  WSEL=     886.55  ENC Q1=     106.33  WSEL=     886.65  RATIO=  0.0000
 NAT Q1=     122.   RATIOS LOB, CH, ROB=  0.6710  0.3281  0.0009  WSEL=     886.65
3280 CROSS SECTION  36108.00 EXTENDED       0.85 FEET


3470 ENCROACHMENT STATIONS=       55.6      250.0  TYPE=      4  TARGET=        0.127
 36108.00      3.85    886.65      0.00    886.55    886.69      0.03      0.05      0.03    885.60
     350.       220.      130.        0.      201.       66.        0.       500.       162.     886.30
     6.03      1.09      1.99      0.00     0.050     0.045     0.000     0.000    882.80     55.61
 0.001077       446.      446.      446.         2         0         0      0.00    194.39    250.00


CCHV=    0.100 CEHV=    0.300
*SECNO 36256.000
 2800 NAT Q1=      46.41  WSEL=     886.75  ENC Q1=      46.41  WSEL=     886.85  RATIO=  0.0000
 NAT Q1=      55.   RATIOS LOB, CH, ROB=  0.4204  0.5796  0.0000  WSEL=     886.85
3280 CROSS SECTION  36256.00 EXTENDED       0.15 FEET


3470 ENCROACHMENT STATIONS=      126.5      250.1  TYPE=      4  TARGET=        0.161
 36256.00      3.44    886.84      0.00    886.75    887.05      0.21      0.31      0.05    886.20
     350.       108.      242.        0.       64.       57.        0.       500.       162.     886.80
     6.04      1.69      4.24      0.02     0.050     0.045     0.000     0.000    883.40    126.47
 0.005768       148.      148.      148.         2         0         0      0.00    123.58    250.05


*SECNO 36404.000
 2800 NAT Q1=      50.52  WSEL=     887.53  ENC Q1=      50.52  WSEL=     887.63  RATIO=  0.0000
 NAT Q1=      59.   RATIOS LOB, CH, ROB=  0.3703  0.6247  0.0050  WSEL=     887.63
3280 CROSS SECTION  36404.00 EXTENDED       0.03 FEET


3470 ENCROACHMENT STATIONS=      137.1      250.0  TYPE=      4  TARGET=        0.141
 36404.00      3.63    887.63      0.00    887.53    887.83      0.20      0.78      0.00    886.80
     350.       96.       254.        0.       60.       62        0.       501.       163.     887.30
     6.05      1.61      4.08      0.00     0.050     0.045     0.000     0.000    884.00    137.10
 0.004841       148.      148.      148.         2         0         0      0.00    112.90    250.00


*SECNO 36554.000
 2800 NAT Q1=      50.82  WSEL=     888.24  ENC Q1=      50.82  WSEL=     888.34  RATIO=  0.0000
 NAT Q1=      61.   RATIOS LOB, CH, ROB=  0.3292  0.6366  0.0342  WSEL=     888.34
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 165.2 250.0 TYPE= 4 TARGET= 0.160

36554.00	3.74	888.34	0.00	888.24	888.55	0.21	0.72	0.00	887.30
350.	86.	264.	0.	48.	64.	0.	501.	163.	887.90
6.06	1.79	4.12	0.00	0.050	0.045	0.000	0.000	884.60	165.19
0.004757	150.	150.	150.	2	0	0	0.00	84.81	250.00

*SECNO 37000.000
2800 NAT Q1= 58.08 WSEL= 890.13 ENC Q1= 58.08 WSEL= 890.23 RATIO= 0.0000
NAT Q1= 69 RATIOS LOB,CH,ROB= 0.2626 0.5571 0.1804 WSEL= 890.23

3470 ENCROACHMENT STATIONS= 183.6 340.8 TYPE= 4 TARGET= 0.161

37000.00	3.74	890.24	0.00	890.13	890.39	0.16	1.84	0.01	889.00
350.	76.	232.	42.	43.	62.	41.	502	164.	889.50
6.10	1.79	3.74	1.03	0.050	0.045	0.050	0.000	886.50	183.61
0.003594	446	446.	446.	3	0	0	0.00	157.20	340.81

*SECNO 38000.000
2800 NAT Q1= 48.37 WSEL= 894.41 ENC Q1= 48.37 WSEL= 894.51 RATIO= 0.0000
NAT Q1= 54. RATIOS LOB,CH,ROB= 0.2991 0.6160 0.0850 WSEL= 894.51

3470 ENCROACHMENT STATIONS= 188.4 252.0 TYPE= 4 TARGET= 0.103

38000.00	3.50	894.50	0.00	894.41	894.74	0.24	4.32	0.03	893.00
350	96.	241.	13.	42.	54.	6.	505	167.	893.50
6.18	2.32	4.50	1.95	0.050	0.045	0.050	0.000	891.00	188.37
0.005297	1000.	1000.	1000.	4	0	0	0.00	63.60	251.98

*SECNO 39000.000
2800 NAT Q1= 53.62 WSEL= 899.19 ENC Q1= 53.62 WSEL= 899.29 RATIO= 0.0000
NAT Q1= 60. RATIOS LOB,CH,ROB= 0.4543 0.4886 0.0571 WSEL= 899.29

3470 ENCROACHMENT STATIONS= 167.3 244.5 TYPE= 4 TARGET= 0.111

39000.00	3.29	899.29	0.00	899.19	899.46	0.17	4.71	0.01	897.70
350.	158.	192.	0.	72	49.	0.	508.	168.	898.40
6.26	2.20	3.93	0.87	0.050	0.045	0.050	0.000	896.00	167.28
0.004214	1000	1000.	1000.	5	0	0	0.00	77.17	244.45

*SECNO 40000.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
G	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

2800 NAT Q1= 54.88 WSEL= 903.39 ENC Q1= 54.88 WSEL= 903.49 RATIO= 0.0000
NAT Q1= 62. RATIOS LOB,CH,ROB= 0.5435 0.3600 0.0964 WSEL= 903.49

3470 ENCROACHMENT STATIONS= 171.1 253.3 TYPE= 4 TARGET= 0.120

40000.00	2.79	903.49	0.00	903.39	903.62	0.13	4.16	0.00	901.50
350.	192.	143.	14.	78.	41	8.	511.	170.	902.50
6.36	2.46	3.50	1.69	0.050	0.045	0.050	0.000	900.70	171.09
0.004101	1000.	1000.	1000.	5	0	0	0.00	82.19	253.28

THIS RUN EXECUTED 4 MAR 87 10:22:11

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

100 YEAR FLOODPLAIN

SUMMARY PRINTOUT TABLE 110

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
0.000	808.02	0.00	808.67	34.55	0.00	1740.00	0.00	304.00	0.00	249.00	284.00	304.00
0.000	808.13	0.11	808.76	34.58	0.00	1740.00	0.00	0.01	249.00	249.00	284.00	284.00
125.000	808.59	0.00	809.23	34.56	0.00	1740.00	0.00	304.00	0.00	249.00	284.00	304.00
125.000	808.67	0.08	809.30	34.58	0 00	1740.00	0.00	0.01	249.00	249.00	284.00	284.00
176.000	808 83	0.00	809.45	34.59	0.00	1740.00	0.00	304.00	0.00	249.00	284.00	304.00
176 000	808.90	0.08	809.52	34.61	0.00	1740.00	0.00	0.02	249.00	249.00	284.00	284.00
199.000	808.91	0.00	809.67	34.61	0.00	1740.00	0.00	304.00	0.00	249.00	284.00	304.00
199.000	808.99	0.08	809.59	34.63	0.00	1740.00	0.00	0.03	249.00	249.00	284.00	284.00
250.000	809.43	0.00	810.00	34.69	0.00	1740.00	0.00	304.00	0.00	249.00	284.00	304.00
250.000	809.19	-0.24	809.79	34.63	0 00	1740.00	0.00	0.05	249.00	249.00	284.00	284.00
850.000	811.66	0.00	812.23	34.67	0.00	1740.00	0.00	304.00	0.00	249.00	284.00	304.00
850.000	811.57	-0.08	812 16	34.65	0.00	1740.00	0.00	0.04	249.00	249.00	284.00	284.00
1200.000	812.98	0.00	813.56	34.67	0.00	1740.00	0.00	304.00	0.00	249.00	284.00	304.00
1200.000	812.93	-0.05	813.52	34.65	0.00	1740.00	0.00	0.04	249.00	249.00	284.00	284.00
1850.000	814.90	0.00	815.05	300.15	112.22	921.05	706.73	0.00	0.00	220.00	252.00	0.00
1850 000	814.96	0.05	815.15	165.00	66.77	999.82	673 41	165.00	210.00	220.00	252.00	375.00
2100.000	815.31	0.00	815.55	260.63	104.24	1038.44	597.31	0.00	0.00	220.00	252.00	0.00
2100.000	815 42	0.11	815.67	174.12	78.99	1057.74	603.27	0.04	209.32	220.00	252.00	383.44
2300.000	815 83	0.00	816.34	208.42	88.57	1229.44	422.00	0.00	0.00	220.00	252.00	0.00
2300.000	815.91	0.09	816.46	128.60	51.41	1265.57	423.02	0.05	211.67	220.00	252.00	340.27
2500.000	816 93	0.00	817 54	195.84	83.42	1281.03	375.55	0.00	0.00	220.00	252.00	0.00
2500.000	817.02	0.09	817 67	119.17	49 06	1316.82	374.12	0.05	211.83	220.00	252.00	331.00

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
2650.000	817.89	0.00	818.50	130.75	389.34	1209.48	141.17	0.00	0.00	222.00	250.00	0.00
2650.000	817.99	0.10	818 63	101.75	384.67	1243.19	112.14	0.04	160.43	222.00	250.00	262.18
2800.000	818.84	0.00	819.47	130.07	381.71	1218.32	139.96	0.00	0.00	222.00	250.00	0.00
2800.000	818.94	0.10	819.60	101.59	377.20	1250.64	112.15	0.04	160.67	222.00	250.00	262.26
3800.000	823.64	0.00	823.98	140.33	533.97	1035.10	170.93	0.00	0.00	222.00	250.00	0.00
3800.000	823 73	0.09	824.08	113.12	528.94	1051.84	159.22	0.04	150.77	222.00	250.00	263.89
4500.000	826.19	0.00	826 63	135.14	481.75	1094.38	163.87	0.00	0.00	222.00	250.00	0.00
4500.000	826.26	0.07	826.72	107.65	471.68	1116.06	152.27	0.04	155.40	222.00	250.00	263.05
5000.000	827.97	0.00	828.15	141.20	32.06	662 99	1044.96	162.00	0.00	32.00	56.00	162.00
5000.000	828.03	0.06	828.21	141.29	33.12	657.93	1048.95	162.00	0.00	32.00	56.00	162.00
6000.000	830.67	0.00	830.83	313.28	4.35	538.90	1196.74	0.00	0.00	32.00	56.00	0.00
6000.000	830.73	0.05	830 90	233.00	0.00	558.51	1181.49	233.00	32.00	32.00	56.00	265.00
6330.000	832.08	0.00	832.47	150.00	0 00	753.70	986.30	150.00	32.00	32.00	56.00	182.00
6330.000	832.19	0.11	832.57	143.00	0.00	757.71	982.29	143.00	32.00	32.00	56.00	175.00
6430.000	832.55	0.00	833.11	100.77	161.65	973.64	604.70	150.00	0.00	68.00	92.00	150.00
6430.000	832.64	0.08	833.16	101.18	164.05	963.13	612.82	150.00	0.00	68.00	92.00	150.00
6680.000	833.92	0.00	834.74	49.00	190.17	1397.12	152.71	49.00	168.00	180.00	205.00	217.00
6680 000	834 00	0 08	834.94	41.00	153.49	1482.35	104.16	41.00	172.00	180.00	205.00	213.00
6720.000	834.21	0.00	835 43	29.00	0.00	1740.00	0.00	0.00	0.00	185.00	214.00	0.00
6720.000	834.31	0.10	835.50	29.00	0.00	1740.00	0.00	0.00	185.00	185.00	214.00	214.00
6770.000	835.12	0.00	836.01	28.00	0.00	1740.00	0.00	0.00	0.00	186.00	214.00	0.00
6770.000	835.22	0.10	836.09	28.00	0.00	1740 00	0.00	0.00	186.00	186.00	214.00	214.00
6776.000	835.68	0.00	836.15	40.00	0.00	1740.00	0.00	40.00	160.00	160.00	200.00	200.00
6776.000	835.77	0.09	836.23	40.00	0.00	1740.00	0.00	0.57	160.00	160.00	200.00	200.00
6790.000	835.98	0.00	836.24	68.00	141.11	1416.96	181.93	68.00	146.00	160.00	200.00	214.00
6790.000	835.80	-0.19	836.26	40.00	0.00	1740.00	0.00	40.00	160.00	160.00	200.00	200.00
6820.000	836.17	0 00	836.29	128.00	105.33	1299.70	334.98	128.00	100.00	145.00	195.00	228.00
6820.000	836.26	0.10	836.39	128.00	111.07	1293 16	335.76	128.00	100.00	145.00	195.00	228.00
7220.000	836.37	0.00	836.38	669.43	0.00	218.42	1521.58	0.00	0.00	0.00	125.00	0.00
7220.000	836.46	0.09	836.47	590.79	0.00	223.88	1516.12	0 04	0.00	0.00	125.00	646.63
7470.000	836.38	0 00	836.39	643.00	996 65	275.32	468.03	643.00	226.00	530.00	565.00	869.00
7470.000	836.47	0.09	836.48	492.48	994.59	282.22	463.19	0.05	278.57	530.00	565.00	771.05
7730.000	836.40	0.00	836.44	519.99	802 40	627 87	309.73	0.00	0.00	465.00	510.00	0.00
7730 000	836 49	0.09	836.53	337.73	800.91	646.06	293.03	0.05	308.40	465.00	510.00	646.13

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
8045.000	836 53	0.00	836.58	578.20	866.95	413.76	459.29	0.00	0.00	360.00	385.00	0.00
8045.000	836.62	0.09	836.67	427.54	865 03	427.79	447.18	0.06	122.91	360.00	385.00	550.45
8385 000	836 77	0.00	836.82	458.09	974.73	226.05	539.22	0.00	0.00	330.00	344.00	0.00
8385.000	836 86	0.09	836.92	341.36	982.95	234.14	522.91	0.06	112.22	330.00	344.00	453.58
8725.000	836.91	0 00	836.94	393.78	164.10	296.08	1279.82	0.00	0.00	180.00	210.00	0.00
8725.000	837.00	0 09	837 04	314.52	137.76	306.55	1295.68	0.04	124.16	180.00	210.00	438.68
8970.000	836.97	0.00	837.04	363.52	1432.63	265.03	42.34	0.00	0.00	391.00	406.00	0.00
8970.000	837.07	0.10	837.14	292.64	1488 68	251.32	0.00	0.05	113.36	391.00	406.00	406.00
9120.000	837.24	0.00	837.43	328.05	1050.84	455.90	233.26	0.00	0.00	323.00	340.00	0 00
9120.000	837.33	0.10	837.54	233.07	1068.36	473.12	198.52	0.06	143.30	323.00	340.00	376.36
9500.000	838.11	0.00	838 27	331.92	249.24	640.03	850.73	0.00	0.00	155.00	182.00	0.00
9500.000	838.22	0.11	838.40	211.91	218.05	661.85	860.10	0.06	105.62	155.00	182.00	317.53
9970.000	838.89	0.00	838.98	559.37	669.79	331.93	738.28	0.00	0.00	308.00	324.00	0.00
9970 000	839.00	0.11	839.10	305.29	656.29	343.32	740.40	0.07	180 06	308.00	324.00	485.36
10325 000	839 23	0.00	839.29	751.42	699.86	376.94	663 20	0.00	0.00	548.00	575.00	0.00
10325.000	839.35	0.12	839.41	508.24	710.52	391 33	638.15	0.07	162.87	548.00	575.00	671.12
10510.000	839.47	0.00	839.51	766.71	1048.16	288.82	403.01	0.00	0.00	530.00	555.00	0.00
10510.000	839 58	0.12	839.63	573.50	1065.96	299.16	374.88	0.07	131.37	530.00	555.00	704.87
11115.000	840 17	0.00	840.20	680.00	1243 40	175.10	321.50	0.00	0.00	520.00	535.00	0.00
11115.000	840.28	0.11	840.32	517 02	1279.04	182.27	278.69	0.08	97.56	520.00	535.00	614.58
11550.000	840.97	0.00	841.06	558.64	945.59	270.45	523.96	0.00	0.00	453.00	470.00	0.00
11550 000	841.07	0 10	841.17	413.11	967.46	282.67	489.87	0.08	152.25	453.00	470.00	565.36
11625.000	841.22	0.00	841.36	540.24	955.99	305.88	478.12	0.00	0.00	455.00	470.00	0.00
11625.000	841.32	0.10	841.47	397.55	981.75	319.98	438.27	0.09	158.16	455.00	470.00	555.71
11700.000	841.62	0.00	841.85	527.66	955.77	411.83	372.40	0.00	0.00	455.00	470.00	0.00
11700.000	841.72	0.09	841.97	386.33	986.42	429.17	324.41	0.10	159.06	455.00	470.00	545.39
11775 000	842 16	0.00	842.41	527.70	943.02	485.48	311.50	0.00	0.00	440.00	456.00	0.00
11775.000	842 25	0.10	842.53	382.12	972.89	505.39	261.72	0.10	143.14	440.00	456.00	525.26
12000.000	843.66	0.00	843.98	539.46	650.47	595.87	493.65	0.00	0.00	387.00	402.00	0.00
12000.000	843 76	0 10	844.11	367.65	665.94	613.65	460.41	0.09	129.61	387.00	402.00	497.26
12900 000	847.07	0.00	847.27	407.00	508.06	786.67	445.26	407.00	60.00	250.00	275.00	467.00
12900.000	847 18	0.10	847.38	365.87	547.06	804.25	388.69	0.14	61.82	250.00	275.00	427.68
12950 000	847.25	0.00	847 40	382.00	553.94	691.30	494.77	382.00	72.00	250.00	275.00	454.00
12950.000	847 36	0.10	847 51	346.80	603.87	708.93	427.20	0.19	71.33	250.00	275.00	418.13

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	12951.000	847 35	0 00	847.42	381.00	795.07	259.32	685.61	381.00	73.00	250.00	275.00	454.00
	12951.000	847.45	0.10	847.53	337.00	875 06	275.84	589 10	337.00	73.00	250.00	275.00	410.00
	12963.000	847.40	0.00	847.47	375.00	791.30	259.05	689.64	375.00	76.00	250.00	275.00	451.00
	12963 000	847.50	0.10	847.58	331.00	875.17	277.10	587.74	331.00	76.00	250.00	275.00	407.00
	12964.000	847.40	0.00	847.53	375 00	562.56	665.23	512.21	375.00	76.00	250.00	275.00	451.00
	12964.000	847.50	0.10	847.64	340.00	611.44	687.06	441.51	340.00	76.00	250.00	275.00	416.00
	13014.000	847 47	0.00	847.58	350.00	577.57	643.60	518.83	350.00	87.00	250.00	275.00	437.00
	13014.000	847.57	0.10	847.69	317.00	628.59	665.99	445.43	317.00	87.00	250.00	275.00	404.00
	13253.000	847.64	0.00	847 84	240.62	232.29	983.52	524.20	0.00	0.00	224.00	260.00	0.00
	13253.000	847.74	0.11	847 96	112.35	210.75	1011.14	518.11	0.04	200.23	224.00	260.00	312.58
	13304.000	847 68	0.00	847.87	245.38	233 26	979.60	527.14	0.00	0.00	224.00	260.00	0.00
	13304.000	847.78	0.10	847.99	112.53	210.47	1008 43	521.10	0.04	200.45	224.00	260.00	312.98
	13350.000	848.57	0.00	848.67	333.26	246.81	859.90	633.29	0.00	0.00	224.00	260.00	0.00
	13350.000	848.67	0.10	848.78	256.49	228.99	875.54	635.46	0.04	197.13	224.00	260.00	453.61
	13400.000	848.64	0.00	848 71	333.82	327 05	561.96	850.99	0.00	0.00	224.00	260.00	0.00
	13400 000	848.75	0.10	848.81	261.82	298.30	575.51	866.19	0.04	198.33	224.00	260.00	460.16
	14740 000	849.23	0.00	849 25	300.00	538.73	167.79	1033.48	300.00	349.00	490.00	508.00	649.00
	14740 000	849.35	0.13	849.39	269.00	447.30	179.15	1113.56	269.00	380.00	490.00	508.00	649.00
	14790.000	849.22	0.00	849.32	275.95	511.33	559.88	668.79	0.00	0.00	485.00	515.00	0.00
	14790.000	849.35	0.13	849 46	202.48	505.54	573.59	660 87	0.05	377.96	485.00	515.00	580.45
*	14890.000	849.74	0.00	849.75	450.00	1308.06	164.76	267.18	450.00	100.00	490.00	508.00	550.00
*	14890.000	849 60	-0.13	849.79	88 00	1233 36	506.64	0.00	88.00	420.00	490.00	508.00	508.00
	15060.000	849.76	0.00	849.77	445.00	628.00	150.44	961.55	0.00	0.00	490.00	508.00	0.00
	15060.000	849.84	0.08	849.85	430.21	621.95	154.21	963.84	0.03	307.20	490.00	508.00	737.42
	15290.000	849.79	0.00	849.80	561.94	699.78	234.90	805.33	0.00	0.00	490.00	520.00	0.00
	15290.000	849.86	0.08	849.87	501.04	696 96	240.90	802.14	0.03	226.51	490.00	520.00	727.55
	15790 000	849.85	0.00	849.86	585.40	770.84	259.00	710.15	0.00	0 00	485.00	513.00	0.00
	15790.000	849.93	0.08	849.94	475.33	771.00	266.71	702.28	0.04	233.03	485.00	513.00	708.36
	16290 000	849.94	0.00	849.98	482.33	902.44	345.02	492.54	0.00	0.00	295.00	314.00	0.00
	16290 000	850.02	0.08	850.07	408 13	909.53	354.98	475.49	0.05	23.36	295.00	314.00	431.49
	16680 000	850 22	0.00	850.28	489.37	585.17	389.97	764.86	0.00	0.00	490.00	508.00	0.00
	16680.000	850 30	0.08	850.37	371.91	579 33	400.98	759.69	0.06	289.54	490.00	508.00	661.45
	16975.000	850 46	0.00	850.57	468.71	408 96	903.14	427.90	468.71	225.00	470.00	515.00	693.71
	16975.000	850.54	0.08	850.66	355.62	398.10	931.67	410.23	0.06	277.39	470.00	515.00	633.01

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
17286.000	850.74	0.00	850 81	452.48	900.35	629.27	210.38	0.00	0.00	485.00	520.00	0.00
17286.000	850.83	0.09	850.90	344.54	909 02	649.79	181.19	0.06	244.28	485.00	520.00	588.82
17657.000	851.02	0.00	851.11	522.93	889.41	681.49	169.10	0.00	0.00	475.00	511.00	0.00
17657.000	851.12	0.10	851.21	412.70	910.44	703.05	126.50	0.06	131.51	475.00	511.00	544.21
17980.000	851.30	0.00	851.46	389.78	639.99	564.50	535.51	0.00	0.00	492.00	509.00	0.00
17980.000	851.39	0.09	851.56	208.07	637.44	578.14	524 42	0.05	377.98	492.00	509.00	586.05
18240.000	851 77	0.00	851.89	290.00	215.08	466.83	308.09	0.00	0.00	490.00	509.00	0.00
18240.000	851.87	0.10	852.00	186 82	208 64	478.72	302.64	0.06	411.01	490.00	509.00	597.84
18690.000	852.20	0.00	852.24	382.00	560.48	234.87	194.65	383.00	308.00	491.00	508.00	691.00
18690.000	852.31	0.11	852.35	257.21	576.35	241.44	172.21	0.08	325.79	491.00	508.00	583.00
18900.000	852.36	0.00	852.50	278.00	369.95	415.31	204.74	278.00	109.00	239.00	257.00	387.00
18900.000	852.47	0.10	852.62	182.63	372.48	427.65	189.87	0.08	137.84	239.00	257.00	320.47
19114 000	852 76	0.00	853.33	179.77	203.57	673.76	112.67	0.00	0.00	249.00	267.00	0.00
19114.000	852.85	0.10	853.47	92.47	198.81	695.39	95.80	0.07	199.73	249.00	267.00	292.20
19264 000	853 45	0.00	853.93	106.00	198.73	650.84	140.43	106.00	205.00	249.00	267.00	311.00
19264.000	853.54	0.08	854.20	62.00	251.57	738.43	0.00	62.00	205.00	249.00	267.00	267.00
19314 000	853.61	0.00	854.40	83.38	161.92	754.06	74.02	0.00	0.00	250.00	266.00	0.00
19314.000	853.76	0.16	854.57	54.39	160 91	770.69	58.39	0.05	220.53	250.00	266.00	274.92
19706 000	856.02	0.00	857.25	30.47	0 92	987.20	1.88	0 00	0.00	250.00	266.00	0.00
19706.000	856.13	0.11	857.34	16.00	0.00	990.00	0.00	0.00	250.00	250.00	266.00	266.00
20099.000	857.85	0 00	858 76	20.94	7.62	967.17	15.20	0.00	0.00	250.00	266.80	0.00
20099.000	857.93	0.07	858.82	20.94	7.68	966 97	15.34	20.94	248.40	250.00	266.80	269.34
20150.000	858.02	0.00	858.95	16.80	0 00	990.00	0.00	0.00	0.00	250.00	266.80	0.00
20150.000	858 09	0.07	859.00	16.80	0.00	990.00	0.00	0.00	250.00	250.00	266.80	266 80
20357.000	861 77	0.00	861.82	403.19	438.57	472.73	78.70	0.00	0.00	250.00	266.90	0.00
20357.000	861.84	0.07	861.89	62.04	436.42	479.01	74.58	0.02	215.36	250.00	266.90	277.40
20408.000	861.78	0.00	861.83	408.62	438.74	472.39	78.87	0.00	0.00	250.00	266.90	0.00
20408 000	861.85	0.07	861.90	62.19	436.64	478.65	74.71	0.02	215.27	250.00	266.90	277.46
21300.000	861 88	0.00	861.90	217.25	242.63	669.78	77.59	241.00	100.00	190.00	250.00	341.00
21300.000	861.95	0.07	861.97	166.00	255 31	696.40	38 29	166.00	100.00	190.00	250.00	266.00
21375.000	861.88	0.00	861.95	204.76	17.67	936.26	36.07	0.00	0.00	150.00	181.20	0.00
21375 000	861.95	0.07	862 02	136.76	8.80	948.04	33.16	0.02	144.63	150.00	181.20	287.16
21420 000	862.06	0.00	862.13	219.73	20.07	920.33	49.60	0.00	0.00	150.00	181.20	0.00
21420 000	862.14	0.07	862.21	148.76	10.07	933.09	46.84	0.02	144.24	150.00	181.20	294.47

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
21471.000	862.13	0.00	862.14	271.11	350.79	522.17	117.05	387.00	27.00	190.00	250.00	414.00
21471 000	862.20	0.08	862.22	211.04	349.47	531.75	108.78	0.03	80.72	190.00	250.00	291.76
22000.000	862.16	0.00	862.17	272.13	351.53	520.76	117.72	0.00	0.00	190.00	250.00	0.00
22000.000	862 23	0.08	862.24	211.62	350.20	530.31	109.49	0.03	80.45	190.00	250.00	292.07
23000 000	862.20	0.00	862.20	144.00	83.16	281 40	55 44	144.00	148.00	190.00	250.00	292.00
23000.000	862.28	0.08	862.28	120.84	139.10	280.90	0.00	0.35	129.16	190.00	250.00	250.00
23186.000	862.20	0.00	862.23	51.00	133.15	174.15	112.70	51.00	216.00	233.00	250.00	267 00
23186.000	862.28	0.08	862.30	52.73	0 00	159.69	260.31	0.85	233.00	233.00	250.00	285.74
23216.000	862.20	0.00	862.25	36.69	0.00	420.00	0.00	0.00	0.00	299.00	335.80	0.00
23216.000	862.28	0.08	862.32	36.74	0.00	420.00	0 00	0.00	299.00	299.00	335.80	335.80
23300.000	862.35	0.00	862.40	36.77	0.00	420.00	0.00	36.80	299.00	299.00	335.80	335.80
23300.000	862 42	0.07	862.47	36.80	0.00	420.00	0.00	36.80	299.00	299.00	335.80	335.80
23350.000	862.41	0.00	862.41	133.00	208 85	71.72	139.43	133.00	175.00	233.00	250.00	308.00
23350.000	862 47	0.06	862 48	88.00	77.49	115.94	226.57	88.00	220.00	233.00	250.00	308.00
25000 000	862.48	0.00	862.49	320.18	52.06	67.56	300.38	0.00	0.00	230.00	250.00	0.00
25000.000	862.61	0.12	862.61	253.54	43.68	70.01	306.30	0.07	199.31	230.00	250.00	452.85
25333 000	862.53	0.00	862.55	263.70	19.96	106.53	293.51	0.00	0.00	230.00	250.00	0.00
25333.000	862.66	0.12	862 67	210.79	3.79	110.13	306.08	0.08	227.82	230.00	250.00	438.61
25666.000	862.72	0.00	862 82	225.98	4.46	224.70	190.85	0.00	0.00	230.00	250.00	0.00
25666.000	862.83	0.11	862.94	158.49	0.00	230.62	189.38	0.11	230.00	230.00	250.00	388.49
26000.000	863.60	0.00	863.71	199.84	9.09	254.34	156.57	0.00	0.00	230.00	253.00	0.00
26000.000	863.69	0.09	863.79	173.06	0.00	244.78	175 22	180.00	230.00	230.00	253.00	410.00
26490.000	865.02	0.00	865.17	195.02	13.53	297.82	108.65	0.00	0.00	230.00	250.00	0.00
26490.000	865.09	0 07	865.25	135.22	0.00	311.54	108.46	0.11	230.00	230.00	250.00	379.21
26980.000	866.39	0.00	866 53	196.69	10.87	317.03	92.11	0.00	0.00	228.00	250.00	0.00
26980.000	866 54	0.14	866.68	130.97	0.00	321.36	98.64	0.11	228.00	228.00	250.00	374.72
27472.000	867.80	0.00	868.05	36.60	6.82	405.81	7.37	41.00	218.00	228.00	250.00	259.00
27472.000	867.94	0.14	868.18	32.00	10.10	409.90	0.00	32.00	218.00	228.00	250.00	250.00
27522.000	867.91	0.00	868.59	16.00	0.00	420.00	0.00	0.00	0.00	300.00	316.00	0.00
27522.000	868.06	0.15	868.69	16.00	0.00	420.00	0.00	0.00	300.00	300.00	316.00	316.00
27523.000	867 94	0.00	868.61	16.00	0.00	420.00	0.00	0.00	0.00	300.00	316.00	0.00
27523.000	868 08	0.15	868.71	16.00	0.00	420.00	0.00	0.00	300.00	300.00	316.00	316.00
27539 000	868.42	0.00	868.96	16.00	0 00	420.00	0.00	0.00	0.00	300.00	316.00	0.00
27539.000	868.51	0.09	869.03	16.00	0.00	420.00	0.00	0.00	300.00	300.00	316.00	316.00

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
27540.000	868.44	0.00	868.97	16.00	0.00	420.00	0.00	0.00	0.00	300.00	316.00	0.00
27540.000	868.53	0.09	869.04	16.00	0.00	420.00	0.00	0.00	300.00	300.00	316.00	316.00
27600.000	869.16	0.00	869.21	128.96	86.10	257.55	76.35	136.00	171.00	228.00	250.00	307.00
27600.000	869.22	0.06	869.28	90.58	54.13	278.59	87.28	97.00	210.00	228.00	250.00	307.00
28140.000	869.68	0.00	869.93	40.18	1.09	408.96	9.95	0.00	0.00	225.00	250.00	0.00
28140.000	869.80	0.12	870.02	40.00	2.98	404.94	12.08	40.00	215.00	225.00	250.00	255.00
28680.000	871.77	0.00	871.99	120 93	6.26	392.85	20.89	0.00	0.00	225.00	250.00	0.00
28680.000	871.82	0.05	872.08	26.00	0.00	416.78	3.22	26.00	225.00	225.00	250.00	251.00
29225.000	873.70	0 00	873.87	159.86	11.35	341.77	66.88	0.00	0.00	227.00	252.00	0.00
29225.000	873.84	0.15	874.02	56.30	0.00	352.30	67.70	0.10	227.00	227.00	252.00	283.30
29765.000	875.68	0.00	875.88	98.43	0.00	332.54	87.46	0.00	0.00	225.00	250.00	0.00
29765.000	875.78	0.10	876.00	49.99	0.00	348.00	72.00	0.09	225.00	225.00	250.00	274.99
30305.000	877.93	0.00	878.11	105.36	0.00	320 79	99 20	0.00	0.00	225.00	250.00	0.00
30305.000	878.03	0.10	878 23	60.36	0.00	333.05	86.95	0.08	225.00	225.00	250.00	285.70
30850.000	879.92	0.00	880.12	85.64	0.00	383.13	36.87	0.00	0.00	218.00	250.00	0.00
30850.000	880 02	0.10	880 23	50.85	0.00	401.01	18.99	51.00	219.00	218.00	250.00	270.00
30901.000	880.11	0.00	880 36	126.32	0.00	379.26	40.74	0.00	0.00	250.00	266.00	0.00
30901 000	880.21	0.10	880.48	104.89	0.00	390.07	29.93	0.07	250.00	250.00	266.00	468.33
30917.000	880.33	0.00	880.48	148.99	0.00	322.01	97.99	0.00	0.00	250.00	266.00	0.00
30917.000	880.43	0.10	880.61	137.83	0 00	344.69	75.31	0.09	250.00	250.00	266.00	478.35
31000.000	880.62	0.00	880.70	150.00	4.68	315.70	99.62	150.00	159.00	218.00	250.00	309.00
31000 000	880.72	0.10	880.81	72.35	0.00	328.99	91.01	0.09	218.00	218.00	250.00	290.35
31200.000	880.91	0.00	881.04	50.00	1.47	397.30	21.23	50.00	209.00	218.00	250.00	259.00
31200.000	881.01	0.10	881.15	34.73	0.00	414.32	5.68	0.36	218.00	218.00	250.00	252.73
31278 000	881.14	0.00	881 58	11.40	0.00	420.00	0.00	11.40	250.00	250.00	261.40	261.40
31278.000	881.24	0.10	881.67	11.40	0.00	420.00	0.00	0.67	250.00	250.00	261.40	261.40
31300.000	881.89	0.00	881.92	93.47	119.17	129.46	171.37	109.00	201.00	250.00	261.40	310.00
31300.000	881.95	0.05	881.99	45.00	119.23	156.75	144.02	45.00	230.00	250.00	261.40	275.00
31340.000	881.89	0.00	881.93	91.00	30.82	294.27	94.91	91.00	189.00	218.00	250.00	280.00
31340 000	881.96	0.06	882.00	62 00	0.00	314.04	105.96	62.00	218.00	218.00	250.00	280.00
32000 000	882.27	0.00	882 30	254.82	42.68	244.24	133.07	0.00	0.00	218.00	250.00	0.00
32000.000	882.36	0 09	882.39	159.51	34.85	253.61	131.53	0.08	161.72	218.00	250.00	321.23
33000.000	882.43	0.00	882.43	500 00	304.75	55.87	59.38	0.00	0.00	225.00	250.00	0.00
33000.000	882.52	0.10	882.53	445.01	307.67	58.15	54.17	0.07	9.18	225.00	250.00	454.19

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
34500.000	882.64	0.00	882.73	248.95	250.80	169.20	0.00	0.00	0.00	225.00	250.00	0.00
34500.000	882 73	0 09	882.83	216 84	238 56	181.44	0.00	0.13	32.25	225.00	250.00	250.00
35520.000	884.75	0.00	884.77	250.40	309.30	110.70	0.00	0.00	0.00	225.00	250.00	0.00
35520.000	884 85	0.11	884.88	225.73	302.80	117.20	0.00	0.10	24.28	225.00	250.00	250.01
35571.000	884 80	0.00	884 82	318.10	312.99	107.01	0.00	0.00	0.00	293.00	321.00	0.00
35571.000	884.91	0.11	884.93	297.61	306 79	113.21	0.00	0.10	20.62	293.00	321.00	321.00
35611.000	886.50	0.00	886.50	320.08	357.56	62.44	0.00	0.00	0.00	293.00	321.00	0.00
35611.000	886 61	0.11	886.61	308.05	355.48	64.52	0.00	0.05	12.15	293.00	321.00	321.00
35662.000	886.50	0.00	886.51	422.00	240.58	60.64	48.78	422.00	27.00	225.00	250.00	449.00
35662.000	886.61	0.11	886.61	345.73	253.61	62.79	33.59	0.19	26.77	225.00	250.00	372.50
36108.000	886.55	0.00	886.58	254.74	227.38	122.48	0.13	0.00	0.00	225.00	250.00	0.00
36108.000	886.65	0.11	886.69	194.39	219.56	130.44	0.00	0.13	55.61	225.00	250.00	250.00
36256.000	886.75	0.00	886.93	249.84	124.91	225.09	0.00	0.00	0.00	225.00	250.00	0.00
36256.000	886.84	0.09	887.05	123.58	107 56	242.44	0.00	0.16	126.47	225.00	250.00	250.05
36404.000	887.53	0.00	887.70	245.10	111.01	238.55	0.44	0.00	0.00	225.00	250.00	0.00
36404.000	887.63	0.10	887.83	112.90	96.26	253.74	0.00	0.14	137.10	225.00	250.00	250.00
36554.000	888.24	0.00	888.42	359.96	99.28	247.72	3.00	0.00	0.00	225.00	250.00	0.00
36554.000	888.34	0.11	888.55	84.81	86.04	263.96	0.00	0.16	165.19	225.00	250.00	250.00
37000.000	890.13	0.00	890.27	357.82	84.32	218.42	47 26	0.00	0.00	225.00	248.00	0.00
37000.000	890 24	0 11	890.39	157 20	76.30	231.78	41.91	0.16	183.61	225.00	248.00	340.81
38000.000	894 41	0.00	894 62	142.23	97.38	226.80	25.81	0.00	0.00	225.00	245.00	0.00
38000 000	894 50	0.09	894.74	63.60	96.38	240.98	12 64	0.10	188.37	225.00	245.00	251.98
39000.000	899.19	0.00	899.33	147.44	153.23	180.28	16.48	0.00	0.00	225.00	244.00	0.00
39000.000	899 29	0.11	899.46	77.17	157 54	192.11	0.35	0.11	167.28	225.00	244.00	244.45
40000.000	903.39	0.00	903.50	151.41	188.24	132.28	29.48	0.00	0.00	225.00	244.00	0.00
40000.000	903.49	0 10	903.62	82 19	192.34	143.34	14.32	0.12	171.09	225.00	244.00	253.28

100 YEAR FLOODPLAIN

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
0.000	0.00	0.00	0.00	798.85	1740.00	808.02	0.00	808.67	44.84	6.47	268.74	259.85
0.000	0.00	0.00	0.00	798.85	1740.00	808.13	0.00	808.76	43.06	6.38	272.54	265.15
125.000	125.00	0.00	0.00	799.35	1740.00	808.59	0.00	809.23	43.85	6.42	270.83	262.76
125.000	125.00	0.00	0.00	799.35	1740.00	808.67	0.00	809.30	42.53	6.36	273.72	266.80
176.000	51.00	0.00	0.00	799.50	1740.00	808.83	0.00	809 45	42.46	6.35	273.90	267.04
176.000	51.00	0.00	0.00	799 50	1740.00	808.90	0.00	809 52	41.18	6.29	276.82	271.14
199.000	23.00	808 30	808.70	799.50	1740.00	808.91	0.00	809.67	117.70	7.00	248.65	160.38
199.000	23.00	999999 00	0.00	799.50	1740.00	808.99	0.00	809.59	39.94	6.22	279.78	275.31
250.000	51.00	0.00	0.00	799.70	1740.00	809.43	0.00	810.00	36.67	6.04	288.26	287.33
250.000	51.00	0.00	0.00	799.70	1740.00	809.19	0.00	809.79	40.04	6.22	279.55	274.99
850.000	600.00	0.00	0.00	802.00	1740.00	811.66	0.00	812.23	37.64	6.09	285.64	283.60
850.000	600 00	0.00	0.00	802.00	1740.00	811.57	0.00	812.16	38.83	6.16	282.56	279.23
1200.000	350.00	0.00	0.00	803.35	1740.00	812.93	0.00	813.52	38.69	6.15	282.92	279.74
1850.000	650.00	0.00	0 00	806.60	1740.00	814.90	0.00	815.05	14.71	4.04	771.31	453.74
1850.000	650.00	0.00	0.00	806.60	1740.00	814.96	0.00	815.15	16.89	4.36	636.91	423.36
2100.000	250.00	0.00	0.00	807.60	1740.00	815.31	0.00	815.55	24.94	4.97	605.89	348.39
2100 000	250.00	0.00	0.00	807.60	1740.00	815.42	0.00	815.67	24.49	4.98	562.22	351.61
2300 000	200.00	0.00	0.00	808.90	1740.00	815.83	0.00	816.34	53.43	6.69	423.11	238.05
2300 000	200.00	0.00	0.00	808.90	1740.00	815.91	0.00	816.46	53.80	6.78	379.95	237.22
2500.000	200.00	0.00	0.00	810.20	1740.00	816.93	0.00	817.54	64.93	7.21	384.47	215.93
2500.000	200 00	0.00	0.00	810.20	1740.00	817.02	0.00	817.67	65.22	7.30	344.22	215.45
2650.000	150.00	0.00	0.00	811.10	1740.00	817.89	0.00	818.50	62.97	7.33	357.29	219.28
2650.000	150.00	0.00	0.00	811.10	1740.00	817.99	0.00	818.63	62.94	7.41	339.65	219.32
2800.000	150 00	0.00	0.00	812.10	1740 00	818.84	0.00	819.47	65 60	7.44	351.21	214.82
2800.000	150.00	0.00	0.00	812.10	1740.00	818.94	0.00	819.60	65.50	7.51	334.41	214.99
3800.000	1000.00	0.00	0.00	816.20	1740.00	823.64	0.00	823.98	32.44	5.64	446.29	305.52
3800.000	1000.00	0.00	0.00	816.20	1740.00	823.73	0 00	824.08	32.11	5.66	429.28	307.09
4500 000	700.00	0.00	0.00	819.10	1740.00	826.19	0.00	826.63	43.66	6.31	397.34	263.32
4500.000	700 00	0.00	0 00	819.10	1740.00	826.26	0 00	826.72	43.84	6.36	377.90	262.78
5000.000	500.00	0.00	0.00	821.20	1740.00	827.97	0.00	828.15	21.87	4.41	555.77	372.09
5000.000	500.00	0.00	0.00	821.20	1740.00	828.03	0.00	828.21	20.82	4.33	564.78	381.33

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
6000.000	1000.00	0.00	0.00	825.30	1740.00	830.67	0.00	830.83	33.40	4.60	643.86	301.09
6000.000	1000.00	0.00	0.00	825.30	1740.00	830.73	0.00	830.90	36.28	4.72	582.67	288.89
6330.000	330.00	0.00	0.00	826.70	1740.00	832.08	0.00	832.47	68.03	6.42	398.87	210.95
6330.000	330.00	0.00	0.00	826.70	1740.00	832.19	0.00	832.57	64.42	6.32	399.16	216.79
6430.000	100.00	0.00	0.00	826.80	1740.00	832.55	0.00	833.11	64.11	7.25	334.78	217.32
6430.000	100.00	0.00	0.00	826.80	1740.00	832.64	0.00	833.16	59.70	7.07	343.23	225.19
6680.000	200.00	0.00	0.00	826.30	1740.00	833.92	0.00	834.74	62.27	7.85	263.03	220.50
6680.000	200.00	0.00	0.00	826.30	1740.00	834.00	0.00	834.94	67.47	8.23	241.52	211.84
6720.000	40.00	0.00	0.00	826.80	1740.00	834.21	0.00	835.43	85.21	8.86	196.29	188.49
6720.000	40.00	0.00	0.00	826.80	1740.00	834.31	0.00	835.50	90.72	8.74	199.10	182.69
6770.000	50.00	836.30	834.52	826.20	1740.00	835.12	0.00	836.01	47.26	7.58	229.65	253.12
6770.000	50.00	999999.00	0.00	826.20	1740.00	835.22	0.00	836.09	56.19	7.48	232.55	232.12
6776.000	6.00	0.00	0.00	826.60	1740.00	835.68	0.00	836.15	19.85	5.54	314.29	390.57
6776.000	6.00	0.00	0.00	826.60	1740.00	835.77	0.00	836.23	19.20	5.47	317.88	397.10
6790.000	14.00	0.00	0.00	826.60	1740.00	835.98	0.00	836.24	8.71	4.34	465.28	589.63
6790.000	14.00	0.00	0.00	826.60	1740.00	835.80	0.00	836.26	19.03	5.46	318.87	398.91
6820.000	30.00	0.00	0.00	826.90	1740.00	836.17	0.00	836.29	4.57	3.16	678.91	814.07
6820.000	30.00	0.00	0.00	826.90	1740.00	836.26	0.00	836.39	4.35	3.11	691.36	834.39
7220.000	400.00	0.00	0.00	828.70	1740.00	836.37	0.00	836.38	0.71	0.79	2646.97	2069.35
7220.000	400.00	0.00	0.00	828.70	1740.00	836.46	0.00	836.47	0.71	0.79	2549.57	2061.59
7470.000	250.00	0.00	0.00	829.20	1740.00	836.38	0.00	836.39	0.94	1.22	2104.55	1795.09
7470.000	250.00	0.00	0.00	829.20	1740.00	836.47	0.00	836.48	0.94	1.24	1980.01	1793.74
7730.000	260.00	0.00	0.00	828.70	1740.00	836.40	0.00	836.44	3.07	2.19	1266.68	993.11
7730.000	260.00	0.00	0.00	828.70	1740.00	836.49	0.00	836.53	3.11	2.23	1141.54	987.43
8045.000	315.00	0.00	0.00	830.60	1740.00	836.53	0.00	836.58	7.45	3.07	1343.80	637.48
8045.000	315.00	0.00	0.00	830.60	1740.00	836.62	0.00	836.67	7.51	3.12	1226.73	634.76
8385.000	340.00	0.00	0.00	831.00	1740.00	836.77	0.00	836.82	11.12	3.32	1122.84	521.88
8385.000	340.00	0.00	0.00	831.00	1740.00	836.86	0.00	836.92	11.17	3.37	1044.88	520.71
8725.000	340.00	0.00	0.00	831.40	1740.00	836.91	0.00	836.94	3.96	2.07	1381.97	874.64
8725.000	340.00	0.00	0.00	831.40	1740.00	837.00	0.00	837.04	3.95	2.10	1303.32	875.71
8970.000	245.00	0.00	0.00	831.60	1740.00	836.97	0.00	837.04	15.24	3.77	966.11	445.78
8970.000	245.00	0.00	0.00	831.60	1740.00	837.07	0.00	837.14	15.80	3.50	915.45	437.76
9120.000	150.00	0.00	0.00	831.90	1740.00	837.24	0.00	837.43	35.54	5.83	670.65	291.86
9120.000	150.00	0.00	0.00	831.90	1740.00	837.33	0.00	837.54	35.74	5.93	614.39	291.05

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
9500.000	380.00	0.00	0.00	832.60	1740.00	838.11	0.00	838.27	19.06	4.67	732.22	398.52
9500.000	380 00	0.00	0.00	832.60	1740.00	838.22	0.00	838.40	19.11	4.74	655.30	398.01
9970.000	470.00	0.00	0.00	833.30	1740.00	838.89	0.00	838.98	17.08	4.25	968.29	421.05
9970.000	470.00	0.00	0.00	833.30	1740.00	839.00	0.00	839.10	16.94	4.29	848.85	422.81
10325.000	355.00	0.00	0.00	834.00	1740.00	839.23	0.00	839.29	11.30	3.26	1255.91	517.63
10325.000	355.00	0.00	0.00	834.00	1740.00	839.35	0.00	839.41	11.22	3.30	1135.29	519.40
10510.000	185.00	0.00	0.00	835.50	1740.00	839.47	0.00	839.51	13.88	3.11	1298.67	466.97
10510.000	185.00	0.00	0.00	835.50	1740.00	839.58	0.00	839.63	13.50	3.13	1207.95	473.61
11115.000	605.00	0.00	0 00	836.00	1740 00	840.17	0.00	840.20	13.67	3.02	1294.53	470.59
11115.000	605 00	0.00	0.00	836.00	1740.00	840.28	0.00	840.32	13.47	3.05	1194.64	474.02
11550.000	435.00	0.00	0.00	837.00	1740.00	840.97	0.00	841.06	28.51	4.27	926.81	325.89
11550.000	435.00	0.00	0.00	837.00	1740.00	841.07	0.00	841.17	28.33	4.34	846.60	326.94
11625.000	75.00	0.00	0.00	837.20	1740.00	841.22	0.00	841.36	48.40	5.40	776.44	250.10
11625.000	75.00	0.00	0.00	837 20	1740.00	841.32	0.00	841.47	48.56	5.51	704.87	249.71
11700.000	75.00	0.00	0 00	837.30	1740.00	841.62	0.00	841.85	75.95	6.82	659.33	199.66
11700 000	75.00	0.00	0.00	837.30	1740.00	841.72	0.00	841.97	76.12	6.94	598.15	199.44
11775.000	75.00	0.00	0.00	837.40	1740.00	842.16	0.00	842.41	68.58	6.81	668.83	210.12
11775.000	75 00	0.00	0.00	837.40	1740.00	842.25	0.00	842.53	69.26	6.94	603.86	209.07
12000.000	225.00	0.00	0.00	837.90	1740.00	843.66	0.00	843.98	68.51	7.29	658.44	210.21
12000.000	225.00	0.00	0.00	837.90	1740.00	843.76	0.00	844.11	68.29	7.37	584.30	210.55
12900.000	900.00	0.00	0.00	839.50	1740.00	847.07	0.00	847.27	22.25	5.08	814.48	368.88
12900.000	900.00	0.00	0.00	839.50	1740.00	847.18	0.00	847.38	22.06	5.11	783.07	370.45
12950.000	50.00	0.00	0.00	838 60	1740.00	847.25	0 00	847.40	22.37	4.49	833.58	367.87
12950 000	50.00	0.00	0.00	838.60	1740.00	847.36	0.00	847.51	22.24	4.53	804.07	369.00
12951.000	1.00	845.00	844.40	838.60	1740.00	847.35	0.00	847.42	40.05	2.78	793.96	274.94
12951.000	1.00	845.00	844.40	838.60	1740.00	847.45	0.00	847.53	41.44	2.88	750.77	270.31
12963.000	12.00	845.00	844.40	838.60	1740.00	847.40	0.00	847.47	38.49	2.75	798.72	280.46
12963.000	12.00	845.00	844.40	838.60	1740.00	847.50	0.00	847.58	40.27	2.86	752.17	274.18
12964 000	1.00	0 00	0.00	838.60	1740.00	847.40	0.00	847.53	19.16	4.22	874.56	397.47
12964.000	1.00	0.00	0.00	838 60	1740 00	847.50	0.00	847.64	19.37	4.29	838.38	395.35
13014.000	50.00	0.00	0 00	839.50	1740.00	847.47	0.00	847.58	6.84	3.91	851.91	665.43
13014.000	50.00	0.00	0.00	839.50	1740.00	847.57	0.00	847.69	6.95	3.98	814.49	660.02
13253.000	239.00	0.00	0.00	840.70	1740.00	847.64	0.00	847.84	6.95	4.39	573.66	660.07
13253 000	239 00	0.00	0.00	840.70	1740.00	847.74	0.00	847.96	6.97	4.44	530.54	659.14

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	13304.000	51.00	0.00	0.00	840.70	1740.00	847.68	0.00	847.87	6.77	4.35	582.21	668.97
	13304.000	51.00	0.00	0.00	840.70	1740 00	847.78	0.00	847.99	6.79	4.40	535.43	667.90
	13350.000	46.00	847.47	847.40	840.70	1740.00	848.57	0.00	848.67	3.33	3.34	854.86	953.43
	13350.000	46.00	999999.00	0.00	840.70	1740.00	848.67	0.00	848.78	3.29	3.35	809.67	959.27
	13400.000	50.00	0.00	0.00	840.70	1740.00	848.64	0.00	848.71	5.50	2.16	879.53	742.06
	13400.000	50.00	0.00	0.00	840.70	1740.00	848.75	0.00	848.81	5.51	2.18	834.13	741.57
	14740 000	1340.00	0.00	0.00	841.70	1740 00	849.23	0.00	849.25	3.05	1.41	1395.14	996.27
	14740.000	1340.00	0.00	0.00	841 70	1740.00	849.35	0.00	849.39	3.28	1.47	1295.65	960 27
	14790.000	50.00	0.00	0.00	841.50	1740.00	849.22	0.00	849.32	16.32	3.10	771.93	430.67
	14790.000	50.00	0.00	0.00	841.50	1740.00	849.35	0.00	849.46	15.98	3.11	718.05	435.29
*	14890.000	100.00	849.20	848.37	841.90	1740.00	849.74	0.00	849.75	1 98	1.22	2011.29	1237.14
*	14890.000	100.00	849.20	848.37	841.90	1740.00	849.60	0.00	849.79	27.24	3.81	509.86	333.38
	15060.000	170.00	0.00	0.00	841 70	1740.00	849.76	0.00	849.77	1.07	1.17	2272.77	1684.31
	15060.000	170.00	0.00	0 00	841.70	1740.00	849.84	0.00	849.85	1.09	1.18	2231.22	1670.24
	15290.000	230.00	0.00	0.00	842.00	1740.00	849.79	0.00	849.80	1.13	1.17	2363.04	1636.63
	15290.000	230.00	0.00	0.00	842.00	1740.00	849.86	0.00	849.87	1.15	1.19	2283.35	1622.65
	15790.000	500.00	0.00	0.00	842.00	1740.00	849.85	0.00	849.86	1.33	1.33	2232.27	1506.06
	15790.000	500.00	0.00	0.00	842.00	1740.00	849 93	0.00	849.94	1.36	1.36	2119.28	1491.43
	16290.000	500.00	0.00	0.00	842.30	1740.00	849.94	0.00	849.98	6.12	2.58	1294.85	703.11
	16290 000	500.00	0.00	0.00	842.30	1740.00	850.02	0.00	850.07	6.25	2.62	1231.03	696.24
	16680.000	390.00	0.00	0.00	842.60	1740.00	850.22	0.00	850.28	10.52	3.15	1067.65	536.40
	16680.000	390.00	0.00	0.00	842.60	1740.00	850.30	0.00	850.37	10.66	3.20	987.48	532.82
	16975.000	295.00	0.00	0.00	843.20	1740.00	850.46	0.00	850.57	11.26	3.49	941.24	518.52
	16975.000	295.00	0 00	0.00	843.20	1740.00	850.54	0.00	850.66	11.37	3.54	867.71	516 12
	17286.000	311 00	0.00	0.00	843.20	1740.00	850.74	0.00	850.81	8.08	3.01	1050.15	612.12
	17286.000	311 00	0.00	0.00	843.20	1740.00	850.83	0.00	850.90	8.16	3.05	976.35	609.25
	17657.000	371.00	0.00	0.00	843.60	1740.00	851.02	0.00	851.11	11.23	3.37	1047.04	519.16
	17657.000	371 00	0.00	0.00	843.60	1740 00	851.12	0.00	851.21	11.29	3.42	975.63	517.75
	17980.000	323.00	0.00	0.00	843.90	1740.00	851.30	0.00	851.46	18.40	4.73	706.81	405.60
	17980 000	323.00	0 00	0.00	843.90	1740.00	851.39	0.00	851.56	18.48	4.78	635.95	404.80
	18240.000	260.00	0.00	0.00	844.00	990.00	851 77	0.00	851.89	15.20	3.89	491.37	253.89
	18240.000	260.00	0.00	0.00	844.00	990.00	851.87	0 00	852.00	15.16	3.92	444.68	254.25
	18690.000	450.00	0.00	0.00	846.00	990.00	852.20	0.00	852.24	6.02	2.40	795.37	403.58
	18690.000	450.00	0.00	0.00	846.00	990.00	852.31	0.00	852.35	5.98	2.42	725.57	404.95

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
18900.000	210.00	0.00	0.00	846.60	990.00	852.36	0.00	852.50	13.46	4.25	475.54	269.82
18900.000	210.00	0.00	0.00	846.60	990.00	852.47	0.00	852.62	13.40	4.29	422.60	270.49
19114.000	214.00	0.00	0.00	847.17	990.00	852.76	0.00	853.33	44.49	7.22	240.34	148.43
19114.000	214.00	0.00	0.00	847.17	990.00	852.85	0.00	853.47	44.58	7.32	208.40	148.27
19264.000	150.00	0.00	0.00	847.57	990.00	853.45	0.00	853.93	34.55	6.60	239.88	168.43
19264.000	150.00	0.00	0.00	847.57	990.00	853.54	0.00	854.20	47.72	7.38	182.44	143.31
19314.000	50.00	0.00	0.00	847.70	990.00	853.61	0.00	854.40	56.84	8.05	179.88	131.31
19314.000	50.00	0.00	0.00	847.70	990.00	853.76	0.00	854.57	54.39	8.01	166.67	134.24
19706.000	392.00	0.00	0.00	848.90	990.00	856.02	0.00	857.25	72.32	8.91	113.96	116.41
19706.000	392.00	0.00	0.00	848.90	990.00	856.13	0.00	857.34	72.62	8.80	112.55	116.18
20099.000	393.00	0.00	0.00	850.00	990.00	857.85	0.00	858.76	22.99	7.73	140.80	206.47
20099.000	393.00	0.00	0.00	850.00	990.00	857.93	0.00	858.82	22.25	7.66	142.33	209.90
20150.000	51.00	0.00	0.00	850.00	990.00	858.02	0.00	858.95	53.52	7.74	127.93	135.33
20150.000	51.00	0.00	0.00	850.00	990.00	858.09	0.00	859.00	52.25	7.67	129.07	136.96
20357.000	207.00	861.50	855.30	847.70	990.00	861.77	0.00	861.82	1.37	2.34	682.50	846.69
20357.000	207.00	999999.00	0.00	847.70	990.00	861.84	0.00	861.89	1.38	2.36	603.51	843.49
20408.000	51.00	0.00	0.00	847.70	990.00	861.78	0.00	861.83	1.36	2.33	685.44	848.16
20408.000	51.00	0.00	0.00	847.70	990.00	861.85	0.00	861.90	1.37	2.35	604.53	844.92
21300.000	892.00	0.00	0.00	851.20	990.00	861.88	0.00	861.90	0.45	1.23	1159.72	1467.96
21300.000	892.00	0.00	0.00	851.20	990.00	861.95	0.00	861.97	0.48	1.26	1070.55	1432.86
21375.000	75.00	0.00	0.00	844.90	990.00	861.88	0.00	861.95	1.96	2.19	565.33	707.04
21375.000	75.00	0.00	0.00	844.90	990.00	861.95	0.00	862.02	1.98	2.20	529.91	704.00
21420.000	45.00	859.00	857.50	844.90	990.00	862.06	0.00	862.13	1.82	2.12	604.27	733.88
21420.000	45.00	999999.00	0.00	844.90	990.00	862.14	0.00	862.21	1.84	2.14	564.21	729.65
21471.000	51.00	0.00	0.00	851.20	990.00	862.13	0.00	862.14	0.52	0.93	1334.67	1378.92
21471.000	51.00	0.00	0.00	851.20	990.00	862.20	0.00	862.22	0.52	0.94	1283.18	1372.27
22000.000	529.00	0.00	0.00	851.20	990.00	862.16	0.00	862.17	0.51	0.92	1342.06	1389.35
22000.000	529.00	0.00	0.00	851.20	990.00	862.23	0.00	862.24	0.51	0.93	1290.26	1382.44
23000.000	1000.00	0.00	0.00	851.20	420.00	862.20	0.00	862.20	0.21	0.50	916.72	917.27
23000.000	1000.00	0.00	0.00	851.20	420.00	862.28	0.00	862.28	0.23	0.49	862.25	877.03
23186.000	186.00	0.00	0.00	853.50	420.00	862.20	0.00	862.23	2.29	1.37	308.69	277.71
23186.000	186.00	0.00	0.00	853.50	420.00	862.28	0.00	862.30	2.69	1.24	316.90	256.20
23216.000	30.00	0.00	0.00	853.50	420.00	862.20	0.00	862.25	5.75	1.75	239.90	175.20
23216.000	30.00	0.00	0.00	853.50	420.00	862.28	0.00	862.32	5.54	1.73	242.94	178.48

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
23300.000	84.00	862.30	860.50	853.50	420.00	862.35	0.00	862.40	5.37	1.71	245.52	181.29
23300.000	84.00	862.30	860.50	853.50	420.00	862.42	0.00	862.47	5.21	1.69	248.02	184.01
23350.000	50.00	0.00	0.00	853.50	420.00	862.41	0.00	862.41	0.25	0.55	747.23	846.94
23350.000	50.00	0.00	0.00	853.50	420.00	862.47	0.00	862.48	0.63	0.88	526.71	531.14
25000.000	1650.00	0.00	0.00	856.80	420.00	862.48	0.00	862.49	1.03	0.78	716.34	414.42
25000.000	1650.00	0.00	0.00	856.80	420.00	862.61	0.00	862.61	1.01	0.78	683.81	417.85
25333.000	333.00	0.00	0.00	857.40	420.00	862.53	0.00	862.55	3.48	1.34	467.61	225.11
25333.000	333.00	0.00	0.00	857.40	420.00	862.66	0.00	862.67	3.34	1.34	449.81	229.84
25666.000	333.00	0.00	0.00	858.10	420.00	862.72	0.00	862.82	24.95	3.22	218.41	84.09
25666.000	333.00	0.00	0.00	858.10	420.00	862.83	0.00	862.94	24.83	3.20	200.57	84.29
26000.000	334.00	0.00	0.00	858.70	420.00	863.60	0.00	863.71	28.57	3.14	186.48	78.58
26000.000	334.00	0.00	0.00	858.70	420.00	863.69	0.00	863.79	26.09	2.96	188.89	82.23
26490.000	490.00	0.00	0.00	859.70	420.00	865.02	0.00	865.17	30.29	3.59	169.70	76.31
26490.000	490.00	0.00	0.00	859.70	420.00	865.09	0.00	865.25	33.69	3.68	151.30	72.36
26980.000	490.00	0.00	0.00	860.70	420.00	866.39	0.00	866.53	25.79	3.38	175.56	82.71
26980.000	490.00	0.00	0.00	860.70	420.00	866.54	0.00	866.68	25.12	3.31	165.11	83.79
27472.000	492.00	0.00	0.00	861.70	420.00	867.80	0.00	868.05	34.59	4.04	109.25	71.41
27472.000	492.00	0.00	0.00	861.70	420.00	867.94	0.00	868.18	35.18	3.96	109.70	70.81
27522.000	50.00	0.00	0.00	863.20	420.00	867.91	0.00	868.59	162.59	6.63	63.34	32.94
27522.000	50.00	0.00	0.00	863.20	420.00	868.06	0.00	868.69	145.76	6.38	65.79	34.79
27523.000	1.00	870.60	869.60	863.20	420.00	867.94	0.00	868.61	222.27	6.60	63.61	28.17
27523.000	1.00	870.60	869.60	863.20	420.00	868.08	0.00	868.71	201.45	6.36	66.03	29.59
27539.000	16.00	870.60	869.60	863.20	420.00	868.42	0.00	868.96	163.07	5.87	71.61	32.89
27539.000	16.00	870.60	869.60	863.20	420.00	868.51	0.00	869.03	155.00	5.75	73.03	33.74
27540.000	1.00	0.00	0.00	863.20	420.00	868.44	0.00	868.97	113.09	5.84	71.89	39.49
27540.000	1.00	0.00	0.00	863.20	420.00	868.53	0.00	869.04	107.34	5.74	73.22	40.54
27600.000	60.00	0.00	0.00	861.70	420.00	869.16	0.00	869.21	5.85	1.97	251.40	173.67
27600.000	60.00	0.00	0.00	861.70	420.00	869.22	0.00	869.28	6.63	2.12	222.74	163.11
28140.000	540.00	0.00	0.00	863.70	420.00	869.68	0.00	869.93	39.43	4.04	106.65	66.89
28140.000	540.00	0.00	0.00	863.70	420.00	869.80	0.00	870.02	35.00	3.88	111.53	70.99
28680.000	540.00	0.00	0.00	865.80	420.00	871.77	0.00	871.99	36.87	3.90	119.94	69.17
28680.000	540.00	0.00	0.00	865.80	420.00	871.82	0.00	872.08	41.08	4.10	103.17	65.53
29225.000	545.00	0.00	0.00	868.00	420.00	873.70	0.00	873.87	32.01	3.55	141.42	74.24
29225.000	545.00	0.00	0.00	868.00	420.00	873.84	0.00	874.02	30.95	3.53	126.92	75.49

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
29765.000	540 00	0.00	0 00	870.30	420.00	875.68	0.00	875.88	43.79	3.85	122.43	63.47
29765.000	540.00	0.00	0.00	870.30	420.00	875.78	0.00	876.00	43.62	3.91	112.40	63.59
30305.000	540 00	0.00	0.00	872.40	420.00	877.93	0.00	878.11	38.88	3.67	130.87	67.35
30305.000	540.00	0.00	0.00	872.40	420.00	878.03	0.00	878.23	38.84	3.72	120.85	67.39
30850.000	545.00	0.00	0.00	874.50	420.00	879.92	0.00	880.12	34.46	3.74	128.84	71.55
30850.000	545.00	0.00	0.00	874.50	420.00	880.02	0.00	880.23	34.61	3.80	117.87	71.39
30901.000	51.00	0.00	0.00	873.70	420.00	880.11	0.00	880.36	42 38	4.24	122.85	64.52
30901.000	51.00	0.00	0.00	873 70	420.00	880.21	0.00	880.48	42.61	4.28	116.98	64.34
30917.000	16.00	879.50	880.70	873.70	420.00	880.33	0.00	880.48	43.75	3.46	154.06	63.50
30917.000	16.00	999999.00	0.00	873.70	420.00	880.43	0.00	880.61	29.82	3.64	151.41	76.91
31000.000	83.00	0.00	0.00	874.50	420.00	880.62	0.00	880.70	13.04	2.54	202.52	116.30
31000.000	83.00	0.00	0.00	874.50	420.00	880.72	0.00	880.81	13.06	2.58	183.38	116.20
31200.000	200.00	0.00	0.00	874.50	420.00	880.91	0.00	881.04	16.26	2.97	149.02	104.16
31200.000	200.00	0.00	0.00	874.50	420.00	881.01	0.00	881.15	16.55	3.02	140.96	103.24
31278 000	78.00	0.00	0 00	873.60	420.00	881.14	0.00	881.58	68.61	5.35	78.45	50.70
31278.000	78.00	0.00	0.00	873.60	420.00	881.24	0.00	881.67	66.00	5.27	79.65	51.70
31300.000	22.00	881.70	880.80	873.60	420.00	881.89	0.00	881.92	1.76	1.49	371.72	316.70
31300.000	22.00	881.70	880.80	873.60	420.00	881.95	0.00	881.99	2.52	1.79	273.50	264.55
31340.000	40.00	0.00	0.00	874.50	420.00	881.89	0.00	881.93	5.32	1.78	280.92	182.03
31340.000	40.00	0.00	0.00	874.50	420.00	881.96	0.00	882.00	6.14	1.88	246.32	169.56
32000.000	660.00	0.00	0.00	875.50	420.00	882.27	0.00	882.30	5.65	1.68	361.56	176.74
32000.000	660.00	0.00	0.00	875.50	420.00	882.36	0.00	882.39	5.68	1.71	326.06	176.19
33000.000	1000.00	0.00	0.00	877.00	420.00	882.43	0.00	882.43	0.56	0.52	1035.25	561.64
33000.000	1000.00	0 00	0.00	877.00	420.00	882.52	0.00	882.53	0.56	0.53	997.28	561.01
34500.000	1500.00	0.00	0.00	879.50	420.00	882.64	0.00	882.73	56.71	3.28	207.26	55.77
34500.000	1500 00	0.00	0.00	879.50	420.00	882.73	0.00	882.83	57.50	3.38	196.08	55.39
35520 000	1020.00	0.00	0.00	880.90	420.00	884.75	0.00	884 77	10.03	1.62	379.91	132.63
35520.000	1020.00	0.00	0.00	880.90	420.00	884.85	0 00	884.88	10.00	1.64	365.04	132.79
35571.000	51 00	0.00	0.00	880.20	420.00	884.80	0.00	884.82	10.27	1.55	398.42	131.07
35571 000	51.00	0.00	0.00	880.20	420.00	884 91	0.00	884.93	10.29	1.58	390.58	130.93
35611.000	40.00	886.00	884.20	880.20	420.00	886.50	0.00	886.50	0.75	0.55	941.63	485.09
35611.000	40.00	999999.00	0.00	880 20	420.00	886.61	0.00	886.61	0.74	0.55	931.20	487.50
35662.000	51.00	0 00	0.00	880.90	350.00	886.50	0.00	886.51	0.38	0.54	965.29	564.54
35662.000	51 00	0.00	0.00	880.90	350.00	886.61	0.00	886.61	0.38	0.54	909.65	566.76

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
36108.000	446.00	0.00	0.00	882.80	350.00	886.55	0.00	886.58	10.83	1.95	291.51	106.33
36108.000	446.00	0.00	0.00	882.80	350.00	886.65	0.00	886.69	10.77	1.99	266.16	106.64
36256.000	148.00	0.00	0.00	883.40	350.00	886.75	0.00	886.93	56.87	4.11	147.52	46.41
36256.000	148.00	0.00	0.00	883.40	350.00	886.84	0.00	887.05	57.68	4.24	120.97	46.08
36404.000	148.00	0.00	0.00	884.00	350.00	887.53	0.00	887.70	48.00	3.99	148.46	50.52
36404.000	148.00	0.00	0.00	884.00	350.00	887.63	0.00	887.83	48.41	4.08	122.20	50.31
36554.000	150.00	0.00	0.00	884.60	350.00	888.24	0.00	888.42	47.43	4.04	144.64	50.82
36554.000	150.00	0.00	0.00	884.60	350.00	888.34	0.00	888.55	47.57	4.12	112.14	50.75
37000.000	446.00	0.00	0.00	886.50	350.00	890.13	0.00	890.27	36.31	3.67	182.14	58.08
37000.000	446.00	0.00	0.00	886.50	350.00	890.24	0.00	890.39	35.94	3.74	145.12	58.38
38000.000	1000.00	0.00	0.00	891.00	350.00	894.41	0.00	894.62	52.35	4.38	122.96	48.37
38000.000	1000.00	0.00	0.00	891.00	350.00	894.50	0.00	894.74	52.97	4.50	101.54	48.09
39000.000	1000.00	0.00	0.00	896.00	350.00	899.19	0.00	899.33	42.61	3.85	141.57	53.62
39000.000	1000.00	0.00	0.00	896.00	350.00	899.29	0.00	899.46	42.14	3.93	120.76	53.92
40000.000	1000.00	0.00	0.00	900.70	350.00	903.39	0.00	903.50	40.67	3.38	149.77	54.88
40000.000	1000.00	0.00	0.00	900.70	350.00	903.49	0.00	903.62	41.01	3.50	127.52	54.65

100 YEAR FLOODPLAIN

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
0.000	1740.00	808.02	0.00	0.00	0.00	34.55	0.00
0.000	1740.00	808.13	0.11	0.00	0.11	34.58	0.00
125.000	1740.00	808.59	0.00	0.57	0.00	34.56	125.00
125.000	1740.00	808.67	0.08	0.54	0.08	34.58	125.00
176.000	1740.00	808.83	0.00	0.24	0.00	34.59	51.00
176.000	1740.00	808.90	0.08	0.23	0.08	34.61	51.00
199.000	1740.00	808.91	0.00	0.09	0.00	34.61	23.00
199.000	1740.00	808.99	0.08	0.09	0.08	34.63	23.00
250.000	1740.00	809.43	0.00	0.52	0.00	34.69	51.00
250.000	1740.00	809.19	-0.24	0.20	-0.24	34.63	51.00
850.000	1740.00	811.66	0.00	2.22	0.00	34.67	600.00
850.000	1740.00	811.57	-0.08	2.38	-0.08	34.65	600.00
1200.000	1740.00	812.98	0.00	1.32	0.00	34.67	350.00
1200.000	1740.00	812.93	-0.05	1.36	-0.05	34.65	350.00
1850.000	1740.00	814.90	0.00	1.93	0.00	300.15	650.00
1850.000	1740.00	814.96	0.05	2.03	0.05	165.00	650.00
2100.000	1740.00	815.31	0.00	0.40	0.00	260.63	250.00
2100.000	1740.00	815.42	0.11	0.46	0.11	174.12	250.00
2300.000	1740.00	815.83	0.00	0.52	0.00	208.42	200.00
2300.000	1740.00	815.91	0.09	0.50	0.09	128.60	200.00
2500.000	1740.00	816.93	0.00	1.10	0.00	195.84	200.00
2500.000	1740.00	817.02	0.09	1.11	0.09	119.17	200.00
2650.000	1740.00	817.89	0.00	0.96	0.00	130.75	150.00
2650.000	1740.00	817.99	0.10	0.97	0.10	101.75	150.00
2800.000	1740.00	818.84	0.00	0.95	0.00	130.07	150.00
2800.000	1740.00	818.94	0.10	0.95	0.10	101.59	150.00
3800.000	1740.00	823.64	0.00	4.80	0.00	140.33	1000.00
3800.000	1740.00	823.73	0.09	4.79	0.09	113.12	1000.00
4500.000	1740.00	826.19	0.00	2.55	0.00	135.14	700.00
4500.000	1740.00	826.26	0.07	2.54	0.07	107.65	700.00
5000.000	1740.00	827.97	0.00	1.78	0.00	141.20	500.00
5000.000	1740.00	828.03	0.06	1.77	0.06	141.29	500.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
6000 000	1740. 00	830. 67	0. 00	2. 71	0. 00	313. 28	1000. 00
6000. 000	1740. 00	830. 73	0. 05	2. 70	0. 05	233. 00	1000. 00
6330. 000	1740. 00	832. 08	0. 00	1. 41	0. 00	150. 00	330. 00
6330. 000	1740. 00	832. 19	0. 11	1. 46	0. 11	143. 00	330. 00
6430. 000	1740. 00	832. 55	0. 00	0. 47	0. 00	100. 77	100. 00
6430. 000	1740. 00	832. 64	0. 08	0. 45	0. 08	101. 18	100. 00
6680. 000	1740. 00	833. 92	0. 00	1. 36	0. 00	49. 00	200. 00
6680. 000	1740. 00	834. 00	0. 08	1. 36	0. 08	41. 00	200. 00
6720. 000	1740. 00	834. 21	0. 00	0. 29	0. 00	29. 00	40 00
6720. 000	1740 00	834. 31	0. 10	0. 31	0. 10	29. 00	40. 00
6770. 000	1740. 00	835. 12	0. 00	0. 91	0. 00	28. 00	50. 00
6770. 000	1740. 00	835. 22	0. 10	0. 91	0. 10	28. 00	50. 00
6776. 000	1740. 00	835. 68	0. 00	0. 56	0. 00	40. 00	6. 00
6776. 000	1740. 00	835. 77	0. 09	0. 54	0. 09	40. 00	6. 00
6790. 000	1740. 00	835. 98	0. 00	0. 31	0. 00	68. 00	14. 00
6790. 000	1740. 00	835. 80	-0. 19	0. 03	-0. 19	40. 00	14. 00
6820. 000	1740. 00	836. 17	0. 00	0. 18	0. 00	128. 00	30. 00
6820. 000	1740. 00	836. 26	0. 10	0. 47	0. 10	128. 00	30. 00
7220. 000	1740. 00	836. 37	0. 00	0. 20	0. 00	669. 43	400. 00
7220. 000	1740. 00	836. 46	0. 09	0. 20	0. 09	590. 79	400. 00
7470. 000	1740. 00	836. 38	0. 00	0. 01	0. 00	643. 00	250. 00
7470. 000	1740 00	836. 47	0. 09	0. 01	0. 09	492. 48	250. 00
7730 000	1740. 00	836. 40	0. 00	0. 02	0. 00	519. 99	260. 00
7730 000	1740. 00	836. 49	0 09	0. 02	0. 09	337 73	260. 00
8045. 000	1740. 00	836. 53	0. 00	0. 13	0. 00	578. 20	315. 00
8045. 000	1740. 00	836. 62	0. 09	0. 13	0. 09	427. 54	315. 00
8385. 000	1740. 00	836. 77	0. 00	0. 24	0. 00	458. 09	340. 00
8385. 000	1740. 00	836 86	0. 09	0. 24	0. 09	341. 36	340. 00
8725. 000	1740. 00	836. 91	0. 00	0. 14	0. 00	393. 78	340. 00
8725. 000	1740. 00	837 00	0. 09	0 14	0. 09	314. 52	340. 00
8970. 000	1740. 00	836. 97	0. 00	0 06	0. 00	363. 52	245. 00
8970 000	1740. 00	837. 07	0. 10	0. 07	0. 10	292. 64	245. 00
9120 000	1740. 00	837. 24	0. 00	0. 27	0. 00	328. 05	150. 00
9120. 000	1740. 00	837. 33	0. 10	0. 27	0. 10	233. 07	150. 00

SECND	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
9500.000	1740.00	838.11	0.00	0.88	0.00	331 92	380.00
9500.000	1740.00	838.22	0.11	0.89	0.11	211.91	380.00
9970.000	1740.00	838.89	0.00	0.78	0 00	559 37	470.00
9970.000	1740.00	839.00	0.11	0.78	0.11	305.29	470.00
10325.000	1740.00	839.23	0.00	0.34	0.00	751.42	355.00
10325.000	1740.00	839.35	0.12	0.35	0.12	508.24	355.00
10510.000	1740.00	839.47	0.00	0.23	0.00	766.71	185.00
10510.000	1740.00	839.58	0.12	0.24	0.12	573.50	185.00
11115.000	1740.00	840.17	0.00	0.70	0.00	680.00	605.00
11115.000	1740.00	840.28	0.11	0.70	0.11	517.02	605.00
11550.000	1740.00	840.97	0.00	0.81	0.00	558.64	435.00
11550.000	1740.00	841.07	0.10	0.79	0.10	413.11	435.00
11625.000	1740.00	841.22	0.00	0.25	0.00	540.24	75.00
11625.000	1740.00	841.32	0.10	0.25	0.10	397.55	75.00
11700.000	1740.00	841.62	0.00	0.40	0.00	527.66	75.00
11700.000	1740.00	841.72	0.09	0.40	0.09	386.33	75.00
11775.000	1740.00	842.16	0.00	0.53	0.00	527.70	75.00
11775.000	1740 00	842.25	0.10	0.53	0.10	382.12	75.00
12000.000	1740.00	843.66	0 00	1.51	0.00	539.46	225.00
12000.000	1740.00	843.76	0 10	1.51	0.10	367.65	225.00
12900.000	1740.00	847.07	0.00	3.41	0.00	407.00	900.00
12900.000	1740.00	847.18	0.10	3.42	0 10	365.87	900.00
12950.000	1740.00	847.25	0.00	0.18	0.00	382.00	50.00
12950.000	1740.00	847.36	0.10	0.18	0.10	346.80	50.00
12951.000	1740.00	847 35	0.00	0.09	0.00	381.00	1.00
12951.000	1740.00	847.45	0.10	0.09	0.10	337.00	1.00
12963.000	1740.00	847.40	0.00	0.05	0.00	375.00	12.00
12963.000	1740.00	847.50	0.10	0.05	0.10	331.00	12.00
12964.000	1740.00	847.40	0.00	0.00	0.00	375.00	1.00
12964.000	1740.00	847 50	0 10	0.00	0.10	340.00	1.00
13014.000	1740.00	847.47	0.00	0.07	0.00	350.00	50.00
13014.000	1740.00	847.57	0.10	0 07	0.10	317.00	50.00
13253.000	1740.00	847.64	0.00	0.16	0.00	240.62	239.00
13253.000	1740.00	847.74	0.11	0.17	0.11	112.35	239.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	13304.000	1740.00	847.68	0.00	0.04	0.00	245.38	51.00
	13304.000	1740.00	847 78	0 10	0.04	0.10	112.53	51.00
	13350.000	1740.00	848.57	0.00	0.89	0.00	333.26	46.00
	13350.000	1740.00	848.67	0.10	0.89	0.10	256.49	46.00
	13400.000	1740.00	848.64	0.00	0.07	0.00	333.82	50.00
	13400.000	1740.00	848.75	0.10	0.07	0.10	261.82	50.00
	14740.000	1740.00	849.23	0.00	0.58	0.00	300 00	1340.00
	14740.000	1740.00	849.35	0.13	0.61	0.13	269.00	1340.00
	14790.000	1740.00	849.22	0.00	-0.01	0.00	275.95	50.00
	14790.000	1740.00	849.35	0.13	-0.01	0.13	202.48	50.00
*	14890.000	1740.00	849.74	0.00	0.52	0.00	450.00	100.00
*	14890.000	1740.00	849.60	-0.13	0.26	-0.13	88.00	100.00
	15060.000	1740.00	849.76	0.00	0.02	0.00	445.00	170.00
	15060.000	1740 00	849.84	0.08	0.23	0.08	430 21	170.00
	15290.000	1740.00	849.79	0.00	0.03	0 00	561.94	230.00
	15290 000	1740.00	849.86	0.08	0.03	0.08	501.04	230.00
	15790 000	1740.00	849.85	0.00	0.06	0.00	585.40	500.00
	15790.000	1740.00	849.93	0 08	0.06	0.08	475.33	500.00
	16290.000	1740.00	849.94	0 00	0 10	0.00	482.33	500.00
	16290 000	1740.00	850.02	0.08	0.10	0.08	408.13	500.00
	16680.000	1740.00	850.22	0.00	0.27	0.00	489.37	390.00
	16680.000	1740.00	850.30	0 08	0.28	0.08	371.91	390 00
	16975 000	1740.00	850.46	0.00	0.24	0.00	468.71	295.00
	16975.000	1740 00	850.54	0.08	0.24	0.08	355 62	295.00
	17286.000	1740.00	850.74	0 00	0.28	0.00	452.48	311.00
	17286.000	1740.00	850.83	0.09	0.29	0.09	344.54	311.00
	17657.000	1740.00	851.02	0.00	0.28	0.00	522.93	371.00
	17657.000	1740.00	851.12	0.10	0.29	0.10	412.70	371.00
	17980.000	1740.00	851.30	0 00	0.28	0.00	389.78	323.00
	17980.000	1740.00	851.39	0.09	0.28	0.09	208.07	323.00
	18240.000	990.00	851.77	0 00	0.47	0.00	290.00	260.00
	18240.000	990.00	851.87	0.10	0.47	0.10	186.82	260.00
	18690.000	990.00	852.20	0.00	0.44	0.00	382.00	450.00
	18690.000	990.00	852 31	0.11	0.44	0.11	257.21	450.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
18900.000	990.00	852.36	0.00	0.16	0.00	278.00	210.00
18900.000	990.00	852.47	0.10	0.16	0.10	182.63	210.00
19114.000	990.00	852.76	0.00	0.39	0.00	179.77	214.00
19114.000	990.00	852 85	0.10	0.39	0.10	92.47	214.00
19264.000	990.00	853.45	0.00	0.69	0.00	106.00	150.00
19264.000	990.00	853.54	0.08	0.68	0.08	62.00	150.00
19314 000	990.00	853.61	0.00	0.15	0.00	83.38	50.00
19314.000	990.00	853.76	0.16	0.23	0.16	54.39	50.00
19706 000	990.00	856.02	0.00	2.42	0.00	30.47	392.00
19706.000	990.00	856.13	0.11	2.37	0.11	16.00	392.00
20099.000	990 00	857.85	0.00	1.83	0.00	20.94	393.00
20099.000	990.00	857.93	0.07	1.79	0.07	20.94	393.00
20150.000	990.00	858.02	0.00	0.17	0.00	16.80	51.00
20150.000	990.00	858.09	0.07	0.16	0.07	16.80	51.00
20357.000	990.00	861.77	0.00	3.75	0.00	403.19	207.00
20357.000	990.00	861.84	0.07	3.75	0.07	62.04	207.00
20408.000	990.00	861.78	0.00	0 01	0.00	408.62	51.00
20408.000	990.00	861.85	0.07	0.01	0.07	62.19	51.00
21300.000	990.00	861.88	0.00	0.10	0.00	217.25	892.00
21300.000	990.00	861.95	0.07	0.11	0.07	166.00	892.00
21375.000	990.00	861.88	0.00	0.00	0.00	204.76	75.00
21375.000	990.00	861.95	0.07	0.00	0.07	136.76	75.00
21420.000	990.00	862.06	0.00	0.19	0.00	219.73	45 00
21420.000	990.00	862.14	0.07	0.19	0.07	148.76	45.00
21471.000	990.00	862.13	0.00	0.07	0.00	271.11	51.00
21471 000	990.00	862.20	0.08	0.07	0.08	211.04	51.00
22000.000	990.00	862.16	0.00	0.03	0.00	272.13	529.00
22000.000	990.00	862.23	0.08	0.03	0.08	211.62	529.00
23000.000	420.00	862.20	0 00	0.04	0.00	144.00	1000.00
23000.000	420.00	862.28	0 08	0 05	0.08	120.84	1000.00
23186.000	420.00	862.20	0.00	0.00	0.00	51.00	186.00
23186.000	420.00	862.28	0.08	0.00	0.08	52.73	186.00
23216.000	420.00	862.20	0.00	0 00	0.00	36.69	30.00
23216.000	420.00	862.28	0.08	0.00	0 08	36.74	30.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
23300.000	420.00	862.35	0.00	0.16	0.00	36.77	84.00
23300.000	420.00	862.42	0.07	0.14	0.07	36.80	84.00
23350.000	420.00	862.41	0.00	0.06	0.00	133.00	50.00
23350.000	420.00	862 47	0.06	0.05	0.06	88.00	50.00
25000.000	420.00	862.48	0.00	0.07	0.00	320.18	1650.00
25000.000	420.00	862.61	0.12	0.13	0.12	253.54	1650.00
25333.000	420.00	862.53	0.00	0.05	0.00	263.70	333.00
25333.000	420.00	862.66	0.12	0.05	0.12	210.79	333.00
25666.000	420.00	862.72	0.00	0.19	0.00	225.98	333.00
25666.000	420.00	862.83	0.11	0.18	0.11	158 49	333.00
26000 000	420.00	863 60	0.00	0.88	0.00	199.84	334.00
26000.000	420.00	863.69	0.09	0.86	0.09	173.06	334.00
26490.000	420.00	865.02	0.00	1.41	0.00	195.02	490.00
26490.000	420.00	865.09	0.07	1.40	0.07	135.22	490.00
26980.000	420.00	866.39	0.00	1.38	0.00	196.69	490.00
26980.000	420.00	866.54	0.14	1.45	0.14	130.97	490.00
27472.000	420.00	867.80	0.00	1.41	0.00	36.60	492.00
27472.000	420.00	867.94	0.14	1.40	0.14	32.00	492.00
27522.000	420.00	867.91	0.00	0.11	0.00	16.00	50.00
27522.000	420.00	868.06	0.15	0.12	0.15	16.00	50.00
27523.000	420.00	867.94	0.00	0.03	0.00	16.00	1.00
27523.000	420.00	868.08	0 15	0.02	0.15	16.00	1.00
27539.000	420.00	868.42	0.00	0.49	0 00	16.00	16.00
27539.000	420.00	868.51	0.09	0.43	0.09	16.00	16.00
27540.000	420 00	868.44	0.00	0.02	0.00	16.00	1.00
27540.000	420.00	868.53	0.09	0.02	0.09	16.00	1.00
27600.000	420.00	869.16	0.00	0.72	0.00	128.96	60.00
27600.000	420.00	869.22	0.06	0.69	0 06	90.58	60.00
28140.000	420.00	869.68	0 00	0.52	0.00	40.18	540.00
28140.000	420.00	869.80	0.12	0.58	0.12	40.00	540.00
28680.000	420.00	871.77	0.00	2.09	0.00	120.93	540.00
28680.000	420 00	871.82	0.05	2.02	0.05	26.00	540.00
29225.000	420.00	873.70	0 00	1.93	0.00	159.86	545.00
29225.000	420.00	873.84	0.15	2.02	0.15	56.30	545.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
29765.000	420.00	875.68	0.00	1.99	0.00	98.43	540.00
29765.000	420.00	875.78	0.10	1.94	0.10	49.99	540.00
30305.000	420.00	877.93	0.00	2.25	0.00	105.36	540.00
30305.000	420.00	878.03	0.10	2.25	0.10	60.36	540.00
30850.000	420.00	879 92	0 00	1.98	0.00	85.64	545.00
30850.000	420.00	880.02	0.10	1.99	0.10	50.85	545.00
30901.000	420.00	880.11	0.00	0.19	0.00	126.32	51.00
30901.000	420.00	880 21	0 10	0.20	0.10	104.89	51.00
30917.000	420.00	880.33	0.00	0.22	0.00	148.99	16.00
30917 000	420.00	880.43	0.10	0.22	0.10	137.83	16.00
31000.000	420.00	880.62	0.00	0.28	0.00	150.00	83.00
31000.000	420.00	880.72	0.10	0.28	0.10	72.35	83.00
31200.000	420.00	880.91	0.00	0.29	0.00	50.00	200.00
31200.000	420.00	881.01	0.10	0.29	0.10	34.73	200.00
31278 000	420.00	881.14	0 00	0.23	0 00	11.40	78.00
31278.000	420.00	881.24	0.10	0.23	0.10	11.40	78.00
31300.000	420.00	881.89	0.00	0.76	0.00	93.47	22.00
31300.000	420.00	881.95	0.05	0.71	0.05	45.00	22.00
31340.000	420.00	881.89	0.00	0.00	0 00	91.00	40.00
31340.000	420.00	881.96	0.06	0.01	0.06	62.00	40.00
32000.000	420.00	882.27	0 00	0.37	0 00	254.82	660.00
32000.000	420.00	882.36	0.09	0 41	0.09	159.51	660.00
33000.000	420.00	882.43	0.00	0 16	0.00	500.00	1000.00
33000 000	420.00	882.52	0.10	0.16	0.10	445.01	1000.00
34500.000	420 00	882.64	0.00	0.22	0.00	248.95	1500.00
34500.000	420.00	882.73	0.09	0.21	0.09	216.84	1500.00
35520.000	420.00	884.75	0 00	2.10	0.00	250.40	1020.00
35520.000	420.00	884.85	0.11	2.12	0.11	225.73	1020.00
35571.000	420.00	884.80	0.00	0.05	0.00	318.10	51.00
35571.000	420.00	884.91	0.11	0.06	0.11	297.61	51.00
35611.000	420.00	886.50	0.00	1.70	0.00	320.08	40.00
35611.000	420 00	886.61	0.11	1.70	0.11	308.05	40.00
35662.000	350.00	886.50	0.00	0.00	0.00	422.00	51.00
35662.000	350.00	886.61	0.11	0.00	0.11	345.73	51.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
36108.000	350.00	886.55	0.00	0.04	0.00	254.74	446.00
36108.000	350.00	886.65	0.11	0.04	0.11	194.39	446.00
36256.000	350.00	886.75	0.00	0.21	0.00	249.84	148.00
36256.000	350.00	886.84	0.09	0.19	0.09	123.58	148.00
36404.000	350.00	887.53	0.00	0.77	0.00	245.10	148.00
36404.000	350.00	887.63	0.10	0.79	0.10	112.90	148.00
36554.000	350.00	888.24	0.00	0.71	0.00	359.96	150.00
36554.000	350.00	888.34	0.11	0.71	0.11	84.81	150.00
37000.000	350.00	890.13	0.00	1.90	0.00	357.82	446.00
37000.000	350.00	890.24	0.11	1.89	0.11	157.20	446.00
38000.000	350.00	894.41	0.00	4.27	0.00	142.23	1000.00
38000.000	350.00	894.50	0.09	4.26	0.09	63.60	1000.00
39000.000	350.00	899.19	0.00	4.78	0.00	147.44	1000.00
39000.000	350.00	899.29	0.11	4.79	0.11	77.17	1000.00
40000.000	350.00	903.39	0.00	4.20	0.00	151.41	1000.00
40000.000	350.00	903.49	0.10	4.19	0.10	82.19	1000.00

FLOODWAY DATA, 100 YEAR FLOODPLAIN
PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
0.000	35.	273.	6.4	808.1	808.0	0.1
125.000	35.	274.	6.4	808.7	808.6	0.1
176 000	35.	277.	6.3	808.9	808.8	0.1
199.000	35.	280.	6.2	809.0	808.9	0.1
250.000	35.	280.	6.2	809.3	809.4	-0.1
850.000	35.	283.	6.2	811.7	811 7	0.0
1200.000	35.	283.	6.2	813.0	813.0	0.0
1850.000	165.	637.	2 7	815 0	814.9	0.1
2100.000	174.	562.	3.1	815.4	815 3	0.1
2300.000	129.	380.	4.6	815.9	815.8	0.1
2500.000	119.	344.	5.1	817.0	816.9	0.1
2650.000	102.	340.	5.1	818.0	817.9	0.1
2800.000	102.	334.	5.2	818.9	818.8	0.1
3800.000	113.	429.	4.1	823.7	823.6	0.1
4500.000	108.	378.	4.6	826.3	826.2	0.1
5000.000	141.	565.	3.1	828.1	828.0	0.1
6000 000	233.	583.	3.0	830.8	830.7	0.1
6330.000	143.	399.	4.4	832.2	832.1	0.1
6430.000	101.	343.	5.1	832.7	832 6	0.1
6680.000	41.	242.	7.2	834.0	833.9	0.1
6720.000	29.	199.	8.7	834.3	834.2	0.1
6770.000	28.	233.	7.5	835.2	835.1	0.1
6776.000	40.	318.	5.5	835 8	835.7	0.1
6790.000	40.	319.	5.5	835.9	836.0	-0.1
6820.000	128.	691.	2.5	836.3	836.2	0.1
7220.000	591.	2550.	0.7	836.5	836.4	0.1
7470.000	492.	1980.	0.9	836.5	836.4	0.1
7730.000	338.	1142.	1.5	836.5	836.4	0.1
8045.000	428.	1227.	1.4	836.6	836.5	0.1
8385.000	341.	1045.	1.7	836.9	836.8	0.1
8725.000	315.	1303.	1.3	837.0	836.9	0.1
8970.000	293.	915.	1.9	837.1	837.0	0.1
9120.000	233.	614.	2.8	837.3	837.2	0.1
9500.000	212.	655.	2.7	838.2	838 1	0.1
9970.000	305.	849.	2.0	839.0	838 9	0.1
10325.000	508.	1135.	1.5	839.3	839.2	0.1
10510.000	574.	1208	1.4	839.6	839.5	0.1
11115.000	517.	1195.	1 5	840.3	840.2	0.1
11550.000	413.	847.	2.1	841.1	841.0	0 1
11625.000	398	705.	2.5	841.3	841.2	0 1
11700.000	386.	598.	2.9	841.7	841 6	0.1
11775.000	382.	604.	2.9	842.3	842.2	0.1

FLOODWAY DATA, 100 YEAR FLOODPLAIN
PROFILE NO 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
12000 000	368.	584.	3.0	843.8	843.7	0.1
12900.000	366.	783.	2.2	847.2	847.1	0.1
12950.000	347.	804.	2.2	847.4	847.3	0.1
12951 000	337.	751.	2.3	847.4	847 3	0.1
12963.000	331.	752	2.3	847.5	847.4	0.1
12964.000	340.	838.	2.1	847.5	847.4	0.1
13014.000	317.	814.	2 1	847.6	847.5	0.1
13253.000	112.	531.	3.3	847.7	847.6	0.1
13304 000	113.	535.	3.2	847.8	847.7	0.1
13350.000	256.	810.	2.1	848.7	848 6	0.1
13400 000	262.	834.	2.1	848.7	848.6	0 1
14740.000	269	1296.	1.3	849.3	849.2	0.1
14790.000	202.	718.	2.4	849.3	849.2	0 1
14890.000	88.	510.	3.4	849.7	849.7	0.0
15060 000	430.	2231.	0.8	849.9	849.8	0.1
15290.000	501.	2283.	0.8	849.9	849.8	0.1
15790.000	475.	2119.	0.8	849.9	849.8	0 1
16290.000	408.	1231.	1.4	850 0	849.9	0.1
16680.000	372.	987.	1.8	850.3	850.2	0.1
16975.000	356.	868.	2.0	850.6	850 5	0.1
17286.000	345.	976.	1.8	850 8	850.7	0.1
17657.000	413.	976.	1.8	851 1	851.0	0.1
17980.000	208.	636.	2.7	851.4	851.3	0.1
18240 000	187.	445.	2.2	851.9	851.8	0.1
18690.000	257.	726.	1.4	852.3	852.2	0.1
18900.000	183.	423.	2.3	852.5	852.4	0.1
19114.000	92	208.	4.8	852 9	852.8	0.1
19264.000	62.	182.	5.4	853.6	853.5	0.1
19314.000	54.	167.	5.9	853.8	853.6	0.2
19706 000	16.	113.	8.8	856.1	856.0	0.1
20099 000	21.	142.	7.0	858.0	857.9	0.1
20150.000	17.	129.	7.7	858.1	858.0	0.1
20357.000	62.	604.	1.6	861.9	861.8	0.1
20408.000	62	605.	1.6	861.9	861.8	0.1
21300.000	166.	1071.	0 9	862 0	861 9	0 1
21375.000	143.	530.	1.9	862.0	861.9	0.1
21420 000	150.	564.	1.8	862 2	862.1	0.1
21471.000	211	1283.	0.8	862 2	862.1	0.1
22000.000	212	1290.	0.8	862.3	862.2	0 1
23000.000	121.	862.	0.5	862.3	862 2	0.1
23186.000	53.	317.	1.3	862.3	862 2	0 1
23216 000	37.	243.	1.7	862.3	862.2	0.1

FLOODWAY DATA, 100 YEAR FLOODPLAIN
PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
23300.000	37.	248	1.7	862.5	862.4	0.1
23350.000	88.	527.	0.8	862.5	862.4	0.1
25000.000	254.	684.	0.6	862.6	862.5	0.1
25333 000	211.	450.	0.9	862.6	862.5	0.1
25666.000	158.	201.	2.1	862.8	862.7	0.1
26000.000	180.	189.	2.2	863.7	863.6	0.1
26490.000	149.	151.	2.8	865.1	865.0	0.1
26980.000	147.	165.	2.5	866.5	866.4	0.1
27472.000	32.	110.	3.8	867.9	867.8	0.1
27522.000	16.	66.	6.4	868.1	867.9	0.2
27523.000	16.	66	6.4	868.0	867.9	0.1
27539.000	16	73.	5.8	868 5	868.4	0.1
27540.000	16.	73.	5.7	868.5	868.4	0.1
27600.000	97.	223.	1.9	869.3	869.2	0.1
28140 000	40.	112.	3.8	869.8	869 7	0.1
28680.000	26.	103.	4.1	871.9	871.8	0.1
29225.000	56.	127.	3.3	873.8	873.7	0.1
29765.000	50.	112.	3.7	875.8	875.7	0.1
30305.000	60.	121.	3.5	878.0	877.9	0.1
30850.000	51.	118.	3.6	880.0	879 9	0.1
30901.000	218	117.	3.6	880 2	880.1	0.1
30917.000	228.	151	2.8	880.4	880.3	0.1
31000.000	72.	183.	2 3	880.7	880 6	0.1
31200.000	35.	141.	3.0	881.0	880.9	0.1
31278.000	11.	80.	5 3	881.2	881.1	0.1
31300.000	45	274.	1.5	882.0	881.9	0.1
31340.000	62.	246.	1.7	882.0	881.9	0.1
32000.000	160.	326.	1.3	882 4	882.3	0.1
33000.000	445.	997.	0.4	882.5	882.4	0.1
34500 000	217	196.	2.1	882 7	882.6	0.1
35520.000	226.	365.	1 2	884.8	884.7	0.1
35571.000	298.	391.	1.1	884.9	884.8	0.1
35611.000	308.	931.	0.5	886.6	886.5	0.1
35662.000	346.	910.	0.4	886.6	886.5	0.1
36108.000	194.	266.	1.3	886.6	886.5	0.1
36256.000	124.	121.	2.9	886.9	886.8	0.1
36404.000	113.	122.	2.9	887.6	887.5	0.1
36554.000	85.	112.	3.1	888.3	888.2	0 1
37000.000	157.	145.	2.4	890.2	890.1	0.1
38000.000	64.	102.	3.4	894.5	894.4	0.1
39000.000	77.	121.	2.9	899.3	899.2	0.1
40000.000	82.	128	2.7	903.5	903 4	0.1

Scio Twp FIS

100YEAR FLOODPLAIN

HONEY CREEK

INP= HONEYH2

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EEEEEE   EEEEEE          L        EEEEEE   EEEEEE
E        E               L        E        E
E        E               L        E        E
EEEE     EEEE            L        EEEE     EEEE
E        E               L        E        E
EEEEEE   EEEEEE          LLLLLL   EEEEEE   EEEEEE

USACOE DETROIT H800 VOS 5.1.1      PRINTER:  6
EE LEE                             4 MAR 87 10:24:21

TERMINAL: 105
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THIS RUN EXECUTED 4 MAR 87 10:14:59

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
**************************************************

C
T1      SCIO TWP FLOOD INSURANCE STUDY
T2      HONEY CREEK
T3      100 YEAR FLOODPLAIN

J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ

       0.         2.         0          0.   0.004444       0.00       0.0          0.    804.000      0.000

J2  NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE

     -1.000     0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

J3  VARIABLE CODES FOR SUMMARY PRINTOUT

    150.000    200.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000


QT      1.000   1740.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
NC      0.050      0.070      0.050      0.300      0.500      0.000      0.000      0.000      0.000      0.000
X1      0.000     19.000    249.000    284.000      0.000      0.000      0.000      0.000     -0.650      0.000
X3      0.000      0.000      0.000      0.000      0.000    304.000      0.000      0.000      0.000      0.000
GR    812.700      0.000    812.400     50.000    812.200    100.000    811.800    150.000    811.300    200.000
GR    810.400    249.000    802.500    250.000    800.800    254.000    799.500    260.000    799.700    265.000
GR    800.000    270.000    800.800    275.000    803.000    283.000    810.400    284.000    810.000    304.000
GR    809.400    350.000    809.000    400.000    808.500    450.000    808.300    500.000      0.000      0.000

X1    125.000      0.000      0.000      0.000    125.000    125.000    125.000      0.000      0.500      0.000
X3      0.000      0.000      0.000      0.000      0.000    304.000      0.000      0.000      0.000      0.000

          DOWNSTREAM FACE OF HURON RIVER DRIVE
X1    176.000      0.000      0.000      0.000     51.000     51.000     51.000      0.000      0.150      0.000
X3      0.000      0.000      0.000      0.000      0.000    304.000      0.000      0.000      0.000      0.000

SB      0.000      1.720      3.000      0.000     32.500      0.000    276.250      0.000      0.000      0.000
          U/S FACE OF HURON RIVER DRIVE
X1    199.000     19.000    249.000    284.000     23.000     23.000     23.000      0.000      0.000      0.000
X2      0.000      0.000      1.000    808.700    808.300      0.000      0.000      0.000      0.000      0.000
X3      0.000      0.000      0.000      0.000      0.000    304.000      0.000      0.000      0.000      0.000
BT     16.000      0.000    812.700      0.000     50.000    812.400      0.000    100.000    812.200      0.000
BT    150.000    811.800      0.000    200.000    811.300      0.000    249.000    810.400      0.000    250.000
BT    810.400    802.500    250.000    810.400    807.700    283.000    810.400    808.700    283.000    810.400
BT    803.000    284.000    810.400      0.000    304.000    810.000      0.000    350.000    809.400      0.000
BT    400.000    809.000      0.000    450.000    808.500      0.000    500.000    808.300      0.000      0.000
GR    812.700      0.000    812.400     50.000    812.200    100.000    811.800    150.000    811.300    200.000
GR    810.400    249.000    802.500    250.000    800.800    254.000    799.500    260.000    799.700    265.000
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GR	800.000	270.000	800.800	275.000	803.000	283.000	810.400	284.000	810.000	304.000
GR	809 400	350.000	809 000	400.000	808.500	450.000	808.300	500.000	0.000	0.000
NC	0.070	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
	UPSTREAM OF HURON RIVER DRIVE									
X1	250.000	0.000	0.000	0.000	51.000	51.000	51.000	0.000	0.200	0.000
X3	0.000	0 000	0.000	0.000	0.000	304.000	0.000	0.000	0.000	0.000
X1	850 000	0.000	0.000	0.000	600.000	600.000	600.000	0.000	2.300	0.000
X3	0.000	0.000	0.000	0.000	0.000	304.000	0.000	0.000	0.000	0.000
X1	1200.000	0.000	0.000	0.000	350.000	350.000	350.000	0.000	1.350	0.000
X3	0.000	0.000	0.000	0.000	0.000	304.000	0.000	0.000	0.000	0.000
X1	1850.000	19.000	220.000	252.000	650.000	650.000	650.000	0.000	-1.000	0.000
GR	847.000	0.000	845.000	50.000	840.000	105.000	830.000	135.000	820.000	175.000
GR	812.200	210.000	812.000	220.000	810.000	223.000	809.000	225.000	808.000	230.000
GR	807.600	235.000	807.800	240.000	808.500	245.000	810.000	250.000	812.000	252.000
GR	812.700	300.000	814.400	400.000	816.000	500.000	818.000	600.000	0.000	0.000
X1	2100.000	0.000	0.000	0.000	250.000	250.000	250.000	0.000	1.000	0.000
X1	2300.000	0.000	0.000	0.000	200.000	200.000	200.000	0.000	1.300	0.000
X1	2500.000	0.000	0.000	0 000	200.000	200.000	200.000	0.000	1.300	0.000
X1	2650.000	31.000	222.000	250.000	150.000	150.000	150.000	0.000	-1.000	0.000
GR	821.200	0.000	820.700	25.000	821.000	50.000	820.500	75.000	820.700	100.000
GR	819.900	125.000	817.900	150.000	816.900	175.000	816.900	200.000	815.900	222.000
GR	814 000	223.000	813.000	225.000	812 100	230.000	812.300	235.000	812.200	240.000
GR	813 300	245.000	814 000	246.000	815.700	250.000	816.300	263.000	836.400	305.000
GR	835.700	330.000	835.500	355.000	836.500	380 000	836.800	385.000	836.800	395.000
GR	836.500	401.000	836.000	406.000	836.400	412.000	836.600	437.000	837.500	462.000
GR	840 300	487.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	CROSS SECTION A									
X1	2800 000	0.000	0.000	0.000	150.000	150.000	150.000	0.000	1.000	0.000
NC	0.060	0.060	0.000	0 000	0.000	0.000	0.000	0.000	0.000	0.000
X1	3900.000	0.000	0.000	0.000	1000.000	1000.000	1000.000	0.000	4.100	0.000
X1	4500.000	0.000	0.000	0.000	700.000	700.000	700.000	0.000	2.900	0.000
	START OF MDNR PROVIDED DATA									
X1	5000.000	15.000	32.000	56.000	500.000	500.000	500.000	0.000	-5.500	0.000
X3	0.000	0.000	0.000	0.000	0.000	162.000	836.000	0.000	0.000	0.000
GR	840.000	0.000	838.000	10.000	836.000	15.000	834.000	20.000	832.000	23.000
GR	831.100	32.000	828.000	33.000	826.700	44.000	826.800	54.000	828.000	56.000
GR	830.000	75.000	830.000	265.000	832.000	330.000	834.000	500.000	836.000	600.000

DO not use

NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
X1	6000.000	0.000	0.000	0.000	1000.000	1000.000	1000.000	0.000	4.100	0.000
X1	6330.000	0.000	0.000	0.000	330.000	330.000	330.000	0.000	1.400	0.000
X3	0 000	0.000	0.000	32.000	0.000	182.000	0.000	0.000	0.000	0.000
X1	6430.000	17.000	68.000	92.000	250.000	50.000	100.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	150.000	836.300	0.000	0.000	0.000
GR	840.000	0.000	838.000	20.000	836.000	30.000	834.000	42.000	832.000	52.000
GR	830.000	60.000	828.000	68.000	826.900	69.000	826.800	80.000	826.900	90.000
GR	828 800	92.000	830.000	110.000	830.000	251.000	832.000	331.000	834.000	451.000
GR	936.000	580.000	938.000	715.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000
X1	6680.000	15.000	180.000	205.000	250.000	250.000	200.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	168.000	0.000	217.000	0.000	0.000	0.000	0.000
GR	840.000	0.000	838.000	40.000	836.000	55.000	834.000	90.000	832.000	165.000
GR	830.000	175.000	829.100	180.000	826.900	180.100	826.300	192.000	827.000	203.000
GR	830.400	205.000	832.000	280.000	834.000	360.000	836.000	535.000	838.000	695.000
	DOWNSTREAM FACE OF MILLER ROAD									
X1	6720.000	14.000	185.000	214.000	40.000	40.000	40.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	836.300	836.300	0.000
GR	840.500	0.000	835.700	100.000	831.300	185.000	827.400	187.000	826.800	200.000
GR	827.500	212 000	831.400	214.000	832 300	300.000	831.800	400.000	835.200	500.000
GR	837.500	600.000	838.200	700.000	838.300	800.000	839.800	900.000	0.000	0.000
SB	0.000	1.630	2.500	0.000	24 770	0.000	206.100	0.000	826.900	826.300
	UPSTREAM FACE OF MILLER ROAD									
X1	6770.000	14.000	186.000	214.000	50.000	50.000	50.000	0.000	0.000	0.000
X2.	0.000	0.000	1.000	834.520	836.300	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	836.300	836.300	0.000
BT	15.000	0.000	840.000	0.000	50.000	838.300	0.000	100.000	837.400	0.000
BT	150.000	836.500	0.000	186.000	836.400	0.000	186.000	836.400	830.800	187.000
BT	836.400	834.520	213.000	836 300	834.520	213.000	836.300	827.400	214.000	836.300
BT	0.000	300.000	836.300	0.000	400.000	836.400	0.000	500.000	837.000	0.000
BT	600.000	837.800	0.000	700.000	838.700	0.000	0.000	0.000	0.000	0.000
GR	838.300	0.000	836.000	50.000	833.400	100.000	832.000	150.000	830.800	186.000
GR	827.300	187.000	826.200	200.000	827.400	213.000	829.600	214.000	834.200	300.000
GR	834.600	400 000	835.900	500 000	836.800	600.000	838.700	700.000	0.000	0.000
NC	0.040	0.050	0.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	6776.000	14.000	160.000	200 000	6.000	6.000	6.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	160.000	0.000	200.000	0.000	0.000	0.000	0.000
GR	839.200	0.000	837.800	25.000	835.400	75.000	833.500	125.000	831.400	160.000
GR	826.800	170.000	826.600	180.000	827.200	190.000	830.000	200.000	832.400	275.000
GR	833.500	375.000	835.200	425 000	836.600	475.000	838.300	580.000	0.000	0.000

X1	6790.000	0.000	0.000	0.000	14.000	14.000	14.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	146.000	0.000	214.000	0.000	0.000	0.000	0.000
X1	6820.000	15.000	145.000	195.000	30.000	30.000	30.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	100.000	836.300	228.000	836.300	0.000	0.000	0.000
GR	840.000	0.000	838.000	50.000	836.000	85.000	834.000	135.000	832.000	145.000
GR	828.700	150.000	827.000	154.000	826.900	168.000	827.400	182.000	828.500	186.000
GR	830.400	195.000	832.000	360.000	834.000	410.000	836.000	425.000	837.000	450.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
X1	7220.000	15.000	110.000	125.000	220.000	260.000	400.000	0.000	0.000	0.000
GR	840.000	0.000	838.000	25.000	836.000	65.000	834.000	85.000	832.000	90.000
GR	832.000	95.000	829.700	100.000	828.700	115.000	829.300	125.000	831.800	130.000
GR	832.000	510.000	834.000	690.000	836.000	720.000	838.000	760.000	840.000	805.000
X1	7470.000	16.000	530.000	565.000	200.000	140.000	250.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	226.000	0.000	869.000	0.000	0.000	0.000	0.000
GR	840.000	0.000	838.000	95.000	836.000	215.000	834.000	280.000	832.000	380.000
GR	831.600	530.000	830.500	533.000	829.200	547.000	830.200	563.000	831.900	565.000
GR	832.800	645.000	834.000	750.000	836.000	840.000	836.000	1080.000	838.000	1130.000
GR	840.000	1160.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	7730.000	15.000	465.000	510.000	190.000	250.000	260.000	0.000	0.000	0.000
GR	840.000	0.000	838.000	150.000	836.000	260.000	834.000	325.000	832.000	455.000
GR	832.000	465.000	830.300	467.000	828.700	485.000	830.700	503.000	831.400	505.000
GR	833.300	510.000	834.000	560.000	836.000	745.000	838.000	810.000	840.000	860.000
NC	0.070	0.060	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	8045.000	15.000	360.000	385.000	270.000	290.000	315.000	0.000	0.000	0.000
GR	840.000	0.000	838.000	40.000	836.000	80.000	834.000	125.000	833.300	347.000
GR	832.500	360.000	831.500	363.000	830.600	372.000	831.000	382.000	832.400	385.000
GR	833.800	397.000	834.000	425.000	836.000	645.000	838.000	655.000	840.000	675.000
X1	8385.000	13.000	330.000	344.000	200.000	350.000	340.000	0.000	0.000	0.000
GR	840.000	0.000	838.000	30.000	836.000	70.000	834.000	150.000	833.400	330.000
GR	831.700	331.000	831.000	337.000	833.600	344.000	833.900	348.000	834.000	440.000
GR	836.000	480.000	838.000	565.000	840.000	760.000	0.000	0.000	0.000	0.000
X1	8725.000	15.000	180.000	210.000	190.000	130.000	340.000	0.000	0.000	0.000
GR	840.000	0.000	838.000	50.000	836.000	90.000	834.000	140.000	834.000	180.000
GR	832.200	187.000	831.400	195.000	831.800	205.000	833.100	210.000	832.100	410.000
GR	836.000	465.000	858.000	480.000	838.000	530.000	838.000	610.000	840.000	780.000
X1	8970.000	16.000	391.000	406.000	50.000	150.000	245.000	0.000	0.000	0.000
GR	840.000	0.000	838.000	50.000	836.000	90.000	834.000	130.000	834.000	230.000
GR	834.000	380.000	834.200	391.000	832.400	393.000	831.600	399.000	832.500	405.000
GR	834.200	406.000	836.000	420.000	838.000	449.000	838.000	610.000	838.000	648.000
GR	840.000	868.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	9120.000	12.000	323.000	340.000	150.000	110.000	150.000	0.000	0.000	0.000
GR	840.000	0.000	838 000	75.000	836.000	125.000	834.000	305.000	834.000	323.000
GR	833.200	324.000	831.900	332.000	833.000	339.000	834.500	340.000	836.000	385.000
GR	838.000	445.000	840.000	560.000	0 000	0.000	0.000	0.000	0.000	0.000
X1	9500.000	11.000	155.000	182.000	300.000	310.000	380.000	0.000	0.000	0.000
GR	840.000	0.000	838 000	60.000	836.000	110.000	835.200	155.000	833.400	157.000
GR	832.600	166.000	833.000	180.000	834.200	182.000	836.000	290.000	838.000	380.000
GR	840.000	530.000	0.000	0.000	0 000	0.000	0.000	0.000	0.000	0.000
X1	9970.000	10.000	308.000	324 000	310.000	360.000	470.000	0.000	0.000	0.000
GR	840.000	0.000	838.000	150.000	836.000	225.000	835.700	308.000	834.000	311.000
GR	833.300	317.000	834.000	322.000	835.400	324.000	838.000	510.000	840.000	808.000
X1	10325.000	9.000	548.000	575.000	210.000	165.000	355.000	0.000	0.000	0.000
GR	840.000	0.000	838.000	135.000	837.500	425.000	837.000	548.000	834.200	560.000
GR	834.700	572.000	834 000	575.000	838.000	680.000	840.000	880.000	0.000	0.000
X1	10510.000	9.000	530 000	555.000	170.000	170.000	185.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	750.000	840.000	0.000	0.000	0.000	0.000
GR	840.000	0.000	838.000	120.000	837.000	530.000	836.500	530.000	835.500	543.000
GR	835.500	555.000	837.500	555.000	838.000	710.000	840.000	830.000	0.000	0.000
X1	11115.000	9.000	520.000	535 000	560.000	260.000	605.000	0.000	0.000	0.000
GR	840.000	0.000	838.000	130.000	838.000	520.000	836.500	520.000	836.000	528.000
GR	836 700	535.000	838.000	535.000	838.000	605.000	840.000	680.000	0.000	0.000

END OF MDNR PROVIDED DATA

X1	11550.000	9.000	453.000	470.000	435.000	435.000	435.000	0.000	0.000	0.000
GR	842.000	0.000	839.200	165.000	839.200	453.000	837.500	453.000	837.000	460.000
GR	837 500	470.000	838.800	470.000	838.800	560.000	842.000	647.000	0.000	0.000
X1	11625.000	9.000	455.000	470.000	75 000	75.000	75.000	0.000	0.000	0.000
GR	842.300	0 000	839.700	165.000	839.700	455.000	837.700	455.000	837.200	460.000
GR	837.700	470.000	839.400	470.000	839.400	555.000	842.300	640.000	0.000	0.000
X1	11700.000	9.000	455.000	470 000	75.000	75.000	75.000	0.000	0.000	0.000
GR	842.700	0.000	840.300	160.000	840.300	455.000	837.900	455.000	837.300	460.000
GR	837.900	470.000	840.200	470.000	840.200	550.000	842.660	635.000	0.000	0.000
X1	11775.000	9.000	440.000	456.000	75.000	75.000	75.000	0.000	0.000	0.000
GR	843.000	0.000	840.800	145.000	840.800	440 000	838.000	440.000	837.400	448.000
GR	838 000	456.000	840.800	456.000	840.800	531.000	843.000	616.000	0.000	0.000
NC	0.000	0.070	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
X1	12000.000	9.000	387.000	402.000	225.000	225.000	225.000	0.000	0.000	0.000
GR	844.000	0.000	842.500	130.000	842.500	387.000	838.500	387.000	837.900	398.000
GR	838.600	402.000	841.900	402.000	841.900	485.000	844.000	585.000	0.000	0.000

	DOWNSTREAM OF PRIVATE DRIVEWAY									
X1	12900.000	19.000	250.000	275.000	900.000	900.000	900.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	60.000	0.000	467.000	0.000	0.000	0.000	0.000
GR	845.700	0.000	845.400	50.000	845.000	100.000	845.100	150.000	845.300	200.000
GR	846.100	250.000	840.300	254.000	839.900	257.000	840.200	258.000	839.500	262.500
GR	839.800	265.500	839.500	268.000	840.100	271.000	846.000	275.000	845.400	300.000
GR	845.400	350.000	845.300	400.000	845.400	450.000	846.200	500.000	0.000	0.000
NC	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000
X1	12950.000	33.000	250.000	275 000	50.000	50.000	50.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	72.000	0.000	454.000	0.000	0.000	0.000	0.000
GR	845.700	0.000	845.400	50.000	845.000	100.000	845.100	150.000	845.300	200.000
GR	846.100	250.000	841.000	254.500	839.400	255.000	838.800	255.700	838.600	257.000
GR	838.800	258.300	839.400	259.000	841.000	259.500	841.400	260.000	839.800	260.500
GR	839.200	261.200	838.900	262.500	839.200	263.700	839.800	264.500	841.400	265.000
GR	841.900	265 600	840.200	266.200	839.600	267.000	839.400	268.200	839.600	269.300
GR	840.200	270.000	841.900	270.800	846.000	275.000	845.400	300.000	845.400	350.000
GR	845.300	400.000	845.400	450.000	846.200	500.000	0.000	0.000	0.000	0.000
	DOWNSTREAM FACE OF PRIVATE DRIVEWAY									
X1	12951.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0 000	73 000	0 000	454.000	0 000	0 000	0 000	0 000
BT	32.000	0.000	845 700	0.000	50.000	845.400	0.000	100.000	845.000	0.000
BT	150.000	845.100	0.000	200.000	845.300	0.000	250.000	846.100	0.000	254.500
BT	845 900	841.000	255.000	845.900	842.700	255.700	845.900	843.300	257.000	845.900
BT	843.600	258.300	845.900	843.300	259.000	845.900	842.700	259.500	845.900	841.000
BT	260.000	845.900	841.400	260.500	845.900	842.900	261.200	845.900	843.600	262.500
BT	845.900	843.900	263.700	845.900	843.600	264.500	845.900	842.900	265.000	845.900
BT	841.400	265.600	845.900	841.900	266.200	845.900	843.500	267.000	845.900	844.200
BT	268.200	845.900	844 400	269.300	845.900	844.200	270.000	845.900	843 500	270.800
BT	845.900	841.900	275.000	846.000	0.000	300.000	845.400	0.000	350.000	845.400
BT	0.000	400.000	845.300	0.000	500.000	846.200	0.000	0.000	0.000	0.000
	U/S FACE OF PRIVATE DRIVEWAY									
X1	12963.000	0.000	0.000	0.000	12.000	12.000	12.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	76.000	0.000	451.000	0.000	0.000	0.000	0.000
X1	12964.000	0.000	0.000	0.000	1.000	1 000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0 000	76.000	0.000	451.000	0.000	0.000	0.000	0.000
NC	0.040	0.040	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	UPSTREAM OF PRIVATE DRIVEWAY									
X1	13014.000	19.000	250.000	275.000	50.000	50.000	50.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	87.000	0.000	437.000	0.000	0.000	0.000	0.000
GR	845.700	0.000	845 400	50.000	845.000	100.000	845.100	150.000	845.300	200.000
GR	846.100	250.000	840.300	254.000	839.900	257.000	840.200	258.000	839.500	262.500
GR	839.800	265.500	839 500	268.000	840.100	271.000	846.000	275.000	845.400	300.000
GR	845.400	350 000	845 300	400.000	845.400	450.000	846.200	500.000	0.000	0.000

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X1  13253.000    26.000   224.000   260.000   239 000   239.000   239.000     0.000     0.000     0.000
GR    853.200     0.000   852.100    25.000   850.900    50.000   849.900    75.000   849.300   100.000
GR    849.000   125.000   848.800   150.000   848.800   175.000   845.500   200.000   842.200   224.000
GR    842.100   224.000   842.100   224.800   840.700   242.500   840.800   243.300   842.000   259.200
GR    842.000   260.000   842.100   260.000   845.200   310.000   848.100   335.000   847.900   360.000
GR    847.600   385.000   847.500   410.000   847.470   435.000   847.200   460.000   847.900   485.000
GR    848.400   510.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC      0.000     0.000     0.000     0.300     0.500     0.000     0.000     0.000     0.000     0.000
          DOWNSTREAM FACE OF PRATT ROAD
X1  13304.000     0.000     0.000     0.000    51.000    51.000    51.000     0.000     0.000     0.000

SB      0.000     1.770     3.000     0.000    35.170     0.000   204.320     0.000     0.000     0.000
          U/S FACE OF PRATT ROAD
X1  13350.000     0 000     0.000     0.000    46.000    46.000    46.000     0.000     0.000     0.000
X2      0.000     0.000     1.000   847.400   847.470     0.000     0.000     0.000     0.000     0.000
BT     28.000     0.000   853.210     0.000    25.000   852.100     0.000    50.000   850.920     0.000
BT     75.000   849.870     0 000   100.000   849.320     0.000   125.000   849.000     0.000   150.000
BT    848.780     0.000   175.000   848.790     0.000   200.000   848.860     0.000   224.000   848.850
BT    842 100   224.800   848.850   842.100   224.800   848.850   847.400   242.500   848.780   847.380
BT    242 500   848.780   840.700   243 300   848.780   840.800   243.300   848.780   847.380   259.200
BT    848.700   847.300   259.200   848.700   842.000   260.000   848.690   842.000   310.000   848.400
BT      0.000   335.000   848.090     0.000   360.000   847.870     0.000   385.000   847.600     0.000
BT    410.000   847.520     0.000   435 000   847.470     0.000   460.000   847.620     0.000   485.000
BT    847.920     0.000   510.000   848.440     0.000     0.000     0.000     0.000     0.000     0.000

NC      0.000     0.000     0.060     0.000     0.000     0.000     0.000     0.000     0.000     0.000
          UPSTREAM OF PRATT ROAD
X1  13400.000     0.000     0.000     0.000    50.000    50.000    50.000     0.000     0.000     0.000

NC      0.070     0.050     0.000     0.300     0.500     0.000     0.000     0.000     0.000     0.000
          DOWNSTREAM OF DEXTER-ANN ARBOR ROAD
X1  14740.000    13.000   490.000   508 000  1340.000  1340.000  1340.000     0.000     0.000     0.000
X3      0.000     0.000     0.000   349.000     0.000   649.000     0.000     0.000     0.000     0.000
GR    844.800   300.000   845.000   360 000   845.300   430.000   845.000   490.000   844.000   491.000
GR    843.000   492 000   842.000   492.000   841.700   500.000   842.000   502.000   843.000   503.000
GR    844.100   508.000   844.300   600.000   845.000   745.000     0.000     0.000     0.000     0.000

          D/S FACE OF DEXTER-ANN ARBOR ROAD--START OF MDNR PROVIDED DATA
X1  14790.000    20.000   485.000   515.000    50.000    50.000    50.000     0.000     0.000     0.000
GR    848.400   335.000   846.000   465.000   845.000   485.000   844.000   492.000   842.900   492.000
GR    842.000   494.000   841.500   500.000   842.000   506.000   842.900   507.000   844.100   507.000
GR    845.000   515.000   846.000   568.000   847.000   575.000   848.000   590.000   849.000   607.000
GR    850.000   625.000   851.000   650.000   852.000   660.000   853.000   680.000   854.000   720.000

SB      0.000     2.220     2.800     0.000    27.660     6.000   139.000     0.000   841.950   841.950
          U/S FACE OF DEXTER-ANN ARBOR ROAD
X1  14890 000    18.000   490.000   508.000    60.000   160 000   100.000     0.000     0.000     0.000
X2      0.000     0.000     1.000   848.370   849.200     0.000     0.000     0.000     0.000     0.000
X3      0.000     0.000     0.000   100.000   850.500   550.000   850.500     0.000     0.000     0.000
BT      9 000     0.000   850.000     0.000   210.000   848 400     0.000   478.000   848.800     0.000
BT    478.100   850.090     0.000   518.000   850.090     0.000   518.100   849.200     0.000   610.000
BT    849.800     0 000   710 000   852.900     0.000   748.000   853.600     0.000     0.000     0.000
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GR	848.000	0.000	846.000	200.000	845.000	410.000	844.000	455.000	844.100	490.000
GR	843.000	492.000	842.000	492.000	841.900	500.000	842.000	507.000	843.000	507.000
GR	844.100	508.000	845.000	575 000	846.000	590.000	849.000	610.000	850.000	625.000
GR	851.000	660.000	852.000	700.000	854.000	720.000	0 000	0.000	0 000	0.000
NC	0 060	0.060	0.045	0.100	0.300	0.000	0.000	0.000	0.000	0.000
	UPSTREAM OF DEXTER-ANN ARBOR ROAD									
X1	15060.000	13.000	490.000	508.000	120.000	180.000	170.000	0.000	0.000	0.000
GR	844.800	300.000	845.000	360 000	845.300	430.000	845.000	490.000	844.000	491.000
GR	843.000	492.000	842.000	492.000	841.700	500.000	842.000	502.000	843.000	503.000
GR	844.100	508.000	844.300	600.000	845.000	745.000	0.000	0.000	0.000	0.000
X1	15290.000	20.000	490.000	520.000	220.000	240.000	230.000	0.000	0.000	0.000
GR	846.000	215 000	846.200	370.000	845.000	490.000	843.900	491.000	843.000	491.000
GR	842.300	492.000	842.000	500.000	843.400	509.000	843.000	512.000	843.900	512.000
GR	845.000	520.000	845 300	550.000	845.000	575.000	844 000	600.000	845.000	700.000
GR	846.000	710.000	847.000	725.000	848.000	745.000	849.000	765.000	850.000	780.000
X1	15790.000	21.000	485.000	513.000	500.000	500.000	500.000	0.000	0.000	0.000
GR	850.000	147.000	849.000	195.000	848.000	215.000	847.000	245.000	846.000	305.000
GR	845 000	485.000	843.900	490.000	843.000	490.000	842.400	492.000	842.000	500.000
GR	842.400	507.000	843.000	510.000	843.900	511.000	845 000	513.000	845.800	555.000
GR	845.000	595.000	844.000	599.000	844.000	605.000	845.000	610.000	846.000	705.000
GR	849.000	740.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	16290.000	16.000	295.000	314.000	480.000	440.000	500.000	0.000	0.000	0.000
GR	848.000	0.000	848.000	135.000	847.000	208.000	846.000	270.000	845.800	295.000
GR	843.500	295.000	843.000	297.000	842.300	305.000	843.000	311.000	843.500	313.000
GR	846.700	314.000	847.000	414.000	848.000	439.000	849.000	454.000	850.000	484.000
GR	854.000	730.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	16680.000	19.000	490.000	508.000	345.000	380.000	390.000	0.000	0.000	0.000
GR	849.000	240.000	849.200	265.000	849.000	290.000	848.000	440.000	847.000	470.000
GR	846.000	480.000	849.000	490.000	844.000	491 000	842.600	493.000	843.500	500.000
GR	842.600	507.000	844.000	507.000	845.000	508.000	846.000	525.000	848.000	595.000
GR	849.000	680.000	850.000	725.000	851.000	745.000	852.000	765.000	0.000	0.000
X1	16975.000	16.000	470.000	515.000	225.000	225.000	295.000	0.000	0.000	0.000
X3	10.000	0 000	0.000	0.000	0.000	0.000	0.000	848.000	847.800	0.000
GR	849.800	225 000	849.000	280.000	849.000	365.000	849.000	440.000	847.300	455.000
GR	848.000	460.000	848.000	470.000	844.500	485.000	843.200	492.000	843.400	507.000
GR	847.000	515.000	847.800	525.000	848 000	560.000	849.000	640.000	850.000	680.000
GR	853.000	770 000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	17286.000	20.000	485.000	520.000	160.000	275.000	311.000	0.000	0.000	0.000
GR	851.400	202.000	851.000	210.000	850.000	216.000	849.000	225.000	849.000	338.000
GR	850.000	340.000	850.300	355.000	849.700	370.000	848.000	390.000	847.000	425.000
GR	846.000	485.000	845.000	490.000	843.400	494.000	843.200	500.000	843.200	507.000
GR	845.000	509.000	848.000	520.000	849.000	575.000	850.000	635.000	851.000	675.000

X1	17657.000	17.000	475.000	511.000	310.000	120 000	371.000	0.000	0.000	0.000
GR	850.000	94.000	849.000	148.000	849.000	245 000	848.900	285.000	849.000	337.000
GR	849.600	385 000	849.000	475.000	845.800	488.000	843.900	492.000	843.600	500.000
GR	843.900	507.000	846.000	509.000	847.000	511.000	848.000	518.000	849.000	527.000
GR	850.000	572.000	852.000	660.000	0.000	0 000	0.000	0.000	0.000	0.000
X1	17980.000	22.000	492.000	509.000	175.000	195.000	323.000	0.000	0.000	0.000
GR	851.000	270 000	851.200	305.000	851.000	350.000	850.000	370.000	849.600	395.000
GR	850.000	425.000	850.200	435.000	850.000	445.000	847.000	465.000	846.500	492.000
GR	844.200	493.000	843.900	500.000	844.200	507.000	846.500	509.000	847.000	512.000
GR	848.000	520.000	848.200	530.000	848.000	542.000	848.000	555.000	849.000	565.000
GR	850.000	585.000	852.000	700.000	0.000	0.000	0.000	0.000	0.000	0.000
QT	1.000	990.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	18240.000	13.000	490.000	509.000	255.000	245.000	260.000	0.000	0.000	0.000
GR	851.400	330.000	851.200	400.000	850.800	445.000	850.000	455.000	848.600	490.000
GR	847.200	492.000	844.000	494.000	844.800	505.000	847.200	507.000	848.800	509.000
GR	849.000	522.000	850.000	555.000	850.700	620 000	0.000	0.000	0.000	0.000
	END OF MDNR PROVIDED DATA									
X1	18690.000	13 000	491.000	508.000	330.000	330.000	450.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	308.000	0.000	691.000	0.000	0.000	0.000	0.000
GR	852.000	255.000	851.000	307.000	850.000	380.000	849.000	445 000	848.000	491.000
GR	846.500	493.000	846.000	500 000	846 500	507.000	848.900	508.000	849.000	520.000
GR	850.000	530.000	851.000	580.000	852.000	690.000	0.000	0.000	0.000	0.000
NC	0.050	0.050	0.035	0.000	0.800	0.000	0.000	0.000	0.000	0.000
X1	18900.000	14.000	239.000	257.000	210 000	210 000	210.000	0.000	0.200	0.000
X3	0.000	0.000	0.000	109.000	0.000	387.000	0.000	0.000	0.000	0.000
GR	853.200	0 000	852.400	40.000	851.800	90.000	851.000	140.000	850.300	190.000
GR	849.200	239 000	846.700	240.000	846.400	250.000	846.800	256.000	849.600	257.000
GR	850.400	280.000	852.000	390.000	852.400	440.000	852.800	490.000	0.000	0.000
X1	19114.000	14.000	249.000	267.000	214.000	214.000	214.000	0.000	0.370	0.000
GR	854.200	0.000	853.600	50.000	853.000	100.000	852.400	150.000	851.500	200.000
GR	850.400	249.000	847.200	250.000	846.800	260.000	847.200	266.000	850.600	267.000
GR	851.600	300 000	852.900	350.000	853 300	400.000	853.900	450.000	0 000	0.000
X1	19264.000	0.000	0.000	0.000	150.000	150.000	150.000	0.000	0.400	0.000
X3	0.000	0.000	0.000	205.000	0.000	311.000	0.000	0.000	0.000	0.000
X1	19314.000	15.000	250.000	266.000	50.000	50.000	50.000	0.000	-0.200	0.000
GR	856.200	0.000	855.800	50.000	855 400	100.000	855.000	150.000	854.900	200.000
GR	852.400	220.000	852.000	250.000	848.000	250.000	847.900	260.000	848.000	266.000
GR	851.500	266.000	854.500	300.000	855.100	350.000	855.500	400.000	855.900	450.000
X1	19706.000	15.000	250.000	266 000	392.000	392.000	392.000	0.000	-0.400	0.000
GR	858.800	0.000	858.600	50.000	858.400	100.000	858.200	150.000	857.900	200.000
GR	856.900	240.000	856.000	250 000	849.700	250.000	849.300	260.000	849.700	266.000
GR	856.000	266.000	857.500	300.000	858.300	350.000	858.600	400.000	858.800	450.000

	DOWNSTREAM OF NORTH SIDE OF INTERSTATE 94									
X1	20099.000	20.000	250.000	266.800	393.000	393.000	393.000	0.000	0.000	0.000
GR	861.300	0.000	861.400	50.000	861.200	100.000	861.100	150.000	861.000	200.000
GR	859.700	220.000	859.800	233.200	859.800	248.000	850.000	250.000	850.600	255.000
GR	850.600	258.000	850.300	258.800	850.400	260.000	850.400	266.800	859.800	270.000
GR	860.200	300.000	860.700	350.000	861.000	400.000	861.000	450.000	861.300	500.000
	D/S FACE OF NORTH SIDE OF INTERSTATE 94									
X1	20150.000	20.000	250.000	266.800	51.000	51.000	51.000	0.000	0.000	0.000
GR	861.300	0.000	861.400	50.000	861.200	100.000	861.100	150.000	861.000	200.000
GR	859.700	220.000	859.800	233.200	859.800	250.000	850.000	250.000	850.600	255.000
GR	850.600	258.000	850.300	258.800	850.400	260.000	850.400	266.800	859.800	266.800
GR	860.200	300.000	860.700	350.000	861.000	400.000	861.000	450.000	861.300	500.000
SB	0.000	2.400	3.000	0.000	16.800	0.000	88.000	0.000	0.000	0.000
	U/S FACE OF SOUTH SIDE OF INTERSTATE 94									
X1	20357.000	20.000	250.000	266.900	207.000	207.000	207.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	855.300	861.500	0.000	0.000	0.000	0.000	0.000
BT	19.000	0.000	861.800	0.000	50.000	861.700	0.000	100.000	861.600	0.000
BT	150.000	861.600	0.000	200.000	861.600	0.000	250.000	861.600	849.600	250.000
BT	861.600	855.300	258.000	861.600	855.300	258.000	861.600	849.900	258.800	861.600
BT	855.300	258.800	861.600	850.500	266.900	861.500	855.400	266.900	861.500	849.700
BT	280.000	861.500	0.000	300.000	861.600	0.000	350.000	861.600	0.000	400.000
BT	861.700	0.000	450.000	861.900	0.000	500.000	862.000	0.000	0.000	0.000
GR	861.800	0.000	861.700	50.000	861.600	100.000	861.600	150.000	861.600	200.000
GR	847.700	250.000	849.600	250.000	849.700	255.000	849.900	258.000	850.500	258.800
GR	849.300	260.000	850.300	265.000	849.700	266.900	849.800	266.900	861.500	280.000
GR	861.600	300.000	861.600	350.000	861.700	400.000	861.900	450.000	862.000	500.000
	UPSTREAM OF SOUTH SIDE OF INTERSTATE 94									
X1	20408.000	0.000	0.000	0.000	51.000	51.000	51.000	0.000	0.000	0.000
	DOWNSTREAM OF ZEEB ROAD--CROSS SECTION B									
X1	21300.000	30.000	190.000	250.000	892.000	892.000	892.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	100.000	0.000	341.000	0.000	0.000	0.000	0.000
GR	862.700	0.000	863.100	25.000	862.100	50.000	860.400	75.000	856.000	100.000
GR	856.100	125.000	857.400	150.000	858.500	175.000	856.500	190.000	852.600	203.000
GR	851.800	207.000	851.500	210.000	851.700	215.000	851.600	220.000	851.200	225.000
GR	851.500	230.000	852.000	234.000	853.000	243.000	856.700	250.000	857.500	260.000
GR	858.600	275.000	860.500	300.000	862.500	325.000	863.100	350.000	863.500	375.000
GR	863.400	400.000	863.200	425.000	863.400	450.000	863.300	475.000	863.100	500.000
	D/S FACE OF ZEEB ROAD									
X1	21375.000	24.000	150.000	181.200	75.000	75.000	75.000	0.000	0.000	0.000
GR	869.700	0.000	867.500	50.000	865.200	100.000	859.000	150.000	851.000	151.200
GR	847.300	152.500	845.300	155.000	844.900	157.500	845.300	160.000	847.300	162.500
GR	851.000	163.800	851.800	168.900	848.400	170.000	846.500	172.500	846.000	174.800
GR	846.600	177.500	848.400	179.500	851.800	180.600	862.200	181.200	861.400	200.000
GR	860.800	250.000	861.100	300.000	862.100	350.000	863.200	400.000	0.000	0.000

SB	0.000	1.550	3.000	0.000	24.000	0 000	113.100	0.000	0.000	0.000
	U/S FACE OF ZEEB ROAD									
X1	21420.000	0.000	0.000	0.000	45.000	45.000	45.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	857.500	859.000	0.000	0.000	0.000	0.000	0.000
BT	24.000	0.000	869.700	0.000	50.000	867.500	0.000	100.000	865.200	0.000
BT	150 000	859.000	0.000	151 200	859.200	851.000	152.500	859.300	854.700	155.000
BT	859.500	856.700	157 500	859.800	857.400	160.000	860 000	856.700	162.500	860.300
BT	854.700	163.800	860.500	851.000	168.900	861.000	851.800	170.000	861.100	855.300
BT	172.500	861.300	857.200	174.800	861.700	857.700	177.500	861.800	857.000	179.500
BT	862.000	855.300	180.600	862 200	851.800	181.200	862.200	0.000	200.000	861.400
BT	0.000	250.000	860.800	0.000	300.000	861.100	0.000	350.000	862.100	0.000
BT	400.000	863.200	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.040	0.050	0.100	0.300	0.000	0.000	0.000	0.000	0.000
	UPSTREAM OF ZEEB ROAD									
X1	21471.000	30.000	190.000	250.000	51.000	51.000	51.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	27 000	0.000	414.000	0.000	0.000	0.000	0.000
GR	862.700	0.000	863.100	25.000	862.100	50.000	860.400	75.000	856.000	100.000
GR	856.100	125 000	857.400	150.000	858.500	175.000	856.500	190.000	852.600	203.000
GR	851.800	207.000	851.500	210.000	851.700	215.000	851.600	220.000	851.200	225.000
GR	851.500	230.000	852.000	234 000	853.000	243.000	856.700	250.000	857.500	260.000
GR	858.600	275.000	860 500	300.000	862.500	325.000	863.100	350.000	863.500	375.000
GR	863.400	400 000	863.200	425.000	863.400	450.000	863.300	475.000	863.100	500.000
X1	22000.000	0 000	0.000	0.000	529.000	529.000	529.000	0.000	0.000	0.000
NC	0.040	0.050	0.060	0.000	0.000	0.000	0.000	0.000	0.000	0.000
QT	1.000	420.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	23000.000	0.000	0.000	0.000	1000.000	1000.000	1000.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	148.000	0.000	292.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
	DOWNSTREAM OF JACKSON ROAD--CROSS SECTION C									
X1	23186.000	27.000	233.000	250.000	186.000	186.000	186.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	216.000	0.000	267.000	0.000	0.000	0 000	0.000
GR	861.900	0 000	860.800	25.000	860.900	50.000	861.600	75.000	861.300	100.000
GR	860.300	125.000	859.000	150.000	857.600	175.000	857.400	200 000	857.000	225.000
GR	856.500	233.000	854.700	237.000	853.500	239.000	853.800	241.000	854.600	246.000
GR	856.200	250.000	857.000	260 000	857.300	275.000	856.700	300.000	856.200	325.000
GR	856.300	350.000	856.400	375.000	856.300	400.000	856.500	425.000	856.600	450.000
GR	856.800	475.000	861.900	500 000	0.000	0.000	0.000	0.000	0.000	0.000
	D/S FACE OF JACKSON ROAD									
X1	23216.000	22 000	299.000	335.800	30.000	30.000	30.000	0.000	0.000	0.000
GR	863.000	0.000	862.800	50.000	862.600	100.000	862.500	150.000	862.300	200.000
GR	862.300	250.000	862.400	299.000	856.700	300 000	856.200	305.000	855.800	310.000
GR	855.900	315.000	854.800	321.000	853.500	325.000	854.800	328.000	854.500	333.000
GR	862.400	335 800	862.400	350.000	862 600	400.000	862.400	450.000	862.800	500.000
GR	862.900	550 000	863.100	600.000	0.000	0.000	0.000	0.000	0.000	0.000

SB	0.000	1.988	3.000	0.000	33.000	0.000	161.700	0.000	0.000	0.000
	U/S FACE OF JACKSON ROAD									
X1	23300.000	0.000	0.000	0.000	84.000	84.000	84.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	860.500	862.300	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	299.000	0.000	335.800	0.000	0.000	0.000	0.000
BT	18.000	0.000	863.000	0.000	50.000	862.800	0.000	100.000	862.600	0.000
BT	150.000	862.500	0.000	200.000	862.300	0.000	250.000	862.300	0.000	299.000
BT	862 400	0 000	300.000	862.400	856.700	300.000	864.900	858.500	333.000	864.900
BT	858.500	333.000	862.400	854.500	335.800	862.400	0.000	350.000	862.400	0.000
BT	400.000	862 600	0.000	450.000	862.400	0.000	500.000	862.800	0.000	550.000
BT	862.900	0.000	600 000	863.100	0 000	0.000	0.000	0.000	0.000	0.000
NC	0.030	0.000	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	UPSTREAM OF JACKSON ROAD									
X1	23350.000	27.000	233.000	250.000	50.000	50.000	50.000	0.000	0.000	0.000
X3	0.000	0.000	0 000	175.000	0.000	308.000	0.000	0.000	0.000	0.000
GR	861 900	0.000	860.800	25.000	860.900	50.000	861.600	75.000	861.300	100.000
GR	860.300	125.000	859.000	150.000	857.600	175.000	857.400	200.000	857.000	225.000
GR	856.500	233.000	854.700	237.000	853.500	239.000	853.800	241.000	854.600	246.000
GR	856.200	250.000	857.000	260.000	857.300	275 000	856.700	300.000	856.200	325.000
GR	856.300	350.000	856.400	375.000	856.300	400 000	856.500	425.000	856.600	450.000
GR	856.800	470.000	861.700	500.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
X1	25000.000	21.000	230.000	250.000	1650 000	1650.000	1650.000	0.000	0.000	0.000
GR	864.400	0.000	864.200	25.000	864.300	50.000	864.600	100.000	863.100	150.000
GR	861.700	175.000	861.400	200.000	860.000	230.000	857.900	235.000	856.800	240.000
GR	857.800	245.000	860.000	250.000	860.200	255.000	860.400	275.000	860.000	300.000
GR	859.700	325.000	859.800	375 000	860 000	440.000	860.200	450.000	861.000	465.000
GR	864.200	500 000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	25333.000	19.000	230.000	250.000	333.000	333.000	333.000	0.000	0.000	0.000
GR	865.400	0.000	865.300	25.000	865.300	50 000	865.400	100.000	864.400	150.000
GR	863.300	175 000	862.900	200.000	860.700	230.000	858.100	235.000	857.400	240.000
GR	858 100	245.000	860.500	250.000	861.100	260.000	861.100	275.000	860.500	325.000
GR	860.400	350.000	860.700	400.000	861.300	450.000	864.600	500.000	0.000	0.000
X1	25666 000	19.000	230.000	250.000	333.000	333.000	333.000	0.000	0.000	0.000
GR	866.400	0.000	866.400	25.000	866.300	50.000	866.200	100.000	865.600	150.000
GR	864.600	175.000	864.200	200.000	862.000	230.000	858.600	235.000	858.100	240.000
GR	858.600	245.000	861.300	250.000	862.500	260.000	862.400	275.000	861.800	325.000
GR	861.500	350.000	861.800	400.000	862.800	450.000	865.100	500.000	0.000	0.000
NC	0.040	0.040	0.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	26000.000	20.000	230.000	253.000	334.000	334.000	334.000	0.000	0.000	0.000
GR	867.500	0.000	867.400	50 000	867.000	100.000	866.800	135.000	865.700	175.000
GR	865.200	200 000	862.500	230.000	859.000	235.000	858.700	240.000	859.000	245.000
GR	860.000	247.000	862.000	250.000	863.200	253.000	863.800	260.000	863.300	285.000
GR	863 000	325.000	862.500	350.000	862.900	400.000	864.100	450.000	865.800	500.000

X1	26490.000	22.000	230.000	250.000	490.000	490.000	490.000	0.000	0.000	0.000
GR	868.100	0.000	868 000	50.000	867.600	100.000	867.400	155.000	866.500	175.000
GR	866.200	200.000	863.800	230.000	860.100	235.000	859.700	240.000	860.100	245.000
GR	863.300	250.000	865.700	260.000	864.900	275.000	864.700	300.000	864.600	325.000
GR	864.200	350 000	864.300	375.000	864.500	400.000	865.000	425.000	865.800	450.000
GR	866.900	475.000	867.600	500.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	26980.000	23.000	228.000	250.000	490.000	490.000	490.000	0.000	0.000	0.000
GR	868.800	0.000	868.800	25.000	868.700	50.000	868.400	100.000	868.200	150.000
GR	867.400	175.000	867.200	200.000	865.300	228.000	861.200	235.000	860.700	240.000
GR	861.200	245.000	864 600	250.000	867.600	260.000	866.300	275.000	866.100	300.000
GR	866 000	325.000	865.600	350.000	865.700	375.000	865.900	400.000	866.300	425.000
GR	867 500	450.000	868.800	475.000	869.300	500.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
	DOWNSTREAM OF STAEBLER ROAD									
X1	27472.000	27.000	228 000	250.000	492 000	492.000	492.000	0.000	0.000	0.000
X3	0.000	0 000	0.000	218.000	0.000	259.000	0.000	0.000	0.000	0.000
GR	869.600	0.000	869.900	25.000	869.600	50.000	869.300	75.000	869.300	100.000
GR	869.100	125.000	869.100	150.000	868.400	175.000	868.300	200.000	867.300	225.000
GR	866.800	228 000	862.400	235 000	861.700	240.000	862.000	245.000	862.500	246.000
GR	866.100	250.000	869.800	260.000	868.000	275.000	867.900	300.000	867.900	325.000
GR	867.500	350.000	867.600	375.000	867.800	400.000	868.100	425.000	869.500	450.000
GR	871.000	475.000	871.300	500.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	27522.000	20.000	300.000	316.000	50.000	50.000	50.000	0.000	0.000	0.000
GR	872.900	0.000	872.100	50.000	871.300	100.000	871.100	150.000	871.000	200.000
GR	871.100	250.000	871.500	300.000	863.300	300.000	863.200	305.000	863.400	311.000
GR	865.900	313.000	866.000	316.000	871.500	316.000	871.400	324.000	870.900	350.000
GR	870.600	400.000	870.700	450.000	870.800	500.000	871.200	550.000	872.200	600.000
	D/S FACE OF STAEBLER ROAD									
X1	27523.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	17.000	0.000	872.900	0.000	50.000	872.100	0.000	100.000	871.300	0.000
BT	150.000	871.100	0.000	200.000	871.000	0.000	250.000	871.100	0.000	300.000
BT	871.500	863.300	300.000	871.500	869.600	316.000	871.400	869.500	316.000	871.400
BT	866 000	324.000	871.400	0.000	350.000	870.900	0.000	400.000	870.600	0.000
BT	450.000	870.700	0.000	500.000	870.800	0.000	550.000	871.200	0.000	600.000
BT	872.200	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	U/S FACE OF STAEBLER ROAD									
X1	27539.000	0.000	0.000	0.000	16.000	16.000	16.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
X1	27540 000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
NC	0 030	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	UPSTREAM OF STAEBLER ROAD--CROSS SECTION D									
X1	27600.000	27.000	228.000	250 000	60.000	60.000	60.000	0.000	0.000	0.000
X3	0.000	0.000	0 000	171.000	0.000	307.000	0.000	0.000	0.000	0.000
GR	869.600	0.000	869.900	25.000	869.600	50.000	869.300	75.000	869 300	100.000
GR	869 100	125.000	869.100	150.000	868.400	175 000	868.300	200.000	867.300	225.000
GR	866.800	228.000	862.400	235.000	861.700	240.000	862.000	245.000	862 500	246.000

GR	866.100	250.000	869.800	260.000	868.000	275.000	867.900	300.000	867.900	325.000
GR	867.500	350.000	867.600	375.000	867.800	400.000	868.100	425.000	869.500	450.000
GR	871.000	475.000	871.300	500.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
X1	28140.000	25.000	225.000	250.000	540.000	540.000	540.000	0.000	0.000	0.000
GR	872.000	0.000	872.100	25.000	871.700	50.000	871.200	75.000	871.100	100.000
GR	870.900	125.000	870.600	150.000	870.200	175.000	870.100	200.000	869.400	225.000
GR	864.400	235.000	863.700	240.000	864.300	245.000	868.200	250.000	870.900	260.000
GR	870.200	275.000	869.700	300.000	869.700	325.000	869.700	350.000	869.700	375.000
GR	870.000	400.000	870.300	425.000	871.500	450.000	873.000	475.000	873.300	500.000
X1	28680.000	25.000	225.000	250.000	540.000	540.000	540.000	0.000	0.000	0.000
GR	874.200	0.000	874.200	25.000	873.600	50.000	873.300	75.000	872.900	100.000
GR	872.700	125.000	872.400	150.000	871.800	175.000	871.800	200.000	871.300	225.000
GR	866.700	235.000	865.800	240.000	866.400	245.000	870.300	250.000	872.100	260.000
GR	871.800	275.000	871.500	300.000	871.700	325.000	871.800	350.000	871.800	375.000
GR	872.000	400.000	872.700	425.000	873.600	450.000	874.800	475.000	875.400	500.000
X1	29225.000	25.000	227.000	252.000	545.000	545.000	545.000	0.000	0.000	0.000
GR	876.400	0.000	876.000	25.000	875.400	50.000	875.200	75.000	875.000	100.000
GR	874.200	125.000	874.000	150.000	873.600	175.000	873.600	200.000	873.200	227.000
GR	868.000	235.000	868.000	240.000	868.800	245.000	872.400	252.000	873.100	260.000
GR	873.000	275.000	873.400	300.000	873.600	325.000	874.200	350.000	874.400	375.000
GR	874.800	400.000	875.000	425.000	875.800	450.000	876.800	475.000	877.200	500.000
X1	29765.000	24.000	225.000	250.000	540.000	540.000	540.000	0.000	0.000	0.000
GR	878.700	0.000	878.400	25.000	877.800	50.000	877.700	75.000	877.400	100.000
GR	876.400	125.000	876.200	150.000	875.800	175.000	876.000	200.000	875.700	225.000
GR	871.200	235.000	870.300	240.000	871.000	245.000	874.700	250.000	875.000	275.000
GR	875.400	300.000	875.700	325.000	876.200	350.000	876.700	375.000	877.200	400.000
GR	877.600	425.000	878.100	450.000	879.000	475.000	879.300	500.000	0.000	0.000
X1	30305.000	24.000	225.000	250.000	540.000	540.000	540.000	0.000	0.000	0.000
GR	880.800	0.000	880.500	25.000	880.200	50.000	880.000	75.000	879.900	100.000
GR	878.600	125.000	878.400	150.000	878.200	175.000	878.400	200.000	878.200	225.000
GR	873.300	235.000	872.400	240.000	873.100	245.000	877.200	250.000	877.100	275.000
GR	877.500	300.000	877.800	325.000	878.400	350.000	879.100	375.000	879.600	400.000
GR	880.300	425.000	880.500	450.000	881.100	475.000	881.400	500.000	0.000	0.000
NC	0.040	0.040	0.050	0.300	0.500	0.000	0.000	0.000	0.000	0.000
	DOWNSTREAM OF STAEBLER ROAD									
X1	30850.000	25.000	218.000	250.000	545.000	545.000	545.000	0.000	0.000	0.000
GR	883.300	0.000	882.800	25.000	882.500	50.000	882.300	75.000	882.300	100.000
GR	880.900	125.000	880.500	150.000	880.200	175.000	880.600	200.000	880.600	218.000
GR	875.500	228.000	874.800	230.000	874.500	235.000	875.600	240.000	879.600	250.000
GR	879.100	275.000	879.800	300.000	880.400	325.000	880.800	350.000	881.300	375.000
GR	881.900	400.000	882.500	425.000	882.900	450.000	883.500	475.000	883.800	500.000

NC	0.000	0.000	0.000	0.500	1.000	0.000	0.000	0.000	0.000	0.000
	D/S FACE OF STAEBLER ROAD									
X1	30901.000	18.000	250.000	266.000	51.000	51.000	51.000	0.000	0.000	0.000
GR	882.800	0.000	881.900	50.000	881.000	100.000	880.500	150.000	880.900	200.000
GR	881.800	250.000	875.100	250 000	875.300	255.000	874.600	258.000	873.900	260.000
GR	873.700	266.000	881.800	266 000	881.800	281.000	881.500	300.000	880.500	350.000
GR	880.000	400 000	879.800	450.000	879.500	500.000	0.000	0.000	0.000	0.000
SB	0.000	1.460	3.000	0.000	16.000	0.000	105.600	0.000	0.000	0.000
	U/S FACE OF STAEBLER ROAD									
X1	30917.000	0.000	0.000	0.000	16.000	16.000	16.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	880.700	879.500	0.000	0.000	0.000	0.000	0.000
BT	15.000	0.000	882.800	0.000	50.000	881.900	0.000	100.000	881.000	0.000
BT	150 000	880.500	0.000	200.000	880.900	0.000	250.000	881.800	875.100	250.000
BT	881.800	880.700	266.000	881.800	880 700	266.000	881.800	873.700	281.000	881.800
BT	0.000	300.000	881.500	0.000	350.000	880.500	0.000	400.000	880.000	0.000
BT	450.000	879.800	0.000	500.000	879.500	0.000	0.000	0.000	0.000	0.000
NC	0.050	0.000	0.000	0.000	0 000	0.000	0.000	0.000	0.000	0.000
	UPSTREAM OF STAEBLER ROAD									
X1	31000.000	25.000	218.000	250.000	83.000	83 000	83.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	159 000	0.000	309.000	0.000	0.000	0 000	0.000
GR	883.300	0 000	882.800	25 000	882.500	50.000	882.300	75.000	882.300	100.000
GR	880.900	125.000	880.500	150.000	880.200	175.000	880.600	200.000	880.600	218.000
GR	875.500	228.000	874.800	230.000	874.500	235.000	875.600	240 000	879.600	250.000
GR	879.100	275.000	879 800	300.000	880.400	325.000	880.800	350.000	881.300	375.000
GR	881.900	400.000	882.500	425.000	882.900	450.000	883.500	475.000	883.800	500.000
	DOWNSTREAM OF PARK ROAD									
X1	31200.000	0.000	0.000	0.000	200.000	200.000	200.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	209.000	0.000	259.000	0.000	0.000	0.000	0.000
	DOWNSTREAM FACE OF PARK ROAD									
X1	31278.000	16 000	250.000	261.400	78.000	78.000	78.000	0.000	0.000	0.000
X3	0 000	0.000	0.000	250.000	0.000	261.400	0.000	0.000	0.000	0.000
GR	882.100	0.000	882.100	50.000	882 200	100.000	882.100	150.000	882.400	200.000
GR	875.700	250.000	875.600	250.000	874.400	254.000	873.600	257.000	873.900	261.400
GR	874.000	261.400	882 500	300 000	881.900	350.000	881.700	400.000	882.100	450.000
GR	882.700	500.000	0.000	0 000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	1.780	3.000	0.000	11.400	0.000	77.520	0.000	0.000	0.000
	UPSTREAM FACE OF PARK ROAD									
X1	31300.000	0.000	0.000	0.000	22.000	22.000	22.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	880.800	881.700	0.000	0.000	0.000	0.000	0.000
X3	0.000	0 000	0.000	201.000	0.000	310.000	0.000	0.000	0.000	0.000
BT	14.000	0 000	882.100	0.000	50.000	882.100	0.000	100.000	882.200	0.000
BT	150.000	882.100	0.000	200.000	882.400	0.000	250.000	882.800	875.600	250.000
BT	882.800	880.800	261 400	882.800	880.800	261.400	882.800	873.900	300.000	882.500
BT	0.000	350.000	881.900	0 000	400.000	881.700	0.000	450.000	882.100	0.000
BT	500.000	882.700	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

NC	0.000	0.050	0.055	0.100	0 300	0.000	0.000	0.000	0.000	0.000
		UPSTREAM OF PARK ROAD--CROSS SECTION E								
X1	31340.000	25 000	218.000	250.000	40.000	40.000	40.000	0.000	0.000	0.000
X3	0.000	0 000	0.000	189.000	0.000	280.000	0.000	0.000	0.000	0.000
GR	883 300	0.000	882.800	25.000	882.500	50.000	882.300	75.000	882.300	100.000
GR	880.900	125.000	880.500	150.000	880.200	175.000	880.600	200.000	880.600	218.000
GR	875.500	228.000	874.800	230.000	874.500	235.000	875.600	240.000	879.600	250.000
GR	879.100	275.000	879.800	300.000	880.400	325.000	880.800	350.000	881.300	375.000
GR	881.900	400.000	882 500	425.000	882.900	450.000	883.500	475.000	883.800	500.000
X1	32000.000	0.000	0.000	0.000	660.000	660.000	660.000	0.000	1.000	0.000
X1	33000.000	26.000	225.000	250.000	1000.000	1000.000	1000.000	0.000	-3.900	0.000
GR	883.100	0.000	883.100	25.000	883.300	50.000	883.300	75.000	883.100	100.000
GR	883.100	125.000	883.200	150.000	883.600	175 000	884.000	200.000	883.900	225.000
GR	881 700	231.000	880.900	235.000	881.200	240.000	881.600	245.000	884.700	250.000
GR	885.700	260.000	885.400	275.000	885.300	300.000	885.400	325.000	885.200	350.000
GR	885.300	375 000	885.400	400.000	885.200	425.000	885.200	450.000	885.200	475.000
GR	885.000	500.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.060	0 060	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	34500.000	26.000	225.000	250.000	1500.000	1500.000	1500.000	0.000	-1.400	0.000
GR	883.100	0.000	883 100	25.000	883.300	50.000	883.300	75.000	883.100	100.000
GR	883.100	125.000	883.200	150.000	883.600	175.000	884.000	200.000	883.900	225.000
GR	881.700	231.000	880.900	235.000	881.200	240.000	881.600	245.000	884.700	250.000
GR	885.700	260.000	885.400	275.000	885.300	300.000	885.400	325.000	885.200	350.000
GR	885 300	375.000	885 400	400.000	885.200	425.000	885.200	450.000	885.200	475.000
GR	885.000	500 000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		DOWNSTREAM OF LIBERTY ROAD--CROSS SECTION F								
X1	35520.000	26.000	225.000	250.000	1020.000	1020.000	1020.000	0.000	0.000	0.000
GR	883 100	0.000	883.100	25.000	883.300	50.000	883.300	75.000	883.100	100.000
GR	883.100	125 000	883.200	150.000	883.600	175.000	884.000	200.000	883.900	225.000
GR	881.700	231 000	880.900	235 000	881.200	240.000	881.600	245.000	884.700	250.000
GR	885.700	260.000	885.400	275.000	885 300	300.000	885.400	325.000	885.200	350.000
GR	885.300	375.000	885.400	400.000	885.200	425.000	885.200	450.000	885.200	475.000
GR	885.000	500.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0 000	0.000	0.400	0.800	0.000	0.000	0.000	0.000	0.000
		D/S FACE OF LIBERTY ROAD								
X1	35571.000	25 000	293.000	321.000	51.000	51.000	51.000	0.000	0.000	0.000
GR	883.000	0.000	883.000	50.000	883.500	100.000	883.500	150.000	883.900	200.000
GR	884.800	250.000	883.900	293.000	882.000	296.000	882.200	298.000	881.000	298.400
GR	880.300	299.400	880.200	300.000	880.300	300.600	881.000	301.600	882.200	302.000
GR	881.800	305 000	881.800	310.000	882.100	315.000	887.300	321.000	886.700	350.000
GR	886.700	400.000	886.600	450.000	886.700	500.000	886.700	550.000	886.700	600.000
SB	0.000	2.364	3.000	0.000	3.540	0.000	12.570	0.000	0.000	0.000

U/S FACE OF LIBERTY ROAD

X1	35611.000	0.000	0.000	0.000	40.000	40.000	40.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	884.200	886.000	0.000	0.000	0.000	0.000	0.000
BT	19.000	0.000	886.000	0.000	50.000	886.000	0.000	100.000	886.000	0.000
BT	150.000	896.000	0.000	200.000	886.000	0.000	250.000	886.000	0.000	296.000
BT	886.000	0.000	298.000	886.000	882.200	298.400	886.000	883.400	299.400	886.000
BT	884.100	300.000	886.000	884.200	300.600	886.000	884.100	301.600	886.000	883.400
BT	302.000	886.000	882.200	350.000	886.700	0.000	400.000	886.700	0.000	450.000
BT	886.600	0.000	500.000	886.700	0.000	600.000	886.700	0.000	0.000	0.000
QT	1.000	350.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.050	0.050	0.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000

UPSTREAM OF LIBERTY ROAD

X1	35662.000	26.000	225.000	250.000	51.000	51.000	51.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	27.000	0.000	449.000	0.000	0.000	0.000	0.000
GR	883.100	0.000	883.100	25.000	883.300	50.000	883.300	75.000	883.100	100.000
GR	883.100	125.000	883.200	150.000	883.600	175.000	884.000	200.000	883.900	225.000
GR	881.700	231.000	880.900	235.000	881.200	240.000	881.600	245.000	884.700	250.000
GR	885.700	260.000	885.400	275.000	885.300	300.000	885.400	325.000	885.200	350.000
GR	885.300	375.000	885.400	400.000	885.200	425.000	885.200	450.000	885.200	475.000
GR	885.000	500.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	36108.000	18.000	225.000	250.000	446.000	446.000	446.000	0.000	0.000	0.000
GR	885.800	0.000	885.500	75.000	885.400	100.000	885.300	125.000	885.300	150.000
GR	885.500	175.000	885.700	200.000	885.600	225.000	883.300	230.000	882.800	235.000
GR	883.300	240.000	886.300	250.000	886.800	260.000	886.700	275.000	886.800	325.000
GR	886.800	375.000	886.700	425.000	886.700	500.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
X1	36256.000	18.000	225.000	250.000	148.000	148.000	148.000	0.000	0.000	0.000
GR	886.700	0.000	886.400	75.000	886.300	100.000	886.200	125.000	886.100	150.000
GR	886.200	175.000	886.300	200.000	886.200	225.000	883.800	230.000	883.400	235.000
GR	883.800	240.000	886.800	250.000	887.200	260.000	887.200	275.000	887.300	325.000
GR	887.300	375.000	887.300	425.000	887.400	500.000	0.000	0.000	0.000	0.000
X1	36404.000	18.000	225.000	250.000	148.000	148.000	148.000	0.000	0.000	0.000
GR	887.600	0.000	887.200	75.000	887.100	100.000	887.100	125.000	887.000	150.000
GR	887.000	175.000	886.900	200.000	886.800	225.000	884.400	230.000	884.000	235.000
GR	884.400	240.000	887.300	250.000	887.600	260.000	887.600	275.000	887.600	325.000
GR	887.600	375.000	887.600	425.000	887.700	500.000	0.000	0.000	0.000	0.000
X1	36554.000	18.000	225.000	250.000	150.000	150.000	150.000	0.000	0.000	0.000
GR	888.400	0.000	888.000	75.000	887.900	100.000	887.900	125.000	887.900	150.000
GR	887.700	175.000	887.500	200.000	887.300	225.000	885.100	230.000	884.600	235.000
GR	885.100	240.000	887.900	250.000	888.100	260.000	888.200	275.000	888.200	325.000
GR	888.200	375.000	888.300	425.000	888.500	500.000	0.000	0.000	0.000	0.000
X1	37000.000	14.000	225.000	248.000	446.000	446.000	446.000	0.000	0.000	0.000
GR	891.000	0.000	890.500	50.000	890.200	75.000	890.000	125.000	889.000	225.000
GR	887.000	230.000	886.500	235.000	887.000	240.000	889.500	248.000	890.000	275.000
GR	889.700	325.000	889.800	375.000	890.000	425.000	890.300	480.000	0.000	0.000

X1	38000.000	12 000	225.000	245.000	1000.000	1000.000	1000.000	0.000	0.000	0.000
GR	896.700	0.000	895.000	100.000	894 000	175.000	893.000	225.000	891.000	235 000
GR	891.800	243.000	893.500	245.000	893.600	250.000	894.500	290.000	894.500	350.000
GR	895.000	400.000	896.000	455.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	39000.000	11.000	225.000	244.000	1000 000	1000.000	1000.000	0.000	0.000	0.000
GR	900.000	0.000	901.000	50.000	901.000	75.000	898.500	160.000	897.700	225.000
GR	896.000	232.000	896.500	240.000	898.400	244.000	900.000	325.000	904.500	400.000
GR	905.500	415.000	0 000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	40000.000	13.000	225 000	244.000	1000.000	1000.000	1000.000	0.000	0.000	0.000
GR	904.000	0.000	905.000	25.000	905.000	75.000	903.000	150.000	902.000	200.000
GR	901.500	225.000	900.700	230.000	902.000	243.000	902.500	244.000	903.000	275.000
GR	903.500	290.000	905.500	350.000	909.200	400.000	0.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	GLOB	GCH	GROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= 0.300 CEHV= 0 500
*SECNO 0.000
3280 CROSS SECTION 0.00 EXTENDED 0 37 FEET

3470 ENCROACHMENT STATIONS= 0.0 304.0 TYPE= 1 TARGET= 303.999

0.00	9 17	808 02	0.00	804.00	808.67	0.65	0.00	0.00	809.75
1740.	0.	1740.	0.	0.	269.	0.	0.	0.	809.75
0.00	0.00	6.47	0.00	0.000	0.050	0.000	0.000	798.85	249.22
0.004477	0.	0.	0.	0	0	4	0.00	34 55	283.77

*SECNO 125.000
3280 CROSS SECTION 125.00 EXTENDED 0.43 FEET

3470 ENCROACHMENT STATIONS= 0.0 304.0 TYPE= 1 TARGET= 303.999

125.00	9.24	808 59	0.00	0.00	809 23	0.64	0.55	0.00	810.25
1740.	0.	1740.	0.	0.	271	0.	1.	0.	810.25
0.01	0.00	6.42	0.00	0.000	0 050	0.000	0.000	799.35	249.21
0.004380	125.	125.	125.	0	0	0	0.00	34.56	283.77

*SECNO 176.000
3280 CROSS SECTION 176.00 EXTENDED 0.02 FEET

3470 ENCROACHMENT STATIONS= 0 0 304.0 TYPE= 1 TARGET= 303.999
DOWNSTREAM FACE OF HURON RIVER DRIVE

176 00	9.33	808.83	0.00	0.00	809.45	0.63	0.22	0.00	810.40
1740.	0.	1740.	0.	0	274.	0.	1.	0	810.40
0.01	0.00	6 35	0.00	0.000	0.050	0.000	0.000	799.50	249.20
0.004241	51.	51.	51.	1	0	0	0.00	34.59	283.79

SPECIAL BRIDGE

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

5070, VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.72	3.00	0.00	32.50	0.00	276.25	0.00	799.50	799.50

*SECNO 199.000

6070, LOW FLOW BY NORMAL BRIDGE

EGPRS= 809.888 EGLWC= 809.455 ELLC= 808.700 PCWSE= 808.829 ELTRD= 808.300
3280 CROSS SECTION 199.00 EXTENDED 0.61 FEET

3370 NORMAL BRIDGE, NRD= 16 MIN ELTRD= 808.30 MAX ELLC= 808.70

3470 ENCROACHMENT STATIONS= 0 0 304.0 TYPE= 1 TARGET= 303.999
U/S FACE OF HURON RIVER DRIVE

199.00	9.41	808 91	0 00	0.00	809.67	0 76	0.15	0.07	810.40
1740.	0.	1740.	0.	0.	249.	0.	1.	0	810.40
0.01	0.00	7.00	0.00	0.000	0.050	0.000	0.000	799.50	249.19
0.011770	23.	23.	23.	2	0	0	-28.53	34.61	283.80

CCHV= 0.100 CEHV= 0.300
*SECNO 250.000
3280 CROSS SECTION 250.00 EXTENDED 0.94 FEET

3470 ENCROACHMENT STATIONS= 0.0 304.0 TYPE= 1 TARGET= 303.999
UPSTREAM OF HURON RIVER DRIVE

250.00	9.74	809 44	0.00	0.00	810.00	0.57	0.31	0.02	810.60
1740.	0.	1740.	0.	0.	288.	0.	2.	0.	810.60
0.01	0 00	6.03	0.00	0.000	0.050	0.000	0.000	799.70	249.15
0.003664	51.	51.	51.	2	0	0	0.00	34.70	283.84

*SECNO 850.000
3280 CROSS SECTION 850.00 EXTENDED 0 66 FEET

3470 ENCROACHMENT STATIONS= 0.0 304.0 TYPE= 1 TARGET= 303.999

850.00	9.66	811.66	0.00	0.00	812.23	0.58	2.23	0.00	812.90
1740.	0	1740.	0	0.	286.	0.	6.	1.	812.90
0.04	0.00	6.09	0.00	0.000	0.050	0 000	0.000	802.00	249.16
0.003756	600.	600.	600.	2	0	0	0.00	34 68	283.83

Do not use F.P. elev. see Attached

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
*SECNO 1200.000									
3470 ENCROACHMENT STATIONS=			0.0	304.0	TYPE=	1	TARGET=	303.999	
1200.00	9.63	812.98	0.00	0.00	813.56	0.58	1.32	0.00	814.25
1740.	0.	1740.	0.	0.	284.	0.	8.	1.	814.25
0.05	0.00	6.12	0.00	0.000	0.050	0.000	0.000	803.35	249.16
0.003808	350	350	350.	2	0	0	0.00	34.67	283.83
*SECNO 1850.000									
1850.00	8.30	814.90	0.00	0.00	815.05	0.15	1.45	0.04	811.00
1740.	112.	921.	707.	69.	228.	475.	16	3.	811.00
0.12	1.64	4.05	1.49	0.070	0.050	0.070	0.000	806.60	193.41
0.001472	650.	650.	650.	2	0	0	0.00	300.10	493.51
*SECNO 2100.000									
2100.00	7.71	815.31	0.00	0.00	815.55	0.25	0.47	0.03	812.00
1740.	104.	1039	597.	54.	209.	343.	20.	5.	812.00
0.14	1.94	4.97	1.74	0.070	0.050	0.070	0.000	807.60	196.06
0.002496	250.	250	250.	2	0	0	0.00	260.59	456.65
*SECNO 2300.000									
2300.00	6.93	815.83	0.00	0.00	816.34	0.51	0.70	0.08	813.30
1740.	89.	1230.	422.	36.	184.	203	22	6.	813.30
0.15	2.43	6.69	2.08	0.070	0.050	0.070	0.000	808.90	199.56
0.005344	200.	200.	200.	2	0	0	0.00	208.40	407.96
*SECNO 2500..000									
2500.00	6.73	816.93	0.00	0.00	817.54	0.61	1.18	0.03	814.60
1740	83.	1281.	376	33.	178.	174.	24.	7.	814.60
0.16	2.56	7.21	2.16	0.070	0.050	0.070	0.000	810.20	200.41
0.006493	200.	200.	200.	2	0	0	0.00	195.84	396.26
*SECNO 2650.000									
2650.00	6.79	817.89	0.00	0.00	818.50	0.62	0.96	0.00	814.90
1740.	389.	1209.	141.	148.	165.	45.	25.	8.	814.70
0.16	2.64	7.33	3.17	0.070	0.050	0.070	0.000	811.10	137.66
0.006297	150.	150	150.	2	0	0	0.00	130.75	268.41

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	GLOB	GCH	GROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
*SECNO 2800.000									
CROSS SECTION A									
2800.00	6.74	818.84	0.00	0.00	819.47	0.64	0.96	0.01	815.90
1740.	382.	1218.	140.	144.	164.	44.	26.	8.	815.70
0.17	2.66	7.44	3.20	0.070	0.050	0.070	0.000	812.10	138.24
0.006560	150.	150	150.	1	0	0	0.00	130.07	268.31
*SECNO 3800.000									
3800.00	7.44	823.64	0.00	0.00	823.98	0.34	4.47	0.03	820.00
1740	534.	1035.	171.	206.	183.	57.	35.	11.	819.80
0.23	2.60	5.64	3.00	0.060	0.050	0.060	0.000	816.20	129.45
0.003244	1000.	1000.	1000.	3	0	0	0.00	140.33	269.78
*SECNO 4500.000									
4500.00	7.09	826.19	0.00	0.00	826.63	0.44	2.62	0.03	822.90
1740.	482.	1094.	164.	174.	174.	50.	42.	13.	822.70
0.27	2.77	6.31	3.27	0.060	0.050	0.060	0.000	819.10	133.89
0.004366	700.	700.	700.	3	0	0	0.00	135.14	269.04
*SECNO 5000.000									
3470 ENCROACHMENT STATIONS=		0.0	162.0	TYPE=	1	TARGET=	161.999		
START OF MDNR PROVIDED DATA									
5000.00	6.77	827.97	0.00	0.00	828.15	0.18	1.50	0.03	825.60
1740.	32.	663.	1045.	19.	150.	386.	48.	15	822.50
0.31	1.70	4.41	2.70	0.060	0.050	0.060	0.000	821.20	20.80
0.002187	500.	500.	500.	2	0	0	0.00	141.20	162.00
CCHV= 0.300 CEHV= 0.500									
*SECNO 6000.000									
6000.00	5.37	830.67	0.00	0.00	830.83	0.16	2.67	0.01	829.70
1740.	4.	539.	1197.	5.	117.	522.	62.	20.	826.60
0.41	0.92	4.60	2.29	0.060	0.050	0.060	0.000	825.30	22.89
0.003340	1000.	1000.	1000.	3	0	0	0.00	313.28	336 17
*SECNO 6330.000									
3470 ENCROACHMENT STATIONS=		32.0	182.0	TYPE=	1	TARGET=	150.000		

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
6330.00	5.38	832.08	0.00	0.00	832.47	0.39	1.52	0.11	831.10
1740.	0.	754	986.	0.	117.	282.	65.	22.	828.00
0.42	0.00	6.42	3.50	0.000	0.050	0.060	0 000	826.70	32.00
0.006803	330.	330.	330.	2	0	0	0.00	150.00	182.00

*SECNO 6430.000

3470 ENCROACHMENT STATIONS= 0.0 150 0 TYPE= 1 TARGET= 149.999

6430.00	5.75	832.55	0.00	0.00	833.11	0.56	0.56	0.09	828.00
1740.	162.	974.	605.	42.	134.	159.	66.	22.	828.80
0.43	3 88	7.25	3.81	0.060	0.050	0.060	0.000	826.80	49.23
0.006411	250.	100.	50.	2	0	0	0.00	100.77	150.00

CCHV= 0.300 CEHV= 1.000
*SECNO 6680.000

3470 ENCROACHMENT STATIONS= 168.0 217.0 TYPE= 1 TARGET= 49.000

6680.00	7.62	833.92	0.00	0.00	834.74	0.82	1.36	0.26	829.10
1740.	190.	1397.	153.	44.	178.	41.	68.	23.	830.40
0.44	4 29	7.85	3.76	0.060	0.050	0 060	0.000	826.30	168.00
0.006227	250.	200.	250.	2	0	0	0.00	49.00	217.00

*SECNO 6720.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 836.30 ELREA= 836.30

DOWNSTREAM FACE OF MILLER ROAD

6720.00	7.41	834.21	0.00	0 00	835.43	1.22	0.29	0.40	831.30
1740.	0.	1740.	0.	0.	196.	0.	68.	23.	831.40
0.44	0.00	8.86	0 00	0.000	0.050	0.000	0.000	826.80	185.00
0.008521	40.	40.	40.	2	0	0	0.00	29.00	214.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.63	2.50	0.00	24.77	0.00	206.10	0.00	826.90	826.30

*SECNO 6770.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
836.01	835.40	0.00	0.	1740.	206.	189.	834.52	836.30

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 836.30 ELREA= 836.30

UPSTREAM FACE OF MILLER ROAD

6770.00	9 92	835.12	0.00	0.00	836.01	0.89	0.58	0.00	830.80
1740.	0.	1740.	0.	0.	230.	0.	68.	23.	829.60
0.44	0.00	7.58	0.00	0.000	0.050	0.000	0.000	826.20	186.00
0.004726	50	50.	50.	3	0	0	0.00	28.00	214.00

*SECNO 6776.000

3470 ENCROACHMENT STATIONS= 160.0 200.0 TYPE= 1 TARGET= 40.000

6776.00	9 08	835.68	0.00	0.00	836 15	0.48	0.02	0.12	831.40
1740	0.	1740.	0.	0.	314.	0	68.	23.	100000.00
0.44	0.00	5.54	0.00	0.000	0.040	0.000	0.000	826.60	160.00
0.001985	6.	6.	6.	2	0	0	0.00	40.00	200.00

*SECNO 6790.000

3470 ENCROACHMENT STATIONS= 146.0 214 0 TYPE= 1 TARGET= 68.000

6790.00	9.38	835.98	0.00	0.00	836.24	0.25	0.02	0.07	831.40
1740.	141.	1417.	182.	58.	326.	81.	68.	23.	830 00
0.44	2.42	4.34	2.26	0.040	0.040	0.050	0.000	826.60	146.00
0.000871	14.	14.	14.	2	0	0	0.00	68.00	214.00

*SECNO 6820.000

3470 ENCROACHMENT STATIONS= 100.0 228.0 TYPE= 1 TARGET= 128.000

ELENCL= 836.30 ELENCR= 836 30

6820.00	9.27	836.17	0.00	0.00	836.29	0 13	0.02	0.04	832.00
1740.	105.	1300.	335	83.	411.	185.	69.	23.	830.40
0 44	1.27	3.16	1.81	0 040	0.040	0.050	0.000	826.90	100.00
0.000457	30.	30.	30.	2	0	0	0.00	128.00	228.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
CCHV= 0.300 CEHV= 0.500									
*SECNO 7220.000									
7220.00	7.67	836.37	0.00	0.00	836.38	0.01	0.05	0.04	890.00
1740.	0.	218.	1522.	0	276.	2371.	80.	25.	829.30
0.58	0.00	0.79	0.64	0.000	0.040	0.050	0.000	828.70	57.78
0.000071	220.	400.	260.	0	0	0	0.00	669.43	727.22
*SECNO 7470.000									
3470 ENCROACHMENT STATIONS=		226.0	869.0	TYPE=	1	TARGET=	643.000		
7470.00	7.18	836.38	0.00	0.00	836.39	0.01	0.01	0.00	831.60
1740.	997.	275.	468.	1109	225.	771.	89.	28.	831.90
0 63	0.90	1.22	0.61	0.040	0.040	0.050	0.000	829.20	226.00
0.000094	200.	250.	140.	2	0	0	0.00	643.00	869.00
*SECNO 7730.000									
7730.00	7.70	836.40	0.00	0.00	836.44	0.04	0.03	0.01	832.00
1740.	802.	628.	310	581.	286.	399.	97.	31.	833.30
0.67	1.38	2.19	0.78	0.040	0.040	0.050	0.000	828.70	238.01
0 000307	190.	260.	250.	0	0	0	0.00	519.99	758.00
*SECNO 8045.000									
8045.00	5.93	836.53	0.00	0.00	836.58	0.05	0.13	0.00	832.50
1740.	867.	414.	459.	758.	135.	452.	106.	34.	832.40
0.72	1.14	3.07	1.02	0.070	0.040	0.060	0.000	830.60	69.44
0.000745	270.	315.	290.	2	0	0	0.00	578.20	647.64
*SECNO 8385 000									
8385.00	5.77	836 77	0.00	0.00	836.82	0.05	0.24	0.00	833.40
1740.	975.	226.	539.	700.	68.	355.	113.	37.	833.60
0.77	1.39	3 32	1.52	0.070	0.040	0.060	0.000	831.00	54.61
0.001112	200.	340	350.	2	0	0	0.00	458.09	512.70
*SECNO 8725.000									
8725.00	5 51	836 91	0.00	0.00	836.94	0.03	0.11	0.01	834.00
1740.	164.	296.	1280.	220.	143.	1019.	118.	39.	833.10
0 81	0.75	2.07	1.26	0.070	0.040	0.060	0.000	831.40	71.84
0.000396	190.	340	130.	2	0	0	0.00	393.78	465.62

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	GLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
*SECNO 8970.000									
8970.00	5.37	836.97	0.00	0 00	837 04	0.07	0.08	0.02	834.20
1740.	1433.	265.	42.	863.	70.	33.	121.	40.	834.20
0.82	1.66	3.77	1.28	0.070	0.040	0.060	0.000	831.60	70.57
0.001524	50.	245.	150.	2	0	0	0.00	363.52	434.09
*SECNO 9120.000									
9120.00	5.34	837.24	0.00	0.00	837.43	0.19	0.33	0.06	834.00
1740.	1051.	456.	233.	480.	78.	112.	124	41.	834.50
0.84	2.19	5.83	2.08	0.070	0.040	0.060	0.000	831 90	94.07
0.003554	150.	150.	110.	2	0	0	0.00	328.05	422.12
*SECNO 9500.000									
9500.00	5.51	838.11	0.00	0.00	838.27	0.16	0.83	0.01	835.20
1740.	249.	640.	851.	169.	137.	426.	129.	43.	834.20
0.87	1.47	4.67	2.00	0.070	0.040	0.060	0.000	832.60	56.59
0.001906	300.	380.	310.	2	0	0	0.00	331.92	388.52
*SECNO 9970.000									
9970 00	5.59	838 89	0.00	0.00	838.98	0.08	0.68	0.02	835.70
1740.	670.	332.	738.	424.	78.	466.	136.	47.	835.40
0.92	1.58	4 25	1.58	0.070	0.040	0.060	0.000	833.30	83.25
0.001708	310.	470.	360.	2	0	0	0.00	559.37	642.62
*SECNO 10325 000									
10325.00	5.23	839.23	0.00	0.00	839.29	0 06	0.30	0.01	837.00
1740	700.	377.	663.	725.	116.	415.	141.	50.	834.00
0.95	0.97	3.26	1.60	0.070	0.040	0.060	0.000	834.00	51.82
0 001130	210.	355.	165.	2	0	0	0.00	751.42	803.23
*SECNO 10510.000									
3470 ENCROACHMENT STATIONS=			0 0	840.0	TYPE=	1	TARGET=	839.999	
ELENCL=	750 00	ELENCR=	100000.00						
10510.00	3.97	839 47	0.00	0.00	839.51	0.04	0.22	0.00	837.00
1740.	1048.	289.	403.	874.	93.	332.	146.	53.	837.50
0.98	1.20	3.11	1.21	0.070	0.040	0.060	0.000	835.50	31.65
0 001388	170.	185.	170.	1	0	0	0.00	766.71	798.35

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
*SECNO 11115.000									
3280 CROSS SECTION	11115.00 EXTENDED		0.17 FEET						
11115 00	4.17	840.17	0.00	0.00	840.20	0.04	0.69	0.00	838.00
1740.	1243.	175.	321.	997.	58.	239.	161.	61.	838.00
1.08	1.25	3.02	1.34	0.070	0 040	0.060	0.000	836.00	0.00
0 001367	560.	605.	260.	2	0	0	0.00	680.00	680.00
*SECNO 11550.000									
END OF MDNR PROVIDED DATA									
11550 00	3 97	840.97	0.00	0.00	841.06	0.08	0.83	0.02	839.20
1740.	946.	270.	524.	604.	63	260.	172.	67.	838.80
1.14	1.57	4.27	2.02	0.070	0.040	0.060	0.000	837.00	60.47
0.002851	435.	435.	435	2	0	0	0.00	558.64	619.10
*SECNO 11625.000									
11625.00	4.02	841.22	0.00	0.00	841.36	0.13	0.27	0.02	839.70
1740.	956.	306.	478.	516.	57.	204.	173.	68.	839.40
1.15	1.85	5.40	2.34	0.070	0.040	0.060	0.000	837.20	68.24
0.004840	75.	75.	75.	2	0	0	0.00	540.24	608.48
*SECNO 11700.000									
11700 00	4 32	841.62	0.00	0.00	841.85	0.23	0.45	0.05	840.30
1740.	956	412.	372.	450.	60.	149.	175.	69.	840.20
1 15	2.13	6.82	2.50	0.070	0.040	0.060	0.000	837.30	71.61
0.007595	75.	75.	75.	2	0	0	0.00	527.66	599.27
*SECNO 11775.000									
11775 00	4.76	842.16	0.00	0.00	842.41	0.25	0 54	0.01	840.80
1740.	943.	485.	312	460.	71.	137.	176.	70.	840.80
1.16	2.05	6.81	2.27	0.070	0.040	0.060	0.000	837.40	55.67
0.006858	75.	75.	75.	2	0	0	0.00	527.70	583.37
CCHV= 0.300 CEHV= 0 500									
*SECNO 12000.000									
12000.00	5.76	843.66	0.00	0.00	843.98	0.32	1.54	0.04	842.50
1740.	650.	596.	494.	357.	82.	220.	179.	73.	841.90
1.18	1.82	7.29	2.24	0.070	0.040	0.070	0.000	837.90	29.39
0.006851	225.	225	225.	2	0	0	0.00	539.46	568.85

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 12900.000
3280 CROSS SECTION 12900.00 EXTENDED 0.88 FEET

3470 ENCROACHMENT STATIONS= 60.0 467.0 TYPE= 1 TARGET= 407.000
DOWNSTREAM OF PRIVATE DRIVEWAY

12900.00	7.57	847.07	0.00	0.00	847.27	0.20	3.25	0.04	846.10
1740.	508.	787.	445.	342.	155.	318.	194.	82.	846.00
1.26	1.49	5.08	1.40	0.070	0.040	0.070	0.000	839.50	60.00
0.002225	900.	900	900.	3	0	0	0.00	407.00	467.00

CCHV= 0.300 CEHV= 1.000
*SECNO 12950.000
3280 CROSS SECTION 12950.00 EXTENDED 1.05 FEET

3470 ENCROACHMENT STATIONS= 72.0 454.0 TYPE= 1 TARGET= 382.000

12950.00	8.65	847.25	0.00	0.00	847.40	0.15	0.11	0.02	846.10
1740.	554.	691.	495.	350.	154.	329.	195.	83.	846.00
1.26	1.58	4.49	1.50	0.070	0.040	0.070	0.000	838.60	72.00
0.002237	50.	50.	50.	2	0	0	0.00	382.00	454.00

*SECNO 12951.000
3280 CROSS SECTION 12951.00 EXTENDED 1.15 FEET

3370 NORMAL BRIDGE, NRD= 32 MIN ELTRD= 845.00 MAX ELLC= 844.40

3470 ENCROACHMENT STATIONS= 73.0 454.0 TYPE= 1 TARGET= 381.000
DOWNSTREAM FACE OF PRIVATE DRIVEWAY

12951.00	8.75	847.35	0.00	0.00	847.42	0.08	0.00	0.02	846.10
1740.	795.	259.	686.	365.	93.	336.	195	83	846.00
1 26	2.18	2.78	2.04	0.070	0 040	0.070	0.000	838.60	73.00
0.004005	1.	1.	1.	2	0	0	-73.23	381.00	454.00

*SECNO 12963.000
3280 CROSS SECTION 12963.00 EXTENDED 1.19 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3370 NORMAL BRIDGE, NRD= 32 MIN ELTRD= 845.00 MAX ELLC= 844.40

3470 ENCROACHMENT STATIONS= 76.0 451.0 TYPE= 1 TARGET= 375.000

U/S FACE OF PRIVATE DRIVEWAY

12963.00	8.80	847.40	0.00	0.00	847.47	0.08	0.05	0.00	846.10
1740.	791.	259.	690.	366.	94.	339.	196.	83.	846.00
1.26	2.16	2.75	2.04	0.070	0.040	0.070	0.000	838.60	76.00
0.003849	12.	12.	12.	1	0	0	-72.24	375.00	451.00

*SECNO 12964.000
3280 CROSS SECTION 12964.00 EXTENDED 1.20 FEET

3470 ENCROACHMENT STATIONS= 76.0 451.0 TYPE= 1 TARGET= 375.000

12964.00	8.80	847.40	0.00	0.00	847.53	0.13	0.00	0.05	846.10
1740.	563.	665.	512.	368.	158.	349.	196.	83.	846.00
1.26	1.53	4.22	1.47	0.070	0.040	0.070	0.000	838.60	76.00
0.001916	1.	1.	1.	0	0	0	0.00	375.00	451.00

*SECNO 13014.000
3280 CROSS SECTION 13014.00 EXTENDED 1.27 FEET

3470 ENCROACHMENT STATIONS= 87.0 437.0 TYPE= 1 TARGET= 350.000

UPSTREAM OF PRIVATE DRIVEWAY

13014.00	7.97	847.47	0.00	0.00	847.58	0.11	0.05	0.00	846.10
1740.	578.	644.	519.	355	165.	333.	197.	83.	846.00
1.27	1.63	3.91	1.56	0.040	0.030	0.040	0.000	839.50	87.00
0.000684	50.	50.	50.	2	0	0	0.00	350.00	437.00

*SECNO 13253.000

3265 DIVIDED FLOW

13253.00	6.94	847.64	0.00	0.00	847.84	0.20	0.16	0.09	842.20
1740.	232.	984.	524.	108.	224.	242.	201.	85.	842.10
1.29	2.15	4.39	2.17	0.040	0.030	0.040	0.000	840.70	183.83
0.000695	239.	239.	239.	2	0	0	0.00	240.62	475.54

SECND	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= 0.300 CEHV= 0.500
*SECND 13304.000

3265 DIVIDED FLOW

DOWNSTREAM FACE OF PRATT RDAD

13304.00	6.98	847.68	0.00	0.00	847.87	0.20	0.03	0.00	842.20
1740.	233	980.	527.	110.	225.	247.	201.	85.	842.10
1 29	2.13	4.35	2.13	0.040	0.030	0.040	0.000	840.70	183.56
0.000677	51.	51.	51.	0	0	0	0.00	245.38	476.79

SPECIAL BRIDGE

5070, VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED

SB XK	XKOR	CORG	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
0.00	1.77	3.00	0.00	35.17	0.00	204.32	0.00	840.70	840.70

*SECND 13350.000
3280 CROSS SECTION 13350 00 EXTENDED 0.17 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
849.67	847.87	0.00	503.	1230.	204.	236.	847.40	847.47

Weir flow in ROB
eliminate flow in LOB
floodway ~ 200' in
ROB

U/S FACE OF PRATT ROAD

13350.00	7.87	848.57	0.00	0.00	848.67	0.10	0.80	0.00	842.20
1740.	247.	860.	633.	149.	258.	448.	202.	86.	842.10
1.30	1.66	3.34	1.41	0.040	0.030	0.040	0.000	840.70	176.74
0.000333	46.	46.	46.	2	0	0	0.00	333.26	510.00

*SECND 13400.000
3280 CROSS SECTION 13400.00 EXTENDED 0.24 FEET

UPSTREAM OF PRATT ROAD

13400.00	7.94	848.64	0.00	0.00	848.71	0.06	0.02	0.01	842.20
1740.	327.	562.	851.	153.	260.	467.	203.	86.	842.10
1 30	2.14	2.16	1.82	0.040	0.060	0.040	0.000	840.70	176.18
0.000550	50	50.	50.	2	0	0	0.00	333.82	510.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= 0.300 CEHV= 0.500
*SECNO 14740.000
3280 CROSS SECTION 14740.00 EXTENDED 4.23 FEET

3470 ENCROACHMENT STATIONS= 349.0 649.0 TYPE= 1 TARGET= 300.000
DOWNSTREAM OF DEXTER-ANN ARBOR ROAD

14740.00	7.53	849.23	0.00	0.00	849.25	0.03	0.54	0.01	845.00
1740.	539.	168.	1033.	577.	119.	699.	238.	96.	844.10
1.59	0.93	1.41	1.48	0.070	0.060	0.050	0.000	841.70	349.00
0.000305	1340.	1340.	1340.	1	0	0	0.00	300.00	649.00

*SECNO 14790 000
3280 CROSS SECTION 14790.00 EXTENDED 0.82 FEET

D/S FACE OF DEXTER-ANN ARBOR ROAD--START OF MDNR PROVIDED DATA

14790.00	7.72	849.22	0.00	0.00	849.32	0.10	0.03	0.04	845.00
1740.	511.	560	669.	337.	180.	255.	239.	96.	845.00
1.60	1.52	3.10	2.63	0.070	0.060	0.050	0.000	841.50	335.00
0.001632	50.	50.	50.	2	0	0	0.00	275.95	610.95

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS 845.41 , NOT 849.22 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.22	2.80	0.00	27 66	6.00	139.00	0.00	841.95	841.95

*SECNO 14890.000
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
854.62	850 66	0.00	1199.	545.	139.	139.	848.37	849.20

3470 ENCROACHMENT STATIONS= 100.0 550.0 TYPE= 1 TARGET= 450.000
ELENCL= 850.50 ELENCR= 850 50
U/S FACE OF DEXTER-ANN ARBOR ROAD

14890.00	7.84	849 74	0.00	0.00	849.75	0.01	0.43	0.00	844.10
1740.	1308.	165.	267	1651.	135.	225.	242.	97.	844.10
1.63	0.79	1.22	1.19	0.070	0.060	0.050	0.000	841.90	100.00
0.000198	60.	100.	160.	1	0	5	0.00	450.00	550.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= 0.100 CEHV= 0.300
*SECNO 15060 000
3280 CROSS SECTION 15060 00 EXTENDED 4.96 FEET

UPSTREAM OF DEXTER-ANN ARBOR ROAD

15060 00	8.06	849.76	0.00	0.00	849.77	0.01	0.02	0.00	845.00
1740.	628.	150.	962.	891.	129.	1253.	249	98.	844.10
1.68	0.70	1.17	0.77	0.060	0.045	0.060	0.000	841.70	300.00
0.000107	120.	170.	180.	2	0	0	0.00	445.00	745.00

Is .025 approp. for channel, MDNR show .07

*SECNO 15290.000
3280 CROSS SECTION 15290.00 EXTENDED 3.80 FEET

15290.00	7.79	849.79	0.00	0.00	849.80	0.01	0.03	0 00	845.00
1740.	700.	235.	805.	1076.	200.	1087.	261.	101.	845.00
1.76	0.65	1.17	0 74	0.060	0.045	0.060	0.000	842.00	215.00
0.000113	220.	230.	240.	0	0	0	0.00	561.94	776.94

*SECNO 15790.000
3280 CROSS SECTION 15790.00 EXTENDED 0.84 FEET

15790.00	7.85	849.85	0.00	0.00	849 86	0.01	0.06	0.00	845.00
1740.	771.	259.	710.	1096.	194.	942.	288.	107	845.00
1.93	0.70	1.33	0.75	0.060	0.045	0.060	0 000	842 00	154.60
0.000133	500	500.	500.	0	0	0	0.00	585.40	740.00

*SECNO 16290.000
3280 CROSS SECTION 16290.00 EXTENDED 1.94 FEET

16290 00	7.64	849.94	0.00	0.00	849.98	0.04	0.12	0.01	845.80
1740	902.	345.	493.	756.	134.	406.	306.	113.	846.70
2.02	1 19	2.58	1.21	0.060	0.045	0.060	0.000	842.30	0.00
0.000612	480.	500.	440.	2	0	0	0.00	482.33	482.33

*SECNO 16680.000
3280 CROSS SECTION 16680.00 EXTENDED 1.22 FEET

16680.00	7.62	850.22	0.00	0.00	850.28	0.06	0.29	0.01	849.00
1740.	585	390	765.	460.	124.	484.	316.	117.	845.00
2.08	1.27	3.15	1.58	0.060	0.045	0.060	0.000	842.60	240.00
0.001052	345.	390.	380.	2	0	0	0.00	489.37	729.37

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
*SECNO 16975.000									
3280 CROSS SECTION	16975.00 EXTENDED			0.66 FEET					
16975 00	7.26	850.46	0.00	0.00	850.57	0.11	0.27	0.01	848.00
1740.	409.	903.	428.	364.	259.	318.	322.	120.	847.00
2.11	1.12	3.49	1.35	0.060	0.045	0.060	0.000	843.20	225.00
0.001126	225.	295.	225.	2	0	0	0.00	468.71	693.71
*SECNO 17286.000									
17286 00	7.54	850.74	0.00	0.00	850.81	0 07	0.23	0.00	846.00
1740.	900.	629.	210.	634.	209.	207.	327.	122.	848.00
2.14	1.42	3.01	1.02	0.060	0.045	0.060	0 000	843.20	211.63
0.000808	160.	311.	275.	0	0	0	0.00	452.48	664.11
*SECNO 17657.000									
3280 CROSS SECTION	17657 00 EXTENDED			1.02 FEET					
17657 00	7.42	851.02	0.00	0.00	851.11	0.08	0.30	0.00	849.00
1740	889.	681.	169	706.	202.	139.	334.	125.	847.00
2.18	1.26	3.37	1.22	0.060	0.045	0.060	0.000	843.60	94.00
0.001123	310.	371	120	2	0	0	0.00	522.93	616.93
*SECNO 17980.000									
3280 CROSS SECTION	17980.00 EXTENDED			0.30 FEET					
17980.00	7.40	851.30	0.00	0.00	851.46	0.15	0.33	0.02	846.50
1740.	640.	564.	536.	317.	119.	270.	338	127.	846.50
2.20	2.02	4.73	1.98	0.060	0.045	0.060	0 000	843.90	270 00
0 001840	175.	323.	195.	2	0	0	0.00	389.78	659.78
*SECNO 18240.000									
3280 CROSS SECTION	18240.00 EXTENDED			1.07 FEET					
18240.00	7 77	851.77	0.00	0.00	851.89	0.13	0.44	0.00	848.60
990.	215.	467.	308.	167.	120.	204.	342.	129.	848.80
2.23	1.29	3.89	1.51	0.060	0.045	0.060	0.000	844.00	330.00
0.001520	255.	260.	245.	2	0	0	0.00	290.00	620.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	GLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 18690.000
3280 CROSS SECTION 18690.00 EXTENDED 0.20 FEET

3470 ENCROACHMENT STATIONS= 308.0 691.0 TYPE= 1 TARGET= 383.000
END OF MDNR PROVIDED DATA

18690.00	6.20	852.20	0.00	0.00	852.24	0.04	0.34	0.01	848.00
990.	560.	235.	195.	469.	98.	229.	347.	131.	848.90
2.30	1 19	2.40	0.85	0.060	0.045	0.060	0.000	846.00	308.00
0.000602	330.	450.	330.	2	0	0	0.00	382.00	690.00

CCHV= 0.100 CEHV= 0.800
*SECNO 18900.000

3470 ENCROACHMENT STATIONS= 109.0 387.0 TYPE= 1 TARGET= 278.000

18900.00	5 76	852 36	0 00	0 00	852.50	0 14	0 18	0 08	849.40
990.	370.	415.	205.	222.	98.	155.	350.	133.	849.80
2.33	1.66	4.25	1.32	0.050	0.035	0.050	0.000	846.60	109.00
0.001346	210.	210.	210.	2	0	0	0.00	278.00	387.00

*SECNO 19114.000

19114 00	5.59	852.76	0.00	0.00	853.33	0.57	0.48	0.35	850.77
990.	204.	674.	113.	93	93.	55.	352.	134.	850.97
2 34	2.20	7.22	2.07	0.050	0.035	0.050	0.000	847.17	150.59
0.004449	214.	214.	214.	2	0	0	0.00	179.77	330.36

*SECNO 19264.000

3470 ENCROACHMENT STATIONS= 205.0 311.0 TYPE= 1 TARGET= 106.000

19264.00	5.88	853.45	0 00	0.00	853.93	0.48	0.59	0.01	851.17
990.	199.	651.	140.	79.	99.	63.	352	135.	851.37
2.35	2.52	6.60	2.24	0.050	0.035	0.050	0.000	847.57	205.00
0.003455	150.	150	150.	3	0	0	0.00	106.00	311.00

*SECNO 19314.000

19314.00	5.91	853.61	0.00	0.00	854.40	0.79	0.22	0.25	851.80
990.	162.	754.	74.	56.	94.	30.	353.	135.	851.30
2.35	2.89	8.05	2 46	0.050	0.035	0.050	0.000	847.70	208.76
0.005684	50.	50.	50.	2	0	0	0.00	83.38	292.13

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
*SECNO 19706.000									
19706.00	7.12	856.02	0.00	0.00	857.25	1.23	2.50	0.35	855.60
990.	1.	987.	2.	1.	111.	2.	354.	135.	855.60
2.36	0.90	8.91	0.90	0.050	0.035	0.050	0.000	848.90	245.24
0.007232	392.	392.	392.	2	0	0	0.00	30.47	275.71
*SECNO 20099.000									
DOWNSTREAM OF NORTH SIDE OF INTERSTATE 94									
20099.00	7.85	857.85	0.00	0.00	858.76	0.91	1.48	0.03	850.00
990.	8.	967.	15.	6.	125.	9.	355.	136.	850.40
2.37	1.21	7.73	1.61	0.050	0.035	0.050	0.000	850.00	248.40
0.002299	393.	393.	393.	2	0	0	0.00	20.94	269.34
*SECNO 20150.000									
D/S FACE OF NORTH SIDE OF INTERSTATE 94									
20150.00	8.02	858.02	0.00	0.00	858.95	0.93	0.17	0.02	859.80
990.	0.	990.	0.	0.	128.	0.	355.	136.	859.80
2.38	0.00	7.74	0.00	0.000	0.035	0.000	0.000	850.00	250.00
0.005352	51	51.	51.	2	0	0	0.00	16.80	266.80

SPECIAL BRIDGE

5070, VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.40	3.00	0.00	16.80	0.00	88.00	0.00	850.00	850.00

*SECNO 20357.000

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
862.74	858.17	0.00	110.	889.	88.	89.	855.30	861.50

U/S FACE OF SOUTH SIDE OF INTERSTATE 94

20357.00	14.07	861.77	0.00	0.00	861.82	0.05	2.87	0.00	847.70
990.	439.	473.	79.	380.	202.	100.	357.	137.	849.80
2.41	1.15	2.34	0.79	0.050	0.035	0.050	0.000	847.70	14.54
0.000137	207	207.	207.	2	0	4	0.00	403.19	417.73

$14.5 + \frac{29.1(.018)^2 207}{(1.59)^{4/3}}$

$A = 8 \times 53$

$P = 8 \times 2 + 5.5 \times 2$

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 20408.000

UPSTREAM OF SOUTH SIDE OF INTERSTATE 94

20408.00	14.08	861.78	0.00	0.00	861.83	0.05	0.01	0.00	847.70
990.	439.	472.	79.	382.	202	101.	358.	137.	849.80
2.42	1.15	2.33	0.78	0.050	0.035	0.050	0.000	847.70	10.92
0.000136	51.	51.	51.	2	0	0	0.00	408.62	419.54

*SECNO 21300.000

3470 ENCROACHMENT STATIONS= 100.0 341.0 TYPE= 1 TARGET= 241.000

DOWNSTREAM OF ZEEB ROAD--CROSS SECTION B

21300.00	10.68	861.88	0.00	0.00	861.90	0.02	0.07	0.00	856.50
990.	243.	670.	78.	438.	546.	175.	377.	143.	856.70
2.67	0.55	1.23	0.44	0.050	0.035	0.050	0.000	851.20	100.00
0.000045	892.	892.	892.	2	0	0	0.00	217.25	317.25

*SECNO 21375.000

3265 DIVIDED FLOW

D/S FACE OF ZEEB ROAD

21375.00	16.98	861.88	0.00	0.00	861.95	0.07	0.01	0.04	859.00
990.	18.	936.	36.	33.	428.	104.	378.	144.	862.20
2.68	0.53	2.19	0.35	0.050	0.035	0.050	0.000	844.90	126.77
0.000196	75.	75.	75.	1	0	0	0.00	204.76	339.04

SPECIAL BRIDGE

5070, VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED

SB XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
0.00	1.55	3.00	0.00	24.00	0.00	113.10	0.00	844.90	844.90

*SECNO 21420.000

3265 DIVIDED FLOW

PRESSURE AND WEIR FLOW

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	DLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
863.72	861.95	0.00	623.	368.	113.	302.	857.50	859.00

no weir flow in LOB

U/S FACE OF ZEEB ROAD

21420.00	17.16	862.06	0.00	0.00	862.13	0.07	0.18	0.00	859.00
990	20.	920.	50.	38.	434.	132.	379.	144.	862.20
2 68	0.53	2.12	0.37	0.050	0.035	0.050	0.000	844.90	125.29
0.000182	45.	45.	45.	2	0	4	0.00	219.73	348.21

CCHV= 0.100 CEHV= 0 300
*SECNO 21471.000

3470 ENCROACHMENT STATIONS= 27.0 414 0 TYPE= 1 TARGET= 387.000

990 Trib 22 to Trib 21

420 u/s Trib 21

UPSTREAM OF ZEEB ROAD

21471.00	10.93	862.13	0.00	0.00	862.14	0.01	0.00	0.01	856.50
990.	351.	522.	117.	581.	561.	193.	380.	144.	856.70
2.70	0.60	0.93	0.61	0.050	0.050	0 040	0.000	851.20	49.26
0 000052	51.	51.	51.	2	0	0	0.00	271.11	320.37

*SECNO 22000.000

22000.00	10.96	862.16	0.00	0.00	862 17	0.01	0.03	0.00	856 50
990.	352.	521.	118.	584.	563.	194.	396.	148.	856.70
2 89	0.60	0.92	0.61	0.050	0.050	0.040	0.000	851.20	48.58
0.000051	529.	529.	529.	2	0	0	0.00	272.13	320.71

*SECNO 23000.000

3470 ENCROACHMENT STATIONS= 148.0 292.0 TYPE= 1 TARGET= 144.000

23000.00	11.00	862.20	0.00	0.00	862.20	0.00	0.04	0.00	856.50
420.	83.	281.	55.	187.	566.	164.	422.	152.	856.70
3.49	0.45	0 50	0.34	0.040	0.060	0.050	0.000	851.20	148.00
0.000021	1000.	1000.	1000	0	0	0	0.00	144.00	292.00

CCHV= 0.300 CEHV= 0.500
*SECNO 23186.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3280 CROSS SECTION 23186.00 EXTENDED 0.30 FEET

3470 ENCROACHMENT STATIONS= 216.0 267.0 TYPE= 1 TARGET= 51.000

DOWNSTREAM OF JACKSON ROAD--CROSS SECTION C

23186.00	8.70	862.20	0.00	0.00	862.23	0 03	0.01	0.01	856.50
420.	133.	174.	113.	90.	127.	92.	425.	153.	856.20
3.52	1.48	1.37	1 23	0.040	0.060	0.050	0.000	853.50	216.00
0.000229	186	186.	186.	1	0	0	0.00	51.00	267.00

*SECNO 23216.000

D/S FACE OF JACKSON ROAD

23216.00	8.70	862.20	0.00	0.00	862.25	0.05	0.01	0.01	862.40
420	0.	420.	0.	0.	240.	0.	425.	153.	862 40
3.53	0.00	1.75	0.00	0.000	0 060	0.000	0.000	853.50	299.03
0.000575	30.	30.	30.	0	0	0	0.00	36.69	335 73

SPECIAL BRIDGE 21

5070, VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.99	3.00	0.00	33.00	0.00	161.70	0.00	853.50	853.50

*SECNO 23300 000
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
862.41	862.25	0.00	7.	413.	162.	231.	860.50	862.30

3470 ENCROACHMENT STATIONS= 299.0 335.8 TYPE= 1 TARGET= 36.800

U/S FACE OF JACKSON ROAD

857.6

23300.00	8 85	862.35	0.00	0.00	862.40	0 05	0.15	0.00	862.40
420.	0.	420.	0.	0.	246.	0	426.	153.	100000.00
3 54	0.00	1.71	0.00	0.000	0.060	0.000	0.000	853.50	299.01
0.000537	84	84.	84.	2	0	4	0.00	36.77	335.78

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 23350.000
3280 CROSS SECTION 23350.00 EXTENDED 0.51 FEET

3470 ENCROACHMENT STATIONS= 175.0 308.0 TYPE= 1 TARGET= 133.000
UPSTREAM OF JACKSON ROAD

23350.00	8.91	862.41	0.00	0.00	862.41	0.01	0.00	0.01	856.50
420.	209.	72.	139.	298.	130.	319.	426.	153.	856.20
3.57	0.70	0.55	0.44	0.030	0.050	0.050	0.000	853.50	175.00
0.000025	50.	50.	50.	2	0	0	0.00	133.00	308.00

CCHV= 0.100 CEHV= 0.300
*SECNO 25000.000

25000.00	5.68	862.48	0.00	0.00	862.49	0.01	0.07	0.00	860.00
420.	52	68.	300.	82.	87.	547.	454	162	860.00
4.34	0.63	0.70	0.55	0.030	0.050	0.050	0.000	856.80	161.03
0.000103	1650.	1650.	1650.	2	0	0	0.00	320.18	481.21

*SECNO 25333.000

25333.00	5.13	862.53	0.00	0 00	862.55	0.01	0.06	0.00	860.70
420.	20.	107.	294.	23.	80.	365	458.	164.	860.50
4.43	0.87	1.34	0.80	0.030	0.050	0.050	0.000	857.40	205.00
0.000348	333.	333.	333.	2	0	0	0.00	263.70	468.69

*SECNO 25666.000

25666.00	4.62	862 72	0.00	0.00	862.82	0.10	0.25	0.03	862.00
420.	4.	225.	191.	4.	70.	145.	461.	166.	861.30
4.47	1.25	3 22	1.31	0.030	0.050	0.050	0.000	858.10	220.15
0.002495	333	333.	333.	2	0	0	0 00	225.98	446.12

*SECNO 26000.000

3265 DIVIDED FLOW

26000.00	4 90	863.60	0.00	0.00	863.71	0.11	0.89	0.00	862.50
420	9.	254.	157.	7.	81.	99.	463.	167.	863.20
4.51	1.33	3.14	1.59	0.040	0.055	0.040	0.000	858.70	217.70
0.002857	334.	334.	334.	2	0	0	0.00	199.84	429.45

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
*SECNO 26490.000									
3265 DIVIDED FLOW									
26490.00	5.32	865.02	0.00	0 00	865.17	0.15	1.44	0.01	863.80
420.	14.	298.	109.	9.	83.	77.	465.	170.	863.30
4.56	1.46	3.59	1.40	0.040	0.055	0.040	0.000	859.70	214.80
0.003029	490.	490.	490.	2	0	0	0.00	195.02	425.50
*SECNO 26980.000									
3265 DIVIDED FLOW									
26980.00	5.69	866 39	0.00	0.00	866.53	0.14	1.37	0.00	865.30
420.	11.	317.	92.	9.	94.	73.	467.	172.	864.60
4.60	1.25	3 38	1.26	0.040	0.055	0.040	0.000	860.70	212.01
0.002579	490.	490.	490.	1	0	0	0.00	196.69	426.77
CCHV= 0.300 CEHV= 0.500									
*SECNO 27472.000									
3470 ENCROACHMENT STATIONS= 218.0 259.0 TYPE= 1 TARGET= 41.000									
DOWNSTREAM OF STAEBLER ROAD									
27472.00	6.10	867.80	0.00	0.00	868.05	0.25	1.46	0.05	866.80
420.	7.	406.	7.	5.	101.	4.	468.	173.	866.10
4.64	1.42	4.04	1.88	0.040	0.055	0.040	0.000	861.70	218.00
0 003459	492.	492.	492.	2	0	0	0.00	36.60	254.60
*SECNO 27522.000									
27522.00	4.71	867.91	0.00	0.00	868.59	0.68	0.32	0.22	871.50
420.	0.	420.	0.	0.	63.	0.	468.	173.	871.50
4.64	0.00	6.63	0.00	0.000	0.055	0.000	0.000	863.20	300.00
0.016259	50.	50.	50.	2	0	0	0.00	16.00	316.00
*SECNO 27523.000									
3370 NORMAL BRIDGE, NRD= 17 MIN ELTRD= 870.60 MAX ELLC= 869.60									
D/S FACE OF STAEBLER ROAD									

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	GLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
27523.00	4.74	867.94	0.00	0.00	868 61	0.68	0.02	0.00	871.50
420.	0.	420.	0.	0.	64.	0.	468.	173.	871.50
4.64	0.00	6.60	0.00	0.000	0.055	0.000	0.000	863.20	300.00
0.022227	1.	1.	1.	1	0	0	0.00	16 00	316.00

*SECNO 27539.000

3370 NORMAL BRIDGE, NRD= 17 MIN ELTRD= 870.60 MAX ELLC= 869.60

U/S FACE OF STAEBLER ROAD

27539 00	5.22	868.42	0.00	0.00	868.96	0.53	0.30	0.04	871.50
420.	0.	420	0.	0.	72.	0.	468.	173.	871.50
4.64	0 00	5.87	0.00	0.000	0.055	0.000	0.000	863.20	300.00
0.016307	16.	16.	16.	2	0	0	0.00	16.00	316.00

*SECNO 27540.000

27540 00	5.24	868.44	0.00	0.00	868.97	0.53	0.01	0.00	871.50
420.	0.	420	0.	0.	72.	0.	468.	173.	871.50
4.64	0.00	5.84	0.00	0.000	0.055	0.000	0.000	863.20	300.00
0.011309	1.	1.	1.	0	0	0	0.00	16.00	316.00

*SECNO 27600.000

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 171.0 307.0 TYPE= 1 TARGET= 136.000

UPSTREAM OF STAEBLER ROAD--CROSS SECTION D

27600.00	7.46	869.16	0.00	0.00	869.21	0.05	0.09	0.14	866.80
420.	86.	258.	76.	64.	130.	57.	468.	173.	866.10
4.65	1.36	1.97	1.33	0.030	0.055	0.030	0.000	861.70	171.00
0.000585	60.	60	60.	2	0	0	0.00	128.96	307.00

CCHV= 0.100 CEHV= 0.300

*SECND 28140.000

28140.00	5.98	869.68	0.00	0.00	869.93	0.25	0.66	0.06	869 40
420.	1.	409	10.	1.	101.	4.	471.	174.	868.20
4.69	0.82	4 04	2.48	0.030	0.055	0.030	0.000	863.70	215.27
0.003943	540.	540.	540.	3	0	0	0.00	40.18	255.45

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
*SECNO 28680.000									
3265 DIVIDED FLOW									
28680.00	5.97	871.77	0.00	0.00	871.99	0.22	2.06	0.00	871.30
420.	6.	393.	21.	5.	101.	14.	472.	175.	870.30
4.73	1.14	3.90	1.52	0.030	0.055	0.030	0 000	865.80	201.60
0.003687	540.	540.	540.	2	0	0	0.00	120.93	342.02
*SECNO 29225.000									
29225 00	5.70	873.70	0.00	0.00	873.87	0.17	1.87	0.01	873.20
420.	11.	342.	67.	11.	96.	35.	474.	177.	872.40
4.78	1.07	3.55	1.93	0.030	0.055	0.030	0.000	868.00	169.08
0.003201	545.	545.	545	2	0	0	0.00	159.86	328.94
*SECNO 29765.000									
29765.00	5.38	875 68	0.00	0.00	875.88	0.20	2.01	0.01	875.70
420.	0	333.	87.	0.	86.	36.	475.	179.	874.70
4.82	0.00	3.85	2.42	0.000	0.055	0.030	0.000	870.30	225.04
0.004379	540.	540.	540.	2	0	0	0.00	98.43	323.47
*SECNO 30305.000									
30305.00	5.53	877 93	0 00	0.00	878.11	0.18	2.23	0.00	878.20
420.	0.	321.	99.	0.	87.	44.	477.	180.	877.20
4.86	0.00	3 67	2.28	0.000	0 055	0.030	0.000	872.40	225.53
0.003888	540.	540	540.	2	0	0	0.00	105.36	330.89
CCHV= 0.300 CEHV= 0.500									
*SECNO 30850.000									
DOWNSTREAM OF STAEBLER ROAD									
30850 00	5.42	879.92	0.00	0.00	880.12	0.20	1.99	0.01	880.60
420.	0.	383.	37.	0.	103.	26.	479.	181.	879.60
4.91	0.00	3.74	1.40	0.000	0.050	0.040	0.000	874.50	219.33
0 003446	545.	545.	545.	2	0	0	0.00	85.64	304.97
CCHV= 0.500 CEHV= 1.000									
*SECNO 30901.000									

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3265 DIVIDED FLOW

3280 CROSS SECTION 30901.00 EXTENDED 0.60 FEET

D/S FACE OF STAEBLER ROAD

30901.00	6.41	880.11	0.00	0.00	880.36	0.25	0.19	0.05	881 80
420.	0.	379.	41.	0.	90.	33.	479.	181.	881.80
4.91	0.00	4.24	1.22	0.000	0.050	0.040	0.000	873.70	250.00
0.004238	51.	51.	51.	0	0	0	0.00	126.32	500.00

SPECIAL BRIDGE

5070, VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED

SB	XK	XKOR	CDFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1 46	3.00	0.00	16 00	0.00	105.60	0.00	873.70	873.70

*SECNO 30917.000

6070, LOW FLOW BY NORMAL BRIDGE

EGPRS= 0.000 EGLWC= 880.365 ELLC= 880.700 PCWSE= 880.111 ELTRD= 879.500

3265 DIVIDED FLOW

3280 CROSS SECTION 30917.00 EXTENDED 0.83 FEET

3370 NORMAL BRIDGE, NRD= 15 MIN ELTRD= 879.50 MAX ELLC= 880.70

U/S FACE OF STAEBLER ROAD

30917.00	6.63	880.33	0.00	0.00	880.48	0.15	0.07	0.05	881.80
420.	0.	322.	98.	0	93.	61.	479.	181.	881.80
4.91	0 00	3.46	1.61	0.000	0 050	0.040	0 000	873.70	250.00
0.004375	16.	16.	16.	3	0	0	0.00	148.99	500.00

*SECNO 31000.000

3470 ENCROACHMENT STATIONS= 159.0 309.0 TYPE= 1 TARGET= 150.000

UPSTREAM OF STAEBLER ROAD

31000.00	6 12	880 62	0.00	0.00	880.70	0.08	0.18	0.03	880.60
420.	5.	316.	100.	11.	124.	67.	479.	181.	879.60
4.92	0.43	2 54	1.48	0.050	0.050	0.040	0.000	874 50	159.00
0 001304	83	83.	83.	2	0	0	0.00	150 00	309.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 31200.000

3470 ENCROACHMENT STATIONS= 209.0 259.0 TYPE= 1 TARGET= 50.000

DOWNSTREAM OF PARK ROAD

31200.00	6.41	880.91	0.00	0.00	881.04	0.13	0.29	0.05	880.60
420.	1.	397.	21.	3.	134.	13.	480.	182.	879.60
4.94	0.53	2.97	1.69	0.050	0.050	0.040	0.000	874.50	209.00
0.001626	200.	200.	200.	2	0	0	0.00	50.00	259.00

*SECNO 31278.000

3470 ENCROACHMENT STATIONS= 250.0 261.4 TYPE= 1 TARGET= 11.400

DOWNSTREAM FACE OF PARK ROAD

31278.00	7.54	881.14	0.00	0.00	881.58	0.45	0.23	0.31	875.70
420.	0.	420.	0.	0.	78.	0.	480.	182	100000.00
4.94	0.00	5.35	0.00	0.000	0.050	0.000	0.000	873.60	250.00
0.006861	78	78.	78.	2	0	0	0.00	11.40	261.40

SPECIAL BRIDGE

5070, VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED

SB XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
0.00	1.78	3.00	0.00	11.40	0.00	77.52	0.00	873.60	873.60

*SECND 31300.000
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
881.95	881.17	0.00	9.	412.	78.	82.	880.80	881.70

3470 ENCROACHMENT STATIONS= 201.0 310.0 TYPE= 1 TARGET= 109.000

UPSTREAM FACE OF PARK ROAD

31300.00	8.29	881.89	0.00	0.00	881 92	0.02	0.34	0.00	875.70
420.	119	129.	171.	143.	87.	141.	480.	182.	874.00
4.95	0.83	1.49	1.21	0.050	0.050	0.040	0 000	873.60	203 78
0 000176	22.	22.	22.	2	0	4	0.00	93.47	297.25

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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

CCHV=   0.100 CEHV=   0.300
*SECNO 31340.000

3470 ENCROACHMENT STATIONS=      189.0      280.0  TYPE=      1  TARGET=      91.000
          UPSTREAM OF PARK ROAD---CROSS SECTION E
 31340.00      7.39    881.69      0.00      0.00    881.93      0.04      0.01      0 01    880.60
     420.       31.       294.       95.       38.      165.       77       481       182.     879.60
     4.96      0.80      1.78      1.23     0.050     0.055     0.050     0.000    874.50    189.00
 0.000532       40.       40.       40.         2         0         0      0.00     91.00    280.00


*SECNO 32000.000
 32000.00      6.77    882.27      0.00      0.00    882.30      0.03      0.36      0.00    881.60
     420.       43.       244.      133.       72.      145.      144.       485.      185.     880.60
     5.09      0.59      1.68      0.92     0.050     0.055     0.050     0.000    875 50    118.47
 0.000565       660.      660.      660.         2         0         0      0.00    254.82    373.29


*SECNO 33000.000
3280 CROSS SECTION  33000.00 EXTENDED       3.22 FEET

 33000.00      5.43    882.43      0.00      0.00    882.43      0.00      0.13      0.00    880.00
     420.       305       56.       59.      667.      108.      260.       501.      193.     880.80
     5.74      0.46      0.52      0.23     0.050     0.055     0.050     0.000    877.00      0.00
 0.000056      1000.     1000.     1000.         2         0         0      0.00    500.00    500.00


*SECNO 34500.000
3280 CROSS SECTION  34500.00 EXTENDED       0.95 FEET

 34500.00      3.14    882.64      0.00      0.00    882.73      0.09      0.28      0.03    882.50
     420       251.      169.        0.      156.       52         0.       523.      206      883.30
     5.92      1.61      3.28      0.00     0.060     0.055     0.000     0.000    879.50      0.00
 0 005671      1500.     1500.     1500.         2         0         0      0.00    248.95    248.95


*SECNO 35520.000
3280 CROSS SECTION  35520.00 EXTENDED       1.64 FEET

          DOWNSTREAM OF LIBERTY ROAD---CROSS SECTION F
 35520.00      3.85    884.75      0.00      0.00    884.77      0 02      2.03      0.01    883.90
     420.       309       111.        0.      311.       68.         0.       530.      212.     884.70
     6.16      0.99      1.62      0.01     0.060     0.055     0.000     0.000    880.90      0.00
 0.001003      1020.     1020.     1020.         4         0         0      0.00    250.40    250.40
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SECND	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CCHV= 0 400 CEHV= 0.800
*SECNO 35571.000

3265 DIVIDED FLOW

3280 CROSS SECTION 35571.00 EXTENDED 1.80 FEET

D/S FACE OF LIBERTY ROAD

35571.00	4.60	884.80	0.00	0.00	884 82	0.02	0.05	0.00	883.90
420.	313.	107	0.	329.	69.	0.	530.	212.	887.30
6.18	0 95	1.55	0 00	0.060	0.055	0.000	0.000	880.20	0.00
0.001027	51.	51	51.	2	0	0	0 00	318.10	318.12

SPECIAL BRIDGE

5070, VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.36	3.00	0.00	3.54	0.00	12.57	0.00	880.20	880.20

*SECNO 35611.000
3280 CROSS SECTION 35611.00 EXTENDED 3.50 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
925.78	884.82	0.00	335.	86.	13.	14.	884.20	886.00

U/S FACE OF LIBERTY ROAD

35611 00	6.30	886.50	0.00	0.00	886 50	0.00	1.68	0.00	883.90
420.	358.	62.	0.	828.	114.	0.	531.	213.	887.30
6.20	0.43	0 55	0.00	0.060	0.055	0.000	0.000	880.20	0.00
0.000075	40	40.	40.	0	0	9	0.00	320.08	320.08

*SECNO 35662.000
3280 CROSS SECTION 35662 00 EXTENDED 1.50 FEET

3470 ENCROACHMENT STATIONS= 27.0 449.0 TYPE= 1 TARGET= 422.000
UPSTREAM OF LIBERTY ROAD

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	GLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
35662.00	5.60	886.50	0.00	0.00	886.51	0.00	0.00	0.00	883.90
350.	241.	61.	49.	616.	113.	236.	532.	213.	884.70
6.24	0.39	0.54	0 21	0.050	0.045	0.050	0.000	880.90	27.00
0.000038	51.	51.	51.	2	0	0	0.00	422.00	449.00

*SECNO 36108.000
3280 CROSS SECTION 36108.00 EXTENDED 0.74 FEET

36108.00	3.75	886.55	0.00	0.00	886.58	0.03	0.05	0.02	885.60
350.	227.	122.	0.	228.	63.	1.	538.	217.	886.30
6.33	1.00	1.95	0.24	0.050	0.045	0.050	0.000	882.80	0.00
0 001083	446	446.	446.	1	0	0	0.00	254.74	254.74

CCHV= 0.100 CEHV= 0.300
*SECNO 36256.000
3280 CROSS SECTION 36256.00 EXTENDED 0.05 FEET

36256.00	3.35	886.75	0.00	0.00	886.93	0.18	0.31	0.04	886.20
350.	125.	225.	0.	93.	55.	0.	539.	218.	886.80
6 34	1 35	4.11	0 00	0.050	0.045	0.000	0.000	883.40	0.00
0.005687	148.	148.	148.	3	0	0	0.00	249.84	249.84

*SECNO 36404 000

36404.00	3.53	887.53	0.00	0.00	887.70	0 18	0.77	0.00	886.80
350.	111.	239.	0	88.	60.	1.	540.	218.	887.30
6.36	1 27	3.99	0.49	0.050	0.045	0.050	0.000	884.00	12.65
0.004800	148.	148.	148	2	0	0	0.00	245.10	257.75

*SECNO 36554.000

36554.00	3.64	888.24	0 00	0.00	888.42	0.19	0 72	0.00	887.30
350.	99	248.	3.	76.	61.	7.	540.	219.	887.90
6.37	1.30	4.04	0.42	0 050	0.045	0.050	0.000	884.60	31.37
0.004743	150.	150.	150	2	0	0	0.00	359.96	391.34

*SECNO 37000.000

37000.00	3.63	890.13	0.00	0.00	890.27	0.14	1.84	0.00	889.00
350.	84	218	47	66.	60.	57.	542.	223.	889.50
6.42	1.29	3.67	0.83	0.050	0.045	0.050	0.000	886.50	91.64
0.003631	446.	446.	446.	3	0	0	0.00	357.82	449.46

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
*SECNO 38000.000									
38000.00	3.41	894.41	0.00	0.00	894.62	0.21	4.32	0.02	893.00
350.	97.	227.	26.	52	52.	19.	545.	229.	893.50
6.50	1.87	4.38	1.36	0.050	0.045	0.050	0.000	891.00	143.95
0.005235	1000.	1000.	1000.	2	0	0	0.00	142.23	286.18
*SECNO 39000.000									
39000.00	3.19	899.19	0.00	0.00	899.33	0.14	4.71	0.01	897.70
350.	153.	180	16.	79.	47.	16.	548.	232.	898.40
6.59	1.94	3.85	1.04	0.050	0.045	0.050	0.000	896.00	136.55
0.004261	1000.	1000.	1000.	5	0	0	0.00	147.44	283.98
*SECNO 40000.000									
40000.00	2.69	903.39	0.00	0.00	903.50	0.11	4.16	0.00	901.50
350	188.	132	29.	88.	39.	22.	552.	236.	902.50
6.70	2.13	3.38	1.33	0.050	0.045	0.050	0.000	900.70	135.33
0.004067	1000.	1000	1000.	5	0	0	0.00	151.41	286.74

THIS RUN EXECUTED 4 MAR 87 10:15:21

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

100 YEAR FLOODPLAIN

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
0.000	0 00	0.00	0.00	798.85	1740.00	808.02	0.00	808.67	44.77	6.47	268.89	260.05
125.000	125.00	0.00	0.00	799.35	1740.00	808.59	0.00	809.23	43.80	6.42	270.94	262.72
176.000	51 00	0.00	0.00	799.50	1740.00	808.83	0.00	809.45	42.41	6.35	274.00	267.18
199.000	23.00	808.30	808.70	799.50	1740.00	808.91	0.00	809.67	117.70	7.00	248.65	160.38
250 000	51.00	0.00	0.00	799 70	1740.00	809.44	0.00	810.00	36.64	6.03	288.36	287.46
850.000	600.00	0.00	0 00	802.00	1740.00	811.66	0.00	812.23	37.56	6.09	285.85	283.90
1200.000	350 00	0.00	0.00	803.35	1740 00	812.98	0.00	813.56	38.08	6.12	284.49	281 97
1850.000	650.00	0.00	0.00	806.60	1740.00	814.90	0.00	815.05	14.72	4.05	771.08	453.59
2100.000	250.00	0.00	0.00	807.60	1740.00	815.31	0.00	815.55	24.96	4.97	605.73	348.29
2300.000	200.00	0.00	0.00	808.90	1740.00	815.83	0.00	816.34	53.44	6.69	423.05	238.02
2500 000	200 00	0.00	0.00	810 20	1740.00	816.93	0.00	817.54	64.93	7.21	384.47	215.93
2650 000	150.00	0.00	0.00	811.10	1740.00	817.89	0.00	818.50	62.97	7.33	357.29	219.28
2800.000	150 00	0.00	0.00	812.10	1740.00	818.84	0.00	819.47	65.60	7.44	351.21	214.83
3800.000	1000.00	0.00	0 00	816.20	1740.00	823.64	0.00	823.98	32.44	5.64	446.29	305.52
4500.000	700 00	0.00	0.00	819.10	1740.00	826.19	0.00	826.63	43.66	6.31	397.34	263.32
5000 000	500.00	0.00	0.00	821.20	1740.00	827.97	0.00	828.15	21.87	4.41	555.77	372.09
6000.000	1000.00	0.00	0.00	825.30	1740.00	830.67	0.00	830.83	33.40	4.60	643.86	301.09

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
6330.000	330.00	0.00	0.00	826.70	1740.00	832.08	0.00	832.47	68.03	6.42	398.87	210.95
6430.000	100.00	0.00	0.00	826.80	1740.00	832.55	0.00	833.11	64.11	7.25	334 78	217.32
6680.000	200.00	0.00	0 00	826.30	1740.00	833.92	0.00	834.74	62.27	7.85	263.03	220.50
6720.000	40.00	0.00	0 00	826.80	1740.00	834.21	0.00	835.43	85.21	8.86	196.29	188.49
6770.000	50.00	836 30	834.52	826.20	1740.00	835.12	0 00	836.01	47.26	7.58	229.65	253 12
6776.000	6.00	0.00	0 00	826.60	1740.00	835.68	0.00	836.15	19.85	5.54	314.29	390.57
6790.000	14 00	0.00	0.00	826.60	1740.00	835.98	0.00	836.24	8.71	4.34	465.28	589.63
6820.000	30.00	0.00	0.00	826.90	1740.00	836.17	0.00	836.29	4.57	3.16	678.91	814.07
7220.000	400.00	0.00	0.00	828.70	1740.00	836.37	0.00	836.38	0.71	0.79	2646.97	2069.35
7470.000	250.00	0.00	0.00	829.20	1740.00	836.38	0.00	836.39	0.94	1.22	2104.55	1795.09
7730.000	260.00	0.00	0.00	828.70	1740.00	836.40	0.00	836.44	3.07	2.19	1266.68	993.11
8045.000	315.00	0.00	0.00	830.60	1740.00	836.53	0.00	836.58	7.45	3.07	1343.80	637.48
8385 000	340.00	0.00	0.00	831.00	1740.00	836.77	0.00	836.82	11.12	3.32	1122.84	521.88
8725.000	340.00	0.00	0.00	831.40	1740.00	836.91	0.00	836.94	3.96	2.07	1381.97	874.64
8970.000	245.00	0.00	0.00	831.60	1740.00	836.97	0.00	837.04	15.24	3.77	966.11	445.78
9120 000	150.00	0.00	0.00	831.90	1740.00	837.24	0.00	837.43	35.54	5.83	670.65	291.86
9500 000	380.00	0 00	0.00	832.60	1740.00	838.11	0.00	838.27	19.06	4.67	732.22	398.52
9970.000	470.00	0.00	0.00	833.30	1740.00	838.89	0.00	838.98	17.08	4.25	968.29	421.05
10325 000	355 00	0.00	0.00	834.00	1740.00	839.23	0.00	839.29	11.30	3.26	1255.91	517.63
10510.000	185.00	0 00	0.00	835.50	1740.00	839.47	0.00	839.51	13.88	3.11	1298.67	466.97
11115.000	605 00	0.00	0.00	836.00	1740.00	840.17	0.00	840.20	13.67	3.02	1294.53	470.59
11550 000	435.00	0.00	0.00	837.00	1740.00	840.97	0.00	841.06	28.51	4.27	926.81	325.89
11625.000	75.00	0.00	0 00	837.20	1740.00	841.22	0.00	841.36	48.40	5.40	776.44	250.10
11700 000	75.00	0.00	0.00	837.30	1740.00	841.62	0.00	841.85	75.95	6.82	659.33	199.66
11775.000	75.00	0.00	0.00	837 40	1740 00	842.16	0.00	842.41	68.58	6.81	668.83	210.12
12000.000	225.00	0.00	0.00	837.90	1740.00	843.66	0.00	843.98	68.51	7.29	658.44	210.21

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	12900.000	900.00	0.00	0.00	839.50	1740.00	847.07	0.00	847.27	22.25	5.08	814.48	368.88
	12950.000	50.00	0.00	0.00	838.60	1740.00	847.25	0.00	847.40	22.37	4.49	833.58	367.87
	12951.000	1.00	845.00	844.40	838.60	1740.00	847.35	0.00	847.42	40.05	2.78	793.96	274.94
	12963.000	12.00	845.00	844.40	838.60	1740.00	847.40	0.00	847.47	38.49	2.75	798.72	280.46
	12964.000	1.00	0.00	0.00	838.60	1740.00	847.40	0.00	847.53	19.16	4.22	874.56	397.47
	13014.000	50.00	0.00	0.00	839.50	1740.00	847.47	0.00	847.58	6.84	3.91	851.91	665.43
	13253.000	239.00	0.00	0.00	840 70	1740.00	847.64	0.00	847.84	6.95	4.39	573.66	660.07
	13304 000	51.00	0.00	0.00	840.70	1740.00	847.68	0.00	847.87	6.77	4.35	582.21	668.97
	13350.000	46 00	847.47	847 40	840.70	1740.00	848.57	0.00	848.67	3.33	3.34	854.86	953.43
	13400.000	50.00	0.00	0.00	840.70	1740.00	848.64	0.00	848.71	5.50	2.16	879.53	742.06
	14740.000	1340 00	0 00	0 00	841.70	1740.00	849.23	0 00	849.25	3.05	1.41	1395.14	996.27
	14790.000	50.00	0.00	0.00	841.50	1740.00	849.22	0.00	849.32	16.32	3.10	771.93	430.67
*	14890.000	100.00	849.20	848.37	841.90	1740.00	849.74	0.00	849.75	1.98	1.22	2011.29	1237.14
	15060.000	170.00	0.00	0.00	841.70	1740.00	849.76	0.00	849.77	1.07	1.17	2272.77	1684.31
	15290.000	230.00	0.00	0.00	842.00	1740.00	849.79	0 00	849.80	1.13	1.17	2363.04	1636.63
	15790.000	500.00	0.00	0.00	842.00	1740.00	849.85	0.00	849.86	1.33	1.33	2232.27	1506.06
	16290.000	500.00	0.00	0.00	842.30	1740.00	849.94	0.00	849.98	6.12	2.58	1294.85	703.11
	16680.000	390.00	0.00	0.00	842.60	1740.00	850.22	0.00	850.28	10.52	3.15	1067.65	536.40
	16975 000	295 00	0.00	0.00	843.20	1740.00	850.46	0.00	850.57	11.26	3.49	941.24	518.52
	17286 000	311.00	0.00	0.00	843.20	1740.00	850.74	0.00	850.81	8.08	3.01	1050.15	612.12
	17657.000	371.00	0.00	0.00	843.60	1740.00	851 02	0.00	851.11	11.23	3.37	1047.04	519.16
	17980.000	323.00	0.00	0.00	843.90	1740.00	851.30	0.00	851.46	18.40	4.73	706.81	405.60
	18240 000	260.00	0.00	0.00	844.00	990.00	851.77	0.00	851.89	15 20	3.89	491.37	253.89
	18690.000	450.00	0.00	0.00	846.00	990.00	852.20	0.00	852.24	6 02	2.40	795.37	403.58
	18900 000	210.00	0.00	0.00	846.60	990.00	852.36	0.00	852.50	13.46	4.25	475.54	269.82
	19114.000	214 00	0.00	0.00	847.17	990.00	852.76	0.00	853.33	44.49	7.22	240.34	148.43

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
19264.000	150.00	0.00	0.00	847.57	990.00	853.45	0.00	853.93	34.55	6.60	239.88	168.43
19314.000	50.00	0.00	0.00	847.70	990.00	853.61	0.00	854.40	56.84	8.05	179.88	131.31
19706.000	392.00	0.00	0.00	848.90	990.00	856.02	0.00	857.25	72.32	8.91	113.96	116.41
20099.000	393.00	0.00	0.00	850.00	990.00	857.85	0.00	858.76	22.99	7.73	140.80	206.47
20150.000	51.00	0.00	0.00	850.00	990.00	858.02	0.00	858.95	53.52	7.74	127.93	135.33
20357.000	207.00	861.50	855.30	847.70	990.00	861.77	0.00	861.82	1.37	2.34	682.50	846.69
20408.000	51.00	0.00	0.00	847.70	990.00	861.78	0.00	861.83	1.36	2.33	685.44	848.16
21300.000	892.00	0.00	0.00	851.20	990.00	861.88	0.00	861.90	0.45	1.23	1159.72	1467.96
21375.000	75.00	0.00	0.00	844.90	990.00	861.88	0.00	861.95	1.96	2.19	565.33	707.04
21420.000	45.00	859.00	857.50	844.90	990.00	862.06	0.00	862.13	1.82	2.12	604.27	733.88
21471.000	51.00	0.00	0.00	851.20	990.00	862.13	0.00	862.14	0.52	0.93	1334.67	1378.92
22000.000	529.00	0.00	0.00	851.20	990.00	862.16	0.00	862.17	0.51	0.92	1342.06	1389.35
23000.000	1000.00	0.00	0.00	851.20	420.00	862.20	0.00	862.20	0.21	0.50	916.72	917.27
23186.000	186.00	0.00	0.00	853.50	420.00	862.20	0.00	862.23	2.29	1.37	308.69	277.71
23216.000	30.00	0.00	0.00	853.50	420.00	862.20	0.00	862.25	5.75	1.75	239.90	175.20
23300.000	84.00	862.30	860.50	853.50	420.00	862.35	0.00	862.40	5.37	1.71	245.52	181.29
23350.000	50.00	0.00	0.00	853.50	420.00	862.41	0.00	862.41	0.25	0.55	747.23	846.94
25000.000	1650.00	0.00	0.00	856.80	420.00	862.48	0.00	862.49	1.03	0.78	716.34	414.42
25333.000	333.00	0.00	0.00	857.40	420.00	862.53	0.00	862.55	3.48	1.34	467.61	225.11
25666.000	333.00	0.00	0.00	858.10	420.00	862.72	0.00	862.82	24.95	3.22	218.41	84.09
26000.000	334.00	0.00	0.00	858.70	420.00	863.60	0.00	863.71	28.57	3.14	186.48	78.58
26490.000	490.00	0.00	0.00	859.70	420.00	865.02	0.00	865.17	30.29	3.59	169.70	76.31
26980.000	490.00	0.00	0.00	860.70	420.00	866.39	0.00	866.53	25.79	3.38	175.56	82.71
27472.000	492.00	0.00	0.00	861.70	420.00	867.80	0.00	868.05	34.59	4.04	109.25	71.41
27522.000	50.00	0.00	0.00	863.20	420.00	867.91	0.00	868.59	162.59	6.63	63.34	32.94
27523.000	1.00	870.60	869.60	863.20	420.00	867.94	0.00	868.61	222.27	6.60	63.61	28.17

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
27539.000	16.00	870.60	869.60	863.20	420 00	868.42	0.00	868.96	163.07	5.87	71.61	32.89
27540.000	1.00	0.00	0.00	863.20	420.00	868.44	0.00	868.97	113.09	5.84	71.89	39.49
27600.000	60.00	0.00	0.00	861.70	420 00	869.16	0.00	869.21	5.85	1.97	251.40	173.67
28140.000	540.00	0.00	0.00	863 70	420.00	869.68	0.00	869.93	39.43	4.04	106.65	66.89
28680.000	540.00	0.00	0.00	865.80	420.00	871.77	0.00	871.99	36.87	3.90	119.94	69.17
29225.000	545.00	0.00	0.00	868.00	420.00	873.70	0.00	873.87	32.01	3.55	141.42	74.24
29765.000	540.00	0.00	0.00	870.30	420.00	875.68	0.00	875.88	43.79	3.85	122.43	63.47
30305 000	540.00	0.00	0.00	872.40	420.00	877.93	0.00	878.11	38.88	3.67	130.87	67.35
30850.000	545.00	0.00	0.00	874.50	420.00	879.92	0.00	880.12	34.46	3.74	128.84	71.55
30901.000	51.00	0.00	0.00	873.70	420.00	880.11	0.00	880.36	42.38	4.24	122.85	64.52
30917.000	16 00	879.50	880.70	875.70	420.00	880.33	0.00	880.48	43.75	3 46	154.06	63.50
31000.000	83.00	0.00	0 00	874.50	420.00	880.62	0.00	880.70	13.04	2.54	202.52	116.30
31200.000	200.00	0.00	0.00	874.50	420.00	880.91	0.00	881 04	16.26	2.97	149.02	104.16
31278 000	78 00	0.00	0.00	873.60	420.00	881.14	0.00	881.58	68.61	5.35	78.45	50.70
31300 000	22.00	881.70	880.80	873.60	420.00	881.89	0.00	881.92	1.76	1.49	371.72	316.70
31340.000	40.00	0.00	0.00	874.50	420.00	881.89	0.00	881.93	5.32	1.78	280.92	182.03
32000.000	660.00	0.00	0.00	875.50	420.00	882.27	0.00	882.30	5.65	1.68	361.56	176.74
33000.000	1000.00	0.00	0 00	877.00	420.00	882.43	0.00	882.43	0.56	0.52	1035.25	561.64
34500.000	1500.00	0.00	0.00	879.50	420.00	882.64	0.00	882.73	56.71	3.28	207.26	55.77
35520 000	1020.00	0.00	0.00	880.90	420.00	884.75	0.00	884.77	10.03	1.62	379.91	132.63
35571.000	51.00	0.00	0.00	880.20	420 00	884.80	0.00	884.82	10.27	1.55	398.42	131.07
35611.000	40.00	886.00	884.20	880.20	420.00	886.50	0.00	886.50	0.75	0.55	941.63	485.09
35662.000	51.00	0.00	0.00	880.90	350.00	886.50	0.00	886.51	0.38	0.54	965.29	564.54
36108.000	446.00	0.00	0.00	882.80	350.00	886.55	0.00	886.58	10.83	1.95	291.51	106.33
36256 000	148.00	0.00	0.00	883.40	350.00	886.75	0.00	886.93	56.87	4.11	147.52	46.41
36404.000	148.00	0.00	0 00	884.00	350.00	887 53	0.00	887.70	48.00	3.99	148.46	50.52

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
36554.000	150 00	0.00	0.00	884.60	350.00	888.24	0.00	888.42	47.43	4.04	144.64	50.82
37000.000	446.00	0.00	0 00	886.50	350.00	890.13	0.00	890.27	36.31	3.67	182.14	58.08
38000.000	1000.00	0.00	0 00	891.00	350 00	894.41	0.00	894.62	52.35	4.38	122.96	48.37
39000.000	1000.00	0.00	0.00	896.00	350.00	899.19	0.00	899.33	42 61	3.85	141.57	53.62
40000 000	1000.00	0.00	0.00	900.70	350.00	903.39	0.00	903.50	40.67	3.38	149.77	54.88

100 YEAR FLOODPLAIN

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
0.000	1740.00	808.02	0.00	0.00	4.02	34.55	0.00
125.000	1740.00	808.59	0.00	0.57	0 00	34.56	125.00
176.000	1740.00	808.83	0 00	0.24	0.00	34.59	51.00
199.000	1740.00	808.91	0.00	0.09	0.00	34.61	23.00
250.000	1740.00	809.44	0.00	0.52	0.00	34.70	51.00
850 000	1740.00	811.66	0.00	2.22	0.00	34.68	600.00
1200 000	1740.00	812.98	0.00	1.32	0.00	34.67	350.00
1850.000	1740.00	814.90	0.00	1.93	0.00	300.10	650.00
2100.000	1740.00	815.31	0.00	0.40	0.00	260.59	250.00
2300.000	1740.00	815.83	0.00	0.52	0.00	208.40	200.00
2500.000	1740.00	816.93	0.00	1.10	0 00	195.84	200.00
2650.000	1740.00	817 89	0.00	0.96	0.00	130.75	150.00
2800.000	1740.00	818.84	0.00	0.95	0.00	130.07	150.00
3800.000	1740.00	823.64	0.00	4.80	0.00	140.33	1000.00
4500.000	1740.00	826.19	0.00	2.55	0.00	135.14	700.00
5000.000	1740.00	827.97	0.00	1.78	0.00	141.20	500.00
6000.000	1740.00	830.67	0.00	2.71	0.00	313.28	1000.00
6330.000	1740 00	832.08	0.00	1.41	0.00	150.00	330.00
6430.000	1740.00	832.55	0.00	0.47	0.00	100.77	100 00
6680.000	1740.00	833.92	0.00	1.36	0.00	49.00	200.00
6720.000	1740.00	834.21	0 00	0.29	0.00	29.00	40.00
6770.000	1740.00	835.12	0.00	0 91	0 00	28.00	50.00
6776.000	1740.00	835.68	0.00	0.56	0.00	40.00	6.00
6790 000	1740 00	835.98	0 00	0.31	0.00	68.00	14.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
6820.000	1740.00	836.17	0.00	0.18	0.00	128.00	30.00
7220.000	1740.00	836.37	0.00	0.20	0.00	669.43	400.00
7470.000	1740.00	836.38	0.00	0.01	0.00	643.00	250.00
7730.000	1740.00	836.40	0.00	0.02	0.00	519.99	260.00
8045.000	1740.00	836.53	0.00	0.13	0.00	578.20	315.00
8385.000	1740.00	836.77	0.00	0.24	0.00	458.09	340.00
8725 000	1740.00	836.91	0.00	0.14	0.00	393.78	340.00
8970.000	1740.00	836.97	0.00	0.06	0.00	363.52	245.00
9120.000	1740.00	837.24	0.00	0.27	0.00	328.05	150.00
9500.000	1740.00	838.11	0.00	0.88	0.00	331.92	380.00
9970.000	1740.00	838.87	0.00	0.76	0.00	559.37	470.00
10325.000	1740 00	839.23	0 00	0.34	0.00	751.42	355.00
10510.000	1740.00	839.47	0.00	0.23	0.00	766.71	185.00
11115.000	1740.00	840.17	0.00	0.70	0.00	680.00	605.00
11550.000	1740.00	840.97	0.00	0.81	0.00	558.64	435.00
11625.000	1740.00	841.22	0.00	0.25	0.00	540.24	75.00
11700.000	1740.00	841.62	0.00	0.40	0.00	527.66	75.00
11775.000	1740.00	842.16	0.00	0.53	0.00	527.70	75.00
12000.000	1740.00	843.66	0.00	1.51	0.00	539.46	225.00
12900.000	1740.00	847.07	0.00	3.41	0.00	407.00	900.00
12950.000	1740.00	847.25	0.00	0.18	0.00	382.00	50.00
12951.000	1740.00	847.35	0.00	0.09	0.00	381.00	1.00
12963.000	1740.00	847.40	0.00	0.05	0.00	375.00	12.00
12964.000	1740.00	847.40	0.00	0.00	0.00	375.00	1 00
13014.000	1740.00	847.47	0.00	0.07	0.00	350.00	50.00
13253.000	1740.00	847.64	0.00	0.16	0.00	240.62	239.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	13304.000	1740.00	847.68	0.00	0.04	0.00	245.38	51.00
	13350.000	1740.00	848.57	0.00	0.89	0.00	333.26	46.00
	13400.000	1740.00	848.64	0.00	0.07	0.00	333.82	50 00
	14740.000	1740.00	849.23	0.00	0.58	0.00	300.00	1340 00
	14790.000	1740.00	849.22	0.00	-0.01	0.00	275.95	50.00
*	14890.000	1740.00	849.74	0.00	0.52	0.00	450.00	100.00
	15060.000	1740.00	849.76	0.00	0 02	0.00	445.00	170.00
	15290.000	1740 00	849.79	0 00	0.03	0.00	561.94	230.00
	15790.000	1740.00	849.85	0.00	0.06	0.00	585.40	500.00
	16290.000	1740.00	849.94	0.00	0.10	0.00	482.33	500.00
	16680.000	1740.00	850.22	0.00	0.27	0.00	489.37	390.00
	16975.000	1740.00	850.46	0 00	0.24	0.00	468.71	295.00
	17286.000	1740 00	850.74	0.00	0.28	0.00	452.48	311.00
	17657.000	1740.00	851.02	0.00	0.28	0.00	522 93	371.00
	17980.000	1740.00	851.30	0.00	0.28	0.00	389.78	323.00
	18240.000	990.00	851.77	0.00	0.47	0.00	290.00	260.00
	18690.000	990.00	852.20	0.00	0.44	0.00	382.00	450.00
	18900 000	990.00	852.36	0.00	0.16	0.00	278.00	210.00
	19114.000	990.00	852.76	0.00	0.39	0.00	179 77	214.00
	19264.000	990.00	853.45	0.00	0.69	0.00	106.00	150.00
	19314.000	990.00	853.61	0.00	0.15	0.00	83.38	50 00
	19706.000	990.00	856.02	0.00	2.42	0.00	30.47	392.00
	20099.000	990.00	857.85	0.00	1.83	0.00	20.94	393.00
	20150.000	990 00	858.02	0.00	0.17	0.00	16.80	51.00
	20357.000	990.00	861.77	0.00	3.75	0.00	403 19	207.00
	20408 000	990 00	861.78	0 00	0.01	0.00	408.62	51.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
21300.000	990.00	861.88	0.00	0.10	0.00	217.25	892.00
21375.000	990.00	861.88	0.00	0.00	0.00	204.76	75.00
21420.000	990.00	862.06	0.00	0.19	0.00	219.73	45.00
21471.000	990.00	862.13	0.00	0.07	0.00	271.11	51.00
22000.000	990.00	862.16	0.00	0.03	0.00	272.13	529.00
23000.000	420.00	862.20	0.00	0.04	0.00	144.00	1000.00
23186.000	420.00	862.20	0.00	0.00	0.00	51.00	186.00
23216.000	420.00	862.20	0.00	0.00	0.00	36.69	30.00
23300.000	420.00	862.35	0.00	0.16	0.00	36.77	84.00
23350.000	420.00	862.41	0.00	0.06	0.00	133.00	50.00
25000.000	420.00	862.48	0.00	0.07	0.00	320.18	1650.00
25333.000	420.00	862.53	0.00	0.05	0.00	263.70	333.00
25666.000	420.00	862.72	0.00	0.19	0.00	225.98	333.00
26000.000	420.00	863.60	0.00	0.88	0.00	199.84	334.00
26490.000	420 00	865.02	0.00	1.41	0.00	195.02	490.00
26980.000	420.00	866.39	0.00	1.38	0.00	196.69	490.00
27472 000	420.00	867.80	0.00	1.41	0.00	36.60	492.00
27522.000	420.00	867.91	0.00	0.11	0.00	16.00	50.00
27523.000	420.00	867.94	0.00	0.03	0.00	16.00	1.00
27539.000	420.00	868.42	0.00	0.49	0.00	16.00	16.00
27540.000	420.00	868.44	0.00	0.02	0.00	16.00	1.00
27600 000	420.00	869.16	0.00	0.72	0.00	128.96	60.00
28140.000	420.00	869.68	0.00	0.52	0.00	40.18	540.00
28680 000	420.00	871.77	0.00	2.09	0.00	120.93	540 00
29225.000	420.00	873.70	0.00	1.93	0.00	159.86	545.00
29765.000	420.00	875.68	0.00	1.99	0.00	98.43	540 00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
30305.000	420.00	877.93	0.00	2.25	0.00	105.36	540.00
30850.000	420.00	879.92	0.00	1.98	0.00	85.64	545.00
30901.000	420.00	880.11	0.00	0.19	0.00	126.32	51.00
30917.000	420.00	880.33	0.00	0.22	0.00	148.99	16.00
31000.000	420.00	880.62	0.00	0.28	0.00	150.00	83.00
31200.000	420.00	880.91	0.00	0.29	0.00	50.00	200.00
31278.000	420.00	881.14	0.00	0.23	0.00	11.40	78.00
31300 000	420.00	881.89	0.00	0.76	0.00	93.47	22.00
31340.000	420.00	881.89	0.00	0.00	0.00	91.00	40.00
32000.000	420.00	882.27	0.00	0.37	0.00	254.82	660.00
33000.000	420.00	882.43	0.00	0.16	0.00	500.00	1000.00
34500.000	420.00	882.64	0.00	0.22	0.00	248.95	1500.00
35520.000	420.00	884.75	0.00	2.10	0.00	250.40	1020.00
35571.000	420.00	884.80	0.00	0.05	0.00	318.10	51.00
35611 000	420.00	886.50	0.00	1.70	0.00	320.08	40.00
35662.000	350.00	886.50	0.00	0.00	0.00	422.00	51.00
36108.000	350.00	886.55	0.00	0.04	0.00	254.74	446.00
36256.000	350.00	886.75	0.00	0.21	0.00	249.84	148.00
36404.000	350.00	887.53	0.00	0.77	0.00	245.10	148.00
36554.000	350.00	888.24	0.00	0.71	0.00	359.96	150.00
37000 000	350.00	890.13	0.00	1.90	0.00	357.82	446 00
38000.000	350.00	894.41	0.00	4.27	0.00	142.23	1000.00
39000.000	350.00	899.19	0.00	4.78	0.00	147.44	1000.00
40000.000	350.00	903.39	0.00	4.20	0.00	151.41	1000.00

Scio Twp FIS

NONEY CREEK TRIBUTARY #1

(SISTER LAKES DRAIN)

100 YR FLOODPLAIN - ENCROACHED

INP = SISTRH2E

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EEEEEE   EEEEEE     L       EEEEEE   EEEEEE
E        E           L       E        E
E        E           L       E        E
EEEE     EEEE        L       EEEE     EEEE
E        E           L       E        E
EEEEEE   EEEEEE     LLLLLL  EEEEEE   EEEEEE

USACOE DETROIT H800 VOS 5 1.1      PRINTER:   6

EE LEE                          5 MAR 87  8:34:22

TERMINAL. 106
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THIS RUN EXECUTED 5 MAR 87 8:29:33

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
*****************************************************

C
T1      SCIO TOWNSHIP FLOOD INSURANCE STUDY
T2      HONEY CREEK TRIBUTARY #1--SISTER LAKES DRAIN
T3      100 YEAR FLOODPLAIN

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      0.        2.        0.        0.   0 000000     0.00      0.0       0.    851.370    0.000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

     1.000     0 000    -1 000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

J3  VARIABLE CODES FOR SUMMARY PRINTOUT

    110.000   150.000   200.000     0 000     0.000     0.000     0.000     0.000     0.000     0.000

GT      2.000    830.000    830.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
NC      0 060      0.060      0 050      0.100      0.300      0.000      0.000      0.000      0.000      0.000
ET      0.000      4.100      1.400      0.000    264.000      0.000      0.000      0.000      0.000      0.000
          MOUTH OF TRIB #1
X1      0 000     20.000    192.000    214.000      0.000      0.000      0 000      0.000     -9.600      0.000
GR    867.900      0.000    866.800     25.000    863.100     40.000    862.800     64.000    861.500     89.000
GR    860.700    114.000    861.000    139.000    860.600    164.000    859.600    192.000    856.100    197.000
GR    854.600    203.000    855.800    211.000    858 200    214.000    861.800    238.000    861.900    264.000
GR    861.100    289.000    861.700    314.000    862.300    340.000    866.700    364.000    870.400    389.000

NC      0 000      0.000      0.000      0.300      0.800      0.000      0.000      0.000      0.000      0.000
ET      0 000      4.100      6.100    182.000    225.000    182.000    220.000      0.000      0.000      0.000
X1    950.000      0.000      0.000      0.000    950.000    950.000    950.000      0.000      6.200      0.000

ET      0.000      4.100      6.100    189.000    219.000    189.000    214.000      0.000      0.000      0.000
X1    975 000      0.000      0.000      0.000     25.000     25.000     25.000      0.000      0.100      0.000

ET      0.000      4.100      6.100    193.000    213.000    193.000    213.000      0.000      0.000      0.000
X1    995 000      0.000      0.000      0 000     20.000     20.000     20.000      0.000      0.200      0.000

ET      0.000      0.000      1.400      0 000      0.000      0.000      0.000      0.000      0.000      0.000
          DOWNSTREAM FACE OF I-94
X1   1000.000     19.000    253 000    268.000      5.000      5.000      5.000      0.000      0.000      0 000
GR    866 600      0.000    866.600     50.000    867.100    100.000    867.210    150.000    867.340    200.000
GR    867 530    249.000    861.600    250.000    858.500    251.000    851.500    253.000    851.900    258.000
GR    852.300    263.000    852.900    268.000    858.500    269.000    867.600    270 000    867.600    300.000
GR    867.900    350.000    868.600    400.000    868.600    450.000    868.800    500.000      0.000      0.000
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SB	0.000	2.010	3.000	0.000	17.200	0.000	111.800	0.000	0.000	0.000
	UPSTREAM FACE OF I-94									
X1	1247.000	20.000	251 000	268.000	247.000	247.000	247.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	858.400	868.200	0.000	0.000	0 000	0.000	0.000
BT	-16.000	0.000	868.200	0 000	50.000	868.400	0.000	100.000	868.600	0.000
BT	0.000	150.000	868 800	0.000	200.000	869.000	0.000	250.900	869.200	0.000
BT	0.000	251.000	869.200	858.400	251.000	869.200	858.800	268.000	869.400	858.900
BT	0.000	268.000	869.400	858.300	268.200	869.400	0.000	300.000	869.500	0.000
BT	0.000	350.000	869.700	0.000	400.000	869.900	0.000	450.000	870.300	0.000
BT	0.000	500.000	870.600	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	868 200	0.000	868.400	50 000	868.600	100.000	868.800	150.000	869.000	200.000
GR	869.200	250.900	858.400	251.000	850.800	251.000	851.100	256.000	853.000	258.000
GR	854.100	261.000	853.400	266.000	853.400	268.000	858.300	268.000	869.400	268.200
GR	869.500	300.000	869.700	350.000	869.900	400.000	870.300	450.000	870.600	500.000
ET	0 000	4.100	4.100	249.000	270.000	0.000	0.000	0.000	0.000	0.000
X1	1249.000	20.000	251.000	268.000	2.000	2.000	2.000	0.000	0.000	0.000
GR	868 200	0.000	868.400	50.000	868.600	100.000	868.800	150.000	869.000	200.000
GR	850.800	250.900	850.800	251.000	850.800	251.000	851.100	256.000	853.000	258.000
GR	854 100	261.000	853.400	266.000	853.400	268.000	853.400	268 000	853.400	268.200
GR	869.500	300.000	869.700	350.000	869.900	400.000	870.300	450.000	870.600	500.000
ET	0.000	4.100	6.100	245 000	274.000	245.000	274.000	0.000	0.000	0.000
X1	1253 000	0.000	0.000	0.000	4.000	4.000	4.000	0.000	0.100	0.000
ET	0.000	4.100	6.100	155.000	252.000	155 000	226.000	0.000	0.000	0.000
X1	1287.000	20 000	192.000	214.000	34.000	34.000	34.000	0.000	-3.000	0.000
GR	867.900	0.000	866.800	25.000	863.100	40.000	862.800	64.000	861.500	89.000
GR	860.700	114.000	861.000	139.000	860.600	164.000	859.600	192.000	856.100	197.000
GR	854 600	203.000	855.800	211.000	858.200	214.000	861.800	238.000	861.900	264.000
GR	861 100	289.000	861.700	314.000	862.300	340.000	866.700	364.000	870.400	389.000
ET	0.000	4.100	6.100	141.000	264.000	141.000	228.000	0.000	0.000	0.000
X1	1300.000	0.000	0.000	0 000	13.000	13.000	13.000	0.000	0.300	0.000
NC	0.000	0.000	0.000	0 100	0.300	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	1.400	122.000	284.000	0.000	0.000	0.000	0.000	0.000
X1	1550.000	0.000	0.000	0.000	250.000	250.000	250 000	0.000	1.350	0 000
NC	0 000	0.000	0.000	0.300	1.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	4 100	6.100	172.000	234.000	172.000	218.000	0.000	0.000	0.000
	CROSS SECTION A (VALLEY SECTION #3)									
X1	1750.000	0.000	0.000	0.000	200 000	200.000	200.000	0.000	1.350	0.000
ET	0.000	4.100	1.400	243.500	268.000	0.000	0.000	0.000	0.000	0.000
X1	1825.000	18.000	250.000	262.000	75.000	75.000	75.000	0.000	-0.470	0.000
GR	869.700	0 000	869.600	50.000	869 400	100.000	869.300	150.000	869 400	200 000
GR	856.700	249.900	856.700	250.000	856.700	250.100	856.500	256.000	857.100	261.000
GR	857 400	261.900	857.400	262.000	857.400	262.100	869.500	301.000	869.900	351.000
GR	870.700	401.000	871.300	451 000	872.300	501.000	0.000	0 000	0 000	0.000

ET	0.000	4.100	0 000	245.000	267.000	0.000	0.000	0.000	0.000	0.000
X1	1830.000	0.000	0.000	0.000	5.000	5.000	5.000	0.000	0.100	0.000
ET	0.000	4.100	4.100	246.500	266.000	0.000	0.000	0.000	0.000	0.000
X1	1835.000	0.000	0.000	0.000	5.000	5.000	5.000	0.000	0.100	0.000
ET	0.000	4.100	4.100	247.500	264.500	0.000	0.000	0.000	0.000	0 000
X1	1840.000	0.000	0.000	0.000	5.000	5.000	5.000	0.000	0.100	0.000
ET	0.000	4.100	4.100	249.000	263.500	0.000	0.000	0.000	0.000	0.000
X1	1845.000	0.000	0.000	0.000	5.000	5.000	5.000	0.000	0.100	0.000
ET	0.000	0.000	1.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	DOWNSTREAM FACE OF JACKSON ROAD									
X1	1850.000	18.000	250.000	262.000	5.000	5.000	5.000	0.000	0.000	0.000
GR	969.700	0.000	869.600	50.000	869.400	100.000	869.300	150 000	869.400	200.000
GR	869.400	249.900	862.800	250.000	856.700	250.100	856.500	256.000	857 100	261.000
GR	857.400	261.900	862.600	262.000	869.500	262.100	869.500	301.000	869.900	351.000
GR	870.700	401.000	871.300	451.000	872.300	501.000	0.000	0.000	0.000	0.000
SB	0.000	1.920	3.000	0.000	12.000	0.000	72.000	0.000	0.000	0.000
	UPSTREAM FACE OF JACKSON ROAD									
X1	1935.000	0.000	0.000	0.000	85 000	85.000	85.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	863.000	869.300	0.000	0.000	0.000	0.000	0.000
BT	-16.000	0 000	869.700	0.000	50.000	869.600	0.000	100.000	869.400	0.000
BT	0.000	150.000	869.300	0.000	200.000	869.400	0.000	249.900	869.400	0.000
BT	0.000	250 000	869.400	862.800	250.100	869.400	863.200	261.900	869.500	863.000
BT	0.000	262.000	869.500	862.600	262.100	869.500	0.000	301.000	869.500	0.000
BT	0 000	351.000	869 900	0.000	401.000	870.600	0.000	451.000	871.300	0.000
BT	0 000	501.000	872.300	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.040	0.050	0.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	4.100	195.000	211.000	0.000	0.000	0.000	0.000	0.000
X1	1937.000	20.000	192.000	214 000	2.000	2.000	2.000	0.000	1.900	0.000
GR	867.900	0.000	866.800	25.000	863.100	40.000	862.800	64.000	861.500	89.000
GR	860.700	114.000	861.000	139.000	860.600	164 000	859.600	192.000	856.100	197.000
GR	854.600	203.000	855.800	211.000	858.200	214.000	861.800	238.000	861.900	264.000
GR	861.100	289.000	861.700	314.000	862.300	340.000	866.700	364 000	870.400	389.000
ET	0.000	4.100	6.100	163.000	223.000	163.000	214.000	0.000	0.000	0.000
X1	1959.000	0.000	0.000	0.000	22.000	22.000	22.000	0.000	0.150	0.000
ET	0 000	4.100	6.100	148.000	258.000	148.000	228.000	0.000	0.000	0.000
X1	1984.000	0.000	0.000	0.000	25.000	25.000	25.000	0.000	0.150	0.000
ET	0.000	4 100	1.400	59.000	347.000	0.000	0.000	0.000	0.000	0.000
X1	2073.000	0.000	0.000	0.000	89.000	89.000	89.000	0.000	0.600	0.000

NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
X1	2192.000	0.000	0.000	0.000	119.000	119.000	119.000	0.000	0.810	0.000
ET	0.000	4.100	0.000	101.000	306.000	0.000	0.000	0.000	0.000	0.000
X1	2311.000	0 000	0.000	0.000	119.000	119.000	119.000	0 000	0 810	0.000
X1	2450.000	0 000	0.000	0.000	139.000	139.000	139.000	0.000	0.940	0.000
	CONFLUENCE WITH DRAIN									
X1	2550.000	0.000	0.000	0.000	100.000	100.000	100.000	0.000	0.680	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	GLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

#PROF 1

CCHV= 0.100 CEHV= 0.300
*SECNO 0.000

3265 DIVIDED FLOW

MOUTH OF TRIB #1

0.00	6.37	851.37	0.00	0.00	851.97	0.60	0.00	0.00	850.00
830.	51.	715.	65.	33.	107.	26.	0.	0.	848.60
0.00	1.54	6.65	2.53	0.060	0.050	0.060	0.000	845.00	105.56
0.006879	0.	0.	0.	0	0	0	0.00	122.53	232.47

CCHV= 0.300 CEHV= 0.800
*SECNO 950.000

3470 ENCROACHMENT STATIONS= 182.0 225.0 TYPE= 1 TARGET= 43.000

950.00	6.52	857.72	0.00	0.00	858.33	0.61	6.35	0.01	856.20
830.	30.	730.	70.	13.	111.	23.	3.	2.	854.80
0.04	2.26	6.60	3.02	0.060	0.050	0.060	0.000	851.20	182.00
0.006498	950.	950.	950	3	0	0	0.00	43.00	225.00

*SECNO 975.000

3470 ENCROACHMENT STATIONS= 189.0 219.0 TYPE= 1 TARGET= 30.000

975.00	6.57	857.87	0.00	0.00	858.58	0.72	0.17	0.09	856.30
830.	10.	780.	40.	5.	112.	13.	3.	2	854.90
0.04	2.12	6.97	3.08	0.060	0.050	0.060	0.000	851.30	189.00
0.007143	25.	25.	25.	1	0	0	0.00	30.00	219.00

*SECNO 995.000

3470 ENCROACHMENT STATIONS= 193.0 213.0 TYPE= 1 TARGET= 20.000

995.00	6.50	858.00	0.00	0.00	858.97	0 97	0.18	0.20100000.00	
830.	0	830.	0.	0.	105.	0.	4.	2.	100000.00
0.04	0.00	7.89	0.00	0.000	0.050	0.000	0.000	851.50	193.00
0.011859	20.	20.	20.	0	0	0	0.00	20.00	213.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 1000.000

DOWNSTREAM FACE OF I-94

1000.00	6.48	857.98	0.00	0.00	859.29	1.31	0.05	0.27	851.50
830.	13.	814.	3.	6.	88.	2.	4	2.	852 90
0.04	2.21	9.27	1.39	0.060	0.050	0.060	0.000	851.50	251.15
0.009290	5.	5.	5.	2	0	0	0.00	17.76	268.91

SPECIAL BRIDGE

5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.01	3.00	0.00	17.20	0.00	111.80	0.00	851.50	851.50

*SECNO 1247.000

PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
859.70	859.28	0.00	0	830.	112.	119.	858.40	868.20

UPSTREAM FACE OF I-94

1247.00	7.89	858 69	0.00	0.00	859.70	1.01	0.41	0.00	858.40
830.	0.	830.	0.	0.	103.	0.	4.	2	858.30
0.05	0.00	8.08	0.03	0.000	0.050	0.000	0.000	850.80	251.00
0.014664	247.	247.	247.	3	0	0	0.00	17.01	268.01

*SECNO 1249.000

3470 ENCROACHMENT STATIONS=			249.0	270.0	TYPE=	1	TARGET=	21.000	
1249.00	8.33	859.13	0.00	0.00	859.82	0.69	0.02	0.10	850.80
830	41.	762.	27.	16.	110.	11	4.	2.	853.40
0.05	2.57	6.91	2.51	0.060	0.050	0.060	0.000	850.80	249.00
0.004835	2.	2.	2.	2	0	0	0.00	21.00	270.00

*SECNO 1253.000

3470 ENCROACHMENT STATIONS=			245.0	274.0	TYPE=	1	TARGET=	29.000	
1253.00	8.66	859.56	0.00	0.00	859.93	0.36	0.01	0.10	850.90
830.	138.	619.	73.	46.	116.	28.	4.	2.	853.50
0.05	3.01	5.34	2.61	0 060	0.050	0.060	0.000	850.90	245.00
0 002699	4.	4.	4.	2	0	0	0.00	29.00	274.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 1287.000

3470 ENCROACHMENT STATIONS=			155.0	252.0	TYPE=	1	TARGET=	97.000	
1287.00	8.32	859.92	0.00	0.00	860.06	0.14	0.06	0.07	856.60
830.	163.	530.	137.	99.	150.	85	4.	2.	855.20
0.06	1.65	3.53	1.61	0.060	0.050	0.060	0.000	851.60	155.00
0.001235	34.	34.	34.	2	0	0	0.00	97.00	252.00

*SECNO 1300.000

3470 ENCROACHMENT STATIONS=			141.0	264.0	TYPE=	1	TARGET=	123.000	
1300.00	8.03	859.93	0.00	0.00	860.08	0.14	0.02	0.00	856.90
830.	179.	524.	127.	114.	144.	84.	4.	2.	855.50
0.06	1.57	3.63	1.51	0.060	0.050	0.060	0.000	851.90	141.00
0.001386	13.	13.	13.	0	0	0	0.00	123.00	264.00

CCHV= 0.100 CEHV= 0.300
*SECNO 1550.000

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS=			122.0	284.0	TYPE=	1	TARGET=	162.000	
1550.00	7.08	860.33	0.00	0.00	860.63	0.30	0.51	0.05	858.25
830.	129.	618.	83.	79.	123.	43.	6.	3.	856.85
0.07	1.62	5.02	1.94	0.060	0 050	0 060	0.000	853.25	122.00
0.003271	250.	250.	250.	2	0	0	0.00	128.30	284.00

CCHV= 0.300 CEHV= 1.000
*SECNO 1750.000

3470 ENCROACHMENT STATIONS=			172.0	234 0	TYPE=	1	TARGET=	62.000	
CROSS SECTION A (VALLEY SECTION #3)									
1750.00	6.58	861.18	0.00	0.00	861.72	0.54	0.86	0.23	859.60
830.	52.	706.	73.	24.	112.	30.	7.	3.	858.20
0.08	2.10	6.30	2.45	0.060	0.050	0.060	0.000	854.60	172.00
0.005827	200	200	200.	2	0	0	0.00	61.88	233.88

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 1825.000

3470 ENCROACHMENT STATIONS=			243.5	268.0	TYPE=	1	TARGET=	24.500	
1825.00	5.70	861.73	0.00	0.00	862.67	0.95	0.54	0 41	856.23
830	148.	578.	104.	31.	65.	23.	7.	3.	856.93
0.09	4.85	8.83	4.45	0.060	0.050	0.060	0.000	856.03	243.50
0.009265	75.	75.	75.	2	0	0	0.00	24.50	268.00

*SECNO 1830.000

3470 ENCROACHMENT STATIONS=			245.0	267.0	TYPE=	1	TARGET=	22.000	
1830 00	5.65	861.78	0.00	0.00	862.92	1.14	0.05	0.20	856.33
830.	119.	619.	93.	24.	65.	20.	7.	3.	857.03
0.09	4.92	9.54	4.63	0.060	0.050	0.060	0.000	856.13	245.00
0.010981	5.	5.	5.	1	0	0	0.00	22.00	267.00

*SECNO 1835.000

3470 ENCROACHMENT STATIONS=			246.5	266.0	TYPE=	1	TARGET=	19.500	
1835.00	5.61	861.84	0.00	0.00	863.26	1.42	0.06	0.27	856.43
830.	83.	668.	78.	17.	64.	16.	7.	3.	857 13
0.09	4.79	10.39	4.77	0.060	0.050	0.060	0.000	856.23	246.50
0.013162	5.	5.	5.	0	0	0	0.00	19.50	266.00

*SECNO 1840.000

3470 ENCROACHMENT STATIONS=			247.5	264 5	TYPE=	1	TARGET=	17.000	
1840.00	5.58	861.91	0.00	0.00	863.68	1.77	0.07	0.35	856.53
830.	58.	724.	48.	13.	64	11.	7.	3.	857.23
0.09	4 60	11.31	4.44	0.060	0.050	0.060	0.000	856.33	247.50
0.015673	5.	5.	5.	1	0	0	0.00	17.00	264 50

*SECNO 1845.000

3470 ENCROACHMENT STATIONS=			249.0	263.5	TYPE=	1	TARGET=	14.500	
1845.00	5.57	862.00	0.00	0.00	864.22	2.23	0.09	0.46	856.63
830.	19.	784.	27.	5.	64.	7.	7.	3.	857.33
0.09	3.62	12.29	3.99	0.060	0.050	0.060	0.000	856.43	249.00
0.018589	5.	5.	5.	1	0	0	0.00	14.50	263.50

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 1850.000

DOWNSTREAM FACE OF JACKSON ROAD

1850.00	5.63	862.13	862.06	0.00	864.73	2.60	0.14	0.37	862.80
830.	0.	830.	0.	0.	64.	0.	7.	3.	862.60
0.09	0.00	12.93	0.00	0.000	0.050	0.000	0.000	856.50	250.01
0.045603	5.	5.	5.	4	5	0	0.00	11.98	261.99

SPECIAL BRIDGE

5070, VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.92	3.00	0.00	12.00	0.00	72.00	0.00	856.50	856.50

*SECNO 1935.000

3301 HV CHANGED MORE THAN HVINS

PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
866.10	864.73	0.00	0.	830.	72.	78.	863.00	869.30

UPSTREAM FACE OF JACKSON ROAD

1935.00	8.49	864.99	0.00	0.00	866.10	1.10	1.36	0.00	862.80
830.	0.	830.	0.	0.	98.	0.	8.	3.	862.60
0.09	0.03	8.43	0.03	0.060	0.050	0.060	0.000	856.50	249.97
0.011691	85.	85.	85.	3	0	0	0.00	12.07	262.03

*SECNO 1937.000

3470 ENCROACHMENT STATIONS= 195.0 211.0 TYPE= 1 TARGET= 16.000

1937.00	9.15	865.65	0.00	0.00	866.26	0.61	0.01	0.15	100001.90
830.	0.	830.	0.	0.	133.	0.	8	3.	100001.90
0.09	0.00	6.25	0.00	0.000	0.040	0.000	0.000	856.50	195.00
0.004050	2	2.	2.	2	0	0	0.00	16.00	211.00

*SECNO 1959.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 163.0 223.0 TYPE= 1 TARGET= 60.000

1959.00	9.68	866.33	0.00	0.00	866.43	0.10	0.02	0.15	861.65
830.	235	526.	69.	121.	180.	49.	8.	3.	860.25
0.09	1.95	2.92	1.42	0.040	0.040	0.050	0.000	856.65	163.00
0.000425	22.	22	22.	2	0	0	0.00	60.00	223.00

*SECNO 1984.000

3470 ENCROACHMENT STATIONS= 148.0 258 0 TYPE= 1 TARGET= 110 000

1984.00	9.60	866.40	0.00	0.00	866.45	0.06	0.01	0.01	861.80
830.	249.	415.	166.	170.	178.	148.	8.	3.	860.40
0.10	1.47	2.33	1.12	0.040	0.040	0.050	0.000	856.80	148.00
0.000275	25.	25.	25.	1	0	0	0.00	110.00	258.00

*SECNO 2073.000

3470 ENCROACHMENT STATIONS= 59.0 347.0 TYPE= 1 TARGET= 288.000

2073.00	9 06	866.46	0.00	0.00	866.48	0.02	0.02	0.01	862.40
830.	333.	292	205.	347.	166.	293.	9.	4.	861.00
0.12	0.96	1.75	0.70	0 040	0 040	0 050	0.000	857.40	59.00
0 000170	89.	89.	89.	2	0	0	0.00	288.00	347.00

CCHV= 0.100 CEHV= 0 300

*SECNO 2192.000

2192.00	8 26	866.47	0.00	0.00	866.52	0.05	0.03	0 01	863.21
830.	294.	373.	163	241.	149.	189.	11.	5.	861.81
0.14	1.22	2.50	0.86	0.040	0.040	0.050	0.000	858.21	58.87
0.000402	119.	119.	119.	1	0	0	0.00	284.21	343.08

*SECNO 2311.000

3470 ENCROACHMENT STATIONS= 101.0 306 0 TYPE= 1 TARGET= 205.000

2311.00	7.45	866 47	0.00	0.00	866.63	0.16	0.08	0.03	864.02
830.	216.	513.	101.	130.	131.	81.	12.	5.	862.62
0 15	1 66	3.91	1.26	0.040	0.040	0.050	0.000	859 02	101.00
0.001168	119.	119.	119.	2	0	0	0.00	205.00	306.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
*SECNO 2450.000									
3265 DIVIDED FLOW									
2450.00	6.54	866.50	0.00	0.00	866.99	0.49	0.26	0.10	864.96
830.	85.	679.	66.	48.	111.	29.	13.	6.	863.56
0.16	1.77	6.11	2.27	0.040	0.040	0.050	0.000	859.96	100.20
0.003548	139	139	139.	2	0	0	0.00	136.44	290.73
*SECNO 2550.000									
3265 DIVIDED FLOW									
CONFLUENCE WITH DRAIN									
2550.00	6.13	866.77	0.00	0.00	867.50	0.74	0.44	0.07	865.64
830.	36.	739.	55.	18	102.	21.	14.	6.	864 24
0.16	1.98	7 25	2.58	0.040	0.040	0.050	0.000	860.64	113.19
0.005593	100.	100.	100.	2	0	0	0.00	77.68	230.84

THIS RUN EXECUTED 5 MAR 87 8:29:37

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
**************************************************

T1      SCIO TOWNSHIP FLOOD INSURANCE STUDY
T2      HONEY CREEK TRIBUTARY #1--SISTER LAKES DRAIN
T3      100 YEAR FLOODPLAIN--ENCROACHED

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

       0.       3.        0.         0    0 000000      0.00      0.0        0.   851.470    0.000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

    15.000    0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 2

CCHV= 0.100 CEHV= 0.300
*SECNO 0.000
2800 NAT Q1= 100.07 WSEL= 851.37 ENC Q1= 100.07 WSEL= 851.47 RATIO= 0.0000
NAT Q1= 106. RATIOS LOB,CH,ROB= 0.0753 0.8434 0.0813 WSEL= 851.47

3470 ENCROACHMENT STATIONS= 175.4 220.2 TYPE= 4 TARGET= 0.053
MOUTH OF TRIB #1

0.00	6.47	851.47	0.00	851.37	852.12	0.65	0.00	0.00	850.00
830.	43.	741	46.	19.	110.	15.	0.	0.	848.60
0.00	2.21	6.76	3.07	0.060	0.050	0.060	0.000	845.00	175.45
0.006914	0.	0.	0.	0	0	0	0.00	44.80	220.25

CCHV= 0.300 CEHV= 0.800
*SECNO 950.000

3470 ENCROACHMENT STATIONS= 182.0 220.0 TYPE= 1 TARGET= 38.000

950.00	6.62	857.82	0.00	857.72	858.45	0.63	6.33	0.00	856.20
830.	34.	750	47.	14.	113.	15.	3.	1.	854.80
0.04	2.34	6.64	3.03	0.060	0.050	0.060	0.000	851.20	182.00
0.006420	950.	950.	950.	3	0	0	0.00	38.00	220.00

*SECNO 975.000

3470 ENCROACHMENT STATIONS= 189.0 214.0 TYPE= 1 TARGET= 25.000

975.00	6.67	857.97	0.00	857.87	858.76	0.79	0.19	0.13	856.30
830.	12	818.	0.	5.	114.	0.	3.	1.	100000.00
0.04	2.40	7.17	0.00	0.060	0.050	0.000	0.000	851.30	189.00
0.008637	25.	25.	25.	1	0	0	0.00	25.00	214.00

*SECNO 995.000

3470 ENCROACHMENT STATIONS= 193.0 213.0 TYPE= 1 TARGET= 20.000

995.00	6.64	858.14	0.00	858.00	859.06	0.92	0.20	0.11	100000.00
830.	0.	830.	0.	0.	108.	0.	3.	1.	100000.00
0.04	0.00	7.71	0.00	0.000	0.050	0.000	0.000	851.50	193.00
0.011094	20	20.	20.	1	0	0	0.00	20.00	213.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 1000.000
2800 NAT Q1= 86.11 WSEL= 857.98 ENC Q1= 86.82 WSEL= 858.08 RATIO= -0.0082
NAT Q1= 89. RATIOS LOB,CH,ROB= 0.0162 0.9799 0.0040 WSEL= 858.08

3470 ENCROACHMENT STATIONS= 253.0 268.0 TYPE= 4 TARGET= 0.020
DOWNSTREAM FACE OF I-94

1000.00	6 63	858.13	0.00	857.98	859.45	1.32	0.07	0.32	851.50
830.	0.	830.	0.	0.	90.	0.	3.	1.	852.90
0.04	0.00	9.23	0.00	0.000	0.050	0.000	0.000	851.50	253.00
0 019294	5.	5.	5	2	0	0	0.00	15.00	268.00

SPECIAL BRIDGE

5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED

SB XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
0.00	2.01	3.00	0.00	17.20	0.00	111.80	0.00	851.50	851.50

*SECNO 1247.000
2800 NAT Q1= 68.54 WSEL= 858.69 ENC Q1= 70.40 WSEL= 858.79 RATIO= -0.0271
NAT Q1= 70. RATIOS LOB,CH,ROB= 0.0000 1.0000 0.0000 WSEL= 858.79
WATER EL=CHANGE FROM NATURAL PROFILES BRIDGE

3470 ENCROACHMENT STATIONS= 251 0 268.0 TYPE= 4 TARGET= 0.000
UPSTREAM FACE OF I-94

1247 00	8.04	858.84	0.00	858.69	859.80	0.97	4.05	0.11	858 40
830.	0.	830.	0.	0.	105.	0.	4.	1.	858.30
0.05	0.00	7.89	0.00	0.000	0.050	0.000	0.000	850.80	251.00
0.014121	247	247.	247.	0	0	0	0.00	17.00	268.00

*SECNO 1249.000

3470 ENCROACHMENT STATIONS= 249.0 270.0 TYPE= 1 TARGET= 21.000

1249 00	8.44	859.24	0.00	859.13	859.91	0.67	0.01	0.09	850.80
830.	41.	763.	27.	16.	112.	11.	4.	1.	853.40
0.05	2.51	6.80	2.45	0.060	0.050	0.060	0.000	850.80	249.00
0.004572	2.	2.	2.	2	0	0	0.00	21.00	270.00

*SECNO 1253.000

3470 ENCROACHMENT STATIONS= 245.0 274.0 TYPE= 1 TARGET= 29.000

1253 00	8.76	859.66	0.00	859.56	860.02	0.35	0.01	0.09	850.90
830.	137.	620.	73.	46.	118.	28.	4.	1.	853.50
0.05	2.96	5.27	2.57	0.060	0.050	0.060	0.000	850.90	245.00
0.002579	4	4	4	2	0	0	0.00	29.00	274.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 1287.000

3470 ENCROACHMENT STATIONS= 155.0 226.0 TYPE= 1 TARGET= 71.000

1287.00	8.37	859.97	0.00	859.92	860.14	0.16	0.06	0.06	856.60
830.	177.	563.	90.	101.	151.	46.	4.	1.	855.20
0.06	1.75	3.72	1.93	0.060	0.050	0.060	0.000	851.60	155.00
0.001359	34	34.	34.	2	0	0	0.00	71.00	226.00

*SECNO 1300.000

3470 ENCROACHMENT STATIONS= 141.0 228.0 TYPE= 1 TARGET= 87.000

1300.00	8.09	859.99	0.00	859.93	860.15	0.16	0.02	0.00	856.90
830.	191.	545.	93.	117.	145.	48.	4.	1.	855.50
0.06	1.64	3.75	1.93	0.060	0.050	0.060	0.000	851.90	141.00
0.001459	13.	13.	13.	0	0	0	0.00	87.00	228.00

CCHV= 0.100 CEHV= 0.300

*SECNO 1550.000

2800 NAT Q1= 145.13 WSEL= 860.33 ENC Q1= 145.13 WSEL= 860.43 RATIO= 0.0000

NAT Q1= 160. RATIOS LOB, CH, ROB= 0.1950 0.6952 0.1098 WSEL= 860.43

3470 ENCROACHMENT STATIONS= 131.1 221.5 TYPE= 4 TARGET= 0.093

1550.00	7.16	860.41	0.00	860.33	860.74	0.33	0.53	0.05	858.25
830.	134.	641.	55.	77.	125.	22.	6.	2	856.85
0.07	1.75	5.14	2.46	0.060	0.050	0.060	0.000	853.25	131.13
0.003366	250.	250.	250.	2	0	0	0.00	90.36	221.49

CCHV= 0.300 CEHV= 1.000

*SECNO 1750.000

3470 ENCROACHMENT STATIONS= 172.0 218.0 TYPE= 1 TARGET= 46.000

CROSS SECTION A (VALLEY SECTION #3)

1750.00	6.69	861.29	0.00	861.18	861.88	0.59	0.88	0.26	859.60
830.	59.	740.	30.	27.	114.	11.	7.	2.	858.20
0.08	2.24	6.48	2.74	0.060	0.050	0.060	0.000	854.60	172.00
0.005998	200.	200.	200.	2	0	0	0.00	46.00	218.00

*SECNO 1825.000

```
  SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
  Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
  TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN        SSTA
  SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID       ENDST


 2800 NAT Q1=      86.23  WSEL=     861.73  ENC Q1=      86.23  WSEL=     861.83  RATIO=  0.0000
 NAT Q1=     109.   RATIOS LOB,CH,ROB=  0.2756  0.5670  0.1573  WSEL=     861.83

3470 ENCROACHMENT STATIONS=      243.0      264.5  TYPE=      4  TARGET=        0.210
  1825.00      5.82    861.85      0.00    861.73    862.94      1.08      0.57      0.49    856.23
     830.       171.      619.       40.       33.       67.       11.        7.        2.     856.93
     0.08      5.13      9.24      3.55     0.060     0.050     0.060     0.000    856.03    243.01
 0.009849       75.       75.       75.         2         0         0      0.00     21.47    264.48


*SECNO 1830.000
 2800 NAT Q1=      79.21  WSEL=     861.78  ENC Q1=      79.21  WSEL=     861.88  RATIO=  0.0000
 NAT Q1=     107.   RATIOS LOB,CH,ROB=  0.2744  0.5694  0.1561  WSEL=     861.88

3470 ENCROACHMENT STATIONS=      244.4      263.1  TYPE=      4  TARGET=        0.260
  1830.00      5.78    861.91      0.00    861.78    863.25      1.34      0.05      0.26    856.33
     830.       147.      668.       16.       28.       66.        5.        7.        2.     857.03
     0.08      5.33     10.06      2.93     0.060     0.050     0.060     0.000    856.13    244.36
 0.011827          5         5.        5.         1         0         0      0.00     18.79    263.14


*SECNO 1835.000

3470 ENCROACHMENT STATIONS=      246.5      266.0  TYPE=      1  TARGET=       19.500
  1835.00      5.74    861.97      0.00    861.84    863.32      1.35      0.06      0.01    856.43
     830.        83.      669.       78.       18.       66.       17.        7.        2.     857.13
     0.09      4.63     10.15      4.62     0.060     0.050     0.060     0.000    856.23    246.50
 0.012149          5         5.        5.         0         0         0      0.00     19.50    266.00


*SECNO 1840.000

3470 ENCROACHMENT STATIONS=      247.5      264.5  TYPE=      1  TARGET=       17.000
  1840.00      5.70    862.03      0.00    861.91    863.73      1.70      0.07      0.34    856.53
     830.        58.      724.       48.       13.       65        11.        7.        2.     857.23
     0.09      4.46     11.06      4.31     0.060     0.050     0.060     0.000    856.33    247.50
 0.014551          5.        5.        5.         0         0         0      0.00     17.00    264.50


*SECNO 1845.000

3470 ENCROACHMENT STATIONS=      249.0      263.5  TYPE=      1  TARGET=       14.500
  1845.00      5.68    862.11      0.00    862.00    864.25      2.13      0.08      0.44    856.63
     830.        19.      785.       27.        5.       65.        7.        7.        2.     857.33
     0.09      3.51     12.03      3.87     0.060     0.050     0.060     0.000    856.43    249.00
 0.017292          5.        5.        5.         1         0         0      0.00     14.50    263.50
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 1850.000
2800 NAT Q1= 38.87 WSEL= 862 13 ENC Q1= 39.84 WSEL= 862 23 RATIO= -0.0251
NAT Q1= 40. RATIOS LOB,CH,ROB= 0.0000 1.0000 0.0000 WSEL= 862.23

3470 ENCROACHMENT STATIONS= 250.0 262.0 TYPE= 4 TARGET= 0.000
DOWNSTREAM FACE OF JACKSON ROAD

1850 00	5.74	862.24	0.00	862.13	864.74	2.50	0.13	0.36	862.80
830	0.	830.	0.	0.	65.	0.	7	2.	862.60
0.09	0.00	12.68	0.00	0.000	0.050	0.000	0.000	856.50	250.01
0.043210	5.	5.	5.	2	0	0	0.00	11.98	261.99

SPECIAL BRIDGE

5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED

SB XK	XKOR	COEQ	RDLEN	BWC	BWP	DAREA	SS	ELCHU	ELCHD
0 00	1.92	3.00	0.00	12.00	0.00	72.00	0.00	856.50	856.50

*SECNO 1935.000
2800 NAT Q1= 76.76 WSEL= 864.99 ENC Q1= 78.31 WSEL= 865.09 RATIO= -0.0202
NAT Q1= 78. RATIOS LOB,CH,ROB= 0.0000 1.0000 0.0000 WSEL= 865.09
WATER EL=CHANGE FROM NATURAL PROFILES BRIDGE

3470 ENCROACHMENT STATIONS= 250.0 262.0 TYPE= 4 TARGET= 0.000
UPSTREAM FACE OF JACKSON ROAD

1935.00	8.60	865.10	0.00	864.99	866 18	1.07	1.97	0.43	862.80
830.	0.	830.	0.	0.	100.	0.	7.	2.	862.60
0.09	0.00	8.32	0.00	0.000	0.050	0.000	0.000	856.50	250.00
0.014386	85.	85.	85.	0	0	0	0.00	12.00	262.00

*SECNO 1937.000

3470 ENCROACHMENT STATIONS= 195.0 211.0 TYPE= 1 TARGET= 16.000

1937.00	9.24	865.74	0.00	865.65	866.33	0.59	0.01	0.14100001.90	
830.	0.	830.	0.	0.	134.	0.	7.	2.	100001.90
0.09	0.00	6.18	0.00	0.000	0.040	0.000	0.000	856.50	195.00
0.003940	2.	2.	2.	2	0	0	0.00	16 00	211.00

*SECNO 1959.000

3470 ENCROACHMENT STATIONS= 163.0 214.0 TYPE= 1 TARGET= 51.000

1959.00	9.73	866.38	0.00	866 33	866.50	0.12	0.03	0.14	861.65
830.	286	544.	0.	122.	181.	0.	7.	2.	100000.00
0.09	2 34	3.00	0.00	0.040	0.040	0.000	0.000	856.65	163.00
0.000602	22.	22.	22.	2	0	0	0.00	51.00	214.00

```
   SECND     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

*SECND 1984 000

3470 ENCROACHMENT STATIONS=      148.0      228.0  TYPE=      1  TARGET=       80.000
  1984.00      9.66    866.46      0.00    866.40    866.53      0.07      0.01      0.01    861.80
     830.       279.       459.       93.       172.       179.       70.        7.        2.     860.40
     0.09      1.62      2.56      1.32     0.040     0.040     0 050     0.000    856.80    148.00
 0.000328       25.       25.       25.         1         0         0      0.00     80.00    228.00


*SECND 2073.000
 2800 NAT Q1=     635.79  WSEL=     866.46  ENC Q1=     635.79  WSEL=     866.56  RATIO=   0.0000
 NAT Q1=     672.   RATIOS LOB, CH, ROB=   0.4103   0.3400   0.2497  WSEL=     866.56

3470 ENCROACHMENT STATIONS=       81.3      317.4  TYPE=      4  TARGET=        0.054
  2073.00      9.14    866 54      0.00    866.46    866.56      0.03      0.02      0.01    862 40
     830.       336.       300.       194       329.       168.       260.        8.        2.     861.00
     0.11      1.02      1.78      0.75     0.040     0.040     0.050     0.000    857 40     81 32
 0.000174       89.       89.       89.         2         0         0      0.00    236.05    317.36


CCHV=    0.100 CEHV=    0.300
*SECND 2192.000
 2800 NAT Q1=     414.19  WSEL=     866.47  ENC Q1=     414.19  WSEL=     866.57  RATIO=   0.0000
 NAT Q1=     437.   RATIOS LOB, CH, ROB=   0.3612   0 4353   0.2036  WSEL=     866.57

3470 ENCROACHMENT STATIONS=       93.8      306.9  TYPE=      4  TARGET=        0.052
  2192.00      8.33    866.54      0.00    866.47    866.60      0.06      0.03      0.01    863.21
     830.       292.       383.       154.       223.       151.       164.       10.        3.     861.81
     0.13      1.31      2.54      0.94     0.040     0.040     0.050     0.000    858.21     93.82
 0.000410       119.       119.       119.         2         0         0      0.00    213.11    306.94


*SECND 2311.000
 2800 NAT Q1=     242.90  WSEL=     866.47  ENC Q1=     242.90  WSEL=     866.57  RATIO=   0.0000
 NAT Q1=     264.   RATIOS LOB, CH, ROB=   0.2827   0.5850   0.1324  WSEL=     866.57

3470 ENCROACHMENT STATIONS=      113.6      231.6  TYPE=      4  TARGET=        0.079
  2311.00      7.52    866.54      0.00    866.47    866.72      0.18      0.08      0.04    864.02
     830.       215.       530        84.       122       133.        46.       11.        3.     862.62
     0.14      1.77      4.00      1.84     0.040     0.040     0.050     0.000    859.02    113.59
 0.001198       119.       119.       119.         2         0         0      0.00    117.98    231.58
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 2450.000
2800 NAT Q1= 139.35 WSEL= 866.50 ENC Q1= 139.35 WSEL= 866.60 RATIO= 0.0000
NAT Q1= 148. RATIOS LOB,CH,ROB= 0.1216 0.7968 0.0816 WSEL= 866.60

3470 ENCROACHMENT STATIONS= 159.0 220.3 TYPE= 4 TARGET= 0.058

2450.00	6.60	866.56	0.00	866.50	867.10	0.54	0.27	0.11	864.96
830.	78.	708	44.	34.	112.	16.	12.	4.	863.56
0.15	2.33	6.29	2.76	0.040	0.040	0.050	0.000	859.96	158.97
0.003701	139.	139.	139.	2	0	0	0.00	61.31	220.28

*SECNO 2550.000
2800 NAT Q1= 110.98 WSEL= 866.77 ENC Q1= 110.98 WSEL= 866.87 RATIO= 0.0000
NAT Q1= 117. RATIOS LOB,CH,ROB= 0.0538 0.8766 0.0696 WSEL= 866.87

3470 ENCROACHMENT STATIONS= 183.5 219.3 TYPE= 4 TARGET= 0.050
CONFLUENCE WITH DRAIN

2550.00	6.19	866.83	0.00	866.77	867.63	0.81	0.46	0.08	865.64
830.	24.	770.	36.	9	103.	12.	12.	4.	864.24
0.15	2.71	7.45	3.13	0.040	0.040	0.050	0.000	860.64	183.52
0.005808	100.	100.	100.	2	0	0	0.00	35.79	219.32

THIS RUN EXECUTED 5 MAR 87 8:29:40

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

100 YEAR FLOODPLAIN

SUMMARY PRINTOUT TABLE 110

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
0.000	851.37	0.00	851.97	122.53	50.69	714.51	64.80	264.00	0.00	192.00	214.00	264.00
0.000	851.47	0.10	852.12	44.80	43.03	740.94	46.03	0.05	175.45	192.00	214.00	220.25
950.000	857.72	0.00	858 33	43.00	30.24	730.22	69.54	43.00	182.00	192.00	214.00	225.00
950.000	857.82	0.10	858.45	38.00	33.64	749.74	46.61	38.00	182.00	192.00	214.00	220.00
975.000	857.87	0.00	858.58	30.00	9.71	780.21	40.08	30.00	189.00	192.00	214.00	219.00
975 000	857.97	0.10	858.76	25 00	11.69	818.31	0.00	25.00	189.00	192.00	214.00	214.00
995.000	858.00	0.00	858 97	20.00	0 00	830.00	0.00	20.00	193.00	192.00	214.00	213.00
995.000	858.14	0.14	859.06	20.00	0.00	830.00	0.00	20.00	193.00	192.00	214.00	213.00
1000.000	857.98	0.00	859.29	17.76	13.26	813.52	3.22	0.00	0.00	253.00	268.00	0.00
1000.000	858 13	0.15	859.45	15.00	0.00	830.00	0.00	0.02	253.00	253.00	268.00	268.00
1247.000	858.69	0 00	859.70	17.01	0.00	830.00	0.00	0.00	0.00	251.00	268.00	0 00
1247.000	858.84	0.15	859.80	17.00	0.00	830.00	0.00	0.00	251.00	251.00	268.00	268.00
1249.000	859.13	0.00	859.82	21.00	41.24	762.09	26.68	21.00	249 00	251.00	268.00	270.00
1249 000	859.24	0.11	859.91	21.00	40.77	762.60	26.63	21.00	249 00	251.00	268.00	270.00
1253 000	859.56	0.00	859.93	29.00	138.00	619.13	72.87	29.00	245.00	251.00	268.00	274.00
1253.000	859.66	0.10	860.02	29.00	137.10	619.64	73.26	29.00	245.00	251.00	268.00	274.00
1287.000	859.92	0.00	860.06	97.00	163.12	529.88	137.01	97.00	155.00	192.00	214.00	252.00
1287.000	859.97	0.06	860 14	71.00	176.89	563.34	89.77	71.00	155.00	192.00	214.00	226.00
1300 000	859 93	0.00	860.08	123.00	179 07	524.03	126.91	123.00	141.00	192.00	214.00	264.00
1300.000	859.99	0.06	860.15	87.00	191.29	545.46	93.24	87.00	141.00	192.00	214.00	228.00
1550.000	860 33	0.00	860.63	128.30	128 91	617.68	83.41	162.00	122.00	192.00	214.00	284 00
1550.000	860.41	0.08	860.74	90.36	133.85	640.98	55 17	0.09	131.13	192.00	214.00	221.49

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
1750.000	861.18	0.00	861.72	61.88	51.52	705.88	72.60	62.00	172.00	192.00	214.00	234.00
1750.000	861.29	0.10	861.88	46.00	59.48	740.05	30.47	46.00	172.00	192.00	214.00	218.00
1825.000	861.73	0.00	862.67	24.50	148.11	578.02	103.87	24.50	243.50	250.00	262.00	268.00
1825.000	861.85	0.13	862.94	21.47	170.81	618.99	40.20	0.21	243.01	250.00	262.00	264.48
1830.000	861.78	0.00	862.92	22.00	118.81	618.64	92.55	22.00	245.00	250.00	262.00	267.00
1830.000	861.91	0.13	863.25	18.79	146.56	667.62	15.82	0.26	244.36	250.00	262.00	263 14
1835.000	861.84	0.00	863.26	19.50	83.39	668.32	78.29	19.50	246.50	250.00	262.00	266.00
1835.000	861.97	0.13	863.32	19.50	82.84	668.74	78.42	19.50	246.50	250.00	262.00	266.00
1840.000	861.91	0 00	863 68	17.00	58.43	723.72	47.86	17.00	247.50	250.00	262.00	264.50
1840.000	862.03	0.12	863.73	17.00	57.98	724.26	47.76	17.00	247.50	250.00	262.00	264.50
1845.000	862 00	0.00	864 22	14.50	19.03	784.33	26.64	14.50	249.00	250.00	262.00	263.50
1845.000	862.11	0.12	864.25	14.50	18.87	784.60	26.52	14.50	249.00	250.00	262.00	263.50
1850 000	862.13	0.00	864.73	11.98	0.00	830.00	0.00	0.00	0.00	250.00	262.00	0.00
1850 000	862 24	0.11	864.74	11.98	0.00	830.00	0.00	0.00	250.00	250.00	262.00	262.00
1935.000	864.99	0.00	866.10	12.07	0.00	830.00	0.00	0.00	0.00	250.00	262.00	0.00
1935.000	865.10	0.11	866 18	12.00	0.00	830.00	0.00	0.00	250.00	250.00	262.00	262.00
1937 000	865.65	0.00	866.26	16.00	0.00	830.00	0.00	16.00	195.00	192.00	214.00	211 00
1937.000	865.74	0.09	866.33	16.00	0.00	830.00	0.00	16.00	195.00	192.00	214.00	211.00
1959.000	866.33	0.00	866 43	60.00	234.88	526.18	68.93	60.00	163.00	192.00	214.00	223.00
1959.000	866 38	0.06	866.50	51.00	285.55	544.45	0.00	51.00	163.00	192.00	214.00	214.00
1984.000	866 40	0.00	866.45	110.00	249.00	415.18	165.83	110.00	148.00	192.00	214.00	258.00
1984.000	866.46	0.06	866.53	80.00	278.52	458.80	92.67	80.00	148.00	192.00	214.00	228.00
2073.000	866.46	0.00	866.48	288.00	333.38	291.93	204.69	288.00	59.00	192.00	214.00	347.00
2073.000	866.54	0 08	866.56	236.05	335.63	300.16	194 21	0.05	81.32	192.00	214.00	317.37
2192.000	866.47	0.00	866.52	284.21	294.05	372.70	163.25	0.00	0.00	192.00	214.00	0.00
2192.000	866.54	0.08	866.60	213.11	292.45	383.08	154.47	0.05	93.82	192.00	214.00	306.94
2311.000	866.47	0.00	866.63	205.00	215.97	512.91	101.12	205.00	101.00	192.00	214.00	306.00
2311.000	866.54	0 07	866.72	117.98	215.40	530.30	84.31	0.08	113.59	192.00	214.00	231.58
2450.000	866.50	0.00	866.99	136.44	85.06	679.39	65.55	0.00	0.00	192.00	214.00	0 00
2450.000	866.56	0.06	867.10	61.31	78.37	707.71	43.92	0.06	158.97	192.00	214.00	220.28
2550 000	866.77	0.00	867.50	77.68	35.83	739.34	54.82	0.00	0.00	192.00	214.00	0.00
2550.000	866.83	0.06	867.63	35.79	23.79	769.83	36.38	0.05	183.52	192.00	214.00	219.32

100 YEAR FLOODPLAIN

SUMMARY PRINTOUT TABLE 150

SECND	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
0.000	0.00	0.00	0.00	845.00	830.00	851.37	0.00	851.97	68.79	6.65	165.78	100.07
0.000	0.00	0.00	0.00	845.00	830.00	851.47	0.00	852.12	69.14	6.76	144.03	99.82
950.000	950.00	0.00	0.00	851.20	830.00	857.72	0.00	858.33	64.98	6.60	147.12	102.96
950.000	950.00	0.00	0.00	851.20	830.00	857.82	0.00	858.45	64.20	6.64	142.66	103 59
975.000	25.00	0.00	0.00	851.30	830.00	857.87	0.00	858.58	71.43	6.97	129.52	98.21
975.000	25.00	0.00	0.00	851.30	830.00	857.97	0.00	858.76	86.37	7.17	119.01	89.31
995.000	20 00	0.00	0.00	851.50	830.00	858.00	0.00	858.97	118.59	7.89	105.18	76.22
995.000	20.00	0.00	0.00	851.50	830.00	858.14	0.00	859.06	110.94	7.71	107.69	78.80
1000 000	5.00	0.00	0.00	851.50	830.00	857.98	0.00	859.29	92.90	9.27	96.05	86.11
1000.000	5.00	0.00	0.00	851.50	830.00	858.13	0.00	859.45	192.94	9.23	89.97	59.75
1247.000	247.00	868.20	858.40	850.80	830.00	858.69	0.00	859.70	144 44	8.08	102.69	68.54
1247.000	247.00	999999.00	0.00	850.80	830.00	858.84	0.00	859.80	141.21	7.89	105.17	69 85
1249.000	2.00	0.00	0.00	850.80	830.00	859.13	0.00	859.82	48.35	6.91	136.88	119.37
1249.000	2.00	0.00	0.00	850.80	830.00	859.24	0.00	859.91	45.72	6 80	139.25	122.75
1253.000	4.00	0.00	0 00	850.90	830.00	859.56	0.00	859.93	26.99	5.34	189.57	159.76
1253 000	4.00	0.00	0.00	850.90	830.00	859.66	0.00	860.02	25.79	5.27	192.39	163.44
1287.000	34.00	0.00	0.00	851.60	830.00	859.92	0.00	860.06	12.35	3.53	334.71	236.19
1287 000	34.00	0.00	0.00	851.60	830.00	859.97	0.00	860.14	13.59	3.72	299.15	225.18
1300.000	13.00	0.00	0.00	851.90	830.00	859.93	0.00	860.08	13.86	3.63	342.15	222.96
1300.000	13.00	0.00	0.00	851.90	830.00	859.99	0.00	860.15	14.59	3.75	310.51	217.27
1550.000	250.00	0.00	0.00	853.25	830.00	860.33	0.00	860.63	32.71	5.02	245.58	145.13
1550.000	250.00	0.00	0.00	853.25	830.00	860.41	0.00	860.74	33.66	5 14	223.68	143.06
1750.000	200.00	0.00	0.00	854.60	830.00	861.18	0.00	861.72	58.27	6.30	166.20	108 73
1750.000	200.00	0.00	0.00	854 60	830.00	861.29	0 00	861.88	59 98	6.48	151.94	107.17
1825.000	75 00	0.00	0.00	856.03	830.00	861.73	0.00	862.67	92.65	8.83	119.38	86.23
1825.000	75.00	0.00	0 00	856.03	830.00	861.85	0.00	862.94	98.49	9.24	111.58	83.64
1830.000	5.00	0.00	0.00	856.13	830 00	861.78	0.00	862.92	109.81	9.54	108.96	79.21
1830.000	5.00	0.00	0.00	856.13	830.00	861.91	0.00	863.25	118.27	10.06	99.28	76 32
1835.000	5.00	0.00	0.00	856.23	830.00	861.84	0.00	863.26	131.62	10.39	98.16	72.35
1835.000	5.00	0.00	0.00	856 23	830.00	861.97	0.00	863.32	121.49	10.15	100.75	75.30
1840.000	5.00	0.00	0.00	856.33	830.00	861.91	0.00	863.68	156.73	11.31	87.51	66.30
1840 000	5.00	0.00	0.00	856.33	830.00	862.03	0.00	863.73	145.51	11.06	89.59	68.81

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.6IK
1845.000	5 00	0.00	0.00	856.43	830.00	862.00	0.00	864.22	185.89	12.29	75.76	60.88
1845.000	5.00	0.00	0.00	856.43	830.00	862.11	0.00	864.25	172.92	12.03	77.47	63.12
1850.000	5.00	0.00	0.00	856.50	830.00	862.13	862.06	864.73	456.03	12.93	64.17	38.87
1850.000	5.00	0.00	0.00	856.50	830.00	862.24	0 00	864.74	432.10	12.68	65 47	39.93
1935.000	85.00	869.30	863.00	856.50	830.00	864.99	0.00	866.10	116.91	8.43	98.56	76 76
1935.000	85.00	999999.00	0.00	856.50	830.00	865.10	0.00	866.18	143.86	8.32	99.78	69 20
1937.000	2.00	0.00	0.00	856.50	830.00	865 65	0.00	866.26	40.50	6.25	132.86	130.42
1937.000	2.00	0.00	0.00	856.50	830.00	865.74	0.00	866.33	39.40	6.18	134.27	132.22
1959.000	22 00	0.00	0.00	856.65	830.00	866.33	0.00	866.43	4.25	2.92	349.46	402.39
1959.000	22.00	0.00	0.00	856.65	830.00	866.38	0.00	866.50	6.02	3.00	303.65	338.30
1984.000	25.00	0.00	0.00	856 80	830.00	866.40	0.00	866.45	2.75	2.33	495.64	500.75
1984.000	25.00	0.00	0 00	856.80	830.00	866.46	0.00	866.53	3.28	2.56	421.85	458.53
2073.000	89.00	0.00	0 00	857.40	830.00	866.46	0.00	866.48	1.70	1.75	806.42	635.79
2073.000	89.00	0.00	0.00	857.40	830.00	866.54	0.00	866.56	1.74	1.78	756.95	629.31
2192.000	119.00	0.00	0.00	858.21	830.00	866.47	0.00	866.52	4.02	2.50	579.70	414.19
2192.000	119.00	0.00	0.00	858.21	830.00	866.54	0.00	866.60	4.10	2.54	537.53	409.96
2311.000	119.00	0.00	0.00	859.02	830.00	866.47	0.00	866.63	11.68	3.91	341.95	242.90
2311.000	119.00	0.00	0.00	859.02	830.00	866.54	0.00	866.72	11.98	4.00	300.26	239.77
2450 000	139.00	0.00	0 00	859.96	830.00	866.50	0.00	866.99	35.48	6.11	188.11	139.35
2450.000	139.00	0.00	0.00	859.96	830.00	866.56	0.00	867.10	37.01	6.29	162.04	136.43
2550.000	100.00	0.00	0.00	860.64	830.00	866.77	0.00	867.50	55.93	7.25	141.35	110.98
2550.000	100.00	0 00	0.00	860.64	830.00	866.83	0.00	867.63	58.08	7.45	123.76	108.91

100 YEAR FLOODPLAIN

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
0.000	830.00	851.37	0.00	0.00	0.00	122.53	0.00
0.000	830 00	851.47	0 10	0.00	0.10	44.80	0.00
950.000	830.00	857.72	0 00	6.35	0.00	43.00	950.00
950.000	830 00	857.82	0.10	6.35	0.10	38.00	950.00
975.000	830.00	857.87	0.00	0.15	0.00	30.00	25.00
975.000	830.00	857.97	0.10	0.15	0 10	25.00	25.00
995.000	830.00	858.00	0 00	0.13	0.00	20.00	20.00
995.000	830.00	858.14	0.14	0.17	0.14	20.00	20.00
1000.000	830.00	857.98	0.00	-0.02	0.00	17.76	5.00
1000.000	830.00	858.13	0.15	-0.01	0.15	15.00	5.00
1247.000	830.00	858.69	0 00	0.71	0.00	17.01	247.00
1247.000	830.00	858.84	0.15	0.71	0.15	17.00	247.00
1249.000	830.00	859.13	0.00	0.44	0.00	21.00	2.00
1249.000	830 00	859.24	0.11	0.40	0.11	21.00	2.00
1253.000	830.00	859.56	0.00	0.44	0.00	29.00	4.00
1253.000	830.00	859.66	0.10	0.42	0.10	29.00	4.00
1287.000	830.00	859.92	0.00	0.35	0.00	97.00	34.00
1287.000	830.00	859.97	0.06	0.31	0.06	71.00	34.00
1300.000	830.00	859.93	0.00	0.02	0.00	123.00	13.00
1300.000	830.00	859.99	0.06	0.02	0.06	87.00	13.00
1550.000	830.00	860.33	0.00	0.40	0.00	128.30	250.00
1550.000	830.00	860.41	0.08	0.41	0.08	90.36	250.00
1750.000	830 00	861.18	0.00	0.86	0 00	61.88	200.00
1750.000	830.00	861.29	0.10	0.88	0.10	46.00	200.00
1825.000	830.00	861.73	0.00	0.54	0.00	24.50	75.00
1825 000	830.00	861.85	0.13	0.57	0.13	21.47	75.00
1830.000	830.00	861.78	0.00	0.05	0.00	22.00	5.00
1830 000	830 00	861.91	0.13	0.05	0.13	18.79	5.00
1835.000	830.00	861.84	0 00	0.06	0.00	19.50	5.00
1835.000	830.00	861.97	0.13	0.06	0.13	19.50	5.00
1840 000	830.00	861.91	0.00	0.07	0.00	17.00	5.00
1840.000	830.00	862 03	0.12	0.07	0 12	17.00	5.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
1845.000	830.00	862.00	0.00	0.09	0.00	14.50	5.00
1845.000	830.00	862.11	0.12	0.08	0.12	14.50	5.00
1850.000	830.00	862.13	0.00	0.14	0.00	11.98	5.00
1850.000	830.00	862.24	0.11	0.13	0.11	11.98	5.00
1935.000	830.00	864.99	0.00	2.86	0.00	12.07	85.00
1935.000	830.00	865.10	0.11	2.86	0.11	12.00	85.00
1937.000	830.00	865.65	0.00	0.66	0.00	16.00	2.00
1937.000	830.00	865.74	0.09	0.64	0.09	16.00	2.00
1959.000	830.00	866.33	0.00	0.67	0.00	60.00	22.00
1959.000	830.00	866.38	0.06	0.64	0.06	51.00	22.00
1984.000	830.00	866.40	0.00	0.07	0.00	110.00	25.00
1984.000	830.00	866.46	0.06	0.07	0.06	80.00	25.00
2073.000	830.00	866.46	0.00	0.06	0.00	288.00	89.00
2073.000	830.00	866.54	0.08	0.08	0.08	236.05	89.00
2192.000	830.00	866.47	0.00	0.01	0.00	284.21	119.00
2192.000	830.00	866.54	0.08	0.01	0.08	213.11	119.00
2311.000	830.00	866.47	0.00	0.00	0.00	205.00	119.00
2311.000	830.00	866.54	0.07	0.00	0.07	117.98	119.00
2450.000	830.00	866.50	0.00	0.03	0.00	136.44	139.00
2450.000	830.00	866.56	0.06	0.02	0.06	61.31	139.00
2550.000	830.00	866.77	0.00	0.26	0.00	77.68	100.00
2550.000	830.00	866.83	0.06	0.27	0.06	35.79	100.00

FLOODWAY DATA, 100 YEAR FLOODPLAIN
PROFILE NO 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
0.000	45.	144.	5.8	851.5	851.4	0.1
950.000	38.	143.	5.8	857.8	857.7	0.1
975.000	25.	119.	7.0	858.0	857.9	0.1
995.000	20.	108.	7.7	858.1	858.0	0.1
1000.000	15.	90.	9.2	858.1	858.0	0.1
1247.000	17.	105.	7.9	858.8	858.7	0.1
1249.000	21.	139.	6.0	859.2	859.1	0.1
1253.000	29.	192.	4.3	859.7	859.6	0.1
1287.000	71.	299.	2.8	860.0	859.9	0.1
1300.000	87.	311.	2.7	860.0	859.9	0.1
1550.000	90.	224.	3.7	860.4	860.3	0.1
1750.000	46.	152.	5.5	861.3	861.2	0.1
1825.000	21.	112.	7.4	861.8	861.7	0.1
1830.000	19.	99.	8.4	861.9	861.8	0.1
1835.000	19.	101.	8.2	861.9	861.8	0.1
1840.000	17.	90.	9.3	862.0	861.9	0.1
1845.000	14.	77.	10.7	862.1	862.0	0.1
1850.000	12.	65.	12.7	862.2	862.1	0.1
1935.000	12.	100.	8.3	865.1	865.0	0.1
1937.000	16.	134.	6.2	865.8	865.7	0.1
1959.000	51.	304.	2.7	866.4	866.3	0.1
1984.000	80.	422.	2.0	866.5	866.4	0.1
2073.000	236.	757.	1.1	866.6	866.5	0.1
2192.000	213.	538.	1.5	866.6	866.5	0.1
2311.000	118.	300.	2.8	866.6	866.5	0.1
2450.000	61.	162.	5.1	866.6	866.5	0.1
2550.000	36.	124.	6.7	866.9	866.8	0.1

Sc10 TWP FIS

HONEY CREEK TRIB #1

(SISTER LAKES DRAIN)

100 YR FLOODPLAIN

IND = SISTRH2

```
EEEEEE   EEEEEE        L       EEEEEE   EEEEEE
E        E             L       E        E
E        E             L       E        E
EEEE     EEEE          L       EEEE     EEEE
E        E             L       E        E
EEEEEE   EEEEEE        LLLLLL  EEEEEE   EEEEEE

USACOE DETROIT H800 VOS 5.1.1      PRINTER:   6

EE LEE                          4 MAR 87 14:27:47

TERMINAL:104
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THIS RUN EXECUTED 4 MAR 87 14:27:09

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
**************************************************

C
T1      SCIO TOWNSHIP FLOOD INSURANCE STUDY
T2      HONEY CREEK TRIBUTARY #1--SISTER LAKES DRAIN
T3      100 YEAR FLOODPLAIN

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
       0.       2.        0.        0.   0.006800      0.00      0.0       0.    851.800     0.000

J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
     -1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

J3  VARIABLE CODES FOR SUMMARY PRINTOUT
    150.000   200.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

QT      1.000   830.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
NC      0.060     0.060     0.050     0.100     0.300     0.000     0 000     0.000     0.000     0.000
            MOUTH OF TRIB #1
X1      0.000    20.000   192.000   214.000     0.000     0.000     0 000     0.000    -9.600     0.000
X3      0.000     0.000     0 000     0 000     0.000   264.000     0.000     0.000     0.000     0.000
GR    867.900     0.000   866.800    25 000   863.100    40.000   862.800    64.000   861.500    89.000
GR    860.700   114 000   861.000   139.000   860.600   164.000   859.600   192.000   856.100   197.000
GR    854.600   203.000   855.800   211.000   858.200   214.000   861.800   238.000   861.900   264.000
GR    861.100   289.000   861 700   314.000   862.300   340.000   866.700   364.000   870.400   389.000

NC      0.000     0.000     0.000     0.300     0.800     0.000     0.000     0.000     0.000     0.000
X1    950 000     0.000     0.000     0.000   950.000   950.000   950.000     0.000     6.200     0.000
X3      0.000     0.000     0.000   182.000     0.000   225.000     0.000     0.000     0.000     0.000

X1    975.000     0.000     0.000     0.000    25.000    25.000    25.000     0.000     0.100     0.000
X3      0 000     0.000     0 000   189 000     0.000   219.000     0.000     0.000     0.000     0.000

X1    995.000     0 000     0.000     0.000    20.000    20.000    20.000     0.000     0 200     0.000
X3      0.000     0.000     0.000   193.000     0.000   213.000     0.000     0.000     0.000     0.000

            DOWNSTREAM FACE OF I-94
X1   1000.000    19.000   253.000   268.000     5.000     5.000     5.000     0.000     0.000     0.000
GR    866.600     0.000   866.600    50.000   867.100   100 000   867.210   150.000   867.340   200.000
GR    867.530   249 000   861 600   250.000   858 500   251.000   851.500   253 000   851.900   258.000
GR    852.300   263.000   852.900   268.000   858.500   269 000   867.600   270.000   867.600   300.000
GR    867.900   350.000   868.600   400.000   868 600   450.000   868.800   500.000     0.000     0.000
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SB	0.000	2.010	3.000	0 000	17.200	0.000	111.800	0.000	0.000	0.000
	UPSTREAM FACE OF I-94									
X1	1247.000	20.000	251.000	268.000	247.000	247.000	247.000	0.000	0.000	0.000
X2	0.000	0 000	1.000	858.400	868.200	0.000	0.000	0.000	0.000	0.000
BT	-16.000	0.000	868.200	0.000	50.000	868.400	0.000	100 000	868.600	0 000
BT	0.000	150.000	868.800	0.000	200.000	869.000	0.000	250.900	869.200	0.000
BT	0.000	251.000	869.200	858.400	251.000	869.200	858.800	268.000	869.400	858.900
BT	0.000	268.000	869.400	858.300	268.200	869.400	0.000	300.000	869.500	0.000
BT	0.000	350.000	869.700	0.000	400.000	869 900	0.000	450.000	870.300	0.000
BT	0.000	500 000	870.600	0.000	0.000	0.000	0.000	0.000	0 000	0.000
GR	868.200	0.000	868.400	50.000	868.600	100.000	868.800	150.000	869.000	200.000
GR	869.200	250.900	858.400	251 000	850.800	251.000	851.100	256.000	853.000	258.000
GR	854.100	261.000	853 400	266.000	853 400	268.000	858.300	268.000	869.400	268.200
GR	869.500	300.000	869.700	350.000	869.900	400.000	870.300	450 000	870.600	500.000
X1	1249.000	20 000	251.000	268.000	2.000	2.000	2.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	249.000	0.000	270.000	0.000	0.000	0.000	0.000
GR	868.200	0.000	868.400	50.000	868.600	100.000	868.800	150.000	869.000	200.000
GR	850.800	250.900	850.800	251.000	850.800	251.000	851.100	256.000	853.000	258.000
GR	854.100	261.000	853 400	266.000	853.400	268.000	853.400	268.000	853.400	268.200
GR	869.500	300 000	869.700	350.000	869.900	400 000	870.300	450.000	870.600	500.000
X1	1253.000	0.000	0.000	0 000	4.000	4.000	4.000	0.000	0.100	0.000
X3	0.000	0.000	0.000	245.000	0.000	274.000	0.000	0.000	0.000	0.000
X1	1287.000	20.000	192.000	214.000	34.000	34.000	34.000	0.000	-3.000	0.000
X3	0 000	0.000	0.000	155.000	0.000	252.000	0.000	0.000	0.000	0.000
GR	867.900	0.000	866.800	25.000	863.100	40.000	862.800	64.000	861.500	89 000
GR	860 700	114.000	861.000	139.000	860.600	164.000	859.600	192.000	856.100	197.000
GR	854 600	203.000	855.800	211 000	858 200	214.000	861.800	238.000	861.900	264.000
GR	861.100	289.000	861.700	314.000	862.300	340.000	866.700	364.000	870.400	389.000
X1	1300.000	0.000	0.000	0.000	13.000	13.000	13.000	0.000	0.300	0.000
X3	0.000	0.000	0 000	141 000	0.000	264.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
X1	1550.000	0.000	0.000	0.000	250.000	250.000	250.000	0.000	1.350	0.000
X3	0 000	0.000	0.000	122.000	0.000	284.000	0.000	0.000	0.000	0.000
NC	0.000	0 000	0 000	0.300	1.000	0.000	0.000	0.000	0.000	0 000
	CROSS SECTION A (VALLEY SECTION #3)									
X1	1750.000	0.000	0.000	0.000	200.000	200.000	200.000	0.000	1.350	0.000
X3	0.000	0.000	0.000	172.000	0.000	234.000	0.000	0.000	0.000	0.000
X1	1825.000	18.000	250.000	262.000	75.000	75.000	75.000	0.000	-0.470	0.000
X3	0 000	0.000	0.000	243 500	0.000	268.000	0.000	0.000	0.000	0.000
GR	869.700	0 000	869.600	50.000	869.400	100.000	869.300	150.000	869.400	200.000
GR	856.700	249.900	856.700	250.000	856.700	250 100	856.500	256.000	857.100	261.000
GR	857.400	261.900	857.400	262.000	857.400	262.100	869.500	301.000	869.900	351.000
GR	870.700	401.000	871.300	451.000	872.300	501.000	0.000	0.000	0.000	0.000

X1	1830.000	0.000	0.000	0.000	5.000	5.000	5.000	0.000	0.100	0.000
X3	0 000	0.000	0.000	245.000	0.000	267.000	0.000	0.000	0.000	0.000
X1	1835.000	0.000	0.000	0.000	5.000	5.000	5.000	0.000	0.100	0.000
X3	0.000	0.000	0.000	246.500	0.000	266.000	0.000	0.000	0.000	0.000
X1	1840.000	0.000	0.000	0.000	5.000	5.000	5.000	0.000	0.100	0.000
X3	0.000	0.000	0.000	247.500	0.000	264.500	0.000	0.000	0.000	0.000
X1	1845.000	0 000	0.000	0.000	5.000	5.000	5.000	0 000	0.100	0.000
X3	0 000	0.000	0.000	249 000	0.000	263.500	0.000	0.000	0.000	0.000
	DOWNSTREAM FACE OF JACKSON ROAD									
X1	1850.000	18.000	250.000	262.000	5.000	5.000	5.000	0.000	0.000	0.000
GR	869.700	0.000	869.600	50.000	869.400	100.000	869.300	150.000	869.400	200.000
GR	869.400	249.900	862.800	250.000	856.700	250.100	856.500	256.000	857.100	261.000
GR	857.400	261.900	862.600	262.000	869.500	262.100	869.500	301.000	869.900	351.000
GR	870.700	401.000	871.300	451.000	872 300	501.000	0.000	0.000	0.000	0.000
SB	0.000	1.920	3.000	0.000	12 000	0.000	72.000	0.000	0.000	0.000
	UPSTREAM FACE OF JACKSON ROAD									
X1	1935.000	0.000	0.000	0.000	85 000	85.000	85.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	863.000	869.300	0.000	0.000	0.000	0.000	0.000
BT	-16.000	0.000	869.700	0.000	50.000	869.600	0.000	100.000	869.400	0.000
BT	0.000	150.000	869.300	0.000	200.000	869.400	0.000	249.900	869.400	0.000
BT	0.000	250.000	869.400	862.800	250.100	869.400	863.200	261.900	869.500	863.000
BT	0.000	262.000	869.500	862.600	262.100	869.500	0.000	301.000	869.500	0.000
BT	0.000	351.000	869.900	0.000	401.000	870.600	0.000	451.000	871.300	0.000
BT	0.000	501.000	872.300	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.040	0.050	0.040	0.000	0.000	0.000	0 000	0.000	0.000	0.000
X1	1937.000	20.000	192.000	214.000	2.000	2.000	2.000	0.000	1 900	0.000
X3	0 000	0.000	0.000	195.000	0.000	211.000	0.000	0.000	0.000	0.000
GR	867.900	0.000	866.800	25.000	863.100	40.000	862.800	64.000	861 500	89.000
GR	860.700	114 000	861.000	139.000	860.600	164.000	859.600	192.000	856.100	197.000
GR	854.600	203.000	855.800	211.000	858 200	214.000	861.800	238.000	861.900	264.000
GR	861.100	289.000	861.700	314.000	862 300	340.000	866 700	364.000	870.400	389.000
X1	1959.000	0 000	0.000	0.000	22.000	22.000	22 000	0.000	0.150	0.000
X3	0.000	0.000	0.000	163.000	0.000	223.000	0.000	0.000	0.000	0.000
X1	1984.000	0.000	0.000	0.000	25.000	25.000	25.000	0.000	0.150	0.000
X3	0.000	0.000	0 000	148.000	0.000	258.000	0.000	0.000	0.000	0.000
X1	2073.000	0.000	0.000	0.000	89.000	89.000	89 000	0.000	0.600	0.000
X3	0 000	0.000	0.000	59 000	0.000	347.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0 000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
X1	2192.000	0.000	0 000	0.000	119.000	119.000	119.000	0.000	0.810	0.000

X1	2311.000	0.000	0.000	0.000	119.000	119.000	119.000	0.000	0.810	0.000
X3	0.000	0.000	0.000	101.000	0.000	306.000	0.000	0.000	0.000	0.000
X1	2450.000	0.000	0.000	0.000	139.000	139.000	139.000	0.000	0.940	0.000
	CONFLUENCE WITH DRAIN									
X1	2550.000	0.000	0.000	0.000	100.000	100.000	100.000	0.000	0.680	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300
*SECNO 0.000

3265 DIVIDED FLOW

851.8 Honey Creek FP.

3470 ENCROACHMENT STATIONS= 0.0 264.0 TYPE= 1 TARGET= 263.999
MOUTH OF TRIB #1

0.00	6 37	851.37	0.00	851.80	851.97	0.60	0.00	0.00	850.00
830.	50.	715.	65.	33.	107	26.	0.	0.	848.60
0.00	1 55	6 66	2.54	0.060	0.050	0 060	0.000	845.00	105.65
0.006900	0.	0.	0.	0	0	5	0.00	122.01	232.45

CCHV= 0.300 CEHV= 0.800
*SECNO 950.000

3470 ENCROACHMENT STATIONS= 182.0 225.0 TYPE= 1 TARGET= 43.000

950.00	6.52	857 72	0.00	0.00	858.33	0.61	6.35	0.00	856.20
830.	30.	730.	70.	13.	111.	23.	3.	2.	854.80
0 04	2.26	6.59	3 02	0.060	0.050	0.060	0.000	851.20	182.00
0.006488	950.	950.	950.	3	0	0	0.00	43.00	225.00

*SECNO 975.000

3470 ENCROACHMENT STATIONS= 189.0 219.0 TYPE= 1 TARGET= 30.000

975.00	6.57	857.87	0.00	0.00	858.59	0.72	0.17	0.09	856.30
830.	10.	780.	40.	5.	112.	13.	3.	2.	854.90
0.04	2.12	6.97	3 08	0.060	0.050	0.060	0.000	851.30	189.00
0.007134	25.	25.	25.	1	0	0	0.00	30.00	219.00

*SECNO 995.000

3470 ENCROACHMENT STATIONS= 193.0 213.0 TYPE= 1 TARGET= 20.000

995.00	6.50	858 00	0.00	0.00	858 97	0.97	0.18	0.20100000.00	
830.	0.	830.	0.	0.	105.	0.	4.	2.	100000.00
0.04	0.00	7.89	0.00	0.000	0.050	0.000	0.000	851.50	193.00
0.011850	20	20.	20.	0	0	0	0.00	20.00	213.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	GLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 1000.000

DOWNSTREAM FACE OF I-94

1000.00	6.48	857.98	0.00	0.00	859.29	1.31	0.05	0.27	851.50
830.	13.	814.	3.	6.	88.	2.	4.	2.	852.90
0.04	2.21	9.27	1.39	0 060	0.050	0.060	0.000	851.50	251.15
0.009283	5.	5.	5	2	0	0	0.00	17 76	268.91

SPECIAL BRIDGE

5070, VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED

SB XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
0.00	2.01	3.00	0.00	17.20	0.00	111.80	0.00	851.50	851.50

*SECNO 1247.000

PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
859.70	859 28	0.00	0.	830.	112.	119.	858.40	868.20

UPSTREAM FACE OF I-94

1247 00	7.89	858.69	0.00	0.00	859.70	1.01	0.41	0.00	858.40
830.	0.	830.	0.	0.	103.	0.	4.	2.	858.30
0.05	0.00	8.08	0.03	0.000	0.050	0.000	0.000	850.80	251.00
0.014647	247.	247.	247.	3	0	0	0.00	17.01	268.01

*SECNO 1249.000

3470 ENCROACHMENT STATIONS= 249.0 270 0 TYPE= 1 TARGET= 21.000

1249.00	8.33	859.13	0.00	0.00	859.82	0.69	0.02	0.10	850.80
830.	41.	762.	27.	16.	110.	11.	4.	2.	853.40
0.05	2.57	6 91	2.51	0.060	0.050	0.060	0.000	850.80	249.00
0.004831	2.	2.	2.	2	0	0	0.00	21.00	270.00

*SECNO 1253.000

3470 ENCROACHMENT STATIONS= 245.0 274.0 TYPE= 1 TARGET= 29.000

1253 00	8.67	859.57	0.00	0.00	859.93	0 36	0.01	0.10	850.90
830	138.	619.	73.	46.	116	28.	4.	2.	853.50
0.05	3.01	5.34	2.61	0.060	0.050	0.060	0.000	850.90	245.00
0.002697	4.	4.	4.	2	0	0	0.00	29.00	274.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 1287.000

3470 ENCROACHMENT STATIONS=			155.0	252.0	TYPE=	1	TARGET=	97.000	
1287.00	8.32	859.92	0.00	0.00	860.06	0.14	0.06	0.07	856.60
830.	163.	530.	137.	99.	150.	85.	4	2.	855.20
0.06	1.65	3.53	1.61	0.060	0.050	0.060	0.000	851.60	155.00
0.001234	34.	34.	34.	2	0	0	0.00	97.00	252.00

*SECNO 1300.000

3470 ENCROACHMENT STATIONS=			141.0	264.0	TYPE=	1	TARGET=	123.000	
1300.00	8.03	859.93	0.00	0.00	860.08	0.14	0.02	0.00	856.90
830.	179	524.	127.	114.	144.	84.	4.	2.	855.50
0.06	1.57	3.63	1.51	0.060	0.050	0.060	0.000	851.90	141.00
0.001384	13.	13.	13.	0	0	0	0.00	123.00	264.00

CCHV= 0.100 CEHV= 0.300

*SECNO 1550.000

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS=			122.0	284.0	TYPE=	1	TARGET=	162.000	
1550.00	7.08	860.33	0.00	0.00	860.63	0.30	0.51	0.05	858.25
830.	129.	618.	83.	80.	123.	43.	6.	3.	856.85
0.07	1.62	5.02	1.93	0.060	0.050	0.060	0.000	853.25	122.00
0.003268	250.	250.	250.	2	0	0	0.00	128.33	284.00

CCHV= 0.300 CEHV= 1.000

*SECNO 1750.000

3470 ENCROACHMENT STATIONS=			172.0	234.0	TYPE=	1	TARGET=	62.000	
CROSS SECTION A (VALLEY SECTION #3)									
1750.00	6.58	861.18	0.00	0.00	861.72	0.54	0.85	0.23	859.60
830.	52.	706.	73.	25.	112.	30.	7.	3.	858.20
0.08	2.10	6.30	2.45	0.060	0.050	0.060	0.000	854.60	172.00
0.005825	200	200.	200.	2	0	0	0.00	61.88	233.88

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 1825.000

3470 ENCROACHMENT STATIONS=			243.5	268.0	TYPE=	1	TARGET=	24.500	
1825.00	5.70	861.73	0.00	0.00	862.67	0.95	0.54	0.41	856.23
830.	148.	578.	104.	31.	65.	23.	7.	3.	856.93
0.09	4.85	8.82	4.44	0.060	0.050	0.060	0.000	856.03	243.50
0.009264	75.	75.	75.	2	0	0	0.00	24.50	268.00

*SECNO 1830.000

3470 ENCROACHMENT STATIONS=			245.0	267.0	TYPE=	1	TARGET=	22.000	
1830.00	5.65	861.78	0.00	0.00	862.92	1.14	0.05	0.20	856.33
830.	119.	619.	93.	24.	65.	20.	7.	3.	857.03
0.09	4.92	9.54	4.63	0.060	0.050	0.060	0.000	856.13	245.00
0.010979	5.	5.	5.	1	0	0	0.00	22.00	267.00

*SECNO 1835.000

3470 ENCROACHMENT STATIONS=			246.5	266.0	TYPE=	1	TARGET=	19.500	
1835.00	5.61	861.84	0.00	0.00	863.26	1.42	0.06	0.27	856.43
830.	83.	668.	78.	17.	64.	16.	7.	3.	857.13
0.09	4.79	10.39	4.77	0.060	0.050	0.060	0.000	856.23	246.50
0.013161	5.	5.	5.	0	0	0	0.00	19.50	266.00

*SECNO 1840.000

3470 ENCROACHMENT STATIONS=			247.5	264.5	TYPE=	1	TARGET=	17.000	
1840.00	5.58	861.91	0.00	0.00	863.68	1.77	0.07	0.35	856.53
830.	58.	724.	48.	13.	64.	11.	7.	3.	857.23
0.09	4.60	11.30	4.44	0.060	0.050	0.060	0.000	856.33	247.50
0.015671	5	5.	5.	1	0	0	0.00	17.00	264.50

*SECNO 1845.000

3470 ENCROACHMENT STATIONS=			249.0	263.5	TYPE=	1	TARGET=	14.500	
1845.00	5.57	862.00	0.00	0.00	864.22	2.23	0.09	0.46	856.63
830.	19.	784.	27.	5.	64	7.	7.	3.	857.33
0.09	3.62	12.29	3.99	0.060	0.050	0.060	0.000	856.43	249.00
0.018587	5.	5	5.	1	0	0	0.00	14.50	263.50

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 1850.000

DOWNSTREAM FACE OF JACKSON ROAD

1850.00	5.63	862.13	862.06	0.00	864.73	2.60	0.14	0.37	862.80
830.	0.	830.	0.	0.	64.	0.	7.	3.	862.60
0.09	0.00	12.93	0.00	0.000	0.050	0.000	0.000	856.50	250.01
0.045599	5.	5.	5.	4	5	0	0.00	11.98	261.99

SPECIAL BRIDGE

5070, VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED

SB XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
0.00	1.92	3.00	0.00	12 00	0.00	72.00	0.00	856.50	856.50

*SECNO 1935.000

3301 HV CHANGED MORE THAN HVINS

PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
866 10	864.73	0.00	0	830.	72.	78.	863.00	869.30

Inlet control

1.55×6.5 + 836.5 = 866.6

UPSTREAM FACE OF JACKSON ROAD

1935.00	8.49	864 99	0.00	0.00	866.10	1.10	1.36	0.00	862.80
830.	0.	830	0.	0.	98.	0.	8.	3.	862.60
0.09	0.03	8 43	0.03	0.060	0.050	0.060	0.000	856.50	249.97
0.011690	85.	85.	85.	3	0	0	0.00	12.07	262.03

*SECNO 1937.000

3470 ENCROACHMENT STATIONS= 195.0 211 0 TYPE= 1 TARGET= 16 000

1937.00	9.15	865.65	0.00	0.00	866 26	0.61	0.01	0.15100001.90	
830.	0.	830.	0.	0.	133.	0.	8.	3.	100001.90
0.09	0.00	6.25	0.00	0.000	0.040	0 000	0.000	856.50	195.00
0.004050	2	2.	2.	2	0	0	0.00	16.00	211.00

*SECNO 1959.000

```
  SECND      DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
  Q          QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
  TIME       VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
  SLOPE      XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=      163.0      223.0  TYPE=      1  TARGET=      60.000
  1959.00      9.68    866.33      0.00      0.00    866.43      0.10      0.02      0.15    861.65
     830       235.      526.       69.      121.      180.       49.         8.        3.     860.25
     0.09      1.95      2.92      1.42     0.040     0.040     0.050     0.000    856.65    163.00
 0.000425       22.       22        22.         2         0         0      0.00     60.00    223.00

*SECND 1984.000

3470 ENCROACHMENT STATIONS=      148.0      258.0  TYPE=      1  TARGET=     110.000
  1984.00      9.60    866.40      0.00      0.00    866.45      0.06      0.01      0.01    861.80
     830       249.      415.      166.      170.      178.      148.         8.        3.     860.40
     0.10      1.47      2.33      1.12     0.040     0.040     0.050     0.000    856.80    148.00
 0.000275       25.       25.       25.         1         0         0      0.00    110.00    258.00

*SECND 2073.000

3470 ENCROACHMENT STATIONS=       59.0      347.0  TYPE=      1  TARGET=     288.000
  2073.00      9.06    866.46      0.00      0.00    866.48      0.02      0.02      0.01    862.40
     830.      333.      292.      205.      347.      166.      293.         9.        4.     861.00
     0.12      0.96      1.75      0.70     0.040     0.040     0.050     0.000    857.40     59.00
 0.000170       89.       89.       89.         2         0         0      0.00    288.00    347.00

CCHV=    0.100 CEHV=    0.300
*SECND 2192.000
  2192.00      8.26    866.47      0.00      0.00    866.52      0.05      0.03      0.01    863.21
     830.      294.      373.      163.      241.      149.      189.        11.        5.     861.81
     0.14      1.22      2.50      0.86     0.040     0.040     0.050     0.000    858.21     58.85
 0.000401       119.      119.      119.         1         0         0      0.00    284.22    343.08

*SECND 2311.000

3470 ENCROACHMENT STATIONS=      101.0      306.0  TYPE=      1  TARGET=     205.000
  2311.00      7.45    866.47      0.00      0.00    866.63      0.16      0.08      0.03    864.02
     830.      216.      513.      101.      130.      131.       81         12        5.     862.62
     0.15      1.66      3.91      1.26     0.040     0.040     0.050     0.000    859.02    101.00
 0.001167       119.      119       119.         2         0         0      0.00    205.00    306.00
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
*SECNO 2450.000									
3265 DIVIDED FLOW									
2450.00	6.54	866.50	0.00	0.00	866.99	0.49	0.26	0.10	864.96
830.	85.	679.	66.	48.	111.	29.	13.	6.	863.56
0.16	1.77	6.11	2.27	0.040	0.040	0.050	0.000	859.96	100.20
0.003547	139.	139.	139.	2	0	0	0.00	136.45	290.74
*SECNO 2550.000									
3265 DIVIDED FLOW									
CONFLUENCE WITH DRAIN									
2550.00	6.13	866.77	0.00	0.00	867.50	0.74	0.44	0.07	865.64
830.	36	739.	55.	18.	102.	21.	14.	6.	864.24
0.16	1.98	7.25	2.58	0.040	0.040	0.050	0.000	860.64	113.19
0.005593	100.	100.	100.	2	0	0	0.00	77.69	230.84

THIS RUN EXECUTED 4 MAR 87 14:27:14

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

100 YEAR FLOODPLAIN

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
0.000	0.00	0.00	0.00	845.00	830.00	851.37	0.00	851.97	69.00	6.66	165.43	99.92
950.000	950.00	0.00	0.00	851.20	830.00	857.72	0.00	858.33	64.88	6.59	147.21	103.04
975.000	25.00	0.00	0.00	851.30	830.00	857.87	0.00	858.59	71.34	6.97	129.57	98.27
995.000	20.00	0.00	0.00	851.50	830.00	858.00	0.00	858.97	118.50	7.89	105.20	76.25
1000.000	5.00	0.00	0.00	851.50	830.00	857.98	0.00	859.29	92.83	9.27	96.07	86.15
1247.000	247.00	868.20	858.40	850.80	830.00	858.69	0.00	859.70	146.47	8.08	102.72	68.58
1249.000	2.00	0.00	0.00	850.80	830.00	859.13	0.00	859.82	48.31	6.91	136.92	119.41
1253.000	4.00	0.00	0.00	850.90	830.00	859.57	0.00	859.93	26.97	5.34	189.60	159.81
1287.000	34.00	0.00	0.00	851.60	830.00	859.92	0.00	860.06	12.34	3.53	334.83	236.30
1300.000	13.00	0.00	0.00	851.90	830.00	859.93	0.00	860.08	13.84	3.63	342.30	223.08
1550.000	250.00	0.00	0.00	853.25	830.00	860.33	0.00	860.63	32.68	5.02	245.69	145.19
1750.000	200.00	0.00	0.00	854.60	830.00	861.18	0.00	861.72	58.25	6.30	166.21	108.75
1825.000	75.00	0.00	0.00	856.03	830.00	861.73	0.00	862.67	92.64	8.82	119.39	86.24
1830.000	5.00	0.00	0.00	856.13	830.00	861.78	0.00	862.92	109.79	9.54	108.96	79.21
1835.000	5.00	0.00	0.00	856.23	830.00	861.84	0.00	863.26	131.61	10.39	98.17	72.35
1840.000	5.00	0.00	0.00	856.33	830.00	861.91	0.00	863.68	156.71	11.30	87.51	66.30
1845.000	5.00	0.00	0.00	856.43	830.00	862.00	0.00	864.22	185.87	12.29	75.77	60.88

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
1850.000	5.00	0.00	0.00	856.50	830.00	862.13	862.06	864.73	455.99	12.93	64.17	38.87
1935.000	85.00	869.30	863.00	856.50	830.00	864 99	0.00	866.10	116.90	8 43	98.56	76.77
1937.000	2.00	0.00	0.00	856.50	830.00	865.65	0.00	866.26	40.50	6.25	132.86	130.42
1959.000	22.00	0.00	0.00	856.65	830.00	866.33	0.00	866.43	4.25	2.92	349.47	402.40
1984 000	25.00	0.00	0.00	856.80	830.00	866 40	0.00	866.45	2.75	2.33	495.65	500.77
2073.000	89 00	0.00	0.00	857.40	830.00	866.46	0.00	866.48	1.70	1.75	806.46	635.83
2192.000	119.00	0.00	0.00	858.21	830.00	866.47	0.00	866.52	4.01	2.50	579.74	414.23
2311.000	119.00	0.00	0.00	859.02	830.00	866 47	0.00	866.63	11.67	3.91	341.97	242.92
2450.000	139.00	0.00	0.00	859.96	830.00	866.50	0.00	866.99	35.47	6.11	188.12	139.36
2550.000	100.00	0.00	0.00	860.64	830.00	866.77	0.00	867.50	55.93	7.25	141.35	110.98

100 YEAR FLOODPLAIN

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
0.000	830.00	851.37	0.00	0.00	-0.43	122.01	0.00
950.000	830.00	857.72	0.00	6.35	0.00	43.00	950.00
975.000	830.00	857.87	0.00	0.15	0.00	30.00	25.00
995.000	830.00	858.00	0.00	0.13	0.00	20.00	20.00
1000.000	830.00	857.98	0.00	-0.02	0.00	17.76	5.00
1247.000	830.00	858.69	0.00	0.71	0.00	17.01	247.00
1249.000	830.00	859.13	0.00	0.44	0.00	21.00	2.00
1253.000	830.00	859.57	0.00	0.44	0.00	29.00	4.00
1287.000	830.00	859.92	0.00	0.35	0.00	97.00	34.00
1300.000	830.00	859.93	0.00	0.02	0.00	123.00	13.00
1550.000	830.00	860.33	0.00	0.40	0.00	128.33	250.00
1750.000	830.00	861.18	0.00	0.85	0.00	61.88	200.00
1825.000	830.00	861.73	0.00	0.54	0.00	24.50	75.00
1830.000	830.00	861.78	0.00	0.05	0.00	22.00	5.00
1835.000	830.00	861.84	0.00	0.06	0.00	19.50	5.00
1840.000	830.00	861.91	0.00	0.07	0.00	17.00	5.00
1845.000	830.00	862.00	0.00	0.09	0.00	14.50	5.00
1850.000	830.00	862.13	0.00	0.14	0.00	11.98	5.00
1935.000	830.00	864.99	0.00	2.86	0.00	12.07	85.00
1937.000	830.00	865.65	0.00	0.66	0.00	16.00	2.00
1959.000	830.00	866.33	0.00	0.67	0.00	60.00	22.00
1984.000	830.00	866.40	0.00	0.07	0.00	110.00	25.00
2073.000	830.00	866.46	0.00	0.06	0.00	288.00	89.00
2192.000	830.00	866.47	0.00	0.01	0.00	284.22	119.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
2311.000	830.00	866.47	0.00	0.00	0.00	205.00	119.00
2450.000	830.00	866.50	0.00	0.03	0.00	136.45	139.00
2550.000	830.00	866.77	0.00	0.26	0.00	77.69	100.00

Scio Township FIS
Honey Creek Tributary No.2
Natural run

```
EEEEEE   EEEEEE        L        EEEEEE   EEEEEE
E        E             L        E        E
E        E             L        E        E
EEEE     EEEE          L        EEEE     EEEE
E        E             L        E        E
EEEEEE   EEEEEE        LLLLLL   EEEEEE   EEEEEE
```

USACOE DETROIT H800 VOS 5.1.1 PRINTER: 6

EE LEE 13 APR 87 9:36:01

TERMINAL: 106

THIS RUN EXECUTED 8 APR 87 15:08:32

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
**************************************************

C
T1       SCIO TWP. FLOOD INSURANCE STUDY
T2       HONEY CREEK TRIBUTARY NO. 2
T3       100-YEAR FLOODPLAIN

J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ

       0.         2.         0.         0.   0 003100       0.00       0.0          0.    862.200      0.000

J2  NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE

     -1.000      0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

J3  VARIABLE CODES FOR SUMMARY PRINTOUT

      150.000    200.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000


   QT      1.000    630.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
   NC      0.050      0.055      0.060      0.300      0.500      0.000      0.000      0.000      0.000      0.000
   X1      0.000     25.000    208.000    250.000      0.000      0.000      0.000      0.000     -4.000      0.000
   GR    862.000      0.000    861.900     25.000    861.700     50.000    861.100     75.000    860.900    100.000
   GR    861.000    125 000    860.600    150.000    860.300    175.000    860.300    200.000    860.100    208.000
   GR    858.700    215.000    857.700    220.000    857.500    225.000    857.000    230.000    858.700    235.000
   GR    861.700    250.000    862.700    260.000    863.400    275.000    863.300    300.000    862.900    325.000
   GR    863.800    350.000    864.300    375.000    864.400    400.000    865 400    425.000    867.100    472.000

   X1   1000.000      0.000      0.000      0.000   1000.000   1000.000   1000.000      0.000      1.500      0.000

   X1   2000.000      0.000      0.000      0.000   1000.000   1000.000   1000.000      0.000      1.500      0.000

   NC      0.040      0.060      0.043      0.300      0.500      0.000      0.000      0.000      0.000      0.000
             D/S OF SARNS-3M DRIVE
   X1   2570 000      0.000      0.000      0.000    570.000    570.000    570.000      0.000      1.000      0.000
   X3      0 000      0.000      0.000    181.000      0.000    277.000      0.000      0.000      0.000      0.000

   NC      0.040      0.060      0.043      0.300      1.000      0.000      0.000      0.000      0.000      0.000
             DOWNSTREAM FACE OF SARNS-3M BRIDGE
   X1   2621.000     21.000    235.000    265.000     51.000     51.000     51.000      0.000      0.000      0.000
   GR    863.900      0.000    863.500     50.000    864.200    100.000    862.900    150.000    862.700    200 000
   GR    859 700    235.000    858.900    240.000    855.800    243.700    854.700    245.000    854.200    247.500
   GR    854.000    250 000    854.200    252.500    854.700    255.000    855 800    256.300    858.900    260.000
   GR    861.200    265.000    863.300    300.000    863.700    350.000    864.800    400.000    865.500    450.000
   GR    866.100    500.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
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SB	0.000	2.620	3.000	0.000	12.000	0.000	78.000	0.000	854.000	854.000
	UPSTREAM FACE OF SARND-3M BRIDGE									
X1	2645.000	0.000	0.000	0.000	24.000	24.000	24.000	0.000	0.000	0.000
X2	0.000	0 000	1.000	862.000	862.700	0.000	0.000	0.000	0.000	0.000
BT	21.000	0.000	863.900	0.000	50.000	863.500	0.000	100.000	864.200	0.000
BT	150.000	862 900	0.000	200.000	862.700	0.000	235.000	863.100	859.700	240.000
BT	863.100	858.900	243.700	863.100	855.800	245.000	863.100	859.500	247.500	863.100
BT	861.500	250.000	863.100	862.000	252.500	863 100	861.500	255.000	863.100	859.500
BT	256.300	863.100	855 800	260.000	863.100	858.900	265.000	863.100	861.200	300.000
BT	863.300	0.000	350.000	863.700	0.000	400.000	864.800	0.000	450.000	865.500
BT	0.000	500.000	866.100	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0 070	0.030	0.050	0.100	0.300	0.000	0.000	0.000	0.000	0.000
	U/S OF SARNS-3M DRIVE									
X1	2686.000	25.000	208.000	250.000	41.000	41.000	41.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	98.000	0.000	359.000	0.000	0.000	0.000	0.000
GR	862.000	0.000	861.900	25.000	861.700	50.000	861.100	75.000	860.900	100.000
GR	861.000	125.000	860.600	150.000	860.300	175.000	860.300	200.000	860.100	208.000
GR	858.700	215.000	857.700	220.000	857.500	225.000	857.000	230.000	858.700	235.000
GR	861.700	250 000	862.700	260 000	863.400	275.000	863.300	300.000	862.900	325.000
GR	863.800	350.000	864.300	375.000	864 400	400.000	865.400	425.000	867.100	472.000
X1	2900 000	0.000	0.000	0.000	214.000	214.000	214.000	0.000	0.800	0.000
X1	3100.000	0.000	0.000	0.000	200.000	200.000	200.000	0.000	0.900	0.000
X1	3300.000	0.000	0.000	0.000	200.000	200.000	200.000	0.000	0.900	0.000
X1	3500.000	15.000	218.000	250.000	200.000	200.000	200.000	0.000	-1.000	0.000
GR	869.500	0.000	869.200	50.000	869.000	75.000	866.000	125.000	866.000	175.000
GR	865.200	200.000	865.000	218.000	862.500	220.000	861.500	234.000	862.500	240.000
GR	865.000	250.000	866.800	300.000	866.800	350.000	867.500	400.000	870.000	450.000
	D/S OF JACKSON ROAD									
X1	4380.000	12.000	130.000	150.000	1694.000	1694.000	1694.000	0.000	-2.400	0.000
GR	873.300	0.000	870.300	30.000	871.900	80.000	870.300	100.000	867.400	130.000
GR	865.900	135.000	866.300	140.000	867.200	145.000	867.500	150.000	868.900	180.000
GR	872.500	190.000	873.000	300.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.050	0.040	0.047	0.500	1.000	0.000	0.000	0.000	0.000	0.000
	DOWNSTREAM FACE OF JACKSON BRIDGE									
X1	4431.000	20.000	245.000	265.000	51.000	51.000	51.000	0.000	0.000	0.000
GR	870.600	0.000	870.400	50.000	870.400	100.000	870.400	150.000	870.500	200.000
GR	870.700	245.000	864.400	250.000	864 000	255.000	864.300	260.000	863.200	264.000
GR	870.800	265.000	870.000	300.000	868.500	350 000	868.000	375.000	868.000	465.000
GR	870.000	500.000	870.800	550.000	871.000	600.000	871.200	650.000	871.400	700.000
SB	0.000	2.210	2.800	0.000	14.000	0.000	42.000	0.000	863.200	863 200

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          UPSTREAM FACE OF JACKSON BRIDGE
X1   4504.000     0.000     0.000     0.000    73.000    73.000    73.000     0.000     0.000     0.000
X2      0.000     0.000     1.000   867.000   868.000     0.000     0.000     0.000     0.000     0.000
BT     15.000     0.000   870.600     0.000    50.000   870.400     0.000   100.000   870.400     0.000
BT    150.000   870.400     0.000   200.000   870.500     0.000   250.000   870.700   864.400   250.000
BT    870.700   867.000   264.000   870.800   867.000   264.000   870.800   863.200   300.000   870.000
BT      0.000   350.000   868.500     0.000   375.000   868.000     0.000   465.000   868.000     0.000
BT    500.000   870.000     0.000   600.000   871.000     0.000     0.000     0.000     0.000     0.000

NC      0.030     0.040     0.043     0.300     0.500     0.000     0.000     0.000     0.000     0.000
          DOWNSTREAM FACE OF STAEBLER BRIDGE
X1   4520.000    21.000   250.000   258.000    16.000    16.000    16.000     0.000     0.000     0.000
GR    870.600     0.000   870.400    50.000   870.400   100.000   870.400   150.000   870.000   200.000
GR    869.200   250.000   864.400   250.000   864.000   252.000   864.200   254.000   863.800   256.000
GR    863.200   258.000   869.200   258.000   869.000   300.000   868.500   350.000   868.000   375.000
GR    868.000   465 000   870.000   500.000   870.800   550.000   871.000   600.000   871.200   650.000
GR    871.400   700.000     0.000     0.000     0.000     0.000     0.000     0.000     0 000     0.000

SB      0.000     1.980     2.800     0.000     8.000     0.000    21.600     0.000     0.000     0.000
          UPSTREAM FACE OF STAEBLER ROAD
X1   4550.000     0.000     0.000     0.000    30.000    30.000    30.000     0.000     0.000     0.000
X2      0.000     0.000     1.000   866.700   868.000     0.000     0.000     0.000     0.000     0.000
BT     18.000     0.000   870.600     0.000    50.000   870.400     0.000   100.000   870.400     0.000
BT    150.000   870.400     0.000   200.000   870.000     0.000   250.000   869.200   864.400   250.000
BT    869.200   866.700   258.000   869.200   866.700   258.000   869.200   863.200   300.000   869.000
BT      0.000   350.000   868.500     0.000   375.000   868.000     0.000   465.000   868.000     0.000
BT    500.000   870.000     0.000   550.000   870.800     0.000   600.000   871.000     0.000   650.000
BT    871.200     0.000   700.000   871.400     0.000     0.000     0.000     0.000     0.000     0.000

NC      0.030     0.040     0.043     0.100     0.300     0.000     0.000     0.000     0.000     0.000
          U/S OF STAEBLER ROAD
          DOWNSTREAMOF UNKNOWN BRIDGE
X1   4600.000     0.000     0.000     0.000    50.000    50.000    50.000     0.000     0.000     0.000

NC      0.050     0.040     0.047     0.300     0.500     0.000     0.000     0.000     0.000     0.000
          DOWNSTREAM FACE OF UNKNOWN BRIDGE
X1   4681.000    24.000   230.000   258.000    81.000    81.000    81.000     0.000     0.000     0 000
GR    870.600     0.000   870.400    50.000   870.400   100.000   870.400   150.000   870.000   200.000
GR    869.200   230.000   868.000   245.000   865.200   250.000   864.000   250.400   863.400   251.200
GR    863.200   252.000   863.400   252.800   864.000   253.600   865.200   254.000   869.200   258.000
GR    869.000   300.000   868.500   350.000   867.600   380.000   867.600   450.000   869.600   480.000
GR    870.800   550.000   871.000   600.000   871.200   650.000   871.400   700.000     0.000     0.000

SB      0.000     1.970     2.800     0.000     4.000     0.000    12.600     0.000     0.000     0.000
          UPSTREAM FACE OF UNKNOWN BRIDGE
X1   4698.000     0.000     0.000     0.000    17.000    17.000    17.000     0.000     0.000     0.000
X2      0.000     0.000     1.000   867.200   867.600     0.000     0.000     0.000     0.000     0.000
BT     24.000     0.000   870.600     0.000    50.000   870.400     0.000   100.000   870.400     0.000
BT    150.000   870.400     0.000   200.000   870.000     0.000   230.000   869.200     0.000   245.000
BT    868.000     0.000   250.000   867.700   865.200   250.400   867.700   866.400   251.200   867 700
BT    867.000   252 000   867.700   867.200   252.800   867.700   867.000   253.600   867.700   866.400
BT    254.000   867.700   865.200   258.000   869.200     0.000   300.000   869.000     0.000   350.000
BT    868.500     0.000   380.000   867.600     0.000   450.000   867.600     0.000   480.000   869.600
BT      0 000   550.000   870.800     0.000   600.000   871.000     0.000   650.000   871.200     0.000
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BT	700.000	871.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.030	0.040	0.043	0.100	0.300	0.000	0.000	0.000	0.000	0.000
	UPSTREAM OF UNKNOWN BRIDGE									
X1	4749.000	0.000	0.000	0.000	51.000	51.000	51.000	0.000	0.000	0.000
X1	5500.000	11.000	130.000	148.000	945.000	945.000	945.000	0.000	0.000	0.000
GR	873.300	0.000	870.300	30.000	871.900	80.000	870.300	100.000	867.400	130.000
GR	865.900	135.000	866.300	140.000	867.200	145.000	867.500	148.000	868.900	180.000
GR	872.500	190.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	6250.000	0.000	0.000	0.000	750.000	750.000	750.000	0.000	0.600	0.000
X1	7000.000	0.000	0.000	0.000	750.000	750.000	750.000	0.000	0.500	0.000
QT	1.000	360.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9000.000	0.000	0.000	0.000	2000.000	2000.000	2000.000	0.000	1.600	0.000
NC	0.030	0.030	0.050	0.100	0.300	0.000	0.000	0.000	0.000	0.000
X1	11000.000	0.000	0.000	0.000	2000.000	2000.000	2000.000	0.000	1.600	0.000
X1	12900.000	10.000	130.000	140.000	1900.000	1900.000	1900.000	0.000	-3.200	0.000
GR	878.200	0.000	878.100	50.000	878.000	100.000	878.100	120.000	878.000	130.000
GR	875.000	133.000	875.000	137.000	878.000	140.000	878.500	200.000	879.000	300.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= 0.300 CEHV= 0.500

*SECNO 0.000

0.00	4.80	857.80	0.00	862.20	857.89	0.09	0.00	0.00	856.10
630.	290.	340.	0.	161.	122.	0.	0.	0.	857.70
0.00	1.80	2.78	0.02	0.050	0.060	0.055	0.000	853.00	37.10
0.003096	0.	0.	0.	0	0	7	0.00	213.93	251.03

*SECNO 1000.000

3280 CROSS SECTION 1000.00 EXTENDED 0.27 FEET

1000.00	5.27	859.77	0.00	0.00	859.81	0.04	1.91	0.01	857.60
630.	349.	281.	1.	254.	142.	2.	8.	5.	859.20
0.17	1.37	1.98	0.42	0.050	0.060	0.055	0.000	854.50	0.00
0.001290	1000.	1000.	1000.	3	0	0	0.00	255.68	255.68

*SECNO 2000.000

3280 CROSS SECTION 2000.00 EXTENDED 0.17 FEET

2000.00	5.17	861.17	0.00	0.00	861.22	0.05	1.41	0.00	859.10
630.	338.	292.	0.	233.	138.	1.	17.	11.	860.70
0.33	1.45	2.12	0.40	0.050	0.060	0.055	0.000	856.00	0.00
0.001538	1000.	1000.	1000.	3	0	0	0.00	254.70	254.70

CCHV= 0.300 CEHV= 0.500

*SECNO 2570.000

3280 CROSS SECTION 2570.00 EXTENDED 0.16 FEET

3470 ENCROACHMENT STATIONS= 181.0 277.0 TYPE= 1 TARGET= 96.000

D/S OF SARNS-3M DRIVE

2570.00	5.16	862.16	0.00	0.00	862.35	0.18	1.06	0.07	860.10
630.	134.	496.	0.	51.	138.	1.	20.	13.	861.70
0.37	2.61	3.61	0.45	0.040	0.043	0.060	0.000	857.00	181.00
0.002298	570.	570.	570.	2	0	0	0.00	73.63	254.63

CCHV= 0.300 CEHV= 1.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 2621.000

DOWNSTREAM FACE OF SARNS-3M BRIDGE

2621.00	8.26	862.26	0.00	0.00	862.43	0.18	0.09	0.00	859.70
630.	60.	564.	5.	38.	160.	9.	21.	13.	861.20
0.38	1.57	3.52	0.58	0.040	0.043	0.060	0.000	854.00	205.11
0.001298	51.	51.	51.	0	0	0	0.00	77.60	282.70

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.62	3.00	0.00	12.00	0.00	78.00	0.00	854.00	854.00

*SECNO 2645.000

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
864.91	862.43	0.00	200.	434.	78.	96.	862.00	862.70

UPSTREAM FACE OF SARND-3M BRIDGE

2645.00	9.44	863.44	0.00	0.00	863.52	0.07	1.08	0.00	859.70
630.	130.	475.	25.	116.	196.	43.	21.	14.	861.20
0.38	1.11	2.43	0.59	0.040	0.043	0.060	0.000	854.00	129.09
0.000472	24.	24.	24.	2	0	4	0.00	188.89	317.97

CCHV= 0.100 CEHV= 0.300

*SECNO 2686.000

3470 ENCROACHMENT STATIONS= 98.0 359.0 TYPE= 1 TARGET= 261.000

U/S OF SARNS-3M DRIVE

2686.00	6.51	863.51	0.00	0.00	863.54	0.03	0.02	0.00	860.10
630.	281.	320.	29.	320.	194.	40.	21.	14.	861.70
0.39	0.88	1.65	0.74	0.070	0.050	0.030	0.000	857.00	98.00
0.000410	41.	41.	41.	2	0	0	0.00	244.01	342.01

*SECNO 2900.000

3280 CROSS SECTION 2900.00 EXTENDED 0.81 FEET

2900.00	5.82	863.62	0.00	0.00	863.65	0.03	0.11	0.00	860.90
630.	312.	312.	6.	367.	165.	6.	24.	15.	862.50
0.43	0.85	1.89	0.91	0.070	0.050	0.030	0.000	857.80	0.00
0.000672	214.	214.	214.	1	0	0	0.00	262.42	262.42

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
*SECNO 3100.000									
3280 CROSS SECTION	3100.00 EXTENDED		0.10 FEET						
3100.00	5.10	863.80	0.00	0.00	863.88	0.08	0.21	0.01	861.80
630	249.	381.	1.	219	135.	1.	26.	16.	863.40
0.46	1.14	2.82	0.74	0.070	0.050	0.030	0.000	858.70	0.00
0.001959	200.	200.	200.	2	0	0	0.00	253.98	253.98
*SECNO 3300.000									
3300.00	4.69	864.29	0.00	0.00	864.44	0.15	0.54	0.02	862.70
630.	197.	433	0.	143.	118.	0.	27.	17.	864.30
0 48	1.38	3.68	0.00	0.070	0.050	0.000	0.000	859.60	50.33
0.003966	200.	200.	200.	2	0	0	0.00	199.63	249.96
*SECNO 3500.000									
3500.00	4.60	865.10	0.00	0.00	865.44	0.33	0.94	0.05	864.00
630.	43.	544.	42	36.	110.	17.	28.	18.	864.00
0.49	1.21	4.93	2.50	0.070	0.050	0.030	0.000	860.50	123.27
0.005650	200.	200.	200.	2	0	0	0.00	157.39	280.66
*SECNO 4380.000									
3265 DIVIDED FLOW									
D/S OF JACKSON ROAD									
4380.00	5.29	868.79	0.00	0.00	868.90	0.12	3.44	0.02	865.00
630.	92.	230.	308.	91.	89.	97.	37.	24.	865.10
0.67	1.01	2 57	3.18	0.070	0.050	0.030	0.000	863.50	21.16
0.001037	1694.	1694.	1694.	5	0	0	0.00	133.84	186.34
CCHV= 0.500 CEHV= 1.000									
*SECNO 4431.000									
3265 DIVIDED FLOW									
DOWNSTREAM FACE OF JACKSON BRIDGE									
4431.00	5.69	868.89	0.00	0 00	869.15	0.26	0.10	0.14	870.70
630.	0.	381.	249.	0.	78.	105.	37.	24.	870.80
0.67	0.00	4.90	2.36	0.000	0.047	0.040	0.000	863.20	246.44
0 005461	51.	51.	51.	2	0	0	0.00	161.83	480.55

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.21	2.80	0.00	14.00	0.00	42.00	0.00	863.20	863.20

*SECNO 4504.000

3265 DIVIDED FLOW

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
876.61	869.15	0.00	486.	149.	42.	53.	867.00	868.00

UPSTREAM FACE OF JACKSON BRIDGE

4504.00	5.97	869.17	0.00	0.00	869.32	0.15	0.17	0.00	870.70
630.	0.	315.	315.	0.	83.	149.	37.	24.	870.80
0.68	0.00	3.79	2.12	0.000	0.047	0.040	0.000	863.20	246.21
0.003094	73.	73.	73.	2	0	6	0.00	176.77	485.61

CCHV= 0.300 CEHV= 0.500

*SECNO 4520.000

DOWNSTREAM FACE OF STAEBLER BRIDGE

4520.00	6.04	869.24	0.00	0.00	869.38	0.14	0.06	0.00	869.20
630.	0.	171.	459.	0.	42.	181.	38.	24.	869.20
0.68	0.03	4.03	2.54	0.030	0 043	0.040	0.000	863.20	247.33
0.004673	16.	16.	16.	0	0	0	0.00	239.42	486.75

SPECIAL BRIDGE

5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.98	2.80	0.00	8.00	0.00	21.60	0.00	863.20	863.20

*SECNO 4550.000

PRESSURE AND WEIR FLOW

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
895.40	869.38	0.00	572.	60.	22.	28.	866.70	868.00

UPSTREAM FACE OF STAEBLER ROAD

4550.00	6.17	869.37	0.00	0.00	869.47	0.11	0.09	0.00	869.20
630.	1.	151.	479.	1.	43.	210.	38.	24.	869.20
0.68	0.56	3.47	2.28	0.030	0.043	0.040	0.000	863.20	239.35
0.003357	30.	30.	30.	2	0	8	0.00	249.64	488.98

CCHV= 0.100 CEHV= 0.300
*SECNO 4600.000
U/S OF STAEBLER ROAD
DOWNSTREAMOF UNKNOWN BRIDGE

4600.00	6.34	869.54	0.00	0.00	869.61	0.08	0.14	0.00	869.20
630.	3.	129.	498.	4.	45.	249.	38.	25.	869.20
0.69	0.71	2.89	2.00	0.030	0.043	0.040	0.000	863.20	228.91
0.002232	50.	50.	50.	2	0	0	0.00	263.00	491.91

CCHV= 0.300 CEHV= 0.500
*SECNO 4681.000
DOWNSTREAM FACE OF UNKNOWN BRIDGE

4681.00	6.50	869.70	0.00	0.00	869.75	0.04	0.13	0.01	869.20
630.	2.	113.	515.	5.	66.	303.	39.	25.	869.20
0.70	0.40	1.71	1.70	0.050	0.047	0.040	0.000	863.20	211.12
0.001141	81.	81.	81.	2	0	0	0.00	274.91	486.03

SPECIAL BRIDGE

5070, VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED

SB XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
0.00	1.97	2.80	0.00	4.00	0.00	12.60	0.00	863.20	863.20

*SECNO 4698.000
PRESSURE AND WEIR FLOW

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
946.18	869.75	0.00	612.	23.	13.	16.	867.20	867.60

UPSTREAM FACE OF UNKNOWN BRIDGE

4698.00	6.57	869.77	0.00	0.00	869.81	0.04	0.06	0.00	869.20
630.	2.	111.	517.	6	68.	318.	39.	25.	869.20
0.71	0.41	1.63	1.63	0.050	0.047	0.040	0.000	863.20	208.79
0.001005	17.	17.	17.	2	0	9	0.00	280.88	489.66

CCHV= 0.100 CEHV= 0.300
*SECNO 4749.000
UPSTREAM OF UNKNOWN BRIDGE

4749.00	6.62	869.82	0.00	0.00	869.85	0.04	0.05	0.00	869.20
630.	5.	117.	509.	7.	69.	330.	39.	26.	869.20
0.72	0.67	1.68	1.54	0.030	0.043	0.040	0.000	863.20	206.74
0.000868	51.	51.	51.	0	0	0	0.00	286.11	492.85

*SECNO 5500.000

3265 DIVIDED FLOW

5500.00	4.87	870.77	0.00	0 00	870.90	0.13	1.02	0.03	867.40
630.	168.	243.	219.	64.	74.	87.	46.	30.	867.50
0.81	2.63	3.26	2.51	0.030	0.043	0.040	0.000	865.90	25.26
0.001377	945.	945.	945.	2	0	0	0 00	110.70	185.21

*SECNO 6250 000

3265 DIVIDED FLOW

6250.00	5.16	871.66	0.00	0.00	871.76	0.10	0.85	0.00	868.00
630.	184.	226.	219.	82.	80.	98.	50.	32.	868.10
0.89	2.25	2 84	2.24	0 030	0.043	0.040	0.000	866.50	22.38
0.000955	750.	750.	750.	2	0	0	0.00	126.96	186.01

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
*SECNO 7000 000									
3265 DIVIDED FLOW									
7000.00	5.32	872.32	0.00	0.00	872.41	0.08	0.65	0.00	868.50
630.	194.	217.	219.	94.	82.	104.	55.	34.	868.60
0.99	2.06	2.64	2.10	0.030	0.043	0.040	0.000	867.00	20.76
0.000783	750.	750.	750.	2	0	0	0.00	136.10	186.45
*SECNO 9000.000									
3265 DIVIDED FLOW									
9000.00	4.97	873.57	0.00	0.00	873.61	0.04	1.20	0.00	870.10
360.	99.	136.	125.	69.	76.	91.	67.	40.	870.20
1.34	1.43	1.79	1.39	0.030	0.043	0.040	0.000	868.60	24.38
0.000401	2000.	2000.	2000.	2	0	0	0.00	115.68	185.45
CCHV= 0.100 CEHV= 0.300									
*SECNO 11000.000									
3265 DIVIDED FLOW									
11000.00	4.42	874.62	0.00	0.00	874.69	0.06	1.07	0.01	871.70
360.	77.	127.	155.	44.	66.	71.	76.	45.	871.80
1.62	1.75	1.92	2.20	0.030	0.050	0.030	0.000	870.20	29.77
0.000753	2000.	2000.	2000.	2	0	0	0.00	85.18	183.95
*SECNO 12900.000									
3280 CROSS SECTION 12900.00 EXTENDED 1.01 FEET									
12900.00	4.21	876.01	0.00	0.00	876.04	0.03	1.35	0.00	874.80
360.	203.	49.	108.	146.	33.	104.	86.	53.	874.80
2.03	1.39	1 48	1.04	0.030	0.050	0.030	0.000	871.80	0.00
0.000673	1900.	1900.	1900.	4	0	0	0.00	300.00	300.00

THIS RUN EXECUTED 8 APR 87 15:08:37

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

100-YEAR FLOODPLAIN

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
0.000	0.00	0.00	0.00	853.00	630.00	857.80	0.00	857.89	30.96	2.78	283.95	113.23
1000.000	1000.00	0.00	0.00	854.50	630.00	859.77	0.00	859.81	12.90	1.98	397.54	175.39
2000.000	1000.00	0.00	0.00	856.00	630.00	861.17	0.00	861.22	15.38	2.12	372.39	160.64
2570.000	570.00	0.00	0.00	857.00	630.00	862.16	0.00	862.35	22.98	3.61	189.75	131.43
2621.000	51.00	0.00	0.00	854.00	630.00	862.26	0.00	862.43	12.98	3.52	208.02	174.87
2645.000	24.00	862.70	862.00	854.00	630.00	863.44	0.00	863.52	4.72	2.43	355.26	289.84
2686.000	41.00	0.00	0.00	857.00	630.00	863.51	0.00	863.54	4.10	1.65	554.27	311.06
2900.000	214.00	0.00	0.00	857.80	630.00	863.62	0.00	863.65	6.72	1.89	538.31	243.01
3100.000	200.00	0.00	0.00	858.70	630.00	863.80	0.00	863.88	19.59	2.82	354.12	142.33
3300.000	200.00	0.00	0.00	859.60	630.00	864.29	0.00	864.44	39.66	3.68	261.01	100.04
3500.000	200.00	0.00	0.00	860.50	630.00	865.10	0.00	865.44	56.50	4.93	163.18	83.81
4380.000	1694.00	0.00	0.00	863.50	630.00	868.79	0.00	868.90	10.37	2.57	277.17	195.60
4431.000	51.00	0.00	0.00	863.20	630.00	868.89	0.00	869.15	54.61	4.90	183.21	85.25
4504.000	73.00	868.00	867.00	863.20	630.00	869.17	0.00	869.32	30.94	3.79	232.10	113.26
4520.000	16.00	0.00	0.00	863.20	630.00	869.24	0.00	869.38	46.73	4.03	223.22	92.16
4550.000	30.00	868.00	866.70	863.20	630.00	869.37	0.00	869.47	33.57	3.47	254.44	108.73
4600.000	50.00	0.00	0.00	863.20	630.00	869.54	0.00	869.61	22.32	2.89	297.25	133.36

SECND	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
4681.000	81.00	0.00	0.00	863.20	630.00	869.70	0.00	869.75	11.41	1.71	374.03	186.52
4698.000	17.00	867.60	867.20	863.20	630.00	869.77	0.00	869.81	10.05	1.63	391.33	198 72
4749.000	51.00	0.00	0.00	863.20	630.00	869.82	0.00	869.85	8.68	1.68	406.83	213.81
5500.000	945.00	0.00	0.00	865.90	630.00	870.77	0.00	870.90	13.77	3.26	225.41	169.76
6250.000	750.00	0.00	0.00	866.50	630.00	871.66	0.00	871.76	9.55	2.84	259.60	203.83
7000.000	750.00	0.00	0.00	867.00	630.00	872.32	0.00	872.41	7.83	2.64	280.86	225.09
9000.000	2000.00	0.00	0.00	868.60	360.00	873.57	0.00	873.61	4.01	1.79	235.39	179.71
11000.000	2000.00	0.00	0.00	870.20	360.00	874.62	0 00	874.69	7.53	1.92	181.20	131.23
12900.000	1900.00	0.00	0.00	871.80	360.00	876.01	0.00	876.04	6.73	1.48	283.80	138.81

100-YEAR FLOODPLAIN

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
0.000	630.00	857.80	0.00	0.00	-4.40	213.93	0.00
1000.000	630.00	859.77	0 00	1.96	0.00	255.68	1000.00
2000.000	630.00	861.17	0.00	1.40	0.00	254.70	1000.00
2570.000	630.00	862.16	0.00	0.99	0.00	73.63	570.00
2621.000	630.00	862.26	0.00	0.09	0.00	77.60	51.00
2645.000	630.00	863.44	0.00	1.19	0.00	188.89	24.00
2686.000	630.00	863.51	0.00	0.07	0.00	244.01	41.00
2900.000	630.00	863.62	0.00	0.11	0.00	262.42	214.00
3100.000	630.00	863.80	0.00	0.18	0.00	253.98	200.00
3300.000	630.00	864.29	0.00	0.49	0.00	199.63	200.00
3500.000	630.00	865.10	0.00	0.81	0.00	157.39	200.00
4380.000	630.00	868.79	0.00	3.68	0.00	133.84	1694.00
4431.000	630.00	868.89	0.00	0.10	0.00	161.83	51.00
4504.000	630.00	869.17	0.00	0.29	0.00	176.77	73.00
4520.000	630.00	869.24	0.00	0 07	0.00	239.42	16.00
4550.000	630.00	869.37	0.00	0.13	0.00	249.64	30.00
4600.000	630.00	869.54	0.00	0.17	0.00	263.00	50.00
4681.000	630.00	869.70	0.00	0.17	0.00	274.91	81.00
4698.000	630.00	869.77	0.00	0.06	0.00	280.88	17.00
4749.000	630.00	869.82	0.00	0.05	0.00	286.11	51.00
5500.000	630.00	870.77	0.00	0.96	0.00	110.70	945.00
6250.000	630.00	871.66	0.00	0.89	0.00	126.96	750.00
7000.000	630.00	872.32	0.00	0.66	0.00	136.10	750.00
9000.000	360.00	873.57	0.00	1.24	0.00	115.68	2000.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
11000.000	360.00	874.62	0.00	1.05	0.00	85.18	2000.00
12900.000	360.00	876.01	0.00	1.39	0.00	300.00	1900.00

Scio Township FIS
Honey Creek Tributary No.2
Encroached Run.

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EEEEEE   EEEEEE        L        EEEEEE   EEEEEE
E        E             L        E        E
E        E             L        E        E
EEEE     EEEE          L        EEEE     EEEE
E        E             L        E        E
EEEEEE   EEEEEE        LLLLLL   EEEEEE   EEEEEE
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USACOE DETROIT H800 VOS 5.1.1 PRINTER: 6

EE LEE 13 APR 87 9:37:07

TERMINAL: 106

SB	0.000	2.620	3.000	0.000	12.000	0.000	78.000	0.000	854.000	854.000
	UPSTREAM FACE OF SARND-3M BRIDGE									
X1	2645.000	0.000	0.000	0.000	24.000	24.000	24.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	862.000	862.700	0.000	0.000	0.000	0.000	0.000
BT	21.000	0.000	863.900	0.000	50.000	863.500	0.000	100.000	864.200	0.000
BT	150.000	862.900	0.000	200.000	862.700	0.000	235.000	863.100	859.700	240.000
BT	863.100	858.900	243.700	863.100	855.800	245.000	863.100	859.500	247.500	863.100
BT	861.500	250.000	863.100	862.000	252.500	863.100	861.500	255.000	863.100	859.500
BT	256.300	863.100	855.800	260.000	863.100	858.900	265.000	863.100	861.200	300.000
BT	863.300	0.000	350.000	863.700	0.000	400.000	864.800	0.000	450.000	865.500
BT	0.000	500.000	866.100	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.070	0.030	0.050	0.100	0.300	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	0.000	98.000	359.000	0.000	0.000	0.000	0.000	0.000
	U/S OF SARNS-3M DRIVE									
X1	2686.000	25.000	208.000	250.000	41.000	41.000	41.000	0.000	0.000	0.000
GR	862.000	0.000	861.900	25.000	861.700	50.000	861.100	75.000	860.900	100.000
GR	861.000	125.000	860.600	150.000	860.300	175.000	860.300	200.000	860.100	208.000
GR	858.700	215.000	857.700	220.000	857.500	225.000	857.000	230.000	858.700	235.000
GR	861.700	250.000	862.700	260.000	863.400	275.000	863.300	300.000	862.900	325.000
GR	863.800	350.000	864.300	375.000	864.400	400.000	865.400	425.000	867.100	472.000
ET	0.000	0.000	1.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	1.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	2900.000	0.000	0.000	0.000	214.000	214.000	214.000	0.000	0.800	0.000
X1	3100.000	0.000	0.000	0.000	200.000	200.000	200.000	0.000	0.900	0.000
X1	3300.000	0.000	0.000	0.000	200.000	200.000	200.000	0.000	0.900	0.000
X1	3500.000	15.000	218.000	250.000	200.000	200.000	200.000	0.000	-1.000	0.000
GR	869.500	0.000	869.200	50.000	869.000	75.000	866.000	125.000	866.000	175.000
GR	865.200	200.000	865.000	218.000	862.500	220.000	861.500	234.000	862.500	240.000
GR	865.000	250.000	866.800	300.000	866.800	350.000	867.500	400.000	870.000	450.000
	D/S OF JACKSON ROAD									
X1	4380.000	12.000	130.000	150.000	1694.000	1694.000	1694.000	0.000	-2.400	0.000
GR	873.300	0.000	870.300	30.000	871.900	80.000	870.300	100.000	867.400	130.000
GR	865.900	135.000	866.300	140.000	867.200	145.000	867.500	150.000	868.900	180.000
GR	872.500	190.000	873.000	300.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.050	0.040	0.047	0.500	1.000	0.000	0.000	0.000	0.000	0.000
	DOWNSTREAM FACE OF JACKSON BRIDGE									
X1	4431.000	20.000	245.000	265.000	51.000	51.000	51.000	0.000	0.000	0.000
GR	870.600	0.000	870.400	50.000	870.400	100.000	870.400	150.000	870.500	200.000
GR	870.700	245.000	864.400	250.000	864.000	255.000	864.300	260.000	863.200	264.000
GR	870.800	265.000	870.000	300.000	868.500	350.000	868.000	375.000	868.000	465.000
GR	870.000	500.000	870.800	550.000	871.000	600.000	871.200	650.000	871.400	700.000

SB	0.000	2.210	2.800	0.000	14.000	0.000	42.000	0.000	863.200	863.200
	UPSTREAM FACE OF JACKSON BRIDGE									
X1	4504.000	0.000	0.000	0.000	73.000	73.000	73.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	867.000	868.000	0.000	0.000	0.000	0.000	0.000
BT	15.000	0.000	870.600	0.000	50.000	870.400	0.000	100.000	870.400	0.000
BT	150.000	870.400	0.000	200.000	870.500	0.000	250.000	870.700	864.400	250.000
BT	870.700	867.000	264.000	870.800	867.000	264.000	870.800	863.200	300.000	870.000
BT	0.000	350.000	868.500	0.000	375.000	868.000	0.000	465.000	868.000	0.000
BT	500.000	870.000	0.000	600.000	871.000	0.000	0.000	0.000	0.000	0.000
NC	0.030	0.040	0.043	0.300	0.500	0.000	0.000	0.000	0.000	0.000
	DOWNSTREAM FACE OF STAEBLER BRIDGE									
X1	4520.000	21.000	250.000	258.000	16.000	16.000	16.000	0.000	0.000	0.000
GR	870.600	0.000	870.400	50.000	870.400	100.000	870.400	150.000	870.000	200.000
GR	869.200	250.000	864.400	250.000	864.000	252.000	864.200	254.000	863.800	256.000
GR	863.200	258.000	869.200	258.000	869.000	300.000	868.500	350.000	868.000	375.000
GR	868.000	465.000	870.000	500.000	870.800	550.000	871.000	600.000	871.200	650.000
GR	871.400	700.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	1.980	2.800	0.000	8.000	0.000	21.600	0.000	0.000	0.000
	UPSTREAM FACE OF STAEBLER ROAD									
X1	4550.000	0.000	0.000	0.000	30.000	30.000	30.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	866.700	868.000	0.000	0.000	0.000	0.000	0.000
BT	18.000	0.000	870.600	0.000	50.000	870.400	0.000	100.000	870.400	0.000
BT	150.000	870.400	0.000	200.000	870.000	0.000	250.000	869.200	864.400	250.000
BT	869.200	866.700	258.000	869.200	866.700	258.000	869.200	863.200	300.000	869.000
BT	0.000	350.000	868.500	0.000	375.000	868.000	0.000	465.000	868.000	0.000
BT	500.000	870.000	0.000	550.000	870.800	0.000	600.000	871.000	0.000	650.000
BT	871.200	0.000	700.000	871.400	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.030	0.040	0.043	0.100	0.300	0.000	0.000	0.000	0.000	0.000
	U/S OF STAEBLER ROAD									
	DOWNSTREAMOF UNKNOWN BRIDGE									
X1	4600.000	0.000	0.000	0.000	50.000	50.000	50.000	0.000	0.000	0.000
NC	0.050	0.040	0.047	0.300	0.500	0.000	0.000	0.000	0.000	0.000
	DOWNSTREAM FACE OF UNKNOWN BRIDGE									
X1	4681.000	24.000	230.000	258.000	81.000	81.000	81.000	0.000	0.000	0.000
GR	870.600	0.000	870.400	50.000	870.400	100.000	870.400	150.000	870.000	200.000
GR	869.200	230.000	868.000	245.000	865.200	250.000	864.000	250.400	863.400	251.200
GR	863.200	252.000	863.400	252.800	864.000	253.600	865.200	254.000	869.200	258.000
GR	869.000	300.000	868.500	350.000	867.600	380.000	867.600	450.000	869.600	480.000
GR	870.800	550.000	871.000	600.000	871.200	650.000	871.400	700.000	0.000	0.000
SB	0.000	1.970	2.800	0.000	4.000	0.000	12.600	0.000	0.000	0.000
	UPSTREAM FACE OF UNKNOWN BRIDGE									
X1	4698.000	0.000	0.000	0.000	17.000	17.000	17.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	867.200	867.600	0.000	0.000	0.000	0.000	0.000
BT	24.000	0.000	870.600	0.000	50.000	870.400	0.000	100.000	870.400	0.000
BT	150.000	870.400	0.000	200.000	870.000	0.000	230.000	869.200	0.000	245.000
BT	868 000	0.000	250.000	867.700	865.200	250.400	867.700	866.400	251.200	867.700
BT	867.000	252.000	867.700	867.200	252.800	867.700	867.000	253.600	867.700	866.400
BT	254.000	867.700	865.200	258.000	869.200	0.000	300.000	869.000	0.000	350.000

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BT     868.500      0.000    380.000    867.600      0.000    450.000    867.600      0.000    480.000    869.600
BT       0.000    550.000    870.800      0.000    600.000    871.000      0.000    650.000    871.200      0.000
BT     700.000    871.400      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

NC       0.030      0.040      0.043      0.100      0.300      0.000      0.000      0.000      0.000      0.000
                UPSTREAM OF UNKNOWN BRIDGE
X1    4749.000      0.000      0.000      0.000     51.000     51.000     51.000      0.000      0.000      0.000

X1    5500.000     11.000    130.000    148.000    945.000    945.000    945.000      0.000      0.000      0.000
GR     873.300      0.000    870.300     30.000    871.900     80.000    870.300    100.000    867.400    130.000
GR     865.900    135.000    866.300    140.000    867.200    145.000    867.500    148.000    868.900    180.000
GR     872.500    190.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

X1    6250.000      0.000      0.000      0.000    750.000    750.000    750.000      0.000      0.600      0.000

X1    7000.000      0.000      0.000      0.000    750.000    750.000    750.000      0.000      0.500      0.000

QT       2.000    360.000    360.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
X1    9000.000      0.000      0.000      0.000   2000.000   2000.000   2000.000      0.000      1.600      0.000

NC       0.030      0.030      0.050      0.100      0.300      0.000      0.000      0.000      0.000      0.000
X1   11000.000      0.000      0.000      0.000   2000.000   2000.000   2000.000      0.000      1.600      0.000

X1   12900.000     10.000    130.000    140.000   1900.000   1900.000   1900.000      0.000     -3.200      0.000
GR     878.200      0.000    878.100     50.000    878.000    100.000    878.100    120.000    878.000    130.000
GR     875.000    133.000    875.000    137.000    878.000    140.000    878.500    200.000    879.000    300.000
EJ       0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

*PROF 1

CCHV=    0.300 CEHV=    0.500
*SECNO 0.000
      0.00      4.80    857.80      0.00    862.20    857.89      0.09      0.00      0.00    856.10
       630.      290.      340.        0.      161.      122.        0.        0.        0.    857.70
      0.00      1.80      2.78      0.02     0.050     0.060     0.055     0.000    853.00     37.10
 0.003096         0.        0.        0.         0         0         7      0.00    213.93    251.03

*SECNO 1000.000
3280 CROSS SECTION    1000.00 EXTENDED       0.27 FEET

   1000.00      5.27    859.77      0.00      0.00    859.81      0.04      1.91      0.01    857.60
       630.      349.      281.        1.      254.      142.        2.        8.        5.    859.20
      0.17      1.37      1.98      0.42     0.050     0.060     0.055     0.000    854.50      0.00
 0.001290      1000.     1000.     1000.         3         0         0      0.00    255.68    255.68

*SECNO 2000.000
3280 CROSS SECTION    2000.00 EXTENDED       0.17 FEET

   2000.00      5.17    861.17      0.00      0.00    861.22      0.05      1.41      0.00    859.10
       630.      338.      292.        0.      233.      138.        1.       17.       11.    860.70
      0.33      1.45      2.12      0.40     0.050     0.060     0.055     0.000    856.00      0.00
 0.001538      1000.     1000.     1000.         3         0         0      0.00    254.70    254.70


CCHV=    0.300 CEHV=    0.500
*SECNO 2570.000
3280 CROSS SECTION    2570.00 EXTENDED       0.16 FEET


3470 ENCROACHMENT STATIONS=      181.0      277.0  TYPE=      1  TARGET=       96.000
          D/S OF SARNS-3M DRIVE
   2570.00      5.16    862.16      0.00      0.00    862.35      0.18      1.06      0.07    860.10
       630.      134.      496.        0.        51.     138.        1.        20.       13.    861.70
      0.37      2.61      3.61      0.45     0.040     0.043     0.060     0.000    857.00    181.00
 0.002298       570.      570.      570.         2         0         0      0.00     73.63    254.63


CCHV=    0.300 CEHV=    1.000
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 2621.000

DOWNSTREAM FACE OF SARNS-3M BRIDGE

2621.00	8.26	862.26	0.00	0.00	862.43	0 18	0.09	0.00	859.70
630.	60.	564.	5.	38.	160.	9.	21.	13.	861.20
0.38	1.57	3.52	0.58	0.040	0.043	0.060	0.000	854.00	205.11
0.001298	51.	51.	51.	0	0	0	0.00	77.60	282.70

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.62	3.00	0.00	12.00	0.00	78.00	0.00	854.00	854.00

*SECNO 2645.000

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
864.91	862.43	0.00	200.	434.	78.	96.	862.00	862.70

UPSTREAM FACE OF SARND-3M BRIDGE

2645.00	9.44	863.44	0.00	0.00	863.52	0.07	1.08	0.00	859.70
630	130.	475.	25.	116.	196.	43.	21.	14.	861.20
0.38	1.11	2.43	0.59	0.040	0.043	0.060	0.000	854.00	129.09
0.000472	24.	24.	24.	2	0	4	0.00	188.89	317.97

CCHV= 0.100 CEHV= 0.300

*SECNO 2686.000

3470 ENCROACHMENT STATIONS= 98.0 359.0 TYPE= 1 TARGET= 261.000

U/S OF SARNS-3M DRIVE

2686.00	6.51	863.51	0.00	0.00	863.54	0.03	0.02	0.00	860.10
630.	281.	320.	29.	320.	194.	40.	21.	14.	861.70
0.39	0.88	1.65	0.74	0.070	0.050	0.030	0.000	857.00	98.00
0.000410	41.	41.	41.	2	0	0	0.00	244.01	342.01

*SECNO 2900.000

3280 CROSS SECTION 2900.00 EXTENDED 0.81 FEET

2900.00	5.82	863.62	0.00	0.00	863.65	0.03	0.11	0.00	860.90
630.	312.	312.	6.	367.	165.	6.	24.	15.	862.50
0 43	0.85	1 89	0.91	0.070	0.050	0.030	0.000	857.80	0.00
0.000672	214.	214.	214.	1	0	0	0.00	262.42	262.42

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 3100.000
3280 CROSS SECTION 3100.00 EXTENDED 0.10 FEET

3100.00	5.10	863.80	0.00	0.00	863.88	0.08	0.21	0.01	861.80
630	249.	381.	1.	219.	135.	1.	26.	16.	863.40
0.46	1.14	2.82	0.74	0.070	0.050	0.030	0.000	858.70	0.00
0.001959	200.	200.	200.	2	0	0	0.00	253.98	253.98

*SECNO 3300.000

3300.00	4.69	864.29	0.00	0.00	864.44	0.15	0.54	0.02	862.70
630.	197.	433.	0.	143.	118.	0.	27.	17.	864.30
0.48	1.38	3.68	0.00	0.070	0.050	0.000	0.000	859.60	50.33
0.003966	200.	200.	200.	2	0	0	0.00	199.63	249.96

*SECNO 3500.000

3500.00	4.60	865.10	0.00	0.00	865.44	0.33	0.94	0.05	864.00
630.	43.	544.	42.	36.	110.	17.	28.	18.	864.00
0.49	1.21	4.93	2.50	0.070	0.050	0.030	0.000	860.50	123.27
0.005650	200.	200.	200.	2	0	0	0.00	157.39	280.66

*SECNO 4380.000

3265 DIVIDED FLOW

D/S OF JACKSON ROAD

4380.00	5.29	868.79	0.00	0.00	868.90	0.12	3.44	0.02	865.00
630.	92.	230.	308.	91.	89.	97.	37.	24.	865.10
0.67	1.01	2.57	3.18	0.070	0.050	0.030	0.000	863.50	21.16
0.001037	1694.	1694.	1694.	5	0	0	0.00	133.84	186.34

CCHV= 0.500 CEHV= 1.000
*SECNO 4431.000

3265 DIVIDED FLOW

DOWNSTREAM FACE OF JACKSON BRIDGE

4431.00	5.69	868.89	0.00	0.00	869.15	0.26	0.10	0.14	870.70
630.	0.	381.	249.	0.	78.	105.	37.	24.	870.80
0.67	0.00	4.90	2.36	0.000	0.047	0.040	0.000	863.20	246.44
0.005461	51.	51	51.	2	0	0	0.00	161.83	480.55

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.21	2.80	0.00	14.00	0.00	42.00	0.00	863.20	863.20

*SECNO 4504.000

3265 DIVIDED FLOW

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
876.61	869.15	0.00	484.	149.	42.	53.	867.00	868.00

UPSTREAM FACE OF JACKSON BRIDGE

4504.00	5.97	869.17	0.00	0.00	869.32	0.15	0.17	0.00	870.70
630.	0.	315.	315.	0.	83.	149.	37.	24.	870.80
0.68	0.00	3.79	2.12	0.000	0.047	0.040	0.000	863.20	246.21
0.003094	73.	73.	73.	2	0	6	0.00	176.77	485.61

CCHV= 0.300 CEHV= 0.500

*SECNO 4520.000

DOWNSTREAM FACE OF STAEBLER BRIDGE

4520.00	6.04	869.24	0.00	0.00	869.38	0.14	0.06	0.00	869.20
630.	0.	171.	459.	0.	42.	181.	38.	24.	869.20
0.68	0.03	4.03	2.54	0.030	0.043	0.040	0.000	863.20	247.33
0.004673	16.	16.	16.	0	0	0	0.00	239.42	486.75

SPECIAL BRIDGE

5070, VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.98	2.80	0.00	8.00	0.00	21.60	0.00	863.20	863.20

*SECNO 4550.000

PRESSURE AND WEIR FLOW

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
895.40	869.38	0.00	572.	60.	22.	28.	866.70	868.00

UPSTREAM FACE OF STAEBLER ROAD

4550.00	6.17	869.37	0.00	0.00	869.47	0.11	0.09	0.00	869.20
630.	1.	151.	479.	1.	43.	210.	38.	24.	869.20
0.68	0.56	3.47	2.28	0.030	0.043	0.040	0.000	863.20	239.35
0.003357	30.	30.	30.	2	0	8	0.00	249.64	488.98

CCHV= 0.100 CEHV= 0.300
*SECNO 4600.000
U/S OF STAEBLER ROAD
DOWNSTREAMOF UNKNOWN BRIDGE

4600.00	6.34	869.54	0.00	0.00	869.61	0.08	0.14	0.00	869.20
630.	3.	129.	498.	4.	45.	249	38.	25.	869.20
0.69	0.71	2.89	2.00	0.030	0.043	0.040	0.000	863.20	228.91
0.002232	50.	50.	50.	2	0	0	0.00	263.00	491.91

CCHV= 0.300 CEHV= 0.500
*SECNO 4681.000
DOWNSTREAM FACE OF UNKNOWN BRIDGE

4681.00	6.50	869.70	0.00	0.00	869.75	0.04	0.13	0.01	869.20
630.	2.	113.	515.	5.	66.	303.	39.	25.	869.20
0.70	0.40	1.71	1.70	0.050	0.047	0.040	0.000	863.20	211.12
0.001141	81.	81.	81.	2	0	0	0.00	274.91	486.03

SPECIAL BRIDGE

5070, VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED

SB XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
0.00	1.97	2.80	0.00	4.00	0.00	12.60	0.00	863.20	863.20

*SECNO 4698.000
PRESSURE AND WEIR FLOW

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
946.18	869.75	0.00	612.	23.	13.	16.	867.20	867.60

UPSTREAM FACE OF UNKNOWN BRIDGE

4698.00	6.57	869.77	0.00	0.00	869.81	0.04	0.06	0.00	869.20
630.	2.	111.	517.	6.	68.	318.	39.	25.	869.20
0.71	0.41	1.63	1.63	0.050	0.047	0.040	0.000	863.20	208.79
0.001005	17.	17.	17.	2	0	9	0.00	280.88	489.66

CCHV= 0.100 CEHV= 0.300
*SECNO 4749.000
UPSTREAM OF UNKNOWN BRIDGE

4749.00	6.62	869.82	0.00	0.00	869.85	0.04	0.05	0.00	869.20
630.	5.	117.	509.	7.	69.	330.	39.	26.	869.20
0.72	0.67	1.68	1.54	0.030	0.043	0.040	0 000	863.20	206.74
0.000868	51.	51.	51.	0	0	0	0.00	286.11	492.85

*SECNO 5500.000

3265 DIVIDED FLOW

5500.00	4.87	870.77	0.00	0.00	870.90	0.13	1.02	0.03	867.40
630.	168.	243.	219.	64.	74.	87.	46.	30.	867.50
0.81	2.63	3.26	2.51	0.030	0.043	0.040	0.000	865.90	25.26
0 001377	945.	945.	945.	2	0	0	0.00	110.70	185.21

*SECNO 6250.000

3265 DIVIDED FLOW

6250.00	5.16	871.66	0.00	0.00	871.76	0.10	0.85	0.00	868.00
630.	184.	226.	219.	82.	80.	98.	50.	32.	868.10
0.89	2.25	2.84	2.24	0.030	0.043	0.040	0.000	866.50	22.38
0.000955	750.	750.	750.	2	0	0	0.00	126.96	186.01

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 7000.000

3265 DIVIDED FLOW

7000.00	5.32	872.32	0.00	0.00	872.41	0.08	0.65	0.00	868.50
630.	194.	217.	219.	94.	82.	104.	55.	34.	868.60
0.99	2.06	2.64	2.10	0.030	0.043	0.040	0.000	867.00	20.76
0.000783	750.	750.	750.	2	0	0	0.00	136.10	186.45

*SECNO 9000.000

3265 DIVIDED FLOW

9000.00	4.97	873.57	0.00	0.00	873.61	0.04	1.20	0.00	870.10
360.	99.	136.	125.	69	76.	91.	67.	40.	870.20
1.34	1.43	1.79	1.39	0.030	0.043	0.040	0.000	868.60	24.38
0.000401	2000.	2000.	2000.	2	0	0	0.00	115.68	185.45

CCHV= 0.100 CEHV= 0.300
*SECNO 11000.000

3265 DIVIDED FLOW

11000.00	4.42	874.62	0.00	0.00	874.69	0.06	1.07	0.01	871.70
360.	77.	127.	155.	44.	66.	71.	76.	45.	871.80
1.62	1.75	1.92	2.20	0.030	0.050	0.030	0.000	870.20	29.77
0.000753	2000	2000.	2000.	2	0	0	0.00	85.18	183.95

*SECNO 12900.000
3280 CROSS SECTION 12900.00 EXTENDED 1.01 FEET

12900.00	4.21	876.01	0.00	0.00	876.04	0.03	1.35	0.00	874.80
360.	203.	49.	108.	146.	33.	104.	86.	53.	874.80
2.03	1.39	1 48	1.04	0.030	0.050	0.030	0.000	871.80	0.00
0.000673	1900.	1900.	1900.	4	0	0	0.00	300.00	300.00

THIS RUN EXECUTED 9 APR 87 10:54:04

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
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T1       SCIO TOWNSHIP FLOOD INSURANCE STUDY
T2       HONEY CREEK TRIBUTARY NO. 2
T3       100 YEAR FLOOD ENCROACHED RUN

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

       0.         3.         0.         0.  0.000000      0.00      0.0         0.  857.900     0.000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

    15.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

*PROF 2

CCHV=    0.300 CEHV=    0.500
*SECND 0.000
 2800 NAT Q1=     113.23  WSEL=     857.80  ENC Q1=     113.23  WSEL=     857.90  RATIO=   0.0000
 NAT Q1=     125.   RATIOS LOB,CH,ROB=   0.4830   0.5169   0.0001   WSEL=     857.90

3470 ENCROACHMENT STATIONS=      109.5      250.0   TYPE=      4   TARGET=         0.094
     0.00      4.90    857.90      0.00    857.80    858.00      0.10      0.00      0.00    856.10
     630.       271.       359.       0.       132.       127.       0.        0.        0.     857.70
     0.00      2.06      2.84      0.00     0.050     0.060     0.000     0.000    853.00    109.49
 0.003134         0         0.        0.         0         0         0      0.00    140.51    250.01


*SECND 1000.000
 2800 NAT Q1=     175.39  WSEL=     859.77  ENC Q1=     175.39  WSEL=     859.87  RATIO=   0.0000
 NAT Q1=     191.   RATIOS LOB,CH,ROB=   0.5690   0.4295   0.0015   WSEL=     859.87
3280 CROSS SECTION    1000.00 EXTENDED        0.38 FEET

3470 ENCROACHMENT STATIONS=       81.8      250.0   TYPE=      4   TARGET=         0.081
  1000.00      5.37    859.87      0.00    859.77    859.92      0.05      1.91      0.02    857.60
     630.       338.       292.       0.       218.       147.       0.        7.        4.     859.20
     0.16      1.55      1.99      0.00     0.050     0.060     0.000     0.000    854.50     81.80
 0.001282     1000.     1000.     1000.         2         0         0      0.00    168.20    250.00


*SECND 2000.000
 2800 NAT Q1=     160.64  WSEL=     861.17  ENC Q1=     160.64  WSEL=     861.27  RATIO=   0.0000
 NAT Q1=     176.   RATIOS LOB,CH,ROB=   0.5535   0.4454   0.0011   WSEL=     861.27
3280 CROSS SECTION    2000.00 EXTENDED        0.27 FEET


3470 ENCROACHMENT STATIONS=       87.8      250.0   TYPE=      4   TARGET=         0.085
  2000.00      5.27    861.27      0.00    861.17    861.33      0.06      1.40      0.00    859.10
     630.       325.       305.       0.       198.       142.       0.        15.       7.     860.70
     0.31      1.64      2.15      0.00     0.050     0.060     0.000     0.000    856.00     87.77
 0.001542     1000.     1000.     1000.         1         0         0      0.00    162.23    250.00


CCHV=    0.300 CEHV=    0.500
*SECND 2570.000
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  SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
  Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
  TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
  SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

 2800 NAT Q1=     131.43  WSEL=     862.16  ENC Q1=     131.43  WSEL=     862.26  RATIO=  0.0000
 NAT Q1=     230.   RATIOS LOB,CH,ROB=  0.5256  0.4737  0.0007  WSEL=     862.26
3280 CROSS SECTION    2570.00 EXTENDED       0.27 FEET


3470 ENCROACHMENT STATIONS=      187.8      250.0  TYPE=      4  TARGET=        0.428
          D/S OF SARNS-3M DRIVE
  2570.00      5.27    862.27      0.00    862.16    862.46      0.19      1.07      0.07    860.10
     630.       109       521.       0.       41.       142.       0.       19.       9.     861.70
     0.35      2.69      3.67      0.00     0.040     0.043     0.000     0.000    857.00    187.81
 0.002320       570.      570.      570.         2         0         0      0.00     62.19    250.00


CCHV=   0.300 CEHV=   1.000
*SECNO 2621.000
 2800 NAT Q1=     174.87  WSEL=     862.26  ENC Q1=     174.67  WSEL=     862.36  RATIO=  0.0000
 NAT Q1=     182.   RATIOS LOB,CH,ROB=  0.1016  0.8878  0.0106  WSEL=     862.36
3470 ENCROACHMENT STATIONS=      224.3      265.0  TYPE=      4  TARGET=        0.037
          DOWNSTREAM FACE OF SARNS-3M BRIDGE
  2621.00      8.37    862.37      0.00    862.26    862.55      0.19      0.09      0.00    859.70
     630.       49.       581.       0.       24.       163.       0.       19.       9.     861.20
     0.35      2.09      3.56      0.00     0.040     0.043     0.000     0.000    854.00    224.28
 0.001353       51.       51.       51.         0         0         0      0.00     40.72    265.00


SPECIAL BRIDGE

SB  XK          XKOR        COFQ        RDLEN       BWC         BWP         BAREA       SS          ELCHU       ELCHD
     0.00        2.62        3.00         0.00       12.00        0.00        78.00        0.00      854.00      854.00

*SECNO 2645.000
 2800 NAT Q1=     289.84  WSEL=     863.44  ENC Q1=     289.84  WSEL=     863.54  RATIO=  0.0000
 NAT Q1=     304.   RATIOS LOB,CH,ROB=  0.2184  0.7372  0.0445  WSEL=     863.54
 WATER EL=CHANGE FROM NATURAL PROFILES BRIDGE

3470 ENCROACHMENT STATIONS=      177.3      273.3  TYPE=      4  TARGET=        0.046
          UPSTREAM FACE OF SARND-3M BRIDGE
  2645.00      9.55    863.55      0.00    863.44    863.63      0.08      0.02      0.03    859.70
     630.       130.      487.       13.      101.       199.       18.       19.       9.     861.20
     0.36      1.29      2.45      0.77     0.040     0.043     0.060     0.000    854.00    177.33
 0.000470       24.       24.       24.         0         0         4      0.00     95.99    273.32
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

CCHV=   0.100 CEHV=   0.300
*SECNO 2686.000
 2800 NAT Q1=    311.06  WSEL=    863.51  ENC Q1=    311.06  WSEL=    863.61  RATIO=  0.0000
 NAT Q1=    400.   RATIOS LOB,CH,ROB=  0.5437  0.4094  0.0469  WSEL=    863.61
3280 CROSS SECTION   2686.00 EXTENDED      1.63 FEET


3470 ENCROACHMENT STATIONS=      97.9     250.0  TYPE=     4  TARGET=       0.223
          U/S OF SARNS-3M DRIVE
  2686.00      6.63   863.63     0.00   863.51   863.65     0.03      0.02      0.00   860.10
     630.       303.      327.       0.      333.      199.       0.       19.       9.    861.70
     0.37      0.91      1.65     0.00    0.070    0.050    0.000     0.000   857.00    97.86
 0.000419       41.       41.       41.        2        0        0      0.00   152.14   250.00


*SECNO 2900.000
 2800 NAT Q1=    243.01  WSEL=    863.62  ENC Q1=    243.01  WSEL=    863.72  RATIO=  0.0000
 NAT Q1=    261.   RATIOS LOB,CH,ROB=  0.5064  0.4825  0.0111  WSEL=    863.72
3280 CROSS SECTION   2900.00 EXTENDED      0.93 FEET


3470 ENCROACHMENT STATIONS=      58.8     250.0  TYPE=     4  TARGET=       0.068
  2900.00      5.93   863.73     0.00   863.62   863.77     0.04      0.11      0.00   860.90
     630.       308.      322.       0.      328.      170.       0.       22.      10.    862.50
     0.41      0.94      1.90     0.00    0.070    0.050    0.000     0.000   857.80    58.76
 0.000673       214.      214.      214.        0        0        0      0.00   191.24   250.00


*SECNO 3100.000
 2800 NAT Q1=    142.33  WSEL=    863.80  ENC Q1=    142.33  WSEL=    863.90  RATIO=  0.0000
 NAT Q1=    154.   RATIOS LOB,CH,ROB=  0.4123  0.5861  0.0016  WSEL=    863.90
3280 CROSS SECTION   3100.00 EXTENDED      0.21 FEET


3470 ENCROACHMENT STATIONS=      98.1     250.0  TYPE=     4  TARGET=       0.079
  3100.00      5.21   863.91     0.00   863.80   864.00     0.09      0.21      0.02   861.80
     630.       231.      399.       0.      177.      139.       0.       24.      11.    863.40
     0.43      1.30      2.86     0.00    0.070    0.050    0.000     0.000   858.70    98.11
 0.001952       200.      200.      200.        2        0        0      0.00   151.89   250.00


*SECNO 3300.000
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  SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS .  BANK ELEV
  Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
  TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
  SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

 2800 NAT Q1=     100.04  WSEL=     864.29  ENC Q1=     100.04  WSEL=     864.39  RATIO=  0.0000
 NAT Q1=     109.  RATIOS LOB,CH,ROB=  0.3341  0.6659  0.0000  WSEL=     864.39

3470 ENCROACHMENT STATIONS=      127.4      250.0  TYPE=      4  TARGET=        0.084
  3300.00      4.79    864.39      0.00    864.29    864.56      0.17      0.54      0.02    862.70
     630.       173.       457.        0.       107.       122.        0.        25.       11.     864.30
     0.45      1.62      3.75      0.00     0.070     0.050     0.000     0.000    859.60    127.36
 0.003961       200.       200.       200.         2         0         0      0.00    122.65    250.01


*SECNO 3500.000
 2800 NAT Q1=      83.81  WSEL=     865.10  ENC Q1=      83.81  WSEL=     865.20  RATIO=  0.0000
 NAT Q1=      90.  RATIOS LOB,CH,ROB=  0.0831  0.8387  0.0782  WSEL=     865.20

3470 ENCROACHMENT STATIONS=      200.6      257.3  TYPE=      4  TARGET=        0.073
  3500.00      4.70    865.20      0.00    865.10    865.56      0.37      0.94      0.06    864.00
     630.        31.       571.       28.        19.       113.        8.        26.       12.     864.00
     0.46      1.64      5.04      3.59     0.070     0.050     0.030     0.000    860.50    200.56
 0.005694       200.       200.       200.         2         0         0      0.00     56.71    257.28


*SECNO 4380.000
 2800 NAT Q1=     195.60  WSEL=     868.79  ENC Q1=     195.60  WSEL=     868.89  RATIO=  0.0000
 NAT Q1=     207.  RATIOS LOB,CH,ROB=  0.1520  0.3581  0.4899  WSEL=     868.89

3470 ENCROACHMENT STATIONS=      105.7      181.4  TYPE=      4  TARGET=        0.055
          D/S OF JACKSON ROAD
  4380.00      5.37    868.87      0.00    868.79    869.00      0.12      3.41      0.02    865.00
     630.        82.       235.       312.        65.        91.        95.        34.       14.     865.10
     0.63      1.26      2.58      3.28     0.070     0.050     0.030     0.000    863.50    105.74
 0.001019      1694.      1694.      1694.         4         0         0      0.00     75.69    181.43


CCHV=    0.500 CEHV=    1.000
*SECNO 4431.000
 2800 NAT Q1=      85.25  WSEL=     868.89  ENC Q1=      85.25  WSEL=     868.99  RATIO=  0.0000
 NAT Q1=      94.  RATIOS LOB,CH,ROB=  0.0000  0.5653  0.4347  WSEL=     868.99

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=      245.0      446.4  TYPE=      4  TARGET=        0.096
           DOWNSTREAM FACE OF JACKSON BRIDGE
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
4431.00	5.77	868.97	0.00	868.89	869.26	0.28	0.10	0.16	870.70
630.	0.	397.	233.	0.	79.	91.	34.	14.	870.80
0.64	0.00	5.00	2.55	0.000	0.047	0.040	0.000	863.20	246.37
0.005596	51.	51.	51.	2	0	0	0.00	130.61	446.40

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.21	2.80	0.00	14.00	0.00	42.00	0.00	863.20	863.20

*SECNO 4504.000
2800 NAT Q1= 113.26 WSEL= 869.17 ENC Q1= 113.26 WSEL= 869.27 RATIO= 0.0000
NAT Q1= 124. RATIOS LOB,CH,ROB= 0.0000 0.4707 0.5293 WSEL= 869.27
WATER EL=CHANGE FROM NATURAL PROFILES BRIDGE

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 245.0 453.7 TYPE= 4 TARGET= 0.086
UPSTREAM FACE OF JACKSON BRIDGE

4504.00	6.06	869.26	0.00	869.17	869.42	0.16	0.30	0.06	870.70
630.	0.	327.	303.	0.	85.	134.	34.	15.	870.80
0.64	0.00	3.86	2.26	0.000	0.047	0.040	0.000	863.20	246.14
0.003167	73.	73.	73.	0	0	6	0.00	147.67	453.67

CCHV= 0.300 CEHV= 0.500
*SECNO 4520.000
2800 NAT Q1= 92.16 WSEL= 869.24 ENC Q1= 92.16 WSEL= 869.34 RATIO= 0.0000
NAT Q1= 105. RATIOS LOB,CH,ROB= 0.0005 0.2461 0.7534 WSEL= 869.34

3470 ENCROACHMENT STATIONS= 250.0 452.8 TYPE= 4 TARGET= 0.120
DOWNSTREAM FACE OF STAEBLER BRIDGE

4520.00	6.12	869.32	0.00	869.24	869.48	0.16	0.06	0.00	869.20
630.	0.	180.	450.	0	43.	166.	34.	15.	869.20
0.64	0.00	4.19	2.71	0.000	0.043	0.040	0.000	863.20	250.00
0.004989	16.	16.	16.	0	0	0	0.00	202.76	452.76

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

SPECIAL BRIDGE

5070. VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED

SB	XK	XKOR	CDFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.98	2.80	0.00	8.00	0.00	21.60	0.00	863.20	863.20

*SECNO 4550.000
2800 NAT Q1= 108.73 WSEL= 869.37 ENC Q1= 108.73 WSEL= 869.47 RATIO= 0.0000
NAT Q1= 123. RATIOS LOB,CH,ROB= 0.0024 0.2181 0.7795 WSEL= 869.47
WATER EL=CHANGE FROM NATURAL PROFILES BRIDGE

3470 ENCROACHMENT STATIONS= 250.0 454.6 TYPE= 4 TARGET= 0.115
UPSTREAM FACE OF STAEBLER ROAD

4550.00	6.25	869.45	0.00	869.37	869.57	0.12	0.12	0.01	869.20
630.	0.	157.	473.	0.	44.	195.	34.	15.	869.20
0.65	0.00	3.56	2.43	0.000	0.043	0.040	0.000	863.20	250.00
0.003512	30.	30.	30.	0	0	8	0.00	204.58	454.58

CCHV= 0.100 CEHV= 0.300
*SECNO 4600.000
2800 NAT Q1= 133.36 WSEL= 869.54 ENC Q1= 133.36 WSEL= 869.64 RATIO= 0.0000
NAT Q1= 150. RATIOS LOB,CH,ROB= 0.0072 0.1881 0.8047 WSEL= 869.64

3470 ENCROACHMENT STATIONS= 250.0 457.1 TYPE= 4 TARGET= 0.109
U/S OF STAEBLER ROAD
DOWNSTREAMOF UNKNOWN BRIDGE

4600.00	6.43	869 63	0.00	869.54	869.71	0.08	0.14	0.00	869.20
630.	0.	132.	498.	0.	45.	234.	35.	15.	869.20
0.65	0.00	2.91	2.12	0.000	0.043	0.040	0.000	863.20	250.00
0.002285	50.	50.	50.	2	0	0	0.00	207.09	457.09

CCHV= 0.300 CEHV= 0.500
*SECNO 4681.000
2800 NAT Q1= 186.52 WSEL= 869.70 ENC Q1= 186.52 WSEL= 869.80 RATIO= 0.0000
NAT Q1= 206. RATIOS LOB,CH,ROB= 0.0044 0.1735 0.8221 WSEL= 869.80

3470 ENCROACHMENT STATIONS= 230.0 448.8 TYPE= 4 TARGET= 0.096
DOWNSTREAM FACE OF UNKNOWN BRIDGE

4681.00	6.60	869.80	0.00	869.70	869.85	0.05	0.13	0.01	869.20
630.	0.	120.	510.	0.	69.	286.	35.	15.	869.20
0.67	0.00	1.74	1.78	0.000	0.047	0.040	0.000	863.20	230.00
0.001152	81.	81.	81.	2	0	0	0.00	218.82	448.82

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

SPECIAL BRIDGE

5070. VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.97	2.80	0.00	4.00	0.00	12.60	0.00	863.20	863.20

*SECNO 4698.000
2800 NAT Q1= 198.72 WSEL= 869.77 ENC Q1= 198.72 WSEL= 869.87 RATIO= 0.0000
NAT Q1= 219 RATIOS LOB,CH,ROB= 0.0054 0.1702 0.8244 WSEL= 869.87
WATER EL=CHANGE FROM NATURAL PROFILES BRIDGE

3470 ENCROACHMENT STATIONS= 230.0 449.7 TYPE= 4 TARGET= 0.093
UPSTREAM FACE OF UNKNOWN BRIDGE

4698.00	6.66	869.86	0.00	869.77	869.91	0.04	0.02	0.00	869.20
630.	0.	117.	513.	0.	70.	300.	35.	16.	869.20
0.67	0.00	1.66	1.71	0.000	0.047	0.040	0.000	863.20	230.00
0.001015	17.	17.	17.	0	0	11	0.00	219 67	449.67

CCHV= 0.100 CEHV= 0.300
*SECNO 4749.000
2800 NAT Q1= 213.81 WSEL= 869.82 ENC Q1= 213.81 WSEL= 869.92 RATIO= 0.0000
NAT Q1= 235. RATIOS LOB,CH,ROB= 0.0103 0.1797 0.8100 WSEL= 869.92

3470 ENCROACHMENT STATIONS= 230.0 451.1 TYPE= 4 TARGET= 0.089
UPSTREAM OF UNKNOWN BRIDGE

4749.00	6.71	869.91	0.00	869.82	869.96	0.04	0.05	0.00	869.20
630.	0.	122.	508.	0.	72.	312.	36.	16.	869.20
0.68	0.00	1.71	1.63	0.000	0.043	0.040	0.000	863.20	230.00
0.000877	51.	51.	51.	0	0	0	0.00	221.14	451.14

*SECNO 5500.000
2800 NAT Q1= 169.76 WSEL= 870.77 ENC Q1= 169.76 WSEL= 870.87 RATIO= 0.0000
NAT Q1= 181. RATIOS LOB,CH,ROB= 0.2755 0.3759 0.3486 WSEL= 870.87

3470 ENCROACHMENT STATIONS= 108.9 179.0 TYPE= 4 TARGET= 0.063

5500.00	4.97	870.87	0.00	870.77	871.01	0.14	1.03	0.03	867.40
630.	165.	252.	213.	52.	76.	83.	42.	19.	867.50
0.76	3.19	3.31	2.56	0.030	0.043	0.040	0.000	865.90	108.89
0.001378	945.	945.	945.	2	0	0	0.00	70.06	178.95

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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

*SECNO 6250.000
 2800 NAT Q1=     203.83  WSEL=     871.66  ENC Q1=     203.83  WSEL=     871.76  RATIO=  0.0000
 NAT Q1=     217.   RATIOS LOB,CH,ROB=  0.3022  0.3503  0.3475  WSEL=     871.76

3470 ENCROACHMENT STATIONS=      100.0      179.7  TYPE=      4  TARGET=        0.060
  6250.00      5.26    871.76      0.00    871.66    871.87      0.11      0.85      0.00    868.00
     630.       182.      235.      213.       69.       81.       94.       46.       20.     868.10
    0.84       2.62      2.89      2.26     0.030     0.043     0.040     0.000    866.50    100.00
 0.000956      750.      750.      750.         2         0         0      0.00     79.69    179.69


*SECNO 7000.000
 2800 NAT Q1=     225.09  WSEL=     872.32  ENC Q1=     225.09  WSEL=     872.42  RATIO=  0.0000
 NAT Q1=     239.   RATIOS LOB,CH,ROB=  0.3177  0.3368  0.3455  WSEL=     872.42

3470 ENCROACHMENT STATIONS=       93.9      180.0  TYPE=      4  TARGET=        0.059
  7000.00      5.42    872.42      0.00    872.32    872.51      0.09      0.64      0.00    868.50
     630.       190.      222.      218.       79.       84.      100.       51.       22.     868.60
    0.93       2.41      2.64      2.19     0.030     0.043     0.040     0.000    867.00     93.94
 0.000763      750.      750.      750.         2         0         0      0.00     86.07    180.01


*SECNO 9000.000
 2800 NAT Q1=     179.71  WSEL=     873.57  ENC Q1=     179.71  WSEL=     873.67  RATIO=  0.0000
 NAT Q1=     192.   RATIOS LOB,CH,ROB=  0.2841  0.3673  0.3486  WSEL=     873.67

3470 ENCROACHMENT STATIONS=      107.3      179.0  TYPE=      4  TARGET=        0.065
  9000.00      5.05    873.65      0.00    873.57    873.70      0.04      1.18      0.00    870.10
     360.        97.      141.      122.       56.       78.       86.       62.       25.     870.20
    1.26       1.74      1.82      1.41     0.030     0.043     0.040     0.000    868.60    107.27
 0.000405     2000.     2000.     2000.         2         0         0      0.00     71.70    178.97


CCHV=    0.100 CEHV=    0.300
*SECNO 11000.000
 2800 NAT Q1=     131.23  WSEL=     874.62  ENC Q1=     131.23  WSEL=     874.72  RATIO=  0.0000
 NAT Q1=     141.   RATIOS LOB,CH,ROB=  0.2232  0.3433  0.4335  WSEL=     874.72

3470 ENCROACHMENT STATIONS=      116.1      178.2  TYPE=      4  TARGET=        0.071
 11000.00      4.52    874.72      0.00    874.62    874.79      0.07      1.08      0.01    871.70
     360.        72.      133.      154.       33.       68.       68.       71.       28.     871.80
    1.52       2.23      1.96      2.27     0.030     0.050     0.030     0.000    870.20    116.13
 0.000760     2000.     2000.     2000.         1         0         0      0.00     62.12    178.25
```

```
  SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
  Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
  TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
  SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

#SECNO 12900.000
 2800 NAT Q1=     138.81  WSEL=     876.01  ENC Q1=     138.81  WSEL=     876.11  RATIO=  0.0000
 NAT Q1=     162.  RATIOS LOB,CH,ROB=  0.5561  0.1226  0.3213  WSEL=     876.11
3280 CROSS SECTION  12900.00 EXTENDED      1 11 FEET


3470 ENCROACHMENT STATIONS=      18.8      225.0  TYPE=      4  TARGET=       0.142
 12900.00      4.32    876.12      0.00    876.01    876.15      0.03      1.35      0.00    874.80
      360.      204.       51.      105.      138.       34.       83.       80.       34.    874.80
      1.90      1.47      1.50      1.27     0.030     0.050     0.030     0.000    871.80     18.76
 0.000670     1900.     1900.     1900.         3         0         0      0.00    206.22    224.99
```

THIS RUN EXECUTED 9 APR 87 10:54:08

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
**************************************************
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

100-YEAR FLOODPLAIN

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
0.000	0.00	0.00	0.00	853.00	630.00	857.80	0.00	857.89	30.96	2.78	283.95	113.23
0.000	0.00	0.00	0.00	853.00	630.00	857.90	0.00	858.00	31.34	2.84	258.29	112.54
1000.000	1000.00	0.00	0.00	854.50	630.00	859.77	0.00	859.81	12.90	1.98	397.54	175.39
1000.000	1000.00	0.00	0.00	854.50	630.00	859.87	0.00	859.92	12.82	1.99	364.76	175.96
2000.000	1000.00	0.00	0.00	856.00	630.00	861.17	0.00	861.22	15.38	2.12	372.39	160.64
2000.000	1000.00	0.00	0.00	856.00	630.00	861.27	0.00	861.33	15.42	2.15	339.80	160.41
2570.000	570.00	0.00	0.00	857.00	630.00	862.16	0.00	862.35	22.98	3.61	189.75	131.43
2570.000	570.00	0.00	0.00	857.00	630.00	862.27	0.00	862.46	23.20	3.67	182.57	130.81
2621.000	51.00	0.00	0.00	854.00	630.00	862.26	0.00	862.43	12.98	3.52	208.02	174.87
2621.000	51.00	0.00	0.00	854.00	630.00	862.37	0.00	862.55	13.53	3.56	186.92	171.29
2645.000	24.00	862.70	862.00	854.00	630.00	863.44	0.00	863.52	4.72	2.43	355.26	289.84
2645.000	24.00	999999.00	0.00	854.00	630.00	863.55	0.00	863.63	4.70	2.45	317.35	290.73
2686.000	41.00	0.00	0.00	857.00	630.00	863.51	0.00	863.54	4.10	1.65	554.27	311.06
2686 000	41.00	0.00	0.00	857.00	630.00	863.63	0.00	863.65	4.19	1.65	532.42	307.70
2900.000	214.00	0.00	0.00	857.80	630.00	863.62	0.00	863.65	6.72	1.89	538.31	243.01
2900.000	214.00	0.00	0.00	857.80	630.00	863.73	0.00	863.77	6.73	1.90	497.69	242.86
3100.000	200.00	0.00	0.00	858.70	630.00	863.80	0.00	863.88	19.59	2.82	354.12	142.33
3100.000	200.00	0.00	0.00	858.70	630.00	863.91	0.00	864.00	19.52	2.86	316.41	142.60
3300.000	200.00	0.00	0.00	859.60	630.00	864.29	0.00	864.44	39.66	3.68	261.01	100.04
3300.000	200.00	0.00	0.00	859.60	630.00	864.39	0.00	864.56	39.61	3.75	228.52	100.11
3500.000	200.00	0.00	0.00	860.50	630.00	865.10	0.00	865.44	56.50	4.93	163.18	83.81
3500.000	200.00	0.00	0.00	860.50	630.00	865.20	0.00	865.56	56.94	5.04	140.16	83.49

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
4380.000	1694.00	0.00	0.00	863.50	630.00	868.79	0.00	868.90	10.37	2.57	277.17	195.60
4380.000	1694.00	0.00	0.00	863.50	630.00	868.87	0.00	869.00	10.19	2.58	251.90	197.37
4431.000	51.00	0.00	0.00	863.20	630.00	868.89	0.00	869.15	54.61	4.90	183.21	85.25
4431.000	51.00	0.00	0.00	863.20	630.00	868.97	0.00	869.26	55.96	5.00	170.87	84.22
4504.000	73.00	868.00	867.00	863.20	630.00	869.17	0.00	869.32	30 94	3.79	232.10	113.26
4504.000	73.00	999999.00	0.00	863.20	630.00	869.26	0.00	869.42	31.67	3.86	218.73	111 95
4520.000	16.00	0.00	0.00	863.20	630.00	869.24	0.00	869.38	46.73	4.03	223.22	92.16
4520.000	16.00	0.00	0.00	863.20	630.00	869.32	0.00	869.48	49.89	4.19	209.01	89.19
4550.000	30.00	868.00	866.70	863.20	630.00	869.37	0.00	869.47	33.57	3.47	254.44	108.73
4550.000	30.00	999999.00	0.00	863.20	630.00	869.45	0.00	869.57	35.12	3.56	239.24	106.30
4600.000	50.00	0.00	0.00	863.20	630.00	869.54	0.00	869.61	22.32	2.89	297.25	133.36
4600.000	50.00	0.00	0.00	863.20	630.00	869.63	0.00	869.71	22.85	2.91	279.75	131.78
4681.000	81.00	0.00	0.00	863.20	630.00	869.70	0.00	869.75	11.41	1.71	374.03	186.52
4681.000	81.00	0.00	0.00	863.20	630.00	869.80	0.00	869.85	11 52	1 74	354.64	185.62
4698.000	17.00	867.60	867.20	863.20	630.00	869.77	0.00	869.81	10.05	1.63	391.33	198.72
4698.000	17.00	999999.00	0.00	863.20	630.00	869.86	0.00	869.91	10.15	1.66	370.17	197 71
4749.000	51.00	0.00	0.00	863.20	630.00	869.82	0.00	869.85	8.68	1.68	406.83	213.81
4749.000	51.00	0.00	0.00	863.20	630.00	869.91	0.00	869.96	8.77	1.71	383.23	212.72
5500.000	945.00	0.00	0.00	865.90	630.00	870.77	0.00	870.90	13.77	3.26	225.41	169.76
5500.000	945.00	0.00	0.00	865.90	630.00	870.87	0.00	871.01	13.78	3.31	211.08	169.69
6250.000	750.00	0.00	0.00	866.50	630.00	871.66	0.00	871.76	9.55	2.84	259.60	203.83
6250.000	750.00	0.00	0.00	866.50	630.00	871.76	0.00	871.87	9.56	2.89	244.95	203.80
7000.000	750.00	0.00	0.00	867.00	630.00	872.32	0.00	872.41	7.83	2.64	280.86	225.09
7000.000	750 00	0.00	0.00	867.00	630.00	872.42	0.00	872.51	7.63	2.64	262.78	228.14
9000.000	2000.00	0.00	0.00	868.60	360.00	873.57	0.00	873.61	4.01	1.79	235.39	179.71
9000.000	2000.00	0.00	0.00	868.60	360.00	873.65	0.00	873.70	4.05	1.82	219.42	178.85
11000.000	2000.00	0.00	0.00	870.20	360.00	874.62	0.00	874.69	7.53	1.92	181.20	131.23
11000.000	2000.00	0.00	0.00	870.20	360.00	874.72	0.00	874.79	7.60	1.96	168.55	130.60
12900.000	1900.00	0.00	0.00	871.80	360.00	876.01	0.00	876.04	6.73	1.48	283.80	138.81
12900.000	1900.00	0.00	0.00	871.80	360.00	876.12	0.00	876.15	6.70	1.50	255.01	139.04

100-YEAR FLOODPLAIN

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
0.000	630.00	857.80	0.00	0.00	-4.40	213.93	0.00
0.000	630.00	857.90	0.10	0.00	0.10	140.51	0.00
1000.000	630.00	859.77	0.00	1.96	0.00	255.68	1000.00
1000.000	630.00	859.87	0.11	1.97	0.11	168.20	1000.00
2000.000	630.00	861.17	0.00	1.40	0.00	254.70	1000.00
2000.000	630.00	861.27	0.10	1.40	0.10	162.23	1000.00
2570.000	630.00	862.16	0.00	0.99	0.00	73.63	570.00
2570.000	630.00	862.27	0.11	1.00	0.11	62.19	570.00
2621.000	630.00	862.26	0.00	0.09	0.00	77.60	51.00
2621.000	630.00	862.37	0.11	0.10	0.11	40.72	51.00
2645.000	630.00	863.44	0.00	1.19	0.00	188.89	24.00
2645.000	630.00	863.55	0.11	1.19	0.11	95.99	24.00
2686.000	630.00	863.51	0.00	0.07	0.00	244.01	41.00
2686.000	630.00	863.63	0.11	0.07	0.11	152.14	41.00
2900.000	630.00	863.62	0.00	0.11	0.00	262.42	214.00
2900.000	630.00	863.73	0.12	0.11	0.12	191.24	214.00
3100.000	630.00	863.80	0.00	0.18	0.00	253.98	200.00
3100.000	630.00	863.91	0.11	0.18	0.11	151.89	200.00
3300.000	630.00	864.29	0.00	0.49	0.00	199.63	200.00
3300.000	630.00	864.39	0.10	0.48	0.10	122.65	200.00
3500.000	630.00	865.10	0.00	0.81	0.00	157.39	200.00
3500.000	630.00	865.20	0.09	0.80	0.09	56.71	200.00
4380.000	630.00	868.79	0.00	3.68	0.00	133.84	1694.00
4380.000	630.00	868.87	0.09	3.68	0.09	75.69	1694.00
4431.000	630.00	868.89	0.00	0.10	0.00	161.83	51.00
4431.000	630.00	868.97	0.09	0.10	0.09	130.61	51.00
4504.000	630.00	869.17	0.00	0.29	0.00	176.77	73.00
4504.000	630.00	869.26	0.09	0.29	0.09	147.67	73.00
4520.000	630.00	869.24	0.00	0.07	0.00	239.42	16.00
4520.000	630.00	869.32	0.08	0.06	0.08	202.76	16.00
4550.000	630.00	869.37	0.00	0.13	0.00	249.64	30.00
4550.000	630.00	869.45	0.08	0.13	0.08	204.58	30.00

SECND	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
4600.000	630.00	869.54	0.00	0.17	0.00	263.00	50.00
4600.000	630.00	869.63	0.09	0.18	0.09	207.09	50.00
4681.000	630.00	869.70	0.00	0.17	0.00	274.91	81.00
4681.000	630.00	869.80	0.10	0.17	0.10	218.82	81.00
4698.000	630.00	869.77	0.00	0.06	0.00	280.88	17.00
4698.000	630.00	869.86	0.10	0.06	0.10	219.67	17.00
4749.000	630.00	869.82	0.00	0.05	0.00	286.11	51.00
4749.000	630.00	869.91	0.10	0.05	0.10	221.14	51.00
5500.000	630.00	870.77	0.00	0.96	0.00	110.70	945.00
5500.000	630.00	870.87	0.09	0.95	0.09	70.06	945.00
6250.000	630.00	871.66	0.00	0.89	0.00	126.96	750.00
6250.000	630.00	871.76	0.10	0.90	0.10	79.69	750.00
7000.000	630.00	872.32	0.00	0.66	0.00	136.10	750.00
7000.000	630.00	872.42	0.09	0.65	0.09	86.07	750.00
9000.000	360.00	873.57	0.00	1.24	0.00	115.68	2000.00
9000.000	360.00	873.65	0.09	1.24	0.09	71.70	2000.00
11000.000	360.00	874.62	0.00	1.05	0.00	85.18	2000.00
11000.000	360.00	874.72	0.09	1.06	0.09	62.12	2000.00
12900.000	360.00	876.01	0.00	1.39	0.00	300.00	1900.00
12900.000	360.00	876.12	0.10	1.40	0.10	206.22	1900.00

FLOODWAY DATA, 100-YEAR FLOODPLAIN
PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
0.000	141.	258.	2.4	857.9	857.8	0.1
1000.000	168.	365.	1.7	859.9	859 8	0.1
2000.000	162.	340.	1.9	861.3	861.2	0.1
2570.000	62.	183.	3.5	862.3	862.2	0.1
2621.000	41.	187.	3.4	862.4	862.3	0.1
2645.000	96.	317.	2.0	863.5	863.4	0.1
2686.000	152.	532.	1.2	863.6	863.5	0.1
2900.000	191.	498.	1.3	863.7	863.6	0.1
3100.000	152.	316.	2.0	863.9	863.8	0.1
3300.000	123.	229.	2.8	864.4	864.3	0.1
3500.000	57.	140.	4 5	865.2	865.1	0.1
4380.000	76.	252.	2.5	868 9	868 8	0 1
4431.000	200.	171.	3.7	869.0	868.9	0.1
4504.000	208.	219.	2.9	869.3	869.2	0.1
4520.000	203.	209.	3.0	869.3	869.2	0.1
4550.000	205.	239.	2.6	869.5	869.4	0.1
4600.000	207.	280.	2.3	869.6	869.5	0.1
4681.000	219.	355.	1.8	869.8	869.7	0.1
4698.000	220.	370.	1.7	869.9	869.8	0.1
4749.000	221.	383.	1.6	869.9	869.8	0.1
5500.000	70.	211.	3.0	870.9	870.8	0.1
6250 000	80.	245.	2.6	871.8	871.7	0.1
7000.000	86.	263.	2.4	872.4	872.3	0.1
9000.000	72.	219.	1.6	873.7	873.6	0.1
11000.000	62	169.	2.1	874.7	874.6	0.1
12900.000	206.	255.	1.4	876.1	876.0	0.1

Honey Creek Tributary #3

Input: HANNA4 unencroached run

```
EEEEEE   EEEEEE          L        EEEEEE   EEEEEE
E        E               L        E        E
E        E               L        E        E
EEEE     EEEE            L        EEEE     EEEE
E        E               L        E        E
EEEEEE   EEEEEE          LLLLLL   EEEEEE   EEEEEE
```

USACOE DETROIT H800 VOS 5.1.1 PRINTER: 6

EE LEE 5 MAR 87 7:50.39

TERMINAL.105

THIS RUN EXECUTED 5 MAR 87 7:50:17

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
**************************************************
```

C
T1 SCIO TWP. FLOOD INSURANCE STUDY
T2 HONEY CREEK TRIBUTARY NO 3
T3 100-YEAR FLOODPLAIN

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0	2.	0.	0.	0.003400	0 00	0.0	0.	884.900	0.000
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	-1.000	0.000	-1.000	0.000	0 000	0.000	0.000	0.000	0.000	0.000

J3 VARIABLE CODES FOR SUMMARY PRINTOUT

	150 000	200.000	0 000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
QT	1.000	150.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.050	0.050	0.045	0.100	0.300	0.000	0.000	0.000	0.000	0.000
X1	0.000	14 000	250 000	266.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	886.600	0.000	886 500	50.000	886.400	100.000	886.000	150.000	885.000	200.000
GR	884.200	250.000	880 900	253.000	880.900	262.000	884.000	266.000	884.200	300.000
GR	884.800	350.000	885.000	400.000	885.600	450.000	886.200	500.000	0 000	0.000
X1	1000.000	0 000	0.000	0.000	1000.000	1000.000	1000 000	0.000	1.500	0.000
X1	2000.000	14.000	245.000	260.000	1000.000	1000.000	1000.000	0.000	0.000	0.000
GR	890.600	0.000	890.400	50.000	890.100	100.000	890.000	130.000	888.100	200.000
GR	887.000	245 000	884.000	252.000	884.000	258.000	887.000	260.000	887.300	300.000
GR	888.300	350 000	890.000	400.000	891.000	450.000	891.700	500.000	0.000	0.000
	DOWNSTREAM OF HONEY RUN DRIVE									
X1	2409.000	14 000	250.000	262.000	409.000	409.000	409.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	238.000	0.000	274.000	0.000	0.000	0.000	0.000
GR	891.200	0.000	891.000	50.000	890.500	100.000	890.000	150.000	888.900	200.000
GR	887.700	250 000	884.700	253.000	884.700	258.000	888.200	262.000	888.300	300.000
GR	889.600	350.000	891.200	400.000	892.000	450.000	892.400	500.000	0.000	0.000
NC	0 050	0.050	0.045	0.300	1.000	0.000	0.000	0.000	0.000	0.000
	DOWNSTREAM FACE OF HONEY RUN BRIDGE									
X1	2459.000	28.000	250.000	262.000	50 000	50.000	50.000	0.000	0.000	0.000
GR	892.800	0.000	892 600	50.000	892 100	100 000	891 500	150.000	890.600	200.000
GR	889.500	250 000	886.000	252.000	885.700	253 000	885.100	253 200	884.800	253.600
GR	884.700	254.000	884 800	254.400	885.100	254.800	885.700	255.000	885.700	257 000
GR	885.100	257.200	884.800	257.600	884 700	258.000	884.800	258 400	885.100	258.800

GR	885.700	259.000	886.000	261.500	889.400	262.000	889.500	300.000	890.900	350.000
GR	892.200	400.000	893.100	450.000	893.600	500.000	0.000	0.000	0.000	0.000
SB	0.000	2.470	3.000	0.000	4.000	0.000	12.560	0.000	884.700	884.700
	UPSTREAM FACE OF HONEY RUN BRIDGE									
X1	2500.000	0.000	0.000	0.000	41.000	41.000	41.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	886.700	889.400	0.000	0.000	0.000	0.000	0.000
BT	28.000	0.000	892.800	0.000	50.000	892.600	0.000	100.000	892.100	0.000
BT	150.000	891.500	0.000	200.000	890.600	0.000	250.000	889.500	0.000	252.000
BT	886.000	0.000	253.000	889.500	885.700	253.200	889.500	886.300	253.600	889.500
BT	886.600	254.000	889.500	886.700	254.400	889.500	886.600	254.800	889.400	886.300
BT	255.000	889.400	885.700	257.000	889.400	885.700	257.200	889.400	886.300	257.600
BT	889.400	886.600	258.000	889.400	886.700	258.400	889.400	886.600	258.800	889.400
BT	856.300	259.000	889.400	885.700	261.500	886.000	0.000	262.000	889.400	0.000
BT	300.000	889.500	0.000	350.000	890.900	0.000	400.000	892.200	0.000	450.000
BT	893.100	0.000	500.000	893.600	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.050	0.050	0.050	0.100	0.300	0.000	0.000	0.000	0.000	0.000
	UPSTREAM OF HONEY RUN DRIVE									
X1	2550.000	14.000	250.000	262.000	50.000	50.000	50.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	174.000	0.000	338.000	0.000	0.000	0.000	0.000
GR	891.200	0.000	891.000	50.000	890.500	100.000	890.000	150.000	888.900	200.000
GR	887.700	250.000	884.700	253.000	884.700	258.000	888.200	262.000	888.300	300.000
GR	889.600	350.000	891.200	400.000	892.000	450.000	892.400	500.000	0.000	0.000
X1	4650.000	0.000	0.000	0.000	2100.000	2100.000	2100.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300

*SECNO 0.000

0.00	3 40	884.30	0.00	884.90	884.47	0.17	0.00	0.00	884.20
150	0.	146	4	0.	43.	7.	0.	0.	884.00
0 00	0.23	3.38	0 57	0.050	0.045	0.050	0 000	880.90	243.94
0.003382	0.	0.	0.	0	0	7	0.00	64.14	308.08

*SECNO 1000 000

1000.00	3.91	886.31	0.00	0.00	886.37	0.06	1.89	0.01	885.70
150.	6.	117.	28.	12.	51.	40.	2.	2.	885.50
0 15	0.47	2 27	0.69	0.050	0.045	0 050	0.000	882.40	211.60
0.001209	1000.	1000.	1000.	3	0	0	0.00	142.02	353.62

*SECNO 2000.000

2000.00	3.78	887 78	0.00	0.00	887.87	0.09	1.49	0.01	887 00
150	9	114.	27.	13.	43.	31.	4.	5.	887.00
0.27	0.69	2.64	0.87	0.050	0.045	0.050	0.000	884.00	212.93
0 001876	1000	1000	1000.	3	0	0	0.00	111.26	324.19

*SECNO 2409.000

3470 ENCROACHMENT STATIONS= 238.0 274 0 TYPE= 1 TARGET= 36.000

DOWNSTREAM OF HONEY RUN DRIVE

2409.00	4.02	888.72	0.00	0.00	888.88	0.17	0.99	0.02	887.70
150.	16.	128.	6	10.	37.	6	5.	6.	888 20
0.31	1.49	3.49	1.04	0.050	0.045	0.050	0.000	884.70	238.00
0.003248	409.	409	409.	2	0	0	0.00	36.00	274.00

CCHV= 0.300 CEHV= 1.000

*SECNO 2459.000

DOWNSTREAM FACE OF HONEY RUN BRIDGE

2459.00	4.24	888 94	0.00	0.00	889.20	0.27	0.22	0.10	889.50
150.	0	150.	0.	0	36.	0	5.	6	889.40
0 31	0.00	4.13	0.00	0.000	0.045	0.000	0.000	884 70	250.32
0.006196	50.	50.	50.	2	0	0	0.00	11.61	261.93

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.47	3.00	0.00	4.00	0.00	12.56	0.00	884.70	884.70

*SECNO 2500.000
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
894.41	889.20	0.00	90	61.	13.	8.	886.70	889.40

UPSTREAM FACE OF HONEY RUN BRIDGE

2500.00	4.98	889.68	0.00	0.00	889.03	0.15	0.63	0.00	889.50
150.	0	144.	6.	1.	45.	9.	5.	6.	889.40
0.31	0.33	3.20	0.59	0.050	0.045	0.050	0.000	884.70	241.81
0.003006	41.	41.	41.	2	0	7	0.00	64.62	306.43

CCHV= 0.100 CEHV= 0.300
*SECNO 2550.000

3470 ENCROACHMENT STATIONS= 174.0 338.0 TYPE= 1 TARGET= 164.000
UPSTREAM OF HONEY RUN DRIVE

2550.00	5.16	889.86	0.00	0.00	889.87	0.01	0.02	0.01	887.70
150.	49.	48.	53.	96.	50.	102.	5.	6.	888.20
0.33	0.52	0.95	0.52	0.050	0.050	0.050	0.000	884.70	174.00
0.000195	50.	50.	50.	2	0	0	0.00	164.00	338.00

*SECNO 4650.000

4650.00	5.47	890.17	0.00	0.00	890.17	0.00	0.30	0.00	887.70
150.	53.	40	57.	131.	54.	139.	19.	16.	888.20
1.51	0.40	0.74	0.41	0.050	0.050	0.050	0.000	884.70	133.22
0.000108	2100.	2100.	2100.	4	0	0	0.00	234.52	367.74

THIS RUN EXECUTED 5 MAR 87 7:50:19

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
**************************************************
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

100-YEAR FLOODPLAIN

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
0.000	0.00	0.00	0.00	880.90	150.00	884.30	0.00	884 47	33.82	3.38	50.58	25.79
1000.000	1000.00	0.00	0.00	882.40	150.00	886.31	0.00	886.37	12.09	2 27	103.32	43.14
2000.000	1000.00	0.00	0.00	884.00	150.00	887.78	0.00	887.97	18.76	2.64	87.03	34.63
2409.000	409.00	0.00	0 00	884.70	150.00	888.72	0.00	888.88	32.48	3.49	53.25	26.02
2459.000	50.00	0.00	0.00	884.70	150.00	888.94	0.00	889.20	61.96	4.13	36.28	19.06
2500.000	41.00	889.40	886.70	884.70	150.00	889.68	0.00	889.83	30.06	3.20	55.16	27.36
2550.000	50.00	0.00	0.00	884.70	150.00	889.86	0.00	889.97	1.95	0.95	248.37	107.32
4650.000	2100 00	0.00	0.00	884.70	150.00	890.17	0.00	890.17	1.08	0.74	323.60	144.02

100-YEAR FLOODPLAIN

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
0.000	150.00	884.30	0.00	0.00	-0.60	64.14	0.00
1000.000	150.00	886.31	0.00	2.01	0.00	142.02	1000.00
2000.000	150.00	887.78	0.00	1.47	0.00	111.26	1000.00
2409.000	150.00	888.72	0.00	0.93	0.00	36.00	409.00
2459.000	150.00	888.94	0.00	0.22	0.00	11.61	50.00
2500.000	150.00	889.68	0.00	0.74	0.00	64.62	41.00
2550.000	150.00	889.86	0.00	0.18	0.00	164.00	50.00
4650.000	150.00	890.17	0.00	0.30	0.00	234.52	2100.00

Scio Township FIS
Honey Creek Tributary No. 3
Input: HANNAS
encroached run

```
EEEEEE   EEEEEE        L        EEEEEE   EEEEEE
E        E             L        E        E
E        E             L        E        E
EEEE     EEEE          L        EEEE     EEEE
E        E             L        E        E
EEEEEE   EEEEEE        LLLLLL   EEEEEE   EEEEEE

USACOE DETROIT H800 VOS 5.1.1      PRINTER:   6

EE LEE                          25 FEB 87 12:21:29

TERMINAL: 106
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THIS RUN EXECUTED 25 FEB 87 8:52:15

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
**************************************************

C
T1      SCIO TWP. FLOOD INSURANCE STUDY
T2      HONEY CREEK TRIBUTARY NO.3
T3      100-YEAR FLOODPLAIN

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
        0       2.        0.        0.  0.003400      0.00      0.0       0.   884.900     0.000
J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
    1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
  150.000   200.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

GT      2.000   150 000   150.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
NC      0.050     0.050     0.045     0.100     0.300     0.000     0.000     0.000     0.000     0.000
ET      0.000     0.000     1.400     0 000     0.000     0.000     0.000     0.000     0.000     0.000
X1      0.000    14.000   250.000   266.000     0.000     0.000     0.000     0.000     0.000     0.000
GR    886.600     0.000   886.500    50.000   886.400   100.000   886.000   150.000   885.000   200.000
GR    884.200   250.000   880.900   253.000   880.900   262.000   884.000   266.000   884.200   300.000
GR    884.800   350.000   885.000   400.000   885.600   450.000   886.200   500.000     0.000     0.000

X1   1000.000     0.000     0.000     0 000  1000.000  1000.000  1000.000     0.000     1.500     0.000

X1   2000.000    14.000   245.000   260.000  1000.000  1000.000  1000.000     0.000     0.000     0.000
GR    890.600     0.000   890 400    50.000   890.100   100.000   890.000   130.000   888.100   200.000
GR    887.000   245.000   884.000   252.000   884.000   258.000   887.000   260.000   887.300   300.000
GR    888.300   350.000   890.000   400.000   891.000   450.000   891.700   500.000     0.000     0.000

ET      0.000     4.100     0.000   238.000   274.000     0.000     0.000     0.000     0.000     0.000
            DOWNSTREAM OF HONEY RUN DRIVE
X1   2409.000    14.000   250.000   262.000   409.000   409.000   409.000     0.000     0.000     0.000
GR    891.200     0.000   891.000    50.000   890.500   100.000   890.000   150.000   888.900   200.000
GR    887.700   250.000   884.700   253.000   884.700   258.000   888.200   262.000   888.300   300.000
GR    889.600   350.000   891.200   400.000   892.000   450.000   892.400   500.000     0.000     0.000

NC      0.050     0.050     0.045     0.300     1 000     0.000     0.000     0.000     0.000     0.000
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DOWNSTREAM FACE OF HONEY RUN BRIDGE

X1	2459.000	28.000	250.000	262.000	50.000	50.000	50.000	0.000	0.000	0.000
GR	892.800	0.000	892.600	50.000	892.100	100.000	891.500	150.000	890.600	200.000
GR	889.500	250.000	886.000	252.000	885.700	253.000	885.100	253.200	884.800	253.600
GR	884.700	254.000	884.800	254.400	885.100	254.800	885.700	255.000	885.700	257.000
GR	885.100	257.200	884.800	257.600	884.700	258.000	884.800	258.400	885.100	258.800
GR	885.700	259.000	886.000	261.500	889.400	262.000	889.500	300.000	890.900	350.000
GR	892.200	400.000	893.100	450.000	893.600	500.000	0.000	0.000	0.000	0.000
SB	0.000	2.470	3.000	0.000	4.000	0.000	12.560	0.000	884.700	884.700

UPSTREAM FACE OF HONEY RUN BRIDGE

X1	2500.000	0.000	0.000	0.000	41.000	41.000	41.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	886.700	889.400	0.000	0.000	0.000	0.000	0.000
BT	28.000	0.000	892.800	0.000	50.000	892.600	0.000	100.000	892.100	0.000
BT	150.000	891.500	0.000	200.000	890.600	0.000	250.000	889.500	0.000	252.000
BT	886.000	0.000	253.000	889.500	885.700	253.200	889.500	886.300	253.600	889.500
BT	886.600	254 000	889.500	886.700	254.400	889.500	886.600	254.800	889.400	886.300
BT	255.000	889.400	885.700	257.000	889.400	885.700	257.200	889.400	886.300	257.600
BT	889 400	886.600	258.000	889.400	886.700	258.400	889.400	886.600	258.800	889.400
BT	886.300	259.000	889.400	885.700	261.500	886.000	0.000	262.000	889.400	0.000
BT	300.000	889.500	0.000	350.000	890.900	0.000	400.000	892.200	0.000	450.000
BT	893.100	0.000	500 000	893.600	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.050	0.050	0.050	0.100	0.300	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	0.000	174.000	338.000	0.000	0.000	0.000	0.000	0.000

UPSTREAM OF HONEY RUN DRIVE

X1	2550.000	14.000	250.000	262.000	50.000	50.000	50.000	0.000	0.000	0.000
GR	891.200	0.000	891.000	50.000	890.500	100.000	890.000	150.000	888.900	200.000
GR	887.700	250.000	884.700	253.000	884.700	258.000	888.200	262.000	888.300	300.000
GR	889.600	350.000	891.200	400.000	892.000	450.000	892.400	500.000	0.000	0.000
X1	4650.000	0.000	0.000	0.000	2100.000	2100.000	2100.000	0.000	0.000	0.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV= 0.100 CEHV= 0.300

*SECNO 0.000

0.00	3.40	884.30	0.00	884.90	884.47	0.17	0.00	0.00	884.20
150.	0.	146.	4.	0.	43.	7.	0.	0.	884.00
0.00	0.23	3.38	0.57	0.050	0.045	0.050	0.000	880.90	243.94
0.003382	0.	0.	0.	0	0	7	0.00	64.14	308.08

886.6 on Honey Creek

*SECNO 1000.000

1000.00	3.91	886.31	0.00	0.00	886.37	0.06	1.89	0.01	885.70
150.	6.	117.	28.	12.	51.	40.	2.	2.	885.50
0.15	0.47	2.27	0.69	0.050	0.045	0.050	0.000	882.40	211.60
0.001209	1000.	1000.	1000.	3	0	0	0.00	142.02	353.62

*SECNO 2000.000

2000.00	3.78	887.78	0.00	0.00	887.87	0.09	1.49	0.01	887.00
150.	9.	114.	27.	13.	43.	31.	4.	5.	887.00
0.27	0.69	2.64	0.87	0.050	0.045	0.050	0.000	884.00	212.93
0.001876	1000.	1000.	1000.	3	0	0	0.00	111.26	324.19

*SECNO 2409.000

3470 ENCROACHMENT STATIONS= 238.0 274.0 TYPE= 1 TARGET= 36.000

DOWNSTREAM OF HONEY RUN DRIVE

2409.00	4.02	888.72	0.00	0.00	888.88	0.17	0.99	0.02	887.70
150.	16.	128.	6.	10.	37.	6.	5.	6.	888.20
0.31	1.49	3.49	1.04	0.050	0.045	0.050	0.000	884.70	238.00
0.003248	409.	409.	409.	2	0	0	0.00	36.00	274.00

CCHV= 0.300 CEHV= 1.000

*SECNO 2459.000

DOWNSTREAM FACE OF HONEY RUN BRIDGE

2459.00	4.24	888.94	0.00	0.00	889.20	0.27	0.22	0.10	889.50
150.	0.	150.	0.	0.	36.	0.	5.	6.	889.40
0.31	0.00	4.13	0.00	0.000	0.045	0.000	0.000	884.70	250.32
0.006196	50.	50.	50.	2	0	0	0.00	11.61	261.93

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

SPECIAL BRIDGE 285

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.47	3.00	0.00	4.00	0.00	12.56	0.00	884.70	884.70

*SECNO 2500.000
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
894.41	889.20	0.00	90.	61.	13.	8.	886.70	889.40

UPSTREAM FACE OF HONEY RUN BRIDGE

2500.00	4.98	889.68	0.00	0.00	889.83	0.15	0.63	0.00	999.50
150.	0.	144.	6.	1.	45.	9.	5.	6.	889.40
0.31	0.33	3.20	0.59	0.050	0.045	0.050	0.000	884.70	241.81
0.003006	41.	41.	41.	2	0	7	0.00	64.62	306.43

CCHV= 0.100 CEHV= 0.300
*SECNO 2550.000

3470 ENCROACHMENT STATIONS= 174.0 338.0 TYPE= 1 TARGET= 164.000
UPSTREAM OF HONEY RUN DRIVE

2550.00	5.16	889.86	0.00	0.00	889.87	0.01	0.02	0.01	887.70
150.	49.	48.	53.	96	50.	102.	5.	6.	888.20
0.33	0.52	0.95	0.52	0.050	0.050	0.050	0.000	884.70	174.00
0.000195	50.	50.	50.	2	0	0	0.00	164.00	338.00

*SECNO 4650.000

4650.00	5.47	890.17	0.00	0.00	890.17	0.00	0.30	0.00	887.70
150.	53.	40.	57.	131.	54.	139.	19.	16.	888.20
1.51	0.40	0.74	0.41	0.050	0.050	0.050	0.000	884.70	133.22
0.000108	2100.	2100.	2100.	4	0	0	0.00	234.52	367.74

THIS RUN EXECUTED 25 FEB 87 8:52:17

```
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
**************************************************

T1      SCIO TWP. FLOOD INSURANCE STUDY
T2      HONEY CREEK TRIBUTARY NO. 3
T3      100 YEAR FLOOD ENCROACHED RUN

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

       0.       3.        0.        0.  0 000000      0.00      0.0       0.    884.400     0.000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

    15.000     0.000    -1.000     0.000     0.000     0 000     0.000     0.000     0.000     0.000
```

```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

*PROF 2

CCHV=   0.100 CEHV=   0.300
*SECNO 0.000
 2800 NAT Q1=      25.79  WSEL=    884.30  ENC Q1=      26.66  WSEL=    884.40  RATIO= -0.0336
 NAT Q1=     28.   RATIOS LOB,CH,ROB=  0 0027  0.9462  0.0510  WSEL=    884.40

3470 ENCROACHMENT STATIONS=     250.0     266.0  TYPE=      4  TARGET=       0.054
     0.00      3.50   884.40     0.00   884.30   884.57     0.17      0.00      0.00   884.20
     150.        0.     150.       0.      0.       45.       0.        0.        0.    884.00
     0.00      0.00     3.34     0.00    0.000    0.045    0.000     0.000   880.90   250.00
 0.003291        0.       0.       0.        0        0        0      0.00    16.00   266.00


*SECNO 1000.000
 2800 NAT Q1=      43.14  WSEL=    886.31  ENC Q1=      43.14  WSEL=    886.41  RATIO=  0.0000
 NAT Q1=     48.   RATIOS LOB,CH,ROB=  0.0486  0.7322  0.2190  WSEL=    886.41

3470 ENCROACHMENT STATIONS=     250.0     304.8  TYPE=      4  TARGET=       0.105
  1000.00      4.02   886.42     0.00   886.31   886.49     0.07      1.90      0.01   885.70
     150.        0.     122.      28.      0.       53.       31.        1.        1.    885.50
     0.14      0.00     2.29     0.90    0.000    0.045    0.050     0.000   882.40   250.00
 0.001239      1000.    1000.    1000.        2        0        0      0.00    54.82   304.82


*SECNO 2000.000
 2800 NAT Q1=      34.63  WSEL=    887.78  ENC Q1=      34.63  WSEL=    887.88  RATIO=  0.0000
 NAT Q1=     39.   RATIOS LOB,CH,ROB=  0.0708  0.7182  0.2111  WSEL=    887.88

3470 ENCROACHMENT STATIONS=     242.0     292.7  TYPE=      4  TARGET=       0.110
  2000.00      3.90   887.90     0.00   887.78   887.99     0.09      1.49      0.01   887 00
     150.        3.     121.      27.      3.       45.       25.        3.        2.    887.00
     0.25      0.98     2.68     1.06    0.050    0 045    0.050     0.000   884.00   242.01
 0.001839      1000.    1000.    1000.        2        0        0      0.00    50.65   292.66


*SECNO 2409.000
 2800 NAT Q1=      26.32  WSEL=    888.72  ENC Q1=      26.32  WSEL=    888.82  RATIO=  0.0000
 NAT Q1=     34.   RATIOS LOB,CH,ROB=  0.1546  0.6974  0.1480  WSEL=    888.82

3470 ENCROACHMENT STATIONS=     245.3     271.5  TYPE=      4  TARGET=       0.226
          DOWNSTREAM OF HONEY RUN DRIVE
  2409.00      4.12   888.82     0.00   888.72   889.00     0.18      0.98      0.03   887.70
     150.        8.     136.       7.      5.       38.       6.        4.        2.    888.20
     0.29      1.55     3.58     1.17    0.050    0.045    0.050     0.000   884.70   245.31
 0.003275      409.     409.     409.        2        0        0      0.00    26.17   271.48
```

```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

CCHV=   0.300 CEHV=   1.000
*SECNO 2459.000
 2800 NAT Q1=      19.06  WSEL=    888.94  ENC Q1=      19.93  WSEL=    889.04  RATIO= -0.0458
 NAT Q1=     20.   RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=    889.04

3470 ENCROACHMENT STATIONS=     250.0     262.0  TYPE=      4  TARGET=       0.000
          DOWNSTREAM FACE OF HONEY RUN BRIDGE
  2459.00     4.33   889.03     0.00   888.94   889.28     0.25     0.21     0.07   889.50
     150.       0.     150.       0.       0.      37.       0.       4.       2.    889.40
     0.29     0.00     4.01     0.00    0.000    0.045    0.000    0.000   884.70   250.27
 0.005678       50.      50.      50.        1        0        0     0.00    11.68   261.95


SPECIAL BRIDGE

SB  XK        XKOR      COEF      RDLEN     DWC       DWP       BAREA     SS        ELCHU     ELCHD
     0.00      2.47      3.00      0.00      4.00      0.00     12.56      0.00    884.70    884.70

*SECNO 2500.000
 2800 NAT Q1=      27.36  WSEL=    889.68  ENC Q1=      27.48  WSEL=    889.78  RATIO= -0.0043
 NAT Q1=     30.   RATIOS LOB,CH,ROB=  0.0048  0.9312  0.0640  WSEL=    889.78
 WATER EL=CHANGE FROM NATURAL PROFILES BRIDGE

3470 ENCROACHMENT STATIONS=     250.0     262.0  TYPE=      4  TARGET=       0.069
          UPSTREAM FACE OF HONEY RUN BRIDGE
  2500.00     5.07   889.77     0.00   889.68   889.94     0.16     0.17     0.03   889.50
     150.       0.     150.       0.       0.      46.       0.       4.       2.    889.40
     0.30     0.00     3.25     0.00    0.000    0.045    0.000    0.000   884.70   250.00
 0.003136       41.      41.      41.        0        0        7     0.00    12.00   262.00


CCHV=   0.100 CEHV=   0.300
*SECNO 2550.000
 2800 NAT Q1=     107.32  WSEL=    889.86  ENC Q1=     107.32  WSEL=    889.96  RATIO=  0.0000
 NAT Q1=    119.   RATIOS LOB,CH,ROB=  0.3351  0.3012  0.3637  WSEL=    889.96

3470 ENCROACHMENT STATIONS=     200.5     319.1  TYPE=      4  TARGET=       0.096
          UPSTREAM OF HONEY RUN DRIVE
  2550.00     5.27   889.97     0.00   889.86   889.98     0.01     0.02     0.02   887.70
     150.      48.      50.      52.      83.      52.      92.       4.       2.    888.20
     0.31     0.58     0.96     0.57    0.050    0.050    0.050    0.000   884.70   200.52
 0.000195       50.      50.      50.        2        0        0     0.00   118.56   319.08
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 4650.000
2800 NAT Q1= 144.02 WSEL= 890.17 ENC Q1= 144.02 WSEL= 890.27 RATIO= 0.0000
NAT Q1= 158 RATIOS LOB, CH, ROB= 0.3601 0.2538 0.3861 WSEL= 890.27

3470 ENCROACHMENT STATIONS= 190.2 327.9 TYPE= 4 TARGET= 0.087

4650.00	5.57	890.27	0.00	890.17	890.27	0.00	0.30	0.00	887.70
150.	52.	42.	56.	111.	55.	121.	17.	9.	888.20
1.38	0.47	0.75	0.46	0.050	0.050	0.050	0.000	884.70	190.16
0.000109	2100.	2100.	2100.	0	0	0	0.00	137.71	327.87

THIS RUN EXECUTED 25 FEB 87 8:52:19

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
**************************************************
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

100-YEAR FLOODPLAIN

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
0.000	0.00	0.00	0.00	880.90	150.00	884.30	0.00	884.47	33.82	3.38	50.58	25.79
0.000	0.00	0.00	0.00	880.90	150.00	884.40	0.00	884.57	32.91	3.34	44.85	26.15
1000.000	1000.00	0.00	0.00	882.40	150.00	886.31	0.00	886.37	12.09	2.27	103.32	43.14
1000.000	1000.00	0.00	0.00	882.40	150.00	886.42	0.00	886.49	12.39	2.29	84.50	42.61
2000.000	1000.00	0.00	0.00	884.00	150.00	887.78	0.00	887.87	18.76	2.64	87.03	34.63
2000.000	1000.00	0.00	0.00	884.00	150.00	887.90	0.00	887.99	18.39	2.68	72.81	34.98
2409.000	409.00	0.00	0.00	884.70	150.00	888.72	0.00	888.88	32.48	3.49	53.25	26.32
2409.000	409.00	0.00	0.00	884.70	150.00	888.82	0.00	889.00	32.75	3.58	48.61	26.21
2459.000	50.00	0.00	0.00	884.70	150.00	888.94	0.00	889.20	61.96	4.13	36.28	19.06
2459.000	50.00	0.00	0.00	884.70	150.00	889.03	0.00	889.28	56.78	4.01	37.42	19.91
2500.000	41.00	889.40	886.70	884.70	150.00	889.68	0.00	889.83	30.06	3.20	55.16	27.36
2500.000	41.00	999999.00	0.00	884.70	150.00	889.77	0.00	889.94	31.36	3.25	46.19	26.79
2550.000	50.00	0.00	0.00	884.70	150.00	889.86	0.00	889.87	1.95	0.95	248.37	107.32
2550.000	50.00	0.00	0.00	884.70	150.00	889.97	0.00	889.98	1.95	0.96	226.86	107.55
4650.000	2100.00	0.00	0.00	884.70	150.00	890.17	0.00	890.17	1.08	0.74	323.60	144.02
4650.000	2100.00	0.00	0.00	884.70	150.00	890.27	0.00	890.27	1.09	0.75	287.36	143.91

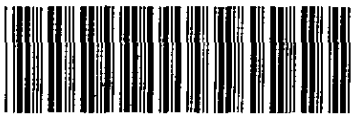
100-YEAR FLOODPLAIN

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
0.000	150.00	884.30	0.00	0.00	-0.60	64.14	0.00
0.000	150.00	884.40	0.10	0.00	0.10	16.00	0.00
1000.000	150.00	886.31	0.00	2.01	0.00	142.02	1000.00
1000.000	150.00	886.42	0.11	2.02	0.11	54.82	1000.00
2000.000	150.00	887.78	0.00	1.47	0.00	111.26	1000.00
2000.000	150.00	887 90	0.11	1.48	0.11	50.65	1000.00
2409.000	150.00	888.72	0.00	0.93	0.00	36.00	409.00
2409.000	150.00	888.82	0.10	0.92	0.10	26.17	409.00
2459.000	150.00	888.94	0.00	0.22	0.00	11.61	50.00
2459.000	150.00	889.03	0 09	0.21	0.09	11.68	50.00
2500.000	150.00	889.68	0.00	0.74	0.00	64.62	41.00
2500.000	150.00	889.77	0.09	0.74	0 09	12.00	41.00
2550.000	150.00	889.86	0.00	0.18	0.00	164.00	50.00
2550.000	150.00	889.97	0.10	0.20	0.10	118.56	50.00
4650.000	150.00	890.17	0.00	0.30	0.00	234.52	2100.00
4650.000	150.00	890.27	0.10	0.30	0.10	137.71	2100.00

FLOODWAY DATA, 100-YEAR FLOODPLAIN
PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
0.000	16.	45.	3.3	884.4	884.3	0.1
1000.000	55.	84.	1.8	886.4	886.3	0.1
2000.000	51.	73.	2.1	887.9	887.8	0.1
2409.000	26.	49.	3.1	888.8	888.7	0.1
2459.000	12.	37.	4.0	889.0	888.9	0.1
2500.000	12.	46.	3.2	889.8	889.7	0.1
2550.000	119.	227.	0.7	890.0	889.9	0.1
4650.000	138.	287.	0.5	890.3	890.2	0.1



1) COUNTY: WASHTENAW

2) STUDY NAME: VILLAGE OF MANCHESTER

3) WATERCOURSE: RIVER RAISIN

4) DOCUMENT TYPE: REPORT



HYDRAULIC ANALYSIS

for the

VILLAGE OF MANCHESTER

FLOOD INSURANCE STUDY

(River Raisin)

RECEIVED
JUN 10 1980
... MANAGEMENT

A. Historical Flooding:

No historical flood information was found for the Village. Apparently, only minor flooding problems have occurred here in the recent past.

B. Hydraulic Computations:

1) Flood Flows -

Peak frequency flood flows were determined by computer simulations techniques using the SCS TR-20 hydrology program. Discharge hydrographs (and peak flows) were generated for the River Raisin at the Manchester-Ford Dam (lower dam) and the Manchester-Mill Dam (upper dam). The hydrologic analysis has been reviewed and approved by the MDNR.

The peak flows determined were as follows:

River Raisin at Manchester-Ford Dam:

Recurrence Interval (years)	Peak* Flow (cfs)
500	1490
100	1160
50	1000
10	610

River Raisin at Manchester-Mill Dam:

Recurrence Interval (years)	Peak* Flow (cfs)
500	1360
100	1060
50	920
10	560

---

* All flows were rounded to the nearest 10 cfs.

2) Flood Stages -

Peak event flood stages were determined by computer simulation using the Corps of Engineers HEC-2: Water Surface Profiles model (Nov. 1976 version with July 1979 updates).

Backwater simulation computations were initiated at a point approximately 700 feet downstream of the Saline Road (M-52) crossing located west and about 3,900 feet downstream of the Manchester-Ford Dam. While the designated "detailed study" reach starts at a point about 1100 feet downstream of the dam (Cross Section A) the reach analyzed was extended by 1800 feet in order that the downstream effect on starting water surface elevations could be determined.

The preliminary start-up reach was represented by three regular channel-flood plain cross sections (designated A0, A1 and A2) and four (two repeated) bridge cross sections for the Saline Road (M-52) bridge. A multiple profile run was made to show that for each flood event, normal depth as computed for the first preliminary cross section by the slope-area method is within a range of starting elevations for which the resultant flood stage profiles would converge at the first designated study reach section (A). Normal depth was then used as the starting elevation for all subsequent runs.

The River Raisin-Manchester model incorporated a total of 20 regular cross sections and 4 bridge sections, located as shown on the work map. All but four of the cross sections were obtained by field survey and photogrammetric methods, as were all of the bridge sections. Four "inserted" cross sections (indicated on attached reference table) were constructed from topographic contours and prorating of stream bed elevations. Seven cross sections were repeated in the normal bridge routines.

A total of four bridges were incorporated into the model: Saline Road-east; Saline Road-west; Furnace Street; and Duncan Street. The Main Street bridge was not modeled as it was considered an integral part of the Manchester Mill Dam. All four bridges were modeled by the normal bridge routine and experience low flow control conditions for the 100-year flood flow. The two dams in the Village -- Manchester-Ford Dam and Manchester-Mill Dam -- were handled by specifying (X5 card) upstream stages based on the rating curves developed for the TR-20 hydrology analysis.

It does not appear that any of the dam rating curves were checked for the TR-20 model Hydraulics directly used this data by the X5 card

Manning roughness coefficients ("n") were horizontally varied using NH cards. Channel roughness was varied from 0.040 to 0.050 with 0.040-0.045 generally used at bridges and 0.045-0.050 for the natural channel. Overbank roughness was varied from 0.050 up to 0.120. The low values were used for overbank by relatively smooth areas such as lawns or paved areas, whereas the higher value was used for areas covered by dense trees and brush. Generally, steep channel banks were given relatively high n-values to reflect the usually overgrown conditions.

Contraction and expansion coefficients (CCHV and CEHV) were set at 0.1 and 0.3, respectively, at cross sections where transitions are relatively gradual. These values were increased to 0.3 (CCHV) and 0.6 to 0.8 (CEHV) near bridges where more abrupt transitions would occur.

Artificial encroachments (X3 card) were utilized to limit effective conveyance area where necessary. Generally, flow lines were assumed to expand at a maximum 1:3 slope (Δ top width: Δ reach length) and to contract at a 1:1 slope for the purpose of computing effective top widths.

The floodway was determined by using encroachment methods 1 and 4 using a target 100-year flood stage increase of 0.1 foot. Encroachments established to limit effective area top-widths for natural conditions were not altered for the floodway analysis. No encroachment was allowed within bridge structures.

C. Results:

As no historic high water information was available for the Village and no similar studies have been performed for the surrounding unincorporated area (Manchester Township) calibration or comparison of the model was not possible. However, the final computer output was checked for reasonableness of the results and found to be acceptable. The resultant work map showing the cross section locations and limits of the floodway and the 500 and 100-year recurrence interval flood plains was also verified.

VILLAGE OF MANCHESTER F.I.S.

CROSS SECTION REFERENCE TABLE

River Raisin:

Cross Section Identification	River Station (1000's feet above mouth)	Structure Name (where applicable)
AO*	550.30	
(AO)**	550.92	
--	550.97-550.98	Saline Road (M-52)
(A1)**	551.08	
A1	551.13	
A2	551.83	
A3	552.73	
A	553.88	
B	554.78	
(B)**	554.92	
--	554.93-.94	Saline Road (M-52)
	555.09	Manchester-Ford Dam
BB*	555.50	
C*	557.63	
D	558.37	
E	558.80	
(E)**	558.85	
--	558.87-.88	Furnace Street
(F)**	558.90	
F	558.97	
G	559.63	
H	560.89	
(H)**	560.98	
--	561.00-.01	Duncan Street
(I)**	561.03	
I	561.06	
J*	561.88	
K	562.75	
L	563.59	
M	564.57	
N	565.71	
O	566.89	
--	561.50	Manchester-Mill Dam
--	561.50	Main Street

*Inserted Cross Section
**Repeated Cross Section

MDNR Submittal Copy

```
*****************************************************************
*  WATER SURFACE PROFILES                                       *
*  VERSION OF NOVEMBER 1976                                     *
*  UPDATED JUL, 1979                                            *
*                                                               *
*  RUN DATE MON, JUL  7, 1980. 12:57 PM                         *
*****************************************************************
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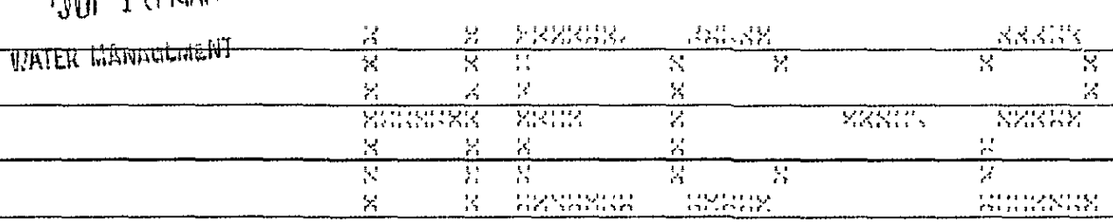
*****************************************************************
*  U.S. ARMY CORPS OF ENGINEERS                                 *
*  THE HYDROLOGIC ENGINEERING CENTER                            *
*  609 SECOND STREET, SUITE D                                   *
*  DAVIS, CALIFORNIA 95616                                      *
*  (916) 440-2105 (FTS) 448-2105                                *
*****************************************************************
```

RECEIVED
JUL 10 1980
WATER MANAGEMENT



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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED JULY 1979
  ERROR COPP -  01,02,03
  MODIFICATION -  50,51,52,53
*****************************************************

C
T1      HUD FLOOD INSURANCE STUDIES  H-3970    WILLIAMS AND WORKS   MARCH,1980
T2      VILLAGE OF MANCHESTER      RIVER RAISIN
T3      RIVER RAISIN-MANCHESTER  100-YEAR R.I. FLOOD

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FO
      0.        4.        0         0.   .000670      .00       .0        0.   860.000     .000
J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
     1 000      .000    -1.000      000       000      .000      .000      .000       000      .000
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
    38 000    42.000    43.000     1.000    34.000     3.000     4.000    27 000    28.000     9.000

    150.000      .000      .000       000       000      .000      .000       000      .000       000

NC      .080      .080      .045      .100      .300      .000      .000      .000      .000      .000
DT     5.000    610 000   1000.000   1160 000   1490.000   1160 000      000      000      .000      000
NH     5.000      .060    340.000      085    572.000      100    910.000      .050    952 000      .100
NH  1080.000      .000      .000      000      .000      .000      000      .000      000      000

     ✓ CROSS SECTION AU

X1    550 300    18.000    910.000    952 000      .000      .000      .000      .000      000      000
X3      .000      000      .000    600.000      .000      000      .000      000      000      000
GR    880.000      .000    872.000    220.000    868.000    230 000    864 000    255 000    864.000    340.000
GR    860.000    494.000    856.000    872.000    852.800    910 000    852.000    923.000    851.400    930.000
GR    850.700    938.000    851.600    946 000    852 800    952 000    856 000    963.000    860.000    994.000
GR    864 000    998 000    972.000   1042.000    980 000   1000 000      .000      .000      .000      000

      DOWNSTREAM OF SALINE ROAD BRIDGE

X1    550.870      .000      .000      .000     60.000    630 000    600.000      .000      .000      .000
X3      .000      .000      .000    860.000      .000   1000 000      .000      .000      .000      .000
NC      000       000      .000      .300       800      .000       000       000      .000      .000

      IMMEDIATELY DOWNSTREAM OF SALINE ROAD BRIDGE

X1    550.920      .000      000      .000     50.000     50.000     50.000      .000      .000      000
X3      .000      000      .000    860 000      .000    980.000      .000      000      000      000

      SALINE ROAD BRIDGE   ADJACENT DOWNSTREAM SECTION
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slope-area method

ok Hope

X1	550.970	9.000	1000.000	1063.000	50.000	50 000	50 000	.000	.000	.000
X2	.000	.000	.000	360 700	862 300	.000	.000	.000	.000	000
X3	.000	000	.000	1000 000	.000	1063 000	.000	.000	.000	.000
X4	8.000	851 500	1021.000	860.700	1021.000	860.700	1022.000	851.500	1022.000	852 000
X4	1042 000	860.700	1042.000	860.700	1043.000	852.100	1043.000	.000	000	.000
GR	862.300	1000.000	859.500	1006.000	852.900	1012.000	851.600	1020.000	851.200	1030.000
GR	851 900	1040.000	852.200	1047.000	859.500	1063.000	862.300	1063.000	.000	000

SALINE ROAD BRIDGE ADJACENT UPSTREAM SECTION

X1	550.980	.000	.000	.000	30.000	30 000	30.000	.000	.000	000
X2	.000	.000	.000	860.700	862.300	.000	.000	.000	.000	000
X3	000	000	.000	1000 000	.000	1063.000	.000	000	000	000
X4	8.700	851.500	1021.000	860.700	1021.000	860.700	1022.000	851 500	1022 000	852.000
X4	1042.000	860.700	1042.000	860.700	1043.000	852.100	1043.000	.000	.000	000
NH	5.000	.100	79.300	.050	145.300	.100	168.300	.075	365.000	100
NH	663.000	.000	.000	.000	.000	.000	000	.000	.000	.000

IMMEDIATELY UPSTREAM OF SALINE ROAD BRIDGE

X1	551.080	25 000	79.300	145.300	50.000	50.000	50.000	.000	000	000
X3	.000	.000	.000	.000	.000	260.000	.000	.000	.000	000
GR	884.500	.000	880.100	19.800	874.800	32.400	867.600	47.200	865.300	53.000
GR	860.700	64.600	857.200	70.500	853.800	74.600	853.100	79 300	852.900	80.300
GR	852.000	85.300	851.600	95.300	851.600	105.700	851.600	115.300	852.000	125.300
GR	852.200	135.300	853.100	145.300	855.800	152.600	860.300	168.300	860.500	213.000
GR	860.000	365.000	860.000	388.000	864.000	401.000	868.000	423.000	872.000	663.000

CROSS SECTION A1 -UPSTREAM OF SALINE ROAD BRIDGE

X1	551 130	.000	.000	000	50 000	50.000	50 000	.000	.000	.000
NC	.000	000	.000	.100	.300	.000	000	.000	.000	.000
NH	6.000	.100	220.100	.085	535.200	.120	540.800	.050	582.800	085
NH	628.300	.065	828.900	000	.000	.000	.000	.000	.000	000

CROSS SECTION A2

X1	551.830	35.000	540.800	582.800	540.000	750.000	750.000	.000	000	.000
GR	880.000	.000	878.800	22 800	876.900	43.600	874.300	68.000	871.200	99.700
GR	865.100	136.100	862.400	176.200	857.900	220 100	857.500	248.300	857 500	291.500
GR	857.500	342.800	857.500	391.800	857.500	428.500	857.500	468.900	857.500	506.700
GR	857.500	529.700	858.600	535.200	854.600	540.800	854.300	542.800	853.300	547.800
GR	853.100	552.800	852.300	557.800	852.000	562.800	852.100	567.800	852.400	572.800
GR	853.800	577.800	854.600	582.800	861.400	600.500	865.800	620 300	865.800	672.500
GR	873.300	702.100	876.200	745.800	878.400	806.400	878.400	856 900	880.000	888.900
NH	6.000	070	235.400	.095	300.500	.050	340.500	.095	386.000	.085
NH	518.000	.070	1171.000	000	.000	.000	.000	.000	.000	.000

CROSS SECTION A3

X1	552 730	23 000	300 500	341.500	850.000	471 000	900.000	.000	.000	000
GR	850 000	.000	879.200	38.300	873.800	181.900	872.300	235 400	868.300	253.300
GR	862.700	268.800	858.500	279.600	856.300	285.500	856.300	292.500	854.600	295.500
GR	853.700	330.500	853.700	310.500	853.200	320.500	853.900	330.500	853.700	340.500

GR	853.900	346.000	857,400	336.000	860.000	518 000	864.000	836 000	868.300	861 000
GR	872.000	908,000	876,000	945,000	880 000	1171,000	.000	.300	.000	000
NH	5 000	.075	402,900	.100	434,300	.050	480,800	.100	496.400	085
NH	928,000	000	.000	.000	.000	.000	.000	.000	.000	000
ET	5,000	000	.000	.000	.000	9 100	.000	.000	430,000	775 000

CROSS SECTION A

X1	553.980	32.000	434,900	484,800	559 000	600 000	1150,000	.000	.000	000
GR	880.000	.000	878 200	45,400	876,500	100,300	874.600	158 300	873.200	227 200
GR	869,500	303,000	865 800	360,100	864,300	402,900	859,200	429 900	857 000	434.900
GR	855,400	438,900	855,200	442,900	855,000	452,800	855,000	462 800	855,000	467 800
GR	855 200	470,800	855 900	477,900	857 000	480 800	860,700	496,400	859,600	530,900
GR	860 200	574,600	861.100	653,800	860 100	719,900	860.600	793,200	860,500	848,800
GR	860,500	886,200	862 700	891.900	867,900	899.300	870.600	903 000	876,000	913,600
GR	878.600	926,400	880,000	928 600	000	.000	.000	.000	.000	.000
NH	3 000	.085	278.600	.050	350,000	.085	544,000	000	.000	.000
ET	5,000	.000	.000	000	000	9,100	000	.000	270,000	380 000

CROSS SECTION B -DOWNSTREAM OF SALINE ROAD BRIDGE

X1	554,780	25,000	278,600	350,000	1100,000	760,000	900 000	.000	.000	000
GR	881,800	263,100	880 700	285,700	875,000	269 900	870 100	273.000	863 700	273,600
GR	859,900	274,300	859,200	274,300	856,700	278 600	857,100	288,600	857,100	298,600
GR	857,200	308,600	857,200	318,600	857,200	328,600	857,200	338,600	857,500	348,600
GR	858 700	350,000	859,500	365,000	860,000	380,000	864,000	412,000	868,000	465,000
GR	872.000	480,000	876,000	502,000	880,000	544,000	.000	.000	.000	.000
NC	.000	.000	.000	.300	.600	.000	.000	000	.000	000

IMMEDIATELY DOWNSTREAM OF SALINE ROAD BRIDGE --NEAR DAM--

X1	554,920	.000	.000	.000	130,000	130,000	130,000	.000	.000	000
X3	.000	.000	.000	278,600	.000	350 000	.000	.000	.000	000
NC	.045	.045	.045	.000	.000	.000	.000	000	000	.000

SALINE ROAD --M-52-- BRIDGE -ADJACENT DOWNSTREAM SECTION

X1	554,930	23 000	1615,000	1671,000	20,000	20 000	20,000	.000	000	000
X2	.000	.000	.000	877,600	880,100	.000	.000	.000	.000	.000
GR	886,800	1060,000	884,200	1114,000	882,300	1182,000	881,200	1229,000	881,700	1313 000
GR	881,100	1389,000	881,000	1539,000	882,400	1615,000	858,400	1615,000	858,100	1620,000
GR	858,400	1625,000	858,400	1635,000	858,400	1645,000	858,300	1655,000	858,400	1665,000
GR	852,300	1671,000	882,300	1671,000	880,100	1757 000	880,100	1827,000	880,500	1935,000
GR	880,400	2165,000	881,300	2264,000	881,300	2388,000	.000	.000	.000	.000

SALINE ROAD --M-52-- BRIDGE -ADJACENT UPSTREAM SECTION

X1	554 940	.000	.000	.000	47,000	47 000	47.000	000	000	000
X2	.000	000	.000	877,600	880 100	.000	.000	.000	.000	000
GR	5,000	560 000	920 000	1060 000	1360,000	1060,000	.000	.000	.000	.000
NC	.070	.070	.045	100	.300	.000	.000	.000	.000	.000

UPSTREAM OF MANCHESTER-FORD DAM

CROSS SECTION BB

XT	355.500	18.000	685.000	876 000	600.000	1050.000	720 000	.000	.000	.000
XS	5.000	878.600	879.500	879 900	880.200	879.900	.000	.000	.000	.000
GR	892.000	.000	888.000	64.000	884 000	185.000	880.000	672.000	877.300	685.000
GR	877 600	761.000	871.400	716.000	869.800	744.000	869.100	763.000	869 900	793.000
GR	871 800	812.000	872.200	853.000	873.400	861.000	877.300	876 000	880 000	881.000
GR	884.000	918.000	888.000	936.000	892.000	978.000	.000	.000	.000	000
NH	4.000	.075	2115.100	.085	2175.300	.045	2453.300	.085	2582.000	.000
ET	5.000	.000	.000	.000	000	1.400	000	.000	.000	.000

CROSS SECTION C

XT	557.630	51.000	2175.300	2453 300	2500 000	1400.000	2130.000	.000	.000	.000
GR	911.700	1659 400	906.400	1699 400	900.000	1780.000	896.400	1731.400	891 900	1741.100
GR	890.000	1742.600	890.400	1762.500	892.600	1770.000	897.200	1778.400	894.200	1790 900
GR	892.200	1809.700	892.500	1832.300	891.500	1877.700	892.300	1938.700	893.600	2000.000
GR	892.000	2025.200	887.800	2068.000	885.600	2115.100	877.300	2175.300	876 200	2178 300
GR	874.900	2183.300	872.000	2193.300	871.400	2203.300	870.500	2213.300	870.300	2223.300
GR	869.800	2233.300	869.800	2243.700	869.700	2253.300	869.300	2263.300	869.400	2273.300
GR	869.800	2283 300	870.200	2293.300	870.600	2303.300	870.700	2313.300	870.900	2323.300
GR	871.000	2333.300	870.800	2343.300	870 900	2353.300	871.100	2363.300	87? 000	2373.300
GR	871.700	2383.300	871.900	2393.300	872.500	2403.300	873.000	2413.300	874.100	2423.300
GR	875.500	2433.300	876.300	2433.300	877 300	2453.300	887.000	2470.100	895.700	2485.200
GR	901.600	2502.000	000	.000	.000	000	.000	000	000	.000
NH	5.000	.070	412.000	.085	427.000	.045	514.000	085	545 000	.060
NH	855.000	.000	000	.000	.000	.000	.000	.000	000	.000

CROSS SECTION D

XT	558.370	24.000	427.000	514.000	660.000	1100 000	740 000	.000	000	.000
GR	900.000	.000	896 000	48.000	892.000	128.000	888.000	204.000	884.000	412 000
GR	880.000	418.000	877.400	427.000	876.200	435.000	874.700	438 000	873.100	442.000
GR	872.500	448.000	871.200	455.000	870.600	458.000	870.100	468.000	870.800	472.000
GR	871.600	485.000	873 200	496.000	874.900	506.000	877.400	514.000	880.000	522.000
GR	884.000	545.000	888.000	650 000	892.000	845 000	900.000	855.000	.000	.000
NH	5.000	.060	436.600	.085	464.800	.045	629.700	.075	994 400	.060
NH	1549.400	.000	000	.000	.000	000	.000	.000	.000	.000

CROSS SECTION E -DOWNSTREAM OF FURNACE STREET BRIDGE

XT	558.800	59.000	464.800	629.700	390 000	280.000	430.000	.000	.000	000
GR	900.000	.000	897.300	66 300	893.200	131.300	893.000	151.100	891.900	170.400
GR	891.300	227 200	890.300	276.300	890.300	305.000	888.600	333.300	886.800	356.700
GR	884 400	400.100	882.500	436.600	880 500	441.500	878.900	450.800	877.300	464 000
GR	876 000	468.700	874.900	473.700	873.700	478.700	873.600	483 700	874.000	488.700
GR	871.700	493.700	871.100	498.700	870 500	503.700	871 500	508.700	872.200	518 700
GR	872.000	528.700	871.800	538.700	872.700	548.700	873.700	553.700	874.300	558 700
GR	874.300	568.700	874.500	573.700	874.500	583.700	874.600	593.700	875.600	603.700
GR	876.000	613.700	877.300	629.700	878.500	637.700	879.800	693.100	879.800	778.800
GR	882.800	841.200	884.600	923.100	884.700	994.400	889.600	1018.300	890.500	1023.100
GR	890.500	1050.000	890.500	1060 000	890.500	1076.000	890.600	1100 000	890 700	1131.000
GR	890.800	1157.600	889.500	1198.300	887.800	1254.500	887.800	1306.400	891 100	1342.200
GR	893 800	1414.400	898.500	1468.200	900.400	1506 000	900.100	1549.400	.000	.000
NC	.045	.045	045	.300	.600	.000	.000	.000	.000	.000

IMMEDIATELY DOWNSTREAM OF FURNACE STREET BRIDGE

X1	558.850	.000	.000	.000	50.000	50.000	50.000	.000	000	000
X3	000	.000	.000	464 800	.000	629.700	.000	.000	.000	000

FURNACE STREET BRIDGE ADJACENT DOWNSTREAM SECTION

X1	558,870	28 000	830.600	891 500	20 000	20 000	20,000	.000	.000	.000
X2	000	200	000	884.300	885,600	.000	.000	.000	.000	000
X4	4,000	873,500	885,200	884,400	885.200	884,800	886,000	874,000	886.000	.000
GR	898 200	185,000	894 900	870.000	893.700	463,000	892,500	572,000	890 500	674 000
GP	889 000	716.000	888,000	791,000	885,500	830.000	882,400	830.000	882 400	836.000
GR	874.100	836,000	873,200	840,000	872,100	850 000	871,500	850.000	871.700	870 000
GR	873,300	880.000	873,500	885.000	875,800	891 500	885.700	891,500	885.000	946 000
GP	882,200	1018,000	883,000	1047,000	881,700	1087,000	883 400	1150 000	888 900	1292.000
GR	890,000	1382,000	891,200	1458 000	892,300	1510.000	.000	.000	.000	.000

FURNACE STREET BRIDGE ADJACENT UPSTREAM SECTION

X1	558,880	.000	.000	000	16 000	16,000	16,000	.000	.000	.000
X2	.000	.000	.000	884 300	885,600	.000	.000	.000	.000	.000
X4	4,000	873 500	885,200	884,400	885,200	884,800	886,000	874,000	886,000	.000

IMMEDIATELY UPSTREAM OF FURNACE STREET BRIDGE

X1	558,900	46,000	575,200	685,200	20,000	20,000	20,000	000	000	000
X3	.000	.000	000	575,200	.000	685,200	.000	.000	.000	.000
GR	900 000	.000	898,300	22 500	896,900	64,900	894,000	103,400	893,300	151,900
GP	893,300	201,100	893,500	259 700	893,500	293,600	894,200	333 100	895,600	354,800
GP	892,900	365 000	890,300	413 200	890,300	464,400	887,800	517,400	886,700	540 400
GP	886,000	557,800	877,300	575,200	875,700	578 200	873,700	583,200	871,900	588,200
GP	870,700	593,200	871 000	598,200	871,400	603,200	871,500	608,200	871,800	613,200
GP	872,200	618,200	872,500	623,200	872,700	628,200	872,600	633,200	873,000	638,200
GR	873,400	643,200	873 900	648,200	874,700	653,200	875,200	658,200	875,500	663,200
GR	875,600	668,200	875,600	673,200	876,100	678,200	876 800	683,200	877,300	695,200
GR	880,500	710,700	882,200	777,100	882,200	832,200	886,700	881,700	893,200	934,700
GR	900,800	1000,600	000	.000	.000	.000	.000	.000	000	.000
NH	5 000	.065	557,800	.085	575,200	.045	685,200	.085	710 700	.075
NH	1000 600	.000	000	.000	000	.000	.000	000	.000	.000

CROSS SECTION F -UPSTREAM OF FURNACE STREET BRIDGE

X1	558,870	46,000	575,200	685,200	80,000	80,000	80,000	.000	.000	.000
GR	900,000	.000	898,300	22,500	896 900	64,900	894 000	103,400	893,300	151,900
GP	893,300	201,100	893,500	259,700	893,500	293,600	894,200	333,100	895,600	354 800
GR	892,900	365,000	890,300	413 200	890,300	464,400	887,800	517,400	886,700	540,400
GR	886,000	557,800	877,300	575,200	875,700	578,200	873,700	583,200	871,900	588,200
GR	870 700	593,200	871,000	598,200	871 400	603,200	871,500	608,200	871,800	613,200
GR	872 200	618,200	872,500	623,200	872,700	628,200	872,600	633,200	873,000	638,200
GR	873,400	643,200	873,900	648,200	874,700	653,200	875,200	658,200	875,500	663 200
GR	875,600	668,200	875,600	673,200	876,100	678,200	876,800	683,200	877,300	685,200
GR	880,500	710,700	882,200	777,100	882,200	832,200	886,700	881,700	893,200	934 700
GP	900 800	1000,600	,000	000	,000	,000	,000	,000	,000	000
NC	000	,000	,000	.100	,300	,000	000	,000	000	.000
NH	4,000	.060	805,000	,075	827,700	,045	1068,700	,085	1126,200	,000

CROSS SECTION G

X1	559.630	46.000	827.700	1068 700	730 000	540.000	660.000	.000	.000	000
GR	896.000	436.000	892;000	540.000	888.000	678 000	886,000	742.00u	884 000	885 00u
GR	879 800	820 600	877.500	823,900	877.300	827,700	876.400	829 700	875 500	832.700
GR	874 700	842.700	873.900	847.700	872.700	852.700	871,800	857.700	871 700	862 700
GR	870.500	867.700	870.300	872.700	870.000	877.700	872 100	888.700	873.300	882.700
GR	874.200	897.700	874 500	902.700	874.500	907 700	874.700	912 700	874 700	917.700
GR	874 900	922.700	875 100	927.700	875.100	932 700	875.000	937.700	875.500	942.700
GR	876.700	947.700	877 500	952.700	877.500	995.700	877.000	997.700	876.000	1002.700
GR	875.700	1017.700	876.000	1027.700	875.800	1037.700	876.000	1047.700	876.200	1057.700
GR	876.500	1067.700	877.300	1068 700	884.400	1079 800	887.100	1086.600	889.600	1094.200
GR	900.100	1126.200	.000	000	000	.000	.000	.000	.000	.000
NH	6 000	.120	1371.040	060	1523.400	.085	1546.500	.045	1606.500	085
NH	1650 400	065	2016.100	000	000	.000	.000	000	.000	000

CROSS SECTION H DOWNSTREAM OF DUNCAN STREET BRIDGE

X1	560.890	38.000	1546 500	1606.500	1000.000	1220.000	1150.000	.000	.000	000
GR	898 400	958.000	895.500	1015.000	896 000	1098 000	896.000	1136 000	894.500	1176 000
GR	892.800	1224.000	891.900	1264 000	890 700	1311 900	890.700	1324.000	888.900	1371.000
GR	886.500	1400.300	886.200	1458.800	886 100	1506.300	885.000	1523.400	882.300	1530.400
GR	880.100	1533.500	878.000	1538.300	877.600	1546.500	876.300	1551.500	875.400	1556.500
GR	875.200	1561.500	874.700	1566.500	874.500	1571.500	874.400	1576.500	874.600	1581 500
GR	874.700	1586.500	874.700	1591.500	875.100	1596.500	875.800	1601.500	876.500	1604.500
GR	877.600	1606.500	886.500	1650.400	887.900	1674.900	888.400	1743.900	888.500	1823.500
GR	892.200	1939.000	893.800	1965.500	897.200	2016.100	000	.000	.000	000
NC	.050	.050	.040	.300	.700	.000	.000	.000	000	.000

IMMEDIATELY DOWNSTREAM OF DUNCAN STREET BRIDGE

X1	560.980	.000	.000	000	90.000	90.000	90.000	000	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	886.000	885.900	.000

DUNCAN STREET BRIDGE -ADJACENT DOWNSTREAM SECTION

X1	561.000	24 000	1450.000	1496.000	20.000	20 000	20.000	.000	.000	.000
X2	.000	000	.000	886.000	889 200	.000	.000	.000	.000	.000
GR	900.100	478 000	898.400	678.000	895.800	939.000	898.000	989 000	894.900	1109.000
GR	890.000	1274.000	887.200	1426.000	889.200	1450.000	879.700	1450.000	877.000	1455.000
GR	876.600	1460.000	876.000	1470.000	876.000	1480.000	876.500	1490.000	876.800	1496.000
GR	889.100	1496.000	889.100	1560.000	888.800	1605.000	839.900	1699.200	896.000	1794.000
GR	889.200	1818.000	903 300	1892.000	908.300	1998.000	909.700	2076 000	.000	.000

DUNCAN STREET BRIDGE -ADJACENT UPSTREAM SECTION

X1	561.010	.000	000	.000	34.000	34.000	34.000	.000	.000	.000
X2	000	000	.000	886.000	889.200	.000	.000	.000	.000	.000

IMMEDIATELY UPSTREAM OF DUNCAN STREET BRIDGE

X1	561.030	60.000	1690.100	1730.100	20.000	20.000	20.000	.000	.000	.000
X3	10.000	000	.000	000	.000	.000	.000	887.200	889.100	000
GR	907 700	403.600	906.500	459.100	906.600	500.200	904 900	529.100	906.200	553.400

GR	905.500	601.000	902.100	678.200	900.700	748.900	900.400	788.900	899.500	870.000
GR	899.500	926.700	899.500	991.700	898.500	1066.800	898.500	1111.700	898.000	1145.600
GR	898.200	1223.200	895.300	1289.800	895.300	1312.100	908.900	1315.800	905.800	1348.100
GR	895.700	1355.700	893.500	1411.600	892.000	1471.100	892.000	1511.500	890.000	1533.000
GR	891.200	1556.900	888.400	1576.100	888.600	1600.900	886.300	1635.800	883.200	1647.300
GR	891.500	1664.000	880.500	1681.100	877.800	1690.100	876.000	1695.100	876.000	1700.100
GR	876.000	1705.100	876.200	1710.100	876.300	1715.100	876.600	1720.100	876.800	1725.100
GR	877.800	1730.100	888.000	1782.700	890.000	1852.100	891.500	1898.800	893.000	1919.000
GR	894.500	1929.300	895.100	1945.600	912.300	1947.400	914.500	1982.300	902.000	1982.300
GR	902.000	2007.200	903.400	2021.000	905.500	2040.100	908.900	2049.400	910.400	2068.600
GR	911.600	2089.700	912.800	2114.600	913.200	2152.400	913.200	2168.700	914.700	2208.000
NH	5.000	.065	1600.900	.085	1690.100	.045	1730.100	.085	1782.700	.075
NH	2208.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

CROSS SECTION I

X1	561.060	.000	.000	.000	40.000	40.000	40.000	.000	.000	.000
GT	5.000	570.000	930.000	1070.000	1370.000	1070.000	.000	.000	.000	.000
NC	.000	.000	.000	.100	.300	.000	.000	.000	.000	.000
NH	3.000	.085	42.000	.045	230.000	.120	390.000	.000	.000	.000

UPSTREAM OF MANCHESTER-MILL DAM

CROSS SECTION J

X1	561.880	14.000	42.000	230.000	920.000	720.000	820.000	.000	.000	.000
N5	5.000	892.700	893.300	893.650	894.200	893.650	.000	.000	.000	.000
GR	912.000	.000	892.000	42.000	889.800	62.000	886.000	92.000	885.800	132.000
GR	886.500	156.000	886.700	182.000	888.600	196.000	889.400	218.000	892.000	230.000
GR	900.000	250.000	904.000	266.000	908.000	308.000	912.000	390.000	.000	.000
NH	4.000	.085	74.600	.050	185.600	.060	314.000	.085	457.000	.000

CROSS SECTION K

X1	562.750	31.000	74.600	185.600	920.000	760.000	870.000	.000	.000	.000
GR	912.000	20.000	908.000	38.000	904.000	50.000	900.000	62.000	896.000	68.000
GR	892.000	73.000	891.400	74.600	890.600	77.600	889.700	82.600	888.800	87.600
GR	888.100	92.600	887.500	97.600	886.400	107.600	886.000	117.600	886.300	127.600
GR	886.600	137.600	887.400	147.600	888.400	157.600	889.000	162.600	888.900	167.600
GR	888.900	172.600	889.100	177.600	890.100	182.600	891.400	185.600	892.000	212.000
GR	896.000	314.000	900.000	338.000	904.000	365.000	908.000	380.000	912.000	395.000
GR	915.000	457.000	.000	.000	.000	.000	.000	.000	.000	.000
NH	6.000	.065	1946.400	.085	2124.200	.050	2261.200	.075	2384.000	.060
NH	2895.000	.100	3805.000	.000	.000	.000	.000	.000	.000	.000

CROSS SECTION L

Log Rob Ch 900 cc 3 Ranges

X1	563.590	45.000	2124.200	2261.200	660.000	680.000	840.000	.000	.000	.000
GR	912.000	1238.000	910.000	1315.000	908.000	1400.000	904.000	1470.000	902.600	1524.000
GR	901.000	1600.000	900.000	1640.000	897.300	1659.100	895.500	1725.800	894.800	1815.400
GR	895.000	1894.100	894.900	1946.400	892.200	2047.500	893.700	2099.700	891.500	2124.200
GR	890.500	2129.200	890.500	2139.200	890.200	2149.200	890.000	2159.200	890.100	2169.200
GR	889.700	2174.200	889.500	2179.200	888.800	2184.200	888.300	2189.200	889.000	2194.200
GR	887.700	2199.200	887.500	2204.200	887.200	2209.200	887.200	2214.200	886.800	2219.200
GR	887.000	2224.200	887.500	2229.200	888.400	2234.200	889.500	2239.200	890.500	2244.200
GR	891.000	2249.200	891.200	2254.200	891.500	2261.200	892.000	2370.000	896.000	2384.000

GR	896.000	2895.000	900.000	2110.000	900.000	3370.000	904.000	3740.000	900.000	3805.000
NH	5.000	.070	1079.400	.100	1236.500	.050	1320.500	.100	1359.500	.080
NH	2563.400	.000	.000	.000	.000	.000	.000	.000	.000	.000

CROSS SECTION M

XT	564.570	58.000	1236.500	1320.500	700.000	1120.000	980.000	.000	.000	.000
GP	912.000	.000	912.000	35.300	912.600	66.000	909.600	106.100	909.600	139.800
GR	908.200	244.500	904.400	298.500	901.600	377.700	899.800	410.900	903.900	446.400
GR	902.500	504.700	900.100	588.700	895.900	648.000	894.000	717.800	894.100	803.900
GR	892.300	864.600	892.500	900.200	892.500	1079.400	891.100	1153.100	891.600	1233.000
GR	891.500	1236.500	890.500	1237.500	890.500	1240.500	889.000	1245.500	888.300	1250.500
GR	888.100	1255.500	888.300	1260.500	886.500	1265.500	889.000	1270.500	888.900	1275.500
GR	888.800	1280.500	888.700	1285.500	883.600	1290.500	888.400	1295.500	887.900	1300.500
GR	888.200	1305.500	889.800	1310.500	890.900	1315.500	891.500	1320.500	893.700	1359.500
GR	892.600	1418.400	893.800	1489.800	894.800	1557.400	899.000	1580.600	897.500	1603.300
GR	900.100	1658.600	898.900	1720.200	896.200	1805.000	897.600	1903.800	900.600	1976.900
GR	902.400	2078.300	904.800	2155.500	903.800	2217.600	906.800	2300.700	906.100	2364.300
GR	907.600	2446.600	909.200	2524.900	912.000	2563.400	.000	.000	.000	.000
NH	5.000	.070	868.600	.085	1186.600	.050	1256.600	.100	1416.100	.075
NH	2545.700	.000	.000	.000	.000	.000	.000	.000	.000	.000

CROSS SECTION N

XT	565.710	46.000	1186.600	1256.600	780.000	840.000	1140.000	.000	.000	.000
GR	905.500	499.700	904.000	547.800	902.800	611.500	902.800	673.900	902.500	758.000
GR	902.000	814.000	902.000	868.600	898.600	932.400	893.200	959.900	891.300	1008.300
GR	892.400	1099.000	892.400	1165.200	891.700	1186.600	890.700	1187.600	890.000	1190.600
GR	889.500	1195.600	888.900	1200.600	888.700	1205.600	887.700	1210.600	887.800	1215.600
GR	887.600	1220.600	887.600	1225.600	888.100	1230.600	887.600	1235.600	888.100	1240.600
GR	888.900	1245.600	889.700	1250.600	891.500	1256.600	893.600	1270.500	892.600	1313.500
GR	892.800	1416.100	894.700	1570.900	894.800	1616.700	896.400	1684.900	895.400	1767.100
GR	897.300	1889.900	900.100	1974.000	899.200	2076.400	900.500	2167.500	902.000	2252.900
GR	902.500	2332.500	902.900	2441.300	904.300	2518.500	906.900	2527.500	909.200	2536.100
GR	911.500	2545.700	.000	.000	.000	.000	.000	.000	.000	.000
NH	5.000	.060	1190.000	.085	1505.100	.050	1553.100	.090	1795.000	.070
NH	2374.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

CROSS SECTION O

XT	566.890	25.000	1505.100	1553.100	1050.000	800.000	1180.000	.000	.000	.000
GP	912.000	670.000	908.000	992.000	904.000	1190.000	900.000	1202.000	896.000	1222.000
GP	894.000	1350.000	892.000	1480.000	891.600	1505.100	889.800	1506.100	887.400	1510.100
GP	887.000	1515.100	887.000	1520.100	887.800	1525.100	888.400	1530.100	887.700	1535.100
GP	888.300	1540.100	889.700	1545.100	889.900	1550.100	891.600	1553.100	892.000	1595.000
GP	896.000	1795.000	900.000	1935.000	904.000	2218.000	908.000	2283.000	912.000	2374.000
EJ	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

```
*PROF 1

CCHV=    .100 CEHV=    .300
1490 NH CARD USED
*SECNO 550 300
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        QLOSS    BANK ELEV
   Q         QLOB      QCH       QPOB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     COPAR     TOPWID      ENDST

3470 ENCROACHMENT STATIONS=      600.0     1080.0  TYPE=      1  TARGET=     -600.000

         CROSS SECTION A0

   550.30     7.87    858.57      .00    860 00    858.65      .08      .00       00    852.80
    1160.     322.     783.       56      469.      286.      71.       0.        0.    852.80
      .00      .69     2.74      .78     .092      .050     .100     .000    850.70    629.52
   000663       0.        0        0.        0         0        4      .00    353.37    982.89

*SECNO 550.870

3470 ENCROACHMENT STATIONS=      860.0     1000.0  TYPE=      1  TARGET=      140.000

         DOWNSTREAM OF SALINE ROAD BRIDGE

   550.87     8.18    858.88      .00      .00    858.98      .11      .33      .01    852.80
    1160.     212.     880.       68.     204.      299.      81.       6.        1.    852.80
       05     1.04     2.94      .84     .098      .050     .100     .056    850.70    860.00
   000722      60.     600.      630.        2         0        0      .00    125.31    985.31

CCHV=    .300 CEHV=    .800
*SECNO 550.920

3470 ENCROACHMENT STATIONS=      880.0      980 0  TYPE=      1  TARGET=      100.000

         IMMEDIATELY DOWNSTREAM OF SALINE ROAD BRIDGE

   550.92     8.21    858.91      .00       00    859.02      .11      .03      .01    852.80
    1160.     176.     903.       81.     146.      300.      81.       6.        1.    852.80
      .06     1.21     3.01     1.00     .080       045     .080     .055    850.70    880.00
  .000606      50.      50.       50.        0         0        0      .00    100.00    980.00

*SECNO 550.970

3265 DIVIDED FLOW
```

ELLC c 860.7 > 858.94 ⇒ low flow

```
3370 NORMAL BRIDGE,NPD=  0 MIN ELTRD=  862.30 MAX ELLC=  860.70

3470 ENCROACHMENT STATIONS=     1000.0     1063.0  TYPE=      1  TARGET=       63.000

         SALINE ROAD BRIDGE   ADJACENT DOWNSTREAM SECTION

   550.97     7.74    858.94      .00      .00    859.15       20      .05      .07    862.30
```

1160.	0.	1160.	0.	0.	320.	0.	7.	1.	100000.00
.06	.00	3.63	.00	.080	.045	.080	054	851.20	1001.01
.002245	50	50.	50.	0	0	0	.00	59.77	1061.78

*SECNO 550 980

3265 DIVIDED FLOW

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTH	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 862.30 MAX ELLC= 860.70

3470 ENCROACHMENT STATIONS= 1000 0 1063 0 TYPE= 1 TARGET= 63.000

SALINE ROAD BRIDGE ADJACENT UPSTREAM SECTION

550.98	7.82	859.02	.00	.00	859.22	.20	.07	00	862.30
1160.	0.	1160.	0.	0	324.	0.	7.	2	100000.00
07	.00	3.58	00	.080	.045	.080	.054	851.20	1000.88
.002165	30.	30.	30.	2	0	0	.00	59.07	1061.94

1490 NH CARD USED

*SECNO 551.080

3470 ENCROACHMENT STATIONS= .0 260.0 TYPE= 1 TARGET= 259.999

IMMEDIATELY UPSTREAM OF SALINE ROAD BRIDGE

551.08	7.62	859.22	.00	.00	859.29	.08	.04	.04	853.10
1160.	37.	1085.	38.	46.	478.	56.	7.	2.	853.10
.07	.80	2.27	.68	.100	.050	.100	.053	851.60	67.10
.000419	50.	50.	50.	2	0	0	.00	97.48	164.57

*SECNO 551.130

CROSS SECTION A1 -UPSTREAM OF SALINE ROAD BRIDGE

551.13	7.64	859.24	.00	00	859.31	.08	.02	00	853.10
1160.	37.	1085.	38.	46.	479.	56.	8.	2.	853.10
.08	.80	2.26	.68	.100	.050	.100	.052	851.60	67.06
.000414	50.	50.	50	2	0	0	.00	97.59	164.65

CCHV= .100 CEHV= .300

1490 NH CARD USED

*SECNO 551.830

CROSS SECTION A2

551.83	7.60	859.60	.00	.00	859.66	.06	.34	.00	854.60
1160.	454.	683.	24.	683.	277.	32.	20.	5.	854.60
19	66	2.46	.73	.086	.050	.085	.050	852.00	203.54

4.1

.000584	540.	750.	750.	2	0	0	.00	392.27	535.81

1490 NH CARD USED
*SECNO 552 730

CROSS SECTION A3

552.73	6.94	860.14	00	.00	860 19	.05	.54	00	853.70
1160.	137.	583.	440	87.	260.	405.	35.	. 11.	853.70
.32	1.57	2.24	1 09	.068	.095	.081	050	853 20	275.39
.000806	850.	900.	470.	2	0	0	.00	253.45	528.85

861.09 sta 0.0
−858.57 sta A
Δ 2.52 Δ 3630 Ft

1490 NH CARD USED
*SECNO 553,880

3265 DIVIDED FLOW

SECNO	DEPTH	CWSEL	CRIWS	WSELR	EG	HV	HL	QLOSS	BHIP ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	APOB	VOL	TWR	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORHR	TOPWID	ENDST

CROSS SECTION A

study reach section

553.88	6.09	861.98	00	00	861.26	.17	1.02	.04	857.00
1160.	22.	963.	175.	24.	264.	293.	46.	16.	857.00
.41	.90	3 65	.60	.100	050	.088	.051	855 00	419.90
.001486	550.	1150.	600.	2	0	0	.00	466.17	887.73

(what is convergence spread @ this pt?)

1490 NH CARD USED
*SECNO 554.780

CROSS SECTION B -DOWNSTREAM OF SALINE ROAD BRIDGE

554.78	5.19	862.29	.00	00	862.41	.12	1.14	.01	858.70
1160.	17.	1027.	116.	15.	355.	107.	58.	21.	858.70
.50	1.15	2.89	1.08	.025	.050	.085	.050	857 10	273 86
.001129	1100	900.	760.	2	0	0	.00	124.44	398.30

CCHV= .300 CEHV= .600
*SECNO 554.920

3470 ENCROACHMENT STATIONS= 278.6 350.0 TYPE= 1 TARGET= 71.400

IMMEDIATELY DOWNSTREAM OF SALINE ROAD BRIDGE --NEAR DAM--

554 92	5.32	862.42	.00	00	862.58	.16	.15	.02	858.70
1160	0.	1160	0	0	365.	0.	59	22.	100000.00
51	.00	3.18	.00	.080	.045	.080	.050	857 10	278.60
001215	130.	130.	130	2	0	0	.00	71.40	350.00

*SECND 554.930

10 ft

3370 NORMAL BRIDGE,NRD= 6 MIN ELTRD= 880.10 MAX ELLO= 877.60

10 ft

SALINE ROAD --M-52-- BRIDGE -ADJACENT DOWNSTREAM SECTION

554.93	4.26	862.36	.00	.00	862.78	.41	.04	.15	882.40
1160.	0.	1160.	0.	0.	225.	0.	60.	22.	882.30
.51	.00	5.16	.00	.045	.045	.045	050	858.10	1615.00
.004576	20.	20.	20.	2	0	0	.00	56.00	1671.00

*SECNO 554 940 ELLC = 877.6 > 862.36 ⇒ low Flow

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 880.10 MAX ELLC= 877.60

SALINE ROAD --M-52-- BRIDGE -ADJACENT UPSTREAM SECTION

554.94	4.52	862.62	.00	.00	862.99	.37	.19	.81	882.40
1160	0.	1160.	0	0	239	0.	60.	22	882.30
.51	.00	4.85	00	045	.045	.045	.050	858.10	1615.00
003759	47.	47.	47.	2	0	0	.00	56.00	1671.00

CCHV= .100 CEHV= .300

*SECNO 555.500 TR 20

WATER EL=XS CHPD= 879.900

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
0	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAP	TOPWID	ENDST

UPSTREAM OF MANCHESTER-FORD DAM

CROSS SECTION BB

555.50	10.80	879.90	.00	.00	879.91	.01	07	.04	877 30
1060.	2.	1057.	1.	16.	1574.	6.	75.	24.	877.30
.81	.12	.67	.12	.070	.045	.070	.049	869.10	672.48
.000025	600.	720.	1050	0	0	0	.00	208.33	880.81

1490 NH CHRD USED

*SECNO 557.630

CROSS SECTION C

557 63	10.64	879.94	.00	00	879.94	.00	.04	.00	877;30
1060.	2.	1058.	0.	25.	2302.	6.	171.	37.	877.30
2.10	.07	46	.07	.085	.045	085	.048	869.30	2156.19
.000012	2500.	2130.	1400.	2	0	0	.00	301 67	2457.86

1490 NH CHRD USED

*SECNO 558.370

CROSS SECTION D

558.37	9.83	879.93	.00	00	879.98	.05	.02	.01	877.40
1060.	3.	1054.	3.	11.	603.	10.	196.	40.	877.40
2.22	.29	1.73	.29	.085	045	.085	.048	870.10	418.24
000211	660.	740.	1100.	2	0	0	.00	103.55	521.79

1490 NH CHPD USED

*SECNO 558.800

CROSS SECTION E -DOWNSTREAM OF FURNACE STREET BRIDGE

558.80	9.52	880.02	.00	.00	880.04	.02	.05	00	877.30
1060.	7.	1039.	14.	31.	1025	84.	205.	42.	877.30
2.34	.23	1.01	.17	.085	.045	.075	.047	870.50	444.29
.000083	390.	430.	280.	2	0	0	.00	339.07	783.36

CCHV= 300 CENV= .600
*SECNO 558.850

3470 ENCROACHMENT STATIONS= 464.8 629.7 TYPE= 1 TARGET= 164.900

IMMEDIATELY DOWNSTREAM OF FURNACE STREET BRIDGE

558.85	9.52	880.02	.00	.00	880.04	.02	.00	00	877.30
1060	0.	1060	0.	0.	1026.	0.	206.	42.	100000.00
2.35	.00	1.03	.00	.045	045	.045	047	870.50	464.80
.000090	50.	50.	50.	0	0	0	.00	164.90	829.70

*SECNO 558.870

3265 DIVIDED FLOW

SECNO	DEPTH	CWSEL	CRITWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	XLOB	XCH	XROB	WTN	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	COPAP	TOPWID	ENDST

ELLC = 884.3 > 879.99 ⇒ low flow

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 885.60 MAX ELLC= 884.30

FURNACE STREET BRIDGE ADJACENT DOWNSTREAM SECTION

558.87	8.49	879.99	.00	.00	880.10	.11	.00	.06	885.50
1060.	0.	1060	0	0.	401.	0.	206.	42.	885.70
2.36	.00	2.64	.00	.045	.045	.045	047	871.50	836.00
.000720	20.	20.	20.	2	0	0	.00	54.70	891.50

*SECNO 558.880

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 885.60 MAX ELLC= 884.30

FURNACE STREET BRIDGE ADJACENT UPSTREAM SECTION

558.88	8.50	880.00	.00	.00	880.11	.11	.01	00	885.50
1060.	0.	1060.	0.	0.	401.	0.	207.	42.	885.70
2.36	.00	2.64	.00	.045	.045	.045	.047	871.50	836.00
.001041	16	16.	16	0	0	0	.00	54.70	891.50

*SECNO 558.900

3470 ENCROACHMENT STATIONS= 575.2 685.2 TYPE= 1 TARGET= 110.000

IMMEDIATELY UPSTREAM OF FURNACE STREET BRIDGE

558.90	9.41	880.11	.00	.00	880.14	.03	.01	.02	877.30
1060.	0.	1060.	0.	0	722.	0	207.	42.	100000.00
2.36	.00	1.47	.00	.045	.045	.045	.047	870.70	575.20
.000175	20.	20.	20.	2	0	0	.00	110.00	685.20

1490 NH CARD USED
+SECNO 558.970

CROSS SECTION F -UPSTREAM OF FURNACE STREET BRIDGE

558.97	9.42	880.12	.00	.00	880.16	.03	.01	.00	877.30
1060.	2.	1049.	9.	8.	724	32.	208.	43.	877.30
2.38	.26	1.45	.28	.085	.045	085	.047	870.70	569.55
.000159	80.	80.	80.	2	0	0	.00	130.15	707.70

CCHV= .100 CEHV= 300
1490 NH CARD USED
+SECNO 559.630

CROSS SECTION G

559.63	10.22	880.22	.00	.00	880.23	.01	.07	.00	877.30
1060.	5.	1054.	1.	16.	1223.	7.	223.	45.	877.30
2.59	.30	.86	.18	.075	.045	.085	.047	870.00	819.02
.000079	730.	660.	540.	1	0	0	.00	254.25	1073.27

1490 NH CARD USED
+SECNO 560.890

SECNO	DEPTH	CWSEL	CRIWS	WSELI	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWH	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CROSS SECTION H DOWNSTREAM OF DUNCAN STREET BRIDGE

560.89	5.94	880.34	.00	.00	880.50	.17	.23	.05	877.60
1060.	27.	1019.	14.	27.	307.	19.	244.	50.	877.60
2.69	1.01	3.32	.73	.085	.045	.085	047	874.40	1533.15
.001168	1000.	1150.	1220.	1	0	0	.00	86.89	1620.04

CCHV= .300 CEHV= .700
+SECNO 560.980

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA= 886.00 ELREA= 885.90

IMMEDIATELY DOWNSTREAM OF DUNCAN STREET BRIDGE

560.98	6.03	880.43	.00	.00	880.61	.18	.09	.01	877.60
1060.	0.	1060.	0.	0.	312.	0.	245.	50.	877.60
2.70	.00	3.40	.00	.050	.040	.050	.047	874.40	1545.50

000946	90	90	90.	2	0	0	.00	50.00	1606.50

*SECNO 561.000 ELLC ≤ 886 > 880.35 ⇒ low flow

3370 NORMAL BRIDGE.NRD= 0 MIN ELTRD= 889.20 MAX ELLC= 886.00

DUNCAN STREET BRIDGE -ADJACENT DOWNSTREAM SECTION

561.00	4.35	880.35	.00	.00	880.92	.57	.04	.27	889.20
1060.	0.	1060.	0.	0	175.	0.	245.	50.	889.10
2.70	.00	6.06	.00	.050	.040	.050	.047	876.00	1450.00
005136	20.	20.	20.	2	0	0	.00	46.00	1496.00

*SECNO 561.010

3320 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 889.20 MAX ELLC= 886.00

DUNCAN STREET BRIDGE -ADJACENT UPSTREAM SECTION

561.01	4.59	880.59	.00	.00	881.10	.50	.16	.02	889.20
1060.	0.	1060.	0.	0.	186.	0.	245.	50.	889.10
2.70	.00	5.69	.00	.050	.040	050	.047	876.00	1450.00
004219	34.	34.	34.	2	0	0	.00	46.00	1496.00

*SECNO 561.030

3495 OVERBANK APER ASSUMED NON-EFFECTIVE.ELLEA= 887.20 ELREA= 889.10

IMMEDIATELY UPSTREAM OF DUNCAN STREET BRIDGE

561.03	4.64	880.64	.00	.00	881.27	.62	.09	.08	877.80
1060.	0.	1060.	0.	0.	167.	0.	245.	50.	877.80
2.70	.00	6.34	.00	.050	.040	.050	.047	876.00	1690.10
004381	20.	20.	20.	2	0	0	.00	40.00	1730.10

1490 NH CARD USED

*SECNO 561.060

SECNO	DEPTH	CWSEL	CRITWS	WSELR	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAP	TOPWID	ENDST

CROSS SECTION I

561.05	5.06	881.06	.00	00	881.48	.43	.16	06	877.80
1060.	28.	993.	39.	20.	184.	27.	246.	50.	877.80
2.70	1.41	5.40	1.42	.085	.045	.085	.047	876.00	1671.48
.003541	40.	40.	40.	2	0	0	.00	75.44	1746.92

CCHV= .100 CEHV= .300

1490 NH CARD USED

*SECNO 561.880

WATER EL=N5 CARD= 893.650 TR 20

UPSTREAM OF MANCHESTER-MILL DAM

CROSS SECTION J

561.88	7.85	893.65	.00	.00	893.66	.01	.19	.04	892.00
1070.	0.	1069.	0	3.	1123	3	258.	53.	892.00
2.94	.13	.95	.09	.085	.045	.120	.046	885.80	38.53
.000077	920	820.	720.	0	0	0	00	195.59	234.13

1490 NH CARD USED
*SECNO 562.750

CROSS SECTION I

562.75	7.75	893.75	.00	00	893.78	.04	.11	.01	891.40
1070.	2.	1019.	50.	5.	(650)	93.	277.	57.	891.40
3.10	.36	1.57	.53	.085	.050	.060	.046	886.00	70.82
.000266	920.	870.	760.	2	0	0	.00	185.74	256.56

1490 NH CARD USED
*SECNO 563.590

CROSS SECTION L

563.59	7.18	893.98	.00	.00	894.01	.03	.22	00	891.50
1070.	44.	888.	138	(147.)	645.	250.	293.	61.	891.50
3.29	.30	1.38	.55	.085	.050	.075	.046	886.80	1980.78
.000274	660.	840.	680.	2	0	0	.00	396.15	2376.94

1490 NH CARD USED
*SECNO 564.570

CROSS SECTION M

564.57	6.33	894.23	.00	.00	894.25	.02	.24	00	891.50
1070.	390.	617.	63.	867.	441.	208.	320.	73.	891.50
3.55	.45	1.40	.30	.085	050	087	045	882.90	709.21
.000247	700.	980	1120	0	0	0	.00	809.91	1519.12

1490 NH CARD USED
*SECNO 565.710

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
O	OLOB	OCH	OROB	ALOB	ACH	AROB	VOL	TMA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

CROSS SECTION N

565.71	6.89	894.49	00	.00	894.52	03	.27	.00	891.70
1070.	288.	658.	124.	544.	407.	350.	349	87.	891.50
3.78	53	1.62	35	.065	.050	095	.045	887.60	953.31
.000289	780.	1140.	840.	2	0	0	.00	565.13	1518.44

1490 NH CARD USED
*SECNO 566.890

CROSS SECTION 0

566.89	7.67	894.87	.00	00	894 92	05	.39	.01	891.60
1070.	205.	675.	189.	245.	314.	325	376.	98.	891.60
3.98	59	2.15	.57	.085	.050	090	045	887.00	1294.15
.000460	1053.	1180.	800	2	0	0	.00	444.49	1738.63

River Raisin - 100 Yr
Encroached. Use 4/FIS

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*****************************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED JULY 1979
  ERROR CORR -  01,02,03
  MODIFICATION -  50,51,52,53
*****************************************************************

T1       HUD FLOOD INSURANCE STUDIES  H-3970    WILLIAMS AND WORKS   MARCH,1980
T2       VILLAGE OF MANCHESTER      RIVER RAISIN
T3       RIVER RAISIN-MANCHESTER  100-YEAR R.I. FLOOD UNDER FLOODWAY CONDITIONS

J1   ICHECK     INQ        NINV       IDIR       STRT       METPIC     HVINS      Q          WSEL       FQ

        0.         6.         0.         0.     000670        .00          0          0.    860.000       .000

J2   NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLOC      IBW        CHNIM      ITRACE

       2.000       .000     -1.000       .000       .000       .000       .000       000        .000       .000
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*PROF 2

CCHV= .100 CEHV= 300
1490 NH CHRD USED
+SECNO 550.300

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
O	QLOB	QCH	QROB	HLOB	HCH	HPOB	VOL	TWH	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITPIHL	IDC	ICONT	CORHR	TOPWID	ENDST

3470 ENCROHCHMENT STATIONS= 600 0 1080.0 TYPE= 1 TARGET= -600.000

CROSS SECTION A0

550 30	7.87	858.57	.00	860.00	858 65	.08	00	.00	852.80
1160	322.	783	56.	469.	286	71.	0	0.	852.80
00	.69	2.74	.78	.092	.050	.100	000	850.70	629.52
0006b3	0.	0.	0.	0	0	4	.60	353.37	982.89

+SECNO 550.870

3470 ENCPOHCHMENT STATIONS= 860.0 1000.0 TYPE= 1 TARGET= 140.000

DOWNSTREAM OF SALINE POHD BRIDGE

550.87	8.18	858.88	.00	.00	858.98	.11	.33	.01	852.80
1160.	212.	880.	68.	204.	299.	81.	6.	1.	852.80
.05	1 04	2 94	.84	.098	.050	.100	.056	850.70	860.00
.000722	60.	600.	630.	2	0	0	.00	125 31	985.31

CCHV= .300 CEHV= .800
+SECNO 550.920

3470 ENCROHCHMENT STHTIONS= 860.0 980.0 TYPE= 1 THRGET= 100.000

IMMEDIHTELY DOWNSTREHM OF SALINE POHD BRIDGE

550.92	8.21	858.91	.00	.00	859.02	.11	.03	.01	852.80
1160.	176.	903.	81.	146.	300.	81.	6.	1.	852.80
.06	1.21	3.01	1.00	.080	.045	.080	.055	850.70	880.00
.000606	50.	50.	50.	0	0	0	.00	100.00	980.00

+SECNO 550.970

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 862.30 MAX ELLC= 860.70

3470 ENCPOHCHMENT STATIONS= 1000 0 1063.0 TYPE= 1 THPGET= 63.000

SALINE POHD BRIDGE ADJACENT DOWNSTPEHM SECTION

556.97	7.74	858.94	.00	.00	859.15	.20	.05	.07	862.30

1160.	0.	1160.	0.	0.	320.	0	7.	1	100000.00
.06	.00	3.63	.00	.080	.045	.080	054	851.20	1001.01
.002245	50.	50.	50.	0	0	0	.00	58.77	1061.78

*SECNO 550.980

3365 DIVIDED FLOW

SECNO	DEPTH	CWSEL	CPINS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QPOB	ALOB	ACH	APOB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VPOB	XNL	XNCH	XNP	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 862.30 MAX ELLC= 860.70

3470 ENCROACHMENT STATIONS= 1000.0 1063.0 TYPE= 1 TARGET= 63.000

SALINE ROAD BRIDGE ADJACENT UPSTREAM SECTION

550.98	7.82	859.02	.00	.00	859.22	.20	.07	.00	862.30
1160.	0.	1160.	0.	0.	324.	0.	7.	2.	100000.00
.07	.00	3.58	.00	.080	.045	.080	.054	851.20	1000.88
.002165	30.	30.	30.	2	0	0	.00	59.07	1061.94

1490 NH CARD USED
*SECNO 551.080

3470 ENCROACHMENT STATIONS= .0 260.0 TYPE= 1 TARGET= 259.999

IMMEDIATELY UPSTREAM OF SALINE ROAD BRIDGE

551.08	7.62	859.22	.00	.00	859.29	.08	.04	.04	853.10
1160.	37.	1085.	38.	46.	478.	56.	7.	2.	853.10
.07	.60	2.27	.68	.100	.050	.100	.053	851.60	67.10
.000419	50.	50.	50.	2	0	0	.00	97.48	164.57

+SECNO 551.130

CROSS SECTION A1 -UPSTREAM OF SALINE ROAD BRIDGE

551.13	7.64	859.24	.00	.00	859.31	.08	.02	.00	853.10
1160.	37.	1085.	38.	46.	479.	56.	8.	2.	853.10
.08	.80	2.26	.68	.100	.050	.100	.052	851.60	67.06
.000414	50.	50.	50.	2	0	0	.00	97.59	164.65

CCHV= .100 CEHV= .300
1490 NH CARD USED
*SECNO 551.830

CROSS SECTION A2

551.83	7.60	859.60	.00	.00	859.66	.06	.34	.00	854.60
1160.	454.	683.	24.	683.	277.	33.	20.	5.	854.60
.19	66	2.46	.73	.086	.050	.085	.050	852.00	203.54

.000564	540.	750	750.	2	0	0	.00	392.27	595.81

1490 NH CARD USED
*SECNO 552.730

CROSS SECTION A3

552.73	6.94	860.14	.00	.00	860.19	.05	.54	.00	853.70
1160.	137.	583.	440.	87.	260.	405.	35.	11.	853.70
32	1.57	2.24	1.09	.068	.095	.081	050	853.20	275.39
.000806	850.	900.	470.	2	0	0	.00	253.45	528.85

1490 NH CARD USED
*SECNO 553.880

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	ALOSS	BANK ELEV
Q	ALOB	ACH	AROB	ALOB	HCH	HPOB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNP	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 430 0 775.0 TYPE= 1 TARGET= 345.000

CROSS SECTION A

553.88	6.10	861.10	.00	861.09	861.29	.19	1.06	.04	857.00
1160.	14.	991.	155.	15.	265.	236.	47.	15.	857.00
.40	.94	3.74	.66	.100	050	.088	.051	855 00	430.00
001558	550.	1150.	600.	2	0	0	.00	345.00	775.00

1490 NH CARD USED
*SECNO 554.780

3470 ENCROACHMENT STATIONS= 270.0 380 0 TYPE= 1 TARGET= 110.000

CROSS SECTION B -DOWNSTREAM OF SALINE ROAD BRIDGE

554.78	5.24	862.34	.00	862.29	862.46	.12	1.16	.01	858.70
1160.	17.	1041.	101.	15.	359	87.	57.	19.	858.70
.49	1.15	2.90	1.16	.085	050	.085	.050	857.10	273.85
.001119	1100.	900.	760.	2	0	0	.00	106.15	380.00

CCHV= .300 CEHV= .600
*SECNO 554.920

3470 ENCROACHMENT STATIONS= 278.6 350.0 TYPE= 1 TARGET= 71.400

IMMEDIATELY DOWNSTREAM OF SALINE ROAD BRIDGE --NEAR DAM--

554.92	5.38	862.48	.00	862.42	862.63	.15	.15	.02	858.70
1160	0.	1160.	0.	0.	369.	0.	58.	20.	100000.00
.50	.00	3.15	.00	.080	.045	.080	.050	857.10	278 60
.001176	130.	130.	130	2	0	0	.00	71.40	350.00

*SECNO 554.930

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 880.10 MAX ELLC= 877.60

SHLINE POND --M-52-- BRIDGE -ADJACENT DOWNSTREAM SECTION

554.93	4.32	862.42	.00	862.36	862.82	.40	.04	.15	882.40
1160.	0.	1160.	0.	0.	223.	0.	58.	20.	882.30
.51	.00	5.09	.00	.045	.045	.045	.050	858.10	1615.00
.004385	20.	20.	20.	2	0	0	.00	56.00	1671.00

+SECNO 554.940

3370 NORMAL BRIDGE.NRD= 0 MIN ELTRD= 880.10 MAY ELLC= 877.60

SHLINE ROAD --M-52-- BRIDGE -ADJACENT UPSTREAM SECTION

554.94	4.56	862.66	.00	862.62	863.02	.36	.19	.01	882.40
1160.	0.	1160.	0.	0.	242.	0.	59.	20.	882.30
.51	.00	4.80	.00	.045	.045	.045	.050	858.10	1615.00
.003644	47.	47.	47.	2	0	0	.00	56.00	1671.00

CCHV= .100 CEHV= .300
+SECNO 555.500
WATER EL=N5 CARD= 879.900

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT,RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

UPSTREAM OF MANCHESTER-FORD DAM

CROSS SECTION BB

555.50	10.80	879.90	.00	879.90	879.91	.01	.07	.04	877.30
1060.	2.	1057.	1.	16.	1574.	6.	74.	22.	877.30
.91	.12	.67	.12	.070	.045	.070	.049	869.10	672.48
.000025	600.	720.	1050.	0	0	0	.00	208.33	880.81

1490 NH CARD USED
+SECNO 557.630
2800 NAT QI= 3103.45 WSEL= 879.94 ENC QI= 3162.39 WSEL= 880.04 RATIO= -.0190
NAT QI= 3169. RATIOS LOB,CH,ROB= .0018 .9978 .0004 WSEL= 880.04

3470 ENCROACHMENT STATIONS= 2175.3 2453.3 TYPE= 4 TARGET= .002

CROSS SECTION C

557.63	10.64	879.94	.00	879.94	879.94	.00	.04	.00	877.30
1060.	0.	1060.	0.	0.	2302.	0.	169.	34.	877.30
2.09	.00	.46	.00	.085	.085	.085	.048	869.30	2175.30
.000012	2500.	2130.	1400.	0	0	0	.00	278.00	2453.30

1490 NH CARD USED
+SECNO 558.370
2800 NAT QI= 729.21 WSEL= 879.93 ENC QI= 742.42 WSEL= 880.03 RATIO= -.0181
NAT QI= 747 RATIOS LOB,CH,ROB= .0033 .9938 .0029 WSEL= 880.03

3470 ENCROACHMENT STATIONS= 427.0 514.0 TYPE= 4 TARGET= .006

CROSS SECTION D

558.37	9.83	879.93	.00	879.93	879.98	05	02	.01	877.40
1060.	0.	1060.	0.	0.	608.	0.	194.	37.	877.40
2.21	.00	1.74	.00	.085	085	.085	.048	870 10	427.00
.000222	660	740.	1100.	2	0	0	.00	87.00	514.00

1490 NH CARD USED
*SECNO 558.860
2800 NAT Q1= 1160.40 WSEL= 880.02 ENC Q1= 1167.83 WSEL= 880.12 RATIO= -.0064
NAT Q1= 1195 RATIOS LOB,CH,ROB= .0070 9771 .0159 WSEL= 880 12

3470 ENCROACHMENT STATIONS= 464.8 629.7 TYPE= 4 TARGET= .023

CROSS SECTION E -DOWNSTREAM OF FURNACE STREET BRIDGE

558.60	9.52	880.02	.00	880.02	880.04	02	.06	00	877.30
1060	0.	1060.	0.	0.	1026.	0.	202.	38.	877.30
2 33	.00	1.03	00	.085	.075	.075	.047	870 50	464.80
.000089	390.	430.	280.	2	0	0	.00	164.90	629.70

CCHV= .300 CEHV= .600
*SECNO 558.850

3470 ENCROACHMENT STATIONS= 464.8 629.7 TYPE= 1 TARGET= 164 900

INMEDIATELY DOWNSTREAM OF FURNACE STREET BRIDGE

558.85	9.53	880.03	.00	880.02	880.04	.02	00	00	877.30
1060.	0.	1060.	0.	0.	1027.	0.	203.	38.	100000.00
2.34	.00	1.03	.00	.045	.045	.045	.047	870.50	464.80
.000093	50	50.	50.	0	0	0	.00	164.90	629 70

*SECNO 558.870
2800 NAT Q1= 395.02 WSEL= 879.99 ENC Q1= 402.67 WSEL= 880.09 RATIO= -.0193
NAT Q1= 403. RATIOS LOB,CH,ROB= .0000 1.0000 .0000 WSEL= 880.09

3265 DIVIDED FLOW

SECNO	DEPTH	CWSEL	CPIMS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
0	QLOB	OCH	OROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	CNL	KNCH	CNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAP	TOPWID	ENDST

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 885.60 MAX ELLC= 884.30

3470 ENCROACHMENT STATIONS= 830.0 891.5 TYPE= 4 TARGET= .000

FURNACE STREET BRIDGE ADJACENT DOWNSTREAM SECTION

558 87	9.49	879.99	.00	879.99	880.10	.11	.00	06	885.50
1060	0.	1060.	0.	0	401.	0.	203.	38.	885.70
2.34	.00	2.64	.00	.045	.045	.045	.047	871.50	836.00
.000719	20.	20.	20.	2	0	0	.00	54.70	891.50

*SECNO 558.880

```
 2800 NAT Q1=    328.54  WSEL=    880.00  ENC Q1=    334.74  WSEL=    880.10  RATIO=  -.0189
 NAT Q1=    335.  RATIOS LOB,CH,ROB=   .0000  1.0000   .0000  WSEL=    880.10

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  885.60 MAX ELLC=  884.30

3470 ENCROACHMENT STATIONS=     830.0     891.5  TYPE=     4  TARGET=        .000

         FURNACE STREET BRIDGE ADJACENT UPSTREAM SECTION

   558.88     8.51   880.01      .00   880.00   880.12      .11      .01      .00   885.50
   1060.        0.   1060.        0.        0.   402.        0.   204.       38.   885.70
    2.34      .00     2.64      .00     .045     .045     .045     .047   871.50   836.00
 .001037      16.      16.      16.        0        0        0      .00    54.70   891.50

*SECNO 558 900

3470 ENCROACHMENT STATIONS=     575.2     685.2  TYPE=     1  TARGET=     110.000

         IMMEDIATELY  UPSTREAM OF FURNACE STREET BRIDGE

   558.90     9.41   880.11      .00   880.11   880.15      .03      .01      .02   877.30
   1060        0.   1060.        0.        0.   723.        0.   204.       38   100000.00
    2.35      .00     1.47      .00     .045     .045     .045     .047   870.70   575.20
 .000175      20.      20.      20.        2        0        0      .00   110.00   685.20

1490 NH CARD USED
+SECNO 558.970
 2800 NAT Q1=    839.82  WSEL=    880.12  ENC Q1=    852.40  WSEL=    880.22  RATIO=  -.0150
 NAT Q1=    862.  RATIOS LOB,CH,ROB=   .0021   .9891   .0089  WSEL=    880.22

3470 ENCROACHMENT STATIONS=     575.2     685.2  TYPE=     4  TARGET=        .011

         CROSS SECTION F     -UPSTREAM OF FURNACE STREET BRIDGE

   558.97     9.43   880.13      .00   880.12   880.16      .03      .01      .00   877.30
   1060.        0.   1060.        0.        0.   724.        0.   205.       39.   877.30
    2.36      .00     1.46      .00     .085     .085     .085     .047   870.70   575.20
 .000168      80.      80.      80.        0        0        0      .00   110.00   685.20

CCHV=    .100 CEHV=    .300
1490 NH CARD USED
+SECNO 559.630
 2800 NAT Q1=   1193.43  WSEL=    880.22  ENC Q1=   1223.31  WSEL=    880.32  RATIO=  -.0250
 NAT Q1=   1231.  RATIOS LOB,CH,ROB=   .0048   .9940   .0012  WSEL=    880.32

3470 ENCROACHMENT STATIONS=     827.7    1068.7  TYPE=     4  TARGET=        .006

         CROSS SECTION G

   559.63    10.22   880.22      .00   880.22   880.24      .01      .07      .00   877.30
   1060.        0.   1060.        0.        0.  1223.        0.   220.       41.   877.30
    2.57      .00      .87      .00     .075     .085     .085     .047   870.00   827.70
 .000081      730.     660.     540.        2        0        0      .00   241.00  1068.70
```

1490 NH CARD USED
*SECNO 560.890
2800 NAT 01= 310 15 WSEL= 880.34 ENC 01= 310.15 WSEL= 880.44 RATIO= .0000
NAT 01= 320. PRTIOS LOB,CH,ROB= .0268 .9597 .0135 WSEL= 880.44

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BNNK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	COPAR	TOPWID	ENDST
560.89	5.95	880.35	.00	880.34	880.53	.18	.24	.05	877.60
1060.	10.	1050	0.	11.	307.	0.	240	45.	877.60
2.67	88	3.42	.00	.085	.045	.085	.047	874.40	1542.28
.001214	1000.	1150.	1220.	2	0	0	.00	64.22	1606.50

3470 ENCROACHMENT STATIONS= 1542.3 1606.5 TYPE= 4 TARGET= .031

CROSS SECTION H DOWNSTREAM OF DUNCAN STREET BRIDGE

CCHV= .300 CEHV= .700
+SECNO 560.980
2800 NAT 01= 344.62 WSEL= 880.43 ENC 01= 355.74 WSEL= 880.53 RATIO= -.0323
NAT 01= 356. RATIOS LOB,CH,ROB= .0000 1.0000 .0000 WSEL= 880.53

3470 ENCROACHMENT STATIONS= 1546.5 1606.5 TYPE= 4 TARGET= .000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEH= 886.00 ELREH= 885.90

IMMEDIATELY DOWNSTREAM OF DUNCAN STREET BRIDGE

560.98	6.05	880.45	.00	880.43	880.63	.18	.10	.00	877.60
1060.	0.	1060.	0.	0.	313.	0.	241	45	877.60
2.67	.00	3.39	.00	.050	.040	.050	.047	874.40	1546.50
.001995	90.	90.	90.	0	0	0	.00	60.00	1606.50

+SECNO 561.000
2800 NAT 01= 147.90 WSEL= 880.35 ENC 01= 154.03 WSEL= 880.45 RATIO= -.0414
NAT 01= 154. RATIOS LOB,CH,ROB= .0000 1.0000 .0000 WSEL= 880.45

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 889.20 MAX ELLC= 886.00

3470 ENCROACHMENT STATIONS= 1450.0 1496.0 TYPE= 4 TARGET= .000

DUNCAN STREET BRIDGE -ADJACENT DOWNSTREAM SECTION

561.00	4.37	880.37	.00	880.35	880.94	.56	.04	.27	889.20
1060.	0.	1060.	0.	0.	176.	0.	241.	46.	889.10
2.68	.00	6.02	.00	.050	040	.050	.047	876.00	1450.00
.005032	20	20.	20.	2	0	0	.00	46.00	1496.00

+SECNO 561.010
2800 NAT 01= 163.20 WSEL= 880.59 ENC 01= 169.44 WSEL= 880.69 RATIO= -.0382
NAT 01= 169. RATIOS LOB,CH,ROB= .0000 1.0000 .0000 WSEL= 880.69

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 889.20 MAX ELLC= 886.00

3470 ENCROACHMENT STATIONS= 1450.0 1496.0 TYPE= 4 TARGET= .000

DUNCAN STREET BRIDGE -ADJACENT UPSTREAM SECTION

561.01	4.61	880.61	.00	880.59	881.11	50	.16	.02	889.20
1060	0	1060.	0	0.	187.	0.	241.	46.	889.10
2.68	.00	5.67	.00	.050	.040	.050	.047	876.00	1450.00
.004164	34.	34.	34.	2	0	0	.00	46.00	1496.00

*SECNO 561.030
2800 WAT Q1= 160.15 WSEL= 880.64 ENC Q1= 166.56 WSEL= 880.74 RATIO= -.0402
WAT Q1= 167. RATIOS LOB,CH,ROB= .0000 1.0000 .0000 WSEL= 880.74

3470 ENCROACHMENT STATIONS= 1690.1 1730.1 TYPE= 4 TARGET= .000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 887.20 ELREA= 889.10

IMMEDIATELY UPSTREAM OF DUNCAN STREET BRIDGE

561.03	4.67	880.67	.00	880.64	881.28	.62	.09	.08	877.80
1060	0.	1060.	0.	0.	168.	0.	241.	46.	877.80
2.68	.00	6.30	.00	.050	.040	.050	.047	876.00	1690.10
.004719	20.	20.	20.	2	0	0	.00	40.00	1730.10

1490 NH CARD USED
*SECNO 561.060
2800 WAT Q1= 178.14 WSEL= 881.06 ENC Q1= 178.14 WSEL= 881.16 RATIO= .0000
WAT Q1= 185. RATIOS LOB,CH,ROB= .0281 .9335 .0384 WSEL= 881.16

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	MTN	ELMIN	SSTH
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORHR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 1687.9 1734.3 TYPE= 4 TARGET= .037

CROSS SECTION I

561.06	5.01	881.01	.00	881.06	881.49	.49	.17	.04	877.80
1060	9.	1033.	19.	6.	182.	12.	241.	46.	877.80
2.68	1.33	5.68	1.61	.085	.045	.085	.047	876.00	1687.85
.003987	40.	40.	40.	2	0	0	.00	46.42	1734.27

CCHV= .100 CEHV= .300
1490 NH CARD USED
*SECNO 561.880
WATER EL=WS CARD= 893.650
2800 WAT Q1= 1217.37 WSEL= 893.65 ENC Q1= 1250.76 WSEL= 893.75 RATIO= -.0274
WAT Q1= 1252. RATIOS LOB,CH,ROB= .0004 .9993 .0003 WSEL= 893.75

3470 ENCROACHMENT STATIONS= 42.0 230.0 TYPE= 4 TARGET= .001

UPSTREAM OF MANCHESTER-MILL DAM

CROSS SECTION J

561.56	7.85	893.65	.00	893.65	893.66	.01	.20	.05	892.00
1070	0	1070.	0.	0.	1123.	0	254.	48.	892.00
2.92	.00	.95	.00	.085	120	.120	046	985.80	42.00
.000078	920.	820.	720.	0	0	0	.00	188.00	230.00

1490 NH CARD USED
*SECNO 562.750

2800 NAT Q1= 656.09 WSEL= 893.75 ENC Q1= 656 09 WSEL= 893.85 RATIO= .0000
NAT Q1= 677. RATIOS LOB,CH,ROB= 0019 .9486 .0496 WSEL= 893.85

3470 ENCROACHMENT STATIONS= 74.6 201.0 TYPE= 4 TARGET= 031

CROSS SECTION K

562.75	7.75	893.75	.00	893.75	893.79	.04	.12	.01	891.40
1070.	0	1048.	22	0.	650.	33.	272.	51.	891.40
3.07	00	1.61	65	085	.050	.060	046	886.00	74.60
.000289	920.	870.	760.	2	0	0	.00	126.38	200.98

1490 NH CARD USED
*SECNO 563.590

2800 NAT Q1= 646.68 WSEL= 893.98 ENC Q1= 646.68 WSEL= 894.08 RATIO= -.0000
NAT Q1= 676. RATIOS LOB,CH,ROB= .0452 .8219 .1329 WSEL= 894.08

3470 ENCROACHMENT STATIONS= 2056.4 2352.7 TYPE= 4 TARGET= .044

CROSS SECTION L

563.59	7.20	894.00	.00	893.98	894.03	.03	.24	.00	891.50
1070.	24.	924.	122.	74.	648.	210.	287.	55.	891.50
3.25	.32	1.43	.58	.085	.050	.075	.045	886.80	2056.44
.000292	660	840.	680.	2	0	0	.00	296.21	2352.65

1490 NH CARD USED
*SECNO 564.570

2800 NAT Q1= 680.53 WSEL= 894.23 ENC Q1= 680.53 WSEL= 894.33 RATIO= .0000
NAT Q1= 721. RATIOS LOB,CH,ROB= .3744 .5618 .0638 WSEL= 894.33

3470 ENCROACHMENT STATIONS= 879.0 1411.5 TYPE= 4 TARGET= 056

CROSS SECTION M

564.57	6.37	894.27	.00	894.23	894.29	.02	.26	00	891.50
1070.	386.	645.	39.	790.	444.	120.	310.	63.	891.50
3.49	.49	1.45	.32	.086	.050	.091	.045	887.90	879.05
.000263	700.	980.	1120.	2	0	0	.00	532.47	1411.52

1490 NH CARD USED
*SECNO 565.710

2800 NAT Q1= 629 46 WSEL= 894.49 ENC Q1= 629 46 WSEL= 894.59 RATIO= .0000
NAT Q1= 661. RATIOS LOB,CH,ROB= .2746 .6023 .1230 WSEL= 894.59

SECNO	DEPTH	QWSEL	QRTWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT,/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 987.4 1420.8 TYPE= 4 TARGET= .048

CROSS SECTION N

565.71	6.95	894.55	.00	894.49	894.58	.03	.28	.00	891.70
1070	279.	682.	109	500.	411.	288.	337.	72.	891.50
3.72	.56	1.66	.38	085	050	.099	.045	887.60	987.42
.000301	780.	1140.	840.	2	0	0	.00	433.38	1420.80

1490 NH CHRD USED
#SECNO 566.890
2800 HAT 01= 498.83 WSEL= 894.87 ENC 01= 498.83 WSEL= 894.97 PHTIO= -.0000
HAT 01= 522. RHTIOS LOB,CH,ROB= .1990 .6191 .1819 WSEL= 894.97

3470 ENCROACHMENT STATIONS= 1387.9 1645.3 TYPE= 4 TARGET= .044

CROSS SECTION O

566.89	7.94	894.94	.00	894.87	894.99	.05	.41	01	891.60
1070.	196.	695.	179.	285.	317.	254.	361.	80.	891.60
3.90	.69	2.19	.70	.085	.050	090	.045	887 00	1387.92
.000471	1050.	1180.	800.	2	0	0	.00	257 33	1645.25

****
HEC2 RELEASE DATED NOV 76 UPDATED JULY 1979
ERROR CORR - 01,02,03
MODIFICATION - 50,51,52,53
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

RIVER PHISIN-MANCHESTER

SUMMARY PRINTOUT

SECNO	ELMIN	Q	CWSEL	.01K	EG	TOPWID	STENCL	STENCR	WSELK
550.300	850.70	1160.00	858.57	450.54	859.65	353.37	600.00	1080.00	860.00
550.300	850.70	1160.00	858.57	450.54	859.65	353.37	600.00	1080.00	860.00
550.300	850.70	1490.00	859.17	575.39	859.26	387.60	600.00	1080.00	860.00
550.300	850.70	1000.00	858.18	386.60	858.26	313.97	600.00	1080.00	860.00
550.300	850.70	610.00	856.99	236.30	857.06	191.84	600.00	1080.00	860.00
550.870	850.70	1160.00	858.88	431.81	859.98	125.31	860.00	1000.00	.00
550.870	850.70	1160.00	858.88	431.81	859.98	125.31	860.00	1000.00	.00
550.870	850.70	1490.00	859.48	507.76	859.62	130.00	860.00	1000.00	.00
550.870	850.70	1000.00	858.50	387.16	858.59	122.37	860.00	1000.00	.00
550.870	850.70	610.00	857.31	262.82	857.37	113.16	860.00	1000.00	.00
550.920	850.70	1160.00	858.91	471.39	859.02	100.00	880.00	980.00	.00
550.920	850.70	1160.00	858.91	471.39	859.02	100.00	880.00	980.00	.00
550.920	850.70	1490.00	859.52	550.03	859.67	100.00	880.00	980.00	.00
550.920	850.70	1000.00	858.53	424.77	858.63	100.00	880.00	980.00	.00
550.920	850.70	610.00	857.33	294.09	857.40	93.39	880.00	980.00	.00
550.970	851.20	1160.00	858.94	244.84	859.15	58.77	1000.00	1063.00	.00
550.970	851.20	1160.00	858.94	244.84	859.15	58.77	1000.00	1063.00	.00
550.970	851.20	1490.00	859.56	283.38	859.83	61.00	1000.00	1063.00	.00
550.970	851.20	1000.00	858.56	222.41	858.74	57.22	1000.00	1063.00	.00
550.970	851.20	610.00	857.36	159.28	857.47	52.41	1000.00	1063.00	.00
550.980	851.20	1160.00	859.02	249.30	859.22	59.07	1000.00	1063.00	.00
550.980	851.20	1160.00	859.02	249.30	859.22	59.07	1000.00	1063.00	.00
550.980	851.20	1490.00	859.65	289.75	859.92	61.00	1000.00	1063.00	.00
550.980	851.20	1000.00	858.63	226.24	858.80	57.49	1000.00	1063.00	.00
550.980	851.20	610.00	857.41	161.20	857.51	52.57	1000.00	1063.00	.00
551.080	851.60	1160.00	859.22	566.85	859.29	97.48	.00	260.00	.00
551.080	851.60	1160.00	859.22	566.85	859.29	97.48	.00	260.00	.00
551.080	851.60	1490.00	859.91	665.09	860.01	101.03	.00	260.00	.00
551.080	851.60	1000.00	858.80	511.10	858.87	95.34	.00	260.00	.00
551.080	851.60	610.00	857.52	356.43	857.56	88.78	.00	260.00	.00

SECND	ELMIN	D	CWSEL	,01%	EG	TOPWID	STENCL	STENCR	WSELP
551 130	851,60	1160 00	859 24	569.79	859 31	97,59	00	,00	,00
551,130	851,60	1160,00	859 24	569,79	859 31	97,59	,00	,00	,00
551,130	851,60	1490,00	859.94	668,90	560,04	101,16	,00	,00	,00
551,130	851.60	1000,00	858 82	513,66	858,88	95.44	,00	00	,00
551,130	851,60	610,00	857 54	358,08	857.58	88 86	,00	,00	00
551,830	852,00	1160,00	859,60	488,32	859,66	392 27	,00	,00	,00
551,830	852,00	1160,00	859,60	488,32	859,66	392 27	,00	,00	,00
551,830	852,00	1490 00	860,33	674,95	860,38	401,36	,00	,00	,00
551,830	852,00	1000,00	859,17	393,78	859,23	386 93	,00	,00	,00
551,830	852,00	610,00	857,86	186,11	857,97	363,61	,00	,00	,00
552,730	853,20	1160,00	860,14	408,64	860,19	253,45	,00	,00	00
552,730	853,20	1160,00	860,14	408,64	860,19	253,45	,00	,00	,00
552,730	853,20	1490,00	860,81	532,86	860,86	308,88	,00	,00	,00
552,730	853,20	1000,00	859,77	347,65	859,82	230,16	,00	,00	,00
552 730	853.20	610,00	858,68	222,78	858,72	171,78	,00	,00	,00
553,880	855,00	1160,00	861,09	300,97	861,26	466,17	,00	,00	,00
553,880	855,00	1160,00	861,10	293,88	861,29	345,00	430,00	775,00	861,09
553,880	855,00	1490,00	861,66	411,67	861,81	472,30	,00	,00	,00
553,880	855,00	1000,00	860,77	255,43	860 95	416,20	,00	,00	,00
553 880	855,00	610,00	859,66	159,49	859 80	71,03	,00	,00	,00
554 780	857,10	1160 00	862,29	345,30	862,41	124 44	,00	,00	,00
554,780	857,10	1160,00	862,34	346,73	862 46	106,15	270,00	380,00	862,29
554,780	857,10	1490,00	862,80	413,15	862,95	128,63	,00	,00	00
554,780	857,10	1000,00	861,98	307,18	862,08	121,93	,00	,00	,00
554,780	857,10	610,00	860,85	185,30	860,93	112,69	,00	,00	,00
554,920	857,10	1160,00	862,42	332,85	862,58	71,40	278,60	350,00	,00
554,920	857,10	1160,00	862,48	338,30	862,63	71 40	278,60	350,00	862,42
554 920	857,10	1490,00	862 95	389,67	863,17	71,40	278,60	350,00	,00
554,920	857,10	1000,00	862,11	300,89	862,24	71,40	278,60	350,00	,00
554,920	857,10	610,00	860,98	196,26	861,07	71,40	278,60	350,00	,00
554,930	858,10	1160,00	862,36	171,48	862,78	56,00	,00	,00	,00
554,930	858,10	1160,00	862,42	175,17	862,82	56,00	,00	,00	862,36
554 930	858,10	1490,00	862,87	207,10	863,41	56,00	,00	,00	,00
554,930	858,10	1000,00	862,06	151,13	862 42	56,00	,00	,00	,00
554,930	858,10	610,00	860,94	85,36	861,22	56,00	,00	,00	,00
554,940	858,10	1160,00	862,62	189,21	862,99	56,00	,00	,00	,00
554,940	858,10	1160,00	862,66	192,17	863,02	56,00	,00	,00	862,62
554,940	858,10	1490,00	863,18	229,47	863 65	56,00	,00	,00	,00
554,940	858,10	1000,00	862,30	167,06	862,62	56,00	,00	,00	,00
554,940	858,10	610,00	861,21	99,96	861,44	56,00	,00	,00	00
555,500	869,10	1060,00	879 90	2116,53	879,91	208,33	,00	,00	,00
555,500	869 10	1060,00	879,90	2116,53	879,91	208,33	,00	,00	879,90
555,500	869,10	1360,00	880,29	2288,89	880,30	246,99	,00	,00	,00
555 500	869,10	920,00	879,50	1946,55	879,51	205,67	,00	,00	,00
555,500	869,10	560,00	878,60	1586,60	878,60	199,67	,00	,00	,00

SECND	ELMIN	Ü	D'SEL	.01K	EG	TOFWID	STENCL	STENCR	MSELK
557 630	869,30	1060,00	879,94	3103.45	879,94	301,67	,00	,00	,00
557 630	869,30	1060 00	879.94	3078 73	879.94	278,00	2175.30	2453.30	879,94
557,630	869,30	1360,00	880,35	3362,26	880 35	305,30	,00	,00	,00
557 630	869,30	920,00	879,52	2853.38	879,54	298,04	,00	,00	,00
557.630	869.30	560.00	878,62	2320,51	878 62	289,83	,00	,00	,00
558 370	870,10	1060.00	879 93	729,21	879 98	103,55	,00	,00	00
558,370	870,10	1060.00	879.93	711.62	879,98	87.00	427,00	514,00	879,93
558.370	870,10	1360.00	880,33	802 29	880,40	106,41	00	,00	,00
558 370	870,10	920,00	879 53	661.08	879,57	100,98	00	,00	,00
558,370	870,10	560 00	878,62	514,44	878.64	95,02	00	,00	,00
558 800	870,50	1060,00	880,02	1160.40	880 04	339.07	00	,00	.00
558,800	870,50	1060,00	880,02	1125.96	880,04	164,90	464,80	629,70	880,02
558,800	870 50	1360,00	880,45	1317.37	880,48	350,64	,00	,00	,00
558 800	870,50	920,00	879,61	1026,95	879,62	238,25	,00	,00	,00
558.800	870,50	560,00	878,66	757,02	878.67	191,85	,00	,00	,00
558,850	870,50	1060,00	880,02	1115,20	880,04	164,90	464,80	629,70	,00
558.850	870,50	1060,00	880,02	1116,29	880 04	164,90	464,80	629,70	880,02
558 850	870,50	1360,00	880 46	1244,61	880,48	164,90	464,80	629,70	,00
558,850	870,50	920,00	879.61	998,22	879,63	164,90	464,80	629,70	,00
558,850	870,50	560 00	878,67	747,84	878,67	164,90	464,80	629,70	,00
558,870	871,50	1060,00	879,99	395,02	880,10	54,70	,00	,00	,00
558,870	871,50	1060,00	879,99	395,33	880,10	54,70	830 00	891,50	879 99
558 870	871,50	1360,00	880,41	427,28	880,57	54 70	,00	,00	,00
558,870	871,50	920,00	879,59	364,37	879,68	54,70	,00	,00	,00
558,870	871,50	560,00	878,65	296,71	878,70	54,70	,00	,00	,00
558,880	871,50	1060,00	880,00	328,54	880,11	54,70	,00	,00	,00
558,880	871,50	1060,00	880,01	329,19	880,12	54,70	830,00	891,50	880,00
558,880	871,50	1360,00	880,43	353,26	880,59	54,70	,00	,00	,00
558,880	871,50	920,00	879 60	305,26	879,69	54,70	,00	,00	,00
558,880	871,50	560,00	878,66	252,68	878,71	54,70	00	,00	,00
558 900	870,70	1060,00	880,11	801,44	880,14	110 00	575,20	685,20	,00
558,900	870,70	1060,00	880,11	802 18	880,15	110,00	575,20	685,20	880,11
558,900	870,70	1360,00	880,58	895,65	880,63	110,00	575,20	685,20	,00
558 900	870,70	920,00	879,69	720,58	879,71	110,00	575,20	685,20	,00
558,900	870,70	560,00	878,70	545,30	878,72	110,00	575,20	685,20	,00
558,970	870,70	1060,00	880,12	839,82	880,16	138,15	,00	,00	,00
558 970	870,70	1060,00	880,13	817,91	880,16	110,00	575,20	685,20	880,12
558,970	870,70	1360,00	880,60	948,20	880,65	146,19	,00	,00	,00
558,970	870,70	920,00	879,70	749,25	879,73	133,91	,00	,00	,00
558,970	870,70	560,00	878 71	559,69	878,73	124,16	00	,00	,00
559,630	870,00	1060 00	880,22	1193.43	880,23	254.25	,00	,00	,00
559,630	870,00	1060,00	880,22	1177,22	880,24	241,00	827,70	1068,70	880,22
559,630	870 00	1360 00	880,73	1401,98	880,74	256,95	00	,00	,00
559 630	870,00	920,00	879,79	1028.44	879,80	251,99	,00	,00	,00
559,630	870,00	560,00	878,78	680,26	878,78	248,95	,00	,00	,00

	SECNO	ELMIN	Q	CWSEL	.01K	EG	TOPWID	STENCL	STENCP	WSELK
	560.890	874.40	1060.00	880.34	210.15	880.50	86.89	.00	.00	.00
	560.890	874.40	1060.00	880.35	292.41	880.53	64.22	1542.28	1606.50	880.34
	560.890	874.40	1360.00	880.86	766.95	881.07	90.12	.00	.00	.00
	560.890	874.40	920.00	879.92	266.02	880.07	84.02	.00	.00	.00
	560.890	874.40	560.00	878.91	174.51	879.01	76.75	.00	.00	.00
	560.980	874.40	1060.00	880.43	344.62	880.61	60.00	.00	.00	.00
	560.980	874.40	1060.00	880.45	335.98	880.63	60.00	1546.50	1606.50	880.43
	560.980	874.40	1360.00	880.96	405.24	881.20	60.00	.00	.00	.00
	560.980	874.40	920.00	880.01	300.03	880.17	60.00	.00	.00	.00
	560.980	874.40	560.00	878.99	200.78	879.09	60.00	.00	.00	.00
	561.000	876.00	1060.00	880.35	147.90	880.92	46.00	.00	.00	.00
	561.000	876.00	1060.00	880.37	149.42	880.94	46.00	1450.00	1496.00	880.35
	561.000	876.00	1360.00	880.86	179.88	881.59	46.00	.00	.00	.00
	561.000	876.00	920.00	879.94	123.59	880.48	46.00	.00	.00	.00
	561.000	876.00	560.00	878.93	72.15	879.33	44.58	.00	.00	.00
	561.010	876.00	1060.00	880.59	163.20	881.10	46.00	.00	.00	.00
	561.010	876.00	1060.00	880.61	164.27	881.11	46.00	1450.00	1496.00	880.59
	561.010	876.00	1360.00	881.15	199.35	881.79	46.00	.00	.00	.00
	561.010	876.00	920.00	880.20	139.25	880.67	46.00	.00	.00	.00
	561.010	876.00	560.00	879.21	85.00	879.53	45.09	.00	.00	.00
	561.030	876.00	1060.00	880.64	160.15	881.27	40.00	.00	.00	.00
	561.030	876.00	1060.00	880.67	154.30	881.28	40.00	1690.10	1730.10	880.64
	561.030	876.00	1360.00	881.20	196.83	882.00	40.00	.00	.00	.00
	561.030	876.00	920.00	880.26	136.46	880.83	40.00	.00	.00	.00
	561.030	876.00	560.00	879.28	82.74	879.66	40.00	.00	.00	.00
	561.060	876.00	1060.00	881.06	178.14	881.48	75.44	.00	.00	.00
	561.060	876.00	1060.00	881.01	167.88	881.49	46.42	1687.85	1734.27	881.06
	561.060	876.00	1360.00	881.77	233.06	882.25	89.33	.00	.00	.00
	561.060	876.00	920.00	880.64	149.86	881.05	66.12	.00	.00	.00
	561.060	876.00	560.00	879.56	98.61	879.86	54.98	.00	.00	.00
*	561.880	885.80	1070.00	893.65	1217.37	893.66	195.59	.00	.00	.00
*	561.880	885.80	1070.00	893.65	1209.57	893.66	188.00	42.00	230.00	893.65
*	561.880	885.80	1370.00	894.20	1410.72	894.22	198.12	.00	.00	.00
*	561.880	885.80	930.00	893.30	1100.49	893.31	193.98	.00	.00	.00
*	561.880	885.80	570.00	892.70	911.49	892.71	191.22	.00	.00	.00
	562.750	886.00	1070.00	893.75	656.09	893.78	185.74	.00	.00	.00
	562.750	886.00	1070.00	893.75	629.19	893.79	126.38	74.60	200.98	893.75
	562.750	886.00	1370.00	894.32	781.89	894.36	200.96	.00	.00	.00
	562.750	886.00	930.00	893.39	583.84	893.42	176.22	.00	.00	.00
	562.750	886.00	570.00	892.75	466.16	892.77	159.10	.00	.00	.00
	563.590	886.80	1070.00	893.98	646.68	894.01	396.15	.00	.00	.00
	563.590	886.80	1070.00	894.00	625.88	894.03	296.21	2056.44	2352.65	893.98
	563.590	886.80	1370.00	894.57	831.94	894.60	420.33	.00	.00	.00
	563.590	886.80	930.00	893.62	547.19	893.65	377.97	.00	.00	.00
	563.590	886.80	570.00	892.90	378.46	892.92	315.44	.00	.00	.00

SECNO	ELMIN	Q	CWSEL	.01K	EG	TOPWID	STENCL	STENCR	WSELK
564.570	887.90	1070.00	894.23	680.53	894.25	809.91	.00	.00	.00
564.570	887.90	1070.00	894.27	659.19	894.29	532.47	879.05	1411.52	894.23
564.570	887.90	1370.00	894.81	936.49	894.82	869.31	.00	.00	.00
564.570	887.90	930.00	893.90	554.17	893.92	682.23	.00	.00	.00
564.570	887.90	570.00	893.14	344.57	893.16	563.50	.00	.00	.00
565.710	887.60	1070.00	894.49	629.46	894.52	565.13	.00	.00	.00
565.710	887.60	1070.00	894.55	616.54	894.58	433.38	987.42	1420.80	894.49
565.710	887.60	1370.00	895.04	813.79	895.07	675.96	.00	.00	.00
565.710	887.60	930.00	894.19	538.54	894.21	544.98	.00	.00	.00
565.710	887.60	570.00	893.42	351.36	893.44	486.04	.00	.00	.00
566.890	887.00	1070.00	894.87	498.83	894.92	444.49	.00	.00	00
566.890	887.00	1070.00	894.94	433.25	894.99	257.33	1387.92	1645.25	894.87
566.890	887.00	1370.00	895.41	631.43	895.46	505.90	.00	.00	.00
566.890	887.00	930.00	894.58	435.06	894.62	410.59	.00	.00	.00
566.890	887.00	570.00	893.77	294.12	893.80	318.01	.00	00	.00

RIVER RAISIN-MANCHESTER

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
550.300	.00	.00	.00	850.70	1160.00	858.57	.00	858.65	6.63	2.74	836.61	450.54
550.300	.00	.00	.00	850.70	1160.00	858.57	.00	858.65	6.63	2.74	826.61	450.54
550.300	00	.00	.00	850.70	1490.00	859.17	00	859.26	6 71	2.92	1056 57	575.39
550.300	.00	.00	.00	850.70	1000.00	858.18	.00	858.26	6.69	2.65	698.04	386.60
550 300	.00	.00	.00	850.70	610.00	856.99	.00	857.06	6.66	2.30	395.98	236.30
550.870	600.00	.00	.00	850 70	1160.00	858.88	.00	858.98	7.22	2.94	584 35	431.81
550 870	600.00	.00	.00	850.70	1160.00	858.88	.00	858.98	7.22	2.94	584.35	431.81
550.870	600.00	.00	.00	850.70	1490.00	859.48	.00	859.62	8.61	3.39	661.58	507.76
550 870	600.00	.00	.00	850.70	1000 00	858.50	.00	858.59	6.67	2.73	537.30	387.16
550.870	600.00	.00	.00	850.70	610.00	857.31	.00	857.37	5.39	2.15	397 36	262.82
550.920	50.00	.00	.00	850.70	1160.00	858.91	.00	859.02	6.06	3 01	526.49	471.39
550.920	50.00	.00	.00	850.70	1160.00	858.91	.00	859.02	6.06	3.01	526.49	471.39
550.920	50.00	.00	.00	850.70	1490.00	859.52	.00	859.67	7.34	3.49	587.36	550.03
550.920	50.00	.00	.00	850.70	1000.00	858.53	.00	858.63	5.54	2.77	448.37	424.77
550.920	50.00	.00	.00	850.70	610.00	857 33	.00	857.40	4.30	2.15	372 03	294.03
550.970	50.00	862.30	860.70	851.20	1160.00	858.94	.00	859.15	22 45	3.63	319.81	244 84
550.970	50.00	862.30	860.70	851.20	1160.00	858.94	.00	859.15	22.45	3.63	319.81	244.84
550.970	50.00	862.30	860.70	851.20	1490.00	859.56	.00	859.83	27.65	4.18	356.84	283.38
550.970	50.00	862.30	860.70	851.20	1000.00	858.56	.00	858.74	20.22	3.36	297.49	222.41
550.970	50.00	862.30	860.70	851.20	610.00	857.36	.00	857.47	14.67	2.63	231.72	159.28
550.980	30.00	862.30	860.70	851.20	1160.00	859.02	.00	859.22	21.65	3.58	324.19	249.30
550 980	30.00	862.30	860.70	851.20	1160.00	859.02	.00	859.22	21.65	3.58	324.19	249.30
550.980	30.00	862.30	860.70	851.20	1490.00	859.65	.00	859.92	26.44	4.11	362.46	289.75
550.980	30.00	862.30	860.70	851.20	1000.00	858.63	.00	858.80	19.54	3.32	301.34	226.24
550.980	30.00	862.30	860.70	851.20	610.00	857.41	.00	857.51	14.32	2.61	233.79	161.20
551.080	50.00	.00	.00	851.60	1160.00	859.22	.00	859.29	4.19	2.27	579.34	566.85
551.080	50.00	.00	.00	851.60	1160.00	859.22	.00	859.29	4.19	2.27	579.34	566.85
551.080	50.00	.00	.00	851 60	1490.00	859.91	.00	860.01	5.02	2.64	648.03	665.09
551.080	50.00	.00	.00	851.60	1000.00	858.80	.00	858.87	3.83	2 09	539.14	511.10
551.080	50.00	.00	.00	851.60	610.00	857.52	.00	857.56	2.93	1.59	421.49	356.43
551.130	50.00	.00	.00	851.60	1160.00	859.24	.00	859.31	4.14	2.26	581.43	569.79
551.130	50.00	.00	.00	851.60	1160.00	859.24	.00	859.31	4.14	2.26	581.43	569.79
551.130	50.00	.00	.00	851.60	1490.00	859.94	.00	860.04	4 96	2.63	650.65	668.90
551.130	50.00	.00	.00	851.60	1000.00	858.82	.00	858.88	3.79	2.08	541.01	513.66
551.130	50.00	.00	.00	851.60	610.00	857.54	.00	857.58	2.90	1.59	422.81	358.08
551.830	750.00	.00	.00	852.00	1160.00	859.60	.00	859.66	5.64	2 46	992.50	488.32
551.830	750.00	.00	00	852.00	1160.00	859.60	.00	859.66	5.64	2.46	992.50	488.32
551.830	750.00	.00	.00	852.00	1490.00	860 33	.00	860.38	4.87	2.46	1284.34	674.93
551.830	750.00	.00	.00	852.00	1000.00	859.17	.00	859.23	6.45	2.52	824.12	393.78
551.830	750.00	.00	.00	852.00	610.00	857.86	.00	857.97	10.74	2.77	331.36	186.11
552.730	900.00	00	.00	853.20	1160.00	860.14	.00	860.19	8.06	2.24	752.25	408.64
552.730	900.00	.00	00	853.20	1160.00	860.14	.00	860.19	8.06	2.24	752.25	408.64
552.730	900.00	.00	.00	853.20	1490.00	860.81	.00	860.86	7.82	2.35	942.15	532.86
552.730	900.00	.00	00	853.20	1000.00	859.77	.00	859.82	8.27	2.18	664.85	347 65

552.739	900.00	.00	.00	853.20	610.00	858.68	.00	858.72	7.50	1.83	444.90	222.78

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	WCH	AREA	.01Y
	557.880	1150.00	.00	.00	855.00	1160.00	861.09	.00	861.26	14.86	3.65	581 49	300 97
	553.880	1150.00	.00	.00	855.00	1160.00	861.10	.00	861.29	15.58	3.74	515.31	293.88
	553,880	1150.00	.00	00	855.00	1490 00	861,66	.00	861.81	13.10	3,65	848,09	411.67
	553 880	1150 00	.00	.00	855.00	1000.00	860.77	.00	860 95	15.33	3.57	445.39	255.43
	553.880	1150.00	.00	00	855.00	610.00	859.66	.00	859.80	14.63	2 99	222.01	159.49
	554 780	900.00	.00	.00	857.10	1160.00	862.29	.00	862.41	11 29	2.89	476.74	345.30
	554.780	900.00	.00	.00	857.10	1160.00	862.34	.00	862 46	11.19	2 90	461.49	346 73
	554.780	900.00	.00	.00	857.10	1490.00	862.80	.00	862.95	13.01	3.32	541 38	413.15
	554 780	900.00	00	.00	857.10	1000.00	861.98	.00	862.08	10.60	2.69	438 85	307.18
	554.780	900 00	00	.00	857.10	610.00	860.85	.00	860.93	10.84	2.26	306.50	185.30
	554 920	130.00	.00	.00	857.10	1160.00	862.42	.00	862.58	12 15	3.16	364.78	332.85
	554.920	130.00	.00	.00	857.10	1160.00	862.48	.00	862.63	11.76	3.15	368.55	338.30
	554.920	130 00	.00	00	857.10	1490.00	862.95	00	863.17	14.62	3 70	403.12	389.67
	554.920	130.00	.00	00	857 10	1000.00	862.11	00	862.24	11.05	2 92	342.25	300.89
	554.920	130.00	.00	.00	857.10	610.00	860.98	.00	861.07	9.66	2.33	261.79	196.26
	554.930	20.00	880.10	877.60	858.10	1160.00	862.36	.00	862.78	45.76	5.16	224.82	171.48
	554.930	20.00	880.10	877.60	858.10	1160.00	862.42	.00	862.82	43.85	5 09	227.87	175.17
	554.930	20.00	880.10	877.60	858.10	1490.00	862 87	.00	863.41	51.76	5.88	253 38	207 10
	554.930	20.00	880.10	877.60	858.10	1000.00	862.06	.00	862.42	43.78	4.82	207.61	151.13
	554.930	20.00	880.10	877.60	858.10	610.00	860.94	.00	861.22	51.07	4.20	145.27	85.36
	554.940	47.00	880.10	877.60	858.10	1160.00	862.62	.00	862.99	37.59	4.85	239.26	189.21
	554,940	47 00	880.10	877.60	858.10	1160.00	862.66	.00	863.02	36 44	4.80	241.63	192.17
	554.940	47.00	880.10	877.60	858.10	1490.00	863 18	.00	863.65	42.16	5.51	270.47	229.47
	554.940	47.00	880 10	877.60	858.10	1000.00	862.30	.00	862.62	35.83	4.52	221.14	167.06
	554.940	47.00	880.10	877.60	858.10	610.00	861.21	.00	861.44	37.24	3.81	160.26	99.96
+	555.500	720.00	00	.00	869.10	1060 00	879.90	.00	879.91	.25	.67	1596.58	2116.53
+	555.500	720.00	.00	.00	869.10	1060.00	879.90	.00	879 91	.25	.67	1596.58	2116.53
+	555 500	720.00	.00	.00	869.10	1360.00	880 29	.00	880.30	.35	.82	1683.57	2288.89
+	555 500	720.00	.00	.00	869.10	920.00	879.50	.00	879.51	.22	.61	1513.78	1946.55
+	555.500	720.00	.00	.00	869.10	560.00	878.60	.00	878.60	.12	.42	1331.38	1586.60
	557.630	2130.00	.00	00	869.30	1060.00	879.94	.00	879.94	.12	.46	2333.08	3103.45
	557.630	2130.00	.00	.00	869.30	1060.00	879.94	.00	879.94	.12	.46	2302.33	3078.73
	557.630	2130.00	.00	.00	869.30	1360.00	880 35	.00	880.35	.16	.56	2455 65	3362.26
	557.630	2130.00	.00	.00	869.30	920.00	879.53	.00	879.54	.10	.42	2211.92	2853.38
	557 630	2130.00	.00	.00	869.30	560.00	878.62	.00	878.62	.06	.29	1943.11	2320.51
	558.370	740 00	.00	.00	870.10	1060.00	879.93	.00	879.98	2.11	1.73	629.21	729.21
	558.370	740.00	.00	.00	870.10	1060.00	879.93	.00	879.98	2.22	1.74	608.29	711.62
	558.370	740.00	.00	.00	870.10	1360.00	880 33	.00	880.40	2.87	2.10	671.34	802.29
	558.370	740.00	.00	.00	870.10	920.00	879.53	.00	879.57	1.94	1.60	589.04	661.08
	558.370	740.00	.00	.00	870.10	560.00	878.62	.00	878.64	1.18	1.13	499.65	514 44
	558 800	430.00	.00	.00	870.50	1060.00	880.02	00	880.04	.83	1.01	1140.07	1160.40
	558.800	430.00	.00	.00	870.50	1060.00	880.02	.00	880.04	.89	1.03	1025.68	1125.96
	558.800	430.00	.00	00	870 50	1360.00	880.45	.00	880.48	1.07	1.20	1290.02	1317.37
	558.800	430.00	.00	.00	870.50	920.00	879.61	.00	879.62	.80	.95	1019.77	1026 95
	558.800	430.00	.00	.00	870.50	560.00	878.66	.00	878.67	.55	.70	816.55	757.02

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	TOPWS	VCH	AREA	QIK
558.850	50.00	.00	.00	870.50	1060.00	880.02	.00	880.04	.90	1.03	1026.34	1115.20
558.850	50.00	.00	.00	870.50	1060.00	880.03	.00	880.04	.90	1.03	1026.96	1116.29
558.850	50.00	.00	.00	870.50	1360.00	880.46	.00	880.48	1.19	1.24	1098.44	1244.61
558.850	50.00	.00	.00	870.50	920.00	879.61	.00	879.63	.85	.96	958.47	998.22
558.850	50.00	.00	.00	870.50	560.00	878.67	.00	878.67	.56	.70	802.42	747.84
558.870	20.00	885.60	884.30	871.50	1060.00	879.99	.00	880.10	7.20	2.64	401.04	395.02
558.870	20.00	885.60	884.30	871.50	1060.00	879.99	.00	880.10	7.19	2.64	401.25	395.33
558.870	20.00	885.60	884.30	871.50	1360.00	880.41	.00	880.57	10.13	3.21	423.97	427.28
558.870	20.00	885.60	884.30	871.50	920.00	879.59	.00	879.68	6.38	2.43	378.86	364.37
558.870	20.00	885.60	884.30	871.50	560.00	878.65	.00	878.70	3.56	1.71	328.34	296.71
558.880	16.00	885.60	884.30	871.50	1060.00	880.00	.00	880.11	10.41	2.64	401.39	328.54
558.880	16.00	885.60	884.30	871.50	1060.00	880.01	.00	880.12	10.37	2.64	402.01	329.19
558.880	16.00	885.60	884.30	871.50	1360.00	880.43	.00	880.59	14.82	3.20	424.77	353.26
558.880	16.00	885.60	884.30	871.50	920.00	879.60	.00	879.69	9.08	2.43	379.17	305.26
558.880	16.00	885.60	884.30	871.50	560.00	878.66	.00	878.71	4.91	1.71	328.14	252.68
558.900	20.00	.00	.00	870.70	1060.00	880.11	.00	880.14	1.75	1.47	722.13	801.44
558.900	20.00	.00	.00	870.70	1060.00	880.11	.00	880.15	1.75	1.47	722.55	802.18
558.900	20.00	.00	.00	870.70	1360.00	880.58	.00	880.63	2.31	1.76	774.42	895.65
558.900	20.00	.00	.00	870.70	920.00	879.69	.00	879.71	1.63	1.36	675.52	720.58
558.900	20.00	.00	.00	870.70	560.00	878.70	.00	878.72	1.05	.99	567.62	545.30
558.970	80.00	.00	.00	870.70	1060.00	880.12	.00	880.16	1.59	1.45	763.51	839.82
558.970	80.00	.00	.00	870.70	1060.00	880.13	.00	880.16	1.68	1.46	723.99	817.91
558.970	80.00	.00	.00	870.70	1360.00	880.60	.00	880.65	2.06	1.73	831.26	948.20
558.970	80.00	.00	.00	870.70	920.00	879.70	.00	879.73	1.51	1.35	705.69	749.23
558.970	80.00	.00	.00	870.70	560.00	878.71	.00	878.73	1.00	.98	579.46	556.69
559.630	660.00	.00	.00	870.00	1060.00	880.22	.00	880.23	.79	.86	1246.07	1193.43
559.630	660.00	.00	.00	870.00	1060.00	880.22	.00	880.24	.81	.87	1223.15	1177.22
559.630	660.00	.00	.00	870.00	1360.00	880.73	.00	880.74	.94	1.00	1376.58	1401.98
559.630	660.00	.00	.00	870.00	920.00	879.79	.00	879.80	.80	.82	1137.10	1028.44
559.630	660.00	.00	.00	870.00	560.00	878.78	.00	878.78	.68	.64	882.82	680.26
560.890	1150.00	.00	.00	874.40	1060.00	880.34	.00	880.50	11.68	3.32	352.41	310.15
560.890	1150.00	.00	.00	874.40	1060.00	880.35	.00	880.53	13.14	3.42	317.97	292.41
560.890	1150.00	.00	.00	874.40	1360.00	880.86	.00	881.07	13.74	3.84	397.52	366.95
560.890	1150.00	.00	.00	874.40	920.00	879.92	.00	880.07	11.96	3.17	315.90	266.02
560.890	1150.00	.00	.00	874.40	560.00	878.91	.00	879.01	10.30	2.50	234.88	174.51
560.980	90.00	.00	.00	874.40	1060.00	880.43	.00	880.61	9.46	3.40	311.69	344.62
560.980	90.00	.00	.00	874.40	1060.00	880.45	.00	880.63	9.95	3.39	312.66	335.98
560.980	90.00	.00	.00	874.40	1360.00	880.96	.00	881.20	11.26	3.96	343.52	405.24
560.980	90.00	.00	.00	874.40	920.00	880.01	.00	880.17	9.40	3.21	286.83	300.03
560.980	90.00	.00	.00	874.40	560.00	878.99	.00	879.09	7.78	2.48	225.40	200.78
561.000	20.00	889.20	886.00	876.00	1060.00	880.35	.00	880.92	51.36	6.06	174.91	147.90
561.000	20.00	889.20	886.00	876.00	1060.00	880.37	.00	880.94	50.32	6.02	176.05	149.42
561.000	20.00	889.20	886.00	876.00	1360.00	880.86	.00	881.59	57.16	6.86	198.26	179.88
561.000	20.00	889.20	886.00	876.00	920.00	879.94	.00	880.48	55.41	5.90	156.02	123.59
561.000	20.00	889.20	886.00	876.00	560.00	878.93	.00	879.33	60.24	5.07	110.35	72.15

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10k*S	VCH	HPEH	.01K
	561.010	34.00	889.20	886.00	876.00	1060.00	880.59	.00	881.10	42.19	5.69	186.28	163.20
	561.010	34.00	889.20	886.00	876.00	1060.00	880.61	.00	881.11	41.64	5.67	187.05	164.27
	561.010	34.00	889.20	886.00	876.00	1360.00	881.15	.00	881.79	46.54	6.42	211.82	199.35
	561.010	34.00	889.20	886.00	876.00	920.00	880.20	.00	880.67	43.65	5.47	168.31	139.25
	561.010	34.00	889.20	886.00	876.00	560.00	879.21	.00	879.53	43.41	4.57	122.62	85.00
	561.030	20.00	.00	.00	876.00	1060.00	880.64	.00	881.27	43.81	6.34	167.27	160.15
	561.030	20.00	.00	.00	876.00	1060.00	880.67	.00	881.28	47.19	6.30	168.12	154.30
	561.030	20.00	.00	.00	876.00	1360.00	881.20	.00	882.00	47.74	7.18	189.30	196.83
	561.030	20.00	.00	.00	876.00	920.00	880.26	.00	880.83	45.45	6.05	151.95	136.46
	561.030	20.00	.00	.00	876.00	560.00	879.28	.00	879.66	45.81	4.98	112.55	82.74
	561.060	40.00	.00	.00	876.00	1060.00	881.06	.00	881.48	35.41	5.40	231.36	178.14
	561.060	40.00	.00	.00	876.00	1060.00	881.01	.00	881.49	39.87	5.68	199.93	167.88
	561.060	40.00	.00	.00	876.00	1360.00	881.77	.00	882.25	34.05	5.83	290.69	233.06
	561.060	40.00	.00	.00	876.00	920.00	880.64	.00	881.05	37.69	5.22	201.71	149.86
	561.060	40.00	.00	.00	876.00	560.00	879.56	.00	879.86	39.94	4.41	137.28	88.61
+	561.880	820.00	.00	.00	885.80	1070.00	893.65	.00	893.66	.77	.95	1128.76	1217.37
+	561.880	820.00	.00	.00	885.80	1070.00	893.65	.00	893.66	.78	.95	1122.50	1209.57
+	561.880	820.00	.00	.00	885.80	1370.00	894.20	.00	894.22	.94	1.12	1237.03	1410.72
+	561.880	820.00	.00	.00	885.80	930.00	893.30	.00	893.31	.71	.88	1060.59	1100.49
+	561.880	820.00	.00	.00	885.80	570.00	892.70	.00	892.71	.39	.60	945.03	911.49
	562.750	870.00	.00	.00	886.00	1070.00	893.75	.00	893.78	2.66	1.57	748.39	656.09
	562.750	870.00	.00	.00	886.00	1070.00	893.75	.00	893.79	2.89	1.61	683.93	629.19
	562.750	870.00	.00	.00	886.00	1370.00	894.32	.00	894.36	3.07	1.79	858.36	781.89
	562.750	870.00	.00	.00	886.00	930.00	893.39	.00	893.42	2.54	1.47	683.94	583.84
	562.750	870.00	.00	.00	886.00	570.00	892.75	.00	892.77	1.50	1.04	576.66	466.16
	563.590	840.00	.00	.00	886.80	1070.00	893.98	.00	894.01	2.74	1.38	1041.65	646.68
	563.590	840.00	.00	.00	886.80	1070.00	894.00	.00	894.03	2.92	1.43	931.81	625.88
	563.590	840.00	.00	.00	886.80	1370.00	894.57	.00	894.60	2.71	1.48	1382.69	831.94
	563.590	840.00	.00	.00	886.80	930.00	893.62	.00	893.65	2.89	1.34	902.45	547.19
	563.590	840.00	.00	.00	886.80	570.00	892.96	.00	892.92	2.27	1.05	652.96	378.46
	564.570	980.00	.00	.00	887.90	1070.00	894.23	.00	894.25	2.47	1.40	1515.54	680.53
	564.570	980.00	.00	.00	887.90	1070.00	894.27	.00	894.29	2.63	1.45	1354.31	659.19
	564.570	980.00	.00	.00	887.90	1370.00	894.81	.00	894.82	2.14	1.39	1997.53	936.49
	564.570	980.00	.00	.00	887.90	930.00	893.90	.00	893.92	2.82	1.43	1255.82	554.17
	564.570	980.00	.00	.00	887.90	570.00	893.14	.00	893.16	2.74	1.26	786.40	344.57
	565.710	1140.00	.00	.00	887.60	1070.00	894.49	.00	894.52	2.89	1.62	1309.18	629.46
	565.710	1140.00	.00	.00	887.60	1070.00	894.55	.00	894.58	3.01	1.66	1198.31	616.54
	565.710	1140.00	.00	.00	887.60	1370.00	895.04	.00	895.07	2.83	1.70	1643.04	813.79
	565.710	1140.00	.00	.00	887.60	930.00	894.19	.00	894.21	2.98	1.58	1137.48	538.54
	565.710	1140.00	.00	.00	887.60	570.00	893.42	.00	893.44	2.63	1.35	740.73	351.36
	566.890	1180.00	.00	.00	887.00	1070.00	894.87	.00	894.92	4.60	2.15	993.79	498.83
	566.890	1180.00	.00	.00	887.00	1070.00	894.94	.00	894.99	4.75	2.19	855.88	493.25
	566.890	1180.00	.00	.00	887.00	1370.00	895.41	.00	895.46	4.71	2.30	1249.80	631.43
	566.890	1180.00	.00	.00	887.00	930.00	894.58	.00	894.62	4.57	2.08	866.65	435.06
	566.890	1180.00	.00	.00	887.00	570.00	893.77	.00	893.80	3.76	1.72	571.49	294.12

RIVER RAISIN-MANCHESTER

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSK	DIFKWS	TOPWID	XLCH
550.300	1160.00	858.57	.00	.00	-1.43	353.37	.00
550.300	1160.00	858.57	.00	.00	-1.43	353.37	.00
550.300	1490.00	859.17	.61	.00	-.83	387.60	.00
550.300	1000.00	858.18	-.99	.00	-1.82	313.97	.00
550.300	610.00	856.99	-1.19	.00	-3.01	191.84	.00
550.870	1160.00	858.88	.00	.31	.00	125.31	600.00
550.870	1160.00	858.88	.00	.31	.00	125.31	600.00
550.870	1490.00	859.48	.61	.31	.00	130.00	600.00
550.870	1000.00	858.50	-.98	.32	.00	122.37	600.00
550.870	610.00	857.31	-1.19	.32	.00	113.16	600.00
550.920	1160.00	858.91	.00	.03	.00	100.00	50.00
550.920	1160.00	858.91	.00	.03	.00	100.00	50.00
550.920	1490.00	859.52	.61	.04	.00	100.00	50.00
550.920	1000.00	858.53	-.99	.03	.00	100.00	50.00
550.920	610.00	857.33	-1.19	.02	.00	93.39	50.00
550.970	1160.00	858.94	.00	.03	.00	58.77	50.00
550.970	1160.00	858.94	.00	.03	.00	58.77	50.00
550.970	1490.00	859.56	.62	.04	.00	61.00	50.00
550.970	1000.00	858.56	-1.00	.03	.00	57.22	50.00
550.970	610.00	857.36	-1.20	.03	.00	52.41	50.00
550.980	1160.00	859.02	.00	.07	.00	59.07	30.00
550.980	1160.00	859.02	.00	.07	.00	59.07	30.00
550.980	1490.00	859.65	.63	.09	.00	61.00	30.00
550.980	1000.00	858.63	-1.03	.07	.00	57.49	30.00
550.980	610.00	857.41	-1.22	.05	.00	52.57	30.00
551.080	1160.00	859.22	.00	.20	.00	97.48	50.00
551.080	1160.00	859.22	.00	.20	.00	97.48	50.00
551.080	1490.00	859.91	.69	.26	.00	101.03	50.00
551.080	1000.00	858.80	-1.11	.18	.00	95.34	50.00
551.080	610.00	857.52	-1.28	.12	.00	88.78	50.00
551.130	1160.00	859.24	.00	.02	.00	97.59	50.00
551.130	1160.00	859.24	.00	.02	.00	97.59	50.00
551.130	1490.00	859.94	.70	.03	.00	101.16	50.00
551.130	1000.00	858.82	-1.12	.02	.00	95.44	50.00
551.130	610.00	857.54	-1.28	.01	.00	88.86	50.00
551.830	1160.00	859.60	.00	.36	.00	392.27	750.00
551.830	1160.00	859.60	.00	.36	.00	392.27	750.00
551.830	1490.00	860.33	.74	.40	.00	401.36	750.00
551.830	1000.00	859.17	-1.17	.34	.00	386.93	750.00
551.830	610.00	857.86	-1.31	.32	.00	363.61	750.00
552.730	1160.00	860.14	.00	.54	.00	253.45	900.00
552.730	1160.00	860.14	.00	.54	.00	253.45	900.00
552.730	1490.00	860.81	.67	.48	.00	308.88	900.00
552.730	1000.00	859.77	-1.04	.61	.00	230.16	900.00

552,730	610.00	858.68	-1,0%	,82	,00	171,78	900.00

SECNO	Q	CWSEL	DIFWSP	DIFWS%	DIFFWS	TOPWID	ALCH
553,880	1160,00	861,09	,00	,94	,00	466,17	1150,00
553,880	1160,00	861,10	,02	96	,02	345,00	1150,00
553,880	1490,00	861,66	,55	,84	,00	472,30	1150,00
553,880	1000,00	860,77	- 88	1,00	,00	416,20	1150,00
553,880	610,00	859,66	-1,11	,98	00	71,02	1150,00
554,780	1160,00	862,29	,00	1,20	,00	124,44	900,00
554 780	1160,00	862,34	,05	1,24	,05	106,15	900 00
554,780	1490,00	862,80	,46	1 14	,00	128,63	900 00
554,780	1000,00	861,98	-,82	1,21	,00	121,93	900,00
554,780	610,00	860,95	-1,13	1,19	,00	112,69	900,00
554,920	1160,00	862,42	,00	,14	,00	71,40	130,00
554,920	1160,00	862,48	,05	,14	,05	71,40	130,00
554,920	1490 00	862 95	,48	,16	,00	71,40	130,00
554 920	1000,00	862,11	-,85	,13	,00	71,40	130,00
554,920	610,00	860,98	-1,13	,13	,00	71,40	130 00
554,930	1160,00	862,36	,00	-,06	,00	56,00	20,00
554,930	1160,00	862,42	,05	-,06	,05	56,00	20,00
554,930	1490,00	862,87	,46	-,08	,00	56,00	20,00
554,930	1000,00	862,06	-,82	-,05	,00	56,00	20,00
554 930	610,00	860,94	-1,11	-,04	,00	56,00	20,00
554,940	1160,00	862,62	,00	,26	,00	56,00	47,00
554 940	1160,00	862,66	,04	,25	,04	56,00	47,00
554,940	1490,00	863,18	,51	30	,00	56,00	47,00
554,940	1000,00	862,30	-,88	,24	,00	56,00	47,00
554,940	610,00	861,21	-1,09	,27	,00	56,00	47,00
+ 555,500	1060,00	879,90	,00	17,28	,00	208,33	720,00
+ 555,500	1060,00	879,90	,00	17,24	,00	208,33	720,00
+ 555,500	1360,00	880,29	,39	17,11	,00	246,99	720,00
+ 555,500	920,00	879,50	-,79	17,20	00	205,67	720,00
+ 555,500	560,00	878,60	- 90	17,39	,00	199,67	720,00
557,630	1060,00	879,94	00	,04	,00	301,67	2130,00
557,630	1060,00	879,94	00	,04	,00	278,00	2130,00
557,630	1360,00	880,35	,41	,06	,00	305,30	2130,00
557,630	920,00	879,53	-,81	,03	,00	298,04	2130,00
557 630	560,00	878,62	-,92	,02	,00	289,83	2130,00
558,370	1060,00	879,93	,00	-,01	,00	103,55	740,00
558,370	1060,00	879,93	,00	-,01	,00	87,00	740,00
558,370	1360,00	880,33	,40	-,01	,00	106,41	740,00
558,370	920,00	879,53	-,80	-,01	,00	100,98	740,00
558,370	560,00	878,62	-,91	-,00	,00	95,02	740 00
558 800	1060,00	880,02	00	,09	,00	339,07	430,00
558,800	1060,00	880 02	,00	,09	,00	164,90	430 00
558,800	1360,00	880,45	,43	,12	,00	350,64	430 00
558,800	920,00	879,61	-,85	08	,00	238,25	430,00
558,800	560,00	878,66	-,94	,05	,00	191,85	430,00

SECNO	Q	CWSEL	DIFWSP	DIFWSK	DIFKWS	TOPWID	WLCH
558.850	1060.00	880.02	.00	.00	.00	164.90	50.00
558.850	1060.00	880.03	.00	.00	.00	164.90	50.00
558.850	1360.00	880.46	.42	.00	.00	164.90	50.00
558.850	920.00	879.61	-.85	.00	.00	164.90	50.00
558.850	560.00	878.67	-.95	.00	.00	164.90	50.00
558.870	1060.00	879.99	.00	-.03	.00	54.70	20.00
558.870	1060.00	879.99	.00	-.03	.00	54.70	20.00
558.870	1360.00	880.41	.42	-.05	.00	54.70	20.00
558.870	920.00	879.59	-.82	-.03	.00	54.70	20.00
558.870	560.00	878.65	-.93	-.01	.00	54.70	20.00
558.880	1060.00	880.00	.00	.01	.00	54.70	16.00
558.880	1060.00	880.01	.00	.01	.00	54.70	16.00
558.880	1360.00	880.43	.42	.02	.00	54.70	16.00
558.880	920.00	879.60	-.83	.01	.00	54.70	16.00
558.880	560.00	878.66	-.94	.01	.00	54.70	16.00
558.900	1060.00	880.11	.00	.10	.00	110.00	20.00
558.900	1060.00	880.11	.00	.10	.00	110.00	20.00
558.900	1360.00	880.58	.47	.15	.00	110.00	20.00
558.900	920.00	879.69	-.90	.09	.00	110.00	20.00
558.900	560.00	878.70	-.98	.04	.00	110.00	20.00
558.970	1060.00	880.12	.00	.01	.00	138.15	80.00
558.970	1060.00	880.13	.00	.01	.00	110.00	80.00
558.970	1360.00	880.60	.48	.02	.00	146.19	80.00
558.970	920.00	879.70	-.91	.01	.00	133.91	80.00
558.970	560.00	878.71	-.99	.01	.00	124.16	80.00
559.630	1060.00	880.22	.00	.09	.00	254.25	660.00
559.630	1060.00	880.22	.01	.10	.01	241.00	660.00
559.630	1360.00	880.73	.50	.12	.00	256.95	660.00
559.630	920.00	879.79	-.94	.09	.00	251.99	660.00
559.630	560.00	878.78	-1.01	.06	.00	248.95	660.00
560.890	1060.00	880.34	.00	.12	.00	86.89	1150.00
560.890	1060.00	880.35	.01	.12	.01	64.22	1150.00
560.890	1360.00	880.86	.51	.13	.00	90.12	1150.00
560.890	920.00	879.92	-.93	.13	.00	84.02	1150.00
560.890	560.00	878.91	-1.01	.13	.00	76.75	1150.00
560.980	1060.00	880.43	.00	.09	.00	60.00	90.00
560.980	1060.00	880.45	.02	.10	.02	60.00	90.00
560.980	1360.00	880.96	.51	.10	.00	60.00	90.00
560.980	920.00	880.01	-.94	.09	.00	60.00	90.00
560.980	560.00	878.99	-1.02	.08	.00	60.00	90.00
561.000	1060.00	880.35	.00	-.08	.00	46.00	20.00
561.000	1060.00	880.37	.02	-.08	.02	46.00	20.00
561.000	1360.00	880.86	.48	-.10	.00	46.00	20.00
561.000	920.00	879.94	-.92	-.08	.00	46.00	20.00
561.000	560.00	878.93	-1.00	-.06	.00	44.58	20.00

	SECND	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	YLCH
	561.010	1060.00	880.59	.00	.25	.00	46.00	34.00
	561.010	1060.00	880.61	.02	.24	.02	46.00	34.00
	561.010	1360.00	881.15	.54	.29	.00	46.00	34.00
	561.010	920.00	880.20	-.95	.27	.00	46.00	34.00
	561.010	560.00	879.21	-1.00	.27	.00	45.09	34.00
	561.030	1060.00	880.64	.00	.05	.00	40.00	20.00
	561.030	1060.00	880.67	.02	.05	.02	40.00	20.00
	561.030	1360.00	881.20	.53	.05	.00	40.00	20.00
	561.030	920.00	880.26	-.93	.06	.00	40.00	20.00
	561.030	560.00	879.28	-.99	.07	.00	40.00	20.00
	561.060	1060.00	881.06	.00	.41	.00	75.44	40.00
	561.060	1060.00	881.01	-.05	.34	-.05	46.42	40.00
	561.060	1360.00	881.77	.76	.57	.00	89.33	40.00
	561.060	920.00	880.64	-1.13	.38	.00	66.12	40.00
	561.060	560.00	879.56	-1.08	.29	.00	54.98	40.00
+	561.880	1070.00	893.65	.00	12.59	.00	195.59	820.00
+	561.880	1070.00	893.65	.00	12.64	.00	186.00	820.00
+	561.880	1370.00	894.20	.55	12.43	.00	198.12	820.00
+	561.880	930.00	893.30	-.90	12.66	.00	193.98	820.00
+	561.880	570.00	892.70	-.60	13.14	.00	191.22	820.00
	562.750	1070.00	893.75	.00	.10	.00	185.74	870.00
	562.750	1070.00	893.75	.00	.10	.00	126.38	870.00
	562.750	1370.00	894.32	.57	.12	.00	200.96	870.00
	562.750	930.00	893.39	-.92	.09	.00	176.22	870.00
	562.750	570.00	892.75	-.64	.05	.00	159.10	870.00
	563.590	1070.00	893.98	.00	.23	.00	396.15	840.00
	563.590	1070.00	894.00	.02	.25	.02	296.21	840.00
	563.590	1370.00	894.57	.57	.26	.00	420.33	840.00
	563.590	930.00	893.62	-.95	.23	.00	377.97	840.00
	563.590	570.00	892.90	-.72	.15	.00	315.44	840.00
	564.570	1070.00	894.23	.00	.25	.00	809.91	980.00
	564.570	1070.00	894.27	.04	.27	.04	532.47	980.00
	564.570	1370.00	894.81	.54	.24	.00	869.31	980.00
	564.570	930.00	893.90	-.91	.27	.00	682.23	980.00
	564.570	570.00	893.14	-.76	.23	.00	563.50	980.00
	565.710	1070.00	894.49	.00	.26	.00	565.13	1140.00
	565.710	1070.00	894.55	.05	.28	.05	433.38	1140.00
	565.710	1370.00	895.04	.49	.23	.00	675.96	1140.00
	565.710	930.00	894.19	-.85	.29	.00	544.98	1140.00
	565.710	570.00	893.42	-.76	.28	.00	486.04	1140.00
	566.890	1070.00	894.87	.00	.38	.00	444.49	1180.00
	566.890	1070.00	894.94	.07	.39	.07	257.33	1180.00
	566.890	1370.00	895.41	.47	.37	.00	505.90	1180.00
	566.890	930.00	894.58	-.84	.39	.00	410.59	1180.00
	566.890	570.00	893.77	-.81	.34	.00	318.01	1180.00

SUMMARY OF ERROPS

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 NOTE      SECNO=  555.500  PPOFILE= 1  WSEL BASED ON X5 CARD
 NOTE      SECNO=  555.500  PROFILE= 2  WSEL BASED ON X5 CARD
 NOTE      SECNO=  555.500  PPOFILE= 3  WSEL BASED ON X5 CARD
 NOTE      SECNO=  555.500  PROFILE= 4  WSEL BASED ON X5 CARD
 NOTE      SECNO=  555.500  PROFILE= 5  WSEL BASED ON X5 CARD

 NOTE      SECNO=  561.880  PROFILE= 1  WSEL BASED ON X5 CARD
 NOTE      SECNO=  561.880  PROFILE= 2  WSEL BASED ON X5 CARD
 NOTE      SECNO=  561.880  PROFILE= 3  WSEL BASED ON X5 CARD
 NOTE      SECNO=  561.880  PROFILE= 4  WSEL BASED ON X5 CARD
 NOTE      SECNO=  561.880  PPOFILE= 5  WSEL BASED ON X5 CARD
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00BREAK00

1) COUNTY: Washtenaw

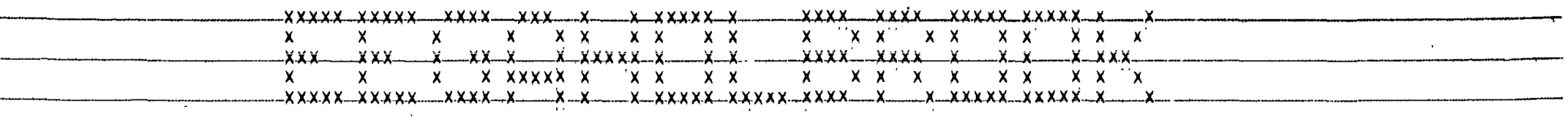
2) STUDY NAME: Ypsilanti

3) WATERCOURSE: Paint Creek

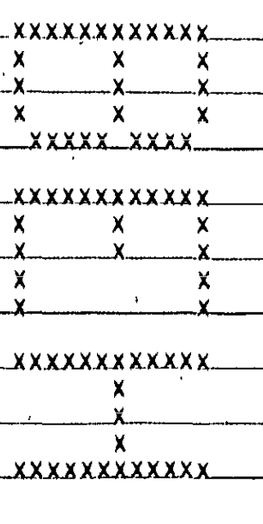
4) DOCUMENT TYPE: Summary

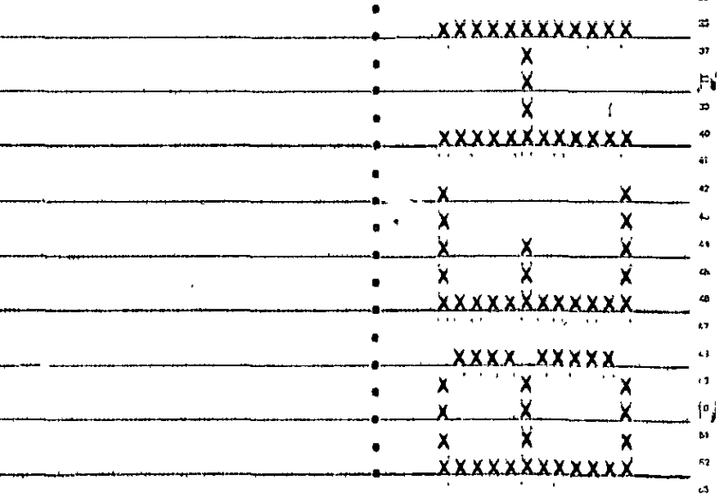
00BREAK00

BEHES12 01550 SECTORS 0 BEHES12

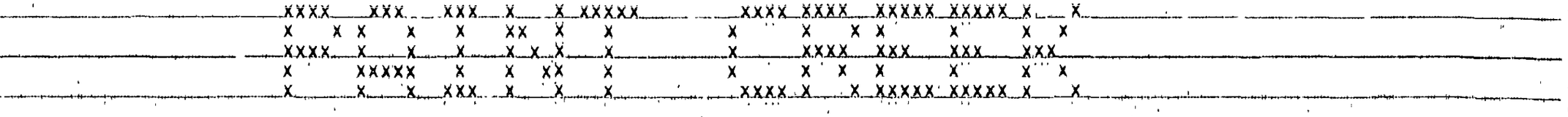


8040 45 . . . . . OUTPUT . 30 AUG 79 . 11.13 . . . . . 8040 45





8040 45 . . . . . COKE . 30 AUG 79 . 11.13 . . . . . 8040 45



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11.12.19. BEHES12.  30 AUG 79   7600Z  BKY29B V0   BEH     NORM          804045 EEGAHOLBRO
11.12.19. BEHES12. BEH,804045,EEGAHOLBROOK.
11.12.19. BEHES12. *INPUT 6200C 11.09.25. 30 AUG 79  VIA COKE
11.12.19. BEHES12.  COPY,INPUT,1R,CONTROL/BR,DEM=OFF.
11.12.20. BEHES12.  FLS=020K  FLL=0000K  LCM BUFFERS=0054K  TOTAL LCM=0074K
11.12.20. BEHES12.   CONTROL DISK 2
11.12.20. BEHES12.  COPY COMPLETE.
11.12.20. BEHES12. (PAINT CREEK
11.12.20. BEHES12. *NOSTAGE
11.12.20. BEHES12. FETCHPS,HECLIB,HEC2,HEC2.
11.12.20. BEHES12.  FLS=060K  FLL=0000K  LCM BUFFERS=0054K  TOTAL LCM=0134K
11.12.23. BEHES12.   HEC2    DISK 2
11.12.24. BEHES12.  HEC2          26235 WORDS COPIED FROM CACHE.
11.12.24. BEHES12.   CACHE22 RETURNED      7 BLD, BS= 0040B,FS=126206B
11.12.24. BEHES12.   TAPEPAC RETURNED      0 BLD, BS= 0002B,FS=000000B
11.12.24. BEHES12. SEL,170000.
11.12.24. BEHES12.  FLS=170K  FLL=0000K  LCM BUFFERS=0014K  TOTAL LCM=0204K
11.12.24. BEHES12. HEC2,LC=20000.
11.12.27. BEHES12.   ZZZZZLS DISK 1
11.12.27. BEHES12.   ZZZZZLS RETURNED      0 BLD, BS= 0040B,FS=000000B
11.12.30. BEHES12.   DBGMAP  DISK 2
11.12.32. BEHES12.   OUTPUT  DISK 1
11.12.32. BEHES12.   DBGMAP  UNLOADED      1 BLD, BS= 0040B,FS=000002B
11.12.32. BEHES12.   HEC2    UNLOADED      4 BLD, BS= 0040B,FS=000064B
11.12.32. BEHES12.   MNF4LIB UNLOADED      1 BLD, BS= 0010B,FS=000007B
11.12.32. BEHES12.   FTN4LIB UNLOADED      1 BLD, BS= 0100B,FS=000077B
11.12.32. BEHES12.  LOAD COMPLETE, LINK 8.4.
11.12.32. BEHES12.    TIME---       130 MSEC.
11.12.32. BEHES12.    MEMORY-      LOAD    111200,  EXECUTE    101000.
11.12.32. BEHES12.  FLS=101K  FLL=0000K  LCM BUFFERS=0046K  TOTAL LCM=0147K
11.12.32. BEHES12.       BEGIN PROGRAM HEC2      USING -
11.12.32. BEHES12.           MNF4 LIBRARY VERSION 3.3
11.12.32. BEHES12.           FTN4 LIBRARY 7600-VSN2/79215.10.39
11.12.32. BEHES12.  FIELD LENGTH RESET =            000000000033792
11.12.32. BEHES12. BN;
11.12.32. BEHES12.   ZZZZZXC DISK 1
11.12.32. BEHES12.   CONTROL RETURNED      0 BLD, BS= 0002B,FS=000001B
11.12.33. BEHES12.   ZZZZZXC UNLOADED      1 BLD, BS= 0002B,FS=000001B
11.12.33. BEHES12.  CONTROL - NEW NAME FOR ZZZZZXC
11.12.35. BEHES12.   ZZZZZCI DISK 2
11.12.35. BEHES12.     CORE IMAGE FROZEN ON FILE ZZZZZCI
11.12.35. BEHES12.     CALLED FROM    XEQCCS
11.12.35. BEHES12.     STOP
11.12.35. BEHES12.   LINK    RETURNED      1 BLD, BS= 0012B,FS=000012B
11.12.35. BEHES12.   MNF4LIB RETURNED      1 BLD, BS= 0010B,FS=000007B
11.12.35. BEHES12.   FTN4LIB RETURNED      1 BLD, BS= 0100B,FS=000077B
11.12.36. BEHES12. ..........................................................
11.12.36. BEHES12. FETCHPS,HECDOC,HECNEWS,HECNEWS.
11.12.39. BEHES12.  FLS=170K  FLL=0000K  LCM BUFFERS=0176K  TOTAL LCM=0566K
11.12.41. BEHES12.   HECNEWS DISK 1
11.12.41. BEHES12.  HECNEWS          211 WORDS COPIED FROM CACHE.
11.12.42. BEHES12.   CACHE22 RETURNED      6 BLD, BS= 0040B,FS=126206B
11.12.42. BEHES12.   TAPEPAC RETURNED      0 BLD, BS= 0002B,FS=000000B
11.12.42. BEHES12. ..........................................................
11.12.42. BEHES12. BKSP,ZZZZZCI.
11.12.42. BEHES12. ZZZZZCI.
11.12.42. BEHES12.  FLS=101K  FLL=0000K  LCM BUFFERS=0140K  TOTAL LCM=0241K
11.12.42. BEHES12.       THAW PROGRAM FROZEN BY SUBROUTINE XEQCCS
11.12.42. BEHES12.   ZZZZZCI RETURNED      0 BLD, BS= 0102B,FS=000102B
11.12.42. BEHES12.   HECNEWS RETURNED      0 BLD, BS= 0002B,FS=000001B
11.12.42. BEHES12.   TAPE92  DISK 2
11.12.42. BEHES12.   TAPE93  DISK 1
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11.12.42. BEHES12.   TAPE94  DISK 2
11.12.42. BEHES12.   TAPE91  DISK 1
11.12.44. BEHES12.   TAPE95  DISK 1
11.12.52. BEHES12.   TAPE96  DISK 2
11.12.54. BEHES12.  FLS=105K  FLL=0000K  LCM BUFFERS=0334K  TOTAL LCM=0441K
11.12.54. BEHES12.  FIELD LENGTH RESET =              0000000000035258
11.12.58. BEHES12.  FLS=102K  FLL=0000K  LCM BUFFERS=0334K  TOTAL LCM=0436K
11.13.00. BEHES12.      STOP
11.13.00. BEHES12.       5.440 CP SECONDS EXECUTION TIME
11.13.00. BEHES12.    OUTPUT  QUEUED PR      7 BLD, BS= 0020B,FS=000156B
11.13.00. BEHES12.  *J H311098    804045N 30AUG79RZ N 0000368N;        EEGAHOLBRO
11.13.00. BEHES12.  ..........................
11.13.00. BEHES12.  SECTORS TRANSFERRED          522
11.13.00. BEHES12.  MAX DISK SECTORS             650
11.13.00. BEHES12.  CP SECONDS                 5.576
11.13.00. BEHES12.  SYSTEM SECONDS             0.834
11.13.00. BEHES12.  OLD BLD"S                     22
11.13.00. BEHES12.  LCM BUFFER LOADS              26
11.13.00. BEHES12.  ITO CUS                        3
11.13.00. BEHES12.  KWORDS XFERRED               310
11.13.00. BEHES12.  CIO CALLS                  2,242
11.13.00. BEHES12.  STAGING CUS                    0
11.13.00. BEHES12.  ..........................
11.13.00. BEHES12.  TOTAL JOB CUS                 36
11.13.00. BEHES12.  COST + OVERHEAD    $        3.45
11.13.00. BEHES12.  ..........................

11.13.39. BEHES12.  OUTPUT  QUEUED PR 878
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FL REQUIRED TO LOAD 111200
FL REQUIRED TO RUN 100700
INITIAL TRANSFER TO HEC2 = 5225

BLOCK ASSIGNMENTS.

BLOCK	ADDRESS	LENGTH	FILE
/CONTRL/	100	17	
/QJOBSEL/	117	2	
/SIZE/	121	1	
HEC2	122	5146	HEC2
/DOUBLE/	5270	10	
/NAMES/	5300	202	
H2MAIN	5502	16706	HEC2
ADDPIS	24410	400	HEC2
BANNER	25010	230	HEC2
MESSAGE	25240	243	HEC2
BLFLO	25503	1075	HEC2
BLOCK	26600	323	HEC2
BWEIR	27123	1555	HEC2
CARD	30700	2510	HEC2
CHIMP	33410	1757	HEC2
DC	35367	741	HEC2
DONE	36330	113	HEC2
FLDHAZ	36443	2263	HEC2
FLODIS	40726	505	HEC2
BK.	41433	0	HEC2
NEAR	41433	35	HEC2
PRIAH	41470	261	HEC2
PROF	41751	1226	HEC2
SCALE	43177	316	HEC2
SLARA	43515	272	HEC2
SUMPQ	44007	3034	HEC2
XSEC	47043	1414	HEC2
YCRIT	50457	220	HEC2
MAPIT	50677	76	HEC2
QVAR	50775	45	HEC2
SAVEIT	51042	54	HEC2
/IOCOM./	51116	27	
INITBI.	51145	40	MNF4LIB
INITBO.	51205	33	MNF4LIB
INPUB=	51240	51	MNF4LIB
INPUT$	51311	123	MNF4LIB
OUTPUB=	51434	14	MNF4LIB
OUTPUT$	51450	65	MNF4LIB
/.QCOMP./	51535	1	
Q8NTR=	51536	54	MNF4LIB
RTOR=	51612	147	MNF4LIB
CIO=	51761	13	FTN4LIB
CLOCK=	51774	44	FTN4LIB
/IO.BUF./	52040	227	

BLOCK ASSIGNMENTS.

BLOCK	ADDRESS	LENGTH	FILE
DISPLA	52267	171	FTN4LIB
ENDFIL=	52460	20	FTN4LIB
ENDJ=	52500	2	FTN4LIB
EOF	52502	54	FTN4LIB
/Q8.IO./	52556	165	
/FCL.C./	52743	21	
/QLINLMT/	52764	1	
/QASAELG/	52765	1	
/STP.END/	52766	1	
FORSYS=	52767	640	FTN4LIB
/QOVERL:/	53627	1	
FORUTL=	53630	16	FTN4LIB
FREEZE=	53646	233	FTN4LIB
F.OPEN	54101	120	FTN4LIB
F.REW	54221	41	FTN4LIB
F.WEOF	54262	52	FTN4LIB
GETFET=	54334	76	FTN4LIB
GETFIT=	54432	43	FTN4LIB
GETFP.	54475	60	FTN4LIB
HOURS	54555	14	FTN4LIB
LFM=	54571	10	FTN4LIB
Q9FILE	54601	104	FTN4LIB
Q9OC	54705	203	FTN4LIB
REMARK	55110	3	FTN4LIB
REWIND=	55113	44	FTN4LIB
/QFILEAD/	55157	1	
SETFLS	55160	31	FTN4LIB
SQRT	55211	6	FTN4LIB
SQRT.	55217	32	FTN4LIB
SYSAID=	55251	1	FTN4LIB
SYS=	55252	34	FTN4LIB
SYS=1ST	55306	62	FTN4LIB
WTH=	55370	30	FTN4LIB
WIO=	55420	17	FTN4LIB
WTW=	55437	66	FTN4LIB
XEQCCS=	55525	266	FTN4LIB
IOFLAG.	56013	3	MNF4LIB
QFORSY=	56016	32	MNF4LIB
FTN4LIB	56050	0	FTN4LIB
COMIO=	56050	60	FTN4LIB
FECMSK=	56130	41	FTN4LIB
FLTIN=	56171	156	FTN4LIB
FLTOUT=	56347	314	FTN4LIB
FMTAP=	56663	406	FTN4LIB
F.RDYI	57271	31	FTN4LIB
F.READB	57322	346	FTN4LIB
F.READF	57670	170	FTN4LIB
F.WEOR	60060	54	FTN4LIB
F.WRITB	60134	176	FTN4LIB
F.WRITF	60332	122	FTN4LIB
INCOM=	60454	262	FTN4LIB
INPB=	60736	172	FTN4LIB
INPC=	61130	234	FTN4LIB
KODER=	61364	536	FTN4LIB
KRAKER=	62122	435	FTN4LIB

BLOCK ASSIGNMENTS.

BLOCK	ADDRESS	LENGTH	FILE
OUTB=	62557	117	FTN4LIB
OUTCOM=	62676	242	FTN4LIB
OUTC=	63140	155	FTN4LIB
RDL=	63315	37	FTN4LIB
RDO=	63354	23	FTN4LIB
RDW=	63377	114	FTN4LIB
ŪZERO..	63513	2	FTN4LIB
WTL=	63515	27	FTN4LIB
//	63544	15045	

```
**********************************************************************
*  WATER SURFACE PROFILES                                            *
*  VERSION OF NOVEMBER 1976                                          *
*  UPDATED JULY 1979                                                 *
*                                                                    *
*  RUN DATE  30 AUG 79 TIME  11.12.32                                *
**********************************************************************
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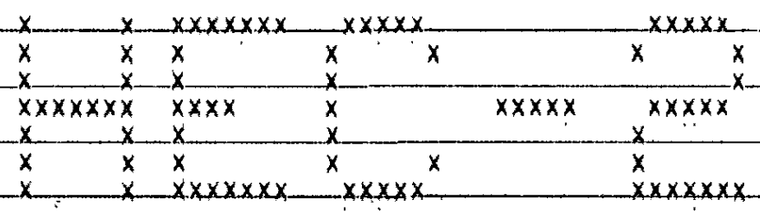
**********************************************
*  U.S. ARMY CORPS OF ENGINEERS              *
*  THE HYDROLOGIC ENGINEERING CENTER         *
*  609 SECOND STREET, SUITE D                *
*  DAVIS, CALIFORNIA 95616                   *
*  (916) 440-2105 (FTS) 448-2105             *
**********************************************
```

*GENERAL MESSAGE.

*HEC-2 MESSAGE

19 JULY 1979 -- THE STANDARD LIBRARY VERSION OF COMPUTER PROGRAM HEC-2 HAS BEEN UPDATED WITH ERROR CORRECTION 03. THIS UPDATE CORRECTS A SERIES OF PROGRAM ERRORS RELATED TO THE FOLLOWING: NEGATIVE ELEVATIONS; NORMAL BRIDGE APPLICATIONS; WEIR FLOW; BRIDGE ENCROACHMENTS; ENCROACHMENT METHODS 3, 4 AND 5; MULTIPLE CROSS SECTION PLOTS; AND FLOOD HAZARD FACTOR COMPUTATIONS. ERROR CORRECTION 03 ALSO INCLUDES A PROVISION TO IMPROVE HYDRAULIC CALCULATIONS FOR NEAR VERTICAL (1/10 SLOPE) ELEMENTS IN THE OVERBANKS. DOCUMENTATION FOR THIS ERROR CORRECTION WILL BE FURNISHED TO HEC-2 USERS IN AUGUST.

THE PREVIOUS VERSION OF HEC-2 MAY BE ACCESSED BY USE OF THE FOLLOWING CONTROL CARD:

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FETCHGS,HECLIB/HEC2,23638,V=1,ATL=ON.
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PLEASE CALL RICHARD HAYES OR AL MONTALVO AT (FTS) 448-2105 IF YOU HAVE ANY QUESTIONS REGARDING THIS ERROR CORRECTION.

THIS RUN EXECUTED 30 AUG 79 11.12.42

****
HEC2 RELEASE DATED NOV 76 UPDATED JULY 1979
ERROR CORR = 01,02,03
MODIFICATION = 50,51,52,53
****

```
C
T1      YPSILANTI TOWNSHIP FIS
T2      PAINT CREEK
T3      10 YR FLOW
J1  ICHECK    INQ     NINV    IDIR    STRT    METRIC  HVINS   Q       WSEL    FQ
      =0.      2.      =0.     =0.     =0.     =0.     =0.     =0.   688.200  =0.
J2  NPROF     IPLOT   PREVS   XSECV   XSECH   FN      ALLDC   IBW     CHNIM   ITRACE
     1.000    =0.     =1.000  =0.     =0.     =0.     =0.     =0.     =0.     =0.
J3  VARIABLE CODES FOR SUMMARY PRINTOUT
    150.000    0.    203.000  20.000  123.000 261.000  =0.     =0.     =0.     =0.
NC      .040     .040     .075     .100     .300    =0.     =0.     =0.     =0.     =0.
QT     4.000  406.000  608.000  748.000  952.000    =0.     =0.     =0.     =0.     =0.

                2000FT D/S BEMIS ROAD BRIDGE (COE VS=1)

X1        0.    18.000  249.000  300.000      0.      0.      0.     =0.     =0.     =0.
GR   690.400      0.    688.500  100.000  688.200  150.000  688.200  200.000  689.000  239.000
GR   688.000  249.000  685.100  266.000  683.900  270.000  683.100  275.000  683.600  280.000
GR   684.700  285.000  685.100  286.000  688.000  300.000  689.000  309.000  688.700  350.000
GR   689.600  400.000  689.300  500.000  691.300  600.000     =0.     =0.     =0.     =0.
ET      =0.    6.100    8.100    8.100    8.100  250.000  300.000    1.000  600.000     =0.

                1800FT D/S BEMIS ROAD BRIDGE (R)

X1   200.000    18.000  249.000  300.000  200.000  200.000  200.000     =0.     .320     =0.
GR   690.400      0.    688.500  100.000  688.200  150.000  688.200  200.000  689.000  239.000
GR   688.000  249.000  685.100  266.000  683.900  270.000  683.100  275.000  683.600  280.000
GR   684.700  285.000  685.100  286.000  688.000  300.000  689.000  309.000  688.700  350.000
GR   689.600  400.000  689.300  500.000  691.300  600.000     =0.     =0.     =0.     =0.
ET      =0.    6.100    8.100    8.100    8.100  250.000  300.000    1.000  600.000     =0.

                1600FT D/S BEMIS ROAD BRIDGE (R)

X1   400.000    18.000  249.000  300.000  200.000  200.000  200.000     =0.     .640     =0.
GR   690.400      0.    688.500  100.000  688.200  150.000  688.200  200.000  689.000  239.000
GR   688.000  249.000  685.100  266.000  683.900  270.000  683.100  275.000  683.600  280.000
GR   684.700  285.000  685.100  286.000  688.000  300.000  689.000  309.000  688.700  350.000
GR   689.600  400.000  689.300  500.000  691.300  600.000     =0.     =0.     =0.     =0.
ET      =0.    6.100    8.100    8.100    8.100  250.000  300.000    1.000  600.000     =0.

                1400FT D/S BE IS ROAD BRIDGE (R)
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X1	600.000	18.000	249.000	300.000	200.000	200.000	200.000	=0.	.960	=0.
GR	690.400	0.	688.500	100.000	688.200	150.000	688.200	200.000	689.000	239.000
GR	688.000	249.000	685.100	266.000	683.900	270.000	683.100	275.000	683.600	280.000
GR	684.700	285.000	685.100	286.000	688.000	300.000	689.000	309.000	688.700	350.000
GR	689.600	400.000	689.300	500.000	691.300	600.000	=0.	=0.	=0.	=0.

1200FT D/S BEMIS ROAD BRIDGE (R)

X1	800.000	18.000	249.000	300.000	200.000	200.000	200.000	=0.	1.280	=0.
GR	690.400	0.	688.500	100.000	688.200	150.000	688.200	200.000	689.000	239.000
GR	688.000	249.000	685.100	266.000	683.900	270.000	683.100	275.000	683.600	280.000
GR	684.700	285.000	685.100	286.000	688.000	300.000	689.000	309.000	688.700	350.000
GR	689.600	400.000	689.300	500.000	691.300	600.000	=0.	=0.	=0.	=0.
NC	=0.	=0.	=0.	.500	.900	=0.	=0.	=0.	=0.	=0.

1000FT D/S BEMIS ROAD BRIDGE (COE VS-2)

X1	1000.000	21.000	294.000	347.000	200.000	200.000	200.000	=0.	=0.	=0.
X3	=0.	=0.	=0.	50.000	=0.	525.000	=0.	=0.	=0.	=0.
GR	688.700	0.	688.700	47.000	689.500	147.000	689.400	197.000	689.200	247.000
GR	689.700	285.000	688.700	294.000	685.800	306.000	685.400	307.000	685.000	312.000
GR	684.700	317.000	684.900	322.000	685.800	326.000	686.500	330.000	688.500	338.000
GR	689.000	347.000	689.700	354.000	690.700	397.000	690.800	447.000	691.200	547.000
GR	694.000	647.000	=0.	=0.	=0.	=0.	=0.	=0.	=0.	=0.

800FT D/S BEMIS ROAD BRIDGE (R)

X1	1200.000	20.000	247.000	300.000	200.000	200.000	200.000	=0.	.200	=0.
X3	=0.	=0.	=0.	50.000	=0.	500.000	=0.	=0.	=0.	=0.
GR	688.700	0.	689.500	100.000	689.400	150.000	689.200	200.000	689.700	238.000
GR	688.700	247.000	685.800	259.000	685.400	260.000	685.000	265.000	684.700	270.000
GR	684.900	275.000	685.800	279.000	686.500	283.000	688.500	291.000	689.000	300.000
GR	689.700	307.000	690.700	350.000	690.800	400.000	691.200	500.000	694.000	600.000

600FT D/S BEMIS ROAD BRIDGE (R)

X1	1400.000	20.000	247.000	300.000	200.000	200.000	200.000	=0.	.400	=0.
X3	=0.	=0.	=0.	100.000	=0.	450.000	=0.	=0.	=0.	=0.
GR	688.700	0.	689.500	100.000	689.400	150.000	689.200	200.000	689.700	238.000
GR	688.500	247.000	685.800	259.000	685.400	260.000	685.100	265.000	685.100	270.000
GR	684.900	275.000	685.800	279.000	686.500	283.000	688.500	291.000	689.000	300.000
GR	689.700	307.000	690.700	350.000	690.800	400.000	691.200	500.000	694.000	600.000

400FT D/S BEMIS ROAD BRIDGE (R)

X1	1600.000	20.000	247.000	300.000	200.000	200.000	200.000	=0.	.600	=0.
X3	=0.	=0.	=0.	150.000	=0.	400.000	=0.	=0.	=0.	=0.
GR	688.700	0.	689.500	100.000	689.400	150.000	689.200	200.000	689.700	238.000
GR	688.700	247.000	685.800	259.000	685.400	260.000	685.000	265.000	684.700	270.000
GR	685.300	275.000	685.800	279.000	686.500	283.000	688.500	291.000	689.000	300.000
GR	689.700	307.000	690.700	350.000	690.800	400.000	691.200	500.000	694.000	600.000

200FT D/S BEMIS ROAD BRIDGE (R)

X1	1800.000	20.000	247.000	300.000	150.000	250.000	200.000	=0.	.800	=0.
X3	=0.	=0.	=0.	200.000	=0.	350.000	=0.	=0.	=0.	=0.
GR	688.700	0.	689.500	100.000	689.400	150.000	689.200	200.000	689.700	238.000
GR	688.700	247.000	685.800	259.000	685.400	260.000	685.000	265.000	684.700	270.000
GR	685.300	275.000	685.800	279.000	686.500	283.000	688.500	291.000	689.000	300.000

GR	685.700	307.000	690.700	350.000	695.000	400.000				

100FT D/S BEMIS ROAD BRIDGE (ZW 107+50)

X1	1900.000	15.000	267.000	305.000	100.000	100.000	100.000	=0.	=0.	=0.
X3	=0.	=0.	=0.	236.000	=0.	334.000	=0.	=0.	=0.	=0.
GR	690.900	0.	691.300	100.000	690.900	200.000	691.900	267.000	689.300	276.000
GR	685.600	278.000	686.100	290.000	686.900	301.000	691.100	305.000	690.700	325.000
GR	692.500	332.000	691.000	390.000	691.500	490.000	692.800	546.000	697.600	590.000

50FT D/S BEMIS ROAD BRIDGE (R COE VS=4)

X1	1950.000	17.000	200.000	255.000	50.000	50.000	50.000	=0.	.100	=0.
X3	=0.	=0.	=0.	200.000	=0.	255.000	=0.	=0.	=0.	=0.
GR	693.900	0.	693.500	50.000	693.200	100.000	691.600	150.000	691.100	200.000
GR	689.200	213.000	686.700	215.000	685.200	220.000	685.600	230.000	687.500	231.000
GR	687.900	245.000	690.700	255.000	691.600	300.000	690.800	350.000	690.900	400.000
GR	690.900	450.000	690.500	500.000	=0.	=0.	=0.	=0.	=0.	=0.
NC	.030	.030	.040	=0.	=0.	=0.	=0.	=0.	=0.	=0.

X1	1985.000	18.000	170.000	197.000	49.000	21.000	35.000	=0.	=0.	=0.
X3	=0.	=0.	=0.	170.000	=0.	197.000	=0.	=0.	=0.	=0.
GR	693.300	0.	693.500	50.000	693.700	100.000	693.900	150.000	693.700	170.000
GR	687.900	170.000	686.800	175.000	685.100	180.000	685.100	185.000	686.600	190.000
GR	686.800	192.000	688.000	197.000	693.800	197.000	693.800	200.000	694.400	250.000
GR	694.700	300.000	694.800	350.000	695.000	400.000	=0.	=0.	=0.	=0.

D/S FACE OF BEMIS ROAD BRIDGE (COE VS=3)CONC SLAB AND WINGWALLS

X1	1986.000	=0.	=0.	=0.	1.000	1.000	1.000	=0.	=0.	=0.
X3	=0.	=0.	=0.	170.000	=0.	197.000	=0.	=0.	=0.	=0.
BT	13.000	0.	693.300	0.	50.000	693.500	0.	100.000	693.700	0.
BT	150.000	693.900	0.	170.000	693.700	0.	170.000	693.700	692.700	197.000
BT	693.800	692.700	197.000	693.800	0.	200.000	693.800	0.	250.000	694.400
BT	0.	300.000	694.700	0.	350.000	694.800	0.	400.000	695.000	0.

U/S FACE OF BEMIS ROAD BRIDGE (R COE VS3)CONC SLAB AND WINGWALLS

X1	2014.000	=0.	=0.	=0.	28.000	28.000	28.000	=0.	=0.	=0.
X2	=0.	=0.	=0.	=0.	=0.	=0.	1.000	=0.	=0.	=0.
X3	=0.	=0.	=0.	170.000	=0.	197.000	=0.	=0.	=0.	=0.

X1	2015.000	=0.	=0.	=0.	1.000	1.000	1.000	=0.	=0.	=0.
X3	=0.	=0.	=0.	170.000	=0.	197.000	=0.	=0.	=0.	=0.
NC	.080	.080	.080	.500	=0.	=0.	=0.	=0.	=0.	=0.

36FT U/S BEMIS ROAD BRIDGE (R COE VS=4)

X1	2050.000	18.000	200.000	255.000	21.000	49.000	35.000	=0.	=.050	=0.
X3	=0.	=0.	=0.	164.000	=0.	291.000	=0.	=0.	=0.	=0.
GR	693.900	0.	693.500	50.000	693.200	100.000	691.600	150.000	691.100	200.000
GR	689.200	213.000	686.700	215.000	685.200	220.000	685.600	230.000	687.500	231.000
GR	687.900	245.000	690.700	255.000	691.600	300.000	690.800	350.000	690.900	400.000
GR	690.900	450.000	690.500	500.000	695.000	570.000	=0.	=0.	=0.	=0.

86FT U/S BEMIS ROAD BRIDGE (COE VS=4) CROSS SECTION A

X1	2100.000	19.000	300.000	355.000	75.000	25.000	50.000	0	0	0

X5	=0.	=0.	=0.	214.000	=0.	441.000	0.	0.	0.	0.
GR	695.000	0.	692.900	100.000	693.500	150.000	693.200	200.000	691.600	250.000
GR	691.900	300.000	689.200	313.000	686.700	315.000	685.200	320.000	685.600	330.000
GR	687.500	331.000	687.900	345.000	690.700	355.000	691.600	400.000	690.800	450.000
GR	690.900	500.000	690.900	550.000	690.500	600.000	695.000	670.000	=0.	=0.
NC	=0.	=0.	=0.	.300	.500	=0.	=0.	=0.	=0.	=0.

416FT U/S BEMIS ROAD BRIDGE (ZW 101+00)

X1	2430.000	16.000	330.000	424.000	300.000	300.000	330.000	=0.	=0.	=0.
GR	697.500	0.	695.000	30.000	693.000	100.000	692.900	200.000	693.600	300.000
GR	693.400	330.000	691.600	335.000	690.700	388.000	688.100	391.000	686.600	400.000
GR	688.200	409.000	690.800	418.000	693.800	424.000	693.600	500.000	696.300	600.000
GR	699.000	700.000	=0.	=0.	=0.	=0.	=0.	=0.	=0.	=0.
NC	.040	.040	.080	=0.	=0.	=0.	=0.	=0.	=0.	=0.

976FT U/S BEMIS ROAD BRIDGE (ZW 95+00) CROSS SECTION B

X1	2990.000	15.000	270.000	314.000	590.000	470.000	560.000	=0.	=0.	=0.
GR	697.200	0.	696.700	100.000	697.700	162.000	692.500	182.000	692.400	186.000
GR	693.300	200.000	693.300	270.000	690.900	290.000	687.300	295.000	686.700	300.000
GR	687.200	305.000	693.200	314.000	695.400	400.000	698.600	500.000	700.100	600.000

1376FT U/S BEMIS ROAD BRIDGE (ZW 90+75)

X1	3390.000	12.000	500.000	543.000	400.000	400.000	400.000	=0.	=0.	=0.
GR	693.000	0.	694.100	221.000	694.500	321.000	695.500	421.000	695.600	500.000
GR	687.900	515.000	687.500	521.000	687.700	527.000	696.200	543.000	696.100	621.000
GR	700.100	721.000	700.200	821.000	=0.	=0.	=0.	=0.	=0.	=0.

2026FT U/S BEMIS ROAD BRIDGE (ZW 84+00) CROSS SECTION C

X1	4040.000	14.000	366.000	410.000	650.000	650.000	650.000	=0.	=0.	=0.
GR	694.200	0.	695.200	91.000	697.300	191.000	697.300	291.000	697.700	366.000
GR	691.300	380.000	691.300	381.000	689.300	385.000	688.500	391.000	689.200	397.000
GR	698.900	410.000	700.300	491.000	701.000	591.000	701.700	691.000	=0.	=0.
NC	=0.	=0.	=0.	.500	.900	=0.	=0.	=0.	=0.	=0.

2556FT U/S BEMIS ROAD BRIDGE (ZW 79+00)

X1	4570.000	14.000	280.000	330.000	540.000	510.000	530.000	=0.	=0.	=0.
X3	=0.	=0.	=0.	46.000	=0.	600.000	=0.	=0.	=0.	=0.
GR	696.700	0.	696.200	100.000	696.600	200.000	697.000	272.000	697.200	280.000
GR	695.400	288.000	690.300	294.000	689.500	300.000	690.200	306.000	694.000	313.000
GR	699.300	330.000	701.700	400.000	701.500	500.000	702.100	600.000	=0.	=0.

3076FT U/S BEMIS ROAD BRIDGE (ZW 74+00) CROSS SECTION D

X1	5090.000	15.000	260.000	300.000	510.000	530.000	520.000	=0.	=0.	=0.
X3	=0.	=0.	=0.	158.000	=0.	402.000	=0.	=0.	=0.	=0.
GR	700.100	0.	700.000	10.000	697.200	20.000	698.200	30.000	697.500	100.000
GR	697.500	180.000	697.800	260.000	691.000	274.000	690.300	280.000	691.100	286.000
GR	698.700	300.000	702.200	326.000	703.200	380.000	704.300	480.000	704.000	580.000
NC	.040	.040	.060	=0.	=0.	=0.	=0.	=0.	=0.	=0.

86FT D/S MARTZ ROAD BRIDGE (ZW 69+00)

X1	5450.000	14.000	306.000	347.000	322.000	398.000	360.000	=0.	=0.	=0.
X3	0	0	0	295.000	0	359.000	0	0	0	0

GR	6.8.100	0.	697.900	123.000	696.800	223.000	697.700	306.000	694.500	316.000
GR	691.800	317.000	691.800	327.000	691.400	329.000	693.400	332.000	694.800	339.000
GR	702.900	347.000	703.500	423.000	704.500	523.000	704.200	623.000	=0.	=0.

36FT D/S MARTZ ROAD BRIDGE (R ZW 69+00)

X1	5500.000	14.000	306.000	347.000	20.000	80.000	50.000	=0.	=0.	=.130
X3	=0.	=0.	=0.	306.000	=0.	347.000	=0.	=0.	=0.	=0.
GR	698.700	0.	697.900	123.000	696.800	223.000	697.700	306.000	694.500	316.000
GR	691.800	317.000	691.800	327.000	691.400	329.000	693.400	332.000	694.800	339.000
GR	702.900	347.000	703.500	423.000	704.500	523.000	704.200	623.000	=0.	=0.
NC	.030	.030	.040	=0.	=0.	=0.	=0.	=0.	=0.	=0.

D/S FACE OF MARTZ ROAD BRIDGE HEADWALL (R ZW 68+00)

X1	5525.000	12.000	310.000	336.000	25.000	25.000	25.000	=0.	=0.	=0.
X3	=0.	=0.	=0.	310.000	=0.	=0.	=0.	=0.	=0.	=0.
GR	699.500	0.	700.400	123.000	700.800	223.000	701.500	310.000	698.300	310.000
GR	691.200	315.000	691.200	331.000	697.800	336.000	701.500	336.000	701.600	423.000
GR	702.200	523.000	703.600	623.000	=0.	=0.	=0.	=0.	=0.	=0.

X1	5535.000	=0.	=0.	=0.	10.000	10.000	10.000	=0.	=0.	=0.
X3	=0.	=0.	=0.	310.000	=0.	=0.	=0.	=0.	=0.	=0.

D/S FACE OF MARTZ ROAD BRIDGE (ZW 68+00) CONC SLAB AND WINGWALLS

X1	5536.000	=0.	=0.	=0.	1.000	1.000	1.000	=0.	=0.	=0.
X3	=0.	=0.	=0.	310.000	=0.	=0.	=0.	=0.	=0.	=0.
BT	10.000	0.	699.500	=0.	123.000	700.400	=0.	223.000	700.800	=0.
BT	310.000	701.500	=0.	310.000	701.500	700.300	336.000	701.500	700.300	336.000
BT	701.500	=0.	423.000	701.600	=0.	523.000	702.200	=0.	623.000	703.600
BT	0.	=0.	=0.	=0.	=0.	=0.	=0.	=0.	=0.	=0.

U/S FACE OF MARTZ ROAD BRIDGE (R ZW68+00)CONC SLAB AND WINGWALLS

X1	5564.000	=0.	=0.	=0.	28.000	28.000	28.000	=0.	=0.	=0.
X2	=0.	=0.	=0.	=0.	=0.	=0.	1.000	=0.	=0.	=0.
X3	=0.	=0.	=0.	310.000	=0.	=0.	=0.	=0.	=0.	=0.

X1	5565.000	=0.	=0.	=0.	1.000	1.000	1.000	=0.	=0.	=0.
X3	=0.	=0.	=0.	310.000	=0.	=0.	=0.	=0.	=0.	=0.

U/S FACE OF MARTZ ROAD BRIDGE HEADWALL (ZW 68+00)

X1	5575.000	=0.	=0.	=0.	10.000	10.000	10.000	=0.	=0.	=0.
X3	=0.	=0.	=0.	310.000	=0.	=0.	=0.	=0.	=0.	=0.
NC	.040	.040	.060	=0.	=0.	=0.	=0.	=0.	=0.	=0.
QT	4.000	419.000	636.000	777.000	991.000	=0.	=0.	=0.	=0.	=0.

36FT U/S MARTZ ROAD BRIDGE (R ZW 67+00)

X1	5600.000	13.000	306.000	339.000	39.000	11.000	25.000	=0.	=0.	=0.
X3	=0.	=0.	=0.	281.000	=0.	364.000	=0.	=0.	=0.	=0.
GR	698.500	0.	697.800	123.000	697.800	223.000	698.000	306.000	695.400	314.000
GR	691.900	315.000	691.200	331.000	694.400	333.000	694.700	334.000	697.400	339.000
GR	696.700	423.000	698.100	523.000	700.600	623.000	=0.	=0.	=0.	=0.

86FT U/S MARTZ ROAD BRIDGE (ZW 67+00) CROSS SECTION E

X1	5650.000	=0.	=0.	=0.	80.000	40.000	50.000	=0.	=0.	=0.
X3	=0.	=0.	=0.	231.000	=0.	414.000	=0.	=0.	=0.	=0.
NC	.040	.040	.080	.300	.500	=0.	=0.	=0.	=0.	=0.

736FT U/S MARTZ ROAD BRIDGE (ZW 61+00) CROSS SECTION F

X1	6300.000	13.000	279.000	317.000	650.000	650.000	650.000	=0.	=0.	=0.
X3	=0.	=0.	=0.	=0.	=0.	560.000	=0.	=0.	=0.	=0.
GR	700.700	0.	701.000	100.000	701.300	200.000	699.300	279.000	697.800	290.000
GR	693.400	292.000	693.300	308.000	692.800	309.000	694.500	314.000	690.500	317.000
GR	699.800	400.000	699.500	500.000	699.400	600.000	=0.	=0.	=0.	=0.

1156FT U/S MARTZ ROAD BRIDGE (ZW 56+00)

X1	6720.000	19.000	286.000	320.000	390.000	550.000	420.000	=0.	=0.	=0.
X3	=0.	=0.	=0.	=0.	=0.	1010.000	=0.	=0.	=0.	=0.
GR	700.700	0.	700.500	86.000	700.300	136.000	700.600	186.000	700.700	236.000
GR	701.200	286.000	695.300	291.000	694.900	300.000	695.600	304.000	696.000	309.000
GR	701.300	320.000	699.600	327.000	699.500	377.000	699.900	427.000	699.800	477.000
GR	699.800	527.000	699.700	600.000	700.000	950.000	699.500	1210.000	=0.	=0.

1516FT U/S MARTZ ROAD BRIDGE (R ZW 52+00) CROSS SECTION G

X1	7080.000	15.000	337.000	365.000	400.000	220.000	360.000	=0.	=1.500	=0.
X3	=0.	=0.	=0.	=0.	=0.	1125.000	=0.	=0.	=0.	=0.
GR	703.500	0.	703.300	150.000	702.500	250.000	701.800	337.000	696.800	343.000
GR	695.200	345.000	695.400	350.000	696.000	355.000	702.600	365.000	702.400	450.000
GR	702.400	550.000	702.400	650.000	702.000	830.000	700.000	1090.000	699.500	1125.000

2106FT U/S MARTZ ROAD BRIDGE (ZW 46+00)

X1	7670.000	15.000	337.000	365.000	630.000	250.000	590.000	=0.	=0.	=0.
X3	=0.	=0.	=0.	=0.	=0.	1125.000	=0.	=0.	=0.	=0.
GR	703.500	0.	703.300	150.000	702.500	250.000	701.800	337.000	696.800	343.000
GR	695.200	345.000	695.400	350.000	696.000	355.000	702.600	365.000	702.400	450.000
GR	702.400	550.000	702.400	650.000	702.000	830.000	700.000	1090.000	699.500	1125.000

2806FT U/S MARTZ ROAD BRIDGE (ZW 39+00) CROSS SECTION H

X1	8370.000	18.000	287.000	314.000	680.000	730.000	700.000	=0.	=0.	=0.
X3	=0.	=0.	=0.	45.000	=0.	400.000	=0.	=0.	=0.	=0.
GR	702.900	0.	702.900	87.000	702.900	137.000	703.100	187.000	702.800	237.000
GR	702.700	287.000	698.200	293.000	696.700	295.000	696.600	300.000	697.000	304.000
GR	698.200	306.000	702.800	314.000	701.900	335.000	701.500	385.000	702.500	435.000
GR	702.100	485.000	702.700	535.000	703.200	600.000	=0.	=0.	=0.	=0.
ET	=0.	6.100	8.100	8.100	8.100	1.000	313.000	1.000	500.000	=0.

3286FT U/S MARTZ ROAD BRIDGE (ZW 32+00) CROSS SECTION I

X1	8850.000	14.000	287.000	313.000	480.000	520.000	480.000	=0.	=0.	=0.
GR	709.400	0.	706.200	100.000	703.100	200.000	702.400	287.000	699.800	295.000
GR	698.500	296.000	697.900	300.000	698.400	305.000	699.700	308.000	703.900	313.000
GR	703.500	400.000	702.800	500.000	703.500	543.000	707.600	595.000	=0.	=0.

3956FT U/S MARTZ ROAD BRIDGE (ZW 27+00)

X1	9520.000	15.000	293.000	311.000	620.000	730.000	670.000	0	=0	0

X3	-0.	-0.	-0.	112.000	-0.	-0.	-0.	-0.	-0.	-0.
GR	705.100	0.	705.100	157.000	704.000	207.000	705.200	267.000	703.900	292.000
GR	700.100	295.000	698.900	296.000	699.300	306.000	700.500	307.000	705.200	311.000
GR	705.900	331.000	708.500	391.000	709.100	441.000	708.900	491.000	710.600	600.000
NC	-0.	-0.	-0.	.500	.900	-0.	-0.	-0.	-0.	-0.

4456FT U/S MARTZ ROAD BRIDGE (ZW 22+00) CROSS SECTION J

X1	10020.000	16.000	288.000	315.000	500.000	500.000	500.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	150.000	-0.	-0.	-0.	-0.	-0.	-0.
GR	705.500	0.	707.100	88.000	707.000	138.000	706.500	188.000	706.300	238.000
GR	705.900	288.000	702.600	293.000	700.900	294.000	700.700	300.000	700.800	307.000
GR	703.400	308.000	704.900	315.000	704.800	365.000	705.100	415.000	705.200	465.000
GR	705.400	515.000	-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.
NC	.060	.050	.080	-0.	-0.	-0.	-0.	-0.	-0.	-0.
ET	-0.	6.100	6.100	8.100	8.100	150.000	336.000	60.000	336.000	-0.

86FT D/S MERRITT ROAD BRIDGE (ZW 17+00)

X1	10520.000	12.000	282.000	320.000	450.000	550.000	500.000	-0.	-0.	-0.
GR	704.700	0.	707.000	100.000	706.200	187.000	704.800	282.000	701.600	292.000
GR	701.000	293.000	700.700	307.000	701.700	308.000	706.500	320.000	706.300	400.000
GR	706.300	500.000	712.100	600.000	-0.	-0.	-0.	-0.	-0.	-0.
NC	.040	.040	.060	-0.	-0.	-0.	-0.	-0.	-0.	-0.
ET	-0.	6.100	6.100	8.100	8.100	175.000	325.000	60.000	332.000	-0.

36FT D/S MERRITT ROAD BRIDGE (R ZW 17+00)

X1	10570.000	12.000	282.000	320.000	1.000	60.000	50.000	-0.	.170	-0.
GR	704.700	0.	707.000	100.000	706.200	187.000	704.800	282.000	701.600	292.000
GR	701.000	293.000	700.700	307.000	701.700	308.000	706.500	320.000	706.300	400.000
GR	706.300	500.000	712.100	600.000	-0.	-0.	-0.	-0.	-0.	-0.
NC	.030	.030	.040	-0.	-0.	-0.	-0.	-0.	-0.	-0.

X1	10605.000	12.000	287.000	313.000	35.000	35.000	35.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	110.000	-0.	-0.	-0.	-0.	-0.	-0.
GR	707.600	0.	707.900	100.000	709.200	187.000	711.500	287.000	703.700	287.000
GR	701.000	292.000	701.100	308.000	703.700	313.000	711.500	313.000	710.700	400.000
GR	710.500	500.000	710.600	600.000	-0.	-0.	-0.	-0.	-0.	-0.

D/S FACE OF MERRITT ROAD BRIDGE(ZW 16+00)CONC SLAB AND WINGWALLS

X1	10606.000	-0.	-0.	-0.	1.000	1.000	1.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	110.000	-0.	-0.	-0.	-0.	-0.	-0.
BT	10.000	0.	707.600	0.	100.000	707.900	0.	187.000	709.200	0.
BT	287.000	711.500	0.	287.000	711.500	710.200	313.000	711.500	710.200	313.000
BT	711.500	0.	400.000	710.700	0.	500.000	710.500	0.	600.000	710.600
BT	0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.

U/S FACE OF MERRITT ROAD BRIDGE (R ZW 16+00)

X1	10634.000	-0.	-0.	-0.	28.000	28.000	28.000	-0.	-0.	-0.
X2	-0.	-0.	-0.	-0.	-0.	-0.	1.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	120.000	-0.	-0.	-0.	-0.	-0.	-0.

X1	10635.000	-0.	-0.	-0.	1.000	1.000	1.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	120.000	-0.	-0.	-0.	-0.	-0.	-0.
NC	.040	.040	.060	-0.	-0.	-0.	-0.	-0.	-0.	-0.
BT	4.000	133.000	130.000	779.000	994.000	0	0	0	0	0

36FT U/S MERRITT ROAD BRIDGE (R ZW 15+00)

X1	10670.000	12.000	266.000	312.000	50.000	22.000	35.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	215.000	-0.	335.000	-0.	-0.	-0.	-0.
GR	706.700	0.	707.000	100.000	707.300	187.000	707.500	266.000	703.200	285.000
GR	703.400	288.000	700.700	293.000	700.700	307.000	706.900	312.000	706.600	400.000
GR	705.600	500.000	707.800	600.000	-0.	-0.	-0.	-0.	-0.	-0.
NC	.040	.040	.080	-0.	-0.	-0.	-0.	-0.	-0.	-0.

86FT U/S MERRITT ROAD BRIDGE (ZW 15+00) CROSS SECTION K

X1	10720.000	12.000	266.000	312.000	50.000	50.000	50.000	-0.	.140	-0.
X3	-0.	-0.	-0.	165.000	-0.	385.000	-0.	-0.	-0.	-0.
GR	706.700	0.	707.000	100.000	707.300	187.000	707.500	266.000	703.200	283.000
GR	703.400	288.000	700.700	293.000	700.700	307.000	706.900	312.000	706.600	400.000
GR	705.600	500.000	707.800	600.000	-0.	-0.	-0.	-0.	-0.	-0.
NC	-0.	-0.	-0.	.300	.500	-0.	-0.	-0.	-0.	-0.

426FT U/S MERRITT ROAD BRIDGE (ZW 12+00)

X1	11060.000	17.000	362.000	387.000	340.000	340.000	340.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	-0.	-0.	450.000	-0.	-0.	-0.	-0.
GR	712.300	0.	712.300	100.000	711.800	200.000	713.100	250.000	713.100	300.000
GR	708.700	340.000	707.800	362.000	703.200	367.000	701.800	374.000	701.900	381.000
GR	703.900	384.000	705.800	387.000	707.200	447.000	707.100	487.000	707.400	587.000
GR	708.100	674.000	710.000	750.000	-0.	-0.	-0.	-0.	-0.	-0.
NC	.050	.080	.080	.500	.700	-0.	-0.	-0.	-0.	-0.

816FT U/S MERRITT ROAD BRIDGE (ZW 8+00) CROSS SECTION L

X1	11450.000	16.000	275.000	304.000	420.000	360.000	390.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	90.000	-0.	590.000	-0.	-0.	-0.	-0.
GR	712.900	0.	713.000	100.000	713.300	150.000	712.900	200.000	709.100	245.000
GR	708.100	275.000	703.000	283.000	702.300	291.000	702.700	298.000	706.100	304.000
GR	707.300	354.000	707.600	454.000	707.500	504.000	707.200	600.000	708.600	700.000
GR	710.000	800.000	-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.

1226FT U/S MERRITT ROAD BRIDGE (ZW 3+00)

X1	11860.000	17.000	283.000	317.000	440.000	370.000	410.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	200.000	-0.	400.000	-0.	-0.	-0.	-0.
GR	710.100	0.	709.800	33.000	708.700	133.000	708.600	233.000	708.700	278.000
GR	708.700	283.000	706.200	287.000	704.300	290.000	704.200	300.000	704.700	310.000
GR	706.500	313.000	708.900	317.000	708.900	322.000	708.000	367.000	710.300	467.000
GR	712.000	517.000	712.200	617.000	-0.	-0.	-0.	-0.	-0.	-0.

35FT D/S WHITTAKER ROAD BRIDGE (R ZW -1+00) CROSS SECTION M

X1	12170.000	12.000	262.000	285.000	330.000	270.000	310.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	253.000	-0.	294.000	-0.	-0.	-0.	-0.
GR	715.000	0.	710.000	220.000	709.600	250.000	708.600	262.000	707.000	266.000
GR	705.100	271.000	704.300	276.000	705.100	281.000	707.600	285.000	708.300	294.000
GR	708.500	300.000	710.000	340.000	-0.	-0.	-0.	-0.	-0.	-0.
NC	.030	.030	.040	-0.	-0.	-0.	-0.	-0.	-0.	-0.

X1	12204.000	10.000	288.900	311.100	34.000	34.000	34.000	-0.	-0.	-0.
GR	714.800	0.	713.300	100.000	713.000	200.000	714.200	288.900	704.300	288.900
GR	704.300	311.100	713.300	311.100	713.100	400.000	713.400	500.000	713.400	700.000

D/S FACE OF WHITTAKER ROAD BRIDGE(ZW 0+00)CONC SLAB AND HEADWALL

X1	12205.000	-0.	-0.	-0.	1.000	1.000	1.000	-0.	-0.	-0.
BT	10.000	0.	714.800	-0.	100.000	713.300	-0.	200.000	713.000	-0.
BT	288.900	714.200	-0.	288.900	714.200	713.700	311.100	714.200	713.700	311.100
BT	714.200	-0.	400.000	713.600	-0.	500.000	713.400	-0.	600.000	713.400
BT	0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.

U/S FACE OF WHITTAKER ROAD BRIDGE (R) CONC SLAB AND HEADWALL

X1	12235.000	-0.	-0.	-0.	30.000	30.000	30.000	-0.	-0.	-0.
X2	-0.	-0.	-0.	-0.	-0.	-0.	1.000	-0.	-0.	-0.
X1	12236.000	-0.	-0.	-0.	1.000	1.000	1.000	-0.	-0.	-0.
NH	4.000	.060	312.000	.080	335.000	.060	500.000	.040	1445.000	-0.

35FT U/S WHITTAKER ROAD BRIDGE (R ZW -1+00)

X1	12270.000	26.000	312.000	335.000	34.000	34.000	34.000	-0.	-.120	-0.
X3	-0.	-0.	-0.	278.000	-0.	370.000	-0.	-0.	-0.	-0.
GR	720.900	0.	715.000	120.000	710.900	150.000	710.300	250.000	709.600	300.000
GR	708.600	312.000	707.000	316.000	705.100	321.000	704.500	326.000	705.100	331.000
GR	707.600	335.000	708.300	344.000	708.500	350.000	709.000	420.000	714.500	500.000
GR	710.700	600.000	709.400	668.000	707.800	675.000	707.600	680.000	707.800	687.000
GR	710.500	690.000	712.000	768.000	712.800	870.000	714.800	941.000	715.400	1015.000
GR	720.000	1445.000	-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.
NC	.060	.060	.080	-0.	-0.	-0.	-0.	-0.	-0.	-0.
QT	4.000	583.000	932.000	1521.000	2511.000	-0.	-0.	-0.	-0.	-0.

185FT U/S WHITTAKER ROAD BRIDGE (ZW -1+00)

X1	12320.000	12.000	192.000	215.000	30.000	70.000	50.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	108.000	-0.	300.000	-0.	-0.	-0.	-0.
GR	715.000	0.	710.000	170.000	709.600	180.000	708.600	192.000	707.000	196.000
GR	705.100	201.000	704.500	206.000	705.100	211.000	707.600	215.000	708.300	224.000
GR	708.500	230.000	708.500	450.000	-0.	-0.	-0.	-0.	-0.	-0.
NC	-0.	-0.	-0.	.200	.400	-0.	-0.	-0.	-0.	-0.
ET	-0.	6.100	6.100	8.100	8.100	200.000	725.000	1.000	850.000	-0.

485FT U/S WHITTAKER ROAD BRIDGE (ZW -4+00) CROSS SECTION N

X1	12720.000	18.000	200.000	248.000	330.000	400.000	400.000	-0.	-0.	-0.
GR	720.000	0.	715.000	30.000	710.900	50.000	710.300	150.000	711.500	200.000
GR	709.400	205.000	705.300	207.000	705.000	215.000	705.100	243.000	707.900	248.000
GR	708.300	258.000	710.000	298.000	710.200	348.000	709.600	398.000	709.600	448.000
GR	710.000	500.000	720.000	730.000	725.000	850.000	-0.	-0.	-0.	-0.

1405FT U/S WHITTAKER ROAD BRIDGE (COE VS-6) CROSS SECTION O

X1	13640.000	18.000	310.000	337.000	780.000	1050.000	920.000	-0.	-0.	-0.
GR	727.600	0.	728.700	100.000	728.800	200.000	723.400	260.000	718.200	292.000
GR	713.700	310.000	707.100	320.000	706.700	325.000	706.500	330.000	707.100	335.000
GR	709.500	337.000	711.700	360.000	711.800	410.000	711.800	460.000	712.400	510.000
GR	714.000	560.000	717.100	610.000	731.500	760.000	-0.	-0.	-0.	-0.

3035FT U/S WHITTAKER ROAD BRIDGE (COE VS-7) CROSS SECTION P

X1	15270.000	15.000	204.000	220.000	1650.000	1600.000	1650.000	-0.	0.	-0.
GR	735.400	0.	731.500	150.000	712.400	204.000	710.200	206.000	708.600	209.000
GR	708.100	214.000	710.200	219.000	711.900	220.000	711.800	238.000	714.400	259.000
GR	713.300	304.000	713.600	354.000	713.800	404.000	720.000	670.000	725.000	800.000

3785FT U/S WHITTAKER ROAD BRIDGE (COE VS-8) CROSS SECTION Q

X1	16020.000	18.000	350.000	386.000	800.000	640.000	750.000	-0.	-0.	-0.
GR	735.200	0.	737.000	150.000	737.400	200.000	733.000	230.000	714.800	329.000
GR	714.100	350.000	710.700	358.000	709.800	360.000	709.600	365.000	709.500	370.000
GR	710.700	373.000	716.700	386.000	715.900	400.000	715.700	450.000	716.300	500.000
GR	716.500	550.000	720.000	800.000	725.000	850.000	-0.	-0.	-0.	-0.

4785FT U/S WHITTAKER ROAD BRIDGE (COE VS-9) CROSS SECTION R

X1	17020.000	18.000	369.000	400.000	1000.000	900.000	1000.000	-0.	-0.	-0.
GR	729.900	0.	726.800	115.000	725.000	160.000	720.000	200.000	715.600	369.000
GR	713.600	370.000	712.500	375.000	712.200	380.000	713.600	385.000	715.300	391.000
GR	718.900	400.000	718.900	450.000	718.600	500.000	718.100	550.000	720.100	600.000
GR	720.000	830.000	725.000	900.000	730.000	950.000	-0.	-0.	-0.	-0.
NC	-0.	-0.	-0.	.500	.800	-0.	-0.	-0.	-0.	-0.
NH	5.000	.060	119.000	.080	150.000	.040	250.000	.100	300.000	.040
NH	850.000	-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.

5285FT U/S WHITTAKER ROAD BRIDGE (C)

X1	17520.000	18.000	119.000	150.000	470.000	500.000	500.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	-0.	-0.	710.000	-0.	-0.	-0.	-0.
GR	725.000	0.	720.000	80.000	715.600	119.000	713.600	120.000	713.300	125.000
GR	713.300	130.000	713.600	135.000	715.300	141.000	718.900	150.000	719.200	250.000
GR	719.300	300.000	719.300	350.000	719.300	400.000	719.300	450.000	719.300	500.000
GR	720.000	750.000	720.000	810.000	725.000	850.000	-0.	-0.	-0.	-0.
NC	.060	.040	.080	-0.	-0.	-0.	-0.	-0.	-0.	-0.

5335FT U/S WHITTAKER ROAD BRIDGE (C)

X1	17570.000	19.000	179.000	210.000	50.000	80.000	50.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	-0.	-0.	670.000	-0.	-0.	-0.	-0.
GR	730.000	0.	725.000	70.000	720.000	130.000	715.600	179.000	713.600	180.000
GR	713.300	185.000	713.300	190.000	713.600	195.000	715.300	201.000	718.900	210.000
GR	719.200	250.000	719.200	300.000	719.200	350.000	719.300	400.000	719.300	500.000
GR	719.300	750.000	720.000	800.000	725.000	830.000	730.000	960.000	-0.	-0.
NC	.030	.040	.060	-0.	-0.	-0.	-0.	-0.	-0.	-0.

44FT D/S PRIVATE ROAD BRIDGE (C)

X1	17800.000	19.000	368.000	394.000	10.000	240.000	230.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	-0.	-0.	760.000	-0.	-0.	-0.	-0.
GR	725.000	0.	722.700	250.000	722.400	300.000	722.100	318.000	720.000	368.000
GR	718.800	370.000	714.500	379.000	714.000	383.000	714.500	387.000	717.500	392.000
GR	719.400	394.000	719.300	400.000	719.200	450.000	719.300	500.000	719.300	550.000
GR	719.300	600.000	720.000	800.000	725.000	850.000	730.000	900.000	-0.	-0.

D/S FACE OF PRIVATE ROAD BRIDGE (COE VS-9A)

X1	17844.000	21.000	370.000	392.000	10.000	44.000	44.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	-0.	-0.	730.000	-0.	-0.	-0.	-0.
GR	725.000	0.	722.700	250.000	722.400	300.000	722.300	350.000	720.300	360.000
GR	720.000	368.000	720.400	370.000	718.800	370.000	714.500	379.000	714.000	383.000
GR	719.500	387.000	717.500	392.000	720.300	395.000	719.200	418.000	719.200	450.000

GR	719.500	500.000	71 .500	550.000	719.500	600.000	720.000	850.000	725.000	900.000
GR	730.000	950.000	-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.
SB	-0.	1.740	2.000	-0.	8.700	-0.	83.000	1.230	714.000	714.000

U/S FACE OF PRIVATE ROAD BRIDGE (R)

X1	17856.000	-0.	-0.	-0.	1.000	12.000	12.000	-0.	-0.	-0.
X2	-0.	-0.	1.000	719.400	719.200	-0.	-0.	-0.	-0.	-0.
X3	-0.	-0.	-0.	-0.	-0.	730.000	-0.	-0.	-0.	-0.
BT	14.000	250.000	722.700	-0.	300.000	722.400	-0.	350.000	722.300	-0.
BT	360.000	720.300	-0.	368.000	720.000	-0.	370.000	720.400	-0.	370.000
BT	720.400	719.400	392.000	720.300	719.400	392.000	720.300	-0.	418.000	719.200
BT	-0.	450.000	719.200	-0.	500.000	719.300	-0.	550.000	719.300	-0.
BT	600.000	719.300	-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.

44FT U/S PRIVATE ROAD BRIDGE (R)

X1	17900.000	22.000	490.000	516.000	30.000	44.000	44.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	240.000	-0.	750.000	-0.	-0.	-0.	-0.
GR	725.000	0.	722.700	250.000	722.400	300.000	722.300	350.000	722.200	400.000
GR	722.200	412.000	722.100	440.000	720.000	490.000	718.800	492.000	714.500	501.000
GR	714.000	505.000	714.500	509.000	717.500	514.000	719.400	516.000	719.300	525.000
GR	719.200	575.000	719.300	625.000	719.300	675.000	719.300	725.000	720.000	905.000
GR	725.000	935.000	730.000	985.000	-0.	-0.	-0.	-0.	-0.	-0.

27FT D/S TEXTILE ROAD BRIDGE (C)

X1	17970.000	17.000	450.000	470.000	1.000	70.000	70.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	205.000	-0.	630.000	-0.	-0.	-0.	-0.
GR	725.000	0.	721.000	250.000	720.800	300.000	720.900	350.000	720.700	400.000
GR	718.200	450.000	715.000	452.000	713.700	455.000	714.000	460.000	714.400	465.000
GR	715.000	467.000	718.300	470.000	719.600	500.000	720.300	550.000	721.200	600.000
GR	721.600	650.000	725.000	830.000	-0.	-0.	-0.	-0.	-0.	-0.
NC	.030	.030	.040	-0.	-0.	-0.	-0.	-0.	-0.	-0.

D/S FACE OF TEXTILE ROAD BRIDGE(COE VS10)CONC SLAB AND HEADWALLS

X1	17997.000	-0.	-0.	-0.	1.000	60.000	27.000	-0.	-0.	-0.
SB	-0.	2.080	3.000	-0.	15.600	-0.	86.600	.696	714.100	714.100
ET	-0.	6.100	8.100	8.100	8.100	440.000	480.000	1.000	830.000	-0.

U/S FACE OF TEXTILE ROAD BRIDGE(R)

X1	18043.000	-0.	-0.	-0.	46.000	46.000	46.000	-0.	-0.	-0.
X2	-0.	-0.	1.000	718.700	722.200	-0.	-0.	-0.	-0.	-0.
BT	14.000	0.	725.000	0.	250.000	722.400	0.	300.000	722.400	0.
BT	350.000	722.300	0.	400.000	722.200	0.	450.000	722.200	0.	450.000
BT	722.200	718.700	470.000	722.200	718.700	470.000	722.200	0.	500.000	722.300
BT	0.	550.000	722.700 & 460	0.	600.000	723.100	0.	650.000	723.600	0.
BT	830.000	725.000	0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.
NC	.040	.040	.040	.300	.500	-0.	-0.	-0.	-0.	-0.
QT	4.000	606.000	1020.000	1555.000	2549.000	-0.	-0.	-0.	-0.	-0.
ET	-0.	6.100	6.100	8.100	8.100	420.000	500.000	1.000	830.000	-0.

27FT U/S TEXTILE ROAD BRIDGE (R COE VS-11)

X1	18070.000	-0.	-0.	-0.	35.000	15.000	27.000	-0.	-0.	-0.
ET	-0.	6.100	6.100	8.100	8.100	370.000	550.000	1.000	830.000	-0.

7FT U/S TEXTILE ROAD BRIDGE (COE VS-11) CROSS SECTION 5

X1	18120.000	-0.	-0.	-0.	50.000	50.000	50.000	-0.	-0.	-0.
X1	18570.000	24.000	391.500	419.000	475.000	312.500	450.000	.927	-1.170	-0.
GR	725.500	0.	725.000	95.000	722.590	202.400	722.730	244.000	722.580	257.000
GR	722.600	311.600	722.430	364.400	721.100	419.000	719.190	421.300	717.370	424.600
GR	716.640	426.200	716.500	430.500	716.400	434.300	716.700	436.000	718.120	438.100
GR	719.770	439.700	721.150	441.500	721.150	441.500	722.400	475.000	722.780	523.500
GR	723.250	574.500	723.470	625.500	723.930	672.100	725.300	831.500	-0.	-0.
X1	19020.000	-0.	-0.	-0.	475.000	312.500	450.000	1.079	1.170	-0.
X1	19470.000	-0.	-0.	-0.	475.000	312.500	450.000	1.079	1.170	-0.
NC	.040	.050	.060	-0.	-0.	-0.	-0.	-0.	-0.	-0.
ET	-0.	6.100	8.100	8.100	8.100	500.000	600.000	1.000	875.000	-0.

44FT D/S PRIVATE FOOT BRIDGE (R COE VS-11A)

X1	19920.000	18.000	538.000	563.000	475.000	312.500	450.000	-0.	-.100	-0.
GR	735.000	0.	730.000	60.000	725.000	190.000	724.500	350.000	724.000	538.000
GR	723.000	542.000	719.500	546.000	719.000	551.000	718.500	555.000	719.000	557.000
GR	723.000	561.000	724.000	563.000	725.200	600.000	725.500	800.000	725.600	963.000
GR	730.000	1113.000	735.000	1313.000	740.000	1500.000	-0.	-0.	-0.	-0.
NC	.030	.030	.040	-0.	-0.	-0.	-0.	-0.	-0.	-0.
ET	-0.	6.100	8.100	8.100	8.100	460.000	636.000	1.000	865.000	-0.
X1	19963.000	18.000	538.000	563.000	43.000	43.000	43.000	-0.	-0.	-0.
GR	735.000	0.	730.000	60.000	725.000	190.000	724.500	350.000	724.000	538.000
GR	723.000	542.000	719.500	546.000	719.000	551.000	718.500	555.000	719.000	557.000
GR	723.000	561.000	724.000	563.000	725.200	600.000	725.500	800.000	725.600	963.000
GR	730.000	1113.000	735.000	1313.000	740.000	1500.000	-0.	-0.	-0.	-0.
ET	-0.	6.100	8.100	8.100	8.100	460.000	636.000	1.000	865.000	-0.

D/S FACE OF PRIVATE FOOT BRIDGE (COE VS-11A)STEEL BEAMS W/PLANKS

X1	19964.000	-0.	-0.	-0.	1.000	1.000	1.000	-0.	-0.	-0.
XS	1.000	725.180	-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.
BT	12.000	0.	735.000	0.	60.000	730.000	0.	190.000	725.000	0.
BT	350.000	724.500	0.	538.000	724.800	724.000	563.000	724.800	724.000	600.000
BT	725.200	0.	800.000	725.500	0.	963.000	725.600	0.	1113.000	730.000
BT	0.	1313.000	735.000	0.	1500.000	740.000	0.	-0.	-0.	-0.
ET	-0.	6.100	8.100	8.100	8.100	445.000	645.000	1.000	860.000	-0.

U/S FACE OF PRIVATE FOOT BRIDGE (R)

X1	19976.000	-0.	-0.	-0.	12.000	12.000	12.000	-0.	-0.	-0.
X2	-0.	-0.	-0.	-0.	-0.	-0.	1.000	-0.	-0.	-0.
ET	-0.	6.100	8.100	8.100	8.100	445.000	645.000	1.000	860.000	-0.
X1	19977.000	-0.	-0.	-0.	1.000	1.000	1.000	-0.	-0.	-0.
NC	.100	.040	.080	-0.	-0.	-0.	-0.	-0.	-0.	-0.
ET	-0.	6.100	8.100	8.100	8.100	400.000	686.000	140.000	850.000	-0.

44FT U/S PRIVATE FOOT BRIDGE (R)

X1	20070.000	0	0	0	43.000	3.000	33.000	0	100	0.

NC	.090	.090	.070	-0.	1.000	-0.	-0.	-0.	-0.	0.	

2250FT U/S TEXTILE ROAD BRIDGE (COE VS-12) CROSS SECTION T

X1	20280.000	16.000	480.000	499.000	200.000	250.000	260.000	-0.	-0.	-0.	
GR	725.000	0.	723.900	300.000	723.800	345.000	724.000	390.000	724.500	455.000	
GR	723.000	480.000	720.000	486.000	719.300	489.000	719.300	494.000	720.000	498.000	
GR	721.600	499.000	722.600	527.000	723.700	572.000	723.100	617.000	723.400	662.000	
GR	728.500	753.000	-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.	

0 84FT D/S STONY CREEK ROAD BRIDGE (COE VS-13)

X1	21580.000	16.000	500.000	526.000	1340.000	1250.000	1300.000	-0.	-0.	-0.	
X3	-0.	-0.	-0.	480.000	727.300	540.000	-0.	-0.	-0.	-0.	
GR	730.000	0.	726.800	300.000	726.800	350.000	726.900	400.000	726.700	450.000	
GR	725.400	500.000	721.400	509.000	720.900	510.000	720.200	515.000	721.400	517.000	
GR	724.300	526.000	725.200	550.000	725.200	600.000	725.500	650.000	726.200	700.000	
GR	735.000	800.000	-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.	

34FT D/S STONY CREEK ROAD BRIDGE (R COE VS-13) CROSS SECTION U

X1	21630.000	-0.	-0.	-0.	50.000	50.000	50.000	-0.	-0.	-0.	
X3	-0.	-0.	-0.	-0.	493.000	727.600	530.000	-0.	-0.	-0.	-0.

D/S FACE OF STONY CREEK ROAD BRIDGE (COE VS-14) CONC SLAB AND HEADWALLS

X1	21804.000	-0.	-0.	-0.	40.000	28.000	34.000	-0.	-0.	-0.	
X3	-0.	-0.	-0.	-0.	500.000	727.900	524.000	-0.	-0.	-0.	-0.
NC	.040	.040	.040	-0.	-0.	-0.	-0.	-0.	-0.	-0.	
SB	-0.	1.700	3.000	-0.	20.000	-0.	143.200	.303	721.000	721.000	

U/S FACE OF STONY CREEK ROAD BRIDGE (R) CONC SLAB AND HEADWALLS

X1	21836.000	-0.	-0.	-0.	32.000	32.000	32.000	-0.	-0.	-0.	
X2	-0.	-0.	1.000	728.900	729.400	-0.	-0.	-0.	-0.	-0.	
X3	-0.	-0.	-0.	500.000	728.800	524.000	-0.	-0.	-0.	-0.	
BT	13.000	0.	730.000	-0.	300.000	729.400	-0.	400.000	729.800	-0.	
BT	450.000	730.300	-0.	500.000	730.900	-0.	500.000	730.900	728.900	524.000	
BT	730.900	728.900	524.000	730.900	-0.	550.000	731.000	-0.	600.000	731.300	
BT	-0.	650.000	732.000	-0.	700.000	733.000	-0.	800.000	735.000	-0.	
NC	.040	.060	.060	.300	.500	-0.	-0.	-0.	-0.	-0.	

34FT U/S STONY CREEK ROAD BRIDGE (R COE VS-13)

X1	21870.000	-0.	-0.	-0.	25.000	50.000	34.000	-0.	-0.	-0.	
X3	-0.	-0.	-0.	500.000	728.300	575.000	-0.	-0.	-0.	-0.	

84FT U/S STONY CREEK ROAD BRIDGE (R)

X1	21920.000	-0.	-0.	-0.	50.000	50.000	50.000	-0.	-0.	-0.	
X3	-0.	-0.	-0.	500.000	727.800	625.000	-0.	-0.	-0.	-0.	
NC	.040	.060	.080	-0.	-0.	-0.	-0.	-0.	-0.	-0.	
QT	4.000	706.000	1292.000	1888.000	2950.000	-0.	-0.	-0.	-0.	-0.	

554FT U/S STONY CREEK ROAD BRIDGE (COE VS-15) CROSS SECTION V

X1	22370.000	17.000	350.000	564.000	500.000	500.000	470.000	=0.	=0.	=0.
X3	=0.	=0.	=0.	=0.	=0.	1000.000	=0.	=0.	=0.	=0.
GR	730.000	0.	727.300	150.000	726.700	200.000	726.800	250.000	726.000	300.000
GR	727.100	350.000	722.300	356.000	720.800	360.000	721.800	365.000	722.300	367.000
GR	724.600	369.000	726.200	400.000	727.200	450.000	727.200	500.000	727.600	550.000
GR	730.000	900.000	735.000	1000.000	=0.	=0.	=0.	=0.	=0.	=0.
NC	.100	.100	.080	=0.	=0.	=0.	=0.	=0.	=0.	=0.

1804FT U/S STONY CREEK ROAD BRIDGE (COE VS-16) CROSS SECTION W

X1	23390.000	17.000	400.000	431.000	780.000	900.000	1000.000	=0.	=0.	=0.
X3	=0.	=0.	=0.	130.000	=0.	1000.000	=0.	=0.	=0.	=0.
GR	735.000	0.	728.800	200.000	728.900	250.000	728.500	300.000	728.600	350.000
GR	729.000	400.000	723.800	412.000	723.100	415.000	723.200	420.000	723.000	425.000
GR	723.800	426.000	727.000	431.000	728.800	450.000	730.000	500.000	729.500	550.000
GR	729.300	600.000	740.000	1750.000	=0.	=0.	=0.	=0.	=0.	=0.

44FT D/S PRIVATE BRIDGE (R COE VS-16A)

X1	23440.000	16.000	400.000	426.000	50.000	50.000	50.000	=0.	=0.	=0.
X3	=0.	=0.	=0.	85.000	=0.	810.000	=0.	=0.	=0.	=0.
GR	735.000	0.	728.900	200.000	728.500	250.000	728.300	300.000	728.400	350.000
GR	728.100	400.000	723.800	406.000	723.100	410.000	723.100	415.000	723.800	418.000
GR	728.000	426.000	728.900	450.000	729.800	500.000	728.800	550.000	728.200	600.000
GR	740.000	1700.000	=0.	=0.	=0.	=0.	=0.	=0.	=0.	=0.
NC	.050	.050	.040	=0.	=0.	=0.	=0.	=0.	=0.	=0.

X1	23483.000	=0.	=0.	=0.	43.000	43.000	43.000	=0.	=0.	=0.
X3	=0.	=0.	=0.	42.000	=0.	855.000	=0.	=0.	=0.	=0.

D/S FACE OF PRIVATE BRIDGE (COE VS-16A) STEEL BEAMS W/W//D DECK

X1	23484.000	=0.	=0.	=0.	1.000	1.000	1.000	=0.	=0.	=0.
X3	=0.	=0.	=0.	42.000	=0.	855.000	=0.	=0.	=0.	=0.
BT	14.000	0.	735.000	0.	200.000	728.900	0.	250.000	728.500	0.
BT	300.000	728.300	0.	350.000	728.400	0.	400.000	730.000	728.100	400.000
BT	730.000	728.600	426.000	730.000	728.600	426.000	730.000	728.000	450.000	728.900
BT	0.	500.000	729.800	0.	550.000	728.800	0.	600.000	728.200	0.
BT	1700.000	740.000	0.	=0.	=0.	=0.	=0.	=0.	=0.	=0.

U/S FACE OF PRIVATE BRIDGE (R COE VS-16A)

X1	23496.000	=0.	=0.	=0.	12.000	12.000	12.000	=0.	=0.	=0.
X2	=0.	=0.	=0.	=0.	=0.	=0.	1.000	=0.	=0.	=0.
X3	=0.	=0.	=0.	30.000	=0.	975.000	=0.	=0.	=0.	=0.

X1	23497.000	=0.	=0.	=0.	1.000	1.000	1.000	=0.	=0.	=0.
X3	=0.	=0.	=0.	30.000	=0.	975.000	=0.	=0.	=0.	=0.
NC	.090	.090	.080	=0.	=0.	=0.	=0.	=0.	=0.	=0.

44FT U/S PRIVATE BRIDGE (R COE VS-16A)

X1	23540.000	=0.	=0.	=0.	43.000	43.000	43.000	=0.	=0.	=0.

3124FT U/S STONY CREEK ROAD BRIDGE (COE VS-17) CROSS SECTION X

X1	24710.000	18.000	200.000	248.000	1170.000	1170.000	1170.000	-0.	-0.	-0.
X3	0	=0	0	0	=0	50.000	0	0	0	0

GR	745.700	0.	745.700	50.000	751.800	100.000	755.700	150.000	730.200	200.000
GR	726.900	202.000	725.600	213.000	725.400	215.000	724.900	220.000	724.400	225.000
GR	725.600	229.000	726.400	239.000	731.400	248.000	731.300	250.000	729.400	300.000
GR	730.300	350.000	731.100	400.000	733.600	790.000	=0.	=0.	=0.	=0.
NH	4.000	.040	100.000	.050	116.000	.080	250.000	.040	300.000	=0.
QT	4.000	149.000	279.000	506.000	885.000	=0.	=0.	=0.	=0.	=0.

4284FT U/S STONY CREEK ROAD BRIDGE (COE VS-18) CROSS SECTION Y

X1	25870.000	12.000	100.000	116.000	1160.000	1000.000	1160.000	=0.	=0.	=0.
X3	=0.	=0.	=0.	=0.	=0.	270.000	=0.	=0.	=0.	=0.
GR	743.000	0.	735.100	20.000	734.100	40.000	733.100	100.000	731.300	103.000
GR	730.800	105.000	731.300	109.000	734.700	116.000	733.900	150.000	733.300	200.000
GR	732.900	250.000	732.500	300.000	=0.	=0.	=0.	=0.	=0.	=0.
NC	.030	.030	.030	=0.	=0.	=0.	=0.	=0.	=0.	=0.

172FT D/S FROM WEIR IN RETENTION POND (TRANSITION TO CREEK)

X1	26143.000	9.000	50.000	66.000	273.000	150.000	270.000	=0.	=0.	=0.
X3	=0.	=0.	=0.	=0.	=0.	100.000	=0.	=0.	=0.	=0.
GR	743.000	0.	735.100	20.000	734.000	50.000	731.000	56.000	731.000	60.000
GR	734.000	66.000	734.000	596.000	735.500	596.000	735.500	740.000	=0.	=0.

124FT D/S FROM WEIR IN RETENTION POND (TRANSITION TO CREEK)

X1	26191.000	9.000	30.000	56.000	48.000	32.000	48.000	=0.	=0.	=0.
X3	=0.	=0.	=0.	=0.	=0.	75.000	=0.	=0.	=0.	=0.
GR	743.000	0.	735.100	20.000	734.000	30.000	730.600	38.000	730.600	48.000
GR	734.000	56.000	734.000	356.000	735.500	356.000	735.500	500.000	=0.	=0.
NC	.030	.030	.027	=0.	=0.	=0.	=0.	=0.	=0.	=0.

84FT D/S FROM WEIR IN RETENTION POND (TRANSITION TO CREEK)

X1	26231.000	9.000	25.000	51.000	40.000	25.000	40.000	=0.	=0.	=0.
X3	=0.	=0.	=0.	=0.	=0.	55.000	=0.	=0.	=0.	=0.
GR	743.000	0.	735.000	20.000	734.000	25.000	731.300	33.000	731.300	43.000
GR	734.000	51.000	734.100	61.000	735.500	61.000	735.500	236.000	=0.	=0.

74FT D/S FROM WEIR IN RETENTION POND (TRANSITION TO CREEK)

X1	26241.000	9.000	25.000	51.000	10.000	7.000	10.000	=0.	=0.	=0.
GR	743.000	0.	736.500	20.000	735.500	25.000	734.500	25.000	731.000	33.000
GR	731.000	43.000	734.500	51.000	735.500	51.000	735.500	186.000	=0.	=0.

42FT D/S FROM WEIR IN RETENTION POND (TRANSITION TO CREEK)

X1	26273.000	8.000	20.000	45.000	32.000	20.000	32.000	=0.	=0.	=0.
X3	=0.	=0.	=0.	=0.	=0.	65.000	=0.	=0.	=0.	=0.
GR	743.000	0.	736.500	20.000	732.500	20.000	731.000	25.000	731.000	40.000
GR	732.500	45.000	735.500	45.000	735.000	170.000	=0.	=0.	=0.	=0.
NC	.012	.012	.012	=0.	=0.	=0.	=0.	=0.	=0.	=0.

D/S FACE OF WEIR IN RETENTION POND CROSS SECTION Z

X1	26315.000	=0.	=0.	=0.	42.000	42.000	42.000	=0.	=0.	=0.
X3	=0.	=0.	=0.	=0.	=0.	107.000	=0.	=0.	=0.	=0.
EJ	=0.	=0.	=0.	=0.	=0.	=0.	=0.	=0.	=0.	=0.

*PROF 1

CCHV= .100 CEHV= .300

*SECNO 0.

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
			2000FT D/S BEMIS ROAD BRIDGE (COE VS=1)						
0.	5.10	688.20	0.	688.20	688.34	.14	0.	0.	688.00
406.	0.	406.	0.	0.	137.	0.	0.	0.	688.00
0.	.62	2.96	.62	.040	.075	.040	0.	683.10	247.00
.006104	0.	0.	0.	0	0	0	0.	54.80	301.80

*SECNO 200.000

3470 ENCROACHMENT STATIONS= 250.0 300.0 TYPE= 1 TARGET= 50.000

			1800FT D/S BEMIS ROAD BRIDGE (R)						
200.00	5.70	689.12	0.	0.	689.21	.09	.87	.00100000	.32
406.	0.	406.	0.	0.	167.	0.	1.	0.	100000.32
.02	0.	2.44	0.	.040	.075	.040	.075	683.42	250.00
.003258	200.	200.	200.	2	0	0	0.	50.00	300.00

*SECNO 400.000

3470 ENCROACHMENT STATIONS= 250.0 300.0 TYPE= 1 TARGET= 50.000

			1600FT D/S BEMIS ROAD BRIDGE (R)						
400.00	5.97	689.71	0.	0.	689.79	.08	.57	.00100000	.64
406.	0.	406.	0.	0.	180.	0.	1.	0.	100000.64
.05	0.	2.25	0.	.040	.075	.040	.075	683.74	250.00
.002548	200.	200.	200.	2	0	0	0.	50.00	300.00

*SECNO 600.000

3470 ENCROACHMENT STATIONS= 250.0 300.0 TYPE= 1 TARGET= 50.000

			1400FT D/S BEMIS ROAD BRIDGE (R)						
600.00	6.13	690.19	0.	0.	690.26	.07	.47	.00100000	.96
406.	0.	406.	0.	0.	188.	0.	2.	1.	100000.96
.07	0.	2.16	0.	.040	.075	.040	.075	684.06	250.00
.002214	200.	200.	200.	2	0	0	0.	50.00	300.00

*SECNO 800.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1200FT D/S BEMIS ROAD BRIDGE (R)

800.00	6.12	690.50	0.	0.	690.52	.02	.26	.00	689.28
406.	131.	258.	17.	139.	189.	29.	4.	2.	689.28
.12	.94	1.36	.59	.040	.075	.040	.075	684.38	62.13
.000844	200.	200.	200.	2	0	0	0.	316.73	378.86

CCHV= .500 CEHV= .900

*SECNO 1000.000

3470 ENCROACHMENT STATIONS= 50.0 525.0 TYPE= 1 TARGET= 475.000

1000FT D/S BEMIS ROAD BRIDGE (COE VS-2)

1000.00	5.91	690.61	0.	0.	690.61	.01	.08	.01	688.70
406.	230.	163.	12.	325.	211.	26.	6.	3.	689.00
.20	.71	.78	.46	.040	.075	.040	.075	684.70	50.00
.000249	200.	200.	200.	2	0	0	0.	342.95	392.95

*SECNO 1200.000

3470 ENCROACHMENT STATIONS= 50.0 500.0 TYPE= 1 TARGET= 450.000

800FT D/S BEMIS ROAD BRIDGE (R)

1200.00	5.77	690.67	0.	0.	690.69	.01	.07	.00	688.90
406.	185.	209.	12.	219.	203.	21.	8.	5.	689.20
.26	.85	1.03	.58	.040	.075	.040	.075	684.90	50.00
.000456	200.	200.	200.	2	0	0	0.	290.20	340.20

*SECNO 1400.000

3470 ENCROACHMENT STATIONS= 100.0 450.0 TYPE= 1 TARGET= 350.000

600FT D/S BEMIS ROAD BRIDGE (R)

1400.00	5.48	690.78	0.	0.	690.80	.02	.11	.01	688.90
406.	147.	247.	12.	148.	197.	17.	10.	6.	689.40
.30	.99	1.25	.70	.040	.075	.040	.075	685.30	100.00
.000706	200.	200.	200.	2	0	0	0.	236.38	336.38

*SECNO 1600.000

3470 ENCROACHMENT STATIONS= 150.0 400.0 TYPE= 1 TARGET= 250.000

400FT D/S BEMIS ROAD BRIDGE (R)

1600.00	5.65	690.95	0.	0.	690.97	.03	.16	.01	689.30
406.	111.	282.	13.	97.	195.	16.	11.	7.	689.60
.35	1.15	1.45	.81	.040	.075	.040	.075	685.30	150.00
.000961	200.	200.	200.	2	0	0	0.	184.79	334.79

*SECNO 1800.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 200.0 350.0 TYPE= 1 TARGET= 150.000

200FT D/S BEMIS ROAD BRIDGE (R)

1800.00	5.66	691.16	0.	0.	691.20	.04	.21	.01	689.50
406.	57.	333.	15.	45.	197.	16.	13.	7.	689.80
.38	1.28	1.69	.94	.040	.075	.040	.075	685.50	200.00
.001287	150.	200.	250.	2	0	0	0.	135.24	335.24

*SECNO 1900.000

3470 ENCROACHMENT STATIONS= 236.0 334.0 TYPE= 1 TARGET= 98.000

100FT D/S BEMIS ROAD BRIDGE (ZW 107+50)

1900.00	5.75	691.35	0.	0.	691.46	.11	.20	.07	691.90
406.	0.	394.	12.	0.	144.	10.	13.	8.	691.10
.39	0.	2.74	1.27	.040	.075	.040	.075	685.60	268.91
.003514	100.	100.	100.	2	0	0	0.	58.62	327.53

*SECNO 1950.000
3280 CROSS SECTION 1950.00 EXTENDED 1.06 FEET

3470 ENCROACHMENT STATIONS= 200.0 255.0 TYPE= 1 TARGET= 55.000

50FT D/S BEMIS ROAD BRIDGE (R COE VS=4)

1950.00	6.26	691.56	0.	0.	691.63	.07	.14	.02	691.20
406.	0.	406.	0.	0.	191.	0.	13.	8.	100000.10
.40	0.	2.12	0.	.040	.075	.040	.075	685.30	200.00
.002404	50.	50.	50.	2	0	0	0.	55.00	255.00

*SECNO 1985.000

3470 ENCROACHMENT STATIONS= 170.0 197.0 TYPE= 1 TARGET= 27.000

1985.00	6.50	691.60	0.	0.	691.73	.13	.05	.05	693.70
406.	0.	406.	0.	0.	142.	0.	13.	8.	100000.00
.40	0.	2.87	0.	.030	.040	.030	.074	685.10	170.00
.000926	49.	35.	21.	2	0	0	0.	27.00	197.00

*SECNO 1986.000

3370 NORMAL BRIDGE,NRD= 13 MIN ELTRD= 693.30 MAX ELLC= 692.70

3470 ENCROACHMENT STATIONS= 170.0 197.0 TYPE= 1 TARGET= 27.000

D/S FACE OF BEMIS ROAD BRIDGE (COE VS=3)CONC SLAB AND WINGWALLS

1986.00	6.50	691.60	0.	0.	691.73	.13	.00	.00	693.70
406.	0.	406.	0.	0.	142.	0.	13.	8.	100000.00
.40	0.	2.87	0.	.030	.040	.030	.074	685.10	170.00
.001058	1.	1.	1.	0	0	0	0.	27.00	197.00

*SECNO 2014.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	INA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLC	XLOBR	TTRTAL	TOC	ICONT	COTA	TOPWID	ENDST

3370 NORMAL BRIDGE,NRD= 13 MIN ELTRD= 693.30 MAX ELLC= 692.70

3470 ENCROACHMENT STATIONS= 170.0 197.0 TYPE= 1 TARGET= 27.000

U/S FACE OF BEMIS ROAD BRIDGE (R COE VS3)CONC SLAB AND WINGWALLS

2014.00	6.53	691.63	0.	0.	691.76	.13	.05	.00	693.70
406.	0.	406.	0.	0.	142.	0.	14.	8.	100000.00
.40	0.	2.85	0.	.030	.040	.030	.074	685.10	170.00
.001043	28.	28.	28.	0	0	0	0.	27.00	197.00

*SECNO 2015.000

3470 ENCROACHMENT STATIONS= 170.0 197.0 TYPE= 1 TARGET= 27.000

2015.00	6.54	691.64	0.	0.	691.76	.13	.00	.00	693.70
406.	0.	406.	0.	0.	143.	0.	14.	8.	100000.00
.40	0.	2.85	0.	.030	.040	.030	.074	685.10	170.00
.000909	1.	1.	1.	0	0	0	0.	27.00	197.00

CCHV= .500 CEHV= .900

*SECNO 2050.000

3470 ENCROACHMENT STATIONS= 164.0 291.0 TYPE= 1 TARGET= 127.000

36FT U/S BEMIS ROAD BRIDGE (R COE VS-4)

2050.00	6.65	691.80	0.	0.	691.84	.05	.04	.04	691.05
406.	10.	378.	18.	20.	213.	28.	14.	8.	690.65
.41	.51	1.78	.63	.080	.080	.080	.074	685.15	164.00
.001619	21.	35.	49.	2	0	0	0.	127.00	291.00

*SECNO 2100.000

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 214.0 441.0 TYPE= 1 TARGET= 227.000

86FT U/S BEMIS ROAD BRIDGE (COE VS-4) CROSS SECTION A

2100.00	6.68	691.88	0.	0.	691.92	.05	.08	.00	691.90
406.	1.	372.	33.	7.	209.	57.	14.	8.	690.70
.42	.20	1.78	.58	.080	.080	.080	.074	685.20	241.56
.001672	75.	50.	25.	1	0	0	0.	194.29	441.00

CCHV= .300 CEHV= .500

*SECNO 2430.000

416FT U/S BEMIS ROAD BRIDGE (ZW 101+00)

2430.00	6.03	692.63	0.	0.	692.68	.06	.75	.00	693.40
406.	0.	406.	0.	0.	215.	0.	16.	9.	693.80
.46	0.	1.89	0.	.080	.080	.080	.075	686.60	332.16
.003311	300.	330.	300.	2	0	0	0.	89.49	421.65

*SECNO 2990.000

SECNO DEPTH C SEL CRT S WSELK EG HV HL OLOSS BANK ELEV

	GLOB	GCH	GROB	ALOB	ALH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

976FT U/S BEMIS ROAD BRIDGE (ZW 95+00) CROSS SECTION B

2990.00	7.27	693.97	0.	0.	694.01	.04	1.35	.00	693.30
406.	99.	298.	9.	72.	165.	11.	19.	11.	693.20
.56	1.37	1.80	.82	.040	.080	.040	.076	686.70	176.37
.001764	590.	560.	470.	1	0	0	0.	167.51	343.88

*SECNO 3390.000

3265 DIVIDED FLOW

3280 CROSS SECTION 3390.00 EXTENDED 1.44 FEET

1376FT U/S BEMIS ROAD BRIDGE (ZW 90+75)

3390.00	6.94	694.44	0.	0.	694.46	.02	.44	.01	695.60
406.	190.	216.	0.	211.	165.	0.	22.	13.	696.20
.66	.90	1.30	0.	.040	.080	.040	.076	687.50	0.
.000756	400.	400.	400.	3	0	0	0.	343.46	539.69

*SECNO 4040.000

3265 DIVIDED FLOW

3280 CROSS SECTION 4040.00 EXTENDED 1.06 FEET

2026FT U/S BEMIS ROAD BRIDGE (ZW 84+00) CROSS SECTION C

4040.00	6.76	695.26	0.	0.	695.34	.08	.85	.03	697.70
406.	67.	339.	0.	51.	142.	0.	26.	16.	698.90
.74	1.31	2.39	0.	.040	.080	.040	.077	688.50	0.
.002765	650.	650.	650.	0	0	0	0.	127.57	405.12

CCHV= .500 CEHV= .900

*SECNO 4570.000

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 46.0 600.0 TYPE= 1 TARGET= 554.000

2556FT U/S BEMIS ROAD BRIDGE (ZW 79+00)

4570.00	7.24	696.74	0.	0.	696.81	.07	1.47	.00	697.20
406.	55.	351.	0.	57.	154.	0.	28.	19.	699.30
.81	.97	2.28	0.	.040	.080	.040	.077	689.50	46.00
.002759	540.	530.	510.	3	0	0	0.	218.21	321.78

*SECNO 5090.000

3470 ENCROACHMENT STATIONS= 158.0 402.0 TYPE= 1 TARGET= 244.000

5076FT U/S BELLS ROAD BRIDGE (ZW 74+00) CROSS SECTION D

5090.00	7.62	697.92	0.	0.	697.99	.07	1.18	.00	697.80
406.	23.	383.	0.	31.	179.	0.	31.	21.	698.70
.88	.75	2.14	0.	.040	.080	.040	.077	690.30	158.00
.001907	510.	520.	530.	2	0	0	0.	140.57	298.57

*SECNO 5450.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 295.0 359.0 TYPE= 1 TARGET= 64.000

86FT D/S MARTZ ROAD BRIDGE (ZW 69+00)

5450.00	7.11	698.51	0.	0.	698.60	.09	.59	.02	697.70
406.	12.	394.	0.	10.	166.	0.	32.	21.	702.90
.92	1.21	2.37	0.	.040	.080	.040	.076	691.40	295.00
.001433	322.	360.	398.	2	0	0	0.	47.66	342.66

*SECNO 5500.000

3470 ENCROACHMENT STATIONS= 306.0 347.0 TYPE= 1 TARGET= 41.000

36FT D/S MARTZ ROAD BRIDGE (R ZW 69+00)

5500.00	7.18	698.58	0.	0.	698.67	.09	.07	.00	697.70
406.	0.	406.	0.	0.	169.	0.	33.	22.	100000.00
.93	0.	2.40	0.	.040	.060	.040	.076	691.40	306.00
.001480	20.	50.	80.	1	0	0	0.	36.74	342.74

*SECNO 5525.000

3470 ENCROACHMENT STATIONS= 310.0 623.0 TYPE= 1 TARGET= -310.000

D/S FACE OF MARTZ ROAD BRIDGE HEADWALL (R ZW 68+00)

5525.00	7.40	698.60	0.	0.	698.71	.10	.02	.01	701.50
406.	0.	406.	0.	0.	158.	0.	33.	22.	701.50
.93	0.	2.56	0.	.030	.040	.030	.076	691.20	310.00
.000613	25.	25.	25.	1	0	0	0.	26.00	336.00

*SECNO 5535.000

3470 ENCROACHMENT STATIONS= 310.0 623.0 TYPE= 1 TARGET= -310.000

5535.00	7.41	698.61	0.	0.	698.71	.10	.01	.00	701.50
406.	0.	406.	0.	0.	159.	0.	33.	22.	701.50
.93	0.	2.56	0.	.030	.040	.030	.076	691.20	310.00
.000612	10.	10.	10.	0	0	0	0.	26.00	336.00

*SECNO 5536.000

3370 NORMAL BRIDGE,NRD= 10 MIN ELTRD= 699.50 MAX ELLC= 700.30

3470 ENCROACHMENT STATIONS= 310.0 623.0 TYPE= 1 TARGET= -310.000

U/S FACE OF MARTZ ROAD BRIDGE (R ZW68+00) CONC SLAB AND WINGWALLS

5536.00	7.41	698.61	0.	0.	698.71	.10	.00	.00	701.50
406.	0.	406.	0.	0.	158.	0.	33.	22.	701.50
.93	0.	2.56	0.	.030	.040	.030	.076	691.20	310.00
.000640	1.	1.	1.	0	0	0	0.	26.00	336.00

*SECNO 5564.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIN	ELMIN	SSIA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3370 NORMAL BRIDGE,NRD= 10 MIN ELTRD= 699.50 MAX ELLC= 700.30

3470 ENCROACHMENT STATIONS= 310.0 623.0 TYPE= 1 TARGET= -310.000

U/S FACE OF MARTZ ROAD BRIDGE (R ZW68+00)CONC SLAB AND WINGWALLS

5564.00	7.43	698.63	0.	0.	698.73	.10	.02	.00	701.50
406.	0.	406.	0.	0.	159.	0.	33.	22.	701.50
.93	0.	2.56	0.	.030	.040	.030	.076	691.20	310.00
.000636	28.	28.	28.	0	0	0	0.	26.00	336.00

*SECNO 5565.000

3470 ENCROACHMENT STATIONS= 310.0 623.0 TYPE= 1 TARGET= -310.000

5565.00	7.43	698.63	0.	0.	698.73	.10	.00	.00	701.50
406.	0.	406.	0.	0.	159.	0.	33.	22.	701.50
.93	0.	2.55	0.	.030	.040	.030	.076	691.20	310.00
.000608	1.	1.	1.	0	0	0	0.	26.00	336.00

*SECNO 5575.000

3470 ENCROACHMENT STATIONS= 310.0 623.0 TYPE= 1 TARGET= -310.000

U/S FACE OF MARTZ ROAD BRIDGE HEADWALL (ZW 68+00)

5575.00	7.44	698.64	0.	0.	698.74	.10	.01	.00	701.50
406.	0.	406.	0.	0.	159.	0.	33.	22.	701.50
.94	0.	2.55	0.	.030	.040	.030	.075	691.20	310.00
.000606	10.	10.	10.	0	0	0	0.	26.00	336.00

*SECNO 5600.000

3470 ENCROACHMENT STATIONS= 281.0 364.0 TYPE= 1 TARGET= 83.000

36FT U/S MARTZ ROAD BRIDGE (R ZW 67+00)

5600.00	7.51	698.71	0.	0.	698.78	.06	.02	.02	698.00
419.	18.	349.	52.	19.	165.	35.	33.	22.	697.40
.94	.97	2.12	1.46	.040	.060	.040	.075	691.20	281.00
.001049	39.	25.	11.	2	0	0	0.	83.00	364.00

*SECNO 5650.000

3470 ENCROACHMENT STATIONS= 231.0 414.0 TYPE= 1 TARGET= 183.000

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86FT U/S MARTZ ROAD BRIDGE (ZW 67+00) CROSS SECTION E

5650.00	7.60	698.80	0.	0.	698.83	.02	.05	.02	698.00	
419.	48.	231.	140.	67.	168.	129.	53.	22.	697.40	
.95	.71	1.37	1.09	.040	.060	.040	.075	691.20	231.00	
.000432	80.	50.	40.	2	0	0	0.	183.00	414.00	

CCHV= .300 CEHV= .500

*SECNO 6300.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= .0 560.0 TYPE= 1 TARGET= 559.999

736FT U/S MARTZ ROAD BRIDGE (ZW 61+00) CROSS SECTION F

6300.00	8.45	698.95	0.	0.	698.97	.02	.14	.00	699.30	
419.	0.	76.	343.	0.	153.	319.	40.	24.	690.50	
1.14	0.	.50	1.08	.040	.080	.040	.076	690.50	281.56	
.000124	650.	650.	650.	2	0	0	0.	110.87	392.42	

*SECNO 6720.000

3470 ENCROACHMENT STATIONS= .0 1010.0 TYPE= 1 TARGET= 1009.999

1156FT U/S MARTZ ROAD BRIDGE (ZW 56+00)

6720.00	4.05	698.95	0.	0.	699.38	.43	.20	.21	701.20	
419.	0.	419.	0.	0.	80.	0.	43.	25.	701.30	
1.16	0.	5.25	0.	.040	.080	.040	.075	694.90	287.91	
.021330	390.	420.	550.	2	0	0	0.	27.21	315.12	

*SECNO 7080.000

3265 DIVIDED FLOW

3280 CROSS SECTION 7080.00 EXTENDED .68 FEET

3470 ENCROACHMENT STATIONS= .0 1125.0 TYPE= 1 TARGET= 1124.999

1516FT U/S MARTZ ROAD BRIDGE (R ZW 52+00) CROSS SECTION G

7080.00	6.48	700.18	0.	0.	700.21	.02	.71	.12	700.30	
419.	0.	140.	279.	0.	112.	251.	44.	26.	701.10	
1.24	0.	1.25	1.11	.040	.080	.040	.076	693.70	337.14	
.000806	400.	360.	220.	5	0	0	0.	280.03	1125.00	

*SECNO 7670.000

3265 DIVIDED FLOW

3280 CROSS SECTION 7670.00 EXTENDED 1.31 FEET

3470 ENCROACHMENT STATIONS= .0 1125.0 TYPE= 1 TARGET= 1124.999

2106FT U/S MARTZ ROAD BRIDGE (ZW 46+00)

7670.00	5.62	700.82	0.	0.	700.92	.10	.67	.04	701.80
419.	0.	258.	161.	0.	90.	80.	47.	27.	702.60
1.28	0.	2.87	2.00	.040	.080	.040	.078	695.20	338.16
.004936	630.	590.	250.	4	0	0	0.	165.00	1125.00

*SECNO 8370.000

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 45.0 400.0 TYPE= 1 TARGET= 355.000

2806FT U/S MARTZ ROAD BRIDGE (ZW 39+00) CROSS SECTION H

8370.00	6.39	702.99	0.	0.	703.05	.06	2.12	.01	702.70
419.	12.	225.	182.	25.	114.	98.	50.	31.	702.80
1.39	.48	1.98	1.85	.040	.080	.040	.078	696.60	45.00
.001985	680.	700.	730.	2	0	0	0.	509.89	400.00

*SECNO 8850.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 1.0 313.0 TYPE= 1 TARGET= 312.000

3286FT U/S MARTZ ROAD BRIDGE (ZW 32+00) CROSS SECTION I

8850.00	6.05	703.95	0.	0.	704.00	.05	.95	.00	702.40
419.	203.	216.	0.	116.	109.	0.	52.	33.	100000.00
1.46	1.75	1.98	0.	.040	.080	.040	.078	697.90	172.54
.001922	480.	480.	520.	3	0	0	0.	140.46	313.00

*SECNO 9520.000

3470 ENCROACHMENT STATIONS= 112.0 600.0 TYPE= 1 TARGET= -112.000

3956FT U/S MARTZ ROAD BRIDGE (ZW 27+00)

9520.00	6.49	705.39	0.	0.	705.45	.06	1.44	.00	703.90
419.	195.	224.	0.	124.	95.	1.	56.	36.	705.20
1.55	1.58	2.36	.40	.040	.080	.040	.079	698.90	112.00
.002618	620.	670.	640.	2	0	0	0.	204.48	316.48

CCHV= .500 CEHV= .900

*SECNO 10020.000

3280 CROSS SECTION 10020.00 EXTENDED .79 FEET

3470 ENCROACHMENT STATIONS= 150.0 515.0 TYPE= 1 TARGET= -150.000

4456FT U/S MARTZ ROAD BRIDGE (ZW 22+00) CROSS SECTION J

10020.00	5.49	706.19	0.	0.	706.22	.03	.75	.02	705.90
419	2	133	285	5	103	225	59	39	704.20

1.16	.52	1.29	1.27	.040	.080	.040	.079	700.70	252.04
.000969	500.	500.	500.	2	0	0	0.	262.96	515.00

*SECNO 10520.000

3470 ENCROACHMENT STATIONS= 150.0 336.0 TYPE= 1 TARGET= 186.000

86FT D/S MERRITT ROAD BRIDGE (ZW 17+00)

10520.00	6.07	706.77	0.	0.	706.81	.04	.58	.01	704.80
419.	136.	281.	2.	135.	162.	5.	63.	41.	706.50
1.75	1.01	1.74	.47	.060	.080	.050	.079	700.70	150.00
.001358	450.	500.	550.	2	0	0	0.	186.00	336.00

*SECNO 10570.000

3470 ENCROACHMENT STATIONS= 175.0 325.0 TYPE= 1 TARGET= 150.000

36FT D/S MERRITT ROAD BRIDGE (R ZW 17+00)

10570.00	5.94	706.81	0.	0.	706.85	.04	.04	.00	704.97
419.	133.	285.	0.	114.	157.	1.	63.	41.	706.67
1.76	1.17	1.82	.31	.040	.060	.040	.079	700.87	175.00
.000871	1.	50.	60.	0	0	0	0.	150.00	325.00

*SECNO 10605.000

SECNO	DEPTH	CWSEL	CRIWS.	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 110.0 600.0 TYPE= 1 TARGET= -110.000

10605.00	5.83	706.83	0.	0.	706.98	.14	.05	.09	711.50
419.	0.	419.	0.	0.	137.	0.	63.	41.	711.50
1.76	0.	3.05	0.	.030	.040	.030	.079	701.00	287.00
.001033	35.	35.	35.	1	0	0	0.	26.00	313.00

*SECNO 10606.000

3370 NORMAL BRIDGE,NRD= 10 MIN ELTRD= 707.60 MAX ELLC= 710.20

3470 ENCROACHMENT STATIONS= 110.0 600.0 TYPE= 1 TARGET= -110.000

D/S FACE OF MERRITT ROAD BRIDGE(ZW 16+00)CONC SLAB AND WINGWALLS

10606.00	5.83	706.83	0.	0.	706.98	.15	.00	.00	711.50
419.	0.	419.	0.	0.	137.	0.	63.	41.	711.50
1.76	0.	3.06	0.	.030	.040	.030	.078	701.00	287.00
.001303	1.	1.	1.	0	0	0	0.	26.00	313.00

*SECNO 10634.000

3370 NORMAL BRIDGE,NRD= 10 MIN ELTRD= 707.60 MAX ELLC= 710.20

3470 ENCROACHMENT STATIONS= 120.0 600.0 TYPE= 1 TARGET= -120.000

D/S FACE OF MERRITT ROAD BRIDGE (R ZW 16+00)

10634.00	5.87	706.87	0.	0.	707.02	.14	.04	.00	711.50
419.	0.	419.	0.	0.	138.	0.	63.	41.	711.50
1.77	0.	3.04	0.	.030	.040	.030	.078	701.00	287.00
.001282	28.	28.	28.	0	0	0	0.	26.00	313.00

*SECNO 10635.000

3470 ENCROACHMENT STATIONS= 120.0 600.0 TYPE= 1 TARGET= 120.000

10635.00	5.87	706.87	0.	0.	707.02	.14	.00	.00	711.50
419.	0.	419.	0.	0.	138.	0.	63.	41.	711.50
1.77	0.	3.03	0.	.030	.040	.030	.078	701.00	287.00
.001014	1.	1.	1.	0	0	0	0.	26.00	313.00

*SECNO 10670.000

3470 ENCROACHMENT STATIONS= 215.0 335.0 TYPE= 1 TARGET= 120.000

36FT U/S MERRITT ROAD BRIDGE (R ZW 15+00)

10670.00	6.30	707.00	0.	0.	707.09	.09	.04	.03	707.50
422.	0.	421.	1.	0.	176.	3.	63.	41.	706.90
1.77	0.	2.39	.40	.040	.060	.040	.078	700.70	267.98
.001654	50.	35.	22.	2	0	0	0.	67.02	335.00

*SECNO 10720.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 165.0 385.0 TYPE= 1 TARGET= 220.000

86FT U/S MERRITT ROAD BRIDGE (ZW 15+00) CROSS SECTION K

10720.00	6.27	707.11	0.	0.	707.20	.08	.11	.00	707.64
422.	0.	412.	10.	0.	175.	14.	63.	42.	707.04
1.78	0.	2.36	.67	.040	.080	.040	.078	700.84	268.08
.002881	50.	50.	50.	2	0	0	0.	116.91	385.00

CCHV= .300 CEHV= .500

*SECNO 11060.000

3470 ENCROACHMENT STATIONS= .0 450.0 TYPE= 1 TARGET= 449.999

426FT U/S MERRITT ROAD BRIDGE (ZW 12+00)

11060.00	6.12	707.92	0.	0.	707.99	.07	.79	.01	707.80
422.	0.	245.	177.	0.	117.	88.	65.	42.	705.80
1.82	.25	2.09	2.02	.040	.060	.040	.078	701.80	358.99
.001898	340.	340.	340.	2	0	0	0.	91.01	450.00

CCHV= .500 CEHV= .700

*SECNO 11450.000

3470 ENCROACHMENT STATIONS= 90.0 590.0 TYPE= 1 TARGET= 500.000

816FT U/S MERRITT ROAD BRIDGE (ZW 8+00) CROSS SECTION L

11+50.00	6.18	708.48	0.	0.	708.50	.02	.49	.02	708.10
422.	1.	206.	215.	2.	136.	332.	68.	44.	706.10
1.92	.30	1.52	.65	.050	.080	.080	.078	702.30	263.89
.000943	420.	390.	360.	2	0	0	0.	326.11	590.00

*SECNO 11860.000

3470 ENCROACHMENT STATIONS= 200.0 400.0 TYPE= 1 TARGET= 200.000

1226FT U/S MERRITT ROAD BRIDGE (ZW 3+00)

11860.00	4.91	709.11	0.	0.	709.20	.08	.65	.04	708.70
422.	42.	333.	47.	39.	130.	55.	71.	46.	708.90
1.97	1.07	2.57	.85	.050	.080	.080	.079	704.20	200.00
.003514	440.	410.	370.	2	0	0	0.	200.00	400.00

*SECNO 12170.000
3280 CROSS SECTION 12170.00 EXTENDED .34 FEET

3470 ENCROACHMENT STATIONS= 253.0 294.0 TYPE= 1 TARGET= 41.000

35FT D/S WHITTAKER ROAD BRIDGE (R ZW =1+00) CROSS SECTION M

12170.00	6.04	710.34	0.	0.	710.50	.16	1.25	.05	708.60
422.	29.	350.	43.	12.	104.	21.	72.	47.	707.60
2.00	2.35	3.37	2.00	.050	.080	.080	.079	704.30	253.00
.004789	330.	310.	270.	2	0	0	0.	41.00	294.00

*SECNO 12204.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
12204.00	6.13	710.43	0.	0.	710.58	.15	.07	.00	714.20
422.	0.	422.	0.	0.	136.	0.	72.	47.	714.20
2.00	0.	3.10	0.	.030	.040	.030	.079	704.30	288.90
.001117	34.	34.	34.	2	0	0	0.	22.20	311.10

*SECNO 12205.000

3370 NORMAL BRIDGE,NRD= 10 MIN ELTRD= 713.00 MAX ELLC= 713.70

D/S FACE OF WHITTAKER ROAD BRIDGE(ZW 0+00)CONC SLAB AND HEADWALL

12205.00	6.13	710.43	0.	0.	710.58	.15	.00	.00	714.20
422.	0.	422.	0.	0.	136.	0.	72.	47.	714.20
2.00	0.	3.10	0.	.030	.040	.030	.079	704.30	288.90
.001675	1.	1.	1.	0	0	0	0.	22.20	311.10

*SECNO 12235.000

3370 NORMAL BRIDGE,NRD= 10 MIN ELTRD= 713.00 MAX ELLC= 713.70

U/S FACE OF WHITTAKER ROAD BRIDGE (R) CONC SLAB AND HEADWALL

12235.00	6.18	710.48	0.	0.	710.53	.15	.05	.00	714.20
422.	0.	422.	0.	0.	137.	0.	72.	47.	714.20
2.00	0.	3.08	0.	.030	.040	.030	.078	704.30	288.90
.001642	30.	30.	30.	1	0	0	0.	22.20	311.10

*SECNO 12236.000

12236.00	6.18	710.48	0.	0.	710.63	.15	.00	.00	714.20
422.	0.	422.	0.	0.	137.	0.	72.	47.	714.20
2.00	0.	3.07	0.	.030	.040	.030	.078	704.30	268.90
.001089	1.	1.	1.	0	0	0	0.	22.20	311.10

1490 NM CARD USED
*SECNO 12270.000

3470 ENCROACHMENT STATIONS= 278.0 370.0 TYPE= 1 TARGET= 92.000

35FT U/S WHITTAKER ROAD BRIDGE (R ZW =1+00)

12270.00	6.29	710.67	0.	0.	710.72	.05	.04	.05	708.48
422.	50.	229.	143.	43.	113.	84.	73.	47.	707.48
2.01	1.16	2.02	1.70	.060	.080	.060	.078	704.38	278.00
.001534	34.	34.	34.	2	0	0	0.	92.00	370.00

*SECNO 12320.000
3280 CROSS SECTION 12320.00 EXTENDED 2.26 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	IWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 108.0 300.0 TYPE= 1 TARGET= 192.000

185FT U/S WHITTAKER ROAD BRIDGE (ZW =1+00)

12320.00	6.26	710.76	0.	0.	710.81	.05	.08	.00	708.60
583.	40.	220.	323.	39.	113.	198.	73.	47.	707.60
2.02	1.01	1.96	1.63	.060	.080	.060	.078	704.50	144.07
.001445	30.	50.	70.	2	0	0	0.	155.93	300.00

CCHV= .200 CEHV= .400
*SECNO 12720.000

3470 ENCROACHMENT STATIONS= 200.0 725.0 TYPE= 1 TARGET= 525.000

485FT U/S WHITTAKER ROAD BRIDGE (ZW =4+00) CROSS SECTION N

12720.00	6.12	711.12	0.	0.	711.13	.02	.32	.01	711.50
583.	0.	306.	277.	0.	252.	379.	77.	50.	707.90
2.13	0.	1.21	.73	.060	.080	.060	.078	705.00	200.92
.000505	330.	400.	400.	2	0	0	0.	324.72	525.64

*SECNO 13640.000

1405FT U/S WHITTAKER ROAD BRIDGE (COE VS-6) CROSS SECTION O

13640.00	5.72	712.22	0.	0.	712.40	.18	1.20	.06	713.70
583.	0.	418.	165.	0.	110.	1.	87.	56.	707.50

6.61	0.	5.81	1.81	.000	.000	.000	.078	706.50	512.63
.006649	780.	920.	1050.	2	0	0	0.	183.63	495.85

*SECNO 15270.000

3035FT U/S WHITTAKER ROAD BRIDGE (COE VS-7) CROSS SECTION P

15270.00	7.20	715.30	0.	0.	715.33	.02	2.89	.03	712.40
583.	10.	150.	422.	12.	96.	397.	100.	64.	711.90
2.59	.87	1.57	1.07	.060	.080	.060	.078	708.10	195.78
.000817	1650.	1630.	1600.	3	0	0	0.	272.96	468.74

*SECNO 16020.000

3265 DIVIDED FLOW

3785FT U/S WHITTAKER ROAD BRIDGE (COE VS-8) CROSS SECTION Q

16020.00	6.79	716.29	0.	0.	716.40	.11	1.04	.03	714.10
583.	90.	462.	31.	45.	162.	40.	106.	67.	716.70
2.66	2.01	2.85	.78	.060	.080	.060	.079	709.50	320.90
.003327	800.	750.	640.	3	0	0	0.	170.07	499.06

*SECNO 17020.000

3265 DIVIDED FLOW

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

4785FT U/S WHITTAKER ROAD BRIDGE (COE VS-9) CROSS SECTION R

17020.00	6.59	718.79	0.	0.	718.84	.05	2.43	.01	715.60
583.	286.	279.	18.	196.	136.	31.	113.	72.	718.90
2.82	1.46	2.05	.56	.060	.080	.060	.079	712.20	246.32
.001865	1000.	1000.	900.	3	0	0	0.	253.09	567.35

CCHV= .500 CEHV= .800
1490 NH CARD USED
*SECNO 17520.000

3470 ENCROACHMENT STATIONS= .0 710.0 TYPE= 1 TARGET= 709.999

5285FT U/S WHITTAKER ROAD BRIDGE (C)

17520.00	6.36	719.66	0.	0.	719.71	.05	.87	.00	715.60
583.	119.	324.	140.	73.	153.	176.	117.	77.	718.90
2.90	1.63	2.12	.80	.060	.080	.043	.079	713.30	83.03
.001691	470.	500.	500.	2	0	0	0.	544.93	627.96

*SECNO 17570.000

3470 ENCROACHMENT STATIONS= .0 670.0 TYPE= 1 TARGET= 669.999

5335FT U/S WHITTAKER ROAD BRIDGE (C)

17570.00	6.47	719.77	0.	0.	719.80	.03	.08	.01	715.60
583.	127.	267.	188.	97.	157.	238.	118.	78.	718.90
2.92	1.32	1.71	.79	.060	.080	.040	.079	713.30	132.57
.001065	50.	50.	80.	0	0	0	0.	537.43	670.00

*SECNO 17800.000

3470 ENCROACHMENT STATIONS= .0 760.0 TYPE= 1 TARGET= 759.999

44FT D/S PRIVATE ROAD BRIDGE (C)

17800.00	6.07	720.07	0.	0.	720.13	.06	.30	.03	720.00
583.	0.	267.	316.	0.	102.	240.	120.	80.	719.40
2.95	.02	2.61	1.31	.030	.060	.040	.079	714.00	366.41
.002069	10.	230.	240.	2	0	0	0.	393.58	760.00

*SECNO 17844.000

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= .0 730.0 TYPE= 1 TARGET= 729.999

D/S FACE OF PRIVATE ROAD BRIDGE (COE VS-9A)

17844.00	6.17	720.17	0.	0.	720.22	.05	.08	.01	720.40
583.	0.	237.	346.	0.	100.	263.	120.	80.	720.30
2.95	.33	2.37	1.31	.030	.060	.040	.079	714.00	363.57
.001674	10.	44.	44.	2	0	0	0.	362.10	730.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	=0.	1.74	2.00	=0.	8.70	=0.	83.00	1.23	714.00	714.00

*SECNO 17856.000

6070.LOW FLOW BY NORMAL BRIDGE

EGPRS= 721.499 EGLWC= 720.217 ELLC= 719.400 PCWSE= 720.166 ELTRD= 719.200

3265 DIVIDED FLOW

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3370 NORMAL BRIDGE,NRD= 14 MIN ELTRD= 719.20 MAX ELLC= 719.40

3470 ENCROACHMENT STATIONS= .0 730.0 TYPE= 1 TARGET= 729.999

U/S FACE OF PRIVATE ROAD BRIDGE (R)

17856.00	6.21	720.21	0.	0.	720.25	.04	.02	.01	720.40
583.	0.	138.	444.	1.	83.	276.	120.	80.	720.30
2.96	.53	1.67	1.61	.030	.060	.040	.079	714.00	362.52
.002356	1.	12.	12.	2	0	0	=17.72	364.27	730.00

*SECNO 17900.000

3470 ENCROACHMENT STATIONS= 240.0 750.0 TYPE= 1 TARGET= 510.000

44FT U/S PRIVATE ROAD BRIDGE (R)

17900.00	6.28	720.28	0.	0.	720.34	.05	.08	.01	720.00	
583.	1.	248.	335.	1.	108.	234.	121.	81.	719.40	
2.96	.52	2.30	1.43	.030	.060	.040	.079	714.00	483.23	
.001492	30.	44.	44.	0	0	0	0.	266.77	750.00	

*SECNO 17970.000

3470 ENCROACHMENT STATIONS= 205.0 630.0 TYPE= 1 TARGET= 425.000

27FT D/S TEXTILE ROAD BRIDGE (C)

17970.00	6.68	720.38	0.	0.	720.51	.12	.11	.06	718.20	
583.	113.	357.	113.	47.	112.	64.	121.	81.	718.30	
2.97	2.40	3.20	1.76	.030	.060	.040	.078	713.70	406.51	
.002101	1.	70.	70.	0	0	0	0.	147.64	554.15	

*SECNO 17997.000

D/S FACE OF TEXTILE ROAD BRIDGE(COE VS1.0)CONC SLAB AND HEADWALLS

17997.00	6.72	720.42	0.	0.	720.55	.13	.04	.01	718.20	
583.	85.	383.	115.	50.	113.	69.	121.	81.	718.30	
2.97	1.71	3.40	1.68	.030	.040	.030	.078	713.70	405.45	
.001040	1.	27.	60.	1	0	0	0.	151.64	557.09	

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	=0.	2.08	3.00	=0.	15.60	=0.	86.60	.70	714.10	714.10

*SECNO 18043.000
PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
721.88	721.02	0.	0.	583.	87.	86.	718.70	722.20

3470 ENCROACHMENT STATIONS= 440.0 480.0 TYPE= 1 TARGET= 40.000

U/S FACE OF TEXTILE ROAD BRIDGE(R)

18043.00	8.05	721.75	0.	0.	721.88	.13	1.33	0.	718.20	
583.	77.	431.	75.	33.	139.	32.	121.	81.	718.30	
2.98	2.34	3.09	2.32	.030	.040	.030	.078	713.70	440.00	
.000651	46.	46.	46.	2	0	0	0.	40.00	480.00	

CCHV= .300 CEHV= .500
*SECNO 18070.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TTOP	VLOB	VCH	VROB	X1	XNCH	XN	TIN	ELMIN	SSTA

SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 420.0 500.0 TYPE= 1 TARGET= 80.000

27FT U/S TEXTILE ROAD BRIDGE (R COE VS-11)

18070.00	8.15	721.85	0.	0.	721.92	.07	.01	.02	718.20
606.	127.	351.	127.	87.	141.	87.	121.	81.	718.30
2.98	1.47	2.49	1.46	.040	.040	.040	.078	713.70	420.00
.000414	35.	27.	15.	2	0	0	0.	80.00	500.00

*SECNO 18120.000

3470 ENCROACHMENT STATIONS= 370.0 550.0 TYPE= 1 TARGET= 180.000

77FT U/S TEXTILE ROAD BRIDGE (COE VS-11) CROSS SECTIONS

18120.00	8.21	721.91	0.	0.	721.94	.03	.02	.01	718.20
606.	148.	268.	190.	158.	142.	187.	122.	81.	718.30
2.99	.94	1.88	1.01	.040	.040	.040	.078	713.70	370.00
.000234	50.	50.	50.	2	0	0	0.	180.00	550.00

*SECNO 18570.000

18570.00	6.82	722.05	0.	0.	722.11	.06	.15	.02	775.50
606.	0.	155.	451.	0.	175.	196.	126.	84.	719.93
3.05	0.	.89	2.30	.040	.040	.040	.077	715.23	161.83
.000802	475.	450.	313.	0	0	0	0.	367.14	528.97

*SECNO 19020.000

19020.00	5.96	722.36	0.	0.	722.66	.30	.44	.12	725.50
606.	0.	45.	561.	0.	33.	124.	128.	86.	721.10
3.07	0.	1.36	4.54	.040	.040	.040	.077	716.40	367.18
.002469	475.	450.	313.	2	0	0	0.	106.98	474.16

*SECNO 19470.000

19470.00	5.62	723.19	0.	0.	723.58	.39	.87	.04	726.67
606.	0.	23.	583.	0.	19.	115.	129.	87.	722.27
3.08	0.	1.22	5.09	.040	.040	.040	.077	717.57	411.36
.003016	475.	450.	313.	2	0	0	0.	90.35	501.71

*SECNO 19920.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 500.0 600.0 TYPE= 1 TARGET= 100.000

44FT D/S PRIVATE FOOT BRIDGE (R COE VS-11A)

19920.00	6.50	724.90	0.	0.	725.18	.28	1.57	.03	723.90
606.	98.	486.	22.	36.	106.	15.	130.	88.	723.90
3.11	2.71	4.57	1.44	.040	.060	.050	.077	718.40	500.00
.005877	475.	450.	313.	3	0	0	0.	93.87	593.87

*SECNO 19973.000

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3470 ENCROACHMENT STATIONS=     460.0     636.0 TYPE=     1 TARGET=     176.000
 19963.00     6.68   725.18       0.        0.   725.34      .16       .12       .04   724.00
      606.      172.      405.      30.      84.      111.      21.      131.      88.    724.00
     3.11     2.05     3.66     1.38     .030     .040     .030     .076   718.50   460.00
  .001583       43.      43.      43.        2        0        0       0.   139.31   599.31


*SECNO 19964.000
 WATER EL=XS CARD=   725.180

3470 ENCROACHMENT STATIONS=     460.0     636.0 TYPE=     1 TARGET=     176.000

                    D/S FACE OF PRIVATE FOOT BRIDGE (COE VS=11A)STEEL BEAMS W/PLANKS

 19964.00     6.68   725.18       0.        0.   725.34      .16       .00       .00   724.00
      606.      172.      404.      30.      84.      111.      21.      131.      88.    724.00
     3.11     2.05     3.65     1.38     .030     .040     .030     .076   718.50   460.00
  .001577       1.       1.       1.        0        0        0       0.   139.38   599.38


*SECNO 19976.000

3470 ENCROACHMENT STATIONS=     445.0     645.0 TYPE=     1 TARGET=     200.000

                    U/S FACE OF PRIVATE FOOT BRIDGE (R)

 19976.00     6.73   725.23       0.        0.   725.36      .13       .02       .01   724.00
      606.      198.      377.      31.     103.      112.      24.      131.      88.    724.00
     3.12     1.91     3.36     1.31     .030     .040     .030     .076   718.50   445.00
  .001315       12.      12.      12.        2        0        0       0.   178.32   623.32


*SECNO 19977.000

3470 ENCROACHMENT STATIONS=     445.0     645.0 TYPE=     1 TARGET=     200.000
 19977.00     6.74   725.24       0.        0.   725.37      .13       .00       .00   724.00
      606.      198.      377.      31.     103.      112.      24.      131.      88.    724.00
     3.12     1.91     3.36     1.31     .030     .040     .030     .076   718.50   445.00
  .001312       1.       1.       1.        0        0        0       0.   179.19   624.19


*SECNO 20020.000
   SECNO      DEPTH     CWSEL     CRIWS     WSELK        EG        HV        HL      QLOSS   BANK ELEV
   Q          QLOB      QCH       QROB      ALOB       ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME       VLOB      VCH       VROB      XNL        XNCH      XNR       WIN       ELMIN      SSTA
   SLOPE      XLOBL     XLCH      XLOBR     ITRIAL     IDC       ICONT     CORAR     TOPWID     ENDST


3470 ENCROACHMENT STATIONS=     400.0     686.0 TYPE=     1 TARGET=     286.000

                    44FT U/S PRIVATE FOOT BRIDGE  (R)

 20020.00     6.74   725.34       0.        0.   725.47      .13       .10       .00   724.10
      606.      167.      390.      49.     145.      112.      24.      131.      88.    724.10
     3.12     1.15     3.48     2.03     .100     .080     .040     .076   718.60   400.00
  .005621       43.      43.      43.        2        0        0       0.   225.20   625.20


CCHV=     .300 CEHV=    1.000
*SECNO 20280.000
3280 CROSS SECTION  20280.00 EXTENDED        .68 FEET
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2250FT U/S TEXTILE ROAD BRIDGE (COE VS=12) CROSS SECTION T

20280.00	6.38	725.68	0.	0.	725.69	.01	.18	.04	723.00	
606.	249.	111.	246.	685.	104.	473.	155.	90.	721.60	
3.24	.36	1.06	.52	.090	.070	.090	.076	719.30	0.	
.000291	200.	260.	250.	3	0	0	0.	702.76	702.76	

*SECNO 21580.000

3470 ENCROACHMENT STATIONS= 480.0 540.0 TYPE= 1 TARGET= 60.000
ELENCL= 727.30 ELENCR= 100000.00

0 84FT D/S STONY CREEK ROAD BRIDGE (COE VS=13)

21580.00	6.52	726.72	0.	0.	727.00	.28	1.04	.27	725.40	
606.	30.	512.	64.	21.	113.	30.	156.	102.	724.30	
3.33	1.40	4.52	2.12	.090	.070	.090	.076	720.20	480.00	
.006990	1340.	1300.	1250.	3	0	0	0.	60.00	540.00	

*SECNO 21630.000

3470 ENCROACHMENT STATIONS= 493.0 530.0 TYPE= 1 TARGET= 37.000
ELENCL= 727.60 ELENCR= 100000.00

34FT D/S STONY CREEK ROAD BRIDGE (R COE VS=13) CROSS SECTION U

21630.00	6.87	727.07	0.	0.	727.39	.32	.34	.04	725.40	
606.	18.	568.	20.	11.	122.	11.	156.	102.	724.30	
3.33	1.61	4.66	1.87	.090	.070	.090	.076	720.20	493.00	
.006701	50.	50.	50.	2	0	0	0.	37.00	530.00	

*SECNO 21804.000

3470 ENCROACHMENT STATIONS= 500.0 524.0 TYPE= 1 TARGET= 24.000
ELENCL= 727.90 ELENCR= 100000.00

D/S FACE OF STONY CREEK ROAD BRIDGE (COE VS=14) CONC SLAB AND

HEADWALLS

21804.00	7.13	727.33	0.	0.	727.71	.38	.26	.06	725.40	
606.	0.	606.	0.	0.	122.	0.	157.	102.	100000.00	
3.33	0.	4.96	0.	.090	.070	.090	.076	720.20	500.00	
.008906	40.	34.	28.	2	0	0	0.	24.00	524.00	

SPECIAL BRIDGE

SB	XK	XKOR	COEQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	-0.	1.70	3.00	-0.	20.00	-0.	143.20	.30	721.00	721.00

*SECNO 21836.000

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS= 0. EGLWC= 728.414 ELLC= 728.900 PCWSE= 727.328 ELTRD= 729.400

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

```
3370 NORMAL BRIDGE,NRD= 13 MIN ELTRD=  729.40 MAX ELLC=  728.90

3470 ENCROACHMENT STATIONS=     500.0     524.0  TYPE=      1  TARGET=      24.000
 ELENCL=    728.80  ELENCR= 100000.00

                U/S FACE OF STONY CREEK ROAD BRIDGE (R) CONC SLAB AND HEADWALLS

 21836.00      7.30   727.50       0.        0.     727.86      .36       .14       .01   725.40
   606.          0.     606.        0.        0.      126.        0.       157.      102.  100000.00
     3.33        0.     4.79        0.      .040      .040      .040      .076    720.20   500.00
  .002628       32.     32.        32.        2         0         0      .000     24.00   524.00


CCHV=     .300 CEHV=     .500
*SECNO 21870.000

3470 ENCROACHMENT STATIONS=     500.0     575.0  TYPE=      1  TARGET=      75.000
 ELENCL=    728.30  ELENCR= 100000.00

                34FT U/S STONY CREEK ROAD BRIDGE (K COE VS=13)

 21870.00      7.74   727.94       0.        0.     728.01      .07       .06       .08   725.40
   606.          0.     355.      251.        0.      145.      145.      157.      102.    724.30
     3.34        0.     2.45       1.74     .040      .060      .060      .076    720.20   500.00
  .001223       25.     34.        50.        2         0         0        0.     75.00   575.00


*SECNO 21920.000

3470 ENCROACHMENT STATIONS=     500.0     625.0  TYPE=      1  TARGET=     125.000
 ELENCL=    727.80  ELENCR= 100000.00

                84FT U/S STONY CREEK ROAD BRIDGE (R)

 21920.00      7.83   728.03       0.        0.     728.06      .03       .04       .01   725.40
   606.         16.     248.      342.       50.      147.      289.      157.      102.    724.30
     3.35       .32     1.68       1.18     .040      .060      .060      .076    720.20   268.45
  .000560       50.     50.        50.        0         0         0        0.    356.55   625.00


*SECNO 22390.000

3470 ENCROACHMENT STATIONS=        .0    1000.0  TYPE=      1  TARGET=     999.999

                554FT U/S STONY CREEK ROAD BRIDGE (CDE VS=15)  CROSS SECTION V

 22390.00      7.47   728.27       0.        0.     728.29      .02       .22       .00   727.10
   706.        371.     120.      215.      346.      105.      298.      163.      106.    724.60
     3.47      1.07     1.14       .72      .040      .080      .060      .076    720.80    95.91
  .000474      300.     470.       500.        2         0         0        0.    552.34   648.24


*SECNO 23390.000

3470 ENCROACHMENT STATIONS=     130.0    1000.0  TYPE=      1  TARGET=     870.000

                1804FT U/S STONY CREEK ROAD BRIDGE (CDE VS=16)  CROSS SECTION W

 23390.00      6.27   729.27       0.        0.     729.48      .21      1.09       .10   729.00
   706.         96.     567.       43.      112.      139.       31.      174.      115.    727.00
     3.54       .85     4.10       1.40     .100      .080      .100      .077    723.00   184.88
  .007290      780.    1000.       900.        3         0         0        0.    284.65   469.53
```

*SECNO 23440.000

3265 DIVIDED FLOW

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
23440.00	6.58	729.68	0.	0.	729.73	.05	.20	.05	728.10
706.	224.	330.	152.	261.	129.	227.	174.	115.	728.00
3.55	.86	2.55	.67	.100	.080	.100	.077	723.10	174.40
.002523	50.	50.	50.	2	0	0	0.	551.05	738.04

3470 ENCROACHMENT STATIONS= 85.0 810.0 TYPE= 1 TARGET= 725.000

44FT D/S PRIVATE BRIDGE (R COE VS-16A)

*SECNO 23483.000

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 42.0 855.0 TYPE= 1 TARGET= 813.000

23483.00	6.63	729.73	0.	0.	729.78	.05	.05	.00	728.10
706.	229.	319.	158.	273.	130.	243.	175.	116.	728.00
3.56	.84	2.45	.65	.050	.040	.050	.077	723.10	172.72
.000572	43.	43.	43.	2	0	0	0.	562.89	742.80

*SECNO 23484.000

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 14 MIN ELTRD= 728.20 MAX ELLC= 728.60

3470 ENCROACHMENT STATIONS= 42.0 855.0 TYPE= 1 TARGET= 813.000

D/S FACE OF PRIVATE BRIDGE (COE VS-16A) STEEL BEAMS W/W//D DECK

23484.00	6.65	729.75	0.	0.	729.78	.03	.00	.00	728.10
706.	279.	210.	216.	228.	101.	222.	175.	116.	728.00
3.56	1.22	2.08	.97	.050	.040	.050	.077	723.10	172.45
.001419	1.	1.	1.	1	0	0	-99.35	564.61	743.58

*SECNO 23496.000

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 14 MIN ELTRD= 728.20 MAX ELLC= 728.60

3470 ENCROACHMENT STATIONS= 30.0 975.0 TYPE= 1 TARGET= 945.000

U/S FACE OF PRIVATE BRIDGE (R COE VS-16A)

23496.00	6.67	729.77	0.	0.	729.80	.03	.02	.00	728.10
70[illegible]	2[illegible]	206	219	23[illegible]	101	2[illegible]	175	116	72[illegible]00

5.56	1.21	2.04	.96	.050	.040	.050	.076	725.10	171.78
.001356	12.	12.	12.	0	0	0	-100.16	569.58	745.50

*SECNO 23497.000

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 30.0 975.0 TYPE= 1 TARGET= 945.000

23497.00	6.66	729.76	0.	0.	729.81	.04	.00	.01	728.10
706.	232.	312.	162.	281.	131.	254.	175.	116.	728.00
3.56	.82	2.37	.64	.050	.040	.050	.076	723.10	171.51
.000534	1.	1.	1.	0	0	0	0.	571.47	746.26

*SECNO 23540.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

44FT U/S PRIVATE BRIDGE (R COE VS-16A)

23540.00	6.71	729.81	0.	0.	729.85	.04	.04	.00	728.10
706.	245.	288.	174.	289.	132.	265.	176.	116.	728.00
3.57	.85	2.17	.66	.090	.080	.090	.076	723.10	170.38
.001771	43.	43.	43.	0	0	0	0.	579.08	749.46

*SECNO 24710.000

3470 ENCROACHMENT STATIONS= .0 650.0 TYPE= 1 TARGET= 649.999

3124FT U/S STONY CREEK ROAD BRIDGE (COE VS-17) CROSS SECTION X

24710.00	7.28	731.68	0.	0.	731.73	.05	1.88	.01	730.20
706.	5.	525.	176.	10.	255.	235.	192.	128.	731.40
3.76	.51	2.06	.75	.090	.080	.090	.077	724.40	186.52
.001460	1170.	1170.	1170.	2	0	0	0.	304.55	490.87

1490 NH CARD USED

*SECNO 25870.000

3265 DIVIDED FLOW

3280 CROSS SECTION 25870.00 EXTENDED 1.10 FEET

3470 ENCROACHMENT STATIONS= .0 270.0 TYPE= 1 TARGET= 269.999

4284FT U/S STONY CREEK ROAD BRIDGE (COE VS-18) CROSS SECTION Y

25870.00	2.80	733.60	0.	0.	733.70	.10	1.94	.02	733.10
149.	9.	80.	61.	8.	25.	45.	199.	135.	734.70
3.89	1.13	3.20	1.36	.040	.050	.056	.077	730.80	69.90
.005816	1160.	1160.	1000.	2	0	0	0.	138.98	270.00

*SECNO 26143.000

3470 ENCROACHMENT STATIONS= .0 100.0 TYPE= 1 TARGET= 99.999

172FT D/S FROM WEIR IN RETENTION POND (TRANSITION TO CREEK)

26143.00	3.36	734.36	0.	0.	734.55	.20	.81	.05	734.00
149.	1.	134.	14.	2.	36.	12.	199.	134.	734.00
3.91	.73	3.74	1.16	.030	.030	.030	.077	731.00	40.26
.002191	273.	270.	150.	1	0	0	0.	59.74	100.00

*SECNO 26191.000

3470 ENCROACHMENT STATIONS= .0 75.0 TYPE= 1 TARGET= 74.999

124FT D/S FROM WEIR IN RETENTION POND (TRANSITION TO CREEK)

26191.00	3.98	734.58	0.	0.	734.63	.05	.03	.04	734.00
149.	1.	141.	7.	2.	76.	11.	199.	134.	734.00
3.92	.41	1.85	.64	.030	.030	.030	.076	730.60	24.72
.000357	48.	48.	32.	2	0	0	0.	50.27	75.00

*SECNO 26231.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	INA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CURAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= .0 55.0 TYPE= 1 TARGET= 54.999

84FT D/S FROM WEIR IN RETENTION POND (TRANSITION TO CREEK)

26231.00	3.28	734.58	0.	0.	734.66	.08	.02	.02	734.00
149.	0.	147.	2.	1.	64.	2.	199.	134.	734.00
3.92	.51	2.31	.73	.030	.027	.030	.076	731.30	22.09
.000555	40.	40.	25.	2	0	0	0.	32.91	55.00

*SECNO 26241.000

74FT D/S FROM WEIR IN RETENTION POND (TRANSITION TO CREEK)

26241.00	3.59	734.59	0.	0.	734.67	.08	.01	.00	735.50
149.	0.	149.	0.	0.	65.	0.	199.	134.	735.50
3.93	0.	2.28	0.	.030	.027	.030	.076	731.00	25.00
.000548	10.	10.	7.	0	0	0	0.	26.00	51.00

*SECNO 26273.000

3470 ENCROACHMENT STATIONS= .0 65.0 TYPE= 1 TARGET= 64.999

42FT D/S FROM WEIR IN RETENTION POND (TRANSITION TO CREEK)

26273.00	3.64	734.64	0.	0.	734.69	.05	.01	.01	736.50
149.	0.	149.	0.	0.	84.	0.	199.	134.	735.50
3.93	0.	1.78	0.	.030	.027	.030	.076	731.00	20.00
.000265	32.	32.	20.	2	0	0	0.	25.00	45.00

*SECNO 26315.000

3470 ENCROACHMENT STATIONS= .0 107.0 TYPE= 1 TARGET= 106.999

D/S FACE OF FTR IN RETENTION POND CROSS SECTION 2

26315.00	3.65	734.65	0.	0.	734.70	.05	.00	.00	736.50	
149.	0.	149.	0.	0.	84.	0.	199.	134.	735.50	
3.94	0.	1.78	0.	.012	.012	.012	.076	731.00	20.00	
.000052	42.	42.	42.	1	0	0	0.	25.00	45.00	

THIS RUN EXECUTED 30 AUG 79 11.12.48

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED JULY 1979
  ERROR CORR = 01,02,03
  MODIFICATION = 50,51,52,53
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T1      YPSILANTI TOWNSHIP  FIS
T2      PAINT CREEK
T3      50  YR  FLOW

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      -0.       3.       -0.       -0. -0.           -0.       -0.       -0.   689.200    -0.

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

      2.000    -0.      -1.000     -0.       -0.       -0.       -0.       -0.       -0.       -0.
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*PROF 2

CCHV= .100 CEHV= .300

*SECNO 0.

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
			2000FT D/S BEMIS ROAD BRIDGE (COE VS=1)						
0.	6.10	689.20	0.	689.20	689.25	.05	0.	0.	688.00
608.	193.	391.	24.	136.	188.	28.	0.	0.	688.00
0.	1.42	2.08	.89	.040	.075	.040	0.	683.10	63.16
.001975	0.	0.	0.	0	0	0	0.	314.62	377.78

*SECNO 200.000

3470 ENCROACHMENT STATIONS= 1.0 600.0 TYPE= 1 TARGET= 599.000

1800FT D/S BEMIS ROAD BRIDGE (R)

200.00	6.15	689.57	0.	689.12	689.62	.05	.37	.00	688.32
608.	204.	375.	29.	148.	191.	33.	2.	1.	688.32
.03	1.38	1.96	.89	.040	.075	.040	.075	683.42	59.84
.001719	200.	200.	200.	1	0	0	0.	321.44	381.28

*SECNO 400.000

3470 ENCROACHMENT STATIONS= 1.0 600.0 TYPE= 1 TARGET= 599.000

1600FT D/S BEMIS ROAD BRIDGE (R)

400.00	6.18	689.92	0.	689.71	689.96	.05	.34	.00	688.64
608.	206.	372.	30.	150.	192.	34.	3.	3.	688.64
.07	1.37	1.94	.89	.040	.075	.040	.075	683.74	59.20
.001674	200.	200.	200.	2	0	0	0.	322.76	381.96

*SECNO 600.000

3470 ENCROACHMENT STATIONS= 1.0 600.0 TYPE= 1 TARGET= 599.000

1400FT D/S BEMIS ROAD BRIDGE (R)

600.00	6.18	690.24	0.	690.19	690.29	.04	.35	.00	688.96
608.	209.	367.	31.	154.	193.	35.	5.	4.	688.96
.10	1.36	1.90	.89	.040	.075	.040	.075	684.06	58.19
.001605	200.	200.	200.	0	0	0	0.	324.83	383.02

*SECNO 800.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1200FT D/S BEMIS ROAD BRIDGE (R)

800.00	6.19	690.57	0.	690.50	690.61	.04	.32	.00	689.28
608.	209.	368.	31.	153.	193.	35.	7.	6.	689.28
.13	1.36	1.91	.89	.040	.075	.040	.075	684.38	58.29
.001611	200.	200.	200.	0	0	0	0.	324.63	382.92

CCHV= .500 CEHV= .900

*SECNO 1000.000

3470 ENCROACHMENT STATIONS= 50.0 525.0 TYPE= 1 TARGET= 475.000

1000FT D/S BEMIS ROAD BRIDGE (COE VS=2)

1000.00	6.06	690.76	0.	690.61	690.77	.02	.15	.01	688.70
608.	359.	227.	22.	362.	219.	35.	9.	8.	689.00
.19	.99	1.04	.63	.040	.075	.040	.075	684.70	50.00
.000424	200.	200.	200.	2	0	0	0.	375.84	425.84

*SECNO 1200.000

3470 ENCROACHMENT STATIONS= 50.0 500.0 TYPE= 1 TARGET= 450.000

800FT D/S BEMIS ROAD BRIDGE (R)

1200.00	5.97	690.87	0.	690.67	690.89	.02	.11	.01	688.90
608.	302.	283.	23.	257.	214.	29.	12.	9.	689.20
.23	1.18	1.32	.79	.040	.075	.040	.075	684.90	50.00
.000711	200.	200.	200.	2	0	0	0.	298.51	348.51

*SECNO 1400.000

3470 ENCROACHMENT STATIONS= 100.0 450.0 TYPE= 1 TARGET= 350.000

600FT D/S BEMIS ROAD BRIDGE (R)

1400.00	5.73	691.03	0.	690.78	691.07	.03	.17	.01	688.90
608.	253.	329.	26.	184.	211.	28.	14.	10.	689.40
.27	1.37	1.56	.93	.040	.075	.040	.075	685.30	100.00
.001010	200.	200.	200.	2	0	0	0.	247.10	347.10

*SECNO 1600.000

3470 ENCROACHMENT STATIONS= 150.0 400.0 TYPE= 1 TARGET= 250.000

400FT D/S BEMIS ROAD BRIDGE (R)

1600.00	5.96	691.26	0.	690.95	691.30	.04	.23	.01	689.30
608.	202.	375.	31.	127.	212.	29.	16.	11.	689.60
.30	1.59	1.77	1.06	.040	.075	.040	.075	685.30	150.00
.001294	200.	200.	200.	2	0	0	0.	198.24	348.24

*SECNO 1800.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 200.0 350.0 TYPE= 1 TARGET= 150.000

200FT D/S BEMIS ROAD BRIDGE (R)

1800.00	6.04	691.54	0.	691.16	691.60	.06	.28	.02	689.50
608.	115.	451.	42.	63.	218.	33.	17.	12.	689.80
.33	1.83	2.07	1.28	.040	.075	.040	.075	685.50	200.00
.001705	150.	200.	250.	2	0	0	0.	150.00	350.00

*SECNO 1900.000

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 236.0 334.0 TYPE= 1 TARGET= 98.000

100FT D/S BEMIS ROAD BRIDGE (ZW 107+50)

1900.00	6.20	691.80	0.	691.35	691.98	.18	.27	.10	691.90
608.	4.	555.	49.	4.	160.	20.	18.	12.	691.10
.34	.84	3.46	2.39	.040	.075	.040	.075	685.60	236.00
.005120	100.	100.	100.	2	0	0	0.	86.30	329.28

*SECNO 1950.000
3280 CROSS SECTION 1950.00 EXTENDED 1.60 FEET

3470 ENCROACHMENT STATIONS= 200.0 255.0 TYPE= 1 TARGET= 55.000

50FT D/S BEMIS ROAD BRIDGE (R COE VS=4)

1950.00	6.80	692.10	0.	691.56	692.21	.12	.21	.03	691.20
608.	0.	608.	0.	0.	221.	0.	18.	12.	100000.10
.34	0.	2.75	0.	.040	.075	.040	.075	685.30	200.00
.003417	50.	50.	50.	2	0	0	0.	55.00	255.00

*SECNO 1985.000

3470 ENCROACHMENT STATIONS= 170.0 197.0 TYPE= 1 TARGET= 27.000

1985.00	7.06	692.16	0.	691.60	692.40	.23	.08	.10	693.70
608.	0.	608.	0.	0.	157.	0.	18.	13.	100000.00
.35	0.	3.88	0.	.030	.040	.030	.074	685.10	170.00
.001544	49.	35.	21.	2	0	0	0.	27.00	197.00

*SECNO 1986.000

3370 NORMAL BRIDGE,NRD= 13 MIN ELTRD= 693.30 MAX ELLC= 692.70

3470 ENCROACHMENT STATIONS= 170.0 197.0 TYPE= 1 TARGET= 27.000

D/S FACE OF BEMIS ROAD BRIDGE (COE VS=3)CONC SLAB AND WINGWALLS

1986.00	7.06	692.16	0.	691.60	692.40	.23	.00	.00	693.70
608.	0.	608.	0.	0.	157.	0.	18.	13.	100000.00
.35	0.	3.88	0.	.030	.040	.030	.074	685.10	170.00
.001789	1.	1.	1.	0	0	0	0.	27.00	197.00

*SECNO 2014.000

SECNO	DEPT	C SEL	CRITWS	SELK	EG	HV	HI	OLOSS	BANK ELEV

Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3370 NORMAL BRIDGE,NRD= 13 MIN ELTRD= 693.30 MAX ELLC= 692.70

3470 ENCROACHMENT STATIONS= 170.0 197.0 TYPE= 1 TARGET= 27.000

U/S FACE OF BEMIS ROAD BRIDGE (R COE VS3)CONC SLAB AND WINGWALLS

2014.00	7.12	692.22	0.	691.63	692.45	.23	.05	.00	693.70
608.	0.	608.	0.	0.	158.	0.	18.	13.	100000.00
.35	0.	3.85	0.	.030	.040	.030	.074	685.10	170.00
.001751	28.	28.	28.	0	0	0.	0.	27.00	197.00

*SECNO 2015.000

3470 ENCROACHMENT STATIONS= 170.0 197.0 TYPE= 1 TARGET= 27.000

2015.00	7.12	692.22	0.	691.64	692.45	.23	.00	.00	693.70
608.	0.	608.	0.	0.	158.	0.	18.	13.	100000.00
.35	0.	3.84	0.	.030	.040	.030	.074	685.10	170.00
.001500	1.	1.	1.	0	0	0	0.	27.00	197.00

CCHV= .500 CEHV= .900

*SECNO 2050.000

3470 ENCROACHMENT STATIONS= 164.0 291.0 TYPE= 1 TARGET= 127.000

36FT U/S BEMIS ROAD BRIDGE (R COE VS=4)

2050.00	7.39	692.54	0.	691.80	692.59	.06	.06	.09	691.05
608.	42.	512.	54.	47.	253.	55.	18.	13.	690.65
.35	.89	2.02	.98	.080	.080	.080	.074	685.15	164.00
.001659	21.	35.	49.	2	0	0	0.	127.00	291.00

*SECNO 2100.000

3470 ENCROACHMENT STATIONS= 214.0 441.0 TYPE= 1 TARGET= 227.000

86FT U/S BEMIS ROAD BRIDGE (COE VS=4) CROSS SECTION A

2100.00	7.43	692.63	0.	691.88	692.67	.04	.07	.01	691.90
608.	36.	466.	107.	60.	250.	122.	19.	13.	690.70
.36	.59	1.86	.88	.080	.080	.080	.074	685.20	218.00
.001437	75.	50.	25.	1	0	0	0.	223.00	441.00

CCHV= .300 CEHV= .500

*SECNO 2430.000

3265 DIVIDED FLOW

416FT U/S BEMIS ROAD BRIDGE (ZW 101+00)

2430.00	6.69	693.29	0.	692.63	693.36	.07	.67	.01	693.40
608.	21.	587.	0.	46.	276.	0.	22.	14.	693.80
.41	.46	2.13	0.	.080	.080	.080	.075	686.60	89.89
.003175	300.	330.	300.	2	0	0	0.	258.30	422.98

*SECNO 2990.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

976FT U/S BEMIS ROAD BRIDGE (ZW 95+00) CROSS SECTION B

2990.00	7.82	694.52	0.	693.97	694.57	.05	1.21	.01	693.30
608.	221.	350.	38.	125.	190.	34.	26.	17.	693.20
.49	1.77	1.84	1.10	.040	.080	.040	.076	686.70	174.24
.001542	590.	560.	470.	1	0	0	0.	191.29	365.53

*SECNO 3390.000

3265 DIVIDED FLOW

3280 CROSS SECTION 3390.00 EXTENDED 1.92 FEET

1376FT U/S BEMIS ROAD BRIDGE (ZW 90+75)

3390.00	7.42	694.92	0.	694.44	694.94	.02	.37	.01	695.60
608.	385.	223.	0.	375.	184.	0.	50.	20.	696.20
.60	1.03	1.21	0.	.040	.080	.040	.076	687.50	0.
.000603	400.	400.	400.	3	0	0	0.	402.73	540.60

*SECNO 4040.000

3265 DIVIDED FLOW

3280 CROSS SECTION 4040.00 EXTENDED 1.46 FEET

2026FT U/S BEMIS ROAD BRIDGE (ZW 84+00) CROSS SECTION C

4040.00	7.16	695.66	0.	695.26	695.76	.10	.77	.04	697.70
608.	184.	424.	0.	92.	156.	0.	56.	24.	698.90
.67	2.00	2.72	0.	.040	.080	.040	.077	688.50	0.
.003359	650.	650.	650.	2	0	0	0.	147.96	405.65

CCHV= .500 CEHV= .900

*SECNO 4570.000

3470 ENCROACHMENT STATIONS= 46.0 600.0 TYPE= 1 TARGET= 554.000

2556FT U/S BEMIS ROAD BRIDGE (ZW 79+00)

4570.00	7.71	697.21	0.	696.74	697.27	.06	1.49	.02	697.20
608.	233.	375.	0.	158.	174.	0.	40.	27.	699.30
.75	1.47	2.16	0.	.040	.080	.040	.077	689.50	46.00
.002360	540.	530.	510.	3	0	0	0.	277.29	323.29

*SECNO 5090.000

3470 ENCROACHMENT STATIONS= 158.0 402.0 TYPE= 1 TARGET= 244.000

3076FT U/S BEMIS ROAD BRIDGE (ZW 74+00) CROSS SECTION D

5090.00	8.11	698.41	0.	697.92	698.49	.08	1.20	.02	697.80
608.	121.	487.	0.	80.	198.	0.	43.	29.	698.70
.81	1.51	2.46	0.	.040	.080	.040	.077	690.30	158.00
.002284	510.	520.	530.	2	0	0	0.	141.46	299.46

*SECNO 5450.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSIA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 295.0 359.0 TYPE= 1 TARGET= 64.000

86FT D/S MARTZ ROAD BRIDGE (ZW 69+00)

5450.00	7.76	699.16	0.	698.51	699.30	.14	.76	.05	697.70
608.	34.	574.	0.	17.	190.	0.	45.	30.	702.90
.84	2.01	3.02	0.	.040	.060	.040	.076	691.40	295.00
.001996	322.	360.	398.	2	0	0	0.	48.31	343.31

*SECNO 5500.000

3470 ENCROACHMENT STATIONS= 306.0 347.0 TYPE= 1 TARGET= 41.000

36FT D/S MARTZ ROAD BRIDGE (R ZW 69+00)

5500.00	7.86	699.26	0.	698.58	699.41	.15	.10	.01	697.70
608.	0.	608.	0.	0.	194.	0.	46.	30.	100000.00
.85	0.	3.13	0.	.040	.060	.040	.076	691.40	306.00
.002200	20.	50.	80.	0	0	0	0.	37.41	343.41

*SECNO 5525.000

3470 ENCROACHMENT STATIONS= 310.0 623.0 TYPE= 1 TARGET= -310.000

D/S FACE OF MARTZ ROAD BRIDGE HEADWALL (R ZW 68+00)

5525.00	8.09	699.29	0.	698.60	699.48	.18	.04	.03	701.50
608.	0.	608.	0.	0.	176.	0.	46.	30.	701.50
.85	0.	3.45	0.	.030	.040	.030	.076	691.20	310.00
.001013	25.	25.	25.	1	0	0	0.	26.00	336.00

*SECNO 5535.000

3470 ENCROACHMENT STATIONS= 310.0 623.0 TYPE= 1 TARGET= -310.000

5535.00	8.10	699.30	0.	698.61	699.49	.18	.01	.00	701.50
608.	0.	608.	0.	0.	177.	0.	46.	30.	701.50
.85	0.	3.44	0.	.030	.040	.030	.076	691.20	310.00
.001010	10.	10.	10.	0	0	0	0.	26.00	336.00

*SECNO 5536.000

3370 NORMAL BRIDGE,NRD= 10 MIN ELTRD= 699.50 MAX ELLC= 700.30

3470 ENCROACHMENT STATIONS= 310.0 623.0 TYPE= 1 TARGET= -310.000

D/S FACE OF MARTZ ROAD BRIDGE (ZW 68+00) CONC SLAB AND WINGWALLS

5536.00	8.11	699.31	0.	698.61	699.49	.18	.00	.00	701.50
608.	0.	608.	0.	0.	176.	0.	46.	30.	701.50
.85	0.	3.44	0.	.030	.040	.030	.076	691.20	310.00
.001109	1.	1.	1.	0	0	0	0.	26.00	336.00

*SECNO 5564.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3370 NORMAL BRIDGE,NRD= 10 MIN ELTRD= 699.50 MAX ELLC= 700.30

3470 ENCROACHMENT STATIONS= 310.0 623.0 TYPE= 1 TARGET= -310.000

U/S FACE OF MARTZ ROAD BRIDGE (R ZW68+00)CONC SLAB AND WINGWALLS

5564.00	8.14	699.34	0.	698.63	699.52	.18	.03	.00	701.50
608.	0.	608.	0.	0.	177.	0.	46.	30.	701.50
.85	0.	3.43	0.	.030	.040	.030	.076	691.20	310.00
.001098	28.	28.	28.	0	0	0	0.	26.00	336.00

*SECNO 5565.000

3470 ENCROACHMENT STATIONS= 310.0 623.0 TYPE= 1 TARGET= -310.000

5565.00	8.14	699.34	0.	698.63	699.52	.18	.00	.00	701.50
608.	0.	608.	0.	0.	177.	0.	46.	30.	701.50
.85	0.	3.43	0.	.030	.040	.030	.076	691.20	310.00
.000998	1.	1.	1.	0	0	0	0.	26.00	336.00

*SECNO 5575.000

3470 ENCROACHMENT STATIONS= 310.0 623.0 TYPE= 1 TARGET= -310.000

U/S FACE OF MARTZ ROAD BRIDGE HEADWALL (ZW 68+00)

5575.00	8.15	699.35	0.	698.64	699.53	.18	.01	.00	701.50
608.	0.	608.	0.	0.	178.	0.	46.	30.	701.50
.85	0.	3.42	0.	.030	.040	.030	.076	691.20	310.00
.000994	10.	10.	10.	0	0	0	0.	26.00	336.00

*SECNO 5600.000

3470 ENCROACHMENT STATIONS= 281.0 364.0 TYPE= 1 TARGET= 83.000

36FT U/S MARTZ ROAD BRIDGE (R ZW 67+00)

5600.00	8.33	699.53	0.	698.71	699.61	.08	.03	.05	698.00
636.	62.	462.	111.	39.	192.	56.	46.	30.	697.40
.86	1.60	2.41	1.99	.040	.060	.040	.076	691.20	281.00
.001111	39.	25.	11.	2	0	0	0.	83.00	364.00

*SECNO 5650.000

3470 ENCROACHMENT STATIONS= 231.0 414.0 TYPE= 1 TARGET= 183.000

86FT U/S MARTZ ROAD BRIDGE (ZW 67+00) CROSS SECTION E

5650.00	8.44	699.64	0.	698.80	699.67	.02	.03	.03	698.00
636.	128.	267.	242.	130.	196.	192.	46.	30.	697.40
.87	.98	1.36	1.26	.040	.060	.040	.075	691.20	231.00
.000347	80.	50.	40.	2	0	0	0.	183.00	414.00

CCHV= .300 CEHV= .500

*SECNO 6300.000

3265 DIVIDED FLOW

3280 CROSS SECTION 6300.00 EXTENDED .40 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IOC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= .0 560.0 TYPE= 1 TARGET= 559.999

736FT U/S MARTZ ROAD BRIDGE (ZW 61+00) CROSS SECTION F

6300.00	9.30	699.80	0.	698.95	699.82	.02	.15	.00	699.30
636.	1.	116.	519.	5.	185.	420.	55.	34.	690.50
1.03	.19	.63	1.23	.040	.080	.040	.076	690.50	259.30
.000166	650.	650.	650.	2	0	0	0.	300.30	560.00

*SECNO 6720.000

3265 DIVIDED FLOW

3280 CROSS SECTION 6720.00 EXTENDED .41 FEET

3470 ENCROACHMENT STATIONS= .0 1010.0 TYPE= 1 TARGET= 1009.999

1156FT U/S MARTZ ROAD BRIDGE (ZW 56+00)

6720.00	5.01	699.91	698.52	698.95	700.23	.31	.26	.15	701.20
636.	0.	525.	111.	0.	107.	77.	59.	39.	701.30
1.06	0.	4.89	1.43	.040	.080	.040	.075	694.90	287.09
.014431	390.	420.	550.	0	18	0	0.	570.34	1010.00

*SECNO 7080.000

3265 DIVIDED FLOW

3280 CROSS SECTION 7080.00 EXTENDED 1.27 FEET

3470 ENCROACHMENT STATIONS= .0 1125.0 TYPE= 1 TARGET= 1124.999

1516FT U/S MARTZ ROAD BRIDGE (R ZW 52+00) CROSS SECTION G

7080.00	7.07	700.77	0.	700.18	700.79	.02	.47	.09	700.30
636.	5.	144.	487.	14.	128.	435.	62.	42.	701.10
1.13	34	1.13	1.12	040	.80	040	076	693.70	278.52

.000575	400.	360.	220.	4	0	0	0.	502.72	1125.00

*SECNO 7670.000

3265 DIVIDED FLOW

3280 CROSS SECTION 7670.00 EXTENDED 1.69 FEET

3470 ENCROACHMENT STATIONS= .0 1125.0 TYPE= 1 TARGET= 1124.999

2106FT U/S MARTZ ROAD BRIDGE (ZW 46+00)

7670.00	5.99	701.19	0.	700.82	701.31	.11	.47	.05	701.80
636.	0.	298.	338.	0.	99.	143.	65.	45.	702.60
1.17	0.	3.00	2.36	.040	.080	.040	.079	695.20	337.73
.005025	630.	590.	250.	3	0	0	0.	215.41	1125.00

*SECNO 8370.000

3280 CROSS SECTION 8370.00 EXTENDED .15 FEET

3470 ENCROACHMENT STATIONS= 45.0 400.0 TYPE= 1 TARGET= 355.000

2806FT U/S MARTZ ROAD BRIDGE (ZW 39+00) CROSS SECTION H

8370.00	6.76	703.36	0.	702.99	703.42	.06	2.10	.02	702.70
636.	105.	254.	277.	108.	123.	129.	70.	49.	702.80
1.28	.97	2.06	2.15	.040	.080	.040	.079	696.60	45.00
.001926	680.	700.	730.	3	0	0	0.	355.00	400.00

*SECNO 8850.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 1.0 500.0 TYPE= 1 TARGET= 499.000

3286FT U/S MARTZ ROAD BRIDGE (ZW 32+00) CROSS SECTION I

8850.00	6.29	704.19	0.	703.95	704.23	.04	.81	.01	702.40
636.	244.	204.	188.	145.	115.	148.	74.	53.	703.90
1.36	1.68	1.77	1.27	.040	.080	.040	.079	697.90	164.56
.001416	480.	480.	520.	3	0	0	0.	335.44	500.00

*SECNO 9520.000

3470 ENCROACHMENT STATIONS= 112.0 600.0 TYPE= 1 TARGET= -112.000

3956FT U/S MARTZ ROAD BRIDGE (ZW 27+00)

9520.00	6.68	705.58	0.	705.39	705.68	.10	1.41	.03	703.90
636.	345.	289.	2.	157.	98.	2.	79.	57.	705.20
1.43	2.20	2.95	.76	.040	.080	.040	.079	698.90	112.00
.003874	620.	670.	640.	2	0	0	0.	209.79	321.79

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CCHV=     .500 CEHV=     .900
*SECNO 10020.000
3280 CROSS SECTION  10020.00 EXTENDED       1.15 FEET


3470 ENCROACHMENT STATIONS=      150.0      515.0  TYPE=      1  TARGET=     -150.000

                 4456FT U/S MARTZ ROAD BRIDGE (ZW 22+00)

 10020.00      5.86    706.56      0.      706.19    706.59       .03       .88       .03    705.90
     636.       18.      157.     460.        31.      113.      298.       83.       60.    704.90
     1.53       .60      1.39     1.54       .040      .080      .040      .079    700.70    182.55
  .001002      500.      500.     500.          2         0         0        0.    332.45    515.00


*SECNO 10520.000

3470 ENCROACHMENT STATIONS=      150.0      336.0  TYPE=      1  TARGET=      186.000

                  86FT D/S MERRITT ROAD BRIDGE (ZW 17+00)

 10520.00      6.50    707.20      0.      706.77    707.25       .05       .64       .01    704.80
     636.      260.      365.      11.       193.      178.       12.       88.       63.    706.50
     1.61      1.35      2.05      .95       .060      .080      .050      .079    700.70    150.00
  .001663      450.      500.     550.          3         0         0        0.    186.00    336.00


*SECNO 10570.000

3470 ENCROACHMENT STATIONS=      175.0      325.0  TYPE=      1  TARGET=      150.000

                  36FT D/S MERRITT ROAD BRIDGE (R ZW 17+00)

 10570.00      6.37    707.24      0.      706.81    707.30       .06       .04       .01    704.97
     636.      258.      376.       2.       160.      173.        3.       88.       63.    706.67
     1.61      1.62      2.17      .79       .040      .060      .040      .079    700.87    175.00
  .001084        1.       50.      60.          1         0         0        0.    150.00    325.00


*SECNO 10605.000
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        QLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA      LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


3470 ENCROACHMENT STATIONS=      110.0      600.0  TYPE=      1  TARGET=     -110.000
 10605.00      6.27    707.27      0.      706.83    707.55       .29       .05       .20    711.50
     636.        0.      636.       0.         0.      148.        0.       88.       63.    711.50
     1.61        0.      4.29       0.       .030      .040      .030      .079    701.00    287.00
  .001898       35.       35.      35.          2         0         0        0.     26.00    313.00


*SECNO 10606.000

3370 NORMAL BRIDGE,NRD= 10 MIN ELTRD=  707.60 MAX ELLC=  710.20


3470 ENCROACHMENT STATIONS=      110.0      600.0  TYPE=      1  TARGET=     -110.000

                 D/S FACE OF MERRITT ROAD BRIDGE(ZW 16+00)CONC SLAB AND WINGWALLS

 10606.00      6.27    707.27      0.      706.83    707.56       .29       .00       .00    711.50
     636         0        36        0         0        148         0        88         4     711.50
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     1.61      0.       4.28      0.       .030     .040     .030     .079    701.00    287.00
  .002438      1.       1.        1.        0        0        0       0.      26.00    313.00

*SECNO 10634.000

3370 NORMAL BRIDGE,NRD= 10 MIN ELTRD=  707.60 MAX ELLC=  710.20

3470 ENCROACHMENT STATIONS=      120.0      600.0  TYPE=      1  TARGET=     -120.000

                U/S FACE OF MERRITT ROAD BRIDGE (R ZW 16+00)

 10634.00     6.35    707.35      0.      706.87   707.63      .28      .07      .00    711.50
     636.       0.      636.       0.        0.     150.       0.      89.      64.     711.50
     1.62      0.       4.23      0.       .030     .040     .030     .079    701.00    287.00
  .002363      28.      28.       28.        1        0        0       0.      26.00    313.00

*SECNO 10635.000

3470 ENCROACHMENT STATIONS=      120.0      600.0  TYPE=      1  TARGET=     -120.000
 10635.00     6.35    707.35      0.      706.87   707.63      .28      .00      .00    711.50
     636.       0.      636.       0.        0.     151.       0.      89.      64.     711.50
     1.62      0.       4.22      0.       .030     .040     .030     .079    701.00    287.00
  .001821      1.       1.        1.        0        0        0       0.      26.00    313.00

*SECNO 10670.000

3470 ENCROACHMENT STATIONS=      215.0      335.0  TYPE=      1  TARGET=      120.000

                36FT U/S MERRITT ROAD BRIDGE (R ZW 15+00)

 10670.00     6.94    707.64      0.      707.00   707.77      .13      .07      .07    707.50
     638.       6.      606.      26.       10.     205.      18.      89.      64.     706.90
     1.62      .60      2.96     1.44      .040     .060     .040     .079    700.70    215.00
  .002183      50.      35.       22.        2        0        0       0.     120.00    335.00

*SECNO 10720.000
3280 CROSS SECTION  10720.00 EXTENDED        .04 FEET

   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA      LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

3470 ENCROACHMENT STATIONS=      165.0      385.0  TYPE=      1  TARGET=      220.000

                86FT U/S MERRITT ROAD BRIDGE (ZW 15+00) CROSS SECTION K

 10720.00     7.00    707.84      0.      707.11   707.91      .08      .12      .03    707.64
     638.      29.      492.     116.       33.     208.      67.      89.      64.     707.04
     1.63      .89      2.37     1.73      .040     .080     .040     .079    700.84    165.00
  .002454      50.      50.       50.        2        0        0       0.     220.00    385.00

CCHV=     .300 CEHV=     .500
*SECNO 11060.000

3470 ENCROACHMENT STATIONS=         .0      450.0  TYPE=      1  TARGET=      449.999
```

426FT U/S MERRITT ROAD BRIDGE (ZW 12+00)

11060.00	6.76	708.56	0.	707.92	708.65	.09	.75	.01	707.80
638.	6.	302.	330.	7.	133.	128.	91.	65.	705.80
1.66	.85	2.28	2.58	.040	.080	.040	.079	701.80	343.44
.001894	340.	340.	340.	2	0	0	0.	106.56	450.00

CCHV= .500 CEHV= .700

*SECNO 11450.000

3470 ENCROACHMENT STATIONS= 90.0 590.0 TYPE= 1 TARGET= 500.000

816FT U/S MERRITT ROAD BRIDGE (ZW 8+00) CROSS SECTION L

11450.00	6.80	709.10	0.	708.48	709.12	.02	.44	.04	708.10
638.	8.	233.	397.	15.	154.	512.	95.	67.	706.10
1.76	.53	1.51	.78	.050	.080	.080	.079	702.30	245.01
.000789	420.	390.	360.	2	0	0	0.	344.99	590.00

*SECNO 11860.000

3470 ENCROACHMENT STATIONS= 200.0 400.0 TYPE= 1 TARGET= 200.000

1226FT U/S MERRITT ROAD BRIDGE (ZW 3+00)

11860.00	5.44	709.64	0.	709.11	709.72	.08	.55	.04	708.70
638.	137.	387.	115.	83.	148.	99.	100.	69.	708.90
1.82	1.64	2.62	1.16	.050	.080	.080	.079	704.20	200.00
.003073	440.	410.	370.	1	0	0	0.	200.00	400.00

*SECNO 12170.000

3280 CROSS SECTION 12170.00 EXTENDED .92 FEET

3470 ENCROACHMENT STATIONS= 253.0 294.0 TYPE= 1 TARGET= 41.000

35FT D/S WHITTAKER ROAD BRIDGE (R ZW =1+00) CROSS SECTON M

12170.00	6.63	710.93	0.	710.34	711.19	.26	1.34	.13	708.60
638.	60.	508.	71.	18.	117.	27.	101.	70.	707.60
1.84	3.40	4.32	2.65	.050	.080	.080	.079	704.30	253.00
.006715	330.	310.	270.	2	0	0	0.	41.00	294.00

*SECNO 12204.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
12204.00	6.73	711.03	0.	710.43	711.32	.28	.11	.02	714.20
638.	0.	638.	0.	0.	149.	0.	102.	70.	714.20
1.84	0.	4.27	0.	.030	.040	.030	.079	704.30	288.90
.001953	34.	34.	34.	2	0	0	0.	22.20	311.10

*SECNO 12205.000

3370 NORMAL BRIDGE,NRD= 10 MIN ELIRD= 713.00 MAX ELLC= 713.70

D/S FACE OF WHITTAKER ROAD BRIDGE(ZW 0+00)CONC SLAB AND HEADWALL

12205.00	6.74	711.04	0.	710.43	711.32	.28	.00	.00	714.20	
638.	0.	638.	0.	0.	150.	0.	102.	70.	714.20	
1.84	0.	4.27	0.	.030	.040	.030	.079	704.50	288.90	
.002989	1.	1.	1.	0	0	0	0.	22.20	311.10	

*SECNO 12235.000

3370 NORMAL BRIDGE,NRD= 10 MIN ELTRD= 713.00 MAX ELLC= 713.70

U/S FACE OF WHITTAKER ROAD BRIDGE (R) CONC SLAB AND HEADWALL

12235.00	6.84	711.14	0.	710.48	711.41	.27	.09	.00	714.20	
638.	0.	638.	0.	0.	152.	0.	102.	70.	714.20	
1.84	0.	4.20	0.	.030	.040	.030	.079	704.30	288.90	
.002878	30.	30.	30.	2	0	0	0.	22.20	311.10	

*SECNO 12236.000

12236.00	6.84	711.14	0.	710.48	711.41	.27	.00	.00	714.20	
638.	0.	638.	0.	0.	152.	0.	102.	70.	714.20	
1.84	0.	4.20	0.	.030	.040	.030	.079	704.30	288.90	
.001869	1.	1.	1.	0	0	0	0.	22.20	311.10	

1490 NH CARD USED
*SECNO 12270.000

3470 ENCROACHMENT STATIONS= 278.0 370.0 TYPE= 1 TARGET= 92.000

35FT U/S WHITTAKER ROAD BRIDGE (R ZW -1+00)

12270.00	7.13	711.51	0.	710.67	711.57	.07	.06	.10	708.48	
638.	112.	296.	230.	72.	133.	114.	102.	70.	707.48	
1.85	1.56	2.23	2.02	.060	.080	.060	.079	704.58	278.00	
.001515	34.	34.	34.	2	0	0	0.	92.00	370.00	

*SECNO 12320.000
3280 CROSS SECTION 12320.00 EXTENDED 3.09 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 108.0 300.0 TYPE= 1 TARGET= 192.000

185FT U/S WHITTAKER ROAD BRIDGE (ZW -1+00)

12320.00	7.10	711.60	0.	710.76	711.66	.06	.08	.00	708.60	
932.	112.	287.	534.	91.	132.	269.	102.	70.	707.60	
1.85	1.23	2.18	1.99	.060	.080	.060	.079	704.50	115.82	
.001450	30.	50.	70.	0	0	0	0.	184.18	300.00	

CCHV= .200 CEHV= .400
*SECNO 12720.000

3470 ENCROACHMENT STATIONS= 200.0 725.0 TYPE= 1 TARGET= 525.000

485FT U/S WHITTAKER ROAD BRIDGE (ZW =4+00) CROSS SECTION N

12720.00	6.95	711.95	0.	711.12	711.97	.02	.30	.01	711.50	
932.	0.	367.	565.	0.	292.	618.	109.	73.	707.90	
1.96	0.	1.26	.91	.060	.080	.060	.079	705.00	200.00	
.000464	330.	400.	400.	2	0	0	0.	344.84	544.84	

*SECNO 13640.000

1405FT U/S WHITTAKER ROAD BRIDGE (COE VS=6) CROSS SECTION O

13640.00	6.46	712.96	0.	712.22	713.10	.13	1.08	.05	713.70	
932.	0.	457.	475.	0.	128.	222.	123.	80.	709.50	
2.06	0.	3.56	2.14	.060	.080	.060	.078	706.50	311.11	
.005002	780.	920.	1050.	2	0	0	0.	216.55	527.67	

*SECNO 15270.000

3035FT U/S WHITTAKER ROAD BRIDGE (COE VS=7) CROSS SECTION P

15270.00	7.84	715.94	0.	715.30	715.97	.03	2.85	.02	712.40	
932.	18.	186.	728.	18.	106.	561.	142.	89.	711.90	
2.38	1.04	1.76	1.30	.060	.080	.060	.079	708.10	194.00	
.000896	1650.	1630.	1600.	4	0	0	0.	301.66	495.66	

*SECNO 16020.000

3785FT U/S WHITTAKER ROAD BRIDGE (COE VS=8) CROSS SECTION Q

16020.00	7.47	716.97	0.	716.29	717.08	.11	1.08	.03	714.10	
932.	158.	570.	203.	66.	187.	153.	151.	93.	716.70	
2.45	2.41	3.06	1.32	.060	.080	.060	.079	709.50	317.18	
.003290	800.	750.	640.	3	0	0	0.	266.59	583.77	

*SECNO 17020.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	INA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	IOPWID	ENDST

478SFT U/S WHITTAKER ROAD BRIDGE (COE VS=9) CROSS SECTION R

17020.00	7.23	719.43	0.	718.79	719.48	.05	2.38	.01	715.60	
932.	462.	347.	124.	281.	155.	135.	162.	100.	718.90	
2.61	1.65	2.23	.91	.060	.080	.060	.079	712.20	222.18	
.001862	1000.	1000.	900.	3	0	0	0.	360.89	583.07	

CCHV= .500 CEHV= .800
1490 NH CARD USED
*SECNO 17520.000

3470 ENCROACHMENT STATIONS= .0 710.0 TYPE= 1 TARGET= 709.999

528SFT U/S WHITTAKER ROAD BRIDGE (C)

17520.00	6.87	720.17	0.	719.66	720.20	.03	.71	.01	715.60	
932.	138.	316.	478.	93.	169.	451.	169.	106.	718.90	
2.71	1.[illegible]	1.[illegible]7	1.0[illegible]	0.0	080	0.3	079	713.50	77.3[illegible]	

.001160	470.	500.	500.	5	0	0	0.	632.66	710.00

*SECNO 17570.000

3470 ENCROACHMENT STATIONS= .0 670.0 TYPE= 1 TARGET= 669.999

5335FT U/S WHITTAKER ROAD BRIDGE (C)

17570.00	6.94	720.24	0.	719.77	720.27	.03	.06	.00	715.60	
932.	157.	278.	497.	120.	171.	459.	170.	107.	718.90	
2.72	1.31	1.62	1.08	.060	.080	.040	.079	713.30	127.02	
.000851	50.	50.	80.	1	0	0	0.	542.98	670.00	

*SECNO 17800.000

3470 ENCROACHMENT STATIONS= .0 760.0 TYPE= 1 TARGET= 759.999

44FT D/S PRIVATE ROAD BRIDGE (C)

17800.00	6.49	720.49	0.	720.07	720.55	.06	.25	.03	720.00	
932.	2.	287.	643.	3.	113.	394.	173.	109.	719.40	
2.75	.80	2.54	1.63	.030	.060	.040	.079	714.00	356.40	
.001706	10.	230.	240.	2	0	0	0.	403.60	760.00	

*SECNO 17844.000

3470 ENCROACHMENT STATIONS= .0 730.0 TYPE= 1 TARGET= 729.999

D/S FACE OF PRIVATE ROAD BRIDGE (COE VS-9A)

17844.00	6.56	720.56	0.	720.17	720.62	.06	.07	.00	720.40	
932.	4.	264.	663.	4.	109.	397.	174.	110.	720.30	
2.76	1.06	2.44	1.67	.030	.060	.040	.079	714.00	358.69	
.001609	10.	44.	44.	2	0	0	0.	371.31	730.00	

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	=0.	1.74	2.00	=0.	8.70	=0.	83.00	1.23	714.00	714.00

*SECNO 17856.000

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS= 723.970 EGLWC= 720.620 ELLC= 719.400 PCWSE= 720.563 ELTRD= 719.200

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	IWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3370 NORMAL BRIDGE,NRD= 14 MIN ELTRD= 719.20 MAX ELLC= 719.40

3470 ENCROACHMENT STATIONS= .0 730.0 TYPE= 1 TARGET= 729.999

U/S FACE OF PRIVATE ROAD BRIDGE (R)

17856.00	6.59	720.59	0.	720.21	720.64	.06	.02	.00	720.40
932.	4.	117	.00	4	08	40	17	110	720.30

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2.76	1.24	1.35	2.00	.030	.060	.040	.079	714.00	358.57
.002241	1.	12.	12.	2	0	0	-20.90	371.43	730.00

*SECNO 17900.000

3470 ENCROACHMENT STATIONS= 240.0 750.0 TYPE= 1 TARGET= 510.000

44FT U/S PRIVATE ROAD BRIDGE (R)

17900.00	6.67	720.67	0.	720.28	720.74	.07	.09	.01	720.00
932.	5.	310.	617.	5.	118.	322.	174.	110.	719.40
2.77	.99	2.64	1.92	.030	.060	.040	.079	714.00	474.25
.001747	30.	44.	44.	0	0	0	0.	275.75	750.00

*SECNO 17970.000

3470 ENCROACHMENT STATIONS= 205.0 630.0 TYPE= 1 TARGET= 425.000

27FT D/S TEXTILE ROAD BRIDGE (C)

17970.00	7.08	720.78	0.	720.38	720.97	.18	.14	.09	718.20
932.	216.	472.	244.	68.	120.	103.	175.	110.	718.30
2.77	3.19	3.94	2.36	.030	.060	.040	.079	713.70	378.86
.002901	1.	70.	70.	2	0	0	0.	198.06	576.92

*SECNO 17997.000

3265 DIVIDED FLOW

D/S FACE OF TEXTILE ROAD BRIDGE(COE VS10)CONC SLAB AND HEADWALLS

17997.00	7.14	720.84	0.	720.42	721.03	.19	.06	.01	718.20
932.	167.	512.	252.	74.	121.	111.	175.	111.	718.30
2.77	2.26	4.23	2.28	.030	.040	.030	.079	713.70	286.81
.001461	1.	27.	60.	0	0	0	0.	258.45	580.71

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	=0.	2.08	3.00	=0.	15.60	=0.	86.60	.70	714.10	714.10

*SECNO 18043.000
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
724.58	721.34	0.	268.	666.	87.	86.	718.70	722.20

3470 ENCROACHMENT STATIONS= 1.0 830.0 TYPE= 1 TARGET= 829.000

U/S FACE OF TEXTILE ROAD BRIDGE(R)

18043.00	9.04	722.74	0.	721.75	722.75	.01	1.72	0.	718.20
932.	388.	186.	358.	545.	159.	456.	176.	111.	718.30
2.79	.71	1.17	.79	.030	.040	.030	.079	713.70	140.83
.000078	46.	46.	46.	1	0	5	0.	569.88	710.71

CCHV= .300 CEHV= .500

*SECNO 18070.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
3470 ENCROACHMENT STATIONS=		420.0	500.0	TYPE=	1	TARGET=	80.000		
27FT U/S TEXTILE ROAD BRIDGE (R COE VS=11)									
18070.00	8.99	722.69	0.	721.85	722.82	.13	.00	.06	718.20
1020.	242.	536.	242.	112.	158.	112.	176.	111.	718.30
2.79	2.16	3.39	2.16	.040	.040	.040	.079	713.70	420.00
.000663	35.	27.	15.	2	0	0	0.	80.00	500.00

*SECNO 18120.000

3470 ENCROACHMENT STATIONS=		370.0	550.0	TYPE=	1	TARGET=	180.000		
77FT U/S TEXTILE ROAD BRIDGE (COE VS=11) CROSS SECTION 5									
18120.00	9.11	722.81	0.	721.91	722.86	.05	.02	.02	718.20
1020.	299.	364.	357.	230.	160.	259.	177.	111.	718.30
2.80	1.30	2.27	1.38	.040	.040	.040	.078	713.70	370.00
.000290	50.	50.	50.	2	0	0	0.	180.00	550.00

*SECNO 18570.000

18570.00	7.75	722.98	0.	722.05	723.00	.03	.14	.01	775.50
1020.	0.	418.	602.	0.	404.	389.	184.	114.	719.93
2.88	0.	1.03	1.55	.040	.040	.040	.078	715.23	123.38
.000441	475.	450.	313.	2	0	0	0.	522.87	646.25

*SECNO 19020.000

19020.00	6.80	723.20	0.	722.36	723.36	.16	.29	.07	725.50
1020.	0.	257.	763.	0.	186.	210.	189.	119.	721.10
2.91	0.	1.38	3.64	.040	.040	.040	.077	716.40	175.17
.001983	475.	450.	313.	2	0	0	0.	394.23	569.41

*SECNO 19470.000

19470.00	6.40	723.97	723.92	723.19	724.35	.38	.88	.11	726.67
1020.	0.	122.	898.	0.	100.	171.	192.	122.	722.27
2.93	0.	1.23	5.25	.040	.040	.040	.077	717.57	208.16
.003577	475.	450.	313.	4	9	0	0.	359.62	567.78

*SECNO 19920.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
3470 ENCROACHMENT STATIONS=		1.0	875.0	TYPE=	1	TARGET=	874.000		
44FT D/S PRIVATE FOOT BRIDGE (R COE VS=11A)									
19920.00	7.00	725.10	0	72.90	725.47	.07	1.03	.09	723.10

1020.	625.	341.	54.	361.	119.	65.	196.	127.	723.90
2.99	1.73	2.87	.83	.040	.060	.050	.077	718.40	176.83
.001993	475.	450.	313.	2	0	0	0.	633.69	810.53

*SECNO 19963.000

3470 ENCROACHMENT STATIONS= 1.0 865.0 TYPE= 1 TARGET= 864.000

19963.00	6.96	725.46	0.	725.18	725.54	.09	.06	.01	724.00
1020.	582.	380.	57.	343.	118.	54.	196.	127.	724.00
2.99	1.70	3.23	1.06	.030	.040	.030	.076	718.50	178.12
.001141	43.	43.	43.	2	0	0	0.	593.29	771.41

*SECNO 19964.000

3370 NORMAL BRIDGE,NRD= 12 MIN ELTRD= 724.50 MAX ELLC= 724.00

3470 ENCROACHMENT STATIONS= 1.0 865.0 TYPE= 1 TARGET= 864.000

D/S FACE OF PRIVATE FOOT BRIDGE (COE VS=11A)STEEL BEAMS W/PLANKS

19964.00	6.95	725.45	0.	725.18	725.56	.11	.00	.01	724.00
1020.	703.	267.	50.	268.	98.	39.	196.	127.	724.00
2.99	2.62	2.74	1.27	.030	.040	.030	.076	718.50	178.08
.004048	1.	1.	1.	0	0	0	-110.00	594.26	772.34

*SECNO 19976.000

3370 NORMAL BRIDGE,NRD= 12 MIN ELTRD= 724.50 MAX ELLC= 724.00

3470 ENCROACHMENT STATIONS= 1.0 860.0 TYPE= 1 TARGET= 859.000

U/S FACE OF PRIVATE FOOT BRIDGE (R)

19976.00	7.01	725.51	0.	725.23	725.60	.09	.04	.00	724.00
1020.	711.	247.	62.	287.	99.	52.	196.	127.	724.00
2.99	2.47	2.49	1.20	.030	.040	.030	.076	718.50	176.68
.003298	12.	12.	12.	2	0	0	-110.00	643.30	819.98

*SECNO 19977.000

3470 ENCROACHMENT STATIONS= 1.0 860.0 TYPE= 1 TARGET= 859.000

19977.00	7.04	725.54	0.	725.24	725.61	.07	.00	.01	724.00
1020.	598.	353.	69.	373.	120.	74.	196.	127.	724.00
2.99	1.60	2.95	.94	.030	.040	.030	.076	718.50	175.97
.000925	1.	1.	1.	2	0	0	0.	684.03	860.00

*SECNO 20020.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	IWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 140.0 850.0 TYPE= 1 TARGET= 710.000

44FT U/S PRIVATE FOOT BRIDGE (R)

20020.00	7.00	725.60	0.	725.34	725.72	.12	.08	.02	724.10

1020.	444.	459.	117.	558.	119.	65.	1.7.	128.	124.10
3.00	1.24	3.87	1.86	.100	.080	.040	.076	718.60	177.04
.006444	43.	43.	43.	2	0	0	0.	621.97	799.01

CCHV= .300 CEHV= 1.000
*SECNO 20280.000
3280 CROSS SECTION 20280.00 EXTENDED 1.02 FEET

2250FT U/S TEXTILE ROAD BRIDGE (COE VS=12) CROSS SECTION T

20280.00	6.72	726.02	0.	725.68	726.03	.01	.28	.03	723.00
1020.	462.	160.	398.	848.	111.	544.	202.	131.	721.60
3.08	.55	1.45	.73	.090	.070	.090	.076	719.30	0.
.000498	200.	260.	250.	3	0	0	0.	708.82	708.82

*SECNO 21580.000

3470 ENCROACHMENT STATIONS= 480.0 540.0 TYPE= 1 TARGET= 60.000
ELENCL= 727.30 ELENCR= 100000.00

0 84FT D/S STONY CREEK ROAD BRIDGE (COE VS-13)

21580.00	7.48	727.68	0.	726.72	728.04	.36	1.65	.35	725.40
1020.	145.	755.	120.	116.	138.	44.	229.	146.	724.30
3.16	1.26	5.48	2.76	.090	.070	.090	.076	720.20	258.34
.007873	1340.	1300.	1250.	3	0	0	0.	281.66	540.00

*SECNO 21630.000

3470 ENCROACHMENT STATIONS= 493.0 530.0 TYPE= 1 TARGET= 37.000
ELENCL= 727.60 ELENCR= 100000.00

34FT D/S STONY CREEK ROAD BRIDGE (R COE VS-13) CROSS SECTION U

21630.00	7.87	728.07	0.	727.07	728.51	.44	.40	.08	725.40
1020.	132.	855.	34.	123.	148.	15.	229.	147.	724.30
3.16	1.07	5.77	2.29	.090	.070	.090	.076	720.20	240.90
.007935	50.	50.	50.	2	0	0	0.	289.10	530.00

*SECNO 21804.000

3470 ENCROACHMENT STATIONS= 500.0 524.0 TYPE= 1 TARGET= 24.000
ELENCL= 727.90 ELENCR= 100000.00

D/S FACE OF STONY CREEK ROAD BRIDGE (COE VS-14) CONC SLAB AND

HEADWALLS

21804.00	8.20	728.40	727.92	727.33	728.91	.51	.32	.07	725.40
1020.	120.	900.	0.	117.	148.	0.	229.	147.	100000.00
3.17	1.03	6.09	0.	.090	.070	.090	.076	720.20	229.17
.011135	40.	34.	28.	4	5	0	0.	294.83	524.00

SPECIAL BRIDGE

SB	XK	XKOR	CUFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0	1.70	3.00	0	20.00	-0	13.20	.30	721.00	721.00

*SECNO 21836.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
729.74	729.63	0.	29.	993.	143.	177.	728.90	729.40

3470 ENCROACHMENT STATIONS= 500.0 524.0 TYPE= 1 TARGET= 24.000
ELENCL= 728.80 ELENCR= 100000.00

U/S FACE OF STONY CREEK ROAD BRIDGE (R) CONC SLAB AND HEADWALLS

21836.00	9.10	729.30	0.	727.50	729.66	.37	.76	0.	725.40
1020.	137.	883.	0.	132.	169.	0.	230.	147.	100000.00
3.17	1.04	5.21	0.	.040	.040	.040	.076	720.20	174.75
.002379	32.	32.	32.	3	0	4	0.	349.25	524.00

CCHV= .300 CEHV= .500
*SECNO 21870.000

3470 ENCROACHMENT STATIONS= 500.0 575.0 TYPE= 1 TARGET= 75.000
ELENCL= 728.30 ELENCR= 100000.00

34FT U/S STONY CREEK ROAD BRIDGE (R COE VS-13)

21870.00	9.57	729.77	0.	727.94	729.79	.03	.03	.10	725.40
1020.	392.	319.	310.	484.	192.	235.	230.	148.	724.30
3.18	.81	1.66	1.32	.040	.060	.060	.076	720.20	40.79
.000389	25.	34.	50.	2	0	0	0.	534.21	575.00

*SECNO 21920.000

3470 ENCROACHMENT STATIONS= 500.0 625.0 TYPE= 1 TARGET= 125.000
ELENCL= 727.80 ELENCR= 100000.00

84FT U/S STONY CREEK ROAD BRIDGE (R)

21920.00	9.60	729.80	0.	728.03	729.81	.01	.01	.00	725.40
1020.	421.	206.	393.	672.	193.	464.	231.	148.	724.30
3.19	.63	1.07	.85	.040	.060	.060	.076	720.20	27.34
.000156	50.	50.	50.	2	0	0	0.	597.66	625.00

*SECNO 22390.000

3470 ENCROACHMENT STATIONS= .0 1000.0 TYPE= 1 TARGET= 999.999

554FT U/S STONY CREEK ROAD BRIDGE (COE VS-15) CROSS SECTION V

22390.00	9.06	729.86	0.	728.27	729.87	.01	.06	.00	727.10
1292.	714.	101.	476.	819.	135.	925.	246.	155.	724.60
3.34	.87	.75	.51	.040	.080	.060	.076	720.80	7.70
.000145	300.	470.	500.	2	0	0	0.	872.07	879.78

*SECNO 23390.000

3470 ENCROACHMENT STATIONS= 130.0 1000.0 TYPE= 1 TARGET= 870.000

1804FT U/S STONY CREEK ROAD BRIDGE (COE VS=16) CROSS SECTION W

23390.00	7.17	730.17	0.	729.27	730.31	.14	.37	.07	729.00
1292.	434.	666.	192.	320.	167.	183.	271.	169.	727.00
3.44	1.36	4.00	1.05	.100	.080	.100	.077	723.00	155.70
.005440	780.	1000.	900.	2	0	0	0.	538.14	693.85

*SECNO 23440.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	IOPWID	ENDST

3470 ENCROACHMENT STATIONS= 85.0 810.0 TYPE= 1 TARGET= 725.000

44FT D/S PRIVATE BRIDGE (R COE VS=16A)

23440.00	7.36	730.46	0.	729.68	730.50	.04	.16	.03	728.10
1292.	478.	390.	425.	447.	149.	498.	272.	169.	728.00
3.45	1.07	2.61	.85	.100	.080	.100	.077	723.10	148.81
.002168	50.	50.	50.	2	0	0	0.	661.19	810.00

*SECNO 23483.000

3470 ENCROACHMENT STATIONS= 42.0 855.0 TYPE= 1 TARGET= 813.000

23483.00	7.40	730.50	0.	729.73	730.54	.04	.04	.00	728.10
1292.	480.	382.	430.	458.	151.	515.	274.	170.	728.00
3.45	1.05	2.54	.84	.050	.040	.050	.077	723.10	147.39
.000508	43.	43.	43.	2	0	0	0.	667.43	814.83

*SECNO 23484.000

3370 NORMAL BRIDGE,NRD= 14 MIN ELTRD= 728.20 MAX ELLC= 728.60

3470 ENCROACHMENT STATIONS= 42.0 855.0 TYPE= 1 TARGET= 813.000

D/S FACE OF PRIVATE BRIDGE (COE VS=16A) STEEL BEAMS W/W//D DECK

23484.00	7.42	730.52	0.	729.75	730.55	.03	.00	.00	728.10
1292.	567.	168.	557.	413.	114.	495.	274.	170.	728.00
3.45	1.37	1.46	1.13	.050	.040	.050	.077	723.10	147.08
.000992	1.	1.	1.	1	0	0	-107.90	668.62	815.71

*SECNO 23496.000

3370 NORMAL BRIDGE,NRD= 14 MIN ELTRD= 728.20 MAX ELLC= 728.60

3470 ENCROACHMENT STATIONS= 30.0 975.0 TYPE= 1 TARGET= 945.000

U/S FACE OF PRIVATE BRIDGE (R COE VS=16A)

23496.00	7.44	730.54	0.	729.77	730.56	.03	.01	.00	728.10
1292.	567.	176.	557.	418.	115.	503.	274.	170.	728.00

3.46	1.36	1.44	1.12	.050	.040	.050	.077	723.10	146.50
.000959	12.	12.	12.	0	0	0	107.90	670.87	817.37

*SECNO 23497.000

3470 ENCROACHMENT STATIONS= 30.0 975.0 TYPE= 1 TARGET= 945.000

23497.00	7.43	730.53	0.	729.76	730.57	.04	.00	.01	728.10
1292.	481.	376.	435.	466.	151.	527.	274.	170.	728.00
3.46	1.03	2.48	.82	.050	.040	.050	.077	723.10	146.35
.000484	1.	1.	1.	0	0	0	0.	671.43	817.78

*SECNO 23540.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	IWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

44FT U/S PRIVATE BRIDGE (R COE VS-16A)

23540.00	7.47	730.57	0.	729.81	730.60	.03	.03	.00	728.10
1292.	496.	344.	452.	474.	152.	539.	275.	171.	728.00
3.47	1.05	2.26	.84	.090	.080	.090	.077	723.10	145.37
.001589	43.	43.	43.	1	0	0	0.	675.22	820.59

*SECNO 24710.000

3470 ENCROACHMENT STATIONS= .0 650.0 TYPE= 1 TARGET= 649.999

3124FT U/S STONY CREEK ROAD BRIDGE (COE VS-17) CROSS SECTION X

24710.00	8.15	732.55	0.	731.68	732.62	.07	2.00	.02	730.20
1292.	20.	759.	513.	25.	297.	506.	302.	186.	731.40
3.64	.79	2.56	1.02	.090	.080	.090	.077	724.40	178.60
.001837	1170.	1170.	1170.	2	0	0	0.	448.29	626.89

1490 NH CARD USED

*SECNO 25870.000

3265 DIVIDED FLOW

3280 CROSS SECTION 25870.00 EXTENDED 1.97 FEET

3470 ENCROACHMENT STATIONS= .0 270.0 TYPE= 1 TARGET= 269.999

4284FT U/S STONY CREEK ROAD BRIDGE (COE VS-18) CROSS SECTION Y

25870.00	3.68	734.48	0.	733.60	734.50	.03	1.87	.01	733.10
279.	65.	69.	145.	54.	38.	152.	315.	194.	734.70
3.88	1.21	1.84	.95	.040	.050	.064	.077	730.80	32.54
.001310	1160.	1160.	1000.	1	0	0	0.	227.35	270.00

*SECNO 26143.000

3470 ENCROACHMENT STATIONS= .0 100.0 TYPE= 1 TARGET= 99.999

172FT D/S FROM WEIR IN RETENTION POND (TRANSITION TO CHEEK)

26145.00	5.77	734.77	0.	734.56	735.07	.50	.45	.14	734.00
279.	12.	208.	59.	8.	42.	26.	316.	195.	734.00
3.90	1.44	4.92	2.25	.030	.030	.030	.077	731.00	28.97
.003017	273.	270.	150.	2	0	0	0.	71.02	100.00

*SECNO 26191.000

3470 ENCROACHMENT STATIONS= .0 75.0 TYPE= 1 TARGET= 74.999

124FT D/S FROM WEIR IN RETENTION POND (TRANSITION TO CREEK)

26191.00	4.47	735.07	0.	734.58	735.18	.11	.06	.06	734.00
279.	4.	248.	26.	5.	89.	20.	316.	195.	734.00
3.90	.84	2.79	1.28	.030	.030	.030	.077	730.60	20.25
.000658	48.	48.	32.	2	0	0	0.		

*SECNO 26231.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= .0 55.0 TYPE= 1 TARGET= 54.999

84FT D/S FROM WEIR IN RETENTION POND (TRANSITION TO CREEK)

26231.00	3.76	735.06	0.	734.58	735.25	.19	.03	.04	734.00
279.	3.	270.	6.	3.	76.	4.	316.	195.	734.00
3.90	1.07	3.54	1.41	.030	.027	.030	.077	731.30	19.84
.001032	40.	40.	25.	2	0	0	0.	35.16	55.00

*SECNO 26241.000

74FT D/S FROM WEIR IN RETENTION POND (TRANSITION TO CREEK)

26241.00	4.07	735.07	0.	734.59	735.27	.20	.01	.00	735.50
279.	0.	279.	0.	0.	78.	0.	316.	195.	735.50
3.90	0.	3.58	0.	.030	.027	.030	.077	731.00	25.00
.001116	10.	10.	7.	0	0	0	0.	26.00	51.00

*SECNO 26273.000
3280 CROSS SECTION 26273.00 EXTENDED .19 FEET

3470 ENCROACHMENT STATIONS= .0 65.0 TYPE= 1 TARGET= 64.999

42FT D/S FROM WEIR IN RETENTION POND (TRANSITION TO CREEK)

26273.00	4.19	735.19	0.	734.64	735.32	.13	.05	.02	736.50
279.	0.	279.	0.	0.	97.	0.	316.	195.	735.50
3.91	0.	2.87	0.	.030	.027	.030	.077	731.00	20.00
.000588	32.	32.	20.	2	0	0	0.	25.00	45.00

*SECNO 26315.000
3280 CROSS SECTION 26315.00 EXTENDED .20 FEET

3470 ENCROACHMENT STATIONS= .0 107.0 TYPE= 1 TARGET= 106.999

D/S FACE OF WEIR IN RETENTION POND CROSS SECTION Z

26315.00	4.20	735.20	0.	734.65	735.32	.13	.01	.00	736.50	
279.	0.	279.	0.	0.	97.	0.	316.	195.	735.50	
3.91	0.	2.86	0.	.012	.012	.012	.077	731.00	20.00	
.000115	42.	42.	42.	2	0	0	0.	25.00	45.00	

THIS RUN EXECUTED 30 AUG 79 11.12.49

****
HEC2 RELEASE DATED NOV 76 UPDATED JULY 1979
ERROR CORR = 01,02,03
MODIFICATION = 50,51,52,53
****

T1 YPSILANTI TOWNSHIP FIS
T2 PAINT CREEK
T3 100 YR FLOW

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	=0.	4.	=0.	=0.	=0.	=0.	=0.	=0.	689.800	=0.

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	3.000	=0.	=1,000	=0.	=0.	=0.	=0.	=0.	=0.	=0.

*PROF 3

CCHV= .100 CEHV= .300

*SECNO 0.

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
	2000FT D/S BEMIS ROAD BRIDGE (COE VS=1)								
0.	6.70	689.80	0.	689.80	689.83	.03	0.	0.	688.00
748.	323.	323.	102.	257.	219.	124.	0.	0.	688.00
0.	1.26	1.48	.82	.040	.075	.040	0.	683.10	31.58
.000818	0.	0.	0.	0	0	0	0.	493.42	525.00

*SECNO 200.000

3470 ENCROACHMENT STATIONS= 1.0 600.0 TYPE= 1 TARGET= 599.000

	1800FT D/S BEMIS ROAD BRIDGE (R)								
200.00	6.56	689.98	0.	689.12	690.02	.03	.19	.00	688.32
748.	312.	357.	80.	226.	211.	92.	3.	2.	688.32
.04	1.38	1.69	.86	.040	.075	.040	.075	683.42	39.22
.001118	200.	200.	200.	1	0	0	0.	478.52	517.74

*SECNO 400.000

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 1.0 600.0 TYPE= 1 TARGET= 599.000

	1600FT D/S BEMIS ROAD BRIDGE (R)								
400.00	6.48	690.22	0.	689.71	690.26	.04	.24	.00	688.64
748.	304.	375.	69.	211.	208.	77.	5.	4.	688.64
.001309	2000	2000	2000	.048	.0 0	.040	00	464.26	514.12

*SECNO 600.000

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 1.0 600.0 TYPE= 1 TARGET= 599.000

	1400FT D/S BEMIS ROAD BRIDGE (R)								
600.00	6.44	690.50	0.	690.19	690.54	.04	.28	.00	688.96
748.	298.	387.	63.	201.	205.	67.	7.	6.	688.96
.11	1.48	1.88	.94	.040	.075	.040	.075	684.06	45.52
.001448	200.	200.	200.	2	0	0	0.	440.97	511.75

*SECND 800.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	INWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	IOPWID	ENDST
				1200FT D/S BEMIS ROAD BRIDGE (R)					
800.00	6.41	690.79	0.	690.50	690.84	.05	.30	.00	689.28
748.	294.	395.	59.	195.	204.	62.	9.	8.	689.28
.14	1.51	1.94	.96	.040	.075	.040	.075	684.38	47.19
.001549	200.	200.	200.	1	0	0	0.	425.37	510.17

CCHV= .500 CEHV= .900

*SECNO 1000.000

3470 ENCROACHMENT STATIONS= 50.0 525.0 TYPE= 1 TARGET= 475.000

1000FT D/S BEMIS ROAD BRIDGE (COE VS=2)

1000.00	6.28	690.98	0.	690.61	691.00	.02	.15	.01	688.70
748.	459.	251.	38.	416.	230.	61.	12.	10.	689.00
.19	1.10	1.09	.63	.040	.075	.040	.075	684.70	50.00
.000434	200.	200.	200.	2	0	0	0.	442.63	492.63

*SECNO 1200.000

3470 ENCROACHMENT STATIONS= 50.0 500.0 TYPE= 1 TARGET= 450.000

800FT D/S BEMIS ROAD BRIDGE (R)

1200.00	6.19	691.09	0.	690.67	691.12	.03	.11	.01	688.90
748.	397.	312.	40.	301.	226.	49.	15.	12.	689.20
.23	1.32	1.38	.81	.040	.075	.040	.075	684.90	50.00
.000720	200.	200.	200.	2	0	0	0.	372.97	422.97

*SECNO 1400.000

3470 ENCROACHMENT STATIONS= 100.0 450.0 TYPE= 1 TARGET= 350.000

600FT D/S BEMIS ROAD BRIDGE (R)

1400.00	5.96	691.26	0.	690.78	691.30	.04	.17	.01	688.90
748.	338.	366.	44.	218.	223.	45.	17.	14.	689.40
.27	1.55	1.64	.98	.040	.075	.040	.075	685.30	100.00
.001034	200.	200.	200.	2	0	0	0.	315.49	415.49

*SECNO 1600.000

3470 ENCROACHMENT STATIONS= 150.0 400.0 TYPE= 1 TARGET= 250.000

400FT D/S BEMIS ROAD BRIDGE (R)

1600.00	6.20	691.50	0.	690.95	691.55	.05	.24	.01	689.30
748.	271.	422.	55.	150.	224.	48.	19.	15.	689.60
.30	1.81	1.88	1.13	.040	.075	.040	.075	685.30	150.00
.001350	200.	200.	200.	2	0	0	0.	250.00	400.00

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*SECNO 1800.000
   SECNO     DEPTH     CWSEL     CRIWS     WSELK      EG        HV        HL       OLOSS    BANK ELEV
     Q       QLOB      QCH       QROB      ALOB       ACH       AROB      VOL      TWA    LEFT/RIGHT
    TIME     VLOB      VCH       VROB      XNL        XNCH      XNR       WTN      ELMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL     IDC       ICONT     CORAR    TOPWID     ENDST

3470 ENCROACHMENT STATIONS=      200.0      350.0  TYPE=      1  TARGET=      150.000

                    200FT D/S BEMIS ROAD BRIDGE (R)

  1800.00      6.29    691.79       0.     691.16    691.86      .07       .30       .02    689.50
    748.       158.     518.        72.      75.      231.       46.       21.       16.     689.80
     .32       2.12     2.24       1.57     .040      .075      .040      .075    685.50    200.00
 .001840       150.     200.       250.        2         0         0         0.    150.00    350.00

*SECNO 1900.000

3470 ENCROACHMENT STATIONS=      236.0      334.0  TYPE=      1  TARGET=      98.000

                    100FT D/S BEMIS ROAD BRIDGE (ZW 107+50)

  1900.00      6.48    692.08       0.     691.35    692.29      .21       .30       .12    691.90
    748.       19.      647.        81.      13.      171.       27.       22.       16.     691.10
     .33       1.52     3.79       2.99     .040      .075      .040      .075    685.60    236.00
 .005696       100.     100.       100.        2         0         0         0.     94.35    330.35

*SECNO 1950.000
3280 CROSS SECTION    1950.00 EXTENDED       1.90 FEET

3470 ENCROACHMENT STATIONS=      200.0      255.0  TYPE=      1  TARGET=      55.000

                    50FT D/S BEMIS ROAD BRIDGE (R COE VS=4)

  1950.00      7.10    692.40       0.     691.56    692.55      .15       .24       .03    691.20
    748.       0.       748.        0.       0.      238.       0.        22.       16.  100000.10
     .34       0.       3.15        0.      .040      .075      .040      .075    685.30    200.00
 .004115       50.      50.        50.         2         0         0         0.     55.00    255.00

*SECNO 1985.000

3470 ENCROACHMENT STATIONS=      170.0      197.0  TYPE=      1  TARGET=      27.000
  1985.00      7.38    692.48       0.     691.60    692.80      .32       .10       .15    693.70
    748.       0.       748.        0.       0.      165.       0.        22.       17.  100000.00
     .34       0.       4.52        0.      .030      .040      .030      .074    685.10    170.00
 .002003       49.      35.        21.         2         0         0         0.     27.00    197.00

*SECNO 1986.000

3370 NORMAL BRIDGE,NRD= 13 MIN ELTRD=  693.30 MAX ELLC=  692.70

3470 ENCROACHMENT STATIONS=      170.0      197.0  TYPE=      1  TARGET=      27.000

                    D/S FACE OF BEMIS ROAD BRIDGE (COE VS=3)CONC SLAB AND WINGWALLS

  1986.00      7.38    692.48       0.     691.60    692.80      .32       .00       .00    693.70
    748.       0.       748.        0.       0.      165.       0.        22.       17.  100000.00
     .34       0.       4.52        0.      .030      .040      .030      .074    685.10    170.00
```

.002339	1.	1.	1.	0	0	0	0.	27.00	197.00

*SECNO 2014.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONI	CORAR	TOPWID	ENDST

3370 NORMAL BRIDGE,NRD= 13 MIN ELTRD= 693.30 MAX ELLC= 692.70

3470 ENCROACHMENT STATIONS= 170.0 197.0 TYPE= 1 TARGET= 27.000

U/S FACE OF BEMIS ROAD BRIDGE (R COE VS3)CONC SLAB AND WINGWALLS

2014.00	7.46	692.56	0.	691.63	692.87	.31	.06	.00	693.70
748.	0.	748.	0.	0.	167.	0.	22.	17.	100000.00
.34	0.	4.47	0.	.030	.040	.030	.074	685.10	170.00
.002270	28.	28.	28.	1	0	0	0.	27.00	197.00

*SECNO 2015.000

3470 ENCROACHMENT STATIONS= 170.0 197.0 TYPE= 1 TARGET= 27.000

2015.00	7.46	692.56	0.	691.64	692.87	.31	.00	.00	693.70
748.	0.	748.	0.	0.	167.	0.	22.	17.	100000.00
.34	0.	4.47	0.	.030	.040	.030	.074	685.10	170.00
.001930	1.	1.	1.	0	0	0	0.	27.00	197.00

CCHV= .500 CEHV= .900

*SECNO 2050.000

3470 ENCROACHMENT STATIONS= 164.0 291.0 TYPE= 1 TARGET= 127.000

36FT U/S BEMIS ROAD BRIDGE (R COE VS-4)

2050.00	7.85	693.00	0.	691.80	693.06	.06	.06	.12	691.05
748.	68.	597.	83.	64.	279.	72.	23.	17.	690.65
.35	1.07	2.14	1.16	.080	.080	.080	.074	685.15	164.00
.001643	21.	35.	49.	2	0	0	0.	127.00	291.00

*SECNO 2100.000

3470 ENCROACHMENT STATIONS= 214.0 441.0 TYPE= 1 TARGET= 227.000

86FT U/S BEMIS ROAD BRIDGE (COE VS-4) CROSS SECTION A

2100.00	7.90	693.10	0.	691.88	693.14	.04	.07	.01	691.90
748.	74.	514.	160.	100.	276.	162.	23.	17.	690.70
.35	.74	1.86	.99	.080	.080	.080	.074	685.20	214.00
.001268	75.	50.	25.	0	0	0	0.	227.00	441.00

CCHV= .300 CEHV= .500

*SECNO 2430.000

3265 DIVIDED FLOW

416FT U/S BEMIS ROAD BRIDGE (ZW 101+00)

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2430.00	7.07	6 3.67	0.	692.63	693.73	.06	.58	.01	693.40
748.	84.	664.	0.	127.	311.	1.	27.	19.	693.80
.40	.67	2.13	.09	.080	.080	.080	.075	686.60	76.60
.002761	300.	330.	300.	2	0	0	0.	575.70	502.54

*SECNO 2990.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

976FT U/S BEMIS ROAD BRIDGE (ZW 95+00) CROSS SECTION B

2990.00	8.11	694.81	0.	693.97	694.86	.06	1.13	.00	693.30
748.	300.	385.	62.	152.	202.	50.	32.	23.	693.20
.48	1.98	1.91	1.25	.040	.080	.040	.076	686.70	173.15
.001512	590.	560.	470.	1	0	0	0.	203.43	376.58

*SECNO 3390.000

3265 DIVIDED FLOW

8 32 0 ROSS S NT 0 9 33 0E00ENDED 92EEE T

1376FT U/S BEMIS ROAD BRIDGE (ZW 90+75)

3390.00	7.69	695.19	0.	694.44	695.21	.02	.34	.01	695.60
748.	519.	229.	0.	477.	195.	0.	37.	26.	696.20
.58	1.09	1.17	0.	.040	.080	.040	.076	687.50	0.
.000547	400.	400.	400.	3	0	0	0.	430.68	541.11

*SECNO 4040.000

3265 DIVIDED FLOW

3280 CROSS SECTION 4040.00 EXTENDED 1.68 FEET

2026FT U/S BEMIS ROAD BRIDGE (ZW 84+00) CROSS SECTION C

4040.00	7.39	695.89	0.	695.26	696.00	.11	.74	.05	697.70
748.	276.	472.	0.	118.	164.	0.	44.	30.	698.90
.65	2.34	2.88	0.	.040	.080	.040	.077	688.50	0.
.003651	650.	650.	650.	1	0	0	0.	159.13	405.95

CCHV= .500 CEHV= .900

*SECNO 4570.000

3470 ENCROACHMENT STATIONS= 46.0 600.0 TYPE= 1 TARGET= 554.000

2556FT U/S BEMIS ROAD BRIDGE (ZW 79+00)

4570.00	7.95	697.45	0.	696.74	697.50	.06	1.48	.03	697.20
748.	357.	391.	0.	213.	184.	0.	48.	33.	699.30
.73	1.67	2.13	0.	.040	.080	.040	.077	689.50	46.00
.002167	540.	530.	510.	3	0	0	0.	278.04	324.04

*SECNO 5090.000

3470 ENCROACHMENT STATIONS= 158.0 402.0 TYPE= 1 TARGET= 244.000

3076FT U/S BEMIS ROAD BRIDGE (ZW 74+00) CROSS SECTION D

5090.00	8.35	698.65	0.	697.92	698.74	.09	1.21	.03	697.80
748.	199.	549.	0.	105.	208.	0.	53.	35.	698.70
.79	1.89	2.65	0.	.040	.080	.040	.077	690.30	158.00
.002526	510.	520.	530.	2	0	0	0.	141.90	299.90

*SECNO 5450.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV.
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 295.0 359.0 TYPE= 1 TARGET= 64.000

86FT D/S MARTZ ROAD BRIDGE (ZW 69+00)

5450.00	8.11	699.51	0.	698.51	699.69	.18	.87	.07	697.70
748.	51.	697.	0.	20.	203.	0.	55.	36.	702.90
.82	2.47	3.43	0.	.040	.060	.040	.076	691.40	295.00
.002400	322.	360.	398.	1	0	0	0.	48.65	343.65

*SECNO 5500.000

3470 ENCROACHMENT STATIONS= 306.0 347.0 TYPE= 1 TARGET= 41.000

36FT D/S MARTZ ROAD BRIDGE (R ZW 69+00)

5500.00	8.23	699.63	0.	698.58	699.83	.20	.16	.02	697.70
748.	0.	748.	0.	0.	208.	0.	55.	36.	100000.00
.82	0.	3.59	0.	.040	.060	.040	.076	691.40	306.00
.002720	20.	50.	80.	0	0	0	0.	37.77	343.77

*SECNO 5525.000

3470 ENCROACHMENT STATIONS= 310.0 623.0 TYPE= 1 TARGET= -310.000

D/S FACE OF MARTZ ROAD BRIDGE HEADWALL (R ZW 68+00)

5525.00	8.47	699.67	0.	698.60	699.93	.25	.05	.05	701.50
748.	0.	748.	0.	0.	186.	0.	55.	36.	701.50
.82	0.	4.02	0.	.030	.040	.030	.076	691.20	310.00
.001320	25.	25.	25.	2	0	0	0.	26.00	336.00

*SECNO 5535.000

3470 ENCROACHMENT STATIONS= 310.0 623.0 TYPE= 1 TARGET= -310.000

5535.00	8.49	699.69	0.	698.61	699.94	.25	.01	.00	701.50
748.	0.	748.	0.	0.	187.	0.	55.	36.	701.50
.82	0.	4.01	0.	.030	.040	.030	.076	691.20	310.00
.001310	10.	10.	10.	0	0	0	0.	26.00	336.00

*SECNO 5536.000

3370 NORMAL BRIDGE,NRD= 10 MIN ELTRD= 699.50 MAX ELLC= 700.50

3470 ENCROACHMENT STATIONS= 310.0 623.0 TYPE= 1 TARGET= -310.000

D/S FACE OF MARTZ ROAD BRIDGE (ZW 68+00) CONC SLAB AND WINGWALLS

5536.00	8.49	699.69	0.	698.61	699.94	.25	.00	.00	701.50
748.	0.	748.	0.	0.	187.	0.	55.	36.	701.50
.82	0.	4.01	0.	.030	.040	.030	.076	691.20	310.00
.001472	1.	1.	1.	0	0	0	0.	26.00	336.00

*SECNO 5564.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3370 NORMAL BRIDGE,NRD= 10 MIN ELTRD= 699.50 MAX ELLC= 700.30

3470 ENCROACHMENT STATIONS= 310.0 623.0 TYPE= 1 TARGET= -310.000

U/S FACE OF MARTZ ROAD BRIDGE (R ZW68+00)CONC SLAB AND WINGWALLS

5564.00	8.54	699.74	0.	698.63	699.98	.25	.04	.00	701.50
748.	0.	748.	0.	0.	188.	0.	55.	36.	701.50
.82	0.	3.99	0.	.030	.040	.030	.076	691.20	310.00
.001454	28.	28.	28.	0	0	0	0.	26.00	336.00

*SECNO 5565.000

3470 ENCROACHMENT STATIONS= 310.0 623.0 TYPE= 1 TARGET= -310.000

5565.00	8.54	699.74	0.	698.63	699.98	.25	.00	.00	701.50
748.	0.	748.	0.	0.	188.	0.	55.	36.	701.50
.82	0.	3.98	0.	.030	.040	.030	.076	691.20	310.00
.001288	1.	1.	1.	0	0	0	0.	26.00	336.00

*SECNO 5575.000

3470 ENCROACHMENT STATIONS= 310.0 623.0 TYPE= 1 TARGET= -310.000

U/S FACE OF MARTZ ROAD BRIDGE HEADWALL (ZW 68+00)

5575.00	8.55	699.75	0.	698.64	700.00	.25	.01	.00	701.50
748.	0.	748.	0.	0.	188.	0.	55.	36.	701.50
.82	0.	3.98	0.	.030	.040	.030	.076	691.20	310.00
.001281	10.	10.	10.	0	0	0	0.	26.00	336.00

*SECNO 5600.000

3470 ENCROACHMENT STATIONS= 281.0 364.0 TYPE= 1 TARGET= 83.000

36FT U/S MARTZ ROAD BRIDGE (R ZW 67+00)

5600.00	8.81	700.01	0.	698.71	700.10	.09	.03	.08	698.00
777.	97.	528.	153.	51.	208.	68.	55.	36.	697.40
.82	1.89	2.54	2.24	.040	.060	.040	.076	691.20	281.00
.00110	39.	25.	11.	2	0	0	0.	83.00	364.00

*SECNO 5650.000

3470 ENCROACHMENT STATIONS= 231.0 414.0 TYPE= 1 TARGET= 183.000

86FT U/S MARTZ ROAD BRIDGE (ZW 67+00.) CROSS SECTION E

5650.00	8.94	700.14	0.	698.80	700.16	.03	.05	.03	698.00	
777.	183.	288.	306.	167.	212.	229.	56.	36.	697.40	
.84	1.09	1.36	1.34	.040	.060	.040	.075	691.20	231.00	
.000310	80.	50.	40.	2	0	0	0.	183.00	414.00	

CCHV= .300 CEHV= .500

*SECNO 6300.000

3280 CROSS SECTION 6300.00 EXIENDED .89 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= .0 560.0 TYPE= 1 TARGET= 559.999

736FT U/S MARTZ ROAD BRIDGE (ZW 61+00.) CROSS SECTION F

6300.00	9.79	700.29	0.	698.95	700.31	.02	.14	.00	699.30	
777.	6.	134.	637.	19.	203.	540.	66.	40.	690.50	
1.01	.29	.66	1.18	.040	.080	.040	.076	690.50	239.94	
.000160	650.	650.	650.	2	0	0	0.	320.06	560.00	

*SECNO 6720.000

3265 DIVIDED FLOW

3280 CROSS SECTION 6720.00 EXTENDED .98 FEET

3470 ENCROACHMENT STATIONS= .0 1010.0 TYPE= 1 TARGET= 1009.999

1156FT U/S MARTZ ROAD BRIDGE (ZW 56+00)

6720.00	5.58	700.48	0.	698.95	700.51	.03	.20	.01	701.20	
777.	2.	226.	549.	7.	125.	458.	74.	47.	701.30	
1.11	.31	1.81	1.20	.040	.080	.040	.075	694.90	91.06	
.001745	390.	420.	550.	2	0	0	0.	793.21	1010.00	

*SECNO 7080.000

3265 DIVIDED FLOW

3280 CROSS SECTION 7080.00 EXTENDED 1.29 FEET

3470 ENCROACHMENT STATIONS= .0 1125.0 TYPE= 1 TARGET= 1124.999

1516FT U/S MARTZ ROAD BRIDGE (R ZW 52+00) CROSS SECTION G

7080.00	0.	700.78	0	700.18	700.81	.03	.30	.00	700.30	

777.	6.	174.	597.	15.	120.	441.	78.	50.	701.10
1.16	.42	1.36	1.35	.040	.080	.040	.076	693.70	276.70
.000833	400.	360.	220.	1	0	0	0.	511.15	1125.00

*SECNO 7670.000

3265 DIVIDED FLOW

3280 CROSS SECTION 7670.00 EXTENDED 1.85 FEET

3470 ENCROACHMENT STATIONS= .0 1125.0 TYPE= 1 TARGET= 1124.999

2106FT U/S MARTZ ROAD BRIDGE (ZW 46+00)

7670.00	6.15	701.35	0.	700.82	701.48	.12	.62	.05	701.80
777.	0.	325.	452.	0.	103.	175.	81.	53.	702.60
1.20	0.	3.15	2.58	.040	.080	.040	.079	695.20	337.54
.005380	630.	590.	250.	2	0	0	0.	236.36	1125.00

*SECNO 8370.000

3280 CROSS SECTION 8370.00 EXTENDED .33 FEET

3470 ENCROACHMENT STATIONS= 45.0 400.0 TYPE= 1 TARGET= 355.000

2806FT U/S MARTZ ROAD BRIDGE (ZW 39+00) CROSS SECTION H

8370.00	6.93	703.53	0.	702.99	703.60	.06	2.10	.02	702.70
777.	182.	267.	328.	153.	128.	145.	87.	58.	702.80
1.30	1.19	2.08	2.27	.040	.080	.040	.079	696.60	45.00
.001855	680.	700.	730.	2	0	0	0.	355.00	400.00

*SECNO 8850.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 1.0 500.0 TYPE= 1 TARGET= 499.000

3286FT U/S MARTZ ROAD BRIDGE (ZW 32+00) CROSS SECTION I

8850.00	6.46	704.36	0.	703.95	704.41	.04	.81	.01	702.40
777.	301.	219.	257.	167.	120.	180.	92.	62.	703.90
1.38	1.81	1.83	1.43	.040	.080	.040	.079	697.90	159.11
.001445	480.	480.	520.	3	0	0	0.	340.89	500.00

*SECNO 9520.000

3470 ENCROACHMENT STATIONS= 112.0 600.0 TYPE= 1 TARGET= -112.000

3956FT U/S MARTZ ROAD BRIDGE (ZW 27+00)

9520.00	6.86	705.76	0.	705.39	705.87	.11	1.45	.03	703.90
777.	466.	306.	4.	190.	102.	4.	97.	66.	705.20
1.45	2.46	3.02	.99	.040	.080	.040	.079	698.90	112.00
.003881	0	70	0	3	0	0	0	214.00	324.

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CCHV=     .500 CEHV=     .900
*SECNO 10020.000
3280 CROSS SECTION  10020.00 EXTENDED      1.35 FEET


3470 ENCROACHMENT STATIONS=      150.0      515.0  TYPE=      1  TARGET=     -150.000
                 4456FT U/S MARTZ ROAD BRIDGE (ZW 22+00) CROSS SECTION J

 10020.00      6.05    706.75      0.      706.19    706.79      .04      .89      .04    705.90
     777.       40.      171.      567.       53.      118.      337.     102.      69.    704.90
     1.54       .75      1.45      1.68      .040      .080      .040     .079   700.70    163.16
  .001015      500.      500.      500.         2         0         0       0.   351.84    515.00

*SECNO 10520.000

3470 ENCROACHMENT STATIONS=       60.0      336.0  TYPE=      1  TARGET=      276.000
                   86FT D/S MERRITT ROAD BRIDGE (ZW 17+00)

 10520.00      6.70    707.40      0.      706.77    707.45      .05      .65      .01    704.80
     777.      370.      391.       16.      284.      186.       15.     108.      73.    706.50
     1.62      1.30      2.10      1.10      .060      .080      .050     .079   700.70     60.00
  .001659      450.      500.      550.         3         0         0       0.   276.00    336.00

*SECNO 10570.000

3470 ENCROACHMENT STATIONS=       60.0      332.0  TYPE=      1  TARGET=      272.000
                   36FT D/S MERRITT ROAD BRIDGE (R ZW 17+00)

 10570.00      6.56    707.43      0.      706.81    707.49      .05      .03      .01    704.97
     777.      375.      393.        9.      256.      181.        9.     108.      73.    706.67
     1.62      1.47      2.17       .97      .040      .060      .040     .079   700.87     60.00
  .001033        1.       50.       60.         1         0         0       0.   272.00    332.00

*SECNO 10605.000
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA      LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

3470 ENCROACHMENT STATIONS=      110.0      600.0  TYPE=      1  TARGET=     -110.000
 10605.00      6.45    707.45      0.      706.83    707.85      .40      .05      .31    711.50
     777.        0.      777.        0.        0.      153.        0.     108.      73.    711.50
     1.62        0.      5.07        0.      .030      .040      .030     .079   701.00    287.00
  .002584       35.       35.       35.         2         0         0       0.    26.00    313.00
                                                                                  320
                                  707.58                  710.2

*SECNO 10606.000

3370 NORMAL BRIDGE,NRD= 10 MIN ELTRD=  707.60 MAX ELLC=  710.20


3470 ENCROACHMENT STATIONS=      110.0      600.0  TYPE=      1  TARGET=     -110.000
                 D/S FACE OF MERRITT ROAD BRIDGE(ZW 16+00)CONC SLAB AND WINGWALLS
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10606.00	6.46	707.46	0.	706.83	707.85	.40	.00	.00	711.50
777.	0.	777.	0.	0.	153.	0.	108.	73.	711.50
1.62	0.	5.07	0.	.030	.040	.030	.079	701.00	287.00
.003350	1.	1.	1.	0	0	0	0.	26.00	313.00

*SECNO 10634.000

3370 NORMAL BRIDGE,NRD= 10 MIN ELTRD= 707.60 MAX ELLC= 710.20

3470 ENCROACHMENT STATIONS= 120.0 600.0 TYPE= 1 TARGET= -120.000

U/S FACE OF MERRITT ROAD BRIDGE (R ZW 16+00)

10634.00	6.57	707.57	0.	706.87	707.95	.38	.09	.01	711.50
777.	0.	777.	0.	0.	156.	0.	108.	73.	711.50
1.63	0.	4.97	0.	.030	.040	.030	.079	701.00	287.00
.003186	28.	28.	28.	2	0	0	0.	26.00	313.00

26.5

*SECNO 10635.000

3470 ENCROACHMENT STATIONS= 120.0 600.0 TYPE= 1 TARGET= -120.000

10635.00	6.57	707.57	0.	706.87	707.96	.38	.00	.00	711.50
777.	0.	777.	0.	0.	156.	0.	108.	73.	711.50
1.63	0.	4.97	0.	.030	.040	.030	.079	701.00	287.00
.002438	1.	1.	1.	0	0	0	0.	26.00	313.00

*SECNO 10670.000

3280 CROSS SECTION 10670.00 EXTENDED .23 FEET

3470 ENCROACHMENT STATIONS= 215.0 335.0 TYPE= 1 TARGET= 120.000

36FT U/S MERRITT ROAD BRIDGE (R ZW 15+00)

10670.00	7.32	708.02	0.	707.00	708.16	.14	.08	.12	707.50
779.	37.	693.	50.	30.	223.	27.	109.	73.	706.90
1.63	1.21	3.11	1.85	.040	.060	.040	.079	700.70	215.00
.002161	50.	35.	22.	2	0	0	0.	120.00	335.00

*SECNO 10720.000

3280 CROSS SECTION 10720.00 EXTENDED .43 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 165.0 385.0 TYPE= 1 TARGET= 220.000

86FT U/S MERRITT ROAD BRIDGE (ZW 15+00) CROSS SECTION K

10720.00	7.39	708.23	0.	707.11	708.30	.07	.10	.04	707.64
779.	95.	499.	185.	73.	226.	96.	109.	73.	707.04
1.64	1.30	2.21	1.92	.040	.080	.040	.079	700.84	165.00
.001907	50.	50.	50.	2	0	0	0.	220.00	385.00

CCHV= .500 CEHV= .500
*SECNO 11060.000

3470 ENCROACHMENT STATIONS= .0 450.0 TYPE= 1 TARGET= 449.999

426FT U/S MERRITT ROAD BRIDGE (ZW 12+00)

11060.00	7.07	708.87	0.	707.92	708.98	.11	.66	.02	707.80
779.	16.	338.	424.	14.	140.	147.	112.	74.	705.80
1.67	1.19	2.41	2.88	.040	.080	.040	.079	701.80	338.47
.001966	340.	340.	340.	2	0	0	0.	111.53	450.00

CCHV= .500 CEHV= .700
*SECNO 11450.000

3470 ENCROACHMENT STATIONS= 90.0 590.0 TYPE= 1 TARGET= 500.000

816FT U/S MERRITT ROAD BRIDGE (ZW 8+00) CROSS SECTION L

11450.00	7.13	709.43	0.	708.48	709.45	.02	.43	.05	708.10
779.	18.	251.	510.	26.	164.	606.	116.	76.	706.10
1.77	.71	1.53	.84	.050	.080	.080	.079	702.30	241.10
.000748	420.	390.	360.	2	0	0	0.	348.90	590.00

*SECNO 11860.000

3470 ENCROACHMENT STATIONS= 200.0 400.0 TYPE= 1 TARGET= 200.000

1226FT U/S MERRITT ROAD BRIDGE (ZW 3+00)

11860.00	5.74	709.94	0.	709.11	710.01	.08	.52	.04	708.70
779.	202.	418.	159.	108.	158.	123.	122.	79.	708.90
1.82	1.88	2.65	1.29	.050	.080	.080	.079	704.20	200.00
.002887	440.	410.	370.	2	0	0	0.	200.00	400.00

*SECNO 12170.000
3280 CROSS SECTION 12170.00 EXTENDED 1.23 FEET

3470 ENCROACHMENT STATIONS= 253.0 294.0 TYPE= 1 TARGET= 41.000

35FT D/S WHITTAKER ROAD BRIDGE (R ZW =1+00) CROSS SECTION M

12170.00	6.94	711.24	0.	710.34	711.57	.33	1.38	.18	708.60
779.	81.	608.	89.	20.	125.	30.	124.	80.	707.60
1.84	4.00	4.89	3.02	.050	.080	.080	.079	704.30	253.00
.007916	330.	310.	270.	2	0	0	0.	41.00	294.00

*SECNO 12204.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	IWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
12204.00	7.06	711.36	0.	710.43	711.75	.38	.14	.04	714.20
779.	0.	779.	0.	0.	157.	0.	124.	80.	714.20
1.84	0.	4.97	0.	.030	.040	.030	.079	704.50	288.90
.002544	34.	34.	34.	2	0	0	0.	22.20	311.10

*SECNO 12205.000

3370 NORMAL BRIDGE,NRD= 10 MIN ELTRD= 713.00 MAX ELLC= 713.70

D/S FACE OF WHITTAKER ROAD BRIDGE (ZW =0+00) CONC SLAB AND HEADWALL

12205.00	7.07	711.37	0.	710.43	711.75	.38	.00	.00	714.20
779.	0.	779.	0.	0.	157.	0.	124.	80.	714.20
1.84	0.	4.96	0.	.030	.040	.030	.079	704.30	288.90
.003934	1.	1.	1.	0	0	0	0.	22.20	311.10

*SECNO 12235.000

3370 NORMAL BRIDGE,NRD= 10 MIN ELTRD= 713.00 MAX ELLC= 713.70

U/S FACE OF WHITTAKER ROAD BRIDGE (R) CONC SLAB AND HEADWALL

12235.00	7.20	711.50	0.	710.48	711.87	.37	.12	.01	714.20
779.	0.	779.	0.	0.	160.	0.	124.	80.	714.20
1.84	0.	4.87	0.	.030	.040	.030	.079	704.30	288.90
.003746	30.	30.	30.	2	0	0	0.	22.20	311.10

*SECNO 12236.000

12236.00	7.21	711.51	0.	710.48	711.88	.37	.00	.00	714.20
779.	0.	779.	0.	0.	160.	0.	124.	80.	714.20
1.84	0.	4.87	0.	.030	.040	.030	.079	704.30	288.90
.002403	1.	1.	1.	0	0	0	0.	22.20	311.10

1490 NH CARD USED

*SECNO 12270.000

3470 ENCROACHMENT STATIONS= 278.0 370.0 TYPE= 1 TARGET= 92.000

35FT U/S WHITTAKER ROAD BRIDGE (R ZW =1+00)

12270.00	7.63	712.01	0.	710.67	712.09	.07	.06	.15	708.48
779.	156.	336.	287.	89.	144.	131.	124.	80.	707.48
1.85	1.76	2.33	2.18	.060	.080	.060	.079	704.38	278.00
.001479	34.	34.	34.	2	0	0	0.	92.00	370.00

*SECNO 12320.000

3280 CROSS SECTION 12320.00 EXTENDED 3.61 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	IOPWID	ENDST

3470 ENCROACHMENT STATIONS= 108.0 300.0 TYPE= 1 TARGET= 192.000

185FT U/S WHITTAKER ROAD BRIDGE (ZW =1+00)

12320.00	7.61	712.11	0.	710.76	712.22	.11	.11	.03	708.60
1521.	237.	419.	865.	134.	144.	312.	125.	80.	707.60
1.85	1.78	2.91	2.77	.060	.080	.060	.079	704.50	108.00
.002320	30.	50.	70.	0	0	0	0.	192.00	300.00

CCHV= .200 CEHV= .400
*SECNO 12720.000

3470 ENCROACHMENT STATIONS= 1.0 850.0 TYPE= 1 TARGET= 849.000

485FT U/S WHITTAKER ROAD BRIDGE (ZW =4+00) CROSS SECTION N

12720.00	7.57	712.57	0.	711.12	712.59	.02	.35	.02	711.50
1521.	231.	436.	853.	287.	321.	806.	133.	85.	707.90
1.95	.81	1.36	1.06	.060	.080	.060	.079	705.00	41.87
.000468	330.	400.	400.	2	0	0	0.	517.17	559.04

*SECNO 13640.000

1405FT U/S WHITTAKER ROAD BRIDGE (COE VS=6) CROSS SECTION O

13640.00	7.09	713.59	0.	712.22	713.75	.16	1.10	.06	713.70
1521.	0.	565.	956.	0.	145.	347.	155.	91.	709.50
2.04	0.	3.90	2.76	.060	.080	.060	.079	706.50	310.17
.005404	780.	920.	1050.	2	0	0	0.	237.00	547.17

*SECNO 15270.000

3035FT U/S WHITTAKER ROAD BRIDGE (COE VS=7) CROSS SECTION P

15270.00	8.67	716.77	0.	715.30	716.81	.04	3.05	.02	712.40
1521.	33.	233.	1255.	27.	119.	805.	181.	102.	711.90
2.31	1.24	1.96	1.56	.060	.080	.060	.079	708.10	191.65
.000950	1650.	1630.	1600.	4	0	0	0.	339.62	531.27

*SECNO 16020.000

3785FT U/S WHITTAKER ROAD BRIDGE (COE VS=8) CROSS SECTION Q

16020.00	8.28	717.78	0.	716.29	717.89	.11	1.06	.03	714.10
1521.	249.	680.	591.	94.	216.	337.	194.	107.	716.70
2.39	2.65	3.15	1.75	.060	.080	.060	.079	709.50	312.77
.002885	800.	750.	640.	3	0	0	0.	328.92	641.69

*SECNO 17020.000

3265 DIVIDED FLOW

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	IWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	IOPWID	ENDST

4785FT U/S WHITTAKER ROAD BRIDGE (COE VS=9) CROSS SECTION R

17020.00	7.89	720.09	0.	718.79	720.15	.06	2.25	.01	715.60
1521.	732.	433.	355.	389.	176.	276.	210.	117.	718.90
2.53	1.88	2.46	1.29	.060	.080	.060	.079	712.20	199.21
.001910	1000.	1000.	900.	2	0	0	0.	629.18	831.38

CCHV= .500 CEHV= .800
1490 NH CARD USED
*SECNO 17520.000

3470 ENCROACHMENT STATIONS= .0 710.0 TYPE= 1 TARGET= 709.999

528SFT U/S WHITTAKER ROAD BRIDGE (C)

17520.00	7.45	720.75	0.	719.66	720.78	.03	.62	.01	715.60
1521.	176.	328.	1017.	119.	187.	777.	221.	124.	718.90
2.63	1.47	1.76	1.31	.060	.080	.043	.079	713.30	68.03
.000890	470.	500.	500.	3	0	0	0.	641.97	710.00

*SECNO 17570.000

3470 ENCROACHMENT STATIONS= .0 670.0 TYPE= 1 TARGET= 669.999

533SFT U/S WHITTAKER ROAD BRIDGE (C)

17570.00	7.51	720.81	0.	719.77	720.84	.03	.06	.00	715.60
1521.	213.	312.	995.	151.	189.	715.	223.	125.	718.90
2.64	1.41	1.65	1.39	.060	.080	.040	.079	713.30	120.34
.000781	50.	50.	80.	2	0	0	0.	549.66	670.00

*SECNO 17800.000

3470 ENCROACHMENT STATIONS= .0 760.0 TYPE= 1 TARGET= 759.999

44FT D/S PRIVATE ROAD BRIDGE (C)

17800.00	7.03	721.03	0.	720.07	721.10	.07	.25	.03	720.00
1521.	16.	327.	1179.	13.	127.	593.	227.	128.	719.40
2.67	1.23	2.57	1.99	.030	.060	.040	.079	714.00	343.47
.001494	10.	230.	240.	2	0	0	0.	416.53	760.00

*SECNO 17844.000 ELTRD 719.2 < 721.1 ⇒ TW over road

3470 ENCROACHMENT STATIONS= .0 730.0 TYPE= 1 TARGET= 729.999

D/S FACE OF PRIVATE ROAD BRIDGE (COE VS=9A)

17844.00	7.10	721.10	0.	720.17	721.17	.07	.07	.00	720.40
1521.	19.	305.	1197.	11.	120.	577.	228.	128.	720.30
2.67	1.73	2.54	2.07	.030	.060	.040	.079	714.00	356.02
.001522	10.	44.	44.	2	0	0	0.	373.98	730.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	=0.	1.74	2.00	=0.	8.70	=0.	83.00	1.23	714.00	714.00

*SECNO 17856.000

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS= 730.169 EGLWC= 721.169 ELLC= 719.400 PCWSE= 721.095 ELTRD= 719.200

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3370 NORMAL BRIDGE NRD= 14 T ELTRD= 719.20 MAX ELLC= 719.40

3470 ENCROACHMENT STATIONS= .0 730.0 TYPE= 1 TARGET= 729.999

U/S FACE OF PRIVATE ROAD BRIDGE (R)

17856.00	7.11	721.11	0.	720.21	721.19	.08	.02	.01	720.40
1521.	22.	134.	1365.	11.	100.	580.	228.	128.	720.30
2.68	1.96	1.34	2.35	.030	.060	.040	.079	714.00	355.98
.001944	1.	12.	12.	1	0	0	-20.90	374.02	730.00

*SECNO 17900.000

3470 ENCROACHMENT STATIONS= 240.0 750.0 TYPE= 1 TARGET= 510.000

44FT U/S PRIVATE ROAD BRIDGE (R)

17900.00	7.19	721.19	0.	720.28	721.30	.11	.08	.02	720.00
1521.	26.	390.	1106.	17.	131.	445.	229.	129.	719.40
2.68	1.53	2.97	2.48	.030	.060	.040	.079	714.00	461.71
.001912	30.	44.	44.	1	0	0	0.	288.29	750.00

*SECNO 17970.000

3470 ENCROACHMENT STATIONS= 205.0 630.0 TYPE= 1 TARGET= 425.000

27FT D/S TEXTILE ROAD BRIDGE (C)

17970.00	7.62	721.32	0.	720.38	721.50	.18	.14	.06	718.20
1521.	500.	554.	467.	166.	130.	168.	230.	129.	718.30
2.69	3.01	4.24	2.78	.030	.060	.040	.079	713.70	230.29
.003006	1.	70.	70.	2	0	0	0.	384.12	614.41

*SECNO 17997.000

D/S FACE OF TEXTILE ROAD BRIDGE(COE VS10)CONC SLAB AND HEADWALLS

17997.00	7.68	721.38	0.	720.42	721.58	.20	.06	.01	718.20
1521.	407.	621.	492.	181.	132.	178.	230.	129.	718.30
2.69	2.25	4.72	2.76	.030	.040	.030	.079	713.70	226.14
.001627	1.	27.	60.	1	0	0	0.	396.59	622.73

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	-0.	2.08	3.00	-0.	15.60	-0.	86.60	.70	714.10	714.10

*SECNO 18043.000
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
731.34	721.88	0.	873.	656.	87.	86.	718.70	722.20

3470 ENCROACHMENT STATIONS= 1.0 830.0 TYPE= 1 TARGET= 829.000

U/S FACE OF TEXTILE ROAD BRIDGE(R)

18045.00	9.51	725.21	0.	721.75	723.23	.02	1.65	0.	718.20
1521.	671.	251.	599.	698.	169.	575.	231.	130.	718.30
2.70	.96	1.49	1.04	.030	.040	.030	.079	713.70	111.32
.000117	46.	46.	46.	1	0	6	0.	624.58	735.70

CCHV= .300 CEHV= .500

*SECNO 18070.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 1.0 830.0 TYPE= 1 TARGET= 829.000

27FT U/S TEXTILE ROAD BRIDGE (R COE VS=11)

18070.00	9.51	723.21	0.	721.85	723.23	.02	.00	.00	718.20
1555.	650.	325.	580.	695.	168.	573.	232.	130.	718.30
2.71	.93	1.93	1.01	.040	.040	.040	.079	713.70	111.83
.000197	35.	27.	15.	2	0	0	0.	623.45	735.28

*SECNO 18120.000

3470 ENCROACHMENT STATIONS= 1.0 830.0 TYPE= 1 TARGET= 829.000

77FT U/S TEXTILE ROAD BRIDGE (COE VS=11) CROSS SECTION 5

18120.00	9.52	723.22	0.	721.91	723.24	.02	.01	.00	718.20
1555.	650.	324.	580.	698.	169.	575.	233.	131.	718.30
2.72	.93	1.92	1.01	.040	.040	.040	.079	713.70	111.34
.000195	50.	50.	50.	0	0	0	0.	624.35	735.69

*SECNO 18570.000

18570.00	8.11	723.34	0.	722.05	723.38	.04	.12	.01	775.50
1555.	0.	672.	883.	0.	502.	489.	244.	136.	719.93
2.79	0.	1.34	1.80	.040	.040	.040	.078	715.23	108.49
.000595	475.	450.	313.	2	0	0	0.	576.63	685.12

*SECNO 19020.000

19020.00	7.25	723.65	0.	722.36	723.79	.13	.36	.05	725.50
1555.	0.	547.	1008.	0.	302.	297.	251.	141.	721.10
2.82	0.	1.81	3.39	.040	.040	.040	.077	716.40	154.90
.001994	475.	450.	313.	2	0	0	0.	489.66	644.56

*SECNO 19470.000

19470.00	6.91	724.48	0.	723.19	724.73	.25	.89	.06	726.67
1555.	0.	436.	1119.	0.	230.	245.	256.	145.	722.27
2.85	0.	1.90	4.56	.040	.040	.040	.077	717.57	183.70
.003196	475.	450.	313.	3	0	0	0.	451.95	635.65

*SECNO 19920.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 1.0 875.0 TYPE= 1 TARGET= 874.000

44FT D/S PRIVATE FOOT BRIDGE (R COE VS-11A)

19920.00	7.33	725.73	0.	724.90	725.81	.08	1.05	.05	723.90
1555.	1000.	390.	164.	478.	127.	164.	262.	151.	723.90
2.90	2.09	3.07	1.00	.040	.060	.050	.077	718.40	168.48
.002097	475.	450.	313.	2	0	0	0.	706.52	875.00

*SECNO 19963.000 ELTRD = 724.5 < 725.79 ⇒ TW over road

3470 ENCROACHMENT STATIONS= 1.0 865.0 TYPE= 1 TARGET= 864.000

19963.00	7.29	725.79	0.	725.18	725.88	.09	.07	.00	724.00
1555.	945.	430.	180.	463.	126.	149.	263.	151.	724.00
2.90	2.04	3.42	1.21	.030	.040	.030	.077	718.50	169.54
.001163	43.	43.	43.	2	0	0	0.	695.46	865.00

*SECNO 19964.000

3370 NORMAL BRIDGE,NRD= 12 MIN ELTRD= 724.50 MAX ELLC= 724.00

3470 ENCROACHMENT STATIONS= 1.0 865.0 TYPE= 1 TARGET= 864.000

D/S FACE OF PRIVATE FOOT BRIDGE (COE VS-11A)STEEL BEAMS W/PLANKS

19964.00	7.28	725.78	0.	725.18	725.89	.10	.00	.01	724.00
1555.	1079.	257.	219.	388.	106.	134.	263.	151.	724.00
2.90	2.78	2.42	1.63	.030	.040	.030	.077	718.50	169.50
.002851	1.	1.	1.	0	0	0	-110.00	695.50	865.00

D/W = 1.29/1.32 = .97 ⇒ high submergence

*SECNO 19976.000

3370 NORMAL BRIDGE,NRD= 12 MIN ELTRD= 724.50 MAX ELLC= 724.00

3470 ENCROACHMENT STATIONS= 1.0 860.0 TYPE= 1 TARGET= 859.000

U/S FACE OF PRIVATE FOOT BRIDGE (R)

19976.00	7.32	725.82	0.	725.23	725.92	.10	.03	.00	724.00
1555.	1078.	249.	228.	398.	107.	141.	263.	151.	724.00
2.90	2.71	2.34	1.62	.030	.040	.030	.077	718.50	168.84
.002633	12.	12.	12.	1	0	0	-110.00	691.15	860.00

*SECNO 19977.000

3470 ENCROACHMENT STATIONS= 1.0 860.0 TYPE= 1 TARGET= 859.000

19977.00	7.35	725.85	0.	725.24	725.93	.08	.00	.01	724.00
1555.	949.	409.	197.	485.	127.	165.	263.	151.	724.00
2.90	1.96	3.21	1.19	.030	.040	.030	.077	718.50	167.98
.001012	1.	1.	1.	2	0	0	0.	692.02	860.00

*SECNO 20020.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 140.0 850.0 TYPE= 1 TARGET= 710.000

44FT U/S PRIVATE FOOT BRIDGE (R)

20020.00	7.32	725.92	0.	725.34	726.03	.11	.09	.02	724.10
1555.	697.	511.	347.	077.	127.	156.	264.	152.	724.10
2.91	1.46	4.03	2.23	.100	.080	.040	.077	718.60	168.55
.006400	43.	43.	43.	0	0	0	0.	681.45	850.00

CCHV= .300 CEHV= 1.000
*SECNO 20280.000
3280 CROSS SECTION 20280.00 EXTENDED 1.40 FEET

2250FT U/S TEXTILE ROAD BRIDGE (COE VS-12) CROSS SECTION T

20280.00	7.11	726.41	0.	725.68	726.43	.02	.36	.03	723.00
1555.	758.	212.	585.	1030.	118.	625.	270.	156.	721.60
2.98	.74	1.80	.94	.090	.070	.090	.077	719.30	0.
.000707	200.	260.	250.	2	0	0	0.	715.60	715.60

*SECNO 21580.000

3470 ENCROACHMENT STATIONS= 480.0 540.0 TYPE= 1 TARGET= 60.000
ELENCL= 727.30 ELENCR= 100000.00

0 84FT D/S SIONY CREEK ROAD BRIDGE (COE VS-13)

21580.00	8.29	728.49	0.	726.72	728.77	.28	2.08	.26	725.40
1555.	536.	864.	155.	350.	159.	55.	305.	172.	724.30
3.07	1.53	5.43	2.82	.090	.070	.090	.076	720.20	167.59
.006406	1340.	1300.	1250.	3	0	0	0.	372.41	540.00

*SECNO 21630.000

3470 ENCROACHMENT STATIONS= 493.0 530.0 TYPE= 1 TARGET= 37.000
ELENCL= 727.60 ELENCR= 100000.00

34FT D/S STONY CREEK ROAD BRIDGE (R COE VS-13) CROSS SECTION U

21630.00	8.63	728.83	0.	727.07	729.18	.35	.35	.07	725.40
1555.	528.	986.	41.	354.	168.	18.	306.	173.	724.30
3.07	1.49	5.88	2.28	.090	.070	.090	.076	720.20	146.78
.006986	50.	50.	50.	2	0	0	0.	383.22	530.00

*SECNO 21804.000

3470 ENCROACHMENT STATIONS= 500.0 524.0 TYPE= 1 TARGET= 24.000
ELENCL= 727.90 ELENCR= 100000.00

D/S FACE OF STONY CREEK ROAD BRIDGE (COE VS-14) CONC SLAB AND

HEADWALLS

21804.00	8.92	729.12	0.	727.33	729.48	.37	.29	.01	725.40
1555.	570.	985.	0.	350.	165.	0.	306.	173.	100000.00
3.08	1.63	5.97	0.	.090	.070	.090	.076	720.20	126.01
.009499	40.	34.	28.	2	0	0	0.	397.99	524.00

SPECIAL BRIDGE

SB	XK	XKOR	COEQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	=0.	1.70	3.00	=0.	20.00	=0.	143.20	.30	721.00	721.00

*SECNO 21836.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

PRESSURE AND WEIR FLOW

reasonable

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
732.23	730.28	0.	604.	956.	143.	177.	728.90	729.40

3470 ENCROACHMENT STATIONS= 500.0 524.0 TYPE= 1 TARGET= 24.000
ELENCL= 728.80 ELENCR= 100000.00

U/S FACE OF STONY CREEK ROAD BRIDGE (R) CONC SLAB AND HEADWALLS

21836.00	9.91	730.11	0.	727.50	730.29	.18	.81	0.	725.40
1555.	716.	839.	0.	480.	189.	0.	307.	173.	100000.00
3.08	1.49	4.44	0.	.040	.040	.040	.076	720.20	0.
.001539	32.	32.	32.	2	0	4	0.	524.00	524.00

CCHV= .300 CEHV= .500

*SECNO 21870.000

3470 ENCROACHMENT STATIONS= 500.0 575.0 TYPE= 1 TARGET= 75.000
ELENCL= 728.30 ELENCR= 100000.00

34FT U/S STONY CREEK ROAD BRIDGE (R COE VS-13)

21870.00	10.13	730.33	0.	727.94	730.36	.03	.02	.05	725.40
1555.	794.	375.	386.	757.	207.	262.	307.	174.	724.30
3.09	1.05	1.82	1.47	.040	.060	.060	.076	720.20	0.
.000423	25.	34.	50.	1	0	0	0.	575.00	575.00

*SECNO 21920.000

3470 ENCROACHMENT STATIONS= 500.0 625.0 TYPE= 1 TARGET= 125.000
ELENCL= 727.80 ELENCR= 100000.00

84FT U/S STONY CREEK ROAD BRIDGE (R)

21920.00	10.17	730.37	0.	728.03	730.38	.01	.01	.00	725.40
1555.	781.	255.	519.	957.	208.	521.	309.	174.	724.30
3.10	.82	1.22	1.00	.040	.060	.060	.076	720.20	0.
.000186	50.	50.	50.	1	0	0	0.	625.00	625.00

*SECNO 22390.000

3470 ENCROACHMENT STATIONS= .0 1000.0 TYPE= 1 TARGET= 999.999

554FT U/S STONY CREEK ROAD BRIDGE (COE VS-15) CROSS SECTION

23390.00	7.64	730.44	0.	728.27	730.45	.01	.01	.00	727.10	
1888.	1031.	120.	737.	1020.	146.	1231.	328.	181.	724.60	
3.23	1.01	.82	.60	.040	.080	.060	.076	720.80	.00	
.000157	300.	470.	500.	2	0	0	0.	908.73	908.73	

*SECNO 23390.000

3470 ENCROACHMENT STATIONS= 130.0 1000.0 TYPE= 1 TARGET= 870.000

1804FT U/S STONY CREEK ROAD BRIDGE (COE VS-16) CROSS SECTION W

23390.00	7.77	730.77	0.	729.27	730.89	.11	.39	.05	729.00
1888.	729.	730.	430.	473.	185.	360.	362.	196.	727.00
3.33	1.54	3.94	1.19	.100	.080	.100	.077	723.00	136.30
.004577	780.	1000.	900.	2	0	0	0.	622.18	758.49

*SECNO 23440.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 85.0 810.0 TYPE= 1 TARGET= 725.000

44FT D/S PRIVATE BRIDGE (H COE VS-16A)

23440.00	7.91	731.01	0.	729.68	731.05	.04	.15	.02	728.10
1888.	711.	443.	734.	591.	164.	710.	363.	197.	728.00
3.34	1.20	2.70	1.03	.100	.080	.100	.077	723.10	130.73
.002063	50.	50.	50.	2	0	0	0.	679.27	810.00

*SECNO 23483.000

3470 ENCROACHMENT STATIONS= 42.0 855.0 TYPE= 1 TARGET= 813.000

23483.00	7.95	731.05	0.	729.73	731.09	.04	.04	.00	728.10
1888.	719.	440.	729.	602.	165.	742.	364.	198.	728.00
3.35	1.19	2.67	.98	.050	.040	.050	.077	723.10	129.40
.000499	43.	43.	43.	2	0	0	0.	(725.60)	855.00

*SECNO 23484.000 ELTRD = 728.2 < 731.07 ⇒ TW over road

3370 NORMAL BRIDGE,NRD= 14 MIN ELTRD= 728.20 MAX ELLC= 728.60

3470 ENCROACHMENT STATIONS= 42.0 855.0 TYPE= 1 TARGET= 813.000

D/S FACE OF PRIVATE BRIDGE (COE VS-16A) STEEL BEAMS W/W//D DECK

23484.00	7.97	731.07	0.	729.75	731.10	.03	.00	.00	728.10
1888.	812.	186.	890.	556.	129.	721.	364.	198.	728.00
3.35	1.46	1.45	1.23	.050	.040	.050	.077	723.10	129.13
.000827	1.	1.	1.	1	0	0	-107.90	725.87	855.00

O/H = 2.87 < 3.9 ⇒ high submergence

*SECNO 23496.000

3370 NORMAL BRIDGE,NRD= 14 MIN ELTRD= 728.20 MAX ELLC= 728.60

3470 ENCROACHMENT STATIO S= 3[illegible]0 975.0 TYPE= 1 TARGET= 945.000

U/S FACE OF PRIVATE BRIDGE (R COE VS-16A)

23496.00	7.98	731.08	0.	729.77	731.11	.03	.01	.00	728.10
1888.	816.	186.	886.	561.	129.	729.	365.	198.	728.00
3.35	1.46	1.44	1.22	.050	.040	.050	.077	723.10	128.63
.000818	12.	12.	12.	0	0	0	-107.90	739.54	868.17

*SECNO 23497.000

3470 ENCROACHMENT STATIONS= 30.0 975.0 TYPE= 1 TARGET= 945.000

23497.00	7.97	731.07	0.	729.76	731.11	.04	.00	.01	728.10
1888.	723.	437.	728.	609.	166.	754.	365.	198.	728.00
3.35	1.19	2.64	.97	.050	.040	.050	.077	723.10	128.53
.000486	1.	1.	1.	0	0	0	0.	739.94	868.47

*SECNO 23540.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

44FT U/S PRIVATE BRIDGE (R COE VS-16A)

23540.00	8.02	731.12	0.	729.81	731.15	.03	.03	.00	728.10
1888.	740.	399.	749.	617.	166.	767.	366.	199.	728.00
3.36	1.20	2.40	.98	.090	.080	.090	.077	723.10	127.57
.001589	43.	43.	43.	1	0	0	0.	743.63	871.19

*SECNO 24710.000

3470 ENCROACHMENT STATIONS= .0 650.0 TYPE= 1 TARGET= 649.999

3124FT U/S STONY CREEK ROAD BRIDGE (COE VS-17) CROSS SECTION X

24710.00	8.77	733.17	0.	731.68	733.24	.07	2.07	.02	730.20
1888.	38.	925.	924.	40.	326.	752.	402.	215.	731.40
3.52	.95	2.84	1.23	.090	.080	.090	.077	724.40	172.98
.001987	1170.	1170.	1170.	2	0	0	0.	477.02	650.00

1490 NH CARD USED
*SECNO 25870.000
3280 CROSS SECTION 25870.00 EXTENDED 2.59 FEET

Δ 1.92

Δ 6.4 CX

3470 ENCROACHMENT STATIONS= .0 270.0 TYPE= 1 TARGET= 269.999

4284FT U/S STONY CREEK ROAD BRIDGE (COE VS-18) CROSS SECTION Y

25870.00	4.29	735.09	0.	733.60	735.12	.03	1.86	.01	733.10
506.	152.	92.	262.	100.	48.	247.	421.	224.	734.70
3.74	1.53	1.93	1.06	.040	.050	.066	.077	730.80	20.10
.001100	1160.	1160.	1000.	1	0	0	0.	249.90	270.00

*SECNO 26143.000

3470 ENCROACHMENT STATIONS= .0 100.0 TYPE= 1 TARGET= 99.999

172FT D/S FROM WEIR IN RETENTION POND (TRANSITION TO CREEK)

26143.00	4.31	735.31	0.	734.36	735.69	.38	.40	.18	734.00
506.	55.	301.	150.	23.	51.	45.	422.	224.	734.00
3.76	2.40	5.91	3.37	.030	.030	.030	.077	731.00	19.47
.003401	273.	270.	150.	2	0	0	0.	80.53	100.00

*SECNO 26191.000
3280 CROSS SECTION 26191.00 EXTENDED .10 FEET

3470 ENCROACHMENT STATIONS= .0 75.0 TYPE= 1 TARGET= 74.999

124FT D/S FROM WEIR IN RETENTION POND (TRANSITION TO CREEK)

26191.00	4.99	735.59	0.	734.58	735.82	.23	.08	.05	734.00
506.	18.	421.	67.	11.	103.	30.	422.	224.	734.00
3.76	1.71	4.10	2.20	.030	.030	.030	.077	730.60	18.74
.001174	48.	48.	32.	2	0	0	0.	56.26	75.00

*SECNO 26231.000
3280 CROSS SECTION 26231.00 EXTENDED .05 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= .0 55.0 TYPE= 1 TARGET= 54.999

84FT D/S FROM WEIR IN RETENTION POND (TRANSITION TO CREEK)

26231.00	4.29	735.55	0.	734.58	735.98	.43	.06	.10	734.00
506.	12.	480.	14.	6.	89.	6.	422.	224.	734.00
3.76	2.14	5.39	2.35	.030	.027	.030	.077	731.30	18.62
.001950	40.	40.	25.	2	0	0	0.	36.38	55.00

*SECNO 26241.000
3280 CROSS SECTION 26241.00 EXTENDED .06 FEET

74FT D/S FROM WEIR IN RETENTION POND (TRANSITION TO CREEK)

26241.00	4.55	735.55	734.32	734.59	736.03	.48	.02	.02	735.50
506.	0.	503.	3.	0.	90.	8.	422.	225.	735.50
3.76	.02	5.56	.35	.030	.027	.030	.077	731.00	24.72
.002289	10.	10.	7.	2	15	0	0.	161.28	186.00

*SECNO 26273.000
3280 CROSS SECTION 26273.00 EXTENDED .83 FEET

3470 ENCROACHMENT STATIONS= .0 65.0 TYPE= 1 TARGET= 64.999

42FT D/S FROM WEIR IN RETENTION POND (TRANSITION TO CREEK)

26275.00	4.83	735.83	0.	734.64	736.13	.30	.05	.05	736.50	
506.	0.	499.	7.	0.	113.	7.	422.	225.	735.50	
3.76	0.	4.41	.87	.030	.027	.030	.077	731.00	20.00	
.001176	32.	32.	20.	2	0	0	0.	45.00	65.00	

*SECNO 26315.000
3280 CROSS SECTION 26315.00 EXTENDED .93 FEET

3470 ENCROACHMENT STATIONS= .0 107.0 TYPE= 1 TARGET= 106.999

D/S FACE OF WEIR IN RETENTION POND CROSS SECTION 7

26315.00	4.93	735.93	0.	734.65	736.17	.23	.02	.02	736.50
506.	0.	467.	39.	0.	116.	35.	422.	225.	735.50
3.77	0.	4.03	1.14	.012	.012	.012	.077	731.00	20.00
.000189	42.	42.	42.	2	0	0	0.	87.00	107.00

THIS RUN EXECUTED 30 AUG 79 11.12.50

****
HEC2 RELEASE DATED NOV 76 UPDATED JULY 1979
ERROR CORR = 01,02,03
MODIFICATION = 50,51,52,53
****

T1 YPSILANTI TOWNSHIP FIS
T2 PAINT CREEK
T3 500 YR FLOW

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-0.	5.	-0.	-0.	-0.	-0.	-0.	-0.	690.000	-0.

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15,000	-0.	-1.000	-0.	-0.	-0.	-0.	-0.	-0.	-0.

PRINTED IN U.S.A.

*PROF 4

CCHV= .100 CEHV= .300

*SECNO 0.

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

comparision with DNR 1000 cfs profile

2000FT D/S BEMIS ROAD BRIDGE (COE VS=1)

0.	6.90	690.00	0.	690.00	690.03	.03	0.	0.	688.00
952.	424.	362.	166.	301.	229.	170.	0.	0.	688.00
0.	1.41	1.58	.97	.040	.075	.040	0.	683.10	21.05
.000880	0.	0.	0.	0	0	0	0.	513.95	535.00

*SECNO 200.000

3470 ENCROACHMENT STATIONS= 1.0 600.0 TYPE= 1 TARGET= 599.000

1800FT D/S BEMIS ROAD BRIDGE (R)

200.00	6.78	690.20	0.	689.12	690.23	.04	.20	.00	688.32
952.	416.	394.	142.	271.	222.	139.	3.	2.	688.32
.04	1.53	1.77	1.02	.040	.075	.040	.075	683.42	28.08
.001153	200.	200.	200.	1	0	0	0.	500.23	528.32

*SECNO 400.000

3470 ENCROACHMENT STATIONS= 1.0 600.0 TYPE= 1 TARGET= 599.000

1600FT D/S BEMIS ROAD BRIDGE (R)

400.00	6.70	690.44	0.	689.71	690.48	.04	.25	.00	688.64
952.	411.	412.	129.	257.	219.	124.	6.	5.	688.64
.07	1.60	1.88	1.04	.040	.075	.040	.075	683.74	31.62
.001327	200.	200.	200.	2	0	0	0.	493.33	524.96

*SECNO 600.000

3470 ENCROACHMENT STATIONS= 1.0 600.0 TYPE= 1 TARGET= 599.000

1400FT D/S BEMIS ROAD BRIDGE (R)

600.00	6.65	690.71	0.	690.19	690.76	.05	.28	.00	688.96
952.	407.	424.	121.	247.	217.	114.	9.	7.	688.96
.10	1.65	1.96	1.06	.040	.075	.040	.075	684.06	33.96
.001459	200.	200.	200.	2	0	0	0.	488.78	522.74

*SECNO 800.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1200FT D/S BEMIS ROAD BRIDGE (R)

800.00	6.63	691.01	0.	690.50	691.06	.05	.30	.00	689.28
952.	404.	433.	115.	241.	215.	108.	11.	9.	689.28
.13	1.68	2.01	1.07	.040	.075	.040	.075	684.38	35.51
.001554	200.	200.	200.	1	0	0	0.	485.75	521.26

CCHV= .500 CEHV= .900

*SECNO 1000.000

3470 ENCROACHMENT STATIONS= 50.0 525.0 TYPE= 1 TARGET= 475.000

1000FT D/S BEMIS ROAD BRIDGE (COE VS=2)

1000.00	6.51	691.21	0.	690.61	691.24	.02	.16	.01	688.70
952.	595.	287.	70.	473.	243.	100.	14.	11.	689.00
.18	1.26	1.18	.70	.040	.075	.040	.075	684.70	50.00
.000480	200.	200.	200.	2	0	0	0.	475.00	525.00

*SECNO 1200.000

3470 ENCROACHMENT STATIONS= 50.0 500.0 TYPE= 1 TARGET= 450.000

800FT D/S BEMIS ROAD BRIDGE (R)

1200.00	6.43	691.33	0.	690.67	691.37	.03	.12	.01	688.90
952.	524.	354.	73.	349.	238.	85.	18.	15.	689.20
.22	1.50	1.49	.86	.040	.075	.040	.075	684.90	50.00
.000775	200.	200.	200.	2	0	0	0.	433.03	483.03

*SECNO 1400.000

3470 ENCROACHMENT STATIONS= 100.0 450.0 TYPE= 1 TARGET= 350.000

600FT D/S BEMIS ROAD BRIDGE (R)

1400.00	6.21	691.51	0.	690.78	691.56	.05	.18	.01	688.90
952.	452.	416.	84.	255.	236.	81.	21.	15.	689.40
.25	1.77	1.76	1.04	.040	.075	.040	.075	685.30	100.00
.001100	200.	200.	200.	2	0	0	0.	350.00	450.00

*SECNO 1600.000

3470 ENCROACHMENT STATIONS= 150.0 400.0 TYPE= 1 TARGET= 250.000

400FT D/S BEMIS ROAD BRIDGE (R)

1600.00	6.46	691.76	0.	690.95	691.83	.06	.25	.01	689.30
952.	367.	485.	100.	176.	238.	75.	23.	17.	689.60
.28	2.08	2.04	1.34	.040	.075	.040	.075	685.30	150.00
.001453	200.	200.	200.	2	0	0	0.	250.00	400.00

*SECNO 1800.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSIA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 200.0 350.0 TYPE= 1 TARGET= 150.000

200FT D/S BEMIS ROAD BRIDGE (R)

1800.00	6.59	692.09	0.	691.16	692.18	.09	.33	.03	689.50
952.	222.	612.	118.	89.	247.	60.	25.	17.	689.80
.30	2.51	2.48	1.96	.040	.075	.040	.075	685.50	200.00
.002061	150.	200.	250.	2	0	0	0.	150.00	350.00

*SECNO 1900.000

3470 ENCROACHMENT STATIONS= 236.0 334.0 TYPE= 1 TARGET= 98.000

100FT D/S BEMIS ROAD BRIDGE (ZW 107+50)

691.14

1900.00	6.81	692.41	0.	691.35	692.66	.25	.33	.14	691.90
952.	54.	767. Δ1.27	131.	23.	183.	36.	26.	18.	691.10
.31	2.36	4.18	3.68	.040	.075 0	.040	.075	685.60	236.00
.006314	100.	100.	100.	2	0	0	0.	95.63	331.63

238

DNA run started
80' d/s Bemis Rd
1000 cfs @ 691.14
slope-area .0065

*SECNO 1950.000
3280 CROSS SECTION 1950.00 EXTENDED 2.25 FEET

3470 ENCROACHMENT STATIONS= 200.0 255.0 TYPE= 1 TARGET= 55.000

50FT D/S BEMIS ROAD BRIDGE (R COE VS-4)

1950.00	7.45	692.75	0.	691.56	692.96	.21	.29	.02	691.20
952.	0.	952.	0.	0.	257.	0.	26.	18.	100000.10
.31	0.	3.71	0.	.040	.075 0	.040	.075	685.50	200.00
.005215	50.	50.	50.	2	0	0	0.	55.00	255.00

*SECNO 1985.000

3470 ENCROACHMENT STATIONS= 170.0 197.0 TYPE= 1 TARGET= 27.000

1985.00	7.75	692.85	0.	691.60	693.31	.46	.13	.22	693.70
952.	0.	952.	0.	0.	175.	0.	26.	18.	100000.00
.31	0.	5.43	0.	.030	.040	.030	.074	685.10	170.00
.002735	49.	35.	21.	2	0	0	0.	27.00	197.00

*SECNO 1986.000

3370 NORMAL BRIDGE,NRD= 13 MIN ELTRD= 693.30 MAX ELLC= 692.70

3470 ENCROACHMENT STATIONS= 170.0 197.0 TYPE= 1 TARGET= 27.000

D/S FACE OF BEMIS ROAD BRIDGE (COE VS-3)CONC SLAB AND WINGWALLS

691.76 Δ1.1

1986.00	7.76	692.86	0.	691.60	693.34	.48	.00	.02	693.70
952.	0.	952.	0.	0.	171.	0.	26.	18.	100000.00
.31	0.	5.56	0.	.030	.040	.030	.074	685.10	170.00
.006673	1.	1.	1.	0	0	0	-4.29	27.00	197.00

*SECNO 2014.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	IWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOB	TTOTAL	TDC	TCOUT	CODAR	TOP ID	FROST

3370 NORMAL BRIDGE,NRD= 13 MIN ELTRD= 693.30 MAX ELLC= 692.70

3470 ENCROACHMENT STATIONS= 170.0 197.0 TYPE= 1 TARGET= 27.000

U/S FACE OF BEMIS ROAD BRIDGE (R COE VS3)CONC SLAB AND WINGWALLS

2014.00	7.94	693.04	0.	691.63	693.52	.48	.19	0.	693.70
952.	0.	952.	0.	0.	171.	0.	26.	18.	100000.00
.31	0.	5.56	0.	.030	.040	.030	.074	685.10	170.00
.006673	28.	28.	28.	2	0	0	-9.28	27.00	197.00

*SECNO 2015.000

3470 ENCROACHMENT STATIONS= 170.0 197.0 TYPE= 1 TARGET= 27.000

2015.00	8.04	693.14	0.	691.64	693.56	.42	.00	.03	693.70
952.	0.	952.	0.	0.	183.	0.	26.	18.	100000.00
.31	0.	5.20	0.	.030	.040	.030	.074	685.10	170.00
.002421	1.	1.	1.	2	0	0	0.	27.00	197.00

CCHV= .500 CEHV= .900
*SECNO 2050.000

3470 ENCROACHMENT STATIONS= 164.0 291.0 TYPE= 1 TARGET= 127.000

36FT U/S BEMIS ROAD BRIDGE (R COE VS-4)

2050.00	8.59	693.74	0.	691.80	693.80	.06	.07	.18	691.05
952.	114.	708.	131.	90.	319.	98.	27.	18.	690.65
.32	1.26	2.21	1.33	.080	.080	.080	.074	685.15	164.00
.001465	21.	35.	49.	2	0	0	0.	127.00	291.00

*SECNO 2100.000

3470 ENCROACHMENT STATIONS= 214.0 441.0 TYPE= 1 TARGET= 227.000

86FT U/S BEMIS ROAD BRIDGE (COE VS-4) CROSS SECTION A

2100.00	8.64	693.84	0.	691.88	693.87	.04	.06	.01	691.90
952.	145.	564.	243.	164.	317.	226.	27.	18.	690.70
.33	.89	1.78	1.07	.080	.080	.080	.074	685.20	214.00
.000961	75.	50.	25.	0	0	0	0.	227.00	441.00

CCHV= .300 CEHV= .500
*SECNO 2430.000

416FT U/S BEMIS ROAD BRIDGE (ZW 101+00)

2430.00	7.64	694.24	0.	692.63	694.29	.04	.41	.00	693.40
952.	229.	699.	24.	278.	365.	49.	32.	21.	693.80
.38	.82	1.91	.50	.080	.080	.080	.075	686.60	56.51
.001804	300.	330.	300.	2	0	0	0.	467.28	523.79

*SECNO 2990.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	IWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITTIAL	IDC	ICO T	CORAR	TOP ID	FDST

976FT U/S BEMIS ROAD BRIDGE (ZW 95+00) CROSS SECTION B

2990.00	8.45	695.15	0.	693.97	695.22	.06	.92	.01	693.30
952.	414.	433.	105.	186.	218.	75.	40.	25.	693.20
.46	2.22	1.99	1.41	.040	.080	.040	.076	686.70	171.79
.001489	590.	560.	470.	2	0	0	0.	218.58	390.37

*SECNO 3390.000

3265 DIVIDED FLOW

3280 CROSS SECTION 3390.00 EXTENDED 2.53 FEET

1376FT U/S BEMIS ROAD BRIDGE (ZW 90+75)

3390.00	8.03	695.53	0.	694.44	695.55	.02	.32	.01	695.60
952.	712.	240.	0.	613.	209.	0.	46.	28.	696.20
.56	1.16	1.15	0.	.040	.080	.040	.076	687.50	0.
.000499	400.	400.	400.	2	0	0	0.	484.60	541.73

*SECNO 4040.000

3265 DIVIDED FLOW

3280 CROSS SECTION 4040.00 EXTENDED 1.98 FEET

2026FT U/S BEMIS ROAD BRIDGE (ZW 84+00) CROSS SECTION C

4040.00	7.68	696.18	0.	695.26	696.30	.13	.70	.05	697.70
952.	426.	526.	0.	157.	175.	0.	54.	33.	698.90
.62	2.71	3.01	0.	.040	.080	.040	.077	688.50	0.
.003801	650.	650.	650.	0	0	0	0.	174.56	406.35

CCHV= .500 CEHV= .900

*SECNO 4570.000

3470 ENCROACHMENT STATIONS= 46.0 600.0 TYPE= 1 TARGET= 554.000

2556FT U/S BEMIS ROAD BRIDGE (ZW 79+00)

4570.00	8.23	697.73	0.	696.74	697.79	.06	1.45	.03	697.20
952.	534.	418.	0.	279.	197.	0.	59.	36.	699.30
.69	1.91	2.12	0.	.040	.080	.040	.077	689.50	46.00
.002034	540.	530.	510.	3	0	0	0.	278.95	324.95

*SECNO 5090.000

3470 ENCROACHMENT STATIONS= 158.0 402.0 TYPE= 1 TARGET= 244.000

3076FT U/S BEMIS ROAD BRIDGE (ZW 74+00) CROSS SECTION D

5090.00	8.65	698.95	0.	697.92	699.06	.12	1.22	.05	697.80
952.	318.	634.	0.	135.	219.	0.	64.	38.	698.70
.75	2.35	2.89	.48	.040	.080	.040	.077	690.30	158.00
.002805	510	520	530	2	0	0	0	1.3	301.80

*SECNO 5450.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
3470 ENCROACHMENT STATIONS=		295.0	359.0	TYPE=	1	TARGET=		64.000	
86FT D/S MARTZ ROAD BRIDGE (ZW 69+00)									
5450.00	8.55	699.95	0.	698.51	700.18	.24	1.01	.11	697.70
952.	78.	874.	0.	25.	220.	0.	67.	39.	702.90
.77	3.09	3.97	0.	.040	.060	.040	.076	691.40	295.00
.002950	322.	360.	398.	2	0	0	0.	49.08	344.08

*SECNO 5500.000

3470 ENCROACHMENT STATIONS=		306.0	347.0	TYPE=	1	TARGET=		41.000	
36FT D/S MARTZ ROAD BRIDGE (R ZW 69+00)									
5500.00	8.70	700.10	0.	698.58	700.57	.28	.16	.04	697.70
952.	0.	952.	0.	0.	226.	0.	67.	39.	100000.00
.78	0.	4.22	0.	.040	.060	.040	.076	691.40	306.00
.003486	20.	50.	80.	0	0	0	0.	38.22	344.22

*SECNO 5525.000

3470 ENCROACHMENT STATIONS=		310.0	623.0	TYPE=	1	TARGET=		-310.000	
D/S FACE OF MARTZ ROAD BRIDGE HEADWALL (R ZW 68+00)									
5525.00	8.95	700.15	0.	698.60	700.51	.36	.06	.07	701.50
952.	0.	952.	0.	0.	198.	0.	67.	39.	701.50
.78	0.	4.80	0.	.030	.040	.030	.076	691.20	310.00
.001786	25.	25.	25.	2	0	0	0.	26.00	336.00

*SECNO 5535.000

3470 ENCROACHMENT STATIONS=		310.0	623.0	TYPE=	1	TARGET=		-310.000	
5535.00	8.97	700.17	0.	698.61	700.53	.35	.02	.00	701.50
952.	0.	952.	0.	0.	199.	0.	67.	39.	701.50
.78	0.	4.78	0.	.030	.040	.030	.076	691.20	310.00
.001769	10.	10.	10.	0	0	0	0.	26.00	336.00

*SECNO 5536.000

3370 NORMAL BRIDGE,NRD= 10 MIN ELTRD= 699.50 MAX ELLC= 700.30

3470 ENCROACHMENT STATIONS=		310.0	623.0	TYPE=	1	TARGET=		-310.000	
D/S FACE OF MARTZ ROAD BRIDGE (ZW 68+00) CONC SLAB AND WINGWALLS									
699.97									
5536.00	8.97	700.17	0.	698.61	700.53	.36	.00	.00	701.50
952.	0.	952.	0.	0.	199.	0.	67.	39.	701.50
.78	0.	4.78	0.	.030	.040	.030	.076	691.20	310.00
.002045	1	1	1	0	0	0	0	26.00	336.00

*SECNO 5564.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3370 NORMAL BRIDGE,NRD= 10 MIN ELTRD= 699.50 MAX ELLC= 700.30

3470 ENCROACHMENT STATIONS= 310.0 623.0 TYPE= 1 TARGET= -310.000

U/S FACE OF MARTZ ROAD BRIDGE (R ZW68+00)CONC SLAB AND WINGWALLS

5564.00	9.04	700.24	0.	698.63	700.59	.35	.06	.00	701.50
952.	0.	952.	0.	0.	201.	0.	67.	39.	701.50
.78	0.	4.75	0.	.030	.040	.030	.076	691.20	310.00
.002009	28.	28.	28.	1	0	0	0.	26.00	336.00

*SECNO 5565.000

3470 ENCROACHMENT STATIONS= 310.0 623.0 TYPE= 1 TARGET= -310.000

5565.00	9.04	700.24	0.	698.63	700.59	.35	.00	.00	701.50
952.	0.	952.	0.	0.	201.	0.	67.	39.	701.50
.78	0.	4.74	0.	.030	.040	.030	.076	691.20	310.00
.001729	1.	1.	1.	0	0	0	0.	26.00	336.00

*SECNO 5575.000

3470 ENCROACHMENT STATIONS= 310.0 623.0 TYPE= 1 TARGET= -310.000

U/S FACE OF MARTZ ROAD BRIDGE HEADWALL (ZW 68+00)

5575.00	9.06	700.26	0.	698.64	700.61	.35	.02	.00	701.50
952.	0.	952.	0.	0.	201.	0.	67.	39.	701.50
.78	0.	4.73	0.	.030	.040	.030	.076	691.20	310.00
.001716	10.	10.	10.	0	0	0	0.	26.00	336.00

*SECNO 5600.000

3280 CROSS SECTION 5600.00 EXTENDED .06 FEET

3470 ENCROACHMENT STATIONS= 281.0 364.0 TYPE= 1 TARGET= 83.000

36FT U/S MARTZ ROAD BRIDGE (R ZW 67+00)

5600.00	9.46	700.66	0.	698.71	700.76	.11	.03	.12	698.00
991.	151.	625.	215.	67.	229.	84.	68.	39.	697.40
.78	2.25	2.72	2.56	.040	.060	.040	.076	691.20	281.00
.001124	39.	25.	11.	2	0	0	0.	83.00	364.00

*SECNO 5650.000

3280 CROSS SECTION 5650.00 EXTENDED .20 FEET

3470 ENCROACHMENT STATIONS= 231.0 414.0 TYPE= 1 TARGET= 183.000

86FT U/S MARTZ ROAD BRIDGE (ZW 67+00) CROSS SECTION E

5650.00	9.60	700.80	0.	698.80	700.83	.03	.05	.04	698.00
991.	267.	323.	401.	217.	234.	278.	68.	39.	697.40
.79	1.23	1.38	1.44	.040	.080	.040	.075	691.20	231.00
.000281	80.	50.	40.	2	0	0	0.	183.00	414.00

CCHV= .300 CEHV= .500
*SECNO 6300.000

3265 DIVIDED FLOW

3280 CROSS SECTION 6300.00 EXTENDED 1.54 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	INA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= .0 560.0 TYPE= 1 TARGET= 559.999

736FT U/S MARTZ ROAD BRIDGE (ZW 61+00) CROSS SECTION F

6300.00	10.44	700.94	0.	698.95	700.96	.02	.15	.00	699.30
991.	22.	155.	814.	63.	228.	698.	81.	44.	690.50
.96	.35	.68	1.17	.040	.080	.040	.076	690.50	.00
.000147	650.	650.	650.	2	0	0	0.	426.18	560.00

*SECNO 6720.000

3265 DIVIDED FLOW

3280 CROSS SECTION 6720.00 EXTENDED 1.57 FEET

3470 ENCROACHMENT STATIONS= .0 1010.0 TYPE= 1 TARGET= 1009.999

1156FT U/S MARTZ ROAD BRIDGE (ZW 56+00)

6720.00	6.17	701.07	0.	698.95	701.08	.01	.12	.00	701.20
991.	68.	138.	785.	133.	144.	866.	94.	52.	701.30
1.13	.51	.96	.91	.040	.080	.040	.075	694.90	.00
.000437	390.	420.	550.	2	0	0	0.	995.71	1010.00

*SECNO 7080.000
3280 CROSS SECTION 7080.00 EXTENDED 1.69 FEET

3470 ENCROACHMENT STATIONS= .0 1125.0 TYPE= 1 TARGET= 1124.999

1516FT U/S MARTZ ROAD BRIDGE (R ZW 52+00) CROSS SECTION G

7080.00	7.49	701.19	0.	700.18	701.21	.02	.12	.00	700.30
991.	28.	163.	801.	49.	140.	706.	100.	58.	701.10
1.19	.57	1.16	1.13	.040	.080	.040	.076	693.70	226.03
.000560	400.	360.	220.	2	0	0	0.	898.97	1125.00

*SECNO 7670.000

3265 DIVIDED FLOW

3280 CROSS SECTION 7670.00 EXTENDED 2.08 FEET

3470 ENCROACHMENT STATIONS= .0 1125.0 TYPE= 1 TARGET= 1124.999

2106FT U/S MARTZ ROAD BRIDGE (ZW 46+00)

7670.00	6.38	701.58	0.	700.82	701.71	.14	.44	.06	701.80
991.	0.	355.	636.	0.	109.	226.	104.	62.	702.60
1.22	0.	3.25	2.82	.040	.080	.040	.079	695.20	337.27
.005530	630.	590.	250.	2	0	0	0.	266.25	1125.00

*SECNO 8370.000

3280 CROSS SECTION 8370.00 EXTENDED .57 FEET

3470 ENCROACHMENT STATIONS= 45.0 400.0 TYPE= 1 TARGET= 355.000

2806FT U/S MARTZ ROAD BRIDGE (ZW 39+00) CROSS SECTION H

8370.00	7.16	703.76	0.	702.99	703.83	.07	2.10	.02	702.70
991.	303.	286.	402.	210.	134.	165.	111.	67.	702.80
1.32	1.45	2.13	2.44	.040	.080	.040	.079	696.60	45.00
.001821	680.	700.	730.	2	0	0	0.	355.00	400.00

*SECNO 8850.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	IIRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 1.0 500.0 TYPE= 1 TARGET= 499.000

3286FT U/S MARTZ ROAD BRIDGE (ZW 32+00) CROSS SECTION I

8850.00	6.69	704.59	0.	703.95	704.64	.05	.81	.00	702.40
991.	387.	240.	364.	197.	126.	223.	117.	71.	703.90
1.39	1.97	1.91	1.63	.040	.080	.040	.079	697.90	151.73
.001472	480.	480.	520.	3	0	0	0.	348.27	500.00

*SECNO 9520.000

3470 ENCROACHMENT STATIONS= 112.0 600.0 TYPE= 1 TARGET= -112.000

3956FT U/S MARTZ ROAD BRIDGE (ZW 27+00)

9520.00	7.09	705.99	0.	705.39	706.12	.13	1.44	.04	703.90
991.	649.	330.	12.	232.	106.	9.	124.	75.	705.20
1.45	2.79	3.11	1.34	.040	.080	.040	.079	698.90	112.00
.003894	620.	670.	640.	2	0	0	0.	221.20	333.20

CCHV= .500 CEHV= .900

*SECNO 10020.000

3280 CROSS SECTION 10020.00 EXTENDED 1.61 FEET

3470 ENCROACHMENT STATIONS= 150.0 515.0 TYPE= 1 TARGET= =150.000

4456FT U/S MARTZ ROAD BRIDGE (ZW 22+00) CROSS SECTION J

10020.00	6.31	707.01	0.	706.19	707.06	.05	.89	.04	705.90
991.	83.	188.	720.	88.	125.	389.	129.	78.	704.90
1.53	.95	1.51	1.85	.040	.080	.040	.079	700.70	150.00
.001022	500.	500.	500.	2	0	0	0.	365.00	515.00

*SECNO 10520.000

3470 ENCROACHMENT STATIONS= 60.0 336.0 TYPE= 1 TARGET= 276.000

86FT D/S MERRITT ROAD BRIDGE (ZW 17+00)

10520.00	6.98	707.68	0.	706.77	707.74	.05	.67	.01	704.80
991.	520.	445.	26.	347.	196.	19.	136.	82.	706.50
1.61	1.50	2.27	1.35	.060	.080	.050	.079	700.70	60.00
.001790	450.	500.	550.	3	0	0	0.	276.00	336.00

*SECNO 10570.000

3470 ENCROACHMENT STATIONS= 60.0 332.0 TYPE= 1 TARGET= 272.000

36FT D/S MERRITT ROAD BRIDGE (R ZW 17+00)

10570.00	6.84	707.71	0.	706.81	707.77	.06	.05	.01	704.97
991.	532.	443.	15.	318.	191.	13.	136.	82.	706.67
1.61	1.67	2.32	1.21	.040	.060	.040	.079	700.87	60.00
.001085	1.	50.	60.	1	0	0	0.	272.00	332.00

*SECNO 10605.000

3301 HV CHANGED MORE THAN HVINS

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 110.0 600.0 TYPE= 1 TARGET= =110.000

10605.00	6.72	707.72	0.	706.83	708.32	.59	.06	.48	711.50
991.	0.	991.	0.	0.	160.	0.	136.	82.	711.50
1.62	0.	6.18	0.	.030	.040	.030	.079	701.00	287.00
.003694	35.	35.	35.	2	0	0	0.	26.00	313.00

*SECNO 10606.000

3370 NORMAL BRIDGE,NRD= 10 MIN ELTRD= 707.60 MAX ELLC= 710.20

3470 ENCROACHMENT STATIONS= 110.0 600.0 TYPE= 1 TARGET= =110.000

D/S FACE OF MERRITT ROAD BRIDGE(ZW 16+00)CONC SLAB AND WINGWALLS

10606.00	6.73	707.73	0.	706.83	708.32	.59	.00	.00	711.50
991.	0.	991.	0.	0.	160.	0.	136.	82.	711.50

1.62	0.	6.18	0.	.050	.040	.050	.079	701.00	287.00	
.004851	1.	1.	1.	0	0	0	0.	26.00	313.00	

*SECNO 10634.000

3370 NORMAL BRIDGE,NRD= 10 MIN ELTRD= 707.60 MAX ELLC= 710.20

3470 ENCROACHMENT STATIONS= 120.0 600.0 TYPE= 1 TARGET= =120.000

U/S FACE OF MERRITT ROAD BRIDGE (R ZW 16+00)

10634.00	6.91	707.91	0.	706.87	708.47	.56	.13	.02	711.50	
991.	0.	991.	0.	0.	165.	0.	156.	82.	711.50	
1.62	0.	6.00	0.	.030	.040	.030	.079	701.00	287.00	
.004497	28.	28.	28.	2	0	0	0.	26.00	313.00	

*SECNO 10635.000

707.72

3470 ENCROACHMENT STATIONS= 120.0 600.0 TYPE= 1 TARGET= =120.000

10635.00	6.92	707.92	0.	706.87	708.47	.56	.00	.00	711.50	
991.	0.	991.	0.	0.	165.	0.	136.	82.	711.50	
1.62	0.	6.00	0.	.030	.040	.030	.079	701.00	287.00	
.003385	1.	1.	1.	0	0	0	0.	26.00	313.00	

*SECNO 10670.000

3280 CROSS SECTION 10670.00 EXTENDED .84 FEET

3470 ENCROACHMENT STATIONS= 215.0 335.0 TYPE= 1 TARGET= 120.000

36FT U/S MERRITT ROAD BRIDGE (R ZW 15+00)

10670.00	7.94	708.64	0.	707.00	708.77	.14	.09	.21	707.50	
994.	110.	792.	92.	61.	251.	41.	137.	82.	706.90	
1.62	1.80	3.16	2.26	.040	.060 .04	.040	.079	700.70	215.00	
.001903	50.	35.	22.	3	0	0	0.	120.00	335.00	

*SECNO 10720.000

3280 CROSS SECTION 10720.00 EXTENDED 1.03 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 165.0 385.0 TYPE= 1 TARGET= 220.000

86FT U/S MERRITT ROAD BRIDGE (ZW 15+00) CROSS SECTION 15

708.53

10720.00	7.99	708.83	0.	707.11	708.89	.06	.08	.04	707.64	
994.	213.	498.	283.	134.	253.	140.	137.	82.	707.04	
1.63	1.59	1.96	2.02	.040	.080 .04	.040	.079	700.84	165.00	
.001291	50.	50.	50.	2	0	0	0.	220.00	385.00	

CCHV= .300 CEHV= .500

*SECNO 11060.000

3470 ENCROACHMENT STATIONS= .0 450.0 TYPE= 1 TARGET= 449.999

426FT U/S MERRITT ROAD BRIDGE (ZW 12+00)

11060.00	7.53	709.33	0.	707.92	709.46	.13	.54	.04	707.80
994.	42.	384.	568.	26.	152.	176.	141.	84.	705.80
1.66	1.65	2.52	3.23	.040	.080	.040	.079	701.80	334.29
.001944	340.	340.	340.	2	0	0	0.	115.71	450.00

CCHV= .500 CEHV= .700

*SECNO 11450.000

3470 ENCROACHMENT STATIONS= 90.0 590.0 TYPE= 1 TARGET= 500.000

816FT U/S MERRITT ROAD BRIDGE (ZW 8+00) CROSS SECTION L

11450.00	7.60	709.90	0.	708.48	709.92	.02	.40	.06	708.10
994.	38.	275.	681.	43.	178.	741.	146.	86.	706.10
1.75	.88	1.55	.92	.050	.080	.080	.079	702.30	235.52
.000689	420.	390.	360.	2	0	0	0.	354.48	590.00

590

*SECNO 11860.000

3470 ENCROACHMENT STATIONS= 200.0 400.0 TYPE= 1 TARGET= 200.000

1226FT U/S MERRITT ROAD BRIDGE (ZW 3+00)

11860.00	6.16	710.36	0.	709.11	710.44	.08	.48	.04	708.70
994.	306.	459.	229.	143.	172.	159.	153.	88.	708.90
1.80	2.15	2.67	1.44	.050	.080 .04	.080	.079	704.20	200.00
.002603	440.	410.	370.	2	0	0	0.	200.00	400.00

*SECNO 12170.000

3280 CROSS SECTION 12170.00 EXTENDED 1.64 FEET

3470 ENCROACHMENT STATIONS= 253.0 294.0 TYPE= 1 TARGET= 41.000

35FT D/S WHITTAKER ROAD BRIDGE (R ZW -1+00) CROSS SECTION M

12170.00	7.34	711.64	0.	710.34	712.09	.45	1.39	.26	708.60
994.	116.	761.	117.	24.	134.	33.	155.	89.	707.60
1.82	4.84	5.68	3.54	.050	.080	.080	.079	704.30	253.00
.009738	330.	310.	270.	2	0	0	0.	41.00	294.00

*SECNO 12204.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	IWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
12204.00	7.49	711.79	0.	710.43	712.35	.55	.19	.07	714.20
994.	0.	994.	0.	0.	166.	0.	155.	89.	714.20
1.82	0.	5.98	0.	.030	.040	.030	.079	704.30	288.90
.003509	34.	34.	34.	2	0	0	0.	22.20	311.10

*SECNO 12205.000

3370 NORMAL BRIDGE,NRD= 10 MIN ELTRD= 713.00 MAX ELLC= 713.70

D/S FACE OF WHITTAKER ROAD BRIDGE(ZW 0+00)CONC SLAB AND HEADWALL

710.03

12205.00	7.50	711.80	0.	710.43	712.35	.55	.00	.00	714.20
994.	0.	994.	0.	0.	167.	0.	155.	89.	714.20
1.82	0.	5.97	0.	.030	.040	.030	.079	704.30	288.90
.005499	1.	1.	1.	0	0 .04	0	0.	22.20	311.10

*SECNO 12235.000

3370 NORMAL BRIDGE,NRD= 10 MIN ELTRD= 713.00 MAX ELLC= 713.70

U/S FACE OF WHITTAKER ROAD BRIDGE (R) CONC SLAB AND HEADWALL

710.41 Δ1.53

12235.00	7.70	712.00	0.	710.48	712.53	.52	.16	.01	714.20
994.	0.	994.	0.	0.	171.	0.	155.	89.	714.20
1.82	0.	5.81	0.	.030	.040	.030	.079	704.30	288.90
.005138	30.	30.	30.	2	0	0	0.	22.20 .04	311.10

*SECNO 12236.000

12236.00	7.71	712.01	0.	710.48	712.53	.52	.00	.00	714.20
994.	0.	994.	0.	0.	171.	0.	155.	89.	714.20
1.82	0.	5.81	0.	.030	.040	.030	.079	704.30	288.90
.003245	1.	1.	1.	0	0 .04	0	0.	22.20	311.10

1490 NH CARD USED

*SECNO 12270.000

3470 ENCROACHMENT STATIONS= 278.0 370.0 TYPE= 1 TARGET= 92,000

35FT U/S WHITTAKER ROAD BRIDGE (R ZW =1+00)

12270.00	8.36	712.74	0.	710.67	712.82	.08	.07	.22	708.48
994.	226.	395.	372.	113.	161.	157.	155.	89.	707.48
1.83	1.99	2.46	2.38	.060	.080 .04	.060	.079	704.38	278.00
.001419	34.	34.	34.	2	0	0	0.	92.00	370.00

*SECNO 12320.000

3280 CROSS SECTION 12320.00 EXTENDED 4.35 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 108.0 300.0 TYPE= 1 TARGET= 192.000

185FT U/S WHITTAKER ROAD BRIDGE (ZW =1+00)

711.83 Δ1.01

12320.00	8.34	712.84	0.	710.76	713.04	.19	.14	.08	708.60
2511.	510.	604.	1397.	195.	161.	375.	156.	89.	707.60
1.83	2.61	3.76	3.73	.060	.080 .04	.060	.079	704.50	108.00
.003330	30.	50.	70.	1	0	0	0.	192.00	300.00

QCHV= 200 QFHV= 400

*SECNO 12720.000

3470 ENCROACHMENT STATIONS= 1.0 850.0 TYPE= 1 TARGET= 849.000

485FT U/S WHITTAKER ROAD BRIDGE (ZW =4+00) CROSS SECTION N

12720.00	8.46	713.46	0.	711.12	713.49	.03	.42	.03	711.50
2511.	479.	576.	1457.	430.	364.	1093.	168.	92.	707.90
1.91	1.11	1.58	1.33	.060	.080	.060	.079	705.00	37.51
.00537	330.	400.	400.	2	0	0	0.	542.08	579.59

*SECNO 13640.000

1405FT U/S WHITTAKER ROAD BRIDGE (COE VS-6) CROSS SECTION O

13640.00	8.05	714.55	0.	712.22	714.74	.19	1.18	.06	713.70
2511.	1.	686.	1824.	1.	171.	562.	197.	102.	709.50
1.99	.94	4.01	3.25	.060	.080	.060	.079	706.50	306.59
.004626	780.	920.	1050.	2	0	0	0.	262.34	568.93

*SECNO 15270.000

3035FT U/S WHITTAKER ROAD BRIDGE (COE VS-7) CROSS SECTION P

15270.00	9.68	717.78	0.	715.30	717.83	.06	3.07	.03	712.40
2511.	61.	301.	2149.	41.	135.	1142.	245.	113.	711.90
2.22	1.48	2.23	1.88	.060	.080	.060	.079	708.10	188.79
.001037	1650.	1630.	1600.	3	0	0	0.	385.89	574.69

*SECNO 16020.000

3785FT U/S WHITTAKER ROAD BRIDGE (COE VS-8) CROSS SECTION Q

16020.00	9.28	718.78	0.	716.29	718.89	.11	1.04	.02	714.10
2511.	382.	816.	1313.	134.	252.	629.	253.	119.	716.70
2.30	2.84	3.24	2.09	.060	.080	.060	.079	709.50	307.32
.002479	800.	750.	640.	3	0	0	0.	405.87	713.19

*SECNO 17020.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

4785FT U/S WHITTAKER ROAD BRIDGE (COE VS-9) CROSS SECTION R

17020.00	8.64	720.84	0.	718.79	720.90	.07	2.00	.01	715.60
2511.	1128.	514.	869.	516.	199.	597.	278.	131.	718.90
2.43	2.19	2.58	1.46	.060	.080	.060	.080	712.20	193.32
.001789	1000.	1000.	900.	3	0	0	0.	648.37	841.69

CCHV= .500 CEHV= .800
1490 NH CARD USED
*SECNO 17520.000

3470 ENCROACHMENT STATIONS= .0 710.0 TYPE= 1 TARGET= 709.999

5285FT U/S WHITTAKER ROAD BRIDGE (C)

17520.00	8.14	721.44	0.	719.66	721.48	.04	.57	.01	715.60
2511.	245.	375.	1892.	159.	208.	1164.	294.	138.	718.90
2.51	1.54	1.80	1.63	.060	.080	.042	.080	713.30	56.97
.000807	470.	500.	500.	3	0	0	0.	653.03	710.00

*SECNO 17570.000

3470 ENCROACHMENT STATIONS= .0 670.0 TYPE= 1 TARGET= 669.999

5335FT U/S WHITTAKER ROAD BRIDGE (C)

17570.00	8.20	721.50	0.	719.77	721.54	.05	.06	.00	715.60
2511.	306.	373.	1832.	195.	210.	1033.	297.	139.	718.90
2.52	1.57	1.78	1.77	.060	.080	.040	.080	713.30	112.05
.000780	50.	50.	80.	2	0	0	0.	557.95	670.00

*SECNO 17800.000

3470 ENCROACHMENT STATIONS= .0 760.0 TYPE= 1 TARGET= 759.999

44FT D/S PRIVATE ROAD BRIDGE (C)

17800.00	7.71	721.71	0.	720.07	721.81	.09	.23	.04	720.00
2511.	59.	396.	2057.	35.	145.	843.	303.	142.	719.40
2.55	1.68	2.73	2.44	.030	.060	.040	.079	714.00	327.19
.001417	10.	230.	240.	2	0	0	0.	432.81	760.00

*SECNO 17844.000

3470 ENCROACHMENT STATIONS= .0 730.0 TYPE= 1 TARGET= 729.999

D/S FACE OF PRIVATE ROAD BRIDGE (COE VS-9A)

17844.00	7.78	721.78	0.	720.17	721.88	.11	.06	.01	720.40
2511.	51.	371.	2088.	22.	135.	807.	304.	142.	720.30
2.55	2.38	2.75	2.59	.030	.060	.040	.079	714.00	352.62
.001525	10.	44.	44.	2	0	0	0.	377.38	730.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	-0.	1.74	2.00	-0.	8.70	-0.	83.00	1.23	714.00	714.00

*SECNO 17856.000

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS= 746.504 EGLWC= 721.881 ELLC= 719.400 PCWSE= 721.776 ELTRD= 719.200

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3370 NORMAL BRIDGE,NRD= 14 MIN ELTRD= 719.20 MAX ELLC= 719.40

3470 ENCROACHMENT STATIONS= .0 730.0 TYPE= 1 TARGET= 729.999

U/S FACE OF PRIVATE ROAD BRIDGE (C)

17856.00	7.79	721.79	0.	720.21	721.91	.12	.02	.01	720.40	
2511.	57.	163.	2291.	22.	114.	810.	304.	142.	720.30	
2.55	2.60	1.43	2.83	.030	.060	.040	.079	714.00	352.58	
.001814	1.	12.	12.	1	0	0	-20.90	377.42	730.00	

*SECNO 17900.000

3470 ENCROACHMENT STATIONS= 240.0 750.0 TYPE= 1 TARGET= 510.000

44FT U/S PRIVATE ROAD BRIDGE (R)

17900.00	7.87	721.87	0.	720.28	722.03	.16	.08	.03	720.00	
2511.	89.	503.	1918.	41.	149.	603.	305.	142.	719.40	
2.56	2.16	3.38	3.18	.030	.060	.040	.079	714.00	445.62	
.002098	30.	44.	44.	1	0	0	0.	304.38	750.00	

*SECNO 17970.000

3470 ENCROACHMENT STATIONS= 205.0 630.0 TYPE= 1 TARGET= 425.000

27FT D/S TEXTILE ROAD BRIDGE (C)

17970.00	8.29	721.99	0.	720.38	722.17	.18	.12	.02	718.20	
2511.	1096.	595.	820.	326.	144.	275.	306.	143.	718.30	
2.56	3.37	4.13	2.98	.030	.060	.040	.079	713.70	205.00	
.002504	1.	70.	70.	2	0	0	0.	425.00	630.00	

*SECNO 17997.000

D/S FACE OF TEXTILE ROAD BRIDGE(COE VS10)CONC SLAB AND HEADWALLS

17997.00	8.34	722.04	0.	720.42	722.23	.19	.05	.00	718.20	
2511.	903.	701.	907.	344.	145.	300.	306.	143.	718.30	
2.57	2.63	4.83	3.02	.030	.040	.030	.079	713.70	184.57	
.001504	1.	27.	60.	1	0	0	0.	489.09	673.66	

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	=0.	2.08	3.00	=0.	15.60	=0.	86.60	.70	714.10	714.10

*SECNO 18043.000
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
749.19	722.63	0.	1892.	629.	87.	86.	718.70	722.20

3470 ENCROACHMENT STATIONS= 1.0 830.0 TYPE= 1 TARGET= 829.000

U/S FACE OF TEXTILE ROAD BRIDGE(R)

18043.00	10.01	723.71	0.	721.75	723.74	.03	1.51	0.	718.20	
2511.	1155.	349.	1007.	871.	178.	712.	308.	144.	718.30	
2.57	1.33	1.96	1.42	.030	.040	.030	.079	713.70	80.75	
.000187	46.	46.	46.	2	0	7	0.	680.85	761.60	

CCHV= .300 CEHV= .500

*SECNO 18070.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IOC	ICONT	CORAR	TOPWID	ENDST
18070.00	10.01	723.71	0.	721.85	723.75	.04	.01	.00	718.20
2549.	1121.	450.	978.	875.	179.	715.	309.	144.	718.30
2.58	1.28	2.52	1.37	.040	.040	.040	.079	713.70	79.98
.000310	35.	27.	15.	1	0	0	0.	682.28	762.25

3470 ENCROACHMENT STATIONS= 1.0 830.0 TYPE= 1 TARGET= 829.000

27FT U/S TEXTILE ROAD BRIDGE (R COE VS-11)

*SECNO 18120.000

3470 ENCROAGHMENT STATIONS= 1.0 830.0 TYPE= 1 TARGET= 829.000

77FT U/S TEXTILE ROAD BRIDGE (COE VS-11) CROSS SECTIONS

18120.00	10.03	723.73	0.	721.91	723.77	.04	.02	.00	718.20
2549.	1122.	449.	978.	876.	179.	716.	311.	145.	718.30
2.59	1.28	2.52	1.37	.040	.040	.040	.079	713.70	79.79
.000309	50.	50.	50.	0	0	0	0.	682.62	762.41

*SECNO 18570.000

18570.00	8.67	723.90	0.	722.05	723.96	.06	.18	.01	775.50
2549.	0.	1136.	1413.	0.	667.	673.	325.	151.	719.93
2.64	0.	1.70	2.10	.040	.040	.040	.078	715.23	76.10
.000765	475.	450.	313.	2	0	0	0.	669.66	745.77

*SECNO 19020.000

19020.00	7.89	724.29	0.	722.36	724.41	.13	.42	.03	725.50
2549.	0.	1069.	1480.	0.	478.	461.	335.	156.	721.10
2.68	0.	2.24	3.21	.040	.040	.040	.078	716.40	126.68
.001884	475.	450.	313.	2	0	0	0.	587.43	714.12

*SECNO 19470.000

19470.00	7.53	725.10	0.	723.19	725.29	.19	.84	.03	726.67
2549.	0.	989.	1560.	0.	406.	392.	343.	161.	722.27
2.71	0.	2.43	3.98	.040	.040	.040	.077	717.57	153.80
.002842	475.	450.	313.	2	0	0	0.	572.08	725.87

*SECNO 19920.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IOC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 1.0 875.0 TYPE= 1 TARGET= 874.000

44FT D/S PRIVATE FOOT BRIDGE (R COE VS-11A)

19920.00	7.80	726.20	0	724.90	726.30	.10	.99	.03	733.50

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    2549.    1656.     454.     439.     655.     13.      311.     351.     167.    723.90
     2.76     2.53     3.27     1.41     .040     .060     .050     .077    718.40   156.24
  .002114     475.     450.     313.        2        0        0       0.    718.76   875.00

*SECNO 19963.000

3470 ENCROACHMENT STATIONS=        1.0      865.0  TYPE=      1  TARGET=      864.000
 19963.00     7.76   726.26       0.     725.18   726.37      .10      .07      .00   724.00
    2549.    1561.     494.     494.     640.     138.     291.     353.     168.    724.00
     2.76     2.44     3.59     1.70     .030     .040     .030     .077    718.50   157.26
  .001137      43.      43.      43.        2        0        0       0.    707.74   865.00

*SECNO 19964.000

3370 NORMAL BRIDGE,NRD= 12 MIN ELTRD=  724.50 MAX ELLC=  724.00

3470 ENCROACHMENT STATIONS=        1.0      865.0  TYPE=      1  TARGET=      864.000

                D/S FACE OF PRIVATE FOOT BRIDGE (COE VS-11A)STEEL BEAMS W/PLANKS

 19964.00     7.76   726.26       0.     725.18   726.37      .12      .00      .01   724.00
    2549.    1690.     261.     598.     566.     118.     278.     353.     168.    724.00
     2.76     2.99     2.21     2.15     .030     .040     .030     .077    718.50   157.15
  .002061       1.       1.       1.        0        0        0  -110.00    707.85   865.00

*SECNO 19976.000

3370 NORMAL BRIDGE,NRD= 12 MIN ELTRD=  724.50 MAX ELLC=  724.00

3470 ENCROACHMENT STATIONS=        1.0      860.0  TYPE=      1  TARGET=      859.000

                U/S FACE OF PRIVATE FOOT BRIDGE (R)

 19976.00     7.78   726.28       0.     725.23   726.40      .11      .02      .00   724.00
    2549.    1693.     259.     598.     571.     118.     278.     353.     168.    724.00
     2.76     2.96     2.19     2.15     .030     .040     .030     .077    718.50   156.82
  .002011      12.      12.      12.        0        0        0  -110.00    703.18   860.00

*SECNO 19977.000

3470 ENCROACHMENT STATIONS=        1.0      860.0  TYPE=      1  TARGET=      859.000
 19977.00     7.81   726.31       0.     725.24   726.41      .10      .00      .01   724.00
    2549.    1563.     480.     506.     658.     139.     302.     353.     168.    724.00
     2.76     2.37     3.45     1.68     .030     .040     .030     .077    718.50   155.99
  .001042       1.       1.       1.        2        0        0       0.    704.01   860.00

*SECNO 20020.000
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA      LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST

3470 ENCROACHMENT STATIONS=      140.0      850.0  TYPE=      1  TARGET=      710.000

                44FT U/S PRIVATE FOOT BRIDGE  (R)

 20020.00     7.78   72[illegible].38       0.     725.34   726.[illegible]1      13       09       02   724.10
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2549.	1104.	580.	860.	645.	138.	285.	354.	167.	724.10	
2.77	1.72	4.20	3.02	.100	.080	.040	.077	718.60	156.89	
.006215	43.	43.	43.	0	0	0	0.	693.11	850.00	

CCHV= .300 CEHV= 1.000
*SECNO 20280.000
3280 CROSS SECTION 20280.00 EXTENDED 1.98 FEET

2250FT U/S TEXTILE ROAD BRIDGE (COE VS=12) CROSS SECTION T

20280.00	7.68	726.98	0.	725.68	727.01	.03	.46	.03	723.00	
2549.	1335.	292.	922.	1306.	129.	752.	362.	172.	721.60	
2.82	1.02	2.27	1.23	.090	.070	.090	.077	719.30	0.	
.001003	200.	260.	250.	2	0	0	0.	725.86	725.86	

*SECNO 21580.000

3470 ENCROACHMENT STATIONS= 480.0 540.0 TYPE= 1 TARGET= 60.000
ELENCL= 727.30 ELENCR= 100000.00

0 84FT D/S STONY CREEK ROAD BRIDGE (COE VS=13)

21580.00	9.31	729.51	0.	726.72	729.72	.21	2.56	.19	725.40	
2549.	1354.	999.	196.	746.	185.	69.	410.	191.	724.30	
2.93	1.82	5.39	2.83	.090	.070	.090	.076	720.20	54.57	
.005129	1340.	1300.	1250.	3	0	0	0.	485.43	540.00	

*SECNO 21630.000

3470 ENCROACHMENT STATIONS= 493.0 530.0 TYPE= 1 TARGET= 37.000
ELENCL= 727.60 ELENCR= 100000.00

34FT D/S STONY CREEK ROAD BRIDGE (R COE VS=13) CROSS SECTION U

21630.00	9.58	729.78	0.	727.07	730.05	.27	.27	.05	725.40	
2549.	1370.	1131.	48.	748.	193.	22.	411.	191.	724.30	
2.93	1.83	5.88	2.20	.090	.070	.090	.076	720.20	27.44	
.005803	50.	50.	50.	2	0	0	0.	502.56	530.00	

*SECNO 21804.000

3470 ENCROACHMENT STATIONS= 500.0 524.0 TYPE= 1 TARGET= 24.000
ELENCL= 727.90 ELENCR= 100000.00

D/S FACE OF STONY CREEK ROAD BRIDGE (COE VS=14) CONC SLAB AND

HEADWALLS

21804.00	9.87	730.07	0.	727.33	730.30	.23	.24	.01	725.40	
2549.	1515.	1034.	0.	771.	188.	0.	412.	192.	100000.00	
2.94	1.96	5.50	0.	.090	.070	.090	.076	720.20	0.	
.007043	40.	34.	28.	2	0	0	0.	524.00	524.00	

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0	1.70	3.00	0	20.00	0	143.50	.30	731.00	721.00

*SECNO 21836.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	IIRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
738.44	731.10	0.	1765.	805.	143.	177.	728.90	729.40

3470 ENCROACHMENT STATIONS= 500.0 524.0 TYPE= 1 TARGET= 24.000
ELENCL= 728.80 ELENCR= 100000.00

U/S FACE OF STONY CREEK ROAD BRIDGE (R) CONC SLAB AND HEADWALLS

21836.00	10.54	730.74	0.	727.50	730.91	.16	.61	0.	725.40
2549.	1604.	945.	0.	793.	204.	0.	413.	192.	100000.00
2.94	2.02	4.63	0.	.040	.040	.040	.076	720.20	0.
.001545	32.	32.	32.	2	0	5	0.	524.00	524.00

CCHV= .300 CEHV= .500
*SECNO 21870.000

3470 ENCROACHMENT STATIONS= 500.0 575.0 TYPE= 1 TARGET= 75.000
ELENCL= 728.30 ELENCR= 100000.00

34FT U/S STONY CREEK ROAD BRIDGE (R COE VS-13)

21870.00	10.72	730.92	0.	727.94	730.97	.04	.05	.04	725.40
2549.	1546.	482.	521.	1057.	222.	291.	414.	193.	724.30
2.94	1.46	2.17	1.79	.040	.060	.060	.076	720.20	0.
.000548	25.	34.	50.	2	0	0	0.	575.00	575.00

*SECNO 21920.000

3470 ENCROACHMENT STATIONS= 500.0 625.0 TYPE= 1 TARGET= 125.000
ELENCL= 727.80 ELENCR= 100000.00

84FT U/S STONY CREEK ROAD BRIDGE (R)

21920.00	10.77	730.97	0.	728.03	730.99	.02	.02	.01	725.40
2549.	1457.	346.	746.	1258.	224.	581.	416.	193.	724.30
2.96	1.16	1.55	1.29	.040	.060	.060	.076	720.20	0.
.000270	50.	50.	50.	0	0	0	0.	625.00	625.00

*SECNO 22390.000

3470 ENCROACHMENT STATIONS= .0 1000.0 TYPE= 1 TARGET= 999.999

554FT U/S STONY CREEK ROAD BRIDGE (COE VS-15) CROSS SECTION V

22390.00	10.27	731.07	0.	728.27	731.08	.02	.09	.00	727.10
2950.	1588.	155.	1207.	1240.	158.	1575.	439.	200.	724.60
3.06	1.28	.98	.77	.040	.080	.060	.076	720.80	.00
.000202	300.	470.	500.	2	0	0	0.	921.31	921.31

*SECNO 23390.000

3470 ENCROACHMENT STATIONS= 130.0 1000.0 TYPE= 1 TARGET= 870.000

1804FT U/S STONY CREEK ROAD BRIDGE (COE VS-16) CROSS SECTION W

23390.00	8.49	731.49	0.	729.27	731.60	.11	.47	.04	729.00
2950.	1215.	855.	880.	666.	207.	623.	483.	216.	727.00
3.16	1.82	4.12	1.41	.100	.080	.100	.077	723.00	130.00
.004308	780.	1000.	900.	2	0	0	0.	705.60	835.60

*SECNO 23440.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 85.0 810.0 TYPE= 1 TARGET= 725.000

44FT D/S PRIVATE BRIDGE (R COE VS-16A)

23440.00	8.62	731.72	0.	729.68	731.76	.05	.15	.02	728.10
2950.	1126.	544.	1280.	788.	182.	980.	485.	217.	728.00
3.17	1.43	2.99	1.31	.100	.080	.100	.077	723.10	107.70
.002186	50.	50.	50.	2	0	0	0.	702.30	810.00

*SECNO 23483.000

3470 ENCROACHMENT STATIONS= 42.0 855.0 TYPE= 1 TARGET= 813.000

23483.00	8.66	731.76	0.	729.73	731.81	.05	.04	.00	728.10
2950.	1122.	534.	1294.	801.	183.	1045.	487.	218.	728.00
3.17	1.40	2.91	1.24	.050	.040	.050	.077	723.10	106.24
.000516	43.	43.	43.	2	0	0	0.	748.76	855.00

*SECNO 23484.000

3370 NORMAL BRIDGE,NRD= 14 MIN ELTRD= 728.20 MAX ELLC= 728.60

3470 ENCROACHMENT STATIONS= 42.0 855.0 TYPE= 1 TARGET= 813.000

D/S FACE OF PRIVATE BRIDGE (COE VS-16A) STEEL BEAMS W/W//D DECK

23484.00	8.67	731.77	0.	729.75	731.81	.04	.00	.00	728.10
2950.	1224.	222.	1505.	755.	147.	1024.	487.	218.	728.00
3.17	1.62	1.51	1.47	.050	.040	.050	.077	723.10	106.02
.000753	1.	1.	1.	1	0	0	-107.90	748.98	855.00

*SECNO 23496.000

3370 NORMAL BRIDGE,NRD= 14 MIN ELTRD= 728.20 MAX ELLC= 728.60

3470 ENCROACHMENT STATIONS= 30.0 975.0 TYPE= 1 TARGET= 945.000

U/S FACE OF PRIVATE BRIDGE (R COE VS-16A)

23496.00	8.68	731.78	0.	729.77	731.82	.04	.01	.00	728.10
2.50	124[illegible]	225	147	7[illegible]	1[illegible]7	10[illegible]3	4[illegible]7	218	728.00

3.18	1.64	1.53	1.39	.050	.040	.050	.077	723.10	105.58
.000772	12.	12.	12.	0	0	0	107.90	828.13	933.71

*SECNO 23497.000

3470 ENCROACHMENT STATIONS= 30.0 975.0 TYPE= 1 TARGET= 945.000

23497.00	8.68	731.78	0.	729.76	731.82	.05	.00	.00	728.10
2950.	1141.	539.	1270.	808.	184.	1089.	487.	218.	728.00
3.18	1.41	2.93	1.17	.050	.040	.050	.077	723.10	105.46
.000521	1.	1.	1.	0	0	0	0.	828.60	934.06

*SECNO 23540.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

44FT U/S PRIVATE BRIDGE (R COE VS=16A)

23540.00	8.72	731.82	0.	729.81	731.86	.04	.04	.00	728.10
2950.	1162.	490.	1298.	817.	185.	1104.	489.	219.	728.00
3.18	1.42	2.65	1.18	.090	.080	.090	.077	723.10	104.45
.001694	43.	43.	43.	1	0	0	0.	832.48	936.93

*SECNO 24710.000

3280 CROSS SECTION 24710.00 EXTENDED .42 FEET

3470 ENCROACHMENT STATIONS= .0 650.0 TYPE= 1 TARGET= 649.999

3124FT U/S STONY CREEK ROAD BRIDGE (COE VS-17) CROSS SECTION X

24710.00	9.62	734.02	0.	731.68	734.11	.08	2.22	.02	730.20
2950.	78.	1169.	1703.	66.	367.	1094.	538.	236.	731.40
3.33	1.17	3.18	1.56	.090	.080	.090	.077	724.40	165.25
.002141	1170.	1170.	1170.	2	0	0	0.	484.75	650.00

1490 NH CARD USED

*SECNO 25870.000

3280 CROSS SECTION 25870.00 EXTENDED 3.41 FEET

3470 ENCROACHMENT STATIONS= .0 270.0 TYPE= 1 TARGET= 269.999

4284FT U/S STONY CREEK ROAD BRIDGE (COE VS-18) CROSS SECTION Y

25870.00	5.11	735.91	0.	733.60	735.95	.04	1.83	.01	733.10
885.	310.	126.	449.	166.	61.	372.	564.	245.	734.70
3.52	1.87	2.08	1.21	.040	.050	.068	.078	730.80	17.95
.000927	1160.	1160.	1000.	2	0	0	0.	252.05	270.00

*SECNO 26143.000

3280 CROSS SECTION 26143.00 EXTENDED .55 FEET

3470 ENCROACHMENT STATIONS= 0 100.0 TYPE= 1 TARGET= [illegible]

172FT D/S FROM WEIR IN RETENTION POND (TRANSITION TO CREEK)

26143.00	5.05	736.05	0.	734.36	736.50	.46	.34	.21	734.00
885.	167.	414.	303.	46.	63.	70.	566.	246.	734.00
3.53	3.62	6.60	4.35	.030	.030	.030	.077	731.00	17.60
.003209	273.	270.	150.	2	0	0	0.	82.40	100.00

*SECNO 26191.000
3280 CROSS SECTION 26191.00 EXTENDED .66 FEET

3470 ENCROACHMENT STATIONS= .0 75.0 TYPE= 1 TARGET= 74.999

124FT D/S FROM WEIR IN RETENTION POND (TRANSITION TO CREEK)

26191.00	5.56	736.16	0.	734.58	736.62	.46	.11	.00	734.00
885.	51.	692.	142.	17.	117.	41.	566.	246.	734.00
3.54	2.92	5.90	3.47	.030	.030	.030	.077	730.60	17.33
.002039	48.	48.	32.	2	0	0	0.	57.67	75.00

*SECNO 26231.000
3280 CROSS SECTION 26231.00 EXTENDED .50 FEET

3301 HV CHANGED MORE THAN HVINS

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= .0 55.0 TYPE= 1 TARGET= 54.999

84FT D/S FROM WEIR IN RETENTION POND (TRANSITION TO CREEK)

26231.00	4.70	736.00	0.	734.58	736.98	.98	.10	.26	734.00
885.	32.	824.	29.	9.	101.	8.	566.	246.	734.00
3.54	3.65	8.18	3.69	.030	.027	.030	.077	731.30	17.49
.003796	40.	40.	25.	2	0	0	0.	37.51	55.00

*SECNO 26241.000
3280 CROSS SECTION 26241.00 EXTENDED 1.59 FEET

3301 HV CHANGED MORE THAN HVINS

74FT D/S FROM WEIR IN RETENTION POND (TRANSITION TO CREEK)

26241.00	6.09	737.09	0.	734.59	737.24	.15	.01	.25	735.50
885.	8.	503.	374.	6.	130.	214.	566.	246.	735.50
3.54	1.28	3.86	1.74	.030	.027	.030	.077	731.00	18.19
.000679	10.	10.	7.	6	0	0	0.	167.81	186.00

*SECNO 26273.000
3280 CROSS SECTION 26273.00 EXTENDED 1.76 FEET

3470 ENCROACHMENT STATIONS= .0 65.0 TYPE= 1 TARGET= 64.999

42FT D/S FROM WEIR IN RETENTION POND (TRANSITION TO CREEK)

26273.00	5.96	736.96	0.	734.64	737.43	.48	.03	.16	736.50	
885.	0.	813.	72.	0.	141.	30.	566.	246.	735.50	
3.54	.70	5.75	2.41	.030	.027	.030	.077	731.00	18.59	
.001530	32.	32.	20.	2	0	0	0.	46.40	65.00	

*SECNO 26315.000
3280 CROSS SECTION 26315.00 EXTENDED 2.34 FEET

3470 ENCROACHMENT STATIONS= .0 107.0 TYPE= 1 TARGET= 106.999

D/S FACE OF WEIR IN RETENTION POND CROSS SECTION E

26315.00	6.33	737.33	0.	734.65	737.53	.20	.01	.08	736.50
885.	1.	613.	272.	1.	151.	122.	566.	246.	735.50
3.54	.79	4.06	2.23	.012	.012	.012	.077	731.00	17.42
.000138	42.	42.	42.	2	0	0	0.	89.58	107.00

THIS RUN EXECUTED 30 AUG 79 11.12.52

****
HEC2 RELEASE DATED NOV 76 UPDATED JULY 1979
ERROR CORR = 01,02,03
MODIFICATION = 50,51,52,53
****

NOTE= ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

10 YR FLOW

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
0.	0.	0.	0.	683.10	406.00	688.20	0.	688.34	61.04	2.96	137.63	51.97
0.	0.	0.	0.	683.10	608.00	689.20	0.	689.25	19.75	2.08	351.64	136.79
0.	0.	0.	0.	683.10	748.00	689.80	0.	689.83	8.18	1.48	600.02	261.53
0.	0.	0.	0.	683.10	952.00	690.00	0.	690.03	8.80	1.58	700.76	320.95
200.000	200.00	0.	0.	683.42	406.00	689.12	0.	689.21	32.58	2.44	166.69	71.13
200.000	200.00	0.	0.	683.42	608.00	689.57	0.	689.62	17.19	1.96	371.69	146.66
200.000	200.00	0.	0.	683.42	748.00	689.98	0.	690.02	11.18	1.69	529.49	223.75
200.000	200.00	0.	0.	683.42	952.00	690.20	0.	690.23	11.53	1.77	633.01	280.32
400.000	200.00	0.	0.	683.74	406.00	689.71	0.	689.79	25.48	2.25	180.18	80.43
400.000	200.00	0.	0.	683.74	608.00	689.92	0.	689.96	16.74	1.94	375.61	148.62
400.000	200.00	0.	0.	683.74	748.00	690.22	0.	690.26	13.09	1.80	495.16	206.78
400.000	200.00	0.	0.	683.74	952.00	690.44	0.	690.48	13.27	1.88	599.59	261.29
600.000	200.00	0.	0.	684.06	406.00	690.19	0.	690.26	22.14	2.16	188.39	86.28
600.000	200.00	0.	0.	684.06	608.00	690.24	0.	690.29	16.05	1.90	381.82	151.77
600.000	200.00	0.	0.	684.06	748.00	690.50	0.	690.54	14.48	1.88	473.71	196.58
600.000	200.00	0.	0.	684.06	952.00	690.71	0.	690.76	14.59	1.96	577.83	249.28
800.000	200.00	0.	0.	684.38	406.00	690.50	0.	690.52	8.44	1.36	357.79	139.78
800.000	200.00	0.	0.	684.38	608.00	690.57	0.	690.61	16.11	1.91	381.22	151.47
800.000	200.00	0.	0.	684.38	748.00	690.79	0.	690.84	15.49	1.94	459.97	190.02
800.000	200.00	0.	0.	684.38	952.00	691.01	0.	691.06	15.54	2.01	563.43	241.50
1000.000	200.00	0.	0.	684.70	406.00	690.61	0.	690.61	2.49	.78	561.49	257.04
1000.000	200.00	0.	0.	684.70	608.00	690.76	0.	690.77	4.24	1.04	614.83	295.23
1000.000	200.00	0.	0.	684.70	748.00	690.98	0.	691.00	4.34	1.09	707.81	359.08
1000.000	200.00	0.	0.	684.70	952.00	691.21	0.	691.24	4.80	1.18	815.03	434.51
1200.000	200.00	0.	0.	684.90	406.00	690.67	0.	690.69	4.56	1.03	442.66	190.23
1200.000	200.00	0.	0.	684.90	608.00	690.87	0.	690.89	7.11	1.32	499.58	228.08
1200.000	200.00	0.	0.	684.90	748.00	691.09	0.	691.12	7.20	1.38	575.66	278.79
1200.000	200.00	0.	0.	684.90	952.00	691.33	0.	691.37	7.75	1.49	672.47	341.94
1400.000	200.00	0.	0.	685.30	406.00	690.78	0.	690.80	7.06	1.25	362.54	152.82
1400.000	200.00	0.	0.	685.30	608.00	691.03	0.	691.07	10.10	1.56	422.77	191.36
1400.000	200.00	0.	0.	685.30	748.00	691.26	0.	691.30	10.34	1.64	486.12	232.62
1400.000	200.00	0.	0.	685.30	952.00	691.51	0.	691.56	11.00	1.76	572.00	287.01

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
1600.000	200.00	0.	0.	685.30	406.00	690.95	0.	690.97	9.61	1.45	307.60	130.96
1600.000	200.00	0.	0.	685.30	608.00	691.26	0.	691.30	12.94	1.77	367.51	169.02
1600.000	200.00	0.	0.	685.30	748.00	691.50	0.	691.55	13.50	1.88	422.13	203.56
1600.000	200.00	0.	0.	685.30	952.00	691.76	0.	691.83	14.53	2.04	489.19	249.74
1800.000	200.00	0.	0.	685.50	406.00	691.16	0.	691.20	12.87	1.69	258.51	113.16
1800.000	200.00	0.	0.	685.50	608.00	691.54	0.	691.60	17.05	2.07	313.19	147.25
1800.000	200.00	0.	0.	685.50	748.00	691.79	0.	691.86	18.40	2.24	351.13	174.38
1800.000	200.00	0.	0.	685.50	952.00	692.09	0.	692.18	20.61	2.48	395.64	209.71
1900.000	100.00	0.	0.	685.60	406.00	691.35	0.	691.46	35.14	2.74	153.61	68.49
1900.000	100.00	0.	0.	685.60	608.00	691.80	0.	691.98	51.20	3.46	185.26	84.97
1900.000	100.00	0.	0.	685.60	748.00	692.08	0.	692.29	56.96	3.79	210.81	99.11
1900.000	100.00	0.	0.	685.60	952.00	692.41	0.	692.66	63.14	4.18	242.05	119.80
1950.000	50.00	0.	0.	685.30	406.00	691.56	0.	691.63	24.04	2.12	191.28	82.81
1950.000	50.00	0.	0.	685.30	608.00	692.10	0.	692.21	34.17	2.75	220.90	104.02
1950.000	50.00	0.	0.	685.30	748.00	692.40	0.	692.55	41.15	3.15	237.53	116.61
1950.000	50.00	0.	0.	685.30	952.00	692.75	0.	692.96	52.15	3.71	256.84	131.82
1985.000	35.00	0.	0.	685.10	406.00	691.60	0.	691.73	9.26	2.87	141.61	133.39
1985.000	35.00	0.	0.	685.10	608.00	692.16	0.	692.40	15.44	3.88	156.75	154.71
1985.000	35.00	0.	0.	685.10	748.00	692.48	0.	692.80	20.03	4.52	165.32	167.12
1985.000	35.00	0.	0.	685.10	952.00	692.85	0.	693.31	27.35	5.43	175.43	182.04
1986.000	1.00	693.30	692.70	685.10	406.00	691.60	0.	691.73	10.58	2.87	141.65	124.81
1986.000	1.00	693.30	692.70	685.10	608.00	692.16	0.	692.40	17.89	3.88	156.81	143.73
1986.000	1.00	693.30	692.70	685.10	748.00	692.48	0.	692.80	23.39	4.52	165.40	154.66
1986.000	1.00	693.30	692.70	685.10	952.00	692.86	0.	693.34	66.73	5.56	171.24	116.54
2014.000	28.00	693.30	692.70	685.10	406.00	691.63	0.	691.76	10.43	2.85	142.39	125.72
2014.000	28.00	693.30	692.70	685.10	608.00	692.22	0.	692.45	17.51	3.85	158.06	145.30
2014.000	28.00	693.30	692.70	685.10	748.00	692.56	0.	692.87	23.70	4.47	167.21	156.98
2014.000	28.00	693.30	692.70	685.10	952.00	693.04	0.	693.52	66.73	5.56	171.24	116.54
2015.000	1.00	0.	0.	685.10	406.00	691.64	0.	691.76	9.09	2.85	142.51	134.64
2015.000	1.00	0.	0.	685.10	608.00	692.22	0.	692.45	15.00	3.84	158.33	156.99
2015.000	1.00	0.	0.	685.10	748.00	692.56	0.	692.87	19.30	4.47	167.47	170.27
2015.000	1.00	0.	0.	685.10	952.00	693.14	0.	693.56	24.21	5.20	183.05	193.48
2050.000	35.00	0.	0.	685.15	406.00	691.80	0.	691.84	16.19	1.78	261.54	100.90
2050.000	35.00	0.	0.	685.15	608.00	692.54	0.	692.59	16.59	2.02	355.68	149.26
2050.000	35.00	0.	0.	685.15	748.00	693.00	0.	693.06	16.43	2.14	414.07	184.54
2050.000	35.00	0.	0.	685.15	952.00	693.74	0.	693.80	14.65	2.21	508.04	248.73
2100.000	50.00	0.	0.	685.20	406.00	691.88	0.	691.92	16.72	1.78	272.83	99.30
2100.000	50.00	0.	0.	685.20	608.00	692.63	0.	692.67	14.37	1.86	432.01	160.37
2100.000	50.00	0.	0.	685.20	748.00	693.10	0.	693.14	12.68	1.86	536.78	210.08
2100.000	50.00	0.	0.	685.20	952.00	693.84	0.	693.87	9.61	1.78	706.53	307.03
2430.000	330.00	0.	0.	686.60	406.00	692.63	0.	692.68	33.11	1.89	215.14	70.56
2430.000	330.00	0.	0.	686.60	608.00	693.29	0.	693.36	31.75	2.13	321.84	107.90
2430.000	330.00	0.	0.	686.60	748.00	693.67	0.	693.75	27.61	2.13	438.71	142.55
2430.000	330.00	0.	0.	686.60	952.00	694.24	0.	694.29	18.04	1.91	691.73	224.14

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
2990.000	560.00	0.	0.	686.70	406.00	693.97	0.	694.01	17.64	1.80	249.07	96.67
2990.000	560.00	0.	0.	686.70	608.00	694.52	0.	694.57	15.42	1.84	348.43	154.85
2990.000	560.00	0.	0.	686.70	748.00	694.81	0.	694.86	15.12	1.91	404.24	192.35
2990.000	560.00	0.	0.	686.70	952.00	695.15	0.	695.22	14.89	1.99	478.67	246.72
3390.000	400.00	0.	0.	687.50	406.00	694.44	0.	694.46	7.56	1.30	377.08	147.61
3390.000	400.00	0.	0.	687.50	608.00	694.92	0.	694.94	6.03	1.21	559.68	247.59
3390.000	400.00	0.	0.	687.50	748.00	695.19	0.	695.21	5.47	1.17	671.85	319.87
3390.000	400.00	0.	0.	687.50	952.00	695.53	0.	695.55	4.99	1.15	821.86	426.38
4040.000	650.00	0.	0.	688.50	406.00	695.26	0.	695.34	27.65	2.39	193.05	77.22
4040.000	650.00	0.	0.	688.50	608.00	695.65	0.	695.76	33.59	2.72	247.97	104.91
4040.000	650.00	0.	0.	688.50	748.00	695.89	0.	696.00	36.51	2.88	281.49	123.79
4040.000	650.00	0.	0.	688.50	952.00	696.18	0.	696.30	38.01	3.01	331.85	154.42
4570.000	530.00	0.	0.	689.50	406.00	696.74	0.	696.81	27.59	2.28	211.01	77.30
4570.000	530.00	0.	0.	689.50	608.00	697.21	0.	697.27	23.60	2.16	331.80	125.15
4570.000	530.00	0.	0.	689.50	748.00	697.45	0.	697.50	21.67	2.13	397.08	160.68
4570.000	530.00	0.	0.	689.50	952.00	697.73	0.	697.79	20.34	2.12	475.79	211.09
5090.000	520.00	0.	0.	690.30	406.00	697.92	0.	697.99	19.07	2.14	210.37	92.96
5090.000	520.00	0.	0.	690.30	608.00	698.41	0.	698.49	22.84	2.46	278.35	127.21
5090.000	520.00	0.	0.	690.30	748.00	698.65	0.	698.74	25.26	2.65	312.58	148.84
5090.000	520.00	0.	0.	690.30	952.00	698.95	0.	699.06	28.05	2.89	354.78	179.75
5450.000	360.00	0.	0.	691.40	406.00	698.51	0.	698.60	14.33	2.37	175.92	107.25
5450.000	360.00	0.	0.	691.40	608.00	699.16	0.	699.30	19.96	3.02	207.11	136.08
5450.000	360.00	0.	0.	691.40	748.00	699.51	0.	699.69	24.00	3.43	223.79	152.69
5450.000	360.00	0.	0.	691.40	952.00	699.95	0.	700.18	29.50	3.97	245.39	175.28
5500.000	50.00	0.	0.	691.40	406.00	698.58	0.	698.67	14.80	2.40	169.25	105.53
5500.000	50.00	0.	0.	691.40	608.00	699.26	0.	699.41	22.00	3.13	194.40	129.63
5500.000	50.00	0.	0.	691.40	748.00	699.63	0.	699.83	27.20	3.59	208.21	143.43
5500.000	50.00	0.	0.	691.40	952.00	700.10	0.	700.37	34.86	4.22	225.53	161.24
5525.000	25.00	0.	0.	691.20	406.00	698.60	0.	698.71	6.13	2.56	158.45	163.96
5525.000	25.00	0.	0.	691.20	608.00	699.29	0.	699.48	10.13	3.45	176.45	191.02
5525.000	25.00	0.	0.	691.20	748.00	699.67	0.	699.93	13.20	4.02	186.08	205.87
5525.000	25.00	0.	0.	691.20	952.00	700.15	0.	700.51	17.86	4.80	198.47	225.27
5535.000	10.00	0.	0.	691.20	406.00	698.61	0.	698.71	6.12	2.56	158.53	164.08
5535.000	10.00	0.	0.	691.20	608.00	699.30	0.	699.49	10.10	3.44	176.61	191.27
5535.000	10.00	0.	0.	691.20	748.00	699.69	0.	699.94	13.10	4.01	186.61	206.69
5535.000	10.00	0.	0.	691.20	952.00	700.17	0.	700.53	17.69	4.78	199.15	226.35
5536.000	1.00	699.50	700.30	691.20	406.00	698.61	0.	698.71	6.40	2.56	158.43	160.44
5536.000	1.00	699.50	700.30	691.20	608.00	699.31	0.	699.49	11.09	3.44	176.49	182.57
5536.000	1.00	699.50	700.30	691.20	748.00	699.69	0.	699.94	14.72	4.01	186.52	194.94
5536.000	1.00	699.50	700.30	691.20	952.00	700.17	0.	700.53	20.45	4.78	199.07	210.49
5564.000	28.00	699.50	700.30	691.20	406.00	698.63	0.	698.73	6.36	2.56	158.89	160.99
5564.000	28.00	699.50	700.30	691.20	608.00	699.34	0.	699.52	10.98	3.43	177.26	183.53
5564.000	28.00	699.50	700.30	691.20	748.00	699.74	0.	699.98	14.54	3.99	187.55	196.19
5564.000	28.00	699.50	700.30	691.20	952.00	700.24	0.	700.59	20.09	4.75	200.60	212.40

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
5565.000	1.00	0.	0.	691.20	406.00	698.65	0.	698.73	6.08	2.55	158.94	164.68
5565.000	1.00	0.	0.	691.20	608.00	699.34	0.	699.52	9.98	3.43	177.39	192.46
5565.000	1.00	0.	0.	691.20	748.00	699.74	0.	699.98	12.88	3.98	187.72	208.42
5565.000	1.00	0.	0.	691.20	952.00	700.24	0.	700.59	17.29	4.74	200.81	228.98
5575.000	10.00	0.	0.	691.20	406.00	698.64	0.	698.74	6.06	2.55	159.10	164.93
5575.000	10.00	0.	0.	691.20	608.00	699.35	0.	699.53	9.94	3.42	177.67	192.89
5575.000	10.00	0.	0.	691.20	748.00	699.75	0.	700.00	12.81	3.98	188.10	209.00
5575.000	10.00	0.	0.	691.20	952.00	700.26	0.	700.61	17.16	4.73	201.32	229.79
5600.000	25.00	0.	0.	691.20	419.00	698.71	0.	698.78	10.49	2.12	219.15	129.35
5600.000	25.00	0.	0.	691.20	636.00	699.53	0.	699.61	11.11	2.41	286.88	190.79
5600.000	25.00	0.	0.	691.20	777.00	700.01	0.	700.10	11.08	2.54	327.21	233.38
5600.000	25.00	0.	0.	691.20	991.00	700.66	0.	700.76	11.24	2.72	380.49	295.64
5650.000	50.00	0.	0.	691.20	419.00	698.80	0.	698.83	4.32	1.37	364.07	201.49
5650.000	50.00	0.	0.	691.20	636.00	699.64	0.	699.67	3.47	1.36	517.30	341.47
5650.000	50.00	0.	0.	691.20	777.00	700.14	0.	700.16	3.10	1.36	608.17	441.28
5650.000	50.00	0.	0.	691.20	991.00	700.80	0.	700.83	2.81	1.38	728.98	591.23
6300.000	650.00	0.	0.	690.50	419.00	698.95	0.	698.97	1.24	.50	471.65	376.81
6300.000	650.00	0.	0.	690.50	636.00	699.80	0.	699.82	1.66	.63	610.08	493.63
6300.000	650.00	0.	0.	690.50	777.00	700.29	0.	700.31	1.60	.66	762.16	613.69
6300.000	650.00	0.	0.	690.50	991.00	700.94	0.	700.96	1.47	.68	989.02	818.49
6720.000	420.00	0.	0.	694.90	419.00	698.95	0.	699.38	213.30	5.25	79.82	28.69
6720.000	420.00	0.	0.	694.90	636.00	699.91	698.52	700.23	144.31	4.89	184.74	52.94
6720.000	420.00	0.	0.	694.90	777.00	700.48	0.	700.51	17.45	1.81	590.15	185.99
6720.000	420.00	0.	0.	694.90	991.00	701.07	0.	701.08	4.37	.96	1143.63	474.10
7080.000	360.00	0.	0.	693.70	419.00	700.18	0.	700.21	8.06	1.25	363.25	147.62
7080.000	360.00	0.	0.	693.70	636.00	700.77	0.	700.79	5.75	1.13	576.64	265.27
7080.000	360.00	0.	0.	693.70	777.00	700.78	0.	700.81	8.35	1.36	584.06	269.28
7080.000	360.00	0.	0.	693.70	991.00	701.19	0.	701.21	5.60	1.16	895.00	418.60
7670.000	590.00	0.	0.	695.20	419.00	700.82	0.	700.92	49.36	2.87	170.38	59.64
7670.000	590.00	0.	0.	695.20	636.00	701.19	0.	701.31	50.25	3.00	242.63	89.72
7670.000	590.00	0.	0.	695.20	777.00	701.35	0.	701.46	53.80	3.15	278.29	105.94
7670.000	590.00	0.	0.	695.20	991.00	701.58	0.	701.71	55.30	3.25	334.89	133.26
8370.000	700.00	0.	0.	696.60	419.00	702.99	0.	703.05	19.85	1.98	236.36	94.05
8370.000	700.00	0.	0.	696.60	636.00	703.36	0.	703.42	19.26	2.06	360.19	140.91
8370.000	700.00	0.	0.	696.60	777.00	703.53	0.	703.60	18.55	2.08	426.12	180.39
8370.000	700.00	0.	0.	696.60	991.00	703.76	0.	703.83	18.21	2.13	509.11	232.25
8850.000	480.00	0.	0.	697.90	419.00	703.95	0.	704.00	19.22	1.98	225.19	95.58
8850.000	480.00	0.	0.	697.90	636.00	704.19	0.	704.23	14.16	1.77	409.13	168.99
8850.000	480.00	0.	0.	697.90	777.00	704.36	0.	704.41	14.45	1.83	466.30	204.40
8850.000	480.00	0.	0.	697.90	991.00	704.59	0.	704.64	14.72	1.91	545.09	258.27
9520.000	670.00	0.	0.	698.90	419.00	705.39	0.	705.45	26.18	2.36	218.94	81.89
9520.000	670.00	0.	0.	698.90	636.00	705.58	0.	705.68	38.74	2.95	257.48	102.18
9520.000	670.00	0.	0.	698.90	777.00	705.76	0.	705.87	38.81	3.02	295.69	124.73
9520.000	670.00	0.	0.	698.90	991.00	705.99	0.	706.12	38.94	3.11	347.50	158.81

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
10020.000	500.00	0.	0.	700.70	419.00	706.19	0.	706.22	9.69	1.29	333.07	134.61
10020.000	500.00	0.	0.	700.70	636.00	706.56	0.	706.59	10.02	1.39	441.77	200.90
10020.000	500.00	0.	0.	700.70	777.00	706.75	0.	706.79	10.15	1.45	508.10	243.94
10020.000	500.00	0.	0.	700.70	991.00	707.01	0.	707.06	10.22	1.51	601.56	309.96
10520.000	500.00	0.	0.	700.70	419.00	706.77	0.	706.81	13.58	1.74	301.50	113.68
10520.000	500.00	0.	0.	700.70	636.00	707.20	0.	707.25	16.63	2.05	382.17	155.98
10520.000	500.00	0.	0.	700.70	777.00	707.40	0.	707.45	16.59	2.10	484.71	190.79
10520.000	500.00	0.	0.	700.70	991.00	707.68	0.	707.74	17.90	2.27	562.35	234.25
10570.000	50.00	0.	0.	700.87	419.00	706.81	0.	706.85	8.71	1.82	271.27	141.97
10570.000	50.00	0.	0.	700.87	636.00	707.24	0.	707.30	10.84	2.17	335.80	193.17
10570.000	50.00	0.	0.	700.87	777.00	707.43	0.	707.49	10.33	2.17	445.86	241.80
10570.000	50.00	0.	0.	700.87	991.00	707.71	0.	707.77	10.85	2.32	522.59	300.90
10605.000	35.00	0.	0.	701.00	419.00	706.83	0.	706.98	10.33	3.05	157.29	130.37
10605.000	35.00	0.	0.	701.00	636.00	707.27	0.	707.55	18.98	4.29	148.41	145.97
10605.000	35.00	0.	0.	701.00	777.00	707.45	0.	707.85	25.84	5.07	153.22	152.84
10605.000	35.00	0.	0.	701.00	991.00	707.72	0.	708.32	36.94	6.18	160.26	163.05
10606.000	1.00	707.60	710.20	701.00	419.00	706.85	0.	706.98	13.03	3.06	137.11	116.09
10606.000	1.00	707.60	710.20	701.00	636.00	707.27	0.	707.56	24.38	4.28	148.45	128.80
10606.000	1.00	707.60	710.20	701.00	777.00	707.46	0.	707.85	33.50	5.07	153.26	134.25
10606.000	1.00	707.60	710.20	701.00	991.00	707.73	0.	708.32	48.51	6.18	160.33	142.29
10634.000	28.00	707.60	710.20	701.00	419.00	706.87	0.	707.02	12.82	3.04	137.96	117.04
10634.000	28.00	707.60	710.20	701.00	636.00	707.35	0.	707.63	23.63	4.23	150.26	130.84
10634.000	28.00	707.60	710.20	701.00	777.00	707.57	0.	707.95	31.86	4.97	156.27	137.67
10634.000	28.00	707.60	710.20	701.00	991.00	707.91	0.	708.47	44.97	6.00	165.12	147.78
10635.000	1.00	0.	0.	701.00	419.00	706.87	0.	707.02	10.14	3.03	138.16	131.57
10635.000	1.00	0.	0.	701.00	636.00	707.35	0.	707.63	18.21	4.22	150.55	149.02
10635.000	1.00	0.	0.	701.00	777.00	707.57	0.	707.96	24.38	4.97	156.36	157.37
10635.000	1.00	0.	0.	701.00	991.00	707.92	0.	708.47	33.85	6.00	165.24	170.34
10670.000	35.00	0.	0.	700.70	422.00	707.00	0.	707.09	16.54	2.39	179.19	103.75
10670.000	35.00	0.	0.	700.70	638.00	707.64	0.	707.77	21.83	2.96	233.33	136.55
10670.000	35.00	0.	0.	700.70	779.00	708.02	0.	708.16	21.61	3.11	279.85	167.58
10670.000	35.00	0.	0.	700.70	994.00	708.64	0.	708.77	19.03	3.16	352.76	227.89
10720.000	50.00	0.	0.	700.84	422.00	707.11	0.	707.20	28.81	2.36	189.19	78.62
10720.000	50.00	0.	0.	700.84	638.00	707.84	0.	707.91	24.54	2.37	308.07	128.78
10720.000	50.00	0.	0.	700.84	779.00	708.23	0.	708.30	19.07	2.21	394.86	178.38
10720.000	50.00	0.	0.	700.84	994.00	708.83	0.	708.89	12.91	1.96	527.07	276.66
11060.000	340.00	0.	0.	701.80	422.00	707.92	0.	707.99	18.98	2.09	204.63	96.87
11060.000	340.00	0.	0.	701.80	638.00	708.56	0.	708.65	18.94	2.28	267.49	146.60
11060.000	340.00	0.	0.	701.80	779.00	708.87	0.	708.98	19.66	2.41	301.31	175.71
11060.000	340.00	0.	0.	701.80	994.00	709.35	0.	709.46	19.44	2.52	353.64	225.44
11450.000	390.00	0.	0.	702.30	422.00	708.48	0.	708.50	9.43	1.52	469.74	137.42
11450.000	390.00	0.	0.	702.30	638.00	709.10	0.	709.12	7.89	1.51	680.93	227.09
11450.000	390.00	0.	0.	702.30	779.00	709.43	0.	709.45	7.48	1.53	795.31	284.78
11450.000	390.00	0.	0.	702.30	994.00	709.90	0.	709.92	6.89	1.55	960.99	378.73

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
11860.000	410.00	0.	0.	704.20	422.00	709.11	0.	709.20	35.14	2.57	224.23	71.19
11860.000	410.00	0.	0.	704.20	638.00	709.64	0.	709.72	30.73	2.62	330.22	115.10
11860.000	410.00	0.	0.	704.20	779.00	709.94	0.	710.01	28.87	2.65	388.50	144.97
11860.000	410.00	0.	0.	704.20	994.00	710.36	0.	710.44	26.03	2.67	473.29	194.83
12170.000	310.00	0.	0.	704.30	422.00	710.34	0.	710.50	47.89	3.37	137.70	60.98
12170.000	310.00	0.	0.	704.30	638.00	710.93	0.	711.19	67.15	4.32	161.61	77.86
12170.000	310.00	0.	0.	704.30	779.00	711.24	0.	711.57	79.16	4.89	174.40	87.55
12170.000	310.00	0.	0.	704.30	994.00	711.64	0.	712.09	97.38	5.68	190.95	100.73
12204.000	34.00	0.	0.	704.30	422.00	710.43	0.	710.58	11.17	3.10	136.03	126.24
12204.000	34.00	0.	0.	704.30	638.00	711.03	0.	711.32	19.53	4.27	149.48	144.36
12204.000	34.00	0.	0.	704.30	779.00	711.36	0.	711.75	25.44	4.97	156.82	154.46
12204.000	34.00	0.	0.	704.30	994.00	711.79	0.	712.35	35.09	5.98	166.36	167.80
12205.000	1.00	713.00	713.70	704.30	422.00	710.43	0.	710.58	16.75	3.10	136.09	103.12
12205.000	1.00	713.00	713.70	704.30	638.00	711.04	0.	711.32	29.89	4.27	149.57	116.70
12205.000	1.00	713.00	713.70	704.30	779.00	711.37	0.	711.75	39.34	4.96	156.93	124.20
12205.000	1.00	713.00	713.70	704.30	994.00	711.80	0.	712.35	54.99	5.97	166.50	134.04
12235.000	30.00	713.00	713.70	704.30	422.00	710.48	0.	710.63	16.42	3.08	137.11	104.14
12235.000	30.00	713.00	713.70	704.30	638.00	711.14	0.	711.41	28.78	4.20	151.77	118.92
12235.000	30.00	713.00	713.70	704.30	779.00	711.50	0.	711.87	37.46	4.87	159.94	127.28
12235.000	30.00	713.00	713.70	704.30	994.00	712.00	0.	712.53	51.38	5.81	170.98	138.67
12236.000	1.00	0.	0.	704.30	422.00	710.48	0.	710.63	10.89	3.07	137.28	127.90
12236.000	1.00	0.	0.	704.30	638.00	711.14	0.	711.41	18.69	4.20	151.83	147.58
12236.000	1.00	0.	0.	704.30	779.00	711.51	0.	711.88	24.03	4.87	160.02	158.91
12236.000	1.00	0.	0.	704.30	994.00	712.01	0.	712.53	32.45	5.81	171.09	174.51
12270.000	34.00	0.	0.	704.38	422.00	710.67	0.	710.72	15.34	2.02	240.65	107.73
12270.000	34.00	0.	0.	704.38	638.00	711.51	0.	711.57	15.15	2.23	317.96	163.90
12270.000	34.00	0.	0.	704.38	779.00	712.01	0.	712.09	14.79	2.33	364.40	202.59
12270.000	34.00	0.	0.	704.38	994.00	712.74	0.	712.82	14.19	2.46	451.06	263.92
12320.000	50.00	0.	0.	704.50	583.00	710.76	0.	710.81	14.45	1.96	350.01	153.39
12320.000	50.00	0.	0.	704.50	932.00	711.60	0.	711.66	14.50	2.18	491.35	244.75
12320.000	50.00	0.	0.	704.50	1521.00	712.11	0.	712.22	23.20	2.91	589.62	315.81
12320.000	50.00	0.	0.	704.50	2511.00	712.84	0.	713.04	33.30	3.76	731.15	435.14
12720.000	400.00	0.	0.	705.00	583.00	711.12	0.	711.13	5.05	1.21	630.27	259.34
12720.000	400.00	0.	0.	705.00	932.00	711.95	0.	711.97	4.64	1.26	910.01	432.68
12720.000	400.00	0.	0.	705.00	1521.00	712.57	0.	712.59	4.68	1.36	1413.93	702.72
12720.000	400.00	0.	0.	705.00	2511.00	713.46	0.	713.49	5.37	1.58	1887.25	1083.67
13640.000	920.00	0.	0.	706.50	583.00	712.22	0.	712.40	66.49	3.81	200.49	71.50
13640.000	920.00	0.	0.	706.50	932.00	712.96	0.	713.10	50.02	3.56	350.07	131.78
13640.000	920.00	0.	0.	706.50	1521.00	713.59	0.	713.75	54.04	3.90	491.57	206.91
13640.000	920.00	0.	0.	706.50	2511.00	714.55	0.	714.74	46.26	4.01	733.87	369.20
15270.000	1630.00	0.	0.	708.10	583.00	715.30	0.	715.33	8.17	1.57	504.10	203.94
15270.000	1630.00	0.	0.	708.10	932.00	715.94	0.	715.97	8.96	1.76	684.37	311.33
15270.000	1630.00	0.	0.	708.10	1521.00	716.77	0.	716.81	9.50	1.96	950.54	493.50
15270.000	1630.00	0.	0.	708.10	2511.00	717.78	0.	717.83	10.37	2.23	1317.61	779.88

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
16020.000	750.00	0.	0.	709.50	583.00	716.29	0.	716.40	33.27	2.85	247.06	101.07
16020.000	750.00	0.	0.	709.50	932.00	716.97	0.	717.08	32.90	3.06	405.82	162.49
16020.000	750.00	0.	0.	709.50	1521.00	717.78	0.	717.89	28.85	3.15	647.24	283.17
16020.000	750.00	0.	0.	709.50	2511.00	718.78	0.	718.89	24.79	3.24	1015.03	504.36
17020.000	1000.00	0.	0.	712.20	583.00	718.79	0.	718.84	18.65	2.05	363.19	135.00
17020.000	1000.00	0.	0.	712.20	932.00	719.43	0.	719.48	18.62	2.23	571.30	215.96
17020.000	1000.00	0.	0.	712.20	1521.00	720.09	0.	720.15	19.10	2.46	840.90	348.02
17020.000	1000.00	0.	0.	712.20	2511.00	720.84	0.	720.90	17.89	2.58	1312.36	593.65
17520.000	500.00	0.	0.	713.30	583.00	719.66	0.	719.71	16.91	2.12	402.02	141.79
17520.000	500.00	0.	0.	713.30	932.00	720.17	0.	720.20	11.60	1.87	712.36	273.61
17520.000	500.00	0.	0.	713.30	1521.00	720.75	0.	720.78	8.90	1.76	1083.17	509.77
17520.000	500.00	0.	0.	713.30	2511.00	721.44	0.	721.48	8.07	1.80	1530.94	883.64
17570.000	50.00	0.	0.	713.30	583.00	719.77	0.	719.80	10.65	1.71	491.78	178.62
17570.000	50.00	0.	0.	713.30	932.00	720.24	0.	720.27	8.51	1.62	750.43	319.40
17570.000	50.00	0.	0.	713.30	1521.00	720.81	0.	720.84	7.81	1.65	1054.87	544.12
17570.000	50.00	0.	0.	713.30	2511.00	721.50	0.	721.54	7.80	1.78	1437.18	899.29
17800.000	230.00	0.	0.	714.00	583.00	720.07	0.	720.13	20.69	2.61	342.70	128.17
17800.000	230.00	0.	0.	714.00	932.00	720.49	0.	720.55	17.06	2.54	510.37	225.63
17800.000	230.00	0.	0.	714.00	1521.00	721.03	0.	721.10	14.94	2.57	733.01	393.53
17800.000	230.00	0.	0.	714.00	2511.00	721.71	0.	721.81	14.17	2.73	1023.44	667.15
17844.000	44.00	0.	0.	714.00	583.00	720.17	0.	720.22	16.74	2.37	363.60	142.50
17844.000	44.00	0.	0.	714.00	932.00	720.56	0.	720.62	16.09	2.44	509.61	232.34
17844.000	44.00	0.	0.	714.00	1521.00	721.10	0.	721.17	15.22	2.54	708.37	389.88
17844.000	44.00	0.	0.	714.00	2511.00	721.78	0.	721.88	15.25	2.75	963.89	642.97
17856.000	12.00	719.20	719.40	714.00	583.00	720.21	0.	720.25	23.56	1.67	360.10	120.11
17856.000	12.00	719.20	719.40	714.00	932.00	720.59	0.	720.64	22.41	1.33	497.55	196.89
17856.000	12.00	719.20	719.40	714.00	1521.00	721.11	0.	721.19	19.44	1.34	691.00	344.95
17856.000	12.00	719.20	719.40	714.00	2511.00	721.79	0.	721.91	18.14	1.43	946.21	589.52
17900.000	44.00	0.	0.	714.00	583.00	720.28	0.	720.34	14.92	2.30	342.53	150.93
17900.000	44.00	0.	0.	714.00	932.00	720.67	0.	720.74	17.47	2.64	444.80	222.95
17900.000	44.00	0.	0.	714.00	1521.00	721.19	0.	721.30	19.12	2.97	593.32	347.83
17900.000	44.00	0.	0.	714.00	2511.00	721.87	0.	722.03	20.98	3.38	793.58	548.27
17970.000	70.00	0.	0.	713.70	583.00	720.38	0.	720.51	21.01	3.20	223.06	127.19
17970.000	70.00	0.	0.	713.70	932.00	720.78	0.	720.97	29.01	3.94	290.75	173.04
17970.000	70.00	0.	0.	713.70	1521.00	721.32	0.	721.50	30.06	4.24	464.94	277.41
17970.000	70.00	0.	0.	713.70	2511.00	721.99	0.	722.17	25.04	4.13	744.33	501.79
17997.000	27.00	0.	0.	713.70	583.00	720.42	0.	720.55	10.40	3.40	230.98	180.80
17997.000	27.00	0.	0.	713.70	932.00	720.84	0.	721.03	14.61	4.23	306.01	243.84
17997.000	27.00	0.	0.	713.70	1521.00	721.38	0.	721.58	16.27	4.72	490.91	377.04
17997.000	27.00	0.	0.	713.70	2511.00	722.04	0.	722.23	15.04	4.83	788.94	647.50
18043.000	46.00	722.20	718.70	713.70	583.00	721.75	0.	721.88	6.51	3.09	204.61	228.55
18043.000	46.00	722.20	718.70	713.70	932.00	722.74	0.	722.75	.78	1.17	1159.48	1056.36
18043.000	46.00	722.20	718.70	713.70	1521.00	723.21	0.	723.23	1.17	1.49	1441.41	1406.23
18043.000	46.00	722.20	718.70	713.70	2511.00	723.71	0.	723.74	1.87	1.96	1760.63	1834.39

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	18070.000	27.00	0.	0.	713.70	606.00	721.85	0.	721.92	4.14	2.49	314.92	297.71
	18070.000	27.00	0.	0.	713.70	1020.00	722.69	0.	722.82	6.63	3.39	382.12	396.19
	18070.000	27.00	0.	0.	713.70	1555.00	723.21	0.	723.23	1.97	1.93	1436.37	1107.73
	18070.000	27.00	0.	0.	713.70	2549.00	723.71	0.	723.75	3.10	2.52	1769.07	1448.48
	18120.000	50.00	0.	0.	713.70	606.00	721.91	0.	721.94	2.34	1.88	486.75	396.01
	18120.000	50.00	0.	0.	713.70	1020.00	722.81	0.	722.86	2.90	2.27	649.49	599.38
	18120.000	50.00	0.	0.	713.70	1555.00	723.22	0.	723.24	1.95	1.92	1441.27	1112.55
	18120.000	50.00	0.	0.	713.70	2549.00	723.75	0.	723.77	3.09	2.52	1771.10	1450.63
	18570.000	450.00	0.	0.	715.23	606.00	722.05	0.	722.11	8.02	.89	371.49	214.00
	18570.000	450.00	0.	0.	715.23	1020.00	722.98	0.	723.00	4.41	1.03	793.30	485.46
	18570.000	450.00	0.	0.	715.23	1555.00	723.34	0.	723.38	5.95	1.34	991.42	637.26
	18570.000	450.00	0.	0.	715.23	2549.00	723.90	0.	723.96	7.65	1.70	1339.55	921.48
	19020.000	450.00	0.	0.	716.40	606.00	722.36	0.	722.66	24.69	1.36	156.35	121.97
	19020.000	450.00	0.	0.	716.40	1020.00	723.20	0.	723.36	19.83	1.38	395.92	229.07
	19020.000	450.00	0.	0.	716.40	1555.00	723.65	0.	723.79	19.94	1.81	598.99	348.27
	19020.000	450.00	0.	0.	716.40	2549.00	724.29	0.	724.41	18.84	2.24	939.16	587.22
	19470.000	450.00	0.	0.	717.57	606.00	723.19	0.	723.58	30.16	1.22	133.47	110.34
	19470.000	450.00	0.	0.	717.57	1020.00	723.97	723.92	724.35	35.77	1.23	270.97	170.54
	19470.000	450.00	0.	0.	717.57	1555.00	724.48	0.	724.73	31.96	1.90	475.49	275.06
	19470.000	450.00	0.	0.	717.57	2549.00	725.10	0.	725.29	28.42	2.43	798.91	478.18
	19920.000	450.00	0.	0.	718.40	606.00	724.90	0.	725.18	58.77	4.57	157.86	79.05
	19920.000	450.00	0.	0.	718.40	1020.00	725.40	0.	725.47	19.93	2.87	544.36	228.46
	19920.000	450.00	0.	0.	718.40	1555.00	725.73	0.	725.81	20.97	3.07	768.62	339.57
	19920.000	450.00	0.	0.	718.40	2549.00	726.20	0.	726.30	21.14	3.27	1104.24	554.38
	19963.000	43.00	0.	0.	718.50	606.00	725.18	0.	725.34	15.85	3.66	215.83	152.32
	19963.000	43.00	0.	0.	718.50	1020.00	725.46	0.	725.54	11.41	3.23	514.22	302.03
	19963.000	43.00	0.	0.	718.50	1555.00	725.79	0.	725.88	11.63	3.42	737.44	455.89
	19963.000	43.00	0.	0.	718.50	2549.00	726.26	0.	726.37	11.37	3.59	1068.92	755.78
*	19964.000	1.00	100000.00	100000.00	718.50	606.00	725.18	0.	725.34	15.77	3.65	216.17	152.61
	19964.000	1.00	724.50	724.00	718.50	1020.00	725.45	0.	725.56	40.48	2.74	405.05	160.32
	19964.000	1.00	724.50	724.00	718.50	1555.00	725.78	0.	725.89	28.51	2.42	628.52	291.22
	19964.000	1.00	724.50	724.00	718.50	2549.00	726.26	0.	726.37	20.61	2.21	961.79	561.50
	19976.000	12.00	0.	0.	718.50	606.00	725.25	0.	725.36	13.15	3.36	239.38	167.09
	19976.000	12.00	724.50	724.00	718.50	1020.00	725.51	0.	725.60	32.98	2.49	438.06	177.62
	19976.000	12.00	724.50	724.00	718.50	1555.00	725.82	0.	725.92	26.33	2.34	644.71	303.04
	19976.000	12.00	724.50	724.00	718.50	2549.00	726.28	0.	726.40	20.11	2.19	967.18	568.48
	19977.000	1.00	0.	0.	718.50	606.00	725.24	0.	725.37	13.12	3.36	239.61	167.27
	19977.000	1.00	0.	0.	718.50	1020.00	725.54	0.	725.61	9.25	2.95	566.40	335.34
	19977.000	1.00	0.	0.	718.50	1555.00	725.85	0.	725.93	10.12	3.21	777.66	488.82
	19977.000	1.00	0.	0.	718.50	2549.00	726.31	0.	726.41	10.42	3.45	1099.54	789.74
	20020.000	43.00	0.	0.	718.60	606.00	725.34	0.	725.47	56.21	3.48	281.76	80.83
	20020.000	43.00	0.	0.	718.60	1020.00	725.60	0.	725.72	64.44	3.87	539.37	127.06
	20020.000	43.00	0.	0.	718.60	1555.00	725.92	0.	726.03	64.00	4.03	759.71	194.38
	20020.000	43.00	0.	0.	718.60	2549.00	726.38	0.	726.51	62.15	4.20	1067.90	323.34

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
20280.000	260.00	0.	0.	719.30	606.00	725.68	0.	725.69	2.91	1.06	1262.39	355.31
20280.000	260.00	0.	0.	719.30	1020.00	726.02	0.	726.03	4.98	1.45	1501.97	456.87
20280.000	260.00	0.	0.	719.30	1555.00	726.41	0.	726.43	7.07	1.80	1772.58	584.71
20280.000	260.00	0.	0.	719.30	2549.00	726.98	0.	727.01	10.03	2.27	2186.75	804.99
21580.000	1300.00	0.	0.	720.20	606.00	726.72	0.	727.00	69.90	4.52	164.76	72.48
21580.000	1300.00	0.	0.	720.20	1020.00	727.68	0.	728.04	78.75	5.48	296.98	114.96
21580.000	1300.00	0.	0.	720.20	1555.00	728.49	0.	728.77	64.06	5.43	564.08	194.28
21580.000	1300.00	0.	0.	720.20	2549.00	729.51	0.	729.72	51.29	5.39	1000.36	355.93
21630.000	50.00	0.	0.	720.20	606.00	727.07	0.	727.39	67.01	4.66	143.78	74.03
21630.000	50.00	0.	0.	720.20	1020.00	728.07	0.	728.51	79.35	5.77	286.23	114.51
21630.000	50.00	0.	0.	720.20	1555.00	728.83	0.	729.18	69.86	5.88	539.35	186.04
21630.000	50.00	0.	0.	720.20	2549.00	729.78	0.	730.05	58.03	5.88	962.16	334.62
21804.000	34.00	0.	0.	720.20	606.00	727.33	0.	727.71	89.06	4.96	122.08	64.21
21804.000	34.00	0.	0.	720.20	1020.00	728.40	727.92	728.91	111.35	6.09	264.42	96.66
21804.000	34.00	0.	0.	720.20	1555.00	729.12	0.	729.48	94.99	5.97	514.58	159.55
21804.000	34.00	0.	0.	720.20	2549.00	730.07	0.	730.30	70.43	5.50	959.45	303.73
21836.000	32.00	729.40	728.90	720.20	606.00	727.50	0.	727.86	26.28	4.79	126.43	118.21
21836.000	32.00	729.40	728.90	720.20	1020.00	729.30	0.	729.66	23.79	5.21	301.00	209.11
21836.000	32.00	729.40	728.90	720.20	1555.00	730.11	0.	730.29	15.39	4.44	669.07	396.44
21836.000	32.00	729.40	728.90	720.20	2549.00	730.74	0.	730.91	15.45	4.63	997.37	648.43
21870.000	34.00	0.	0.	720.20	606.00	727.94	0.	728.01	12.23	2.45	289.42	173.30
21870.000	34.00	0.	0.	720.20	1020.00	729.77	0.	729.79	3.89	1.66	911.06	517.40
21870.000	34.00	0.	0.	720.20	1555.00	730.33	0.	730.36	4.23	1.82	1225.23	755.74
21870.000	34.00	0.	0.	720.20	2549.00	730.92	0.	730.97	5.48	2.17	1570.66	1088.50
21920.000	50.00	0.	0.	720.20	606.00	728.05	0.	728.06	5.60	1.68	486.23	256.02
21920.000	50.00	0.	0.	720.20	1020.00	729.80	0.	729.81	1.56	1.07	1329.79	816.24
21920.000	50.00	0.	0.	720.20	1555.00	730.37	0.	730.38	1.86	1.22	1686.49	1138.75
21920.000	50.00	0.	0.	720.20	2549.00	730.97	0.	730.99	2.70	1.55	2062.70	1550.24
22390.000	470.00	0.	0.	720.80	706.00	728.27	0.	728.29	4.74	1.14	749.60	324.24
22390.000	470.00	0.	0.	720.80	1292.00	729.86	0.	729.87	1.45	.75	1880.32	1074.13
22390.000	470.00	0.	0.	720.80	1888.00	730.44	0.	730.45	1.57	.82	2397.91	1507.90
22390.000	470.00	0.	0.	720.80	2950.00	731.07	0.	731.08	2.02	.98	2973.37	2074.98
23390.000	1000.00	0.	0.	723.00	706.00	729.27	0.	729.48	72.90	4.10	281.39	82.69
23390.000	1000.00	0.	0.	723.00	1292.00	730.17	0.	730.31	54.40	4.00	669.26	175.17
23390.000	1000.00	0.	0.	723.00	1888.00	730.77	0.	730.89	45.77	3.94	1018.18	279.07
23390.000	1000.00	0.	0.	723.00	2950.00	731.49	0.	731.60	43.08	4.12	1496.17	449.43
23440.000	50.00	0.	0.	723.10	706.00	729.68	0.	729.73	25.23	2.55	617.40	140.56
23440.000	50.00	0.	0.	723.10	1292.00	730.46	0.	730.50	21.68	2.61	1095.00	277.50
23440.000	50.00	0.	0.	723.10	1888.00	731.01	0.	731.05	20.63	2.70	1464.59	415.66
23440.000	50.00	0.	0.	723.10	2950.00	731.72	0.	731.76	21.86	2.99	1949.80	630.97
23483.000	43.00	0.	0.	723.10	706.00	729.73	0.	729.78	5.72	2.45	645.88	295.16
23483.000	43.00	0.	0.	723.10	1292.00	730.50	0.	730.54	5.08	2.54	1123.70	573.41
23483.000	43.00	0.	0.	723.10	1888.00	731.05	0.	731.09	4.99	2.67	1508.40	845.58
23483.000	43.00	0.	0.	723.10	2950.00	731.76	0.	731.81	5.16	2.91	2029.00	1298.12

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
23484.000	1.00	728.20	728.60	723.10	706.00	729.75	0.	729.78	14.19	2.08	551.19	187.39
23484.000	1.00	728.20	728.60	723.10	1292.00	730.52	0.	730.55	9.92	1.46	1022.11	410.31
23484.000	1.00	728.20	728.60	723.10	1888.00	731.07	0.	731.10	8.27	1.45	1406.36	656.55
23484.000	1.00	728.20	728.60	723.10	2950.00	731.77	0.	731.81	7.53	1.51	1926.19	1075.31
23496.000	12.00	728.20	728.60	723.10	706.00	729.77	0.	729.80	13.56	2.04	562.08	191.70
23496.000	12.00	728.20	728.60	723.10	1292.00	730.54	0.	730.56	9.59	1.44	1034.04	417.26
23496.000	12.00	728.20	728.60	723.10	1888.00	731.08	0.	731.11	8.18	1.44	1418.33	660.27
23496.000	12.00	728.20	728.60	723.10	2950.00	731.78	0.	731.82	7.72	1.53	1969.44	1061.85
23497.000	1.00	0.	0.	723.10	706.00	729.76	0.	729.81	5.34	2.37	666.89	305.65
23497.000	1.00	0.	0.	723.10	1292.00	730.53	0.	730.57	4.84	2.48	1144.93	587.33
23497.000	1.00	0.	0.	723.10	1888.00	731.07	0.	731.11	4.86	2.64	1528.63	856.45
23497.000	1.00	0.	0.	723.10	2950.00	731.78	0.	731.82	5.21	2.93	2080.45	1292.71
23540.000	43.00	0.	0.	723.10	706.00	729.81	0.	729.85	17.71	2.17	686.65	167.77
23540.000	43.00	0.	0.	723.10	1292.00	730.57	0.	730.60	15.89	2.26	1165.20	324.14
23540.000	43.00	0.	0.	723.10	1888.00	731.12	0.	731.15	15.89	2.40	1550.30	473.65
23540.000	43.00	0.	0.	723.10	2950.00	731.82	0.	731.86	16.94	2.65	2106.01	716.84
24710.000	1170.00	0.	0.	724.40	706.00	731.68	0.	731.73	14.60	2.06	499.31	184.74
24710.000	1170.00	0.	0.	724.40	1292.00	732.55	0.	732.62	18.37	2.56	827.43	301.44
24710.000	1170.00	0.	0.	724.40	1888.00	733.17	0.	733.24	19.87	2.84	1118.91	423.53
24710.000	1170.00	0.	0.	724.40	2950.00	734.02	0.	734.11	21.41	3.18	1527.39	637.56
25870.000	1160.00	0.	0.	730.80	149.00	733.60	0.	733.70	58.16	3.20	77.03	19.54
25870.000	1160.00	0.	0.	730.80	279.00	734.48	0.	734.50	13.10	1.84	243.84	77.09
25870.000	1160.00	0.	0.	730.80	506.00	735.09	0.	735.12	11.00	1.93	394.22	152.55
25870.000	1160.00	0.	0.	730.80	885.00	735.91	0.	735.95	9.27	2.08	598.67	290.73
26143.000	270.00	0.	0.	731.00	149.00	734.36	0.	734.55	21.91	3.74	49.59	31.83
26143.000	270.00	0.	0.	731.00	279.00	734.77	0.	735.07	30.17	4.92	76.65	50.79
26143.000	270.00	0.	0.	731.00	506.00	735.31	0.	735.69	34.01	5.91	118.32	86.77
26143.000	270.00	0.	0.	731.00	885.00	736.05	0.	736.50	32.09	6.60	178.61	156.22
26191.000	48.00	0.	0.	730.60	149.00	734.58	0.	734.63	3.57	1.85	88.85	78.87
26191.000	48.00	0.	0.	730.60	279.00	735.07	0.	735.18	6.58	2.79	114.71	108.80
26191.000	48.00	0.	0.	730.60	506.00	735.59	0.	735.82	11.74	4.10	143.86	147.70
26191.000	48.00	0.	0.	730.60	885.00	736.16	0.	736.62	20.39	5.90	175.69	195.99
26231.000	40.00	0.	0.	731.30	149.00	734.58	0.	734.66	5.55	2.31	66.84	63.26
26231.000	40.00	0.	0.	731.30	279.00	735.06	0.	735.25	10.32	3.54	83.24	88.85
26231.000	40.00	0.	0.	731.30	506.00	735.55	0.	735.98	19.50	5.39	100.66	114.60
26231.000	40.00	0.	0.	731.30	885.00	736.00	0.	736.98	37.96	8.18	117.42	143.63
26241.000	10.00	0.	0.	731.00	149.00	734.59	0.	734.67	5.48	2.28	65.25	63.67
26241.000	10.00	0.	0.	731.00	279.00	735.07	0.	735.27	11.16	3.58	77.84	83.51
26241.000	10.00	0.	0.	731.00	506.00	735.55	734.32	736.03	22.89	5.56	98.16	105.77
26241.000	10.00	0.	0.	731.00	885.00	737.09	0.	737.24	6.79	3.86	350.77	339.70
26273.000	32.00	0.	0.	731.00	149.00	734.64	0.	734.69	2.65	1.78	83.53	91.56
26273.000	32.00	0.	0.	731.00	279.00	735.19	0.	735.32	5.88	2.87	97.18	115.03
26273.000	32.00	0.	0.	731.00	506.00	735.83	0.	736.13	11.76	4.41	120.85	147.58
26273.000	32.00	0.	0.	731.00	885.00	736.96	0.	737.43	15.30	5.75	171.68	226.24

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
26315.000	42.00	0.	0.	731.00	149.00	734.65	0.	734.70	.52	1.78	83.81	207.04
26315.000	42.00	0.	0.	731.00	279.00	735.20	0.	735.32	1.15	2.86	97.44	259.83
26315.000	42.00	0.	0.	731.00	506.00	735.93	0.	736.17	1.89	4.03	150.32	367.68
26315.000	42.00	0.	0.	731.00	885.00	737.33	0.	737.53	1.38	4.06	273.75	752.99

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SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
0.	406.00	688.20	0.	0.	0.	54.80	0.
0.	608.00	689.20	1.00	0.	0.	314.62	0.
0.	748.00	689.80	.60	0.	0.	493.42	0.
0.	952.00	690.00	.20	0.	0.	513.95	0.
200.000	406.00	689.12	0.	.92	0.	50.00	200.00
200.000	608.00	689.57	.46	.37	.46	321.44	200.00
200.000	748.00	689.98	.41	.18	.87	478.52	200.00
200.000	952.00	690.20	.21	.20	1.08	500.23	200.00
400.000	406.00	689.71	0.	.59	0.	50.00	200.00
400.000	608.00	689.92	.21	.34	.21	322.76	200.00
400.000	748.00	690.22	.31	.24	.52	464.26	200.00
400.000	952.00	690.44	.22	.24	.73	493.33	200.00
600.000	406.00	690.19	0.	.48	0.	50.00	200.00
600.000	608.00	690.24	.06	.33	.06	324.83	200.00
600.000	748.00	690.50	.25	.27	.31	440.97	200.00
600.000	952.00	690.71	.22	.28	.53	488.78	200.00
800.000	406.00	690.50	0.	.31	0.	316.75	200.00
800.000	608.00	690.57	.07	.32	.07	324.63	200.00
800.000	748.00	690.79	.23	.30	.29	425.37	200.00
800.000	952.00	691.01	.22	.30	.51	485.75	200.00
1000.000	406.00	690.61	0.	.11	0.	342.95	200.00
1000.000	608.00	690.76	.15	.19	.15	375.84	200.00
1000.000	748.00	690.98	.22	.19	.38	442.63	200.00
1000.000	952.00	691.21	.23	.20	.61	475.00	200.00
1200.000	406.00	690.67	0.	.07	0.	290.20	200.00
1200.000	608.00	690.87	.19	.11	.19	298.51	200.00
1200.000	748.00	691.09	.23	.11	.42	372.97	200.00
1200.000	952.00	691.33	.24	.12	.66	433.03	200.00
1400.000	406.00	690.78	0.	.11	0.	236.38	200.00
1400.000	608.00	691.03	.25	.17	.25	247.10	200.00
1400.000	748.00	691.26	.23	.17	.48	315.49	200.00
1400.000	952.00	691.51	.25	.18	.73	350.00	200.00
1600.000	406.00	690.95	0.	.16	0.	184.79	200.00
1600.000	608.00	691.26	.31	.23	.31	198.24	200.00
1600.000	748.00	691.50	.24	.23	.55	250.00	200.00
1600.000	952.00	691.76	.27	.25	.82	250.00	200.00
1800.000	406.00	691.16	0.	.21	0.	135.24	200.00
1800.000	608.00	691.54	.38	.28	.38	150.00	200.00
1800.000	748.00	691.79	.25	.30	.63	150.00	200.00
1800.000	952.00	692.09	.30	.32	.93	150.00	200.00
1900.000	406.00	691.35	0.	.19	0.	58.62	100.00
1900.000	608.00	691.80	.45	.26	.45	86.30	100.00
1900.000	748.00	692.08	.28	.29	.73	94.35	100.00
1900.000	952.00	692.41	.33	.32	1.06	95.63	100.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
1950.000	406.00	691.56	0.	.21	0.	55.00	50.00
1950.000	608.00	692.10	.54	.30	.54	55.00	50.00
1950.000	748.00	692.40	.30	.32	.84	55.00	50.00
1950.000	952.00	692.75	.35	.34	1.19	55.00	50.00
1985.000	406.00	691.60	0.	.04	0.	27.00	35.00
1985.000	608.00	692.16	.56	.07	.56	27.00	35.00
1985.000	748.00	692.48	.32	.08	.88	27.00	35.00
1985.000	952.00	692.85	.37	.10	1.25	27.00	35.00
1986.000	406.00	691.60	0.	.00	0.	27.00	1.00
1986.000	608.00	692.16	.56	.00	.56	27.00	1.00
1986.000	748.00	692.48	.32	.00	.88	27.00	1.00
1986.000	952.00	692.86	.37	.00	1.25	27.00	1.00
2014.000	406.00	691.63	0.	.03	0.	27.00	28.00
2014.000	608.00	692.22	.59	.06	.59	27.00	28.00
2014.000	748.00	692.56	.34	.07	.92	27.00	28.00
2014.000	952.00	693.04	.49	.19	1.41	27.00	28.00
2015.000	406.00	691.64	0.	.00	0.	27.00	1.00
2015.000	608.00	692.22	.59	.00	.59	27.00	1.00
2015.000	748.00	692.56	.34	.00	.93	27.00	1.00
2015.000	952.00	693.14	.58	.09	1.50	27.00	1.00
2050.000	406.00	691.80	0.	.16	0.	127.00	35.00
2050.000	608.00	692.54	.74	.32	.74	127.00	35.00
2050.000	748.00	693.00	.46	.44	1.20	127.00	35.00
2050.000	952.00	693.74	.74	.60	1.94	127.00	35.00
2100.000	406.00	691.88	0.	.08	0.	194.29	50.00
2100.000	608.00	692.63	.75	.09	.75	223.00	50.00
2100.000	748.00	693.10	.47	.10	1.22	227.00	50.00
2100.000	952.00	693.84	.74	.10	1.96	227.00	50.00
2430.000	406.00	692.63	0.	.75	0.	89.49	330.00
2430.000	608.00	693.29	.66	.66	.66	258.30	330.00
2430.000	748.00	693.67	.38	.57	1.04	375.70	330.00
2430.000	952.00	694.24	.57	.41	1.62	467.28	330.00
2990.000	406.00	693.97	0.	1.34	0.	167.51	560.00
2990.000	608.00	694.52	.55	1.23	.55	191.29	560.00
2990.000	748.00	694.81	.29	1.14	.84	203.43	560.00
2990.000	952.00	695.15	.35	.91	1.19	218.58	560.00
3390.000	406.00	694.44	0.	.47	0.	343.46	400.00
3390.000	608.00	694.92	.48	.40	.48	402.73	400.00
3390.000	748.00	695.19	.27	.39	.75	430.68	400.00
3390.000	952.00	695.53	.34	.38	1.09	484.60	400.00
4040.000	406.00	695.26	0.	.82	0.	127.57	650.00
4040.000	608.00	695.66	.40	.73	.40	147.96	650.00
4040.000	748.00	695.89	.23	.69	.63	159.13	650.00
4040.000	952.00	696.18	.29	.64	.92	174.56	650.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
4570.000	406.00	696.74	0.	1.48	0.	218.21	530.00
4570.000	608.00	697.21	.47	1.55	.47	277.29	530.00
4570.000	748.00	697.45	.24	1.56	.71	278.04	530.00
4570.000	952.00	697.73	.28	1.55	.99	278.95	530.00
5090.000	406.00	697.92	0.	1.19	0.	140.57	520.00
5090.000	608.00	698.41	.48	1.20	.48	141.46	520.00
5090.000	748.00	698.65	.24	1.20	.73	141.90	520.00
5090.000	952.00	698.95	.30	1.22	1.02	143.80	520.00
5450.000	406.00	698.51	0.	.59	0.	47.66	360.00
5450.000	608.00	699.16	.65	.75	.65	48.31	360.00
5450.000	748.00	699.51	.35	.86	1.00	48.65	360.00
5450.000	952.00	699.95	.43	1.00	1.44	49.08	360.00
5500.000	406.00	698.58	0.	.07	0.	36.74	50.00
5500.000	608.00	699.26	.68	.10	.68	37.41	50.00
5500.000	748.00	699.63	.37	.12	1.05	37.77	50.00
5500.000	952.00	700.10	.46	.15	1.52	38.22	50.00
5525.000	406.00	698.60	0.	.02	0.	26.00	25.00
5525.000	608.00	699.29	.69	.03	.69	26.00	25.00
5525.000	748.00	699.67	.38	.04	1.07	26.00	25.00
5525.000	952.00	700.15	.48	.05	1.55	26.00	25.00
5535.000	406.00	698.61	0.	.01	0.	26.00	10.00
5535.000	608.00	699.30	.69	.01	.69	26.00	10.00
5535.000	748.00	699.69	.39	.02	1.08	26.00	10.00
5535.000	952.00	700.17	.48	.02	1.56	26.00	10.00
5536.000	406.00	698.61	0.	.00	0.	26.00	1.00
5536.000	608.00	699.31	.69	.00	.69	26.00	1.00
5536.000	748.00	699.69	.39	.00	1.08	26.00	1.00
5536.000	952.00	700.17	.48	.00	1.56	26.00	1.00
5564.000	406.00	698.63	0.	.02	0.	26.00	28.00
5564.000	608.00	699.34	.71	.03	.71	26.00	28.00
5564.000	748.00	699.74	.40	.04	1.11	26.00	28.00
5564.000	952.00	700.24	.50	.06	1.61	26.00	28.00
5565.000	406.00	698.63	0.	.00	0.	26.00	1.00
5565.000	608.00	699.34	.71	.00	.71	26.00	1.00
5565.000	748.00	699.74	.40	.00	1.11	26.00	1.00
5565.000	952.00	700.24	.50	.00	1.61	26.00	1.00
5575.000	406.00	698.64	0.	.01	0.	26.00	10.00
5575.000	608.00	699.35	.71	.01	.71	26.00	10.00
5575.000	748.00	699.75	.40	.01	1.12	26.00	10.00
5575.000	952.00	700.26	.51	.02	1.62	26.00	10.00
5600.000	419.00	698.71	0.	.08	0.	83.00	25.00
5600.000	636.00	699.53	.82	.18	.82	83.00	25.00
5600.000	777.00	700.01	.49	.26	1.30	83.00	25.00
5600.000	991.00	700.66	.64	.39	1.94	83.00	25.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
5650.000	419.00	698.80	0.	.09	0.	183.00	50.00
5650.000	636.00	699.64	.84	.11	.84	183.00	50.00
5650.000	777.00	700.14	.50	.12	1.33	183.00	50.00
5650.000	991.00	700.80	.66	.14	1.99	183.00	50.00
6300.000	419.00	698.95	0.	.15	0.	110.87	650.00
6300.000	636.00	699.80	.85	.16	.85	300.30	650.00
6300.000	777.00	700.29	.49	.15	1.34	320.06	650.00
6300.000	991.00	700.94	.65	.14	1.99	426.18	650.00
6720.000	419.00	698.95	0.	-.00	0.	27.21	420.00
6720.000	636.00	699.91	.97	.12	.97	570.34	420.00
6720.000	777.00	700.48	.56	.19	1.53	793.21	420.00
6720.000	991.00	701.07	.59	.13	2.12	995.71	420.00
7080.000	419.00	700.18	0.	1.24	0.	280.03	360.00
7080.000	636.00	700.77	.58	.85	.58	502.72	360.00
7080.000	777.00	700.78	.02	.30	.60	511.15	360.00
7080.000	991.00	701.19	.41	.12	1.01	898.97	360.00
7670.000	419.00	700.82	0.	.63	0.	165.00	590.00
7670.000	636.00	701.19	.38	.43	.38	215.41	590.00
7670.000	777.00	701.35	.16	.57	.54	236.36	590.00
7670.000	991.00	701.58	.22	.38	.76	266.25	590.00
8370.000	419.00	702.99	0.	2.18	0.	309.89	700.00
8370.000	636.00	703.36	.36	2.16	.36	355.00	700.00
8370.000	777.00	703.53	.18	2.18	.54	355.00	700.00
8370.000	991.00	703.76	.23	2.19	.77	355.00	700.00
8850.000	419.00	703.95	0.	.96	0.	140.46	480.00
8850.000	636.00	704.19	.24	.84	.24	335.44	480.00
8850.000	777.00	704.36	.17	.83	.41	340.89	480.00
8850.000	991.00	704.59	.23	.83	.64	348.27	480.00
9520.000	419.00	705.39	0.	1.44	0.	204.48	670.00
9520.000	636.00	705.58	.19	1.38	.19	209.79	670.00
9520.000	777.00	705.76	.18	1.39	.37	214.94	670.00
9520.000	991.00	705.99	.24	1.40	.61	221.20	670.00
10020.000	419.00	706.19	0.	.81	0.	262.96	500.00
10020.000	636.00	706.56	.36	.98	.36	332.45	500.00
10020.000	777.00	706.75	.19	1.00	.56	351.84	500.00
10020.000	991.00	707.01	.26	1.02	.82	365.00	500.00
10520.000	419.00	706.77	0.	.58	0.	186.00	500.00
10520.000	636.00	707.20	.43	.64	.43	186.00	500.00
10520.000	777.00	707.40	.20	.65	.63	276.00	500.00
10520.000	991.00	707.68	.28	.67	.91	276.00	500.00
10570.000	419.00	706.81	0.	.04	0.	150.00	50.00
10570.000	636.00	707.24	.43	.04	.43	150.00	50.00
10570.000	777.00	707.43	.19	.03	.62	272.00	50.00
10570.000	991.00	707.71	.28	.03	.90	272.00	50.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
10605.000	419.00	706.83	0.	.02	0.	26.00	35.00
10605.000	636.00	707.27	.44	.03	.44	26.00	35.00
10605.000	777.00	707.45	.18	.02	.62	26.00	35.00
10605.000	991.00	707.72	.27	.01	.89	26.00	35.00
10606.000	419.00	706.83	0.	.00	0.	26.00	1.00
10606.000	636.00	707.27	.44	.00	.44	26.00	1.00
10606.000	777.00	707.46	.19	.00	.62	26.00	1.00
10606.000	991.00	707.73	.27	.00	.90	26.00	1.00
10634.000	419.00	706.87	0.	.04	0.	26.00	28.00
10634.000	636.00	707.35	.48	.08	.48	26.00	28.00
10634.000	777.00	707.57	.22	.11	.70	26.00	28.00
10634.000	991.00	707.91	.34	.18	1.04	26.00	28.00
10635.000	419.00	706.87	0.	.00	0.	26.00	1.00
10635.000	636.00	707.35	.48	.00	.48	26.00	1.00
10635.000	777.00	707.57	.22	.00	.70	26.00	1.00
10635.000	991.00	707.92	.34	.01	1.04	26.00	1.00
10670.000	422.00	707.00	0.	.13	0.	67.02	35.00
10670.000	638.00	707.64	.64	.29	.64	120.00	35.00
10670.000	779.00	708.02	.38	.45	1.02	120.00	35.00
10670.000	994.00	708.64	.61	.72	1.64	120.00	35.00
10720.000	422.00	707.11	0.	.11	0.	116.91	50.00
10720.000	638.00	707.84	.72	.20	.72	220.00	50.00
10720.000	779.00	708.23	.39	.21	1.12	220.00	50.00
10720.000	994.00	708.83	.60	.20	1.72	220.00	50.00
11060.000	422.00	707.92	0.	.81	0.	91.01	340.00
11060.000	638.00	708.56	.64	.72	.64	106.56	340.00
11060.000	779.00	708.87	.31	.64	.94	111.53	340.00
11060.000	994.00	709.33	.46	.50	1.41	115.71	340.00
11450.000	422.00	708.48	0.	.56	0.	326.11	390.00
11450.000	638.00	709.10	.62	.54	.62	344.99	390.00
11450.000	779.00	709.43	.33	.56	.95	348.90	390.00
11450.000	994.00	709.90	.47	.57	1.42	354.48	390.00
11860.000	422.00	709.11	0.	.63	0.	200.00	410.00
11860.000	638.00	709.64	.53	.53	.53	200.00	410.00
11860.000	779.00	709.94	.30	.50	.82	200.00	410.00
11860.000	994.00	710.36	.42	.46	1.25	200.00	410.00
12170.000	422.00	710.34	0.	1.23	0.	41.00	310.00
12170.000	638.00	710.93	.58	1.29	.58	41.00	310.00
12170.000	779.00	711.24	.31	1.30	.89	41.00	310.00
12170.000	994.00	711.64	.40	1.28	1.29	41.00	310.00
12204.000	422.00	710.43	0.	.08	0.	22.20	34.00
12204.000	638.00	711.03	.61	.11	.61	22.20	34.00
12204.000	779.00	711.36	.33	.13	.94	22.20	34.00
12204.000	994.00	711.79	.43	.15	1.37	22.20	34.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
12205.000	422.00	710.43	0.	.00	0.	22.20	1.00
12205.000	638.00	711.04	.61	.00	.61	22.20	1.00
12205.000	779.00	711.37	.33	.00	.94	22.20	1.00
12205.000	994.00	711.80	.43	.01	1.37	22.20	1.00
12235.000	422.00	710.48	0.	.05	0.	22.20	30.00
12235.000	638.00	711.14	.65	.10	.65	22.20	30.00
12235.000	779.00	711.50	.37	.14	1.02	22.20	30.00
12235.000	994.00	712.00	.50	.20	1.52	22.20	30.00
12236.000	422.00	710.48	0.	.00	0.	22.20	1.00
12236.000	638.00	711.14	.66	.00	.66	22.20	1.00
12236.000	779.00	711.51	.37	.00	1.02	22.20	1.00
12236.000	994.00	712.01	.50	.01	1.52	22.20	1.00
12270.000	422.00	710.67	0.	.19	0.	92.00	34.00
12270.000	638.00	711.51	.84	.37	.84	92.00	34.00
12270.000	779.00	712.01	.50	.51	1.34	92.00	34.00
12270.000	994.00	712.74	.72	.73	2.07	92.00	34.00
12320.000	583.00	710.76	0.	.09	0.	155.93	50.00
12320.000	932.00	711.60	.84	.09	.84	184.18	50.00
12320.000	1521.00	712.11	.51	.10	1.35	192.00	50.00
12320.000	2511.00	712.84	.73	.11	2.08	192.00	50.00
12720.000	583.00	711.12	0.	.35	0.	324.72	400.00
12720.000	932.00	711.95	.83	.35	.83	344.84	400.00
12720.000	1521.00	712.57	.62	.46	1.45	517.17	400.00
12720.000	2511.00	713.46	.89	.62	2.35	542.08	400.00
13640.000	583.00	712.22	0.	1.11	0.	183.65	920.00
13640.000	932.00	712.96	.74	1.01	.74	216.55	920.00
13640.000	1521.00	713.59	.62	1.02	1.36	237.00	920.00
13640.000	2511.00	714.55	.97	1.09	2.33	262.34	920.00
15270.000	583.00	715.30	0.	3.08	0.	272.96	1630.00
15270.000	932.00	715.94	.63	2.97	.63	301.66	1630.00
15270.000	1521.00	716.77	.83	3.18	1.46	339.62	1630.00
15270.000	2511.00	717.78	1.01	3.22	2.47	385.89	1630.00
16020.000	583.00	716.29	0.	.99	0.	170.07	750.00
16020.000	932.00	716.97	.68	1.04	.68	266.59	750.00
16020.000	1521.00	717.78	.81	1.02	1.49	328.92	750.00
16020.000	2511.00	718.78	1.00	1.01	2.49	405.87	750.00
17020.000	583.00	718.79	0.	2.50	0.	253.09	1000.00
17020.000	932.00	719.43	.63	2.45	.63	360.89	1000.00
17020.000	1521.00	720.09	.66	2.31	1.29	629.18	1000.00
17020.000	2511.00	720.84	.75	2.05	2.04	648.37	1000.00
17520.000	583.00	719.66	0.	.87	0.	544.95	500.00
17520.000	932.00	720.17	.50	.74	.50	632.66	500.00
17520.000	1521.00	720.75	.58	.66	1.08	641.97	500.00
17520.000	2511.00	721.44	.69	.60	1.78	653.03	500.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
17570.000	583.00	719.77	0.	.11	0.	537.45	50.00
17570.000	932.00	720.24	.47	.07	.47	542.98	50.00
17570.000	1521.00	720.81	.57	.06	1.04	549.66	50.00
17570.000	2511.00	721.50	.69	.06	1.73	557.95	50.00
17800.000	583.00	720.07	0.	.30	0.	393.58	230.00
17800.000	932.00	720.49	.42	.25	.42	403.60	230.00
17800.000	1521.00	721.03	.54	.22	.96	416.56	230.00
17800.000	2511.00	721.71	.68	.22	1.65	432.81	230.00
17844.000	583.00	720.17	0.	.10	0.	362.10	44.00
17844.000	932.00	720.56	.40	.08	.40	371.31	44.00
17844.000	1521.00	721.10	.53	.07	.93	373.98	44.00
17844.000	2511.00	721.78	.68	.06	1.61	377.38	44.00
17856.000	583.00	720.21	0.	.04	0.	364.27	12.00
17856.000	932.00	720.59	.38	.02	.38	371.43	12.00
17856.000	1521.00	721.11	.53	.02	.91	374.02	12.00
17856.000	2511.00	721.79	.68	.02	1.59	377.42	12.00
17900.000	583.00	720.28	0.	.08	0.	266.77	44.00
17900.000	932.00	720.67	.38	.08	.38	275.75	44.00
17900.000	1521.00	721.19	.52	.08	.91	288.29	44.00
17900.000	2511.00	721.87	.68	.08	1.59	304.38	44.00
17970.000	583.00	720.38	0.	.10	0.	147.64	70.00
17970.000	932.00	720.78	.40	.12	.40	198.06	70.00
17970.000	1521.00	721.32	.53	.12	.93	384.12	70.00
17970.000	2511.00	721.99	.67	.12	1.61	425.00	70.00
17997.000	583.00	720.42	0.	.04	0.	151.64	27.00
17997.000	932.00	720.84	.42	.06	.42	258.45	27.00
17997.000	1521.00	721.38	.53	.06	.96	396.59	27.00
17997.000	2511.00	722.04	.66	.05	1.62	489.09	27.00
18043.000	583.00	721.75	0.	1.33	0.	40.00	46.00
18043.000	932.00	722.74	.99	1.90	.99	569.88	46.00
18043.000	1521.00	723.21	.47	1.83	1.46	624.38	46.00
18043.000	2511.00	723.71	.50	1.67	1.95	680.85	46.00
18070.000	606.00	721.85	0.	.09	0.	80.00	27.00
18070.000	1020.00	722.69	.84	-.05	.84	80.00	27.00
18070.000	1555.00	723.21	.52	.00	1.36	623.45	27.00
18070.000	2549.00	723.71	.50	.00	1.86	682.28	27.00
18120.000	606.00	721.91	0.	.06	0.	180.00	50.00
18120.000	1020.00	722.81	.90	.13	.90	180.00	50.00
18120.000	1555.00	723.22	.41	.01	1.31	624.35	50.00
18120.000	2549.00	723.73	.51	.02	1.82	682.62	50.00
18570.000	606.00	722.05	0.	.13	0.	367.14	450.00
18570.000	1020.00	722.98	.93	.16	.93	522.87	450.00
18570.000	1555.00	723.34	.36	.11	1.29	576.63	450.00
18570.000	2549.00	723.90	.56	.17	1.85	669.66	450.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	19020.000	606.00	722.36	0.	.32	0.	106.98	450.00
	19020.000	1020.00	723.20	.84	.23	.84	394.23	450.00
	19020.000	1555.00	723.65	.45	.32	1.29	489.66	450.00
	19020.000	2549.00	724.29	.63	.39	1.93	587.43	450.00
	19470.000	606.00	723.19	0.	.83	0.	90.35	450.00
	19470.000	1020.00	723.97	.78	.77	.78	359.62	450.00
	19470.000	1555.00	724.48	.51	.83	1.29	451.95	450.00
	19470.000	2549.00	725.10	.62	.81	1.91	572.08	450.00
	19920.000	606.00	724.90	0.	1.71	0.	93.87	450.00
	19920.000	1020.00	725.40	.50	1.43	.50	633.69	450.00
	19920.000	1555.00	725.73	.33	1.24	.83	706.52	450.00
	19920.000	2549.00	726.20	.47	1.10	1.30	718.76	450.00
	19963.000	606.00	725.18	0.	.28	0.	139.31	43.00
	19963.000	1020.00	725.46	.28	.06	.28	593.29	43.00
	19963.000	1555.00	725.79	.33	.06	.61	695.46	43.00
	19963.000	2549.00	726.26	.47	.06	1.09	707.74	43.00
*	19964.000	606.00	725.18	0.	.00	0.	139.38	1.00
	19964.000	1020.00	725.45	.27	-.01	.27	594.26	1.00
	19964.000	1555.00	725.78	.33	-.00	.60	695.50	1.00
	19964.000	2549.00	726.26	.47	-.00	1.08	707.85	1.00
	19976.000	606.00	725.23	0.	.05	0.	178.32	12.00
	19976.000	1020.00	725.51	.28	.06	.28	643.30	12.00
	19976.000	1555.00	725.82	.31	.04	.59	691.15	12.00
	19976.000	2549.00	726.28	.46	.03	1.05	703.18	12.00
	19977.000	606.00	725.24	0.	.00	0.	179.19	1.00
	19977.000	1020.00	725.54	.30	.03	.30	684.03	1.00
	19977.000	1555.00	725.85	.31	.02	.61	692.02	1.00
	19977.000	2549.00	726.31	.46	.02	1.07	704.01	1.00
	20020.000	606.00	725.34	0.	.10	0.	225.20	43.00
	20020.000	1020.00	725.60	.26	.06	.26	621.97	43.00
	20020.000	1555.00	725.92	.32	.07	.58	681.45	43.00
	20020.000	2549.00	726.38	.46	.07	1.04	693.11	43.00
	20280.000	606.00	725.68	0.	.35	0.	702.76	260.00
	20280.000	1020.00	726.02	.34	.43	.34	708.82	260.00
	20280.000	1555.00	726.41	.39	.49	.73	715.60	260.00
	20280.000	2549.00	726.98	.57	.60	1.30	725.86	260.00
	21580.000	606.00	726.72	0.	1.04	0.	60.00	1300.00
	21580.000	1020.00	727.68	.95	1.65	.95	281.66	1300.00
	21580.000	1555.00	728.49	.81	2.08	1.77	372.41	1300.00
	21580.000	2549.00	729.51	1.02	2.53	2.78	485.43	1300.00
	21630.000	606.00	727.07	0.	.34	0.	37.00	50.00
	21630.000	1020.00	728.07	1.01	.40	1.01	289.10	50.00
	21630.000	1555.00	728.83	.75	.33	1.76	383.22	50.00
	21630.000	2549.00	729.78	.95	.27	2.71	502.56	50.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
21804.000	606.00	727.33	0.	.26	0.	24.00	34.00
21804.000	1020.00	728.40	1.07	.32	1.07	294.85	34.00
21804.000	1555.00	729.12	.72	.29	1.79	397.99	34.00
21804.000	2549.00	730.07	.95	.29	2.74	524.00	34.00
21836.000	606.00	727.50	0.	.17	0.	24.00	32.00
21836.000	1020.00	729.30	1.79	.90	1.79	349.25	32.00
21836.000	1555.00	730.11	.82	1.00	2.61	524.00	32.00
21836.000	2549.00	730.74	.63	.67	3.24	524.00	32.00
21870.000	606.00	727.94	0.	.43	0.	75.00	34.00
21870.000	1020.00	729.77	1.83	.47	1.83	534.21	34.00
21870.000	1555.00	730.33	.57	.22	2.40	575.00	34.00
21870.000	2549.00	730.92	.59	.18	2.99	575.00	34.00
21920.000	606.00	728.03	0.	.10	0.	356.55	50.00
21920.000	1020.00	729.80	1.77	.03	1.77	597.66	50.00
21920.000	1555.00	730.37	.57	.03	2.33	625.00	50.00
21920.000	2549.00	730.97	.60	.04	2.94	625.00	50.00
22390.000	706.00	728.27	0.	.24	0.	552.34	470.00
22390.000	1292.00	729.86	1.59	.06	1.59	872.07	470.00
22390.000	1888.00	730.44	.58	.07	2.16	908.73	470.00
22390.000	2950.00	731.07	.63	.10	2.79	921.31	470.00
23390.000	706.00	729.27	0.	1.00	0.	284.65	1000.00
23390.000	1292.00	730.17	.90	.31	.90	538.14	1000.00
23390.000	1888.00	730.77	.60	.34	1.50	622.18	1000.00
23390.000	2950.00	731.49	.72	.43	2.22	705.60	1000.00
23440.000	706.00	729.68	0.	.41	0.	551.05	50.00
23440.000	1292.00	730.46	.78	.29	.78	661.19	50.00
23440.000	1888.00	731.01	.55	.24	1.33	679.27	50.00
23440.000	2950.00	731.72	.70	.22	2.04	702.30	50.00
23483.000	706.00	729.73	0.	.05	0.	562.89	43.00
23483.000	1292.00	730.50	.77	.04	.77	667.43	43.00
23483.000	1888.00	731.05	.55	.04	1.32	725.60	43.00
23483.000	2950.00	731.76	.71	.04	2.03	748.76	43.00
23484.000	706.00	729.75	0.	.02	0.	564.81	1.00
23484.000	1292.00	730.52	.77	.02	.77	668.62	1.00
23484.000	1888.00	731.07	.55	.02	1.32	725.87	1.00
23484.000	2950.00	731.77	.70	.01	2.02	748.98	1.00
23496.000	706.00	729.77	0.	.02	0.	569.58	12.00
23496.000	1292.00	730.54	.77	.01	.77	670.87	12.00
23496.000	1888.00	731.08	.54	.01	1.31	739.54	12.00
23496.000	2950.00	731.78	.70	.01	2.02	828.13	12.00
23497.000	706.00	729.76	0.	-.00	0.	571.47	1.00
23497.000	1292.00	730.53	.77	-.01	.77	671.43	1.00
23497.000	1888.00	731.07	.54	-.00	1.31	739.94	1.00
23497.000	2950.00	731.78	.70	-.00	2.02	828.60	1.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
23540.000	706.00	729.81	0.	.05	0.	579.08	43.00
23540.000	1292.00	730.57	.76	.04	.76	675.22	43.00
23540.000	1888.00	731.12	.54	.04	1.30	743.65	43.00
23540.000	2950.00	731.82	.71	.04	2.01	832.48	43.00
24710.000	706.00	731.68	0.	1.87	0.	304.35	1170.00
24710.000	1292.00	732.55	.87	1.98	.87	448.29	1170.00
24710.000	1888.00	733.17	.62	2.05	1.49	477.02	1170.00
24710.000	2950.00	734.02	.85	2.20	2.34	484.75	1170.00
25870.000	149.00	733.60	0.	1.92	0.	138.98	1160.00
25870.000	279.00	734.48	.88	1.92	.88	227.35	1160.00
25870.000	506.00	735.09	.61	1.92	1.49	249.90	1160.00
25870.000	885.00	735.91	.82	1.89	2.31	252.05	1160.00
26143.000	149.00	734.36	0.	.76	0.	59.74	270.00
26143.000	279.00	734.77	.41	.29	.41	71.02	270.00
26143.000	506.00	735.31	.54	.22	.95	80.53	270.00
26143.000	885.00	736.05	.74	.14	1.69	82.40	270.00
26191.000	149.00	734.58	0.	.22	0.	50.27	48.00
26191.000	279.00	735.07	.49	.30	.49	54.75	48.00
26191.000	506.00	735.59	.52	.29	1.01	56.26	48.00
26191.000	885.00	736.16	.56	.11	1.58	57.67	48.00
26231.000	149.00	734.58	0.	.00	0.	32.91	40.00
26231.000	279.00	735.06	.48	-.01	.48	35.16	40.00
26231.000	506.00	735.55	.49	-.04	.97	36.38	40.00
26231.000	885.00	736.00	.45	-.16	1.42	37.51	40.00
26241.000	149.00	734.59	0.	.01	0.	26.00	10.00
26241.000	279.00	735.07	.48	.01	.48	26.00	10.00
26241.000	506.00	735.55	.48	-.00	.96	161.28	10.00
26241.000	885.00	737.09	1.54	1.09	2.50	167.81	10.00
26273.000	149.00	734.64	0.	.05	0.	25.00	32.00
26273.000	279.00	735.19	.55	.12	.55	25.00	32.00
26273.000	506.00	735.83	.65	.29	1.19	45.00	32.00
26273.000	885.00	736.96	1.12	-.13	2.31	46.40	32.00
26315.000	149.00	734.65	0.	.00	0.	25.00	42.00
26315.000	279.00	735.20	.55	.01	.55	25.00	42.00
26315.000	506.00	735.93	.74	.10	1.29	87.00	42.00
26315.000	885.00	737.33	1.40	.37	2.68	89.58	42.00

SUMMARY OF ERRORS

NOTE SECNO=19964.000 PROFILE= 1 WSEL BASED ON XS CARD

FLOOD INSURANCE ZONE DATA FOR 10 YR FLOW

FLOOD HAZARD FACTOR FOR ENTIRE REACH USING SECTIONS

SECTION NUMBER	CUMULATIVE DISTANCE	ELEVATION DIFFERENCE BETWEEN BASE FLOOD AND@ 10.	2.	0.2.
0.	0.	-1.60	-.60	.20
200.000	200.	-.87	-.41	.21
400.000	400.	-.52	-.31	.22
600.000	600.	-.31	-.25	.22
800.000	800.	-.29	-.23	.22
1000.000	1000.	-.38	-.22	.23
1200.000	1200.	-.42	-.23	.24
1400.000	1400.	-.48	-.23	.25
1600.000	1600.	-.55	-.24	.27
1800.000	1800.	-.63	-.25	.30
1900.000	1900.	-.73	-.28	.33
1950.000	1950.	-.84	-.30	.35
1985.000	1985.	-.88	-.32	.37
1986.000	1986.	-.88	-.32	.37
2014.000	2014.	-.92	-.34	.49
2015.000	2015.	-.93	-.34	.58
2050.000	2050.	-1.20	-.46	.74
2100.000	2100.	-1.22	-.47	.74
2430.000	2430.	-1.04	-.38	.57
2990.000	2990.	-.84	-.29	.35
3390.000	3390.	-.75	-.27	.34
4040.000	4040.	-.63	-.23	.29
4570.000	4570.	-.71	-.24	.28
5090.000	5090.	-.73	-.24	.30
5450.000	5450.	-1.00	-.35	.43
5500.000	5500.	-1.05	-.37	.46
5525.000	5525.	-1.07	-.38	.48
5535.000	5535.	-1.08	-.39	.48
5536.000	5536.	-1.08	-.39	.48
5564.000	5564.	-1.11	-.40	.50
5565.000	5565.	-1.11	-.40	.50
5575.000	5575.	-1.12	-.40	.51
5600.000	5600.	-1.30	-.49	.64
5650.000	5650.	-1.33	-.50	.66
6300.000	6300.	-1.34	-.49	.65
6720.000	6720.	-1.53	-.56	.59
7080.000	7080.	-.60	-.02	.41
7670.000	7670.	-.54	-.16	.22
8370.000	8370.	-.54	-.18	.23
8850.000	8850.	-.41	-.17	.23
9520.000	9520.	-.37	-.18	.24
10020.000	10020.	-.56	-.19	.26
10520.000	10520.	-.63	-.20	.28
10570.000	10570.	-.62	-.19	.28
10605.000	10605.	-.62	-.18	.27
10606.000	10606.	-.62	-.19	.27
10634.000	10634.	-.70	-.22	.34
10635.000	10635.	-.70	-.22	.34
10670.000	10670.	-1.02	-.38	.61
10720.000	10720.	-1.12	-.39	.60
11060.000	11060.	-.94	-.31	.46
11450.000	11450.	-.95	-.33	.47

11860.000	11860.	-.82	-.30	.42
12170.000	12170.	-.89	-.31	.40
12204.000	12204.	-.94	-.33	.43
12205.000	12205.	-.94	-.33	.43
12235.000	12235.	-1.02	-.37	.50
12236.000	12236.	-1.02	-.37	.50
12270.000	12270.	-1.34	-.50	.72
12320.000	12320.	-1.35	-.51	.73
12720.000	12720.	-1.45	-.62	.89
13640.000	13640.	-1.36	-.62	.97
15270.000	15270.	-1.46	-.83	1.01
16020.000	16020.	-1.49	-.81	1.00
17020.000	17020.	-1.29	-.66	.75
17520.000	17520.	-1.08	-.58	.69
17570.000	17570.	-1.04	-.57	.69
17800.000	17800.	-.96	-.54	.68
17844.000	17844.	-.93	-.53	.68
17856.000	17856.	-.91	-.53	.68
17900.000	17900.	-.91	-.52	.68
17970.000	17970.	-.93	-.53	.67
17997.000	17997.	-.96	-.53	.66
18043.000	18043.	-1.46	-.47	.50
18070.000	18070.	-1.36	-.52	.50
18120.000	18120.	-1.31	-.41	.51
18570.000	18570.	-1.29	-.36	.56
19020.000	19020.	-1.29	-.45	.63
19470.000	19470.	-1.29	-.51	.62
19920.000	19920.	-.83	-.33	.47
19963.000	19963.	-.61	-.33	.47
19964.000	19964.	-.60	-.33	.47
19976.000	19976.	-.59	-.31	.46
19977.000	19977.	-.61	-.31	.46
20020.000	20020.	-.58	-.32	.46
20280.000	20280.	-.73	-.39	.57
21580.000	21580.	-1.77	-.81	1.02
21630.000	21630.	-1.76	-.75	.95
21804.000	21664.	-1.79	-.72	.95
21836.000	21696.	-2.61	-.82	.63
21870.000	21730.	-2.40	-.57	.59
21920.000	21780.	-2.33	-.57	.60
22390.000	22250.	-2.16	-.58	.63
23390.000	23250.	-1.50	-.60	.72
23440.000	23300.	-1.33	-.55	.70
23483.000	23343.	-1.32	-.55	.71
23484.000	23344.	-1.32	-.55	.70
23496.000	23356.	-1.31	-.54	.70
23497.000	23357.	-1.31	-.54	.70
23540.000	23400.	-1.30	-.54	.71
24710.000	24570.	-1.49	-.62	.85
25870.000	25730.	-1.49	-.61	.82
26143.000	26000.	-.95	-.54	.74
26191.000	26048.	-1.01	-.52	.56
26231.000	26088.	-.97	-.49	.45
26241.000	26098.	-.96	-.48	1.54
26273.000	26130.	-1.19	-.65	1.12
26315.000	26172.	-1.29	-.74	1.40
WEIGHTED AVG FOR REACH		-1.10	-.45	.59

FHF FOR THE REACH = 010 WITH 75.1% OF THE REACH WITHIN .5 FEET
ZONE FOR THE REACH = A 2

CONTINUOUS FLOOD HAZARD FACTORS BY EVEN INCREMENTS

INC NO.	TOTAL LENGTH	AVG ELEVATION DATA 10.	1.	DIFF.	WTD. AVG.	FHF	PERCENT WITHIN
	0.				SEC.	0.	
1	100.	688.43	689.85	-1.42	-1.42	015	100.
	200.				SEC.	200.000	
2	200.	688.89	689.94	-1.05	-1.24	010	100.
3	300.	689.27	690.04	-.77	-1.08	010	100.
	400.				SEC.	400.000	
4	400.	689.56	690.16	-.60	-.96	010	100.
5	500.	689.83	690.29	-.46	-.86	010	80.
	600.				SEC.	600.000	
6	600.	690.07	690.43	-.36	-.78	010	83.
7	700.	690.27	690.57	-.30	-.71	005	86.
	800.				SEC.	800.000	
8	800.	690.42	690.72	-.30	-.66	005	88.
9	900.	690.53	690.84	-.31	-.62	005	89.
	1000.				SEC.	1000.000	
10	1000.	690.58	690.94	-.36	-.59	005	90.
11	1100.	690.62	691.01	-.39	-.57	005	91.
	1200.				SEC.	1200.000	
12	1200.	690.66	691.06	-.40	-.56	005	92.
13	1300.	690.70	691.13	-.43	-.55	005	92.
	1400.				SEC.	1400.000	
14	1400.	690.76	691.22	-.46	-.54	005	86.
15	1500.	690.82	691.32	-.50	-.54	005	87.
	1600.				SEC.	1600.000	
16	1600.	690.91	691.44	-.53	-.54	005	88.
17	1700.	691.00	691.57	-.57	-.54	005	88.
	1800.				SEC.	1800.000	
18	1800.	691.10	691.72	-.62	-.55	005	94.
	1900.				SEC.	1900.000	
19	1900.	691.25	691.93	-.68	-.55	005	95.
	1950.				SEC.	1950.000	
	1985.				SEC.	1985.000	
	1986.				SEC.	1986.000	
20	2000.	691.48	692.30	-.82	-.57	005	95.
	2014.				SEC.	2014.000	
	2015.				SEC.	2015.000	
	2050.				SEC.	2050.000	

ELEVATION DIFFERENCE BETWEEN BASE FLOOD AND

	10.	2.	0.2.
WEIGHTED AVG FOR REACH	-.57	-.28	.25

FHF FOR REACH 1 = 005 WITH 95. OF THE REACH WITHIN .5 FEET
ZONE FOR THE REACH = A 1

21	2100.	691.75	692.81	-1.06	-1.06	010	100.
	2100.				SEC.	2100.000	
22	2200.	691.99	693.18	-1.19	-1.13	010	100.
23	2300.	692.22	693.36	-1.14	-1.13	010	100.
24	2400.	692.44	693.53	-1.09	-1.12	010	100.
	2430.				SEC.	2430.000	
25	2500.	692.68	693.71	-1.03	-1.10	010	100.
26	2600.	692.91	693.91	-1.00	-1.08	010	100.
27	2700.	693.15	694.11	-.96	-1.07	010	100.
28	2800.	693.39	694.32	-.93	-1.05	010	100.
29	2900.	693.63	694.52	-.89	-1.03	010	100.
	2990				SEC.	2990.000	

30	3000.	695.86	694.72	=.86	=1.01	010	100.
31	3100.	694.04	694.86	=.82	=1.00	010	100.
32	3200.	694.16	694.96	=.80	=.98	010	100.
33	3300.	694.27	695.06	=.79	=.97	010	100.
	3390.				SEC.	3390.000	
34	3400.	694.39	695.15	=.76	=.95	010	100.
35	3500.	694.52	695.26	=.74	=.94	010	100.
36	3600.	694.64	695.36	=.72	=.92	010	100.
37	3700.	694.77	695.47	=.70	=.91	010	100.
38	3800.	694.89	695.58	=.69	=.90	010	100.
39	3900.	695.02	695.68	=.66	=.89	010	100.
40	4000.	695.14	695.79	=.65	=.87	010	100.
	4040.				SEC.	4040.000	
41	4100.	695.32	695.95	=.63	=.86	010	100.
42	4200.	695.57	696.21	=.64	=.85	010	100.
43	4300.	695.84	696.50	=.66	=.84	010	100.
44	4400.	696.12	696.80	=.68	=.84	010	100.
45	4500.	696.40	697.09	=.69	=.83	010	100.
	4570.				SEC.	4570.000	
46	4600.	696.67	697.38	=.71	=.83	010	100.
47	4700.	696.92	697.63	=.71	=.82	010	100.
48	4800.	697.15	697.86	=.71	=.82	010	100.
49	4900.	697.38	698.09	=.71	=.81	010	100.
50	5000.	697.60	698.32	=.72	=.81	010	100.
	5090.				SEC.	5090.000	
51	5100.	697.83	698.56	=.73	=.81	010	100.
52	5200.	698.02	698.79	=.77	=.81	010	100.
53	5300.	698.18	699.03	=.85	=.81	010	100.
54	5400.	698.35	699.27	=.92	=.81	010	100.
	5450.				SEC.	5450.000	
55	5500.	698.51	699.51	=1.00	=.82	010	100.
	5500.				SEC.	5500.000	
	5525.				SEC.	5525.000	
	5535.				SEC.	5535.000	
	5536.				SEC.	5536.000	
	5564.				SEC.	5564.000	
	5565.				SEC.	5565.000	
	5575.				SEC.	5575.000	
56	5600.	698.65	699.82	=1.17	=.83	010	100.
	5600.				SEC.	5600.000	
	5650.				SEC.	5650.000	
57	5700.	698.76	700.08	=1.32	=.84	010	100.
58	5800.	698.83	700.16	=1.33	=.85	010	100.
59	5900.	698.85	700.19	=1.34	=.87	010	100.
60	6000.	698.87	700.21	=1.34	=.88	010	100.
61	6100.	698.90	700.23	=1.33	=.89	010	100.
62	6200.	698.92	700.25	=1.33	=.90	010	100.
	6300.				SEC.	6300.000	
63	6300.	698.94	700.28	=1.34	=.91	010	100.
64	6400.	698.95	700.31	=1.36	=.92	010	100.
65	6500.	698.95	700.36	=1.41	=.93	010	100.
66	6600.	698.95	700.40	=1.45	=.94	010	98.
67	6700.	698.95	700.45	=1.50	=.95	010	98.
	6720.				SEC.	6720.000	
68	6800.	699.09	700.51	=1.42	=.96	010	98.
69	6900.	699.39	700.59	=1.20	=.97	010	98.
70	7000.	699.74	700.67	=.93	=.97	010	98.
	7080.				SEC.	7080.000	
71	7100.	700.06	700.76	=.70	=.96	010	98.
72	7200.	700.26	700.85	=.59	=.96	010	98.
73	7300.	700.37	700.95	=.58	=.95	010	98.
74	7400.	700.47	701.04	=.57	=.94	010	96.
75	7500.	700.58	701.14	=.56	=.93	010	96.
76	7600.	700.69	701.24	=.55	=.93	010	96.
	7670.				SEC.	7670.000	
77	7700.	700.83	701.37	=.54	=.93	010	96.

78	7800.	701.07	701.60	-.53	-.91	010	95.
79	7900.	701.38	701.91	-.53	-.91	010	95.
80	8000.	701.69	702.22	-.53	-.90	010	93.
81	8100.	702.00	702.54	-.54	-.90	010	93.
82	8200.	702.31	702.85	-.54	-.89	010	94.
83	8300.	702.62	703.16	-.54	-.88	010	94.
	8370.				SEC.	8370.000	
84	8400.	702.92	703.45	-.53	-.88	010	94.
85	8500.	703.15	703.67	-.52	-.87	010	94.
86	8600.	703.35	703.84	-.49	-.87	010	94.
87	8700.	703.55	704.02	-.47	-.86	010	94.
88	8800.	703.75	704.19	-.44	-.85	010	93.
	8850.				SEC.	8850.000	
89	8900.	703.95	704.37	-.42	-.85	010	93.
90	9000.	704.16	704.57	-.41	-.84	010	93.
91	9100.	704.38	704.78	-.40	-.84	010	93.
92	9200.	704.59	704.99	-.40	-.83	010	89.
93	9300.	704.81	705.19	-.38	-.82	010	85.
94	9400.	705.02	705.40	-.38	-.82	010	85.
95	9500.	705.24	705.61	-.37	-.81	010	84.
	9520.				SEC.	9520.000	
96	9600.	705.43	705.82	-.39	-.81	010	84.
97	9700.	705.60	706.02	-.42	-.80	010	84.
98	9800.	705.76	706.22	-.46	-.80	010	85.
99	9900.	705.92	706.41	-.49	-.79	010	85.
100	10000.	706.08	706.61	-.53	-.79	010	85.
	10020.				SEC.	10020.000	
101	10100.	706.22	706.79	-.57	-.79	010	85.
102	10200.	706.34	706.92	-.58	-.78	010	85.
103	10300.	706.46	707.05	-.59	-.78	010	86.
104	10400.	706.58	707.18	-.60	-.78	010	86.
105	10500.	706.69	707.31	-.62	-.78	010	86.
	10520.				SEC.	10520.000	
	10570.				SEC.	10570.000	
106	10600.	706.79	707.41	-.62	-.78	010	86.
	10605.				SEC.	10605.000	
	10606.				SEC.	10606.000	
	10634.				SEC.	10634.000	
	10635.				SEC.	10635.000	
	10670.				SEC.	10670.000	
107	10700.	706.95	707.80	-.85	-.78	010	86.
	10720.				SEC.	10720.000	
108	10800.	707.19	708.26	-1.07	-.78	010	86.
109	10900.	707.42	708.48	-1.06	-.78	010	87.
110	11000.	707.66	708.66	-1.00	-.79	010	87.
	11060.				SEC.	11060.000	
111	11100.	707.88	708.84	-.96	-.79	010	87.
112	11200.	708.05	709.00	-.95	-.79	010	87.
113	11300.	708.19	709.14	-.95	-.79	010	87.
114	11400.	708.34	709.29	-.95	-.79	010	87.
	11450.				SEC.	11450.000	
115	11500.	708.48	709.43	-.95	-.79	010	87.
116	11600.	708.63	709.55	-.92	-.80	010	88.
117	11700.	708.79	709.68	-.89	-.80	010	88.
118	11800.	708.94	709.80	-.86	-.80	010	88.
	11860.				SEC.	11860.000	
119	11900.	709.15	709.98	-.83	-.80	010	88.
120	12000.	709.47	710.31	-.84	-.80	010	88.
121	12100.	709.87	710.73	-.86	-.80	010	88.
	12170.				SEC.	12170.000	
122	12200.	710.24	711.15	-.91	-.80	010	88.
	12204.				SEC.	12204.000	
	12205.				SEC.	12205.000	
	12235.				SEC.	12235.000	
	12236.				SEC.	12236.000	
	12270				SEC.	12270.000	

123	12300.	710.57	711.71	-1.14	-.80	010	88.
	12320.				SEC. 12320.000		

ELEVATION DIFFERENCE BETWEEN BASE FLOOD AND

	1.0	2	0.2
WEIGHTED AVG FOR REACH	-.80	-.28	.39

FHF FOR REACH 2 = 010 WITH 88. OF THE REACH WITHIN .5 FEET
ZONE FOR THE REACH = A 2

124	12400.	710.78	712.14	-1.36	-1.36	015	100.
125	12500.	710.88	712.26	-1.38	-1.37	015	100.
126	12600.	710.97	712.37	-1.40	-1.38	015	100.
127	12700.	711.05	712.49	-1.44	-1.40	015	100.
	12720.				SEC. 12720.000		
128	12800.	711.16	712.60	-1.44	-1.40	015	100.
129	12900.	711.27	712.71	-1.44	-1.41	015	100.
130	13000.	711.39	712.82	-1.43	-1.41	015	100.
131	13100.	711.51	712.93	-1.42	-1.41	015	100.
132	13200.	711.63	713.04	-1.41	-1.41	015	100.
133	13300.	711.75	713.16	-1.41	-1.41	015	100.
134	13400.	711.87	713.27	-1.40	-1.41	015	100.
135	13500.	712.00	713.38	-1.38	-1.41	015	100.
136	13600.	712.12	713.49	-1.37	-1.41	015	100.
	13640.				SEC. 13640.000		
137	13700.	712.26	713.62	-1.36	-1.40	015	100.
138	13800.	712.43	713.80	-1.37	-1.40	015	100.
139	13900.	712.62	714.00	-1.38	-1.40	015	100.
140	14000.	712.81	714.19	-1.38	-1.40	015	100.
141	14100.	713.00	714.39	-1.39	-1.40	015	100.
142	14200.	713.19	714.58	-1.39	-1.40	015	100.
143	14300.	713.38	714.78	-1.40	-1.40	015	100.
144	14400.	713.57	714.97	-1.40	-1.40	015	100.
145	14500.	713.75	715.17	-1.42	-1.40	015	100.
146	14600.	713.94	715.36	-1.42	-1.40	015	100.
147	14700.	714.13	715.56	-1.43	-1.40	015	100.
148	14800.	714.32	715.75	-1.43	-1.40	015	100.
149	14900.	714.51	715.95	-1.44	-1.40	015	100.
150	15000.	714.70	716.14	-1.44	-1.40	015	100.
151	15100.	714.89	716.34	-1.45	-1.41	015	100.
152	15200.	715.08	716.53	-1.45	-1.41	015	100.
	15270.				SEC. 15270.000		
153	15300.	715.26	716.72	-1.46	-1.41	015	100.
154	15400.	715.41	716.88	-1.47	-1.41	015	100.
155	15500.	715.54	717.01	-1.47	-1.41	015	100.
156	15600.	715.67	717.15	-1.48	-1.42	015	100.
157	15700.	715.80	717.28	-1.48	-1.42	015	100.
158	15800.	715.93	717.42	-1.49	-1.42	015	100.
159	15900.	716.07	717.55	-1.48	-1.42	015	100.
160	16000.	716.20	717.69	-1.49	-1.42	015	100.
	16020.				SEC. 16020.000		
161	16100.	716.38	717.86	-1.48	-1.42	015	100.
162	16200.	716.62	718.08	-1.46	-1.43	015	100.
163	16300.	716.87	718.31	-1.44	-1.43	015	100.
164	16400.	717.12	718.54	-1.42	-1.43	015	100.
165	16500.	717.37	718.77	-1.40	-1.43	015	100.
166	16600.	717.62	719.01	-1.39	-1.42	015	100.
167	16700.	717.87	719.24	-1.37	-1.42	015	100.
168	16800.	718.12	719.47	-1.35	-1.42	015	100.
169	16900.	718.37	719.70	-1.33	-1.42	015	100.
170	17000.	718.62	719.93	-1.31	-1.42	015	100.
	17020.				SEC. 17020.000		
171	17100.	718.84	720.12	-1.28	-1.41	015	100.
172	17200.	719.02	720.26	-1.24	-1.41	015	100.

173	17500.	719.19	720.39	-1.20	-1.41	015	100.
174	17400.	719.37	720.52	-1.15	-1.40	015	100.
175	17500.	719.54	720.66	-1.12	-1.40	015	100.
	17520.					SEC.	17520.000
	17570.					SEC.	17570.000
176	17600.	719.72	720.78	-1.06	-1.39	015	100.
177	17700.	719.87	720.88	-1.01	-1.38	015	100.
	17800.					SEC.	17800.000
178	17800.	720.00	720.98	-.98	-1.38	015	100.
	17844.					SEC.	17844.000
	17856.					SEC.	17856.000
179	17900.	720.18	721.11	-.93	-1.37	015	100.
	17900.					SEC.	17900.000
	17970.					SEC.	17970.000
	17997.					SEC.	17997.000
180	18000.	720.40	721.34	-.94	-1.36	015	100.
	18043.					SEC.	18043.000
	18070.					SEC.	18070.000
181	18100.	721.20	722.36	-1.16	-1.36	015	100.
	18120.					SEC.	18120.000
182	18200.	721.91	723.23	-1.32	-1.36	015	100.
183	18300.	721.95	723.25	-1.30	-1.35	015	100.
184	18400.	721.98	723.28	-1.30	-1.35	015	100.
185	18500.	722.01	723.30	-1.29	-1.35	015	100.
	18570.					SEC.	18570.000
186	18600.	722.05	723.34	-1.29	-1.35	015	100.
187	18700.	722.10	723.39	-1.29	-1.35	015	100.
188	18800.	722.17	723.46	-1.29	-1.35	015	100.
189	18900.	722.24	723.53	-1.29	-1.35	015	100.
190	19000.	722.31	723.60	-1.29	-1.35	015	100.
	19020.					SEC.	19020.000
191	19100.	722.43	723.72	-1.29	-1.35	015	100.
192	19200.	722.60	723.89	-1.29	-1.35	015	100.
193	19300.	722.79	724.08	-1.29	-1.35	015	100.
194	19400.	722.97	724.26	-1.29	-1.34	015	100.
	19470.					SEC.	19470.000
195	19500.	723.18	724.46	-1.28	-1.34	015	100.
196	19600.	723.50	724.70	-1.20	-1.34	015	100.
197	19700.	723.88	724.98	-1.10	-1.34	015	100.
198	19800.	724.25	725.26	-1.01	-1.33	015	100.
199	19900.	724.63	725.53	-.90	-1.33	015	100.
	19920.					SEC.	19920.000
	19963.					SEC.	19963.000
	19964.					SEC.	19964.000
	19976.					SEC.	19976.000
	19977.					SEC.	19977.000
200	20000.	725.06	725.78	-.72	-1.32	015	99.
	20020.					SEC.	20020.000
201	20100.	725.37	725.98	-.61	-1.31	015	97.
202	20200.	725.51	726.17	-.66	-1.30	015	96.
	20280.					SEC.	20280.000
203	20300.	725.64	726.35	-.71	-1.30	015	95.
204	20400.	725.74	726.52	-.78	-1.29	015	94.
205	20500.	725.82	726.68	-.86	-1.28	015	95.
206	20600.	725.90	726.84	-.94	-1.28	015	95.
207	20700.	725.98	727.00	-1.02	-1.28	015	95.
208	20800.	726.06	727.16	-1.10	-1.28	015	95.
209	20900.	726.14	727.32	-1.18	-1.27	015	95.
210	21000.	726.22	727.48	-1.26	-1.27	015	95.
211	21100.	726.30	727.64	-1.34	-1.27	015	95.
212	21200.	726.38	727.80	-1.42	-1.28	015	96.
213	21300.	726.46	727.96	-1.50	-1.28	015	96.
214	21400.	726.54	728.12	-1.58	-1.28	015	96.
215	21500.	726.62	728.28	-1.66	-1.29	015	95.
	21580.					SEC.	21580.000
216	21600.	726.7	728.49	-1.73	-1.29	015	95.

	21630.				SEC.	21630.000	
	21664.				SEC.	21804.000	
	21696.				SEC.	21836.000	
217	21700.	727.21	729.38	-2.17	-1.30	015	94.
	21730.				SEC.	21870.000	
	21780.				SEC.	21920.000	
218	21800.	727.80	730.25	-2.45	-1.31	015	93.
219	21900.	728.07	730.38	-2.31	-1.32	015	92.
220	22000.	728.12	730.39	-2.27	-1.33	015	91.
221	22100.	728.17	730.41	-2.24	-1.34	015	90.
222	22200.	728.22	730.42	-2.20	-1.35	015	89.
	22250.				SEC.	22390.000	
223	22300.	728.29	730.44	-2.15	-1.36	015	88.
224	22400.	728.37	730.47	-2.10	-1.37	015	86.
225	22500.	728.47	730.50	-2.03	-1.37	015	85.
226	22600.	728.57	730.54	-1.97	-1.38	015	84.
227	22700.	728.67	730.57	-1.90	-1.38	015	84.
228	22800.	728.77	730.60	-1.83	-1.39	015	84.
229	22900.	728.87	730.64	-1.77	-1.39	015	84.
230	23000.	728.97	730.67	-1.70	-1.39	015	84.
231	23100.	729.07	730.71	-1.64	-1.40	015	85.
232	23200.	729.17	730.74	-1.57	-1.40	015	85.
	23250.				SEC.	23390.000	
233	23300.	729.45	730.88	-1.43	-1.40	015	85.
	23300.				SEC.	23440.000	
	23343.				SEC.	23483.000	
	23344.				SEC.	23484.000	
	23356.				SEC.	23496.000	
	23357.				SEC.	23497.000	
234	23400.	729.75	731.06	-1.31	-1.40	015	86.
	23400.				SEC.	23540.000	
235	23500.	729.89	731.20	-1.31	-1.40	015	86.
236	23600.	730.05	731.38	-1.33	-1.40	015	86.
237	23700.	730.21	731.55	-1.34	-1.40	015	86.
238	23800.	730.37	731.73	-1.36	-1.40	015	86.
239	23900.	730.53	731.91	-1.38	-1.39	015	85.
240	24000.	730.69	732.08	-1.39	-1.39	015	85.
241	24100.	730.85	732.26	-1.41	-1.40	015	86.
242	24200.	731.01	732.43	-1.42	-1.40	015	87.
243	24300.	731.17	732.61	-1.44	-1.40	015	87.
244	24400.	731.33	732.78	-1.45	-1.40	015	87.
245	24500.	731.49	732.96	-1.47	-1.40	015	87.
	24570.				SEC.	24710.000	
246	24600.	731.65	733.13	-1.48	-1.40	015	87.
247	24700.	731.81	733.30	-1.49	-1.40	015	87.
248	24800.	731.98	733.47	-1.49	-1.40	015	87.
249	24900.	732.14	733.63	-1.49	-1.40	015	87.
250	25000.	732.31	733.80	-1.49	-1.40	015	87.
251	25100.	732.47	733.96	-1.49	-1.40	015	88.
252	25200.	732.64	734.13	-1.49	-1.40	015	88.
253	25300.	732.80	734.29	-1.49	-1.40	015	88.
254	25400.	732.97	734.46	-1.49	-1.40	015	88.
255	25500.	733.13	734.63	-1.50	-1.40	015	88.
256	25600.	733.30	734.79	-1.49	-1.40	015	88.
257	25700.	733.47	734.96	-1.49	-1.41	015	88.
	25730.				SEC.	25870.000	
258	25800.	733.67	735.09	-1.42	-1.41	015	87.
259	25900.	733.93	735.19	-1.26	-1.40	015	88.
	26000.				SEC.	26143.000	
260	26000.	734.22	735.27	-1.05	-1.40	015	88.
	26048.				SEC.	26191.000	
	26088.				SEC.	26231.000	
	26098.				SEC.	26241.000	
261	26100.	734.47	735.44	-.97	-1.40	015	88.
	26130.				SEC.	26273.000	
	26172.				SEC.	26315.000	

	ELEVATION DIFFERENCE BETWEEN BASE FLOOD AND		
	1.0 ft.	2 ft.	0.2 ft.
WEIGHTED AVG FOR REACH	=1.40	=.60	.79

FHF FOR REACH 3 = 015 WITH 88.% OF THE REACH WITHIN .5 FEET
ZONE FOR THE REACH = A 3

THIS RUN EXECUTED 30 AUG 79 11.13.00

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HEC2 RELEASE DATED NOV 76 UPDATED JULY 1979

ERROR CORR - 01,02,03

MODIFICATION - 50,51,52,53

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11.12.19. BEHES12.  30 AUG 79   7600Z  BKY29B V0   BEH      NORM          804045 EEGAHOLBRO
11.12.19. BEHES12. BEH,804045,EEGAHOLBROOK.
11.12.19. BEHES12. *INPUT 6200C 11.09.25. 30 AUG 79  VIA COKE
11.12.19. BEHES12.  COPY,INPUT,1R,CONTROL/BR,DFM=OFF.
11.12.20. BEHES12.  FLS=020K  FLL=0000K  LCM BUFFERS=0054K  TOTAL LCM=0074K
11.12.20. BEHES12.   CONTROL DISK 2
11.12.20. BEHES12.  COPY COMPLETE.
11.12.20. BEHES12. (PAINT CREEK
11.12.20. BEHES12. *NOSTAGE
11.12.20. BEHES12. FETCHPS,HECLIB,HEC2,HEC2.
11.12.20. BEHES12.  FLS=060K  FLL=0000K  LCM BUFFERS=0054K  TOTAL LCM=0134K
11.12.23. BEHES12.   HEC2     DISK 2
11.12.24. BEHES12.  HEC2           26235 WORDS COPIED FROM CACHE.
11.12.24. BEHES12.   CACHE22 RETURNED       7 BLD, BS= 0040B,FS=126206B
11.12.24. BEHES12.   TAPEPAC RETURNED       0 BLD, BS= 0002B,FS=000000B
11.12.24. BEHES12. SEL,170000.
11.12.24. BEHES12.  FLS=170K  FLL=0000K  LCM BUFFERS=0014K  TOTAL LCM=0204K
11.12.24. BEHES12. HEC2,LC=20000.
11.12.27. BEHES12.   ZZZZZLS DISK 1
11.12.27. BEHES12.   ZZZZZLS RETURNED       0 BLD, BS= 0040B,FS=000000B
11.12.30. BEHES12.   DBGMAP  DISK 2
11.12.32. BEHES12.   OUTPUT  DISK 1
11.12.32. BEHES12.   DBGMAP  UNLOADED       1 BLD, BS= 0040B,FS=000002B
11.12.32. BEHES12.   HEC2    UNLOADED       4 BLD, BS= 0040B,FS=000064B
11.12.32. BEHES12.   MNF4LIB UNLOADED       1 BLD, BS= 0010B,FS=000007B
11.12.32. BEHES12.   FTN4LIB UNLOADED       1 BLD, BS= 0100B,FS=000077B
11.12.32. BEHES12.  LOAD COMPLETE, LINK 8.4.
11.12.32. BEHES12.    TIME=--       130 MSEC.
11.12.32. BEHES12.    MEMORY=      LOAD    111200,  EXECUTE    101000.
11.12.32. BEHES12.  FLS=101K  FLL=0000K  LCM BUFFERS=0046K  TOTAL LCM=0147K
11.12.32. BEHES12.       BEGIN PROGRAM HEC2      USING -
11.12.32. BEHES12.          MNF4 LIBRARY VERSION 3.3
11.12.32. BEHES12.          FTN4 LIBRARY 7600-VSN2/79215.10.39
11.12.32. BEHES12.  FIELD LENGTH RESET =          000000000033792
11.12.32. BEHES12. BN;
11.12.32. BEHES12.   ZZZZZXC DISK 1
11.12.32. BEHES12.   CONTROL RETURNED       0 BLD, BS= 0002B,FS=000001B
11.12.33. BEHES12.   ZZZZZXC UNLOADED       1 BLD, BS= 0002B,FS=000001B
11.12.33. BEHES12.  CONTROL - NEW NAME FOR ZZZZZXC
11.12.35. BEHES12.   ZZZZZCI DISK 2
11.12.35. BEHES12.     CORE IMAGE FROZEN ON FILE ZZZZZCI
11.12.35. BEHES12.     CALLED FROM   XEQCCS
11.12.35. BEHES12.     STOP
11.12.35. BEHES12.   LINK    RETURNED       1 BLD, BS= 0012B,FS=000012B
11.12.35. BEHES12.   MNF4LIB RETURNED       1 BLD, BS= 0010B,FS=000007B
11.12.35. BEHES12.   FTN4LIB RETURNED       1 BLD, BS= 0100B,FS=000077B
11.12.36. BEHES12. ..........................................................
11.12.36. BEHES12. FETCHPS,HECDOC,HECNEWS,HECNEWS.
11.12.39. BEHES12.  FLS=170K  FLL=0000K  LCM BUFFERS=0176K  TOTAL LCM=0566K
11.12.41. BEHES12.   HECNEWS DISK 1
11.12.41. BEHES12.  HECNEWS          211 WORDS COPIED FROM CACHE.
11.12.42. BEHES12.   CACHE22 RETURNED       6 BLD, BS= 0040B,FS=126206B
11.12.42. BEHES12.   TAPEPAC RETURNED       0 BLD, BS= 0002B,FS=000000B
11.12.42. BEHES12. ..........................................................
11.12.42. BEHES12. BKSP,ZZZZZCI.
11.12.42. BEHES12. ZZZZZCI.
11.12.42. BEHES12.  FLS=101K  FLL=0000K  LCM BUFFERS=0140K  TOTAL LCM=0241K
11.12.42. BEHES12.       THAW PROGRAM FROZEN BY SUBROUTINE XEQCCS
11.12.42. BEHES12.   ZZZZZCI RETURNED       0 BLD, BS= 0102B,FS=000102B
11.12.42. BEHES12.   HECNEWS RETURNED       0 BLD, BS= 0002B,FS=000001B
11.12.42. BEHES12.   TAPE92  DISK 2
11.12.42. BEHES12.   TAPE 3  DISK 1
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11.12.42. BEHES12.    TAPE94  DISK 2
11.12.42. BEHES12.    TAPE91  DISK 1
11.12.44. BEHES12.    TAPE95  DISK 1
11.12.52. BEHES12.    TAPE96  DISK 2
11.12.54. BEHES12.  FLS=105K  FLL=0000K  LCM BUFFERS=0334K  TOTAL LCM=0441K
11.12.54. BEHES12.  FIELD LENGTH RESET =            000000000035258
11.12.58. BEHES12.  FLS=102K  FLL=0000K  LCM BUFFERS=0334K  TOTAL LCM=0436K
11.13.00. BEHES12.       STOP
11.13.00. BEHES12.       5.440 CP SECONDS EXECUTION TIME
11.13.00. BEHES12.    OUTPUT  QUEUED PR      7 BLD, BS= 0020B,FS=000156B
11.13.00. BEHES12.  *J A31109B    804045N 30AUG79RZ N 000036BN;        EEGAHOLBRO
11.13.00. BEHES12.  ..............................
11.13.00. BEHES12.  SECTORS TRANSFERRED        522
11.13.00. BEHES12.  MAX DISK SECTORS           650
11.13.00. BEHES12.  CP SECONDS               5.576
11.13.00. BEHES12.  SYSTEM SECONDS           0.834
11.13.00. BEHES12.  OLD BLD"S                   22
11.13.00. BEHES12.  LCM BUFFER LOADS            26
11.13.00. BEHES12.  ITO CUS                      3
11.13.00. BEHES12.  KWORDS XFERRED             310
11.13.00. BEHES12.  CIO CALLS                2,242
11.13.00. BEHES12.  STAGING CUS                  0
11.13.00. BEHES12.  ..............................
11.13.00. BEHES12.  TOTAL JOB CUS               36
11.13.00. BEHES12.  COST + OVERHEAD    $      3.45
11.13.00. BEHES12.  ..............................

11.13.39. BEHES12.  OUTPUT  QUEUED PR 878
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B I L L B O A R D WRITEUPS SUBSET BKYNEWS WAS LAST CHANGED AUG 27
HANDBOOK SUBSET CHANGES WAS LAST CHANGED AUG 06

AUG 21 PSS HARDWARE FAILURE
THE FOLLOWING SUBSETS HAVE BEEN DESTROYED DUE TO HARDWARE FAILURE

DATE	LIBRARY	SUBSET(S)
AUG 18	GEOPOPE	FNL
AUG 18	GRASZ	GRASS
AUG 14	INVERT	NLIN1, NLIN2
AUG 18	LASS	DATA
AUG 14	ORBCC	ALL SUBSETS DESTROYED
AUG 06	RLF	BGTSRC
AUG 14	SAICODES	CALTECH, CRIPLOT, PLOTFOR
AUG 18	SU1SFT	HNESUBI
AUG 14	WAGLIB	GVBBUF
AUG 06	WHB	BAKKY
AUG 14	XRAYLIB	SEACIR, SHARP, FTN4UIL

AUG 20 ATTENTION COM (MICROFICHE, MICROFILM) USERS
THE COM DEVICE WAS DOWN ALL WEEKEND DUE TO DIFFICULTIES WITH NORMAL P.M.
IT IS EXPECTED TO BE BACK ON-LINE SOMETIME TODAY (MONDAY) BUT WITH A VERY LARGE
BACKLOG.

AUG 18 PSS SPACE BRF USERS TO BE DELETED
IN VIEW OF THE PROJECTED PLAN TO BEGIN CHARGING FOR PSS SPACE USED, AROUND
JAN 1ST, 1980, WE URGE ALL PSS USERS TO UPDATE THEIR ACCOUNT NUMBERS CURRENTLY
ON PSS TABLES - THESE ACCOUNTS WILL BE USED FOR CHARGING. SOME GROUPS MAY FIND
IT NECESSARY TO SPLIT UP A GROUP INTO TWO OR MORE SMALLER GROUPS, TO KEEP
ACCOUNT CHARGES SEPERATED. GROUP 1,BRF USERS WILL GO AWAY NOV. 15. USERS
WHO HAVE LIBRARIES ON BRF USERS SHOULD BEGIN TO MOVE THEM OUT AS SOON AS
POSSIBLE. TO UPDATE YOUR ACCOUNT AND/OR TALK ABOUT OTHER PSS RELATED
BUSINESS, CALL THE OPERATIONS PROGRAMMING SUPPORT GROUP AT (415) 486-5176
(FTS, 451-5176).

AUG 3 EXPEDITER USERS
EXPEDITER USERS SHOULD USE THE NEW EXPEDITER TAPE ENTRY FORM
FOR ENTERING NEW TAPES INTO THE LBL SYSTEM. THE OLD FORM IS NO LONGER
VALID. TO GET A COPY OF THE NEW FORM DO -

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LIBCOPY,EXPLIB,A/RR,USER.
DISPOSE,A=PR,
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TO CALL A CONSULTANT DIAL X5981, (415) 486-5981 OR 451-5981 (FTS)

THIS RUN EXECUTED 14 FEB 79 14.33.12

Retention Pond to I-94

TAKEN FROM

Previous Submittal

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED  AUG1977
  ERROR CORR -  01,02
  MODIFICATION -  50,51,52,53
*****************************************************

C
T1      YPSILANTI TOWNSHIP  FIS
T2      PAINT CREEK
T3      10  YR  FLOW

J1  ICHECK    INQ       NINV      IDIR      STRT      ETRIC     HVINS     Q         WSEL      FQ

      -0.       2.       -0.       -0. -0.            0.        -0.       -0.   737.000    -0.

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     N         ALLDC     IBW       CHNIM     ITRACE

     1.000    -0.       -1.000    -0.       -0.       -0.       -0.       -0.       -0.       -0.

NC       .040      .040      .040      .300      .500      -0.       -0.       -0.       -0.       -0.
QT      4.000   469.000   589.000   643.000   126 .000      -0.       -0.       -0.       -0.       -0.

                V/S END OF RETENTION POND (OPHM 0+80)

X1  27149.000     8.000   265.000   335.000    96 .000   961.000   961.000     -0.       -0.       -0.
X3     -0.       -0.       -0.       265.000    74 .000   335.000   742.000     -0.       -0.       -0.
GR    740.200    65.000   741.500   165.000    74 .000   265.000   733.100   294.000   733.100   306.000
GR    742.100   335.000   742.300   435.000    74 .700   535.000     -0.       -0.       -0.       -0.

                70FT U/S END OF RETENTION POND (OPHM 1+50)

X1  27219.000     8.000   265.000   335.000     7 .000    70.000    70.000     -0.       -0.       -0.
X3     -0.       -0.       -0.       265.000    74 .500   335.000   742.500     -0.       -0.       -0.
GR    741.700    65.000   742.600   165.000    74 .500   265.000   732.500   293.000   732.500   307.000
GR    743.000   335.000   742.700   435.000    74 .400   535.000     -0.       -0.       -0.       -0.

                50FT D/S MULTIPLATE CULVERT (R OPHM  +50)

X1  27375.000     8.000   270.000   330.000    15 .000   156.000   156.000     -0.       -0.       -0.
X3     -0.       -0.       -0.       279.800    74 .500   320.300   742.500     -0.       -0.       -0.
GR    743.100    70.000   742.900   170.000    74 .600   270.000   732.700   293.000   732.700   307.000
GR    743.200   330.000   742.400   430.000    74 .700   530.000     -0.       -0.       -0.       -0.

                12FT D/S MULTIPLATE CULVERT (R OPHM  +50)

X1  27413.000     8.000   270.000   330.000     3 .000    38.000    38.000     -0.       -0.       -0.
X3     -0.       -0.       -0.       289.200    74 .500   310.700   742.500     -0.       -0.       -0.
GR    743.100    70.000   742.900   170.000    74 .600   270.000   732.800   293.000   732.800   307.000
GR    743.200   330.000   742.400   430.000    74 .700   530.000     -0.       -0.       -0.       -0.

                9FT D/S MULTIPLATE CULVERT (R OPHM  +50)

X1  27416.000     -0.       -0.       -0.          .000     3.000     3.000     -0.       -0.       -0.
X3     -0.       -0.       -0.       290.000    74 .50    310.000   742.500     -0.       -0.       -0.
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6FT D/S MULTIPLATE CULVERT (OPHM 3+ 0)

X1	27419.000	-0.	-0.	-0.	.000	3.000	3.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	290.800	74 .500	309.300	742.500	-0.	-0.	-0.

2FT D/S MULTIPLATE CMP CULVERT (R 0 HM 3+50)

X1	27423.000	-0.	-0.	-0.	.000	4.000	4.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	292.000	74 .500	308.000	742.500	-0.	-0.	-0.
NC	.040	.040	.031	-0.	- .	-0.	-0.	-0.	-0.	-0.

1FT D/S MULTIPLATE CMP CULVERT (R OE VS-19A)

X1	27424.000	27.000	232.500	248.000	.000	1.000	1.000	-0.	-0.	-0.
X3	10.000	-0.	-0.	-0.	- .	-0.	-0.	742.600	742.600	-0.
GR	742.800	0.	742.400	50.000	74 .300	100.000	742.100	150.000	742.600	200.000
GR	742.600	232.500	735.500	232.500	73 .400	233.000	733.800	234.000	733.500	235.000
GR	733.300	236.000	733.200	236.500	73 .900	238.000	732.800	239.500	732.800	240.000
GR	732.800	241.000	732.900	242.500	73 .200	244.000	733.600	245.500	733.800	246.500
GR	734.400	247.500	735.500	248.000	74 .700	248.000	742.700	250.000	742.700	300.000
GR	742.600	350.000	742.300	400.000	- .	-0.	-0.	-0.	-0.	-0.

D/S FACE 9 3 X15 4 MULTIPLATE CMP CUL ERT (COF VS19A)

X1	27425.000	-0.	-0.	-0.	.000	1.000	1.000	-0.	-0.	-0.
BT	25.000	0.	742.800	-0.	5 .000	742.400	-0.	100.000	742.300	-0.
BT	150.000	742.100	-0.	200.000	74 .600	-0.	232.500	742.700	0.	232.500
BT	742.700	735.500	233.000	742.700	73 .000	234.000	742.700	738.800	235.000	742.700
BT	739.900	236.500	742.700	741.000	23 .000	742.700	741.700	239.500	742.700	742.000
BT	241.000	742.700	742.000	242.500	74 .700	741.700	244.000	742.700	741.000	245.500
BT	742.700	739.900	246.500	742.700	73 .800	247.500	742.700	737.000	248.000	742.700
BT	735.500	248.000	742.700	0.	25 .000	742.700	0.	300.000	742.700	-0.
BT	350.000	742.600	0.	400.000	74 .300	-0.	-0.	-0.	-0.	-0.

U/S FACE 9 3 X15 4 MULTIPLATE CMP CUL FRT (R COE VS19A)

X1	27455.000	-0.	-0.	-0.	3 .000	30.000	30.000	-0.	-0.	-0.
X2	-0.	-0.	-0.	-0.	- .	-0.	1.000	-0.	-0.	-0.
NC	.040	.040	.040	-0.	- .	-0.	-0.	-0.	-0.	-0.

1FT U/S MULTIPLATE CMP CULVERT (R OE VS-19A)

X1	27456.000	-0.	-0.	-0.	.000	1.000	1.000	-0.	-0.	-0.
X3	10.000	-0.	-0.	-0.	- .	-0.	-0.	742.600	742.600	-0.

2FT U/S MULTIPLATE CULVERT (R OPHM 3+92)

X1	27457.000	8.000	270.000	330.000	.000	1.000	1.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	290.300	74 .200	309.800	743.200	-0.	-0.	-0.
GR	743.500	70.000	742.600	170.000	74 .300	270.000	732.800	293.000	732.800	307.000
GR	743.200	330.000	742.500	430.000	74 .200	530.000	-0.	-0.	-0.	-0.

5FT U/S MULTIPLATE CULVERT (R OPHM +92)

X1	27458.000	8.000	270.000	330.000	.000	3.000	3.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	287.300	74 .200	312.800	743.200	-0.	-0.	-0.
GR	743.500	70.000	742.600	170.000	74 .300	270.000	732.800	293.000	732.800	307.000

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GR	743.200	330.000	742.500	430.000	74	.200	530.000	-0.	-0.	-0.	-0.

8FT U/S MULTIPLATE CULVERT (OPHM 3+ 2)

X1	27461.000	8.000	270.000	330.000		.000	3.000	3.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	284.300	74	.200	315.800	743.200	-0.	-0.	-0.
GR	743.500	70.000	742.600	170.000	74	.300	270.000	733.200	293.000	733.200	307.000
GR	743.200	330.000	742.500	430.000	74	.200	530.000	-0.	-0.	-0.	-0.
NC	.040	.040	.060	-0.	-	.	-0.	-0.	-0.	-0.	-0.

14FT U/S MULTIPLATE CULVERT (R OPHM +92)

X1	27467.000	8.000	270.000	330.000		.000	6.000	6.000	-0.	.100	-0.
X3	-0.	-0.	-0.	278.300	74	.200	321.800	743.200	-0.	-0.	-0.
GR	743.500	70.000	742.600	170.000	74	.300	270.000	733.300	293.000	733.300	307.000
GR	743.200	330.000	742.500	430.000	74	.200	530.000	-0.	-0.	-0.	-0.

20FT U/S MULTIPLATE CULVERT (R OPHM +92)

X1	27473.000	8.000	270.000	330.000		.000	6.000	6.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	272.300	74	.200	327.800	743.200	-0.	-0.	-0.
GR	743.500	70.000	742.600	170.000	74	.300	270.000	733.500	293.000	733.500	307.000
GR	743.200	330.000	742.500	430.000	74	.200	530.000	-0.	-0.	-0.	-0.

36FT U/S MULTIPLATE CULVERT (OPHM 4+ 2)

X1	27489.000	10.000	270.000	330.000	1	.000	16.000	16.000	-0.	-0.	-0.
GR	745.800	0.	743.600	70.000	74	.100	170.000	742.000	270.000	733.600	293.000
GR	733.600	307.000	743.000	330.000	74	.500	430.000	742.900	530.000	750.000	600.000
NC	.040	.040	.080	-0.	-	.	-0.	-0.	-0.	-0.	-0.

364FT U/S MULTIPLATE CULVERT (OPHM 7+ 0)

X1	27819.000	10.000	293.000	307.000	31	.000	340.000	328.000	-0.	-0.	-0.
GR	750.000	43.000	747.100	93.000	74	.900	193.000	739.800	293.000	733.900	296.000
GR	733.900	304.000	738.300	307.000	74	.100	407.000	746.000	507.000	750.000	530.000

879FT U/S MULTIPLATE CULVERT (OPHM 12 50)

X1	28319.000	10.000	292.000	308.000	50	.000	500.000	500.000	-0.	-0.	-0.
GR	750.000	42.000	744.700	92.000	74	.100	192.000	739.600	292.000	736.700	295.000
GR	736.700	305.000	741.700	308.000	74	.800	408.000	744.600	508.000	750.000	733.000

50 FT D/S 5FT DIA CMP (R OPHM 15+40)

X1	28559.000	10.000	370.000	390.000	24	.000	240.000	240.000	-0.	-0.	-0.
GR	750.000	0.	743.500	170.000	74	.800	270.000	741.300	370.000	738.500	376.000
GR	738.500	384.000	741.700	390.000	74	.700	490.000	744.900	590.000	750.000	630.000
NC	.030	.030	.040	-0.	-	.	-0.	-0.	-0.	-0.	-0.

1FT D/S 5FT DIA CMP (R OPHM 15+40)

X1	28608.000	17.000	377.500	382.500	4	.000	49.000	49.000	-0.	-0.	-0.
X3	10.000	-0.	-0.	-0.	-	.	-0.	-0.	741.700	741.700	-0.
GR	750.000	0.	743.500	170.000	74	.800	270.000	741.300	370.000	741.300	377.500
GR	740.600	377.500	739.600	378.000	73	.000	379.000	738.800	380.000	739.000	381.000
GR	739.600	382.000	740.600	382.500	74	.300	382.500	741.700	390.000	743.700	490.000
GR	744.900	590.000	750.000	630.000			-0.	-0.	-0.	-0.	-0.

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NC	.050	.030	.024	-0.	- .	-0.	-0.	-0.	-0.	-0.	

D/S FACE FARM LANE 5FT DIA CMP (OPHM 5+40)

X1	28609.000	-0.	-0.	-0.	.000	1.000	1.000	-0.	-0.	-0.	
BT	15.000	0.	750.000	0.	17 .000	743.500	0.	270.000	742.800	0.	
BT	370.000	741.300	0.	377.500	74 .100	741.300	378.000	743.500	743.000	379.000	
BT	743.600	743.600	380.000	743.800	74 .800	381.000	743.600	743.600	382.000	743.500	
BT	743.000	382.500	743.100	742.000	39 .000	741.700	0.	490.000	743.700	0.	
BT	590.000	744.900	0.	630.000	75 .000	0.	-0.	-0.	-0.	-0.	

U/S FACE FARM LANE 5FT DIA CMP (R OPH 15+40)

X1	28627.000	-0.	-0.	-0.	1 .000	18.000	18.000	-0.	-0.	-0.	
X2	-0.	-0.	-0.	-0.	- .	-0.	1.000	-0.	-0.	-0.	
NC	.030	.030	.040	-0.	- .	-0.	-0.	-0.	-0.	-0.	

1FT U/S 5FT DIA CMP (R OPHM 15+40)

X1	28628.000	-0.	-0.	-0.	.000	1.000	1.000	-0.	-0.	-0.	
NC	.040	.040	.080	-0.	- .	-0.	-0.	-0.	-0.	-0.	

50FT U/S 5FT DIA CMP (R OPHM 15+40)

X1	28677.000	10.000	370.000	390.000	5 .000	50.000	50.000	-0.	-0.	-0.	
GR	750.000	0.	743.500	170.000	74 .800	270.000	741.300	370.000	738.900	376.000	
GR	738.900	384.000	741.700	390.000	74 .700	490.000	744.900	590.000	750.000	630.000	

191FT U/S 5FT DIA CMP (OPHM 17+50)

X1	28819.000	11.000	400.000	416.000	18 .000	100.000	142.000	-0.	-0.	-0.	
X3	-0.	-0.	-0.	220.000	- .	-0.	650.000	-0.	-0.	-0.	
GR	746.000	0.	744.500	100.000	74 .500	200.000	743.000	300.000	742.600	400.000	
GR	739.900	404.000	739.900	412.000	74 .500	416.000	744.200	516.000	744.700	616.000	
GR	750.000	650.000	-0.	-0.	- .	-0.	-0.	-0.	-0.	-0.	

391FT U/S 5FT DIA CMP (R OPHM 17+50)

X1	29019.000	-0.	-0.	-0.	20 .000	200.000	200.000	-0.	.700	-0.	
X3	-0.	-0.	-0.	300.000	- .	600.000	-0.	-0.	-0.	-0.	

591FT U/S 5FT DIA CMP (R OPHM 17+50)

X1	29219.000	-0.	-0.	-0.	20 .000	200.000	200.000	-0.	.700	-0.	
X3	-0.	-0.	-0.	350.000	- .	550.000	-0.	-0.	-0.	-0.	

692FT U/S 5FT DIA CMP (OPHM 22+50)

X1	29319.000	10.000	293.000	307.000	10 .000	100.000	100.000	-0.	-0.	-0.	
X3	-0.	-0.	-0.	250.000	- .	530.000	-0.	-0.	-0.	-0.	
GR	747.900	93.000	747.300	193.000	74 .900	253.000	744.300	293.000	741.800	295.000	
GR	741.800	305.000	744.700	307.000	74 .800	407.000	744.800	507.000	750.000	607.000	

792FT U/S 5FT DIA CMP (COE VS-22)

X1	29419.000	15.000	200.000	215.000	10 .000	100.000	100.000	-0.	-0.	-0.	
X3	-0.	-0.	-0.	150.000	- .	400.000	-0.	-0.	-0.	-0.	

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GR	746.600	0.	746.600	50.000	74	.600	100.000	746.500	150.000	744.100	200.000
GR	741.900	203.000	741.200	205.000	74	.300	210.000	741.900	211.000	744.900	215.000
GR	744.500	250.000	744.200	300.000	74	.400	350.000	744.600	400.000	750.000	570.000

926FT U/S 5FT DIA CMP (R COE VS-22)

X1	29553.000	13.000	200.000	215.000	13	.000	134.000	134.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	130.000	-	.	370.000	-0.	-0.	-0.	-0.
GR	747.500	0.	747.100	50.000	74	.900	100.000	746.800	150.000	745.500	200.000
GR	742.800	203.000	742.100	205.000	74	.200	210.000	742.800	211.000	744.900	215.000
GR	745.500	350.000	745.500	400.000	74	.000	600.000	-0.	-0.	-0.	-0.

50FT D/S PRIVATE FARM LANE (R OPHMC 26+73)

X1	29684.000	10.000	500.000	516.000	13	.000	131.000	131.000	-0.	-.400	-0.
X3	-0.	-0.	-0.	380.000	-	.	650.000	-0.	-0.	-0.	-0.
GR	750.000	0.	748.400	300.000	74	.300	400.000	746.700	500.000	743.300	503.000
GR	743.300	513.000	746.700	516.000	74	.900	616.000	746.700	716.000	750.000	1456.000
NC	.040	.040	.120	-0.	-	.	-0.	-0.	-0.	-0.	-0.

D/S FACE OF PRIVATE FARM LANE (R OPHM 6+73)CONC SLAB W/HEADWALL

X1	29734.000	12.000	500.000	516.000	5	.000	50.000	50.000	-0.	-.100	-0.
X3	-0.	-0.	-0.	350.000	-	.	645.000	-0.	-0.	-0.	-0.
GR	750.000	0.	748.400	300.000	74	.300	400.000	747.900	500.000	747.400	500.000
GR	743.300	503.000	743.300	513.000	74	.400	516.000	747.900	516.000	746.900	616.000
GR	746.700	716.000	750.000	1456.000	-	.	-0.	-0.	-0.	-0.	-0.
SB	-0.	1.760	1.490	-0.	1	.000	-0.	41.000	-0.	738.800	738.800

U/S FACE OF PRIVATE FARM LANE (OPHM 26 73)

X1	29742.000	-0.	-0.	-0.		.000	8.000	8.000	-0.	-0.	-0.
X2	-0.	-0.	1.000	747.400	74	.700	-0.	-0.	-0.	-0.	-0.
X3	-0.	-0.	-0.	342.000	-	.	643.000	-0.	-0.	-0.	-0.
BT	10.000	0.	750.000	-0.	30	.000	748.400	-0.	400.000	747.300	-0.
BT	500.000	747.900	-0.	500.000	74	.900	747.400	516.000	747.900	747.400	516.000
BT	747.900	-0.	616.000	746.900	-	.	716.000	746.700	-0.	1456.000	750.000
BT	0.	-0.	-0.	-0.	-	.	-0.	-0.	-0.	-0.	-0.
NC	.040	.040	.080	-0.	-	.	-0.	-0.	-0.	-0.	-0.

50FT U/S PRIVATE FARM LANE (R OPHM 2 +73)

X1	29792.000	10.000	500.000	518.000	5	.000	50.000	50.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	290.000	-	.	630.000	-0.	-0.	-0.	-0.
GR	750.000	0.	747.700	300.000	74	.900	400.000	746.900	500.000	743.400	504.000
GR	743.400	514.000	746.800	518.000	74	.500	618.000	746.500	718.000	750.000	1454.000

77FT U/S PRIVATE FARM LANE (OPHM 27+ 0)

X1	29819.000	10.000	250.000	268.000	2	.000	27.000	27.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	0.	-	.	369.000	-0.	-0.	-0.	-0.
GR	750.000	5.000	747.700	50.000	74	.900	150.000	746.900	250.000	743.500	254.000
GR	743.500	264.000	746.800	268.000	74	.500	369.000	746.500	468.000	750.000	1350.000

185FT U/S PRIVATE FARM LANE (R OPHM 2 +50)

X1	29937.000	10.000	250.000	268.000	11	.000	118.000	118.000	-0.	.200	-0.
X3	-0.	-0.	-0.	70.000	-	.	330.000	-0.	-0.	-0.	-0.
GR	750.000	5.000	747.700	50.000	74	.900	150.000	746.900	250.000	743.700	254.000

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GR	745.700	264.000	746.800	268.000	74 .500	369.000	746.500	468.000	750.000	1350.000

293FT U/S PRIVATE FARM LANE (R OPHM 2 +50)

X1	30055.000	10.000	250.000	268.000	11 .000	118.000	118.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	150.000	- .	325.000	-0.	-0.	-0.	-0.
GR	750.500	0.	748.200	50.000	74 .400	139.000	747.400	250.000	744.000	254.000
GR	744.000	264.000	747.300	268.000	74 .400	334.000	750.500	350.000	750.500	800.000

411FT U/S PRIVATE FARM LANE (R OPHM 2 +50)

X1	30173.000	9.000	250.000	268.000	11 .000	118.000	118.000	-0.	.200	-0.
X3	-0.	-0.	-0.	190.000	- .	310.000	-0.	-0.	-0.	-0.
GR	750.500	0.	748.200	50.000	74 .400	219.000	747.400	250.000	744.000	254.000
GR	744.000	264.000	747.300	268.000	75 .000	310.000	751.000	600.000	-0.	-0.
NC	.030	.030	.060	-0.	- .	-0.	-0.	-0.	-0.	-0.

50FT D/S I-94 CONCRETE BOX CULVERT (OE VS-23)

X1	30241.000	8.000	350.000	368.000	6 .000	68.000	68.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	342.500	- .	375.500	-0.	-0.	-0.	-0.
GR	747.600	342.500	747.500	350.000	74 .300	354.000	744.300	364.000	747.600	368.000
GR	747.700	378.500	750.000	420.000	76 .000	1050.000	-0.	-0.	-0.	-0.

28FT D/S I-94 CONC BOX CULVERT (R)

X1	30263.000	9.000	350.000	368.000	2 .000	22.000	22.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	348.000	- .	370.000	-0.	-0.	-0.	-0.
GR	747.600	348.000	747.500	350.000	74 .300	354.000	744.300	364.000	747.600	368.000
GR	747.600	370.000	750.000	500.000	75 .200	520.000	755.000	960.000	-0.	-0.

16FT D/S I-94 CONC BOX CULVERT (R)

X1	30275.000	-0.	-0.	-0.	1 .000	12.000	12.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	351.000	- .	367.000	-0.	-0.	-0.	-0.

12FT D/S I-94 CONC BOX CULVERT (R)

X1	30279.000	9.000	350.000	368.000	.000	4.000	4.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	352.000	- .	366.000	-0.	-0.	-0.	-0.
GR	747.500	350.000	745.900	352.000	74 .300	354.000	744.300	364.000	745.900	366.000
GR	747.600	368.000	750.000	500.000	75 .200	520.000	755.000	960.000	-0.	-0.

8FT D/S I-94 CONC BOX CULVERT (R)

X1	30283.000	-0.	-0.	-0.	.000	4.000	4.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	353.000	- .	365.000	-0.	-0.	-0.	-0.

6FT D/S I-94 CONC BOX CULVERT (R)

X1	30285.000	-0.	-0.	-0.	.000	2.000	2.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	353.500	- .	364.500	-0.	-0.	-0.	-0.

4FT D/S I-94 CONC BOX CULVERT (R)

X1	30287.000	7.000	350.000	368.000	.000	2.000	2.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	354.000	- .	364.000	-0.	-0.	-0.	-0.

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GR	750.000	0.	747.500	350.000	74	.300	354.000	744.300	364.000	747.600	368.000
GR	750.000	500.000	755.000	960.000	-	.	-0.	-0.	-0.	-0.	-0.
NC	.030	.030	.022	-0.	-	.	-0.	-0.	-0.	-0.	-0.

D/S FACE OF I-94 CONC BOX CULVERT 8FT 8FT W/CONC HEADWALLS

(COF S-23)

X1	30291.000	24.000	192.000	200.000		.000	4.000	4.000	-0.	-0.	-0.
X3	10.000	-0.	-0.	-0.	-	.	-0.	-0.	756.500	756.500	-0.
GR	760.900	0.	760.200	100.000	75	.600	192.000	744.400	192.000	744.400	195.000
GR	744.400	200.000	759.600	200.000	75	.000	300.000	758.700	400.000	758.200	500.000
GR	757.900	600.000	757.400	700.000	75	.500	760.000	756.600	800.000	757.200	1000.000
GR	757.700	1200.000	758.200	1400.000	75	.700	1600.000	759.300	1800.000	759.800	2000.000
GR	761.000	2200.000	762.200	2400.000	76	.500	2600.000	765.000	2840.000	-0.	-0.
EJ	-0.	-0.	-0.	-0.	-	.	-0.	-0.	-0.	-0.	-0.

PRINTED IN U.S.A.

*PROF 1

CCHV= .300 CEHV= .500

*SECNO 27149.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
3470 ENCROACHMENT STATIONS=		265.0	335.0	TYPF=	1	TARGET=		70.000	
ELENCL= .742.00	ELENCR=	742.00							
V/S END OF RETENTION POND (OPHM 0+80)									
27149.00	3.90	737.00	.0.	737.00	737.37	.37	0.	0.	742.00
469.	0.	469.	0.	0.	96.	0.	0.	0.	742.10
0.	0.	4.88	0.	.040	.040	.040	0.	733.10	281.29
.005090	961.	961.	961.	0	0	0	0.	37.27	318.57

*SECNO 27219.000

3470 ENCROACHMENT STATIONS=		265.0	335.0	TYPE=	1	TARGET=		70.000	
ELENCL= 742.50	ELENCR=	742.50							
70FT U/S END OF RETENTION POND (OPHM 1+50)									
27219.00	4.94	737.44	0.	0.	737.63	.19	.20	.06	742.50
469.	0.	469.	0.	0.	136.	0.	0.	0.	743.00
.01	0.	3.45	0.	.040	.040	.040	.039	732.50	279.16
.001845	70.	70.	70.	2	0	0	0.	41.02	320.18

*SECNO 27375.000

3470 ENCROACHMENT STATIONS=		279.8	320.3	TYPE=	1	TARGET=		40.500	
ELENCL= 742.50	ELENCR=	742.50							
50FT D/S MULTIPLATE CULVERT (R OPHM +50)									
27375.00	5.03	737.73	0.	0.	737.94	.21	.30	.01	742.60
469.	0.	469.	0.	0.	127.	0.	1.	0.	743.20
.02	0.	3.68	0.	.040	.040	.040	.040	732.70	281.32
.002012	156.	156.	156.	2	0	0	0.	36.69	318.01

*SECNO 27413.000

3470 ENCROACHMENT STATIONS=		289.2	310.7	TYPE=	1	TARGET=		21.500	
ELENCL= 742.50	ELENCR=	742.50							
12FT D/S MULTIPLATE CULVERT (R OPHM +50)									
27413.00	4.96	737.76	0.	0.	738.10	.34	.09	.06	742.60
469.	0.	469.	0.	0.	100.	0.	1.	0.	743.20
.02	0.	4.67	0.	.040	.040	.040	.040	732.80	289.20
.002991	38.	38.	38.	2	0	0	0.	21.50	310.70

*SECNO 27416.000

SECNO DEPTH CWSEL CRIWS WSELK EG HV HL OLOSS BANK ELEV

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Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 290.0 310.0 TYPE= 1 TARGET= 20.000
ELENCL= 742.50 ELENCR= 742.50

9FT D/S MULTIPLATE CULVERT (R OPHM +50)

27416.00	4.95	737.75	0.	0.	738.13	.38	.01	.02	742.60
469.	0.	469.	0.	0.	95.	0.	1.	0.	743.20
.02	0.	4.93	0.	.040	.040	.040	.039	732.80	290.00
.003414	3.	3.	3.	1	0	0	0.	20.00	310.00

*SECNO 27419.000

3470 ENCROACHMENT STATIONS= 290.8 309.3 TYPE= 1 TARGET= 18.500
ELENCL= 742.50 ELENCR= 742.50

6FT D/S MULTIPLATE CULVERT (OPHM 3+ 0)

27419.00	4.93	737.73	0.	0.	738.16	.43	.01	.03	742.60
469.	0.	469.	0.	0.	89.	0.	1.	0.	743.20
.02	0.	5.27	0.	.040	.040	.040	.039	732.80	290.80
.004058	3.	3.	3.	2	0	0	0.	18.50	309.30

*SECNO 27423.000

3470 ENCROACHMENT STATIONS= 292.0 308.0 TYPE= 1 TARGET= 16.000
ELENCL= 742.50 ELENCR= 742.50

2FT D/S MULTIPLATE CMP CULVERT (R O HM 3+50)

27423.00	4.88	737.68	0.	0.	738.25	.57	.02	.07	742.60
469.	0.	469.	0.	0.	78.	0.	1.	0.	743.20
.02	0.	6.04	0.	.040	.040	.040	.039	732.80	292.00
.005841	4.	4.	4.	2	0	0	0.	16.00	308.00

*SECNO 27424.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 7 2.60 EL?FA= 742.60

1FT D/S MULTIPLATE CMP CULVERT (R OE VS-1?A)

27424.00	4.77	737.57	0.	0.	738.38	.81	.01	.12	742.60
469.	0.	469.	0.	0.	65.	0.	1.	0.	742.70
.02	0.	7.24	0.	.040	.031	.040	.039	732.80	232.50
.005281	1.	1.	1.	2	0	0	0.	15.50	248.00

*SECNO 27425.000

3370 NORMAL BRIDGE,NRD= 25 MIN ELTRD= 742.10 MAX ELLC 742.00

D/S FACE 9 3 X15 4 MULTIPLATE CMP CUL FRT (COE VS19A)

27425.00	4.74	737.54	0.	0.	738.42	.87	.01	.03	742.60
469.	0.	469.	0.	0.	63.	0.	1.	0.	742.70
.02	0.	7.50	0.	.040	.021	.040	.039	732.80	233.50

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.006465	1.	1.	1.	2	0	0	-1.83	15.50	248.00

*SECNO 27455.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
3370 NORMAL BRIDGE,NRD= 25 MIN ELTRD= 742.10 MAX ELLC 742.00									
U/S FACE 9 3 X15 4 MULTIPLATE CMP CUL ERT (R COE VS19A)									
27455.00	5.06	737.86	0.	0.	738.62	.76	.18	.03	742.60
469.	0.	469.	0.	0.	67.	0.	1.	0.	742.70
.02	0.	7.01	0.	.040	.031	.040	.038	732.80	232.50
.005367	30.	30.	30.	2	0	0	-2.47	15.50	248.00
*SECNO 27456.000									
3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 7 2.60 ELREA= 742.60									
1FT U/S MULTIPLATE CMP CULVERT (R OE VS-19A)									
27456.00	5.19	737.99	0.	0.	738.66	.67	.01	.03	742.60
469.	0.	469.	0.	0.	71.	0.	1.	0.	742.70
.02	0.	6.58	0.	.040	.040	.040	.038	732.80	232.50
.006720	1.	1.	1.	2	0	0	0.	15.50	248.00
*SECNO 27457.000									
3470 ENCROACHMENT STATIONS= 290.3 309.8 TYPE= 1 TARGET= 19.500									
ELENCL= 743.20 ELENCR= 743.20									
2FT U/S MULTIPLATE CULVERT (R OPHM 3+92)									
27457.00	5.68	738.48	0.	0.	738.77	.30	.00	.11	743.20
469.	0.	469.	0.	0.	108.	0.	1.	0.	743.20
.02	0.	4.36	0.	.040	.040	.040	.038	732.80	290.30
.002395	1.	1.	1.	2	0	0	0.	19.50	309.80
*SECNO 27458.000									
3470 ENCROACHMENT STATIONS= 287.3 312.8 TYPE= 1 TARGET= 25.500									
ELENCL= 743.20 ELENCR= 743.20									
5FT U/S MULTIPLATE CULVERT (R OPHM +92)									
27458.00	5.60	738.60	0.	0.	738.81	.21	.01	.03	743.20
469.	0.	469.	0.	0.	129.	0.	1.	0.	743.20
.02	0.	3.64	0.	.040	.040	.040	.038	733.00	287.30
.001551	3.	3.	3.	2	0	0	0.	25.50	312.80
*SECNO 27461.000									
3470 ENCROACHMENT STATIONS= 284.3 315.8 TYPE= 1 TARGET= 31.500									
ELENCL= 743.20 ELENCR= 743.20									

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8FT U/S MULTIPLATE CULVERT (OPHM 3+ 2)

27461.00	5.45	738.65	0.	0.	738.82	.17	.00	.01	743.20
469.	0.	469.	0.	0.	140.	0.	1.	0.	743.20
.02	0.	3.36	0.	.040	.040	.040	.038	733.20	284.30
.001367	3.	3.	3.	2	0	0	0.	31.50	315.80

*SECNO 27467.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 278.3 321.8 TYPE= 1 TARGET= 43.500
ELENCL= 743.20 ELENCR= 743.20

14FT U/S MULTIPLATE CULVERT (R OPHM +92)

27467.00	5.26	738.66	0.	0.	738.83	.17	.01	.00	743.30
469.	0.	469.	0.	0.	141.	0.	1.	0.	743.30
.02	0.	3.33	0.	.040	.060	.040	.038	733.40	279.57
.003562	6.	6.	6.	0	0	0	0.	39.64	319.21

*SECNO 27473.000

3470 ENCROACHMENT STATIONS= 272.3 327.8 TYPE= 1 TARGET= 55.500
ELENCL= 743.20 ELENCR= 743.20

20FT U/S MULTIPLATE CULVERT (R OPHM +92)

27473.00	5.18	738.68	0.	0.	738.86	.18	.02	.00	743.20
469.	0.	469.	0.	0.	139.	0.	1.	0.	743.20
.02	0.	3.37	0.	.040	.060	.040	.038	733.50	279.47
.003716	6.	6.	6.	0	0	0	0.	39.81	319.27

*SECNO 27489.000

36FT U/S MULTIPLATE CULVERT (OPHM 4+ 2)

27489.00	5.15	738.75	0.	0.	738.92	.17	.06	.00	742.00
469.	0.	469.	0.	0.	140.	0.	1.	0.	743.00
.02	0.	3.34	0.	.040	.060	.040	.039	733.60	278.93
.003700	16.	16.	16.	0	0	0	0.	40.65	319.58

*SECNO 27819.000

364FT U/S MULTIPLATE CULVERT (OPHM 7+ 0)

27819.00	6.48	740.38	0.	0.	740.57	.19	1.64	.01	739.80
469.	4.	284.	181.	3.	75.	57.	2.	1.	738.30
.05	1.36	3.77	3.19	.040	.080	.040	.058	733.90	281.71
.007024	310.	328.	340.	2	0	0	0.	79.92	361.63

*SECNO 28319.000

879FT U/S MULTIPLATE CULVERT (OPHM 12 50)

28319.00	5.84	742.54	0.	0.	742.63	.09	2.02	.03	739.60
469.	376.	189.	30.	84.	85.	32.	4.	5.	737.70

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.11	2.46	2.43	1.07	.040	.080	.040	.067	736.70	226.66
.002629	500.	500.	500.	3	0	0	0.	157.71	384.37

*SECNO 28559.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

50 FT D/S SFT DIA CMP (R OPHM 15+40)

28559.00	4.68	743.18	0.	0.	743.24	.06	.60	.01	741.30
469.	229.	159.	81.	123.	76.	55.	5.	3.	741.70
.15	1.85	2.10	1.48	.040	.080	.040	.069	738.50	215.57
.002381	240.	240.	240.	3	0	0	0.	248.48	464.05

*SECNO 28608.000

1FT D/S SFT DIA CMP (R OPHM 15+40)

28608.00	4.46	743.26	0.	0.	743.32	.06	.08	.00	741.30
469.	295.	48.	126.	151.	20.	74.	6.	4.	741.30
.15	1.95	2.43	1.70	.030	.040	.030	.068	738.80	204.11
.001282	49.	49.	49.	2	0	0	0.	263.95	468.06

*SECNO 28609.000

3370 NORMAL BRIDGE,NRD= 15 MIN ELTRD= 741.30 MAX ELLC 743.80

D/S FACE FARM LANE SFT DIA CMP (OPHM 5+40)

28609.00	4.46	743.26	0.	0.	743.33	.07	.00	.01	741.30
469.	287.	65.	117.	145.	19.	70.	6.	4.	741.30
.15	1.98	3.46	1.67	.030	.024	.030	.068	738.80	203.66
.001446	1.	1.	1.	0	0	0	-12.00	264.55	468.22

*SECNO 28627.000

3370 NORMAL BRIDGE,NRD= 15 MIN ELTRD= 741.30 MAX ELLC 743.80

U/S FACE FARM LANE SFT DIA CMP (R OPH 15+40)

28627.00	4.49	743.29	0.	0.	743.36	.07	.03	.00	741.30
469.	288.	64.	118.	148.	19.	72.	6.	4.	741.30
.15	1.95	3.39	1.64	.030	.024	.030	.068	738.80	201.30
.001381	18.	18.	18.	0	0	0	-12.02	267.75	469.05

*SECNO 28628.000

1FT U/S SFT DIA CMP (R OPHM 15+40)

28628.00	4.51	743.31	0.	0.	743.36	.05	.00	.01	741.30
469.	296.	46.	127.	160.	20.	78.	6.	4.	741.30
.15	1.86	2.30	1.61	.030	.040	.030	.068	738.80	197.09
.001123	1.	1.	1.	2	0	0	0.	273.43	470.52

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*SECNO 28677.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	FORAR	TOPWID	ENDST
			50FT U/S SFT DIA CMP (R OPHM 15+40)						
28677.00	4.49	743.39	0.	0.	743.43	.04	.06	.00	741.30
469.	252.	124.	93.	160.	74.	72.	6.	4.	741.70
.16	1.58	1.67	1.29	.040	.080	.040	.068	738.90	185.00
.001504	50.	50.	50.	2	0	0	0.	289.75	474.75

*SECNO 28819.000

3470 ENCROACHMENT STATIONS= 220.0 650.0 TYPE= 1 TARGET= -220.000

191FT U/S SFT DIA CMP (OPHM 17+50)

28819.00	3.84	743.74	0.	0.	743.80	.07	.36	.01	742.60
469.	274.	119.	76.	137.	51.	45.	7.	5.	742.50
.19	2.00	2.35	1.68	.040	.080	.040	.068	739.90	220.00
.003892	180.	142.	100.	2	0	0	0.	268.79	488.79

*SECNO 29019.000

3470 ENCROACHMENT STATIONS= 300.0 600.0 TYPE= 1 TARGET= 300.000

391FT U/S SFT DIA CMP (R OPHM 17+50)

29019.00	3.93	744.53	0.	0.	744.61	.08	.80	.01	743.30
469.	247.	128.	94.	103.	52.	52.	8.	6.	743.20
.21	2.40	2.45	1.81	.040	.080	.040	.070	740.60	300.00
.004079	200.	200.	200.	2	0	0	0.	194.14	494.14

*SECNO 29219.000

3470 ENCROACHMENT STATIONS= 350.0 550.0 TYPE= 1 TARGET= 200.000

591FT U/S SFT DIA CMP (R OPHM 17+50)

29219.00	4.08	745.38	0.	0.	745.49	.11	.87	.01	744.00
469.	188.	148.	133.	64.	55.	64.	9.	7.	743.90
.23	2.94	2.70	2.07	.040	.080	.040	.071	741.30	350.00
.004655	200.	200.	200.	1	0	0	0.	153.01	503.01

*SECNO 29319.000

3470 ENCROACHMENT STATIONS= 250.0 530.0 TYPE= 1 TARGET= 280.000

692FT U/S SFT DIA CMP (OPHM 22+50)

29319.00	3.87	745.67	0.	0.	745.69	.03	.18	.02	744.30
469.	13.	57.	400.	14.	49.	285.	9.	7.	744.70
.25	.88	1.16	1.40	.040	.080	.040	.071	741.80	272.01
.000944	100.	100.	100.	2	0	0	0.	251.61	523.62

*SECNO 29419.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV

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   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN     SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID    ENDST

3470 ENCROACHMENT STATIONS=      150.0      400.0  TYPE=      1  TARGET=      250.000

                 792FT U/S 5FT DIA CMP (COE VS-22)

 29419.00     4.57   745.77     0.       0.     745.80     .03      .10      .00    744.10
     469.      32.      70.     367.      29.      53.     244.      10.       8.    744.90
      .27     1.10     1.33     1.50     .040     .080     .040     .071   741.20   165.33
  .001122     100.     100.     100.        2        0        0       0.   234.67   400.00

*SECNO 29553.000
3280 CROSS SECTION  29553.00 EXTENDED        .03 FEET

3470 ENCROACHMENT STATIONS=      130.0      370.0  TYPE=      1  TARGET=      240.000

                 926FT U/S 5FT DIA CMP (R COE VS-22)

 29553.00     3.93   746.03     0.       0.     746.15     .12      .31      .04    745.50
     469.       7.     132.     330.       5.      44.     123.      11.       8.    744.90
      .28     1.28     2.97     2.68     .040     .080     .040     .072   742.10   179.51
  .006978     134.     134.     134.        2        0        0       0.   190.48   370.00

*SECNO 29684.000

3470 ENCROACHMENT STATIONS=      380.0      650.0  TYPE=      1  TARGET=      270.000

                 50FT D/S PRIVATE FARM LANE  (R OPHMC 26+73)

 29684.00     4.13   747.03     0.       0.     747.15     .12     1.00      .00    746.30
     469.      80.     193.     196.      43.      56.      81.      11.       9.    746.30
      .30     1.88     3.47     2.42     .040     .080     .040     .072   742.90   389.12
  .008351     131.     131.     131.        2        0        0       0.   260.88   650.00

*SECNO 29734.000

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS=      350.0      645.0  TYPE=      1  TARGET=      295.000

                 D/S FACE OF PRIVATE FARM LANE (R OPHM  6+73)CONC SLAB W/HEADWALL

 29734.00     4.42   747.62     0.       0.     747.81     .19      .63      .03    747.80
     469.      43.     209.     217.      23.      58.      58.      12.       9.    747.80
      .30     1.90     3.58     3.72     .040     .120     .040     .073   743.20   361.83
  .021074      50.      50.      50.        3        0        0       0.   235.14   645.00

SPECIAL BRIDGE

SB  XK        XKOR      COFQ      RDLEN     BWC       WP        BAREA     SS        ELCHU     ELCHD
    -0.        1.76      1.49      -0.       10.00     0.        41.00     -0.       738.80    738.80

*SECNO 29742.000
 PRESS FLOW BECAUSE EGL'C OF  72701.61  EXCEEDS 1.5 OF TH
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3265 DIVIDED FLOW

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPP	AREA	TRAPEZOID AREA	ELLC	ELTRD
751.20	72701.61	0.	354.	114.	41.	86.	747.40	746.70

3470 ENCROACHMENT STATIONS= 342.0 643.0 TYPE= 1 TARGET= 301.000

U/S FACE OF PRIVATE FARM LANE (OPHM 26 73)

29742.00	4.46	747.66	0.	0.	747.83	.17	.02	0.	747.80
469.	52.	200.	217.	27.	59.	61.	12.	9.	747.80
.30	1.91	3.39	3.56	.040	.120	.040	.073	743.20	358.23
.018748	8.	8.	8.	3	0	6	0.	247.30	643.00

*SECNO 29792.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 290.0 630.0 TYPE= 1 TARGET= 340.000

50FT U/S PRIVATE FARM LANE (R OPHM 2 +73)

29792.00	4.57	747.97	0.	0.	748.00	.02	.12	.05	746.90
469.	184.	85.	201.	177.	69.	150.	12.	10.	746.80
.31	1.03	1.24	1.34	.040	.080	.040	.073	743.40	290.00
.000889	50.	50.	50.	3	0	0	0.	340.00	630.00

*SECNO 29819.000

3470 ENCROACHMENT STATIONS= .0 369.0 TYPE= 1 TARGET= 368.999

77FT U/S PRIVATE FARM LANE (OPHM 27+ 0)

29819.00	4.50	748.00	0.	0.	748.02	.02	.02	.00	746.90
469.	196.	85.	188.	180.	68.	136.	12.	10.	746.80
.32	1.09	1.27	1.38	.040	.080	.040	.073	743.50	44.18
.000942	27.	27.	27.	2	0	0	0.	324.82	369.00

*SECNO 29937.000

3470 ENCROACHMENT STATIONS= 70.0 330.0 TYPE= 1 TARGET= 260.000

185FT U/S PRIVATE FARM LANE (R OPHM 2 +50)

29937.00	4.24	748.14	0.	0.	748.17	.04	.15	.01	747.10
469.	232.	105.	132.	161.	64.	76.	13.	11.	747.00
.34	1.44	1.65	1.73	.040	.080	.040	.074	743.90	70.00
.001697	118.	118.	118.	2	0	0	0.	260.00	330.00

*SECNO 30055.000

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3470 ENCROACHMENT STATIONS= 150.0 325.0 TYPE= 1 TARGET= 175.000

293FT U/S PRIVATE FARM LANE (R OPHM 2 +50)

30055.00	4.41	748.41	0.	0.	748.52	.10	.31	.03	747.40
469.	255.	181.	33.	101.	66.	20.	14.	11.	747.30
.35	2.51	2.74	1.70	.040	.080	.040	.074	744.00	150.00
.004555	118.	118.	118.	2	0	0	0.	153.01	303.01

*SECNO 30173.000

3470 ENCROACHMENT STATIONS= 190.0 310.0 TYPE= 1 TARGET= 120.000

411FT U/S PRIVATE FARM LANE (R OPHM 2 +50)

30173.00	4.74	748.94	0.	0.	749.06	.13	.54	.01	747.60
469.	230.	207.	32.	78.	72.	16.	14.	12.	747.50
.36	2.94	2.89	2.00	.040	.080	.040	.074	744.20	190.00
.004515	118.	118.	118.	2	0	0	0.	100.32	290.32

*SECNO 30241.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 342.5 375.5 TYPE= 1 TARGET= 33.000

50FT D/S I-94 CONCRETE BOX CULVERT (OE VS-23)

30241.00	4.89	749.19	0.	0.	749.54	.35	.36	.11	747.50
469.	59.	355.	55.	12.	75.	12.	15.	12.	747.60
.37	4.84	4.73	4.70	.030	.060	.030	.074	744.30	342.50
.006398	68.	68.	68.	2	0	0	0.	33.00	375.50

*SECNO 30263.000

3470 ENCROACHMENT STATIONS= 348.0 370.0 TYPE= 1 TARGET= 22.000

28FT D/S I-94 CONC BOX CULVERT (R)

30263.00	4.98	749.28	0.	0.	749.78	.50	.17	.07	747.50
469.	16.	438.	15.	3.	77.	3.	15.	12.	747.60
.37	4.53	5.72	4.44	.030	.060	.030	.074	744.30	348.00
.009071	22.	22.	22.	2	0	0	0.	22.00	370.00

*SECNO 30275.000

3470 ENCROACHMENT STATIONS= 351.0 367.0 TYPE= 1 TARGET= 16.000

16FT D/S I-94 CONC BOX CULVERT (R)

30275.00	5.05	749.35	0.	0.	749.98	.63	.13	.07	100000.00
469.	0.	469.	0.	0.	73.	0.	15.	12.	100000.00
.37	0.	6.39	0.	.030	.060	.030	.073	744.30	351.00
.014110	12.	12.	12.	2	0	0	0.	16.00	367.00

*SECNO 30279.000

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3470 ENCROACHMENT STATIONS=      352.0      366.0  TYPE=      1  TARGET=       14.000

                  12FT D/S I-94 CONC BOX CULVERT (R)

 30279.00      5.05    749.35      0.        0.      750.10      .75       .06       .06100000.00
     469.        0.      469.       0.        0.       68.        0.       15.       12. 100000.00
      .37        0.      6.95       0.       .030      .060      .030      .073    744.30    352.00
  .017773        4.        4.       4.         2         0         0        0.      14.00    366.00

*SECNO 30283.000

3470 ENCROACHMENT STATIONS=      353.0      365.0  TYPE=      1  TARGET=       12.000

                  8FT D/S I-94 CONC BOX CULVERT (R)

 30283.00      5.03    749.33      0.        0.      750.29      .96       .08       .11100000.00
     469.        0.      469.       0.        0.       60.        0.       15.       12. 100000.00
      .37        0.      7.88       0.       .030      .060      .030      .073    744.30    353.00
  .025239        4.        4.       4.         2         0         0        0.      12.00    365.00

*SECNO 30285.000
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

3470 ENCROACHMENT STATIONS=      353.5      364.5  TYPE=      1  TARGET=       11.000

                  6FT D/S I-94 CONC BOX CULVERT (R)

 30285.00      5.00    749.30      0.        0.      750.44     1.14       .06       .09100000.00
     469.        0.      469.       0.        0.       55.        0.       15.       12. 100000.00
      .37        0.      8.56       0.       .030      .060      .030      .073    744.30    353.50
  .032192        2.        2.       2.         2         0         0        0.      11.00    364.50

*SECNO 30287.000

3470 ENCROACHMENT STATIONS=      354.0      364.0  TYPE=      1  TARGET=       10.000

                  4FT D/S I-94 CONC BOX CULVERT (R)

 30287.00      4.94    749.24      0.        0.      750.64     1.40       .07       .13100000.00
     469.        0.      469.       0.        0.       49.        0.       15.       12. 100000.00
      .37        0.      9.49       0.       .030      .060      .030      .073    744.30    354.00
  .043889        2.        2.       2.         2         0         0        0.      10.00    364.00

*SECNO 30291.000

3301 HV CHANGED MORE THAN HVINS

   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE ELLEA=      7 6.50 ELREA=      756.50
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D/S FACE OF I-94 CONC BOX CULVERT 8FT 8FT W/CONC HEADWALLS

(COF S-23)

30291.00	4.74	749.14	749.14	0.	751.52	2.37	.08	.49	759.60
469.	0.	469.	0.	0.	38.	0.	15.	12.	759.60
.37	0.	12.36	0.	.030	.022	.030	.073	744.40	192.00
.011930	4.	4.	4.	4	8	0	0.	8.00	200.00

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THIS RUN EXECUTED 14 FEB 79 14.33.15

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED  AUG1977
  ERROR CORR -  01,02
  MODIFICATION -  50,51,52,53
*****************************************************

T1      YPSILANTI TOWNSHIP  FIS
T2      PAINT CREEK
T3      50  YR  FLOW

J1  ICHECK    INQ       NINV      IDIR      STRT      ETRIC     HVINS     Q         WSEL      FQ

      -0.       3.       -0.       -0. -0.            0.        -0.       -0.   741.000    -0.

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     N         ALLDC     IBW       CHNIM     ITRACE

      2.000    -0.      -1.000     -0.       -0.       -0.       -0.       -0.       -0.       -0.
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*PROF 2

CCHV= .300 CEHV= .500

*SECNO 27149.000

3280 CROSS SECTION 27149.00 EXTENDED .30 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
27149.00	7.90	741.00	0.	741.00	741.06	.06	0.	0.	742.00
589.	0.	589.	0.	0.	297.	0.	0.	0.	742.10
0.	0.	1.98	0.	.040	.040	.040	0.	733.10	268.26
.000380	961.	961.	961.	0	0	0	0.	63.20	331.45

3470 ENCROACHMENT STATIONS= 265.0 335.0 TYPE= 1 TARGET= 70.000
ELENCL= 742.00 ELENCR= 742.00

V/S END OF RETENTION POND (OPHM 0+80)

*SECNO 27219.000

3280 CROSS SECTION 27219.00 EXTENDED .63 FEET

3470 ENCROACHMENT STATIONS= 265.0 335.0 TYPE= 1 TARGET= 70.000
ELENCL= 742.50 ELENCR= 742.50

70FT U/S END OF RETENTION POND (OPHM 1+50)

27219.00	8.53	741.03	0.	0.	741.09	.05	.02	.00	742.50
589.	0.	589.	0.	0.	318.	0.	0.	0.	743.00
.01	0.	1.85	0.	.040	.040	.040	.039	732.50	269.13
.000291	70.	70.	70.	0	0	0	0.	60.61	329.74

*SECNO 27375.000

3470 ENCROACHMENT STATIONS= 279.8 320.3 TYPE= 1 TARGET= 40.500
ELENCL= 742.50 ELENCR= 742.50

50FT D/S MULTIPLATE CULVERT (R OPHM +50)

27375.00	8.37	741.07	0.	0.	741.15	.08	.05	.01	742.60
589.	0.	589.	0.	0.	261.	0.	2.	0.	743.20
.03	0.	2.25	0.	.040	.040	.040	.040	732.70	279.80
.000384	156.	156.	156.	1	0	0	0.	40.50	320.30

*SECNO 27413.000

3470 ENCROACHMENT STATIONS= 289.2 310.7 TYPE= 1 TARGET= 21.500
ELENCL= 742.50 ELENCR= 742.50

12FT D/S MULTIPLATE CULVERT (R OPHM +50)

27413.00	8.24	741.04	0.	0.	741.23	.18	.02	.05	742.60

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.03	0.	3.44	0.	.040	.040	.040	.040	732.80	289.20
.001051	38.	38.	38.	2	0	0	0.	21.50	310.70

*SECNO 27416.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 290.0 310.0 TYPE= 1 TARGET= 20.000
ELENCL= 742.50 ELENCR= 742.50

9FT D/S MULTIPLATE CULVERT (R OPHM +50)

27416.00	8.23	741.03	0.	0.	741.24	.21	.00	.01	742.60
589.	0.	589.	0.	0.	161.	0.	2.	0.	743.20
.03	0.	3.66	0.	.040	.040	.040	.039	732.80	290.00
.001243	3.	3.	3.	1	0	0	0.	20.00	310.00

*SECNO 27419.000

3470 ENCROACHMENT STATIONS= 290.8 309.3 TYPE= 1 TARGET= 18.500
ELENCL= 742.50 ELENCR= 742.50

6FT D/S MULTIPLATE CULVERT (OPHM 3+ 0)

27419.00	8.22	741.02	0.	0.	741.26	.24	.00	.02	742.60
589.	0.	589.	0.	0.	150.	0.	2.	0.	743.20
.03	0.	3.93	0.	.040	.040	.040	.039	732.80	290.80
.001507	3.	3.	3.	1	0	0	0.	18.50	309.30

*SECNO 27423.000

3470 ENCROACHMENT STATIONS= 292.0 308.0 TYPE= 1 TARGET= 16.000
ELENCL= 742.50 ELENCR= 742.50

2FT D/S MULTIPLATE CMP CULVERT (R O HM 3+50)

27423.00	8.19	740.99	0.	0.	741.31	.32	.01	.04	742.60
589.	0.	589.	0.	0.	131.	0.	2.	0.	743.20
.03	0.	4.51	0.	.040	.040	.040	.039	732.80	292.00
.002229	4.	4.	4.	2	0	0	0.	16.00	308.00

*SECNO 27424.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 7 2.60 ELREA= 742.60

1FT D/S MULTIPLATE CMP CULVERT (R OE VS-19A)

27424.00	8.16	740.96	0.	0.	741.35	.39	.00	.04	742.60
589.	0.	589.	0.	0.	117.	0.	2.	0.	742.70
.03	0.	5.02	0.	.040	.031	.040	.039	732.80	232.50
.001654	1.	1.	1.	.2	0	0	0.	15.50	248.00

*SECNO 27425.000

3370 NORMAL BRIDGE,NRD= 25 MIN ELTRD= 742.10 MAX ELLC 742.00

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D/S FACE 9 3 X15 4 MULTIPLATE CMP CUL ERT (COE VS19A)

27425.00	8.09	740.89	0.	0.	741.42	.53	.00	.07	742.60
589.	0.	589.	0.	0.	101.	0.	2.	0.	742.70
.03	0.	5.82	0.	.040	.031	.040	.039	732.80	232.50
.003618	1.	1.	1.	2	0	0	-15.13	15.50	248.00

*SECNO 27455.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3370 NORMAL BRIDGE,NRD= 25 MIN ELTRD= 742.10 MAX ELLC 742.00

U/S FACE 9 3 X15 4 MULTIPLATE CMP CUL ERT (R COE VS19A)

27455.00	8.21	741.01	0.	0.	741.53	.52	.11	.00	742.60
589.	0.	589.	0.	0.	102.	0.	2.	0.	742.70
.04	0.	5.77	0.	.040	.031	.040	.038	732.80	232.50
.003802	30.	30.	30.	2	0	0	-16.01	15.50	248.00

*SECNO 27456.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 7 2.60 ELREA= 742.60

1FT U/S MULTIPLATE CMP CULVERT (R OE VS-19A)

27456.00	8.41	741.21	0.	0.	741.58	.37	.00	.05	742.60
589.	0.	589.	0.	0.	121.	0.	2.	0.	742.70
.04	0.	4.86	0.	.040	.040	.040	.038	732.80	232.50
.002523	1.	1.	1.	2	0	0	0.	15.50	248.00

*SECNO 27457.000

3470 ENCROACHMENT STATIONS= 290.3 309.8 TYPE= 1 TARGET= 19.500
ELENCL= 743.20 ELENCR= 743.20

2FT U/S MULTIPLATE CULVERT (R OPHM 3+92)

27457.00	8.63	741.43	0.	0.	741.63	.20	.00	.05	743.20
589.	0.	589.	0.	0.	165.	0.	2.	0.	743.20
.04	0.	3.57	0.	.040	.040	.040	.038	732.80	290.30
.001161	1.	1.	1.	2	0	0	0.	19.50	309.80

*SECNO 27458.000

3470 ENCROACHMENT STATIONS= 287.3 312.8 TYPE= 1 TARGET= 25.500
ELENCL= 743.20 ELENCR= 743.20

5FT U/S MULTIPLATE CULVERT (R OPHM +92)

27458.00	8.52	741.52	0.	0.	741.65	.13	.00	.02	743.20
589.	0.	589.	0.	0.	203.	0.	2.	0.	743.20
.04	0.	2.90	0.	.040	.040	.040	.038	733.00	287.30
.000665	3.	3.	3.	2	0	0	0.	25.50	312.80

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*SECNO 27461.000

3470 ENCROACHMENT STATIONS= 284.3 315.8 TYPE= 1 TARGET= 31.500
ELENCL= 743.20 ELENCR= 743.20

8FT U/S MULTIPLATE CULVERT (OPHM 3+ 2)

27461.00	8.36	741.56	0.	0.	741.66	.10	.00	.01	743.20
589.	0.	589.	0.	0.	232.	0.	2.	0.	743.20
.04	0.	2.54	0.	.040	.040	.040	.038	733.20	284.30
.000487	3.	3.	3.	2	0	0	0.	31.50	315.80

*SECNO 27467.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 278.3 321.8 TYPE= 1 TARGET= 43.500
ELENCL= 743.20 ELENCR= 743.20

14FT U/S MULTIPLATE CULVERT (R OPHM +92)

27467.00	8.20	741.60	0.	0.	741.68	.08	.00	.01	743.30
589.	0.	589.	0.	0.	267.	0.	2.	0.	743.30
.04	0.	2.20	0.	.040	.060	.040	.038	733.40	278.30
.000851	6.	6.	6.	2	0	0	0.	43.50	321.80

*SECNO 27473.000

3470 ENCROACHMENT STATIONS= 272.3 327.8 TYPE= 1 TARGET= 55.500
ELENCL= 743.20 ELENCR= 743.20

20FT U/S MULTIPLATE CULVERT (R OPHM +92)

27473.00	8.11	741.61	0.	0.	741.68	.07	.01	.00	743.20
589.	0.	589.	0.	0.	277.	0.	2.	0.	743.20
.04	0.	2.13	0.	.040	.060	.040	.038	733.50	272.30
.000898	6.	6.	6.	0	0	0	0.	53.92	326.22

*SECNO 27489.000

36FT U/S MULTIPLATE CULVERT (OPHM 4+ 2)

27489.00	8.03	741.63	0.	0.	741.70	.07	.01	.00	742.00
589.	0.	589.	0.	0.	279.	0.	2.	0.	743.00
.04	0.	2.11	0.	.040	.060	.040	.039	733.60	271.02
.000903	16.	16.	16.	0	0	0	0.	55.62	326.64

*SECNO 27819.000

364FT U/S MULTIPLATE CULVERT (OPHM 7+ 0)

27819.00	8.09	741.99	0.	0.	742.04	.05	.34	.00	739.80
589.	64.	181.	345.	47.	98.	179.	4.	1.	738.30
.09	1.36	1.85	1.92	.040	.080	.040	.058	733.90	250.06
.001185	310.	328.	340.	2	0	0	0.	154.05	404.11

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*SECNO 28319.000

879FT U/S MULTIPLATE CULVERT (OPHM 12 50)

28319.00	6.12	742.82	0.	0.	742.91	.09	.85	.02	739.60
589.	299.	216.	74.	115.	86.	57.	8.	3.	741.70
.15	2.60	2.51	1.30	.040	.080	.040	.067	736.70	220.50
.002608	500.	500.	500.	2	0	0	0.	188.47	408.97

*SECNO 28559.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

50 FT D/S 5FT DIA CMP (R OPHM 15+40)

28559.00	4.92	743.42	0.	0.	743.48	.05	.56	.01	741.30
589.	310.	165.	114.	165.	80.	74.	9.	4.	741.70
.18	1.88	2.05	1.54	.040	.080	.040	.069	738.50	180.93
.002088	240.	240.	240.	2	0	0	0.	295.25	476.18

*SECNO 28608.000

1FT D/S 5FT DIA CMP (R OPHM 15+40)

28608.00	4.70	743.50	0.	0.	743.55	.06	.07	.00	741.30
589.	378.	49.	162.	195.	21.	95.	10.	5.	741.30
.19	1.93	2.35	1.70	.030	.040	.030	.068	738.80	170.89
.001106	49.	49.	49.	2	0	0	0.	308.79	479.69

*SECNO 28609.000

3370 NORMAL BRIDGE,NRD= 15 MIN ELTRD= 741.30 MAX ELLC 743.80 perched

D/S FACE FARM LANE 5FT DIA CMP (OPHM 5+40)

28609.00	4.69	743.49	0.	0.	743.56	.07	.00	.01	741.30
589.	371.	64.	154.	189.	20.	92.	10.	5.	741.30
.19	1.96	3.27	1.68	.030	.024	.030	.068	738.80	170.39
.001224	1.	1.	1.	0	0	0	-12.35	309.47	479.86

*SECNO 28627.000

3370 NORMAL BRIDGE,NRD= 15 MIN ELTRD= 741.30 MAX ELLC 743.80

U/S FACE FARM LANE 5FT DIA CMP (R OPH 15+40)

28627.00	4.72	743.52	0.	0.	743.58	.06	.02	.00	741.30
589.	375.	58.	156.	192.	20.	93.	10.	5.	741.30
.19	1.95	2.97	1.68	.030	.024	.030	.068	738.80	169.67
.001197	18.	18.	18.	0	0	0	-12.35	310.96	480.63

*SECNO 28628.000

1FT U/S 5FT DIA CMP (R OPHM 15+40)

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28628.00	4.73	743.53	0.	0.	743.59	.05	.00	.00	741.30
589.	379.	48.	163.	202.	21.	99.	10.	5.	741.30
.19	1.87	2.26	1.65	.030	.040	.030	.068	738.80	169.31
.001019	1.	1.	1.	1	0	0	0.	312.00	481.31

*SECNO 28677.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

50FT U/S 5FT DIA CMP (R OPHM 15+40)

28677.00	4.71	743.61	0.	0.	743.65	.04	.06	.00	741.30
589.	333.	132.	124.	202.	79.	91.	10.	5.	741.70
.20	1.65	1.69	1.36	.040	.080	.040	.068	738.90	167.12
.001424	50.	50.	50.	2	0	0	0.	318.38	485.50

*SECNO 28819.000

3470 ENCROACHMENT STATIONS= 220.0 650.0 TYPE= 1 TARGET= -220.000

191FT U/S 5FT DIA CMP (OPHM 17+50)

28819.00	4.02	743.92	0.	0.	743.99	.07	.33	.01	742.60
589.	364.	123.	103.	170.	54.	60.	11.	6.	742.50
.22	2.14	2.28	1.73	.040	.080	.040	.068	739.90	220.00
.003398	180.	142.	100.	2	0	0	0.	279.73	499.73

*SECNO 29019.000

3470 ENCROACHMENT STATIONS= 300.0 600.0 TYPE= 1 TARGET= 300.000

391FT U/S 5FT DIA CMP (R OPHM 17+50)

29019.00	4.07	744.67	0.	0.	744.78	.10	.77	.02	743.30
589.	319.	142.	128.	117.	55.	64.	12.	7.	743.20
.24	2.71	2.61	2.00	.040	.080	.040	.070	740.60	300.00
.004365	200.	200.	200.	2	0	0	0.	202.70	502.70

*SECNO 29219.000

3470 ENCROACHMENT STATIONS= 350.0 550.0 TYPE= 1 TARGET= 200.000

591FT U/S 5FT DIA CMP (R OPHM 17+50)

29219.00	4.28	745.58	0.	0.	745.70	.13	.91	.01	744.00
589.	239.	164.	186.	73.	58.	82.	14.	8.	743.90
.26	3.26	2.84	2.28	.040	.080	.040	.071	741.30	350.00
.004795	200.	200.	200.	1	0	0	0.	164.04	514.04

*SECNO 29319.000

3470 ENCROACHMENT STATIONS= 250.0 530.0 TYPE= 1 TARGET= 280.000

692FT U/S 5FT DIA CMP (OPHM 22+50)

29319.00	4.08	745.88	0.	0.	745.91	.03	.18	.03	744.30
5.9	19	62	508	19	75	331	14	8	744.20

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.28	.97	1.21	1.53	.040	.080	.040	.071	741.80	268.75
.000941	100.	100.	100.	2	0	0	0.	258.95	527.70

*SECNO 29419.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 150.0 400.0 TYPE= 1 TARGET= 250.000

792FT U/S 5FT DIA CMP (COE VS-22)

29419.00	4.78	745.98	0.	0.	746.02	.04	.10	.00	744.10
589.	44.	77.	468.	37.	56.	283.	15.	9.	744.90
.30	1.19	1.38	1.65	.040	.080	.040	.071	741.20	160.94
.001119	100.	100.	100.	2	0	0	0.	239.06	400.00

*SECNO 29553.000

3280 CROSS SECTION 29553.00 EXTENDED .23 FEET

3470 ENCROACHMENT STATIONS= 130.0 370.0 TYPE= 1 TARGET= 240.000

926FT U/S 5FT DIA CMP (R COE VS-22)

29553.00	4.13	746.23	0.	0.	746.35	.12	.29	.04	745.50
589.	15.	136.	438.	10.	47.	153.	16.	10.	744.90
.31	1.46	2.86	2.86	.040	.080	.040	.072	742.10	172.01
.005966	134.	134.	134.	2	0	0	0.	197.99	370.00

*SECNO 29684.000

3470 ENCROACHMENT STATIONS= 380.0 650.0 TYPE= 1 TARGET= 270.000

50FT D/S PRIVATE FARM LANE (R OPHMC 26+73)

29684.00	4.24	747.14	0.	0.	747.28	.13	.92	.00	746.30
589.	122.	204.	262.	56.	58.	96.	17.	11.	746.30
.33	2.18	3.55	2.72	.040	.080	.040	.072	742.90	380.00
.008358	131.	131.	131.	2	0	0	0.	270.00	650.00

*SECNO 29734.000

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 350.0 645.0 TYPE= 1 TARGET= 295.000

D/S FACE OF PRIVATE FARM LANE (R OPHM 6+73)CONC SLAB W/HEADWALL

29734.00	4.53	747.73	0.	0.	747.94	.21	.63	.04	747.80
589.	83.	219.	287.	37.	60.	72.	17.	11.	747.80
.33	2.25	3.64	4.01	.040	.120	.040	.073	743.20	351.40
.021260	50.	50.	50.	3	0	0	0.	276.15	645.00

SPECIAL BRIDGE

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SB	XK	XKOR	COFQ	RDLEN	BWC	WP	BAREA	SS	ELCHU	ELCHD
	-0.	1.76	1.49	-0.	10.00	0.	41.00	-0.	738.80	738.80

*SECNO 29742.000
PRESS FLOW BECAUSE EGLWC OF 3626.07 EXCEEDS 1.5 DE TH

3265 DIVIDED FLOW

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	AREA	TRAPEZOID AREA	ELLC	ELTRD
753.38	3626.07	0.	466.	119.	41.	86.	747.40	746.70

3470 ENCROACHMENT STATIONS= 342.0 643.0 TYPE= 1 TARGET= 301.000

U/S FACE OF PRIVATE FARM LANE (OPHM 26 73)

29742.00	4.59	747.79	0.	0.	747.96	.18	.02	0.	747.80.
589.	98.	205.	286.	45.	61.	76.	17.	11.	747.80
.33	2.20	3.36	3.75	.040	.120	.040	.073	743.20	346.55
.017899	8.	8.	8.	3	0	6	0.	293.24	643.00

*SECNO 29792.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 290.0 630.0 TYPE= 1 TARGET= 340.000

50FT U/S PRIVATE FARM LANE (R OPHM 2 +73)

29792.00	4.71	748.11	0.	0.	748.14	.03	.13	.05	746.90
589.	246.	95.	249.	206.	71.	166.	17.	11.	746.80
.34	1.19	1.33	1.50	.040	.080	.040	.073	743.40	290.00
.000988	50.	50.	50.	3	0	0	0.	340.00	630.00

*SECNO 29819.000

3470 ENCROACHMENT STATIONS= .0 369.0 TYPE= 1 TARGET= 368.999

77FT U/S PRIVATE FARM LANE (OPHM 27+ 0)

29819.00	4.64	748.14	0.	0.	748.17	.03	.03	.00	746.90
589.	261.	96.	232.	209.	70.	150.	18.	12.	746.80
.35	1.25	1.36	1.55	.040	.080	.040	.073	743.50	41.44
.001043	27.	27.	27.	2	0	0	0.	327.56	369.00

*SECNO 29937.000

3470 ENCROACHMENT STATIONS= 70.0 330.0 TYPE= 1 TARGET= 260.000

185FT U/S PRIVATE FARM LANE (R OPHM 2 +50)

29937.00	4.39	748.29	0.	0.	748.34	.05	.16	.01	747.10
589.	309.	116.	164.	108.	42.	86.	18.	13.	747.00

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.37	1.64	1.74	1.92	.040	.080	.040	.074	743.90	70.00
.001798	118.	118.	118.	2	0	0	0.	260.00	330.00

*SECNO 30055.000

3470 ENCROACHMENT STATIONS= 150.0 325.0 TYPE= 1 TARGET= 175.000

293FT U/S PRIVATE FARM LANE (R OPHM 2 +50)

30055.00	4.58	748.58	0.	0.	748.70	.12	.33	.04	747.40
589.	338.	201.	49.	118.	69.	26.	19.	13.	747.30
.38	2.87	2.92	1.92	.040	.080	.040	.074	744.00	150.00
.004872	118.	118.	118.	2	0	0	0.	158.17	308.17

*SECNO 30173.000

3470 ENCROACHMENT STATIONS= 190.0 310.0 TYPE= 1 TARGET= 120.000

411FT U/S PRIVATE FARM LANE (R OPHM 2 +50)

30173.00	4.94	749.14	0.	0.	749.30	.16	.58	.02	747.60
589.	306.	236.	48.	90.	75.	21.	20.	13.	747.50
.39	3.38	3.12	2.28	.040	.080	.040	.074	744.20	190.00
.004947	118.	118.	118.	2	0	0	0.	103.49	293.49

*SECNO 30241.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	FL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 342.5 375.5 TYPE= 1 TARGET= 33.000

50FT D/S I-94 CONCRETE BOX CULVERT (OE VS-23)

30241.00	5.10	749.40	0.	0.	749.88	.48	.42	.16	747.50
589.	81.	433.	75.	14.	79.	13.	20.	13.	747.60
.39	5.81	5.50	5.66	.030	.060	.030	.074	744.30	342.50
.008067	68.	68.	68.	2	0	0	0.	33.00	375.50

*SECNO 30263.000

3470 ENCROACHMENT STATIONS= 348.0 370.0 TYPE= 1 TARGET= 22.000

28FT D/S I-94 CONC BOX CULVERT (R)

30263.00	5.21	749.51	0.	0.	750.20	.70	.21	.11	747.50
589.	21.	548.	20.	4.	81.	4.	20.	14.	747.60
.39	5.41	6.78	5.32	.030	.060	.030	.074	744.30	348.00
.011897	22.	22.	22.	2	0	0	0.	22.00	370.00

*SECNO 30275.000

3470 ENCROACHMENT STATIONS= 351.0 367.0 TYPE= 1 TARGET= 16.000

16FT D/S I-94 CONC BOX CULVERT (R)

30275.00	5.28	749.58	0.	0.	750.49	.90	.18	.10100000.00	
589.	0	589.		0	79.	0	20.	10.100000.00	

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.59	0.	7.63	0.	.030	.060	.030	.073	744.30	351.00
.019328	12.	12.	12.	2	0	0	0.	16.00	367.00

*SECNO 30279.000

3470 ENCROACHMENT STATIONS= 352.0 366.0 TYPE= 1 TARGET= 14.000

12FT D/S I-94 CONC BOX CULVERT (R)

30279.00	5.28	749.58	0.	0.	750.66	1.08	.09	.09100000.00	
589.	0.	589.	0.	0.	71.	0.	20.	14. 100000.00	
.39	0.	8.32	0.	.030	.060	.030	.073	744.30	352.00
.024622	4.	4.	4.	2	0	0	0.	14.00	366.00

*SECNO 30283.000

3470 ENCROACHMENT STATIONS= 353.0 365.0 TYPE= 1 TARGET= 12.000

8FT D/S I-94 CONC BOX CULVERT (R)

30283.00	5.24	749.54	0.	0.	750.94	1.40	.12	.16100000.00	
589.	0.	589.	0.	0.	62.	0.	20.	14. 100000.00	
.39	0.	9.49	0.	.030	.060	.030	.073	744.30	353.00
.035536	4.	4.	4.	2	0	0	0.	12.00	365.00

*SECNO 30285.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 353.5 364.5 TYPE= 1 TARGET= 11.000

6FT D/S I-94 CONC BOX CULVERT (R)

30285.00	5.19	749.49	0.	0.	751.15	1.67	.08	.13100000.00	
589.	0.	589.	0.	0.	57.	0.	20.	14. 100000.00	
.39	0.	10.36	0.	.030	.060	.030	.073	744.30	353.50
.045932	2.	2.	2.	2	0	0	0.	11.00	364.50

*SECNO 30287.000

3470 ENCROACHMENT STATIONS= 354.0 364.0 TYPE= 1 TARGET= 10.000

4FT D/S I-94 CONC BOX CULVERT (R)

30287.00	5.09	749.39	0.	0.	751.47	2.08	.11	.21100000.00	
589.	0.	589.	0.	0.	51.	0.	20.	14. 100000.00	
.39	0.	11.57	0.	.030	.060	.030	.073	744.30	354.00
.064007	2.	2.	2.	2	0	0	0.	10.00	364.00

*SECNO 30291.000

3301 HV CHANGED MORE THAN HVINS

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

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3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 7 6.50 ELREA= 756.50

D/S FACE OF I-94 CONC BOX CULVERT 8FT 8FT W/CONC HEADWALLS

(COE S-23)

30291.00	5.50	749.90	749.90	0.	752.68	2.78	.10	.35	759.60
589.	0.	589.	0.	0.	44.	0.	20.	14.	759.60
.39	0.	13.38	0.	.030	.022	.030	.073	744.40	192.00
.012796	4.	4.	4.	20	8	0	0.	8.00	200.00

ELLC = 752.9

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THIS RUN EXECUTED 14 FEB 79 14.33.16

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED  AUG1977
  ERROR CORR -  01,02
  MODIFICATION -  50,51,52,53
*****************************************************

T1      YPSILANTI TOWNSHIP  FIS
T2      PAINT CREEK
T3      100 YR  FLOW

J1  ICHECK    INQ       NINV      IDIR      STRT      ETRIC     HVINS     Q         WSEL      FQ

      -0.       4.       -0.       -0. -0.            0.        -0.       -0.   741.800    -0.

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     N         ALLDC     IBW       CHNIM     ITRACE

      3.000    -0.      -1.000    -0.       -0.       -0.       -0.       -0.       -0.       -0.
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*PROF 3

CCHV= .300 CEHV= .500

*SECNO 27149.000

3280 CROSS SECTION 27149.00 EXTENDED 1.10 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
27149.00	8.70	741.80	0.	741.80	741.85	.05	0.	0.	742.00
643.	0.	643.	0.	0.	350.	0.	0.	0.	742.10
0.	0.	1.84	0.	.040	.040	.040	0.	733.10	265.65
.000292	961.	961.	961.	0	0	0	0.	68.38	334.03

3470 ENCROACHMENT STATIONS= 265.0 335.0 TYPE= 1 TARGET= 70.000
ELENCL= 742.00 ELENCR= 742.00

V/S END OF RETENTION POND (OPHM 0+80)
742.3

*SECNO 27219.000

3280 CROSS SECTION 27219.00 EXTENDED 1.42 FEET

3470 ENCROACHMENT STATIONS= 265.0 335.0 TYPE= 1 TARGET= 70.000
ELENCL= 742.50 ELENCR= 742.50

70FT U/S END OF RETENTION POND (OPHM 1+50)

27219.00	9.32	741.82	0.	0.	741.87	.05	.02	.00	742.50
643.	0.	643.	0.	0.	368.	0.	1.	0.	743.00
.01	0.	1.75	0.	.040	.040	.040	.039	732.50	266.90
.000234	70.	70.	70.	0	0	0	0.	64.95	331.85

*SECNO 27375.000

3470 ENCROACHMENT STATIONS= 279.8 320.3 TYPE= 1 TARGET= 40.500
ELENCL= 742.50 ELENCR= 742.50

50FT D/S MULTIPLATE CULVERT (R OPHM +50)

27375.00	9.15	741.85	0.	0.	741.93	.07	.04	.01	742.60
643.	0.	643.	0.	0.	293.	0.	2.	0.	743.20
.03	0.	2.19	0.	.040	.040	.040	.040	732.70	279.80
.000326	156.	156.	156.	1	0	0	0.	40.50	320.30

*SECNO 27413.000

3470 ENCROACHMENT STATIONS= 289.2 310.7 TYPE= 1 TARGET= 21.500
ELENCL= 742.50 ELENCR= 742.50

12FT D/S MULTIPLATE CULVERT (R OPHM +50)

27413.00	9.02	741.82	0.	0.	742.00	.18	.02	.05	742.60
643.	0.	643.	0.	0.	188.	0.	2.	0.	743.20

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.03	0.	3.42	0.	.040	.040	.040	.040	732.80	289.20
.000972	38.	38.	38.	2	0	0	0.	21.50	310.70

*SECNO 27416.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIMF	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 290.0 310.0 TYPE= 1 TARGET= 20.000
ELENCL= 742.50 ELENCR= 742.50

9FT D/S MULTIPLATE CULVERT (R OPHM +50)

27416.00	9.01	741.81	0.	0.	742.02	.21	.00	.01	742.60
643.	0.	643.	0.	0.	176.	0.	2.	0.	743.20
.03	0.	3.65	0.	.040	.040	.040	.039	732.80	290.00
.001155	3.	3.	3.	1	0	0	0.	20.00	310.00

*SECNO 27419.000

3470 ENCROACHMENT STATIONS= 290.8 309.3 TYPE= 1 TARGET= 18.500
ELENCL= 742.50 ELENCR= 742.50

6FT D/S MULTIPLATE CULVERT (OPHM 3+ 0)

27419.00	9.00	741.80	0.	0.	742.04	.24	.00	.02	742.60
643.	0.	643.	0.	0.	164.	0.	2.	0.	743.20
.03	0.	3.91	0.	.040	.040	.040	.039	732.80	290.80
.001406	3.	3.	3.	1	0	0	0.	18.50	309.30

*SECNO 27423.000

3470 ENCROACHMENT STATIONS= 292.0 308.0 TYPE= 1 TARGET= 16.000
ELENCL= 742.50 ELENCR= 742.50

2FT D/S MULTIPLATE CMP CULVERT (R O HM 3+50)

27423.00	8.97	741.77	0.	0.	742.08	.31	.01	.04	742.60
643.	0.	643.	0.	0.	143.	0.	2.	0.	743.20
.03	0.	4.49	0.	.040	.040	.040	.039	732.80	292.00
.002091	4.	4.	4.	2	0	0	0.	16.00	308.00

*SECNO 27424.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 7 2.60 ELREA= 742.60

1FT D/S MULTIPLATE CMP CULVERT (R OE VS-19A)

27424.00	8.94	741.74	0.	0.	742.12	.38	.00	.03	742.60
643.	0.	643.	0.	0.	129.	0.	2.	0.	742.70
.03	0.	4.97	0.	.040	.031	.040	.039	732.80	232.50
.001527	1.	1.	1.	2	0	0	0.	15.50	248.00

*SECNO 27425.000

3370 NORMAL BRIDGE,NRD= 25 MIN ELTRD= 742.10 MAX ELLC 742.00

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D/S FACE 9 3 X15 4 MULTIPLATE CMP CUL ERT (COE VS19A)

27425.00	8.84	741.64 (742)	0.	0.	742.22	.57	.00	.09	742.60
643.	0.	643.	0.	0.	106.	0.	2.	0.	742.70
.03	0.	6.07	0.	.040	.031	.040	.039	732.80	232.50
.004194	1.	1.	1.	2	0	0	-22.02	15.50	248.00

*SECNO 27455.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3370 NORMAL BRIDGE,NRD= 25 MIN ELTRD= 742.10 MAX ELLC 742.00

U/S FACE 9 3 X15 4 MULTIPLATE CMP CUL ERT (R COE VS19A)

27455.00	8.98	741.78	0.	0.	742.35	.57	.13	.00	742.60
643.	0.	643.	0.	0.	107.	0.	2.	0.	742.70
.04	0.	6.04	0.	.040	.031	.040	.038	732.80	232.50
.004588	30.	30.	30.	2	0	0	-23.59	15.50	248.00

*SECNO 27456.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 7 2.60 ELREA= 742.60

1FT U/S MULTIPLATE CMP CULVERT (R OE VS-19A)

27456.00	9.26	742.06	0.	0.	742.41	.36	.00	.06	742.60
643.	0.	643.	0.	0.	134.	0.	2.	0.	742.70
.04	0.	4.78	0.	.040	.040	.040	.038	732.80	232.50
.002303	1.	1.	1.	2	0	0	0.	15.50	248.00

*SECNO 27457.000

3470 ENCROACHMENT STATIONS= 290.3 309.8 TYPE= 1 TARGET= 19.500
ELENCL= 743.20 ELENCR= 743.20

2FT U/S MULTIPLATE CULVERT (R OPHM 3+92)

27457.00	9.47	742.27	0.	0.	742.46	.20	.00	.05	743.20
643.	0.	643.	0.	0.	181.	0.	2.	0.	743.20
.04	0.	3.55	0.	.040	.040	.040	.038	732.80	290.30
.001076	1.	1.	1.	2	0	0	0.	19.50	309.80

*SECNO 27458.000

3470 ENCROACHMENT STATIONS= 287.3 312.8 TYPE= 1 TARGET= 25.500
ELENCL= 743.20 ELENCR= 743.20

5FT U/S MULTIPLATE CULVERT (R OPHM +92)

27458.00	9.36	742.36	0.	0.	742.49	.13	.00	.02	743.20
643.	0.	643.	0.	0.	225.	0.	2.	0.	743.20
.04	0.	2.86	0.	.040	.040	.040	.038	733.00	287.30
.000601	3.	3.	3.	2	0	0	0.	25.50	312.80

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*SECNO 27461.000

3470 ENCROACHMENT STATIONS= 284.3 315.8 TYPE= 1 TARGET= 31.500
ELENCL= 743.20 ELENCR= 743.20

8FT U/S MULTIPLATE CULVERT (OPHM 3+ 2)

27461.00	9.20	742.40	0.	0.	742.50	.10	.00	.01	743.20
643.	0.	643.	0.	0.	258.	0.	2.	0.	743.20
.04	0.	2.49	0.	.040	.040	.040	.038	733.20	284.30
.000426	3.	3.	3.	2	0	0	0.	31.50	315.80

*SECNO 27467.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	FL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 278.3 321.8 TYPE= 1 TARGET= 43.500
ELENCL= 743.20 ELENCR= 743.20

14FT U/S MULTIPLATE CULVERT (R OPHM +92)

27467.00	9.04	742.44	0.	0.	742.51	.07	.00	.01	743.30
643.	0.	643.	0.	0.	304.	0.	2.	0.	743.30
.04	0.	2.12	0.	.040	.060	.040	.038	733.40	278.30
.000691	6.	6.	6.	2	0	0	0.	43.50	321.80

*SECNO 27473.000

3470 ENCROACHMENT STATIONS= 272.3 327.8 TYPE= 1 TARGET= 55.500
ELENCL= 743.20 ELENCR= 743.20

20FT U/S MULTIPLATE CULVERT (R OPHM +92)

27473.00	8.95	742.45	0.	0.	742.52	.06	.00	.00	743.20
643.	0.	643.	0.	0.	323.	0.	2.	0.	743.20
.04	0.	1.99	0.	.040	.060	.040	.038	733.50	272.30
.000681	6.	6.	6.	1	0	0	0.	55.50	327.80

*SECNO 27489.000

36FT U/S MULTIPLATE CULVERT (OPHM 4+ 2)

27489.00	8.87	742.47	0.	0.	742.53	.06	.01	.00	742.00
643.	4.	639.	0.	10.	328.	0.	2.	0.	743.00
.04	.36	1.95	0.	.040	.060	.040	.039	733.60	227.69
.000674	16.	16.	16.	0	0	0	0.	101.00	328.69

*SECNO 27819.000

364FT U/S MULTIPLATE CULVERT (OPHM 7+ 0)

27819.00	8.80	742.70	0.	0.	742.74	.03	.20	.01	739.80
643.	92.	146.	405.	82.	108.	254.	5.	1.	738.30
.10	1.12	1.35	1.59	.040	.080	.040	.058	733.90	236.21
.000559	310.	328.	340.	1	0	0	0.	186.09	422.30

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*SECNO 28319.000

879FT U/S MULTIPLATE CULVERT (OPHM 12 50)

28319.00	6.44	743.14	0.	0.	743.21	.07	.46	.02	739.60
643.	317.	195.	130.	139.	91.	93.	10.	4.	741.70
.17	2.28	2.14	1.41	.040	.080	.040	.067	736.70	213.27
.001753	500.	500.	500.	2	0	0	0.	213.79	427.05

*SECNO 28559.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

50 FT D/S 5FT DIA CMP (R OPHM 15+40)

28559.00	5.08	743.58	0.	0.	743.63	.05	.42	.01	741.30
643.	352.	160.	131.	197.	84.	89.	12.	5.	741.70
.21	1.79	1.91	1.48	.040	.080	.040	.069	738.50	167.80
.001714	240.	240.	240.	2	0	0	0.	316.42	484.21

*SECNO 28608.000

1FT D/S 5FT DIA CMP (R OPHM 15+40)

28608.00	4.84	743.64	0.	0.	743.69	.05	.06	.00	741.30
643.	417.	47.	178.	226.	22.	110.	12.	6.	741.30
.22	1.84	2.18	1.62	.030	.040	.030	.068	738.80	166.27
.000912	49.	49.	49.	2	0	0	0.	320.85	487.13

*SECNO 28609.000

3370 NORMAL BRIDGE,NRD= 15 MIN ELTRD= 741.30 MAX ELLC 743.80 perched ✓

D/S FACE FARM LANE 5FT DIA CMP (OPHM 5+40)

28609.00	4.84	743.64	0.	0.	743.70	.05	.00	.00	741.30
643.	421.	47.	175.	220.	20.	106.	12.	6.	741.30
.22	1.91	2.35	1.64	.030	.024	.030	.068	738.80	166.24
.001049	1.	1.	1.	0	0	0	-12.35	320.95	487.19

*SECNO 28627.000

3370 NORMAL BRIDGE,NRD= 15 MIN ELTRD= 741.30 MAX ELLC 743.80

U/S FACE FARM LANE 5FT DIA CMP (R OPH 15+40)

28627.00	4.86	743.66	0.	0.	743.72	.05	.02	.00	741.30
643.	421.	47.	175.	223.	20.	108.	12.	6.	741.30
.22	1.89	2.31	1.62	.030	.024	.030	.068	738.80	165.84
.001010	18.	18.	18.	0	0	0	-12.35	322.12	487.96

*SECNO 28628.000

1FT U/S 5FT DIA CMP (R OPHM 15+40)

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28028.00	4.87	743.67	0.	0.	743.72	.05	.00	.00	741.30	
643.	418.	47.	178.	231.	22.	113.	12.	6.	741.30	
.22	1.81	2.14	1.59	.030	.040	.030	.068	738.80	165.74	
.000869	1.	1.	1.	0	0	0	0.	322.42	488.15	

*SECNO 28677.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	TTRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

50FT U/S 5FT DIA CMP (R OPHM 15+40)

28677.00	4.83	743.73	0.	0.	743.77	.04	.05	.00	741.30
643.	370.	133.	140.	226.	81.	102.	13.	6.	741.70
.23	1.64	1.64	1.36	.040	.080	.040	.068	738.90	164.12
.001304	50.	50.	50.	1	0	0	0.	327.94	492.06

*SECNO 28819.000

3470 ENCROACHMENT STATIONS= 220.0 650.0 TYPE= 1 TARGET= -220.000

191FT U/S 5FT DIA CMP (OPHM 17+50) AE

28819.00	4.12	744.02	0.	0.	744.09	.07	.30	.01	742.60
643.	404.	122.	116.	187.	55.	68.	14.	7.	742.50
.25	2.16	2.21	1.72	.040	.080	.040	.068	739.90	220.00
.003078	180.	142.	100.	2	0	0	0.	285.35	505.35

*SECNO 29019.000

3470 ENCROACHMENT STATIONS= 300.0 600.0 TYPE= 1 TARGET= 300.000

391FT U/S 5FT DIA CMP (R OPHM 17+50)

29019.00	4.14	744.74	0.	0.	744.84	.11	.74	.02	743.30
643.	350.	149.	144.	123.	56.	69.	15.	8.	743.20
.27	2.84	2.68	2.08	.040	.080	.040	.070	740.60	300.00
.004483	200.	200.	200.	2	0	0	0.	206.19	506.19

*SECNO 29219.000

3470 ENCROACHMENT STATIONS= 350.0 550.0 TYPE= 1 TARGET= 200.000

591FT U/S 5FT DIA CMP (R OPHM 17+50)

29219.00	4.35	745.65	0.	0.	745.79	.13	.93	.01	744.00
643.	260.	170.	213.	77.	59.	89.	16.	9.	743.90
.29	3.37	2.88	2.38	.040	.080	.040	.071	741.30	350.00
.004808	200.	200.	200.	1	0	0	0.	174.49	524.49

*SECNO 29319.000

3470 ENCROACHMENT STATIONS= 250.0 530.0 TYPE= 1 TARGET= 280.000

692FT U/S 5FT DIA CMP (OPHM 22+50)

29319.00	4.16	745.96	0.	0.	746.00	.04	.18	.03	744.30
643.	21.	65.	556.	21.	57.	350.	17.	10.	744.20

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.51	1.01	1.23	1.59	.040	.080	.040	.071	741.80	267.48
.000951	100.	100.	100.	2	0	0	0.	261.80	529.28

*SECNO 29419.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 150.0 400.0 TYPE= 1 TARGET= 250.000

792FT U/S 5FT DIA CMP (COE VS-22) AF

29419.00	4.86	746.06	0.	0.	746.10	.04	.10	.00	744.10
643.	49.	80.	513.	40.	57.	299.	18.	10.	744.90
.32	1.23	1.40	1.72	.040	.080	.040	.071	741.20	159.20
.001130	100.	100.	100.	2	0	0	0.	240.80	400.00

*SECNO 29553.000

3280 CROSS SECTION 29553.00 EXTENDED .31 FEET

3470 ENCROACHMENT STATIONS= 130.0 370.0 TYPE= 1 TARGET= 240.000

926FT U/S 5FT DIA CMP (R COE VS-22)

29553.00	4.21	746.31	0.	0.	746.44	.13	.29	.04	745.50
643.	19.	138.	486.	13.	49.	166.	19.	11.	744.90
.34	1.53	2.84	2.93	.040	.080	.040	.072	742.10	168.94
.005672	134.	134.	134.	2	0	0	0.	201.06	370.00

*SECNO 29684.000

3470 ENCROACHMENT STATIONS= 380.0 650.0 TYPE= 1 TARGET= 270.000

50FT D/S PRIVATE FARM LANE (R OPHMC 26+73)

29684.00	4.29	747.19	0.	0.	747.33	.14	.89	.00	746.30
643.	143.	208.	292.	62.	58.	103.	20.	12.	746.30
.35	2.29	3.56	2.83	.040	.080	.040	.072	742.90	380.00
.008251	131.	131.	131.	2	0	0	0.	270.00	650.00

*SECNO 29734.000

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 350.0 645.0 TYPE= 1 TARGET= 295.000

D/S FACE OF PRIVATE FARM LANE (R OPHM 6+73)CONC SLAB W/HEADWALL

29734.00	4.58	747.78	0.	0.	747.99	.22	.63	.04	747.80
643.	103.	223.	317.	43.	61.	77.	20.	12.	747.80
.35	2.40	3.66	4.11	.040	.120	.040	.073	743.20	350.00
.021292	50.	50.	50.	3	0	0	0.	289.23	645.00

SPECIAL BRIDGE

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SB	XK	XKOR	COF-Q	RDLEN	BWC	WP	JAREA	SS	ELCHU	ELCHD
	-0.	1.76	1.49	-0.	10.00	0.	41.00	-0.	738.80	738.80

Lowered for sub

*SECNO 29742.000
PRESS FLOW BECAUSE EGLWC OF 2689.52 EXCEEDS 1.5 DE TH
PRESSURE AND WEIR FLOW

TwBZ = 747.78

EGPRS	EGLWC	H3	QWEIR	QPR	AREA	TRAPEZOID AREA	ELLC	ELTRD
754.50	2689.52	0.	517.	121.	41.	66.	747.40	746.70

3470 ENCROACHMENT STATIONS= 342.0 643.0 TYPE= 1 TARGET= 301.000

U/S FACE OF PRIVATE FARM LANE (OPHM 26 73)

29742.00	4.63	747.83	0.	0.	748.02	.18	.02	0.	747.80
643.	122.	206.	315.	52.	62.	82.	20.	12.	747.80
.35	2.33	3.32	3.82	.040	.120	.040	.073	743.20	342.05
.017224	8.	8.	8.	3	0	6	0.	300.95	643.00

*SECNO 29792.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 290.0 630.0 TYPE= 1 TARGET= 340.000

50FT U/S PRIVATE FARM LANE (R OPHM 2 +73)

29792.00	4.76	748.16	0.	0.	748.20	.03	.13	.05	746.90
643.	274.	99.	270.	217.	72.	172.	20.	12.	746.80
.36	1.26	1.38	1.57	.040	.080	.040	.073	743.40	290.00
.001036	50.	50.	50.	3	0	0	0.	340.00	630.00

*SECNO 29819.000

3470 ENCROACHMENT STATIONS= .0 369.0 TYPE= 1 TARGET= 368.999

77FT U/S PRIVATE FARM LANE (OPHM 27+ 0)

29819.00	4.69	748.19	0.	0.	748.23	.03	.03	.00	746.90
643.	291.	100.	252.	221.	71.	156.	21.	13.	746.80
.37	1.32	1.41	1.62	.040	.080	.040	.073	743.50	40.38
.001092	27.	27.	27.	2	0	0	0.	328.62	369.00

*SECNO 29937.000

3470 ENCROACHMENT STATIONS= 70.0 330.0 TYPE= 1 TARGET= 260.000

185FT U/S PRIVATE FARM LANE (R OPHM 2 +50)

29937.00	4.45	748.35	0.	0.	748.40	.05	.16	.01	747.10
643.	343.	121.	179.	199.	67.	89.	22.	13.	747.00
.39	1.73	1.79	2.01	.040	.080	.040	.074	743.90	70.00
.001850	118.	118.	118.	2	0	0	0.	260.00	330.00

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*SECNO 30055.000

3470 ENCROACHMENT STATIONS= 150.0 325.0 TYPE= 1 TARGET= 175.000

293FT U/S PRIVATE FARM LANE (R OPHM 2 +50)

30055.00	4.64	748.64	0.	0.	748.78	.13	.34	.04	747.40
643.	376.	210.	57.	124.	70.	28.	22.	14.	747.30
.40	3.02	2.99	2.02	.040	.080	.040	.074	744.00	150.00
.005007	118.	118.	118.	2	0	0	0.	160.27	310.27

*SECNO 30173.000

3470 ENCROACHMENT STATIONS= 190.0 310.0 TYPE= 1 TARGET= 120.000

411FT U/S PRIVATE FARM LANE (R OPHM 2 +50)

30173.00	5.02	749.22	0.	0.	749.40	.17	.60	.02	747.60
643.	340.	248.	55.	95.	77.	23.	23.	14.	747.50
.41	3.57	3.22	2.40	.040	.080	.040	.074	744.20	190.00
.005126	118.	118.	118.	2	0	0	0.	104.77	294.77

*SECNO 30241.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	FL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IOC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 342.5 375.5 TYPE= 1 TARGET= 33.000

50FT D/S I-94 CONCRETE BOX CULVERT (OE VS-23)

30241.00	5.19	749.49	0.	0.	750.03	.54	.45	.18	747.50
643.	90.	468.	84.	15.	80.	14.	23.	14.	747.60
.41	6.23	5.83	6.08	.030	.060	.030	.074	744.30	342.50
.008839	68.	68.	68.	2	0	0	0.	33.00	375.50

*SECNO 30263.000

3470 ENCROACHMENT STATIONS= 348.0 370.0 TYPE= 1 TARGET= 22.000

28FT D/S I-94 CONC BOX CULVERT (R)

30263.00	5.30	749.60	0.	0.	750.39	.79	.24	.12	747.50
643.	24.	597.	23.	4.	82.	4.	23.	14.	747.60
.41	5.79	7.24	5.69	.030	.060	.030	.074	744.30	348.00
.013226	22.	22.	22.	2	0	0	0.	22.00	370.00

*SECNO 30275.000

3470 ENCROACHMENT STATIONS= 351.0 367.0 TYPE= 1 TARGET= 16.000

16FT D/S I-94 CONC BOX CULVERT (R)

30275.00	5.38	749.68	0.	0.	750.71	1.04	.20	.12	100000.00
643.	0.	643.	0.	0.	79.	0.	23.	14.	100000.00
.41	0.	8.17	0.	.030	.060	.030	.073	744.30	351.00
.021841	12.	12.	12.	2	0	0	0.	16.00	367.00

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*SECNO 30279.000

3470 ENCROACHMENT STATIONS= 352.0 366.0 TYPE= 1 TARGET= 14.000

12FT D/S I-94 CONC BOX CULVERT (R)

30279.00	5.37	749.67	0.	0.	750.91	1.24	.10	.10	100000.00
643.	0.	643.	0.	0.	72.	0.	23.	14.	100000.00
.41	0.	8.92	0.	.030	.060	.030	.073	744.30	352.00
.027956	4.	4.	4.	2	0	0	0.	14.00	366.00

*SECNO 30283.000

3470 ENCROACHMENT STATIONS= 353.0 365.0 TYPE= 1 TARGET= 12.000

8FT D/S I-94 CONC BOX CULVERT (R)

30283.00	5.32	749.62	0.	0.	751.23	1.62	.13	.19	100000.00
643.	0.	643.	0.	0.	63.	0.	23.	14.	100000.00
.41	0.	10.20	0.	.030	.060	.030	.073	744.30	353.00
.040667	4.	4.	4.	2	0	0	0.	12.00	365.00

*SECNO 30285.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 353.5 364.5 TYPE= 1 TARGET= 11.000

6FT D/S I-94 CONC BOX CULVERT (R)

30285.00	5.25	749.55	0.	0.	751.49	1.94	.09	.16	100000.00
643.	0.	643.	0.	0.	58.	0.	23.	14.	100000.00
.41	0.	11.17	0.	.030	.060	.030	.073	744.30	353.50
.052959	2.	2.	2.	2	0	0	0.	11.00	364.50

*SECNO 30287.000

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 354.0 364.0 TYPE= 1 TARGET= 10.000

4FT D/S I-94 CONC BOX CULVERT (R)

30287.00	5.12	749.42	749.34	0.	751.87	2.44	.12	.25	100000.00
643.	0.	643.	0.	0.	51.	0.	23.	14.	100000.00
.41	0.	12.54	0.	.030	.060	.030	.073	744.30	354.00
.074834	2.	2.	2.	4	8	0	0.	10.00	364.00

*SECNO 30291.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

7685 20 TRIALS ATTEMPTED WSEL C SEL

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3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,FLLEA= 7 6.50 ELREA= 756.50

D/S FACE OF I-94 CONC BOX CULVERT 8FT 8FT W/CONC HEADWALLS

ELLC=752.4

(COF S-23)

30291.00	5.85	750.25	750.25	0.	753.18	2.93	.10	.25	759.60	
643.	0.	643.	0.	0.	47.	0.	23.	14.	759.60	
.41	0.	13.75	0.	.030	.022	.030	.073	744.40	192.00	
.013070	4.	4.	4.	20	8	0	0.	8.00	200.00	

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THIS RUN EXECUTED 14 FEB 79 14.33.16

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED  AUG1977
  ERROR CORR -  01,02
  MODIFICATION -  50,51,52,53
*****************************************************

T1      YPSILANTI TOWNSHIP  FIS
T2      PAINT CREEK
T3      500 YR  FLOW

J1  ICHECK    INQ       NINV      IOIR      STRT      ETRIC     HVINS     Q         WSEL      FQ

      -0.       5.       -0.       -0. -0.            0.        -0.       -0.   742.900    -0.

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     N         ALLDC     IBW       CHNIM     ITRACE

     15.000    -0.      -1.000     -0.       -0.       -0.       -0.       -0.       -0.       -0.
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*PROF 4

CCHV= .300 CEHV= .500

*SECNO 27149.000

3280 CROSS SECTION 27149.00 EXTENDED 2.20 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
27149.00	9.80	742.90	0.	742.90	742.94	.04	0.	0.	742.00
1269.	0.	1269.	0.	180.	751.	145.	0.	0.	742.10
0.	0.	1.69	0.	.040	.040	.040	0.	733.10	65.00
.001126	961.	961.	961.	0	0	0	0.	470.00	535.00

3470 ENCROACHMENT STATIONS= 265.0 335.0 TYPE= 1 TARGET= 70.000
ELENCL= 742.00 ELENCR= 742.00

V/S END OF RETENTION POND (OPHM 0+80)

*SECNO 27219.000

3265 DIVIDED FLOW

3280 CROSS SECTION 27219.00 EXTENDED 2.60 FEET

27219.00	10.50	743.00	0.	0.	743.07	.07	.11	.01	742.50
1269.	0.	1269.	0.	90.	593.	55.	1.	1.	743.00
.01	0.	2.14	0.	.040	.040	.040	.039	732.50	65.00
.002478	70.	70.	70.	2	0	0	0.	469.68	535.00

3470 ENCROACHMENT STATIONS= 265.0 335.0 TYPE= 1 TARGET= 70.000
ELENCL= 742.50 ELENCR= 742.50

70FT U/S END OF RETENTION POND (OPHM 1+50)

*SECNO 27375.000

3265 DIVIDED FLOW

3280 CROSS SECTION 27375.00 EXTENDED .48 FEET

27375.00	10.48	743.18	0.	0.	743.33	.16	.22	.04	742.60
1269.	33.	1174.	62.	60.	356.	90.	4.	2.	743.20
.02	.55	3.30	.69	.040	.040	.040	.040	732.70	70.00
.000903	156.	156.	156.	2	0	0	0.	456.30	530.00

3470 ENCROACHMENT STATIONS= 279.8 320.3 TYPE= 1 TARGET= 40.500
ELENCL= 742.50 ELENCR= 742.50

50FT D/S MULTIPLATE CULVERT (R OPHM +50)

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*SECNO 27413.000

3265 DIVIDED FLOW

3280 CROSS SECTION 27413.00 EXTENDED .47 FEET

3470 ENCROACHMENT STATIONS= 289.2 310.7 TYPE= 1 TARGET= 21.500
ELENCL= 742.50 ELENCR= 742.50

12FT D/S MULTIPLATE CULVERT (R OPHM +50)

27413.00	10.37	743.17	0.	0.	743.46	.29	.06	.07	742.60
1269.	63.	1087.	119.	59.	235.	89.	4.	3.	743.20
.03	1.06	4.63	1.34	.040	.040	.040	.040	732.80	70.00
.003444	38.	38.	38.	2	0	0	0.	455.04	530.00

*SECNO 27416.000

3265 DIVIDED FLOW

3280 CROSS SECTION 27416.00 EXTENDED .48 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 290.0 310.0 TYPE= 1 TARGET= 20.000
ELENCL= 742.50 ELENCR= 742.50

9FT D/S MULTIPLATE CULVERT (R OPHM +50)

27416.00	10.37	743.17	0.	0.	743.48	.31	.01	.01	742.60
1269.	70.	1068.	131.	60.	223.	90.	4.	3.	743.20
.03	1.16	4.80	1.45	.040	.040	.040	.039	732.80	70.00
.004023	3.	3.	3.	0	0	0	0.	455.95	530.00

*SECNO 27419.000

3265 DIVIDED FLOW

3280 CROSS SECTION 27419.00 EXTENDED .48 FEET

3470 ENCROACHMENT STATIONS= 290.8 309.3 TYPE= 1 TARGET= 18.500
ELENCL= 742.50 ELENCR= 742.50

6FT D/S MULTIPLATE CULVERT (OPHM 3+ 0)

27419.00	10.38	743.18	0.	0.	743.50	.32	.01	.01	742.60
1269.	79.	1045.	146.	62.	210.	92.	4.	3.	743.20
.03	1.27	4.98	1.59	.040	.040	.040	.039	732.80	70.00
.004738	3.	3.	3.	0	0	0	0.	457.18	530.00

*SECNO 27423.000

3265 DIVIDED FLO

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3280 CROSS SECTION 27423.00 EXTENDED .49 FEET

3470 ENCROACHMENT STATIONS= 292.0 308.0 TYPE= 1 TARGET= 16.000
ELENCL= 742.50 ELENCR= 742.50

2FT D/S MULTIPLATE CMP CULVERT (R O HM 3+50)

27423.00	10.38	743.18	743.14	0.	743.54	.36	.02	.02	742.60
1269.	94.	1002.	173.	63.	187.	93.	4.	3.	743.20
.03	1.50	5.35	1.87	.040	.040	.040	.039	732.80	70.00
.006488	4.	4.	4.	2	7	0	0.	457.98	530.00

*SECNO 27424.000
3280 CROSS SECTION 27424.00 EXTENDED .84 FEET

1FT D/S MULTIPLATE CMP CULVERT (R OE VS-19A)

27424.00	10.34	743.14	0.	0.	743.58	.44	.00	.04	742.60
1269.	242.	933.	94.	171.	151.	82.	4.	3.	742.70
.03	1.41	6.17	1.15	.040	.031	.040	.039	732.80	0.
.002069	1.	1.	1.	2	0	0	0.	400.00	400.00

*SECNO 27425.000
3280 CROSS SECTION 27425.00 EXTENDED 1.28 FEET

3370 NORMAL BRIDGE,NRD= 25 MIN ELTRD= 742.10 MAX ELLC 742.00

D/S FACE 9 3 X15 4 MULTIPLATE CMP CUL ERT (COE VS19A)

27425.00	10.77	743.57	0.	0.	743.69	.11	.00	.10	742.60
1269.	554.	445.	270.	272.	121.	149.	4.	3.	742.70
.03	2.04	3.68	1.81	.040	.031	.040	.039	732.80	0.
.002408	1.	1.	1.	4	0	0	-38.78	400.00	400.00

*SECNO 27455.000
3280 CROSS SECTION 27455.00 EXTENDED 1.35 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3370 NORMAL BRIDGE,NRD= 25 MIN ELTRD= 742.10 MAX ELLC 742.00

U/S FACE 9 3 X15 4 MULTIPLATE CMP CUL ERT (R COE VS19A)

27455.00	10.86	743.66	0.	0.	743.76	.10	.07	.00	742.60
1269.	567.	421.	281.	287.	122.	159.	5.	3.	742.70
.03	1.98	3.46	1.77	.040	.031	.040	.038	732.80	0.
.002100	30.	30.	30.	1	0	0	-38.78	400.00	400.00

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*SECNO 27456.000
3280 CROSS SECTION 27456.00 EXTENDED 1.35 FEET

1FT U/S MULTIPLATE CMP CULVERT (R OF VS-19A)

27456.00	10.85	743.65	0.	0.	743.77	.13	.00	.01	742.60
1269.	442.	609.	218.	290.	159.	160.	5.	3.	742.70
.03	1.53	3.83	1.36	.040	.040	.040	.038	732.80	0.
.001240	1.	1.	1.	1	0	0	0.	400.00	400.00

*SECNO 27457.000
3280 CROSS SECTION 27457.00 EXTENDED .33 FEET

3470 ENCROACHMENT STATIONS= 290.3 309.8 TYPE= 1 TARGET= 19.500
ELENCL= 743.20 ELENCR= 743.20

2FT U/S MULTIPLATE CULVERT (R OPHM 3+92)

27457.00	10.73	743.53	738.04	0.	743.90	.37	.00	.12	743.20
1269.	56.	1132.	82.	51.	219.	66.	5.	3.	743.20
.03	1.10	5.16	1.24	.040	.040	.040	.038	732.80	70.00
.004944	1.	1.	1.	4	14	0	0.	460.00	530.00

*SECNO 27458.000
3280 CROSS SECTION 27458.00 EXTENDED .58 FEET

3470 ENCROACHMENT STATIONS= 287.3 312.8 TYPE= 1 TARGET= 25.500
ELENCL= 743.20 ELENCR= 743.20

5FT U/S MULTIPLATE CULVERT (R OPHM +92)

27458.00	10.78	743.78	0.	0.	743.96	.18	.01	.06	743.20
1269.	101.	1041.	126.	101.	281.	116.	5.	3.	743.20
.03	1.00	3.71	1.08	.040	.040	.040	.038	733.00	70.00
.001757	3.	3.	3.	3	0	0	0.	460.00	530.00

*SECNO 27461.000
3280 CROSS SECTION 27461.00 EXTENDED .64 FEET

3470 ENCROACHMENT STATIONS= 284.3 315.8 TYPE= 1 TARGET= 31.500
ELENCL= 743.20 ELENCR= 743.20

8FT U/S MULTIPLATE CULVERT (OPHM 3+ 2)

27461.00	10.64	743.84	0.	0.	743.98	.14	.00	.01	743.20
1269.	95.	1057.	116.	112.	321.	127.	5.	3.	743.20
.03	.85	3.29	.91	.040	.040	.040	.038	733.20	70.00
.001111	3.	3.	3.	2	0	0	0.	460.00	530.00

*SECNO 27467.000
3280 CROSS SECTION 27467.00 EXTENDED .69 FEET

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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
3470 ENCROACHMENT STATIONS=		278.3	321.8	TYPE=	1	TARGET=	43.500		
ELENCL=	743.20	ELENCR=	743.20						
			14FT U/S MULTIPLATE CULVERT (R OPHM +92)						
27467.00	10.49	743.89	0.	0.	744.00	.11	.01	.01	743.30
1269.	92.	1062.	114.	103.	377.	118.	5.	3.	743.30
.03	.90	2.82	.97	.040	.060	.040	.038	733.40	70.00
.001376	6.	6.	6.	2	0	0	0.	460.00	530.00
*SECNO 27473.000									
3280 CROSS SECTION 27473.00 EXTENDED .73 FEET									
3470 ENCROACHMENT STATIONS=		272.3	327.8	TYPE=	1	TARGET=	55.500		
ELENCL=	743.20	ELENCR=	743.20						
			20FT U/S MULTIPLATE CULVERT (R OPHM +92)						
27473.00	10.43	743.93	0.	0.	744.01	.08	.01	.01	743.20
1269.	111.	1027.	131.	131.	409.	146.	5.	3.	743.20
.03	.85	2.51	.90	.040	.060	.040	.038	733.50	70.00
.000903	6.	6.	6.	2	0	0	0.	460.00	530.00
*SECNO 27489.000									
			36FT U/S MULTIPLATE CULVERT (OPHM 4+ 2)						
27489.00	10.39	743.99	0.	0.	744.03	.04	.01	.01	742.00
1269.	194.	824.	251.	210.	419.	258.	5.	4.	743.00
.03	.92	1.97	.97	.040	.060	.040	.039	733.60	57.65
.000510	16.	16.	16.	2	0	0	0.	483.07	540.73
*SECNO 27819.000									
			364FT U/S MULTIPLATE CULVERT (OPHM 7+ 0)						
27819.00	10.25	744.15	0.	0.	744.19	.05	.16	.00	739.80
1269.	251.	178.	840.	185.	128.	449.	11.	6.	738.30
.09	1.35	1.39	1.87	.040	.080	.040	.058	733.90	207.73
.000472	310.	328.	340.	2	0	0	0.	251.80	459.53
*SECNO 28319.000									
			879FT U/S MULTIPLATE CULVERT (OPHM 12 50)						
28319.00	7.77	744.47	0.	0.	744.52	.06	.32	.00	739.60
1269.	565.	201.	503.	273.	112.	299.	20.	10.	741.70
.16	2.07	1.79	1.68	.040	.080	.040	.067	736.70	131.08
.000927	500.	500.	500.	2	0	0	0.	369.45	500.53
*SECNO 28559.000									
SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV

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Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
			50 FT D/S 5FT DIA CMP (R OPHM 15+40)						
28559.00	6.19	744.69	0.	0.	744.73	.04	.21	.00	741.30
1269.	754.	160.	355.	436.	106.	239.	24.	12.	741.70
.20	1.73	1.51	1.48	.040	.080	.040	.069	738.50	138.93
.000791	240.	240.	240.	2	0	0	0.	433.42	572.34
*SECNO 28608.000									
			1FT D/S 5FT DIA CMP (R OPHM 15+40)						
28608.00	5.92	744.72	0.	0.	744.76	.04	.03	.00	741.30
1269.	812.	47.	410.	470.	27.	270.	25.	13.	741.30
.21	1.73	1.72	1.52	.030	.040	.030	.068	738.80	138.02
.000420	49.	49.	49.	1	0	0	0.	437.19	575.22
*SECNO 28609.000									
3370 NORMAL BRIDGE,NRD= 15 MIN ELTRD= 741.30 MAX ELLC 743.80									
			D/S FACE FARM LANE 5FT DIA CMP (OPHM 5+40)						
28609.00	5.91	744.71	0.	0.	744.76	.04	.00	.00	741.30
1269.	817.	43.	410.	461.	26.	265.	25.	13.	741.30
.21	1.77	1.67	1.55	.030	.024	.030	.068	738.80	138.21
.000456	1.	1.	1.	0	0	0	-12.35	436.43	574.63
*SECNO 28627.000									
3370 NORMAL BRIDGE,NRD= 15 MIN ELTRD= 741.30 MAX ELLC 743.80									
			U/S FACE FARM LANE 5FT DIA CMP (R OPH 15+40)						
28627.00	5.92	744.72	0.	0.	744.77	.04	.01	.00	741.30
1269.	816.	43.	410.	463.	26.	266.	25.	13.	741.30
.21	1.76	1.66	1.54	.030	.024	.030	.068	738.80	138.03
.000451	18.	18.	18.	0	0	0	-12.35	437.17	575.20
*SECNO 28628.000									
			1FT U/S 5FT DIA CMP (R OPHM 15+40)						
28628.00	5.93	744.73	0.	0.	744.77	.04	.00	.00	741.30
1269.	812.	47.	410.	470.	27.	270.	25.	13.	741.30
.22	1.73	1.72	1.52	.030	.040	.030	.068	738.80	138.00
.000420	1.	1.	1.	0	0	0	0.	437.30	575.30
*SECNO 28677.000									
SECNO	DEPTH	CWSEL	CRTWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

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50FT U/S 5FT DIA CMP (R OPHM 15+40)

28677.00	5.86	744.76	0.	0.	744.80	.04	.03	.00	741.30
1269.	761.	145.	362.	450.	101.	250.	26.	13.	741.70
.22	1.69	1.43	1.45	.040	.080	.040	.068	738.90	137.38
.000735	50.	50.	50.	0	0	0	0.	439.90	577.28

*SECNO 28819.000

3470 ENCROACHMENT STATIONS= 220.0 650.0 TYPE= 1 TARGET= -220.000

191FT U/S 5FT DIA CMP (OPHM 17+50)

28819.00	5.00	744.90	0.	0.	744.97	.07	.16	.01	742.60
1269.	794.	128.	347.	346.	69.	201.	28.	15.	742.50
.24	2.29	1.85	1.73	.040	.080	.040	.069	739.90	220.00
.001585	180.	142.	100.	2	0	0	0.	397.30	617.30

*SECNO 29019.000

3470 ENCROACHMENT STATIONS= 300.0 600.0 TYPE= 1 TARGET= 300.000

391FT U/S 5FT DIA CMP (R OPHM 17+50)

29019.00	4.75	745.35	0.	0.	745.51	.17	.49	.05	743.30
1269.	677.	193.	399.	185.	65.	150.	31.	16.	743.20
.26	3.66	2.95	2.66	.040	.080	.040	.070	740.60	300.00
.004380	200.	200.	200.	2	0	0	0.	300.00	600.00

*SECNO 29219.000

3470 ENCROACHMENT STATIONS= 350.0 550.0 TYPE= 1 TARGET= 200.000

591FT U/S 5FT DIA CMP (R OPHM 17+50)

29219.00	4.97	746.27	0.	0.	746.49	.22	.95	.02	744.00
1269.	471.	228.	570.	108.	69.	172.	32.	17.	743.90
.28	4.34	3.31	3.32	.040	.080	.040	.071	741.30	350.00
.005141	200.	200.	200.	2	0	0	0.	200.00	550.00

*SECNO 29319.000

3470 ENCROACHMENT STATIONS= 250.0 530.0 TYPE= 1 TARGET= 280.000

692FT U/S 5FT DIA CMP (OPHM 22+50)

29319.00	4.87	746.67	0.	0.	746.74	.07	.21	.04	744.30
1269.	60.	95.	1114.	43.	63.	508.	33.	18.	744.70
.29	1.40	1.51	2.19	.040	.080	.040	.071	741.80	256.53
.001131	100.	100.	100.	2	0	0	0.	273.47	530.00

*SECNO 29419.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

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3470 ENCROACHMENT STATIONS= 150.0 400.0 TYPE= 1 TARGET= 250.000

792FT U/S 5FT DIA CMP (COE VS-22)

29419.00	5.59	746.79	0.	0.	746.87	.08	.12	.00	744.10
1269.	130.	116.	1023.	74.	68.	433.	35.	19.	744.90
.30	1.74	1.70	2.36	.040	.080	.040	.071	741.20	150.00
.001313	100.	100.	100.	2	0	0	0.	250.00	400.00

*SECNO 29553.000
3280 CROSS SECTION 29553.00 EXTENDED 1.03 FEET

3470 ENCROACHMENT STATIONS= 130.0 370.0 TYPE= 1 TARGET= 240.000

926FT U/S 5FT DIA CMP (R COE VS-22)

29553.00	4.93	747.03	0.	0.	747.21	.18	.29	.05	745.50
1269.	102.	168.	998.	48.	59.	278.	36.	19.	744.90
.31	2.12	2.83	3.59	.040	.080	.040	.072	742.10	130.00
.004330	134.	134.	134.	2	0	0	0.	240.00	370.00

*SECNO 29684.000

3470 ENCROACHMENT STATIONS= 380.0 650.0 TYPE= 1 TARGET= 270.000

50FT D/S PRIVATE FARM LANE (R OPHMC 26+73)

29684.00	4.82	747.72	0.	0.	747.91	.19	.70	.00	746.30
1269.	402.	235.	632.	126.	67.	175.	37.	20.	746.30
.32	3.18	3.51	3.61	.040	.080	.040	.072	742.90	380.00
.006706	131.	131.	131.	2	0	0	0.	270.00	650.00

*SECNO 29734.000

3470 ENCROACHMENT STATIONS= 350.0 645.0 TYPE= 1 TARGET= 295.000

D/S FACE OF PRIVATE FARM LANE (R OPHM 6+73)CONC SLAB W/HEADWALL

29734.00	4.98	748.18	0.	0.	748.47	.30	.51	.06	747.80
1269.	393.	237.	638.	103.	67.	129.	38.	20.	747.80
.33	3.80	3.52	4.95	.040	.120	.040	.073	743.20	350.00
.017243	50.	50.	50.	2	0	0	0.	295.00	645.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	WP	BAREA	SS	ELCHU	ELCHD
	-0.	1.76	1.49	-0.	10.00	0.	41.00	-0.	738.80	738.80

*SECNO 29742.000
PRESS FLOW BECAUSE EGLWC OF 1432.58 EXCEEDS 1.5 DE TH
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	AREA	TRAPEZOID AREA	ELLC	ELTRD
774.36	1432.58	0.	1123.	141.	41.	86.	747.40	746.70

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3470 ENCROACHMENT STATIONS= 342.0 643.0 TYPE= 1 TARGET= 301.000

U/S FACE OF PRIVATE FARM LANE (OPHM 26 73)

29742.00	5.04	748.24	0.	0.	748.50	.26	.03	0.	747.80
1269.	421.	223.	625.	116.	68.	134.	38.	20.	747.80
.33	3.64	3.26	4.68	.040	.120	.040	.073	743.20	342.00
.014551	8.	8.	8.	3	0	7	0.	301.00	643.00

*SECNO 29792.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 290.0 630.0 TYPE= 1 TARGET= 340.000

50FT U/S PRIVATE FARM LANE (R OPHM 2 +73)

29792.00	5.27	748.67	0.	0.	748.73	.06	.17	.06	746.90
1269.	615.	143.	511.	321.	81.	227.	38.	21.	746.80
.33	1.91	1.77	2.25	.040	.080	.040	.073	743.40	290.00
.001466	50.	50.	50.	2	0	0	0.	340.00	630.00

*SECNO 29819.000

3470 ENCROACHMENT STATIONS= .0 369.0 TYPE= 1 TARGET= 368.999

77FT U/S PRIVATE FARM LANE (OPHM 27+ 0)

29819.00	5.21	748.71	0.	0.	748.77	.07	.04	.00	746.90
1269.	648.	144.	477.	331.	80.	207.	39.	21.	746.80
.34	1.96	1.80	2.30	.040	.080	.040	.073	743.50	30.35
.001507	27.	27.	27.	2	0	0	0.	338.64	369.00

*SECNO 29937.000

3470 ENCROACHMENT STATIONS= 70.0 330.0 TYPE= 1 TARGET= 260.000

185FT U/S PRIVATE FARM LANE (R OPHM 2 +50)

29937.00	5.01	748.91	0.	0.	749.01	.10	.22	.02	747.10
1269.	754.	170.	344.	300.	78.	124.	40.	22.	747.00
.35	2.52	2.20	2.78	.040	.080	.040	.074	743.90	70.00
.002324	118.	118.	118.	2	0	0	0.	260.00	330.00

*SECNO 30055.000

3470 ENCROACHMENT STATIONS= 150.0 325.0 TYPE= 1 TARGET= 175.000

293FT U/S PRIVATE FARM LANE (R OPHM 2 +50)

30055.00	5.25	749.25	0.	0.	749.50	.25	.42	.07	747.40
1269.	798.	294.	177.	185.	81.	60.	41.	22.	747.30
.36	4.31	3.63	2.97	.040	.080	.040	.074	744.00	150.00
.006062	118.	118.	118.	2	0	0	0.	175.00	325.00

*SECNO 30173.000

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3470 ENCROACHMENT STATIONS= 190.0 310.0 TYPE= 1 TARGET= 120.000

411FT U/S PRIVATE FARM LANE (R OPHM 2 +50)

30173.00	5.76	749.96	0.	0.	750.31	.35	.76	.05	747.60
1269.	732.	372.	165.	139.	90.	47.	42.	23.	747.50
.37	5.25	4.12	3.51	.040	.080	.040	.074	744.20	190.00
.006801	118.	118.	118.	2	0	0	0.	116.21	306.21

*SECNO 30241.000

3301 HV CHANGED MORE THAN HVINS

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 342.5 375.5 TYPE= 1 TARGET= 33.000

50FT D/S I-94 CONCRETE BOX CULVERT (OE VS-23)

30241.00	5.81	750.11	0.	0.	751.62	1.50	.73	.58	747.50
1269.	206.	867.	196.	19.	92.	19.	42.	23.	747.60
.37	10.70	9.46	10.51	.030	.060	.030	.074	744.30	342.50
.019548	68.	68.	68.	2	0	0	0.	33.00	375.50

*SECNO 30263.000

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 348.0 370.0 TYPE= 1 TARGET= 22.000

28FT D/S I-94 CONC BOX CULVERT (R)

30263.00	5.96	750.26	750.18	0.	752.55	2.29	.54	.39	747.50
1269.	53.	1164.	52.	5.	94.	5.	43.	23.	747.60
.37	9.81	12.35	9.69	.030	.060	.030	.074	744.30	348.00
.032068	22.	22.	22.	4	5	0	0.	22.00	370.00

*SECNO 30275.000

3301 HV CHANGED MORE THAN HVINS

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 351.0 367.0 TYPE= 1 TARGET= 16.000

16FT D/S I-94 CONC BOX CULVERT (R)

30275.00	6.23	750.53	750.53	0.	753.46	2.93	.49	.32100000.00	
1269.	0.	1269.	0.	0.	92.	0.	43.	23. 100000.00	
.37	0	13.77	0	.030	.074	.030	.074	744.30	351.00

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.054672	12.	12.	12.	2	8	0	0.	16.00	367.00

*SECNO 30279.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 352.0 366.0 TYPE= 1 TARGET= 14.000

12FT D/S I-94 CONC BOX CULVERT (R)

30279.00	6.55	750.85	750.85	0.	754.04	3.20	.23	.14	100000.00
1269.	0.	1269.	0.	0.	88.	0.	43.	23.	100000.00
.37	0.	14.35	0.	.030	.060	.030	.073	744.30	352.00
.062641	4.	4.	4.	3	8	0	0.	14.00	366.00

*SECNO 30283.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 353.0 365.0 TYPE= 1 TARGET= 12.000

8FT D/S I-94 CONC BOX CULVERT (R)

30283.00	7.07	751.37	751.37	0.	754.91	3.54	.27	.17	100000.00
1269.	0.	1269.	0.	0.	84.	0.	43.	23.	100000.00
.37	0.	15.09	0.	.030	.060	.030	.073	744.30	353.00
.074148	4.	4.	4.	4	8	0	0.	12.00	365.00

*SECNO 30285.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 353.5 364.5 TYPE= 1 TARGET= 11.000

6FT D/S I-94 CONC BOX CULVERT (R)

30285.00	7.44	751.74	751.74	0.	755.49	3.75	.16	.11	100000.00
1269.	0.	1269.	0.	0.	82.	0.	43.	23.	100000.00
.37	0.	15.55	0.	.030	.060	.030	.073	744.30	353.50
.082885	2.	2.	2.	3	8	0	0.	11.00	364.50

*SECNO 30287.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT

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TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 354.0 364.0 TYPE= 1 TARGET= 10.000

4FT D/S I-94 CONC BOX CULVERT (R)

30287.00	7.91	752.21	752.21	0.	756.21	4.00	.18	.12100000.00	
1269.	0.	1269.	0.	0.	79.	0.	43.	23.	100000.00
.37	0.	16.05	0.	.030	.060	.030	.073	744.30	354.00
.094821	2.	2.	2.	3	8	0	0.	10.00	364.00

*SECNO 30291.000

3301 HV CHANGED MORE THAN HVINS

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 7 6.50 ELREA= 756.50

D/S FACE OF I-94 CONC BOX CULVERT 8FT 8FT W/CONC HEADWALLS

(COE S-23)

30291.00	9.21	753.61	753.61	0.	758.22	4.61	.13	.31	759.60
1269.	0.	1269.	0.	0.	74.	0.	43.	23.	759.60
.37	0.	17.23	0.	.030	.022	.030	.073	744.40	192.00
.016575	4.	4.	4.	20	8	0	0.	8.00	200.00

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THIS RUN EXECUTED 14 FEB 79 14.39.33

I-94 to Michigan Ave

TAKEN FROM

Previous Submittal

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED  AUG1977
  ERROR CORR -  01,02
  MODIFICATION -  50,51,52,53
*****************************************************

C
T1      YPSILANTI TOWNSHIP  FIS
T2      PAINT CREEK
T3      10  YR  FLOW

J1  ICHECK    INQ       NINV      IDIR      STRT      ETRIC     HVINS     Q         WSEL      FQ

      -0.       2.       -0.       -0. -0.            0.        -0.       -0.   751.700    -0.

J2  NPROF     IPLOT     PRFVS     XSECV     XSFCH     N         ALLDC     IBW       CHNIM     ITRACE

      1.000    -0.      -1.000    -0.       -0.       -0.       -0.       -0.       -0.       -0.

NC       .030      .040      .030      .300      .500      -0.       -0.       -0.       -0.       -0.
QT      4.000   469.000   589.000   643.000   126 .000      -0.       -0.       -0.       -0.       -0.

                  1FT U/S I-94 CONC BOX CULVERT (R CO  VS-24)

X1  30549.000    17.000   583.000   610.000      .000      1.000     1.000     -0.       -0.       -0.
X3     -0.       -0.       -0.      420.000     - .     1230.000     -0.       -0.       -0.       -0.
X5      4.000   751.700   753.900   754.900    75 .700      -0.       -0.       -0.       -0.       -0.
GR    760.000     0.      755.000    90.000    75 .500    460.000   750.000   515.000   749.700   560.000
GR    747.100   583.000   745.300   584.000    74 .400    585.000   744.800   590.000   745.300   592.000
GR    746.900   595.000   747.200   603.000    74 .600    610.000   751.000   765.000   752.100   810.000
GR    754.100   910.000   760.000  1550.000     - .       -0.       -0.       -0.       -0.       -0.

                  50FT U/S I-94 CONC BOX CULVERT (R CO  VS-24)

X1  30598.000    17.000   583.000   610.000     4 .000     49.000    49.000     -0.       -0.       -0.
X3     -0.       -0.       -0.      433.000     - .     1100.000     -0.       -0.       -0.       -0.
GR    760.000     0.      755.000    80.000    75 .500    450.000   750.100   532.000   749.700   550.000
GR    747.100   583.000   745.500   584.000    74 .600    585.000   745.000   590.000   745.500   592.000
GR    747.100   595.000   747.400   603.000    74 .600    610.000   751.000   765.000   752.100   810.000
GR    754.100   910.000   760.000  1100.000     - .       -0.       -0.       -0.       -0.       -0.

                  100FT U/S I-94 CONC BOX  CULVERT (COE VS-24)

X1  30648.000    17.000   583.000   610.000     5 .000     50.000    50.000     -0.       -0.       -0.
X3     -0.       -0.       -0.      450.000     - .      800.000     -0.       -0.       -0.       -0.
GR    760.000     0.      755.000    90.000    75 .500    460.000   750.000   515.000   749.700   560.000
GR    747.100   583.000   745.800   584.000    74 .900    585.000   745.300   590.000   745.800   592.000
GR    747.400   595.000   747.700   603.000    74 .600    610.000   751.000   765.000   752.100   810.000
GR    754.100   910.000   760.000  1100.000     - .       -0.       -0.       -0.       -0.       -0.

                  13FT D/S PRIVATE WOOD BRIDGE (OPHM 3 +33)

X1  30690.000    11.000   582.000   618.000     4 .000     42.000    42.000     -0.       -0.       -0.
X3     -0.       -0.       -0.      480.000     - .      850.000     -0.       -0.       -0.       -0.
GR    760.000     0.      755.000   110.000    75 .600    [illegible]  750.50   482.000   749.000   582.000
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GR	746.000	593.000	746.000	607.000	75	.500	618.000	752.600	718.000	756.300	818.000
GR	760.000	900.000	-0.	-0.	-	.	-0.	-0.	-0.	-0.	-0.

1FT D/S PRIVATE WOOD BRIDGE (R COE S-24A)

X1	30702.000	20.000	582.000	618.000	1	.000	12.000	12.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	475.000	-	.	850.000	-0.	-0.	-0.	-0.
GR	760.000	0.	755.000	110.000	75	.400	443.000	752.100	518.000	749.400	568.000
GR	752.600	582.000	749.100	582.000	74	.300	586.000	746.000	593.000	745.800	598.000
GR	745.700	603.000	746.000	607.000	74	.800	610.000	750.000	618.000	752.400	618.000
GR	749.800	668.000	751.900	718.000	75	.200	768.000	757.300	818.000	760.000	850.000

D/S FACE OF PRIVATE WOOD BRIDGE (VS-24)

X1	30703.000	-0.	-0.	-0.		.000	1.000	1.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	475.000	-	.	850.000	-0.	-0.	-0.	-0.
BT	14.000	0.	760.000	0.	11	.000	755.000	0.	443.000	754.400	0.
BT	518.000	752.100	0.	568.000	74	.400	0.	582.000	752.600	0.	582.000
BT	752.600	751.400	618.000	752.400	75	.400	618.000	752.400	0.	668.000	749.800
BT	0.	718.000	751.900	0.	76	.000	755.200	0.	818.000	757.300	0.
BT	850.000	760.000	0.	-0.	-	.	-0.	-0.	-0.	-0.	-0.

U/S FACE PRIVATE WOOD BRIDGE (R COE VS 24A)

1	30710.000	-0.	-0.	-0.		.000	7.000	7.000	-0.	-0.	-0.
X2	-0.	-0.	-0.	-0.	-	.	-0.	1.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	475.000	-	.	850.000	-0.	-0.	-0.	-0.

1FT U/S PRIVATE WOOD BRIDGE (R COE S-24A)

X1	30711.000	-0.	-0.	-0.		.000	1.000	1.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	475.000	-	.	850.000	-0.	-0.	-0.	-0.
QT	4.000	488.000	647.000	727.000	138	.000	-0.	-0.	-0.	-0.	-0.

50FT U/S PRIVATE WOOD BRIDGE (R COE S-24A)

X1	30760.000	11.000	582.000	618.000	5	.000	50.000	50.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	472.000	-	.	850.000	-0.	-0.	-0.	-0.
GR	760.000	0.	755.000	110.000	75	.600	382.000	750.500	482.000	749.000	582.000
GR	746.000	593.000	746.000	607.000	75	.500	618.000	752.600	718.000	756.300	818.000
GR	760.000	900.000	-0.	-0.	-	.	-0.	-0.	-0.	-0.	-0.

450FT U/S PRIVATE WOOD BRIDGE (OPHM 4 +55)

X1	31160.000	10.000	325.000	363.000	41	.000	350.000	400.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	239.000	-	.	650.000	-0.	-0.	-0.	-0.
GR	760.000	0.	753.200	125.000	75	.500	225.000	749.200	325.000	746.800	337.000
GR	746.800	351.000	754.300	363.000	75	.500	463.000	752.900	563.000	760.000	650.000
QT	4.000	525.000	778.000	926.000	168	.000	-0.	-0.	-0.	-0.	-0.

880FT U/S PRIVATE WOOD BRIDGE (COE VS 25)

X1	31590.000	13.000	350.000	450.000	45	.000	410.000	430.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	320.000	-	.	650.000	-0.	-0.	-0.	-0.
GR	760.000	0.	750.500	250.000	75	.000	350.000	748.700	388.000	748.500	395.000
GR	747.600	400.000	746.500	405.000	74	.700	410.000	748.800	413.000	755.100	450.000
GR	760.100	550.000	766.700	650.000	77	.000	770.000	-0.	-0.	-0.	-0.

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1305FT U/S PRIVATE WOOD BRIDGE (OPHM 4 +10)

X1	32015.000	11.000	225.000	277.000	32 .000	450.000	425.000	-0.	-0.	-0.	
X3	-0.	-0.	-0.	125.000	- .	850.000	-0.	-0.	-0.	-0.	
GR	760.000	0.	758.300	25.000	75 .300	125.000	751.600	225.000	747.900	243.000	
GR	747.900	259.000	754.100	277.000	75 .200	377.000	751.800	477.000	760.000	700.000	
GR	770.000	850.000	-0.	-0.	- .	-0.	-0.	-0.	-0.	-0.	
QT	4.000	544.000	865.000	1064.000	191 .000	-0.	-0.	-0.	-0.	-0.	

1465FT U/S PRIVATE WOOD BRIDGE (COE VS 26)

X1	32175.000	13.000	219.000	270.000	16 .000	160.000	160.000	-0.	-0.	-0.	
X3	-0.	-0.	-0.	100.000	- .	770.000	-0.	-0.	-0.	-0.	
GR	760.000	0.	758.000	70.000	75 .200	170.000	752.200	219.000	747.800	235.000	
GR	747.000	240.000	747.100	243.000	74 .800	248.000	752.200	270.000	751.800	370.000	
GR	752.100	470.000	760.000	840.000	77 .000	1020.000	-0.	-0.	-0.	-0.	

1795FT U/S PRIVATE WOOD BRIDGE (OPHM 5 +10)

X1	32505.000	12.000	400.000	454.000	33 .000	430.000	330.000	-0.	-0.	-0.	
X3	-0.	-0.	-0.	240.000	- .	1290.000	-0.	-0.	-0.	-0.	
GR	770.000	0.	756.100	200.000	75 .000	300.000	753.100	400.000	748.400	420.000	
GR	748.400	434.000	753.100	454.000	75 .100	554.000	753.100	654.000	753.800	1130.000	
GR	760.000	1290.000	770.000	1630.000	- .	-0.	-0.	-0.	-0.	-0.	
QT	4.000	563.000	1016.000	1323.000	249 .000	-0.	-0.	-0.	-0.	-0.	

2270FT U/S PRIVATE WOOD BRIDGE (COE VS 27)

X1	32985.000	12.000	490.000	550.000	49 .000	470.000	480.000	-0.	-0.	-0.	
X3	-0.	-0.	-0.	260.000	- .	970.000	-0.	-0.	-0.	-0.	
GR	760.000	0.	754.000	350.000	75 .700	450.000	753.900	490.000	749.400	510.000	
GR	748.200	518.000	748.000	520.000	75 .000	526.000	753.300	550.000	753.400	650.000	
GR	753.700	750.000	760.000	970.000	- .	-0.	-0.	-0.	-0.	-0.	

2695FT U/S PRIVATE WOOD BRIDGE (OPHM 6 +00)

X1	33410.000	9.000	200.000	262.000	35 .000	450.000	425.000	-0.	-0.	-0.	
X3	-0.	-0.	-0.	40.000	- .	412.000	-0.	-0.	-0.	-0.	
GR	760.000	0.	757.700	100.000	757.200	200.000	748.900	223.000	748.900	239.000	
GR	754.100	262.000	755.200	362.000	76 .000	412.000	770.000	492.000	-0.	-0.	

3170FT U/S PRIVATE WOOD BRIDGE (OPHM 6 +05)

X1	33815.000	8.000	250.000	308.000	35 .000	415.000	405.000	-0.	-0.	-0.	
X3	-0.	-0.	-0.	90.000	- .	358.000	-0.	-0.	-0.	-0.	
GR	760.000	0.	757.400	50.000	75 .700	150.000	757.200	250.000	747.700	265.000	
GR	747.700	293.000	756.600	308.000	75 .400	408.000	-0.	-0.	-0.	-0.	
NC	.040	.040	.040	-0.	- .	-0.	-0.	-0.	-0.	-0.	
QT	4.000	585.000	1075.000	1407.000	266 .000	-0.	-0.	-0.	-0.	-0.	

50FT D/S MICHIGAN AVENUE (R COE S-28)

X1	33907.000	9.000	190.000	242.000	13 .000	70.000	92.000	-0.	-0.	-0.	
X3	-0.	-0.	-0.	145.000	- .	346.000	-0.	-0.	-0.	-0.	
GR	759.600	0.	759.200	100.000	75 .300	190.000	749.400	202.000	749.400	230.000	
GR	759.600	242.000	759.600	250.000	75 .600	300.000	760.300	400.000	-0.	-0.	
NH	7.000	.040	200.000	.200	20 .000	.015	214.800	.200	219.200	.015	
NH	228.000	.200	232.000	.040	40 .000	-0.	-0.	-0.	-0.	-0.	

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D/S FACE OF MICHIGAN AVENUE CONC CULVE T (COE VS-28)

TWIN 68 IN BY 136 IN CP W/CONC WINGWALLS

X1	33957.000	26.000	200.000	232.000	5	.000	50.000	50.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	178.000	-	.	400.000	-0.	-0.	-0.	-0.
GR	759.600	0.	759.200	100.000	75	.300	150.000	759.300	200.000	751.800	206.000
GR	751.000	206.400	750.500	207.000	74	.900	208.000	749.400	209.800	749.400	211.000
GR	749.900	212.800	751.000	214.400	75	.800	214.800	751.800	219.200	751.000	219.600
GR	750.400	220.400	749.900	221.200	74	.400	223.000	749.400	224.200	749.900	226.000
GR	750.400	227.000	751.000	227.600	75	.800	228.000	759.400	232.000	759.600	300.000
GR	760.300	400.000	-0.	-0.	-	.	-0.	-0.	-0.	-0.	-0.
EJ	-0.	-0.	-0.	-0.	-	.	-0.	-0.	-0.	-0.	-0.

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*PROF 1

CCHV= .300 CEHV= .500

*SECNO 30549.000

WATER EL=X5 CARD= 751.700

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
30549.00	7.30	751.70	0.	751.70	751.72	.02	0.	0.	747.10
469.	172.	194.	103.	214.	138.	227.	0.	0.	749.60
0.	.80	1.40	.46	.030	.030	.040	0.	744.40	438.86
.000101	1.	1.	1.	0	0	0	0.	354.78	793.64

3470 ENCROACHMENT STATIONS= 420.0 1230.0 TYPE= 1 TARGET= 810.000

1FT U/S I-94 CONC BOX CULVERT (R CO VS-24)

*SECNO 30598.000

3470 ENCROACHMENT STATIONS= 433.0 1100.0 TYPE= 1 TARGET= 667.000

50FT U/S I-94 CONC BOX CULVERT (R CO VS-24)

30598.00	7.11	751.71	0.	0.	751.72	.02	.00	.00	747.10
469.	180.	185.	104.	218.	134.	228.	1.	0.	749.60
.01	.82	1.38	.46	.030	.030	.040	.029	744.60	433.00
.000102	49.	49.	49.	0	0	0	0.	360.84	793.84

*SECNO 30648.000

3470 ENCROACHMENT STATIONS= 450.0 800.0 TYPE= 1 TARGET= 350.000

100FT U/S I-94 CONC BOX CULVERT (COE VS-24)

30648.00	6.81	751.71	0.	0.	751.73	.02	.01	.00	747.10
469.	181.	178.	110.	214.	127.	229.	1.	1.	749.60
.03	.84	1.40	.48	.030	.030	.040	.029	744.90	450.00
.000111	50.	50.	50.	0	0	0	0.	344.08	794.08

*SECNO 30690.000

3470 ENCROACHMENT STATIONS= 480.0 850.0 TYPE= 1 TARGET= 370.000

13FT D/S PRIVATE WOOD BRIDGE (DPHM 3 +33)

30690.00	5.71	751.71	0.	0.	751.74	.03	.01	.01	749.00
469.	189.	269.	11.	199.	165.	35.	2.	1.	750.50
.04	.95	1.63	.33	.030	.030	.040	.029	746.00	480.00
.000151	42.	42.	42.	0	0	0	0.	195.87	675.87

*SECNO 30702.000

3265 DIVIDED FLOW

SECNO DEPTH CWSEL CRIWS WSELK EG HV HL OLOSS BANK ELEV

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Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 475.0 850.0 TYPE= 1 TARGET= 375.000

1FT D/S PRIVATE WOOD BRIDGE (R COE S-24A)

30702.00	6.00	751.70	0.	0.	751.76	.06	.00	.01	752.60
469.	57.	364.	48.	61.	168.	78.	2.	1.	752.40
.04	.93	2.16	.62	.030	.030	.040	.029	745.70	525.32
.000295	12.	12.	12.	1	0	0	0.	170.74	713.35

*SECNO 30703.000

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 14 MIN ELTRD= 749.40 MAX ELLC 751.40

3470 ENCROACHMENT STATIONS= 475.0 850.0 TYPE= 1 TARGET= 375.000

D/S FACE OF PRIVATE WOOD BRIDGE (VS-24)

30703.00	6.01	751.71	0.	0.	751.76	.05	.00	.00	752.60
469.	83.	315.	71.	61.	158.	78.	2.	1.	752.40
.04	1.37	2.00	.91	.030	.030	.040	.029	745.70	525.33
.000636	1.	1.	1.	1	0	0	-10.95	170.71	713.34

*SECNO 30710.000

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD= 14 MIN ELTRD= 749.40 MAX ELLC 751.40

3470 ENCROACHMENT STATIONS= 475.0 850.0 TYPE= 1 TARGET= 375.000

U/S FACE PRIVATE WOOD BRIDGE (R COE VS 24A)

30710.00	6.02	751.72	0.	0.	751.76	.05	.00	.00	752.60
469.	84.	314.	71.	61.	158.	79.	2.	1.	752.40
.04	1.37	1.99	.91	.030	.030	.040	.029	745.70	525.15
.000631	7.	7.	7.	0	0	0	-11.31	171.36	713.57

*SECNO 30711.000

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 475.0 850.0 TYPE= 1 TARGET= 375.000

1FT U/S PRIVATE WOOD BRIDGE (R COE S-24A)

30711.00	6.01	751.71	0.	0.	751.77	.06	.00	.00	752.60
469.	57.	363.	49.	61.	160.	79.	2.	1.	752.40
.04	.93	2.15	.62	.030	.030	.040	.029	745.70	525.10
.000292	1.	1.	1.	0	0	0	0.	171.52	713.63

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*SECNO 30760.000

3470 ENCROACHMENT STATIONS= 472.0 850.0 TYPE= 1 TARGET= 378.000

50FT U/S PRIVATE WOOD BRIDGE (R COE S-24A)

30760.00	5.76	751.76	0.	0.	751.79	.03	.01	.01	749.00	
488.	202.	274.	13.	212.	166.	38.	2.	1.	750.50	
.05	.95	1.65	.34	.030	.030	.040	.029	746.00	472.00	
.000151	50.	50.	50.	2	0	0	0.	205.93	677.93	

*SECNO 31160.000

3265 DIVIDED FLOW

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 239.0 650.0 TYPE= 1 TARGET= 411.000

450FT U/S PRIVATE WOOD BRIDGE (OPHM 4 +55)

31160.00	5.03	751.83	0.	0.	751.89	.06	.09	.01	749.20
488.	180.	307.	1.	142.	137.	6.	6.	3.	754.30
.11	1.27	2.24	.21	.030	.030	.040	.029	746.80	239.00
.000341	410.	400.	350.	1	0	0	0.	156.28	487.15

*SECNO 31590.000

3470 ENCROACHMENT STATIONS= 320.0 650.0 TYPE= 1 TARGET= 330.000

880FT U/S PRIVATE WOOD BRIDGE (COE VS 25)

31590.00	5.49	751.99	0.	0.	752.04	.05	.15	.00	750.00
525.	79.	446.	0.	58.	238.	0.	8.	4.	755.10
.18	1.37	1.87	0.	.030	.030	.040	.029	746.50	320.00
.000350	450.	430.	410.	2	0	0	0.	111.75	431.75

*SECNO 32015.000

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 125.0 850.0 TYPE= 1 TARGET= 725.000

1305FT U/S PRIVATE WOOD BRIDGE (OPHM 4 +10)

32015.00	4.27	752.17	0.	0.	752.38	.21	.26	.08	751.60
525.	5.	512.	8.	6.	138.	19.	11.	6.	754.10
.21	.79	3.70	.44	.030	.030	.040	.030	747.90	203.90
.001342	325.	425.	450.	2	0	0	0.	169.96	487.05

*SECNO 32175.000

3470 ENCROACHMENT STATIONS= 100.0 770.0 TYPE= 1 TARGET= 670.000

1465FT U/S PRIVATE WOOD BRIDGE (COE VS 24)

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32175.00	5.45	752.45	0.	0.	752.59	.13	.19	.02	752.20
544.	8.	464.	72.	13.	146.	99.	11.	7.	752.20
.23	.63	3.17	.72	.030	.030	.040	.030	747.00	165.57
.001033	160.	160.	160.	2	0	0	0.	321.15	486.72

*SECNO 32505.000

3470 ENCROACHMENT STATIONS= 240.0 1290.0 TYPE= 1 TARGET= 1050.000

179SFT U/S PRIVATE WOOD BRIDGE (OPHM 5 +10)

32505.00	4.42	752.82	0.	0.	753.04	.22	.41	.04	753.10
544.	0.	544.	0.	0.	145.	0.	13.	8.	753.10
.25	0.	3.75	0.	.030	.030	.040	.030	748.40	401.18
.001480	330.	330.	430.	2	0	0	0.	51.65	452.82

*SECNO 32985.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH.	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 260.0 970.0 TYPE= 1 TARGET= 710.000

2270FT U/S PRIVATE WOOD BRIDGE (COE VS 27)

32985.00	5.54	753.54	0.	0.	753.72	.18	.67	.01	753.90
563.	0.	554.	9.	0.	159.	22.	15.	10.	753.30
.29	0.	3.48	.41	.030	.030	.040	.030	748.00	491.61
.001324	490.	480.	470.	2	0	0	0.	204.25	695.86

*SECNO 33410.000

3470 ENCROACHMENT STATIONS= 40.0 412.0 TYPE= 1 TARGET= 372.000

2695FT U/S PRIVATE WOOD BRIDGE (OPHM 6 +00)

33410.00	5.12	754.02	0.	0.	754.18	.16	.45	.01	757.20
563.	0.	563.	0.	0.	176.	0.	17.	11.	754.10
.33	0.	3.19	0.	.030	.030	.040	.030	748.90	208.81
.000865	350.	425.	450.	2	0	0	0.	52.85	261.65

*SECNO 33815.000

3470 ENCROACHMENT STATIONS= 90.0 358.0 TYPE= 1 TARGET= 268.000

3170FT U/S PRIVATE WOOD BRIDGE (OPHM 6 +05)

33815.00	6.60	754.30	0.	0.	754.37	.08	.17	.02	757.20
563.	0.	563.	0.	0.	256.	0.	19.	11.	756.60
.38	0.	2.20	0.	.030	.030	.040	.030	747.70	254.58
.000244	350.	405.	415.	2	0	0	0.	49.54	304.12

*SECNO 33907.000

3470 ENCROACHMENT STATIONS= 145.0 346.0 TYPE= 1 TARGET= 201.000

50FT D/S MICHIGAN AVENUE (R COE S-38)

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33907.00	4.88	754.28	0.	0.	754.48	.19	.05	.06	759.30
585.	0.	585.	0.	0.	165.	0.	19.	12.	759.60
.38	0.	3.54	0.	.040	.040	.040	.030	749.40	196.08
.001518	130.	92.	70.	2	0	0	0.	39.67	235.75

1490 NH CARD USED
*SECNO 33957.000

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 178.0 400.0 TYPE= 1 TARGET= 222.000

D/S FACE OF MICHIGAN AVENUE CONC CULVE T (COE VS-28)

TWIN 68 IN BY 136 IN CP W/CONC WINGWALLS

33957.00	4.68	754.08	0.	0.	754.83	.74	.07	.27	759.30
585.	0.	585.	0.	0.	84.	0.	19.	12.	759.40
.39	0.	6.92	0.	.040	.198	.040	.030	749.40	204.17
.001361	50.	50.	50.	2	0	0	0.	25.03	229.20

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THIS RUN EXECUTED 14 FEB 79 14.39.36

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED  AUG1977
  ERROR CORR -  01,02
  MODIFICATION -  50,51,52,53
*****************************************************

T1      YPSILANTI TOWNSHIP  FIS
T2      PAINT CREEK
T3      50  YR  FLOW

J1  ICHECK    INQ       NINV      IDIR      STRT      ETRIC     HVINS     Q         WSEL      FQ

      -0.       3.       -0.       -0. -0.            0.        -0.       -0.    753.900    -0.

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     N         ALLDC     IBW       CHNIM     ITRACE

      2.000    -0.      -1.000     -0.       -0.       -0.       -0.       -0.       -0.       -0.
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*PROF 2

CCHV= .300 CEHV= .500

*SECNO 30549.000

WATER EL=XS CARD= 753.900

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
3470 ENCROACHMENT STATIONS=		420.0	1230.0	TYPE=	1	TARGET=	810.000		
		1FT U/S I-94 CONC BOX CULVERT (R CO VS-24)							
30549.00	9.50	753.90	0.	753.90	753.90	.00	0.	0.	747.10
589.	248.	128.	213.	570.	198.	745.	0.	0.	749.60
0.	.44	.65	.29	.030	.030	.040	0.	744.40	420.00
.000013	1.	1.	1.	0	0	0	0.	480.00	900.00

*SECNO 30598.000

3470 ENCROACHMENT STATIONS=		433.0	1100.0	TYPE=	1	TARGET=	667.000		
		50FT U/S I-94 CONC BOX CULVERT (R CO VS-24)							
30598.00	9.30	753.90	0.	0.	753.90	.00	.00	.00	747.10
589.	248.	125.	216.	547.	193.	745.	2.	1.	749.60
.03	.45	.65	.29	.030	.030	.040	.029	744.60	433.00
.000014	49.	49.	49.	0	0	0	0.	467.03	900.03

*SECNO 30648.000

3470 ENCROACHMENT STATIONS=		450.0	800.0	TYPE=	1	TARGET=	350.000		
		100FT U/S I-94 CONC BOX CULVERT (COE VS-24)							
30648.00	9.00	753.90	0.	0.	753.90	.00	.00	.00	747.10
589.	247.	127.	215.	506.	186.	645.	3.	1.	749.60
.06	.49	.68	.33	.030	.030	.040	.029	744.90	450.00
.000016	50.	50.	50.	0	0	0	0.	350.00	800.00

*SECNO 30690.000

3470 ENCROACHMENT STATIONS=		480.0	850.0	TYPE=	1	TARGET=	370.000		
		13FT D/S PRIVATE WOOD BRIDGE (OPHM 3 +33)							
30690.00	7.90	753.90	0.	0.	753.91	.01	.00	.00	749.00
589.	282.	222.	85.	422.	243.	258.	4.	1.	750.50
.08	.67	.91	.33	.030	.030	.040	.029	746.00	480.00
.000028	42.	42.	42.	0	0	0	0.	273.18	753.18

*SECNO 30702.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

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3470 ENCROACHMENT STATIONS= 475.0 850.0 TYPE= 1 TARGET= 375.000

1FT D/S PRIVATE WOOD BRIDGE (R COE S-24A)

30702.00	8.20	753.90	0.	0.	753.91	.01	.00	.00	752.60
589.	160.	269.	160.	247.	247.	323.	5.	1.	752.40
.08	.65	1.09	.50	.030	.030	.040	.029	745.70	475.00
.000047	12.	12.	12.	0	0	0	0.	273.30	748.30

*SECNO 30703.000

3370 NORMAL BRIDGE,NRD= 14 MIN ELTRD= 749.40 MAX ELLC 751.40

3470 ENCROACHMENT STATIONS= 475.0 850.0 TYPE= 1 TARGET= 375.000

D/S FACE OF PRIVATE WOOD BRIDGE (VS-24)

30703.00	8.20	753.90	0.	0.	753.91	.01	.00	.00	752.60
589.	222.	145.	222.	247.	208.	323.	5.	1.	752.40
.08	.90	.70	.69	.030	.030	.040	.029	745.70	475.00
.000090	1.	1.	1.	0	0	0	-39.60	273.28	748.28

*SECNO 30710.000

3370 NORMAL BRIDGE,NRD= 14 MIN ELTRD= 749.40 MAX ELLC 751.40

3470 ENCROACHMENT STATIONS= 475.0 850.0 TYPE= 1 TARGET= 375.000

U/S FACE PRIVATE WOOD BRIDGE (R COE VS 24A)

30710.00	8.20	753.90	0.	0.	753.91	.01	.00	.00	752.60
589.	222.	145.	222.	247.	208.	323.	5.	1.	752.40
.08	.90	.70	.69	.030	.030	.040	.029	745.70	475.00
.000090	7.	7.	7.	0	0	0	-39.60	273.33	748.33

*SECNO 30711.000

3470 ENCROACHMENT STATIONS= 475.0 850.0 TYPE= 1 TARGET= 375.000

1FT U/S PRIVATE WOOD BRIDGE (R COE S-24A)

30711.00	8.20	753.90	0.	0.	753.91	.01	.00	.00	752.60
589.	160.	269.	160.	247.	248.	323.	5.	1.	752.40
.08	.65	1.09	.50	.030	.030	.040	.029	745.70	475.00
.000047	1.	1.	1.	0	0	0	0.	273.33	748.33

*SECNO 30760.000

3470 ENCROACHMENT STATIONS= 472.0 850.0 TYPE= 1 TARGET= 378.000

50FT U/S PRIVATE WOOD BRIDGE (R COE S-24A)

30760.00	7.90	753.90	0.	0.	753.91	.01	.00	.00	749.00
647.	318.	238.	91.	448.	243.	258.	6.	2.	750.50
.10	.71	.98	.35	.030	.030	.040	.029	746.00	472.00
.000032	50.	50.	50.	0	0	0	0.	281.25	753.25

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*SECNO 31160.000

3265 DIVIDED FLOW

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
3470 ENCROACHMENT STATIONS=		239.0	650.0	TYPE=	1	TARGET=	411.000		
		450FT U/S PRIVATE WOOD BRIDGE (OPHM 4 +55)							
31160.00	7.12	753.92	0.	0.	753.93	.01	.02	.00	749.20
647.	292.	249.	107.	321.	211.	283.	14.	4.	754.30
.22	.91	1.18	.38	.030	.030	.040	.030	746.80	239.00
.000061	410.	400.	350.	0	0	0	0.	322.32	575.50

*SECNO 31590.000

3470 ENCROACHMENT STATIONS=		320.0	650.0	TYPE=	1	TARGET=	330.000		
		880FT U/S PRIVATE WOOD BRIDGE (COE VS 25)							
31590.00	7.45	753.95	0.	0.	753.98	.03	.04	.01	750.00
778.	152.	626.	0.	116.	408.	0.	20.	7.	755.10
.30	1.31	1.53	0.	.030	.030	.040	.030	746.50	320.00
.000136	450.	430.	410.	0	0	0	0.	123.18	443.18

*SECNO 32015.000

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS=		125.0	850.0	TYPE=	1	TARGET=	725.000		
		1305FT U/S PRIVATE WOOD BRIDGE (OPHM 4 +10)							
32015.00	6.12	754.02	0.	0.	754.05	.04	.07	.00	751.60
778.	88.	435.	255.	108.	229.	356.	26.	9.	754.10
.39	.81	1.90	.72	.030	.030	.040	.030	747.90	135.47
.000209	325.	425.	450.	2	0	0	0.	397.25	537.30

*SECNO 32175.000

3470 ENCROACHMENT STATIONS=		100.0	770.0	TYPE=	1	TARGET=	670.000		
		1465FT U/S PRIVATE WOOD BRIDGE (COE VS 26)							
32175.00	7.06	754.06	0.	0.	754.09	.03	.03	.00	752.20
865.	106.	391.	368.	120.	228.	505.	29.	11.	752.20
.42	.88	1.72	.73	.030	.030	.040	.030	747.00	138.07
.000168	160.	160.	160.	1	0	0	0.	423.36	561.43

*SECNO 32505.000

3470 ENCROACHMENT STATIONS=		240.0	1290.0	TYPE=	1	TARGET=	1050.000		
		1795FT U/S PRIVATE WOOD BRIDGE (OPHM 4 +10)							

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32505.00	5.73	754.13	0.	0.	754.17	.04	.08	.01	753.10
865.	110.	459.	296.	128.	215.	530.	37.	17.	753.10
.49	.85	2.13	.56	.030	.030	.040	.029	748.40	263.61
.000301	330.	330.	430.	0	0	0	0.	874.85	1138.46

*SECNO 32985.000

3265 DIVIDED FLOW

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 260.0 970.0 TYPE= 1 TARGET= 710.000

2270FT U/S PRIVATE WOOD BRIDGE (COE VS 27)

32985.00	6.33	754.33	0.	0.	754.51	.18	.27	.07	753.90
1016.	9.	795.	213.	16.	207.	183.	44.	23.	753.30
.54	.54	3.85	1.16	.030	.030	.040	.030	748.00	330.71
.001188	490.	480.	470.	2	0	0	0.	370.11	772.03

*SECNO 33410.000

3470 ENCROACHMENT STATIONS= 40.0 412.0 TYPE= 1 TARGET= 372.000

2695FT U/S PRIVATE WOOD BRIDGE (OPHM 6 +00)

33410.00	5.91	754.81	0.	0.	755.13	.32	.55	.07	757.20
1016.	0.	1000.	16.	0.	219.	23.	47.	26.	754.10
.56	0.	4.56	.70	.030	.030	.040	.030	748.90	206.61
.001404	350.	425.	450.	2	0	0	0.	120.38	326.99

*SECNO 33815.000

3470 ENCROACHMENT STATIONS= 90.0 358.0 TYPE= 1 TARGET= 268.000

3170FT U/S PRIVATE WOOD BRIDGE (OPHM 6 +05)

33815.00	7.61	755.31	0.	0.	755.48	.17	.31	.04	757.20
1016.	0.	1016.	0.	0.	308.	0.	49.	27.	756.60
.60	0.	3.30	0.	.030	.030	.040	.030	747.70	252.97
.000469	350.	405.	415.	0	0	0	0.	52.88	305.84

*SECNO 33907.000

3470 ENCROACHMENT STATIONS= 145.0 346.0 TYPE= 1 TARGET= 201.000

50FT D/S MICHIGAN AVENUE (R COE S-28)

33907.00	5.87	755.27	0.	0.	755.70	.42	.09	.13	759.30
1075.	0.	1075.	0.	0.	206.	0.	50.	27.	759.60
.60	0.	5.23	0.	.040	.040	.040	.030	749.40	194.88
.002710	130.	92.	70.	2	0	0	0.	42.03	236.91

1490 NH CARD USED

*SECNO 33957.010

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3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 178.0 400.0 TYPE= 1 TARGET= 222,000

D/S FACE OF MICHIGAN AVENUE CONC CULVE T (COE VS-28)

TWIN 68 IN BY 136 IN CP W/CONC WINGWALLS

33957.00	5.35	754.75	0.	0.	756.49	1.74	.14	.66	759.30
1075.	0.	1075.	0.	0.	102.	0.	50.	27.	759.40
.60	0.	10.59	0.	.040	.198	.040	.030	749.40	203.64
.002744	50.	50.	50.	3	0	0	0.	25.92	229.55

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THIS RUN EXECUTED 14 FEB 79 14.39.36

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED  AUG1977
  ERROR CORR -  01,02
  MODIFICATION -  50,51,52,53
*****************************************************

T1      YPSILANTI TOWNSHIP  FIS
T2      PAINT CREEK
T3      100 YR  FLOW

J1  ICHECK    INQ       NINV      IDIR      STRT      ETRIC     HVINS     Q         WSEL      FQ

      -0.       4.       -0.       -0. -0.            0.        -0.       -0.   754.900    -0.

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     N         ALLDC     IBW       CHNIM     ITRACE

      3.000    -0.      -1.000    -0.       -0.       -0.       -0.       -0.       -0.       -0.
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*PROF 3

CCHV= .300 CEHV= .500

*SECNO 30549.000

WATER EL=XS CARD= 754.900

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
30549.00	10.50	754.90	0.	754.90	754.90	.00	0.	0.	747.10
643.	270.	116.	257.	733.	225.	1078.	0.	0.	749.60
0.	.37	.51	.24	.030	.030	.040	0.	744.40	420.00
.000007	1.	1.	1.	0	0	0	0.	576.78	996.78

3470 ENCROACHMENT STATIONS= 420.0 1230.0 TYPE= 1 TARGET= 810.000

1FT U/S I-94 CONC BOX CULVERT (R CO VS-24)

*SECNO 30598.000

30598.00	10.30	754.90	0.	0.	754.90	.00	.00	.00	747.10
643.	267.	114.	261.	697.	220.	1054.	2.	1.	749.60
.04	.38	.52	.25	.030	.030	.040	.029	744.60	433.00
.000007	49.	49.	49.	0	0	0	0.	502.77	935.77

3470 ENCROACHMENT STATIONS= 433.0 1100.0 TYPE= 1 TARGET= 667.000

50FT U/S I-94 CONC BOX CULVERT (R CO VS-24)

*SECNO 30648.000

30648.00	10.00	754.90	0.	0.	754.90	.00	.00	.00	747.10
643.	273.	121.	249.	639.	213.	835.	4.	1.	749.60
.07	.43	.57	.30	.030	.030	.040	.029	744.90	450.00
.000009	50.	50.	50.	0	0	0	0.	350.00	800.00

3470 ENCROACHMENT STATIONS= 450.0 800.0 TYPE= 1 TARGET= 350.000

100FT U/S I-94 CONC BOX CULVERT (COE VS-24)

*SECNO 30690.000

30690.00	8.90	754.90	0.	0.	754.91	.01	.00	.00	749.00
643.	307.	212.	123.	524.	279.	407.	6.	1.	750.50
.09	.59	.76	.30	.030	.030	.040	.029	746.00	480.00
.000016	42.	42.	42.	0	0	0	0.	300.18	780.18

3470 ENCROACHMENT STATIONS= 480.0 850.0 TYPE= 1 TARGET= 370.000

13FT D/S PRIVATE WOOD BRIDGE (OPHM 3 +33)

*SECNO 30702.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

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3470 ENCROACHMENT STATIONS= 475.0 850.0 TYPE= 1 TARGET= 375.000

1FT D/S PRIVATE WOOD BRIDGE (R COE S-24A)

30702.00	9.20	754.90	0.	0.	754.91	.01	.00	.00	752.60
643.	201.	245.	197.	354.	283.	461.	6.	1.	752.40
.10	.57	.86	.43	.030	.030	.040	.029	745.70	475.00
.000025	12.	12.	12.	0	0	0	0.	288.45	763.45

*SECNO 30703.000

3370 NORMAL BRIDGE,NRD= 14 MIN ELTRD= 749.40 MAX ELLC 751.40

3470 ENCROACHMENT STATIONS= 475.0 850.0 TYPE= 1 TARGET= 375.000

D/S FACE OF PRIVATE WOOD BRIDGE (VS-24)

30703.00	9.20	754.90	0.	0.	754.91	.01	.00	.00	752.60
643.	260.	128.	255.	354.	244.	461.	6.	1.	752.40
.10	.74	.53	.55	.030	.030	.040	.029	745.70	475.00
.000041	1.	1.	1.	0	0	0	-39.60	288.44	763.44

*SECNO 30710.000

3370 NORMAL BRIDGE,NRD= 14 MIN ELTRD= 749.40 MAX ELLC 751.40

3470 ENCROACHMENT STATIONS= 475.0 850.0 TYPE= 1 TARGET= 375.000 perched, submerged ✓

U/S FACE PRIVATE WOOD BRIDGE (R COE VS 24A)

30710.00	9.20	754.90	0.	0.	754.91	.01	.00	.00	752.60
643.	260.	128.	255.	354.	244.	461.	6.	2.	752.40
.10	.74	.52	.55	.030	.030	.040	.029	745.70	475.00
.000041	7.	7.	7.	0	0	0	-39.60	288.46	763.46

*SECNO 30711.000

3470 ENCROACHMENT STATIONS= 475.0 850.0 TYPE= 1 TARGET= 375.000

1FT U/S PRIVATE WOOD BRIDGE (R COE S-24A)

30711.00	9.20	754.90	0.	0.	754.91	.01	.00	.00	752.60
643.	201.	245.	197.	354.	284.	461.	6.	2.	752.40
.10	.57	.86	.43	.030	.030	.040	.029	745.70	475.00
.000025	1.	1.	1.	0	0	0	0.	288.46	763.46

*SECNO 30760.000

3470 ENCROACHMENT STATIONS= 472.0 850.0 TYPE= 1 TARGET= 378.000

50FT U/S PRIVATE WOOD BRIDGE (R COE S-24A)

30760.00	8.90	754.90	0.	0.	754.91	.01	.00	.00	749.00
727.	356.	234.	136.	558.	279.	407.	8.	2.	750.50
.12	.64	.84	.34	.030	.030	.040	.029	746.00	472.00
.000020	50.	50.	50.	0	0	0	0.	308.21	780.21

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*SECNO 31160.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
31160.00	8.11	754.91	0.	0.	754.92	.01	.01	.00	749.20
727.	311.	234.	183.	406.	249.	497.	18.	5.	754.30
.28	.76	.94	.37	.030	.030	.040	.030	746.80	239.00
.000032	410.	400.	350.	0	0	0	0.	348.62	587.62

3470 ENCROACHMENT STATIONS= 239.0 650.0 TYPE= 1 TARGET= 411.000

450FT U/S PRIVATE WOOD BRIDGE (OPHM 4 +55)

*SECNO 31590.000

31590.00	8.42	754.92	0.	0.	754.95	.03	.02	.01	750.00
926.	189.	737.	0.	145.	503.	0.	27.	7.	755.10
.36	1.30	1.47	0.	.030	.030	.040	.030	746.50	320.00
.000102	450.	430.	410.	0	0	0	0.	128.95	448.95

3470 ENCROACHMENT STATIONS= 320.0 650.0 TYPE= 1 TARGET= 330.000

880FT U/S PRIVATE WOOD BRIDGE (COE VS 25)

*SECNO 32015.000

32015.00	7.08	754.98	0.	0.	755.00	.02	.04	.00	751.60
926.	152.	394.	380.	203.	279.	619.	35.	10.	754.10
.48	.75	1.41	.61	.030	.030	.040	.030	747.90	125.00
.000090	325.	425.	450.	2	0	0	0.	438.52	563.52

3470 ENCROACHMENT STATIONS= 125.0 850.0 TYPE= 1 TARGET= 725.000

1305FT U/S PRIVATE WOOD BRIDGE (OPHM 4 +10) E

*SECNO 32175.000

32175.00	8.00	755.00	0.	0.	755.01	.02	.01	.00	752.20
1064.	163.	382.	519.	204.	276.	801.	40.	11.	752.20
.52	.80	1.39	.65	.030	.030	.040	.030	747.00	121.78
.000085	160.	160.	160.	0	0	0	0.	483.89	605.67

3470 ENCROACHMENT STATIONS= 100.0 770.0 TYPE= 1 TARGET= 670.000

1465FT U/S PRIVATE WOOD BRIDGE (COE VS 26) F

*SECNO 32505.000

32505.00	6.64	755.04	0.	0.	755.05	.01	.03	.00	753.10
1064.	173.	339.	553.	264.	264.	1157.	53.	18.	753.10
.66	.65	1.28	.48	.030	.030	.040	.029	748.40	240.00
.000083	330.	330.	430.	0	0	0	0.	921.72	1161.72

3470 ENCROACHMENT STATIONS= 240.0 1290.0 TYPE= 1 TARGET= 1050.000

1795FT U/S PRIVATE WOOD BRIDGE (OPHM 5 +10) G

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*SECNO 32985.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
32985.00	7.09	755.09	0.	0.	755.18	.09	.09	.04	753.90
1323.	129.	768.	427.	138.	252.	359.	67.	26.	753.30
.72	.93	3.05	1.19	.030	.030	.040	.029	748.00	286.95
.000575	490.	480.	470.	1	0	0	0.	511.27	798.22

3470 ENCROACHMENT STATIONS= 260.0 970.0 TYPE= 1 TARGET= 710.000

2270FT U/S PRIVATE WOOD BRIDGE (COE VS 27)

*SECNO 33410.000

3470 ENCROACHMENT STATIONS= 40.0 412.0 TYPE= 1 TARGET= 372.000

2695FT U/S PRIVATE WOOD BRIDGE (OPHM 6 +00)

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
33410.00	6.42	755.32	0.	0.	755.69	.37	.37	.14	757.20
1323.	0.	1249.	74.	0.	248.	67.	72.	29.	754.10
.75	0.	5.04	1.11	.030	.030	.040	.030	748.90	205.21
.001511	350.	425.	450.	2	0	0	0.	158.05	363.26

*SECNO 33815.000

3470 ENCROACHMENT STATIONS= 90.0 358.0 TYPE= 1 TARGET= 268.000

3170FT U/S PRIVATE WOOD BRIDGE (OPHM 6 +05)

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
33815.00	8.17	755.87	0.	0.	756.11	.24	.37	.04	757.20
1323.	0.	1323.	0.	0.	338.	0.	75.	30.	756.60
.77	0.	3.92	0.	.030	.030	.040	.030	747.70	252.10
.000615	350.	405.	415.	2	0	0	0.	54.66	306.77

*SECNO 33907.000

3470 ENCROACHMENT STATIONS= 145.0 346.0 TYPE= 1 TARGET= 201.000

50FT D/S MICHIGAN AVENUE (R COE S-28)

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
33907.00	6.41	755.81	0.	0.	756.40	.59	.11	.18	759.30
1407.	0.	1407.	0.	0.	228.	0.	75.	30.	759.60
.78	0.	6.16	0.	.040	.040	.040	.030	749.40	194.23
.003429	130.	92.	70.	2	0	0	0.	43.31	237.54

1490 NH CARD USED

*SECNO 33957.000

3301 HV CHANGED MORE THAN HVINS

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

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7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 178.0 400.0 TYPE= 1 TARGET= 222.000

D/S FACE OF MICHIGAN AVENUE CONC CULVE T (COE VS-28)

TWIN 68 IN BY 136 IN CP W/CONC WINGWALLS

33957.00	5.95	755.35	755.35	0.	757.59	2.23	.16	.82	759.30
1407.	0.	1407.	0.	0.	117.	0.	76.	30.	759.40
.78	0.	12.00	0.	.040	.198	.040	.030	749.40	203.16
.003143	50.	50.	50.	4	11	0	0.	26.71	229.87

ELLS= 755.1

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THIS RUN EXECUTED 14 FEB 79 14.39.37

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**********************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED  AUG1977
  ERROR CORR -  01,02
  MODIFICATION -  50,51,52,53
**********************************************************

T1      YPSILANTI TOWNSHIP  FIS
T2      PAINT CREEK
T3      500 YR  FLOW

J1  ICHECK    INQ       NINV      IDIR      STRT      ETRIC     HVINS     Q         WSEL      FQ
       -0.       5.       -0.       -0.  -0.          0.        -0.       -0.   757.700     -0.

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     N         ALLDC     IBW       CHNIM     ITRACE
    15.000     -0.     -1.000      -0.       -0.       -0.       -0.       -0.       -0.       -0.
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*PROF 4

CCHV= .300 CEHV= .500

*SECNO 30549.000

WATER EL=XS CARD= 757.700

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
3470 ENCROACHMENT STATIONS=		420.0	1230.0	TYPE=	1	TARGET=	810.000		
		1FT U/S I-94 CONC BOX CULVERT (R CO VS-24)							
30549.00	13.30	757.70	0.	757.70	757.70	.00	0.	0.	747.10
1269.	486.	155.	628.	1190.	300.	2564.	0.	0.	749.60
0.	.41	.51	.25	.030	.030	.040	0.	744.40	420.00
.000005	1.	1.	1.	0	0	0	0.	810.00	1230.00

*SECNO 30598.000

3470 ENCROACHMENT STATIONS=		433.0	1100.0	TYPE=	1	TARGET=	667.000		
		50FT U/S I-94 CONC BOX CULVERT (R CO VS-24)							
30598.00	13.10	757.70	0.	0.	757.70	.00	.00	.00	747.10
1269.	499.	163.	606.	1117.	296.	2093.	4.	1.	749.60
.04	.45	.55	.29	.030	.030	.040	.029	744.60	433.00
.000006	49.	49.	49.	0	0	0	0.	592.94	1025.94

*SECNO 30648.000

3470 ENCROACHMENT STATIONS=		450.0	800.0	TYPE=	1	TARGET=	350.000		
		100FT U/S I-94 CONC BOX CULVERT (COE VS-24)							
30648.00	12.80	757.70	0.	0.	757.70	.00	.00	.00	747.10
1269.	547.	190.	532.	1011.	289.	1367.	8.	1.	749.60
.06	.54	.66	.39	.030	.030	.040	.029	744.90	450.00
.000008	50.	50.	50.	0	0	0	0.	350.00	800.00

*SECNO 30690.000

3470 ENCROACHMENT STATIONS=		480.0	850.0	TYPE=	1	TARGET=	370.000		
		13FT D/S PRIVATE WOOD BRIDGE (OPHM 3 +33)							
30690.00	11.70	757.70	0.	0.	757.71	.01	.00	.00	749.00
1269.	572.	321.	376.	809.	380.	962.	10.	2.	750.50
.08	.71	.84	.39	.030	.030	.040	.029	746.00	480.00
.000013	42.	42.	42.	0	0	0	0.	369.02	849.02

*SECNO 30702.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

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3470 ENCROACHMENT STATIONS= 475.0 850.0 TYPE= 1 TARGET= 375.000

1FT D/S PRIVATE WOOD BRIDGE (R COE S-24A)

30702.00	12.00	757.70	0.	0.	757.71	.01	.00	.00	752.60
1269.	452.	344.	473.	654.	384.	953.	11.	2.	752.40
.09	.69	.90	.50	.030	.030	.040	.029	745.70	475.00
.000018	12.	12.	12.	0	0	0	0.	347.72	822.72

*SECNO 30703.000

3370 NORMAL BRIDGE,NRD= 14 MIN ELTRD= 749.40 MAX ELLC 751.40

3470 ENCROACHMENT STATIONS= 475.0 850.0 TYPE= 1 TARGET= 375.000

D/S FACE OF PRIVATE WOOD BRIDGE (VS-24)

30703.00	12.00	757.70	0.	0.	757.71	.01	.00	.00	752.60
1269.	534.	176.	558.	654.	345.	953.	11.	2.	752.40
.09	.82	.51	.59	.030	.030	.040	.029	745.70	475.00
.000025	1.	1.	1.	0	0	0	-39.60	347.72	822.72

*SECNO 30710.000

3370 NORMAL BRIDGE,NRD= 14 MIN ELTRD= 749.40 MAX ELLC 751.40

3470 ENCROACHMENT STATIONS= 475.0 850.0 TYPE= 1 TARGET= 375.000

U/S FACE PRIVATE WOOD BRIDGE (R COE VS 24A)

30710.00	12.00	757.70	0.	0.	757.71	.01	.00	.00	752.60
1269.	534.	176.	558.	654.	345.	953.	11.	2.	752.40
.09	.82	.51	.59	.030	.030	.040	.029	745.70	475.00
.000025	7.	7.	7.	0	0	0	-39.60	347.73	822.73

*SECNO 30711.000

3470 ENCROACHMENT STATIONS= 475.0 850.0 TYPE= 1 TARGET= 375.000

1FT U/S PRIVATE WOOD BRIDGE (R COE S-24A)

30711.00	12.00	757.70	0.	0.	757.71	.01	.00	.00	752.60
1269.	452.	344.	473.	654.	384.	953.	11.	2.	752.40
.09	.69	.89	.50	.030	.030	.040	.029	745.70	475.00
.000018	1.	1.	1.	0	0	0	0.	347.73	822.73

*SECNO 30760.000

3470 ENCROACHMENT STATIONS= 472.0 850.0 TYPE= 1 TARGET= 378.000

50FT U/S PRIVATE WOOD BRIDGE (R COE S-24A)

30760.00	11.70	757.70	0.	0.	757.71	.01	.00	.00	749.00
1381.	640.	341.	400.	866.	380.	962.	14.	2.	750.50
.11	.74	.90	.42	.030	.030	.040	.029	746.00	472.00
.000015	50.	50.	50.	0	0	0	0.	377.02	849.02

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*SECNO 31160.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
3470 ENCROACHMENT STATIONS=		239.0	650.0	TYPE=	1	TARGET=	411.000		
450FT U/S PRIVATE WOOD BRIDGE (OPHM 4 +55)									
31160.00	10.91	757.71	0.	0.	757.71	.01	.01	.00	749.20
1381.	511.	327.	542.	646.	355.	1173.	33.	5.	754.30
.27	.79	.92	.46	.030	.030	.040	.030	746.80	239.00
.000019	410.	400.	350.	0	0	0	0.	382.89	621.89

*SECNO 31590.000

3470 ENCROACHMENT STATIONS=		320.0	650.0	TYPE=	1	TARGET=	330.000		
880FT U/S PRIVATE WOOD BRIDGE (COE VS 25)									
31590.00	11.20	757.70	0.	0.	757.75	.04	.02	.02	750.00
1688.	333.	1328.	27.	229.	782.	68.	49.	8.	755.10
.34	1.45	1.70	.39	.030	.030	.040	.030	746.50	320.00
.000077	450.	430.	410.	0	0	0	0.	182.26	502.26

*SECNO 32015.000

3470 ENCROACHMENT STATIONS=		125.0	850.0	TYPE=	1	TARGET=	725.000		
1305FT U/S PRIVATE WOOD BRIDGE (OPHM 4 +10)									
32015.00	9.87	757.77	0.	0.	757.78	.01	.02	.01	751.60
1688.	370.	464.	854.	482.	424.	1522.	65.	12.	754.10
.49	.77	1.10	.56	.030	.030	.040	.030	747.90	125.00
.000031	325.	425.	450.	2	0	0	0.	514.23	639.23

*SECNO 32175.000

3470 ENCROACHMENT STATIONS=		100.0	770.0	TYPE=	1	TARGET=	670.000		
1465FT U/S PRIVATE WOOD BRIDGE (COE VS 26)									
32175.00	10.77	757.77	0.	0.	757.78	.01	.00	.00	752.20
1911.	387.	454.	1070.	521.	418.	1914.	75.	14.	752.20
.55	.74	1.09	.56	.030	.030	.040	.030	747.00	100.00
.000030	160.	160.	160.	0	0	0	0.	635.75	735.75

*SECNO 32505.000

3470 ENCROACHMENT STATIONS=		240.0	1290.0	TYPE=	1	TARGET=	1050.000		
1795FT U/S PRIVATE WOOD BRIDGE (OPHM 5 +10)									
32505.00	9.39	757.79	0.	0.	757.79	.00	.01	.00	753.10
1911.	368.	309.	1234.	704.	413.	3203.	108.	21.	753.10
.78	.52	.75	.39	.030	.030	.040	.029	748.40	240.00
.000016	330.	330.	430.	0	0	0	0.	992.77	1232.77

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*SECNO 32985.000

SECNO	DEPTH	CWSEL	CRTWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
32985.00	9.79	757.79	0.	0.	757.82	.02	.02	.01	753.90
2496.	794.	707.	995.	757.	415.	1163.	144.	30.	753.30
.90	1.05	1.70	.86	.030	.030	.040	.029	748.00	260.00
.000092	490.	480.	470.	0	0	0	0.	633.08	893.08

3470 ENCROACHMENT STATIONS= 260.0 970.0 TYPE= 1 TARGET= 710.000

2270FT U/S PRIVATE WOOD BRIDGE (COE VS 27)

*SECNO 33410.000

3470 ENCROACHMENT STATIONS= 40.0 412.0 TYPE= 1 TARGET= 372.000

2695FT U/S PRIVATE WOOD BRIDGE (OPHM 6 +00)

33410.00	8.87	757.77	0.	0.	758.01	.24	.08	.11	757.20
2496.	20.	1769.	707.	32.	395.	346.	159.	35.	754.10
.93	.62	4.48	2.04	.030	.030	.040	.030	748.90	96.98
.000725	350.	425.	450.	2	0	0	0.	291.79	388.77

*SECNO 33815.000

3470 ENCROACHMENT STATIONS= 90.0 358.0 TYPE= 1 TARGET= 268.000

3170FT U/S PRIVATE WOOD BRIDGE (OPHM 6 +05)

33815.00	10.29	757.99	0.	0.	758.40	.41	.31	.08	757.20
2496.	67.	2401.	28.	77.	459.	35.	165.	37.	756.60
.95	.87	5.23	.82	.030	.030	.040	.030	747.70	90.00
.000793	350.	405.	415.	2	0	0	0.	267.72	357.72

*SECNO 33907.000

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 145.0 346.0 TYPE= 1 TARGET= 201.000

50FT D/S MICHIGAN AVENUE (R COE S-28)

33907.00	8.41	757.81	0.	0.	758.89	1.08	.15	.33	759.30
2663.	0.	2663.	0.	0.	320.	0.	166.	37.	759.60
.95	0.	8.32	0.	.040	.040	.040	.030	749.40	191.80
.004702	130.	92.	70.	2	0	0	0.	48.09	239.90

1490 NH CARD USED
*SECNO 33957.000

3301 HV CHANGED MORE THAN HVINS

SECNO	DEPTH	CWSEL	CRTWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA

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SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 178.0 400.0 TYPE= 1 TARGET= 222.000

D/S FACE OF MICHIGAN AVENUE CONC CULVE T (COE VS-28)

TWIN 68 IN BY 136 IN CP W/CONC WINGWALLS

33957.00	8.41	757.81	757.81	0.	760.96	3.16	.19	1.04	759.30
2663.	0.	2663.	0.	0.	187.	0.	167.	37.	759.40
.95	0.	14.26	0.	.040	.197	.040	.030	749.40	201.20
.003140	50.	50.	50.	20	5	0	0.	29.96	231.16

PRINTED IN U.S.A.

THIS RUN EXECUTED 14 FEB 79 14.39.30

****
HEC2 RELEASE DATED NOV 76 UPDATED AUG1977
ERROR CORR - 01,02
MODIFICATION - 50,51,52,53
****

Michigan to Congress

Taken From Previous Submittal

C
T1 YPSILANTI TOWNSHIP FIS
T2 PAINT CREEK
T3 10 YR FLOW

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	N	ALLDC	IBW	CHNIM	ITRACE
	1.000	-0.	-1.000	-0.	-0.	-0.	-0.	-0.	-0.	-0.

J1	ICHECK	INQ	NINV	IDIR	STRT	ETRIC	HVINS	Q	WSEL	FQ
	-0.	2.	-0.	-0.	-0.	0.	-0.	-0.	755.800	-0.

NC	.040	.040	.030	.300	.500	-0.	-0.	-0.	-0.	-0.
QT	4.000	585.000	1075.000	1407.000	266.000	-0.	-0.	-0.	-0.	-0.

1 FT U/S MICHIGAN AVENUE (R COE VS- 8)

X1	34044.000	9.000	190.000	242.000	.000	1.000	1.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	200.000	- .	400.000	-0.	-0.	-0.	-0.
X5	4.000	755.780	759.580	760.200	76 .300	-0.	-0.	-0.	-0.	-0.
GR	759.600	0.	759.200	100.000	75 .300	190.000	749.400	202.000	749.400	230.000
GR	759.600	242.000	759.600	250.000	75 .600	300.000	760.300	400.000	-0.	-0.

50 FT U/S MICHIGAN AVENUE (R COE VS- 9)

X1	34093.000	14.000	42.000	89.000	6 .000	30.000	50.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	5.000	76 .100	395.000	760.100	-0.	-0.	-0.
GR	758.700	0.	758.700	9.000	75 .900	42.000	752.600	42.000	750.400	47.000
GR	750.400	52.000	749.600	57.000	74 .400	62.000	750.200	63.000	751.200	72.000
GR	757.400	89.000	757.600	142.000	75 .800	242.000	760.000	260.000	-0.	-0.
NC	.040	.040	.030	-0.	- .	-0.	-0.	-0.	-0.	-0.

100 FT U/S MICHIGAN AVENUE (COE VS-29

X1	34143.000	14.000	100.000	130.000	5 .000	50.000	50.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	5.000	76 .100	395.000	760.100	-0.	-0.	-0.
GR	758.700	0.	758.700	67.000	75 .900	100.000	752.600	100.000	750.400	105.000
GR	750.400	110.000	749.900	115.000	74 .900	120.000	750.200	121.000	751.200	127.000
GR	757.400	130.000	757.600	180.000	75 .800	280.000	760.000	400.000	-0.	-0.
QT	4.000	657.000	1189.000	1472.000	271 .000	-0.	-0.	-0.	-0.	-0.

636FT U/S MICHIGAN AVENUE (OPHM 75+1)

X1	34679.000	8.000	269.000	331.000	53 .000	500.000	536.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	125.000	- .	479.000	-0.	-0.	-0.	-0.
GR	762.900	69.000	760.900	169.000	75 .500	269.000	750.800	293.000	750.800	307.000
GR	757.800	331.000	760.100	431.000	76 .500	531.000	-0.	-0.	-0.	-0.
NC	.030	.040	.030	.0	-	-0.	.0	.0	.0	-0

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1016FT U/S MICHIGAN AVENUE (OPHM 78+9)

X1	35059.000	8.000	272.000	328.000	36	.000	410.000	380.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	155.000	-	.	415.000	-0.	-0.	-0.	-0.
GR	765.200	72.000	761.500	172.000	75	.900	272.000	751.000	295.000	751.000	305.000
GR	758.000	328.000	761.000	428.000	77	.000	528.000	-0.	-0.	-0.	-0.

1122FT U/S MICHIGAN AVENUE (OPHM 79+9)

X1	35164.000	9.000	272.000	328.000	18	.000	120.000	105.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	185.000	-	.	400.000	-0.	-0.	-0.	-0.
GR	764.700	72.000	760.500	172.000	75	.800	272.000	751.000	294.000	751.000	306.000
GR	758.300	328.000	760.600	428.000	76	.200	528.000	770.000	600.000	-0.	-0.
NC	.030	.030	.030	-0.	-	.	-0.	-0.	-0.	-0.	-0.

1233FT U/S MICHIGAN AVENUE (OPHM 81+0)

X1	35276.000	8.000	270.000	330.000	11	.000	112.000	112.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	210.000	-	.	400.000	-0.	-0.	-0.	-0.
GR	766.300	70.000	762.800	170.000	76	.600	270.000	751.400	290.000	751.400	310.000
GR	758.600	330.000	762.100	430.000	76	.000	530.000	-0.	-0.	-0.	-0.

50FT D/S COBBLE CREEK APTS DRIVE (R OE VS-30)

X1	35326.000	8.000	200.000	270.000	5	.000	50.000	50.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	150.000	-	.	340.000	-0.	-0.	-0.	-0.
GR	764.300	0.	762.100	100.000	76	.200	200.000	751.600	226.000	751.200	250.000
GR	760.100	270.000	761.600	300.000	76	.100	366.000	-0.	-0.	-0.	-0.
NH	7.000	.040	200.000	.200	20	.600	.033	213.200	.200	216.200	.033
NH	224.800	.200	230.000	.040	36	.000	-0.	-0.	-0.	-0.	-0.

D/S FACE OF COBBLE CREEK APTS DRIVE (OE VS-30)

TWIN 5.92FT BY 8.58FT MULTI-PLATE CMP ULVERT W/WOOD WINGWALLS

X1	35376.000	30.000	200.000	230.000	5	.000	50.000	50.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	130.000	-	.	320.000	-0.	-0.	-0.	-0.
GR	764.300	0.	762.100	100.000	76	.200	200.000	752.800	200.000	752.400	204.600
GR	751.800	204.900	751.400	205.900	75	.200	206.900	751.100	207.900	751.000	208.900
GR	751.100	209.900	751.200	210.900	75	.400	211.900	751.800	212.900	752.400	213.200
GR	752.400	216.200	751.800	216.500	75	.400	217.500	751.200	218.500	751.100	219.500
GR	751.000	220.500	751.100	221.500	75	.200	222.500	751.400	223.500	751.800	224.500
GR	752.400	224.800	754.500	230.000	76	.000	230.000	761.600	300.000	764.100	366.000
SB	1.250	2.580	3.040	0.	3	.000	3.000	80.000	-0.	-0.	-0.

U/S FACE OF COBBLE CREEK APTS DRIVE (R COE VS-30)

TWIN 5.92FT BY 8.58FT MULTI-PLATE CMP ULVERT W/WOOD WINGWALLS

X1	35414.000	-0.	-0.	-0.	3	.000	38.000	38.000	-0.	-0.	-0.
X2	-0.	-0.	1.000	756.900	76	.200	-0.	-0.	-0.	-0.	-0.
X3	-0.	-0.	-0.	130.000	-	.	320.000	-0.	-0.	-0.	-0.
BT	34.000	0.	764.300	0.	10	.000	762.100	0.	200.000	760.200	0.
BT	200.000	760.200	752.800	204.600	76	.200	752.400	204.600	760.200	753.400	204.900
BT	760.200	754.400	205.900	760.200	75	.700	206.900	760.200	756.400	207.900	760.200
BT	756.800	208.900	760.200	756.900	20	.900	760.200	756.800	210.900	760.200	756.400
BT	211.900	760.200	755.700	212.900	76	.200	754.400	213.200	760.200	753.400	213.200
BT	760.200	752.400	216.200	760.200	75	.400	216.200	760.200	753.400	216.500	760.200
BT	754.400	217.500	760.200	755.700	31	.500	760.200	756.800	218.500	760.200	756.800

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BT	220.500	760.200	756.900	221.500	76	.200	756.800	222.500	760.200	756.400	223.500
BT	760.200	755.700	224.500	760.200	75	.400	224.800	760.200	753.400	224.800	760.200
BT	752.400	230.000	760.100	754.500	23	.000	760.100	0.	300.000	761.600	0.
BT	366.000	764.100	0.	-0.	-	.	-0.	-0.	-0.	-0.	-0.
NC	.030	.030	.030	-0.	-	.	-0.	-0.	-0.	-0.	-0.

50FT U/S COBBLE CREEK APTS DRIVE (0 HM 82+87)

X1	35464.000	7.000	269.000	331.000	5	.000	50.000	50.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	220.000	-	.	410.000	-0.	-0.	-0.	-0.
GR	762.200	169.000	760.100	269.000	75	.100	292.000	752.100	308.000	761.300	331.000
GR	761.400	431.000	763.400	531.000	-	.	-0.	-0.	-0.	-0.	-0.
NC	.040	.030	.030	-0.	-	.	-0.	-0.	-0.	-0.	-0.

759FT U/S COBBLE CREEK APTS DRIVE (0 HM 89+10)

X1	36087.000	8.000	255.000	345.000	62	.000	623.000	623.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	225.000	-	.	365.000	-0.	-0.	-0.	-0.
GR	765.000	55.000	765.700	155.000	76	.400	255.000	752.900	292.000	752.900	308.000
GR	762.800	345.000	762.800	445.000	76	.300	545.000	-0.	-0.	-0.	-0.
QT	4.000	535.000	980.000	1215.000	225	.000	-0.	-0.	-0.	-0.	-0.

819FT U/S COBBLE CREEK APTS DRIVE (0 HM 89+70)

X1	36147.000	8.000	260.000	340.000	6	.000	60.000	60.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	245.000	-	.	365.000	-0.	-0.	-0.	-0.
GR	766.600	60.000	765.800	160.000	75	.200	260.000	753.200	290.000	753.700	310.000
GR	763.000	340.000	763.100	440.000	76	.100	540.000	-0.	-0.	-0.	-0.

75FT D/S 11FT DIA ENCLOSURE OF PAIN CREEK (COE VS-31)

X1	36312.000	12.000	124.000	200.000	16	.000	165.000	165.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	112.000	-	.	162.000	-0.	-0.	-0.	-0.
GR	768.200	0.	764.900	100.000	76	.300	124.000	754.600	154.000	754.200	160.000
GR	754.600	164.000	755.200	170.000	75	.800	172.000	764.100	200.000	765.800	245.000
GR	765.400	345.000	771.800	400.000	-	.	-0.	-0.	-0.	-0.	-0.

24FT D/S 11FT DIA ENCLOSURE OF PAIN CREEK (R COE VS-31)

X1	36363.000	12.000	124.000	200.000	2	.000	27.000	27.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	134.500	-	.	169.500	-0.	-0.	-0.	-0.
GR	768.200	0.	764.900	100.000	76	.300	124.000	754.200	154.000	753.800	160.000
GR	754.200	164.000	754.800	170.000	75	.400	172.000	764.100	200.000	765.800	245.000
GR	765.400	345.000	771.800	400.000	-	.	-0.	-0.	-0.	-0.	-0.

12FT D/S 11FT DIA ENCLOSURE OF PAIN CREEK (R COE VS-31)

X1	36375.000	12.000	124.000	200.000	1	.000	12.000	12.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	143.500	-	.	160.500	-0.	-0.	-0.	-0.
GR	768.200	0.	764.900	100.000	76	.300	124.000	753.800	154.000	753.400	160.000
GR	753.800	164.000	754.400	170.000	75	.000	172.000	764.100	200.000	765.800	245.000
GR	765.400	345.000	771.800	400.000	-	.	-0.	-0.	-0.	-0.	-0.
NC	.040	.040	.020	-0.	-	.	-0.	-0.	-0.	-0.	-0.

4FT D/S 11FT DIA ENCLOSURE OF PAIN CREEK (R COE VS-31)

X1	36383.000	12.000	124.000	200.000		.000	8.000	8.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	145.500	-	.	158.500	-0.	-0.	-0.	-0.
GR	768.200	0.	764.900	100.000	76	.300	124.000	753.700	154.000	753.300	160.000

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GR	753.700	164.000	754.300	170.000	75	.900	172.000	764.100	200.000	765.800	245.000
GR	765.400	345.000	771.800	400.000	-	.	-0.	-0.	-0.	-0.	-0.
NC	.030	.030	.013	-0.	-	.	-0.	-0.	-0.	-0.	-0.

D/S FACE OF PAINT CREEK ENCLOSURE T CONGRESS 11FT DIA RCP

X1	36387.000	14.000	124.000	135.000		.000	4.000	4.000	-0.	-0.	-0.
GR	768.200	0.	764.900	100.000	76	.300	124.000	757.400	124.000	754.700	125.500
GR	753.400	127.500	753.200	129.500	75	.400	131.500	754.700	133.500	757.400	135.000
GR	764.100	135.000	765.800	180.000	76	.400	280.000	771.800	315.000	-0.	-0.
EJ	-0.	-0.	-0.	-0.	-	.	-0.	-0.	-0.	-0.	-0.

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*PROF 1

CCHV= .300 CEHV= .500

*SECNO 34044.000

WATER EL=XS CARD= 755.780

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
34044.00	6.38	755.78	0.	755.80	755.90	.12	0.	0.	100000.00
585.	0.	585.	0.	0.	214.	0.	0.	0.	759.60
0.	0.	2.74	0.	.040	.030	.040	0.	749.40	200.00
.000385	1.	1.	1.	0	0	0	0.	37.51	237.51

3470 ENCROACHMENT STATIONS= 200.0 400.0 TYPE= 1 TARGET= 200.000

1 FT U/S MICHIGAN AVENUE (R COE VS- 8)

*SECNO 34093.000

3470 ENCROACHMENT STATIONS= 5.0 395.0 TYPE= 1 TARGET= 390.000

ELENCL= 760.10 ELENCR= 760.10

50 FT U/S MICHIGAN AVENUE (R COE VS- 9)

34093.00	6.39	755.79	0.	0.	755.94	.15	.02	.02	756.90
585.	0.	585.	0.	0.	190.	0.	0.	0.	757.40
.00	0.	3.08	0.	.040	.030	.040	.029	749.40	42.00
.000612	65.	50.	30.	1	0	0	0.	42.60	84.60

*SECNO 34143.000

3470 ENCROACHMENT STATIONS= 5.0 395.0 TYPE= 1 TARGET= 390.000

ELENCL= 760.10 ELENCR= 760.10

100 FT U/S MICHIGAN AVENUE (COE VS-29

34143.00	5.88	755.78	0.	0.	756.02	.25	.04	.05	756.90
585.	0.	585.	0.	0.	147.	0.	0.	0.	757.40
.01	0.	3.98	0.	.040	.030	.040	.029	749.90	100.00
.000983	50.	50.	50.	2	0	0	0.	29.21	129.21

*SECNO 34679.000

3470 ENCROACHMENT STATIONS= 125.0 479.0 TYPE= 1 TARGET= 354.000

636FT U/S MICHIGAN AVENUE (OPHM 75+1)

34679.00	5.57	756.37	0.	0.	756.59	.22	.56	.01	759.50
657.	0.	657.	0.	0.	174.	0.	2.	1.	757.80
.05	0.	3.78	0.	.040	.030	.040	.030	750.80	277.63
.001109	530.	536.	500.	2	0	0	0.	48.47	326.10

*SECNO 35059.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT

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TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
3470 ENCROACHMENT STATIONS=		155.0	415.0	TYPE=	1	TARGET=		260.000	
		1016FT U/S MICHIGAN AVENUE (OPHM 78+9)							
35059.00	5.81	756.81	0.	0.	757.09	.27	.47	.02	759.90
657.	0.	657.	0.	0.	157.	0.	4.	1.	758.00
.07	0.	4.17	0.	.030	.030	.040	.030	751.00	279.97
.001381	360.	380.	410.	2	0	0	0.	44.13	324.10
*SECNO 35164.000									
3470 ENCROACHMENT STATIONS=		185.0	400.0	TYPE=	1	TARGET=		215.000	
		1122FT U/S MICHIGAN AVENUE (OPHM 79+9)							
35164.00	6.01	757.01	0.	0.	757.23	.21	.12	.02	758.80
657.	0.	657.	0.	0.	178.	0.	4.	1.	758.30
.08	0.	3.70	0.	.030	.030	.040	.030	751.00	277.04
.001004	180.	105.	120.	2	0	0	0.	47.08	324.12
*SECNO 35276.000									
3470 ENCROACHMENT STATIONS=		210.0	400.0	TYPE=	1	TARGET=		190.000	
		1233FT U/S MICHIGAN AVENUE (OPHM 81+0)							
35276.00	5.76	757.16	0.	0.	757.33	.17	.10	.01	760.60
657.	0.	657.	0.	0.	197.	0.	5.	1.	758.60
.09	0.	3.33	0.	.030	.030	.030	.030	751.40	279.49
.000743	112.	112.	112.	1	0	0	0.	48.49	325.98
*SECNO 35326.000									
3470 ENCROACHMENT STATIONS=		150.0	340.0	TYPE=	1	TARGET=		190.000	
		50FT D/S COBBLE CREEK APTS DRIVE (R OE VS-30)							
35326.00	6.05	757.25	0.	0.	757.38	.13	.03	.01	760.20
657.	0.	657.	0.	0.	230.	0.	5.	1.	760.10
.09	0.	2.86	0.	.030	.030	.030	.030	751.20	208.92
.000517	50.	50.	50.	2	0	0	0.	54.68	263.60
1490 NH CARD USED									
*SECNO 35376.000									
3470 ENCROACHMENT STATIONS=		130.0	320.0	TYPE=	1	TARGET=		190.000	
		D/S FACE OF COBBLE CREEK APTS DRIVE (OE VS-30)							
		TWIN 5.92FT BY 8.58FT MULTI-PLATE CMP ULVERT W/WOOD WINGWALLS							
35376.00	6.83	757.23	0.	0.	757.50	.27	.05	.07	760.20
657.	0.	657.	0.	0.	158.	0.	5.	1.	760.00
.10	0.	4.16	0.	.030	.193	.030	.030	750.40	200.00
.002042	50.	50.	50.	2	0	0	0.	30.00	230.00

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SPECIAL BRIDGE

5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED

SB XK	XKOR	COFQ	RDLEN	BWC	WP	BAREA	SS	ELCHU	ELCHD
1.25	2.58	3.04	0.	30.00	3.00	80.00	-0.	750.40	750.40

*SECNO 35414.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	AREA	TRAPEZOID AREA	ELLC	ELTRD
759.93	757.56	.07	0.	657.	80.	176.	756.90	760.20

3470 ENCROACHMENT STATIONS= 130.0 320.0 TYPE= 1 TARGET= 190.000

U/S FACE OF COBBLE CREEK APTS DRIVE (R COE VS-30)

TWIN 5.92FT BY 8.58FT MULTI-PLATE CMP ULVERT W/WOOD WINGWALLS

35414.00	9.41	759.81	0.	0.	759.93	.12	2.43	0.	760.20
657.	0.	657.	0.	0.	235.	0.	5.	1.	760.00
.10	0.	2.79	0.	.030	.193	.030	.030	750.40	200.00
.000610	38.	38.	38.	2	0	0	0.	30.00	230.00

*SECNO 35464.000

3470 ENCROACHMENT STATIONS= 220.0 410.0 TYPE= 1 TARGET= 190.000

50FT U/S COBBLE CREEK APTS DRIVE (0 HM 82+87)

35464.00	7.78	759.88	0.	0.	759.96	.08	.02	.01	760.10
657.	0.	657.	0.	0.	287.	0.	6.	1.	761.30
.11	0.	2.29	0.	.030	.030	.030	.030	752.10	269.65
.000269	50.	50.	50.	0	0	0	0.	57.78	327.43

*SECNO 36087.000

3470 ENCROACHMENT STATIONS= 225.0 365.0 TYPE= 1 TARGET= 140.000

759FT U/S COBBLE CREEK APTS DRIVE (0 HM 89+10)

36087.00	7.16	760.06	0.	0.	760.13	.07	.17	.00	762.40
657.	0.	657.	0.	0.	310.	0.	10.	2.	762.80
.19	0.	2.12	0.	.040	.030	.030	.030	752.90	264.12
.000263	623.	623.	623.	2	0	0	0.	70.64	334.76

*SECNO 36147.000

3470 ENCROACHMENT STATIONS= 245.0 365.0 TYPE= 1 TARGET= 120.000

819FT U/S COBBLE CREEK APTS DRIVE (0 HM 89+70)

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36147.00	6.93	760.13	0.	0.	760.15	.02	.01	.02	753.20
535.	66.	469.	0.	90.	408.	0.	10.	2.	763.00
.20	.73	1.15	0.	.040	.030	.030	.030	753.20	245.00
.000053	60.	60.	60.	2	0	0	0.	85.75	330.75

*SECNO 36312.000

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 112.0 162.0 TYPE= 1 TARGET= 50.000

75FT D/S 11FT DIA ENCLOSURE OF PAIN CREEK (COE VS-31)

36312.00	5.68	759.88	0.	0.	760.46	.59	.03	.28	764.30
535.	0.	535.	0.	0.	87.	0.	12.	3.	100000.00
.21	0.	6.14	0.	.040	.030	.030	.030	754.20	137.68
.003821	165.	165.	165.	2	0	0	0.	24.32	162.00

*SECNO 36363.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 134.5 169.5 TYPE= 1 TARGET= 35.000

24FT D/S 11FT DIA ENCLOSURE OF PAIN CREEK (R COE VS-31)

36363.00	6.64	760.44	0.	0.	760.62	.18	.04	.12	100000.00
535.	0.	535.	0.	0.	155.	0.	12.	3.	100000.00
.21	0.	3.45	0.	.040	.030	.030	.030	753.80	135.46
.000817	27.	27.	27.	2	0	0	0.	34.04	169.50

*SECNO 36375.000

3470 ENCROACHMENT STATIONS= 143.5 160.5 TYPE= 1 TARGET= 17.000

12FT D/S 11FT DIA ENCLOSURE OF PAIN CREEK (R COE VS-31)

36375.00	6.89	760.29	0.	0.	760.81	.52	.02	.17	100000.00
535.	0.	535.	0.	0.	92.	0.	12.	3.	100000.00
.22	0.	5.79	0.	.040	.030	.030	.030	753.40	143.50
.002690	12.	12.	12.	2	0	0	0.	17.00	160.50

*SECNO 36383.000

3470 ENCROACHMENT STATIONS= 145.5 158.5 TYPE= 1 TARGET= 13.000

4FT D/S 11FT DIA ENCLOSURE OF PAIN CREEK (R COE VS-31)

36383.00	6.73	760.13	0.	0.	761.00	.87	.02	.17	100000.00
535.	0.	535.	0.	0.	72.	0.	12.	3.	100000.00
.22	0.	7.48	0.	.040	.020	.040	.030	753.40	145.50
.002320	8.	8.	8.	2	0	0	0.	13.00	158.50

*SECNO 36387.000

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D/S FACE OF PAINT CREEK ENCLOSURE T CONGRESS 11FT DIA RCP

36387.00	6.81	760.01	0.	0.	761.14	1.14	.01	.13	764.30
535.	0.	535.	0.	0.	63.	0.	12.	3.	764.10
.22	0.	8.56	0.	.030	.013	.030	.030	753.20	124.00
.001241	4.	4.	4.	2	0	0	0.	11.00	135.00

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THIS RUN EXECUTED 14 FEB 79 14.39.33

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED  AUG1977
  ERROR CORR -  01,02
  MODIFICATION -  50,51,52,53
**************************************************

T1      YPSILANTI TOWNSHIP  FIS
T2      PAINT CREEK
T3      50  YR  FLOW

J1  ICHECK    INQ       NINV      IDIR      STRT      ETRIC     HVINS     Q         WSEL      FQ

       -0.       3.       -0.       -0.  -0.          0.        -0.       -0.   759.600     -0.

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     N         ALLDC     IBW       CHNIM     ITRACE

      2.000     -0.    -1.000     -0.       -0.       -0.       -0.       -0.       -0.       -0.
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*PROF 2

CCHV= .300 CEHV= .500

*SECNO 34044.000

WATER EL=XS CARD= 759.580

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
34044.00	10.18	759.58	0.	759.60	759.71	.13	0.	0.	100000.00
1075.	0.	1075.	0.	0.	365.	0.	0.	0.	759.60
0.	0.	2.95	0.	.040	.030	.040	0.	749.40	200.00
.000283	1.	1.	1.	0	0	0	0.	41.98	241.98

3470 ENCROACHMENT STATIONS= 200.0 400.0 TYPE= 1 TARGET= 200.000

1 FT U/S MICHIGAN AVENUE (R COE VS- 8)

*SECNO 34093.000

3470 ENCROACHMENT STATIONS= 5.0 395.0 TYPE= 1 TARGET= 390.000

ELENCL= 760.10 ELENCR= 760.10

50 FT U/S MICHIGAN AVENUE (R COE VS- 9)

34093.00	10.28	759.68	0.	0.	759.75	.07	.01	.02	756.90
1075.	46.	844.	184.	66.	369.	269.	1.	0.	757.40
.01	.70	2.29	.68	.040	.030	.040	.030	749.40	5.00
.000162	65.	50.	30.	2	0	0	0.	250.21	255.21

*SECNO 34143.000

3470 ENCROACHMENT STATIONS= 5.0 395.0 TYPE= 1 TARGET= 390.000

ELENCL= 760.10 ELENCR= 760.10

100 FT U/S MICHIGAN AVENUE (COE VS-29

34143.00	9.78	759.68	0.	0.	759.77	.09	.01	.01	756.90
1075.	92.	747.	237.	123.	264.	297.	1.	0.	757.40
.01	.74	2.83	.80	.040	.030	.040	.030	749.90	5.00
.000254	50.	50.	50.	1	0	0	0.	363.51	368.51

*SECNO 34679.000

3470 ENCROACHMENT STATIONS= 125.0 479.0 TYPE= 1 TARGET= 354.000

636FT U/S MICHIGAN AVENUE (OPHM 75+1)

34679.00	9.02	759.82	0.	0.	759.95	.14	.16	.02	759.50
1189.	1.	1125.	63.	4.	371.	88.	8.	4.	757.80
.06	.21	3.04	.71	.040	.030	.040	.030	750.80	246.36
.000365	530.	536.	500.	2	0	0	0.	172.34	418.70

*SECNO 35059.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT

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TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 155.0 415.0 TYPE= 1 TARGET= 260.000

1016FT U/S MICHIGAN AVENUE (OPHM 78+9)

35059.00	8.96	759.96	0.	0.	760.15	.19	.17	.03	759.90
1189.	0.	1135.	54.	0.	319.	64.	12.	5.	758.00
.09	.11	3.56	.85	.030	.030	.040	.030	751.00	268.33
.000540	360.	380.	410.	2	0	0	0.	124.96	393.29

*SECNO 35164.000

3470 ENCROACHMENT STATIONS= 185.0 400.0 TYPE= 1 TARGET= 215.000

1122FT U/S MICHIGAN AVENUE (OPHM 79+9)

35164.00	9.05	760.05	0.	0.	760.21	.15	.05	.01	758.80
1189.	34.	1107.	48.	46.	341.	67.	13.	5.	758.30
.10	.73	3.25	.71	.030	.030	.040	.030	751.00	198.22
.000410	180.	105.	120.	2	0	0	0.	201.78	400.00

*SECNO 35276.000

3470 ENCROACHMENT STATIONS= 210.0 400.0 TYPE= 1 TARGET= 190.000

1233FT U/S MICHIGAN AVENUE (OPHM 81+0)

35276.00	8.70	760.10	0.	0.	760.26	.16	.05	.00	760.60
1189.	0.	1162.	27.	0.	358.	32.	14.	6.	758.60
.11	0.	3.24	.83	.030	.030	.030	.030	751.40	271.08
.000414	112.	112.	112.	1	0	0	0.	101.84	372.92

*SECNO 35326.000

3470 ENCROACHMENT STATIONS= 150.0 340.0 TYPE= 1 TARGET= 190.000

50FT D/S COBBLE CREEK APTS DRIVE (R OE VS-30)

35326.00	8.95	760.15	0.	0.	760.28	.13	.02	.01	760.20
1189.	0.	1189.	0.	0.	411.	0.	15.	6.	760.10
.12	0.	2.89	.01	.030	.030	.030	.030	751.20	200.14
.000342	50.	50.	50.	2	0	0	0.	70.95	271.09

1490 NH CARD USED

*SECNO 35376.000

3470 ENCROACHMENT STATIONS= 130.0 320.0 TYPE= 1 TARGET= 190.000

D/S FACE OF COBBLE CREEK APTS DRIVE (OE VS-30)

TWIN 5.92FT BY 8.58FT MULTI-PLATE CMP ULVERT W/WOOD WINGWALLS

35376.00	9.67	760.07	0.	0.	760.44	.37	.03	.12	760.20
1189.	0.	1189.	0.	0.	243.	0.	15.	6.	760.00
.12	0.	4.89	.02	.030	.193	.040	.030	750.40	200.00
.001807	50.	50.	50.	2	0	0	0.	32.92	232.92

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SPECIAL BRIDGE

5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED

SB	XK	XKOR	COFQ	ROLEN	BWC	WP	BAREA	SS	ELCHU	ELCHD
	1.25	2.58	3.04	0.	30.00	3.00	80.00	-0.	750.40	750.40

*SECNO 35414.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	AREA	TRAPEZOID AREA	ELLC	ELTRD
768.92	760.53	.10	648.	541.	80.	176.	756.90	760.20

3470 ENCROACHMENT STATIONS= 130.0 320.0 TYPE= 1 TARGET= 190.000

U/S FACE OF COBBLE CREEK APTS DRIVE (R COE VS-30)

TWIN 5.92FT BY 8.58FT MULTI-PLATE CMP ULVERT W/WOOD WINGWALLS

35414.00	11.31	761.71	0.	0.	761.90	.19	1.46	0.	760.20
1189.	56.	1068.	64.	59.	292.	64.	15.	6.	760.00
.12	.95	3.65	1.00	.040	.193	.040	.030	750.40	130.00
.000818	38.	38.	38.	2	0	6	0.	173.01	303.01

*SECNO 35464.000

3470 ENCROACHMENT STATIONS= 220.0 410.0 TYPE= 1 TARGET= 190.000

50FT U/S COBBLE CREEK APTS DRIVE (O HM 82+87)

35464.00	9.74	761.84	0.	0.	761.95	.11	.02	.02	760.10
1189.	55.	1114.	20.	60.	406.	39.	16.	6.	761.30
.13	.92	2.75	.51	.030	.030	.030	.030	752.10	220.00
.000268	50.	50.	50.	2	0	0	0.	190.00	410.00

*SECNO 36087.000

3470 ENCROACHMENT STATIONS= 225.0 365.0 TYPE= 1 TARGET= 140.000

759FT U/S COBBLE CREEK APTS DRIVE (O HM 89+10)

36087.00	9.12	762.02	0.	0.	762.12	.10	.17	.00	762.40
1189.	0.	1189.	0.	0.	463.	0.	23.	8.	762.80
.20	0.	2.57	0.	.040	.030	.030	.030	752.90	256.48
.000293	623.	623.	623.	2	0	0	0.	85.61	342.09

*SECNO 36147.000

3470 ENCROACHMENT STATIONS= 245.0 365.0 TYPE= 1 TARGET= 120.000

819FT U/S COBBLE CREEK APTS DRIVE (O HM 89+70)

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36147.00	8.92	762.12	0.	0.	762.15	.03	.01	.02	753.20
980.	116.	864.	0.	120.	555.	0.	24.	8.	763.00
.21	.97	1.56	0.	.040	.030	.030	.030	753.20	245.00
.000073	60.	60.	60.	2	0	0	0.	92.15	337.15

*SECNO 36312.000

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 112.0 162.0 TYPE= 1 TARGET= 50.000

75FT D/S 11FT DIA ENCLOSURE OF PAIN CREEK (COE VS-31)

36312.00	7.59	761.79	0.	0.	762.56	.77	.04	.37	764.30
980.	0.	980.	0.	0.	139.	0.	25.	9.	100000.00
.22	0.	7.04	0.	.040	.030	.030	.030	754.20	131.77
.003673	165.	165.	165.	2	0	0	0.	30.23	162.00

*SECNO 36363.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 134.5 169.5 TYPE= 1 TARGET= 35.000

24FT D/S 11FT DIA ENCLOSURE OF PAIN CREEK (R COE VS-31)

36363.00	8.65	762.45	0.	0.	762.74	.29	.04	.14100000.00	
980.	0.	980.	0.	0.	225.	0.	25.	9.	100000.00
.22	0.	4.35	0.	.040	.030	.030	.030	753.80	134.50
.000913	27.	27.	27.	2	0	0	0.	35.00	169.50

*SECNO 36375.000

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 143.5 160.5 TYPE= 1 TARGET= 17.000

12FT D/S 11FT DIA ENCLOSURE OF PAIN CREEK (R COE VS-31)

36375.00	8.73	762.13	0.	0.	763.10	.97	.02	.34100000.00	
980.	0.	980.	0.	0.	124.	0.	25.	9.	100000.00
.22	0.	7.92	0.	.040	.030	.030	.030	753.40	143.50
.004038	12.	12.	12.	2	0	0	0.	17.00	160.50

*SECNO 36383.000

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 145.5 158.5 TYPE= 1 TARGET= 13.000

4FT D/S 11FT DIA ENCLOSURE OF PAIN CREEK (R COE VS-31)

36383.00	8.39	761.79	0.	0.	763.51	1.72	.03	.37100000.00	
980.	0.	980.	0.	0.	7.	0.	25.	9.	100000.00

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.22	0.	10.53	0.	.040	.020	.040	.030	753.40	145.50
.003857	8.	8.	8.	2	0	0	0.	13.00	158.50

*SECNO 36387.000

3301 HV CHANGED MORE THAN HVINS

D/S FACE OF PAINT CREEK ENCLOSURE T CONGRESS 11FT DIA RCP

36387.00	8.25	761.45	0.	0.	763.87	2.43	.01	.35	764.30
980.	0.	980.	0.	0.	78.	0.	25.	9.	764.10
.22	0.	12.50	0.	.030	.013	.030	.030	753.20	124.00
.002339	4.	4.	4.	2	0	0	0.	11.00	135.00

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THIS RUN EXECUTED 14 FEB 79 14.39.33

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED  AUG1977
  ERROR CORR -  01,02
  MODIFICATION -  50,51,52,53
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T1      YPSILANTI TOWNSHIP  FIS
T2      PAINT CREEK
T3      100 YR  FLOW

J1  ICHECK    INQ       NINV      IDIR      STRT      ETRIC     HVINS     Q         WSEL      FQ
       -0.       4.        -0.       -0.  -0.         0.        -0.       -0.   760.200   -0.

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     N         ALLDC     IBW       CHNIM     ITRACE
     3.000     -0.       -1.000    -0.       -0.       -0.       -0.       -0.       -0.       -0.
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*PROF 3

CCHV= .300 CEHV= .500

*SECNO 34044.000

WATER EL=X5 CARD= 760.200

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
34044.00	10.80	760.20	0.	760.20	760.39	.19	0.	0.	100000.00
1407.	0.	1381.	26.	0.	391.	61.	0.	0.	759.60
0.	0.	3.53	.43	.040	.030	.040	0.	749.40	200.00
.000377	1.	1.	1.	0	0	0	0.	185.71	385.71

3470 ENCROACHMENT STATIONS= 200.0 400.0 TYPE= 1 TARGET= 200.000

68"x136" RCP

1 FT U/S MICHIGAN AVENUE (R COE VS- 8)

ELLC = 755.1

*SECNO 34093.000

3280 CROSS SECTION 34093.00 EXTENDED .37 FEET

3470 ENCROACHMENT STATIONS= 5.0 395.0 TYPE= 1 TARGET= 390.000

ELENCL= 760.10 ELENCR= 760.10

50 FT U/S MICHIGAN AVENUE (R COE VS- 9)

34093.00	10.97	760.37	0.	0.	760.44	.07	.01	.04	756.90
1407.	82.	993.	332.	93.	401.	386.	1.	0.	757.40
.01	.88	2.48	.86	.040	.030	.040	.031	749.40	0.
.000169	65.	50.	30.	2	0	0	0.	260.00	260.00

*SECNO 34143.000

3280 CROSS SECTION 34143.00 EXTENDED .38 FEET

3470 ENCROACHMENT STATIONS= 5.0 395.0 TYPE= 1 TARGET= 390.000

ELENCL= 760.10 ELENCR= 760.10

100 FT U/S MICHIGAN AVENUE (COE VS-29

34143.00	10.47	760.37	0.	0.	760.45	.08	.01	.00	756.90
1407.	172.	801.	434.	191.	285.	479.	2.	1.	757.40
.01	.90	2.82	.90	.040	.030	.040	.030	749.90	0.
.000227	50.	50.	50.	0	0	0	0.	400.00	400.00

*SECNO 34679.000

3470 ENCROACHMENT STATIONS= 125.0 479.0 TYPE= 1 TARGET= 354.000

636FT U/S MICHIGAN AVENUE (OPHM 75+1)

34679.00	9.69	760.49	0.	0.	760.63	.14	.15	.03	759.50
1472.	15.	1315.	142.	35.	412.	156.	11.	4.	757.80
.06	.43	3.19	.91	.040	.07	.040	.030	750.80	198.75

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 .000350     530.     536.     500.        1        0        0      0.     248.22   446.98

*SECNO 35059.000
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA     LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST

3470 ENCROACHMENT STATIONS=      155.0      415.0  TYPE=      1  TARGET=      260.000

                1016FT  U/S MICHIGAN AVENUE (OPHM 78+9 )

 35059.00      9.62   760.62      0.        0.     760.82      .20       .16       .03   759.90
    1472.        9.    1346.     117.       16.      356.     114.       16.        6.   758.00
      .09       .58     3.78     1.02      .030      .030     .040      .030    751.00   226.96
 .000527      360.     380.     410.        2        0        0        0.     188.04   415.00

*SECNO 35164.000

3470 ENCROACHMENT STATIONS=      185.0      400.0  TYPE=      1  TARGET=      215.000

                1122FT  U/S MICHIGAN AVENUE (OPHM 79+9 )

 35164.00      9.75   760.75      0.        0.     760.89      .14       .05       .02   758.80
    1472.      112.    1247.     113.      105.      380.     116.       17.        7.   758.30
      .10      1.07     3.29      .97      .030      .030     .040      .030    751.00   185.00
 .000363      180.     105.     120.        2        0        0        0.     215.00   400.00

*SECNO 35276.000

3470 ENCROACHMENT STATIONS=      210.0      400.0  TYPE=      1  TARGET=      190.000

                1233FT  U/S MICHIGAN AVENUE (OPHM 81+0 )

 35276.00      9.37   760.77      0.        0.     760.95      .18       .04       .02   760.60
    1472.        0.    1399.      73.        1.      398.      67.       19.        7.   758.60
      .11       .20     3.51     1.09      .030      .030     .030      .030    751.40   262.23
 .000432      112.     112.     112.        2        0        0        0.     129.79   392.02

*SECNO 35326.000

3470 ENCROACHMENT STATIONS=      150.0      340.0  TYPE=      1  TARGET=      190.000

                 50FT D/S COBBLE CREEK APTS DRIVE (R  OE VS-30)

 35326.00      9.62   760.82      0.        0.     760.98      .16       .02       .01   760.20
    1472.        4.    1465.       2.       10.      458.       5.       19.        8.   760.10
      .12       .43     3.20      .48      .030      .030     .030      .030    751.20   167.24
 .000363       50.      50.      50.        2        0        0        0.     117.21   284.45

1490 NH CARD USED
*SECNO 35376.000

3470 ENCROACHMENT STATIONS=      130.0      320.0  TYPE=      1  TARGET=      190.000

                D/S FACE OF COBBLE CREEK APTS  DRIVE ( OE VS-30)

                TWIN 5.92FT [illegible] 8.5FT [illegible] ULTI-PLATE [illegible] ULVERT [illegible] WINGWALLS
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35376.00	10.30	760.70	0.	0.	761.18	.48	.04	.16	760.20
1472.	4.	1458.	9.	7.	262.	11.	20.	8.	760.00
.12	.68	5.57	.86	.040	.193	.040	.030	750.40	173.71
.002150	50.	50.	50.	2	0	0	0.	86.90	260.61

$\frac{29(.032)^2 48}{(1.71)^{4/3}} + 1.25 = 1.59$

SPECIAL BRIDGE

5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED

SB	XK	XKOR	COFQ	RDLEN	BWC	WP	BAREA	SS	ELCHU	ELCHD
	1.25	2.58	3.04	0.	30.00	3.00	80.00	-0.	750.40	750.40

*SECNO 35414.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

PRESSURE AND WEIR FLOW

LOB ≈490cfs ROB ≈270cfs

EGPRS	FGLWC	H3	QWEIR	QPR	AREA	TRAPEZOID AREA	ELLC	ELTRD
774.26	761.31	.13	977.	497.	80.	176.	756.90	760.20

The majority of the weir is at grade with the u/s & d/s XSEC, hence not exactly a weir

3470 ENCROACHMENT STATIONS= 130.0 320.0 TYPE= 1 TARGET= 190.000

U/S FACE OF COBBLE CREEK APTS DRIVE (R COE VS-30)

TWIN 5.92FT BY 8.58FT MULTI-PLATE CMP ULVERT W/WOOD WINGWALLS

35414.00	11.61	762.01	0.	0.	762.25	.23	1.07	0.	760.20
1472.	105.	1251.	116.	81.	301.	87.	20.	8.	760.00
.12	1.30	4.15	1.33	.040	.193	.040	.030	750.40	130.00
.001019	38.	38.	38.	2	0	6	0.	181.00	311.00

Majority of flow in channel try to force flow out of channel

*SECNO 35464.000

3470 ENCROACHMENT STATIONS= 220.0 410.0 TYPE= 1 TARGET= 190.000

50FT U/S COBBLE CREEK APTS DRIVE (O HM 82+87)

35464.00	10.06	762.16	0.	0.	762.30	.14	.03	.03	760.10
1472.	89.	1332.	51.	76.	426.	65.	21.	8.	761.30
.13	1.18	3.13	.78	.030	.030	.030	.030	752.10	220.00
.000326	50.	50.	50.	2	0	0	0.	190.00	410.00

*SECNO 36087.000

3470 ENCROACHMENT STATIONS= 225.0 365.0 TYPE= 1 TARGET= 140.000

759FT U/S COBBLE CREEK APTS DRIVE (O HM 89+10)

36087.00	9.48	762.38	0.	0.	762.52	.14	.22	.00	762.40
1472.	0.	1472.	0.	0.	495.	0.	28.	10.	762.80
.19	0.	2.98	0.	.040	.030	.030	.030	752.90	255.07
.000376	623.	623.	623.	2	0	0	0.	88.37	343.44

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*SECNO 36147.000

3470 ENCROACHMENT STATIONS= 245.0 365.0 TYPE= 1 TARGET= 120.000

819FT U/S COBBLE CREEK APTS DRIVE (O HM 89+70)

36147.00	9.31	762.51	0.	0.	762.56	.05	.01	.03	753.20	
1215.	143.	1072.	0.	125.	586.	0.	29.	10.	763.00	
.20	1.14	1.83	0.	.040	.030	.030	.030	753.20	245.00	
.000096	60.	60.	60.	2	0	0	0.	93.41	338.41	

*SECNO 36312.000

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 112.0 162.0 TYPE= 1 TARGET= 50.000

75FT D/S 11FT DIA ENCLOSURE OF PAIN CREEK (COE VS-31)

36312.00	7.85	762.05	0.	0.	763.11	1.05	.05	.50	764.30	
1215.	0.	1215.	0.	0.	148.	0.	31.	10.	100000.00	
.20	0.	8.23	0.	.040	.030	.030	.030	754.20	130.92	
.004835	165.	165.	165.	2	0	0	0.	31.08	162.00	

*SECNO 36363.000

3301 HV CHANGED MORE THAN HVINS

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE/	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 134.5 169.5 TYPE= 1 TARGET= 35.000

24FT D/S 11FT DIA ENCLOSURE OF PAIN CREEK (R COE VS-31)

36363.00	9.18	762.98	0.	0.	763.36	.39	.06	.20	100000.00	
1215.	0.	1215.	0.	0.	244.	0.	31.	10.	100000.00	
.20	0.	4.99	0.	.040	.030	.030	.030	753.80	134.50	
.001116	27.	27.	27.	3	0	0	0.	35.00	169.50	

*SECNO 36375.000

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 143.5 160.5 TYPE= 1 TARGET= 17.000

12FT D/S 11FT DIA ENCLOSURE OF PAIN CREEK (R COE VS-31)

36375.00	9.12	762.52	0.	0.	763.87	1.35	.03	.48	100000.00	
1215.	0.	1215.	0.	0.	130.	0.	31.	10.	100000.00	
.20	0.	9.32	0.	.040	.030	.030	.030	753.40	143.50	
.005383	12.	12.	12.	2	0	0	0.	17.00	160.50	

*SECNO 36383.000

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3501 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 145.5 158.5 TYPE= 1 TARGET= 13.000

4FT D/S 11FT DIA ENCLOSURE OF PAIN CREEK (R COE VS-31)

36383.00	8.58	761.98	0.	0.	764.49	2.51	.04	.58	100000.00	
1215.	0.	1215.	0.	0.	96.	0.	31.	10.	100000.00	
.20	0.	12.71	0.	.040	.020	.040	.030	753.40	145.50	
.005527	8.	8.	8.	3	0	0	0.	13.00	158.50	

*SECNO 36387.000

3301 HV CHANGED MORE THAN HVINS

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

D/S FACE OF PAINT CREEK ENCLOSURE T CONGRESS 11FT DIA RCP

36387.00	8.35	761.55	761.55	0.	765.18	3.63	.02	.56	764.30
1215.	0.	1215.	0.	0.	79.	0.	31.	10.	764.10
.20	0.	15.29	0.	.030	.013	.030	.030	753.20	124.00
.003475	4.	4.	4.	3	8	0	0.	11.00	135.00

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THIS RUN EXECUTED 14 FEB 79 14.39.34

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED  AUG1977
  ERROR CORR -  01,02
  MODIFICATION -  50,51,52,53
**************************************************

T1      YPSILANTI TOWNSHIP  FIS
T2      PAINT CREEK
T3      500 YR  FLOW

J1  ICHECK    INQ       NINV      IDIR      STRT      ETRIC     HVINS     Q         WSEL      FQ
       -0.       5.       -0.       -0.  -0.         0.        -0.       -0.   761.300     -0.

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     N         ALLDC     IBW       CHNIM     ITRACE
    15.000     -0.     -1.000     -0.       -0.       -0.       -0.       -0.       -0.       -0.
```

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*PROF 4

CCHV= .300 CEHV= .500
*SECNO 34044.000
WATER EL=X5 CARD= 761.300
3280 CROSS SECTION 34044.00 EXTENDED 1.00 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
34044.00	11.90	761.30	0.	761.30	761.70	.40	0.	0.	100000.00
2663.	0.	2349.	314.	0.	437.	234.	0.	0.	759.60
0.	0.	5.38	1.34	.040	.030	.040	0.	749.40	200.00
.000772	1.	1.	1.	0	0	0	0.	200.00	400.00

3470 ENCROACHMENT STATIONS= 200.0 400.0 TYPE= 1 TARGET= 200.000

1 FT U/S MICHIGAN AVENUE (R COE VS- 8)

*SECNO 34093.000
3280 CROSS SECTION 34093.00 EXTENDED 1.68 FEET

3470 ENCROACHMENT STATIONS= 5.0 395.0 TYPE= 1 TARGET= 390.000
ELENCL= 760.10 ELENCR= 760.10

50 FT U/S MICHIGAN AVENUE (R COE VS- 9)

34093.00	12.28	761.68	0.	0.	761.80	.12	.02	.08	756.90
2663.	212.	1577.	875.	148.	463.	611.	1.	0.	757.40
.00	1.43	3.41	1.43	.040	.030	.040	.032	749.40	0.
.000264	65.	50.	30.	2	0	0	0.	260.00	260.00

*SECNO 34143.000
3280 CROSS SECTION 34143.00 EXTENDED 1.74 FEET

3470 ENCROACHMENT STATIONS= 5.0 395.0 TYPE= 1 TARGET= 390.000
ELENCL= 760.10 ELENCR= 760.10

100 FT U/S MICHIGAN AVENUE (COE VS-29

34143.00	11.84	761.74	0.	0.	761.83	.09	.01	.01	756.90
2663.	442.	1086.	1135.	327.	325.	846.	2.	1.	757.40
.01	1.35	3.34	1.34	.040	.030	.040	.031	749.90	0.
.000267	50.	50.	50.	2	0	0	0.	400.00	400.00

*SECNO 34679.000

3470 ENCROACHMENT STATIONS= 125.0 479.0 TYPE= 1 TARGET= 354.000

636FT U/S MICHIGAN AVENUE (OPHM 75+1)

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34679.00	11.06	761.86	0.	0.	762.06	.19	.18	.05	759.50
2711.	194.	2007.	511.	190.	498.	349.	18.	5.	757.80
.06	1.02	4.03	1.46	.040	.030	.040	.031	750.80	125.00
.000434	530.	536.	500.	1	0	0	0.	354.00	479.00

*SECNO 35059.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	TTRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 155.0 415.0 TYPE= 1 TARGET= 260.000

1016FT U/S MICHIGAN AVENUE (OPHM 78+9)

35059.00	11.02	762.02	0.	0.	762.30	.28	.20	.04	759.90
2711.	202.	2080.	430.	135.	434.	236.	26.	8.	758.00
.08	1.49	4.79	1.82	.030	.030	.040	.030	751.00	158.01
.000649	360.	380.	410.	2	0	0	0.	256.99	415.00

*SECNO 35164.000

3470 ENCROACHMENT STATIONS= 185.0 400.0 TYPE= 1 TARGET= 215.000

1122FT U/S MICHIGAN AVENUE (OPHM 79+9)

35164.00	11.19	762.19	0.	0.	762.39	.20	.06	.02	758.80
2711.	454.	1901.	356.	230.	460.	220.	28.	8.	758.30
.09	1.97	4.13	1.62	.030	.030	.040	.030	751.00	185.00
.000444	180.	105.	120.	2	0	0	0.	215.00	400.00

*SECNO 35276.000

3470 ENCROACHMENT STATIONS= 210.0 400.0 TYPE= 1 TARGET= 190.000

1233FT U/S MICHIGAN AVENUE (OPHM 81+0)

35276.00	10.79	762.19	0.	0.	762.50	.30	.06	.05	760.60
2711.	65.	2290.	356.	56.	484.	166.	30.	9.	758.60
.10	1.16	4.74	2.14	.030	.030	.030	.030	751.40	210.00
.000607	112.	112.	112.	2	0	0	0.	190.00	400.00

*SECNO 35326.000

3470 ENCROACHMENT STATIONS= 150.0 340.0 TYPE= 1 TARGET= 190.000

50FT D/S COBBLE CREEK APTS DRIVE (R OF VS-30)

35326.00	11.03	762.23	0.	0.	762.53	.30	.03	.00	760.20
2711.	120.	2528.	62.	77.	555.	46.	31.	9.	760.10
.10	1.55	4.55	1.35	.030	.030	.030	.030	751.20	150.00
.000567	50.	50.	50.	0	0	0	0.	166.37	316.37

1490 NH CARD USED
*SECNO 35376.000

3470 ENCROACHMENT STATIONS= 130.0 320.0 TYPE= 1 TARGET= 190.000

D/S FACE OF COBBLE CREEK APTS DRIVE (R OF VS-30)

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TWIN 5.92FT BY 8.58FT MULTI-PLATE CMP ULVERT W/WOOD WINGWALLS

35376.00	11.65	762.05	0.	0.	762.82	.76	.06	.23	760.20
2711.	200.	2289.	222.	83.	303.	90.	32.	9.	760.00
.10	2.41	7.56	2.45	.040	.193	.040	.030	750.40	130.00
.003368	50.	50.	50.	2	0	0	0.	181.97	311.97

SPECIAL BRIDGE

5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED

SB	XK	XKOR	COFQ	RDLEN	BWC	WP	BAREA	SS	ELCHU	ELCHD
	1.25	2.58	3.04	0.	30.00	3.00	80.00	-0.	750.40	750.40

*SECNO 35414.000

SECNO	DEPTH	CWSEL	CRTWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IOC	ICONT	CORAR	TOPWID	ENDST

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	AREA	TRAPEZOID AREA	ELLC	ELTRD
808.06	763.07	.25	2280.	435.	80.	176.	756.90	760.20

3470 ENCROACHMENT STATIONS= 130.0 320.0 TYPE= 1 TARGET= 190.000

U/S FACE OF COBBLE CREEK APTS DRIVE (R COE VS-30)

TWIN 5.92FT BY 8.58FT MULTI-PLATE CMP ULVERT W/WOOD WINGWALLS

35414.00	12.39	762.79	0.	0.	763.24	.45	.42	0.	760.20
2711.	343.	1978.	390.	135.	325.	155.	32.	10.	760.00
.11	2.55	6.09	2.51	.040	.193	.040	.030	750.40	130.00
.002013	38.	38.	38.	3	0	7	0.	190.00	320.00

*SECNO 35464.000

3470 ENCROACHMENT STATIONS= 220.0 410.0 TYPE= 1 TARGET= 190.000

50FT U/S COBBLE CREEK APTS DRIVE (0 HM 82+87)

35464.00	10.95	763.05	0.	0.	763.34	.28	.05	.05	760.10
2711.	257.	2221.	233.	120.	481.	136.	33.	10.	761.30
.11	2.15	4.61	1.72	.030	.030	.030	.030	752.10	220.00
.000603	50.	50.	50.	2	0	0	0.	190.00	410.00

*SECNO 36087.000

3470 ENCROACHMENT STATIONS= 225.0 365.0 TYPE= 1 TARGET= 140.000

759FT U/S COBBLE CREEK APTS DRIVE (0 HM 89+10)

36087.00	10.54	763.44	0.	0.	763.76	.32	.41	.02	762.40
2711	11	2688	13	16	580	17	43	13	773.80

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.15	.66	4.56	.96	.040	.030	.030	.030	752.90	225.00
.000717	623.	623.	623.	2	0	0	0.	140.00	365.00

*SECNO 36147.000

3470 ENCROACHMENT STATIONS= 245.0 365.0 TYPE= 1 TARGET= 120.000

819FT U/S COBBLE CREEK APTS DRIVE (O HM 89+70)

36147.00	10.52	763.72	0.	0.	763.85	.12	.02	.06	753.20
2250.	253.	1988.	10.	144.	682.	18.	44.	12.	763.00
.15	1.76	2.91	.55	.040	.030	.030	.030	753.20	245.00
.000203	60.	60.	60.	2	0	0	0.	120.00	365.00

*SECNO 36312.000

3301 HV CHANGED MORE THAN HVINS

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 112.0 162.0 TYPE= 1 TARGET= 50.000

75FT D/S 11FT DIA ENCLOSURE OF PAIN CREEK (COE VS-31)

36312.00	8.64	762.84	762.84	0.	765.48	2.63	.10	1.26	764.30
2250.	0.	2250.	0.	0.	173.	0.	46.	13.	100000.00
.16	0.	13.02	0.	.040	.030	.030	.030	754.20	128.50
.010897	165.	165.	165.	4	15	0	0.	33.49	162.00

*SECNO 36363.000

3301 HV CHANGED MORE THAN HVINS

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 134.5 169.5 TYPE= 1 TARGET= 35.000

24FT D/S 11FT DIA ENCLOSURE OF PAIN CREEK (R COE VS-31)

36363.00	11.61	765.41	0.	0.	766.14	.73	.09	.57	100000.00
2250.	0.	2250.	0.	0.	329.	0.	46.	13.	100000.00
.16	0.	6.84	0.	.040	.030	.030	.030	753.80	134.50
.001608	27.	27.	27.	4	0	0	0.	35.00	169.50

*SECNO 36375.000

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 147.5 160.5 TYPE= 1 TARGET= 17.

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12FT D/S 11FT DIA ENCLOSURE OF PAIN CREEK (R COE VS-31)

36375.00	10.89	764.29	0.	0.	767.34	3.06	.04	1.16	100000.00
2250.	0.	2250.	0.	0.	160.	0.	46.	13.	100000.00
.16	0.	14.03	0.	.040	.030	.030	.030	753.40	143.50
.010658	12.	12.	12.	3	0	0	0.	17.00	160.50

*SECNO 36383.000

3301 HV CHANGED MORE THAN HVINS

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 145.5 158.5 TYPE= 1 TARGET= 13.000

4FT D/S 11FT DIA ENCLOSURE OF PAIN CREEK (R COE VS-31)

36383.00	10.97	764.37	764.37	0.	769.27	4.90	.08	.92	100000.00
2250.	0.	2250.	0.	0.	127.	0.	46.	13.	100000.00
.16	0.	17.76	0.	.040	.020	.040	.030	753.40	145.50
.009193	8.	8.	8.	20	5	0	0.	13.00	158.50

*SECNO 36387.000

3301 HV CHANGED MORE THAN HVINS

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3720 CRITICAL DEPTH ASSUMED

D/S FACE OF PAINT CREEK ENCLOSURE T CONGRESS 11FT DIA RCP

36387.00	13.89	767.09	767.09	0.	768.12	1.03	.01	1.16	764.30
2250.	283.	1421.	546.	132.	140.	253.	46.	13.	764.10
.16	2.14	10.12	2.16	.030	.013	.030	.030	753.20	33.73
.000938	4.	4.	4.	20	13	0	0.	255.49	289.22

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00BREAK00

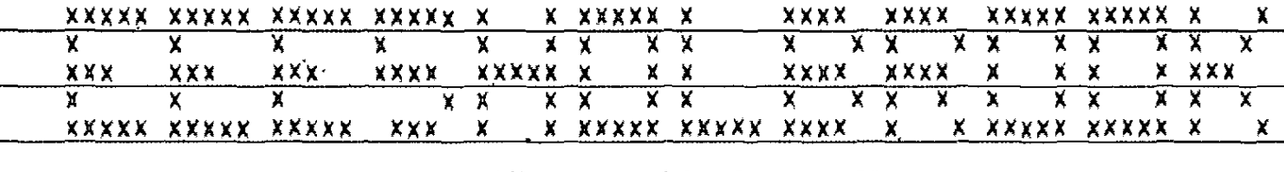
1) COUNTY: Washtenaw

2) STUDY NAME: Ypsilanti

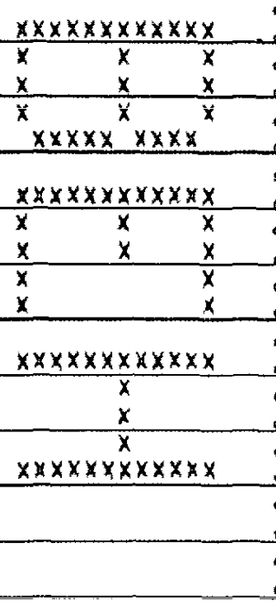
3) WATERCOURSE: West Branch Paint Creek

4) DOCUMENT TYPE: Summary

00BREAK00



8040 45 OUTPUT 16 AUG 79 09.52 8040 45

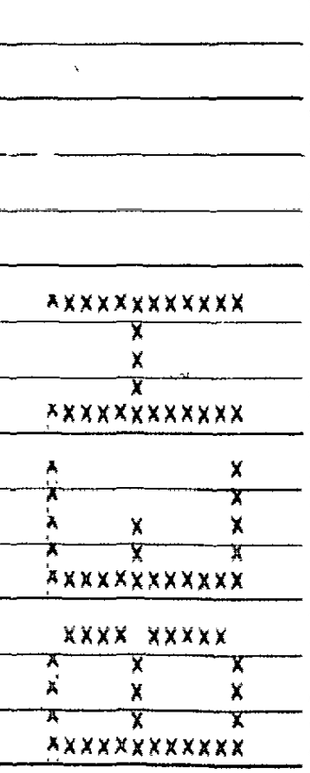


YPSI TOWNSHIP

FINAL RUN

WEST BRANCH PAINT CREEK

SAME AS RUN DATED 8/8/79



8040 45 COKE 16 AUG 79 10.31 8040 45

WEST BRANCH PAINT CREEK

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09.46.30. BEHES05.  16 AUG 79   7600Z  BKY29A V6   BEH      NORM          804045 EEESHOLBRO
09.46.30. BEHES05. ,BEH,804045,EEESHOLBROOK
09.46.30. BEHES05. *INPUT 6200C 09.29.34. 16 AUG 79  VIA COKE
09.46.30. BEHES05.  COPY,INPUT,1R,CONTROL/BR,DFM=OFF.
09.46.31. BEHES05.  FLS=020K  FLL=0000K  LCM BUFFERS=0054K  TOTAL LCM=0074K
09.46.31. BEHES05.   CONTROL DISK 2
09.46.31. BEHES05.  COPY COMPLETE.
09.46.31. BEHES05. (WEST BRANCH PAINT CREEK
09.46.31. BEHES05. *NOSTAGE
09.46.31. BEHES05. FETCHPS,HECLIB,HEC2,HEC2.
09.46.31. BEHES05.  FLS=060K  FLL=0000K  LCM BUFFERS=0054K  TOTAL LCM=0134K
09.46.37. BEHES05.   HEC2     DISK 2
09.46.39. BEHES05.  HEC2           26235 WORDS COPIED FROM CACHE.
09.46.39. BEHES05.   CACHE22 RETURNED       7 BLD, BS= 0040B,FS=122144B
09.46.39. BEHES05.   TAPEPAC RETURNED       0 BLD, BS= 0002B,FS=000000B
09.46.39. BEHES05. SFL,170000.
09.46.39. BEHES05.  FLS=170K  FLL=0000K  LCM BUFFERS=0014K  TOTAL LCM=0204K
09.46.39. BEHES05. HEC2,LC=20000,,S.
09.49.45. BEHES05.   ZZZZZLS DISK 2
09.49.45. BEHES05.   ZZZZZLS RETURNED       0 BLD, BS= 0040B,FS=000000B
09.51.13. BEHES05.   DBGMAP  DISK 2
09.51.14. BEHES05.   OUTPUT  DISK 2
09.51.15. BEHES05.   DBGMAP  UNLOADED       1 BLD, BS= 0040B,FS=000002B
09.51.15. BEHES05.   HEC2    UNLOADED       4 BLD, BS= 0040B,FS=000064B
09.51.15. BEHES05.   MNF4LIB UNLOADED       1 BLD, BS= 0010B,FS=000007B
09.51.15. BEHES05.   FTN4LIB UNLOADED       1 BLD, BS= 0100B,FS=000077B
09.51.15. BEHES05.  LOAD COMPLETE, LINK 8.4.
09.51.15. BEHES05.    TIME===        127 MSEC.
09.51.15. BEHES05.    MEMORY=      LOAD    111200,  EXECUTE    101000.
09.51.15. BEHES05.  FLS=101K  FLL=0000K  LCM BUFFERS=0046K  TOTAL LCM=0147K
09.51.15. BEHES05.        BEGIN PROGRAM HEC2      USING =
09.51.15. BEHES05.           MNF4 LIBRARY VERSION 3.3
09.51.15. BEHES05.           FTN4 LIBRARY 7600=VSN2/79215.10.39
09.51.15. BEHES05.  FIELD LENGTH RESET =            0000000000033792
09.51.15. BEHES05.   $       DISK 2
09.51.15. BEHES05. ,,BN,
09.51.15. BEHES05.   ZZZZZXC DISK 2
09.51.15. BEHES05.   CONTROL RETURNED       0 BLD, BS= 0002B,FS=000001B
09.51.16. BEHES05.   ZZZZZXC UNLOADED       1 BLD, BS= 0002B,FS=000001B
09.51.16. BEHES05.  CONTROL = NEW NAME FOR ZZZZZXC
09.51.16. BEHES05.   ZZZZZCI DISK 2
09.51.16. BEHES05.     CORE IMAGE FROZEN ON FILE ZZZZZCI
09.51.16. BEHES05.     CALLED FROM     XEQCCS
09.51.16. BEHES05.     STOP
09.51.16. BEHES05.   LINK    RETURNED       1 BLD, BS= 0012B,FS=000012B
09.51.16. BEHES05.   MNF4LIB RETURNED       1 BLD, BS= 0010B,FS=000007B
09.51.16. BEHES05.   FTN4LIB RETURNED       1 BLD, BS= 0100B,FS=000077B
09.51.17. BEHES05. ....................................................
09.51.17. BEHES05. FETCHPS,HECDOC,HECNEWS,HECNEWS.
09.51.18. BEHES05.  FLS=170K  FLL=0000K  LCM BUFFERS=0236K  TOTAL LCM=0426K
09.51.19. BEHES05.   HECNEWS DISK 2
09.51.19. BEHES05.  HECNEWS          211 WORDS COPIED FROM CACHE.
09.51.19. BEHES05.   CACHE22 RETURNED       6 BLD, BS= 0040B,FS=122437B
09.51.19. BEHES05.   TAPEPAC RETURNED       0 BLD, BS= 0002B,FS=000000B
09.51.19. BEHES05. ....................................................
09.51.19. BEHES05. BKSP,ZZZZZCI.
09.51.19. BEHES05. ZZZZZCI.
09.51.19. BEHES05.  FLS=101K  FLL=0000K  LCM BUFFERS=0200K  TOTAL LCM=0301K
09.51.19. BEHES05.        THAW PROGRAM FROZEN BY SUBROUTINE XEQCCS
09.51.19. BEHES05.   ZZZZZCI RETURNED       0 BLD, BS= 0102B,FS=000102B
09.51.20. BEHES05.   HECNEWS RETURNED       0 BLD, BS= 0002B,FS=000001B
09.51.20. BEHES05.   TAPE92  DISK 2
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09.51.20. BEHES05.   TAPE94  DISK 2
09.51.20. BEHES05.   TAPE91  DISK 2
09.51.20. BEHES05.   TAPE95  DISK 2
09.51.23. BEHES05.   TAPE96  DISK 2
09.51.24. BEHES05.  FLS=102K  FLL=0000K  LCM BUFFERS=0374K  TOTAL LCM=0476K
09.51.24. BEHES05.     STOP
09.51.24. BEHES05.       1.997 CP SECONDS EXECUTION TIME
09.51.24. BEHES05. REWIND,S.
09.51.27. BEHES05.  FLS=170K  FLL=0000K  LCM BUFFERS=0374K  TOTAL LCM=0564K
09.51.29. BEHES05. REWIND,S.
09.51.29. BEHES05. COPY,S,OUTPUT.
09.51.29. BEHES05.  FLS=020K  FLL=0000K  LCM BUFFERS=0374K  TOTAL LCM=0414K
09.51.32. BEHES05.      FROM S              21189W        2R         0F         0L
09.51.32. BEHES05.  TOTAL TO OUTPUT         21189W        2R         0F         0L
09.51.32. BEHES05.  COPY COMPLETE.
09.51.32. BEHES05. DISPOSE,S=MF,R=(PLEASE SEND TO/B. HOLBROOK    /ARMY CORPS OF ENGINEERS,DETROIT
09.51.32. BEHES05. +/DISTRICT/BOX 1027/DETROIT,MICHIGAN 482311,DT=I.
09.51.36. BEHES05.  FLS=170K  FLL=0000K  LCM BUFFERS=0434K  TOTAL LCM=0624K
09.51.36. BEHES05.   S        UNLOADED       5 BLD, BS= 0040B,FS=000052B
09.51.36. BEHES05.   TAPEPAC DISK 2
09.51.37. BEHES05.   TAPEPAC UNLOADED        1 BLD, BS= 0002B,FS=0000018
09.52.12. BEHES05.   TAPEPAC RETURNED        1 BLD, BS= 0002B,FS=0000018
09.52.13. BEHES05.  * S        QUEUED MF 333
09.52.13. BEHES05.   STATION RETURNED        1 BLD, BS= 0002B,FS=0000018
09.52.13. BEHES05.   S        DELETED        5 BLD, BS= 0040B,FS=000052B
09.52.13. BEHES05.   OUTPUT  QUEUED PR       3 BLD, BS= 0020B,FS=0000538
09.52.13. BEHES05.. *J HP0929G    804045N 16AUG79RZ N 000026BN;        EEE5HOLBRO
09.52.13. BEHES05.  ..........................
09.52.13. BEHES05.. SECTORS TRANSFERRED        461
09.52.13. BEHES05.. MAX DISK SECTORS           720
09.52.13. BEHES05.. CP SECONDS               2.136
09.52.13. BEHES05.. SYSTEM SECONDS           0.407
09.52.13. BEHES05.. OLD BLD"S                  19
09.52.13. BEHES05.. LCM BUFFER LOADS           24
09.52.13. BEHES05.. ITO CUS                     5
09.52.13. BEHES05.. RWORDS XFERRED            231
09.52.13. BEHES05.. CIO CALLS                 944
09.52.13. BEHES05.. STAGING CUS                 0
09.52.13. BEHES05.  ..........................
09.52.13. BEHES05.. TOTAL JOB CUS              26
09.52.13. BEHES05.. COST + OVERHEAD   $      2.70
09.52.13. BEHES05.  ..........................

09.52.42. BEHES05.  OUTPUT  QUEUED PR 345
```

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LOAD MAP. LINK = BKY 6000/7000 B.4 16 AUG 79 09.51.14 PAGE 1

FL REQUIRED TO LOAD 111200
FL REQUIRED TO RUN 100700
INITIAL TRANSFER TO HEC2 = 5225

BLOCK ASSIGNMENTS.

BLOCK	ADDRESS	LENGTH	FILE
/CONTRL/	100	17	
/QJOBSFL/	117	2	
/SIZE/	121	1	
HEC2	122	5146	HEC2
/DOUBLE/	5270	10	
/NAMES/	5300	202	
H2MAIN	5502	16706	HEC2
ADDPTS	24410	400	HEC2
BANNER	25010	230	HEC2
MESSAGE	25240	243	HEC2
BLFLO	25503	1075	HEC2
BLOCK	26600	323	HEC2
BWEIR	27123	1555	HEC2
CARD	30700	2510	HEC2
CHIMP	33410	1757	HEC2
DC	35367	741	HEC2
DONE	36330	113	HEC2
FLDHAZ	36443	2263	HEC2
FLODIS	40726	505	HEC2
BK.	41433	0	HEC2
NEAR	41433	35	HEC2
PRIAH	41470	261	HEC2
PROF	41751	1226	HEC2
SCALE	43177	316	HEC2
SLARA	43515	272	HEC2
SUMPO	44007	3034	HEC2
XSEC	47043	1414	HEC2
YCRIT	50457	220	HEC2
MAPIT	50677	76	HEC2
QVAR	50775	45	HEC2
SAVEIT	51042	54	HEC2
/IOCOM./	51116	27	
INIT8I.	51145	40	MNF4LIB
INIT8O.	51205	33	MNF4LIB
INPUB=	51240	51	MNF4LIB
INPUT$	51311	123	MNF4LIB
OUTPUB=	51434	14	MNF4LIB
OUTPUT$	51450	65	MNF4LIB
/.QCOMP./	51535	1	
Q8NTR=	51536	54	MNF4LIB
RTOR=	51612	147	MNF4LIB
CIO=	51761	13	FTN4LIB
CLOCK=	51774	44	FTN4LIB
/IO.BUF./	52040	227	

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BLOCK ASSIGNMENTS.

BLOCK	ADDRESS	LENGTH	FILE
DISPLA	52267	171	FTN4LIB
ENDFIL=	52460	20	FTN4LIB
ENDJ=	52500	2	FTN4LIB
EOF	52502	54	FTN4LIB
/Q8.IO./	52556	165	
/FCL.C./	52743	21	
/QLINLMT/	52764	1	
/QASAFLG/	52765	1	
/STP.END/	52766	1	
FORSYS=	52767	640	FTN4LIB
/QOVERL!/	53627	1	
FORUTL=	53630	16	FTN4LIB
FREEZE=	53646	233	FTN4LIB
F.OPEN	54101	120	FTN4LIB
F.REW	54221	41	FTN4LIB
F.WEOF	54262	52	FTN4LIB
GETFET=	54334	76	FTN4LIB
GETFIT=	54432	43	FTN4LIB
GETFP.	54475	60	FTN4LIB
HOUR$	54555	14	FTN4LIB
LFM=	54571	10	FTN4LIB
Q9FILE	54601	104	FTN4LIB
Q9DC	54705	203	FTN4LIB
REMARK	55110	3	FTN4LIB
REWIND=	55113	44	FTN4LIB
/QFILEAD/	55157	1	
SETFLS	55160	31	FTN4LIB
SQRT	55211	6	FTN4LIB
SQRT.	55217	32	FTN4LIB
SYSAID=	55251	1	FTN4LIB
SYS=	55252	34	FTN4LIB
SYS=1ST	55306	62	FTN4LIB
WTH=	55370	30	FTN4LIB
WTO=	55420	17	FTN4LIB
WTW=	55437	66	FTN4LIB
XEQCCS=	55525	266	FTN4LIB
IOFLAG.	56013	3	MNF4LIB
QFORSYS=	56016	32	MNF4LIB
FTN4LIB	56050	0	FTN4LIB
COMIO=	56050	60	FTN4LIB
FECMSK=	56130	41	FTN4LIB
FLTIN=	56171	156	FTN4LIB
FLTOUT=	56347	314	FTN4LIB
FMTAP=	56663	406	FTN4LIB
F.RDYI	57271	31	FTN4LIB
F.READB	57322	346	FTN4LIB
F.READF	57670	170	FTN4LIB
F.WEOR	60060	54	FTN4LIB
F.WRITB	60134	176	FTN4LIB
F.WRITF	60332	122	FTN4LIB
INCOM=	60454	262	FTN4LIB
INPB=	60736	172	FTN4LIB
INPC=	61130	234	FTN4LIB
KODER=	61364	536	FTN4LIB
KRAKER=	62122	435	FTN4LIB

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BLOCK ASSIGNMENTS.

BLOCK	ADDRESS	LENGTH	FILE
OUTB=	62557	117	FTN4LIB
OUTCOM=	62676	242	FTN4LIB
OUTC=	63140	155	FTN4LIB
RDL=	63315	37	FTN4LIB
RDO=	63354	23	FTN4LIB
RDW=	63377	114	FTN4LIB
UZERO..	63513	2	FTN4LIB
WTL=	63515	27	FTN4LIB
//	63544	15045	

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*****************************************************************************************
*  WATER SURFACE PROFILES                                                   *  U.S. ARMY CORPS OF ENGINEERS                *
*  VERSION OF NOVEMBER 1976                                                 *  THE HYDROLOGIC ENGINEERING CENTER           *
*  UPDATED JULY 1979                                                        *  609 SECOND STREET, SUITE D                  *
*                                                                           *  DAVIS, CALIFORNIA 95616                     *
*  RUN DATE  16 AUG 79 TIME  09.51.15                                       *  (916) 440-2105 (FTS) 448-2105               *
*****************************************************************************************
```

```
X     X  XXXXXXX   XXXXX            XXXXX
X     X  X        X     X          X     X
X     X  X        X                      X
XXXXXXX  XXXX     X         XXXXX   XXXXX
X     X  X        X                X
X     X  X        X     X          X
X     X  XXXXXXX   XXXXX           XXXXXXX
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*GENERAL MESSAGE

*HEC-2 MESSAGE

19 JULY 1979 -- THE STANDARD LIBRARY VERSION OF COMPUTER PROGRAM HEC-2 HAS BEEN UPDATED WITH ERROR CORRECTION 03. THIS UPDATE CORRECTS A SERIES OF PROGRAM ERRORS RELATED TO THE FOLLOWING: NEGATIVE ELEVATIONS; NORMAL BRIDGE APPLICATIONS; WEIR FLOW; BRIDGE ENCROACHMENTS; ENCROACHMENT METHODS 3, 4 AND 5; MULTIPLE CROSS SECTION PLOTS; AND FLOOD HAZARD FACTOR COMPUTATIONS. ERROR CORRECTION 03 ALSO INCLUDES A PROVISION TO IMPROVE HYDRAULIC CALCULATIONS FOR NEAR VERTICAL (1/10 SLOPE) ELEMENTS IN THE OVERBANKS. DOCUMENTATION FOR THIS ERROR CORRECTION WILL BE FURNISHED TO HEC-2 USERS IN AUGUST.

THE PREVIOUS VERSION OF HEC-2 MAY BE ACCESSED BY USE OF THE FOLLOWING CONTROL CARD:

```
FETCHGS,HECLIB/HEC2,23638,V=1,ATL=ON.
```

PLEASE CALL RICHARD HAYES OR AL MONTALVO AT (FTS) 448-2105 IF YOU HAVE ANY QUESTIONS REGARDING THIS ERROR CORRECTION.

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THIS RUN EXECUTED 16 AUG 79 09.51.20

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED JULY 1979
  ERROR CORR =  01,02,03
  MODIFICATION =  50,51,52,53
**************************************************

C
T1      FLOOD INSURANCE STUDY
T2      WEST BRANCH OF PAINT CREEK
T3      10  YR  FLOW

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
        =0.       2.        =0.       =0.  =0.            =0.       =0.       =0.   692.700   =0.
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
        1.000     =0.       =1.000    =0.       =0.       =0.       =0.       =0.       =0.       =0.
NC        .030      .030      .040      .200      .400      =0.       =0.       =0.       =0.       =0.
QT       4.000   110.000   190.000   410.000   875.000     =0.       =0.       =0.       =0.       =0.

                  3100 FT D/S BEMIS RD.
X1   11816.000    10.000   311.000   327.000     0.        0.        0.        =0.       =0.       =0.
GR     695.500   100.000   693.100   296.000   692.800   304.000   691.300   311.000   690.100   314.000
GR     689.300   319.000   689.400   323.000   691.500   327.000   693.400   344.000   696.500   715.000

                  2700 FT D/S BEMIS RD.
X1   12216.000    10.000   391.000   407.000   400.000   400.000   400.000   =0.       =0.       =0.
GR     696.000   230.000   693,800   376.000   693,500   384.000   692.000   391.000   690.800   394.000
GR     690.000   399.000   690.100   403.000   692.200   407.000   694.100   424.000   697.000   880.000

                  2300 FT D/S BEMIS RD.
X1   12616.000    14.000   241.000   257.000   700.000   325.000   400.000   =0.       =0.       =0.
X3       =0.      =0.       =0.       =0.       =0.     600.000     =0.       =0.       =0.       =0.
GR     697.200      0.      695.000   190.000   694.500   226.000   694.200   234.000   692.700   241.000
GR     691.500   244.000   690.700   249.000   690.800   253.000   694.900   257.000   694.800   274.000
GR     695.000   330.000   695.000   670.000   695.000   800.000   700.000  1430.000     =0.       =0.
NC        .030      .030      .040      =0.       =0.       =0.       =0.       =0.       =0.       =0.

                  1500 FT D/S BEMIS RD.
X1   13416.000    12.000   641.000   657.000   750.000   850.000   800.000   =0.       =0.       =0.
GR     698.000      0.      695.000   620.000   694.900   626.000   694.600   634.000   693.600   641.000
GR     692.400   644.000   691.600   649.000   691.700   653.000   693.800   657.000   694.900   674.000
GR     695.000   700.000   700.000  1110.000     =0.       =0.       =0.       =0.       =0.       =0.
ET       =0.       6.100     6.100     8.100     8.100   590.000   710.000   490.000   800.000     =0.

                  800 FT D/S BEMIS RD.
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X1	14116.000	12.000	641.000	657.000	700.000	700.000	700.000	=0.	=0.	=0.
GR	699.300	0.	695.000	600.000	694.900	626.000	694.600	634.000	693.900	641.000
GR	692.700	644.000	692.000	649.000	692.100	653.000	694.200	657.000	694.900	674.000
GR	695.000	800.000	700.000	1070.000	=0.	=0.	=0.	=0.	=0.	=0.
NC	=0.	=0.	=0.	.500	.800	=0.	=0.	=0.	=0.	=0.
X1	14299.000	12.000	536.000	552.000	183.000	183.000	183.000	=0.	=0.	=0.
X3	=0.	=0.	=0.	433.000	=0.	646.000	=0.	=0.	=0.	=0.
GR	699.470	0.	695.840	501.700	695.600	523.000	695.260	529.900	694.570	536.000
GR	692.620	539.000	692.100	544.000	692.180	548.000	694.850	552.000	695.850	568.500
GR	696.050	674.800	700.000	902.000	=0.	=0.	=0.	=0.	=0.	=0.
X1	14481.000	14.000	431.000	447.000	182.000	182.000	182.000	=0.	=0.	=0.
GR	699.650	0.	696.710	401.700	696.690	403.400	696.510	417.200	696.300	420.900
GR	695.930	425.900	695.250	431.000	692.550	434.000	692.200	439.000	692.250	443.000
GR	695.500	447.000	696.800	463.100	697.100	549.600	700.000	735.000	=0.	=0.

71 FT D/S BEMIS RD. (ZW =1+00)

X1	14846.000	10.000	221.000	237.000	365.000	365.000	365.000	=0.	=0.	=0.
GR	700.000	0.	698.400	206.000	698.100	214.000	696.600	221.000	692.400	224.000
GR	692.400	229.000	692.400	233.000	696.800	237.000	698.700	254.000	700.000	400.000

35 FT D/S BEMIS RD. (INT)

X1	14881.000	10.000	221.000	237.000	35.000	35.000	35.000	=0.	.=.300	=0.
X3	=0.	=0.	=0.	209.000	=0.	239.000	=0.	=0.	=0.	=0.
GR	700.000	0.	698.400	206.000	698.100	214.000	696.600	221.000	692.400	224.000
GR	692.400	229.000	692.400	233.000	696.800	237.000	698.700	254.000	700.000	400.000
NC	.030	.030	.027	=0.	=0.	=0.	=0.	=0.	=0.	=0.

D/S FACE BEMIS RD. = (COE VS=1)

X1	14917.000	10.000	295.000	305.000	36.000	36.000	36.000	=0.	=0.	=0.
GR	700.800	0.	699.900	100.000	699.700	200.000	697.800	295.000	691.800	295.000
GR	691.800	305.000	700.400	305.000	700.200	400.000	700.900	500.000	700.600	600.000
SB	1.500	3.160	2.700	=0.	9.900	1.500	50.600	=0.	692.400	691.800

.2 = 19 1/95

U/S FACE BEMIS RD.

X1	14975.000	=0.	=0.	=0.	58.000	58.000	58.000	=0.	=0.	=0.
X2	=0.	=0.	1.000	697.800	699.900	=0.	=0.	=0.	=0.	=0.
X3	=0.	=0.	=0.	295.000	699.500	=0.	=0.	=0.	=0.	=0.
BT	10.000	0.	700.800	0.	100.000	699.900	0.	200.000	700.500	0.
BT	295.000	700.400	0.	295.000	700.400	697.800	305.000	700.400	697.800	305.000
BT	700.400	0.	400.000	700.200	0.	500.000	700.900	0.	600.000	700.600
BT	0.	=0.	=0.	=0.	=0.	=0.	=0.	=0.	=0.	=0.
NC	.040	.040	.045	=0.	=0.	=0.	=0.	=0.	=0.	=0.

35 FT U/S BEMIS RD. (INT)

X1	15010.000	12.000	285.000	314.000	35.000	35.000	35.000	=0.	=0.	=0.
X3	=0.	=0.	=0.	260.000	700.000	340.000	=0.	=0.	=0.	=0.
GR	701.100	0.	700.000	100.000	697.800	200.000	698.300	285.000	695.300	293.000
GR	694.500	295.000	693.900	305.000	694.600	309.000	698.100	314.000	700.100	400.000
GR	701.000	500.000	701.000	600.000	=0.	=0.	=0.	=0.	=0.	=0.

70 FT U/S BEMIS RD (ZW 1+00) CROSS SECTION A

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X1	15046.000	12.000	285.000	314.000	36.000	36.000	36.000	0.	0.	0.
X3	0.	0.	0.	224.000	699.000	376.000	0.	0.	0.	0.
GR	700.500	0.	700.000	100.000	697.800	200.000	698.300	285.000	696.700	293.000
GR	695.900	295.000	695.300	305.000	696.000	309.000	698.100	314.000	700.100	400.000
GR	701.000	500.000	701.000	600.000	0.	0.	0.	0.	0.	0.
NC	0.	0.	0.	.200	.400	0.	0.	0.	0.	0.

570 FT U/S BEMIS RD. (ZW 6+00)

X1	15546.000	13.000	278.000	321.000	500.000	500.000	500.000	0.	0.	0.
GR	700.900	0.	700.600	100.000	698.700	200.000	700.100	278.000	698.900	287.000
GR	696.000	294.000	695.800	300.000	695.900	306.000	699.600	312.000	700.800	321.000
GR	701.100	400.000	702.300	500.000	703.400	600.000	0.	0.	0.	0.

1070 FT U/S BEMIS RD. (ZW 11+00) CROSS SECTION B

X1	16046.000	14.000	291.000	315.000	500.000	500.000	500.000	0.	0.	0.
GR	702.000	0.	700.700	100.000	700.500	200.000	698.800	291.000	696.900	295.000
GR	696.900	302.000	696.300	309.000	700.100	315.000	699.300	331.000	700.100	402.000
GR	700.300	418.000	702.000	458.000	702.700	502.000	703.200	602.000	0.	0.

50FT D/S PRIVATE WOOD PLANK CROSSING \R ZW CROSSING 1°

X1	16119.000	0.	0.	0.	73.000	73.000	73.000	0.	.120	0.

D/S FACE OF PRIVATE WOOD PLANK CROSSING \ZW CROSSING 1°

X1	16168.000	11.000	291.500	308.500	49.000	49.000	49.000	0.	0.	0.
GR	702.000	0.	700.700	100.000	700.500	200.000	699.300	291.500	696.100	291.500
GR	696.100	308.500	699.300	308.500	700.100	400.000	702.000	458.000	702.700	502.000
GR	703.200	602.000	0.	0.	0.	0.	0.	0.	0.	0.

X1	16169.000	0.	0.	0.	1.000	1.000	1.000	0.	0.	0.
BT	11.000	0.	702.000	0.	100.000	700.700	0.	200.000	700.500	0.
BT	291.500	699.300	0.	291.500	699.300	699.100	308.500	699.300	699.100	308.500
BT	699.300	0.	400.000	700.100	0.	458.000	702.000	0.	502.000	702.700
BT	0.	602.000	703.200	0.	0.	0.	0.	0.	0.	0.

U/S FACE OF PRIVATE WOOD PLANK CROSSING \R ZW CROSSING 1°

X1	16182.000	0.	0.	0.	13.000	13.000	13.000	0.	0.	0.
X2	0.	0.	0.	0.	0.	0.	1.000	0.	0.	0.

X1	16183.000	0.	0.	0.	1.000	1.000	1.000	0.	0.	0.

50FT U/S PRIVATE WOOD PLANK CROSSING \R ZW CROSSING 1°

X1	16233.000	0.	0.	0.	50.000	50.000	50.000	0.	.040	0.

1570 FT U/S BEMIS RD. (ZW 16+00)

X1	16546.000	13.000	292.000	311.000	313.000	313.000	313.000	0.	0.	0.
GR	701.800	0.	701.000	100.000	700.800	200.000	699.300	292.000	697.400	295.000
GR	696.400	300.000	697.200	305.000	700.200	311.000	701.100	320.000	701.100	329.000
GR	702.500	400.000	703.300	500.000	704.100	600.000	0.	0.	0.	0.

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2070 FT U/S BEMIS RD. (ZW 21+00) CROSS SECTION C

X1	17046.000	13.000	282.000	313.000	500.000	500.000	500.000	0.	0.	0.
X3	0.	0.	0.	100.000	0.	0.	0.	0.	0.	0.
GR	701.800	0.	701.900	100.000	700.500	200.000	701.200	282.000	700.400	290.000
GR	699.300	295.000	698.100	298.000	698.200	302.000	698.400	307.000	701.800	313.000
GR	702.300	403.000	704.000	503.000	705.000	603.000	0.	0.	0.	0.
ET	0.	6.100	6.100	8.100	8.100	230.000	603.000	150.000	603.000	0.

50FT D/S PRIVATE 18[CMP CROSSING (R ZW 21+00)

X1	17233.000	0.	0.	0.	187.000	187.000	187.000	0.	.400	0.

D/S FACE PRIVATE 18[CMP CROSSING (ZW CROSSING 2)

X1	17283.000	19.000	284.000	308.000	50.000	50.000	50.000	0.	0.	0.
X3	0.	0.	0.	0.	0.	368.000	0.	0.	0.	0.
GR	703.500	0.	703.400	100.000	702.100	200.000	701.200	284.000	699.600	299.300
GR	699.600	299.300	699.300	299.300	698.800	299.500	698.700	299.800	698.700	300.200
GR	698.800	300.500	699.300	300.800	699.600	300.800	702.000	308.000	701.100	322.000
GR	701.600	325.000	701.700	400.000	703.400	500.000	703.100	600.000	0.	0.
SB	0.	3.080	2.600	0.	1.200	0.	1.770	0.	698.700	698.700

U/S FACE PRIVATE 18[CMP CROSSING (R ZW CROSSING 2)

X1	17309.000	0.	0.	0.	26.000	26.000	26.000	0.	0.	0.
X2	0.	0.	1.000	700.200	701.200	0.	0.	0.	0.	0.
X3	0.	0.	0.	0.	0.	395.000	0.	0.	0.	0.
BT	16.000	0.	703.500	0.	100.000	703.400	0.	200.000	702.100	0.
BT	284.000	701.200	0.	299.300	701.200	699.600	299.500	701.200	700.000	299.800
BT	701.200	700.200	300.200	701.200	700.200	300.500	701.200	700.000	300.800	701.200
BT	699.600	308.000	702.000	0.	322.000	701.100	0.	325.000	701.600	0.
BT	400.000	701.700	0.	500.000	703.400	0.	600.000	703.100	0.	0.

50FT U/S PRIVATE 18[CMP CROSSING

X1	17359.000	13.000	284.000	308.000	50.000	50.000	50.000	0.	0.	0.
X3	0.	0.	0.	0.	0.	445.000	0.	0.	0.	0.
GR	703.500	0.	703.400	100.000	702.100	200.000	701.800	284.000	699.100	298.000
GR	699.100	300.000	699.000	302.000	702.000	308.000	701.100	322.000	701.600	325.000
GR	701.700	400.000	703.400	500.000	703.100	600.000	0.	0.	0.	0.
NC	0.	0.	0.	.200	.400	0.	0.	0.	0.	0.

2570 FT U/S BEMIS RD. (ZW 26+00)

X1	17546.000	13.000	284.000	308.000	250.000	150.000	187.000	0.	0.	0.
GR	703.500	0.	703.400	100.000	702.100	200.000	701.800	284.000	699.200	298.000
GR	699.200	300.000	699.100	302.000	702.000	308.000	701.100	322.000	701.600	325.000
GR	701.700	400.000	703.400	500.000	703.100	600.000	0.	0.	0.	0.
NC	.040	.040	.045	0.	0.	0.	0.	0.	0.	0.

3170 FT U/S BEMIS RD. (ZW 32+00) CROSS SECTION D

X1	18146.000	12.000	285.000	314.000	600.000	600.000	600.000	0.	0.	0.
X3	0.	0.	0.	100.000	0.	0.	0.	0.	0.	0.
GR	704.900	0.	702.400	100.000	703.400	200.000	704.400	285.000	701.000	296.000
GR	700.700	301.000	700.900	305.000	703.000	307.000	705.400	314.000	704.900	401.000
GR	705.000	501.000	70 .100	01.000	0.	0.	0.	0.	0.	0.

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3670 FT U/S BEMIS RD. (ZW 37+00)

X1	18646.000	14.000	285.000	314.000	500.000	500.000	500.000	=0.	=0.	=0.
GR	706.500	0.	707.100	100.000	706.400	200.000	704.100	285.000	701.700	296.000
GR	701.400	300.000	701.800	303.000	702.500	307.000	703.700	309.000	704.800	314.000
GR	703.700	395.000	706.700	462.000	706.700	500.000	707.900	600.000	=0.	=0.

4170 FT U/S BEMIS RD. (ZW 42+00) CROSS SECTION E

X1	19146.000	11.000	284.000	311.000	500.000	500.000	500.000	=0.	=0.	=0.
GR	708.000	0.	707.500	100.000	706.500	200.000	704.800	284.000	703.100	295.000
GR	702.800	300.000	702.900	305.000	705.100	311.000	708.000	402.000	708.600	502.000
GR	709.700	602.000	=0.	=0.	=0.	=0.	=0.	=0.	=0.	=0.

4670 FT U/S BEMIS RD. (ZW 47+00)

X1	19646.000	12.000	287.000	314.000	300.000	650.000	500.000	=0.	=0.	=0.
GR	708.900	0.	708.800	100.000	705.700	146.000	705.200	200.000	705.900	287.000
GR	704.300	295.000	703.900	300.000	704.300	305.000	706.100	314.000	708.600	400.000
GR	709.100	500.000	709.400	600.000	=0.	=0.	=0.	=0.	=0.	=0.

5170 FT U/S BEMIS RD. (ZW 52+00) CROSS SECTION F

X1	20146.000	13.000	284.000	311.000	500.000	500.000	500.000	=0.	=0.	=0.
GR	708.900	0.	708.300	100.000	708.200	200.000	707.000	226.000	706.700	284.000
GR	704.900	297.000	704.700	300.000	704.900	303.000	706.700	311.000	706.300	391.000
GR	710.000	467.000	710.800	500.000	710.900	600.000	=0.	=0.	=0.	=0.
ET	=0.	6.100	6.100	8.100	8.100	1.000	360.000	1.000	590.000	=0.

5670 FT U/S BEMIS RD. (ZW 57+00)

X1	20646.000	12.000	275.000	323.000	500.000	500.000	500.000	=0.	=0.	=0.
GR	710.800	0.	711.000	100.000	710.100	200.000	707.600	275.000	705.800	292.000
GR	705.700	300.000	705.700	308.000	707.100	323.000	706.700	400.000	707.600	464.000
GR	710.300	500.000	710.900	590.000	=0.	=0.	=0.	=0.	=0.	=0.

X1	20776.000	20.000	252.500	292.700	130.000	130.000	130.000	=0.	=0.	=0.
GR	711.000	0.	711.100	91.900	710.800	135.800	710.220	184.100	708.100	252.500
GR	707.040	260.500	705.970	264.700	705.820	268.600	705.810	269.700	705.760	270.900
GR	706.250	274.000	706.620	277.800	706.660	280.200	707.850	292.700	707.750	353.800
GR	707.920	370.300	708.360	405.100	709.810	433.300	710.050	461.900	710.970	504.700

X1	20906.000	18.000	230.000	271.500	130.000	130.000	130.000	=0.	=0.	=0.
GR	711.200	0.	711.200	83.800	710.940	123.750	710.350	167.600	708.600	230.000
GR	707.490	238.300	706.140	244.700	705.840	246.600	705.830	247.800	705.820	248.970
GR	706.810	252.230	707.550	256.100	707.620	258.550	708.600	271.500	708.840	335.600
GR	709.350	371.250	709.550	389.200	710.970	419.400	=0.	=0.	=0.	=0.

79 FT D/S MERRITT RD (ZW 60+38) CROSS SECTION G

X1	21166.000	11.000	185.000	220.000	260.000	260.000	260.000	=0.	=0.	=0.
GR	711.600	0.	711.300	100.000	709.600	185.000	708.400	192.000	705.900	199.000
GR	705.900	200.000	705.900	201.000	709.400	207.000	710.200	220.000	711.400	300.000
GR	712.000	400.000	=0.	=0.	=0.	=0.	=0.	=0.	=0.	=0.
NC	.040	.040	.030	.500	1.000	=0.	=0.	=0.	=0.	=0.

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X1	21206.000	9.000	85.000	120.000	10.000	40.000	40.000	0.	0.	0.
GR	711.300	0.	709.600	85.000	706.600	92.000	705.100	99.000	705.100	100.000
GR	705.100	101.000	707.600	107.000	710.200	120.000	711.400	200.000	0.	0.
NC	.030	.030	.027	0.	0.	0.	0.	0.	0.	0.

D/S FACE MERRITT RD. (COE VS-2)

X1	21245.000	22.000	280.000	303.000	10.000	39.000	39.000	0.	0.	0.
GR	711.100	0.	711.200	100.000	711.600	200.000	709.700	280.000	709.000	288.000
GR	707.800	295.000	707.100	296.000	707.000	297.000	706.500	297.000	705.000	297.200
GR	704.000	298.000	703.500	299.000	703.300	300.000	703.500	301.000	704.000	302.000
GR	705.000	302.800	706.500	303.000	708.400	304.000	709.800	324.000	712.700	400.000
GR	712.800	500.000	713.000	600.000	0.	0.	0.	0.	0.	0.
SB	0.	2.020	2.800	0.	6.000	0.	28.300	0.	703.300	703.300

U/S FACE MERRITT RD.

X1	21287.000	0.	0.	0.	42.000	42.000	42.000	0.	0.	0.
X2	0.	0.	1.000	704.300	711.100	0.	0.	0.	0.	0.
X3	0.	0.	0.	150.000	0.	308.000	0.	0.	0.	0.
BT	17.000	0.	711.100	0.	100.000	711.200	0.	200.000	711.600	0.
BT	297.000	712.700	0.	297.000	712.700	706.500	297.200	712.700	707.600	298.000
BT	712.700	708.700	299.000	712.700	709.200	300.000	712.700	709.300	301.000	712.700
BT	709.200	302.000	712.700	708.700	302.800	712.700	707.600	303.000	712.700	706.300
BT	303.000	712.700	0.	400.000	712.700	0.	500.000	712.800	0.	600.000
BT	713.000	0.	0.	0.	0.	0.	0.	0.	0.	0.
NC	.030	.030	.030	0.	0.	0.	0.	0.	0.	0.

40 FT U/S MERRITT RD.

X1	21327.000	11.000	348.000	363.000	40.000	40.000	40.000	0.	0.	0.
X3	0.	0.	0.	225.000	0.	400.000	0.	0.	0.	0.
GR	712.000	0.	709.700	340.000	709.000	348.000	705.900	355.000	705.200	356.000
GR	705.100	358.000	705.200	359.000	705.600	360.000	708.400	363.000	709.800	383.000
GR	715.000	883.000	0.	0.	0.	0.	0.	0.	0.	0.

79 FT U/S MERRITT RD (ZW 61+38) CROSS SECTION H

X1	21366.000	11.000	348.000	363.000	39.000	39.000	39.000	0.	0.	0.
X3	0.	0.	0.	235.000	0.	440.000	0.	0.	0.	0.
GR	712.000	0.	709.700	340.000	709.000	348.000	707.800	355.000	707.100	356.000
GR	707.000	358.000	707.100	359.000	707.500	360.000	708.400	363.000	709.800	383.000
GR	715.000	883.000	0.	0.	0.	0.	0.	0.	0.	0.

329 FT U/S MERRITT RD (INT)

X1	21616.000	12.000	195.000	205.000	250.000	250.000	250.000	0.	0.	0.
X3	0.	0.	0.	0.	0.	335.000	0.	0.	0.	0.
GR	715.300	0.	715.600	68.000	714.500	100.000	713.900	118.000	711.500	150.000
GR	710.500	195.000	707.800	199.000	707.600	201.000	707.700	203.000	710.000	205.000
GR	709.300	300.000	715.000	550.000	0.	0.	0.	0.	0.	0.

499 FT U/S MERRITT RD (COE VS-6A) CROSS SECTION I

X1	21786.000	26.000	668.000	690.000	170.000	170.000	170.000	0.	0.	0.
X3	0.	0.	0.	500.000	0.	941.000	0.	0.	0.	0.
GR	720.900	0.	715.000	120.000	710.900	150.000	710.300	250.000	709.600	300.000
GR	708.00	312.000	707.00	316.000	705.100	321.000	704.500	326.000	705.100	331.000

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	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
GR	710.700	600.000	709.400	668.000	707.800	675.000	707.600	680.000	707.800	687.000
GR	710.500	690.000	712.000	768.000	712.800	870.000	714.800	941.000	715.400	1015.000
GR	720.000	1445.000	¤0.	¤0.	¤0.	¤0.	¤0.	¤0.	¤0.	¤0.
EJ	¤0.	¤0.	¤0.	¤0.	¤0.	¤0.	¤0.	¤0.	¤0.	¤0.

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*PROF 1

CCHV= .200 CEHV= .400

*SECNO 11816.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
		3100 FT D/S BEMIS RD.							
11816.00	3.40	692.70	0.	692.70	692.77	.07	0.	0.	691.30
110.	6.	97.	7.	5.	43.	6.	0.	0.	691.50
0.	1.23	2.24	1.12	.030	.040	.030	0.	689.30	304.47
.001025	0.	0.	0.	0	0	0	0.	33.27	337.74

*SECNO 12216.000

2700 FT D/S BEMIS RD.

12216.00	3.17	693.17	0.	0.	693.27	.09	.49	.01	692.00
110.	4.	101.	5.	3.	40.	4.	0.	0.	692.20
.05	1.31	2.53	1.17	.030	.040	.030	.040	690.00	385.52
.001474	400.	400.	400.	2	0	0	0.	30.20	415.72

*SECNO 12616.000

3470 ENCROACHMENT STATIONS= .0 600.0 TYPE= 1 TARGET= 599.999

2300 FT D/S BEMIS RD.

12616.00	3.18	693.88	0.	0.	694.00	.13	.72	.01	692.70
110.	5.	105.	0.	3.	36.	0.	1.	1.	694.90
.09	1.58	2.89	0.	.030	.040	.030	.039	690.70	235.51
.002124	700.	400.	325.	2	0	0	0.	20.49	256.00

*SECNO 13416.000

1500 FT D/S BEMIS RD.

13416.00	3.39	694.99	0.	0.	695.05	.06	1.03	.01	693.60
110.	9.	89.	12.	8.	43.	12.	2.	1.	693.80
.21	1.13	2.05	1.00	.030	.040	.030	.040	691.60	620.60
.000864	750.	800.	850.	2	0	0	0.	76.78	697.38

*SECNO 14116.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 590.0 710.0 TYPE= 1 TARGET= 120.000

800 FT D/S BEMIS RD.

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14116.00	3.42	695.42	0.	0.	695.45	.02	.39	.01	693.90
110.	23.	63.	25.	30.	44.	33.	3.	3.	694.20
.38	.75	1.41	.75	.030	.040	.030	.040	692.00	590.00
.000394	700.	700.	700.	3	0	0	0.	120.00	710.00

CCHV= .500 CEHV= .800

*SECNO 14299.000

3470 ENCROACHMENT STATIONS= 433.0 646.0 TYPE= 1 TARGET= 213.000

14299.00	3.43	695.53	0.	0.	695.61	.08	.12	.05	694.57
110.	5.	102.	3.	5.	43.	4.	4.	3.	694.85
.40	1.10	2.35	.83	.030	.040	.030	.040	692.10	524.35
.001186	183.	183.	183.	1	0	0	0.	38.93	563.28

*SECNO 14481.000

14481.00	3.56	695.76	0.	0.	695.85	.09	.23	.01	695.25
110.	1.	109.	0.	1.	44.	0.	4.	4.	695.50
.42	.73	2.47	.46	.030	.040	.030	.040	692.20	427.20
.001360	182.	182.	182.	2	0	0	0.	22.97	450.17

*SECNO 14846.000

71 FT D/S BEMIS RD. (ZW =1+00)

14846.00	3.84	696.24	0.	0.	696.33	.09	.47	.00	696.60
110.	0.	110.	0.	0.	46.	0.	4.	4.	696.80
.46	0.	2.37	0.	.030	.040	.030	.040	692.40	221.26
.001230	365.	365.	365.	1	0	0	0.	15.22	236.48

*SECNO 14881.000

3470 ENCROACHMENT STATIONS= 209.0 239.0 TYPE= 1 TARGEY= 30.000

35 FT D/S BEMIS RD. (INT)

14881.00	4.20	696.30	0.	0.	696.37	.07	.04	.01	696.30
110.	0.	110.	0.	0.	52.	0.	4.	4.	696.50
.47	0.	2.12	0.	.030	.040	.030	.040	692.10	221.01
.000896	35.	35.	35.	1	0	0	0.	15.81	236.81

*SECNO 14917.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

D/S FACE BEMIS RD. = (COE VS=1)

14917.00	4.52	696.32	0.	0.	696.42	.09	.03	.02	697.80
110.	0.	110.	0.	0.	45.	0.	4.	4.	700.40
.47	0.	2.43	0.	.030	.027	.030	.040	691.80	295.00
.000613	36.	36.	36.	1	0	0	0.	10.00	305.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD

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1.50 3.10 2.70 80. .0 1.50 30.00 80. 694.0 697.00

*SECNO 14975.000
CLASS A LOW FLOW

3420 BRIDGE W.S.= 696.58 BRIDGE VELOCITY= 2.92 CALCULATED CHANNEL AREA= 35.

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
0.	696.46	.05	0.	110.	51.	45.	697.80	699.90

3470 ENCROACHMENT STATIONS= 295.0 600.0 TYPE= 1 TARGET= =295.000
ELENCL= 699.50 ELENCR= 100000.00

U/S FACE BEMIS RD.

14975.00	4.57	696.37	0.	0.	696.46	.09	.05	0.		697.80
110.	0.	110.	0.	0.	46.	0.	4.	4.		700.40
.48	0.	2.41	0.	.030	.027	.030	.039	691.80		295.00
.000599	58.	58.	58.	0	0	0	0.	10.00		305.00

*SECNO 15010.000

3470 ENCROACHMENT STATIONS= 260.0 340.0 TYPE= 1 TARGET= 80.000
ELENCL= 700.00 ELENCR= 100000.00

35 FT U/S BEMIS RD. (INT)

15010.00	2.51	696.41	0.	0.	696.54	.13	.04	.03		698.30
110.	0.	110.	0.	0.	38.	0.	4.	4.		698.10
.48	0.	2.93	0.	.040	.045	.040	.039	693.90		290.07
.003984	35.	35.	35.	1	0	0	0.	21.50		311.57

*SECNO 15046.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 224.0 376.0 TYPE= 1 TARGET= 152.000
ELENCL= 699.00 ELENCR= 100000.00

70 FT U/S BEMIS RD. (ZW 1+00) CROSS SECTION A

15046.00	1.53	696.83	696.83	0.	697.35	.52	.31	.31		698.30
110.	0.	110.	0.	0.	19.	0.	4.	4.		698.10
.49	0.	5.78	0.	.040	.045	.040	.039	695.30		292.53
.030764	36.	36.	36.	3	14	0	0.	18.66		310.99

CCHV= .200 CEHV= .400
*SECNO 15546.000

3265 DIVIDED FLOW

570 FT U/S BEMIS RD. (ZW 6+00)

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110.	2.	108.	0.	0.	6.	57.	0.	5.	4.	700.80
.56	.39	1.88	0.	.040	.045	.040	.040	695.80	182.26
.001176	500.	500.	500.	6	0	0	0.	61.63	311.09

*SECNO 16046.000

3265 DIVIDED FLOW

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1070 FT U/S BEMIS RD. (ZW 11+00) CROSS SECTION B

16046.00	3.29	699.59	0.	0.	699.63	.04	.54	.00	698.80
110.	10.	98.	1.	17.	55.	4.	6.	5.	700.10
.64	.63	1.78	.32	.040	.045	.040	.041	696.30	248.88
.000988	500.	500.	500.	4	0	0	0.	96.50	356.46

*SECNO 16119.000

3265 DIVIDED FLOW

50FT D/S PRIVATE WOOD PLANK CROSSING \R ZW CROSSING 1"

16119.00	3.48	699.66	0.	0.	699.69	.03	.06	.00	698.68
110.	15.	90.	5.	26.	60.	13.	6.	5.	699.98
.66	.59	1.50	.37	.040	.045	.040	.041	696.18	238.23
.000646	73.	73.	73.	0	0	0	0.	129.11	374.12

*SECNO 16168.000

D/S FACE OF PRIVATE WOOD PLANK CROSSING \ZW CROSSING 1"

16168.00	3.59	699.69	0.	0.	699.73	.04	.03	.01	699.30
110.	2.	105.	3.	6.	61.	9.	6.	5.	699.30
.67	.35	1.72	.35	.040	.045	.040	.041	696.10	261.36
.000750	49.	49.	49.	1	0	0	0.	92.36	353.71

*SECNO 16169.000

3370 NORMAL BRIDGE,NRD= 11 MIN ELTRD= 699.30 MAX ELLC= 699.10

16169.00	3.59	699.69	0.	0.	699.73	.04	.00	.00	699.30
110.	4.	100.	6.	6.	58.	9.	6.	5.	699.30
.67	.70	1.74	.70	.040	.045	.040	.041	696.10	261.86
.003112	1.	1.	1.	0	0	0	=3.40	91.11	352.96

*SECNO 16182.000

3370 NORMAL BRIDGE,NRD= 11 MIN ELTRD= 699.30 MAX ELLC= 699.10

U/S FACE OF PRIVATE WOOD PLANK CROSSING \R ZW CROSSING 1"

16182.00	3.63	699.73	0.	0.	99.77	.04	.04	.00	699.30

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110.	3.	.0.	/.	/.	38.	10.	-.	3.	69 .30	
.67	.71	1.68	.71	.040	.045	.040	.041	696.10	259.20	
.002882	13.	13.	13.	1	0	0	-3.40	97.76	356.95	

*SECNO 16183.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
16183.00	3.63	699.73	0.	0.	699.77	.04	.00	.00	699.30
110.	3.	104.	4.	7.	62.	11.	6.	5.	699.30
.67	.36	1.68	.36	.040	.045	.040	.041	696.10	258.27
.000705	1.	1.	1.	0	0	0	0.	100.07	358.34

*SECNO 16233.000

50FT U/S PRIVATE WOOD PLANK CROSSING \R ZW CROSSING 1°

16233.00	3.63	699.77	0.	0.	699.81	.04	.04	.00	699.34
110.	2.	104.	4.	7.	62.	10.	6.	6.	699.34
.68	.36	1.68	.36	.040	.045	.040	.041	696.14	258.85
.000713	50.	50.	50.	2	0	0	0.	98.63	357.48

*SECNO 16546.000

1570 FT U/S BEMIS RD. (ZW 16+00)

16546.00	3.66	700.06	0.	0.	700.12	.06	.31	.01	699.30
110.	13.	97.	0.	18.	45.	0.	6.	6.	700.20
.72	.73	2.14	0.	.040	.045	.040	.041	696.40	245.35
.001412	313.	313.	313.	2	0	0	0.	65.37	310.72

CCHV= .300 CEHV= .600

*SECNO 17046.000

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 100.0 603.0 TYPE= 1 TARGET= -100.000

2070 FT U/S BEMIS RD. (ZW 21+00) CROSS SECTION C

17046.00	2.86	700.96	0.	0.	701.02	.06	.90	.00	701.20
110.	14.	96.	0.	20.	44.	0.	7.	7.	701.80
.79	.68	2.17	0.	.040	.045	.030	.041	698.10	166.78
.002356	500.	500.	500.	2	0	0	0.	114.88	311.53

*SECNO 17233.000

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 230.0 603.0 TYPE= 1 TARGET= 373.000

50FT D/S PRIVATE 18[CMP CROSSING (R ZW 21+00)

17233.00	2.92	701.42	0.	0.	701.51	.08	.47	.01	701.60
110.	2.	108.	0.	4.	46.	0.	7.	8.	702.20
.82	.50	2.35	0.	.040	.045	.030	.042	698.50	230.00

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 [illegible]   107.    107.    107.     2       0       0      0.     59.16   311.63

*SECNO 17283.000

3265 DIVIDED FLOW

   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


3470 ENCROACHMENT STATIONS=        .0      368.0  TYPE=      1  TARGET=      367.999

                D/S FACE PRIVATE 18[ CMP CROSSING (ZW CROSSING 2)

 17283.00     2.91    701.61      0.        0.      701.77      .15       .22       .04    701.20
     110.       9.      95.       5.        8.       29.       3.        8.        8.     702.00
      .82     1.17     3.31     1.76      .040      .045     .030      .042    698.70    245.31
  .008090      50.      50.      50.         2         0         0        0.     83.46    335.92


SPECIAL BRIDGE

SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
    -0.       3.08      2.60      -0.       1.20      -0.       1.77      -0.       698.70    698.70

*SECNO 17309.000

3265 DIVIDED FLOW

PRESSURE AND WEIR FLOW

 EGPRS      EGLWC      H3        QWEIR     QPR       BAREA    TRAPEZOID      ELLC      ELTRD
                                                                AREA
   886.33    701.77      0.       107.       4.        2.        2.       700.20    701.20


3470 ENCROACHMENT STATIONS=        .0      395.0  TYPE=      1  TARGET=      394.999

                U/S FACE PRIVATE 18[ CMP CROSSING (P ZW CROSSING 2)

 17309.00     3.17    701.87      0.        0.      701.92      .04       .15       0.     701.20
     110.      19.      69.      23.       21.       35.      22.        8.        8.     702.00
      .82      .87     1.97     1.02      .040      .045     .030      .042    698.70    220.95
  .002327      26.      26.      26.         2         0        12        0.    171.74    395.00

*SECNO 17359.000

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=        .0      445.0  TYPE=      1  TARGET=      444.999

                 50FT U/S PRIVATE 18[ CMP CROSSING

 17359.00     2.97    701.97      0.        0.      702.01      .04       .09       .00    701.80
     110.       1.      76.      33.        4.       42.      34.        8.        8.     702.00
      .83      .29     1.82      .95      .040      .045     .030      .042    699.00    235.09
  .00152[illegible]      50.      50.      50.         2         0         0        0.    180.62    41[illegible].1
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CCHV= .200 CEHV= .400
*SECNO 17546.000

2570 FT U/S BEMIS RD. (ZW 26+00)

17546.00	3.07	702.17	0.	0.	702.19	.02	.17	.00	701.80
110.	6.	57.	46.	18.	45.	56.	8.	9.	702.00
.88	.35	1.28	.82	.040	.045	.030	.042	699.10	194.87
.000680	250.	187.	150.	2	0	0	0.	232.58	427.45

*SECNO 18146.000

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 100.0 601.0 TYPE= 1 TARGET= =100.000

3170 FT U/S BEMIS RD. (ZW 32+00) CROSS SECTION D

18146.00	2.29	702.99	0.	0.	703.12	.13	.89	.04	704.40
110.	21.	89.	0.	18.	28.	0.	9.	11.	705.40
.94	1.20	3.16	0.	.040	.045	.040	.042	700.70	100.00
.005337	600.	600.	600.	2	0	0	0.	76.97	307.00

*SECNO 18646.000

3265 DIVIDED FLOW

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3670 FT U/S BEMIS RD. (ZW 37+00)

18646.00	2.99	704.39	0.	0.	704.44	.05	1.31	.02	704.10
110.	1.	92.	17.	2.	49.	23.	10.	12.	704.80
1.02	.41	1.89	.72	.040	.045	.040	.042	701.40	273.96
.001543	500.	500.	500.	2	0	0	0.	105.27	410.60

*SECNO 19146.000

4170 FT U/S BEMIS RD. (ZW 42+00) CROSS SECTION E

19146.00	2.51	705.31	0.	0.	705.38	.08	.93	.01	704.80
110.	5.	105.	0.	6.	47.	1.	11.	13.	705.10
1.09	.71	2.25	.39	.040	.045	.040	.043	702.80	258.97
.002281	500.	500.	500.	3	0	0	0.	58.51	317.48

*SECNO 19646.000

4670 FT U/S BEMIS RD. (ZW 47+00)

19646.00	2.16	706.06	0.	0.	706.07	.02	.68	.01	705.90
110.	64.	46.	0.	78.	35.	0.	11.	14.	706.10
1.20	.83	1.31	0.	.040	.045	.040	.043	703.90	140.72
.001124	300.	500.	650.	3	0	0	0.	173.06	313.78

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*SECNO 20146.000

5170 FT U/S BEMIS RD. (ZW 52+00) CROSS SECTION F

20146.00	2.18	706.88	0.	0.	706.93	.05	.85	.01	706.70
110.	1.	74.	35.	3.	35.	34.	12.	16.	706.70
1.29	.40	2.09	1.03	.040	.045	.040	.043	704.70	248.59
.002849	500.	500.	500.	2	0	0	0.	154.39	402.98

*SECNO 20646.000

3470 ENCROACHMENT STATIONS= 1.0 360.0 TYPE= 1 TARGET= 359.000

5670 FT U/S BEMIS RD. (ZW 57+00)

20646.00	1.99	707.69	0.	0.	707.71	.02	.77	.01	707.60
110.	0.	87.	23.	0.	68.	25.	13.	17.	707.10
1.40	.15	1.29	.89	.040	.045	.040	.043	705.70	272.24
.000968	500.	500.	500.	2	0	0	0.	87.76	360.00

*SECNO 20776.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
20776.00	2.13	707.89	0.	0.	707.98	.09	.24	.03	708.10
110.	0.	107.	3.	0.	43.	6.	14.	17.	707.85
1.42	0.	2.46	.50	.040	.045	.040	.043	705.76	254.10
.004815	130.	130.	130.	2	0	0	0.	113.11	367.21

*SECNO 20906.000

20906.00	2.68	708.50	0.	0.	708.59	.09	.61	.00	708.60
110.	0.	110.	0.	0.	45.	0.	14.	18.	708.60
1.43	0.	2.43	0.	.040	.045	.040	.043	705.82	230.77
.004597	130.	130.	130.	2	0	0	0.	39.38	270.15

*SECNO 21166.000

79 FT D/S MERRITT RD (ZW 60+38) CROSS SECTION G

21166.00	3.68	709.58	0.	0.	709.69	.12	1.09	.01	709.60
110.	0.	110.	0.	0.	40.	0.	14.	18.	710.20
1.46	0.	2.73	0.	.040	.045	.040	.043	705.90	185.10
.003865	260.	260.	260.	2	0	0	0.	24.86	209.97

CCHV= .500 CEHV= 1.000

*SECNO 21206.000

39 FT D/S MERRITT RD (INT)

21206.00	4.63	709.73	0.	0.	709.76	.03	.03	.04	709.60
110.	0.	110.	0.	0.	80.	0.	14.	18.	710.20
1.46	.10	1.38	0.	.040	.030	.040	.043	705.10	78.33
.000252	10.	40.	40.	2	0	0	0.	39.34	117.67

*SECNO 21245.000

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U/S FACE MERRITT RD. (CODE #5 21

21245.00	6.45	709.75	0.	0.	709.79	.05	.01	.02	709.70
110.	0.	97.	13.	0.	52.	15.	14.	18.	706.50
1.47	.01	1.85	.88	.030	.027	.030	.043	703.30	278.04
.000484	10.	39.	39.	2	0	0	0.	45.20	323.24

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	=0.	2.02	2.80	=0.	6.00	=0.	28.30	=0.	703.30	703.30

*SECNO 21287.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
710.22	709.80	0.	0.	110.	28.	6.	704.30	711.10

3470 ENCROACHMENT STATIONS= 150.0 308.0 TYPE= 1 TARGET= 158.000

U/S FACE MERRITT RD.

21287.00	6.88	710.18	0.	0.	710.22	.04	.43	0.	709.70
110.	2.	100.	9.	5.	62.	9.	14.	18.	706.50
1.48	.32	1.60	.95	.030	.027	.030	.043	703.30	259.64
.000286	42.	42.	42.	2	0	0	0.	48.36	308.00

*SECNO 21329.000

3470 ENCROACHMENT STATIONS= 225.0 400.0 TYPE= 1 TARGET= 175.000

40 FT U/S MERRITT RD.

21327.00	5.11	710.21	0.	0.	710.23	.03	.01	.00	709.00
110.	10.	82.	18.	25.	53.	27.	14.	18.	708.40
1.49	.38	1.53	.68	.030	.030	.030	.043	705.10	266.25
.000209	40.	40.	40.	0	0	0	0.	133.75	400.00

*SECNO 21366.000

3470 ENCROACHMENT STATIONS= 235.0 440.0 TYPE= 1 TARGET= 205.000

79 FT U/S MERRITT RD (ZW 61+38) CROSS SECTION H

21366.00	5.22	710.22	0.	0.	710.25	.04	.01	.01	709.00
110.	16.	65.	29.	27.	35.	31.	14.	18.	708.40
1.49	.59	1.87	.96	.030	.030	.030	.043	707.00	263.80
.000490	39.	39.	39.	0	0	0	0.	159.15	422.95

*SECNO 21616.000

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[illegible] STATIONS= ,0 333,0 TYPE= 1 TARGET= 334,.44

329 FT U/S MERRITT RD (INT)

21616,00	2,77	710,37	0,	0,	710,39	,02	,12	,01	710,50
110,	0,	29,	81,	0,	19,	92,	15,	19,	710,00
1,56	0,	1,53	,89	,030	,030	,030	,043	707,60	195,19
,000508	250,	250,	250,	2	0	0	0,	139,81	335,00

*SECNO 21786,000

3470 ENCROACHMENT STATIONS= 500,0 941,0 TYPE= 1 TARGET= 441,000

499 FT U/S MERRITT RD (COE VS-6A) CROSS SECTION I

21786,00	2,85	710,45	0,	0,	710,50	,04	,08	,02	709,40
110,	20,	90,	0,	29,	50,	0,	15,	19,	710,50
1,59	,70	1,79	0,	,030	,030	,030	,042	707,60	612,83
,000470	170,	170,	170,	0	0	0	0,	77,12	689,95

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THIS RUN EXECUTED 16 AUG 79 09.51.20

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED JULY 1979
  ERROR CORR =  01,02,03
  MODIFICATION =  50,51,52,53
**************************************************

T1      FLOOD INSURANCE STUDY
T2      WEST BRANCH OF PAINT CREEK
T3      50  YR  FLOW

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
       =0.       3.        =0.       =0.  =0.                =0.       =0.       =0.  693.800   =0.
J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
      2.000     =0.       =1.000    =0.       =0.       =0.       =0.       =0.       =0.       =0.
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*PROF 2

CCHV= .200 CEHV= .400

*SECNO 11816.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
			3100 FT D/S BEMIS RD.						
11816.00	4.50	693.80	0.	693.80	693.84	.04	0.	0.	691.30
190.	37.	119.	34.	39.	61.	33.	0.	0.	691.50
0.	.94	1.95	1.05	.030	.040	.030	0.	689.30	238.83
.000493	0.	0.	0.	0	0	0	0.	153.04	391.87

*SECNO 12216.000

			2700 FT D/S BEMIS RD.						
12216.00	4.05	694.05	0.	0.	694.15	.09	.28	.02	692.00
190.	21.	145.	24.	14.	54.	15.	1.	1.	692.20
.05	1.48	2.69	1.56	.030	.040	.030	.040	690.00	359.21
.001107	400.	400.	400.	2	0	0	0.	64.37	423.58

*SECNO 12616.000

3470 ENCROACHMENT STATIONS= .0 600.0 TYPE= 1 TARGET= 599.999

			2300 FT D/S BEMIS RD.						
12616.00	3.96	694.66	0.	0.	694.83	.16	.65	.03	692.70
190.	25.	165.	0.	12.	48.	0.	2.	2.	694.90
.08	2.10	3.40	0.	.030	.040	.030	.038	690.70	214.18
.002188	700.	400.	325.	2	0	0	0.	42.59	256.77

*SECNO 13416.000

			1500 FT D/S BEMIS RD.						
13416.00	3.99	695.59	0.	0.	695.62	.03	.76	.03	693.60
190.	44.	97.	49.	57.	53.	52.	4.	4.	693.80
.25	.77	1.84	.95	.030	.040	.030	.039	691.60	498.46
.000535	750.	800.	850.	2	0	0	0.	249.77	748.23

*SECNO 14116.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 590.0 710.0 TYPE= 1 TARGET= 120.000

800 FT D/S BEMIS RD.

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14116.00	3.90	695.90	0.	695.42	695.92	.02	.30	.00	693.90	
190.	54.	77.	59.	54.	52.	58.	6.	7.	694.20	
.41	1.00	1.49	1.00	.030	.040	.030	.039	692.00	590.00	
.000357	700.	700.	700.	3	0	0	0.	120.00	710.00	

CCHV= .500 CEHV= .800

*SECNO 14299.000

3470 ENCROACHMENT STATIONS= 433.0 646.0 TYPE= 1 TARGET= 213.000

14299.00	3.90	696.00	0.	695.53	696.11	.11	.12	.07	694.57
190.	24.	149.	17.	18.	51.	16.	7.	8.	694.85
.43	1.32	2.95	1.06	.030	.040	.030	.039	692.10	480.72
.001518	183.	183.	183.	1	0	0	0.	163.16	643.88

*SECNO 14481.000

14481.00	4.10	696.30	0.	695.76	696.47	.17	.31	.04	695.25
190.	7.	178.	5.	5.	53.	4.	7.	8.	695.50
.44	1.54	3.37	1.20	.030	.040	.030	.039	692.20	420.82
.001981	182.	182.	182.	2	0	0	0.	36.14	456.96

*SECNO 14846.000

71 FT D/S BEMIS RD. (ZW =1.00)

14846.00	4.61	697.01	0.	696.24	697.17	.16	.69	.00	696.60
190.	0.	190.	0.	0.	59.	0.	8.	9.	696.80
.47	.72	3.24	.46	.030	.040	.030	.040	692.40	219.11
.001827	365.	365.	365.	2	0	0	0.	19.71	238.83

*SECNO 14881.000

3470 ENCROACHMENY STATIONS= 209.0 239.0 TYPE= 1 TARGEY= 30.000

35 FT D/S BEMIS RD. (INT)

14881.00	5.01	697.11	0.	696.30	697.24	.13	.05	.02	696.30
190.	1.	188.	1.	2.	65.	1.	8.	9.	696.50
.48	.95	2.88	.98	.030	.040	.030	.040	692.10	217.22
.001258	35.	35.	35.	2	0	0	0.	21.78	239.00

*SECNO 14917.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

D/S FACE BEMIS RD. = (COE VS=1)

14917.00	5.34	697.14	0.	696.32	697.34	.20	.04	.06	697.80
190.	0.	190.	0.	0.	53.	0.	8.	9.	700.40
.48	0.	3.56	0.	.030	.027	.030	.039	691.80	295.00
.001179	36.	36.	36.	2	0	0	0.	10.00	305.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD

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*SECNO 14975.000
CLASS A LOW FLOW

3420 BRIDGE W.S.= 697.35 BRIDGE VELOCITY= 4.31 CALCULATED CHANNEL AREA= 42.

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
0.	697.45	.12	0.	190.	51.	45.	697.80	699.90

3470 ENCROACHMENT STATIONS= 295.0 600.0 TYPE= 1 TARGET= 295.000
ELENCL= 699.50 ELENCR= 100000.00

U/S FACE BEMIS RD.

14975.00	5.46	697.26	0.	696.37	697.45	.19	.11	0.	697.80
190.	0.	190.	0.	0.	55.	0.	8.	9.	700.40
.49	0.	3.48	0.	.030	.027	.030	.039	691.80	295.00
.001113	58.	58.	58.	0	0	0	0.	10.00	305.00

*SECNO 15010.000

3470 ENCROACHMENT STATIONS= 260.0 340.0 TYPE= 1 TARGET= 80.000
ELENCL= 700.00 ELENCR= 100000.00

35 FT U/S BEMIS RD. (INT)

15010.00	3.47	697.37	0.	696.41	697.53	.15	.06	.02	698.30
190.	0.	190.	0.	0.	60.	0.	8.	9.	698.10
.49	0.	3.15	0.	.040	.045	.040	.039	693.90	287.47
.003102	35.	35.	35.	2	0	0	0.	25.49	312.96

*SECNO 15046.000

3470 ENCROACHMENT STATIONS= 224.0 376.0 TYPE= 1 TARGET= 152.000
ELENCL= 699.00 ELENCR= 100000.00

70 FT U/S BEMIS RD. (ZW 1+00) CROSS SECTION A

15046.00	2.23	697.53	0.	696.83	698.02	.49	.23	.27	698.30
190.	0.	190.	0.	0.	34.	0.	8.	9.	698.10
.49	0.	5.62	0.	.040	.045	.040	.039	695.30	288.85
.018775	36.	36.	36.	2	0	0	0.	23.80	312.64

CCHV= .200 CEHV= .400
*SECNO 15546.000

326'S DIVIDED FLOW

570 FT U/S BEMIS RD. (ZW 6+00)

15546.00	3.85	699.65	0.	699.04	699.70	.05	1.59	.09	700.10
190.	39.	151.	0.	49.	74.	0.	9.	10.	700.80
.57	.80	2.03	0.	.040	.045	.040	.040	695.80	149.98
.001265	500.	500.	500.	6	0	0	0.	133.98	312.38

*SECNO 16046.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV

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TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
		1070 FT U/S BEMIS RD. (ZW 11+00) CROSS SECTION B							
16046.00	3.86	700.16	0.	699.59	700.20	.04	.49	.00	698.80
190.	41.	124.	26.	50.	69.	41.	10.	11.	700.10
.67	.81	1.80	.63	.040	.045	.040	.041	696.30	217.77
.000788	500.	500.	500.	4	0	0	0.	189.67	407.44
*SECNO 16119.000									
		50FT D/S PRIVATE WOOD PLANK CROSSING \R ZW CROSSING 1°							
16119.00	4.04	700.22	0.	699.66	700.25	.02	.05	.00	698.68
190.	45.	109.	36.	64.	73.	59.	11.	12.	699.98
.68	.70	1.49	.61	.040	.045	.040	.041	696.18	207.97
.000498	73.	73.	73.	1	0	0	0.	211.23	419.20
*SECNO 16168.000									
		D/S FACE OF PRIVATE WOOD PLANK CROSSING \ZW CROSSING 1°							
16168.00	4.14	700.24	0.	699.69	700.28	.04	.03	.01	699.30
190.	21.	134.	35.	34.	71.	51.	11.	12.	699.30
.69	.62	1.90	.68	.040	.045	.040	.041	696.10	219.13
.000760	49.	49.	49.	1	0	0	0.	185.41	404.55
*SECNO 16169.000									
3370 NORMAL BRIDGE,NRD= 11 MIN ELTRD= 699.30 MAX ELLC= 699.10									
16169.00	4.16	700.26	0.	699.69	700.29	.03	.00	.00	699.30
190.	34.	101.	55.	35.	67.	51.	11.	12.	699.30
.69	.99	1.50	1.08	.040	.045	.040	.041	696.10	218.92
.001897	1.	1.	1.	1	0	0	-3.40	185.72	404.64
*SECNO 16182.000									
3370 NORMAL BRIDGE,NRD= 11 MIN ELTRD= 699.30 MAX ELLC= 699.10									
		U/S FACE OF PRIVATE WOOD PLANK CROSSING \R ZW CROSSING 1°							
16182.00	4.19	700.29	0.	699.73	700.31	.02	.02	.00	699.30
190.	35.	98.	57.	37.	68.	53.	11.	12.	699.30
.70	.96	1.44	1.07	.040	.045	.040	.041	696.10	216.86
.001740	13.	13.	13.	0	0	0	-3.40	188.59	405.46
*SECNO 16183.000									
SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
16183.00	4.18	700.28	0.	699.73	700.32	.04	.00	.01	699.30
190.	23.	130.	37.	37.	71.	54.	11.	12.	699.30

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.000693	1.	1.	1.	0	0	0	0.	189.71	405.78

*SECNO 16233.000

50FT U/S PRIVATE WOOD PLANK CROSSING \R ZW CROSSING 1°

16233.00	4.18	700.32	0.	699.77	700.35	.04	.04	.00	699.34
190.	22.	131.	36.	36.	71.	53.	11.	12.	699.34
.70	.62	1.85	.68	.040	.045	.040	.041	696.14	217.20
.000717	50.	50.	50.	2	0	0	0.	188.12	405.32

*SECNO 16546.000

1570 FT U/S BEMIS RD. (ZW 16+00)

16546.00	4.20	700.60	0.	700.06	700.67	.07	.31	.01	699.30
190.	55.	135.	0.	52.	56.	1.	12.	13.	700.20
.75	1.05	2.42	.48	.040	.045	.040	.041	696.40	212.09
.001413	313.	313.	313.	2	0	0	0.	102.94	315.03

CCHV= .300 CEHV= .600

*SECNO 17046.000

3470 ENCROACHMENT STATIONS= 100.0 603.0 TYPE= 1 TARGET= =100.000

2070 FT U/S BEMIS RD. (ZW 21+00) CROSS SECTION C

17046.00	3.31	701.41	0.	700.96	701.45	.04	.77	.01	701.20
190.	74.	116.	0.	75.	57.	0.	14.	15.	701.80
.83	.98	2.02	0.	.040	.045	.030	.041	698.10	135.09
.001687	500.	500.	500.	2	0	0	0.	177.22	312.31

*SECNO 17233.000

3470 ENCROACHMENT STATIONS= 230.0 603.0 TYPE= 1 TARGET= 373.000

50FT D/S PRIVATE 18I CMP CROSSING (R ZW 21+00)

17233.00	3.31	701.81	0.	701.42	701.92	.11	.43	.04	701.60
190.	27.	163.	0.	22.	57.	0.	14.	15.	702.20
.85	1.21	2.84	0.	.040	.045	.030	.041	698.50	230.00
.003318	187.	187.	187.	2	0	0	0.	82.31	312.31

*SECNO 17283.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
'SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= .0 368.0 TYPE= 1 TARGET= 367.999

D/S FACE PRIVATE 18I CMP CROSSING (ZW CROSSING 2)

17283.00	3.33	702.03	0.	701.61	702.11	.08	.18	.01	701.20
190.	41.	103.	46.	32.	39.	26.	14.	16.	702.00
.86	1.27	2.65	1.76	.040	.045	.030	.041	698.70	206.19
.003751	50.	50.	50.	2	0	0	0.	161.81	368.00

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SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	=0.	3.08	2.60	=0.	1.20	=0.	1.77	=0.	698.70	698.70

*SECNO 17309.000
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
1253.12	702.11	0.	188.	3.	2.	2.	700.20	701.20

3470 ENCROACHMENT STATIONS= .0 395.0 TYPE= 1 TARGET= 394.999

U/S FACE PRIVATE 18[CMP CROSSING (R ZW CROSSING 2)

17309.00	3.40	702.10	0.	701.87	702.15	.05	.04	0.	701.20
190.	40.	88.	62.	38.	40.	41.	14.	16.	702.00
.86	1.07	2.19	1.49	.040	.045	.030	.041	698.70	200.29
.002421	26.	26.	26.	2	0	12	0.	194.71	395.00

*SECNO 17359.000

3470 ENCROACHMENT STATIONS= .0 445.0 TYPE= 1 TARGET= 444.999

50FT U/S PRIVATE 18[CMP CROSSING

17359.00	3.20	702.20	0.	701.97	702.25	.05	.10	.00	701.80
190.	13.	97.	80.	21.	47.	60.	14.	16.	702.00
.87	.59	2.05	1.33	.040	.045	.030	.042	699.00	192.23
.001654	50.	50.	50.	2	0	0	0.	237.25	429.47

CCHV= .200 CEHV= .400
*SECNO 17546.000

2570 FT U/S BEMIS RD. (ZW 26+00)

17546.00	3.32	702.42	0.	702.17	702.44	.02	.19	.00	701.80
190.	24.	73.	93.	42.	51.	87.	15.	17.	702.00
.92	.57	1.44	1.06	.040	.045	.030	.042	699.10	176.04
.000729	250.	187.	150.	2	0	0	0.	265.80	441.85

*SECNO 18146.000

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 100.0 601.0 TYPE= 1 TARGET= =100.000

3170 FT U/S BEMIS RD. (ZW 32+00) CROSS SECTION D

18146.00	2.60	703.30	0.	702.99	703.44	.14	.96	.05	704.40
190.	70.	120.	0.	42.	34.	0.	17.	20.	705.40
.97	1.69	3.53	0.	.040	.045	.040	.042	700.70	100.00
.005938	600.	600.	600.	2	0	0	0.	110.69	307.91

*SECNO 18[4].000

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3265 DIVIDED FLOW

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
			3670 FT U/S BEMIS RD. (ZW 37+00)						
18646.00	3.39	704.79	0.	704.39	704.84	.05	1.38	.02	704.10
190.	7.	126.	57.	9.	60.	57.	18.	21.	704.80
1.05	.73	2.11	.99	.040	.045	.040	.042	701.40	259.35
.001594	500.	500.	500.	3	0	0	0.	159.63	419.44
*SECNO 19146.000									
			4170 FT U/S BEMIS RD. (ZW 42+00)		CROSS SECTION E				
19146.00	2.94	705.74	0.	705.31	705.84	.10	.98	.02	704.80
190.	25.	160.	6.	22.	59.	7.	19.	23.	705.10
1.11	1.12	2.72	.87	.040	.045	.040	.042	702.80	237.27
.002471	500.	500.	500.	3	0	0	0.	93.99	331.26
*SECNO 19646.000									
			4670 FT U/S BEMIS RD. (ZW 47+00)						
19646.00	2.51	706.41	0.	706.06	706.43	.02	.57	.02	705.90
190.	130.	59.	1.	130.	44.	2.	20.	24.	706.10
1.22	1.00	1.33	.31	.040	.045	.040	.043	703.90	135.46
.000852	300.	500.	650.	3	0	0	0.	189.23	324.68
*SECNO 20146.000									
			5170 FT U/S BEMIS RD. (ZW 52+00)		CROSS SECTION F				
20146.00	2.41	707.11	0.	706.88	707.17	.06	.72	.02	706.70
190.	13.	99.	79.	15.	41.	56.	22.	26.	706.70
1.29	.82	2.38	1.42	.040	.045	.040	.043	704.70	223.61
.002993	500.	500.	500.	2	0	0	0.	184.04	407.65
*SECNO 20646.000									
3470 ENCROACHMENT STATIONS=		1.0	360.0	TYPE=	1	TARGET=	359.000		
			5670 FT U/S BEMIS RD. (ZW 57+00)						
20646.00	2.34	708.04	0.	707.69	708.08	.04	.90	.00	707.60
190.	1.	140.	49.	3.	84.	38.	23.	28.	707.10
1.38	.46	1.66	1.29	.040	.045	.040	.043	705.70	262.04
.001206	500.	500.	500.	1	0	0	0.	97.96	360.00
*SECNO 20776.000									
SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

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20776.00	2.50	708.26	0.	707.89	708.34	.07	.25	.01	708.10
190.	0.	142.	48.	0.	58.	40.	24.	28.	707.85
1.40	.40	2.44	1.20	.040	.045	.040	.043	705.76	247.27
.003354	130.	130.	130.	2	0	0	0.	150.10	397.36

*SECNO 20906.000

20906.00	2.97	708.79	0.	708.50	708.95	.16	.58	.03	708.60
190.	0.	186.	3.	1.	58.	5.	24.	28.	708.60
1.41	.63	3.24	.63	.040	.045	.040	.043	705.82	222.95
.006313	130.	130.	130.	2	0	0	0.	101.40	324.34

*SECNO 21166.000

79 FT D/S MERRITT RD (ZW 60+38) CROSS SECTION G

21166.00	4.30	710.20	0.	709.58	710.34	.14	1.38	.00	709.60
190.	10.	180.	0.	9.	59.	0.	24.	29.	710.20
1.43	1.12	3.06	0.	.040	.045	.040	.043	705.90	155.03
.004540	260.	260.	260.	2	0	0	0.	64.95	219.99

CCHV= .500 CEHV= 1.000

*SECNO 21206.000

39 FT D/S MERRITT RD (INT)

21206.00	5.27	710.37	0.	709.73	710.42	.05	.03	.04	709.60
190.	5.	185.	0.	15.	101.	1.	24.	29.	710.20
1.44	.37	1.82	.13	.040	.030	.040	.043	705.10	46.75
.000349	10.	40.	40.	0	0	0	0.	84.24	130.99

*SECNO 21245.000

D/S FACE MERRITT RD. (COE VS=2)

21245.00	7.08	710.38	0.	709.75	710.44	.06	.02	.01	709.70
190.	5.	146.	39.	10.	67.	33.	24.	29.	706.50
1.44	.53	2.18	1.18	.030	.027	.030	.043	703.30	251.22
.000483	10.	39.	39.	2	0	0	0.	88.07	339.29

SPECIAL BRIDGE

SB	XK	XKOR	COEQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	=0.	2.02	2.80	=0.	6.00	=0.	28.30	=0.	703.30	703.30

*SECNO 21287.000
3280 CROSS SECTION 21287.00 EXTENDED .24 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD

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3470 ENCROACHMENT STATIONS= 150.0 308.0 TYPE= 1 TARGET= 158.000

U/S FACE MERRITT RD.

21287.00	8.04	711.34	0.	710.18	711.37	.03	.93	0.	709.70
190.	33.	143.	14.	56.	89.	15.	25.	29.	706.50
1.45	.58	1.61	.95	.030	.027	.030	.043	703.30	211.06
.000180	42.	42.	42.	2	0	4	0.	96.94	308.00

*SECNO 21327.000

3470 ENCROACHMENT STATIONS= 225.0 400.0 TYPE= 1 TARGET= 175.000

40 FT U/S MERRITT RD.

21327.00	6.28	711.38	0.	710.21	711.39	.01	.00	.01	709.00
190.	77.	71.	42.	164.	71.	71.	25.	29.	708.40
1.47	.47	1.00	.60	.030	.030	.030	.043	705.10	225.00
.000060	40.	40.	40.	2	0	0	0.	175.00	400.00

*SECNO 21366.000

3470 ENCROACHMENT STATIONS= 235.0 440.0 TYPE= 1 TARGET= 205.000

79 FT U/S MERRITT RD (ZW 61+38) CROSS SECTION H

21366.00	4.38	711.38	0.	710.22	711.39	.01	.00	.00	709.00
190.	77.	47.	66.	156.	52.	119.	25.	29.	708.40
1.49	.50	.90	.55	.030	.030	.030	.043	707.00	235.00
.000065	39.	39.	39.	0	0	0	0.	205.00	440.00

*SECNO 21616.000

3470 ENCROACHMENT STATIONS= .0 335.0 TYPE= 1 TARGET= 334.999

329 FT U/S MERRITT RD (INT)

21616.00	3.80	711.40	0.	710.37	711.41	.01	.02	.00	710.50
190.	5.	26.	159.	18.	29.	226.	27.	30.	710.00
1.58	.29	.89	.70	.030	.030	.030	.043	707.60	154.58
.000098	250.	250.	250.	0	0	0	0.	180.42	335.00

*SECNO 21786.000

3470 ENCROACHMENT STATIONS= 500.0 941.0 TYPE= 1 TARGET= 441.000

499 FT U/S MERRITT RD (COE VS-6A) CROSS SECTION I

21786.00	3.82	711.42	0.	710.45	711.45	.02	.02	.01	709.40
190.	80.	101.	9.	100.	71.	22.	28.	31.	710.50
1.63	.80	1.43	.40	.030	.030	.030	.042	707.60	581.15
.000187	170.	170.	170.	0	0	0	0.	156.49	737.64

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THIS RUN EXECUTED 16 AUG 79 09.51.21

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED JULY 1979
  ERROR CORR =  01,02,03
  MODIFICATION =  50,51,52,53
**************************************************

T1      FLOOD INSURANCE STUDY
T2      WEST BRANCH OF PAINT CREEK
T3      100 YR  FLOW

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
        =0.       4.        =0.       =0.  =0.            =0.       =0.       =0.   694.700   =0.
J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
        3.000   =0.       =1.000    =0.       =0.       =0.       =0.       =0.       =0.       =0.
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*PROF 3

CCHV= .200 CEHV= .400

*SECNO 11816.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
			3100 FT D/S BEMIS RD.						
11816.00	5.40	694.70	0.	694.70	694.73	.03	0.	0.	691.30
410.	135.	143.	132.	137.	75.	139.	0.	0.	691.50
0.	.99	1.90	.94	.030	.040	.030	0.	689.30	165.33
.000353	0.	0.	0.	0	0	0	0.	334.25	499.58

*SECNO 12216.000

			2700 FT D/S BEMIS RD.						
12216.00	4.89	694.89	0.	0.	694.98	.09	.22	.02	692.00
410.	99.	202.	110.	64.	67.	79.	3.	3.	692.20
.05	1.54	3.00	1.39	.030	.040	.030	.040	690.00	303.62
.001025	400.	400.	400.	2	0	0	0.	244.70	548.32

*SECNO 12616.000

3470 ENCROACHMENT STATIONS= .0 600.0 TYPE= 1 TARGET= 599.999

			2300 FT D/S BEMIS RD.						
12616.00	4.71	695.41	0.	0.	695.48	.07	.50	.00	692.70
410.	87.	177.	146.	53.	60.	147.	5.	6.	694.90
.11	1.66	2.93	1.00	.030	.040	.030	.038	690.70	155.13
.001244	700.	400.	325.	2	0	0	0.	444.87	600.00

*SECNO 13416.000

			1500 FT D/S BEMIS RD.						
13416.00	4.51	696.11	0.	0.	696.14	.03	.65	.01	693.60
410.	151.	128.	130.	158.	61.	110.	10.	14.	693.80
.27	.96	2.10	1.19	.030	.040	.030	.039	691.60	391.88
.000573	750.	800.	850.	2	0	0	0.	398.63	790.51

*SECNO 14116.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 490.0 800.0 TYPE= 1 TARGET= 310.000

800 FT D/S BEMIS RD.

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14116.00	4.36	696.36	0.	695.42	696.38	.01	.23	.00	693.90	
410.	140.	75.	195.	171.	59.	209.	17.	20.	694.20	
.48	.82	1.27	.94	.030	.040	.030	.039	692.00	490.00	
.000216	700.	700.	700.	3	0	0	0.	310.00	800.00	

CCHV= .500 CEHV= .800

*SECNO 14299.000

3470 ENCROACHMENT STATIONS= 433.0 646.0 TYPE= 1 TARGET= 213.000

14299.00	4.33	696.43	0.	695.53	696.56	.14	.09	.10	694.57	
410.	96.	215.	99.	55.	58.	57.	18.	21.	694.85	
.49	1.74	3.73	1.72	.030	.040	.030	.039	692.10	433.00	
.002042	183.	183.	183.	0	0	0	0.	213.00	646.00	

*SECNO 14481.000

14481.00	4.69	696.89	0.	695.76	697.27	.38	.51	.19	695.25	
410.	46.	333.	31.	19.	62.	13.	18.	21.	695.50	
.51	2.43	5.36	2.38	.030	.040	.030	.039	692.20	377.25	
.004035	182.	182.	182.	2	0	0	0.	111.50	488.75	

*SECNO 14846.000

71 FT D/S BEMIS RD. (ZW =1+00)

14846.00	5.77	698.17	0.	696.24	698.53	.35	1.25	.01	696.60	
410.	13.	380.	17.	6.	77.	8.	19.	22.	696.80	
.53	2.28	4.93	2.07	.030	.040	.030	.039	692.40	212.38	
.002934	365.	365.	365.	2	0	0	0.	36.79	249.17	

*SECNO 14881.000

3470 ENCROACHMENT STATIONS= 209.0 239.0 TYPE= 1 TARGET= 30.000

35 FT D/S BEMIS RD. (INT)

14881.00	6.26	698.36	0.	696.30	698.65	.28	.09	.04	696.30	
410.	27.	375.	8.	12.	85.	4.	19.	22.	696.50	
.53	2.38	4.40	2.18	.030	.040	.030	.039	692.10	209.00	
.002052	35.	35.	35.	2	0	0	0.	30.00	239.00	

*SECNO 14917.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IOC	ICONT	CURAR	TOPWID	ENDST

· 697.8 ≤ ELLC < 698.4 ⇒ submerged outlet

D/S FACE BEMIS RD. - (COE VS=1)

14917.00	6.60	698.40	0.	696.32	698.95	.56	.09	.22	697.80	
410.	11.	399.	0.	9.	66.	0.	19.	22.	700.40	
.53	1.19	6.05	0.	.030	.027	.030	.039	691.80	265.18	
.002901	36.	36.	36.	2	0	0	0.	39.82	305.00	

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BARE	SS	ELCHU	ELCHD

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1.50 3.16 6.70 80. 4.70 1.50 30.00 80. 672.40 671.80

*SECNO 14975.000

3265 DIVIDED FLOW

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
701.62	699.38	.46	85.	328.	51.	45.	697.80	699.90

OK DROP

3470 ENCROACHMENT STATIONS= 295.0 600.0 TYPE= 1 TARGET= 295.000
ELENCL= 699.50 ELENCR= 100000.00

U/S FACE BEMIS RD.

14975.00	8.55	700.35	0.	696.37	700.46	.11	1.51	0.	697.80
410.	132.	277.	2.	137.	85.	7.	19.	22.	700.40
.54	.96	3.24	.23	.030	.027	.030	.039	691.80	50.24
.000717	58.	58.	58.	2	0	5	0.	346.10	421.12

*SECNO 15010.000

3470 ENCROACHMENT STATIONS= 260.0 340.0 TYPE= 1 TARGET= 80.000
ELENCL= 700.00 ELENCR= 100000.00

35 FT U/S BEMIS RD. (INT)

15010.00	6.58	700.48	0.	696.41	700.52	.03	.02	.04	698.30
410.	98.	255.	57.	145.	149.	54.	20.	22.	698.10
.54	.67	1.71	1.05	.040	.045	.040	.039	693.90	55.90
.000330	35.	35.	35.	2	0	0	0.	284.10	340.00

*SECNO 15046.000

3470 ENCROACHMENT STATIONS= 224.0 376.0 TYPE= 1 TARGET= 152.000
ELENCL= 699.00 ELENCR= 100000.00

70 FT U/S BEMIS RD. (ZW 1+00) CROSS SECTION A

15046.00	5.23	700.53	0.	696.83	700.54	.01	.01	.01	698.30
410.	208.	130.	73.	314.	119.	106.	20.	23.	698.10
.56	.66	1.09	.69	.040	.045	.040	.039	695.30	0.
.000173	36.	36.	36.	2	0	0	0.	376.00	376.00

CCHV= .200 CEHV= .400
*SECNO 15546.000

570 FT U/S BEMIS RD. (ZW 6+00)

15546.00	4.87	700.67	0.	699.04	700.70	.03	.16	.01	700.10
410.	220.	190.	0.	200.	112.	0.	25.	26.	700.80
.66	1.10	1.69	0.	.040	.045	.040	.040	695.80	79.32
.000748	500.	500.	500.	1	0	0	0.	240.64	319.99

*SECNO 16046.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	AV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT

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SLOPE	XLOBL	XLCH	XLOBR	XNL ITRIAL	XNCH IDC	XNR ICONT	WTN CORAR	ELMIN TOPWID	SSTA ENDST

1070 FT U/S BEMIS RD. (ZW 11+00) CROSS SECTION B

16046.00	4.68	700.98	0.	699.59	701.01	.02	.30	.00	698.80
410.	140.	150.	121.	163.	88.	130.	29.	30.	700.10
.78	.86	1.69	.93	.040	.045	.040	.040	696.30	78.27
.000502	500.	500.	500.	2	0	0	0.	355.78	434.06

*SECNO 16119.000

50FT D/S PRIVATE WOOD PLANK CROSSING \R ZW CROSSING 1°

16119.00	4.84	701.02	0.	699.66	701.04	.02	.03	.00	698.68
410.	151.	134.	125.	199.	92.	150.	30.	30.	699.98
.80	.76	1.45	.84	.040	.045	.040	.040	696.18	65.52
.000347	73.	73.	73.	0	0	0	0.	372.44	437.96

*SECNO 16168.000

D/S FACE OF PRIVATE WOOD PLANK CROSSING \ZW CROSSING 1°

16168.00	4.94	701.04	0.	699.69	701.06	.03	.02	.00	699.30
410.	122.	152.	136.	153.	84.	136.	30.	31.	699.30
.81	.80	1.80	1.00	.040	.045	.040	.041	696.10	73.70
.000543	49.	49.	49.	0	0	0	0.	355.05	428.75

*SECNO 16169.000

3370 NORMAL BRIDGE,NRD= 11 MIN ELTRD= 699.30 MAX ELLC= 699.10

16169.00	4.95	701.05	0.	699.69	701.07	.02	.00	.00	699.30
410.	151.	91.	169.	152.	81.	136.	30.	31.	699.30
.81	.99	1.13	1.24	.040	.045	.040	.040	696.10	74.09
.000841	1.	1.	1.	0	0	0	-3.40	354.51	428.60

D/H = 1.75/1.76 = .99 ⇒ high submergence

*SECNO 16182.000

3370 NORMAL BRIDGE,NRD= 11 MIN ELTRD= 699.30 MAX ELLC= 699.10

U/S FACE OF PRIVATE WOOD PLANK CROSSING \R ZW CROSSING 1°

16182.00	4.96	701.06	0.	699.73	701.08	.02	.01	.00	699.30
410.	152.	89.	169.	156.	81.	138.	30.	31.	699.30
.81	.98	1.10	1.22	.040	.045	.040	.040	696.10	72.74
.000802	13.	13.	13.	0	0	0	-3.40	356.40	429.13

*SECNO 16183.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
16183.00	4.95	701.05	0.	699.73	701.08	.03	.00	.00	699.30
410.	124.	150.	137.	157.	84.	138.	30.	31.	699.30
.81	.79	1.78	.99	.040	.045	.040	.040	696.10	72.49

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.000000 1. 1. 1. 0 0 0 0. 350.12 4[illegible]

*SECNO 16233.000

50FT U/S PRIVATE WOOD PLANK CROSSING \R ZW CROSSING 1"

16233.00	4.94	701.08	0.	699.77	701.11	.03	.05	.00	699.34
410.	123.	151.	136.	154.	84.	137.	31.	31.	699.34
.82	.80	1.79	1.00	.040	.045	.040	.041	696.14	73.34
.000537	50.	50.	50.	0	0	0	0.	355.56	428.90

*SECNO 16546.000

1570 FT U/S BEMIS RD. (ZW 16+00)

16546.00	4.91	701.31	0.	700.06	701.37	.07	.25	.02	699.30
410.	215.	188.	7.	162.	69.	9.	33.	34.	700.20
.87	1.33	2.72	.82	.040	.045	.040	.041	696.40	61.63
.001332	313.	313.	313.	2	0	0	0.	277.86	339.49

CCHV= .300 CEHV= .600

*SECNO 17046.000

DROP

* 3470 ENCROACHMENT STATIONS= 100.0 603.0 TYPE= 1 TARGET= 100.000

2070 FT U/S BEMIS RD. (ZW 21+00) CROSS SECTION C

17046.00	3.91	702.01	0.	700.96	702.06	.05	.68	.01	701.20
410.	243.	165.	2.	176.	76.	4.	36.	37.	701.80
.95	1.38	2.18	.41	.040	.045	.030	.041	698.10	100.00
.001389	500.	500.	500.	2	0	0	0.	251.00	351.00

*SECNO 17233.000

DROP

* 3470 ENCROACHMENT STATIONS= 150.0 603.0 TYPE= 1 TARGET= 453.000

50FT D/S PRIVATE 18I CMP CROSSING (R ZW 21+00)

17233.00	3.81	702.31	0.	701.42	702.37	.06	.30	.01	701.60
410.	231.	178.	0.	139.	73.	1.	37.	38.	702.20
.97	1.66	2.45	.30	.040	.045	.030	.041	698.50	150.00
.001875	187.	187.	187.	2	0	0	0.	181.97	331.97

*SECNO 17283.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= .0 368.0 TYPE= 1 TARGET= 367.999

D/S FACE PRIVATE 18I CMP CROSSING (ZW CROSSING 2)

ELTRD < 701.2 < 702.42 ⇒ water over roadway

17283.00	3.72	702.42	0.	701.61	702.53	.11	.13	.03	701.20
410.	128.	149.	133.	68.	48.	49.	37.	38.	702.00
.98	1.87	3.11	2.69	.040	.045	.030	.041	698.70	175.49
.003878	50.	50.	50.	2	0	0	0.	192.51	368.00

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SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	=0.	3.08	2.60	=0.	1.20	=0.	1.77	=0.	698.70	698.70

*SECNO 17309.000
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
3268.59	702.53	0.	409.	3.	2.	2.	700.20	701.20

D/H = 1.22/1.29 = .945 ⇒ ~ high submergence

3470 ENCROACHMENT STATIONS= .0 395.0 TYPE= 4 TARGET= 394.999

U/S FACE PRIVATE 18[CMP CROSSING (R ZW CROSSING 2)

19309.00	3.79	702.49	0.	701.87	702.56	.07	.04	0.	701.20
410.	118.	124.	167.	77.	50.	76.	37.	38.	702.00
.98	1.54	2.50	2.20	.040	.045	.030	.041	698.70	169.70
.002383	26.	26.	26.	2	0	14	0.	225.30	395.00

*SECNO 17359.000

3470 ENCROACHMENT STATIONS= .0 445.0 TYPE= 1 TARGET= 444.999

SOFT U/S PRIVATE 18[CMP CROSSING

17359.00	3.61	702.61	0.	701.97	702.67	.06	.10	.00	701.80
410.	69.	131.	210.	65.	57.	114.	37.	38.	702.00
.99	1.05	2.30	1.83	.040	.045	.030	.041	699.00	160.78
.001618	50.	50.	50.	2	0	0	0.	284.22	445.00

CCHV= .200 CEHV= .400
*SECNO 17546.000

2570 FT U/S BEMIS RD. (ZW 26+00)

17546.00	3.74	702.84	0.	702.17	702.87	.03	.20	.00	701.80
410.	85.	106.	219.	96.	61.	150.	38.	40.	702.00
1.03	.89	1.73	1.46	.040	.045	.030	.042	699.10	143.16
.000829	250.	187.	150.	2	0	0	0.	323.84	467.00

*SECNO 18146.000

3265 DIVIDED FLOW

OK

* 3470 ENCROACHMENT STATIONS= 100.0 601.0 TYPE= 1 TARGET= =100.000

3170 FT U/S BEMIS RD. (ZW 32+00) CROSS SECTION D

18146.00	3.11	703.81	0.	702.99	703.95	.14	1.04	.04	704.40
410.	245.	165.	0.	99.	44.	0.	42.	43.	705.40
1.08	2.47	3.72	0.	.040	.045	.040	.042	700.70	100.00
.005563	600.	600.	600.	2	0	0	0.	157.94	309.38

*SECNO 18646.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV

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TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
	3670 FT U/S BEMIS RD. (ZW 37+00)								
18646.00	3.93	705.33	0.	704.39	705.40	.07	1.43	.02	704.10
410.	32.	194.	184.	28.	76.	118.	44.	45.	704.80
1.15	1.12	2.56	1.56	.040	.045	.040	.042	701.40	239.36
.001738	500.	500.	500.	2	0	0	0.	192.16	431.51
*SECNO 19146.000									
	4170 FT U/S BEMIS RD. (ZW 42+00) CROSS SECTION E								
19146.00	3.59	706.39	0.	705.31	706.53	.14	1.10	.03	704.80
410.	106.	265.	39.	62.	76.	26.	46.	47.	705.10
1.20	1.71	3.48	1.48	.040	.045	.040	.042	702.80	205.49
.002870	500.	500.	500.	3	0	0	0.	145.96	351.44
*SECNO 19646.000									
	4670 FT U/S BEMIS RD. (ZW 47+00)								
19646.00	3.15	707.05	0.	706.06	707.08	.03	.53	.02	705.90
410.	304.	96.	10.	231.	62.	16.	48.	48.	706.10
1.28	1.32	1.55	.62	.040	.045	.040	.043	703.90	125.93
.000744	300.	500.	650.	3	0	0	0.	220.85	346.77
*SECNO 20146.000									
	5170 FT U/S BEMIS RD. (ZW 52+00) CROSS SECTION F								
20146.00	2.93	707.63	0.	706.88	707.70	.06	.60	.01	706.70
410.	71.	140.	198.	49.	55.	108.	51.	51.	706.70
1.35	1.45	2.53	1.83	.040	.045	.040	.043	704.70	212.38
.002288	500.	500.	500.	2	0	0	0.	205.92	418.29
*SECNO 20646.000									
			DROP ET						
* 3470 ENCROACHMENT STATIONS=		1.0	590.0	TYPE=	1	TARGET=	589.000		
	5670 FT U/S BEMIS RD. (ZW 57+00)								
20646.00	2.64	708.34	0.	707.69	708.37	.03	.66	.01	707.60
410.	5.	155.	250.	8.	99.	191.	54.	53.	707.10
1.45	.56	1.57	1.31	.040	.045	.040	.043	705.70	252.69
.000860	500.	500.	500.	1	0	0	0.	221.23	473.92
*SECNO 20776.000									
SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
20776.00	2.73	708.49	0.	707.89	708.67	.17	.24	.06	708.10
410.	3.	260.	147.	3.	68.	66.	55.	54.	707.85
1.4	1.04	3.85	2.24	.040	.045	.040	.043	705.76	239.79

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.....3	130.	130.	130.	2	0	0	0.	161.71	401.70

*SECNO 20906.000

20906.00	3.50	709.32	0.	708.50	709.52	.19	.84	.01	708.60
410.	13.	310.	87.	9.	79.	46.	55.	54.	708.60
1.47	1.46	3.92	1.89	.040	.045	.040	.043	705.82	204.51
.006075	130.	130.	130.	1	0	0	0.	164.29	368.80

*SECNO 21166.000

79 FT D/S MERRITT RD (ZW 60+38) CROSS SECTION G

21166.00	4.89	710.79	0.	709.58	711.01	.22	1.48	.01	709.60
410.	70.	326.	15.	36.	80.	12.	56.	55.	710.20
1.49	1.94	4.08	1.22	.040	.045	.040	.043	705.90	125.03
.005378	260.	260.	260.	2	0	0	0.	134.93	259.96

CCHV= .500 CEHV= 1.000

*SECNO 21206.000

39 FT D/S MERRITT RD (INT)

21206.00	5.89	710.99	0.	709.73	711.11	.12	.05	.05	709.60
410.	37.	362.	11.	49.	123.	21.	56.	55.	710.20
1.50	.77	2.94	.53	.040	.030	.040	.043	705.10	15.31
.000695	10.	40.	40.	2	0	0	0.	157.60	172.91

*SECNO 21245.000

D/S FACE MERRITT RD. (COE VS-2)

21245.00	7.73	711.03	0.	709.75	711.14	.12	.03	.00	709.70
410.	39.	261.	110.	37.	82.	62.	56.	56.	706.50
1.50	1.06	3.19	1.78	.030	.027	.030	.043	703.30	224.15
.000795	10.	39.	39.	2	0	0	0.	131.99	356.14

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	=0.	2.02	2.80	=0.	6.00	=0.	28.30	=0.	703.30	703.30

*SECNO 21287.000

3280 CROSS SECTION 21287.00 EXTENDED .68 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
719.61	711.24	0.	264.	147.	28.	6.	704.30	711.10

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3 FT ENCROACHMENT STATIONS= 130.0 300.0 TYPE= 1 TARGET= 130.000

U/S FACE MERRITT RD.

21287.00	8.48	711.78	0.	710.18	711.87	.08	.73	0.	709.70
410.	111.	272.	28.	105.	99.	17.	56.	56.	706.50
1.51	1.05	2.74	1.60	.030	.027	.030	.043	703.30	150.00
.000454	42.	42.	42.	2	0	7	0.	158.00	308.00

W.S. may be ~0.1' low for 40 ft

*SECNO 21327.000

3470 ENCROACHMENT STATIONS= 225.0 400.0 TYPE= 1 TARGET= 175.000

40 FT U/S MERRITT RD.

21327.00	6.79	711.89	0.	710.21	711.91	.02	.01	.03	709.00
410.	194.	124.	91.	227.	79.	90.	57.	56.	708.40
1.52	.85	1.58	1.02	.030	.030	.030	.043	705.10	225.00
.000132	40.	40.	40.	2	0	0	0.	175.00	400.00

*SECNO 21366.000

3470 ENCROACHMENT STATIONS= 235.0 440.0 TYPE= 1 TARGET= 205.000

79 FT U/S MERRITT RD (ZW 61+38) CROSS SECTION H

21366.00	4.90	711.90	0.	710.22	711.92	.02	.01	.00	709.00
410.	182.	82.	145.	214.	60.	159.	57.	56.	708.40
1.53	.85	1.37	.92	.030	.030	.030	.043	707.00	235.00
.000127	39.	39.	39.	0	0	0	0.	205.00	440.00

*SECNO 21616.000

3470 ENCROACHMENT STATIONS= .0 335.0 TYPE= 1 TARGET= 334.999

329 FT U/S MERRITT RD (INT)

21616.00	4.34	711.94	0.	710.37	711.96	.02	.04	.00	710.50
410.	27.	46.	337.	43.	34.	295.	59.	57.	710.00
1.59	.62	1.35	1.14	.030	.030	.030	.043	707.60	144.22
.000181	250.	250.	250.	0	0	0	0.	190.78	335.00

*SECNO 21786.000

*3470 ENCROACHMENT STATIONS= 500.0 DROP 941.0 TYPE= 1 TARGET= 441.000

499 FT U/S MERRITT RD (COE VS-6A) CROSS SECTION I

21786.00	4.38	711.98	0.	710.45	712.02	.04	.04	.02	709.40
410.	195.	174.	41.	152.	83.	56.	60.	58.	710.50
1.62	1.28	2.09	.73	.030	.030	.030	.042	707.60	566.52
.000325	170.	170.	170.	1	0	0	0.	200.05	766.56

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THIS RUN EXECUTED 16 AUG 79 09.51.21

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED JULY 1979
  ERROR CORR =  01,02,03
  MODIFICATION =  50,51,52,53
**************************************************

T1      FLOOD INSURANCE STUDY
T2      WEST BRANCH OF PAINT CREEK
T3      500 YR  FLOW

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
        0.        5.        0.        0.  0.              0.        0.        0.  695.900      0.
J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
       15.000     0.        1.000     0.        0.        0.        0.        0.        0.        0.
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*PROF 4

CCHV= ,200 CEHV= ,400
*SECNO 11816,000
3280 CROSS SECTION 11816,00 EXTENDED ,40 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
			3100 FT D/S BEMIS RD,						
11816,00	6,60	695,90	0,	695,90	695,92	,02	0,	0,	691,30
875,	356,	147,	372,	364,	95,	433,	0,	0,	691,50
0,	,98	1,56	,86	,030	,040	,030	0,	689,30	100,00
,000175	0,	0,	0,	0	0	0	0,	543,19	643,19
*SECNO 12216,000									
			2700 FT D/S BEMIS RD,						
12216,00	6,00	696,00	0,	0,	696,03	,04	,11	,01	692,00
875,	273,	203,	399,	201,	85,	331,	7,	5,	692,20
,07	1,36	2,39	1,21	,030	,040	,030	,040	690,00	230,32
,000477	400,	400,	400,	2	0	0	0,	491,69	722,01
*SECNO 12616,000									
3470 ENCROACHMENT STATIONS=		,0	600,0	TYPE=	1	TARGET=		599,999	
			2300 FT D/S BEMIS RD,						
12616,00	5,52	696,22	0,	0,	696,25	,03	,21	,00	692,70
875,	189,	152,	533,	151,	73,	425,	13,	10,	694,90
,16	1,26	2,08	1,25	,030	,040	,030	,038	690,70	85,03
,000483	700,	400,	325,	2	0	0	0,	514,97	600,00
*SECNO 13416,000									
			1500 FT D/S BEMIS RD,						
13416,00	5,06	696,66	0,	0,	696,70	,04	,45	,00	693,60
875,	409,	172,	294,	328,	70,	197,	25,	20,	693,80
,30	1,25	2,46	1,49	,030	,040	,030	,039	691,60	276,84
,000654	750,	800,	850,	2	0	0	0,	559,32	836,16
*SECNO 14116,000									
SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

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3470 ENCROACHMENT STATIONS= 430.0 500.0 TYPE= 1 TARGET= 310.000

800 FT D/S BEMIS RD.

14116.00	4.98	696.98	0.	695.42	697.01	.03	.31	.00	693.90
875.	339.	117.	420.	264.	69.	297.	35.	27.	694.20
.44	1.28	1.69	1.41	.030	.040	.030	.039	692.00	490.00
.000312	700.	700.	700.	2	0	0	0.	310.00	800.00

CCHV= .500 CEHV= .800

*SECNO 14299.000

3470 ENCROACHMENT STATIONS= 433.0 646.0 TYPE= 1 TARGET= 213.000

14299.00	4.97	697.07	0.	695.53	697.22	.15	.12	.09	694.57
875.	302.	275.	298.	120.	68.	117.	37.	28.	694.85
.46	2.51	4.05	2.55	.030	.040	.030	.039	692.10	433.00
.001940	183.	183.	183.	0	0	0	0.	213.00	646.00

*SECNO 14481.000

14481.00	5.33	697.53	0.	695.76	697.87	.34	.50	.15	695.25
875.	222.	440.	213.	83.	73.	80.	38.	29.	695.50
.47	2.67	6.05	2.66	.030	.040	.030	.039	692.20	287.90
.004187	182.	182.	182.	2	0	0	0.	290.02	577.92

*SECNO 14846.000

71 FT D/S BEMIS RD. (ZW =1.00)

14846.00	6.69	699.09	699.07	696.24	699.68	.59	1.61	.20	696.60
875.	130.	642.	103.	50.	92.	31.	39.	31.	696.80
.49	2.62	6.98	3.28	.030	.040	.030	.039	692.40	116.94
.004646	365.	365.	365.	3	12	0	0.	181.05	297.99

*SECNO 14881.000

3470 ENCROACHMENT STATIONS= 209.0 239.0 TYPE= 1 TARGET= 30.000

35 FT D/S BEMIS RD. (INT)

14881.00	7.12	699.22	0.	696.30	700.02	.81	.17	.17	696.30
875.	111.	744.	20.	22.	99.	5.	40.	31.	696.50
.49	5.09	7.54	3.83	.030	.040	.030	.039	692.10	209.00
.004928	35.	35.	35.	2	0	0	0.	30.00	239.00

*SECNO 14917.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
*SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
14917.00	7.86	699.66	699.66	696.32	700.37	.70	.16	.05	697.80
875.	262.	613.	0.	87.	79.	0.	40.	31.	700.40
.49	3.02	7.80	0.	.030	.027	.030	.039	691.80	201.88
.004093	36.	36.	36.	2	8	0	0.	103.12	305.00

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

D/S FACE BEMIS RD. = (COE VS=1)

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SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS 696.41 ,NOT 699.66 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SS	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.50	3.16	2.70	=0.	9.90	1.50	50.60	=0.	692.40	691.80

*SECNO 14975.000

3265 DIVIDED FLOW

3280 CROSS SECTION 14975.00 EXTENDED .21 FEET

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
714.34	702.88	0.	617.	258.	51.	45.	697.80	699.90

3470 ENCROACHMENT STATIONS= 295.0 600.0 TYPE= 1 TARGET= =295.000
ELENCL= 699.50 ELENCR= 100000.00

U/S FACE BEMIS RD.

14975.00	9.01	700.81	0.	696.37	700.94	.13	.58	0.	697.80	
875.	428.	373.	74.	263.	90.	83.	40.	31.	700.40	
.50	1.63	4.14	.89	.030	.027	.030	.039	691.80	0.	
.001096	58.	58.	58.	2	0	7	0.	558.43	600.00	

*SECNO 15010.000

3470 ENCROACHMENT STATIONS= 260.0 340.0 TYPE= 1 TARGET= 80.000
ELENCL= 700.00 ELENCR= 100000.00

35 FT U/S BEMIS RD. (INT)

15010.00	7.03	700.93	0.	696.41	701.00	.08	.03	.03	698.30	
875.	301.	453.	120.	255.	162.	66.	40.	32.	698.10	
.50	1.18	2.80	1.83	.040	.045	.040	.039	693.90	15.84	
.000790	35.	35.	35.	2	0	0	0.	324.16	340.00	

*SECNO 15046.000
3280 CROSS SECTION 15046.00 EXTENDED .02 FEET

3470 ENCROACHMENT STATIONS= 224.0 376.0 TYPE= 1 TARGET= 152.000
ELENCL= 699.00 ELENCR= 100000.00

70 FT U/S BEMIS RD. (ZW 1+00) CROSS SECTION A

15046.00	5.72	701.02	0.	696.83	701.05	.03	.02	.03	698.30	
875.	491.	225.	159.	455.	133.	137.	41.	32.	698.10	
.51	1.08	1.69	1.17	.040	.045	.040	.039	695.30	0.	
.000351	36.	36.	36.	2	0	0	0.	376.00	376.00	

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CCHV= .200 CEHV= .400
*SECNO 15546.000
3280 CROSS SECTION 15546.00 EXTENDED .38 FEET

570 FT U/S BEMIS RD. (ZW 6+00)

15546.00	5.48	701.28	0.	699.04	701.33	.05	.27	.01	700.10
875.	559.	301.	15.	364.	139.	28.	48.	37.	700.80
.59	1.54	2.17	.54	.040	.045	.040	.040	695.80	0.
.000959	500.	500.	500.	2	0	0	0.	415.29	415.29

*SECNO 16046.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

1070 FT U/S BEMIS RD. (ZW 11+00) CROSS SECTION B

16046.00	5.37	701.67	0.	699.59	701.70	.03	.37	.00	698.80
875.	380.	213.	282.	326.	105.	217.	55.	41.	700.10
.69	1.17	2.03	1.30	.040	.045	.040	.040	696.30	25.59
.000575	500.	500.	500.	2	0	0	0.	424.59	450.17

*SECNO 16119.000

50FT D/S PRIVATE WOOD PLANK CROSSING \R ZW CROSSING 1'

16119.00	5.53	701.71	0.	699.66	701.74	.03	.04	.00	698.68
875.	395.	196.	284.	373.	109.	240.	56.	42.	699.98
.70	1.06	1.80	1.18	.040	.045	.040	.040	696.18	12.48
.000430	73.	73.	73.	1	0	0	0.	441.71	454.18

*SECNO 16168.000

D/S FACE OF PRIVATE WOOD PLANK CROSSING \ZW CROSSING 1'

16168.00	5.63	701.73	0.	699.69	701.77	.03	.02	.00	699.30
875.	369.	200.	307.	323.	96.	227.	57.	43.	699.30
.71	1.14	2.08	1.35	.040	.045	.040	.041	696.10	20.26
.000607	49.	49.	49.	0	0	0	0.	429.70	449.96

*SECNO 16169.000

3370 NORMAL BRIDGE,NRD= 11 MIN ELTRD= 699.30 MAX ELLC= 699.10

16169.00	5.64	701.74	0.	699.69	701.77	.03	.00	.00	699.30
875.	417.	110.	348.	322.	92.	227.	57.	43.	699.30
.71	1.30	1.19	1.53	.040	.045	.040	.041	696.10	20.55
.000785	1.	1.	1.	0	0	0	=3.40	429.29	449.84

*SECNO 16182.000

3370 NORMAL BRIDGE,NRD= 11 MIN ELTRD= 699.30 MAX ELLC= 699.10

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U/S FACE OF PRIVATE WOOD PLANK CROSSING \R ZW CROSSING 1°

16182.00	5.65	701.75	0.	699.73	701.78	.03	.01	.00	699.30
875.	418.	109.	347.	326.	93.	229.	57.	43.	699.30
.72	1.28	1.18	1.52	.040	.045	.040	.041	696.10	19.46
.000764	13.	13.	13.	0	0	0	-3.40	430.81	450.28

*SECNO 16183.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
16183.00	5.65	701.75	0.	699.73	701.78	.03	.00	.00	699.30
875.	370.	198.	307.	327.	96.	229.	57.	43.	699.30
.72	1.13	2.06	1.34	.040	.045	.040	.041	696.10	19.27
.000594	1.	1.	1.	0	0	0	0.	431.08	450.35

*SECNO 16233.000

50FT U/S PRIVATE WOOD PLANK CROSSING \R ZW CROSSING 1°

16233.00	5.64	701.78	0.	699.77	701.81	.03	.03	.00	699.34
875.	369.	199.	307.	324.	96.	228.	58.	43.	699.34
.73	1.14	2.08	1.35	.040	.045	.040	.041	696.14	19.93
.000603	50.	50.	50.	0	0	0	0.	430.16	450.09

*SECNO 16546.000

3280 CROSS SECTION 16546.00 EXTENDED .22 FEET

1570 FT U/S BEMIS RD. (ZW 16+00)

16546.00	5.62	702.02	0.	700.06	702.08	.07	.26	.01	699.30
875.	586.	243.	46.	355.	83.	42.	62.	46.	700.20
.77	1.65	2.94	1.11	.040	.045	.040	.041	696.40	0.
.001230	313.	313.	313.	2	0	0	0.	375.55	375.55

CCHV= .300 CEHV= .600

*SECNO 17046.000

3470 ENCROACHMENT STATIONS= 100.0 603.0 TYPE= 1 TARGET= -100.000

2070 FT U/S BEMIS RD. (ZW 21+00) CROSS SECTION C

17046.00	4.57	702.67	0.	700.96	702.73	.06	.65	.00	701.20
875.	559.	242.	75.	295.	96.	59.	67.	50.	701.80
.84	1.89	2.52	1.27	.040	.045	.030	.041	698.10	100.00
.001355	500.	500.	500.	2	0	0	0.	324.32	424.32

*SECNO 17233.000

3470 ENCROACHMENT STATIONS= 150.0 603.0 TYPE= 1 TARGET= 453.000

50FT D/S PRIVATE 18[CMP CROSSING (R ZW 21+00)

17233.00	4.46	702.96	0.	701.42	703.06	.10	.31	.02	701.60
875.	532.	278.	6.	225.	93.	48.	69.	51.	702.20

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.00	2.30	2.47	1.30	.040	.045	.030	.041	0.0.30.	150.00
.002005	187.	187.	187.	2	0	0	0.	268.13	418.13

*SECNO 17283.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= .0 368.0 TYPE= 1 TARGET= 367.999

D/S FACE PRIVATE 18I CMP CROSSING (ZW CROSSING 2)

17283.00	4.36	703.06	0.	701.61	703.21	.14	.12	.03	701.20
875.	354.	212.	308.	-154.	63.	88.	69.	52.	702.00
.86	2.29	3.35	3.51	.040	.045	.030	.041	698.70	125.93
.003096	50.	50.	50.	2	0	0	0.	242.07	368.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	=0.	3.08	2.60	=0.	1.20	=0.	1.77	=0.	698.70	698.70

*SECNO 17309.000
3280 CROSS SECTION 17309.00 EXTENDED .01 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
12390.91	703.21	0.	865.	3.	2.	2.	700.20	701.20

3470 ENCROACHMENT STATIONS= .0 395.0 TYPE= 1 TARGET= 394.999

U/S FACE PRIVATE 18I CMP CROSSING (R ZW CROSSING 2)

17309.00	4.41	703.11	0.	701.87	703.21	.10	.01	0.	701.20
875.	313.	181.	381.	162.	64.	130.	70.	52.	702.00
.87	1.93	2.81	2.94	.040	.045	.030	.041	698.70	122.32
.002121	26.	26.	26.	2	0	14	0.	272.67	395.00

*SECNO 17359.000
3280 CROSS SECTION 17359.00 EXTENDED .14 FEET

3470 ENCROACHMENT STATIONS= .0 445.0 TYPE= 1 TARGET= 444.999

50FT U/S PRIVATE 18I CMP CROSSING

17359.00	4.23	703.23	0.	701.97	703.31	.07	.08	.01	701.80
875.	222.	178.	475.	158.	72.	201.	70.	52.	702.00
.87	1.40	2.46	2.37	.040	.045	.030	.041	699.00	112.36
.001351	50.	50.	50.	0	0	0	0.	332.64	445.00

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.40

*SECNO 17546.000

3280 CROSS SECTION 17546.00 EXTENDED .36 FEET

2570 FT U/S BEMIS RD. (ZW 26+00)

17546.00	4.36	703.46	0.	702.17	703.50	.04	.19	.01	701.80
875.	237.	151.	488.	199.	76.	280.	72.	54.	702.00
.90	1.19	1.98	1.74	.040	.045	.030	.042	699.10	41.15
.000813	250.	187.	150.	2	0	0	0.	558.85	600.00

*SECNO 18146.000

3470 ENCROACHMENT STATIONS= 100.0 601.0 TYPE= 1 TARGET= -100.000

3170 FT U/S BEMIS RD. (ZW 32+00) CROSS SECTION D

18146.00	3.70	704.40	0.	702.99	704.59	.19	1.03	.06	704.40
875.	631.	244.	0.	194.	59.	0.	78.	60.	705.40
.95	3.25	4.14	0.	.040	.045	.040	.042	700.70	100.00
.005762	600.	600.	600.	2	0	0	0.	211.11	311.11

*SECNO 18646.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3670 FT U/S BEMIS RD. (ZW 37+00)

18646.00	4.65	706.05	0.	704.39	706.15	.10	1.54	.02	704.10
875.	111.	304.	459.	70.	96.	207.	81.	62.	704.80
1.01	1.59	3.16	2.22	.040	.045	.040	.042	701.40	213.15
.001914	500.	500.	500.	0	0	0	0.	234.20	447.35

*SECNO 19146.000

4170 FT U/S BEMIS RD. (ZW 42+00) CROSS SECTION E

19146.00	4.36	707.16	0.	705.31	707.32	.16	1.15	.02	704.80
875.	350.	392.	134.	149.	97.	67.	85.	65.	705.10
1.05	2.34	4.04	2.00	.040	.045	.040	.042	702.80	133.65
.002791	500.	500.	500.	3	0	0	0.	242.11	375.75

*SECNO 19646.000

4670 FT U/S BEMIS RD. (ZW 47+00)

19646.00	3.95	707.85	0.	706.06	707.90	.05	.56	.02	705.90
875.	658.	166.	51.	363.	83.	52.	89.	67.	706.10
1.12	1.81	1.99	.98	.040	.045	.040	.043	703.90	114.14
.000827	300.	500.	650.	3	0	0	0.	259.95	374.09

*SECNO 20146.000

5170 FT U/S BEMIS RD. (ZW 52+00) CROSS SECTION F

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875.	225.	210.	440.	128.	76.	198.	94.	71.	706.70
1.18	1.76	2.75	2.22	.040	.045	.040	.043	704.70	81.95
.001760	500.	500.	500.	2	0	0	0.	352.35	434.31

*SECNO 20646.000

3470 ENCROACHMENT STATIONS= 1.0 590.0 TYPE= 1 TARGET= 589.000

5670 FT U/S BEMIS RD. (ZW 57+00)

20646.00	3.39	709.09	0.	707.69	709.14	.06	.65	.00	707.60
875.	31.	277.	567.	33.	134.	306.	99.	74.	707.10
1.25	.96	2.06	1.86	.040	.045	.040	.043	705.70	230.67
.000992	500.	500.	500.	1	0	0	0.	253.04	483.70

*SECNO 20776.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
20776.00	3.49	709.25	0.	707.89	709.42	.17	.23	.05	708.10
875.	36.	379.	459.	22.	98.	159.	100.	75.	707.85
1.26	1.67	3.86	2.88	.040	.045	.040	.043	705.76	215.11
.004192	130.	130.	130.	1	0	0	0.	207.47	422.58

*SECNO 20906.000

20906.00	4.05	709.87	0.	708.50	710.12	.25	.66	.03	708.60
875.	63.	487.	325.	29.	102.	111.	101.	76.	708.60
1.27	2.19	4.76	2.94	.040	.045	.040	.043	705.82	184.56
.006357	130.	130.	130.	2	0	0	0.	211.54	396.10

*SECNO 21166.000

79 FT D/S MERRITT RD (ZW 60+38) CROSS SECTION G

21166.00	5.55	711.45	0.	709.58	711.73	.28	1.60	.01	709.60
875.	244.	520.	111.	88.	103.	92.	102.	77.	710.20
1.29	2.76	5.07	2.14	.040	.045	.040	.043	705.90	50.76
.005944	260.	260.	260.	2	0	0	0.	257.19	307.95

CCHV= .500 CEHV= 1.000

*SECNO 21206.000

3280 CROSS SECTION 21206.00 EXTENDED .27 FEET

39 FT D/S MERRITT RD (INT)

21206.00	6.46	711.56	0.	709.73	711.82	.26	.09	.01	709.60
875.	142.	662.	71.	95.	143.	61.	103.	77.	710.20
1.29	1.50	4.62	1.17	.040	.030	.040	.043	705.10	0.
.001410	10.	40.	40.	2	0	0	0.	200.00	200.00

*SECNO 21245.000

3280 CROSS SECTION 21245.00 EXTENDED .71 FEET

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D/S FACE MERRITT RD. (COE VS=2)

21245.00	8.50	711.80	0.	709.75	711.92	.13	.04	.07	709.70
875.	254.	380.	241.	199.	100.	111.	103.	77.	706.50
1.30	1.28	3.82	2.17	.030	.027	.030	.043	703.30	0.
.000873	10.	39.	39.	2	0	0	0.	376.57	376.57

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	=0.	2.02	2.80	=0.	6.00	=0.	28.30	=0.	703.30	703.30

*SECNO 21287.000
3280 CROSS SECTION 21287.00 EXTENDED 1.14 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
741.78	711.92	0.	749.	128.	28.	6.	704.30	711.10

3470 ENCROACHMENT STATIONS= 150.0 308.0 TYPE= 1 TARGET= 158.000

U/S FACE MERRITT RD.

21287.00	8.93	712.23	0.	710.18	712.44	.21	.52	0.	709.70
875.	330.	495.	51.	164.	110.	20.	103.	77.	706.50
1.30	2.01	4.51	2.60	.030	.027	.030	.043	703.30	150.00
.001076	42.	42.	42.	2	0	8	0.	158.00	308.00

*SECNO 21327.000

3470 ENCROACHMENT STATIONS= 225.0 400.0 TYPE= 1 TARGET= 175.000

40 FT U/S MERRITT RD.

21327.00	7.39	712.49	0.	710.21	712.54	.05	.02	.08	709.00
875.	459.	222.	194.	301.	88.	112.	104.	78.	708.40
1.31	1.53	2.53	1.73	.030	.030	.030	.043	705.10	225.00
.000293	40.	40.	40.	2	0	0	0.	175.00	400.00

*SECNO 21366.000

3470 ENCROACHMENT STATIONS= 235.0 440.0 TYPE= 1 TARGET= 205.000

79 FT U/S MERRITT RD (ZW 61+38) CROSS SECTION H

21366.00	5.52	712.52	0.	710.22	712.56	.04	.01	.01	709.00
875.	412.	149.	315.	283.	69.	206.	104.	78.	708.40
1.31	1.45	2.15	1.53	.030	.030	.030	.043	707.00	235.00
.000257	39.	39.	39.	0	0	0	0.	205.00	440.00

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*SECNO 21616.000

3470 ENCROACHMENT STATIONS= .0 335.0 TYPE= 1 TARGET= 334.999

329 FT U/S MERRITT RD (INT)

21616.00	4.99	712.59	0.	710.37	712.64	.05	.07	.01	710.50
875.	93.	85.	698.	79.	41.	380.	107.	79.	710.00
1.35	1.17	2.07	1.84	.030	.030	.030	.043	707.60	135.52
.000337	250.	250.	250.	0	0	0	0.	199.48	335.00

*SECNO 21786.000

3470 ENCROACHMENT STATIONS= 500.0 941.0 TYPE= 1 TARGET= 441.000

499 FT U/S MERRITT RD (COE VS-6A) CROSS SECTION I

21786.00	5.06	712.66	0.	710.45	712.73	.07	.07	.02	709.40
875.	425.	285.	166.	227.	98.	136.	109.	80.	710.50
1.37	1.87	2.90	1.22	.030	.030	.030	.042	707.60	548.68
.000500	170.	170.	170.	1	0	0	0.	302.22	850.90

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THIS RUN EXECUTED 16 AUG 79 09.51.23

****
HEC2 RELEASE DATED NOV 76 UPDATED JULY 1979
ERROR CORR - 01,02,03
MODIFICATION - 50,51,52,53
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

10 YR FLOW

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
11816.000	0.	0.	0.	689.30	110.00	692.70	0.	692.77	10.25	2.24	54.42	34.36
11816.000	0.	0.	0.	689.30	190.00	693.80	0.	693.84	4.93	1.95	132.58	85.58
11816.000	0.	0.	0.	689.30	410.00	694.70	0.	694.73	3.53	1.90	351.86	218.18
11816.000	0.	0.	0.	689.30	875.00	695.90	0.	695.92	1.75	1.56	891.39	660.74
12216.000	400.00	0.	0.	690.00	110.00	693.17	0.	693.27	14.74	2.53	47.25	28.65
12216.000	400.00	0.	0.	690.00	190.00	694.05	0.	694.15	11.07	2.69	83.68	57.11
12216.000	400.00	0.	0.	690.00	410.00	694.89	0.	694.98	10.25	3.00	210.36	128.05
12216.000	400.00	0.	0.	690.00	875.00	696.00	0.	696.03	4.77	2.39	617.07	400.71
12616.000	400.00	0.	0.	690.70	110.00	693.88	0.	694.00	21.24	2.89	39.56	23.87
12616.000	400.00	0.	0.	690.70	190.00	694.66	0.	694.83	21.88	3.40	60.44	40.62
12616.000	400.00	0.	0.	690.70	410.00	695.41	0.	695.48	12.44	2.93	259.58	116.25
12616.000	400.00	0.	0.	690.70	875.00	696.22	0.	696.25	4.83	2.08	649.13	398.03
13416.000	800.00	0.	0.	691.60	110.00	694.99	0.	695.05	8.64	2.05	63.56	37.43
13416.000	800.00	0.	0.	691.60	190.00	695.59	0.	695.62	5.35	1.84	161.32	82.14
13416.000	800.00	0.	0.	691.60	410.00	696.11	0.	696.14	5.73	2.10	328.51	171.30
13416.000	800.00	0.	0.	691.60	875.00	696.66	0.	696.70	6.54	2.46	595.13	342.25
14116.000	700.00	0.	0.	692.00	110.00	695.42	0.	695.45	3.94	1.41	107.67	55.41
14116.000	700.00	0.	0.	692.00	190.00	695.90	0.	695.92	3.57	1.49	164.61	100.54
14116.000	700.00	0.	0.	692.00	410.00	696.36	0.	696.38	2.16	1.27	438.74	278.86
14116.000	700.00	0.	0.	692.00	875.00	696.98	0.	697.01	3.12	1.69	630.01	495.58
14299.000	183.00	0.	0.	692.10	110.00	695.53	0.	695.61	11.86	2.35	51.72	31.94
14299.000	183.00	0.	0.	692.10	190.00	696.00	0.	696.11	15.18	2.95	84.43	48.76
14299.000	183.00	0.	0.	692.10	410.00	696.43	0.	696.56	20.42	3.73	170.24	90.73
14299.000	183.00	0.	0.	692.10	875.00	697.07	0.	697.22	19.40	4.05	305.21	198.64
14481.000	182.00	0.	0.	692.20	110.00	695.76	0.	695.85	13.60	2.47	45.50	29.82
14481.000	182.00	0.	0.	692.20	190.00	696.30	0.	696.47	19.81	3.37	61.49	42.68
14481.000	182.00	0.	0.	692.20	410.00	696.89	0.	697.27	40.35	5.36	94.07	64.54
14481.000	182.00	0.	0.	692.20	875.00	697.53	0.	697.87	41.87	6.05	235.85	135.23
14846.000	365.00	0.	0.	692.40	110.00	696.24	0.	696.33	12.30	2.37	46.38	31.37
14846.000	365.00	0.	0.	692.40	190.00	697.01	0.	697.17	18.27	3.24	59.13	44.46
14846.000	365.00	0.	0.	692.40	410.00	698.17	0.	698.53	29.34	4.93	91.08	75.69
14846.000	365.00	0.	0.	692.40	875.00	699.09	699.07	699.68	46.46	6.98	173.12	128.37

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	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	14881.000	35.00	0.	0.	692.10	110.00	696.30	0.	696.37	8.96	2.12	52.00	36.75
	14881.000	35.00	0.	0.	692.10	190.00	697.11	0.	697.24	12.58	2.88	67.59	53.57
	14881.000	35.00	0.	0.	692.10	410.00	698.36	0.	698.65	20.52	4.40	100.18	90.51
	14881.000	35.00	0.	0.	692.10	875.00	699.22	0.	700.02	49.28	7.54	125.74	124.65
	14917.000	36.00	0.	0.	691.80	110.00	696.32	0.	696.42	6.13	2.43	45.32	44.43
	14917.000	36.00	0.	0.	691.80	190.00	697.14	0.	697.34	11.79	3.56	53.40	55.32
	14917.000	36.00	0.	0.	691.80	410.00	698.40	0.	698.95	29.01	6.05	74.86	76.13
*	14917.000	36.00	0.	0.	691.80	875.00	699.66	699.66	700.37	40.93	7.80	165.33	136.77
	14975.000	58.00	699.90	697.80	691.80	110.00	696.37	0.	696.46	5.99	2.41	45.72	44.96
	14975.000	58.00	699.90	697.80	691.80	190.00	697.26	0.	697.45	11.13	3.48	54.60	56.96
	14975.000	58.00	699.90	697.80	691.80	410.00	700.35	0.	700.46	7.17	3.24	229.20	153.15
*	14975.000	58.00	699.90	697.80	691.80	875.00	700.81	0.	700.94	10.96	4.14	435.93	264.27
	15010.000	35.00	0.	0.	693.90	110.00	696.41	0.	696.54	39.84	2.93	37.53	17.43
	15010.000	35.00	0.	0.	693.90	190.00	697.37	0.	697.53	31.02	3.15	60.37	34.11
	15010.000	35.00	0.	0.	693.90	410.00	700.48	0.	700.52	3.30	1.71	348.05	225.86
	15010.000	35.00	0.	0.	693.90	875.00	700.93	0.	701.00	7.90	2.80	482.08	311.40
*	15046.000	36.00	0.	0.	695.30	110.00	696.83	696.83	697.35	307.64	5.78	19.02	6.27
	15046.000	36.00	0.	0.	695.30	190.00	697.53	0.	698.02	187.75	5.62	33.81	13.87
	15046.000	36.00	0.	0.	695.30	410.00	700.53	0.	700.54	1.73	1.09	538.12	312.00
	15046.000	36.00	0.	0.	695.30	875.00	701.02	0.	701.05	3.56	1.69	724.84	463.90
	15546.000	500.00	0.	0.	695.80	110.00	699.04	0.	699.09	11.76	1.88	63.26	32.08
	15546.000	500.00	0.	0.	695.80	190.00	699.65	0.	699.70	12.65	2.03	123.17	53.42
	15546.000	500.00	0.	0.	695.80	410.00	700.67	0.	700.70	7.48	1.69	312.37	149.93
	15546.000	500.00	0.	0.	695.80	875.00	701.28	0.	701.33	9.59	2.17	530.08	282.56
	16046.000	500.00	0.	0.	696.30	110.00	699.59	0.	699.63	9.88	1.78	76.24	35.00
	16046.000	500.00	0.	0.	696.30	190.00	700.16	0.	700.20	7.88	1.80	159.92	67.68
	16046.000	500.00	0.	0.	696.30	410.00	700.98	0.	701.01	5.02	1.69	380.61	183.06
	16046.000	500.00	0.	0.	696.30	875.00	701.67	0.	701.70	5.75	2.03	647.86	364.78
	16119.000	73.00	0.	0.	696.18	110.00	699.66	0.	699.69	6.46	1.50	98.68	43.27
	16119.000	73.00	0.	0.	696.18	190.00	700.22	0.	700.25	4.98	1.49	196.80	85.14
	16119.000	73.00	0.	0.	696.18	410.00	701.02	0.	701.04	3.47	1.45	441.00	220.10
	16119.000	73.00	0.	0.	696.18	875.00	701.71	0.	701.74	4.30	1.80	721.68	421.86
	16168.000	49.00	0.	0.	696.10	110.00	699.69	0.	699.73	7.50	1.72	76.01	40.16
	16168.000	49.00	0.	0.	696.10	190.00	700.24	0.	700.28	7.60	1.90	155.45	68.90
	16168.000	49.00	0.	0.	696.10	410.00	701.04	0.	701.06	5.43	1.80	373.50	176.03
	16168.000	49.00	0.	0.	696.10	875.00	701.73	0.	701.77	6.07	2.08	646.11	355.04
	16169.000	1.00	699.30	699.10	696.10	110.00	699.69	0.	699.73	31.12	1.74	72.01	19.72
	16169.000	1.00	699.30	699.10	696.10	190.00	700.26	0.	700.29	18.97	1.50	152.58	43.63
	16169.000	1.00	699.30	699.10	696.10	410.00	701.05	0.	701.07	8.41	1.13	368.31	141.39
	16169.000	1.00	699.30	699.10	696.10	875.00	701.74	0.	701.77	7.85	1.19	641.08	312.30
	16182.000	13.00	699.30	699.10	696.10	110.00	699.73	0.	699.77	28.82	1.68	75.31	20.49
	16182.000	13.00	699.30	699.10	696.10	190.00	700.29	0.	700.31	17.40	1.44	157.62	45.55
	16182.000	13.00	699.30	699.10	696.10	410.00	701.06	0.	701.08	8.02	1.10	374.55	144.75
	16182.000	13.00	699.30	699.10	696.10	875.00	701.75	0.	701.78	7.64	1.18	647.16	316.58

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SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
16183.000	1.00	0.	0.	696.10	110.00	699.73	0.	699.77	7.05	1.68	79.91	41.44
16183.000	1.00	0.	0.	696.10	190.00	700.28	0.	700.32	6.93	1.83	162.99	72.18
16183.000	1.00	0.	0.	696.10	410.00	701.05	0.	701.08	5.23	1.78	379.13	179.23
16183.000	1.00	0.	0.	696.10	875.00	701.75	0.	701.78	5.94	2.06	651.61	359.08
16233.000	50.00	0.	0.	696.14	110.00	699.77	0.	699.81	7.13	1.68	79.16	41.19
16233.000	50.00	0.	0.	696.14	190.00	700.32	0.	700.35	7.17	1.85	160.18	70.95
16233.000	50.00	0.	0.	696.14	410.00	701.08	0.	701.11	5.37	1.79	375.19	176.99
16233.000	50.00	0.	0.	696.14	875.00	701.78	0.	701.81	6.03	2.08	647.92	356.37
16546.000	313.00	0.	0.	696.40	110.00	700.06	0.	700.12	14.12	2.14	63.16	29.28
16546.000	313.00	0.	0.	696.40	190.00	700.60	0.	700.67	14.13	2.42	108.58	50.55
16546.000	313.00	0.	0.	696.40	410.00	701.31	0.	701.37	13.32	2.72	240.16	112.35
16546.000	313.00	0.	0.	696.40	875.00	702.02	0.	702.08	12.30	2.94	479.18	249.46
17046.000	500.00	0.	0.	698.10	110.00	700.96	0.	701.02	23.56	2.17	64.75	22.66
17046.000	500.00	0.	0.	698.10	190.00	701.41	0.	701.45	16.87	2.02	132.66	46.26
17046.000	500.00	0.	0.	698.10	410.00	702.01	0.	702.06	13.89	2.18	256.22	110.00
17046.000	500.00	0.	0.	698.10	875.00	702.67	0.	702.73	13.55	2.52	449.95	237.67
17233.000	187.00	0.	0.	698.50	110.00	701.42	0.	701.51	27.27	2.35	50.14	21.06
17233.000	187.00	0.	0.	698.50	190.00	701.81	0.	701.92	33.18	2.84	79.82	32.98
17233.000	187.00	0.	0.	698.50	410.00	702.31	0.	702.37	18.75	2.45	212.93	94.69
17233.000	187.00	0.	0.	698.50	875.00	702.96	0.	703.06	20.05	2.99	365.79	195.39
17283.000	50.00	0.	0.	698.70	110.00	701.61	0.	701.77	80.90	3.31	39.79	12.23
17283.000	50.00	0.	0.	698.70	190.00	702.03	0.	702.11	37.51	2.65	97.35	31.02
17283.000	50.00	0.	0.	698.70	410.00	702.42	0.	702.53	38.78	3.11	165.72	65.84
17283.000	50.00	0.	0.	698.70	875.00	703.06	0.	703.21	30.96	3.35	305.71	157.27
17309.000	26.00	701.20	700.20	698.70	110.00	701.87	0.	701.92	23.27	1.97	78.47	22.80
17309.000	26.00	701.20	700.20	698.70	190.00	702.10	0.	702.15	24.21	2.19	119.15	38.61
17309.000	26.00	701.20	700.20	698.70	410.00	702.49	0.	702.56	23.83	2.50	202.53	83.98
17309.000	26.00	701.20	700.20	698.70	875.00	703.11	0.	703.21	21.21	2.81	355.87	189.99
17359.000	50.00	0.	0.	699.00	110.00	701.97	0.	702.01	15.26	1.82	80.46	28.16
17359.000	50.00	0.	0.	699.00	190.00	702.20	0.	702.25	16.54	2.05	129.09	46.72
17359.000	50.00	0.	0.	699.00	410.00	702.61	0.	702.67	16.18	2.30	236.80	101.92
17359.000	50.00	0.	0.	699.00	875.00	703.23	0.	703.31	13.51	2.46	430.95	238.09
17546.000	187.00	0.	0.	699.10	110.00	702.17	0.	702.19	6.80	1.28	119.60	42.19
17546.000	187.00	0.	0.	699.10	190.00	702.42	0.	702.44	7.29	1.44	180.60	70.36
17546.000	187.00	0.	0.	699.10	410.00	702.84	0.	702.87	8.29	1.73	306.65	142.39
17546.000	187.00	0.	0.	699.10	875.00	703.46	0.	703.50	8.13	1.98	555.85	306.83
18146.000	600.00	0.	0.	700.70	110.00	702.99	0.	703.12	53.37	3.16	45.75	15.06
18146.000	600.00	0.	0.	700.70	190.00	703.30	0.	703.44	59.38	3.53	75.56	24.66
18146.000	600.00	0.	0.	700.70	410.00	703.81	0.	703.95	55.63	3.72	143.54	54.97
18146.000	600.00	0.	0.	700.70	875.00	704.40	0.	704.59	57.62	4.14	253.31	115.27
18646.000	500.00	0.	0.	701.40	110.00	704.39	0.	704.44	15.43	1.89	74.05	28.00
18646.000	500.00	0.	0.	701.40	190.00	704.79	0.	704.84	15.94	2.11	126.43	47.58
18646.000	500.00	0.	0.	701.40	410.00	705.33	0.	705.40	17.38	2.56	221.68	98.35
18646.000	500.00	0.	0.	701.40	875.00	706.05	0.	706.15	19.14	3.16	372.84	200.01

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SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
19146.000	500.00	0.	0.	702.80	110.00	705.31	0.	705.38	22.81	2.25	53.84	23.03
19146.000	500.00	0.	0.	702.80	190.00	705.74	0.	705.84	24.71	2.72	87.32	38.22
19146.000	500.00	0.	0.	702.80	410.00	706.39	0.	706.53	28.70	3.48	164.49	76.54
19146.000	500.00	0.	0.	702.80	875.00	707.16	0.	707.32	27.91	4.04	312.93	165.64
19646.000	500.00	0.	0.	703.90	110.00	706.06	0.	706.07	11.24	1.31	112.54	32.81
19646.000	500.00	0.	0.	703.90	190.00	706.41	0.	706.43	8.52	1.33	176.63	65.10
19646.000	500.00	0.	0.	703.90	410.00	707.05	0.	707.08	7.44	1.55	308.30	150.32
19646.000	500.00	0.	0.	703.90	875.00	707.85	0.	707.90	8.27	1.99	499.20	304.19
20146.000	500.00	0.	0.	704.70	110.00	706.88	0.	706.93	28.49	2.09	72.63	20.61
20146.000	500.00	0.	0.	704.70	190.00	707.11	0.	707.17	29.93	2.38	112.19	34.73
20146.000	500.00	0.	0.	704.70	410.00	707.63	0.	707.70	22.88	2.53	213.27	85.71
20146.000	500.00	0.	0.	704.70	875.00	708.41	0.	708.49	17.60	2.75	402.94	208.56
20646.000	500.00	0.	0.	705.70	110.00	707.69	0.	707.71	9.68	1.29	93.31	35.35
20646.000	500.00	0.	0.	705.70	190.00	708.04	0.	708.08	12.06	1.66	124.87	54.70
20646.000	500.00	0.	0.	705.70	410.00	708.34	0.	708.37	8.60	1.57	298.54	139.84
20646.000	500.00	0.	0.	705.70	875.00	709.09	0.	709.14	9.92	2.06	472.61	277.81
20776.000	130.00	0.	0.	705.76	110.00	707.89	0.	707.98	48.15	2.46	49.69	15.85
20776.000	130.00	0.	0.	705.76	190.00	708.26	0.	708.34	33.54	2.44	98.58	32.81
20776.000	130.00	0.	0.	705.76	410.00	708.49	0.	708.67	68.93	3.85	135.82	49.38
20776.000	130.00	0.	0.	705.76	875.00	709.25	0.	709.42	41.92	3.86	279.39	135.15
20906.000	130.00	0.	0.	705.82	110.00	708.50	0.	708.59	45.97	2.43	45.19	16.22
20906.000	130.00	0.	0.	705.82	190.00	708.79	0.	708.95	63.13	3.24	63.47	23.91
20906.000	130.00	0.	0.	705.82	410.00	709.32	0.	709.52	60.75	3.92	134.12	52.60
20906.000	130.00	0.	0.	705.82	875.00	709.87	0.	710.12	63.57	4.76	241.67	109.75
21166.000	260.00	0.	0.	705.90	110.00	709.58	0.	709.69	38.65	2.73	40.34	17.69
21166.000	260.00	0.	0.	705.90	190.00	710.20	0.	710.34	45.40	3.06	67.80	28.20
21166.000	260.00	0.	0.	705.90	410.00	710.79	0.	711.01	53.78	4.08	127.77	55.91
21166.000	260.00	0.	0.	705.90	875.00	711.45	0.	711.73	59.44	5.07	242.97	113.50
21206.000	40.00	0.	0.	705.10	110.00	709.73	0.	709.76	2.52	1.38	80.01	69.29
21206.000	40.00	0.	0.	705.10	190.00	710.37	0.	710.42	3.49	1.82	116.66	101.68
21206.000	40.00	0.	0.	705.10	410.00	710.99	0.	711.11	6.95	2.94	192.69	155.50
21206.000	40.00	0.	0.	705.10	875.00	711.56	0.	711.82	14.10	4.62	299.14	232.99
21245.000	39.00	0.	0.	703.30	110.00	709.75	0.	709.79	4.84	1.85	67.57	50.02
21245.000	39.00	0.	0.	703.30	190.00	710.38	0.	710.44	4.83	2.18	109.82	86.41
21245.000	39.00	0.	0.	703.30	410.00	711.03	0.	711.14	7.95	3.19	180.56	145.43
21245.000	39.00	0.	0.	703.30	875.00	711.80	0.	711.92	8.73	3.82	409.49	296.13
21287.000	42.00	711.10	704.30	703.30	110.00	710.18	0.	710.22	2.86	1.60	76.55	65.06
21287.000	42.00	711.10	704.30	703.30	190.00	711.34	0.	711.37	1.80	1.61	160.38	141.48
21287.000	42.00	711.10	704.30	703.30	410.00	711.78	0.	711.87	4.54	2.74	221.37	192.51
21287.000	42.00	711.10	704.30	703.30	875.00	712.23	0.	712.44	10.76	4.51	293.19	266.78
21327.000	40.00	0.	0.	705.10	110.00	710.21	0.	710.23	2.09	1.53	105.88	76.03
21327.000	40.00	0.	0.	705.10	190.00	711.38	0.	711.39	.60	1.00	306.28	244.92
21327.000	40.00	0.	0.	705.10	410.00	711.89	0.	711.91	1.32	1.58	395.84	356.88
21327.000	40.00	0.	0.	705.10	875.00	712.49	0.	712.54	2.93	2.53	500.46	511.16

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SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
21366.000	39.00	0.	0.	707.00	110.00	710.22	0.	710.25	4.90	1.87	91.86	49.70
21366.000	39.00	0.	0.	707.00	190.00	711.38	0.	711.39	.65	.90	326.60	235.13
21366.000	39.00	0.	0.	707.00	410.00	711.90	0.	711.92	1.27	1.37	432.87	364.02
21366.000	39.00	0.	0.	707.00	875.00	712.52	0.	712.56	2.57	2.15	558.37	545.55
21616.000	250.00	0.	0.	707.60	110.00	710.37	0.	710.39	5.08	1.53	110.59	48.79
21616.000	250.00	0.	0.	707.60	190.00	711.40	0.	711.41	.98	.89	272.67	191.58
21616.000	250.00	0.	0.	707.60	410.00	711.94	0.	711.96	1.81	1.35	372.79	304.98
21616.000	250.00	0.	0.	707.60	875.00	712.59	0.	712.64	3.37	2.07	500.00	476.88
21786.000	170.00	0.	0.	707.60	110.00	710.45	0.	710.50	4.70	1.79	79.05	50.72
21786.000	170.00	0.	0.	707.60	190.00	711.42	0.	711.45	1.87	1.43	192.58	139.03
21786.000	170.00	0.	0.	707.60	410.00	711.98	0.	712.02	3.25	2.09	291.73	227.43
21786.000	170.00	0.	0.	707.60	875.00	712.66	0.	712.73	5.00	2.90	461.27	391.28

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10 YR FLOW

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	11816.000	110.00	692.70	0.	0.	0.	33.27	0.
	11816.000	190.00	693.80	1.10	0.	0.	153.04	0.
	11816.000	410.00	694.70	.90	0.	0.	334.25	0.
	11816.000	875.00	695.90	1.20	0.	0.	543.19	0.
	12216.000	110.00	693.17	0.	.47	0.	30.20	400.00
	12216.000	190.00	694.05	.88	.25	0.	64.37	400.00
	12216.000	410.00	694.89	.84	.19	0.	244.70	400.00
	12216.000	875.00	696.00	1.10	.10	0.	491.69	400.00
	12616.000	110.00	693.88	0.	.70	0.	20.49	400.00
	12616.000	190.00	694.66	.79	.61	0.	42.59	400.00
	12616.000	410.00	695.41	.74	.52	0.	444.87	400.00
	12616.000	875.00	696.22	.81	.22	0.	514.97	400.00
	13416.000	110.00	694.99	0.	1.11	0.	76.78	800.00
	13416.000	190.00	695.59	.60	.92	0.	249.77	800.00
	13416.000	410.00	696.11	.52	.70	0.	398.63	800.00
	13416.000	875.00	696.66	.55	.45	0.	559.32	800.00
	14116.000	110.00	695.42	0.	.43	0.	120.00	700.00
	14116.000	190.00	695.90	.48	.31	.48	120.00	700.00
	14116.000	410.00	696.36	.46	.26	.94	310.00	700.00
	14116.000	875.00	696.98	.62	.32	1.55	310.00	700.00
	14299.000	110.00	695.53	0.	.10	0.	38.93	183.00
	14299.000	190.00	696.00	.47	.10	.47	163.16	183.00
	14299.000	410.00	696.43	.43	.07	.90	213.00	183.00
	14299.000	875.00	697.07	.64	.09	1.54	213.00	183.00
	14481.000	110.00	695.76	0.	.23	0.	22.97	182.00
	14481.000	190.00	696.30	.55	.30	.55	36.14	182.00
	14481.000	410.00	696.89	.58	.46	1.13	111.50	182.00
	14481.000	875.00	697.53	.65	.46	1.78	290.02	182.00
	14846.000	110.00	696.24	0.	.48	0.	15.22	365.00
	14846.000	190.00	697.01	.77	.70	.77	19.71	365.00
	14846.000	410.00	698.17	1.17	1.28	1.93	36.79	365.00
	14846.000	875.00	699.09	.92	1.56	2.85	181.05	365.00
	14881.000	110.00	696.30	0.	.06	0.	15.81	35.00
	14881.000	190.00	697.11	.81	.11	.81	21.78	35.00
	14881.000	410.00	698.36	1.25	.19	2.06	30.00	35.00
	14881.000	875.00	699.22	.85	.12	2.91	30.00	35.00
	14917.000	110.00	696.32	0.	.02	0.	10.00	36.00
	14917.000	190.00	697.14	.82	.03	.82	10.00	36.00
	14917.000	410.00	698.40	1.26	.03	2.07	39.82	36.00
*	14917.000	875.00	699.66	1.27	.45	3.34	103.12	36.00
	14975.000	110.00	696.37	0.	.05	0.	10.00	58.00
	14975.000	190.00	697.26	.89	.12	.89	10.00	58.00
	14975.000	410.00	700.35	3.09	1.95	3.97	346.10	58.00
*	14975.000	875.00	700.81	.46	1.15	4.44	558.43	58.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
15010.000	110.00	696.41	0.	.03	0.	21.50	35.00
15010.000	190.00	697.37	.96	.11	.96	25.49	35.00
15010.000	410.00	700.48	3.11	.14	4.08	284.10	35.00
15010.000	875.00	700.93	.44	.12	4.52	324.16	35.00
15046.000	110.00	696.83	0.	.43	0.	18.66	36.00
15046.000	190.00	697.53	.70	.16	.70	23.80	36.00
15046.000	410.00	700.53	3.00	.04	3.69	376.00	36.00
15046.000	875.00	701.02	.50	.10	4.19	376.00	36.00
15546.000	110.00	699.04	0.	2.20	0.	61.63	500.00
15546.000	190.00	699.65	.61	2.12	.61	133.98	500.00
15546.000	410.00	700.67	1.02	.15	1.63	240.64	500.00
15546.000	875.00	701.28	.61	.26	2.25	415.29	500.00
16046.000	110.00	699.59	0.	.55	0.	96.50	500.00
16046.000	190.00	700.16	.58	.51	.58	189.67	500.00
16046.000	410.00	700.98	.82	.31	1.40	355.78	500.00
16046.000	875.00	701.67	.68	.38	2.08	424.59	500.00
16119.000	110.00	699.66	0.	.08	0.	129.11	73.00
16119.000	190.00	700.22	.56	.06	.56	211.23	73.00
16119.000	410.00	701.02	.80	.04	1.36	372.44	73.00
16119.000	875.00	701.71	.69	.04	2.05	441.71	73.00
16168.000	110.00	699.69	0.	.03	0.	92.36	49.00
16168.000	190.00	700.24	.55	.02	.55	185.41	49.00
16168.000	410.00	701.04	.79	.02	1.35	355.05	49.00
16168.000	875.00	701.73	.70	.02	2.04	429.70	49.00
16183.000	110.00	699.73	0.	.04	0.	100.07	1.00
16183.000	190.00	700.28	.55	.01	.55	189.71	1.00
16183.000	410.00	701.05	.77	.00	1.32	356.75	1.00
16183.000	875.00	701.75	.69	.00	2.01	431.08	1.00
16233.000	110.00	699.77	0.	.04	0.	98.63	50.00
16233.000	190.00	700.32	.55	.03	.55	188.12	50.00
16233.000	410.00	701.08	.76	.03	1.31	355.56	50.00
16233.000	875.00	701.78	.70	.03	2.01	430.16	50.00
16546.000	110.00	700.06	0.	.29	0.	65.37	313.00
16546.000	190.00	700.60	.54	.29	.54	102.94	313.00
16546.000	410.00	701.31	.70	.23	1.25	277.86	313.00
16546.000	875.00	702.02	.71	.24	1.96	375.55	313.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
17046.000	110.00	700.96	0.	.90	0.	114.88	500.00
17046.000	190.00	701.41	.45	.80	.45	177.22	500.00
17046.000	410.00	702.01	.61	.71	1.06	251.00	500.00
17046.000	875.00	702.67	.65	.65	1.71	324.32	500.00
17233.000	110.00	701.42	0.	.47	0.	59.16	187.00
17233.000	190.00	701.81	.39	.40	.39	82.31	187.00
17233.000	410.00	702.31	.50	.29	.88	181.97	187.00
17233.000	875.00	702.96	.65	.29	1.53	268.13	187.00
17283.000	110.00	701.61	0.	.19	0.	83.46	50.00
17283.000	190.00	702.03	.42	.22	.42	161.81	50.00
17283.000	410.00	702.42	.39	.11	.80	192.51	50.00
17283.000	875.00	703.06	.64	.11	1.45	242.07	50.00
17309.000	110.00	701.87	0.	.26	0.	171.74	26.00
17309.000	190.00	702.10	.22	.07	.22	194.71	26.00
17309.000	410.00	702.49	.40	.07	.62	225.30	26.00
17309.000	875.00	703.11	.62	.05	1.23	272.67	26.00
17359.000	110.00	701.97	0.	.10	0.	180.62	50.00
17359.000	190.00	702.20	.23	.10	.23	237.25	50.00
17359.000	410.00	702.61	.41	.12	.64	284.22	50.00
17359.000	875.00	703.23	.62	.12	1.26	332.64	50.00
17546.000	110.00	702.17	0.	.20	0.	232.58	187.00
17546.000	190.00	702.42	.24	.21	.24	265.80	187.00
17546.000	410.00	702.84	.43	.23	.67	323.84	187.00
17546.000	875.00	703.46	.62	.23	1.29	558.85	187.00
18146.000	110.00	702.99	0.	.82	0.	76.97	600.00
18146.000	190.00	703.30	.31	.89	.31	110.69	600.00
18146.000	410.00	703.81	.51	.97	.82	157.94	600.00
18146.000	875.00	704.40	.59	.94	1.41	211.11	600.00
18646.000	110.00	704.39	0.	1.40	0.	105.27	500.00
18646.000	190.00	704.79	.40	1.49	.40	159.63	500.00
18646.000	410.00	705.33	.54	1.52	.94	192.16	500.00
18646.000	875.00	706.05	.72	1.65	1.66	234.20	500.00
19146.000	110.00	705.31	0.	.91	0.	58.51	500.00
19146.000	190.00	705.74	.44	.95	.44	93.99	500.00
19146.000	410.00	706.39	.64	1.06	1.08	145.96	500.00
19146.000	875.00	707.16	.77	1.11	1.86	242.11	500.00
19646.000	110.00	706.06	0.	.75	0.	173.06	500.00
19646.000	190.00	706.41	.36	.67	.36	189.23	500.00
19646.000	410.00	707.05	.64	.66	1.00	220.85	500.00
19646.000	875.00	707.85	.79	.68	1.79	259.95	500.00
20146.000	110.00	706.88	0.	.83	0.	154.39	500.00
20146.000	190.00	707.11	.23	.70	.23	184.04	500.00
20146.000	410.00	707.63	.52	.58	.75	205.92	500.00
20146.000	875.00	708.41	.78	.57	1.53	352.35	500.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
20646.000	110.00	707.69	0.	.81	0.	87.76	500.00
20646.000	190.00	708.04	.35	.93	.35	97.96	500.00
20646.000	410.00	708.34	.30	.70	.65	221.23	500.00
20646.000	875.00	709.09	.75	.67	1.40	253.04	500.00
20776.000	110.00	707.89	0.	.20	0.	113.11	130.00
20776.000	190.00	708.26	.37	.22	.37	150.10	130.00
20776.000	410.00	708.49	.23	.16	.61	167.91	130.00
20776.000	875.00	709.25	.76	.17	1.36	207.47	130.00
20906.000	110.00	708.50	0.	.61	0.	39.38	130.00
20906.000	190.00	708.79	.30	.53	.30	101.40	130.00
20906.000	410.00	709.32	.53	.83	.82	164.29	130.00
20906.000	875.00	709.87	.54	.61	1.37	211.54	130.00
21166.000	110.00	709.58	0.	1.08	0.	24.86	260.00
21166.000	190.00	710.20	.62	1.41	.62	64.95	260.00
21166.000	410.00	710.79	.59	1.47	1.21	134.93	260.00
21166.000	875.00	711.45	.65	1.58	1.87	257.19	260.00
21206.000	110.00	709.73	0.	.15	0.	39.34	40.00
21206.000	190.00	710.37	.63	.17	.63	84.24	40.00
21206.000	410.00	710.99	.63	.20	1.26	157.60	40.00
21206.000	875.00	711.56	.57	.12	1.83	200.00	40.00
21245.000	110.00	709.75	0.	.01	0.	45.20	39.00
21245.000	190.00	710.38	.64	.02	.64	88.07	39.00
21245.000	410.00	711.03	.64	.03	1.28	131.99	39.00
21245.000	875.00	711.80	.77	.23	2.05	376.57	39.00
21287.000	110.00	710.18	0.	.44	0.	48.36	42.00
21287.000	190.00	711.34	1.15	.95	1.15	96.94	42.00
21287.000	410.00	711.78	.45	.76	1.60	158.00	42.00
21287.000	875.00	712.23	.45	.44	2.05	158.00	42.00
21327.000	110.00	710.21	0.	.02	0.	133.75	40.00
21327.000	190.00	711.38	1.17	.04	1.17	175.00	40.00
21327.000	410.00	711.89	.51	.10	1.68	175.00	40.00
21327.000	875.00	712.49	.60	.25	2.28	175.00	40.00
21366.000	110.00	710.22	0.	.01	0.	159.15	39.00
21366.000	190.00	711.38	1.16	.01	1.16	205.00	39.00
21366.000	410.00	711.90	.52	.01	1.68	205.00	39.00
21366.000	875.00	712.52	.62	.03	2.30	205.00	39.00
21616.000	110.00	710.37	0.	.15	0.	139.81	250.00
21616.000	190.00	711.40	1.03	.02	1.03	180.42	250.00
21616.000	410.00	711.94	.54	.04	1.57	190.78	250.00
21616.000	875.00	712.59	.65	.07	2.22	199.48	250.00
21786.000	110.00	710.45	0.	.08	0.	77.12	170.00
21786.000	190.00	711.42	.97	.02	.97	156.49	170.00
21786.000	410.00	711.98	.55	.04	1.53	200.05	170.00
21786.000	875.00	712.66	.68	.07	2.21	302.22	170.00

SUMMARY OF ERRORS

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CAUTION SECNO=14975.000 PROFILE= 4 HYDRAULIC JUMP D.S.

CAUTION SECNO=15046.000 PROFILE= 1 CRITICAL DEPTH ASSUMED

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THIS RUN EXECUTED 16 AUG 79 09.51.24

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HEC2 RELEASE DATED NOV 76 UPDATED JULY 1979
ERROR CORR - 01,02,03
MODIFICATION - 50,51,52,53
****

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09.46.30. BEHES05.  16 AUG 79   7600Z  BKY29A V6   BEH      NORM          804045 EEESHOLBROOK
09.46.30. BEHES05. BEH,804045,EEESHOLBROOK
09.46.30. BEHES05. *INPUT 6200C 09.29.34. 16 AUG 79  VIA COKE
09.46.30. BEHES05.  COPY,INPUT,IR,CONTROL/BR,DFM=OFF.
09.46.31. BEHES05.  FLS=020K  FLL=0000K  LCM BUFFERS=0054K  TOTAL LCM=0074K
09.46.31. BEHES05.   CONTROL DISK 2
09.46.31. BEHES05.  COPY COMPLETE.
09.46.31. BEHES05. (WEST BRANCH PAINT CREEK
09.46.31. BEHES05. *NOSTAGE
09.46.31. BEHES05. FETCHPS,HECLIB,HEC2,HEC2.
09.46.31. BEHES05.  FLS=060K  FLL=0000K  LCM BUFFERS=0054K  TOTAL LCM=0134K
09.46.37. BEHES05.   HEC2     DISK 2
09.46.39. BEHES05.  HEC2          26235 WORDS COPIED FROM CACHE.
09.46.39. BEHES05.   CACHE22 RETURNED      7 BLD, BS= 0040B,FS=1221440B
09.46.39. BEHES05.   TAPEPAC RETURNED      0 BLD, BS= 0002B,FS=0000000B
09.46.39. BEHES05. SFL,170000.
09.46.39. BEHES05.  FLS=170K  FLL=0000K  LCM BUFFERS=0014K  TOTAL LCM=0204K
09.46.39. BEHES05. HEC2,LC=20000,,S.
09.49.45. BEHES05.   ZZZZZLS DISK 2
09.49.45. BEHES05.   ZZZZZLS RETURNED      0 BLD, BS= 0040B,FS=000000B
09.51.13. BEHES05.   DBGMAP  DISK 2
09.51.14. BEHES05.   OUTPUT  DISK 2
09.51.15. BEHES05.   DBGMAP  UNLOADED      1 BLD, BS= 0040B,FS=000002B
09.51.15. BEHES05.   HEC2    UNLOADED      4 BLD, BS= 0040B,FS=000064B
09.51.15. BEHES05.   MNF4LIB UNLOADED      1 BLD, BS= 0010B,FS=000007B
09.51.15. BEHES05.   FTN4LIB UNLOADED      1 BLD, BS= 0100B,FS=000077B
09.51.15. BEHES05.  LOAD COMPLETE, LINK 8.4.
09.51.15. BEHES05.   TIME...       127 MSEC.
09.51.15. BEHES05.   MEMORY.      LOAD    111200,  EXECUTE    101000.
09.51.15. BEHES05.  FLS=101K  FLL=0000K  LCM BUFFERS=0046K  TOTAL LCM=0147K
09.51.15. BEHES05.        BEGIN PROGRAM HEC2      USING .
09.51.15. BEHES05.           MNF4 LIBRARY VERSION 3.3
09.51.15. BEHES05.           FTN4 LIBRARY 7600-VSN2/79215.10.39
09.51.15. BEHES05.  FIELD LENGTH RESET .           0000000000033792
09.51.15. BEHES05.   S       DISK 2
09.51.15. BEHES05. BN;
09.51.15. BEHES05.   ZZZZZXC DISK 2
09.51.15. BEHES05.   CONTROL RETURNED      0 BLD, BS= 0002B,FS=000001B
09.51.16. BEHES05.   ZZZZZXC UNLOADED      1 BLD, BS= 0002B,FS=0000018
09.51.16. BEHES05.  CONTROL - NEW NAME FOR ZZZZZXC
09.51.16. BEHES05.   ZZZZZCI DISK 2
09.51.16. BEHES05.     CORE IMAGE FROZEN ON FILE ZZZZZCI
09.51.16. BEHES05.     CALLED FROM     XEQCCS
09.51.16. BEHES05.     STOP
09.51.16. BEHES05.   LINK     RETURNED      1 BLD, BS= 0012B,FS=0000128
09.51.16. BEHES05.   MNF4LIB RETURNED      1 BLD, BS= 0010B,FS=0000078
09.51.16. BEHES05.   FTN4LIB RETURNED      1 BLD, BS= 0100B,FS=0000778
09.51.17. BEHES05. ....................................................
09.51.17. BEHES05. FETCHPS,HECDOC,HECNEWS,HECNEWS.
09.51.18. BEHES05.  FLS=170K  FLL=0000K  LCM BUFFERS=0236K  TOTAL LCM=0426K
09.51.19. BEHES05.   HECNEWS DISK 2
09.51.19. BEHES05.  HECNEWS          211 WORDS COPIED FROM CACHE.
09.51.19. BEHES05.   CACHE22 RETURNED      6 BLD, BS= 0040B,FS=1224378
09.51.19. BEHES05.   TAPEPAC RETURNED      0 BLD, BS= 0002B,FS=0000008
09.51.19. BEHES05. ....................................................
09.51.19. BEHES05. BKSP,ZZZZZCI.
09.51.19. BEHES05. ZZZZZCI.
09.51.19. BEHES05.  FLS=101K  FLL=0000K  LCM BUFFERS=0200K  TOTAL LCM=0301K
09.51.19. BEHES05.        THAW PROGRAM FROZEN BY SUBROUTINE XEQCCS
09.51.19. BEHES05.   ZZZZZCI RETURNED      0 BLD, BS= 0102B,FS=0001028
09.51.20. BEHES05.   HECNEWS RETURNED      0 BLD, BS= 0002B,FS=000001B
09.51.20. BEHES05.   TAPE92  DISK 2
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09.51.20. BEHES05.   TAPE94  DISK 2
09.51.20. BEHES05.   TAPE91  DISK 2
09.51.20. BEHES05.   TAPE95  DISK 2
09.51.23. BEHES05.   TAPE96  DISK 2
09.51.24. BEHES05.  FLS=102K  FLL=0000K  LCM BUFFERS=0374K  TOTAL LCM=0476K
09.51.24. BEHES05.     STOP
09.51.24. BEHES05.       1.997 CP SECONDS EXECUTION TIME
09.51.24. BEHES05. REWIND,S.
09.51.27. BEHES05.  FLS=170K  FLL=0000K  LCM BUFFERS=0374K  TOTAL LCM=0564K
09.51.29. BEHES05. REWIND,S.
09.51.29. BEHES05. COPY,S,OUTPUT.
09.51.29. BEHES05.  FLS=020K  FLL=0000K  LCM BUFFERS=0374K  TOTAL LCM=0414K
09.51.32. BEHES05.      FROM S              21189W        2R        0F        0L
09.51.32. BEHES05.  TOTAL TO OUTPUT         21189W        2R        0F        0L
09.51.32. BEHES05.  COPY COMPLETE.
09.51.32. BEHES05. DISPOSE,S=MF,R=(PLEASE SEND TO/B. HOLBROOK    /ARMY CORPS OF ENGINEERS,DETROIT
09.51.32. BEHES05. +/DISTRICT/BOX 1027/DETROIT,MICHIGAN 48231),DT=I.
09.51.36. BEHES05.  FLS=170K  FLL=0000K  LCM BUFFERS=0434K  TOTAL LCM=0624K
09.51.36. BEHES05.   S        UNLOADED       5 BLD, BS= 00408,FS=000052B
09.51.36. BEHES05.   TAPEPAC DISK 2
09.51.37. BEHES05.   TAPEPAC UNLOADED        1 BLD, BS= 00028,FS=000001B
09.52.12. BEHES05.   TAPEPAC RETURNED        1 BLD, BS= 00028,FS=000001B
09.52.13. BEHES05.  * S        QUEUED MF 333
09.52.13. BEHES05.   STATION RETURNED        1 BLD, BS= 00028,FS=000001B
09.52.13. BEHES05.   S        DELETED        5 BLD, BS= 00408,FS=000052B
09.52.13. BEHES05.   OUTPUT  QUEUED PR       3 BLD, BS= 00208,FS=000053B
09.52.13. BEHES05.+ *J HP0929G    804045N 16AUG79RZ N 000026BN;        EEESHOLBRO
09.52.13. BEHES05.
09.52.13. BEHES05.+ SECTORS TRANSFERRED          461
09.52.13. BEHES05.+ MAX DISK SECTORS             720
09.52.13. BEHES05.+ CP SECONDS                 2.136
09.52.13. BEHES05.+ SYSTEM SECONDS             0.407
09.52.13. BEHES05.+ OLD BLD"S                     19
09.52.13. BEHES05.+ LCM BUFFER LOADS              24
09.52.13. BEHES05.+ ITO CUS                        5
09.52.13. BEHES05.+ KWORDS XFERRED               231
09.52.13. BEHES05.+ CIO CALLS                    944
09.52.13. BEHES05.+ STAGING CUS                    0
09.52.13. BEHES05.
09.52.13. BEHES05.+ TOTAL JOB CUS                 26
09.52.13. BEHES05.+ COST + OVERHEAD    $        2.70
09.52.13. BEHES05.

09.52.42. BEHES05.  OUTPUT  QUEUED PR 345
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B I L L B O A R D WRITEUPS SUBSET BKYNEWS WAS LAST CHANGED AUG 13
HANDBOOK SUBSET CHANGES WAS LAST CHANGED AUG 06

AUG 6 CONSULTANT?S OFFICE TEMPORARILY RELOCATED

BECAUSE OF CONSTRUCTION WORK, THE CONSULTANTS? OFFICE HAS TEMPORARILY BEEN MOVED TO RM. 2265 IN BLDG. 50B. THE PHONE NUMBERS HAVE NOT BEEN CHANGED.

AUG 06 PSS HARDWARE FAILURE

THE FOLLOWING SUBSETS HAVE BEEN DESTROYED DUE TO HARDWARE FAILURE

DATE	LIBRARY	SUBSET(S)
AUG 06	RLF	BGTSRC
AUG 06	WHB	BAKKY
JUL 30	MAXLIB	DUMMY
JUL 27	STOR1	AERO

AUG 06 COMPUTER CENTER USERS MEETING

THERE WILL BE A GENERAL MEETING OF LBL COMPUTER CENTER USERS ON AUG. 14 TO DISCUSS THE CENTER?S PROPOSED RATE CHANGES (AMONG OTHER THINGS). SEE WRITEUPS SUBSET BKYNEWS FOR DETAILS.

AUG 03 FTN COMPILER NEWS

FTN VERSION 4.7 IS BACK ON THE SYSTEM. PROBLEMS WITH LIST-DIRECTED I/O HAVE BEEN FIXED.

AUG 3 EXPEDITER USERS

EXPEDITER USERS SHOULD USE THE NEW EXPEDITER TAPE ENTRY FORM FOR ENTERING NEW TAPES INTO THE LBL SYSTEM. THE OLD FORM IS NO LONGER VALID. TO GET A COPY OF THE NEW FORM DO -

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LIBCOPY,EXPLIB,A/RR,USER.
DISPOSE,A=PR.
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AUG 2 COMPUTER CENTER BONANZA

THE COMPUTER CENTER WILL BE REBAYING APPROXIMATELY TEN PERCENT OF CHARGES ACCRUED DURING THE MONTH OF JULY.

JUL 25 BKY72C UP

BKY72C, WHICH CONTAINS ALL THE NEW GSS CHANGES (INCLUDING ATL-ON DEFAULT) IS NOW ON BOTH 6000S. SEE THE NEW GSS WRITEUP FOR MORE INFORMATION.

TO CALL A CONSULTANT DIAL X5981, (415) 486-5981 OR 451-5981 (FTS)

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